

HALLIBURTON

iCem[®] Service

ANADARKO PETROLEUM CORP - EBUS

For:

Date: Wednesday, June 04, 2014

Berry Farms 31C-8 HZ

Anadarko, Berry Farms 31C-8 HZ

Sincerely,
KC Smith

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1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Berry Farms 31C-8 HZ** cement **Intermediate** 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	6/3/2014	1330	MST
On Location	6/3/2014	2340	MST
Job Started	6/4/2014	0156	MST
Job Completed	6/4/2014	0415	MST
Departed Location	6/4/2014	0600	MST

1.3 Job Event Log

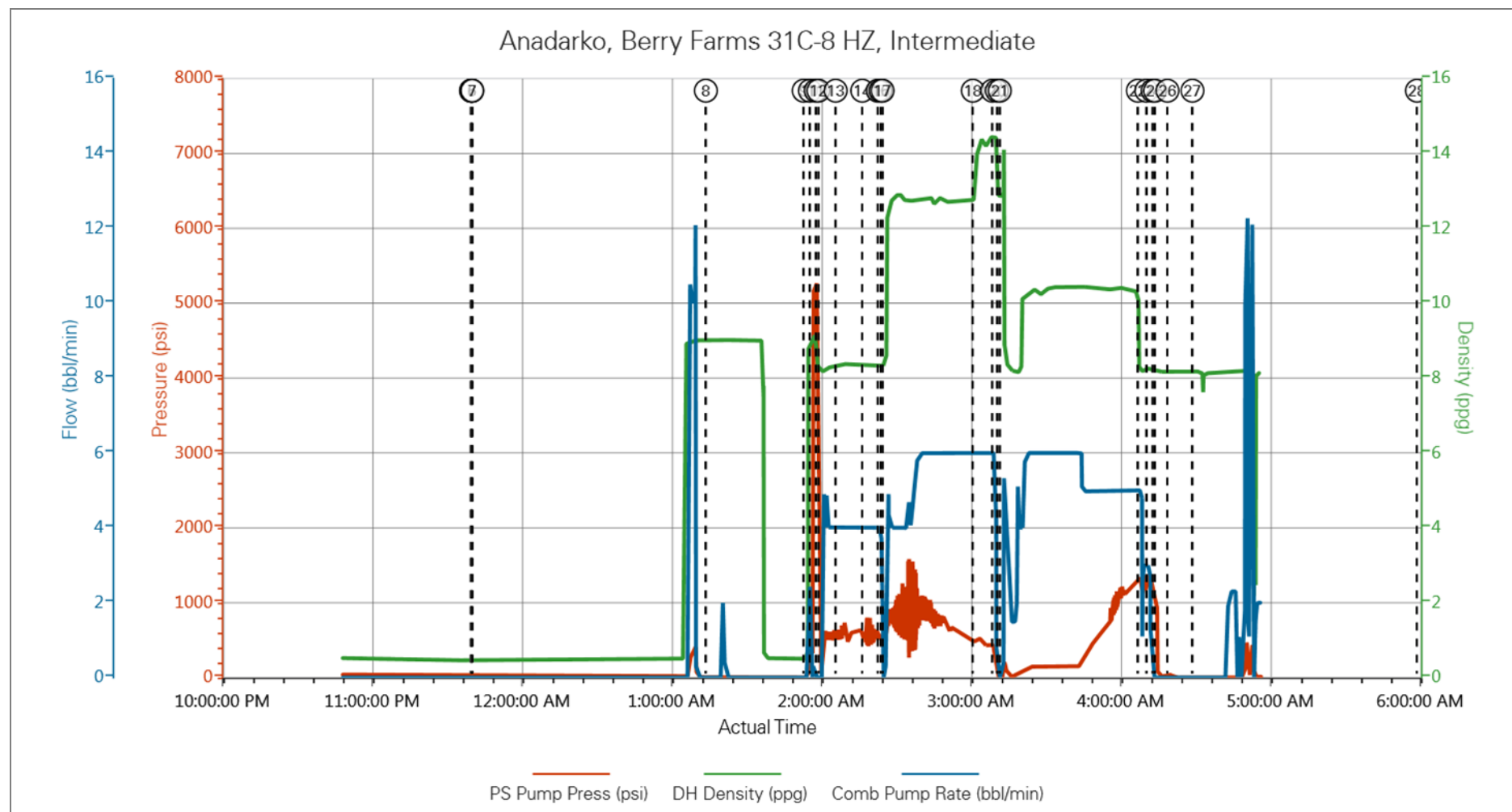
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comment
Event	1	Call Out	Call Out	6/3/2014	13:30:00	USER				Crew called out for job. Requested on location at 18:00. (On location time was pushed to 22:00)
Event	2	Depart from Service Center or Other Site	Depart from Service Center or Other Site	6/3/2014	16:30:00	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	6/3/2014	23:40:51	USER	40.00	0.49	0.00	Crew arrived safely on location, ended journey management, and did a site assessment. Rig still runnign casing.
Event	4	Comment	Comment	6/3/2014	23:40:59	USER	40.00	0.49	0.00	Crew spotting the equipment into position.
Event	5	Rig-up Lines	Rig-up Lines	6/3/2014	23:41:06	USER	40.00	0.49	0.00	Crew conducted a pre-rig up safety meeting and began rigging up.
Event	6	Comment	Comment	6/3/2014	23:41:15	USER	40.00	0.48	0.00	Waiting on Rig to finish running casing.
Event	7	Rig-Up Equipment	Rig-Up Equipment	6/3/2014	23:41:25	USER	40.00	0.51	0.00	Cementer loaded plugs with company man present to verify. Stabbed cmt head and finished rigging up the lines.
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/4/2014	01:15:00	USER	0.00	8.96	0.00	Crew met with the rig crew and company man to go over the job procedure and safety procedures associated with the job.
Event	9	Other	Other	6/4/2014	01:54:11	COM1	-1.00	0.54	1.10	Filled lines.
Event	10	Test Lines	Test Lines	6/4/2014	01:56:41	COM1	5255.00	9.11	0.00	Tested lines to 5255 psi.

