

WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

RGU 443-26-198

**H&P 318**

## **Post Job Summary**

# **Cement Production Casing**

Date Prepared: 4/01/2015

Job Date: 03/29/2015

Submitted by: Aaron Katz – Grand Junction Cement Engineer

## The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 3124457	Quote #:	Sales Order #: 0902257742
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Customer Rep:	
Well Name: FEDERAL	Well #: RGU 443-26-198	API/UWI #: 05-103-11984-00	
Field: SULPHUR CREEK	City (SAP): MEEKER	County/Parish: RIO BLANCO	State: COLORADO
Legal Description: 26-1S-98W-2466FNL-910FEL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 318	
Job BOM: 7523			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HX40837		Srv Supervisor: Andrew Brennecke	
<b>Job</b>			

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	12564ft		Job Depth TVD
Water Depth			Wk Ht Above Floor 3
Perforation Depth (MD)	From		To

Well Data										
Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	8.921	36			0	3945		0
Casing		4.5	4	11.6			0	12564		0
Open Hole Section			8.75				3945	8670	0	0
Open Hole Section			7.875				8670	12572	0	0

Tools and Accessories									
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	4.5	1		12564		Top Plug	4.5	1	
Float Shoe									
Float Collar	4.5	1		12535					
Insert Float						Plug Container	4.5	1	HES
Stage Tool						Centralizers	4.5		HES

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> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Fresh Water	Fresh Water	100	bbl	8.3			10		
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	

2	ExtendaCem GJ1	EXTENDACEM (TM) SYSTEM	615	sack	11	2.75		8	16.07
16.07 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	EconoCem GJ1	ECONOCER (TM) SYSTEM	350	sack	12.7	1.91		8	10.09
10.09 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	ThermaCem GJ1	THERMACER (TM) SYSTEM	960	sack	13.5	1.75		8	8.25
8.25 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
5	Displacement	Displacement	194.3	bbl	8.33			10.2	
0.01 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
0.03 gal/bbl		BE-6, 48 LB FIBER DRUM (100003800)							
Cement Left In Pipe		Amount	29 ft		Reason		Shoe Joint		
Comment									

