

WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

RWF 443-25

Nabors 577

## **Post Job Summary**

# **Cement Surface Casing**

Date Prepared: 6/5/2014

Job Date: 6/4/2014

Submitted by: Tony Eschete - Cement Engineer

*The Road to Excellence Starts with Safety*

Sold To #: 300721	Ship To #: 3123581	Quote #:	Sales Order #: 0901401056
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Customer Rep:		
Well Name: SAVAGE	Well #: RWF 443-25	API/UWI #: 05-045-22001-00	
Field: RULISON	City (SAP): RIFLE	County/Parish: GARFIELD	State: COLORADO
Legal Description: SW SE-25-6S-94W-1185FSL-1382FEL			
Contractor: NABORS DRLG	Rig/Platform Name/Num: NABORS 577		
Job BOM: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB50180	Srvc Supervisor: BILL JAMISON		

**Job**

**CIRCULATED 25 BBLS OF CEMENT TO SURFACE**

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	1147ft		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
Open Hole Section			13.5				0	1157		0
Casing		9.625	9.001	32.3	8 RD	H-40	0	1147	0	0

**Tools and Accessories**

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625	1		1147	Top Plug	9.625	1	HES
Float Shoe					Bottom Plug			
Float Collar	9.625	1		1084	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 ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Fresh Water	Fresh Water	20	bbl	8.34			6	

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	Lead Cement	VARICEM (TM) CEMENT	150	sack	12.3	2.38		8	13.77
0.30 %		VERSASET, 55 LB SK (101376573)							

2 %		ECONOLITE (100001580)							
13.72 Gal		FRESH WATER							
0.25 %		D-AIR 5000, 50 LB SACK (102068797)							
94 lbm		TYPE I / II CEMENT, BULK (101439798)							
2 %		CAL-SEAL 60, BULK (100064022)							
5.64 lbm		SALT, BULK (100003695)							
0.25 lbm		POLY-E-FLAKE (101216940)							
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
3	Tail Cement	VARICEM (TM) CEMENT	165	sack	12.8	2.11		8	11.75
11.71 Gal		FRESH WATER							
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
4	Displacement	Displacement	87.5	bbl	8.34			10	
Cement Left In Pipe		Amount	35.81 ft		Reason		Shoe Joint		
Comment									