Event	11	Test Lines	End Pressure Test	6/4/2014	01:59:00	USER	5229.00	8.30	0.00	Bled pressure back.
Event	12	Pump Spacer 1	Pump Water Spacer	6/4/2014	02:00:06	COM1	100.00	8.17	0.30	Pumped 20 bbl fresh water.
Event	13	Pump Spacer	Pump Mud Flush	6/4/2014	02:07:01	USER	642.00	8.35	4.00	Pumped 40 bbls of Mud Flush.
Event	14	Pump Spacer	Pump Water Spacer	6/4/2014	02:17:40	USER	521.00	8.39	4.00	Pumped 20 bbls of Fresh Water.
Event	15	Shutdown	Shutdown	6/4/2014	02:23:51	USER	507.00	8.34	0.00	Shutdown.
Event	16	Drop Bottom Plug	Drop Bottom Plug	6/4/2014	02:25:01	COM1	396.00	8.38	0.00	Dropped Bottom Plug.
Event	17	Pump Lead Cement	Pump Lead Cement	6/4/2014	02:25:48	COM1	639.00	9.58	2.60	Pumped 570 sacks of 1.89 yield
Event	18	Pump Tail Cement	Pump Tail Cement	6/4/2014	03:01:58	COM1	537.00	13.94	6.00	Pumped 200 sacks of 1.4 yield
Event	19	Shutdown	Shutdown	6/4/2014	03:09:49	USER	257.00	14.41	0.80	Shutdown.
Event	20	Drop Top Plug	Drop Top Plug	6/4/2014	03:11:40	USER	3.00	12.91	0.00	Drop Top Plug.
Event	21	Pump Displacement	Pump Displacement	6/4/2014	03:12:48	USER	130.00	13.76	3.30	Pumped 275.5 bbls of Mud Displacement.
Event	22	Slow Rate	Slow Rate	6/4/2014	04:08:08	USER	1342.00	8.13	5.00	Slowed Rate to 3 bpm to land the plug.
Event	23	Comment	Comment	6/4/2014	04:11:33	USER	1361.00	8.25	3.00	Reached Calculated displacement. Did not land the plug. Pumped half the shoe track and shutdown. Discussed with Company Man and he made the call to check the floats and not displace any more.
Event	24	Check Floats	Check Floats	6/4/2014	04:14:01	USER	1051.00	8.19	0.00	Checked Floats, Floats held 1 bbl back. No Cmt to Surface. First 20 bbls of water to surface with the 40 bbls of mud flush. Partial last 20 bbls of water back.
Event	25	End Job	End Job	6/4/2014	04:15:00	USER	5.00	8.12	0.00	Job Complete. Crew is released.
Event	26	Pre-Rig Down Safety	Pre-Rig Down Safety	6/4/2014	04:20:00	USER	44.00	8.23	0.00	Crew met to have a pre-rig

		Meeting	Meeting							down safety meeting.
Event	27	Rig-Down Equipment	Rig-Down Equipment	6/4/2014	04:30:00	USER	-2.00	8.19	0.00	Crew rigged down all equipment and lines.
Event	28	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	6/4/2014	06:00:00	USER				Crew Entered into journey management and prepared to depart from location.

2.0 Custom Graphs

2.1 Custom Graph



3.0 Appendix

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3286178	Quote #:	Sales Order #: 0901398721							
Customer: ANADARKO PETROLEUM CORP - EBUS		Customer Rep:								
Well Name: BERRY FARMS	Well #: 31C-8 HZ	API/UWI #: 05-123-38896-00								
Field: WATTENBERG	City (SAP): PLATTEVILLE	County/Parish: WELD	State: COLORADO							
Legal Description: SE NE-8-3N-67W-1337FNL-300FEL										
Contractor: ENSIGN DRLG		Rig/Platform Name/Num: ENSIGN 145								
Job BOM: 7522										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA\HX46524		Srv Supervisor: Kc Smith								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type		BHST								
Job depth MD	7546ft	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		9.625	8.921	36		J-55	0	1000		
Casing		7	6.276	26		HCP110	0	7717		
Open Hole Section			8.75				1000	7717		
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	7					Top Plug	7	1	HES	
Float Shoe	7	1		7546		Bottom Plug	7	1	HES	
Float Collar	7	1		7456		SSR plug set	7		HES	
Insert Float	7					Plug Container	7	1	HES	
Stage Tool	7					Centralizers	7		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	Fresh Water Spacer	Fresh Water Spacer	20	bbl	8.33			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	

last updated on 6/4/2014 11:57:14 AM

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Cementing Job Summary

2	Mud Flush III (Powder)	Mud Flush III	40	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
3	Fresh Water Spacer	Fresh Water Spacer	20	bbl	8.33			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
4	Lead Cement	ECONOCEM (TM) SYSTEM	570	sack	12.7	1.89		6	9.97
10 Gal		FRESH WATER							
61.10 lbm		TYPE I / II CEMENT, BULK (101439798)							
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	Tail Cement	FRACCEM (TM) SYSTEM	200	sack	14.4	1.4		6	5.96
47 lbm		CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
5.96 Gal		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
6	Displacement		275.5	bbl	10.5			6	
Cement Left In Pipe		Amount	ft	Reason			Shoe Joint		
Comment									