## 2.0 Real-Time Job Summary

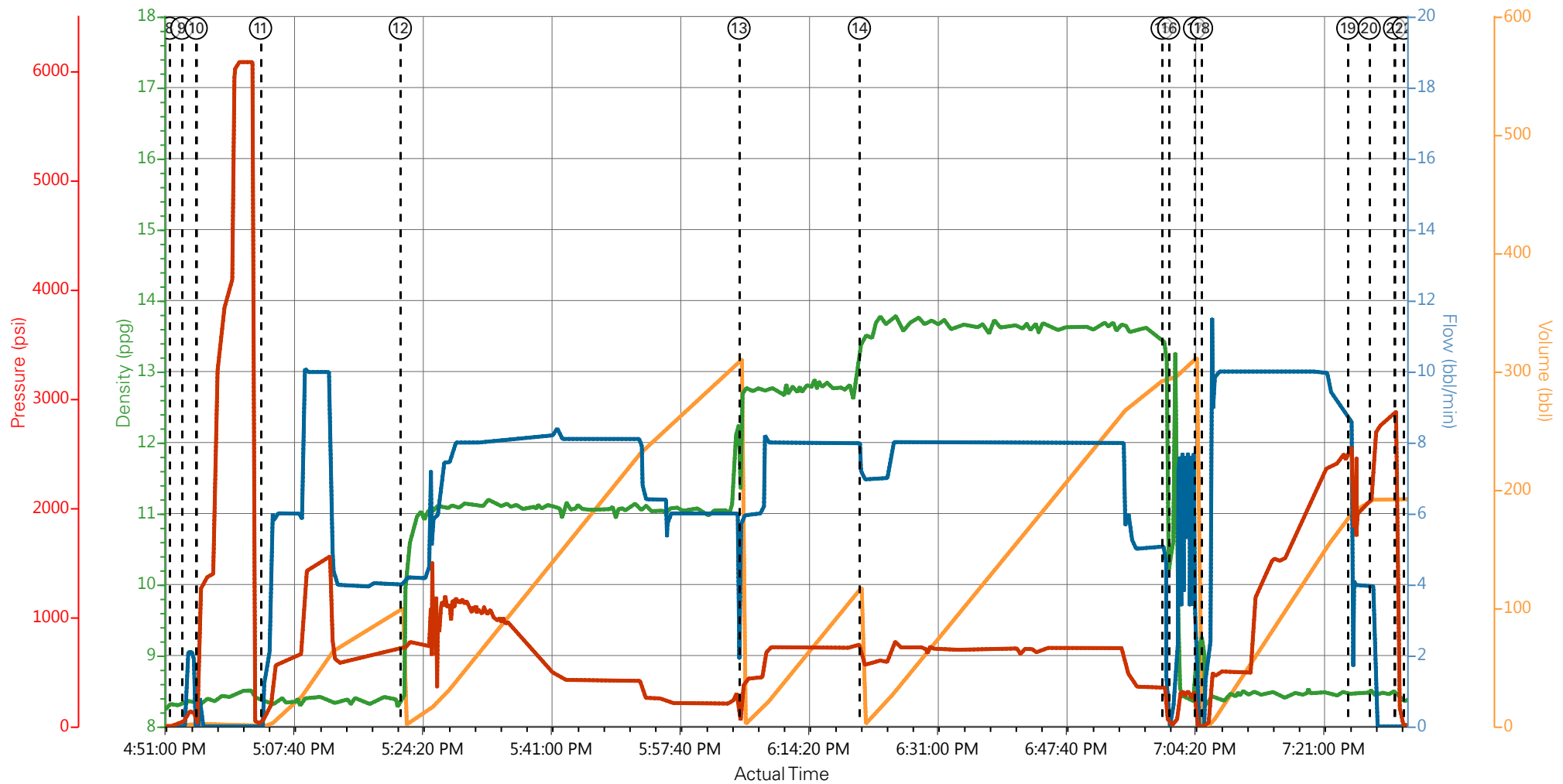
## 2.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	Downhole Density (ppg)	Pass-Side Pump Pressure (psi)	Combined Pump Rate (bbl/min)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	3/28/2015	06:00:00	USER					ELITE 2
Event	2	Pre-Convoy Safety Meeting	3/28/2015	09:00:00	USER					WITH ALL HES EMPLOYEES
Event	3	Arrive At Loc	3/28/2015	12:00:00	USER					RIG RUNNING CASING, ARRIVED 1/2 HOUR EARLY, DIDNT START CHARGING TIME UNTIL REQUESTED ON LOCATION TIME
Event	4	Assessment Of Location Safety Meeting	3/28/2015	12:30:00	USER					WITH ALL HES EMPLOYEES
Event	5	Pre-Rig Up Safety Meeting	3/28/2015	12:45:00	USER					WITH ALL HES EMPLOYEES
Event	6	Rig-Up Equipment	3/28/2015	13:00:00	USER					1 HT-400 PUMP TRUCK (ELITE #2) 2 660 BULK TRUCKS, 1 F-550 PICKUP, 1 IRON TRAILER
Event	7	Pre-Job Safety Meeting	3/28/2015	16:30:00	USER					WITH ALL HES EMPLOYEES AND RIG CREW, RIG CIRCULATED FOR 3 HOURS AT 10 BBL/MIN PRIOR TO THE JOB
Event	8	Start Job	3/28/2015	16:52:00	COM5					TD:12572 TP:12564.83 SJ: 29 CSG:4.5 11.6# P-110 OH:8 3/4-7 7/8 MW:9.8 PPG SURF. CSG 9 5/8 36# @ 3945
Event	9	Prime Lines	3/28/2015	16:53:34	COM5	8.33	143.0	2.0	2.0	PRIME LINES WITH 2 BBLS FRESH WATER
Event	10	Test Lines	3/28/2015	16:55:26	COM5	8.33	6087	0.00	2.0	PRESSURE TEST OK
Event	11	Pump Fresh Water Spacer	3/28/2015	17:03:46	COM5	8.33	1523.0	10.0	100.0	PUMP 100 BBLS FRESH WATER SPACER
Event	12	Pump Scavenger Cement	3/28/2015	17:21:52	COM5	11.0	1120.0	8.0	301.2	615 SKS 11 PPG 2.75 YIELD 16.07 GAL/SK SCAVENGER CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES 7 BOXS TUFF FIBER

