

The Road to Excellence Starts with Safety

Sold To #: 300466		Ship To #: 3848087		Quote #: 0022433484		Sales Order #: 0904800595				
Customer: ANADARKO PETROLEUM CORP-EBUS				Customer Rep: Anadarko Rep.						
Well Name: AZUL			Well #: 13-34HZ		API/UWI #: 05-123-46113-00					
Field: WATTENBERG		City (SAP): HUDSON		County/Parish: WELD		State: COLORADO				
Legal Description: SE SW-13-1N-66W-685FSL-2446FWL										
Contractor: PRECISION DRLG				Rig/Platform Name/Num: PRECISION 464						
Job BOM: 7523 7523										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA\HX41066				Srv Supervisor: Ryan Stevens						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		12803ft		Job Depth TVD		7,420				
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	1883	0	1883
Casing	New	5.5	4.892	17	LTC	HCP110	0	12803	0	0
Open Hole Section			7.875				1883	12815	1883	7420
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5					Top Plug	5.5	1	Weath	
Float Shoe	5.5	1	Weath	12803		Bottom Plug	5.5	1	Weath	
Float Collar	5.5	1	Weath	12802		SSR plug set	5.5			
Insert Float	5.5					Plug Container	5.5	1	HES	
Stage Tool	5.5					Centralizers	5.5			
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	41.3	4	2,142	
37.58 gal/bbl		FRESH WATER								
0.70 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
0.70 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)								

86.45 lbm/bbl		BARITE, BULK (100003681)							
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	5.09	6	2,036
0.10 %		FE-2 (100001615)							
0.40 %		SCR-100 (100003749)							
5.09 Gal		FRESH WATER							
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	740	sack	13.5	1.68	7.99	6	5,912
0.20 %		SA-1015, 50 LB SACK (102077046)							
7.99 Gal		FRESH WATER							
0.35 %		HR-5, 50 LB SK (100005050)							
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	Biocide Water and MMCR	Biocide Water and MMCR	20	bbl	8.34			8	
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	277	bbl	8.34			8	
Cement Left In Pipe		Amount	0			Reason		WET SHOE	
Mix Water:		pH 7	Mix Water Chloride:			0 ppm		Mix Water Temperature:	
								68 °F	
Cement Temperature:			Plug Displaced by:			8.33 lb/gal		Disp. Temperature:	
								68	
Plug Bumped?		Yes	Bump Pressure:			2607 psi		Floats Held?	
								Yes	
Cement Returns:		0 bbL	Returns Density:					Returns Temperature:	
Comment TOP OF LEAD CALCULATED @ 1,841' TOP OF TAIL CALCULATED @ 5,628' TOP OF SPACER @ 632'									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Crew Leave Location	Crew Leave Location	4/22/2018	05:00:00	USER	THANKS RYAN STEVENS AND CREW
Event	2	Call Out	Call Out	4/22/2018	18:00:00	USER	CREW CALLED OUT AT 18:00, REQUESTED ON LOCATION ASAP. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO., AND PUMP 11512092.
Event	3	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/22/2018	21:00:00	USER	CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	4	Crew Leave Yard	Crew Leave Yard	4/22/2018	21:15:00	USER	START JOURNEY MANAGMENT
Event	5	Arrive At Loc	Arrive At Loc	4/22/2018	21:30:00	USER	END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1883', 5.5" CASING: 17 LB/FT TOTAL 12,803', 7 7/8 @ 12,815" TO TD, 1 SHOE TRAC, TVD- 7,420'. PUMP FRESH WATER DISPLACEMENT WITH MMCR, AND BIOCID
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/22/2018	21:40:00	USER	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
Event	7	Rig-Up Equipment	Rig-Up Equipment	4/22/2018	21:45:00	USER	CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	4/22/2018	23:17:40	USER	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
Event	9	Start Job	Start Job	4/23/2018	00:19:41	COM4	START RECORDING JOB DATA

Event	10	Test Lines	Test Lines	4/23/2018	00:26:18	COM4	PRESSURE TEST LINES TO 6,303. SET KICK OUT @ 500 KICKED OUT @ 1302 5TH GEAR STALL @ 2305
Event	11	Pump Spacer 1	Pump Spacer 1	4/23/2018	00:32:36	COM4	PUMP 60 BBLS OF TUNED SPACER @ 10.5 PPG DENSITY VERIFIED BY PRESSURIZED MUD SCALES
Event	12	Pump Lead Cement	Pump Lead Cement	4/23/2018	00:51:53	COM4	PUMPED 400 SKS OF GASSTOP CEMENT @ 13.2 LB/GAL, 1.59 FT3/SK, 5.09 GAL/SK. 113 BBLS, TOT CALCULATED @ 1,841. DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Pump Tail Cement	Pump Tail Cement	4/23/2018	01:09:42	COM4	PUMP 740 SKS OF ECONOCEM @ 13.5 LB/GAL, 1.68 FT3/SK, 7.99 GAL/SK, 221.4 BBLS, TOT CALCULATED @ 5,628'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	14	Shutdown	Shutdown	4/23/2018	01:46:09	COM4	SHUT DOWN TO WASH PUMPS AND LINES
Event	15	Drop Top Plug	Drop Top Plug	4/23/2018	01:56:39	COM4	VERIFIED BY COMPANY REP
Event	16	Pump Displacement	Pump Displacement	4/23/2018	01:58:19	COM4	PUMP CALCULATED DISPLACEMENT OF 297 BBLS FIRST 20 BBLS WITH MMCR AND BIOCIDES THROUGH OUT THE REST.
Event	17	Bump Plug	Bump Plug	4/23/2018	02:44:31	COM4	BUMP PLUG @ CALCULATED DISPLACEMENT OF 297 BBLS. NO CEMENT TO SURFACE. FINAL CIRCULATING PRESSURE WAS 2657. BUMP PRESSURE IS 3167. HOLD FOR 15 MINS FOR A CASING TEST.
Event	18	Check Floats	Check Floats	4/23/2018	02:58:00	USER	CHECK FLOATS 2 BBLS BACK
Event	19	Open Valve Downhole	Open Valve Downhole	4/23/2018	03:00:00	USER	BURST PLUG PUMP 3 BBLS WET SHOE.
Event	20	End Job	End Job	4/23/2018	03:03:19	COM4	STOP RECORDING JOB DATA
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	4/23/2018	03:30:00	USER	CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.

Event	22	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	4/23/2018	03:40:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	23	Rig-Down Completed	Rig-Down Completed	4/23/2018	04:40:00	USER	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	24	Crew Leave Location	Crew Leave Location	4/23/2018	05:00:00	USER	THANKS FOR CHOOSING HALLIBURTON - RYAN STEVENS, NICK KORNAFELL AND CREW

3.0 Attachments

3.1 Job Chart

