

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 300466		<b>Ship To #:</b> 3787021		<b>Quote #:</b> 0022312537		<b>Sales Order #:</b> 0904081419				
<b>Customer:</b> ANADARKO PETROLEUM CORP-EBUS				<b>Customer Rep:</b> Ruben Hernandez						
<b>Well Name:</b> BUTTERBALL			<b>Well #:</b> 25N2-34HZ		<b>API/UWI #:</b> 05-123-44407-00					
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> IONE		<b>County/Parish:</b> WELD		<b>State:</b> COLORADO				
<b>Legal Description:</b> NE NW-10-2N-67W-820FNL-2280FWL										
<b>Contractor:</b> NABORS DRLG				<b>Rig/Platform Name/Num:</b> NABORS X22						
<b>Job BOM:</b> 7523 7523										
<b>Well Type:</b> HORIZONTAL GAS										
<b>Sales Person:</b> HALAMERICA\HX41066				<b>Srv Supervisor:</b> Bryan Kraft						
<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>				
<b>Job depth MD</b>		16089ft		<b>Job Depth TVD</b>		7314ft				
<b>Water Depth</b>				<b>Wk Ht Above Floor</b>		4ft				
<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		J-55	0	1862	0	1862
Casing		5.5	4.892	17	LTC	HCP110	0	16089	0	7314
Open Hole Section			7.875				1862	16098	1862	7314
<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>Guide Shoe</b>						<b>Top Plug</b>	5.5	1	WF	
<b>Float Shoe</b>	5.5	1	WF	16089		<b>Bottom Plug</b>	5.5	1	WF	
<b>Float Collar</b>	5.5	1	WF	16086		<b>SSR plug set</b>				
<b>Insert Float</b>						<b>Plug Container</b>	5.5	1	HES	
<b>Stage Tool</b>						<b>Centralizers</b>				
<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	Spacer	TUNED SPACER III	60	bbl	10.5	6.43	41.3	3	2164	
86.45 lbm/bbl		<b>BARITE, BULK (100003681)</b>								
0.70 gal/bbl		<b>MUSOL(R) A, BULK (100003696)</b>								
35.70 gal/bbl		<b>FRESH WATER</b>								

0.70 gal/bbl		<b>DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)</b>							
0.25 gal/bbl		<b>D-AIR 3000L, 5 GAL PAIL (101007444)</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>
2	Cap Cement	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57	7.53	8	1130
7.53 Gal		<b>FRESH WATER</b>							
0.90 %		<b>SCR-100 (100003749)</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>
3	Lead Cement	ELASTICEM (TM) SYSTEM	390	sack	13.2	1.57	7.53	8	2937
0.35 %		<b>SCR-100 (100003749)</b>							
7.53 Gal		<b>FRESH WATER</b>							
0.10 %		<b>SUPER CBL, 50 LB PAIL (100003668)</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>
4	Tail Cement	ECONOCHEM (TM) SYSTEM	1080	sack	13.5	1.68	7.98	8	8618
7.98 Gal		<b>FRESH WATER</b>							
0.40 %		<b>HR-5, 50 LB SK (100005050)</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>
5	Displacement	BIOCIDE WATER & MMCR	20	bbl	8.34			8	840
0.50 gal/bbl		<b>MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)</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>
6	Displacement	BIOCIDE WATER	353	bbl	8.34			8	14826
Cement Left In Pipe		Amount	0 ft		Reason			4 bbl Wet Shoe	

Mix Water:	pH 7.0	Mix Water Chloride:	<100 ppm	Mix Water Temperature:	55 °F
Cement Temperature:	N/A	Plug Displaced by:	8.3 lb/gal Fresh Water	Disp. Temperature:	55 °F
Plug Bumped?	Yes	Bump Pressure:	2350 psi	Floats Held?	Yes
Cement Returns:	N/A	Returns Density:	N/A	Returns Temperature:	N/A
<b>Comment</b> 5 BBLS Tuned Spacer to Surface, Plug bumped @ calculated displacement, Floats Held, 4 BBLS back, pins sheared @ 5230 PSI, Floats held, 2.5 BBLS back.					

## 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	6/9/2017	05:00:00	USER	CREW CALLED OUT AT 5:00 6/9/2017, REQUESTED ON LOCATION 10:00 6/9/2017. CREW PICKED UP CEMENT, CHEMICALS (42 GAL MUSOL A, 42 GAL DUAL SPACER B, 20 GAL D-AIR, 10 GAL MMCR), 100 LBS SUGAR, MANIFOLD, AND PLUG CONTAINER FROM FORT LUPTON, CO. BULK 660: 11593521/11527037, PUMP ELITE: 12644847/11512092.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/9/2017	07:45:00	USER	DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	6/9/2017	08:00:00	USER	STARTED JOURNEY MANAGEMENT.
Event	4	Arrive at Location from Service Center	Arrive at Location	6/9/2017	09:00:00	USER	END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 36# 9.625" @ 1862', CASING: 17# 5.5" @ 16088.99', 3.21' SHOE JOINT, 7.875" OPEN HOLE, TVD @ 7314', 9.0 PPG WELL FLUID, FRESH WATER DISPLACEMENT. CASING LANDED @ 12:30 6/9/2017.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	6/9/2017	09:15:00	USER	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	6/9/2017	09:20:00	USER	CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Safety Meeting - Pre Job	Safety Meeting - Pre Job	6/9/2017	14:30:00	USER	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	6/9/2017	14:58:23	COM5	BEGIN RECORDING JOB DATA.
Event	9	Test Lines	Test Lines	6/9/2017	15:01:16	COM5	PRESSURE TESTED IRON TO 5500 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @

1300 PSI, 5TH GEAR STALL OUT @ 1800 PSI.  
 ORIGINALLY GOING TO TEST TO 7500 BUT  
 THE POP OFF VALVE IS SET TO 5900 PSI.

Event	10	Pump Spacer 1	Pump Tuned Spacer @ 10.5 ppg	6/9/2017	15:12:06	COM5	PUMP 60 BBLS OF TUNED SPACER @ 10.5 LB/GAL, ADDED 42 GAL MUSOL A, 42 GAL DUAL SPACER B, 20 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	11	Drop Bottom Plug	Drop Bottom Plug	6/9/2017	15:30:01	USER	PLUG LEFT CONTAINER, VERIFIED BY DRILLER.
Event	12	Pump Cement	Pump Cap Cement @ 13.2 ppg	6/9/2017	15:31:03	COM5	PUMP 150 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 YIELD, 7.53 GAL/SK, 42 BBLS, TOC @ 1144', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Pump Lead Cement	Pump Lead Cement @ 13.2 ppg	6/9/2017	15:37:15	COM5	PUMP 390 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 YIELD, 7.53 GAL/SK, 109 BBLS, TOL @ 2108', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	14	Pump Tail Cement	Pump Tail Cement @ 13.5 ppg	6/9/2017	15:52:52	COM5	PUMP 1080 SKS OF ECONOCEM @ 13.5 LB/GAL, 1.68 YIELD, 7.98 GAL/SK, 323 BBLS, TOT @ 5636', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	15	Shutdown	Shutdown	6/9/2017	16:34:42	USER	SHUTDOWN TO WASH PUMPS/LINES AND DROP TOP PLUG.
Event	16	Clean Lines	Clean Lines	6/9/2017	16:41:41	COM5	WASH PUMPS AND LINES CLEAN OF CEMENT FOR DISPLACEMENT.
Event	17	Drop Top Plug	Drop Top Plug	6/9/2017	16:44:51	COM5	PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
Event	18	Pump Displacement	Pump Fresh Water Displacement	6/9/2017	16:45:41	COM5	BEGIN CALCULATED DISPLACEMENT OF 373 BBLS WITH FRESH WATER.
Event	19	Spacer Returns to Surface	Spacer Returns to Surface	6/9/2017	17:37:09	USER	SPACER TO SURFACE @ 368 BBLS INTO

							DISPLACEMENT. 5 BBLS OF TUNED SPACER TO SURFACE.
Event	20	Bump Plug	Bump Plug	6/9/2017	17:38:33	COM5	PLUG BUMPED AT CALCULATED DISPLACEMENT. PRESSURED 500 PSI OVER FINAL CIRCULATING PRESSURE OF 2350 PSI.
Event	21	Shutdown	Shutdown	6/9/2017	17:38:48	USER	SHUTDOWN @ 2850 PSI FOR 1 MINUTE.
Event	22	Other	Casing Pressure Test	6/9/2017	17:39:57	COM5	CASING PRESSURE TEST, HOLD 3000 PSI FOR 15 MINUTES.
Event	23	Check Floats	Check Floats	6/9/2017	17:54:30	USER	RELEASED PRESSURE, FLOATS HELD, 4 BBLS BACK.
Event	24	Pressure Up	Pressure Up	6/9/2017	17:59:31	USER	PRESSURE UP TO SHEAR PINS, PINS SHEARED @ 5230 PSI.
Event	25	Check Floats	Check Floats	6/9/2017	18:01:05	USER	RELEASED PRESSURE, FLOATS HELD, 2.5 BBLS BACK.
Event	26	End Job	End Job	6/9/2017	18:02:55	COM5	STOP RECORDING JOB DATA.
Event	27	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	6/9/2017	18:15:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	28	Rig-Down Completed	Rig-Down Completed	6/9/2017	18:45:00	USER	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	29	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/9/2017	19:25:00	USER	DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	30	Depart Location	Depart Location	6/9/2017	19:30:00	USER	THANK YOU FOR USING HALLIBURTON - BRYAN KRAFT AND CREW.

## 3.0 Attachments

### 3.1 Job Chart

Custom Results