## ADDED TO SCAVENGER

Event	13	Pump Lead Cement	3/28/2015	18:05:43	COM5	12.70	755.0	8.0	119.05	350 SKS 12.7 PPG 1.91 YIELD 10.09 GAL/SK LEAD CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES
Event	14	Pump Tail Cement	3/28/2015	18:21:18	COM5	13.50	733.0	8.0	299.2	960 SKS 13.5 PPG 1.75 YIELD 8.25 GAL/SK TAIL CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES
Event	15	Shutdown	3/28/2015	19:00:29	USER					
Event	16	Clean Lines	3/28/2015	19:01:20	USER					WASH UP TO PIT
Event	17	Drop Top Plug	3/28/2015	19:04:41	USER					PLUG AWAY NO PROBLEMS COMPANY REP SUPPLIED TOP LATCH DOWN PLUG REMOVED TOP PLUG FROM TICKET
Event	18	Pump Displacement	3/28/2015	19:05:35	COM5	8.4	2680.0	10.0	194.5	KCL WATER DISPLACEMENT 1 GAL MMCR IN FIRST 10 BBLS 3 LBS BE6
Event	19	Slow Rate	3/28/2015	19:24:31	USER	8.4	2650	4.0	184.5	SLOW RATE TO BUMP PLUG
Event	20	Bump Plug	3/28/2015	19:27:17	COM5	8.4	2890.0		194.5	PSI BEFORE BUMPING PLUG @ 2210 PSI BUMPED PLUG UP TO 2890 PSI
Event	21	Check Floats	3/28/2015	19:30:34	COM5					FLOATS HELD 2 BBLS BACK TO DISPLACEMENT TANK
Event	22	End Job	3/28/2015	19:31:44	COM5					GOOD RETURNS UNTIL 130 BBLS INTO DISPLACEMENT NO RETURNS AFTER THAT, PIPE WAS WORKED THROUGHOUT JOB
Event	23	Pre-Rig Down Safety Meeting	3/28/2015	20:00:00	USER					WITH ALL HES EMPLOYEES
Event	24	Rig-Down Equipment	3/28/2015	20:15:00	USER					
Event	25	Pre-Convoy Safety Meeting	3/28/2015	21:50:00	USER					WITH ALL HES EMPLOYEES
Event	26	Crew Leave Location	3/28/2015	22:00:00	USER					THANK YOU FOR USING HALLIBURTON CEMENT DAVID CAMPBELL AND CREW

# WPX - FEDERAL RGU 443-26-198 - 4 1/2 PRODUCTION



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

- |   |                           |                     |                                |                              |
|---|---------------------------|---------------------|--------------------------------|------------------------------|
| ① Call Out                              | ⑦ Pre-Job Safety Meeting  | ⑬ Pump Lead Cement  | ⑰ Slow Rate                    | 25 Pre-Convoy Safety Meeting |
| ② Pre-Convoy Safety Meeting             | ⑧ Start Job               | ⑭ Pump Tail Cement  | 20 Bump Plug                   | 26 Crew Leave Location       |
| ③ Arrive At Loc                         | ⑨ Prime Lines             | ⑮ Shutdown          | 21 Check Floats                |                              |
| ④ Assessment Of Location Safety Meeting | ⑩ Test Lines              | ⑯ Clean Lines       | 22 End Job                     |                              |
| ⑤ Pre-Rig Up Safety Meeting             | ⑪ Pump Fresh Water Spacer | ⑰ Drop Top Plug     | 23 Pre-Rig Down Safety Meeting |                              |
| ⑥ Rig-Up Equipment                      | ⑫ Pump Scavenger Cement   | ⑱ Pump Displacement | 24 Rig-Down Equipment          |                              |

