

HALLIBURTON

iCem[®] Service

ANADARKO PETROLEUM CORP - EBUS

For: Alan Seacrest

Date: Wednesday, June 04, 2014

Benson Farms 32C-23HZ Surface

Benson Farms 32C-23HZ

Anadarko, Benson Farms 32C-23HZ

Sincerely,

Derek Trier

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1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Benson Farms 32C-23HZ** cement **Surface** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton [Brighton]

Job Times

	Date	Time	Time Zone
Called Out	06/04	1200	MST
On Location	06/04	1630	
Job Started	06/04	1909	
Job Completed	06/04	2030	
Departed Location	06/04	2200	

1.2 Cementing Job Summary

HALLIBURTON*Cementing Job Summary**The Road to Excellence Starts with Safety*

Sold To #: 300466		Ship To #: 3475250		Quote #:		Sales Order #: 0901404334				
Customer: ANADARKO PETROLEUM CORP - EBUS				Customer Rep:						
Well Name: BENSON FARMS		Well #: 32C-23HZ		API/UWI #: 05-123-39395-00						
Field: WATTENBERG		City (SAP): MEAD		County/Parish: WELD		State: COLORADO				
Legal Description: NW SW-24-3N-68W-2135FSL-50FWL										
Contractor:				Rig/Platform Name/Num: Majors 42						
Job BOM: 7521										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA\HX46524				Srvc Supervisor: Kc Smith						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1241ft		Job Depth TVD						
Water Depth				Wk Ht Above Floor		4				
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	3	9.625	8.921	36		J-55	0	1241	0	1226
Open Hole Section			13.5				0	1241	0	1236
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625					Top Plug	9.625	1	HES	
Float Shoe	9.625	1		1231		Bottom Plug	9.625		HES	
Float Collar	9.625	1		1191		SSR plug set	9.625		HES	
Insert Float	9.625					Plug Container	9.625	1	HES	
Stage Tool	9.625					Centralizers	9.625		HES	
Miscellaneous Materials										
Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size
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	Mud Flush III (Powder)	Mud Flush III		12	bbl	8.4			4	
42 gal/bbl		FRESH WATER								
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

HALLIBURTON*Cementing Job Summary*

2	Lead Cement	SWIFTCEN (TM) SYSTEM	461	sack	14.2	1.54		4	7.64
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	Displacement	Displacement	92	bbl	8.33			4	
Cement Left In Pipe		Amount	40 ft		Reason		Shoe Joint		
Comment									

1.3 Planned Pumping Schedule

Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	Fresh Water Spacer	8.33	1.7	10.0 bbl	10.0 bbl
1	1	Spacer	Mud Flush	8.50	2.0	12.0 bbl	12.0 bbl
1	1	Spacer	Fresh Water Spacer	8.33	3.0	10.0 bbl	10.0 bbl
1	2	Cement Slurry	SwiftCem B2	14.2	5.5	461.0 sacks	461.0 sacks

1.4 Job Overview

		Units	Description
1	Surface temperature at time of job	°F	
2	Mud type (OBM, WBM, SBM, Water, Brine)	-	
3	Actual mud density	lb/gal	
4	Time circulated before job	HH:MM	
5	Mud volume circulated	Bbls	
6	Rate at which well was circulated	Bpm	
7	Pipe movement during hole circulation	Y/N	N
8	Rig pressure while circulating	Psi	
9	Time from end mud circulation to start of job	HH:MM	
10	Pipe movement during cementing	Y/N	N
11	Calculated displacement	Bbls	
12	Job displaced by	Rig/HES	HES
13	Annular before job)?	Y/N	N
14	Annular flow after job	Y/N	N
15	Length of rat hole	Ft	
16	Units of gas detected while circulating	Units	
17	Was lost circulation experienced at any time ?	Y/N	N

