

# HALLIBURTON

iCem<sup>®</sup> Service

## **WPX ENERGY ROCKY MOUNTAIN LLC-EBUS**

**For:**

**FEDERAL RU 31-8**

API/UWI #: **05-045-22773-00**

Case 1

Job Date: Tuesday, February 16, 2016

Sincerely,

**Grand Junction Cement Engineers**

## 1.0 Real-Time Job Summary

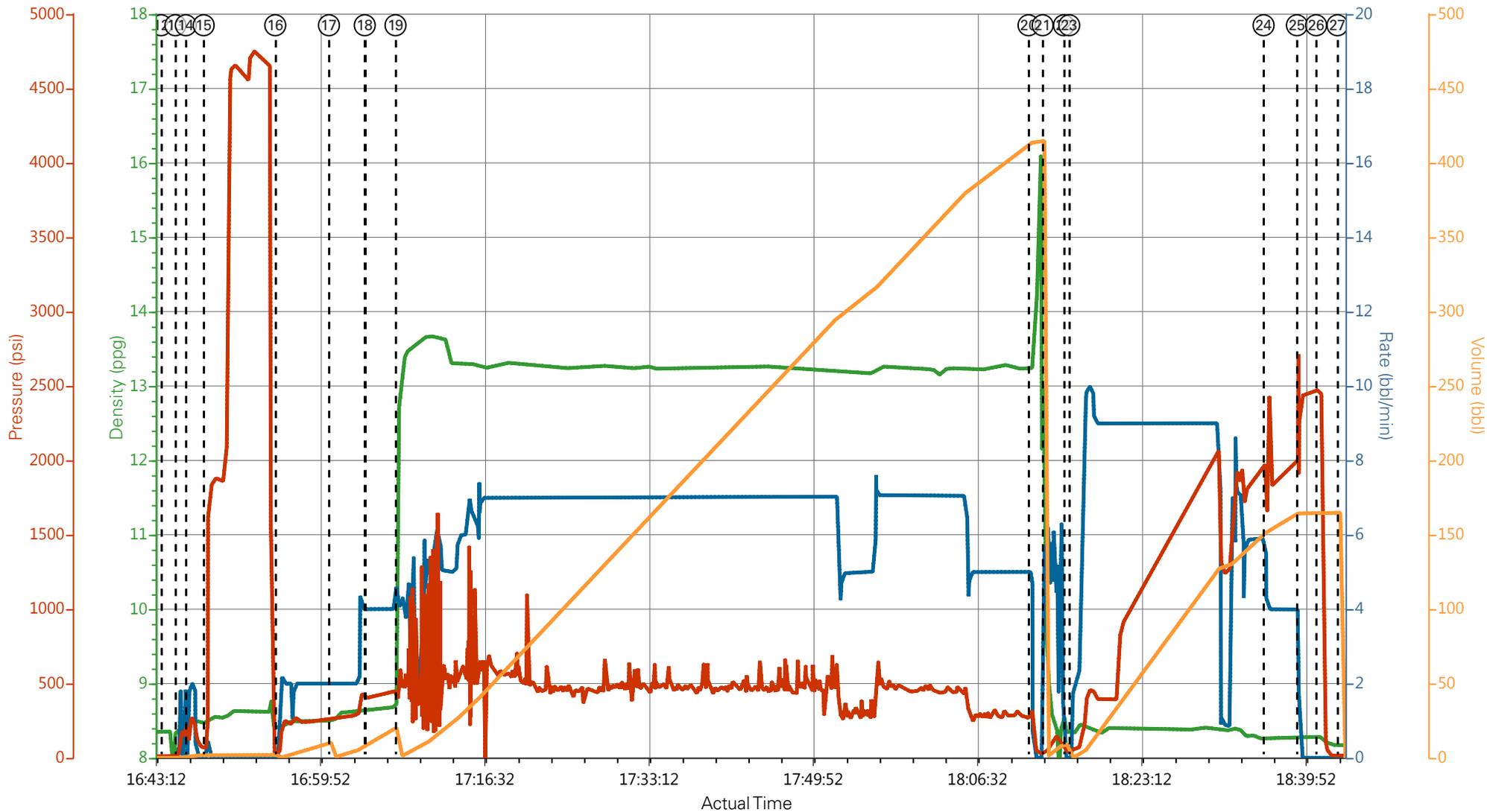
### 1.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	PS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	2/16/2016	09:00:00	USER					
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/16/2016	11:20:00	USER					WITH ALL HES PERSONNEL
Event	3	Crew Leave Yard	Crew Leave Yard	2/16/2016	11:30:00	USER					
Event	4	Arrive At Loc	Arrive At Location	2/16/2016	14:00:00	USER					RIG WAS RUNNING CASING UPON HES ARRIVAL
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	2/16/2016	14:10:00	USER					WITH ALL HES PERSONNEL
Event	6	Other	Meet With Company Rep	2/16/2016	14:15:00	USER					GO OVER FINAL VOLUMES, JOB PROCEEDURES. OFFERED MSDS RECIEPT
Event	7	Other	Spot Equipment	2/16/2016	14:20:00	USER					
Event	8	Other	Water Test	2/16/2016	14:25:00	USER					TEMP-75, CHLORIDES-0, PH-6
Event	9	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/16/2016	14:30:00	USER					WITH ALL HES PERSONNEL
Event	10	Rig-Up Equipment	Rig-Up Equipment	2/16/2016	14:40:00	USER					1 PUMP, 1 BULK TRUCK, 1 SILO
Event	11	Pre-Job Safety Meeting	Pre-Job Safety Meeting	2/16/2016	15:14:51	USER					WITH ALL PERSONNEL
Event	12	Start Job	Start Job	2/16/2016	16:44:00	USER					TD 10121 FT, TP 10111 FT, SHOE 31 FT, CSG 4 1/2 IN 11.6 LB/FT, HOLE 8 3/4 IN, MUD WT 10.4 PPG, SURFACE CASING SET AT 1218 FT.

