

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

Howard 2N-33HZR

MAJORS 29

## **Post Job Summary** **Cement Surface Casing**

Prepared for:  
Date Prepared: 9/27/2013  
Version: 1

Service Supervisor: LAVALLEY, LARRY

Submitted by: FINNEY, SEAN

**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	1,020.00	42.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,030.00	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	5.00	10.0 bbl	10.0 bbl
1	2	Spacer	Mud Flush	8.40	5.00	12.0 bbl	12.0 bbl
1	3	Cement Slurry	SwiftCem B2	14.20	5.00	388.0 sacks	388.0 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: 5.00 bbl/min

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

Fluid Density: 8.40 lbm/gal  
Fluid Volume: 12.00 bbl  
Pump Rate: 5.00 bbl/min

**Stage/Plug # 1      Fluid 3:**      SwiftCem B2  
SWIFTCM (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: 388.0 sacks  
Sacks: 388.0 sacks  
Calculated Fill: 900.00 ft  
Calculated Top of Fluid: 0.00 ft  
Pump Rate: 5.00 bbl/min



# HALLIBURTON

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)	Comments
09/19/2013 00:00		Start Job						ARRIVED LOCATION AND DID SITE ASSESSMENT.CALLED HOTSHOTS TO SET UP CONTAINMENT,HAD CREW CHAIN UP, PUMP TRUCK GOT STUCK IN MUD HAD TO GET A WINCH TRUCK OUT TO LOCATION.
09/19/2013 07:23		Test Lines					2000.0	FRESH WATER WITH NO ADDITIVES
09/19/2013 07:27		Pump Spacer 1	5	10			15.0	FRESH WATER WITH NO ADDITIVES
09/19/2013 07:32		Pump Spacer 2	5	12			25.0	FRESH WATER WITH MUDFLUSH III ADDED
09/19/2013 07:50		Pump Spacer 1	5	10			73.0	FRESH WATER WITH NO ADDITIVES
09/19/2013 08:56		Pump Lead Cement	5	106			117.0	388 SKS SWIFTCM B2 MIXED @ 14.2 PPG YIELD 1.54 FT3/FT AND 7.66 GAL/SK
09/19/2013 09:20		Shutdown						
09/19/2013 09:20		Drop Top Plug						PRELOADED HWE TOP PLUG
09/19/2013 09:21		Pump Displacement	5	76			376.0	FRESH WATER WITH NO ADDITIVES. CAUGHT CEMENT @30 BBLS AWAY AND SPACER RETURNED TO SURFACE @ 45 BBLS AWAY AND 0 BBLS CEMENT BACK TO SURFACE.
09/19/2013 09:35		Bump Plug	3				725.0	CALCULATED PRESSURE TO LAND WAS 372 AND PRESSURE TO LIFT WAS 412 PSI
09/19/2013 13:00		Other	1	26			27.0	NO CEMENT TO SURFACE HAD TO ORDER 200 SKS CLASS G NEAT MIXED @ 15.8 PPG YIELD 1.15 FT3/SK AND 5.0 GAL/SK. ONLY USED 130 SKS.PUMPED DOWN 1 INCH PIPE. GOT 6.5 BBLS BACK TO SURFACE.
09/19/2013 13:30		End Job						HELD SAFETY MEETING TO RIG DOWN AND DEPART LOCATION

## The Road to Excellence Starts with Safety

<b>Sold To #:</b> 300466		<b>Ship To #:</b> 3005207		<b>Quote #:</b>		<b>Sales Order #:</b> 900735257	
<b>Customer:</b> ANADARKO PETROLEUM CORP - EBUS				<b>Customer Rep:</b> Balkenbush, Bob			
<b>Well Name:</b> Howard			<b>Well #:</b> 2N-33HZR		<b>API/UWI #:</b> 05-123-36927		
<b>Field:</b> WATTENBURG		<b>City (SAP):</b> DACONO		<b>County/Parish:</b> Weld		<b>State:</b> Colorado	
<b>Contractor:</b> MAJORS			<b>Rig/Platform Name/Num:</b> majors29				
<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> LAVALLEY, LARRY			<b>MBU ID Emp #:</b> 419296	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BROOM, KENDALL L	0.0	524682	LANGE, TIMOTHY Paul	0.0	520811	LAVALLEY, LARRY P	0.0	419296
WILEY, JAMES A	0.0	440080						

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10977079	6 mile	11488570C	6 mile	11518549	6 mile	11562544C	6 mile

## Job Hours

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

## Job

## Job Times

Formation Name							Date	Time	Time Zone
Formation Depth (MD)	Top			Bottom		Called Out	18 - Sep - 2013	21:30	MST
Form Type				BHST		On Location	19 - Sep - 2013	00:00	MST
Job depth MD	1030. ft		Job Depth TVD		1030. ft	Job Started	19 - Sep - 2013	07:00	MST
Water Depth				Wk Ht Above Floor	6. ft	Job Completed	19 - Sep - 2013	13:30	MST
Perforation Depth (MD)	From			To		Departed Loc	19 - Sep - 2013	14:15	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				.	1030.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1020.		

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		
CNTRLZR, 9 5/8x13 3/4,#500-0963-1375	7	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		

Summit

Friday, September 27, 2013 15:08:00

Version:

BASKET - CEMENT - 9-5/8 CSG X 12-1/4						1	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	.0	42.0	5.0	
2	Mud Flush		12.00	bbl	8.4	.0	42.0	5.0	
3.33 lbm/bbl		MUD FLUSH III, 40 LB SACK (101633304)							
42 gal/bbl		MUD FLUSH III - SBM (528788)							
3	SwiftCem B2	SWIFTCM (TM) SYSTEM (452990)	388.0	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		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					

