

HALLIBURTON

Summary Report

Crew: Bryan Kraft and Crew

Job Start Date: 09/11/2017 08:32 PM

Sales Order #: 0904292016

WO #: 0904292016

PO #: NA

AFE #:

The Road to Excellence Starts with Safety

Sold To #: 300466		Ship To #: 3794675		Quote #:		Sales Order #: 0904292016						
Customer: ANADARKO PETROLEUM CORP-EBUS				Customer Rep: T. Laurance								
Well Name: RW			Well #: 2N-5HZ			API/UWI #: 05-123-44619-00						
Field: WATTENBERG		City (SAP): HUDSON		County/Parish: WELD		State: COLORADO						
Legal Description: SE SW-29-3N-65W-440FSL-1839FWL												
Contractor: Xtreme			Rig/Platform Name/Num: Xtreme 22									
Job BOM: 7523 7523												
Well Type: HORIZONTAL GAS												
Sales Person: HALAMERICA\HX41066				Srcv Supervisor: Bryan Kraft								
Job												
Formation Name												
Formation Depth (MD)		Top			Bottom							
Form Type												
Job depth MD		13199ft			Job Depth TVD		7020ft					
Water Depth												
Perforation Depth (MD)		From			To			4ft				
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	1879	0	1879		
Casing		5.5	4.778	20	LTC	P-110	0	13199	0	7020		
Open Hole Section			7.875				1879	13210	1879	7020		
Tools and Accessories												
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make			
Guide Shoe						Top Plug	5.5	1	Antelope			
Float Shoe	5.5	1	Antelope	13199		Bottom Plug	5.5	1	Antelope			
Float Collar	5.5	1	Antelope	13150		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 ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Spacer	TUNED SPACER III			60	bbl	10.5	6.25	40.2	3	2171	
88.91 lbm/bbl		BARITE, BULK (100003681)										
35.80 gal/bbl		FRESH WATER										
0.70 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)										
0.33 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)										
0.70 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)										

last updated on 9/11/2017 5:17:17 PM

Page 1 of 2



Summary Report

Crew: Bryan Kraft and Crew

Job Start Date: 09/11/2017 08:32 PM

Sales Order #: 0904292016

WO #: 0904292016

PO #: NA

AFE #:

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
2	Cap Cement	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57	7.52	6	1128	
		7.52 Gal FRESH WATER								
		0.65 % SCR-100 (100003749)								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
3	Lead Cement	ELASTICEM (TM) SYSTEM	390	sack	13.2	1.57	7.54	8	2941	
		0.10 % SUPER CBL, 50 LB PAIL (100003668)								
		0.30 % SCR-100 (100003749)								
		7.54 Gal FRESH WATER								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
4	Tail Cement	ECONOCEM (TM) SYSTEM	790	sack	13.5	1.68	7.99	8	7.99	
		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 ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
5	Displacement	BIOCIDE & MMCR WATER	40	bbl	8.33			10	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 ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
6	Displacement	BIOCIDE WATER	251	bbl	8.33			10	10542	
Cement Left In Pipe		Amount	49 ft		Reason			Shoe Joint		
Mix Water:		Ph 6.0	Mix Water Chloride:		< 100 ppm		Mix Water Temperature:			57 °F
Cement Temperature:		N/A	Plug Displaced by:		8.3 lb/gal Fresh Water		Disp. Temperature:			57 °F
Plug Bumped?		Yes	Bump Pressure:		2250 psi		Floats Held?			Yes
Cement Returns:		N/A	Returns Density:		N/A		Returns Temperature:			N/A
<p>Comment The plug bumped @ calculated displacement @ 2250 PSI. Shutdown @ 2700 PSI. Held a 3000 PSI casing pressure test for 15 minutes. Checked the floats, the floats held and received 2.5 BBLS back to the truck. Spacer returned to surface @ 285 BBLS into displacement. Total of 6 BBLS of spacer returned to surface.</p>										