Event	13	Prime Pumps	Prime Pumps	2/16/2016	16:45:26	COM5	8.33	2.0	295.0	2.0	FRESH WATER
Event	14	Drop Bottom Plug	Drop Bottom Plug	2/16/2016	16:46:30	USER					PLUG LAUNCHED
Event	15	Test Lines	Test Lines	2/16/2016	16:48:18	COM5					TESTED LINES TO 4767 PSI PRESSURE HOLDING
Event	16	Pump Spacer 1	Pump H2O Spacer	2/16/2016	16:55:34	COM5	8.33	2.0	260.0	10.0	FRESH WATER
Event	17	Pump Spacer 2	Pump Mud Flush Spacer	2/16/2016	17:01:01	COM5	8.5	4.0	440.0	20.0	Mud Flush III
Event	18	Check Weight	Check weight	2/16/2016	17:04:39	COM5					SCALES SHOW 13.3 PPG
Event	19	Pump Tail Cement	Pump Tail Cement	2/16/2016	17:07:46	COM5	13.3	7.0	415.0	332.8	1080 SKS ThermaCem AT 13.3 PPG, 1.73 FT3/SK, 7.81 GAL/SK
Event	20	Shutdown	Shutdown	2/16/2016	18:12:00	USER					
Event	21	Clean Lines	Clean Lines	2/16/2016	18:13:26	COM5					CLEANED PUMPS AND LINES TO WASHUP TRUCK
Event	22	Drop Top Plug	Drop Top Plug	2/16/2016	18:15:36	COM5					PLUG LAUNCHED
Event	23	Pump Displacement	Pump Displacement	2/16/2016	18:16:08	COM5	8.4	9.0	1980.0	156.2	1 GAL MMCR IN FIRST 10 BBLS, 3 BAGS BE-6 IN NEXT 30 BBLS AND 50 LBS KCL PER 10 BBLS.
Event	24	Slow Rate	Slow Rate	2/16/2016	18:35:51	USER	8.4	4.0	2000.0	146.2	SLOWED RATE 10 BBLS PRIOR TO CALCULATED DIASPLACEMENT
Event	25	Bump Plug	Bump Plug	2/16/2016	18:39:14	COM5		4.0	2460.0		
Event	26	Other	Check Floats	2/16/2016	18:41:11	COM5					FLOATS HOLDING. HES RETURNED 2 BBLS H2O TO PUMP
Event	27	End Job	End Job	2/16/2016	18:43:21	COM5					PIPE WAS RECIPROCATED DURING JOB, GOOD CIRCULATION THROUGHOUT JOB. HES USED ALL CHEMICALS FOR JOB, USED 30 LBS SUGAR FOR JOB.

