

HALLIBURTON

iCem[®] Service

Laramie Energy LLC

United States of America, COLORADO

For: Laramie

Date: Monday, June 25, 2018

0697-03-14E Surface PJR

API #: 05-045-23801

Sincerely,

Grand Junction Cement Engineering

2.0 Real-Time Job Summary

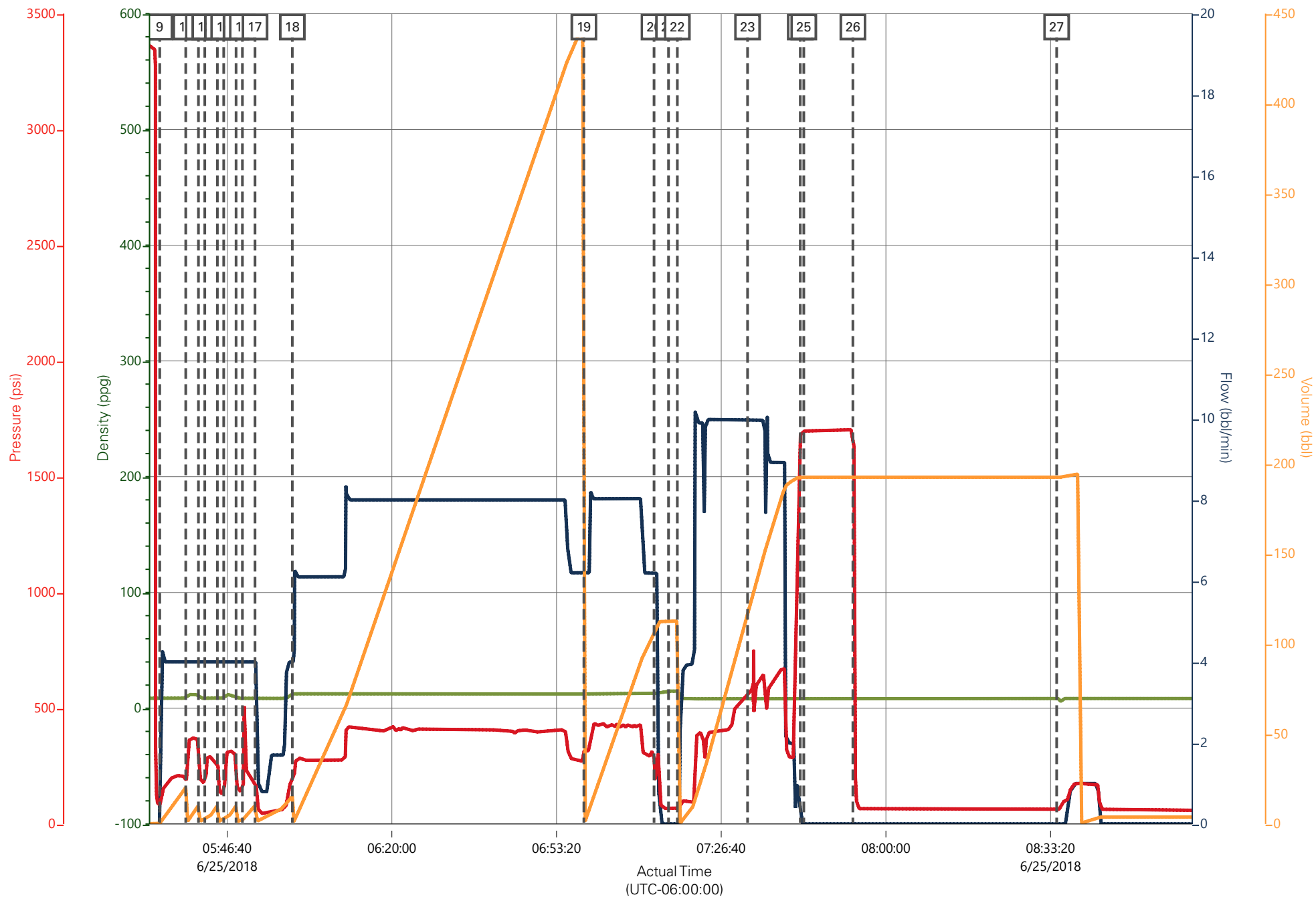
2.1 Job Event Log

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	6/24/2018	23:30:00	USER					
Event	2	Pre-Convoy Safety Meeting	6/25/2018	01:25:00	USER					JOURNEY MANAGEMENT COMPLETE, AS WELL AS JSA
Event	3	Crew Leave Yard	6/25/2018	01:30:00	USER					
Event	4	Arrive At Loc	6/25/2018	03:40:00	USER					JOURNEY MANAGEMENT CLOSED OUT.
Event	5	Assessment Of Location Safety Meeting	6/25/2018	03:50:00	USER					
Event	6	Pre-Rig Up Safety Meeting	6/25/2018	04:00:00	USER					JSA COMPLETE
Event	7	Rig-Up Equipment	6/25/2018	04:15:00	USER					
Event	8	Other	6/25/2018	04:20:35	USER					WATER TEST: PH-7, TEMP-60, CL-0 TP- 2555, TD- 2565, S.J.-43.76, HOLE- 14 3/4, MUD#-9
Event	9	Pre-Job Safety Meeting	6/25/2018	05:05:00	USER					JSA COMPLETE
Event	10	Start Job	6/25/2018	05:13:20	COM5					
Event	11	Test Lines	6/25/2018	05:30:10	COM5	8.33	0.00	3412.0	0.00	3412 PSI
Event	12	Pump Spacer 1	6/25/2018	05:33:01	COM5	8.33	4.00	78.00	200	FRESH WATER
Event	13	Pump Spacer 1	6/25/2018	05:38:17	COM5	11.00	4.00	187.00	20.0	SUPERFLUSH 100
Event	14	Pump Spacer 1	6/25/2018	05:40:51	COM5	8.33	4.00	284.00	10.0	FRESH WATER

Event	15	Pump Spacer 1	6/25/2018	05:42:08	COM5	9.00	4.00	181.00	5.20	CALCIUM CHLORIDE WATER 50 LBS/BBL