2.0 Real-Time Job Summary

2.1 Job Event Log

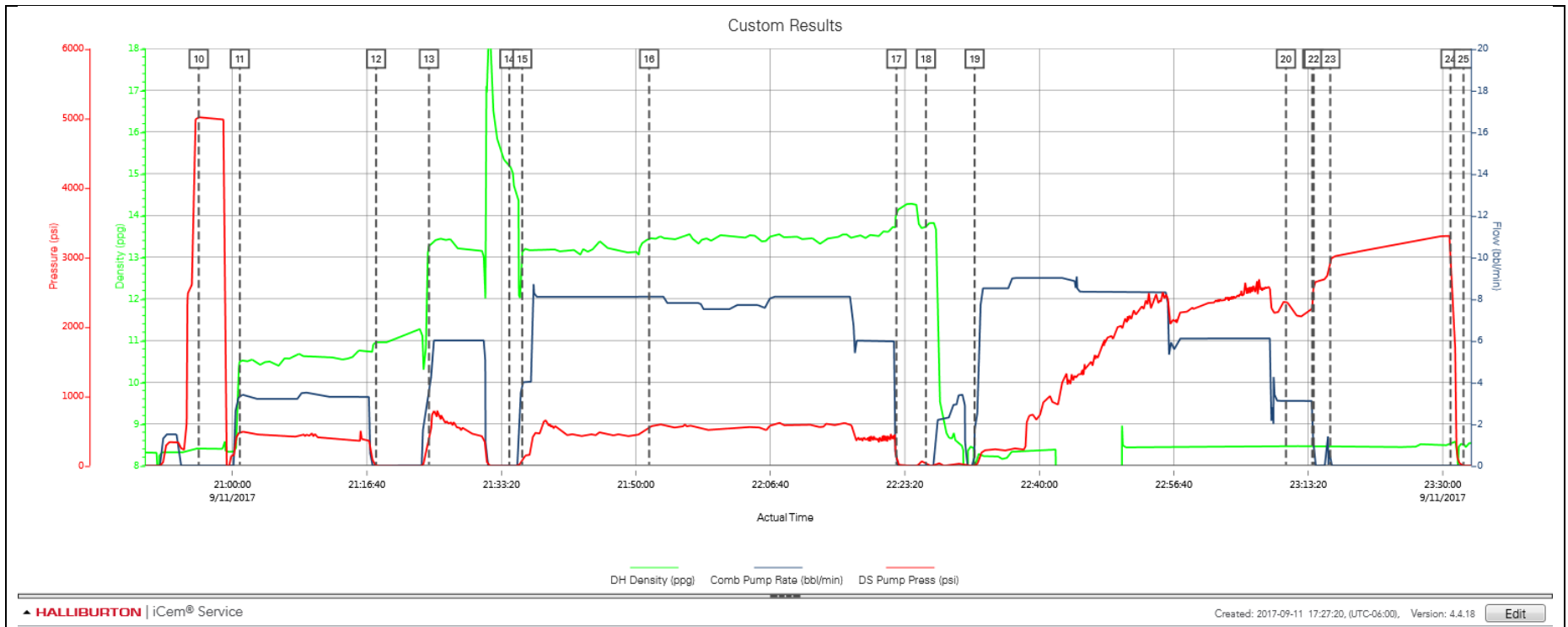
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	DS Pump Press <i>(psi)</i>	Comments
Event	1	Call Out	Call Out	9/11/2017	12:00:00	USER				CREW CALLED OUT AT 12:00 9/11/2017, REQUESTED ON LOCATION 18:30 9/11/2017. CREW PICKED UP CEMENT, CHEMICALS (40 GAL MUSOL A, 40 GAL DUAL SPACER B, 20 GAL D-AIR, 10 GAL MMCR), 100 LBS SUGAR, PLUG CONTAINER AND MANIFOLD FROM FORT LUPTON,CO. BULK 660: 12644833/11566182, BULK 660: 11562546/11023106, PUMP ELITE 11897034/11645460.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	9/11/2017	14:45:00	USER				DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	9/11/2017	15:00:00	USER				STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	9/11/2017	15:30:00	USER				END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# J-55 @ 1879', 5.5" CASING: 20# @ 13199.01', 48.57' SHOE JOINT, 7.875" OPEN HOLE, TVD @ 7020', 9.3 PPG WELL FLUID, FRESH WATER DISPLACEMENT.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	9/11/2017	15:45:00	USER				HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	9/11/2017	16:00:00	USER				CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	9/11/2017	20:10:00	USER	8.31	0.00	1.00	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	9/11/2017	20:32:45	COM5	8.33	0.00	6.00	START RECORDING JOB DATA.
Event	9	Other	Other	9/11/2017	20:40:25	USER	8.32	0.90	4.00	HES PUMPED TO FILL LINES, THE PLUG CONTAINER WAS LEAKING. TRIED TO FIX THE ISSUE, WAS NOT ABLE TO STOP THE LEAK. REMOVED PLUG CONTAINER AND DISCOVERED THE COLLAR WAS DAMAGED. USED A PUMPING SWADGE TO COMPLETE THE CEMENT JOB.

