

**HALLIBURTON**

**WPX ENERGY ROCKY MOUNTAIN LLC-EBUS  
DO NOT MAIL - ACH-43241  
TULSA, Oklahoma**

RWF 523-4

NABORS/574

## **Post Job Summary**

# **Cement Surface Casing**

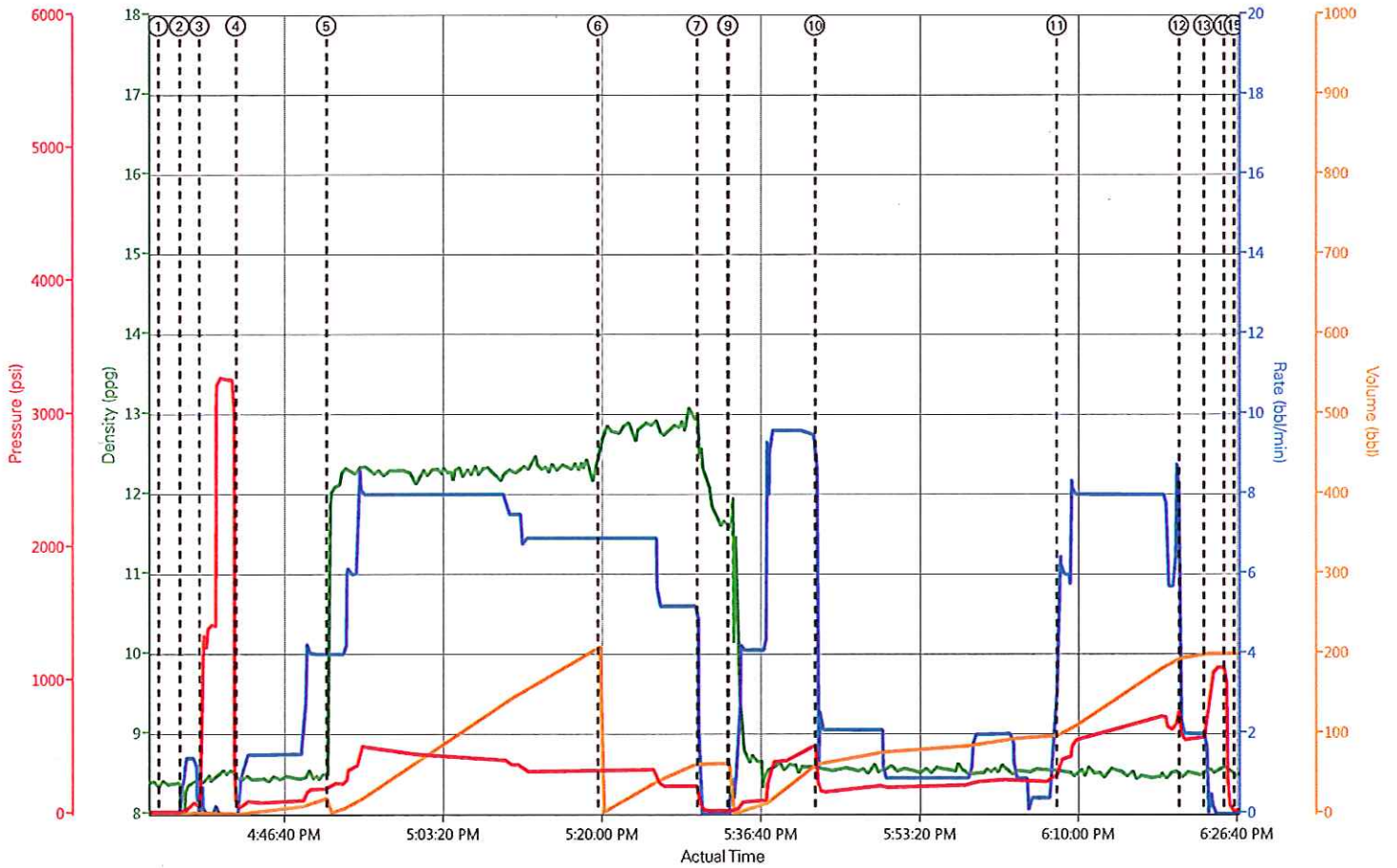
Date Prepared: 01/03/2014  
Version: 1

Service Supervisor: CARTER, ERIC

Submitted by: Grand Junction Cement Engineering

**HALLIBURTON**

# WPX - RWF 523-4 - SURFACE



DH Density (ppg) Comb Pump Rate (bbl/min) Pump Stg Tot (bbl) DS Pump Press (psi)

