

**WPX Energy Rocky Mountain LLC - EBUS**

RGU 334-23-198

Aztec 1000

**Post Job Summary**  
**Cement Production Casing**

Date Prepared: 12/15/2015  
Job Date: 12/08/2015

Submitted by: Patrick Ealey – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 300721		Ship To #: 3560589		Quote #:		Sales Order #: 0901873685	
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS				Customer Rep: JOSH GARIBAY			
Well Name: FEDERAL			Well #: RGU 334-23-198			API/UWI #: 05-103-12138-00	
Field: SULPHUR CREEK		City (SAP): MEEKER		County/Parish: RIO BLANCO		State: COLORADO	
Legal Description: SE SE-23-1S-98W-1035FSL-652FEL							
Contractor: AZTEC DRLG				Rig/Platform Name/Num: AZTEC 1000			
Job BOM: 7523							
Well Type: DIRECTIONAL GAS							
Sales Person: HALAMERICA\HB50180				Srv Supervisor: Dustin Smith			
Job							

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	12681ft Job Depth TVD 12562
Water Depth	Wk Ht Above Floor 5 FT
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		J-55	0	3975		0
Casing		4.5	4	11.6		P-110	0	12681		0
Open Hole Section			8.75				3975	10613	0	0
Open Hole Section			7.875				10613	12691	0	12562

### Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	4.5	1		12681	Top Plug	4.5	1	
Float Shoe	4.5	1			Bottom Plug			
Float Collar	4.5	1		12653.48	SSR plug set			
Insert Float	4.5	1			Plug Container	4.5	1	HES
Stage Tool	4.5	1			Centralizers	4.5		

### 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/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Fresh Water	Fresh Water	100	bbl	8.3			8.0		
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	

2	ExtendaCem GJ1	EXTENDACEM (TM) SYSTEM	640	sack	11	2.75		8.0	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	ECONOCEM (TM) SYSTEM	355	sack	12.7	1.91		8.0	10.07
10.07 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
4	ThermaCem GJ1	THERMACEM (TM) SYSTEM	940	sack	13.5	1.75		8.0	8.23
8.32 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	196.1	bbl	8.34			10.0	
Cement Left In Pipe		Amount	27.52 ft		Reason		Shoe Joint		
Comment									

