

The Road to Excellence Starts with Safety

Sold To #: 300466		Ship To #: 3841668		Quote #: 0022425077		Sales Order #: 0904759295					
Customer: ANADARKO PETROLEUM CORP-EBUS				Customer Rep: Dave Cornett							
Well Name: AZUL			Well #: 13-5HZ		API/UWI #: 05-123-45919-00						
Field: WATTENBERG		City (SAP): HUDSON		County/Parish: WELD		State: COLORADO					
Legal Description: SW SW-13-1N-66W-920FSL-1249FWL											
Contractor: XTREME DRLG				Rig/Platform Name/Num: XTREME 22							
Job BOM: 7523 7523											
Well Type: HORIZONTAL GAS											
Sales Person: HALAMERICA\HX41066				Srv Supervisor: Nicholas Peterson							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		12,921'		Job Depth TVD		7,563					
Water Depth				Wk Ht Above Floor		5'					
Perforation Depth (MD)		From		To							
Well Data											
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		9.625	8.921	36		J-55	0	1865	0	0	
Casing	0	5.5	4.892	17	LTC	HCP110	0	12921	0	0	
Open Hole Section			7.875				1865	12930	0	0	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5	1	WEATH	12921		Top Plug	5.5	1	WEATH		
						Bottom Plug	5.5	1	WEATH		
Float Collar	5.5	1	WEATH	12,918							
Wet Shoe Sub	5.5	1	WEATH	12,911		Plug Container	5.5	1	HES		
						Centralizers	5.5		HES		
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 Spacer III	Tuned Spacer III			60	bbl	10.5	6.43		4	

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	Gasstop B1	GASSTOP (TM) SYSTEM	400	sack	13.2	1.59	7.7	6	3,080	
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	EconoCem	ECONOCEM (TM) SYSTEM	750	sack	13.5	1.68	7.99	8	5,992	
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	MMCR	MMCR	20	bbl	8.34			8	840	
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	
5	Biocide Water	Biocide Water	280	bbl	8.34			8		
Cement Left In Pipe		Amount	0		Reason			WET SHOE		
Mix Water:		pH 7.0	Mix Water Chloride:			0 ppm		Mix Water Temperature:		51 °F
Cement Temperature:		## °F	Plug Displaced by:			8.33 lb/gal		Disp. Temperature:		51 °F
Plug Bumped?		Yes	Bump Pressure:			2,413 psi		Floats Held?		Yes
Cement Returns:		0 bbl	Returns Density:			9.4 lb/gal		Returns Temperature:		## °F
Comment: Pumped 60 bbls Spacer, 113 bbls Lead, 224 bbls Tail, 300 bbls Displacement. No spacer to surface. Predicted TOC 2238'										

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	4/3/2018	15:00:00	USER	CREW CALLED OUT AT 15:00, REQUESTED ON LOCATION 19:00. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660 11566182, Bulk 660 10924982, SOFTSIDE 12056158 AND PUMP 11189145.
Event	2	Crew Leave Yard	Crew Leave Yard	4/3/2018	18:00:00	USER	STARTED JOURNEY MANAGEMENT.
Event	3	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/3/2018	18:15:00	USER	DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	4	Arrive at Location from Service Center	Arrive at Location	4/3/2018	18:30:00	USER	END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1,865', 5.5" CASING: 17 LB/FT TOTAL 12,920.26', 7.875" HOLE, TD 12,930', 11.71 SHOE TRAC, TVD-7,372'. PUMP FRESH WATER DISPLACEMENT WITH MMCR FIRST 20 BBLs. CASING LANDED @ 21:00 04/03/2018. RIG CIRCULATED 2 BOTTOMS UP.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/3/2018	18:45:00	USER	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	4/3/2018	19:00:00	USER	CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Rig-Up Completed	Rig-Up Completed	4/3/2018	21:00:00	USER	WAITED ON RIG TO FINISH CIRCULATING.
Event	8	Safety Meeting - Pre Job	Safety Meeting - Pre Job	4/3/2018	22:30:00	USER	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	9	Start Job	Start Job	4/3/2018	23:02:39	COM5	BEGIN RECORDING JOB DATA.
Event	10	Test Lines	Test Lines	4/3/2018	23:12:10	COM5	PRESSURE TESTED IRON TO 6,500 PSI.

