

WPX Energy Rocky Mountain LLC- EBUS

GM 322-28

**H&P 318**

## **Post Job Summary**

# **Cement Surface Casing**

Date Prepared: 02/10/2015  
Job Date: 02/04/2015

Submitted by: Jenna Cook – Grand Junction Cement Engineer

## The Road to Excellence Starts with Safety

Sold To #: 300721		Ship To #: 3205578		Quote #:		Sales Order #: 0902102956	
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS				Customer Rep: HARRY SAMSON			
Well Name: GM			Well #: 322-28			API/UWI #: 05-045-22501-00	
Field: GRAND VALLEY		City (SAP): PARACHUTE		County/Parish: GARFIELD		State: COLORADO	
Legal Description: 28-6S-96W-1296FNL-1060FWL							
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 318			
Job BOM: 7521							
Well Type: DIRECTIONAL GAS							
Sales Person: HALAMERICA\HB50180				Srvc Supervisor: Dustin Smith			

### Job

Formation Name	
Formation Depth (MD)	Top
Form Type	BHST
Job depth MD	1348ft
Water Depth	
Perforation Depth (MD)	From

### 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	32.3			0	1348		0
Open Hole Section			13.5				0	1362		0

### Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625			1348	Top Plug	9.625	1	HES
Float Shoe	9.625							
Float Collar	9.625			1302.94				
Insert Float	9.625				Plug Container	9.625	1	HES
Stage Tool	9.625				Centralizers	9.625		

### 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			4.0		
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	VariCem GJ5	VARICEM (TM) CEMENT	175	sack	12.3	2.45		8.0	14.17	

14.10 Gal		FRESH WATER								
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	
3	VariCem GJ5	VARICEM (TM) CEMENT	170	sack	12.8	2.18		8.0	12.11	
12.05 Gal		FRESH WATER								
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	
4	Fresh Water Displacement	Fresh Water Displacement	104.9	bbl	8.34			10.0		
<b>Cement Left In Pipe</b>		<b>Amount</b>	45.06 ft		<b>Reason</b>			Shoe Joint		
<b>Mix Water:</b>		PH 7	<b>Mix Water Chloride:</b>				<b>Mix Water Temperature:</b>		50°F	
<b>Cement Temperature:</b>			<b>Plug Displaced by:</b>		FRESH WATER		<b>Disp. Temperature:</b>			
<b>Plug Bumped?</b>		Yes	<b>Bump Pressure:</b>		300 psi MPa		<b>Floats Held?</b>		Yes	
<b>Cement Returns:</b>		30 bbl	<b>Returns Density:</b>				<b>Returns Temperature:</b>			
<b>Comment</b>										

