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# **WPX ENERGY ROCKY MOUNTAIN LLC-EBUS**

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**RG 531-23-298  
SULFUR CREEK  
Rio Blanco County , Colorado**

**Cement Multiple Stages  
29-Sep-2013**

**Post Job Report**

## The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 3107687	Quote #:	Sales Order #: 900778826
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Customer Rep: Ragsdale, Ted	
Well Name: RG		Well #: 531-23-298	API/UWI #: 40-103-11901
Field:	City (SAP): MEEKER	County/Parish: Rio Blanco	State: Colorado
Lat: N 39.87 deg. OR N 39 deg. 52 min. 12.644 secs.		Long: W 108.363 deg. OR W -109 deg. 38 min. 12.638 secs.	
Contractor: Cyclone		Rig/Platform Name/Num: Cyclone 29	
Job Purpose: Cement Multiple Stages			
Well Type: Development Well		Job Type: Cement Multiple Stages	
Sales Person: MAYO, MARK		Srvc Supervisor: ARNOLD, EDWARD	MBU ID Emp #: 439784

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ARNOLD, EDWARD John	14.5	439784	CAMPBELL, DAVID Arthur	14.5	544403	LAULAINEN, ROGER Edward	14.5	524413
SALAZAR, PAUL Omar	14.5	445614						

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10867425	60 mile	10872429	60 mile	10897891	60 mile	11259882	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
2013-09-28	5	0	2013-09-29	9.5	8			

**TOTAL** Total is the sum of each column separately

## Job

Formation Name						Date	Time	Time Zone	
Formation Depth (MD)	Top		Bottom			Called Out	28 - Sep - 2013	14:00	MST
Form Type			BHST			On Location	28 - Sep - 2013	19:00	MST
Job depth MD	3460. ft		Job Depth TVD	3460. ft		Job Started	29 - Sep - 2013	04:02	MST
Water Depth			Wk Ht Above Floor	3. ft		Job Completed	29 - Sep - 2013	08:09	MST
Perforation Depth (MD)	From		To			Departed Loc	29 - Sep - 2013	09:30	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
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## 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	9 5/8"	1	HES
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 ft3/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 ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk		

Stage/Plug #: 1									
1	Fresh Water Spacer		40.00	bbl	8.33	.0	.0	4	
1	Fresh Water Spacer		20.00	bbl	8.33	.0	.0	4	
2	1st Stage HLC Lead Cement	ECONOCEM (TM) SYSTEM (452992)	600.0	sacks	12.8	1.77	9.34	6	9.34
2	2nd Stage VariCem Cement	VARICEM (TM) CEMENT (452009)	760.0	sacks	12.8	1.96	10.95	6	10.95
3	1st Stage Varicem Tail Cement	VARICEM (TM) CEMENT (452009)	210.0	sacks	12.8	1.96	10.95	6	10.95
3	Displacement		265.00	bbl	8.33	.0	.0	10	
4	Displacement		101.00	bbl	8.33	.0	.0	6	
Calculated Values		Pressures		Volumes					
Displacement	365.5	Shut In: Instant		Lost Returns		Cement Slurry	527.6	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	80	Actual Displacement	365.5	Treatment	
Frac Gradient		15 Min		Spacers	60	Load and Breakdown		Total Job	953.1
Rates									
Circulating	RIG	Mixing	6	Displacement	8	Avg. Job	7		
Cement Left In Pipe	Amount	26.4FT	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*

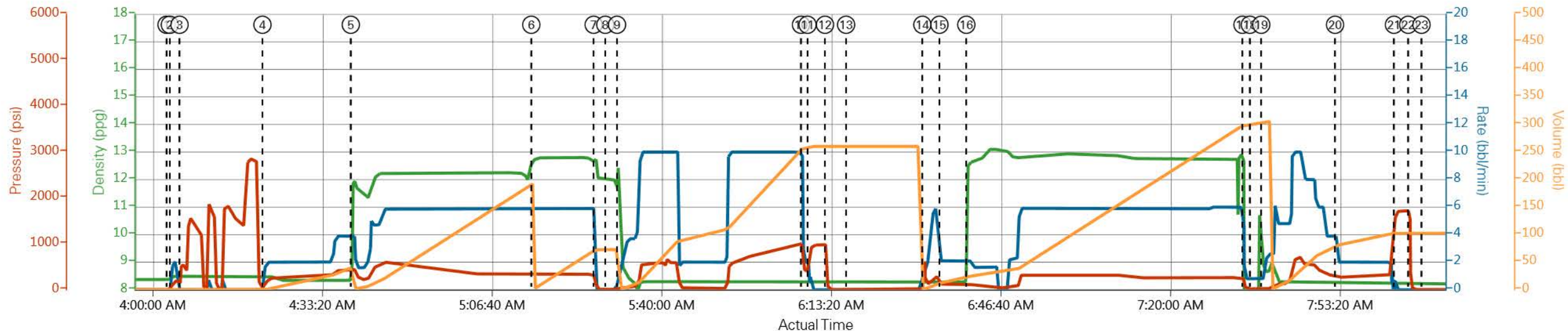
Sold To #: 300721	Ship To #: 3107687	Quote #:	Sales Order #: 900778826
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Customer Rep: Ragsdale, Ted	
Well Name: RG	Well #: 531-23-298	API/UWI #: 40-103-11901	
Field:	City (SAP): MEEKER	County/Parish: Rio Blanco	State: Colorado
Legal Description:			
Lat: N 39.87 deg. OR N 39 deg. 52 min. 12.644 secs.		Long: W 108.363 deg. OR W -109 deg. 38 min. 12.638 secs.	
Contractor: Cyclone		Rig/Platform Name/Num: Cyclone 29	
Job Purpose: Cement Multiple Stages			Ticket Amount:
Well Type: Development Well		Job Type: Cement Multiple Stages	
Sales Person: MAYO, MARK		Srv Supervisor: ARNOLD, EDWARD	MBU ID Emp #: 439784

