

WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

GM 44-12

**H&P 318**

## **Post Job Summary**

# **Cement Surface Casing**

Date Prepared: 08/17/2014  
Job Date: 08/16/2014

Submitted by: Kory Hugentobler – Grand Junction Cement Engineer

## The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 3533960	Quote #:	Sales Order #: 0901587175
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Customer Rep: RON TOWERS	
Well Name: C&C ENERGY GM	Well #: 44-12	API/UWI #: 05-045-22430-00	
Field: GRAND VALLEY	City (SAP): PARACHUTE	County/Parish: GARFIELD	State: COLORADO
Legal Description: SW SW-12-7S-96W-267FSL-1054FWL			
Contractor:		Rig/Platform Name/Num: H&P 318	
Job BOM: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB50180		Srvc Supervisor: Craig Kukus	

### Job

Formation Name	
Formation Depth (MD)	Top
Form Type	BHST
Job depth MD	1880ft
Water Depth	Wk Ht Above Floor 3 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	0	9.625	9.001	32.3	8 RD	J-55	0	1880	0	0
Open Hole Section			13.5				0	1895	0	0

### Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625	1	HES	1880	Top Plug	9.625	1	HES
Float Shoe	9.625				Bottom Plug	9.625		HES
Float Collar	9.625	1	HES		SSR plug set	9.625		HES
Insert Float	9.625				Plug Container	9.625	1	HES
Stage Tool	9.625				Centralizers	9.625		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 ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Fresh Water	Fresh Water	20	bbl	8.34			4		
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	VariCem GJ1	VARICEM (TM) CEMENT	280	sack	12.3	2.45		8	14.17	

14.10 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
3	VariCem GJ1	VARICEM (TM) CEMENT	160	sack	12.8	2.18		8	12.11
12.05 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	Fresh Water Displacement	Fresh Water Displacement	141.9	bbl	8.34			10	
Cement Left In Pipe		Amount	44 ft		Reason		Shoe Joint		
Comment SURFACE JOB DID NOT GET CEMENT BACK / HAD RETURNS THRU OUT THE JOB / ORDERED 100 SKS TOP OUT / MIXED 6 BBLS ( APPROX 29 SKS AT 15.6 PPG 1.18 Y 5.23 GAL/SKS ) CEMENT TO SURFACE ON TOP OUT									