Event	28	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/16/2016	18:50:00	USER	WITH ALL HES PERSONNEL
Event	29	Rig-Down Equipment	Rig-Down Equipment	2/16/2016	19:00:00	USER	
Event	30	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/16/2016	20:20:00	USER	WITH ALL HES PERSONNEL
Event	31	Crew Leave Location	Crew Leave Location	2/16/2016	20:30:00	USER	
Event	32	Comment	Comment	2/16/2016	20:31:00	USER	THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT. JESSE SLAUGHTER AND CREW.

# WPX ENERGY - FEDERAL RU 31-8 - PRODUCTION



DH Density (ppg) 12.66    Comb Pump Rate (bbl/min) 2    PS Pump Press (psi) 9    Pump Stg Tot (bbl) 4.2

- ① Call Out                      ③ Crew Leave Yard                      ⑤ Assessment Of Location Safety Meeting                      ⑦ Spot Equipment                      ⑨ Pre-Rig Up Safety Meeting                      ⑪ Pre-Job Safety Meeting                      ⑬ Prime Pumps
- ② Pre-Convoy Safety Meeting                      ④ Arrive At Loc                      ⑥ Meet With Company Rep                      ⑧ Water Test                      ⑩ Rig-Up Equipment                      ⑫ Start Job                      ⑭ Drop Bottom Plug



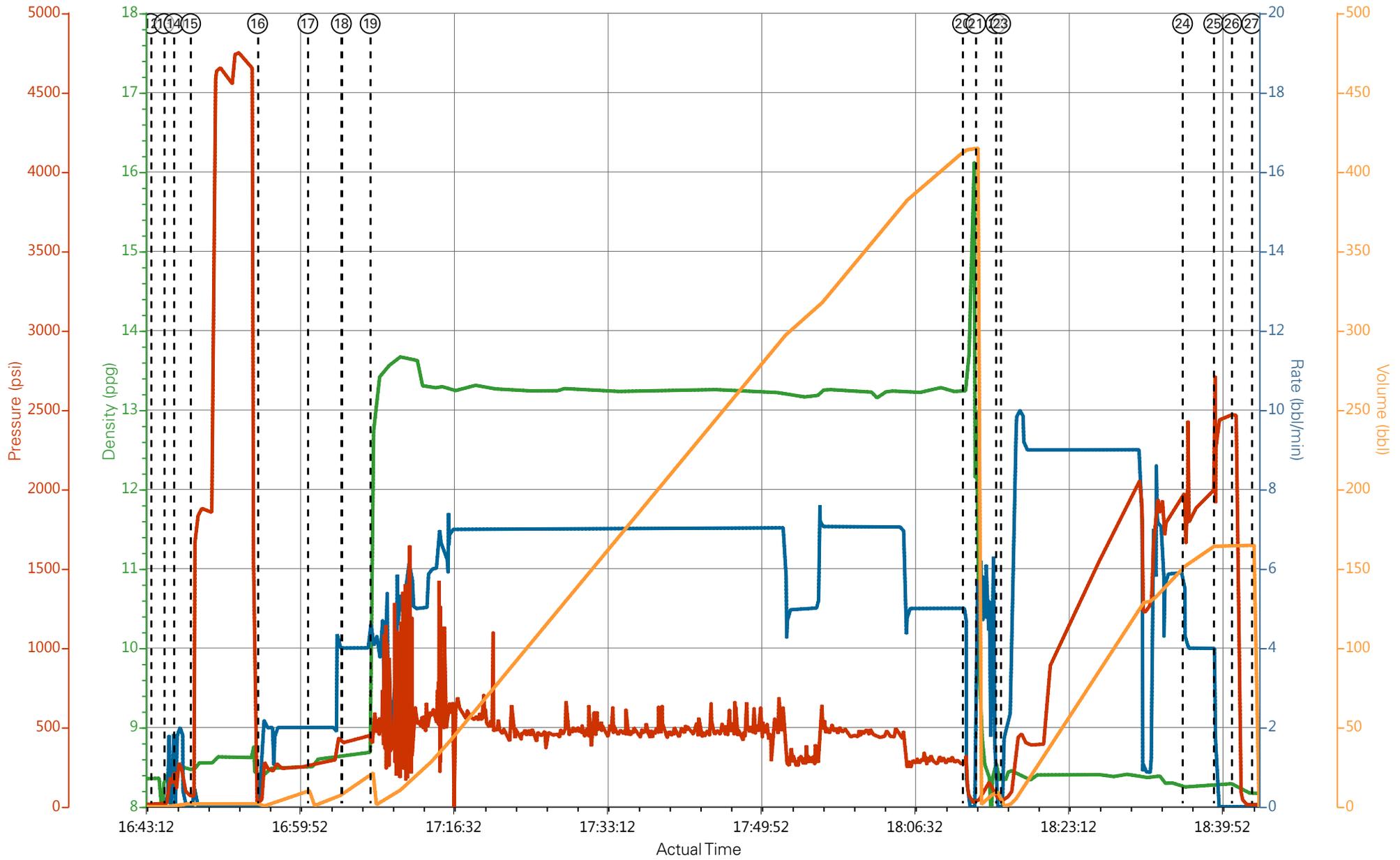
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Created: 2016-02-16 10:30:29, Version: 4.1.107 Edit