Event	16	Pump Spacer 1	6/25/2018	05:44:41	COM5	8.33	4.00	260.00	5.00	FRESH WATER
Event	17	Pump Spacer 1	6/25/2018	05:45:58	COM5	11.00	4.00	137.00	20.0	SUPERFLUSH 100
Event	18	Pump Spacer 1	6/25/2018	05:48:28	COM5	8.33	4.00	218.00	5.0	FRESH WATER
Event	19	Pump Spacer 1	6/25/2018	05:49:45	COM5	9.00	4.00	141.00	10.00	CALCIUM CHLORIDE WATER 50 LBS/BBL
Event	20	Pump Spacer 1	6/25/2018	05:52:18	COM5	8.33	4.00	185.00	10.00	FRESH WATER
Event	21	Pump Lead Cement	6/25/2018	05:59:51	COM5	12.30	6.00	420.0	428.4	1015 SKS VARICEM, 12.3 PPG, 2.37 FT3/SK, 13.74 GAL/SK
Event	22	Pump Tail Cement	6/25/2018	06:58:52	COM5	12.8	8.00	420.0	109.7	292 SKS VARICEM, 12.8 PPG, 2.11 FT3/SK, 11.75 GAL/SK
Event	23	Shutdown	6/25/2018	07:13:04	USER					WASHED UP ON TOP OF PLUG
Event	24	Drop Top Plug	6/25/2018	07:16:00	USER					AWAY
Event	25	Pump Displacement	6/25/2018	07:17:47	COM5	8.33	10.0	700	194.10	FRESH WATER, NO CIRCULATION THROUGHOUT JOB, NO CMT TO SURFACE ON PRIMARY JOB.
Event	26	Slow Rate	6/25/2018	07:32:00	USER	8.33	2.0	310.0	184.0	TO BUMP PLUG
Event	27	Bump Plug	6/25/2018	07:42:40	COM5	8.33	2.0	330.0	194.10	PLUG BUMPED
Event	28	CASING TEST	6/25/2018	07:43:23	COM5			1739.00		1739 PSI TEST GOOD
Event	29	Check Floats	6/25/2018	07:53:19	COM5			1739.00		FLOATS HELD 1.5 BBLs BACK TO TRUCK
Event	30	PUMP PARASITE	6/25/2018	08:34:34	COM5	8.33	2.0	60.00	10.0	PUMPED 10 BBLs OF SUGAR WATER
Event	31	Pump Spacer 1	6/25/2018	11:53:58	COM5	8.33	1.5	57.00	2.0	FRESH WATER AHEAD

