

# HALLIBURTON

iCem<sup>®</sup> Service

## **WPX ENERGY LLC-EBUS**

**For: Mark Mewshaw**

Date: Tuesday, June 21, 2016

**FED GM 42-8 Production**

**API # 05-045-22532-00**

Sincerely,

**Grand Junction Cement Engineering**

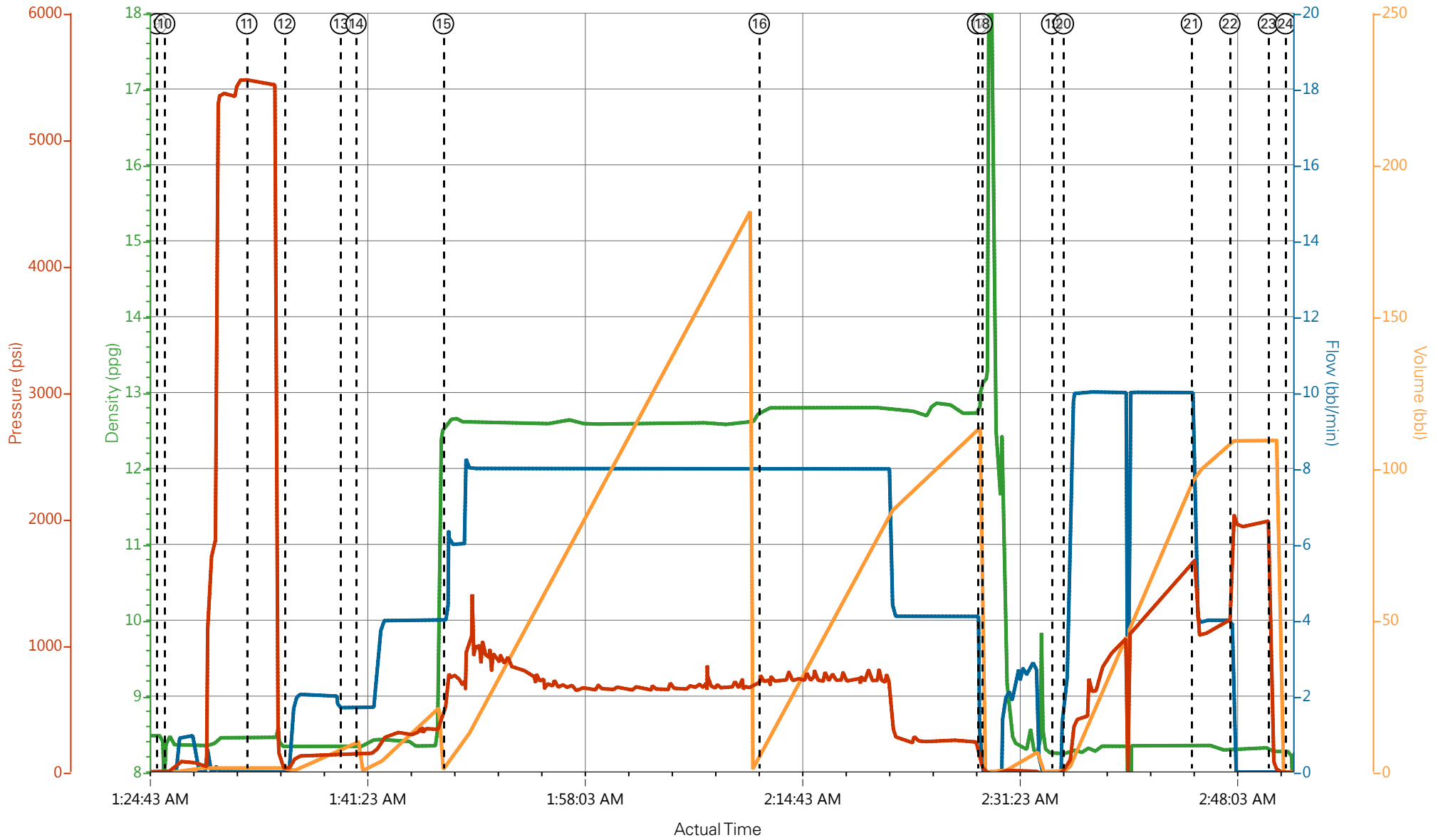
## 1.0 Real-Time Job Summary

### 1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	6/20/2016	15:00:00	USER					REQUESTED ON LOCATION @ 2100
Event	2	Pre-Convoy Safety Meeting	6/20/2016	17:00:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	6/20/2016	17:15:00	USER					1 F550 & 1 660 BULK TRUCK, PUMP TRUCK
Event	4	Arrive At Loc	6/20/2016	20:00:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	6/20/2016	20:20:00	USER					MET WITH COMP REP, BOBBY BROWN, AND WENT OVER NUMBERS AND JOB PROCEDURE. WALKED AROUND LOCATION AND COLLECTED WATER SAMPLE (PH- 7, CHLORIDES- 0, TEMP- 55F). COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES.
Event	6	Pre-Rig Up Safety Meeting	6/20/2016	23:00:00	USER					ALL HES PRESENT
Event	7	Rig-up Lines	6/20/2016	23:20:00	USER					HES RIGGED UP EQUIPMENT WITHOUT ENTERING RED ZONE.
Event	8	Pre-Job Safety Meeting	6/21/2016	00:30:00	USER					ALL HES AND RIG CREW PRESENT
Event	9	Start Job	6/21/2016	01:25:30	COM6					TD 6740', TP 6734.6', SJ 28.85', OH 8.75", CSG 4.5" 11.6#, MUD 9.9 PPG. RIG CIRCULATED WELL @ APPROX 13 BPM WITH 714 PSI FOR APPROX 2.5 HRS.
Event	10	Prime Pumps	6/21/2016	01:26:05	COM6					8.33 PPG FRESH WATER
Event	11	Test Lines	6/21/2016	01:32:23	COM6	5467.00	8.46	0.00	1.3	ALL LINES HELD PRESSURE AT 5477 PSI
Event	12	Pump Spacer 1	6/21/2016	01:35:17	COM6	31.00	8.34	0.00	1.3	8.33 PPG FRESH WATER (10BBL)
