

The Road to Excellence Starts with Safety

Sold To #: 300466		Ship To #: 3786943		Quote #: 0022310096		Sales Order #: 0904066375					
Customer: ANADARKO PETROLEUM CORP-EBUS				Customer Rep: Carlton Cooley							
Well Name: BUTTERBALL			Well #: 25C2-34HZ		API/UWI #: 05-123-44412-00						
Field: WATTENBERG		City (SAP): IONE		County/Parish: WELD		State: COLORADO					
Legal Description: NE NW-10-2N-67W-820FNL-2310FWL											
Contractor: NABORS DRLG				Rig/Platform Name/Num: NABORS X22							
Job BOM: 7523 7523											
Well Type: HORIZONTAL GAS											
Sales Person: HALAMERICA\HX41066				Srv Supervisor: Bryan Kraft							
Job											
Formation Name											
Formation Depth (MD)		Top				Bottom					
Form Type						BHST					
Job depth MD		15830ft		Job Depth TVD		7460ft					
Water Depth				Wk Ht Above Floor		4ft					
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	1866	0	1866	
Casing		5.5	4.892	17	BUTTRESS	P-110	0	15830	0	7460	
Open Hole Section			7.875				1866	15836	1866	7460	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe						Top Plug	5.5	1	WF		
Float Shoe	5.5	1		15830		Bottom Plug	5.5	1	WF		
Float Collar	5.5	1		15827		SSR plug set					
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	Spacer	TUNE SPACER III			60	bbl	10.5	6.43	41.3	3	2189
86.45 lbm/bbl		BARITE, BULK (100003681)									
0.70 gal/bbl		MUSOL(R) A, BULK (100003696)									

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	Cap Cement	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57	7.53	8	1128
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	Lead Cement	ELASTICEM (TM) SYSTEM	390	sack	13.2	1.57	7.53	8	2953
0.30 %		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	Tail Cement	ECONOCHEM (TM) SYSTEM	1060	sack	13.5	1.68	7.98	5	8459
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	Displacement	BIOCIDE WATER AND MMCR	40	bbl	8.34			9	1680
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	Displacement	BIOCIDE WATER	327	bbl	8.34			7	13734
Cement Left In Pipe		Amount	3 ft		Reason			Shoe Joint	

Mix Water:	pH 6.0	Mix Water Chloride:	<20 ppm	Mix Water Temperature:	55 °F
Cement Temperature:	N/A	Plug Displaced by:	8.3 lb/gal Fresh Water	Disp. Temperature:	55 °F
Plug Bumped?	Yes	Bump Pressure:	2250 psi	Floats Held?	Yes
Cement Returns:	0	Returns Density:	N/A	Returns Temperature:	N/A
Comment 8 BBLS spacer returned to surface. Floats Held, 4 bbl back before shearing the pin, 2.5 bbls back after shearing					

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	6/2/2017	15:30:00	USER	CREW CALLED OUT AT 15:30 6/2/2017, REQUESTED ON LOCATION 21:00 6/2/2017. CREW PICKED UP CEMENT, CHEMICALS (42 GAL MUSOL A, 42 GAL DUAL SPACER B, 20 GAL D-AIR, 20 GAL MCCR, 100LBS SUGAR, MANIFOLD, AND PLUG CONTAINER FROM FORT LUPTON, CO. BULK 660: 11360555/11633846, BULK BACKUP AIR: 12350112/11566182, PUMP 11897034/11645460.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/2/2017	19:25:00	USER	DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	6/2/2017	19:30:00	USER	STARTED JOURNEY MANAGEMENT.
Event	4	Arrive at Location from Service Center	Arrive at Location	6/2/2017	20:00:00	USER	END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 36# 9.625" @ 1866', CASING: 5.5" 17# P-110 @ 15830', 3' SHOE JOINT, 7.875" OPEN HOLE, TVD @ 7460', 9 PPG WELL FLUID, FRESH WATER DISPLACEMENT. CASING LANDED @ 22:15 6/2/2017.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	6/2/2017	20:10:00	USER	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	6/2/2017	20:15:00	USER	CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Safety Meeting - Pre Job	Safety Meeting - Pre Job	6/3/2017	00:30:00	USER	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	6/3/2017	00:59:02	COM4	BEGIN RECORDING JOB DATA.
Event	9	Test Lines	Test Lines	6/3/2017	01:03:36	COM4	PRESSURE TESTED IRON TO 7500 PSI.