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS                      Job Date: 2/16/2016 3:09:53 PM                      Well: FEDERAL RU 31-8

Representative: BEAUDE OAKS                      Sales Order #: 903122519                      Elite #8: JESSE SLAUGHTER / RYAN MARTIN

# WPX ENERGY - FEDERAL RU 31-8 - PRODUCTION



DH Density (ppg) 13.19    Comb Pump Rate (bbl/min) 2    PS Pump Press (psi) 9    Pump Stg Tot (bbl) 6.4

### Job Information

<b>Request/Slurry</b>	2303375/3	<b>Rig Name</b>	H&P 318	<b>Date</b>	11/FEB/2016
<b>Submitted By</b>	Evan Russell	<b>Job Type</b>	Production Casing	<b>Bulk Plant</b>	Grand Junction
<b>Customer</b>	WPX Energy, Inc.	<b>Location</b>	Garfield	<b>Well</b>	RU 31-8

### Well Information

<b>Casing/Liner Size</b>	4.5 in	<b>Depth MD</b>	10104 ft	<b>BHST</b>	121°C / 250°F
<b>Hole Size</b>	8.75 in	<b>Depth TVD</b>	9975 ft	<b>BHCT</b>	82°C / 180°F
<b>Pressure</b>	6370 psi				

### Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density
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### Cement Information - Primary Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
>	Mountain G		Bulk Blend	12.02.16	Tank 29	Slurry Density	13.3	lbm/gal
>	San Juan		Bulk Blend	12.02.16	Tank 19	Slurry Yield	1.733	ft3/sack
	Cement Blend					Water Requirement	7.799	gal/sack
	Fresh Water		Lab	12.03.13		Total Mix Fluid	7.799	gal/sack
	HALAD-344 (PB)		Bulk Blend	12.02.16	15061640			
	SA-1015 (PB)		Bulk Blend	12.02.16	5A0006W			
	SUPER CBL		Bulk Blend	12.02.16	15L0067	Water Source	Fresh Water	
	SS-200 silica flour		Bulk Blend	12.02.16	Tank 6	Water Chloride		
	Kol-Seal		Bulk Blend	12.02.16	Tank 1			
	Pol-E-Flake		Bulk Blend	12.02.16	NA			
	HR-601		Bulk Blend	12.02.16	71			
	HALAD-413 (PB)		Bulk Blend	12.02.16	ZM5B0425AO			

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# Operation Test Results Request ID 2303375/3

