

**ANADARKO PETROLEUM CORP - EBUS  
DO NOT MAIL - PO BOX 4995  
THE WOODLANDS, Texas**

Badding 16C-35HZ

**Majors 29**

## **Post Job Summary**

# **Cement Surface Casing**

Date Prepared: 4/21/2014  
Version: 1

Service Supervisor: BIRCHELL, DEVIN

Submitted by: TRIER, DEREK

# HALLIBURTON

## Wellbore Geometry

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Job Tubulars					MD		Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	
Casing	9 5/8" Surface Casing	9.63	8.921	36.00	0.00	1,318.00	43.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,318.00	0.00

# HALLIBURTON

## ***Pumping Schedule***

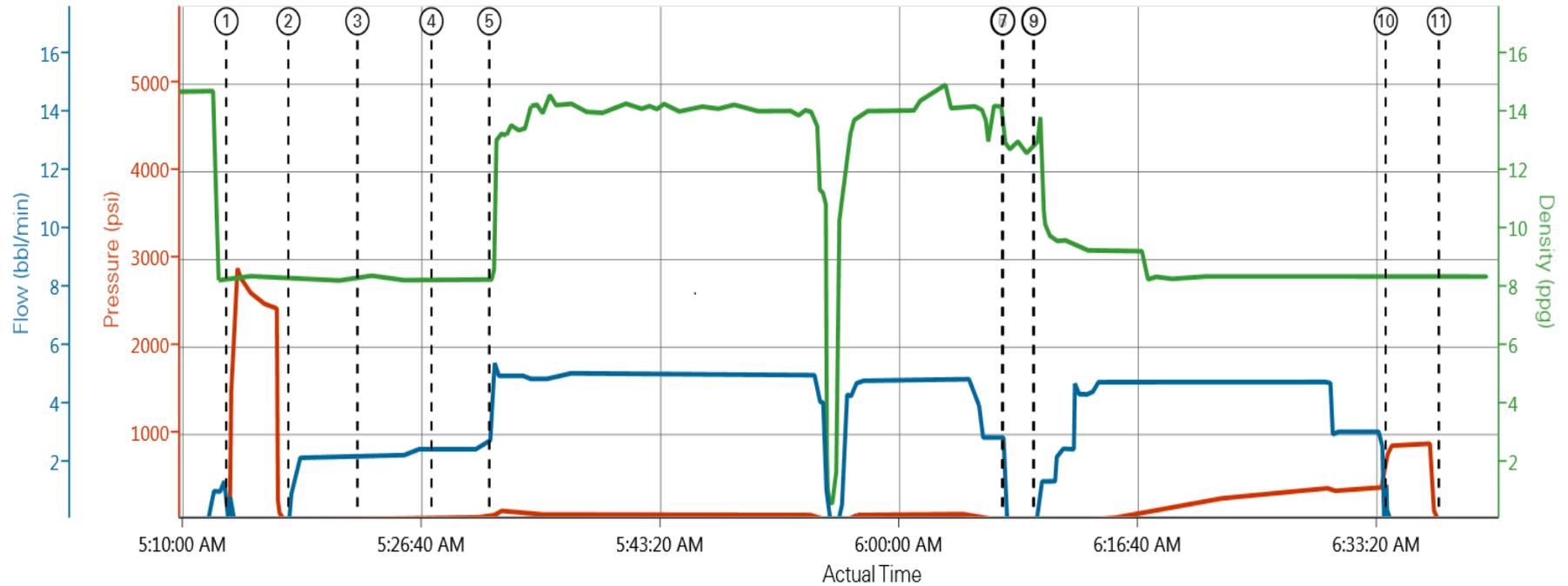
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<b>Stage /Plug #</b>	<b>Fluid #</b>	<b>Fluid Type</b>	<b>Fluid Name</b>	<b>Surface Density lbm/gal</b>	<b>Avg Rate bbl/min</b>	<b>Surface Volume</b>	<b>Downhole Volume</b>
1	1	Spacer	Fresh Water Spacer	8.33	2.30	10.0 bbl	10.0 bbl
1	2	Spacer	Mud Flush	8.40	2.30	12.0 bbl	12.0 bbl
1	1	Spacer	Fresh Water Spacer	8.33	2.50	10.0 bbl	10.0 bbl
1	3	Cement Slurry	SwiftCem B2	14.20	5.00	493.0 sacks	493.0 sacks

