

The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3712340	Quote #: 0022272079	Sales Order #: 0903834681
Customer: ANADARKO PETROLEUM CORP - EBUS		Customer Rep: Ruban H	
Well Name: PUMA		Well #: 29C-14HZ	API/UWI #: 05-123-42564-00
Field: WATTENBERG	City (SAP): IONE	County/Parish: WELD	State: COLORADO
Legal Description: SW SW-23-1N-67W-290FSL-751FWL			
Contractor: NABORS DRLG		Rig/Platform Name/Num: NABORS X22	
Job BOM: 7523			
Well Type: HORIZONTAL GAS			
Sales Person: HALAMERICA\HX41066		Srvc Supervisor: Vaughn Oteri	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	14116ft		Job Depth TVD
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	2291	0	2291
Casing		5.5	4.892	17	LTC	HCP110	0	14105	0	7603
Open Hole Section			8.5				2291	14116	2291	7603

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5				Top Plug	5.5	1	Weatherford
Float Shoe	5.5			14105	Bottom Plug	5.5	1	Weatherford
Float Collar	5.5			14014	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	80	bbl	11	4.64		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	ElastiCem - Cap Cement	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		8	7.53	
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	ElastiCem W/CBL	ELASTICEM (TM) SYSTEM	540	sack	13.2	1.6		8	7.69	
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	EconoCem	ECONOCEM (TM) SYSTEM	1180	sack	13.5	1.68		8	7.99	
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 and MMCR	Biocide Water and MMCR	20	bbl	8.34			8		
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	
6	Biocide Water	Biocide Water	305	bbl	8.34			8		
Cement Left In Pipe		Amount	91ft		Reason			Shoe Joint		
Comment 36bbl of spacer back 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	2/15/2017	09:00:00	USER	Call out from ARC hub
Event	2	Arrive At Loc	Arrive At Loc	2/15/2017	13:00:00	USER	Arrived on location met with company rep to discuss job process and concerns advised they had about 3000 feet of casing left to run
Event	3	Other	Other	2/15/2017	13:10:10	USER	TD-14116 TP-14103 FC-14014 Surf-2291 Mud-9.1ppg Casing 5.5 17# OH-8.5
Event	4	Start Job	Start Job	2/16/2017	22:16:21	COM4	Held pre-job safety meeting with all hands on location to discuss job process and hazards
Event	5	Test Lines	Test Lines	2/16/2017	22:22:58	COM4	Pressure tested pumps and lines with fresh water, found no leaks and pressure held good 5160psi
Event	6	Pump Spacer 1	Pump Spacer 1	2/16/2017	22:25:43	COM4	Mixed 80bbl of 11.0ppg Tuned spacer III at 5.0bpm 360psi
Event	7	Drop Bottom Plug	Drop Bottom Plug	2/16/2017	22:47:02	COM4	Released plug witnessed by company rep
Event	8	Pump Lead Cement	Pump Lead Cement	2/16/2017	22:48:13	COM4	Mixed 690sk or 192bbl of 13.2ppg Y-1.57 G/sk-7.53 Elasticem at 8.0bpm 427psi
Event	9	Pump Tail Cement	Pump Tail Cement	2/16/2017	23:13:35	COM4	Mixed 1180sk or 353bbl of 13.5ppg Y-1.68 g/sk7.99 Econocem at 8.0bpm 645psi
Event	10	Shutdown	Shutdown	2/16/2017	23:58:12	COM4	
Event	11	Clean Lines	Clean Lines	2/16/2017	23:58:16	COM4	Washed pumps and lines with fresh water
Event	12	Drop Top Plug	Drop Top Plug	2/16/2017	23:58:20	COM4	Released plug witnessed by company rep
Event	13	Pump Displacement	Pump Displacement	2/16/2017	00:10:45	COM4	Pumped 325bbl of fresh water to displace cement

Event	14	Bump Plug	Bump Plug	2/16/2017	00:56:14	COM4	Bumped plug 500psi over final pump pressure
Event	15	Pressure Up Well	Pressure Up Well	2/16/2017	00:57:11	COM4	Pressure up well to 3000psi for 15min
Event	16	Other	Other	2/16/2017	01:12:13	COM4	Released pressure back to pump truck to check floats, floats held good 4.0bbl back to pump truck
Event	17	End Job	End Job	2/16/2017	01:32:24	COM4	36bbl of Spacer back to surface, Calculated HOTC=8653.56 TOTC=5451.44 TOLC=935.47

2.2 Custom Graph