## 4.1 Job Event Log

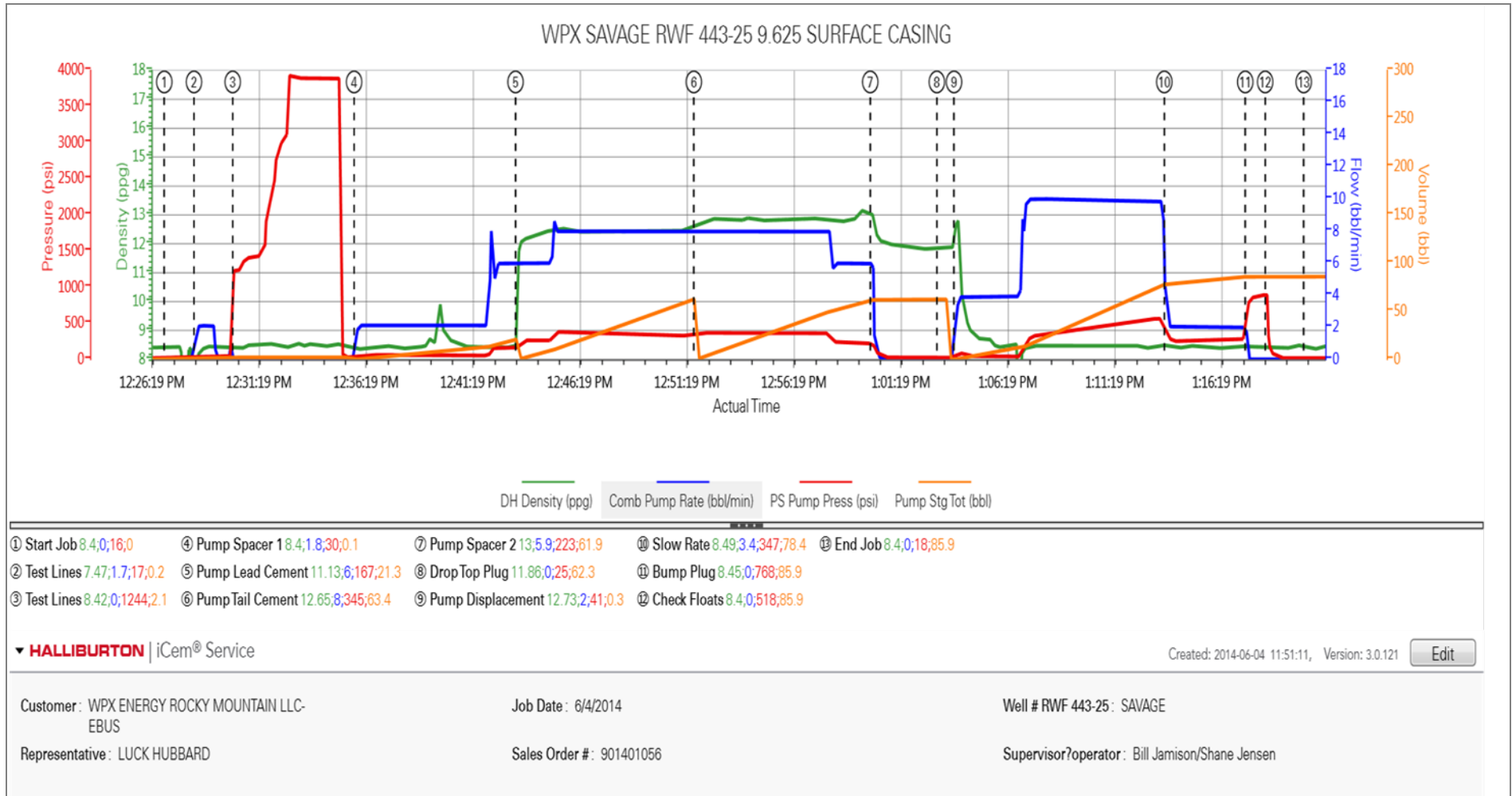
Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comment
Event	1	Call Out	6/4/2014	06:00:00	USER					TD 1157 SHOE SET @ 1147 FC 1084 TP 1147 HOLE SIZE 13.5 CASING 9.625 32.3 H-40 SJ 35.81 MUD 10.2
Event	2	Depart Yard Safety Meeting	6/4/2014	08:50:00	USER					
Event	3	Crew Leave Yard	6/4/2014	09:00:00	USER					
Event	4	Arrive At Loc	6/4/2014	10:50:00	USER					
Event	5	Assessment Of Location Safety Meeting	6/4/2014	11:00:00	USER					
Event	6	Pre-Rig Up Safety Meeting	6/4/2014	11:15:00	USER					
Event	7	Pre-Job Safety Meeting	6/4/2014	12:00:00	USER					
Event	8	Start Job	6/4/2014	12:27:00	COM2					
Event	9	Prime Pumps	6/4/2014	12:28:00	USER	8.4	2	54	2	FRESH WATER
Event	10	Test Lines	6/4/2014	12:30:11	USER			3500		
Event	11	Pump Spacer 1	6/4/2014	12:35:52	COM2	8.40	6	160	20	FRESH WATER
Event	12	Pump Lead Cement	6/4/2014	12:43:25	COM2	12.3	8	380	63	150 SKS 12.3 YIELD 2.38 WAT/REQ 13.77
Event	13	Pump Tail Cement	6/4/2014	12:51:45	COM2	12.8	8	370	62	165 SKS 12.8 YIELD 2.11 WAT/REQ 11.77
Event	14	Shut Down	6/4/2014	13:00:06	USER					
Event	15	Drop Top Plug	6/4/2014	13:03:06	COM2					
Event	16	Pump Displacement	6/4/2014	13:03:55	COM2	8.4	10	342		FRESH WATER
Event	17	Slow Rate	6/4/2014	13:13:44	USER	8.4	2	560	77	
Event	18	Bump Plug	6/4/2014	13:17:31	COM2	8.4	2	260	87.5	PRESSURED UP TO 885 psi
Event	19	Check Floats	6/4/2014	13:18:27	USER					FLOATS HELD
Event	20	End Job	6/4/2014	13:20:15	COM2					CEMENT BACK TO SURFACE 25 BBLS
Event	21	Post-Job Safety Meeting (Pre Rig-Down)	6/4/2014	13:30:00	USER					GOOD CIRCULATION THROUGHOUT JOB
Event	22	Depart Location Safety Meeting	6/4/2014	14:20:00	USER					CASING WAS NOT MOVED THROUGHOUT JOB