Event	32	Pump Cement	6/25/2018	11:57:14	COM5	15.80	1.5	115.00	16.0	76 SKS TOP OUT CEMENT, 15.6 PPG, 1.19 FT3/SK, 5.24 GAL/SK, 5 BBLs GOOD CEMENT TO SURFACE
Event	33	End Job	6/25/2018	12:18:00	USER					
Event	34	Post-Job Safety Meeting (Pre Rig-Down)	6/25/2018	12:45:00	USER					JSA COMPLETE
Event	35	Crew Leave Location	6/25/2018	14:00:00	USER					THANK YOU FOR USING HALLIBURTON CEMENT, JAMES LEIST AND CREW

Custom Results



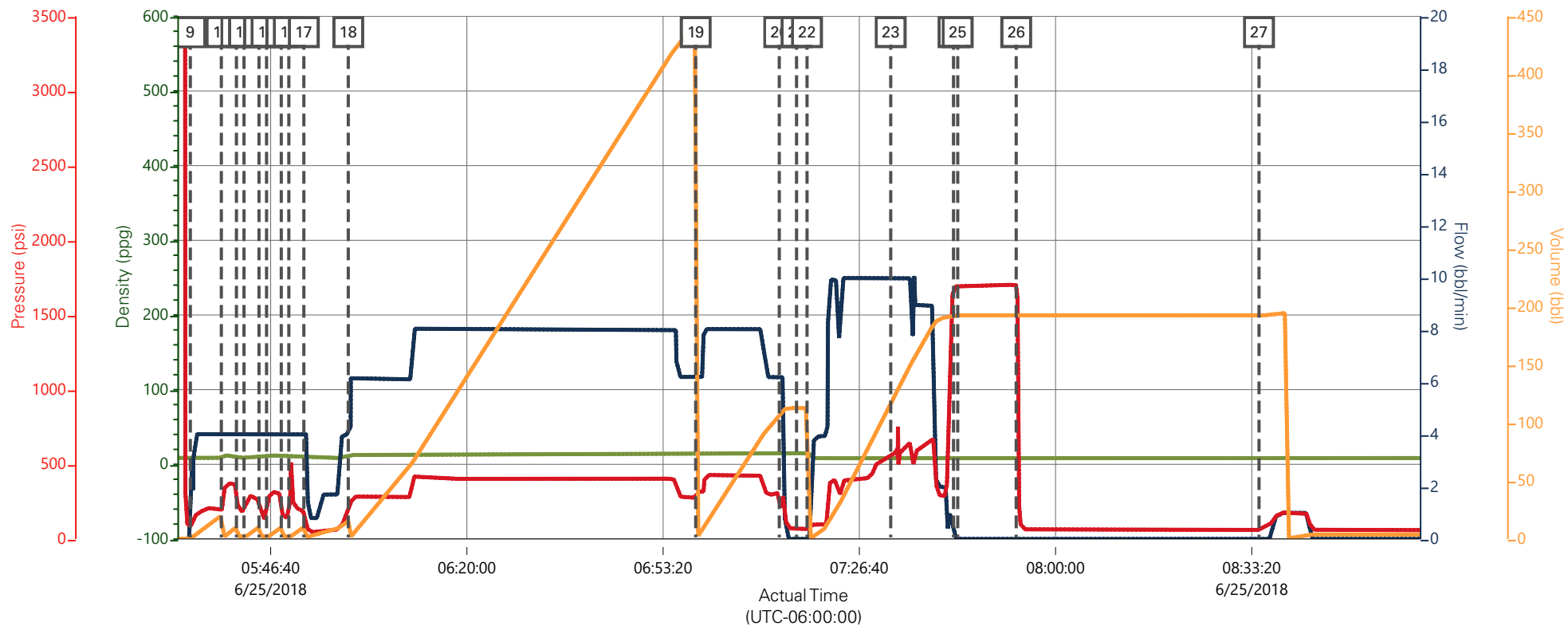
DH Density (ppg)

