HALLIBURTON

Cementing

WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

PA 524-2

Aztec 1000

Post Job Summary
Cement Surface Casing

Date Prepared: 06/12/2014
Job Date: 04/11/2014

Submitted by: Evan Russell – Grand Junction Cement Engineer

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300721	**Ship To #:** 2575529	**Quote #:**	**Sales Order #:** 0901262336
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		**Customer Rep:** JUSTIN CALDWELL	
Well Name: PA	**Well #:** 524-2		**API/UWI #:**
Field:	**City (SAP):** PARACHUTE	**County/Parish:** Garfield	**State:** COLORADO
Legal Description:			
Contractor:		**Rig/Platform Name/Num:** Aztec 1000	
Job BOM: 7521			
Well Type: GAS			
Sales Person: HALAMERICA\HAM2616		**Srvc Supervisor:** Edward Arnold	

Job

Formation Name				
Formation Depth (MD)	**Top**		**Bottom**	
Form Type			**BHST**	
Job depth MD	920ft		**Job Depth TVD**	
Water Depth			**Wk Ht Above Floor**	
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	9.001	32.3	8 RD	H-40	0	909	0	0
Open Hole Section			13.5				0	920		0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625			909	**Top Plug**	9.625	1	HES
Float Shoe	9.625				**Bottom Plug**	9.625		HES
Float Collar	9.625				**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	50	bbl	8.34			8	

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	Tail Cement	VARICEM (TM) CEMENT	250	sack	12.8	2.11		8	11.77
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
3	Displacement	Displacement	67.6	bbl	8.34			10	