▼ HALLIBURTON | iCem® Service

Created: 2013-12-30 14:03:47, Version: 2.0.606

Edit

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-  
EBUS

Job Date: 12/30/2013 2:05:34 PM

Well: RWF 523-4

Representative: MATT H.

Sales Order #: 901004742

ERIC CARTER: ANDREW LINN/ELITE 4

## The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 3275896	Quote #:	Sales Order #: 901004742
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Customer Rep:		
Well Name: RWF	Well #: 523-4	API/UWI #:	
Field:	City (SAP): RIFLE	County/Parish: Garfield	State: Oklahoma
Contractor: NABORS	Rig/Platform Name/Num: 574		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	Job Type: Cement Surface Casing		
Sales Person: MAYO, MARK	Srvc Supervisor: CARTER, ERIC	MBU ID Emp #: 345598	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BANKS, BRENT A	0.0	371353	BLANSCEY, TAYLOR Dwayne	0.0	555417	CAMPBELL, DAVID Arthur	0.0	544403
CARTER, ERIC Earl	0.0	345598	LINN, PAUL Andrew	0.0	479143	LYNGSTAD, FREDRICK D	0.0	403742
MARTIN, DILLON Ray	0.0	478664	WESTFALL, DUSTIN Adam	0.0	555858			

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10248065	60 mile	10616651C	60 mile	10713212	60 mile	10784064	60 mile
11360871	60 mile	11583933	60 mile	11808847	60 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				Job Times			
Formation Name				Date	Time	Time Zone	
Formation Depth (MD)	Top	Bottom		Called Out	30 - Dec - 2013	08:00	MST
Form Type		BHST		On Location	30 - Dec - 2013	12:30	MST
Job depth MD	2635. ft	Job Depth TVD	2635. ft	Job Started	30 - Dec - 2013	16:33	MST
Water Depth		Wk Ht Above Floor	5. ft	Job Completed	30 - Dec - 2013	18:26	MST
Perforation Depth (MD)	From	To		Departed Loc	30 - Dec - 2013	19:30	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
OPEN HOLE				13.5				.	2652.		
SURFACE CASING	Unknown		9.625	9.001	32.3		H-40	.	2635.		

## Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

## Miscellaneous Materials

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty	

## 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



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		20.00	bbl	.	.0	.0	.0	
2	VariCem GJI Lead Cement	VARICEM (TM) CEMENT (452009)	495.0	sacks	12.3	2.38	13.75		13.75
	13.75 Gal	FRESH WATER							
3	VariCem GJI Tail Cement	VARICEM (TM) CEMENT (452009)	175.0	sacks	12.8	2.11	11.75		11.75
	11.75 Gal	FRESH WATER							
4	Fresh Water Displacement		203.00	bbl	.	.0	.0	8.33	
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	48 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					

*The Road to Excellence Starts with Safety*

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Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Customer Rep:		
Well Name: RWF	Well #: 523-4	API/UWI #:	
Field:	City (SAP): RIFLE	County/Parish: Garfield	State: Oklahoma
Legal Description:			
Lat:		Long:	
Contractor: NABORS	Rig/Platform Name/Num: 574		
Job Purpose: Cement Surface Casing	Ticket Amount:		
Well Type: Development Well	Job Type: Cement Surface Casing		
Sales Person: MAYO, MARK	Srv Supervisor: CARTER, ERIC	MBU ID Emp #: 345598	

