HALLIBURTON

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

Howard Federal 40N-22HZ

MAJORS 41

Post Job Summary
Cement Surface Casing

Prepared for:
Date Prepared: 10/30/2013
Version: 1

Service Supervisor: PICKELL, CHRISTOPHER

Submitted by: FINNEY, SEAN

HALLIBURTON

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Wellbore Geometry

Job Tubulars					MD		Shoe Joint Length
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	ft
Casing	9 5/8" Surface Casing	9.63	8.921	36.00	0.00	1,219.00	43.50
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,222.00	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	2.00	10.0 bbl	10.0 bbl
1	3	Cement Slurry	SwiftCem B2	14.20	5.00	458.0 sacks	458.0 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

3.33 lbm/bbl Mud Flush III

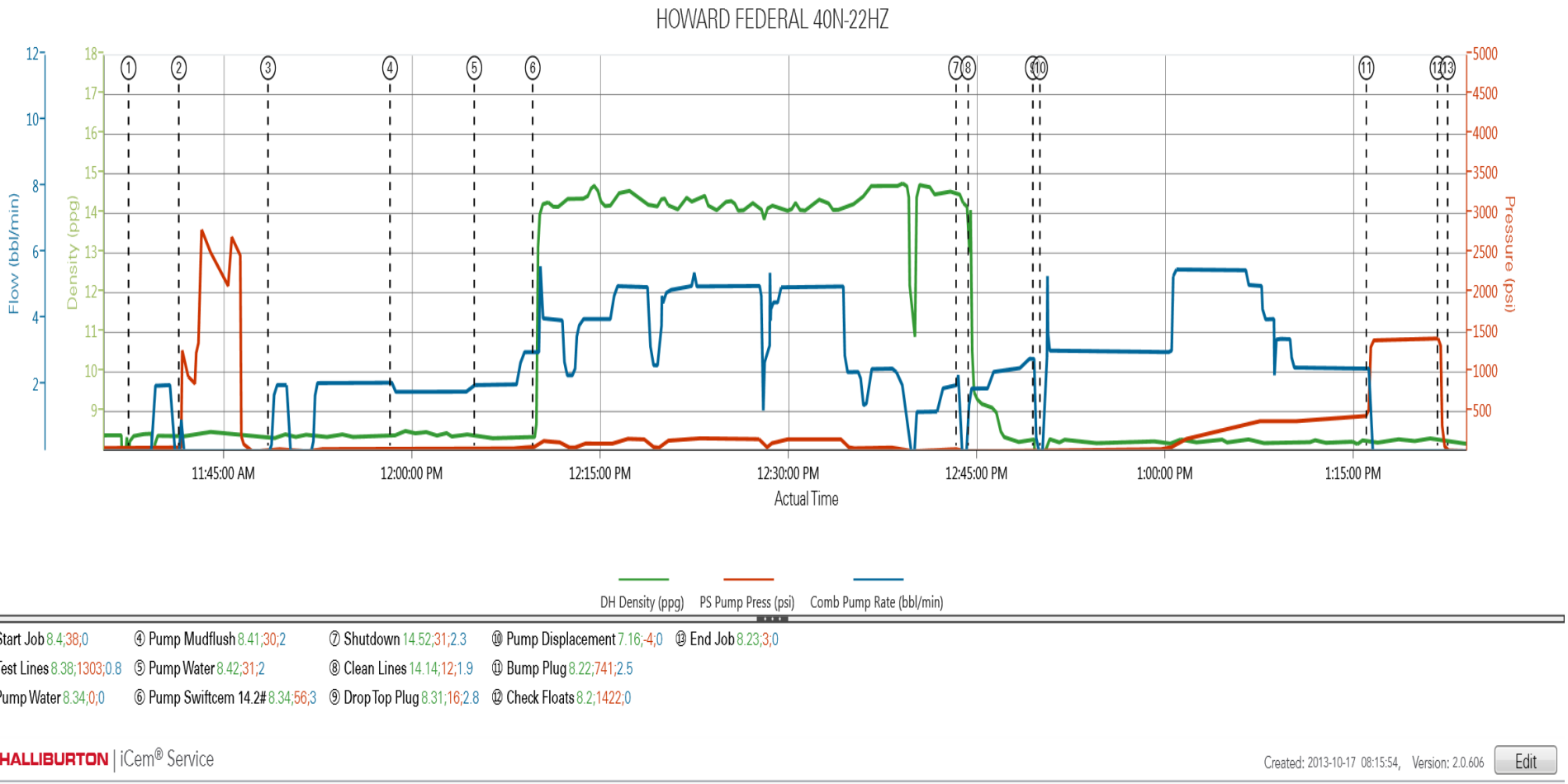
42 gal/bbl Mud Flush III

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

