

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

Grenemyrer 13N-3HZ

**Majors 41**

## **Post Job Summary**

# **Cement Surface Casing**

Prepared for:  
Date Prepared: 11/19/2013  
Version: 1

Service Supervisor: PICKELL, CHRISTOPHER

Submitted by: FINNEY, SEAN

**HALLIBURTON**

# 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	1,068.00	43.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,078.00	0.00

# HALLIBURTON

## 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 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	3.00	10.0 bbl	10.0 bbl
1	3	Cement Slurry	SwiftCem B2	14.20	5.00	406.0 sacks	406.0 sacks

## Fluids Pumped

**Stage/Plug # 1 Fluid 1:** Fresh Water Spacer  
DUMMY MUD / FLUSH / SPACER SBC MATERIAL

Fluid Density: 8.33 lbm/gal  
Fluid Volume: 10.00 bbl  
Pump Rate: 2.00 bbl/min

**Stage/Plug # 1 Fluid 2:** Mud Flush  
DUMMY MUD / FLUSH / SPACER SBC MATERIAL  
3.5 lbm/bbl Mud Flush III  
42 gal/bbl Mud Flush III

Fluid Density: 8.40 lbm/gal  
Fluid Volume: 12.00 bbl  
Pump Rate: 2.00 bbl/min

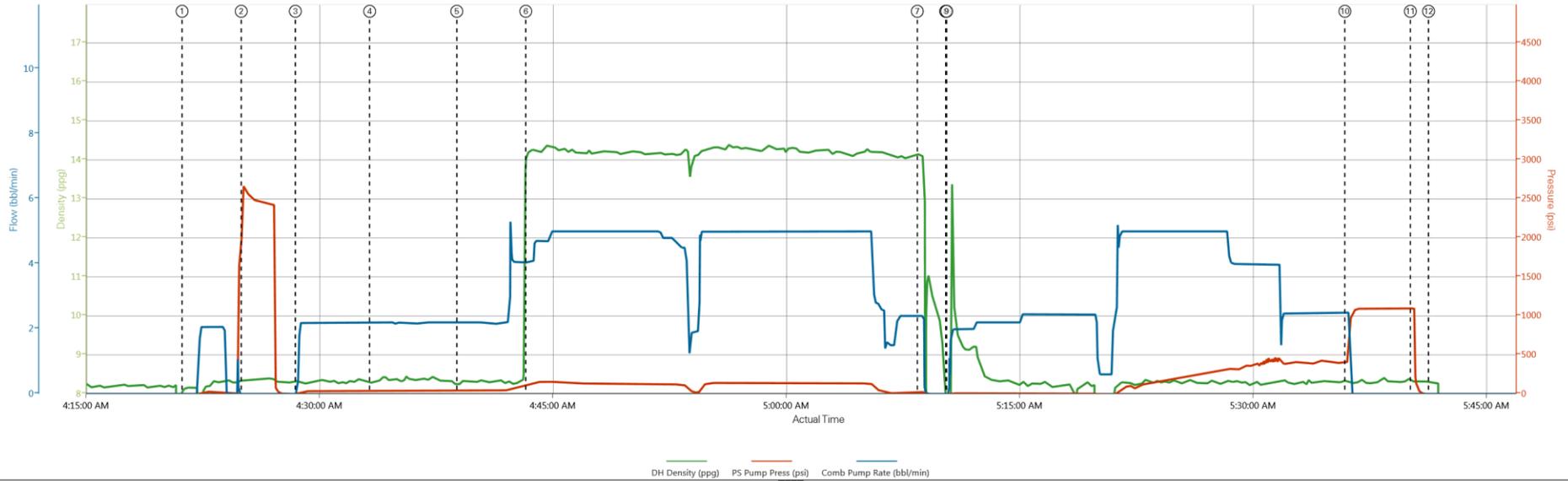
**Stage/Plug # 1 Fluid 3:** SwiftCem B2  
SWIFTCEM (TM) SYSTEM

Fluid Weight: 14.20 lbm/gal  
Slurry Yield: 1.53 ft<sup>3</sup>/sack  
Total Mixing Fluid: 7.63 Gal  
Surface Volume: 406.0 sacks  
Sacks: 406.0 sacks  
Calculated Fill: 900.00 ft  
Calculated Top of Fluid: 0.00 ft

# HALLIBURTON

## Data Acquisition

GRENEMYRER 13N-3HZ 9 5/8" SURFACE



- ① Start Job 8.12;-7,0      ④ Pump Mudflush 8.28;38;2.2      ⑦ Shutdown 14.12;24;2.4      ⑩ Bump Plug 8.32;406;2.5
- ② Test Lines 8.35;2669;0      ⑤ Pump Water 8.24;41;2.2      ⑧ Drop Top Plug 7.28;-8,0      ⑫ Check Floats 8.33;1096;0
- ③ Pump Water 8.33;-1,0      ⑥ Pump Swiftcem 14.2# 14.2;121;4.1      ⑨ Pump Displacement 6.73;-8,0      ⑪ End Job 8.31;-4,0

