

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 300466		<b>Ship To #:</b> 3911673		<b>Quote #:</b> 0022598496		<b>Sales Order #:</b> 0905798693					
<b>Customer:</b> ANADARKO PETROLEUM CORP-EBUS				<b>Customer Rep:</b> DAVE/ JOE							
<b>Well Name:</b> CARSON			<b>Well #:</b> 1-6HZ		<b>API/UWI #:</b> 05-123-48105-00						
<b>Field:</b> SPINDLE		<b>City (SAP):</b> DACONO		<b>County/Parish:</b> WELD		<b>State:</b> COLORADO					
<b>Legal Description:</b> SW SW-1-1N-68W-956FSL-475FWL											
<b>Contractor:</b> PRECISION DRLG				<b>Rig/Platform Name/Num:</b> PRECISION 461							
<b>Job BOM:</b> 7523 7523											
<b>Well Type:</b> HORIZONTAL GAS											
<b>Sales Person:</b> HALAMERICA\HX41066				<b>Srv Supervisor:</b> Thomas Haas							
<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>		17896ft		<b>Job Depth TVD</b>		7621					
<b>Water Depth</b>				<b>Wk Ht Above Floor</b>		4 FT					
<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	0	9.625	8.921	36		J-55	0	1837	0	1837	
Casing	0	5.5	4.892	17	LTC	HCP110	0	17896	0	7621	
Open Hole Section			7.875				1837	17896	1837	7621	
<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>Top Plug</b>	5.5	1	HES		
<b>Float Shoe</b>	5.5	1	WF	17896		<b>Bottom Plug</b>	5.5	1	HES		
<b>WET SHOE SUB</b>	5.5	1	WF	17886							
						<b>Plug Container</b>	5.5	1	HES		
<b>Fluid Data</b>											
<b>Stage/Plug #:</b> 1											
<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	FDP-C1337-18	SBM FDP-C1337-18 CEMENT SPACER SYS	60	bbl	10.5	6.17	39.6	4	2162	
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	10.5 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	10.5	6.19	41.4	4	1880	
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	Gasstop B1	GASSTOP (TM) SYSTEM	640	sack	13.2	1.56	7.62	8	4877	
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	EconoCem	ECONOCEM (TM) SYSTEM	1070	sack	13.5	1.68	7.98	8	8539	
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	Biocide Water and MMCR	Biocide Water and MMCR	20	bbl	8.34					
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)								
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	
6	Biocide Water	Biocide Water	395	bbl	8.34					
Cement Left In Pipe		Amount	5 ft		Reason			Shoe Joint		
Mix Water:		pH 7	Mix Water Chloride:			< 300 ppm		Mix Water Temperature:		#80°F
Cement Temperature:		N/A	Plug Displaced by:			FW 8.33 lb/gal		Disp. Temperature:		80 °F
Plug Bumped?		NO	Bump Pressure:			N/A		Floats Held?		Yes
Cement Returns:		N/A	Returns Density:			N/A		Returns Temperature:		N/A
Comment PUMP CALCULATED DISPLACEMENT, PUMP 3 BBLS WET SHOE, PRESSURE ROSE BUT WOULD FALL OFF TO DIFFERENTIAL PRESSURE,FLOATS HELD, 3 BBLS. 10 BBLS OF SPACER TO SURFACE										

## 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)	Comments
Event	1	Call Out	Call Out	7/1/2019	13:30:00	USER				CREW CALLED OUT AT 13:39 07/01/2019, REQUESTED ON LOCATION 19:00 07/01/2019. CREW PICKED UP CEMENT, CHEMICALS (60 GAL MUSOL, 60 GAL DUAL SPACER B, 20 GAL D-AIR), 100 LBS SUGAR, AND PLUG CONTAINER FROM FORT LUPTON, CO. BULK 660: 10867439/11645215 Bulk 660: 10679720/11360865 BULK 660: 11633846/11592295 SOFT: 12051640/12644881 PUMP ELITE: 11645460/11897034
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	7/1/2019	16:45:00	USER				DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	3	Crew Leave Yard	Crew Leave Yard	7/1/2019	17:00:00	USER				STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	7/1/2019	18:00:00	USER				END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# @ 1837', CASING: 5.5" 20# @ 17896', 10' SHOE JOINT, 7 7/8" OPEN HOLE, TVD @ 7621', 9.5 PPG WELL FLUID, FRESH WATER DISPLACEMENT. COMPANY MAN INFORM US THAT WE WILL BE PUMPING THROUGH THE CHOKE.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	7/1/2019	18:10:00	USER				HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	7/1/2019	18:20:00	USER				CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Circulate Well	Circulate Well	7/2/2019	01:31:07	USER				RIG COULD NOT LAND CASING DUE TO ABNORMAL PPRESSURE, THEY RAN THE LAST 1000FT OF CASING IN WITH THE ANNULAR BAG CLOSED, CIRCULATED AT 3 BBL/MIN OT 75 PSI TO REMOVE GAS FROM WELL. CASING LANDED AT ROUGHLY 5:20 7/2/19. RIG WAS ABLE TO PICK UP LANDING JOINT, HES WILL BE PUMPING SPACER AND CEMENT STAGES THROUGH THE CHOKE,

THE RIG WILL SWAP OVER TO SHAKERS AND TAKE RETURNS THERE.

Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	7/2/2019	05:30:00	USER				MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	9	Start Job	Start Job	7/2/2019	05:56:45	COM4	8.44	0.00	-1.00	START JOB DATA RECORDING.
Event	10	Test Lines	Test Lines	7/2/2019	05:59:28	COM4	8.54	0.00	235.00	PRESSURE TESTED IRON TO 6500 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 490 PSI, 5TH GEAR STALL OUT @ 1850 PSI.
Event	11	Pump Spacer 1	Pump Spacer 1	7/2/2019	06:07:12	COM4	8.50	0.00	51.00	PUMP 60 BBLS OF SPACER @ 10.5 LB/GAL, ADDED 60 GAL MUSOL A, 60 GAL DUAL SPACER B, 10 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	12	Other	SHUTDOWN	7/2/2019	06:11:07	USER	10.45	5.50	1282.00	SHUTDOWN BECAUSE THE CHOKE ON THE RIG WAS PACK OFF AND THEN THE RIG OPEN UP THE MANUAL CHOKE AND THEN WE RESUMED PUMPING
Event	13	Pump Spacer 2	Pump Spacer 2	7/2/2019	06:22:57	COM4	10.34	5.80	772.00	PUMP 50 BBLS OF TUNED SPACER @ 10.5 LB/GAL, , DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	14	Drop Bottom Plug	Drop Bottom Plug	7/2/2019	06:27:17	COM4	10.39	5.80	667.00	PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANY MAN.
Event	15	Pump Lead Cement	Pump Lead Cement	7/2/2019	06:32:14	COM4	12.98	5.90	664.00	PUMP 640 SKS OF GASSTOP @ 13.2 LB/GAL, 1.56 YIELD, 7.62 GAL/SK, 178 BBLS, CALCULATED TOL @ 1795', MIX WATER MIXED WITH 1600 GAL OF LATEX AND 25 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	16	Pump Tail Cement	Pump Tail Cement	7/2/2019	07:01:52	COM4	13.15	5.90	379.00	PUMP 1070 SKS OF ECONOCEM @ 13.5 LB/GAL, 1.68 YIELD, 7.98 GAL/SK, 320 BBLS, CALCULATED TOT @ 7540', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	17	Shutdown	Shutdown	7/2/2019	07:57:50	COM4	13.38	0.70	41.00	SHUTDOWN TO DROP TOP PLUG, AND CLEAN PUMPS/LINES.
Event	18	Drop Top Plug	Drop Top Plug	7/2/2019	08:10:00	COM4	7.97	0.00	21.00	PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANY MAN.
Event	19	Pump Displacement	Pump Displacement	7/2/2019	08:10:03	COM4	7.97	0.00	21.00	BEGIN CALCULATED DISPLACEMENT OF 415 BBLS WITH FRESH WATER. MMCR AND BIOCIDES ADDED TO 1ST 20 BBLS.

Event	20	Pump Displacement - End	Pump Displacement - End	7/2/2019	09:02:08	USER	8.03	2.60	2886.00	PUMP CALCULATED DISPLACEMENT, PRESSURE ROSE TO 2800 PSI, SHUTDOWN AND PRESSURE FELL TO 1900 PSI, PUMP 2 BBLS IN PRESSURE ROSE TO 2500 PSI, PRESSURE FELL OFF TO 1950 PSI. 10 BBLS OF SPACER TO SURFACE.
Event	21	Other	WET SHOE	7/2/2019	09:04:29	USER	7.99	2.50	1942.00	PUMP 3 BBLS WET SHOE
Event	22	Check Floats	Check Floats	7/2/2019	09:08:28	USER	7.98	0.00	1814.00	CHECK FLOATS GOT 3 BBLS BACK TO THE TRUCK
Event	23	End Job	End Job	7/2/2019	09:09:42	COM4	7.96	0.00	8.00	
Event	24	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	7/2/2019	09:20:00	USER	7.98	0.00	6.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	25	Rig-Down Completed	Rig-Down Completed	7/2/2019	10:00:00	USER				ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
Event	26	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	7/2/2019	10:10:00	USER				DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	27	Crew Leave Location	Crew Leave Location	7/2/2019	10:30:00	USER				THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

## 3.0 Attachments

### 3.1 Carson 1-6HZ Production – Job Chart