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	09/28/2013 14:00							
Pre-Convoy Safety Meeting	09/28/2013 15:45							Including entire cement crew.
Crew Leave Yard	09/28/2013 16:00							
Arrive At Loc	09/28/2013 19:00							Rig still pulling drill pipe. Requested on location at 2000
Assessment Of Location Safety Meeting	09/29/2013 01:00							Water; PH 7; KCL 250; So4 <200; Fe 0; Calcium 120; Chlorides 0; Temp 45; TDS 310.
Pre-Rig Up Safety Meeting	09/29/2013 01:15							Including entire cement crew.
Rig-Up Equipment	09/29/2013 01:30							1 Elite # 7; 1 660 bulk truck; 2 field storage silo's; 1 hard line to floor; 1 line to upright; 1 line to rig tank. 9.625" compact head. Multi stage job, using customer supplied plug set.
Rig-Up Completed	09/29/2013 02:30							
Pre-Job Safety Meeting	09/29/2013 02:45							Including everyone on location. Rig lost returns, Rig pumped on well for 1 hour with no returns. Approx. 200 BBL's of mud lost.
Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	

Start Job	09/29/2013 04:02							TD 3460; TP 3452.9; Tool 1320.8; SJ 26.4; OH 14 1/2" to 1250 13 1/2" to TD; Casing 9.625" 36# J-55; Mud 8.9 ppg.
Pump Water	09/29/2013 04:03		2	2			230.0	Fill lines with fresh water.
Test Lines	09/29/2013 04:05					2870. 0		Good pressure test. Found a leak bleed pressure off and hammered union and retested lines.
Pump Spacer 1	09/29/2013 04:21		4	40			421.0	40 BBL fresh water spacer.
Pump 1st Stage Lead Slurry	09/29/2013 04:39		6	189.1			345.0	600 sks Stage 1 Lead Cement, 12.8 ppg, 1.77 cf3, 9.34 gal/sk. 3.5 boxes of tuff fiber in first 100 BBL's of cement
Pump 1st Stage Tail Slurry	09/29/2013 05:14		6	73.3			340.0	210 sks Stage 1 Tail Cement, 12.8 ppg, 1.96 cf3, 10.34 gal/sk.
Shutdown	09/29/2013 05:26							
Drop Plug	09/29/2013 05:29							Plug left container.
Pump Displacement	09/29/2013 05:31		10	254.8			998.0	Fresh water displacement. Slow rate at 90 BBL's gone to 4 BBL/MIN for 20 BBL's to allow wiper plug to pass through tool. Got returns back at 147 gone.
Slow Rate	09/29/2013 06:07		2	10			330.0	Slow rate 10 BBL's prior to bumping the plug.
Bump Plug	09/29/2013 06:08				264.8		970.0	Bumped plug, took 500 PSI over.
Check Floats	09/29/2013 06:12							Floats held, 1 BBL back
Drop Opening Device For Multiple Stage Cementer	09/29/2013 06:16							Allow 10 min for device to reach tool. Opening pressure at 600 psi.
Next Stage	09/29/2013 06:31							Opened tool at 650 PSI.
Pump Spacer 1	09/29/2013 06:34		2	22			175.0	20 BBL fresh water spacer.
Pump 2nd Stage Tail Slurry	09/29/2013 06:40		6	265.2			250.0	760 sks Stage Tail Cement, 12.8 ppg, 1.96 cf3, 10.34 gal/sk. 3.5 boxes of tuff fiber in last 100 BBL's of cement.