Event	10	Test Lines	Test Lines	9/11/2017	20:55:50	USER	8.41	0.00	5014.00	PRESSURE TESTED IRON TO 4500 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 1000 PSI, 5TH GEAR STALL OUT @ 1700 PSI.
Event	11	Pump Spacer	Pump Tuned Spacer @ 10.5 ppg	9/11/2017	21:00:55	USER	10.52	3.30	494.00	PUMP 60 BBLs OF TUNED SPACER @ 10.5 LB/GAL, ADDED 40 GAL MUSOL A, 40 GAL DUAL SPACER B, 20 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	12	Shutdown	Shutdown	9/11/2017	21:17:48	USER	10.98	0.00	1.00	SHUTDOWN TO DROP TOP PLUG. THE WELL WAS NOT ON A VACUUM AFTER SPACER AND WAS NOT ABLE TO DROP BOTTOM PLUG AFTER SPACER. PUMPED CAP CEMENT AND WAS ABLE TO DROP BOTTOM PLUG AT THAT TIME.
Event	13	Pump Cement	Pump Cap Cement @ 13.2 ppg	9/11/2017	21:24:21	USER	13.28	3.80	465.00	PUMP 150 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 YIELD, 7.52 GAL/SK, 42 BBLs, TOC @ 1123", DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	14	Drop Bottom Plug	Drop Bottom Plug	9/11/2017	21:34:19	USER	15.18	0.00	-9.00	DROP BOTTOM PLUG, VERIFIED BY CO.MAN.
Event	15	Pump Lead Cement	Pump Lead Cement @ 13.2 ppg	9/11/2017	21:35:55	USER	13.11	4.00	92.00	PUMP 390 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 YIELD, 7.54 GAL/SK, 109 BBLs, TOL @ 2066', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	16	Pump Tail Cement	Pump Tail Cement @ 13.5 ppg	9/11/2017	21:51:38	USER	13.46	8.10	558.00	PUMP 790 SKS OF ECONOCEM @ 13.5 LB/GAL, 1.68 YIELD, 7.99 GAL/SK, 236 BBLs, TOT @ 5594', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	17	Shutdown	Shutdown	9/11/2017	22:22:17	USER	14.06	0.00	79.00	SHUTDOWN TO WASH PUMPS/LINES AND DROP TOP PLUG.
Event	18	Drop Top Plug	Drop Top Plug	9/11/2017	22:25:57	USER	13.70	0.00	23.00	PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
Event	19	Pump Displacement	Pump Fresh Water Displacement	9/11/2017	22:31:59	USER	2.10	1.70	-7.00	BEGIN CALCULATED DISPLACEMENT OF 291 BBLs WITH FRESH WATER. MMCR & BIOCIDES ADDED TO 1ST 40 BBLs, BIOCIDES ADDED THROUGH REST OF DISPLACEMENT.
Event	20	Spacer Returns to Surface	Spacer Returns to Surface	9/11/2017	23:10:34	USER	8.44	3.10	2364.00	SPACER RETURNED TO SURFACE @ 285 BBLs INTO DISPLACEMENT, CALCULATED AMOUNT OF 6 BBLs SPACER TO SURFACE.
Event	21	Bump Plug	Bump Plug	9/11/2017	23:13:49	USER	8.44	3.10	2244.00	PLUG BUMPED AT CALCULATED DISPLACEMENT. PRESSURED 500 PSI OVER FINAL CIRCULATING PRESSURE OF 2250 PSI.
Event	22	Shutdown	Shutdown	9/11/2017	23:14:00	USER	8.46	0.00	2579.00	SHUTDOWN FOR 1 MINUTE @ 2700 PSI.

Event	23	Pressure Test	Casing Pressure Test	9/11/2017	23:16:03	USER	8.47	0.00	2959.00	CASING PRESSURE TEST, 3000 PSI FOR 15 MINUTES.
Event	24	Check Floats	Check Floats	9/11/2017	23:30:57	USER	8.52	0.00	3230.00	RELEASED PRESSURE, FLOATS HELD, 2.5 BBLS BACK.
Event	25	End Job	End Job	9/11/2017	23:32:34	COM5				STOP RECORDING JOB DATA.
Event	26	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	9/11/2017	23:40:00	USER	7.13	0.00	3.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	27	Rig-Down Completed	Rig-Down Completed	9/12/2017	00:15:00	USER				ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	28	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	9/12/2017	00:25:00	USER				DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	29	Crew Leave Location	Crew Leave Location	9/12/2017	00:30:00	USER				THANK YOU FOR USING HALLIBURTON - BRYAN KRAFT AND CREW.

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

