

The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3841839	Quote #: 0022419247	Sales Order #: 0904720025
Customer: ANADARKO PETROLEUM CORP-EBUS		Customer Rep: Albert	
Well Name: AZUL		Well #: 13-9HZ	API/UWI #: 05-123-45908-00
Field: WATTENBERG	City (SAP): HUDSON	County/Parish: WELD	State: COLORADO
Legal Description: SW SW-13-1N-66W-918FSL-1339FWL			
Contractor: XTREME DRLG		Rig/Platform Name/Num: XTREME 22	
Job BOM: 7523 7523			
Well Type: HORIZONTAL GAS			
Sales Person: HALAMERICA\HX41066		Srvc Supervisor: Ryan Stevens	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	12759ft	Job Depth TVD	7,588'
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	1862	0	1862
Casing	New	5.5	4.892	17	LTC	HCP110	0	12757	6800	7588
Open Hole Section			7.875				1862	12769	6800	0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe					Top Plug	5.5	1	Weath
Float Shoe	5.5	1	Weath	12,759	Bottom Plug	5.5	1	Weath
Float Collar	5.5	1	Weath	12,757	SSR plug set	5.5		
Insert Float					Plug Container	5.5	1	HES
Stage Tool					Centralizers			

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	5	2,142	
37.58 gal/bbl		FRESH WATER								
0.70 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
0.25 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)								

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	1.6	7.7	5	3,080
0.10 %		FE-2 (100001615)							
0.40 %		SCR-100 (100003749)							
5.20 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	730	sack	13.5	1.68	7.99	8	5,832
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	Displacement	Biocide Water and MMCR	20	bbl	8.34				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	Displacement	Biocide Water	275	bbl	8.34				11,550
Cement Left In Pipe	Amount	0			Reason			Wet Shoe Joint	
Mix Water:	pH 7	Mix Water Chloride:	0 ppm		Mix Water Temperature:	65 °F			
Cement Temperature:		Plug Displaced by:	8.34 lb/gal		Disp. Temperature:				
Plug Bumped?	Yes	Bump Pressure:	2969 psi		Floats Held?	Yes			
Cement Returns:	0 bbl	Returns Density:	9.1 lb/gal		Returns Temperature:				
Comment Top of lead calculated @ 2021 To of Tail Calculated @ 5,682' Top of spacer calculated @ 715' no cement or spacer 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	3/20/2018	11:00:00	USER	CREW CALLED OUT AT 11:30, REQUESTED ON LOCATION 17:30. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. Pump 11189145
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	3/20/2018	16:45:00	USER	CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	3/20/2018	17:00:00	USER	STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive at Location	3/20/2018	17:15:00	USER	END JOURNEY MANAGMENT. MEET WITH COMPANY REP AND DISSCUSS JOB PROCEDURES.5.5 CSG 17# SET @12,759 7.875OH @ 12,769 PREVIOUS CASING 9.625' 36# SET @ 1,862
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	3/20/2018	17:30:00	USER	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	3/20/2018	17:45:00	USER	CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	3/20/2018	20:30:00	USER	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
Event	8	Start Job	Start Job	3/20/2018	20:32:56	COM4	BEGIN RECORDING JOB DATA.
Event	9	Test Lines	Test Lines	3/20/2018	20:37:06	COM4	PRESSURE TESTED IRON TO 6,620 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 1,065 PSI, 5TH GEAR STALL OUT @ 2,080 PSI.
Event	10	Pump Spacer 1	Pump Spacer 1	3/20/2018	20:44:08	COM4	PUMP 60 BBLS OF TUNED SPACER @ 10.5 LBS/GAL. TOP OF SPACER CALCULATED @

715'

Event	11	Drop Bottom Plug	Drop Bottom Plug	3/20/2018	21:06:05	COM4	DROP BOTTOM PLUG VERIFIED BY COMPANY REP
Event	12	Pump Lead Cement	Pump Lead Cement	3/20/2018	21:08:24	COM4	PUMP 400 SXS OF GASSTOP CEMENT @ 13.2 PPG DENSITY VERIFIED BY PRESSURIZED MUD SCALES. CALCULATED TOP OF LEAD @ 2,021'
Event	13	Pump Tail Cement	Pump Tail Cement	3/20/2018	21:32:52	COM4	PUMP 730 SXS OF ECONOCEM @ 13.5 PPG DENSITY VERIFIED BY PRESSURIZED MUD SCALES
Event	14	Shutdown	Shutdown	3/20/2018	22:11:35	COM4	WASH UP PUMPS AND LINES
Event	15	Drop Top Plug	Drop Top Plug	3/20/2018	22:13:09	COM4	DROP TOP PLUG VERIFIED BY COMPANY REP.
Event	16	Pump Displacement	Pump Displacement	3/20/2018	22:14:34	COM4	PUMP CALCUALTED DISPLACEMENT OF 295 BBLS. FIRST 20 WITH MMCR. ANDARKO PROVIDE BIOCIDES FOR THE REST OF DISPLACEMENT.
Event	17	Bump Plug	Bump Plug	3/20/2018	22:50:16	COM4	BUMP PLUG @ CALCULATED DISPLACEMENT OF 295 BBLS. 0 CEMENT OR SPACER BACK TO SURFACE
Event	18	Open Valve Downhole	Shift Wet Shoe Sub	3/20/2018	23:05:17	USER	OPEN WET SHOE SUB 4255 PSI. PUMP 3 BBLS FOR WET SHOE.
Event	19	Check Floats	Check Floats	3/20/2018	23:08:00	USER	CHECK FLOATS 2 BBLS BACK.
Event	20	End Job	End Job	3/20/2018	23:09:00	COM4	STOP RECORDING JOB DATA
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	3/20/2018	23:15:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	22	Rig-Down Completed	Rig-Down Completed	3/21/2018	00:45:00	USER	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	23	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	3/21/2018	01:30:00	USER	CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	24	Crew Leave Location	Crew Leave Location	3/21/2018	01:45:00	USER	THANKS RYAN STEVENS AND CREW

Attachments

2.2 Job Chart