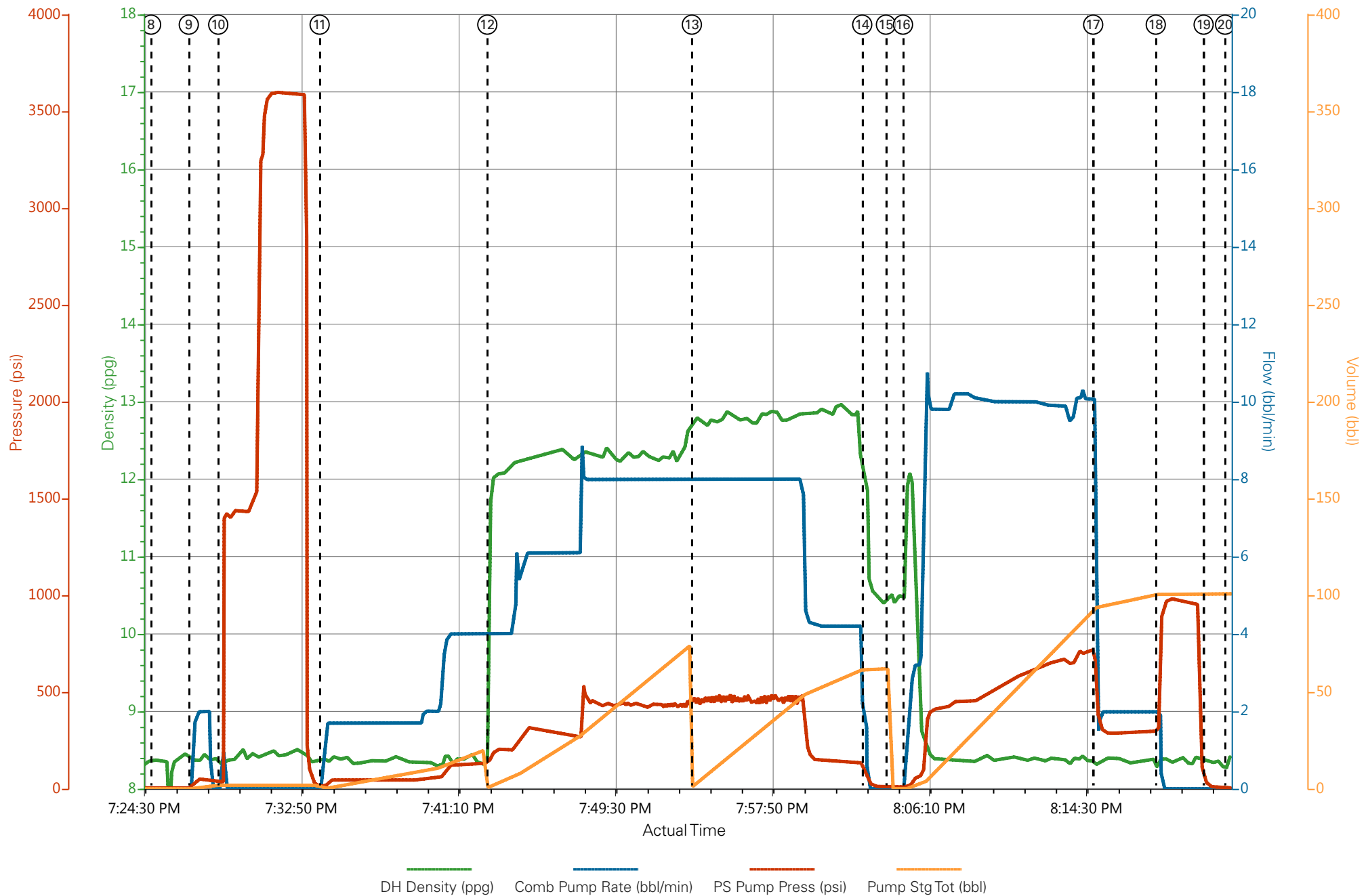
## 1.0 Real-Time Job Summary

## 1.1 Job Event Log

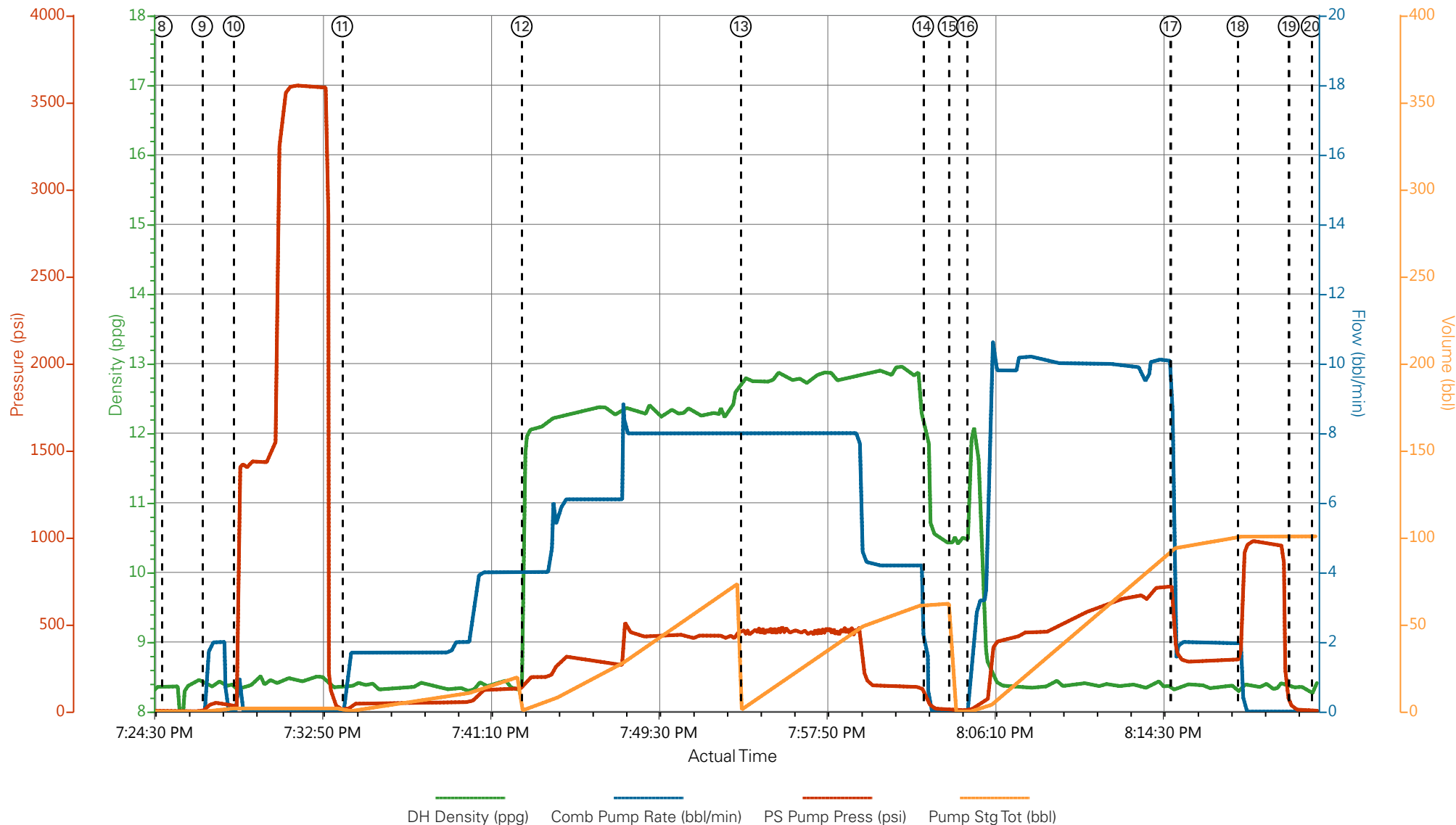
Type	Seq. No.	Activity	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	2/4/2015	11:30:00	USER					ALL HES EMPLOYEES
Event	2	Pre-Convoy Safety Meeting	2/4/2015	13:30:00	USER					ALL HES EMPLOYEES
Event	3	Arrive At Loc	2/4/2015	15:00:00	USER					ARRIVED ON LOCATION 2 HOURS EARLY DIDNT START CHARGING TIME UNTIL REQUESTED ON LOCATION TIME RIG RIGGING UP CASING CREW UPON HES ARRIVAL
Event	4	Assessment Of Location Safety Meeting	2/4/2015	17:00:00	USER					ALL HES EMPLOYEES
Event	5	Pre-Rig Up Safety Meeting	2/4/2015	17:10:00	USER					ALL HES EMPLOYEES
Event	6	Rig-Up Equipment	2/4/2015	17:30:00	USER					1 HT-400 PUMP TRUCK ( ELITE # 2) 2 660 BULK TRUCKS 1 F-550 PICKUP
Event	7	Pre-Job Safety Meeting	2/4/2015	19:00:00	USER					ALL HES EMPLOYEES AND RIG CREW RIG CIRCULATED FOR 1 HOUR PRIOR TO THE JOB
Event	8	Start Job	2/4/2015	19:25:00	USER					TD: 1362 TP: 1377.8 SJ: 45.06 CSG: 9 5/8 32.3# H-40 OH: 13 1/2 MUD WT: 10.0 PPG
Event	9	Prime Pumps	2/4/2015	19:27:00	COM5	8.33	2.0	52	2.0	PRIME LINES WITH 2 BBLS FRESH WATER
Event	10	Test Lines	2/4/2015	19:28:33	COM5	8.33	0.0	3598	2.0	PRESSURE TEST OK