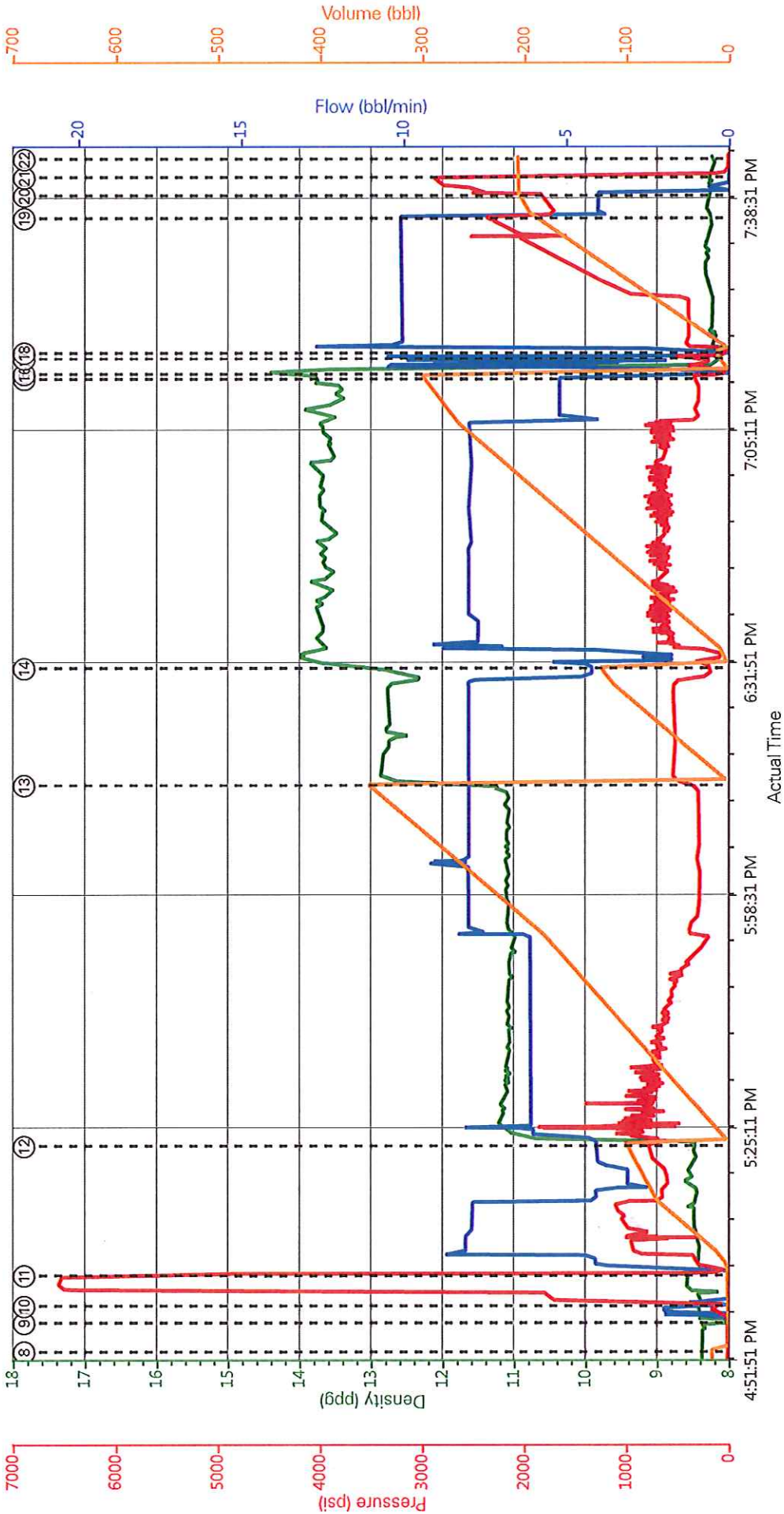
## 3.5 Job Event Log

Type	Seq. No.	Activity	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	12/8/2014	02:00:00	USER					ELITE # 8
Event	2	Pre-Convoy Safety Meeting	12/8/2014	02:15:00	USER					ALL HES EMPLOYEES
Event	3	Arrive At Loc	12/8/2014	02:30:00	USER					SUPERVISOR AND PUMP TRUCK ARRIVED ON LOCATION @ 0230 FROM ANOTHER SITE, BULK EQUIPMENT AND MATERIALS ARRIVED ON LOCATION @ 1200 REQUESTED ON LOCATION TIME WAS 1400 DIDNT START CHARGING TIME UNTIL REQUESTED ON LOCATION TIME RIG RUNNING CASING
Event	4	Assessment Of Location Safety Meeting	12/8/2014	13:00:00	USER					ALL HES EMPLOYEES
Event	5	Pre-Rig Up Safety Meeting	12/8/2014	13:30:00	USER					ALL HES EMPLOYEES
Event	6	Rig-Up Equipment	12/8/2014	13:45:00	USER					1 HT-400 PUMP TRUCK (ELITE #8) 2 660 BULK TRUCKS 2 SILOS 1 F-550 PICKUP
Event	7	Pre-Job Safety Meeting	12/8/2014	16:45:00	USER					ALL HES EMPLOYEES AND RIG CREW RIG CIRCULATED FOR 3 HOURS PRIOR TO THE JOB @ 14 BPM GAS @ 163 PRIOR TO STARTING THE JOB
Event	8	Start Job	12/8/2014	16:53:30	USER					TD: 12691 TP: 12681 SI: 27.52 CSG: 4 1/2 11.6# P-110 SURFACE CASING @ 3975 OH: 8 3/4 FROM SURFACE SHOE TO 10613 7 7/8 FROM 10613 TO TD MUD WT: 9.7 PPG TVD: 12562 TOG: 9253
Event	9	Prime Pumps	12/8/2014	16:57:38	COM5	8.33	2.0	170	2.0	PRIME LINES WITH 2 BBLs FRESH WATER
Event	10	Test Lines	12/8/2014	17:00:03	COM5	8.33	0.0	6566	2.0	PRESSURE TEST OK
Event	11	Pump Spacer 1	12/8/2014	17:04:27	COM5	8.33	8.0	1120	100	PUMP 100 BBL FRESH WATER SPACER
Event	12	Pump Spacer 2	12/8/2014	17:23:02	COM5	11	6.0	867	217.7	640 SKS 11 PPG 2.75 YIELD 16.07 GAL/SK SCAVENGER WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES 5 BOXES TUFF FIBER ADDED
Event	13	Pump Lead Cement	12/8/2014	18:14:44	COM5	12.7	8.0	543	120.8	355 SKS 12.7 PPG 1.91 YIELD 10.07 GAL/SK LEAD CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES

Type	Seq. No.	Activity	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	14	Pump Tail Cement	12/8/2014	18:31:29	COM5	13.5	8.0	694	293	940 SKS 13.5 PPG 1.75 YIELD 8.23 GAL/SK TAIL CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES
Event	15	Shutdown	12/8/2014	19:13:01	USER					
Event	16	Clean Lines	12/8/2014	19:13:42	USER					CLEAN PUMPS AND LINES TO THE PITY
Event	17	Drop Top Plug	12/8/2014	19:15:57	COM5					PLUG AWAY NO PROBLEMS USED LATCHDOWN PLUG PROVIDED BY COMPANY REP AND REMOVED PLUG FROM THE TICKET
Event	18	Pump Displacement	12/8/2014	19:16:46	COM5	8.4	10.0	2367	196.1	1 GAL MMCR 3 #S BE-6 1 BAG/ 10 BBL KCL DISPLACEMENT
Event	19	Other	12/8/2014	19:36:07	COM5	8.4	4.0	1838	181	SLOW RATE TO BUMP PLUG
Event	20	Bump Plug	12/8/2014	19:39:22	COM5	8.4	4.0	2892	196.1	PSI BEFORE BUMPING PLUG @1838 BUMPED PLUG UP TO 2892 PSI
Event	21	Check Floats	12/8/2014	19:42:00	USER					FLOATS HELD 2 BBLs BACK TO DISPLACEMENT TANKS
Event	22	End Job	12/8/2014	19:44:38	COM5					PIPE RECIPROCATED THROUGHOUT THE JOB UNTIL PLUG WAS DROPPED - PIPE STATIC THROUGHOUT DISPLACEMENT RETURNS WERE LOST 84 BBLs INTO DISPLACEMENT
Event	23	Pre-Rig Down Safety Meeting	12/8/2014	19:50:00	USER					ALL HES EMPLOYEES
Event	24	Rig-Down Equipment	12/8/2014	20:00:00	USER					
Event	25	Pre-Convoy Safety Meeting	12/8/2014	21:45:00	USER					ALL HES EMPLOYEES
Event	26	Crew Leave Location	12/8/2014	22:00:00	USER					THANK YOU FOR USING HALLIBURTON CEMENT DUSTN SMITH AND CREW



WPX - FEDERAL RGU 334-23-198 - 4 1/2 PRODUCTION



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

- |   |                          |                           |                     |                                |                        |
|---|--------------------------|---------------------------|---------------------|--------------------------------|------------------------|
| ① Call Out                              | ⑥ Rig-Up Equipment       | ⑪ Pump Fresh Water Spacer | ⑮ Clean Lines       | ⑲ Check Floats                 | 26 Crew Leave Location |
| ② Pre-Convoy Safety Meeting             | ⑦ Pre-Job Safety Meeting | ⑫ Pump Scavenger          | ⑯ Drop Top Plug     | 22 End Job                     |                        |
| ③ Arrive At Loc                         | ⑧ Start Job              | ⑬ Pump Lead Cement        | ⑳ Pump Displacement | 23 Pre-Rig Down Safety Meeting |                        |
| ④ Assessment Of Location Safety Meeting | ⑨ Prime Lines            | ⑭ Pump Tail Cement        | ㉑ Slow Rate         | 24 Rig-Down Equipment          |                        |
| ⑤ Pre-Rig Up Safety Meeting             | ⑩ Test Lines             | ⑰ Shutdown                | 20 Bump Plug        | 25 Pre-Convoy Safety Meeting   |                        |

▼ **HALLIBURTON** | iCem® Service

[Edit](#)