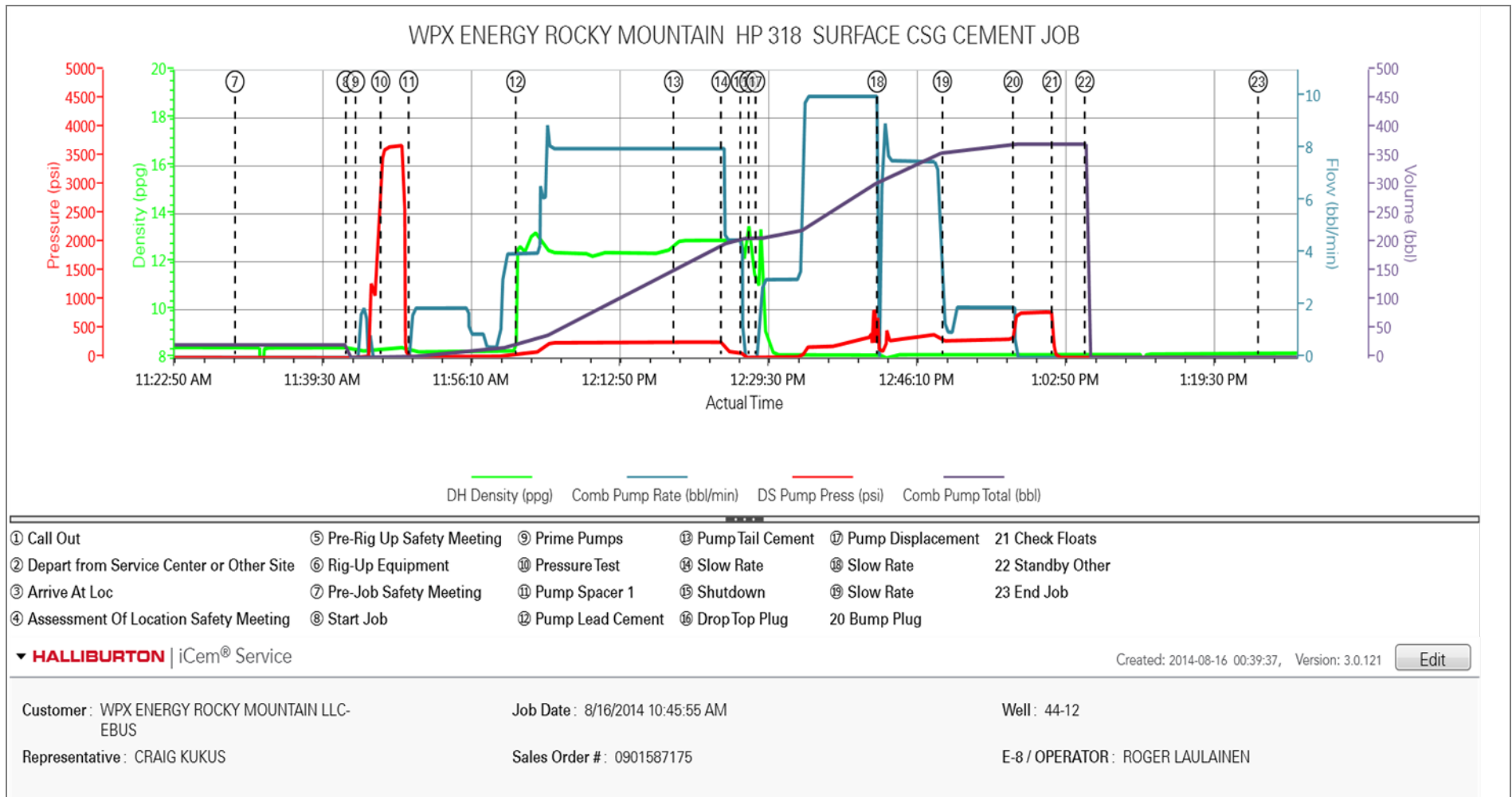
## 3.1 Job Event Log

Type	Seq No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Comb Pump Total (bbl)	Comment
Event	1	Call Out	8/15/2014	20:30:00	USER					CREW CALL OUT
Event	2	Depart from Service Center or Other Site	8/15/2014	23:00:00	USER					DEPART SERVICE CENTER SAFETY MEETING
Event	3	Arrive At Loc	8/16/2014	00:30:00	USER					ARRIVE EARLY ON LOC / RIG SETTING UP TO RUN CSG / HES EQUIPMENT 1 EA PUMP TRUCK 2 EA 660 UNITS AND 1 EA SERVICE PICKUP / 1 EA QUICK LATCH AND BAIL BASKET 1 EA SWEGE
Event	4	Assessment Of Location Safety Meeting	8/16/2014	00:45:00	USER					ASSESSMENT OF LOC WALK THRU / ALL HES PRESENT
Event	5	Pre-Rig Up Safety Meeting	8/16/2014	10:00:00	USER					SAFETY MEETING PRE-RIG UP ALL HES PRESENT
Event	6	Rig-Up Equipment	8/16/2014	10:15:00	USER					RIG UP IRON TO RED ZONE AND STAND PIPE TO FLOOR / QUICK LATCH AND BAILS TO FLOOR / RIG UP SUCTION HOSES TO FRESH WATER
Event	7	Pre-Job Safety Meeting	8/16/2014	11:30:00	USER	8.44	0.00	-3.00	0	PRE-JOB SAFETY MEETING ALL RIG PERSONEL AND HES PRESENT
Event	8	Start Job	8/16/2014	11:42:27	COM6	8.42	0.00	-6.00	0.0	TD 1895 FT TP 1880 FT SJT 44 FT OH 13.5 IN WF/WT 9.0# CSG 9 5/8 IN 36# J-55 USE TOP PLUG ONLY HES SUPPLIED
Event	9	Prime Pumps	8/16/2014	11:43:31	USER	8.30	0.00	20.00	2	PRIME LINES WITH FRESH WATER
Event	10	Pressure Test	8/16/2014	11:46:20	USER	8.41	0.00	3603.00	.3	PRESSURE TEST LINES 5TH GEAR STALL OUT 1340 PSI
Event	11	Pump Spacer 1	8/16/2014	11:49:29	COM6	8.31	1.20	5.00	20	PUMP 20 BBLS H2O AHEAD
Event	12	Pump Lead Cement	8/16/2014	12:01:29	COM6	12.75	4.00	86.00	122	PUMP 280 SKS LEAD CEMENT AT 12.3 PPG 2.45Y 14.17 GAL/SKS HAVE RETURNS AND CEMENT DIP GOOD
Event	13	Pump Tail Cement	8/16/2014	12:19:11	COM6	12.82	8.00	265.00	55	PUMP 160 SKS TAIL CEMENT AT 12.8 PPG 2.18 Y 12.11 GAL/SKS HAVE RETURNS AND CMT DIP GOOD
Event	14	Slow Rate	8/16/2014	12:24:30	USER	12.89	8.00	265.00	55	SLOW RATE
Event	15	Shutdown	8/16/2014	12:26:40	USER	12.20	0.00	43.00	63	SHUT DOWN END CEMENT / READY TUB TO WASH UP ON TOP

