

HALLIBURTON

iCem[®] Service

LARAMIE ENERGY LLC

For: Laramie

Date: Sunday, May 07, 2017

Piceance Federal 29-18E Surface PJR

API# 05-077-10302-00

Sincerely,

Grand Junction Cement Engineering

2.0 Real-Time Job Summary

2.1 Job Event Log

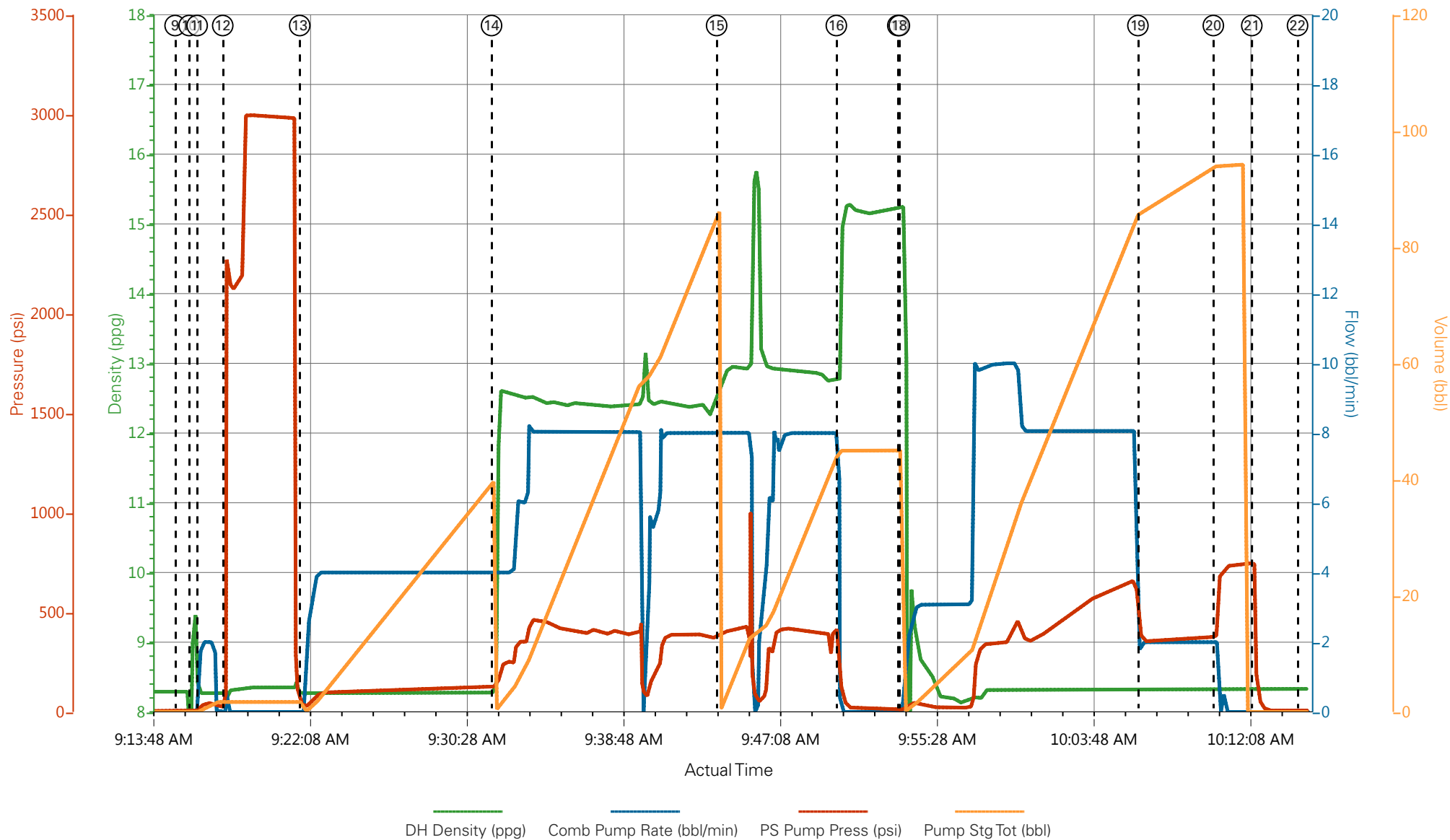
Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	5/7/2017	03:00:00	USER					ELITE #1
Event	2	Pre-Convoy Safety Meeting	5/7/2017	05:00:00	USER					ALL HES EMPLOYEES
Event	3	Arrive At Loc	5/7/2017	07:00:00	USER					ARRIVED ON LOCATION 2 HOURS EARLY RIG RUNNING CASING UPON HES ARRIVAL
Event	4	Meet With Company Rep	5/7/2017	07:05:00	USER					COMPANY REP OFFERED SDS WATER TEST: TEMP: 52 PH: 7 CHLORIDES:0
Event	5	Assessment Of Location Safety Meeting	5/7/2017	07:15:00	USER					ALL HES EMPLOYEES
Event	6	Pre-Rig Up Safety Meeting	5/7/2017	07:25:00	USER					ALL HES EMPLOYEES
Event	7	Rig-Up Equipment	5/7/2017	07:30:00	USER					1 HT-400 PUMP TRUCK 1 660 BULK TRUCK 1 F-550 PICKUP
Event	8	Pre-Job Safety Meeting	5/7/2017	09:00:00	USER					ALL HES EMPLOYEES AND RIG CREW RIG CIRCULATED FOR 45 MIN PRIOR TO THE JOB TOP PUMP RATE WAS 11 BPM @ 232 PSI
Event	9	Start Job	5/7/2017	09:15:08	COM5					TD: 1554 TP: 1544 SJ: 43.38 CSG: 8 5/8 24# J-55 OH: 11 MUD WT: 9.3 PPG
Event	10	Drop Bottom Plug	5/7/2017	09:15:52	COM5					PLUG AWAY NO PROBLEMS
Event	11	Prime Lines	5/7/2017	09:16:18	COM5	8.33	2.0	46	2.0	PRIME LINES WITH 2 BBLS FRESH WATER
Event	12	Test Lines	5/7/2017	09:17:40	COM5	8.33	0.0	3000	2.0	PRESSURE TEST OK

