

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 300466		<b>Ship To #:</b> 3848050		<b>Quote #:</b>		<b>Sales Order #:</b> 0904737559				
<b>Customer:</b> ANADARKO PETROLEUM CORP-EBUS				<b>Customer Rep:</b> Anadarko						
<b>Well Name:</b> AZUL			<b>Well #:</b> 13-27HZ		<b>API/UWI #:</b> 05-123-46118-00					
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> HUDSON		<b>County/Parish:</b> WELD		<b>State:</b> COLORADO				
<b>Legal Description:</b> SE SW-13-1N-66W-835FSL-2447FWL										
<b>Contractor:</b> PRECISION DRLG				<b>Rig/Platform Name/Num:</b> PRECISION 464						
<b>Job BOM:</b> 7523 7523										
<b>Well Type:</b> HORIZONTAL GAS										
<b>Sales Person:</b> HALAMERICA\HX41066				<b>Srvc 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>		12894ft		<b>Job Depth TVD</b>		7317ft				
<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	1877	0	1877
Casing		5.5	4.892	17	LTC	HCP110	0	12894	0	7317
Open Hole Section			7.875				1877	12904	1877	7317
<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	12894		<b>Bottom Plug</b>	5.5	1	WF	
<b>Wet Shoe Sub</b>	5.5	1	WF	12880		<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	4	2164	
37.58 gal/bbl		<b>FRESH WATER</b>								
0.70 gal/bbl		<b>DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)</b>								
0.70 gal/bbl		<b>MUSOL A, 330 GAL TOTE - (790828)</b>								

86.45 lbm/bbl		<b>BARITE, BULK (100003681)</b>							
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	Lead Cement	GASSTOP (TM) SYSTEM	400	sack	13.2	1.6	7.7	6	3080
0.10 %		<b>FE-2 (100001615)</b>							
0.40 %		<b>SCR-100 (100003749)</b>							
5.09 Gal		<b>FRESH WATER</b>							
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	Tail Cement	ECONOCEM (TM) SYSTEM	730	sack	13.5	1.68	7.99	8	5833
7.99 Gal		<b>FRESH WATER</b>							
0.35 %		<b>HR-5, 50 LB SK (100005050)</b>							
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	Displacement	FRESH WATER	299	bbl	8.33			9	12558
0.50 gal/bbl		<b>MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)</b>							
Cement Left In Pipe		Amount	0 ft		Reason			Wet Shoe Joint	
Mix Water:		pH 7	Mix Water Chloride:		<300 ppm		Mix Water Temperature:		60 °F
Cement Temperature:		N/A	Plug Displaced by:		8.33lb/gal Fresh Water		Disp. Temperature:		60 °F
Plug Bumped?		Yes	Bump Pressure:		2700 psi		Floats Held?		Yes
Cement Returns:		N/A	Returns Density:		N/A		Returns Temperature:		N/A
<b>Comment:</b> The plug bumped @ calculated displacement @ 2700 PSI, shutdown for 15 minutes @ 3000 PSI. Held a 3000 PSI casing pressure test for 15 minutes. The sleeve opened @ 4717 PSI and pumped a 3 BBL wet shoe. The floats held and received 2.5 BBLs back to the truck. Nothing returned to surface.									

## 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	3/28/2018	05:30:00	USER	CREW CALLED OUT AT 5:30 3/28/2018, REQUESTED ON LOCATION 10:00 3/28/2018. CREW PICKED UP CEMENT, CHEMICALS (40 GAL MUSOL A, 40 GAL DUAL SPACER B, 70 GAL D-AIR, 10 GAL MMCR), 200 LBS SUGAR, PLUG CONTAINER AND MANIFOLD FROM FORT LUPTON, CO. BULK 660: 11645065/10784082, BULK 660: 11005806/10867521, CHEMICAL TRUCK: 12644833/12051659, PUMP ELITE 11897034/11645460.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	3/28/2018	09:00:00	USER	DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Location	Crew Leave Location	3/28/2018	09:15:00	USER	STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	3/28/2018	09:30:00	USER	END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# J-55 @ 1877', 5.5" CASING: 17# P-110 @ 12894', 13.68' SHOE JOINT, 7.875" OPEN HOLE, TVD @ 7317', 9 PPG WELL FLUID, FRESH WATER DISPLACEMENT.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	3/28/2018	09:45:00	USER	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	3/28/2018	09:50:00	USER	CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Event	Pre-Job Safety Meeting	3/28/2018	13:00:00	USER	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	3/28/2018	13:14:59	COM6	BEGIN REOCRDRING JOB DATA.

