

HALLIBURTON

iCem® Service

Post Job Report

ANADARKO PETROLEUM CORP - EBUS

For: BOB BALKENBUSH

Date: Wednesday, May 14, 2014

NRC 26N-5HZ

Sincerely,

AARON SMITH

Table of Contents

1.1	Executive Summary	3
1.2	Cementing Job Summary	4
1.3	Planned Pumping Schedule	6
1.4	Job Event Log	7
2.0	Custom Graphs	9
2.1	Custom Graph	9

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **NRC 26N-5HZ** 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
Requested Time On Location	4/28	1300	MST
Called Out	4/28	0900	MST
On Location	4/28	1200	MST
Job Started	4/28	1418	MST
Job Completed	4/28	1548	MST
Departed Location	4/28	1630	MST

1.2 Cementing Job Summary

Sold To #: 300466		Ship To #: 3367972		Quote #:		Sales Order #: 0901301445				
Customer: ANADARKO PETROLEUM CORP - EBUS					Customer Rep: BOB BALKENBUSH					
Well Name: NRC			Well #: 26N-5 HZ			API/UWI #: 05-123-39157-00				
Field: WATTENBERG		City (SAP): ION		County/Parish: WELD			State: COLORADO			
Legal Description: NE NE-8-1N-67W-500FNL-1230FEL										
Contractor:				Rig/Platform Name/Num: Majors 29						
Job BOM: 7521										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA\HB47901					Srv Supervisor: Aaron Smith					
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1352		Job Depth TVD		1352				
Water Depth				Wk Ht Above Floor		5				
Perforation Depth (MD)				To						
Well Data										
	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	1322	0	1322
Open Hole Section			13.5				0	1352	0	1352
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625			1322		Top Plug	9.625		HES	
Float Shoe	9.625					Bottom Plug	9.625		HES	
Float Collar	9.625					SSR plug set	9.625		HES	
Insert Float	9.625					Plug Container	9.625		HES	
	9.625					Centralizers	9.625		HES	
Miscellaneous Materials										
Gelling Agt		Conc		Surfactant		Conc		Acid Type	Qty	
Treatment Fld		Conc				Conc		Sand Type		
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				
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	Lead Cement	SWIFTCEM (TM) SYSTEM	510	sack	14.2	1.54		6	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	99	bbl	8.33				
		Amount	40 ft						
Comment 19 BBLS CEMENT TO SURFACE									

1.4 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	Water Spacer	8.34	3.00	10.0 bbl	10.0 bbl
1	2	Spacer	Mud Flush	8.40	4.00	12.0 bbl	12.0 bbl
1	3	Spacer	Water Spacer	8.34	3.00	10.0 bbl	10.0 bbl
1	4	Cement Slurry	SwiftCem	14.20	5.50	510.0 sacks	510.0 sacks

1.5 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	DH Density (ppg)	Comment
Event	1	Arrive at Location from Service Center	Arrive at Location from Service Center	4/28/2014	12:00:00	USER				WITH ALL EQUIPMENT AND MATERIALS, REQUESTED ON LOCATION TIME 1300. RIG STILL RUNNING CASING.
Event	2	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	4/28/2014	12:15:00	USER				HAZARD HUNT AND WATER TEST PERFORMED.
Event	3	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/28/2014	12:45:00	USER				
Event	4	Rig-Up Equipment	Rig-Up Equipment	4/28/2014	13:05:00	USER				HAD TO WAIT ON CONTAINMENT TO ARRIVE ON LOCATION.
Event	5	Rig-Up Completed	Rig-Up Completed	4/28/2014	13:20:00	USER				
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	4/28/2014	14:00:00	USER	0.00	0.00	8.21	WITH CUSTOMER REP AND RIG CREW, TO DISCUSS JOB SAFETY, AND PUMP SCHEDULE.
Event	7	Start Job	Start Job	4/28/2014	14:18:52	COM7	0.00	-1.00	-0.12	
Event	8	Test Lines	Test Lines	4/28/2014	14:24:56	COM7	0.00	1.00	8.37	@3500 PSI,
Event	9	Pump Spacer 1	Pump Spacer 1	4/28/2014	14:28:44	COM7	0.00	-3.00	8.38	10 BBLS FRESH WATER WITH NO ADDITIVES
Event	10	Pump Spacer 2	Pump Spacer 2	4/28/2014	14:32:30	COM7	4.90	73.00	8.34	12 BBLS MUD FLUSH
Event	11	Pump Spacer 1	Pump Spacer 1	4/28/2014	14:34:56	COM7	5.00	61.00	8.25	10 BBLS FRESH WATER WITH NO ADDITIVES
Event	12	Pump Cement	Pump Cement	4/28/2014	14:37:12	COM7	0.00	28.00	8.30	140 BBLS, 510 SKS SWIFTCM, @ 14.2 PPG, 1.54 YIELD, 7.64 GAL/SK
Event	13	Shutdown	Shutdown	4/28/2014	15:09:02	COM7	0.50	21.00	14.26	
Event	14	Drop Top Plug	Drop Top Plug	4/28/2014	15:10:09	COM7	0.00	-6.00	0.90	PRE-LOADED HWE TOP PLUG IN PLUG CONTAINER, VERIFIED BY CUSTOMER REP.
Event	15	Pump Displacement	Pump Displacement	4/28/2014	15:10:18	COM7	0.00	-6.00	0.81	99 BBLS FRESH WATER
Event	16	Other	Spacer Returns To Surface	4/28/2014	15:24:43	COM7	5.00	247.00	9.12	@48 BBLS DISPLACEMENT, 32 BBLS TO THE PIT

Event	17	Other	Cement Returns To Surface	4/28/2014	15:30:12	COM7	2.00	387.00	9.20	@80 BBLS DISPLACEMENT, 19 BBLS TO THE PIT
Event	18	Bump Plug	Bump Plug	4/28/2014	15:40:45	COM7	0.00	1462.00	9.17	FINAL CIRCULATING PRESSURE 457, 1497 BUMP PRESSURE
Event	19	Check Floats	Check Floats	4/28/2014	15:45:45	USER	0.00	658.00	9.23	FLOATS GOOD 1 BBL BACK.
Event	20	End Job	End Job	4/28/2014	15:47:46	COM7	0.00	4.00	9.13	THANKS AARON
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	4/28/2014	15:55:00	USER	2.00	5.00	9.18	WITH HES CREW
Event	22	Rig-Down Equipment	Rig-Down Equipment	4/28/2014	15:58:00	USER				
Event	23	Rig-Down Completed	Rig-Down Completed	4/28/2014	16:10:00	USER				
Event	24	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	4/28/2014	16:30:00	USER				JOURNEY MANAGEMENT MEETING PRIOR TO DEPARTURE

2.0 Custom Graphs

2.1 Custom Graph