## Thickening Time

12/FEB/2016

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
180	6370	50	26	5:04	5:15	5:27	6:14	6:49

Total Sacks 1080

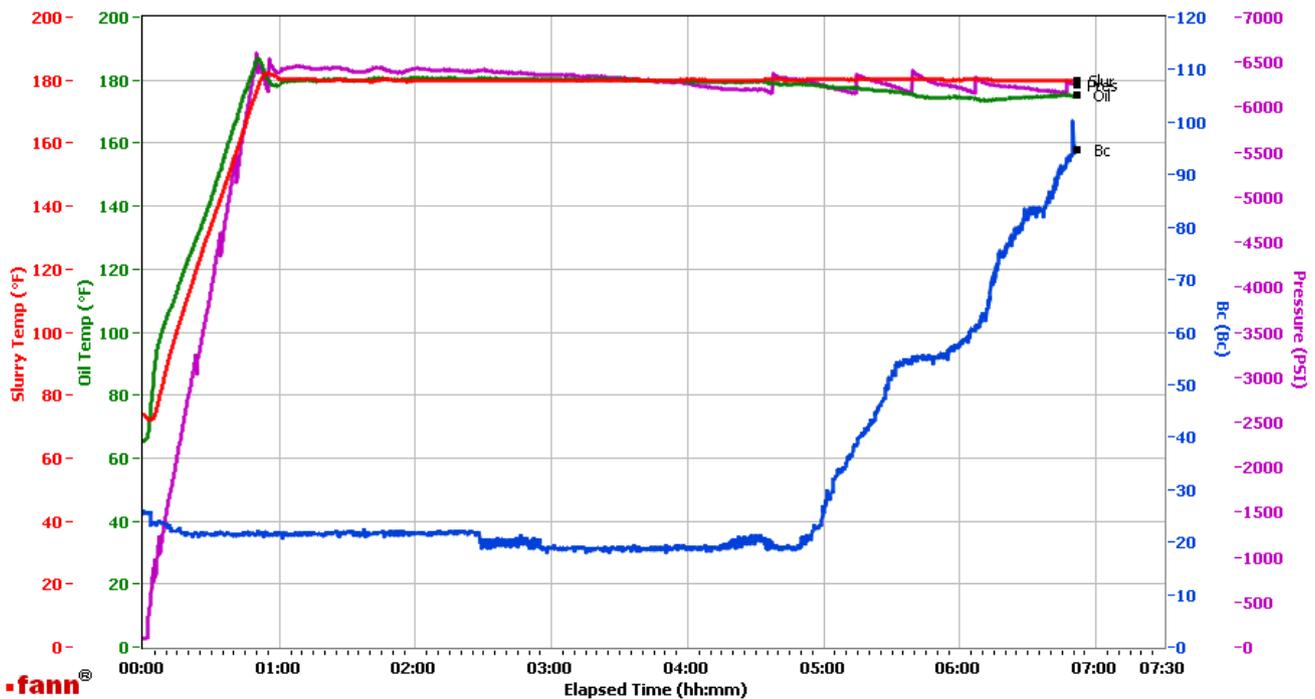
CS0216 TR 3212 230 SKS

### Grand Junction Colorado

Fields	Values
Project Name	BULK PRODUCTION PRIMARY
Test ID	GJ2303375-3
Request ID	
Tested by	CT
Customer	WPX
Well No	RU 31-8
Rig	
Casing/Liner Size	

Fields	Values
Job Type	
Cement Type	
Cement Weight	Standard
Test Date	03/21/09
Test Time	10:26 AM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.1219

Events	Results
30.00 Bc	05h:04m
40.00 Bc	05h:15m
50.00 Bc	05h:27m
70.00 Bc	06h:14m
100.00 Bc	06h:49m
00h:30m	21.60
01h:00m	21.98
01h:30m	21.94



Data File C:\Documents and Settings\HPHT\Local Settings\Temporary Internet Files\Content.IE5\KD2P415J\GJ2303375-3 WPX BULK PRODUCTION PRIMARY[1].tdms

Comments CS0216 TRAILER 3212 230 SKS

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Thickening Time

12/FEB/2016

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
180	6370	50	20	4:59	5:20	5:50	6:12	6:32

