

WPX Energy Rocky Mountain LLC- EBUS

RGU 44-26-198

**H&P 318**

## **Post Job Summary**

# **Cement Production Casing**

Date Prepared: 01/18/2016  
Job Date: 04/13/2015

Submitted by: Jenna Cook – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 3124455	Quote #:	Sales Order #: 0902246719
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Customer Rep: Beaudé Oaks	
Well Name: FEDERAL	Well #: RGU 44-26-198	API/UWI #: 05-103-11982-00	
Field: SULPHUR CREEK	City (SAP): MEEKER	County/Parish: RIO BLANCO	State: COLORADO
Legal Description: 26-1S-98W-2479FNL-918FEL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 318	
Job BOM: 7523			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB50180		Srcv Supervisor: Christopher Kukus	

**Job**

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	12848ft Job Depth TVD
Water Depth	Wk Ht Above Floor 5FT
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	4065		0
Casing	0	4.5	4	11.6	8 RD (LT&C)	P-110	0	12838		0
Open Hole Section			8.75				4065	8670	0	0
Open Hole Section			8.5				8670	10391	0	0
Open Hole Section			7.875				10391	12848	0	0

**Tools and Accessories**

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	4.5	1		12838	Top Plug	4.5		HES
Float Shoe	4.5	1			Bottom Plug	4.5		HES
Float Collar	4.5	1		12808	SSR plug set	4.5		HES
Insert Float	4.5	1			Plug Container	4.5	1	HES
Stage Tool	4.5	1			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			6	

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	
2	ExtendaCem	EXTENDACEM (TM) SYSTEM	635	sack	11	2.752		8	16.08	
16.08 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	ECONOCEM (TM) SYSTEM	400	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	THERMACEM (TM) SYSTEM	885	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	198.5	bbl	8.33			10		
0.03 lbm/bbl		BE-6, 48 LB FIBER DRUM (100003800)								
0.01 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)								
<b>Cement Left In Pipe</b>		<b>Amount</b>	30 ft			<b>Reason</b>	Shoe Joint			
<b>Comment</b>										

## 1.0 Real-Time Job Summary

### 1.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	4/7/2015	20:00:15	USER					HES CREW WAS CALLED OUT AT 20:00 WITH ON LOCATION TIME OF 02:00
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/7/2015	21:50:09	USER					ALL HES CREW MEMBERS
Event	3	Crew Leave Yard	Crew Leave Yard	4/7/2015	22:00:18	USER					HES CREW AND EQUIPMENT READY AND LEFT YARD AT 22:00 1 F 550 PICK UP, 1 HT 400 PUMP TRUCK, 2 660 BULK TRUCKS
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	4/8/2015	01:00:23	USER					HES CREW ARRIVED ON LOCATION AT 01:00 A HOUR EARLY RIG WAS RUNNING CASING HES CREW SPOTTED EQUIPMENT AND RIGGED UP
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	4/8/2015	01:20:28	USER					ALL HES CREW MEMBERS
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/8/2015	01:25:40	USER					ALL HES CREW MEMBERS
Event	7	Rig-Up Equipment	Rig-Up Equipment	4/8/2015	01:30:49	USER					RIG UP IRON TO STAND PIPE, WASH UP LINE TO RIG PIT, FRESH WATER LINES TO UP RIGHT AND RIG TANK, BULK LINES TO SILOS AND BULK TRUCKS
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	4/8/2015	06:30:58	USER					ALL HES CREW MEMBERS AND RIG CREW
Event	9	Start Job	Start Job	4/8/2015	07:17:58	COM5					TD: 12848 TP: 12838 SJ: 30

CSG: 4 1/2 11.6# P110 OH: 8  
 3/4 TO 8670 8 1/2 TO  
 10,391 7 7/8 TO 12,848 SF  
 CSG: 9 5/8 36# AT 4065  
 MUD: 9.9 VISC: 40 RIG  
 CIRCULATED FOR 3 HOURS  
 BEFORE CEMENT JOB WITH  
 FULL RETURNS