Event	13	Pump Fresh Water Spacer	5/7/2017	09:21:45	COM5	8.33	4.0	125	40	PUMP 40 BBL FRESH WATER SPACER
Event	14	Pump Lead Cement	5/7/2017	09:31:57	COM5	12.3	8.0	430	86.3	197 SKS 12.3 PPG 2.46 YIELD 14.17 GAL/SK LEAD CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES OPERATOR HIT THE KICKOUTS ON THE PUMP WHEN THE BOTTOM PLUG LANDED. RESET KICKOUTS AND RESUMED PUMPING
Event	15	Pump Tail Cement	5/7/2017	09:43:55	COM5	12.8	8.0	411	42.3	109 SKS 12.8 PPG 2.18 YIELD 12.11 GAL/SK TAIL CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES OPERATOR HIT THE KICKOUTS WHEN THE PUMP CAVITATED. RESET KICKOUTS AND RESUMED PUMPING
Event	16	Shutdown	5/7/2017	09:50:17	USER					
Event	17	Drop Top Plug	5/7/2017	09:53:33	COM5					PLUG AWAY NO PROBLEMS WASHED UP ON TOP OF THE PLUG AS PER COMPANY REP
Event	18	Pump Displacement	5/7/2017	09:53:38	COM5	8.33	10.8	660	95.4	FRESH WATER DISPLACEMENT
Event	19	Slow Rate	5/7/2017	10:06:20	USER	8.33	2.0	380	85	SLOW RATE TO BUMP PLUG
Event	20	Bump Plug	5/7/2017	10:10:20	COM5	8.33	2	750	95.4	PSI BEFORE BUMPING PLUG @ 380 PSI BUMPED PLUG UP TO 750 PSI
Event	21	Check Floats	5/7/2017	10:12:23	USER					FLOATS HELD 1/2 BBL BACK TO DISPLACEMENT TANKS
Event	22	End Job	5/7/2017	10:14:49	COM5	8.33	0.00	7.00	0.0	GOOD RETURNS THROUGHOUT JOB 25 BBLS OF CEMENT TO SURFACE 30#S OF SUGAR USED PIPE STATIC THROUGHOUT JOB
Event	23	Pre-Rig Down Safety Meeting	5/7/2017	10:30:00	USER					ALL HES EMPLOYEES
Event	24	Rig-Down Equipment	5/7/2017	10:45:00	USER					
Event	25	Pre-Convoy Safety Meeting	5/7/2017	11:45:00	USER					ALL HES EMPLOYEES