# HALLIBURTON

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
11/02/2013 21:00		Call Out					CREW CALLED OUT TO AT 2100 TO BE ON LOCATION AT 0000. CREW WAS PICKELL, JEWELL, SIMMONS. CREW WAS ON ANOTHER JOB AT TIME OF CALL OUT.
11/03/2013 01:25		Depart from Service Center or Other Site					LEAVE MAJOR 42 FOR MAJOR 41. SIMMONS SENT BACK TO GET BULK TRUCK AND MUDFLUSH
11/03/2013 01:30		Arrive At Loc					ARRIVE AT LOCATION 1.5 HOURS LATE. RIG STILL RUNNING CASING
11/03/2013 01:40		Rig-Up Equipment					SET UP RAIN FOR RENT CONTAINMENT. SPOT IN PUMP TRUCK AND RIG UP LINES. BULK TRUCK ARRIVED AT 0215
11/03/2013 03:45		Pre-Job Safety Meeting					SAFETY MEETING WITH ALL PERSONEL ON LOCATION TO DISCUSS JOB SAFETY AND PROCEDURE
11/03/2013 04:21		Start Job					QUICK LATCH PLUG CONTAINER USED ON JOB
11/03/2013 04:25		Test Lines	1	3		2500.0	PRESSURE TEST LINES TO 2500 PSI. CHECK FOR VISIBLE LEAKS AND PRESSURE LOSS
11/03/2013 04:28		Pump Spacer 1	2	10		45.0	PUMP WATER. RETURNS BEGAN WITH 1 BBL AWAY
11/03/2013 04:33		Pump Spacer 2	2	12		55.0	PUMP MUDFLUSH
11/03/2013 04:38		Pump Spacer 1	3	10		70.0	PUMP WATER
11/03/2013 04:43		Pump Cement	5	111.4		160.0	PUMP SWIFCEM CEMENT 406 SKS 14.2 PPG 1.54 CUFT/SK 7.67 GAL/SK
11/03/2013 05:08		Shutdown					WASH PUMPS AND LINES ON TOP OF THE PLUG
11/03/2013 05:10		Drop Top Plug					PLUG PRELOADED. WITNESSED BY COMPANY MAN
11/03/2013 05:10		Pump Displacement	5	79.4		450.0	PUMP DISPLACEMENT USING WATER
11/03/2013 05:36		Bump Plug	2.5			406.0	CALCULATED PRESSURE TO LAND WAS 312. PLUG LANDED WITH 406 PSI GOING 500 PSI OVER
11/03/2013 05:40		Check Floats				1096.0	PRESSURE WAS HELD FOR 4 MINUTES THEN RELEASED. FLOATS HELD. 1/2 BBL BACK TO TANKS
11/03/2013 05:41		End Job					17 BBL OF CEMENT BACK TO SURFACE
11/03/2013 05:45		Pre-Rig Down Safety Meeting					SAFETY MEETING TO DISCUSS RIG DOWN
11/03/2013 05:50		Rig-Down Equipment					BLOW OUT LINES. RIG DOWN ALL EQUIPMENT. NO SPILLS
11/03/2013 07:00		Depart Location for Service Center or Other Site					LEAVE LOCATION FOR THE YARD

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 300466	<b>Ship To #:</b> 3195805	<b>Quote #:</b>	<b>Sales Order #:</b> 900868053
<b>Customer:</b> ANADARKO PETROLEUM CORP - EBUS		<b>Customer Rep:</b> Seacrest, Allen	
<b>Well Name:</b> Grenemyrer		<b>Well #:</b> 13N-3HZ	<b>API/UWI #:</b>
<b>Field:</b> WATTENBERG	<b>City (SAP):</b> BRIGHTON	<b>County/Parish:</b> Weld	<b>State:</b> Colorado
<b>Contractor:</b> Majors		<b>Rig/Platform Name/Num:</b> Majors 41	
<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> PICKELL, CHRISTOPHER	<b>MBU ID Emp #:</b> 396838

**Job Personnel**

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
JEWELL, WILLIAM Uris	0.0	503358	PICKELL, CHRISTOPHER Lee	0.0	396838	SIMMONS, KEATON J	0.0	524850

**Equipment**

HES Unit #	Distance-1 way						
10866493C	7 mile	11605597	7 mile	11645063	7 mile	11667703C	7 mile

**Job Hours**

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
<b>TOTAL</b>								
<i>Total is the sum of each column separately</i>								

**Job**

**Job Times**

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
<b>Formation Depth (MD)</b>			<b>On Location</b>	02 - Nov - 2013	21:00	MST
<b>Form Type</b>		BHST	<b>On Location</b>	03 - Nov - 2013	01:30	MST
<b>Job depth MD</b>	1078. ft	<b>Job Depth TVD</b>	<b>Job Started</b>	03 - Nov - 2013	04:21	MST
<b>Water Depth</b>		<b>Wk Ht Above Floor</b>	<b>Job Completed</b>	03 - Nov - 2013	05:41	MST
<b>Perforation Depth (MD)</b>	<i>From</i>	<i>To</i>	<b>Departed Loc</b>	03 - Nov - 2013	07:00	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				.	1078.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1068.		

**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	20	MI		
ZI FUEL SURCHG-CARS/PICKUPS<1 1/2TON	20	MI		
KIT,HALL WELD-A	1	EA		
CNTRLZR, 9 5/8"x13 3/4',#500-0963-1375	6	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		
Description	Qty	Qty uom	Depth	Supplier

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 ft3/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			3.0	
	3.5 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			3.0	
3	SwiftCem B2	SWIFTCEM (TM) SYSTEM (452990)	406.0	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	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		79.4	Treatment
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
Rates									
Circulating			Mixing			Displacement			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					