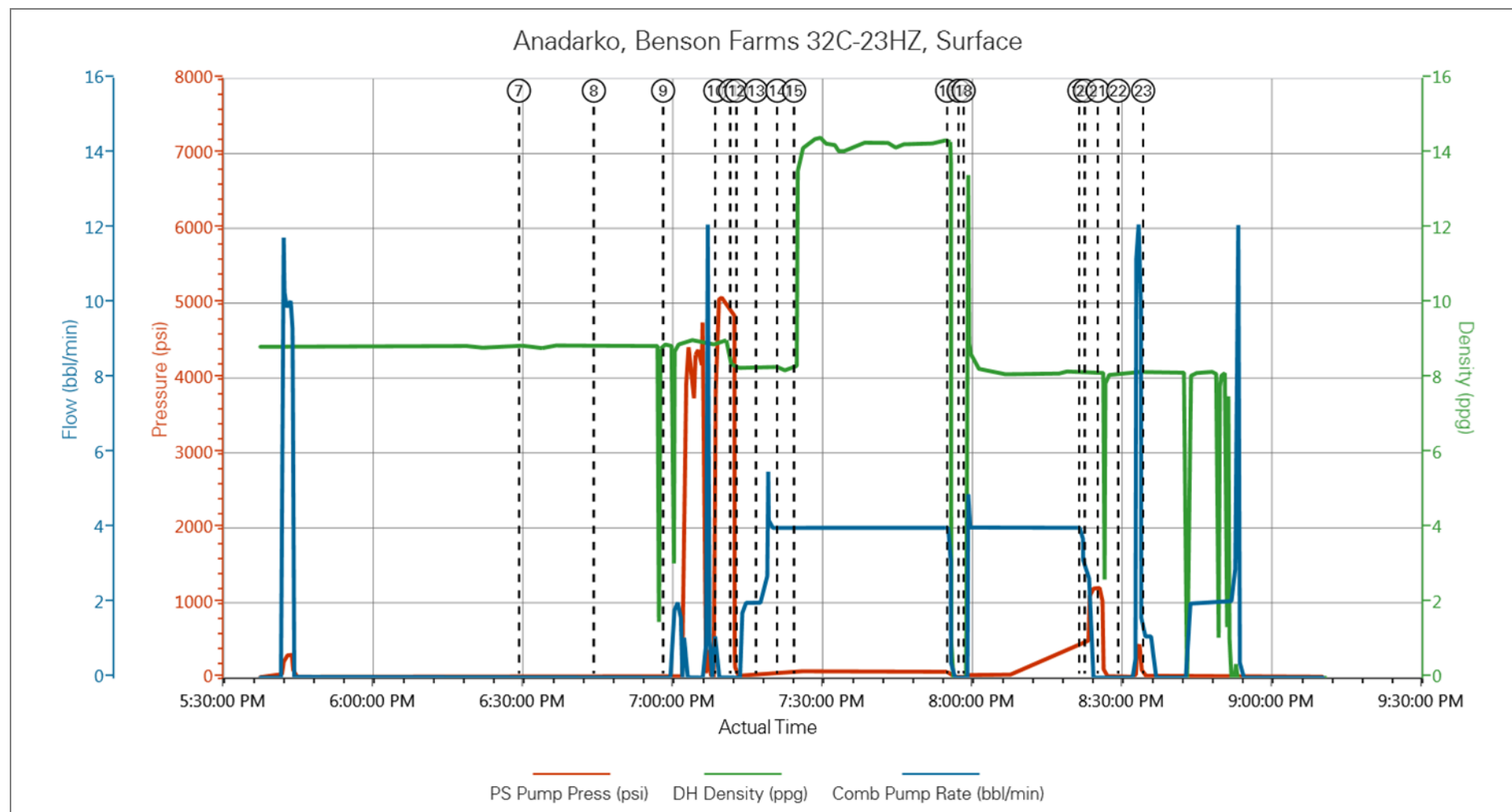
1.5 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comment
Event	1	Call Out	Call Out	6/4/2014	12:00:00	USER				Crew called out for job. Requested on location at 17:30.
Event	2	Depart from Service Center or Other Site	Depart from Service Center or Other Site	6/4/2014	16:00:00	USER				Crew conducted a pre-journey safety meeting, entered into journey management, and departed for location.
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	6/4/2014	16:30:00	USER				Crew arrived safely at location, ended journey management, and conducted a site assessment.
Event	4	Comment	Comment	6/4/2014	16:35:00	USER				Crew spotted the spill containment and equipment.
Event	5	Rig-Up Equipment	Rig-Up Equipment	6/4/2014	16:45:00	USER				Crew conducted a pre-rig up safety meeting and began rigging everything up.
Event	6	Comment	Comment	6/4/2014	17:00:00	USER				Crew waited on the rig to finish running casing.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/4/2014	18:30:00	USER	10.00	8.93	0.00	Crew met with the rig crew and company man to discuss the job procedure and safety procedures associated with the job being performed.
Event	8	Rig-Up Completed	Rig-Up Completed	6/4/2014	18:45:00	USER	10.00	8.81	0.00	Cementer loaded the plug container with the company man there to verify. Cement head was stabbed and the lines were all tied together.
Event	9	Other	Other	6/4/2014	18:58:52	COM1	7.00	8.93	0.00	Filled lines.
Event	10	Test Lines	Test Lines	6/4/2014	19:09:19	USER	5100.00	9.06	0.00	Tested lines to 5100 psi.
Event	11	Test Lines	End Pressure Test	6/4/2014	19:12:18	USER	4851.00	8.41	0.00	Released pressure.
Event	12	Pump Spacer 1	Pump Water Spacer	6/4/2014	19:13:33	COM1	14.00	8.30	0.00	Pumped 10 bbls of Fresh Water.
Event	13	Pump Spacer	Pump Spacer	6/4/2014	19:17:27	USER	28.00	8.23	2.00	Pumped 12 bbls of Mud Flush.
Event	14	Pump Spacer	Pump Water Spacer	6/4/2014	19:21:43	USER	58.00	8.23	4.00	Pumped 10 bbls of Fresh Water.
Event	15	Pump Cement	Pump Cement	6/4/2014	19:25:05	COM1	77.00	13.78	4.00	Pumped 461 sks (126 bbls) of SwiftCem