Event    23    Crew Leave Location    6/4/2014    14:30:00    USER

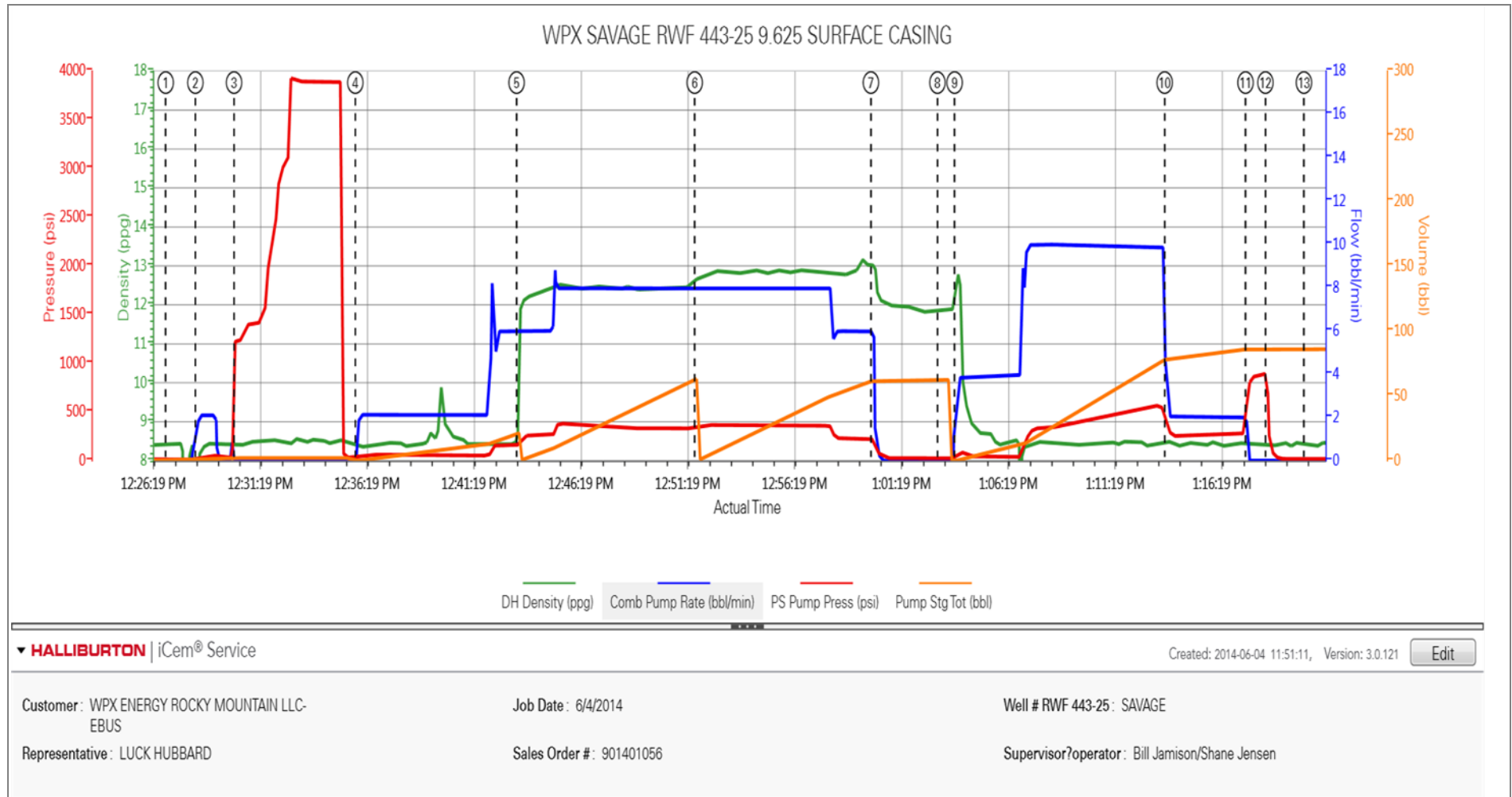
THANKS FOR USING HALLIBURTON BILL JAMISON &  
CREW

## 5.0 Attachments

### 5.1 WPX SAVAGE RWF 443-25 SURFACE CASING.png

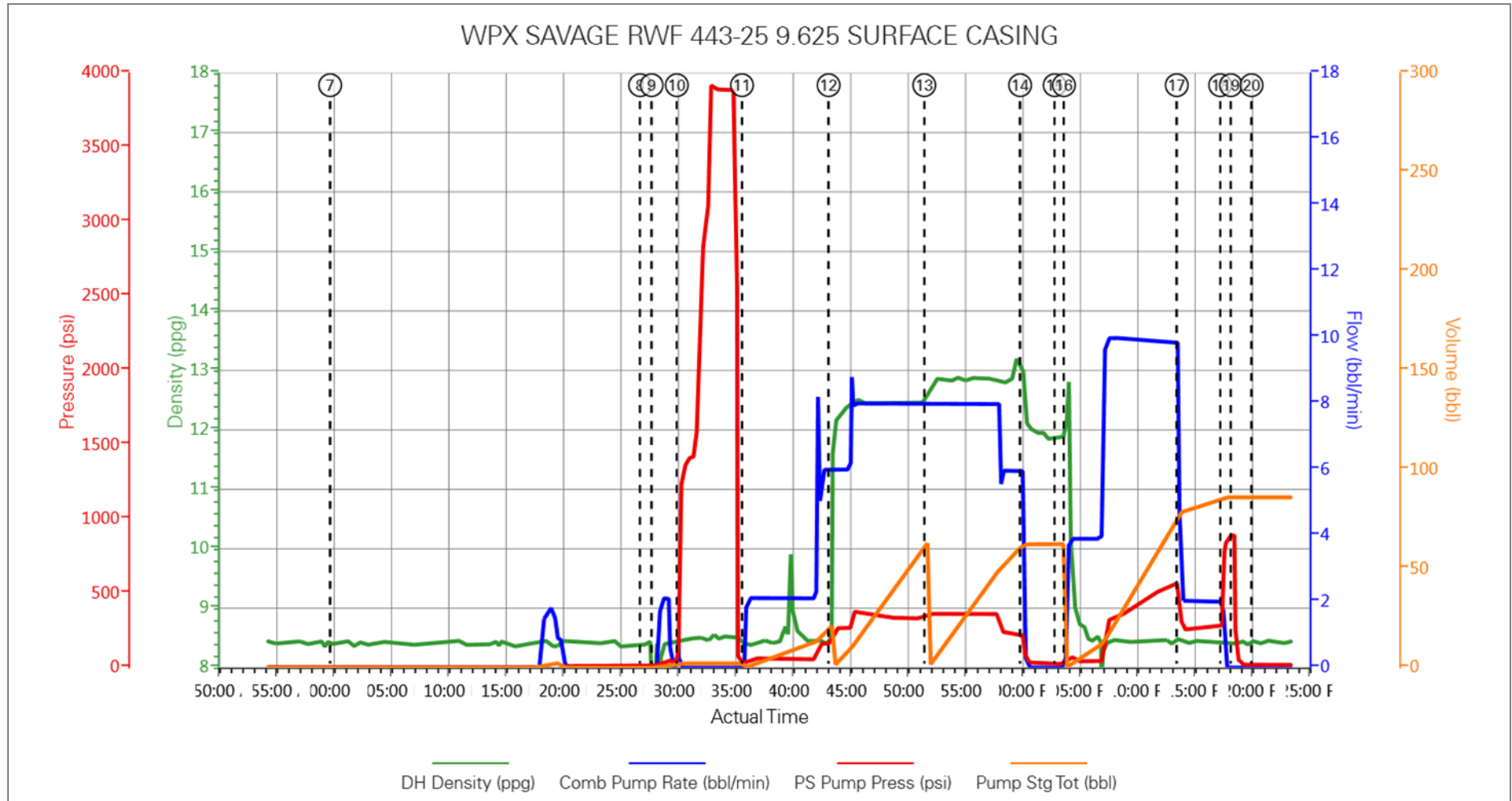


5.2 WPX SAVAGE RWF 443-25 SURFACE CASING.png



## 6.0 Custom Graphs

### 6.1 Custom Graph





# HALLIBURTON

## Water Analysis Report

Company: WILLIAMS PRODUCTION

Submitted by: BILL JAMISON

Attention: J.Trout

Lease SAVAGE

Well # RWF 443-25

Date: 6/4/2014

Date Rec.: 6/4/2014

S.O.# 901401056

Job Type: SURFACE

Specific Gravity	<i>MAX</i>	<i>1</i>
pH	<i>8</i>	<i>7.5</i>
Potassium (K)	<i>5000</i>	<i>200</i> Mg / L
Calcium (Ca)	<i>500</i>	<i>120</i> Mg / L
Iron (FE2)	<i>300</i>	<i>0</i> Mg / L
Chlorides (Cl)	<i>3000</i>	<i>0</i> Mg / L
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<i>below 200</i> Mg / L
Chlorine (Cl <sub>2</sub> )		<i>0</i> Mg / L
Temp	<i>40-80</i>	<i>67</i> Deg
Total Dissolved Solids		<i>250</i> Mg / L

Respectfully: BILL JAMISON

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> 0901401056	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 6/4/2014
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> LUCK HUBBARD		<b>API / UWI: (leave blank if unknown)</b> 05-045-22001-00
<b>Well Name:</b> SAVAGE		<b>Well Number:</b> 0080125656
<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> 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	6/4/2014
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HAL9235
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	LUCK HUBBARD
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	NONE

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

General	
<b>Survey Conducted Date</b> The date the survey was conducted	6/4/2014

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.	Deviated
<b>Total Operating Time (hours)</b> Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	3
<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.	1
<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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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	98
<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