

HALLIBURTON

iCem[®] Service

ANADARKO PETROLEUM CORP - EBUS

For: BOB BALKENBUSH

Date: Wednesday, July 16, 2014

Reynolds Cattle 3C-19HZ Surface

MCKINSTRY

Case 1

Sincerely,

Derek Trier

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1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Reynolds Cattle 3C-19HZ** 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	04/15	0830	
On Location	04/16	0030	
Job Started		0453	
Job Completed		0629	
Departed Location		0730	

1.2 Cementing Job Summary

Sold To #: 300466		Ship To #: 3367825		Quote #:		Sales Order #: 0901268918				
Customer: ANADARKO PETROLEUM CORP - EBUS				Customer Rep: Larry Hersh						
Well Name: REYNOLDS CATTLE		Well #: 3C-19 HZ		API/UWI #: 05-123-39132-00						
Field: WATTENBERG	City (SAP): MEA	County/Parish: WELD		State: COLORADO						
Legal Description: NE NE-23-3N-68W-650FNL-155FEL										
Contractor: Bob Balkenbush				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	850ft		Job Depth TVD							
Water Depth			Wk Ht Above Floor							
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	1344		0
Open Hole Section			13.5				0	1354		0
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625			1344		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	
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	Lead Cement	SWIFTCEM (TM) SYSTEM	505	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
2	Displacement	Displacement	101	bbl	8.33				
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	Mud Flush III (Powder)	Mud Flush III	10	bbl	8.4				
42 gal/bbl									
		Amount	42 ft						
Comment									

1.3 Job Overview

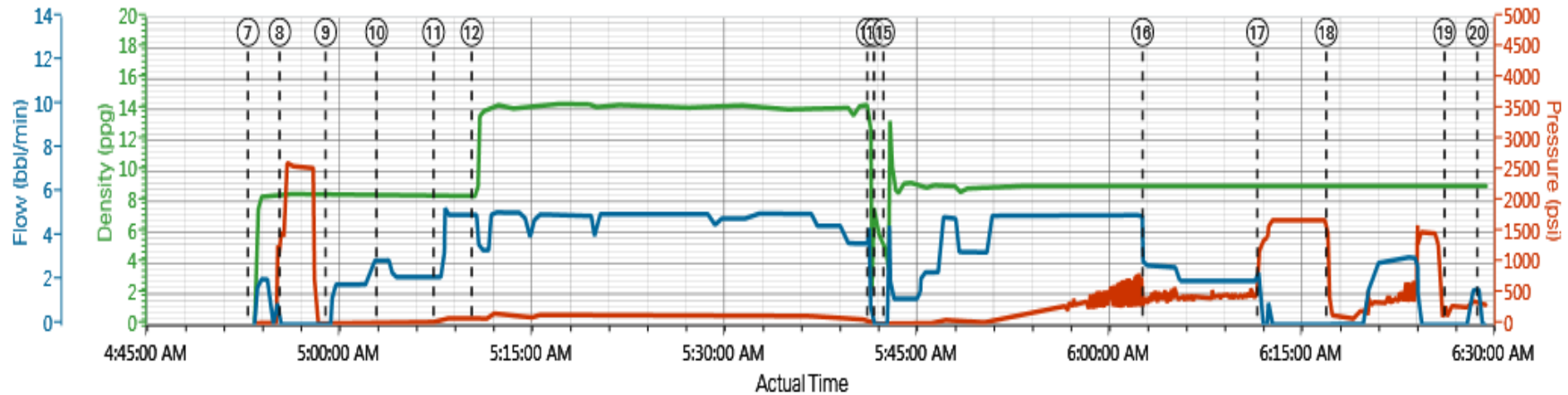
		Units	Description
1	Surface temperature at time of job	°F	
2	Mud type (OBM, WBM, SBM, Water, Brine)	-	WBM
3	Actual mud density	lb/gal	
4	Time circulated before job	HH:MM	
5	Mud volume circulated	Bbls	
6	Rate at which well was circulated	Bpm	
7	Pipe movement during hole circulation	Y/N	N
8	Rig pressure 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	101
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