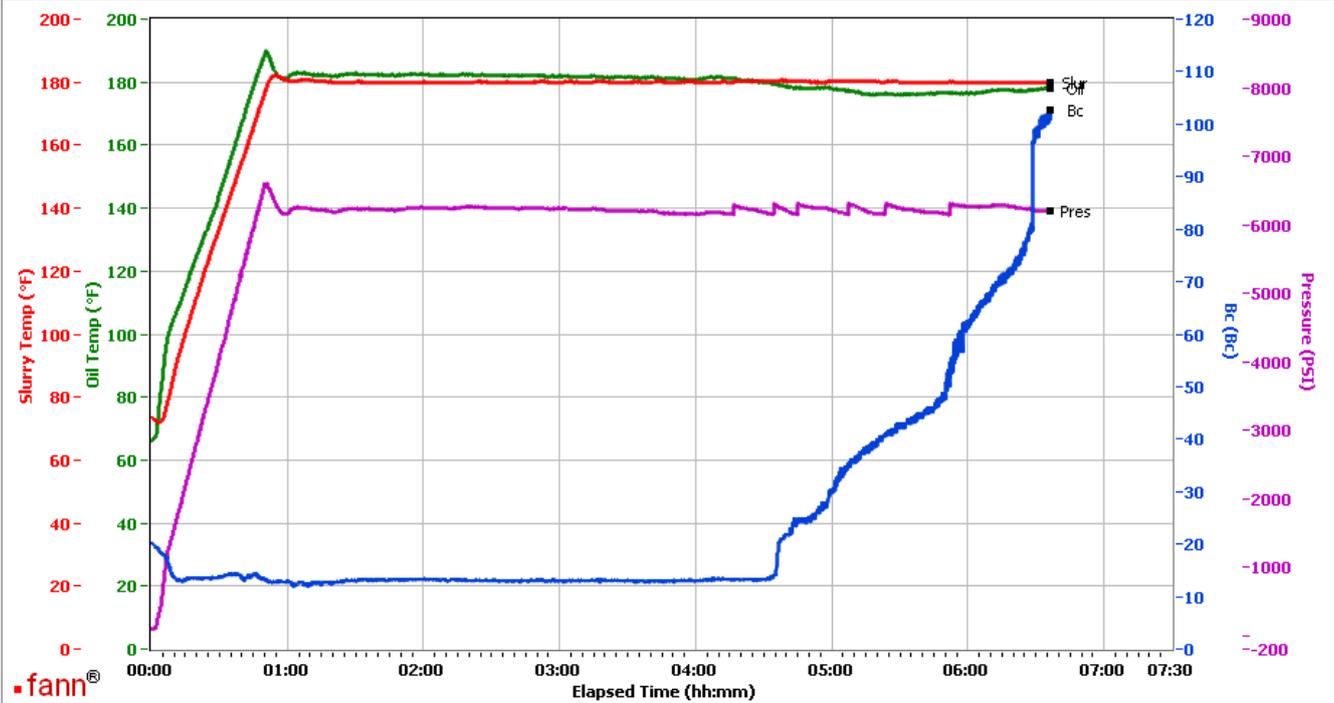
Total Sacks 1080  
CS0215 TR2878 425SKS

Grand Junction Colorado

Fields	Values
Project Name	GJ2303375-2
Test ID	GJ2303375-2 WPX PRIMARY BULK
Request ID	
Tested by	LB
Customer	WPX
Well No	
Rig	
Casing/Liner Size	

Fields	Values
Job Type	
Cement Type	
Cement Weight	Standard
Test Date	02/11/16
Test Time	08:17 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	04h:59m
40.00 Bc	05h:20m
50.00 Bc	05h:50m
70.00 Bc	06h:12m
100.00 Bc	06h:32m
00h:30m	13.74
01h:00m	12.82
01h:30m	13.11



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 Comments CS0215 TR2878 425SKS

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**Operation Test Results Request ID 2303375/1**

**Thickening Time**

**12/FEB/2016**

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
180	6370	50	27	5:16	5:27	5:36	6:34	7:24