Cement Left In Pipe	Amount	48 ft	Reason	Shoe Joint

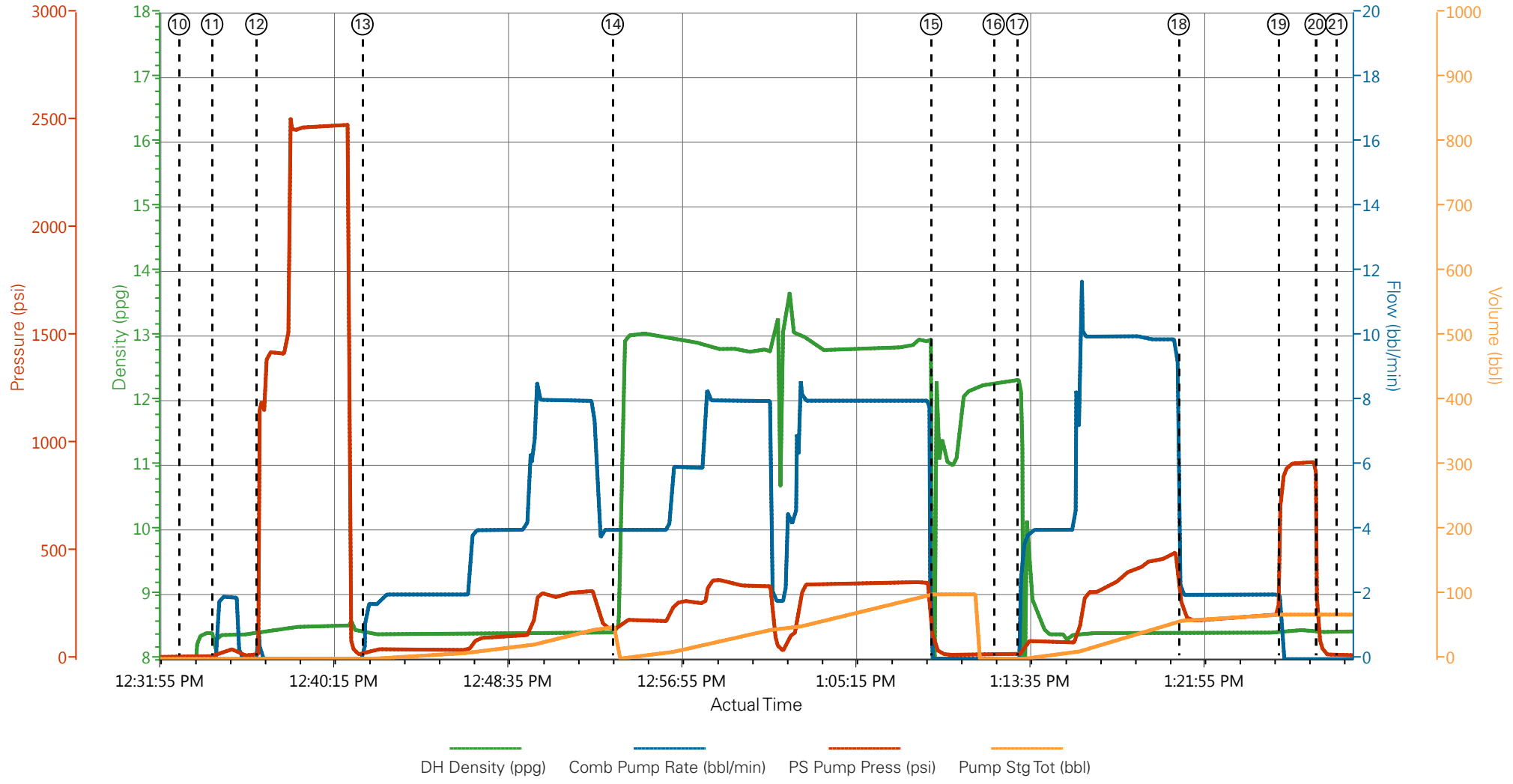
Comment

1.1 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)	Comment
Event	1	Call Out	4/11/2014	05:30:00	USER					CREW CALLED OUT FOR JOB
Event	2	Pre-Convoy Safety Meeting	4/11/2014	07:15:00	USER					DISCUSSED ROUTE HAZARDS AND SAFETY WHILE DRIVING.
Event	3	Crew Leave Yard	4/11/2014	07:30:00	USER					
Event	4	Arrive At Loc	4/11/2014	09:00:00	USER					RIG RIGGING UP CASERS
Event	5	Assessment Of Location Safety Meeting	4/11/2014	11:00:00	USER					DISCUSSED SPOTING OF EQUIPMENT HAZARDS ANS SAFETY.
Event	6	Pre-Rig Up Safety Meeting	4/11/2014	11:10:00	USER					DISCUSSED RIG UP HAZARDS AND SAFETY
Event	7	Rig-Up Equipment	4/11/2014	11:15:00	USER					1 ELITE #4, 1 660 BULK TRUCK, 1 HARD LINE TO FLOOR, 1 LINE TO UPRIGHT, 1 9 5/8 COMPACT HEAD.
Event	8	Rig-Up Completed	4/11/2014	12:00:00	USER					
Event	9	Pre-Job Safety Meeting	4/11/2014	12:10:00	USER					DISCUSSED JOB PROCEDURES HAZARDS AND SAFETY DURING JOB.
Event	10	Start Job	4/11/2014	12:33:00	COM5	1.33	0.00	0.00	0.0	TD 920, TP 908.7, SJ 47.9, OH 13 1/2, CASING 9 5/8, 32.3# H-40, MOD 10.5.
Event	11	Prime Pumps	4/11/2014	12:34:34	COM5	8.17	2	51.00	2.0	FILL LINES WITH 2 BBL FRESH WATER SPACER.
Event	12	Test Lines	4/11/2014	12:36:41	COM5	8.36	0.00	2463.00	2.0	TESTED LINES TO 2464 PSI, GOOD TEST.
Event	13	Pump Spacer 1	4/11/2014	12:41:46	COM5	8.43	8.00	300.0	50.00	50 BBL FRESH WATER SPACER.
Event	14	Pump Tail Cement	4/11/2014	12:53:45	COM5	12.8	8	350.00	93.9	250 SKS TAIL CEMENT, 12.8 PPG, 2.11 CF3, 11.75 GAL/SK.
Event	15	Shutdown	4/11/2014	13:09:00	USER					