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Shutdown	09/29/2013 07:34							
Drop Plug	09/29/2013 07:35							Drop closing device for multi stage cementer.
Pump Displacement	09/29/2013 07:38		8	80.7			540.0	Fresh Water displacement. Started slowing rate in stages at 40 BBL's of displacement gone.
Slow Rate	09/29/2013 07:52		2	20			310.0	Slow rate last 10 bbl.'s of displacement prior to bumping plug.
Bump Plug	09/29/2013 08:04				100.7		1707.0	Bump plug. Take 1200 over circulating pressure to close tool. Tool closed properly.
Check Floats	09/29/2013 08:06							Floats held, 1 BBL back. Got 80 BBL's of good cement back from second stage. No cement from First Stage.
End Job	09/29/2013 08:09							
Pre-Rig Down Safety Meeting	09/29/2013 08:15							
Rig-Down Equipment	09/29/2013 08:20							
Rig-Down Completed	09/29/2013 09:00							
Pre-Convoy Safety Meeting	09/29/2013 09:20							
Crew Leave Location	09/29/2013 09:30							
Other	09/29/2013 09:30							

# WPX - RGU 531-23-298 - 2 STAGE SURFACE



- |                              |                              |   |                              |                                  |
|------------------------------|------------------------------|---|------------------------------|----------------------------------|
| ① Start Job                  | ⑥ Pump 1st Stage Tail Slurry | ⑪ Bump Plug                                       | ⑯ Pump 2nd Stage Tail Slurry | 21 Close Multiple Stage Cementer |
| ② Fill Lines                 | ⑦ Shutdown                   | ⑫ Check Floats                                    | ⑰ Shutdown                   | 22 Check Floats                  |
| ③ Test Lines                 | ⑧ Drop Top Plug              | ⑬ Drop Opening Device For Multiple Stage Cementer | ⑱ Drop Plug                  | 23 End Job                       |
| ④ Pump Spacer 1              | ⑨ Pump Displacement          | ⑭ Open Multiple Stage Cementer                    | ⑲ Pump Displacement          |                                  |
| ⑤ Pump 1st Stage Lead Slurry | ⑩ Slow Rate                  | ⑮ Pump Spacer 1                                   | 20 Slow Rate                 |                                  |

▼ **Halliburton** | iCem Service®

Created:2013-09-29 00:42:33 , Version:1.4.96

Edit

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date : 9/29/2013 2:26:11 AM

Well : RGU 531-23-298

Representative: TED RAGSDALE

Sales Order #: 900778826

ELITE# 7: ED ARNOLD / RODGER LAULAINEN

# HALLIBURTON

## Water Analysis Report

Company:	WPX	9/28/2013
Submitted by:	ED ARNOLD	9/28/2013
Attention:	JOHN TROUR	900778826
Lease	RGU	MILTI STAGE SURFACE
Well #	531-23-298	

Specific Gravity	MAX	
pH	8	
Potassium (K)	5000	Mg / L
Calcium (Ca)	500	Mg / L
Iron (FE2)	300	Mg / L
Chlorides (Cl)	3000	Mg / L
Sulfates (SO <sub>4</sub> )	1500	Mg / L
Chlorine (Cl <sub>2</sub> )		Mg / L
Temp	40-80	Deg
Total Dissolved Solids		Mg / L

ED ARNOLD  
CEMENTING SUPERVISOR  
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 its use

<b>Sales Order #:</b> 900778826	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 9/29/2013
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT MULTIPLE STAGES BOM
<b>Customer Representative:</b> TED RAGSDALE		<b>API / UWI: (leave blank if unknown)</b> 40-103-11901
<b>Well Name:</b> RG		<b>Well Number:</b> 531-23-298
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Rio Blanco

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	9/29/2013
Survey Interviewer	The survey interviewer is the person who initiated the survey.	EDWARD ARNOLD (HX46731)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	TED RAGSDALE
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	GREAT JOB GUYS & GOOD JOD CORRECTING MIX PROBLEM ON 2ND STAGE, EQUIP PROBLEM 2ND STAGE

CUSTOMER SIGNATURE

<b>Sales Order #:</b> 900778826	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 9/29/2013
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<b>Well Name:</b> RG		<b>Well Number:</b> 531-23-298
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Rio Blanco

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	9/29/2013
The date the survey was conducted	

Cementing KPI Survey	
<b>Type of Job</b>	0
Select the type of job. (Cementing or Non-Cementing)	
<b>Select the Maximum Deviation range for this Job</b>	Vertical
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
<b>Total Operating Time (hours)</b>	8
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
<b>HSE Incident, Accident, Injury</b>	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
<b>Was the job purpose achieved?</b>	Yes
Was the job delivered correctly as per customer agreed design?	
<b>Operating Hours (Pumping Hours)</b>	6
Total number of hours pumping fluid on this job. Enter in decimal format.	
<b>Customer Non-Productive Rig Time (hrs)</b>	0
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.	
<b>Type of Rig Classification Job Was Performed</b>	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
<b>Number Of JSAs Performed</b>	5
Number Of Jsas Performed	
<b>Number of Unplanned Shutdowns</b>	0
Unplanned shutdown is when injection stops for any period of time.	
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes

<b>Sales Order #:</b> 900778826	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 9/29/2013
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<b>Customer Representative:</b> TED RAGSDALE		<b>API / UWI: (leave blank if unknown)</b> 40-103-11901
<b>Well Name:</b> RG		<b>Well Number:</b> 531-23-298
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Rio Blanco

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	94
<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	99
<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