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	12/30/2013 08:00							
Depart Yard Safety Meeting	12/30/2013 10:50							ATTENDED BY ALL HES CREW
Crew Leave Yard	12/30/2013 11:00							
Arrive At Loc	12/30/2013 12:30							RIG RUNNING CASING
Assessment Of Location Safety Meeting	12/30/2013 15:00							ATTENDED BY ALL HES CREW
Other	12/30/2013 15:10							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	12/30/2013 15:20							ATTENDED BY ALL HES CREW
Rig-Up Equipment	12/30/2013 15:30							
Pre-Job Safety Meeting	12/30/2013 16:00							ATTENDED BY ALL HES CREW, RIG CREW AND COMPANY REP
Start Job	12/30/2013 16:33							TP 2635', TD 2652', SJ 48', FC 2587', MW 11.5 PPG, CASING 9.625", 23.3#, H-40, HOLE 13.5", CENTRALIZERS, RIG CIRCULATED FOR 2 HR'S PRIOR TO JOB AT 9 BPM
Other	12/30/2013 16:35		2	2			70.0	FILL LINES
Test Lines	12/30/2013 16:37							PRESSURED UP TO 3280 PSI, PRESSURE HELD
Pump Spacer	12/30/2013 16:41		4	20			184.0	FRESH WATER
Activity Description	Date/Time	Cht	Rate bbl/min	Volume bbl		Pressure psig		Comments

Sold To #: 300721

Ship To #: 3275896

Quote #:

Sales Order #: 901004742

SUMMIT Version: 7.3.0109

Friday, January 03, 2014 11:15:00

		#		Stage	Total	Tubing	Casing	
Pump Lead Cement	12/30/2013 16:51		7.5	209.8			520.0	495 SKS VARICEM MIXED AT 12.3 PPG, 2.38 YIELD, 13.75 GL/SK
Pump Tail Cement	12/30/2013 17:19		7	65.8			340.0	175 SKS VARICEM MIXED AT 12.8 PPG, 2.11 YIELD, 11.75 GL/SK
Shutdown	12/30/2013 17:30							
Drop Top Plug	12/30/2013 17:33							PLUG LAUNCHED
Pump Displacement	12/30/2013 17:33		9.5	60			510.0	FRESH WATER
Slow Rate	12/30/2013 17:42		1.5	40			250.0	CELLAR PUMP CLOGGED WITH FILTER CAKE, HES SLOWED RATE
Resume	12/30/2013 18:08		8	93.6			740.0	
Slow Rate	12/30/2013 18:20		2	10			570.0	
Bump Plug	12/30/2013 18:23						1100. 0	PLUG LANDED
Check Floats	12/30/2013 18:25							FLOATS HELD
End Job	12/30/2013 18:26							GOOD CIRCULATION THROUGH OUT JOB, PIPE NOT MOVED DURING JOB, TRACES OF CEMENT AT 70 BBLs OF DISPLACEMENT PUMPED, 70 BBLs GOOD CEMENT TO SURFACE
Post-Job Safety Meeting (Pre Rig-Down)	12/30/2013 18:30							ATTENDED BY ALL HES CREW
Rig-Down Equipment	12/30/2013 18:35							
Depart Location Safety Meeting	12/30/2013 19:20							ATTENDED BY ALL HES CREW
Crew Leave Location	12/30/2013 19:30							THANK YOU FOR USING HALLIBURTON CEMENT, ERIC CARTER AND CREW.



# HALLIBURTON

## Water Analysis Report

Company: WPX  
Submitted by: ERIC CARTER  
Attention: J.Trout  
Lease: NABORS 574  
Well #: RWF 523-4

Date: 1/3/2014  
Date Rec.: 1/3/2014  
S.O.#: 901004742  
Job Type: SURFACE

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7</b>
Potassium (K)	<i>5000</i>	<b>0 Mg / L</b>
Hrdness	<i>500</i>	<b>425 Mg / L</b>
Iron (FE2)	<i>300</i>	<b>0 Mg / L</b>
Chlorides (Cl)	<i>3000</i>	<b>500 Mg / L</b>
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>&lt;200 Mg / L</b>
Temp	<i>40-80</i>	<b>40 Deg</b>
Total Dissolved Solids		<b>650 Mg / L</b>

