

HALLIBURTON

iCem® Service

Post Job Report

ANADARKO PETROLEUM CORP - EBUS

For:

Date: Sunday, June 01, 2014

Dugite 13C-35HZ Surface

Case 1

Sincerely,

Derek Trier

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1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Dugite 13C-35HZ** 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	05/17	0600	MST
On Location	05/17	1115	
Job Started	05/17	1553	
Job Completed	05/17	1710	
Departed Location	05/17	1830	

1.2 Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300466		Ship To #: 3472321		Quote #:		Sales Order #: 0901351326				
Customer: ANADARKO PETROLEUM CORP - EBUS				Customer Rep: ALLEN						
Well Name: DUGITE		Well #: 13C-35HZ		API/UWI #: 05-123-39330-00						
Field: WATTENBERG		City (SAP): ION		County/Parish: WELD		State: COLORADO				
Legal Description: SW SW-23-2N-67W-1020FSL-560FWL										
Contractor:				Rig/Platform Name/Num: Majors 42						
Job BOM: 7521										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA/HX46524				Srvc Supervisor: Brandon Nielson						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1329ft		Job Depth TVD						
Water Depth				Wk Ht Above Floor						
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	1319		0
Open Hole Section			13.5				0	1329		
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make		
Guide Shoe	9.625	1		1319	Top Plug	9.625	1	HES		
Float Shoe	9.625	1			Bottom Plug	9.625	1	HES		
Float Collar	9.625	1			SSR plug set	9.625	1	HES		
Insert Float	9.625	1			Plug Container	9.625	1	HES		
Stage Tool	9.625	1			Centralizers	9.625	1	HES		
Miscellaneous Materials										
Gelling Agt		Conc		Surfactant		Conc	Acid Type		Qty	Conc
Treatment Fld		Conc		Inhibitor		Conc	Sand Type		Size	Qty
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					
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	

2	Lead Cement	SWIFCEM (TM) SYSTEM	476	sack	14.2	1.54		6	7.64
		VERSASET, 55 LB SK (101376573)							
		POLY-E-FLAKE (101216940)							
		ENHANCER 923, BULK (101894003)							
		ECONOLITE (100001580)							
		CAL-SEAL 60, 50 LB BAG (101217146)							
		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	Displacement	Displacement	98.7	bbl	8.33				
Cement Left In Pipe		Amount	42 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	8.33	4.00	10.0 bbl	10.0 bbl
1	2	Spacer	Mud Flush III	8.40	5.00	12.0 bbl	12.0 bbl
1	3	Spacer	Fresh Water	8.33	5.00	10.0 bbl	10.0 bbl
1	4	Cement Slurry	SwiftCem	14.20	7.00	476.0 sacks	476.0 sacks

1.4 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	Actual mud Plastic Viscosity (PV)	cP	
5	Actual mud Yield Point (YP)	lb _f /100ft ²	
6	Actual mud 30 min Gel Strength	lb _f /100ft ²	
7	Time circulated before job	HH:MM	
8	Mud volume circulated	Bbls	
9	Rate at which well was circulated	Bpm	
10	Pipe movement during hole circulation	Y/N	N
11	Rig pressure while circulating	Psi	
12	Time from end mud circulation to start of job	HH:MM	
13	Pipe movement during cementing	Y/N	N
14	Calculated displacement	Bbls	98.7
15	Job displaced by	Rig/HES	HES
16	Annular flow before job	Y/N	N
17	Annular flow after job	Y/N	N
18	Length of rat hole	Ft	
19	Units of gas detected while circulating	Units	
20	Was lost circulation experienced at any time?	Y/N	N

1.5 Job Event Log

4.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	PS Pump Press (psi)	Recirc Density (ppg)	Driv-Side Pump Rate (bbl/min)	Comment
Event	1	Call Out	Call Out	5/17/2014	06:00:00	USER					
Event	2	Crew Leave Yard	Crew Leave Yard	5/17/2014	10:45:00	USER					
Event	3	Arrive At Loc	Arrive At Loc	5/17/2014	11:15:00	USER					RIG WAS JUST STARTING TO RUN CASING
Event	4	Rig-up Lines	Rig-up Lines	5/17/2014	11:30:00	USER					
Event	5	Rig-Up Completed	Rig-Up Completed	5/17/2014	12:00:00	USER					
Event	6	Casing on Bottom	Casing on Bottom	5/17/2014	15:00:00	USER	8.47	7.00	8.45	0.00	
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	5/17/2014	15:05:00	USER	8.44	8.00	8.45	0.00	JSA WITH ALL INVOLVED PERSONS
Event	8	Start Job	Start Job	5/17/2014	15:53:00	COM1	0.48	7.00	8.45	1.00	
Event	9	Test Lines	Test Lines	5/17/2014	15:54:10	COM1	8.53	14.00	8.45	0.00	TESTED LINES TO 2500 PSI NO VISIBLE LEAKS
Event	10	Pump Spacer 1	Pump Spacer 1	5/17/2014	15:55:55	COM1	8.49	10.00	8.45	0.00	10 BBL FRESH WATER PUMPED AT 2.5 BPM AND 45 PSI
Event	11	Pump Spacer 2	Pump Spacer 2	5/17/2014	16:00:16	COM1	8.33	46.00	13.49	2.60	12 BBL MUD FLUSH PUMPED AT 2.5 BPM AND 51 PSI
Event	12	Pump Spacer 1	Pump Spacer 1	5/17/2014	16:05:00	COM1	8.36	51.00	14.11	2.50	10 BBL FRESH WATER PUMPED AT 4BPM 73 PSI
Event	13	Pump Cement	Pump Cement	5/17/2014	16:08:02	COM1	8.31	80.00	14.04	4.00	476 SKS OR 130.5 BBL SWIFTCM MIXED @ 14.2 PPG VARIFIED BY PRESSURIZED MUD SCALES. PUMPED AT 5 BPM ADN 120 PSI
Event	14	Shutdown	Shutdown	5/17/2014	16:36:45	COM1	5.28	34.00	8.09	0.00	
Event	15	Drop Top Plug	Drop Top Plug	5/17/2014	16:38:13	COM1	-0.11	-1.00	7.56	0.00	PLUG PRE LOADED WITNESSED BY COMPANY REP
Event	16	Pump Displacement	Pump Displacement	5/17/2014	16:38:18	COM1	-0.13	-1.00	7.17	0.00	98.7 BBL FRESH WATER PUMPED AT 6 BPM AND

											243 PSI. CEMENT RETURNED TO SURFACE 87 BBL INT LEAVING US WITH 12 BBL BACK
Event	17	Bump Plug	Bump Plug	5/17/2014	17:02:59	COM1	8.36	1009.00	-0.17	0.00	PLUG LANDED AT 2 BPM AND 461 PSI
Event	18	Other	Other	5/17/2014	17:08:12	COM1	8.37	1125.00	-0.17	0.00	CHECKED FLOATS AT 1125 PSI. 5 BBL BACK FLOATS HELD.
Event	19	End Job	End Job	5/17/2014	17:10:19	COM1	8.32	5.00	-0.17	0.00	