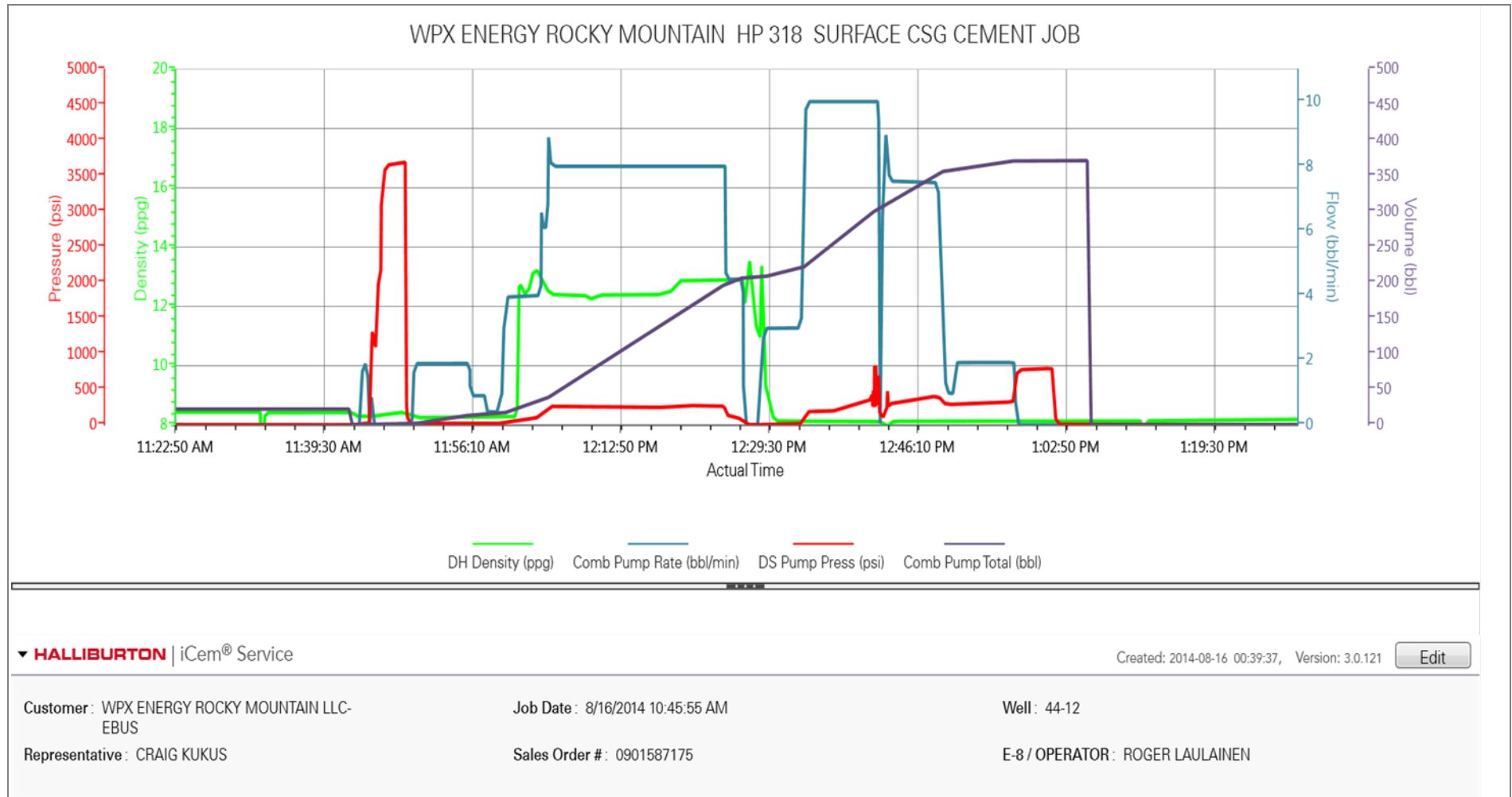
										OF PLUG
Event	16	Drop Top Plug	8/16/2014	12:27:36	USER	12.63	0.00	-5.00	0	DROP TOP PLUG / PLUG AWAY
Event	17	Pump Displacement	8/16/2014	12:28:23	COM6	11.04	0.70	-5.00	120	PUMP H2O DISPLACEMENT
Event	18	Slow Rate	8/16/2014	12:42:00	USER	8.10	0.00	94.00	120	SLOW RATE / HIT KICK OUT
Event	19	Slow Rate	8/16/2014	12:49:21	USER	8.12	1.00	286.00	131	SLOW RATE
Event	20	Bump Plug	8/16/2014	12:57:16	COM6	8.13	0.00	728.00	142	PLUG LANDED AT 360 PSI / HAD RETURNS TO THE END / DID NOT GET CEMENT BACK TO SURFACE
Event	21	Check Floats	8/16/2014	13:01:37	USER	8.11	0.00	87.00	329.3	CHECK FLOATS / FLOATS HELD GOT BACK 1 BBL TO TANKS
Event	22	Standby Other	8/16/2014	13:05:19	USER	8.12	0.00	-2.00	0.0	STAND BY WAIT ON TOP OUT DISCISION
Event	23	End Job	8/16/2014	13:24:46	COM6	8.19	0.00	-5.00	0.0	END CEMENT JOB NO CEMENT TO SURF / ORDER 100 SKS TOP OUT CEMENT
Event	24	Start Job	8/16/2014	18:34:51	COM6	8.30	0.00	3.00	0.0	TOP OUT AARIVED AT 18:00 / 100 SKS 15.6 PPG 1.18 Y 5.23 GAL/SKS MIX UP 6 BBLS 29 SKS
