

HALLIBURTON

iCem® Service

Post Job Report

ANADARKO PETROLEUM CORP - EBUS

Date: Wednesday, June 18, 2014

Elliott State 40C-17HZ Surface

Sincerely,
Derek Trier

Table of Contents

1.1	Executive Summary	3
1.2	Cementing Job Summary	4
1.3	Planned Pumping Schedule	6
1.4	Job Overview	6
1.5	Job Event Log	7
2.0	Custom Graphs	Error! Bookmark not defined.
2.1	Custom Graph	Error! Bookmark not defined.
3.0	Appendix	Error! Bookmark not defined.

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Elliott State 40C-17HZ** 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	4/3		MST
Called Out	4/3		
On Location	4/3		
Job Started	4/3	1121	
Job Completed	4/3	1238	
Departed Location	4/3	1330	

1.2 Cementing Job Summary

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3363060	Quote #:	Sales Order #: 901246900
Customer: ANADARKO PETROLEUM CORP - EBUS		Customer Rep: Porter, Bob	
Well Name: Elliott State	Well #: 40C-17HZ	API/UWI #: 05-123-39081	
Field:	City (SAP): PLATTEVILLE	County/Parish: Weld	State: Colorado
Contractor: Majors		Rig/Platform Name/Num: Majors 42	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: GREGORY, JON		Srv Supervisor: FANTASIA, JOSEPH	MBU ID Emp #: 485445

Job Personnel							
HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs
ALVARADO, JOSE Angel	4.0	505918	ELAM, JUSTIN	4.0	551617	FANTASIA, JOSEPH Brandon	4.0
TOWNSON, JUSTIN T	4.0	555407					

Equipment							
HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10822531C	20 mile	11036295C	20 mile	11542778	20 mile	11633846C	20 mile

Job Hours								
Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
TOTAL			Total is the sum of each column separately					

Job				Job Times			
Formation Name				Date	Time	Time Zone	
Formation Depth (MD)	Top		Bottom	Called Out	03 - Apr - 2014	05:30	MST
Form Type		BHST		On Location	03 - Apr - 2014	09:30	MST
Job depth MD	1242. ft	Job Depth TVD	1242. ft	Job Started	03 - Apr - 2014	11:00	MST
Water Depth		Wk Ht Above Floor		Job Completed	03 - Apr - 2014	13:00	MST
Perforation Depth (MD)	From	To		Departed Loc	03 - Apr - 2014	13:30	MST

Well Data										
Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft

Tools and Accessories											
Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size
Guide Shoe					Packer					Top Plug	
Float Shoe					Bridge Plug					Bottom Plug	
Float Collar					Retainer					SSR plug set	
Insert Float										Plug Container	
Stage Tool										Centralizers	

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/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk

Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom

Summit Version: 7.3.0127

Thursday, April 03, 2014 13:39:00

HALLIBURTON

Cementing Job Summary

Stage/Plug #: 1									
1	Mud Flush		12.00	bbl	8.5	.0	.0	4	
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
	3.33 lbm/bbl	MUD FLUSH III, 40 LB SACK (101633304)							
	0 gal/bbl	FRESH WATER							
2	SwiftCem B2	SWIFTCM (TM) SYSTEM (452990)	465.0	sacks	14.2	1.54	7.64	5	7.64
	7.64 Gal	FRESH WATER							
Calculated Values		Pressures		Volumes					
Displacement	93	Shut In: Instant		Lost Returns	0	Cement Slurry	127	Pad	
Top Of Cement	0	5 Min		Cement Returns	3	Actual Displacement	93	Treatment	
Frac Gradient		15 Min		Spacers	32	Load and Breakdown		Total Job	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe	Amount	0 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
The Information Stated Herein Is Correct				Customer Representative Signature <i>Bob J. Porter</i>					

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	2.00	10.0 bbl	10.0 bbl
1	2	Spacer	Mud Flush III	8.40	4.00	12.0 bbl	12.0 bbl
1	3	Spacer	Fresh Water	8.33	2.00	10.0 bbl	10.0 bbl
1	4	Cement Slurry	SwiftCem	14.20	6.00	465.0 sacks	465.0 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 _r /100ft ²	
6	Actual mud 30 min Gel Strength	lb _r /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	
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

HALLIBURTON

ANADARKO PETROLEUM CORP - EBUS
ANADARKO ELLIOT STATE 40C-17HZ SURFACE
ANADARKO ELLIOT STATE 40C-17HZ SURFACE

3.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Combined Pump Rate (bbl/min)	Downhole Density (ppg)	Pass-Side Pump Pressure (psi)	Comment
Event	1	Start Job	Start Job	4/3/2014	11:21:22	COM5	0.00	0.75	6.00	
Event	2	Test Lines	Test Lines	4/3/2014	11:23:56	COM5	0.00	8.39	2218.00	
Event	3	Pump Spacer 1	Pump Spacer 1	4/3/2014	11:25:23	COM5	0.00	8.22	15.00	
Event	4	Pump Spacer 2	Pump Spacer 2	4/3/2014	11:29:20	COM5	4.30	8.30	73.00	
Event	5	Pump Spacer 1	Pump Spacer 1	4/3/2014	11:32:13	COM5	4.40	8.28	86.00	
Event	6	Pump Lead Cement	Pump Lead Cement	4/3/2014	11:37:58	COM5	1.80	14.30	53.00	
Event	7	Shutdown	Shutdown	4/3/2014	12:04:13	COM5	0.00	10.50	25.00	
Event	8	Drop Top Plug	Drop Top Plug	4/3/2014	12:05:45	COM5	0.00	-0.45	8.00	
Event	9	Pump Displacement	Pump Displacement	4/3/2014	12:06:44	COM5	0.00	-0.41	7.00	
Event	10	Bump Plug	Bump Plug	4/3/2014	12:33:13	USER	2.10	7.88	471.00	
Event	11	Check Floats	Check Floats	4/3/2014	12:34:58	USER	0.00	7.87	739.00	
Event	12	Pressure Up	Pressure Up	4/3/2014	12:36:11	USER	0.10	7.85	525.00	
Event	13	Check Floats	Check Floats	4/3/2014	12:38:20	USER	0.00	7.83	629.00	

4.0 Custom Graphs

4.1 Custom Graph