Comb Pump Rate (bbl/min)

PS Pump Press (psi)

Pump Stg Tot (bbl)

Custom Results



DH Density (ppg)

Comb Pump Rate (bbl/min)

PS Pump Press (psi)

Pump Stg Tot (bbl)

Description	Actual Time (UTC-06:00:00)	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	
17 Pump Spacer 1	05:52:18	9.11	4.00	185.00	10.30	
18 Pump Lead Cement	05:59:51	12.41	4.00	195.00	15.30	
19 Pump Tail Cement	06:58:52	12.77	6.20	303.81	444.66	
20 Shutdown	07:13:04	12.79	6.20	287.00	107.10	
21 Drop Top Plug	07:16:00	14.80	0.00	67.00	112.70	
22 Pump Displacement	07:17:47	14.86	0.00	67.00	112.70	
23 Slow Rate	07:32:00	8.40	10.00	560.00	116.60	
24 Bump Plug	07:42:40	8.44	0.00	1677.00	192.60	
25 CASING TEST	07:43:23	8.44	0.00	1698.00	192.60	
26 Check Floats	07:53:19	8.44	0.00	1705.00	192.60	
27 PUMP PARASITE	08:34:34	8.39	0.00	60.00	192.60	

HALLIBURTON

iCem[®] Service

LARAMIE ENERGY LLC-EBUS

United States of America, COLORADO

For: Aaron Duncan

Date: Thursday, June 28, 2018

Cascade Creek 0697-03-14E Production PJR

API #05-045-23801-00

Sincerely,

Grand Junction Cement Engineering

1.0 Real-Time Job Summary

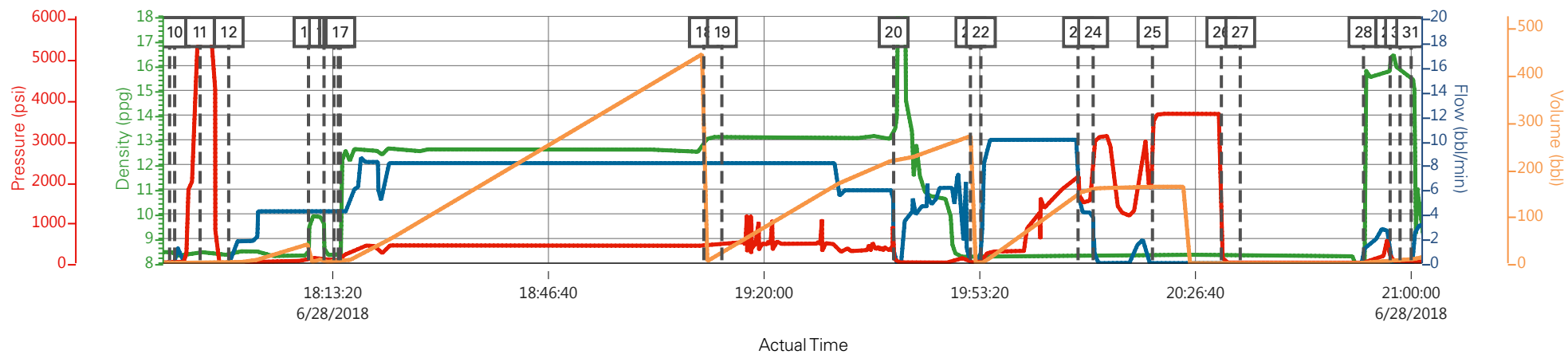
1.1 Job Event Log

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	Call Out	6/28/2018	09:00:00	USER					REQUESTED ON LOCATION @ 15:00
Event	2	Depart Yard Safety Meeting	6/28/2018	10:45:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	6/28/2018	11:00:00	USER					1 HT 400 PUMP TRUCK E, 1 SUPER FLUSH TRANSPORT, 1 550 SERVICE PICKUP
Event	4	Arrive At Loc	6/28/2018	13:00:00	USER					ARRIVED TWO HOURS EARLY TO LOCATION. RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	6/28/2018	13:15:00	USER					MET WITH COMP REP, WENT OVER NUMBERS AND JOB PROCEDURE. WALKED AROUND LOCATION AND COLLECTED WATER SAMPLE. COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES.
Event	6	Spot Equipment	6/28/2018	13:45:00	USER					1 HT 400 PUMP TRUCK E8, 1 660 BULK TRUCK, 1 SUPER FLUSH TRANSPORT, 1 550 SERVICE PICKUP
Event	7	Pre-Rig Up Safety Meeting	6/28/2018	14:00:00	USER					ALL HES PRESENT