Event	16	Drop Plug	4/11/2014	13:12:00	USER					PLUG LEFT CONTAINER
Event	17	Pump Displacement	4/11/2014	13:13:07	COM5	8.33	10.00	480.00	57.6	FRESH WATER DISPLACEMENT
Event	18	Slow Rate	4/11/2014	13:20:51	USER	8.33	2.00	237.00	10.00	SLOW RATE LAST 10 BBL OF DISPLACEMENT PRIOR TO BUMPING THE PLUG
Event	19	Bump Plug	4/11/2014	13:25:37	COM5	8.33	0.00	915.00	67.6 TOTAL	PLUG BUMPED.
Event	20	Check Floats	4/11/2014	13:27:24	USER	8.42	0.00	0.00	67.6	FLOATS HELD 3/4 BBL BACK
Event	21	End Job	4/11/2014	13:28:24	COM5	8.43	0.00	0.00	67.6	
Event	22	Pre-Rig Down Safety Meeting	4/11/2014	13:30:00	USER					DISCUSSED RIG DOWN HAZARDS AND SAFETY.
Event	23	Rig-Down Equipment	4/11/2014	13:35:00	USER					
Event	24	Rig-Down Completed	4/11/2014	14:10:00	USER					
Event	25	Pre-Convoy Safety Meeting	4/11/2014	14:20:00	USER					DISCUSSED ROUTE HAZARDS AND SAFETY WHILE DRIVING
Event	26	Crew Leave Location	4/11/2014	14:30:00	USER					THANK YOU FOR USING HALLIBURTON, ED ARNOLD AND CREW.

WPX - PA 524-2 - 9 5/8 SURFACE



① Call Out n/a;n/a;n/a;n/a
② Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a
③ Crew Leave Yard n/a;n/a;n/a;n/a
④ Arrive At Loc n/a;n/a;n/a;n/a
⑤ Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a
⑥ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a
⑦ Rig-Up Equipment n/a;n/a;n/a;n/a
⑧ Rig-Up Completed n/a;n/a;n/a;n/a
⑨ Pre-Job Safety Meeting 8.48;0;14;0
⑩ Start Job 1.83;0;12;0
⑪ Prime Pumps 8.17;0;17;0
⑫ Test Lines 8.36;0;1199;2
⑬ Pump Spacer 1 8.43;1.8;24;0
⑭ Pump Tail Cement 8.41;4;141;0.1
⑮ Shutdown 9.48;0;64;100.2
⑯ Drop Plug 12.28;0;22;0
⑰ Pump Displacement 12.14;2.5;24;0.1
⑱ Slow Rate 8.4;2;237;59.4
⑲ Bump Plug 8.44;0;815;68.9
20 Check Floats 8.42;0;105;68.9
21 End Job 8.43;0;14;68.9
22 Pre-Rig Down Safety Meeting 8.44;0;16;68.9
23 Rig-Down Equipment 8.45;0;16;68.9
24 Rig-Down Completed n/a;n/a;n/a;n/a
25 Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a
26 Crew Leave Location n/a;n/a;n/a;n/a