Event 26 Crew Leave Location 5/7/2017 12:00:00 USER

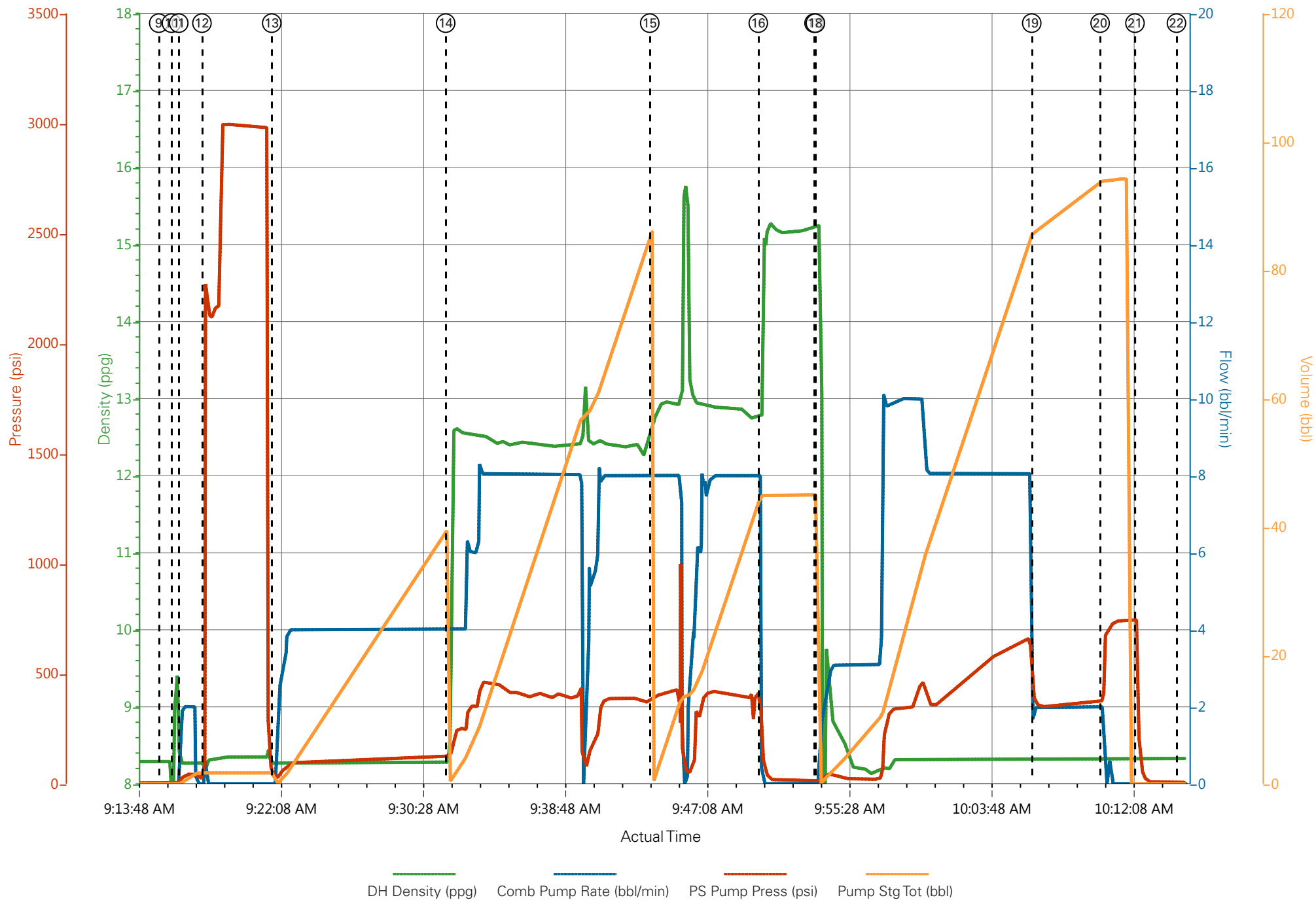
THANK YOU FOR USING HALLIBURTON CEMENT,
DUSTIN SMITH AND CREW

LARAMIE - PICEANCE FEDERAL 29-18E - 8 5/8 SURFACE



- | | | | | | |
|---|-----------------------------|---------------------------|---------------------|--------------------------------|------------------------|
| ① Call Out | ⑥ Pre-Rig Up Safety Meeting | ⑪ Prime Lines | ⑯ Shutdown | 21 Check Floats | 26 Crew Leave Location |
| ② Pre-Convoy Safety Meeting | ⑦ Rig-Up Equipment | ⑫ Test Lines | ⑰ Drop Top Plug | 22 End Job | |
| ③ Arrive At Loc | ⑧ Pre-Job Safety Meeting | ⑬ Pump Fresh Water Spacer | ⑱ Pump Displacement | 23 Pre-Rig Down Safety Meeting | |
| ④ Meet With Company Rep | ⑨ Start Job | ⑭ Pump Lead Cement | ⑲ Slow Rate | 24 Rig-Down Equipment | |
| ⑤ Assessment Of Location Safety Meeting | ⑩ Drop Bottom Plug | ⑮ Pump Tail Cement | 20 Bump Plug | 25 Pre-Convoy Safety Meeting | |