Event	10	Prime Pumps	Prime Lines	4/8/2015	07:44:16	COM5	246.0	8.47	2.0	2.0	PRIME LINES WITH 2 BBLS OF FRESH WATER AT 2 BBL MIN WITH 246 PSI
Event	11	Test Lines	Test Lines	4/8/2015	07:46:02	COM5	5016.0	8.51	0.00	2.0	PRESSURE TEST OK AT 5016 PSI KICK OUTS WORKING STALL OUT AT 2496 PSI
Event	12	Pump Spacer 1	Pump Spacer 1	4/8/2015	07:51:43	COM5	890.0	8.46	6.0	100.0	PUMP 100 BBL FRESH WATER SPACER AT 6 BBL MIN WITH AVERAGE PRESSURE AT 890 PSI
Event	13	Pump Cement	Pump Cement	4/8/2015	08:08:31	COM5	800.0	11.05	8.0	311.0	EXTENDACEM 635 SKS 11 PPG 2.75 YIELD 16.08 GAL/SK SCAVENGER CEMENT WEIGHT VERIFIED BY MUD SCALES SAMPLES WERE TAKEN 5 BOXES OF TUFIBER WERE ADDED IN THE FIRST 100 BBLS TOTAL OF 311 BBLS AWAY AVERAGE PRESSURE 800 PSI
Event	14	Pump Lead Cement	Pump Lead Cement	4/8/2015	08:48:27	COM5	730.0	12.75	8.00	136.1	ECONOCEM 400 SKS 12.7 PPG 1.91 YIELD 10.09 GAL/SK LEAD CEMENT WEIGHT VERIFIED BY MUD SCALES SAMPLES WERE TAKEN TOATAL OF 136.1 BBLS AWAY AVERAGE PRESSURE 730 PSI
Event	15	Pump Tail Cement	Pump Tail Cement	4/8/2015	09:05:31	COM5	700.0	13.52	8.00	275.8	THERMACEM 885 SKS 13.5 PPG 1.75 YIELD 8.25 GAL/SK

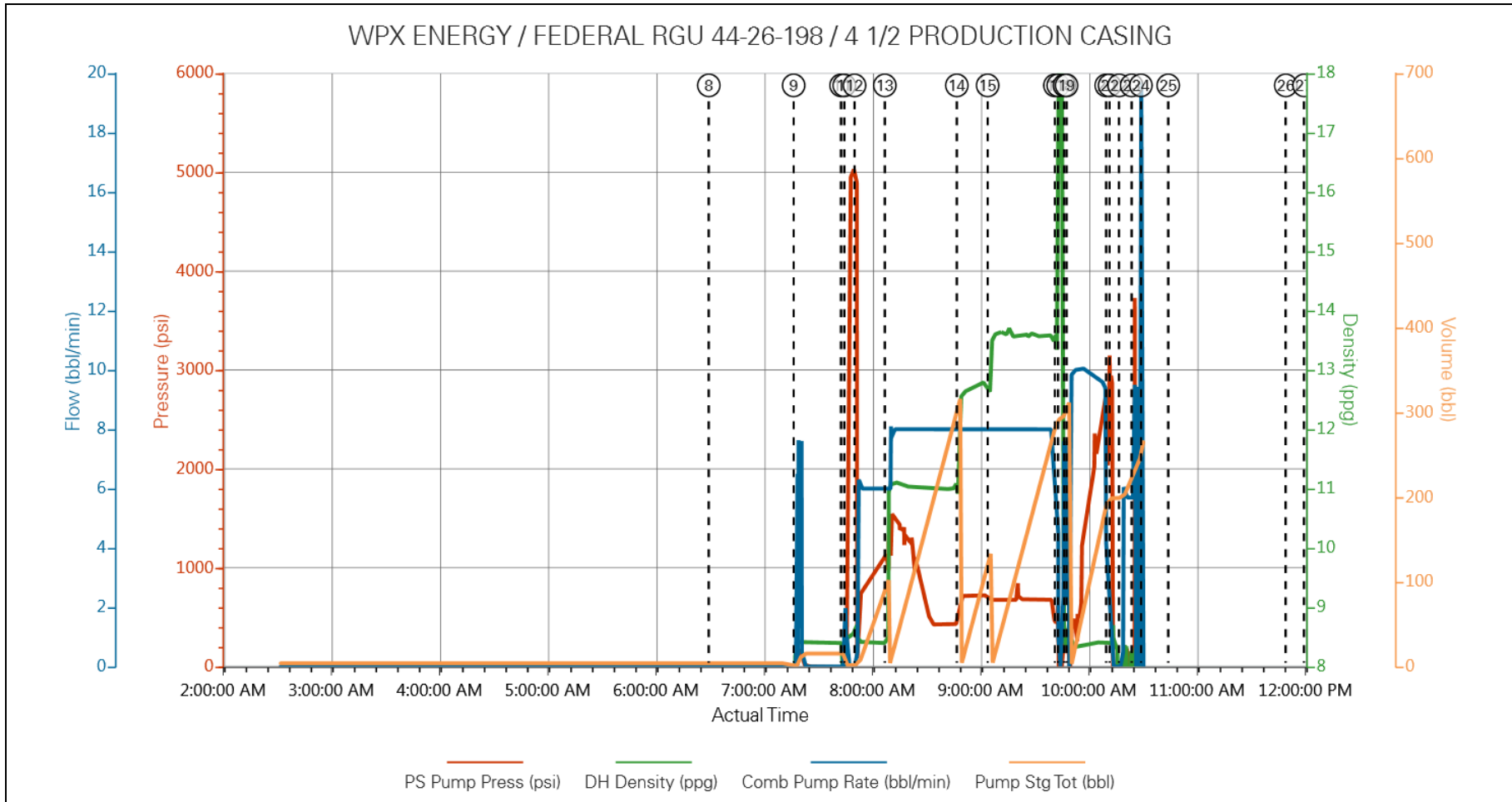
											TAIL CEMENT WEIGHT VERIFIED BY MUD SCALES SAMPLES WERE TAKEN TOTAL OF 275.8 BBLS AWAY AVERAGE PRESSURE 700 PSI AT 220 BBLS AWAY WELL LOST RETURNS
Event	16	Shutdown	Shutdown	4/8/2015	09:42:47	COM5	-33.00	13.52	0.00	275.8	SHUTDOWN END OF CEMENT READY TANKS FOR DISPLACEMENT
Event	17	Clean Lines	Clean Lines	4/8/2015	09:44:38	USER	77.00	12.73	0.00	15.0	CLEAN LINES WITH 15 BBLS OF FRESH WATER
Event	18	Drop Top Plug	Drop Top Plug	4/8/2015	09:48:03	USER					TOP PLUG AWAY WITH NO ISSUES CO REP REQUESTED TO USE HIS LATCH DOWN PLUG
Event	19	Pump Displacement	Pump Displacement	4/8/2015	09:49:17	COM5	1820.0	8.44	10.0	198.5	PUMP 198.5 BBLS OF KCL DISPLACEMENT 20 BAGS KCL, 3 BAGS BE-6, 1 GAL MMCR WERE ADDED KCL WAS PROVIDED BY THE RIG WELL HAD NO RETURNS THROUGH OUT DISPLACEMENT HES SLOWED RATE LAST 10 BBLS TO 4 BBL MIN PRESSURE AT 2745 PSI
Event	20	Bump Plug	Bump Plug	4/8/2015	10:11:14	COM5	2070.0	8.44	4.0	198.5	PLUG BUMP AT 198.5 BBLS AWAY PRESSURE WAS 2070 PSI AND WAS TOOK UP TO 2960 PSI
Event	21	Check Floats	Check Floats	4/8/2015	10:13:06	USER	2960.0	8.34	0.00	198.5	FLOATS HELD WITH 2.5 BBLS BACK TO DISPLACEMENT TANKS
Event	22	End Job	End Job	4/8/2015	10:18:25	COM5					CEMENT JOB WENT GOOD WITH NO ISSUES WELL DID LOSE RETURNS WITH 220