1.4 Job Event Log

1.1 Job Event Log										
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Downhole Density (ppg)	Pass-Side Pump Pressure (psi)	Combined Pump Rate (bbbl/min)	Comment
Event	1	Arrive at Location from Service Center	Arrive at Location from Service Center	4/16/2014	00:30:00	USER				PUMP TRUCK AND ONE BULK TRUCK ARRIVED ON LOCATION EARLY, SERVICE SUPERVISOR AND LAST BULK TRUCK ARRIVED ON LOCATION AT THE REQUESTED ON LOCATION TIME OF 0130
Event	2	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	4/16/2014	00:35:00	USER				
Event	3	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/16/2014	00:40:00	USER				HES CREW DISCUSSED RIG-UP ISA
Event	4	Rig-Up Equipment	Rig-Up Equipment	4/16/2014	00:45:00	USER				
Event	5	Rig-Up Completed	Rig-Up Completed	4/16/2014	01:10:00	USER				
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	4/16/2014	03:00:00	USER				WITH CUSTOMER REP AND RIG CREW, WAITED UNTILL 0430 FOR LAB TEST TO BE COMPLETED BEFORE PUMPING THE JOB.
Event	7	Start Job	Start Job	4/16/2014	04:53:11	USER				
Event	8	Test Lines	Test Lines	4/16/2014	04:55:39	USER	8.43	1438.21	0.00	@ 2500 PSI
Event	9	Pump Spacer 1	Pump Spacer 1	4/16/2014	04:59:14	USER	8.36	19.75	0.00	10 BBLS FRESHWATER
Event	10	Pump Spacer 2	Pump Spacer 2	4/16/2014	05:03:12	USER	8.44	53.50	2.93	12 BBLS MUD FLUSH
Event	11	Pump Spacer 1	Pump Spacer 1	4/16/2014	05:07:38	USER	8.31	44.12	2.17	10 BBLS FRESH WATER
Event	12	Pump Cement	Pump Cement	4/16/2014	05:10:37	USER	8.37	114.44	5.01	138 BBLS/ 505 SKS SWIFTCEM @ 14.2 PPG, 1.54 YIELD, 7.64 GAL/SK
Event	13	Shutdown	Shutdown	4/16/2014	05:41:27	USER	10.82	15.06	0.00	
Event	14	Drop Top Plug	Drop Top Plug	4/16/2014	05:41:58	USER	6.34	13.19	0.00	PRE-LOADED HWE TOP PLUG, IN HES PLUG

										CONTAINER
Event	15	Pump Displacement	Pump Displacement	4/16/2014	05:42:43	USER	4.76	14.12	0.00	101 BBLS FRESH WATER DISPLACEMENT
Event	16	Cement Returns to Surface	Cement Returns to Surface	4/16/2014	06:02:54	USER	9.01	492.26	2.71	@ 86 BBLS DISPLACEMENT, 15 BBLS TO SURFACE
Event	17	Bump Plug	Bump Plug	4/16/2014	06:11:51	USER	9.00	1382.90	0.00	FINAL CIRCULATING PRESSURE 523, 1729 PSI
Event	18	Check Floats	Check Floats	4/16/2014	06:17:13	USER	9.08	236.32	0.00	FLOATS DID NOT HOLD, BUMPED PLUG AGAIN,
Event	19	Shut In Well	Shut In Well	4/16/2014	06:25:26	USER	8.97	319.75	0.00	SHUT IN WELL WITH 250 PSI
Event	20	End Job	End Job	4/16/2014	06:28:59	USER	9.02	362.88	1.65	END OF MIXING AND PUMPING OPERATIONS
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	4/16/2014	06:35:00	USER				WITH HES CREW
Event	22	Rig-Down Equipment	Rig-Down Equipment	4/16/2014	06:40:00	USER				
Event	23	Rig-Down Completed	Rig-Down Completed	4/16/2014	07:00:00	USER				
Event	24	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	4/16/2014	07:30:00	USER				THANKS AARON SMITH AND CREW

ANADARKO PETROLEUM REYNOLDS CATTLE 3C-19HZ SURFACE



DH Density (ppg) PS Pump Press (psi) Comb Pump Rate (bbl/min)

① Arrive at Location from Service Center n/a;n/a;n/a ③ Pre-Rig Up Safety Meeting n/a;n/a;n/a ⑤ Rig-Up Completed n/a;n/a;n/a ⑦ Start Job n/a;n/a;n/a ⑨ Pump Spacer 1 8.36;19.75;0 ⑪ Pump Spacer 2 8.44;53.5;2.93 ⑫ Pump Cement 8.43;1438.21;0



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Edit

Customer: ANADARKO PETROLEUM CORP -
EBUS

Job Date: 4/16/2014 4:53:14 AM

Well: REYNOLDS CATTLE 3C-19HZ

Representative:

Sales Order #:

2.0 Appendix