Event	25	PUMP H2O	8/16/2014	18:48:53	COM6	8.31	0.90	0.00	3.2	PUMP 2 BBLS H2O AHEAD / HAVE RETURNS
Event	26	Pump Cement	8/16/2014	18:51:16	COM6	15.64	2.00	94.00	6	PUMP 29 SKS CEMENT AT 15.6 PPG 1.18 Y 5.23 GAL/SKS / CEMENT TO SURFACE
Event	27	PUMP H2O	8/16/2014	18:54:44	USER	15.65	1.50	94.00	1	PUMP 1 BBL H2O BEHIND
Event	28	Shutdown	8/16/2014	18:55:23	USER	8.70	0.00	25.00	10.5	SHUT DOWN / READY PUMP TO WASH UP
Event	29	End Job	8/16/2014	19:00:36	COM6				339.8	END JOB / CEMENT TO SURFACE / NO FALL BACK
Event	30	Pre-Rig Down Safety Meeting	8/16/2014	19:10:00	USER	14.37	1.50	9.00	0	PRE-RIG DOWN SAFETY MEETING ALL HES PRESENT
Event	31	Rig-Down Equipment	8/16/2014	19:30:00	USER					RIG DOWN 1 IN / WASH UP PUMP AND RIG DOWN
Event	32	Depart Location Safety Meeting	8/16/2014	19:55:00	USER					ALL HES PRESENT
Event	33	Comment	8/16/2014	20:00:00	USER					THANK YOU FOR USING HALLIBURTON CEMENTING SERVICES AND THE CREW OF CRAIG KUKUS