Event	13	Check weight	6/21/2016	01:39:34	COM6					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	14	Pump Spacer 2	6/21/2016	01:40:45	COM6	139.00	8.34	1.70	10.0	8.34 PPG MUD FLUSH (20BBL)
Event	15	Pump Lead Cement	6/21/2016	01:47:27	COM6	524.00	12.59	4.10	2.0	NEOCEM CEMENT 510 SKS (178 BBLs), 12.5 PPG, 1.96 FT3/SK, 9.38 GAL/SK

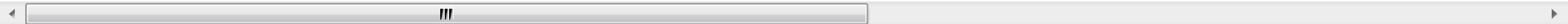
Event	16	Pump Tail Cement	6/21/2016	02:11:40	COM6	702.00	12.77	8.00	7.1	NEOCEM CEMENT 300 SKS (99.9 BBLS), 12.7 PPG, 1.87 FT3/SK, 8.71 GAL/SK.
Event	17	Shutdown	6/21/2016	02:28:24	USER					CLEAN LINES
Event	18	Clean Lines	6/21/2016	02:28:44	USER					WASH UP PUMPS AND LINES TO PIT
Event	19	Drop Top Plug	6/21/2016	02:34:04	USER					PLUG WENT VERIFIED BY CO. REP.
Event	20	Pump Displacement	6/21/2016	02:34:58	COM6	39.00	8.24	2.40	0.8	8.34 PPG FRESH WATER (103.9 BBLS) 3 BAGS BE6, 10 KCL
Event	21	Slow Rate	6/21/2016	02:44:47	USER	1675.00	8.36	10.00	97.1	SLOW RATE TO 4 BPM PER CO REP TO LAND PLUG
Event	22	Bump Plug	6/21/2016	02:47:44	COM6	1857.00	8.30	0.00	109.2	LAND PLUG AT 1200 PSI, BROUGHT UP TO 1950 PSI
Event	23	Check Floats	6/21/2016	02:50:41	USER	365.00	8.29	0.00	109.2	FLOATS HELD, 1 BBL BACK TO TRUCK
Event	24	End Job	6/21/2016	02:52:00	USER					RETURNS THROUGHOUT JOB, PIPE WAS RECIPROCATED DURING THE JOB (10 '), 0 BBL OF CEMENT BACK TO SURFACE
Event	25	Post-Job Safety Meeting (Pre Rig-Down)	6/21/2016	03:03:22	USER					ALL HES PRESENT
Event	26	Rig-Down Equipment	6/21/2016	03:30:00	USER					ALL HES PRESENT
Event	27	Pre-Convoy Safety Meeting	6/21/2016	04:30:00	USER					ALL HES PRESENT
Event	28	Crew Leave Location	6/21/2016	04:45:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENT, CHRIS SMITH AND CREW