KICKOUTS SET @ 500 PSI, KICKED OUT @ 1300 PSI, 5TH GEAR STALL OUT @ 1800 PSI. 1ST PRESSURE TEST FAILED DUE TO LEAKING HAMMER UNION. FIXED ISSUE AND 2ND TEST PASSED.

Event	10	Pump Spacer 1	Pump Tuned Spacer @ 10.5 ppg	6/3/2017	01:16:56	COM4	PUMP 60 BBLS OF TUNED SPACER @ 10.5 LB/GAL, ADDED 42 GAL MUSOL A, 42 GAL DUAL SPACER B, 20 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	11	Drop Bottom Plug	Drop Bottom Plug	6/3/2017	01:33:44	USER	DROP BOTTOM PLUG, VERIFIED BY CO. MAN.
Event	12	Pump Lead Cement	Pump Cap Cement @ 13.2 ppg	6/3/2017	01:34:44	COM4	PUMP 150 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 YIELD, 7.57 GAL/SK, 42 BBLS, TOP @ 1073', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Pump Lead Cement	Pump Lead Cement @ 13.2 ppg	6/3/2017	01:40:36	USER	PUMP 390 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 YIELD, 7.57 GAL/SK, 109 BBLS, TOL @ 1993', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	14	Pump Tail Cement	Pump Tail Cement @ 13.5 ppg	6/3/2017	01:54:59	COM4	PUMP 1060 SKS OF ECONOCEM @ 13.5 LB/GAL, 1.68 YIELD, 7.98 GAL/SK, 317 BBLS, TOT @ 5571', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	15	Shutdown	Shutdown	6/3/2017	02:50:31	USER	SHUTDOWN DUE TO A WATER TRUCK FILLING THE TANK HES WAS TIED INTO AND SENT AIR WHILE BLOWNING DOWN. LOST PRIME ON 4X4. REGAINED PRIME AND CONTINUED PUMPING AS SCHEDULED.
Event	16	Shutdown	Shutdown	6/3/2017	02:59:30	USER	SHUTDOWN TO WASH PUMPS/ LINES AND DROP TOP PLUG.
Event	17	Clean Lines	Clean Lines	6/3/2017	03:04:04	COM4	WASH UP ELITES PUMPS AND LINES.
Event	18	Drop Top Plug	Drop Top Plug	6/3/2017	03:08:58	COM4	DROP TOP PLUG, VERIFIED BY CO. MAN.
Event	19	Pump Displacement	Pump Fresh Water Displacement	6/3/2017	03:09:38	COM4	BEGIN CALCULATED DISPLACEMENT OF 367 BBLS WITH FRESH WATER.

Event	20	Spacer Returns to Surface	Spacer Returns to Surface	6/3/2017	04:11:38	USER	SPACER TO SURFACE @ 359 BBLS INTO DISPLACEMENT. 8 BBLS OF TUNED SPACER TO SURFACE.
Event	21	Bump Plug	Bump Plug	6/3/2017	04:15:23	USER	PLUG BUMPED AT CALCULATED DISPLACEMENT. PRESSURED 500 PSI OVER FINAL CIRCULATING PRESSURE OF 2250 PSI.
Event	22	Other	Casing Pressure Test	6/3/2017	04:19:21	COM4	PRESSURE TEST CASING TO 3000 PSI FOR 15 MINUTES.
Event	23	Check Floats	Check Floats	6/3/2017	04:34:59	USER	RELEASED PRESSURE, FLOATS HELD, 4 BBLS BACK. PRESSURE UP WELL TO SHEAR PINS.
Event	24	Other	Shear Pins	6/3/2017	04:40:15	USER	PINS SHEARED @ 4810 PSI.
Event	25	Pump Displacement	Pump Wet Shoe	6/3/2017	04:40:29	USER	PUMP 3 BBLS FRESH WATER WET SHOE.
Event	26	Check Floats	Check Floats	6/3/2017	04:42:43	USER	RELEASED PRESSURE, FLOATS HELD, 2.5 BBLS BACK.
Event	27	End Job	End Job	6/3/2017	04:45:12	COM4	STOP RECORDING JOB DATA.
Event	28	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	6/3/2017	05:00:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	29	Rig-Down Completed	Rig-Down Completed	6/3/2017	05:30:00	USER	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	30	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/3/2017	05:45:00	USER	DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	31	Depart Location	Depart Location	6/3/2017	06:00:00	USER	THANK YOU FOR USING HALLIBURTON - BRYAN KRAFT AND CREW.

3.0 Attachments

3.1 Job Chart

Custom Results