Event	9	Test Lines	Test Lines	3/28/2018	13:18:14	COM6	PRESSURE TESTED IRON TO 6000 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 920 PSI, 5TH GEAR STALL OUT @ 1950 PSI.
Event	10	Pump Spacer	Pump Tuned Spacer @ 10.5 ppg	3/28/2018	13:25:54	USER	PUMP 60 BBLS OF TUNED SPACER @ 10.5 LB/GAL, ADDED 40 GAL MUSOL A, 40 GAL DUAL SPACER B, 20 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	11	Shutdown	Shutdown	3/28/2018	13:40:52	COM6	SHUTDOWN TO DROP BOTTOM PLUG AND MIX LEAD CEMENT.
Event	12	Drop Bottom Plug	Drop Bottom Plug	3/28/2018	13:42:35	COM6	PLUG LEFT CONTAINER, VERIFIED BY DRILLER.
Event	13	Pump Lead Cement	Pump Lead Cement @ 13.2 ppg	3/28/2018	13:46:36	COM6	PUMP 400 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.6 YIELD, 7.7 GAL/SK, 114 BBLS, CALCULATED TOL @ 2041', MIX WATER MIXED WITH 1000 GAL OF LATEX AND 50 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	14	Shutdown	Shutdown	3/28/2018	14:09:23	COM6	SHUTDOWN TO SWITCH FROM LEAD TO TAIL.
Event	15	Pump Tail Cement	Pump Tail Cement @ 13.5 ppg	3/28/2018	14:13:46	COM6	PUMP 730 SKS OF ECONOCEM @ 13.5 LB/GAL, 1.68 YIELD, 7.99 GAL/SK, 218 BBLS, CALCULATED TOT @ 5826', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	16	Shutdown	Shutdown	3/28/2018	14:45:19	COM6	SHUTDOWN TO WASH PUMPS/LINES AND DROP TOP PLUG.
Event	17	Drop Top Plug	Drop Top Plug	3/28/2018	14:55:10	COM6	PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
Event	18	Pump Displacement	Pump Fresh Water Displacement	3/28/2018	14:55:55	COM6	BEGIN CALCULATED DISPLACEMENT OF 299 BBLS WITH FRESH WATER. MMCR AND BIOCIDES ADDED TO 1ST 20 BBLS. BIOCIDES ADDED THROUGH REST OF DISPLACEMENT.
Event	19	Bump Plug	Bump Plug	3/28/2018	15:36:30	USER	PLUG BUMPED AT CALCULATED DISPLACEMENT. FINAL CIRCULATING PRESSURE OF 2700 PSI.

Event	20	Shutdown	Shutdown	3/28/2018	15:36:52	USER	SHUTDOWN FOR 15 MINUTES @ 3000 PSI.
Event	21	Pressure Test	Casing Pressure Test	3/28/2018	15:36:57	USER	CASING PRESSURE TEST, 3000 PSI FOR 15 MINUTES.
Event	22	Other	Open Sleeve	3/28/2018	15:52:34	USER	PRESSURE UP TO OPEN SLEEVE. SLEEVE OPENED @ 4717 PSI.
Event	23	Pump Displacement	Pump Wet Shoe	3/28/2018	15:52:38	USER	PUMP 3 BBLS OF FRESH WATER FOR A WET SHOE.
Event	24	Check Floats	Check Floats	3/28/2018	15:54:11	USER	RELEASED PRESSURE, FLOATS HELD, 2.5 BBLS BACK.
Event	25	End Job	End Job	3/28/2018	15:55:16	COM6	STOP RECORDING JOB DATA.
Event	26	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	3/28/2018	16:00:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	27	Rig-Down Completed	Rig-Down Completed	3/28/2018	17:00:00	USER	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	28	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	3/28/2018	17:15:00	USER	DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	29	Crew Leave Location	Crew Leave Location	3/28/2018	17:30:00	USER	THANK YOU FOR USING HALLIBURTON - BRYAN KRAFT AND CREW.

## 3.0 Attachments

### 3.1 Job Chart

