

The Road to Excellence Starts with Safety

Sold To #: 300466		Ship To #: 3847918		Quote #: 0022437171		Sales Order #: 0904829646				
Customer: ANADARKO PETROLEUM CORP-EBUS				Customer Rep: LUKE RAINS						
Well Name: AZUL			Well #: 13-15HZ			API/UWI #: 05-123-46110-00				
Field: WATTENBERG		City (SAP): HUDSON		County/Parish: WELD		State: COLORADO				
Legal Description: SE SW-13-1N-66W-867FSL-2327FWL										
Contractor: PRECISION DRLG				Rig/Platform Name/Num: PRECISION 464						
Job BOM: 7523 7523										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA\HX41066				Srv Supervisor: Vitali Neverdasov						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		12678ft		Job Depth TVD		7285				
Water Depth				Wk Ht Above Floor						
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	1868	0	1868
Casing	0	5.5	4.892	17	LTC	HCP110	0	12678	0	7285
Open Hole Section			7.875				1868	12688	1868	7285
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5					Top Plug	5.5	1	HES	
Float Shoe	5.5	1	N/A	12678		Bottom Plug	5.5	1	HES	
Float Collar	5.5	1	N/A	12675		SSR plug set	5.5	0		
Insert Float	5.5					Plug Container	5.5	1	HES	
Stage Tool	5.5					Centralizers	5.5	164	N/A	
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	6.96		5		
37.58 gal/bbl		FRESH WATER								
0.70 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
0.50 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)								

0.70 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)							
79.92 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	7.57
0.10 %		FE-2 (100001615)							
0.40 %		SCR-100 (100003749)							
5.07 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		8	7.99
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			10	
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	274	bbl	8.34			7	
Cement Left In Pipe		Amount	0 ft		Reason			WET SHOE	
Comment: ESTIMATED TOT @ 5504'. TOL @ 1827'. TOP OF SPACER @ 575'									

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	5/4/2018	11:30:00	USER	For Location @ 16:30
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	5/4/2018	15:30:00	USER	Journey management meeting held prior to departure
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	5/4/2018	15:40:00	USER	Called Journey
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	5/4/2018	15:55:00	USER	5 MILES. Discussed numbers and job procedures with Customer
Event	5	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	5/4/2018	16:10:00	USER	JSA to discuss the hazards of rig-up
Event	6	Rig-Up Equipment	Rig-Up Equipment	5/4/2018	16:15:00	USER	Rig-up all surface lines and equipment up to the Buffer zone
Event	7	Casing on Bottom	Casing on Bottom	5/4/2018	18:15:00	USER	CASING LANDED
Event	8	Circulate Well	Circulate Well	5/4/2018	18:35:00	USER	RIG UP PLUG CONTAINER AND MANIFOLD FOR RIG TO CIRCULATE
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	5/4/2018	20:03:00	USER	With all essential personnel, to discuss the hazards of pumping the job, and pump schedule.
Event	10	Start Job	Start Job	5/4/2018	20:20:54	COM4	
Event	11	Check Weight	Check Weight	5/4/2018	20:29:26	COM4	
Event	12	Test Lines	Test Lines	5/4/2018	20:37:00	USER	Load line with 2 bbls of water. Test lines @ 6670 psi
Event	13	Pump Spacer	Pump Spacer	5/4/2018	20:44:00	USER	BATCH/ WEIGHT/ PUMP 60 BBLS OF TUNED SPACER III WITH SURFACTANS @ 10.5 PPG.
Event	14	Drop Bottom Plug	Drop Bottom Plug	5/4/2018	21:00:00	USER	Pre-loaded bottom plug in plug container, verified by customer rep

Event	15	Pump Lead Cement	Pump Lead Cement	5/4/2018	21:02:00	USER	BATCH/ WEIGH/ PUMP 400 SKS (114 BBLS) OF GASSTOP CEMENT USING LATEX WATER @ 13.2 ppg, verified with pressurized scales
Event	16	Pump Tail Cement	Pump Tail Cement	5/4/2018	21:19:00	USER	WEIGHT/ PUMP 730 SKS (218.4 BBLS) OF ECONOCEM @ 13.5 ppg, verified with pressurized scales.
Event	17	Shutdown	Shutdown	5/4/2018	21:53:00	USER	Finished pumping cement
Event	18	Clean Lines	Clean Lines	5/4/2018	21:55:00	USER	Wash pumps and lines
Event	19	Drop Top Plug	Drop Top Plug	5/4/2018	22:02:00	USER	Pre-loaded top plug in plug container verified by customer rep.
Event	20	Pump Displacement - Start	Pump Displacement - Start	5/4/2018	22:04:00	USER	294 BBLS OF FRESH WATER. FIRST 20 BBLS WITH MMCR. REMAINING WITH BIOCID. LAST 20 BBLS FRESH WATER
Event	21	Bump Plug	Bump Plug	5/4/2018	22:55:00	USER	@500 psi over final circulating pressure of 3190 psi
Event	22	Pump Water	Pump Water	5/4/2018	23:07:00	USER	Open wet shoe sub @ 5360 psi, and pump 3 bbl wet shoe
Event	23	Check Floats	Check Floats	5/4/2018	23:09:00	USER	Floats held. 2.5 bbls back
Event	24	End Job	End Job	5/4/2018	23:09:29	COM4	
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	5/4/2018	23:15:00	USER	JSA to discuss the hazards of rig-down

3.0 Attachments

3.1 Job Chart