LARAMIE - PICEANCE FEDERAL 29-18E - 8 5/8 SURFACE



HALLIBURTON

iCem[®] Service

LARAMIE ENERGY II LLC

For: Laramie Energy

Date: Wednesday, May 10, 2017

PICEANCE 29-18E

API# 05-077-10364-00

Sincerely,

Grand Junction Cement Engineering

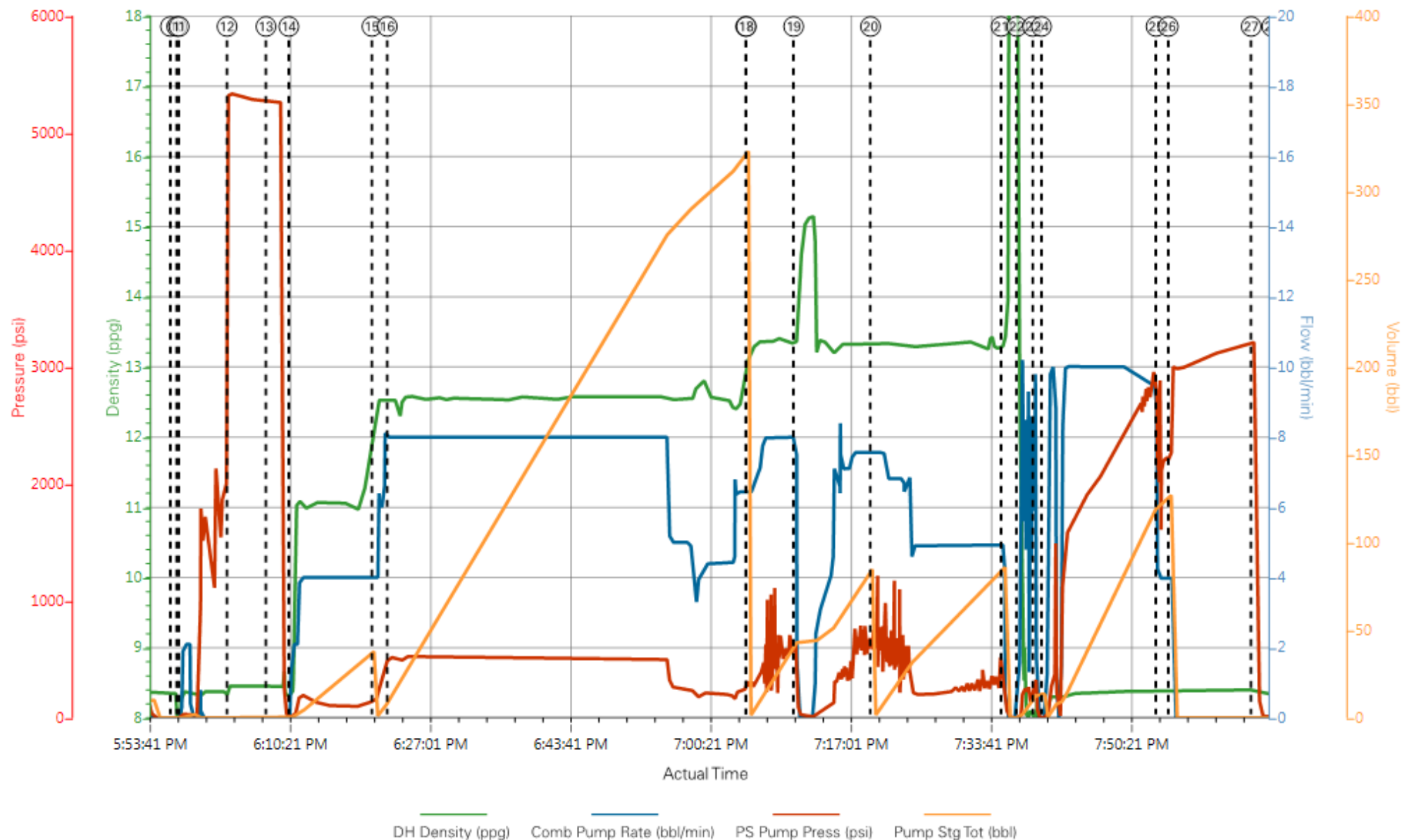
1.0 Real-Time Job Summary

1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Assessment Of Location Safety Meeting	5/10/2017	01:15:00	USER					DISCUSSED JOB PROCEDURE AND OFFERED SDS TO COMPANY REP
Event	2	Pre-Rig Up Safety Meeting	5/10/2017	01:30:00	USER					ALL HES PRESENT
Event	3	Call Out	5/10/2017	06:30:00	USER					CREW ATTENDED SAFETY MEETING BEFORE PREPAIRING FOR JOB
Event	4	Pre-Convoy Safety Meeting	5/10/2017	10:45:00	USER					CREW ON STAND DOWN 1 HOUR. ALL HES PRESENT FOR SAFETY MEETING
Event	5	Crew Leave Yard	5/10/2017	11:00:00	USER					1-ELITE, 1-660 BULK TRUCK, 1-PICK UP
Event	6	Arrive at Location from Service Center	5/10/2017	12:45:00	USER					RIG RUNNING CASING
Event	7	Rig-Up Completed	5/10/2017	17:30:00	USER					1-ELITE, 1-660 BULK TRAILER, 2-FIELD SILO, 2" PUMP IRON, 4" SUCTION HOSE, 4.5" QUICK LATCH PLUG CONTAINER
Event	8	Other	5/10/2017	17:35:00	USER					H2O: TEMP-50, CHLORIDE-0, PH-7.5
Event	9	Start Job	5/10/2017	17:56:30	USER	8.35	0.00	6.00	0.0	TD-7995', TP-7985', SJ-87', OH-8.875" MUD-9.4PPG, CSG-4.5" I80 11.6#, SCSSG-8.625" 32# 0-1544'
Event	10	Drop Bottom Plug	5/10/2017	17:57:15	USER	6.39	0.00	9.00	0.0	PLUG LOADED INTO CASING
Event	11	Prime Pumps	5/10/2017	17:57:31	USER	8.40	2.00	43.00	2.0	FRESH WATER
Event	12	Test Lines	5/10/2017	18:03:13	COM5	8.47	0.00	5346.00	0.0	ALL PRESSURE HELD ON LINES
Event	13	Check weight	5/10/2017	18:07:51	COM5					WEIGHT VERIFIED PRESSURIZED MUD SCALES
Event	14	Pump Spacer 1	5/10/2017	18:10:34	USER	11.00	4.00	200.00	40.0	TUNED SPACER III, 40 BBLS, 11.0PPG, 4.86CF/SK, 31.9GAL/SK
Event	15	Pump Lead Cement	5/10/2017	18:20:27	COM5	12.50	8.00	520.00	301.6	NEOCEM 873 SKS, 12.5PPG, 1.94CF/SK, 9.6GAL/SK
Event	16	Check weight	5/10/2017	18:22:16	COM5	12.52	8.00	517.00	11.6	WEIGHT VERIFIED PRESSURIZED MUD SCALES

Event	17	Pump Tail Cement	5/10/2017	19:04:52	COM5	13.30	8.00	703.00	126.3	THERMACEM 410 SKS, 13.3PPG, 1.73CF/SK, 7.81GAL/SK