Event	8	Pre-Job Safety Meeting	6/28/2018	17:30:00	USER					ALL HES EMPLOYEES AND RIG CREW PRESENT, RIG CIRCULATED @ 10 BPM PRIOR TO JOB PRESSURE @ 300 PSI.
Event	9	Start Job	6/28/2018	17:48:07	COM5					TD 9796', TP 9786' OF 4 ½" 11.6# P-110 CSG, SJ 83.31', SURFACE CSG 9 5/8" 36# J55 SET @ 2555', OH 7 ¾", MUD 9.2 PPG
Event	10	Prime Lines	6/28/2018	17:48:54	USER	8.33	1.5	30	2	FRESH WATER

Event	11	Test Lines	6/28/2018	17:52:50	COM5			5400		PRESSURE HELD
Event	12	Pump Mud Flush III	6/28/2018	17:57:15	COM5	8.4	4.0	55	40	40 BBL MUD FLUSH III. USED 160 LBS MUDFLUSH III
Event	13	Pump Super Flush	6/28/2018	18:09:35	COM5	10.0	4.0	130	10	10 BBL SUPER FLUSH 101
Event	14	Pump Fresh Water Spacer	6/28/2018	18:11:59	COM5	8.33	4.0	70	10	FRESH WATER
Event	15	Check Weight	6/28/2018	18:13:31	COM5					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	16	Drop Bottom Plug	6/28/2018	18:14:11	USER					VERIFIED BY FLAG INDICATOR. PLUG LAUNCHED WITH 8 BBLS AWAY OF THE H2O SPACER BEFORE CEMENT
Event	17	Pump Lead Cement	6/28/2018	18:14:30	COM5	12.5	8.0	440	395	1143 SKS OF NEOCEM CMT 12.5 PPG, 1.94 FT3/SK, 9.59 GAL/SK.
Event	18	Pump Tail Cement	6/28/2018	19:10:41	COM5	13.0	8.0	500	179	485 SKS NEOCEM CMT 13 PPG, 2.07 FT3/SK, 9.41 GAL/SK.
Event	19	Check Weight	6/28/2018	19:13:28	COM5					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	20	Shutdown	6/28/2018	19:40:01	COM5					END OF CEMENT
Event	21	Drop Plug	6/28/2018	19:51:53	COM5					VERIFIED BY FLAG INDICATOR
Event	22	Pump Displacement	6/28/2018	19:53:30	COM5	8.4	10.0	2170	140.4	1 GAL MMCR IN FIRST 10 BBLS, 5 GALS CLAY WEB, 5 GAL AVANCID GL25 THROUGHOUT DISPLACEMENT
Event	23	Slow Rate	6/28/2018	20:08:31	USER	8.4	4.0	1460	10	SLOWED RATE TO BUMP PLUG
Event	24	Bump Plug	6/28/2018	20:10:51	COM5	8.4	4.0	1550	150.4	PLUG BUMPED TOOK PSI UPTO 3000 FOR A 10 MIN CASG TEST.
Event	25	Casing TEST	6/28/2018	20:20:01	USER			3630		HAD SOME ISSUES WITH CASING TEST, A VALVE STARTED TO WORK IT'S WAY OPEN, CLOSED VALVE AND BUMPED UP PSI FOR CASING TEST
Event	26	Check Floats	6/28/2018	20:30:40	USER			3630		FLOATS HELD. 1 BBL FLOW BACK TO TRUCK
Event	27	Rig-Up Equipment	6/28/2018	20:33:35	USER					RIGGED UP TO PARASITE TO PUMP CEMENT