# WPX FED GM 42-8 41/2 PRODUCTION



DH Density (ppg) 0.56    Comb Pump Rate (bbl/min) 0    PS Pump Press (psi) 3    Pump Stg Tot (bbl) 9.5

- ① Call Out                      ③ Crew Leave Yard                      ⑤ Assessment Of Location Safety Meeting                      ⑦ Rig-up Lines                      ⑨ Start Job                      ⑪ Test Lines                      ⑬ Check weight                      ⑮ Pump Lead Ce
- ② Pre-Convoy Safety Meeting                      ④ Arrive At Loc                      ⑥ Pre-Rig Up Safety Meeting                      ⑧ Pre-Job Safety Meeting                      ⑩ Prime Pumps                      ⑫ Pump Spacer 1                      ⑭ Pump Spacer 2                      ⑯ Pump Tail Cen



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Created: 2016-06-21 00:45:28, Version: 4.2.393

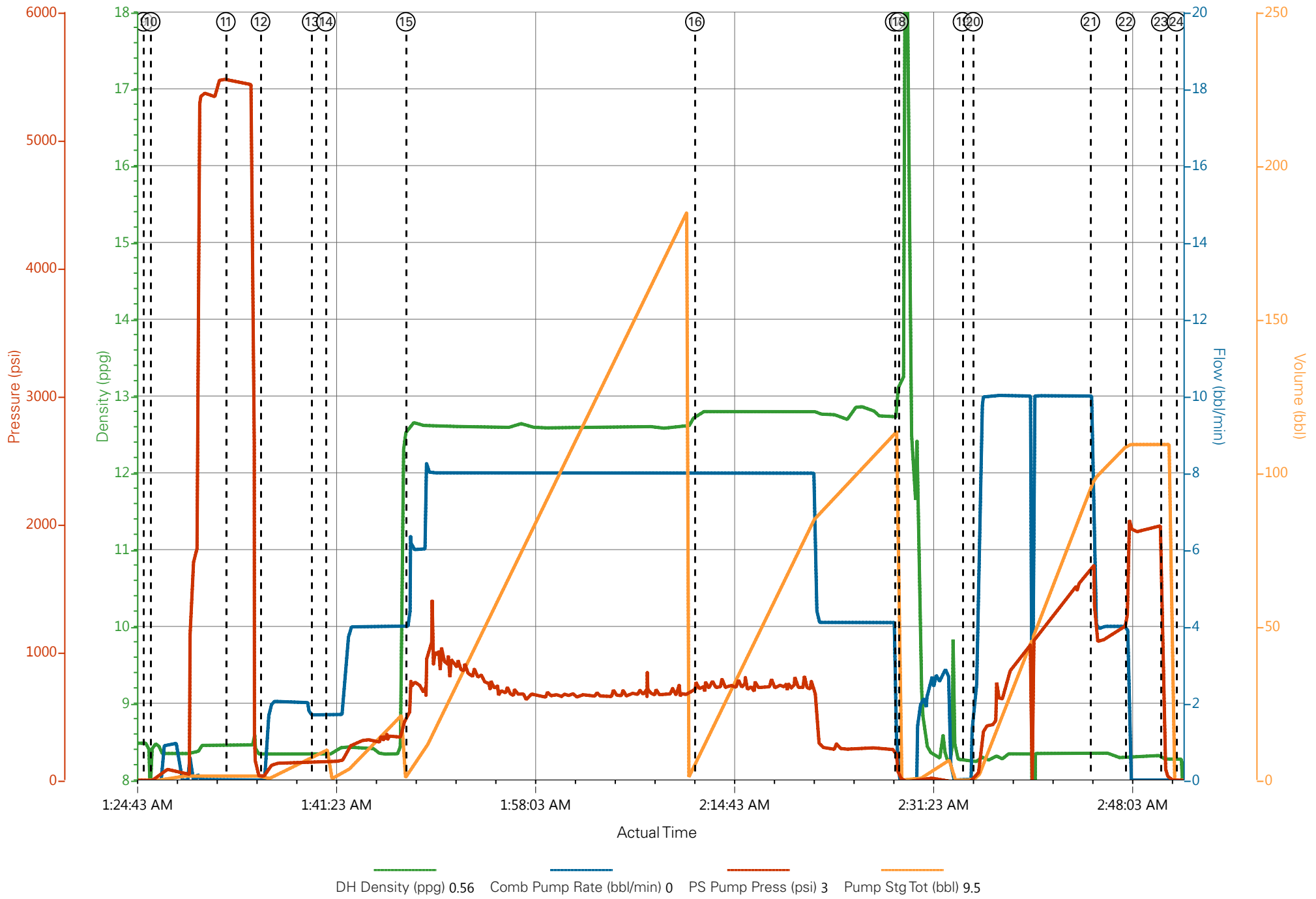
[Edit](#)