Event	18	Check weight	5/10/2017	19:04:57	COM5	13.30	6.50	248.00	3.6	WEIGHT VERIFIED PRESSURIZED MUD SCALES
Event	19	Shutdown	5/10/2017	19:10:34	USER	13.37	0.10	231.00	43.6	SHUTDOWN DUE TO LEAK
Event	20	Other	5/10/2017	19:19:43	COM5	13.32	7.50	657.00	86.0	OPERATOR ACCIDENT ZEROED STAGE 86.0 BBLS AWAY
Event	21	Shutdown	5/10/2017	19:35:14	USER	13.29	4.90	336.00	126.3	
Event	22	Clean Lines	5/10/2017	19:37:06	COM5					CLEANED PUMPS AND LINES TO CELLAR
Event	23	Drop Top Plug	5/10/2017	19:39:00	USER					PLUG DROP VERIFIED BY TATTLE TAIL
Event	24	Pump Displacement	5/10/2017	19:40:02	COM5	8.35	10.00	2950.00	122.4	FRESH WATER, 1-GAL MMCR, 5-GAL CLA WEB
Event	25	Slow Rate	5/10/2017	19:53:39	USER	8.38	4.00	2169.00	112.4	SLOW RATE LAST 10 BBLS
Event	26	Bump Plug	5/10/2017	19:55:06	COM5	8.37	4.00	2276.00	122.4	PLUG BUMPED 2276PSI
Event	27	Check Floats	5/10/2017	20:04:57	USER	8.39	0.00	3215.00	0.0	FLOATS HELD 1.5 BBLS BACK TO DISPLACEMENT TANK
Event	28	End Job	5/10/2017	20:07:25	COM5					GOOD RETURNS THROUGH OUT JOB, 10 BBLS CEMENT TO SURFACE
Event	29	Pre-Rig Down Safety Meeting	5/10/2017	20:11:00	USER					ALL HES PRESENT
Event	30	Rig-Down Completed	5/10/2017	21:00:00	USER					
Event	31	Pre-Convoy Safety Meeting	5/10/2017	21:15:00	USER					ALL HES PRESENT
Event	32	Crew Leave Location	5/10/2017	21:30:00	USER					THANK YOU FOR CHOOSING HALLIBURTON, ANDREW BRENNECKE AND CREW

LARAMIE - PICEANCE 29-18E - 4.5" PRODUCTION



- | | | | | |
|---|--|--------------------------------|--------------------------------|----------------------|
| ① Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a | ④ Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a | ⑦ Rig-Up Completed 8.38;0;-8;0 | ⑩ Drop Bottom Plug 7.02;0;-8;0 | ⑬ Check weight 8.46; |
| ② Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a | ⑤ Crew Leave Yard n/a;n/a;n/a;n/a | ⑧ Other 8.38;0;-9;0 | ⑪ Prime Pumps 8.39;1;25;0.1 | ⑭ Pump Spacer 1 8.3 |
| ③ Call Out n/a;n/a;n/a;n/a | ⑥ Arrive at Location from Service Center n/a;n/a;n/a;n/a | ⑨ Start Job 8.35;0;-6;0 | ⑫ Test Lines 8.47;0;5345;0 | ⑮ Pump Lead Cemer |

