

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

Thomason 22C-31HZ

**MAJORS 29**

## **Post Job Summary**

# **Cement Surface Casing**

Date Prepared: 1/22/2014  
Version: 1

Service Supervisor: OTERI, VAUGHN

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	1,524.00	42.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,524.00	0.00

# HALLIBURTON

## ***Pumping Schedule***

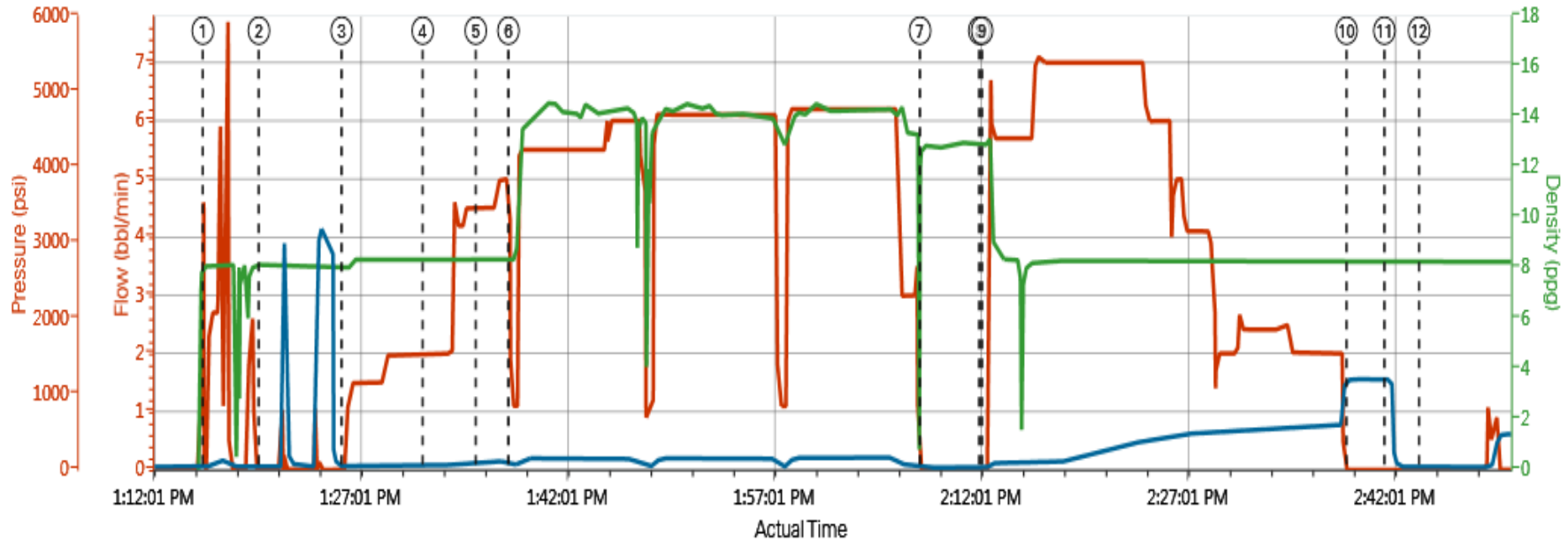
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<b>Stage /Plug #</b>	<b>Fluid #</b>	<b>Fluid Type</b>	<b>Fluid Name</b>	<b>Surface Density lbm/gal</b>	<b>Avg Rate bbl/min</b>	<b>Surface Volume</b>	<b>Downhole Volume</b>
1	1	Spacer	Fresh Water Spacer	8.33	2.00	10.0 bbl	10.0 bbl
1	2	Spacer	Mud Flush	8.40	2.00	12.0 bbl	12.0 bbl
1	1	Spacer	Fresh Water Spacer	8.33	4.50	10.0 bbl	10.0 bbl
1	3	Cement Slurry	SwiftCem B2	14.20	5.50	543.0 sacks	543.0 sacks

# HALLIBURTON

## Data Acquisition

### ANADARKO THOMASON 22C-31HZ



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

- |                           |                             |                                |                         |
|---------------------------|-----------------------------|--------------------------------|-------------------------|
| ① Start Job 0;8.13;45     | ④ Pump Spacer 2 2;8.3;65    | ⑦ Shutdown 0;12.92;33          | Ⓜ Bump Plug 0;8.26;1197 |
| ② Test Lines 0;8.16;44    | ⑤ Pump Spacer 1 4.5;8.27;93 | ⑧ Drop Top Plug 0;12.92;34     | Ⓜ Other 0;8.33;1196     |
| ③ Pump Spacer 1 0;8.08;43 | ⑥ Pump Cement 1.1;8.32;83   | ⑨ Pump Displacement 0;12.87;34 | Ⓜ End Job 0;8.27;38     |