Customer: WPX ENERGY LLC-EBUS  
 Representative: BOBBY BROWN

Job Date: 6/21/2016  
 Sales Order #: 903376555

Well: FED GM 42-8  
 ELITE 8: C.SMITH/D.HYDE

# WPX FED GM 42-8 41/2 PRODUCTION



### Job Information

<b>Request/Slurry</b>	2325368/3	<b>Rig Name</b>	H&P 318	<b>Date</b>	17/JUN/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>	GM 42-8

### Well Information

<b>Casing/Liner Size</b>	4.5 in	<b>Depth MD</b>	6716 ft	<b>BHST</b>	88°C / 191°F
<b>Hole Size</b>	8.75 in	<b>Depth TVD</b>	65480 ft	<b>BHCT</b>	53°C / 127°F
<b>Pressure</b>	3880 psi				

### Drilling Fluid Information

<b>Mud Supplier Name</b>	Baroid	<b>Mud Trade Name</b>	BARADRIL-N	<b>Density</b>	9.9 lbm/gal
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### Cement Information - Primary Design

<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	<u>Cement Properties</u>		
						Slurry Density	12.5	lbm/gal
						Slurry Yield	1.958	ft <sup>3</sup> /sack
		NeoCem GJ 1				Water Requirement	9.414	gal/sack
		Cement Blend				Total Mix Fluid	9.414	gal/sack
		Fresh Water	Lab	12.03.13				
		Bentonite Wyoming - PB	Bulk Blend	19.06.16	tank 17 &24			
		Econolite (Powder - PB)	Bulk Blend	19.06.16	U070415	Water Source	Fresh Water	
		Na <sub>2</sub> SO <sub>4</sub> (Sodium Sulfate) Salt	Bulk Blend	19.06.16	02-05-16	Water Chloride		
		HALAD-344 (PB)	Bulk Blend	19.06.16	15073140			
		NaCl (Sodium Chloride) Salt	Bulk Blend	19.06.16	tank 14/32615ADC CA			
		HALAD-567	Bulk Blend	19.06.16	08115-139			
		Fe-2 (citric acid)	Bulk Blend	19.06.16	GA5L27BK5E			

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# Operation Test Results Request ID 2325368/3