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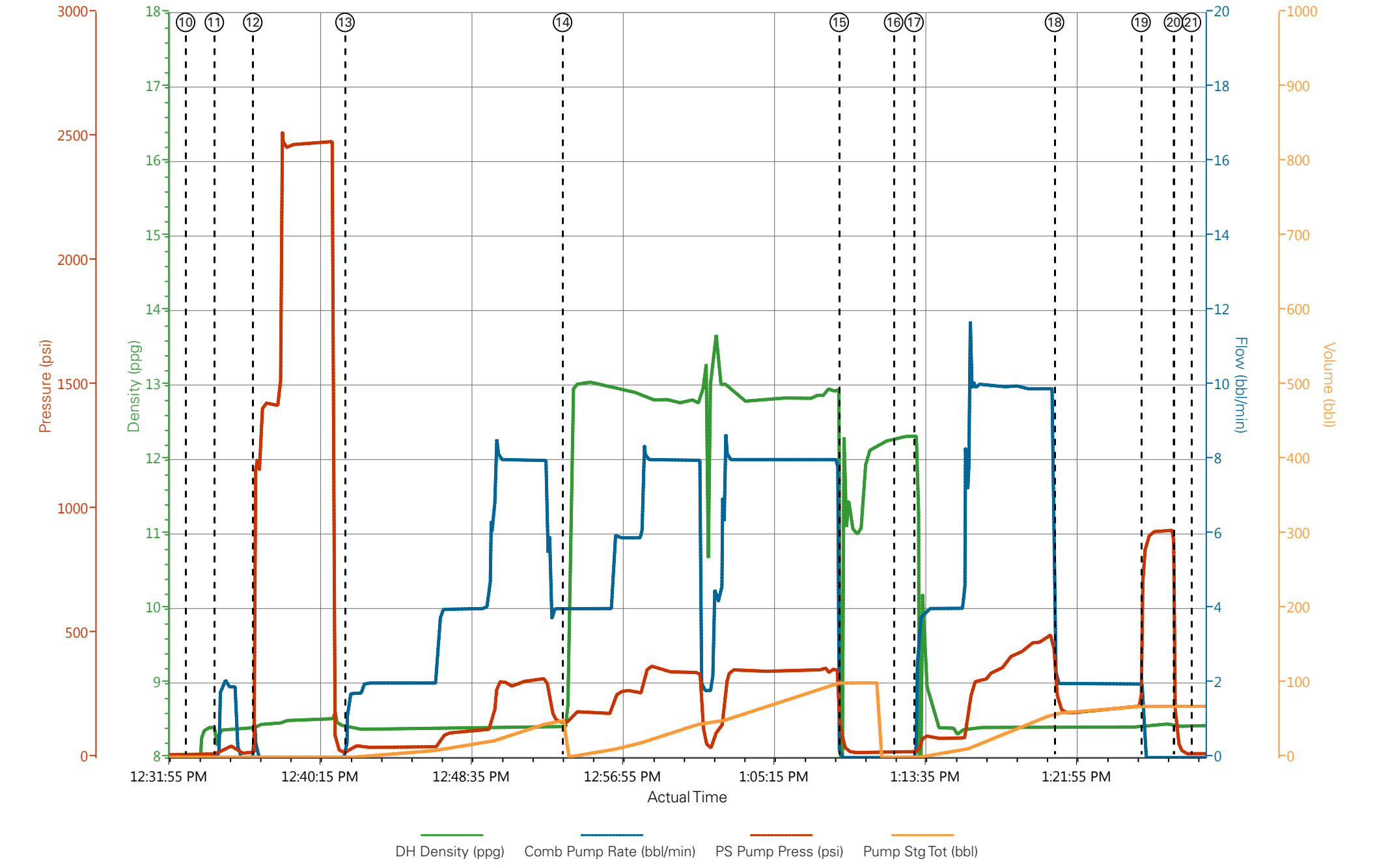
Created: 2014-04-11 10:10:30, Version: 3.0.121 Edit

Customer : WPX ENERGY ROCKY MOUNTAIN LLC-EBUS
Job Date : 4/11/2014 12:02:59 PM
Well : PA 524-2
Representative : BRANDON
Sales Order # : 901262336
ELITE #4 : ED ARNOLD / TRAVIS BROWN



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Customer : WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date : 4/11/2014 12:02:59 PM

Well : PA 524-2

Representative : BRANDON

Sales Order # : 901262336

ELITE #4 : ED ARNOLD / TRAVIS BROWN

HALLIBURTON

Water Analysis Report

Company:	WPX	**Date:**	4/11/2014
Submitted by:	ED ARNOLD	**Date Rec.:**	4/11/2014
Attention:		**S.O.#**	91262336
Lease	PA	**Job Type:**	SURFACE
Well #	524-2		

