

Sold To #: 300466	Ship To #: 0003787019	Quote #: 0022319414	Sales Order #: 0904115394
Customer: ANADARKO PETROLEUM CORP-EBUS		Customer Rep: James Adkins	
Well Name: BUTTERBALL		Well #: 11N-34HZ	API/UWI #: 05-123-44410-00
Field: WATTENBERG	City (SAP): IONE	County/Parish: WELD	State: COLORADO
Legal Description: NE NW-10-2N-67W-819FNL-2220FWL			
Contractor: NABORS DRLG		Rig/Platform Name/Num: NABORS X22	
Job BOM: 7523 7523			
Well Type: HORIZONTAL GAS			
Sales Person: HALAMERICA\HX41066		Srcv Supervisor: Nicholas Roles	
Job			

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	15987ft 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	1846	0	1846
Casing		5.5	4.892	17	LTC	HCP110	0	15987	0	7286
Open Hole Section			7.875				1846	15999	1846	7286

Tools and Accessories									
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	5.5					Top Plug	5.5		HES
Float Shoe	5.5			15987		Bottom Plug	5.5		HES
Float Collar	5.5					SSR plug set	5.5		HES
Insert Float	5.5					Plug Container	5.5	1	HES
Stage Tool	5.5					Centralizers	5.5		HES

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		5		
	0.70 gal/bbl	MUSOL A, 330 GAL TOTE - (790828)								
	86.45 lbm/bbl	BARITE, BULK (100003681)								
	37.58 gal/bbl	FRESH WATER								
	0.70 gal/bbl	DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								

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		7	7.53
7.52 Gal		FRESH WATER							
0.90 %		SCR-100 (100003749)							
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	ELASTICEM (TM) SYSTEM	390	sack	13.2	1.57		8	7.54
0.35 %		SCR-100 (100003749)							
7.54 Gal		FRESH WATER							
0.10 %		SUPER CBL, 50 LB PAIL (100003668)							
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	1070	sack	13.5	1.68		8	7.98
8 Gal		FRESH WATER							
0.40 %		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
5	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
6	Biocide Water	Biocide Water	350.6	bbl	8.34			8	
0.50 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)							
Cement Left In Pipe		Amount	0ft	Reason				Wet Shoe	
Comment Got 0bbls spacer back to pits. Estimated TOT-5851', TOL#2-2220', TOL#1-1312'									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	DS Pump Press <i>(psi)</i>	Comments
Event	1	Call Out	Call Out	6/24/2017	23:30:00	USER				Crew call out for o/l at 0430
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/25/2017	03:15:00	USER				All crew aware of hazards and directions. All fit to drive.
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	6/25/2017	03:30:00	USER				Started journey management.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	6/25/2017	04:00:00	USER				Met with company man to discuss job details and procedure. Performed hazard hunt and site assessment. Rig had 1000' left to run.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	6/25/2017	04:15:00	USER				All hse present. Discussed bulk and iron placement and all red zone areas. Caution taped high pressure zones.
Event	6	Other	Other	6/25/2017	04:30:00	USER				Water Test- PH-6 Chlo-0 Temp-60 Cement temp-70
Event	7	Safety Meeting - Pre Job	Safety Meeting - Pre Job	6/25/2017	07:30:00	USER	8.63	0.00	13.00	Discussed job associated hazards, contingencies and job procedure with all job associated personnel.
Event	8	Start Job	Start Job	6/25/2017	09:23:27	COM4				TD-15999', TP-15987' 5.5" 17#, FC-15974', TVD-7286', OH-8.5", SURF-1846' 9.625" 36#, MUD-9.2#
Event	9	Test Lines	Test Lines	6/25/2017	09:29:57	COM4	8.65	0.00	204.00	Pumped 5bbls fresh water to fill lines, shutdown,