BBLS OF TAIL AWAY AND  
 NEVER GOT THEM BACK NO  
 SUGAR WAS USED AND  
 RIGS LATCH DOWN PLUG  
 WAS USED

Event	23	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	4/8/2015	10:25:22	USER	711.00	8.33	2.50	235.4	ALL HES CREW MEMBERS
Event	24	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	4/8/2015	10:30:31	USER					ALL HES CREW MEMBERS
Event	25	Rig-Down Equipment	Rig-Down Equipment	4/8/2015	10:45:39	USER					RIG DOWN FLOOR, GROUND LINES, WASH UP LINE, FRESH WATER LINES, BULK LINES, WASH UP AND BLOW DOWN PUMP
Event	26	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/8/2015	11:50:49	USER					ALL HES CREW MEMBERS
Event	27	Crew Leave Location	Crew Leave Location	4/8/2015	12:00:59	USER					THANK YOU FOR USING HALLIBURTON CEMENT CHRIS KUKUS AND CREW

2.0 Custom Graphs

2.1 Custom Graph



<b>Sales Order #:</b> 0902246719	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 4/13/2015
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b> TED RAGSDALE		<b>API / UWI: (leave blank if unknown)</b> 05-103-11982-00
<b>Well Name:</b> FEDERAL		<b>Well Number:</b> 0080129285
<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	4/13/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HX35027
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	JOB WENT WELL THANKS

<b>CUSTOMER SIGNATURE</b>
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### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	4/13/2015
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>	6
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>	4
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	80
<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>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

# HALLIBURTON

## Water Analysis Report

Company: WPX ENERGY

Date: 4/8/2015

Submitted by: CHRIS KUKUS

Date Rec.: 4/8/2015

Attention: LARRY COOKSEY

S.O.# 902246719

Lease FEDERAL

Job Type: PRODUCTION

Well # RGU 44-26-198

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>
Calcium (Ca)	<i>500</i>	<b>120 Mg / L</b>
Iron (FE2)	<i>300</i>	<b>0 Mg / L</b>
Chlorides (Cl)	<i>3000</i>	<b>0 Mg / L</b>
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>UNDER 400 Mg / L</b>
Hardness		<b>50 Mg / L</b>
Temp	<i>40-80</i>	<b>60 Deg</b>
Total Dissolved Solids		<b>200 Mg / L</b>

Respectfully: CHRIS KUKUS

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 i