▼ **HALLIBURTON** | iCem® Service

Created: 2015-03-28 14:07:05, Version: 4.1.107

Edit

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date: 3/28/2015 4:15:43 PM

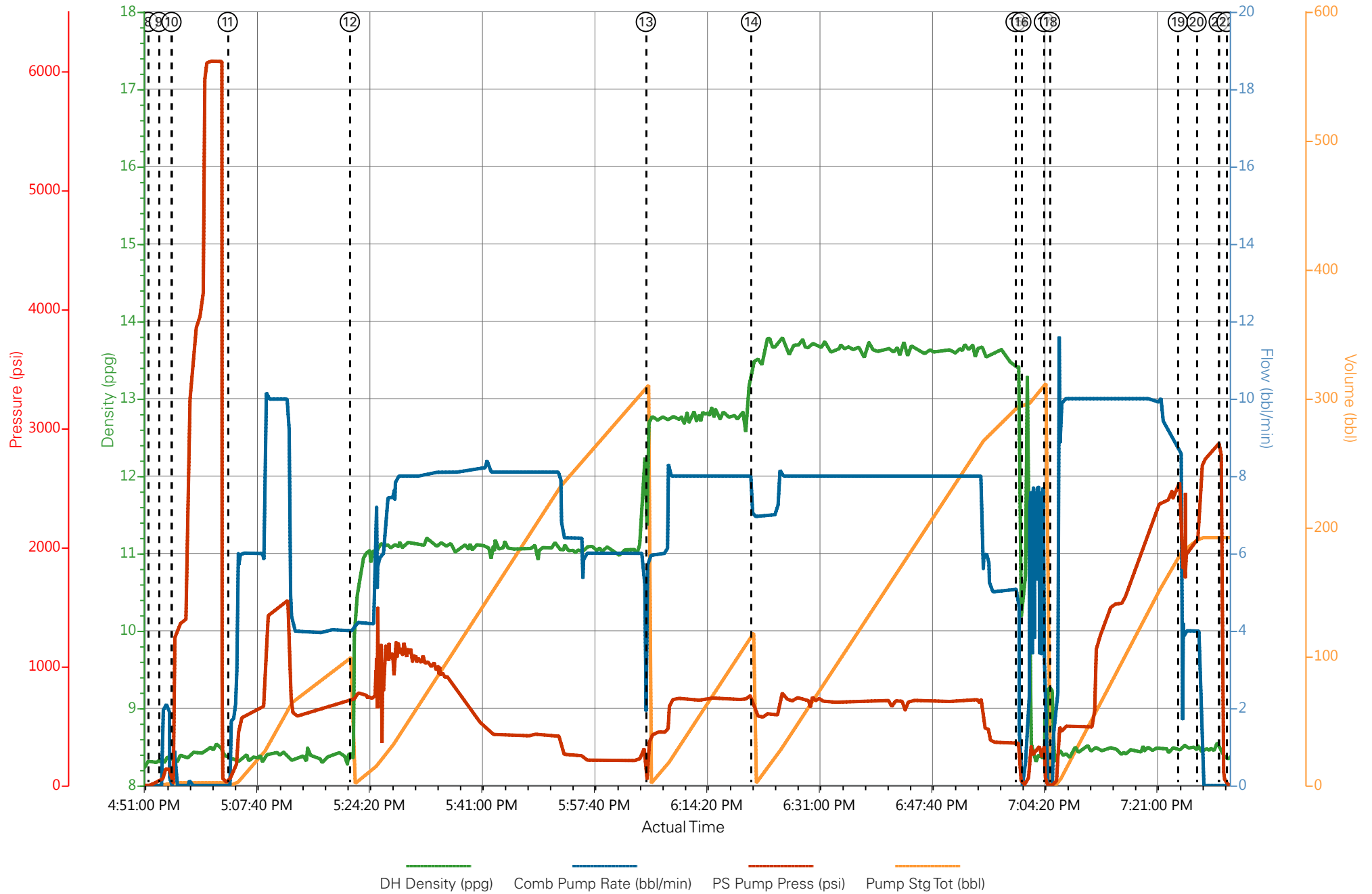
Well: RGU 443-26-198

Representative: TED RAGSDALE

Sales Order #: 902257742

ELITE # 2: DAVID CAMPBELL / JUSTIN BROWN

# WPX - FEDERAL RGU 443-26-198 - 4 1/2 PRODUCTION



# HALLIBURTON

## Water Analysis Report

Company: WXP

Submitted by: DAVID CAMPBELL

Attention: J. TROUT

Lease: FEDERAL RGU

Well #: 443-26-198

Date: 3/28/2015

Date Rec.: 3/28/2015

S.O.#: 902257742

Job Type: PRODUCTION

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7</b>
Potassium (K)	<i>5000</i>	<b>250</b> Mg / L
Calcium (Ca)	<i>500</i>	<b>350</b> Mg / L
Iron (FE2)	<i>300</i>	<b>0</b> Mg / L
Chlorides (Cl)	<i>3000</i>	<b>0</b> Mg / L
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>&lt;200</b> Mg / L
Chlorine (Cl <sub>2</sub> )		<b>0</b> Mg / L
Temp	<i>40-80</i>	<b>45</b> Deg
Total Dissolved Solids		<b>760</b> Mg / L

Respectfully: DAVID CAMPBELL

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



<b>Sales Order #:</b> 0902257742	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 3/28/2015
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b>		<b>API / UWI: (leave blank if unknown)</b> 05-103-11984-00
<b>Well Name:</b> FEDERAL		<b>Well Number:</b> 0080129287
<b>Well Type:</b> DIRECTIONAL GAS	<b>Well Country:</b> USA	
<b>H2S Present:</b> No	<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	3/28/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB58348
Customer Participation	Did the customer participate in this survey? (Y/N)	No
Customer Representative	Enter the Customer representative name	
HSE	Was our HSE performance satisfactory? Circle Y or N	
Equipment	Were you satisfied with our Equipment? Circle Y or N	