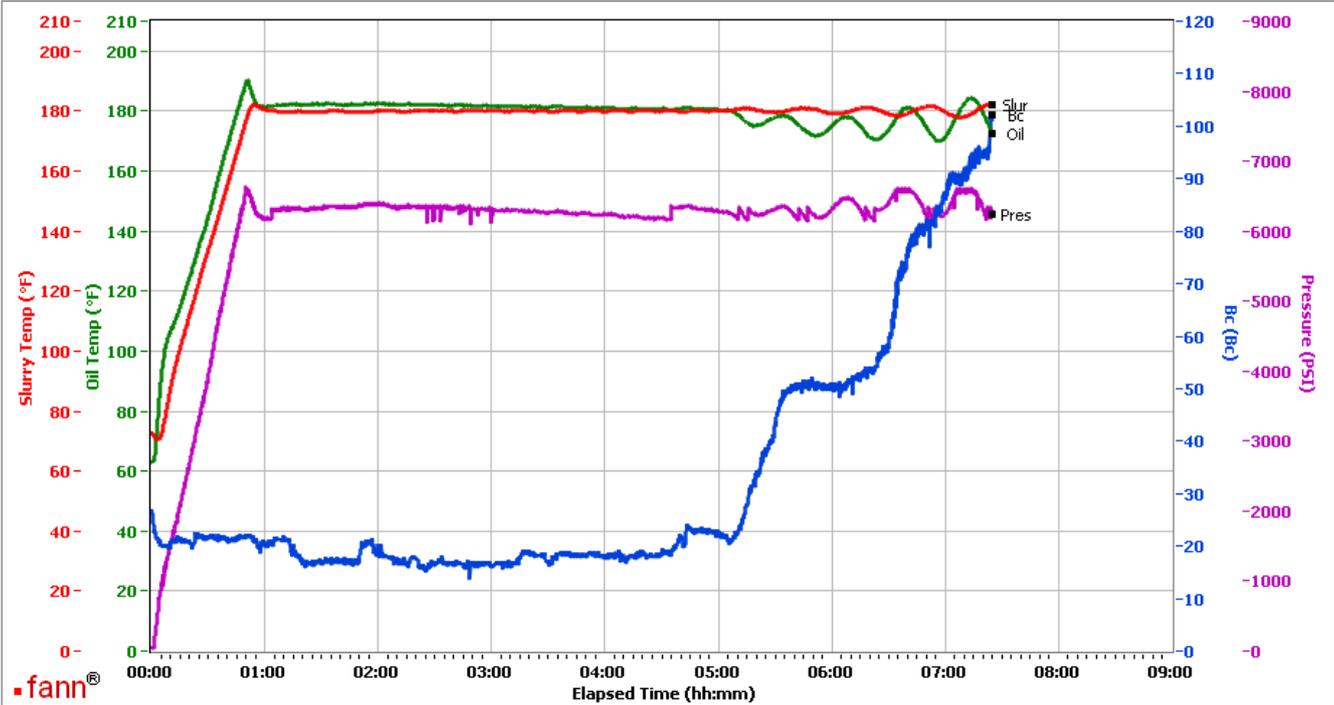
Total Sacks 1080  
CS0214 TR8658 425SKS

**Grand Junction Colorado**

Fields	Values
Project Name	GJ2303375-1
Test ID	GJ2303375-1 WPX PRIMARY BULK
Request ID	
Tested by	LB
Customer	WPX
Well No	
Rig	
Casing/Liner Size	

Fields	Values
Job Type	
Cement Type	
Cement Weight	Standard
Test Date	02/12/16
Test Time	02:08 AM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	05h:16m
40.00 Bc	05h:27m
50.00 Bc	05h:36m
70.00 Bc	06h:34m
100.00 Bc	07h:24m
00h:30m	21.50
01h:00m	20.18
01h:30m	16.99



Data File C:\Documents and Settings\M290\Local Settings\Temporary Internet Files\Content.IE5\CDER4HLW\GJ2303375-1 WPX PRIMARY BULK[1].tdms  
 Comments CS0214 TR8658 425SKS

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