## Thickening Time

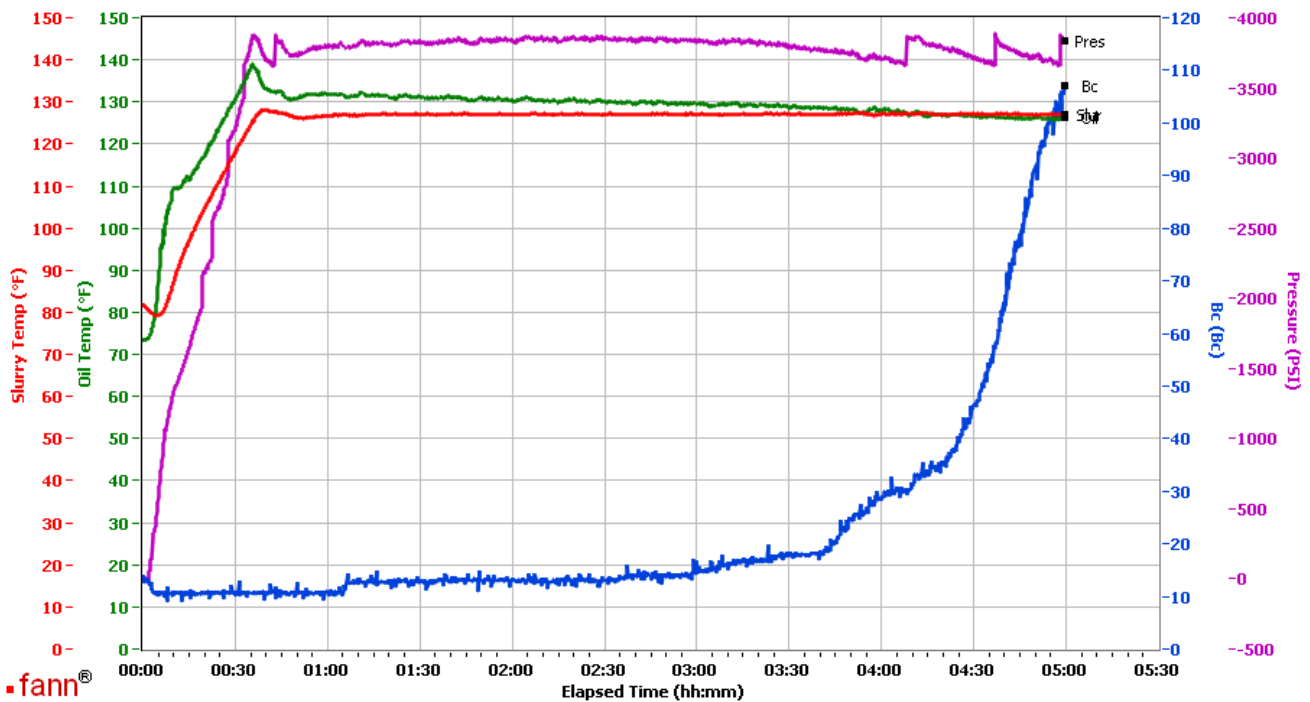
**20/JUN/2016**

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)
127	3880	35	14	4:01	4:24	4:32	4:40	4:54

510 Total Sacks  
CS0515 TR 4080 165 SKS

### Grand Junction, Colorado

Fields	Values	Fields	Values	Events	Results
Project Name	GJ2325368-3	Job Type		30.00 Bc	04h:01m
Test ID	GJ2325368-3 WPX PROD BULK PRIMARY 12	Cement Type		40.00 Bc	04h:24m
Request ID		Cement Weight	Standard	50.00 Bc	04h:32m
Tested by	DEBA	Test Date	06/19/16	70.00 Bc	04h:40m
Customer	WPX	Test Time	10:57 PM	100.00 Bc	04h:54m
Well No	GM 42-8	Temp. Units	degF	00h:30m	10.90
Rig		Pressure Units	PSI	01h:00m	10.62
Casing/Liner Size		SW Version	2.1.0.507	01h:30m	12.61



Data File C:\Documents and Settings\M290\Local Settings\Temporary Internet Files\Content.IE5\0HU90BIZ\GJ2325368-3 WPX PROD BULK PRIMARY 12.SPPG[1].tdms

Comments CS0515 TR#4080 165 SKS

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## Job Information

Request/Slurry	2325368/3	Rig Name	H&P 318	Date	17/JUN/2016
Submitted By	Evan Russell	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	WPX Energy, Inc.	Location	Garfield	Well	GM 42-8

## Well Information

Casing/Liner Size	4.5 in	Depth MD	6716 ft	BHST	88°C / 191°F
Hole Size	8.75 in	Depth TVD	65480 ft	BHCT	53°C / 127°F
Pressure	3880 psi				

## Drilling Fluid Information

Mud Supplier Name	Baroid	Mud Trade Name	BARADRIL-N	Density	9.9 lbm/gal
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## Cement Information - Primary Design ✓

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						Slurry Yield	1.958	ft3/sack
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		Fresh Water	Lab	12.03.13				
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		Econolite (Powder - PB)	Bulk Blend	19.06.16	U070415	Water Source	Fresh Water	
		Na2SO4 (Sodium Sulfate) Salt	Bulk Blend	19.06.16	02-05-16	Water Chloride		
		HALAD-344 (PB)	Bulk Blend	19.06.16	15073140			
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		HALAD-567	Bulk Blend	19.06.16	08115-139			
		Fe-2 (citric acid)	Bulk Blend	19.06.16	GA5L27BK5E			