Stage/Plug # 1 **Fluid 3:** SwiftCem B2

SWIFTCEM (TM) SYSTEM

Fluid Weight:	14.20 lbm/gal
Slurry Yield:	1.54 ft3/sack
Total Mixing Fluid:	7.66 Gal
Surface Volume:	458.0 sacks
Sacks:	458.0 sacks
Calculated Fill:	900.00 ft
Calculated Top of Fluid:	0.00 ft


HOWARD FEDERAL 40N-22HZ
Flow (bbl/min)
Density (ppg)
Pressure (psi)
11:45:00 AM
12:00:00 PM
12:15:00 PM
12:30:00 PM
12:45:00 PM
1:00:00 PM
1:15:00 PM
Actual Time
DH Density (ppg)
PS Pump Press (psi)
Comb Pump Rate (bbl/min)
① Start Job 8.4;38;0
② Test Lines 8.38;1303;0.8
③ Pump Water 8.34;0;0
④ Pump Mudflush 8.41;30;2
⑤ Pump Water 8.42;31;2
⑥ Pump Swiftcem 14.2# 8.34;56;3
⑦ Shutdown 14.52;31;2.3
⑧ Clean Lines 14.14;12;1.9
⑨ Drop Top Plug 8.31;16;2.8
⑩ Pump Displacement 7.16;-4;0
⑪ Bump Plug 8.22;741;2.5
⑫ Check Floats 8.2;1422;0
⑬ End Job 8.23;3;0
HALLIBURTON | iCem® Service
Created: 2013-10-17 08:15:54, Version: 2.0.606
Edit