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Created: 2017-05-10 14:10:56, Version: 4.2.393

Edit

Customer: LARAMIE ENERGY II LLC

Representative: MATT SETTLES

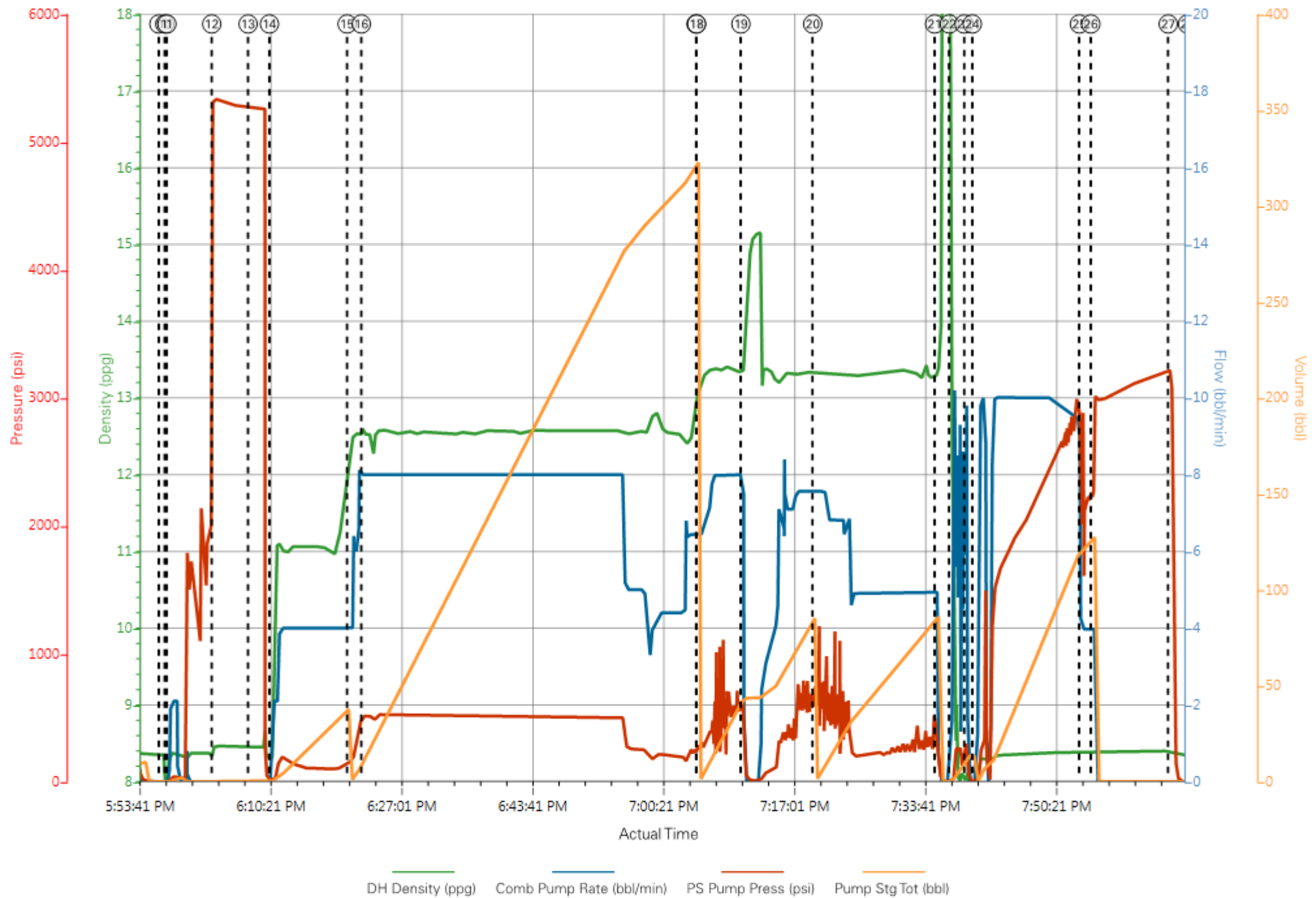
Job Date: 5/10/2017 3:18:59 PM

Sales Order #: 904021881

Well: PICEANCE 29-18E

ELITE#4: A.BRENNECKE/A.ANGELO

LARAMIE - PICEANCE 29-18E - 4.5" PRODUCTION



Job Information

Request/Slurry	2386339/1	Rig Name	H&P 522	Date	06/MAY/2017
Submitted By	Patrick Ealey	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Piceance Federal 29-18E

Well Information

Casing/Liner Size	4.5 in	Depth MD	8000 ft	BHST	114°C / 238°F
Hole Size	7.875 in	Depth TVD	7691 ft	BHCT	72°C / 161°F
Pressure	4680 psi				