Specific Gravity	*MAX*	1	
pH	*8*	7	
Potassium (K)	*5000*	200	Mg / L
Calcium (Ca)	*500*	120	Mg / L
Iron (FE2)	*300*	0	Mg / L
Chlorides (Cl)	*3000*	0	Mg / L
Sulfates (SO_4)	*1500*	<200	Mg / L
Chlorine (Cl_2)		0	Mg / L
Temp	*40-80*	50	Deg
Total Dissolved Solids		0	Mg / L

Respectfully: ED ARNOLD

Title: CEMENTING SUPERVISOR

Location: Grand Junction, CO

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CUSTOMER SURVEY

Sales Order #:	**Line Item:**	**Survey Conducted Date:**
0901262336	10	4/11/2014
Customer:		**Job Type (BOM):**
WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		CMT SURFACE CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
JOSH CALDWELL		
Well Name:		**Well Number:**
PA		N/A
Well Type:	**Well Country:**	
GAS	USA	
H2S Present:	**Well State:**	**Well County:**
No	COLORADO	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**	**4/11/2014**
Survey Interviewer	**The survey interviewer is the person who initiated the survey.**	**HX46731**
Customer Participation	**Did the customer partipcipate in this survey? (Y/N)**	**Yes**
Customer Representative	**Enter the Customer representative name**	**JOSH CALDWELL**
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

HALLIBURTON

CUSTOMER SURVEY

Sales Order #:	**Line Item:**	**Survey Conducted Date:**
0901262336	10	4/11/2014
Customer:		**Job Type (BOM):**
WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		CMT SURFACE CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
JOSH CALDWELL		
Well Name:		**Well Number:**
PA		N/A
Well Type:	**Well Country:**	
GAS	USA	
H2S Present:	**Well State:**	**Well County:**
No	COLORADO	Garfield

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date The date the survey was conducted	4/11/2014

Cementing KPI Survey	
Type of Job Select the type of job. (Cementing or Non-Cementing)	0
Select the Maximum Deviation range for this Job What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	Vertical
Total Operating Time (hours) Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	3
HSE Incident, Accident, Injury HSE Incident, Accident, Injury. This should be recordable incidents only.	No
Was the job purpose achieved? Was the job delivered correctly as per customer agreed design?	Yes
Operating Hours (Pumping Hours) Total number of hours pumping fluid on this job. Enter in decimal format.	1
Customer Non-Productive Rig Time (hrs) 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
Type of Rig Classification Job Was Performed Type Of Rig (classification) Job Was Performed On	Drilling Rig (Portable)
Number Of JSAs Performed Number Of Jsas Performed	5
Number of Unplanned Shutdowns Unplanned shutdown is when injection stops for any period of time.	0
Was this a Primary Cement Job (Yes / No)	Yes

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CUSTOMER SURVEY

Sales Order #:	**Line Item:**	**Survey Conducted Date:**
0901262336	10	4/11/2014
Customer:		**Job Type (BOM):**
WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		CMT SURFACE CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
JOSH CALDWELL		
Well Name:		**Well Number:**
PA		N/A
Well Type:	**Well Country:**	
GAS	USA	
H2S Present:	**Well State:**	**Well County:**
No	COLORADO	Garfield

Primary Cement Job= Casing job, Liner job, or Tie-back job.	
Did We Run Wiper Plugs? Did We Run Top And Bottom Casing Wiper Plugs?	Top
Mixing Density of Job Stayed in Designed Density Range (0-100%) Density Range defined as +/- .20 ppg. Calculation: Total BBLs cment mixed at designed density divided by total BBLs of cement multiplied by 100	95
Was Automated Density Control Used? Was Automated Density Control (ADC) Used ?	Yes
Pump Rate (percent) of Job Stayed At Designed Pump Rate 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	95
Nbr of Remedial Sqz Jobs Rqd - Competition Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	0
Nbr of Remedial Plug Jobs Rqd - HES Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
Nbr of Remedial Sqz Jobs Rqd - HES Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0