										Cement at 14.2 #/gal, 1.54 yield, 7.64 gal/sk.
Event	16	Shutdown	Shutdown	6/4/2014	19:55:45	USER	49.00	0.97	0.00	Shutdown.
Event	17	Drop Top Plug	Drop Top Plug	6/4/2014	19:58:01	USER	7.00	-0.24	0.00	Dropped Top Plug.
Event	18	Pump Displacement	Pump Displacement	6/4/2014	19:59:03	COM1	7.00	-0.23	0.00	Pumped 92 bbls of Fresh Water Displacement.
Event	19	Slow Rate	Slow Rate	6/4/2014	20:22:13	USER	494.00	8.15	2.90	Slowed Rate to 3 bpm to land the plug.
Event	20	Bump Plug	Bump Plug	6/4/2014	20:23:19	USER	496.00	8.16	3.00	Landed the plug at 93 bbls away. 7 bbls of cement back to surface.
Event	21	Check Floats	Check Floats	6/4/2014	20:25:56	USER	1198.00	8.15	0.00	Checked the floats, Floats held 1 bbl back.
Event	22	End Job	End Job	6/4/2014	20:30:00	USER	12.00	8.13	0.00	Job Complete.
Event	23	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	6/4/2014	20:35:00	USER	14.00	8.15	1.10	Crew conducted a pre-rig down safety meeting.
Event	24	Rig-Down Completed	Rig-Down Completed	6/4/2014	21:45:00	USER				Rig down complete and equipment ready to leave location.
Event	25	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	6/4/2014	22:00:00	USER				Crew entered into journey management and departed for the yard.

2.0 Custom Graphs

2.1 Custom Graph



3.0 Appendix