## 4.0 Attachments

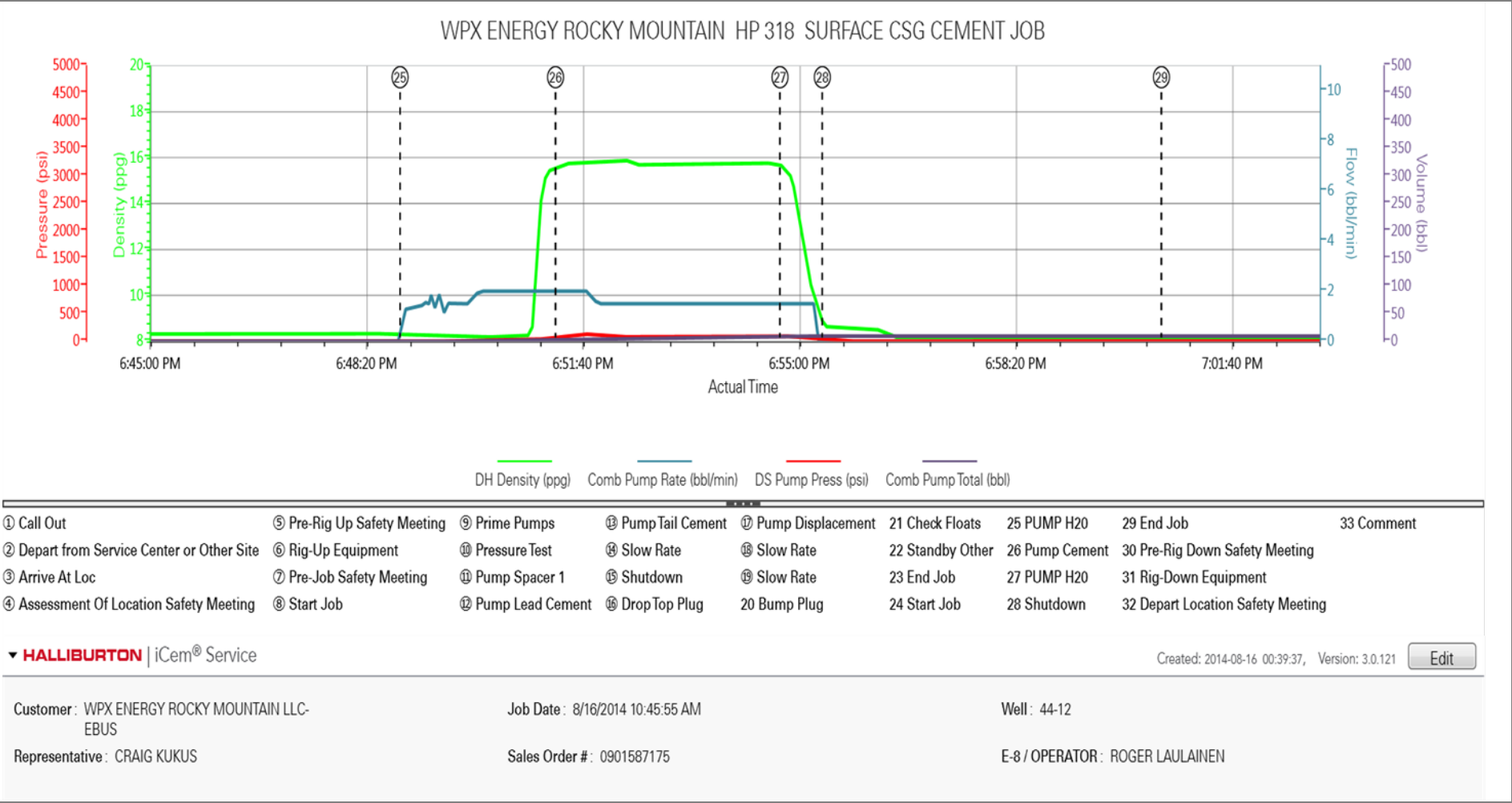
### 4.1 WPX ENERGY ROCKY MOUNTAIN-Custom Results1.png