Respectfully: ERIC CARTER

Title: CEMENTING SUPERVISOR

Location: Grand Junction, CO

NOTICE:

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or it

<b>Sales Order #:</b> 901004742	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 12/30/2013
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> MATT H.		<b>API / UWI: (leave blank if unknown)</b> AFEYKPGKUJKAORM2AAA
<b>Well Name:</b> RWF		<b>Well Number:</b> 523-4
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Oklahoma	<b>Well County:</b> Garfield

Dear Customer,

We hope that you were satisfied with the service quality of this job performed by Halliburton. It is the aim of our management and service personnel to deliver equipment and service of a standard unmatched in the service sector of the energy industry.

Please take the time to let us know if our performance met with your satisfaction. Please be as critical as possible to ensure we constantly improve our service. Your comments are of great value to us and are intended for the exclusive use of Halliburton.

### CUSTOMER SATISFACTION SURVEY

CATEGORY	CUSTOMER SATISFACTION RESPONSE	
Survey Conducted Date	The date the survey was conducted	12/30/2013
Survey Interviewer	The survey interviewer is the person who initiated the survey.	ERIC CARTER (HX15491)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	MATT H.
HSE	Was our HSE performance satisfactory? Circle Y or N	Yes
Equipment	Were you satisfied with our Equipment? Circle Y or N	Yes
Personnel	Were you satisfied with our people? Circle Y or N	Yes
Customer Comment	Customer's Comment	

CUSTOMER SIGNATURE
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<b>H2S Present:</b>	<b>Well State:</b> Oklahoma	<b>Well County:</b> Garfield

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b> The date the survey was conducted	12/30/2013

Cementing KPI Survey	
<b>Type of Job</b> Select the type of job. (Cementing or Non-Cementing)	0
<b>Select the Maximum Deviation range for this Job</b> What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	Vertical
<b>Total Operating Time (hours)</b> Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	3.5
<b>HSE Incident, Accident, Injury</b> HSE Incident, Accident, Injury. This should be recordable incidents only.	No
<b>Was the job purpose achieved?</b> Was the job delivered correctly as per customer agreed design?	Yes
<b>Operating Hours (Pumping Hours)</b> Total number of hours pumping fluid on this job. Enter in decimal format.	2
<b>Customer Non-Productive Rig Time (hrs)</b> Lost time due to Halliburton in the start, execution, or completion of an ordered service or product, or delays in a follow-on service. Enter in decimal format. 0 if none.	0
<b>Type of Rig Classification Job Was Performed</b> Type Of Rig (classification) Job Was Performed On	Drilling Rig (Portable)
<b>Number Of JSAs Performed</b> Number Of Jsas Performed	5
<b>Number of Unplanned Shutdowns</b> Unplanned shutdown is when injection stops for any period of time.	0
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes

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<b>Customer Representative:</b> MATT H.		<b>API / UWI: (leave blank if unknown)</b> AFEYKPGKUJKAORM2AAA
<b>Well Name:</b> RWF		<b>Well Number:</b> 523-4
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Oklahoma	<b>Well County:</b> Garfield

Primary Cement Job= Casing job, Liner job, or Tie-back job.	
<b>Did We Run Wiper Plugs?</b> Did We Run Top And Bottom Casing Wiper Plugs?	Top
<b>Mixing Density of Job Stayed in Designed Density Range (0-100%)</b> Density Range defined as +/- .20 ppg. Calculation: Total BBLs cement mixed at designed density divided by total BBLs of cement multiplied by 100	98
<b>Was Automated Density Control Used?</b> Was Automated Density Control (ADC) Used ?	Yes
<b>Pump Rate (percent) of Job Stayed At Designed Pump Rate</b> Pump Rate range defined as +/- 1bbl/min. Calculation: Total BBLs of fluid pumped at the designed rate divided by Total BBLs of fluid pumped, multiplied by 100	80
<b>Nbr of Remedial Sqz Jobs Rqd - Competition</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	0
<b>Nbr of Remedial Plug Jobs Rqd - HES</b> Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
<b>Nbr of Remedial Sqz Jobs Rqd - HES</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0