

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

Highway 160 15C-2HZ

Majors 29

Post Job Summary **Cement Surface Casing**

Date Prepared: 11/17/2013
Version: 1

Service Supervisor: BARRAS, JOSEPH

Submitted by: TRIER, DEREK

HALLIBURTON

HALLIBURTON

Wellbore Geometry

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	1,239.00	42.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,242.00	0.00

HALLIBURTON

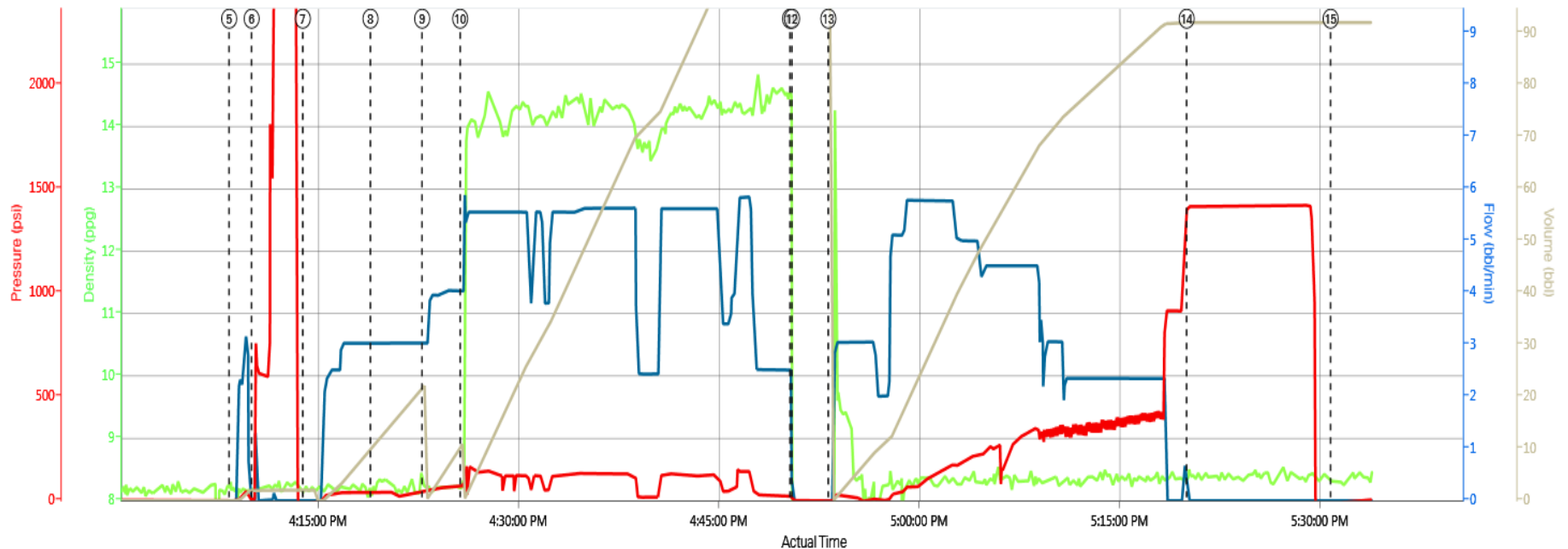
Pumping Schedule

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 III	8.40	3.00	12.0 bbl	12.0 bbl
1	3	Spacer	Fresh Water Spacer	8.33	4.00	10.0 bbl	10.0 bbl
1	4	Cement Slurry	SwiftCem B2	14.20	5.00	468.0 sacks	468.0 sacks

HALLIBURTON

Data Acquisition

ANADARKO HIGHWAY 160 15C-2HZ



Cement Density (ppg) Comb Pump Rate (bbl/min) DS Pump Press (psi) Comb Pump Total (bbl)

① Start Job 0.0;0.0;0.0	④ End Job -0.03;0.0;0.0	⑦ Pump Spacer 1 8.29;0;-24.43;2.02	⑩ Pump Cement 8.34;4.05;71.33;10.98	⑬ Pump Displacement -0.77;0;-1.95;118.63
② Test Lines 0.08;0;-0.98;0	⑤ Start Job 8.26;0.0;0.0	⑧ Pump Spacer 2 8.18;3.05;37.13;10.49	⑪ Shutdown 1.61;0;-1.95;118.63	⑭ Bump Plug 8.49;0;1414.86;92.03
③ Drop Top Plug -0.03;0.0;0.0	⑥ Test Lines 8.14;0;6.84;1.98	⑨ Pump Spacer 1 8.18;3.05;44.95;22.23	⑫ Drop Top Plug 4.42;0;2.93;118.63	⑮ End Job 8.27;0;-25.4;92.03