4.2 WPX ENERGY ROCKY MOUNTAIN-Custom Results2.png

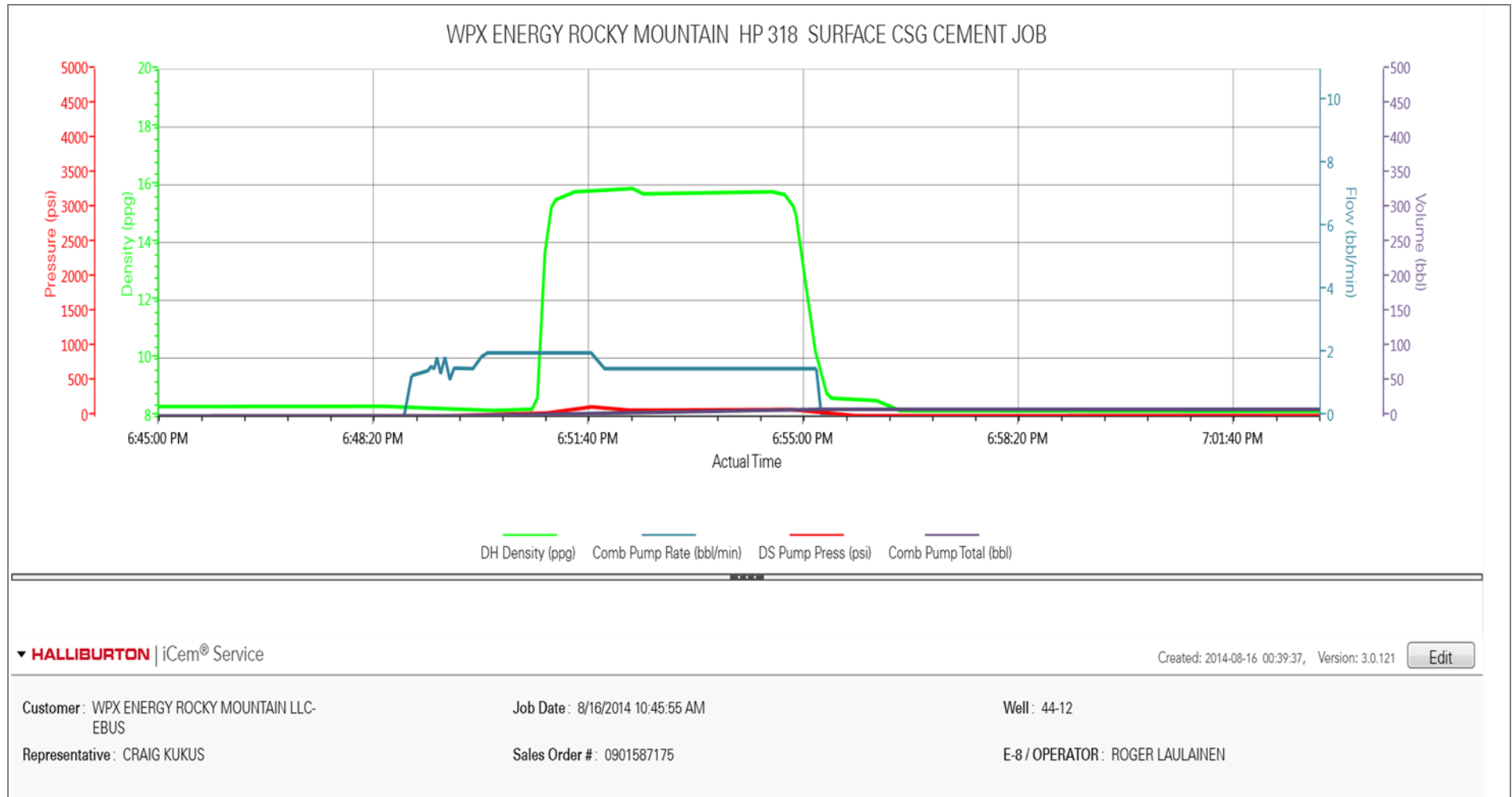


4.3 WPX ENERGY ROCKY MOUNTAIN-Custom Results3.png

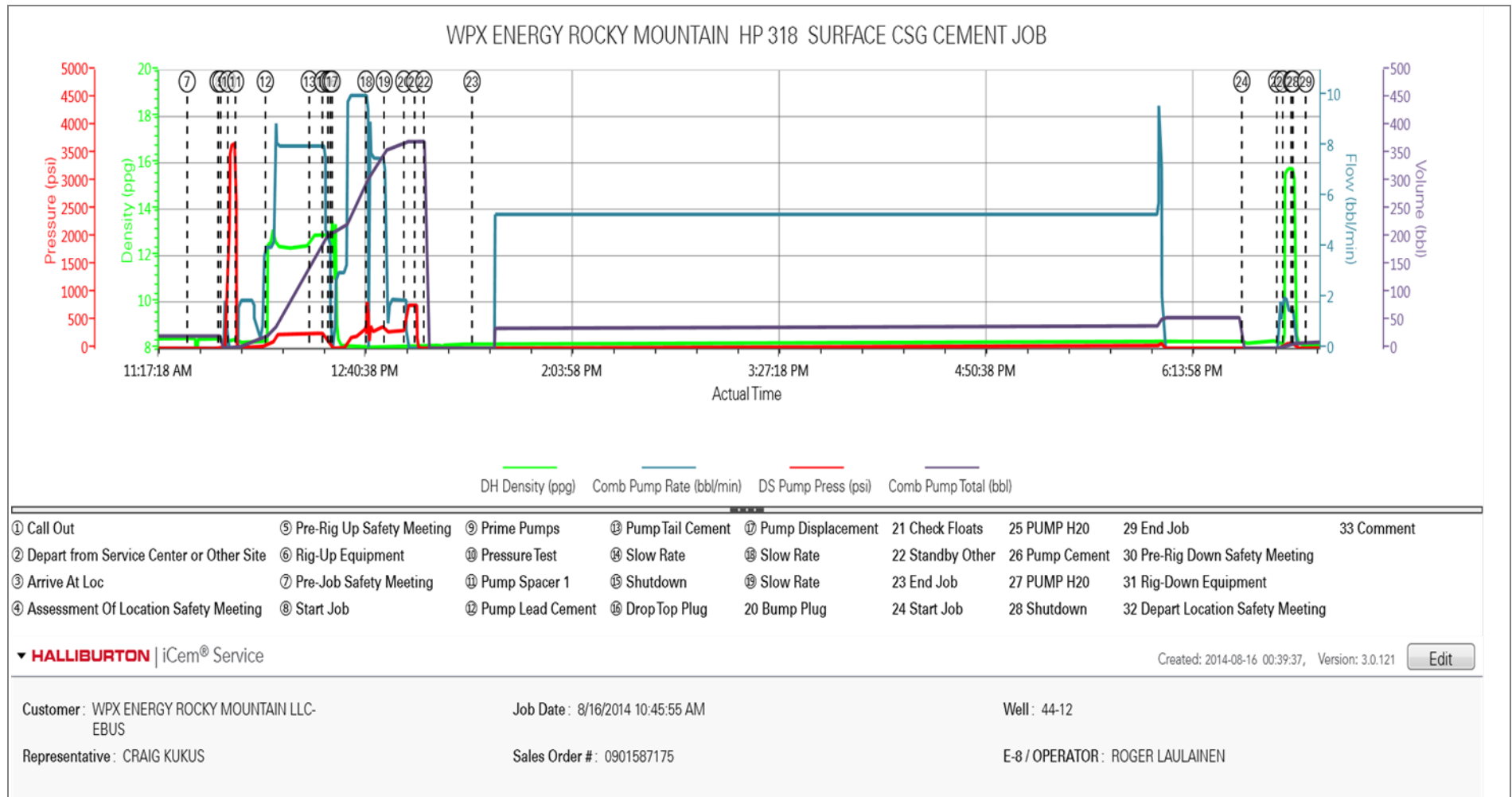




4.4 WPX ENERGY ROCKY MOUNTAIN-Custom Results4.png



4.5 WPX ENERGY ROCKY MOUNTAIN-Custom Results5.png



EVENT #	EVENT	VOLUME	SACKS	WEIGHT	YIELD	GAL/ SK
1	Start Job		MAX 1626			
	FILL LINES	3				
6	Test Lines	3500.0				
9	H2O Spacer	20.0		8.3		
14	LEAD CEMENT	122.2	280	12.3	2.45	14.17
15	TAIL CEMENT	62.2	160	12.8	2.18	12.11
	SHUT DOWN	READY	TUB	WASH ON	TOP	PLUG
25	H2O DISPLACE	141.9		8.3		
	SLOW RATE	131.0		4 BBL	MIN	
	Landed Plug	395 PSI		500 PSI	OVER	
	CHECK FLOATS					
	END JOB		Do Not Overdisplace			
DISPLACEMENT	TOTAL PIPE	SHOE JOINT LENGTH		FLOAT COLLAR	BBL/FT	H2O REQ.
141.90	1880	44.00		1836.00	0.0773	340
PSI TO LIFT	803 PSI	*****Use Mud Scales on Each Tier*****				
Total Displacement	141.90					
CALCULATED PSI LAND		395 PSI		TOTAL FLUID PUMPED		346
Collapse	2020	Burst	3520		SO#	901587175

# HALLIBURTON

## Water Analysis Report

Company: WPX

Submitted by: CRAIG KUKUS

Attention:

Lease GM