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)		Comments
10/17/2013 03:00		Call Out							CREW CALLED OUT AT 0300. PICKELL, JEWELL, VIATOR, PRICE
10/17/2013 06:00		Depart from Service Center or Other Site							PRE JOURNEY SAFETY MEETING CONDUCTED THEN WE LEFT FOR LOCATION
10/17/2013 06:30		Arrive At Loc							ARRIVE AT LOCATION 1 HOUR EARLY. RIG HAD BEGAN RUNNING CASING AT 0600. CONTAINMENT WAS NOT ON LOCATION, WAS TOLD IT WAS. CALLED HOT SHOTS FOR CONTAINMENT. THEY ARRIVED AT 0715.
10/17/2013 07:15		Rig-Up Equipment							HAZARD HUNT PERFORMED. WATER TEST DONE. SPOTTED IN TRUCKS AND RIGGED UP. CONTAINMENT SET UP. SPOTTED IN AND RIGGED UP. AFTER RIGGING UP WAS INFORMED WE HAD TO HAVE TRUCKS FURTHER FROM RIG SO ALL TRUCKS WERE MOVED TO EDGE OF LOCATION
10/17/2013 11:15		Pre-Job Safety Meeting							SAFETY MEETING WITH ALL PERSONEL ON LOCATION TO DISCUSS JOB SAFETY AND PROCEDURE
10/17/2013 11:37		Start Job							SCREW IN PLUG CONTAINER USED FOR JOB
10/17/2013 11:41		Test Lines	1	3				2500.0	PRESSURE TEST LINES TO 2500 PSI. CHECK FOR VISIBLE LEAKS AND PRESSURE LOSS
10/17/2013 11:48		Pump Spacer 1	2	10				25.0	PUMP WATER. RETURNS BEGAN WITH 13 BBL AWAY
10/17/2013 11:58		Pump Spacer 2	2	12				25.0	PUMP MUDFLUSH
10/17/2013 12:05		Pump Spacer 1	2	10				30.0	PUMP WATER
10/17/2013 12:09		Pump Cement	5	125.6				120.0	PUMP SWIFTCEM CEMENT 458 SKS 14.2 PPG 1.54 CUFT/SK 7.66 GAL/SK. ADC SYSTEM WAS WORKING SPERATICALLY SO WE WENT TO HAND MIXING WITH TOGGLE SWITCHES
10/17/2013 12:43		Shutdown							
10/17/2013 12:44		Clean Lines							WASH PUMPS AND LINES TO THE PIT
10/17/2013 12:49		Drop Top Plug							PLUG PRELOADED IN PLUG CONTAINER
10/17/2013 12:50		Pump Displacement	5	91.9				450.0	PUMP DISPLACEMENT USING WATER. HAD TO PUMP 1 BBL OVER CALCULATED TO LAND THE PLUG
10/17/2013 13:16		Bump Plug	2.5					475.0	CALCULATED PRESSURE TO LAND WAS 359. PLUG LANDED WITH 475 PSI TAKING IT 1000 PSI OVER TO 1500.
10/17/2013 13:21		Check Floats							PRESSURE WAS HELD FOR 5 MINUTES THEN RELEASED. FLOATS HELD. 1/2 BBL BACK TO TRUCK
10/17/2013 13:22		End Job							12 BBL OF CEMENT TO SURFACE. WEAK RETURNS THROUGH THE ENTIRE JOB
10/17/2013 13:25		Pre-Rig Down Safety Meeting							SAFETY MEETING TO DISCUSS RIG DOWN SAFETY AND PROCEDURE
10/17/2013 13:45		Rig-Down Equipment							ALL LINES BLOWN OUT THEN EQUIPMENT WAS RIGGED DOWN
10/17/2013 14:30		Depart Location for Service Center or Other Site							SAFETY HUDDLE TO DISCUSS JOURNEY THEN LEFT LOCATION FOR THE YARD

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300466	**Ship To #:** 3110973	**Quote #:**	**Sales Order #:** 900827749
Customer: ANADARKO PETROLEUM CORP - EBUS		**Customer Rep:** Heresh, Larry	
Well Name: Howard Federal	**Well #:** 40N-22HZ		**API/UWI #:** 05-123-38235
Field: Wattenberg	**City (SAP):** DACONO	**County/Parish:** Weld	**State:** Colorado
Contractor: MAJORS	**Rig/Platform Name/Num:** MAJORS 41		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	**Job Type:** Cement Surface Casing		
Sales Person: PLIENESS, RYAN	**Srvc Supervisor:** PICKELL, CHRISTOPHER	**MBU ID Emp #:** 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	PRICE, JEREMIAH	0.0	123456
VIATOR, JASON R.	0.0	550394						

Equipment

HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*
10679720C	6 mile	11064535	6 mile	11338223	6 mile	11542778	6 mile
11605597	6 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

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	1222. ft	**Job Depth TVD**	1222. ft		
Water Depth		**Wk Ht Above Floor**	4. ft		
Perforation Depth (MD)	*From*		**To**		

Job Times

	Date	Time	Time Zone
Called Out	17 - Oct - 2013	03:00	MST
On Location	17 - Oct - 2013	06:30	MST
Job Started	17 - Oct - 2013	11:37	MST
Job Completed	17 - Oct - 2013	13:22	MST
Departed Loc	17 - Oct - 2013	14:30	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	Bottom TVD ft
13 1/2" Open Hole Section				13.5				.	1222.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1219.		

Sales/Rental/3rd 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 5/8'x13 3/4',#500-0963-1375	7	EA		
BASKET - CEMENT - 9-5/8 CSG X 12-1/4	1	EA		
Description	**Qty**	**Qty uom**	**Depth**	**Supplier**

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 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			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			2.0	
3	SwiftCem B2	SWIFTCEM (TM) SYSTEM (452990)	458.0	sacks	14.2	1.54	7.66	5.0	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	12	Actual Displacement	91.9	Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	

Rates

Circulating		*Mixing*		*Displacement*		Avg. Job	

Cement Left In Pipe	Amount	***43.5 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***