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# Operation Test Results Request ID 2325368/2

## Thickening Time

19/JUN/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)
127	3880	35	10	3:30	3:48	4:02	4:11	4:21

790 Total Sacks

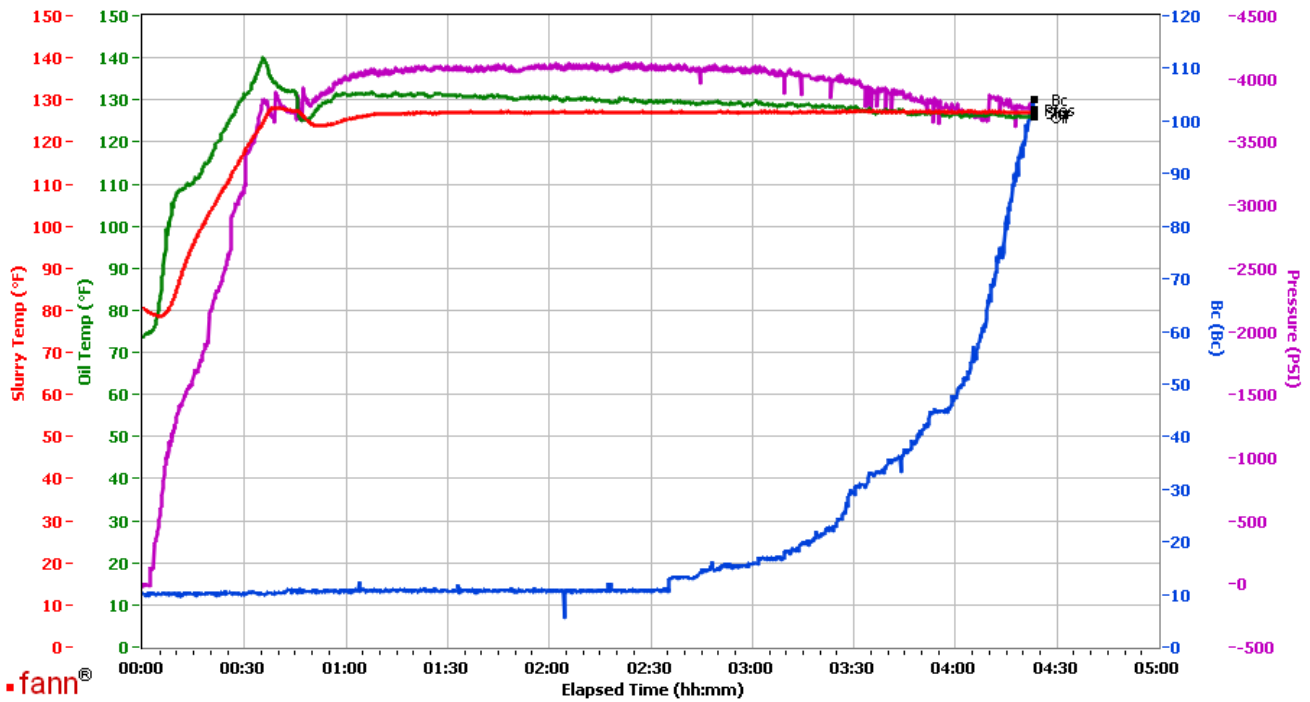
CS0514 TR 8677 395 SKS

### Grand Junction, Colorado

Fields	Values
Project Name	GJ2325368-2 TERRA PRODUCTION PRIMAR
Test ID	GJ2325368-2 TERRA
Request ID	
Tested by	JASON
Customer	TERRA
Well No	GM 42-8
Rig	H&P 318
Casing/Liner Size	4.5

Fields	Values
Job Type	PRODUCTION
Cement Type	NEOCEM
Cement Weight	Light Weight
Test Date	06/18/16
Test Time	11:11 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	03h:30m
40.00 Bc	03h:48m
50.00 Bc	04h:02m
70.00 Bc	04h:11m
100.00 Bc	04h:21m
00h:30m	9.89
01h:00m	10.48
01h:30m	10.67



Data File C:\Documents and Settings\M290\Desktop\Test Data\GJ2325368-2 TERRA BULK PRIMARY.tdmp  
 Comments CS0514 TR 8677 395 SKS