Personnel	Were you satisfied with our people? Circle Y or N	
Customer Comment	Customer's Comment	

<b>CUSTOMER SIGNATURE</b>
---------------------------

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### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	3/28/2015
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>	5
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>Pumping Hours</b>	3
Total number of hours pumping fluid on this job. Enter in decimal format.	
<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>	6
Number Of Jsas Performed	
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes
Primary Cement Job= Casing job, Liner job, or Tie-back job.	
<b>Number of Unplanned Shutdowns</b>	0
Unplanned shutdown is when injection stops for any period of time.	
<b>Customer Non-Productive Rig Time (hrs)</b>	0

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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>Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment?</b> Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment?	No
<b>Did We Run Wiper Plugs?</b> Did We Run Top And Bottom Casing Wiper Plugs?	Top
<b>If a top plug was run, was the plug bumped? (Yes/No/N/A)</b> If a top plug was run, was the plug bumped? (Yes/No/N/A)	Yes
<b>If applicable, was Halliburton float equipment used? (Yes/No/N/A)</b> If applicable, was Halliburton float equipment used? (Yes/No/N/A)	No
<b>If applicable, did the floats hold? (Yes/No/N/A)</b> If applicable, did the floats hold? (Yes/No/N/A)	Yes
<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	90
<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	90
<b>If applicable, were there returns throughout the job? (Yes/No/N/A)</b> If applicable, were there returns throughout the job? (Yes/No/N/A)	No
<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