Drilling Fluid Information

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



<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	Cement Properties		
		NeoCem Lead				Slurry Density	12.5	lbm/gal
						Slurry Yield	1.941	ft3/sack
						Water Requirement	9.623	gal/sack
						Total Mix Fluid	9.623	gal/sack
						Water Source	Field (Fresh) Water	
						Water Chloride		

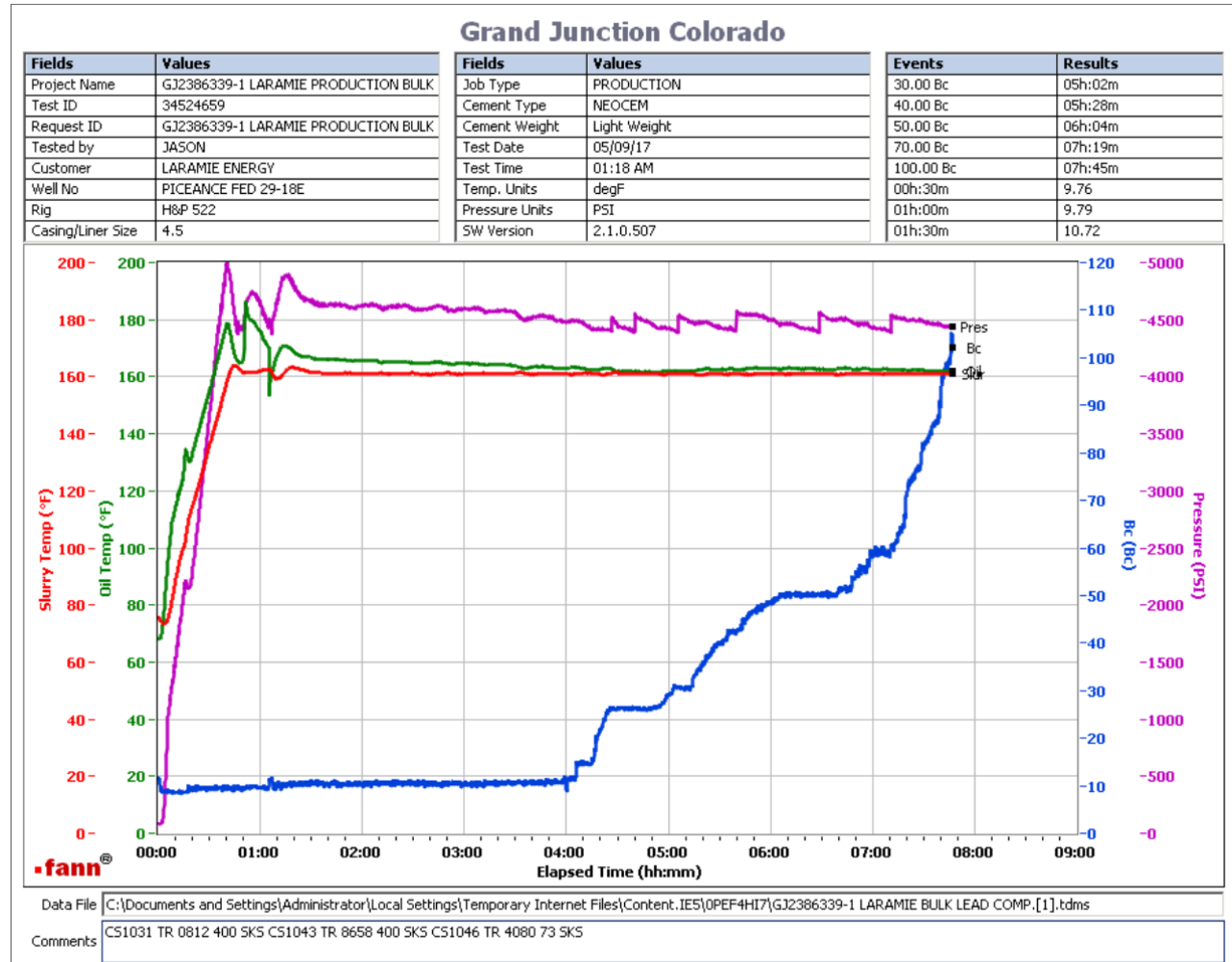
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Operation Test Results Request ID 2386339/1

Thickening Time - ON-OFF-ON

09/MAY/2017

Test Temp (°F)	Pressure (psi)	Reached in (min)	30 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)
161	4680	40	5:02	6:04	7:19	7:45	12	50	15	11



Total sks=873sks
 CS1031 TR 0812 400 SKS
 CS1043 TR 8658 400 SKS
 CS1046 TR 4080 73 SKS
 deflected from 9Bc to 11Bc

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HALLIBURTON

Rockies, Grand Junction

Lab Results- Tail

Job Information

Request/Slurry	2386340/1	Rig Name	H&P 522	Date	06/MAY/2017
Submitted By	Patrick Ealey	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Piceance Federal 29-18E