Created: 2014-12-08 07:04:02, Version: 4.0.248

Customer : WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

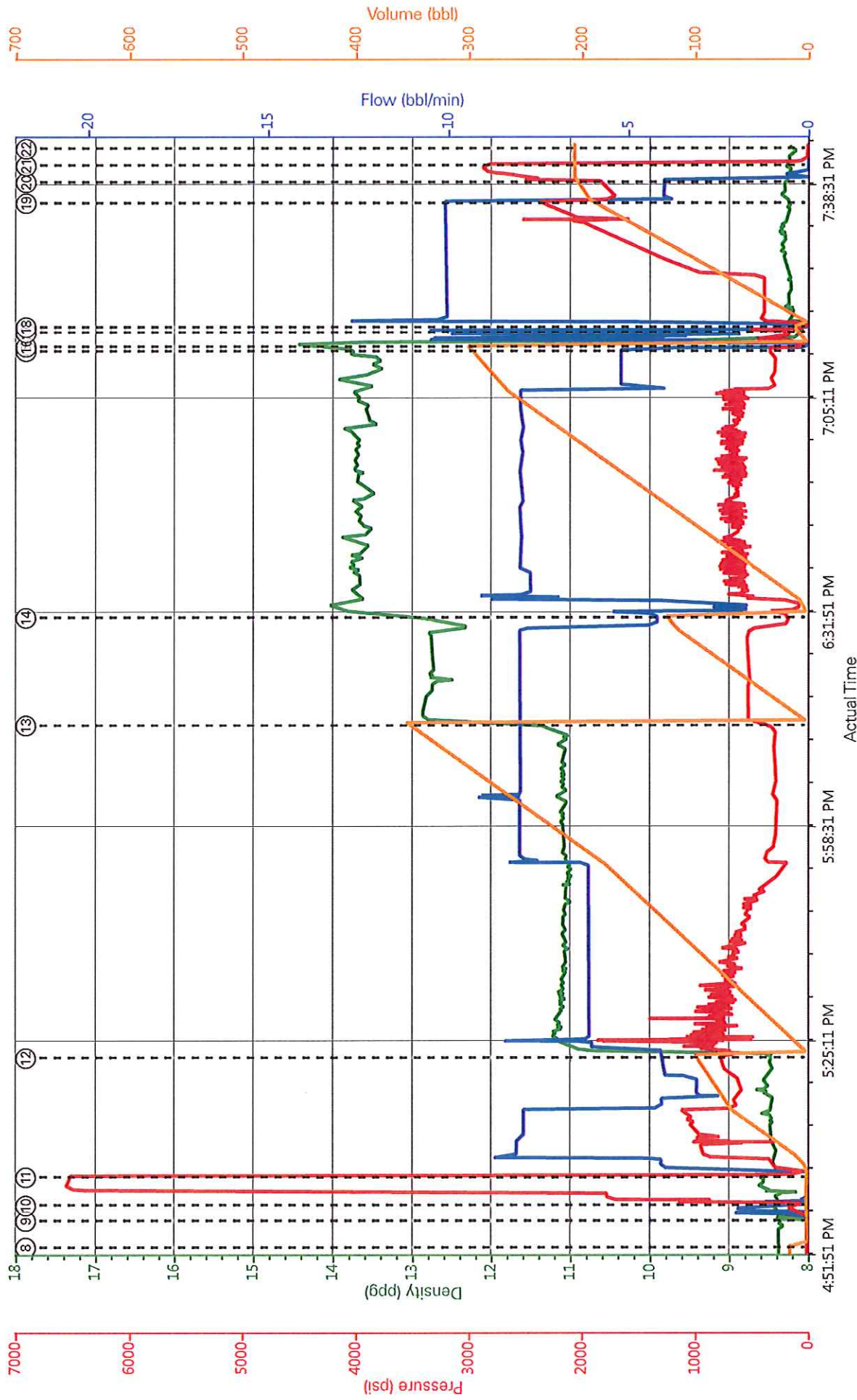
Well : FEDERAL RGU 334-23-198

Representative : JOSH GARIBAY

Sales Order # : 0901873685

ELLITE # 8 : DUSTIN SMITH / BEN ROSE

# WPX - FEDERAL RGU 334-23-198 - 4 1/2 PRODUCTION



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Created: 2014-12-08 07:04:02, Version: 4.0.248

Edit

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date: 12/8/2014 4:26:14 PM

Well: FEDERAL RGU 334-23-198

Representative: JOSH GARIBAY

Sales Order #: 0901873685

ELLITE # 8: DUSTIN SMITH / BEN ROSE

# HALLIBURTON

## Water Analysis Report

Company: WPX  
Submitted by: DUSTIN SMITH  
Attention: \_\_\_\_\_  
Lease: FEDERAL RGU  
Well #: 334-23-198

Date: 12/8/2014  
Date Rec.: \_\_\_\_\_  
S.O.#: 901873685  
Job Type: PRODUCTION

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7</b>
Potassium (K)	<i>5000</i>	<b>200 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 200 Mg / L</b>
Chlorine (Cl <sub>2</sub> )		<b>0 Mg / L</b>
Temp	<i>40-90</i>	<b>58 Deg</b>
Total Dissolved Solids		<b>890 Mg / L</b>

Respectfully: DUSTIN SMITH

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> 0901873685	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 12/9/2014
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b> JOSH GARIBAY		<b>API / UWI: (leave blank if unknown)</b> 05-103-12138-00
<b>Well Name:</b> FEDERAL		<b>Well Number:</b> 0080641148
<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	12/9/2014
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HX37079
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	JOSH GARIBAY
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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### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b> The date the survey was conducted	12/9/2014

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.	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>Pumping Hours</b> Total number of hours pumping fluid on this job. Enter in decimal format.	3
<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	6
<b>Was this a Primary Cement Job (Yes / No)</b> Primary Cement Job= Casing job, Liner job, or Tie-back job.	Yes
<b>Number of Unplanned Shutdowns</b> Unplanned shutdown is when injection stops for any period of time.	0
<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>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, 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