							KICKOUTS SET @ 500 PSI, KICKED OUT @ 700 PSI, 5TH GEAR STALL OUT @ 1,790 PSI.
Event	11	Pump Spacer 1	Pump Spacer 1	4/3/2018	23:17:41	COM5	PUMP 60 BBLS OF TUNED SPACER III @ 10.5 LB/GAL. 20 GALS D-AIR, 40 GALS MUSOL, 40 GALS DUAL SPACER B. CALCULATED HOS @ 1,301.14', CALCULATED TOS @ 700.67'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 4 BBLS/MIN @ 490 PSI.
Event	12	Shutdown	Shutdown	4/3/2018	23:29:56	USER	BUILD TUB OF LATEX CEMENT
Event	13	Drop Bottom Plug	Drop Bottom Plug	4/3/2018	23:35:23	USER	PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
Event	14	Pump Lead Cement	Pump Lead Cement	4/3/2018	23:37:28	COM5	PUMPED 400 SKS OF GAS STOP @ 13.2 LB/GAL, 1.59 FT3/SK, 7.7 GAL/SK. 113.27 BBLS, HOL CALCULATED @ 3,665.69', TOL CALCULATED @ 2,001.84'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 5 BBLS/MIN @ 330 PSI.
Event	15	Shutdown	Shutdown	4/4/2018	00:03:23	USER	SHUTDOWN TO FLUSH WATER TO GET BETTER RATE ON FLOW METER.
Event	16	Pump Tail Cement	Pump Tail Cement	4/4/2018	00:05:00	COM5	PUMP 750 SKS OF ECONOCHEM @ 13.5 LB/GAL, 1.68 FT3/SK, 7.99 GAL/SK, 224.41 BBLS. HOT CALCULATED @ 7,262.46', TOT CALCULATED @ 5,667.54'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 770 PSI.
Event	17	Clean Lines	Clean Lines	4/4/2018	00:38:00	USER	CLEANED PUMPS AND LINES WITH 8 BBLS FRESH WATER. RIG BLEW AIR BACK FROM MANIFOLD ON PLUG CONTAINER.
Event	18	Drop Top Plug	Drop Top Plug	4/4/2018	00:45:41	COM5	PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
Event	19	Pump Displacement	Pump Displacement	4/4/2018	00:47:11	COM5	BEGIN CALCULATED DISPLACEMENT OF 300 BBLS WITH FRESH WATER. PUMPED THE FIRST 20 BBLS WITH MMCR, PUMPED 150 BBLS WITH BIOCIDES, PUMPED THE 130 BBLS FRESH WATER FOR THE REMAINDER OF 300 BBLS DISPLACEMENT.

Event	20	Bump Plug	Bump Plug	4/4/2018	01:29:56	COM5	PLUG BUMPED AT CALCULATED DISPLACEMENT. 2,413 PSI PRESSURED 500 PSI OVER BUMP. HELD PRESSURE @ 3,000 PSI FOR 15 MIN CASING PRESSURE TEST.
Event	21	Shift Tool - Lower	Shift Tool - Lower	4/4/2018	01:47:17	USER	SHIFTED TOOL @ 5,040 PSI AND PUMPED 3 BBL WET SHOE.
Event	22	Check Floats	Check Floats	4/4/2018	01:48:54	USER	RELEASED PRESSURE, FLOATS HELD, 2 BBLs BACK.
Event	23	End Job	End Job	4/4/2018	01:50:05	COM5	STOP RECORDING JOB DATA.
Event	24	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	4/4/2018	02:00:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	25	Rig-Down Equipment	Rig-Down Equipment	4/4/2018	02:15:00	USER	RIG DOWN BULK AND MIXING EQUIPMENT.
Event	26	Rig-Down Completed	Rig-Down Completed	4/4/2018	03:30:00	USER	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	27	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/4/2018	03:45:00	USER	DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	28	Depart Location	Depart Location	4/4/2018	04:00:00	USER	THANK YOU FOR USING HALLIBURTON - NICK PETERSON AND CREW.

3.0 Attachments

3.1 Job Chart

