

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 345242		<b>Ship To #:</b> 9029984		<b>Quote #:</b>		<b>Sales Order #:</b> 0906978539				
<b>Customer:</b> NOBLE ENERGY INC-EBUS					<b>Customer Rep:</b> John Drahota					
<b>Well Name:</b> REVEILLE			<b>Well #:</b> A34-788			<b>API/UWI #:</b> 05-123-50794-00				
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> GARDEN CITY		<b>County/Parish:</b> WELD			<b>State:</b> COLORADO			
<b>Legal Description:</b> SE SW-34-6N-64W-564FSL-1508FWL										
<b>Contractor:</b> H & P DRLG					<b>Rig/Platform Name/Num:</b> H & P 517					
<b>Job BOM:</b> 7523										
<b>Well Type:</b> HORIZONTAL OIL										
<b>Sales Person:</b> HALAMERICA\HX41066					<b>Srvc Supervisor:</b> Vaughn Oteri					
<b>Job</b>										
<b>Job depth MD</b>		17284ft		<b>BHST</b>		220 degF				
<b>Well Data</b>										
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	1927	0	1927
Casing	0	5.5	4.892	17			0	17266	0	6749
Open Hole Section			8.5				1927	17284	1927	6749
<b>Tools and Accessories</b>										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Float Shoe	5.5			17266		Top Plug	5.5	1	HES	
Float Collar	5.5			17217		Bottom Plug	5.5	2	HES	
						Centralizers	5.5	199	Summit	

Fluid Data									
Stage #: 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	TUNED PRIME CEMENT SPACER	120	bbl	11.5	3.7			
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	1.6	7.63	8	1068
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	741	sack	13.2	1.67	8.03	8	5950
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	1129	sack	13.2	2.04	9.79	8	11053
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	399.43	bbl	8.33				
Cement Left In Pipe									
Cement Left In Pipe		Amount	49 ft		Reason			Shoe Joint	
Mix Water:		pH 7	Mix Water Chloride:		0 ppm		Mix Water Temperature:		70 °F °C
Plug Bumped?		Yes	Plug Displaced by:		8.33 lb/gal Treated Water		Disp. Temperature:		
Cement Returns:		0 bbl	Bump Pressure:		2297 psi		Floats Held?		Yes
Comment 50bbbls of spacer back to surface, Estimated HOT-10029 TOT-7227 TOL-1831 HOC-835' TOC-997' Centralizers= 205 from 17219 to 1575 feet.									

## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Type	Seq. No.	Activity	Date	Time	PS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	1	Call Out	2/20/2021	13:00:00				Call out from ARC hub.
Event	2	Depart from Service Center or Other Site	2/20/2021	18:00:00				Depart from Ft. Lupton co HES yard.
Event	3	Pre-Convoy Safety Meeting	2/20/2021	18:30:00				Held pre-Convoy meeting with all HES drivers to discuss driving directions and hazards.
Event	4	Arrive At Loc	2/20/2021	19:00:00				Arrived on location met with company rep to discuss job process and concerns.
Event	5	Start Job	2/21/2021	00:21:03	-10.00	8.42	0.00	Held pre-job safety meeting with all hands on location to discuss job process and hazards.
Event	6	Other	2/21/2021	00:23:19	28.00	8.64	0.00	Primed pump and lines with fresh water.
Event	7	Test Lines	2/21/2021	00:24:34	158.00	8.57	0.00	Pressure tested pumps and lines with fresh water 4164psi, no leaks were found and pressure held good.
Event	8	Test Lines	2/21/2021	00:27:46	109.00	8.51	0.00	Pressure tested IBOP to 2056psi, pressure held good.
Event	9	Drop Bottom Plug	2/21/2021	00:30:34	64.00	8.49	0.00	Released bottom plug witnessed by company rep.
Event	10	Pump Spacer 1	2/21/2021	00:30:38	62.00	8.49	0.00	Mixed and pumped 120bbl of 11.5ppg y-3.7 g/sk23.55 Tuned Prime spacer at 4.0 300psi
Event	11	Drop Bottom Plug	2/21/2021	00:59:16	115.00	11.81	0.20	Released Bottom plug witnessed by company rep.
Event	12	Check Weight	2/21/2021	01:04:43	42.00	11.75	0.00	Confirmed weight of 13.2ppg on scales
Event	13	Pump Cap Cement	2/21/2021	01:06:20	51.00	11.75	0.90	Mixed and pumped 140sks or 39bbl of 13.2ppg Y-1.6 g/sk-7.63 ElastiCem™ at 8.5bpm 570psi
Event	14	Pump Lead Cement	2/21/2021	01:12:44	567.00	13.27	8.40	Mixed and pumped 241 y-1.67 g/sk-8.03 ElastiCem™ at 8.5bpm 630psi.
Event	15	Check Weight	2/21/2021	01:25:10	571.00	13.30	8.50	Confirmed weight of 13.2ppg on scales
Event	16	Check Weight	2/21/2021	01:36:41	568.00	13.25	8.50	
Event	17	Pump Tail Cement	2/21/2021	01:40:10	553.00	13.12	8.50	Mixed and pumped 1129sks or 410bbls of 13.2ppg Y-2.04 g/sk-9.79 NeoCem™ at 8.5bpm 830psi
Event	18	Check Weight	2/21/2021	01:42:09	769.00	13.13	8.50	Confirmed weight of 13.2ppg on scales

Event	19	Check Weight	2/21/2021	01:52:05	766.00	13.18	8.50	Confirmed weight of 13.2ppg on scales
Event	20	Check Weight	2/21/2021	01:56:07	765.00	13.19	8.50	Confirmed weight of 13.2ppg on scales
Event	21	Check Weight	2/21/2021	02:06:02	778.00	13.23	8.50	Confirmed weight of 13.2ppg on scales
Event	22	Shutdown	2/21/2021	02:34:39	92.00	12.76	0.00	
Event	23	Clean Lines	2/21/2021	02:38:05	51.00	12.73	0.00	Washed pumps and lines with fresh water
Event	24	Drop Top Plug	2/21/2021	02:45:48	50.00	7.68	0.00	Released plug witnessed by company rep
Event	25	Pump Displacement	2/21/2021	02:47:15	41.00	8.28	0.00	Pumped 399bbl of treated water to displace cement
Event	26	Bump Plug	2/21/2021	03:34:08	2900.00	8.37	0.00	Bumped plug 500psi over final pump pressure 2297/2995psi
Event	27	Other	2/21/2021	03:39:03	2993.00	8.35	0.00	Released pressure back to pump truck to check floats, Floats held good 5bbls back
Event	28	End Job	2/21/2021	03:40:43	36.00	8.30	0.00	50bbls of spacer back to surface, Estimated HOT-10029 TOT-7227 TOL-1831 HOC-835' TOC-997'

## 3.0 Attachments

### 3.1 Job Chart

