

*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		Srvc 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		<b>MUSOL A, 330 GAL TOTE - (790828)</b>								
79.92 lbm/bbl		<b>BARITE, BULK (100003681)</b>								
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 %		<b>FE-2 (100001615)</b>								
0.40 %		<b>SCR-100 (100003749)</b>								
5.07 Gal		<b>FRESH WATER</b>								
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 %		<b>SA-1015, 50 LB SACK (102077046)</b>								
7.99 Gal		<b>FRESH WATER</b>								
0.35 %		<b>HR-5, 50 LB SK (100005050)</b>								
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		<b>MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)</b>								
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			<b>WET SHOE</b>		
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 BIOCIDES. 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