# HALLIBURTON

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
10/13/2013 05:15		Call Out					CALL OUT FROM ARS OFFICE
10/13/2013 08:45		Arrive at Location from Service Center					ARRIVE ON LOCATION MET WITH COMPANY REP ADVISED THAT THEY HAD SOME PIPE TO RUN IN THE HOLE STILL, COMPANY REP ASKED FOR MSDS ON ALL ADDITIVES, PRINTED ALL MATERIALS BROUGHT TO LOCATION
10/13/2013 11:30		Casing on Bottom					ADVISED THAT CASING WAS ON BOTTOM FROM RIG CREW
10/13/2013 13:13		Start Job					HELD SAFETY MEETING WITH ALL HANDS ON LOCATION TO DISCUSS JOB PROCESS AND HAZARDS
10/13/2013 13:23		Test Lines					PRESSURE TESTED PUMPS AND LINES, FOUND LEAK IN IRON, BLED PRESSURE OFF AND REPLACED GASKET, RE TESTED PUMPS AND LINES AND PRESSURE HELD GOOD AND FOUND NO LEAKS.
10/13/2013 13:29		Pump Spacer 1	2	10		66.0	PUMPED FRESH WATER FROM FRAC TANK
10/13/2013 13:35		Pump Spacer 2	2	10		90.0	MIXED MUD FLUSH WITH FRESH WATER
10/13/2013 13:39		Pump Spacer 1	4.5	10		70.0	PUMPED FRESH WATER FROM FRAC TANK
10/13/2013 13:42		Pump Cement	5.5	148		140.0	MIXED 14.2PPG SWIFTCEM WITH FRESH WATER
10/13/2013 14:11		Shutdown					SHUT DOWN TO REMOVE SWEDGE TO DROP PLUG WITNESSED BY COMPANY REP
10/13/2013 14:16		Drop Top Plug					
10/13/2013 14:16		Pump Displacement	7	114.5		300.0	PUMPED FRESH WATER FROM FRAC TANK
10/13/2013 14:42		Bump Plug	2			590.0	BUMP PLUG 500 PSI OVER FINAL PUMP PRESSURE
10/13/2013 14:45		Check Floats				1200.0	RELEASE PRESSURE BACK TO PUMP TRUCK, FLOATS DID NOT HOLD, PUMPED 500PSI ON WELL AND CLOSED IT IN.
10/13/2013 14:48		End Job					

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 300466		<b>Ship To #:</b> 3110676		<b>Quote #:</b>		<b>Sales Order #:</b> 900817150	
<b>Customer:</b> ANADARKO PETROLEUM CORP - EBUS				<b>Customer Rep:</b> Case, Randy			
<b>Well Name:</b> Thomason			<b>Well #:</b> 22C-31HZ		<b>API/UWI #:</b>		
<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> FLING, MATTHEW			<b>Srvc Supervisor:</b> OTERI, VAUGHN			<b>MBU ID Emp #:</b> 443828	

**Job Personnel**

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
HARRAH, THADDEUS Gregory	0.0	552592	OTERI, VAUGHN Steeves	0.0	443828	PRICE, jp	0.0	777779
WHIPPLE, WESLEY Morgan	0.0	518611						

**Equipment**

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10248053C	10 mile	10829457	10 mile	10972458	10 mile	11019275	10 mile
11542778	10 mile						

**Job**

**Job Times**

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
<b>Formation Depth (MD)</b>			<b>On Location</b>	13 - Oct - 2013	05:15	MST
<b>Form Type</b>		BHST	<b>Job Started</b>	13 - Oct - 2013	08:45	MST
<b>Job depth MD</b>	1524. ft	<b>Job Depth TVD</b>	1524. ft	<b>Job Started</b>	13 - Oct - 2013	13:13
<b>Water Depth</b>		<b>Wk Ht Above Floor</b>	4. ft	<b>Job Completed</b>	13 - Oct - 2013	14:48
<b>Perforation Depth (MD)</b>	<i>From</i>	<i>To</i>	<b>Departed Loc</b>	13 - Oct - 2013	16:00	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	Bottom TVD ft
13 1/2" Open Hole Section				13.5				.	1524.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1524.		

**Sales/Rental/3<sup>rd</sup> Party (HES)**

Description	Qty	Qty uom	Depth	Supplier
CMT CASING EQUIPMENT BOM	1	JOB		
MILEAGE FOR CEMENTING CREW,ZI	30	MI		
ZI FUEL SURCHG-CARS/PICKUPS<1 1/2TON	30	MI		
KIT,HALL WELD-A	1	EA		
Description	Qty	Qty uom	Depth	Supplier
CNTRLZR, 9 5/8"x13 3/4',#500-0963-1375	7	EA		
BASKET - CEMENT - 9-5/8 CSG X 12-1/4	1	EA		
PLUG,CMTG, TOP,9 5/8,HWE,8.16 MIN/9.06 MA	1	EA		
COLLAR-STOP-9 5/8"-FRICTION-HINGED	2	EA		

**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		10.00	bbl	8.33			2.0	
2	Mud Flush		12.00	bbl	8.4			2.0	
3.33 lbm/bbl		MUD FLUSH III, 40 LB SACK (101633304)							
42 gal/bbl		MUD FLUSH III - SBM (528788)							
1	Fresh Water Spacer		10.00	bbl	8.33			4.5	
3	SwiftCem B2	SWIFTCEM (TM) SYSTEM (452990)	543.0	sacks	14.2	1.54	7.66	5.5	7.66
7.66 Gal		FRESH WATER							
Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement	114.5	Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe	Amount	42 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					