											closed manifold, performed 500psi k/o function test, continued with 5th gear stall at 1750psi, proceeded to bring pressure to 6500psi. Held for 5min, no leaks.
Event	10	Check Weight	Check Weight	6/25/2017	09:43:50	COM4	8.64	0.00	201.00		Weight verified with pressurized mud scales.
Event	11	Pump Spacer 1	Pump Spacer 1	6/25/2017	09:43:59	COM4	8.64	0.00	201.00		Pumped 60bbls of 10.5# 6.43Y 41.3g/s Tuned Spacer III with 40g Musol A, 40g Dual Spacer B, 20g D-Air at 5bpm 600psi.
Event	12	Drop Bottom Plug	Drop Bottom Plug	6/25/2017	09:58:26	COM4					Dropped by HES supervisor, witnessed by company man.
Event	13	Pump Lead Cement	Pump Lead Cement	6/25/2017	10:04:33	COM4					Pumped 150sks or 41.9bbls of 13.2# 1.57y 7.53g/s Elasticem w/o CBL at 7bpm 650psi.
Event	14	Pump Lead Cement	Pump Lead Cement	6/25/2017	10:11:10	COM4	12.98	7.00	616.00		Pumped 390sks or 109bbls of 13.2# 1.57y 7.54g/s Elasticem w/ CBL at 8bpm 630psi.
Event	15	Check Weight	Check Weight	6/25/2017	10:21:50	COM4					Weight verified with pressurized mud scales.
Event	16	Pump Tail Cement	Pump Tail Cement	6/25/2017	10:27:43	COM4					Pumped 1070sks or 320bbls of 13.5# 1.68Y 7.98G/S Econocem at 8bpm 650psi.
Event	17	Check Weight	Check Weight	6/25/2017	10:33:42	COM4	13.52	8.10	675.00		Weight verified with pressurized mud scales.
Event	18	Check Weight	Check Weight	6/25/2017	10:53:35	COM4	13.53	8.10	683.00		Weight verified with pressurized mud scales.
Event	19	Shutdown	Shutdown	6/25/2017	11:08:49	COM4					Shutdown, rig blew down iron with air, followed with

										5bbls fresh water through pumps and lines.
Event	20	Drop Top Plug	Drop Top Plug	6/25/2017	11:20:49	COM4	8.40	0.00	-7.00	Dropped by HES supervisor, witnessed by company man.
Event	21	Pump Displacement	Pump Displacement	6/25/2017	11:20:53	COM4	8.40	0.00	-7.00	Pumped 370.6bbls fresh water with 10g MMCR in first 20bbls, followed with 5g biocide throughout at 8bpm 2260psi.
Event	22	Bump Plug	Bump Plug	6/25/2017	12:12:54	COM4	8.40	0.00	3059.00	Slowed down at 350bbls away to 3bpm, Final Circulating Pressure-2520psi, Bump Pressure-3090psi. Held pressure on casing for 15min test, pressure came up to 3316psi.
Event	23	Check Floats	Check Floats	6/25/2017	12:30:25	USER	8.46	0.00	2916.00	Released pressure and got 3bbls back to truck. Floats held.
Event	24	Pressure Up Well	Pressure Up Well	6/25/2017	12:32:40	COM4	8.39	0.00	4.00	Pumped fresh water to pressure up and sheer pins for wet shoe at 2.5bpm 4950psi. Continued to pump fresh water at 3bpm at 2440psi for 3bbl wet shoe.
Event	25	Check Floats	Check Floats	6/25/2017	12:39:57	USER	8.38	0.00	2031.00	Released pressure and got 2.5bbls back to truck floats held.
Event	26	End Job	End Job	6/25/2017	12:42:52	COM4				Got 0bbls spacer back to pits. Estimated TOT-5851', TOL#2-2220', TOL#1-1312'
Event	27	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	6/25/2017	13:00:00	USER				All HSE present. Discussed red zone areas and trapped pressure hazards. Watch for suspended loads and rig down procedures, including

							hand placement, lifting techniques, and swing radius.
Event	28	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/25/2017	14:15:00	USER	All HSE present and fit to drive. Aware of directions and hazards.
Event	29	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	6/25/2017	14:30:00	USER	Pre journey management prior to departure.

3.0 Attachments

3.1 Anadarko Butterball 11N-34HZ Production Job Chart