HALLIBURTON

Service Supervisor Reports

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)		Comments
10/27/2013 12:00		Arrive at Location from Service Center							WITH ALL EQUIPMENT AND MATERIALS
10/27/2013 12:15		Assessment Of Location Safety Meeting							
10/27/2013 13:30		Pre-Rig Up Safety Meeting							RIG-UP JSA
10/27/2013 13:45		Rig-Up Equipment							
10/27/2013 14:20		Rig-Up Completed							
10/27/2013 15:30		Pre-Job Safety Meeting							WITH CUSTOMER REP AND RIG CREW
10/27/2013 16:08		Start Job							
10/27/2013 16:10		Test Lines					2500.0		FRESH WATER WITH NO ADDITIVES
10/27/2013 16:14		Pump Spacer 1	2	10			40.0		FRESH WATER WITH NO ADDITIVES
10/27/2013 16:19		Pump Spacer 2	3	12			40.0		FRESH WATER WITH MUD FLUSH
10/27/2013 16:23		Pump Spacer 1	4	10			75.0		FRESH WATER WITH NO ADDITIVES
10/27/2013 16:25		Pump Cement	5	128			125.0		468 SKS SWIFTCM B1 @ 14.2 PPG 1.55 YIELD, 7.68 GAL/SK
10/27/2013 16:50		Shutdown							
10/27/2013 16:50		Drop Top Plug							PRE-LOADED HWE TOP PLUG IN PLUG CONTAINER VERIFIED BY CUSTOMER REP
10/27/2013 16:50		Clean Lines							WASH PUMPS AND LINES ON TOP OF PLUG.
10/27/2013 16:53		Pump Displacement	5	92			395.0		FRESH WATER WITH NO ADDITIVES
10/27/2013 17:20		Bump Plug					1410.0		FINAL CIRCULATING PRESSURE 275, PSI TO LAND 353, PSI TO LIFT 483,
10/27/2013 17:20		Check Floats							FLOATS HELD, .5 BBLs BACK
10/27/2013 17:30		End Job							RIG DOWN JSA, JOURNEY MANAGMENT MEETING

The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3162937	Quote #:	Sales Order #: 900852463
Customer: ANADARKO PETROLEUM CORP - EBUS		Customer Rep: Balkenbush, Bob	
Well Name: Highway 160		Well #: 15C-2HZ	API/UWI #:
Field: WATTEBERG	City (SAP): FORT LUPTON	County/Parish: Weld	State: Colorado
Contractor: Majors		Rig/Platform Name/Num: Major 29	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: FLING, MATTHEW	Srvc Supervisor: BARRAS, JOSEPH		MBU ID Emp #: 405168

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ACEVEDO, ROBERTO Carlos	0.0	551312	BARRAS, JOSEPH Corey	0.0	405168	BROOM, KENDALL L	0.0	524682
MAYFIELD, BYRON L	0.0	528751						

Job

Job Times

Formation Name						Date	Time	Time Zone		
Formation Depth (MD)		Top		Bottom		Called Out	27 - Oct - 2013	08:00	MST	
Form Type			BHST			On Location				
Job depth MD		1242. ft		Job Depth TVD		1242. ft	Job Started	27 - Oct - 2013	16:08	MST
Water Depth				Wk Ht Above Floor		4. ft	Job Completed	27 - Oct - 2013	17:30	MST
Perforation Depth (MD)		From		To		Departed Loc	27 - Oct - 2013	18:15	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				.	1242.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1239.		

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft ³ /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 III	MUD FLUSH III - SBM (528788)	12.00	bbl	8.4			3.0	
3	Fresh Water Spacer		10.00	bbl	8.33			4.0	
4	SwiftCem B2	SWIFTCM (TM) SYSTEM (452990)	468.0	sacks	14.2	1.54	7.66	5.0	7.66
7.66 Gal		FRESH WATER							

Calculated Values

Pressures

Volumes

Displacement	92	Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement	92	Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	

Rates											
Circulating		Mixing		Displacement	5.0	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							