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Thickening Time

19/JUN/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)
127	3880	35	8	3:49	4:05	4:14	4:45	4:53

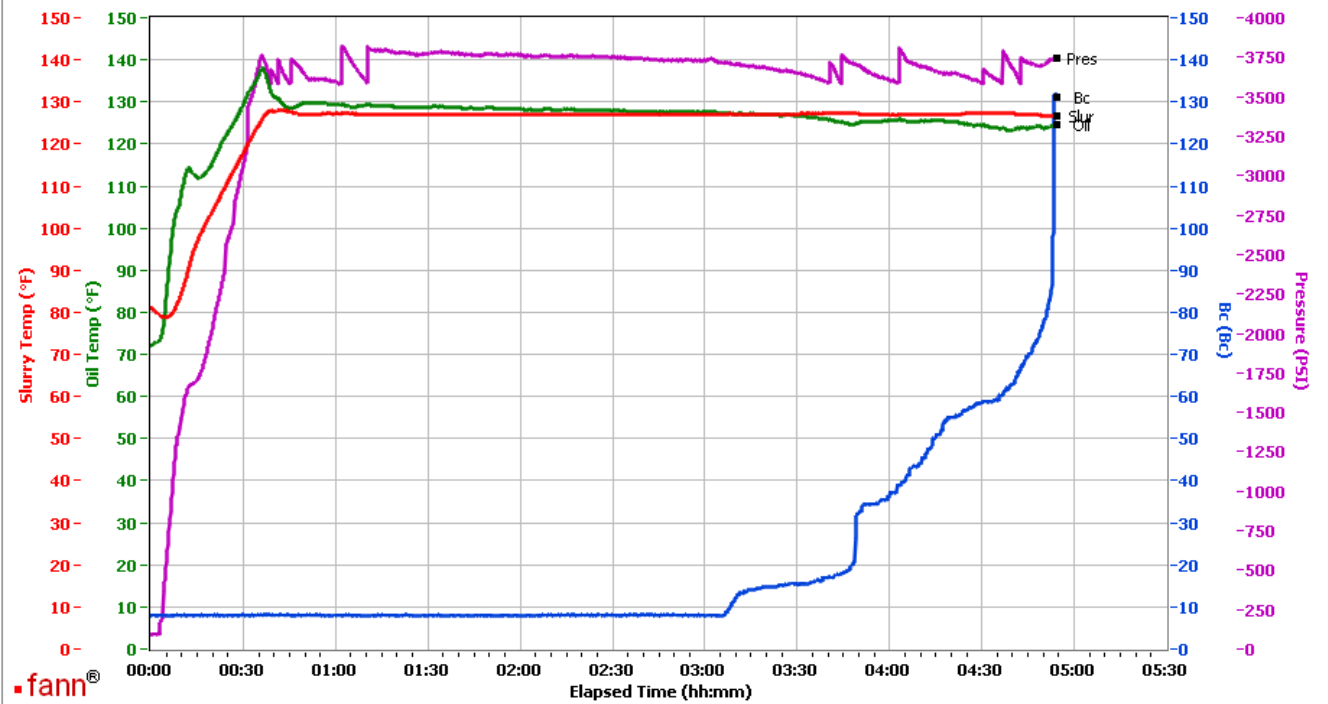
790 Total Sacks  
CS0509 TR 8658 395 SKS

Grand Junction Colorado

Fields	Values
Project Name	GJ2325368-1 TERRA PRODUCTION PRIMAR
Test ID	GJ2325368-1 TERRA
Request ID	GJ2325368-1
Tested by	JASON
Customer	TERRA
Well No	GM 42-8
Rig	H&P 318
Casing/Liner Size	4.5

Fields	Values
Job Type	PRODUCTION
Cement Type	NEOCEM
Cement Weight	Light Weight
Test Date	06/18/16
Test Time	08:00 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	03h:49m
40.00 Bc	04h:05m
50.00 Bc	04h:14m
70.00 Bc	04h:45m
100.00 Bc	04h:53m
00h:30m	8.25
01h:00m	7.94
01h:30m	8.02



Data File C:\Documents and Settings\M290\Desktop\Test Data\GJ2325368-1 TERRA BULK PRIMARY.tdms  
 Comments CS0509 TR 8658 395 SKS

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