# HALLIBURTON

## Data Acquisition

### Anadarko Badding 16C-35HZ



Truck 1 Pr (psi)    Truck 1 Dens (ppg)    Truck 1 Slry Rt (bbl/min)

- |                             |                                |                                  |                       |
|-----------------------------|--------------------------------|----------------------------------|-----------------------|
| ① Test Lines 862;8.27;1     | ④ Pump Spacer 1 50;8.31;2.5    | ⑦ Clean Lines 6;12.78;0          | ⑩ Bump Plug 852;8.4;0 |
| ② Pump Spacer 1 5;8.28;1.3  | ⑤ Pump Lead Cement 62;8.27;2.8 | ⑧ Drop Top Plug -1;13;0          | ⑪ End Job 6;8.34;0    |
| ③ Pump Spacer 2 40;8.34;2.3 | ⑥ Shutdown 9;12.81;0           | ⑨ Pump Displacement -1;13.08;0.2 |                       |

# HALLIBURTON

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
11/15/2013 23:00		Call Out					Called Out Cement Crew For Anadarko Badding 16C-35HZ Surface
11/16/2013 01:20		Pre-Convoy Safety Meeting					Discussed Hazards On Route To Location, Weather, Other Traffic, Route
11/16/2013 01:30		Depart from Service Center or Other Site					
11/16/2013 02:00		Arrive At Loc					Arrived To Location Talked With Company Rep On Volumes, Rates, Depths
11/16/2013 02:10		Pre-Rig Up Safety Meeting					Discussed Hazards With Cement Crew For Rigging Up Iron and Water Hoses
11/16/2013 02:20		Rig-Up Equipment					
11/16/2013 04:38		Pre-Job Safety Meeting					Discussed Job Procedures With Cement and Rig Crews
11/16/2013 05:08		Rig-Up Completed					Finished Rigging Up To The Floor And Well Head
11/16/2013 05:12		Prime Pumps					Primed Pumps and Lines For Pressure Test
11/16/2013 05:13		Pressure Test				2506.0	Test Pump and Lines to 2506 psi
11/16/2013 05:16		Pump Spacer	2.3	10		38.0	Pumped 10 bbls Fresh Water Spacer
11/16/2013 05:22		Pump Spacer 1	2.3	12		40.0	Pumped 12 bbls Mud Flush III Spacer
11/16/2013 05:27		Pump Spacer 2	2.5	10		50.0	Pumped 10 bbls Fresh Water Spacer
11/16/2013 05:32		Pump Cement	5	134		130.0	Pumped 134 bbls ( 493sks) 14.2 ppg Slurry, Yield 1.53 ft <sup>3</sup> /sk Water 7.63 gal/sk
11/16/2013 06:09		Drop Plug					Dropped Plug With Driller Witnessing
11/16/2013 06:10		Pump Displacement	5				Pumped 99 bbls Fresh Water Displacement
11/16/2013 06:10		Clean Lines	5				Washed Pump and Lines on Plug
11/16/2013 06:17		Spacer Returns to Surface	5	23		120.0	10 bbls Fresh Water, 12 bbls Mud Flush III, 10 bbls Water
11/16/2013 06:21		Cement Returns to Surface	5	55		256.0	44bbls Cement Returns To Surface
11/16/2013 06:29		Slow Rate	3	89		344.0	Slowed Rate To Bump Plug
11/16/2013 06:34		Bump Plug	3	99		365.0	Bumped Plug With 365 psi Took Pressure to 868 psi
11/16/2013 06:37		Check Floats				868.0	Checked Floats, Floats Held With .5 bbls Back To Truck
11/16/2013 06:40		Job Complete					
11/16/2013 06:45		Post-Job Safety Meeting (Pre Rig-Down)					Discussed Hazards With Crew For Rigging Down Iron and Water Hoses
11/16/2013 06:50		Rig-Down Equipment					
11/16/2013 07:30		Rig-Down Completed					
11/16/2013 07:35		Pre-Convoy Safety Meeting					Discussed Hazards On Route To Service Center, Weather, Other Traffic, Route
11/16/2013 07:40		Depart Location for Service Center or Other Site					Thank You For Using Halliburton Energy Services