Well Information

Casing/Liner Size	4.5 in	Depth MD	8000 ft	BHST	114°C / 238°F
Hole Size	7.875 in	Depth TVD	7691 ft	BHCT	72°C / 161°F
Pressure	4680 psi				

Drilling Fluid Information

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



<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	Cement Properties		
		ThermaCem Tail				Slurry Density	13.3	lbm/gal
						Slurry Yield	1.733	ft3/sack
						Water Requirement	7.799	gal/sack
						Total Mix Fluid	7.799	gal/sack
						Water Source	Field (Fresh) Water	
						Water Chloride		

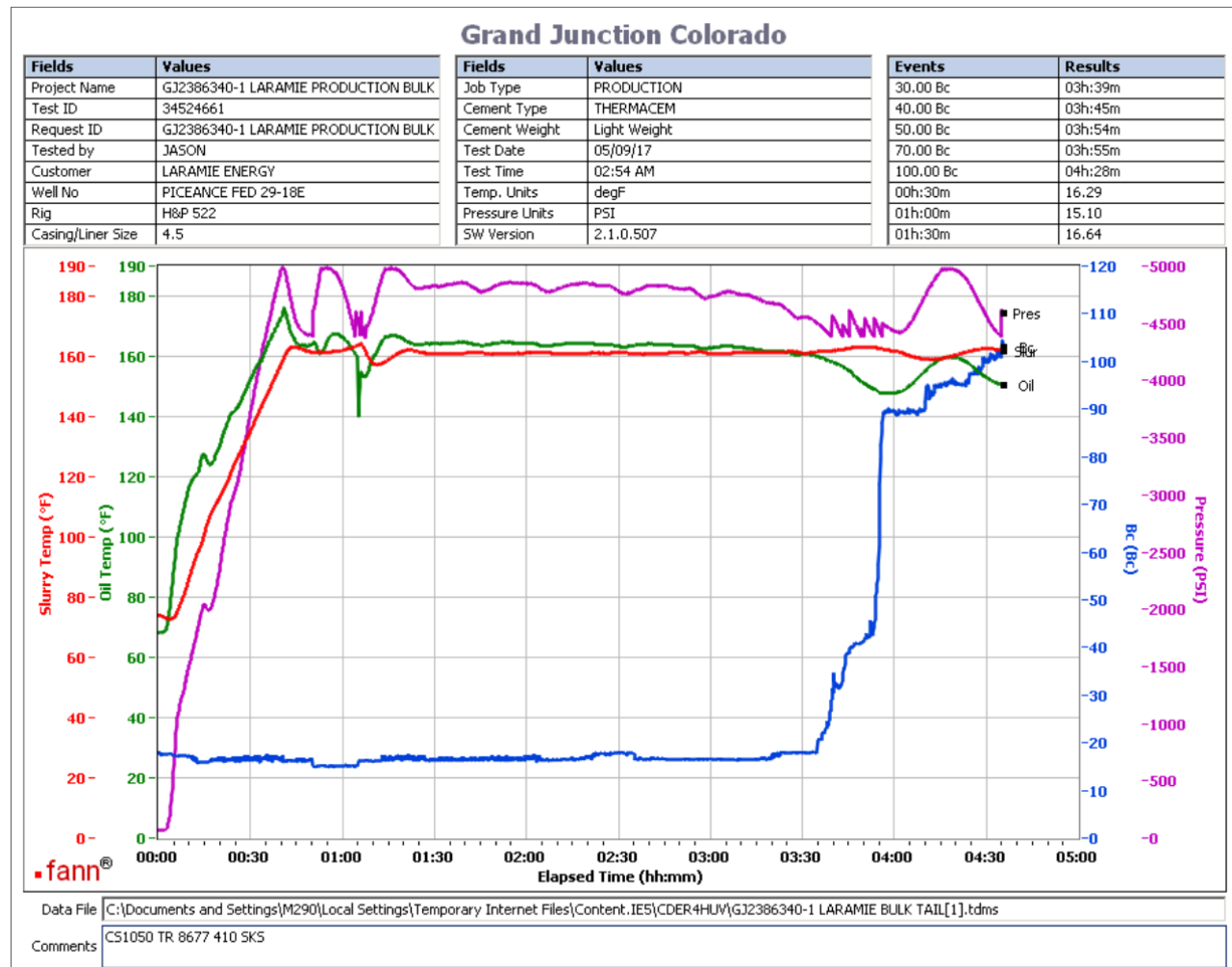
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Operation Test Results Request ID 2386340/1

Thickening Time - ON-OFF-ON

09/MAY/2017

Test Temp (°F)	Pressure (psi)	Reached in (min)	30 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)
161	4680	40	3:39	3:54	3:55	4:28	18	50	15	16



Total sks = 410
CS1050 TR 8677 410 SKS
no significant deflection.

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