Event	11	Pump Spacer 1	2/4/2015	19:33:56	COM5	8.33	4.0	135	20	PUMP 20 BBL FRESH WATER SPACER
Event	12	Pump Lead Cement	2/4/2015	19:42:50	COM5	12.3	8.0	475	76.4	175 SKS 12.3 PPG 2.45 YIELD 14.17 GAL/SK LEAD CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES
Event	13	Pump Tail Cement	2/4/2015	19:53:42	COM5	12.8	8.0	483	66	170 SKS 12.8 PPG 2.18 YIELD 12.11 GAL/SK TAIL CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES
Event	14	Shutdown	2/4/2015	20:02:44	USER					
Event	15	Drop Top Plug	2/4/2015	20:04:00	USER					PLUG AWAY NO PROBLEMS
Event	16	Pump Displacement	2/4/2015	20:04:54	COM5	8.33	10.0	720	104.9	FRESH WATER DISPLACEMENT
Event	17	Slow Rate	2/4/2015	20:15:00	USER	8.33	2.0	300	94	SLOW RATE TO BUMP PLUG
Event	18	Bump Plug	2/4/2015	20:18:19	COM5	8.33	2.0	954	104.9	PSI BEFORE BUMPING PLUG @ 300 BUMPED PLUG UP TO 954 PSI
Event	19	Check Floats	2/4/2015	20:20:51	USER					FLOATS HELD 1/2 BBL BACK TO DISPLACEMENT TANKS
Event	20	End Job	2/4/2015	20:22:00	COM5					GOOD RETURNS THROUGHOUT JOB RETURNED 30 BBLS CEMENT TO SURFACE
Event	21	Pre-Rig Down Safety Meeting	2/4/2015	20:30:00	USER					ALL HES EMPLOYEES
Event	22	Rig-Down Equipment	2/4/2015	20:40:00	USER					
Event	23	Pre-Convoy Safety Meeting	2/4/2015	21:45:00	USER					ALL HES EMPLOYEES
Event	24	Crew Leave Location	2/4/2015	22:00:00	USER					THANK YOU FOR USING HALLIBURTON CEMENT DUSTIN SMITH AND CREW

# WPX - GM 322-28 - 9 5/8 SURFACE



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- |   |                          |                           |                     |                                |
|---|--------------------------|---------------------------|---------------------|--------------------------------|
| ① Call Out                              | ⑥ Rig-Up Equipment       | ⑪ Pump Fresh Water Spacer | ⑮ Pump Displacement | 21 Pre-Rig Down Safety Meeting |
| ② Pre-Convoy Safety Meeting             | ⑦ Pre-Job Safety Meeting | ⑫ Pump Lead Cement        | ⑯ Slow Rate         | 22 Rig-Down Equipment          |
| ③ Arrive At Loc                         | ⑧ Start Job              | ⑬ Pump Tail Cement        | ⑰ Bump Plug         | 23 Pre-Convoy Safety Meeting   |
| ④ Assessment Of Location Safety Meeting | ⑨ Prime Lines            | ⑭ Shutdown                | ⑱ Check Floats      | 24 Crew Leave Location         |
| ⑤ Pre-Rig Up Safety Meeting             | ⑩ Test Lines             | ⑮ Drop Top Plug           | 20 End Job          |                                |

▼ **HALLIBURTON** | iCem® Service

Created: 2015-02-04 12:36:03, Version: 4.1.107

Edit

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date: 2/4/2015 5:34:23 PM

Well: GM 322-28

Representative: HARRY SAMSON

Sales Order #: 0902102956

ELITE # 2: DUSTIN SMITH / DILLON MARTIN

<b>Sales Order #:</b> 0902102956	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 2/4/2015
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> HARRY SAMSON		<b>API / UWI: (leave blank if unknown)</b> 05-045-22501-00
<b>Well Name:</b> GM		<b>Well Number:</b> 0080241783
<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	2/5/2015
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	HARRY SAMSON
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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*KEY PERFORMANCE INDICATORS*

General	
<b>Survey Conducted Date</b> The date the survey was conducted	2/4/2015

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.	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>Pumping Hours</b> Total number of hours pumping fluid on this job. Enter in decimal format.	1
<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>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	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)	Yes
<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

Submitted by: DUSTIN SMITH

Attention:

Lease GM

Well # 322-28

Date: 2/5/2015

Date Rec.:

S.O.# 902102956

Job Type: SURFACE

Specific Gravity	<i>MAX</i>	<i>1</i>
pH	<i>8</i>	<i>7</i>
Potassium (K)	<i>5000</i>	<i>200</i> Mg / L
Calcium (Ca)	<i>500</i>	<i>0</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>UNDER 200</i> Mg / L
Chlorine (Cl <sub>2</sub> )		<i>0</i> Mg / L
Temp	<i>40-90</i>	<i>50</i> Deg
Total Dissolved Solids		<i>590</i> Mg / L

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