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 300466		<b>Ship To #:</b> 3198511		<b>Quote #:</b>		<b>Sales Order #:</b> 900889722	
<b>Customer:</b> ANADARKO PETROLEUM CORP - EBUS				<b>Customer Rep:</b> Case, Randy			
<b>Well Name:</b> Badding			<b>Well #:</b> 16C-35HZ		<b>API/UWI #:</b> 05-123-38337		
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> FORT LUPTON		<b>County/Parish:</b> Weld		<b>State:</b> Colorado	
<b>Contractor:</b> Majors			<b>Rig/Platform Name/Num:</b> Majors 29				
<b>Job Purpose:</b> Cement Surface Casing							
<b>Well Type:</b> Development Well				<b>Job Type:</b> Cement Surface Casing			
<b>Sales Person:</b> PLIENESS, RYAN			<b>Srvc Supervisor:</b> BIRCHELL, DEVIN			<b>MBU ID Emp #:</b> 466993	

**Job Personnel**

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BIRCHELL, DEVIN Ray	0.0	466993	MILLER, GEOFFREY Alan	0.0	460232	SAUCEDA, JIMMY	0.0	477592
VIATOR, JASON R.	0.0	550394						

**Job**

**Job Times**

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
<b>Formation Depth (MD)</b>			<b>On Location</b>	15 - Nov - 2013	23:00	MST
<b>Form Type</b>		<b>BHST</b>	<b>Job Started</b>	16 - Nov - 2013	02:00	MST
<b>Job depth MD</b>	1318. ft	<b>Job Depth TVD</b>	<b>Job Completed</b>	16 - Nov - 2013	05:13	MST
<b>Water Depth</b>		<b>Wk Ht Above Floor</b>	<b>Departed Loc</b>	16 - Nov - 2013	06:40	MST
<b>Perforation Depth (MD)</b>	<i>From</i>	<i>To</i>				

**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	Bottom TVD ft
13 1/2" Open Hole Section				13.5				.	1318.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1318.		

**Fluid Data**

**Stage/Plug #: 1**

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	
1	Fresh Water Spacer		10.0	bbl	8.33			2.5		
2	Mud Flush		10.0	bbl	8.4			2.3		
	3.5 lbm/bbl	MUD FLUSH III, 40 LB SACK (101633304)								
	42 gal/bbl	MUD FLUSH III - SBM (528788)								
1	Fresh Water Spacer		10.0	bbl	8.33			2.5		
3	SwiftCem B2	SWIFTCEM (TM) SYSTEM (452990)	493.0	sacks	14.2	1.53	7.63	5.0	7.63	
	7.63 Gal	FRESH WATER								

**Calculated Values**

**Pressures**

**Volumes**

Displacement	Shut In: Instant	Lost Returns	Cement Slurry	Pad
<b>Top Of Cement</b>	5 Min	Cement Returns	44	<b>Actual Displacement</b> 99
<b>Frac Gradient</b>	15 Min	Spacers	32	<b>Load and Breakdown</b>
				<b>Total Job</b>

Rates											
Circulating		Mixing		Displacement	5.0	Avg. Job					
Cement Left In Pipe	Amount	43 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							