Well # 44-12

Date: 8/15/2014

Date Rec.: 8/15/2014

S.O.# 901587175

Job Type: SURFACE

Specific Gravity	<i>MAX</i>	<b>0</b>
pH	<i>8</i>	<b>8</b>
Potassium (K)	<i>5000</i>	<b>400</b> Mg / L
HARDNESS	<i>500</i>	<b>425</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>70</b> Deg
Total Dissolved Solids		<b>330</b> Mg / L

Respectfully: CRAIG 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 its i

<b>Sales Order #:</b> 0901587175	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 8/16/2014
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> RON TOWERS		<b>API / UWI: (leave blank if unknown)</b> 05-045-22430-00
<b>Well Name:</b> C&C ENERGY GM		<b>Well Number:</b> 0080610997
<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	8/16/2014
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HX19742
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	RON TOWERS
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	

<b>CUSTOMER SIGNATURE</b>
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<b>Sales Order #:</b> 0901587175	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 8/16/2014
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> RON TOWERS		<b>API / UWI: (leave blank if unknown)</b> 05-045-22430-00
<b>Well Name:</b> C&C ENERGY GM		<b>Well Number:</b> 0080610997
<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

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b> The date the survey was conducted	8/16/2014

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>Operating Hours (Pumping Hours)</b> Total number of hours pumping fluid on this job. Enter in decimal format.	3
<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	6
<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

<b>Sales Order #:</b> 0901587175	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 8/16/2014
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> RON TOWERS		<b>API / UWI: (leave blank if unknown)</b> 05-045-22430-00
<b>Well Name:</b> C&C ENERGY GM		<b>Well Number:</b> 0080610997
<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

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	99
<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