Event	28	Pump Cement	6/28/2018	20:52:38	USER	15.6	3.0	600	7.4	PUMPED 35 SKS 4.7 BBLS AT 15.6 PPG, 1.19 FT3/SK, 5.24 GAL/SK INTO THE PARASITE.
Event	29	Shutdown	6/28/2018	20:56:45	USER					
Event	30	End Job	6/28/2018	20:58:17	COM5					RETURNS THROUGHOUT JOB UNTIL 20 BBLS INTO DISPLACEMENT, 20 BBL SPACER BACK TO SURFACE. CHARGED 7 HRS FOR THE SUPERFLUSH TRANSPORT BUT LEFT SUPER FLUSH TRANSPORT ON LOCATION WITH 20 BBLS SUPERFLUSH 101 LEFT ON IT FOR THE NEXT JOB.
Event	31	Post-Job Safety Meeting (Pre Rig-Down)	6/28/2018	21:00:00	USER					ALL HES PRESENT
Event	32	Pre-Convoy Safety Meeting	6/28/2018	22:45:00	USER					ALL HES PRESENT
Event	33	Depart Location	6/28/2018	23:00:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENT, DUSTIN HYDE AND CREW

LARAMIE - CC 697-03-14E - 4 1/2" PRODUCTION



— DH Density (ppg)
 — Comb Pump Rate (bbl/min)
 — PS Pump Press (psi)
 — Pump Stg Tot (bbl)

Description	Actual Time	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)
9 Start Job	17:48:07	8.47	0.00	8.00	0.00
10 Prime Lines	17:48:54	8.33	0.00	24.00	0.00
11 Test Lines	17:52:50	8.44	0.00	5394.00	0.90
12 Pump Mud Flush III	17:57:15	8.35	0.00	14.00	0.00
13 Pump Super Flush	18:09:35	8.31	4.20	59.00	0.00
14 Pump Fresh Water Spacer	18:11:59	9.50	4.30	106.00	10.20
15 Check Weight	18:13:31	8.33	4.20	57.00	6.50
16 Drop Bottom Plug	18:14:11	8.32	4.20	62.00	9.30
17 Pump Lead Cement	18:14:30	8.31	4.20	56.00	0.00
18 Pump Tail Cement	19:10:41	12.95	8.10	521.00	442.30
19 Check Weight	19:13:28	13.09	8.10	484.00	22.50
20 Shutdown	19:40:01	13.30	0.00	148.00	217.50
21 Drop Plug	19:51:53	8.31	0.00	1.00	267.70
22 Pump Displacement	19:53:30	8.25	1.80	33.00	0.10
23 Slow Rate	20:08:31	8.28	10.00	2105.00	146.70
24 Bump Plug	20:10:51	8.27	4.10	2669.00	157.40
25 Casing TEST	20:20:01	8.29	0.00	1790.00	161.00

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Created: 2018-06-28 14:32:00, (UTC-06:00), Version: 4.5.139

Edit

Customer: LARAMIE ENERGY II LLC

Job Date: 6/28/2018

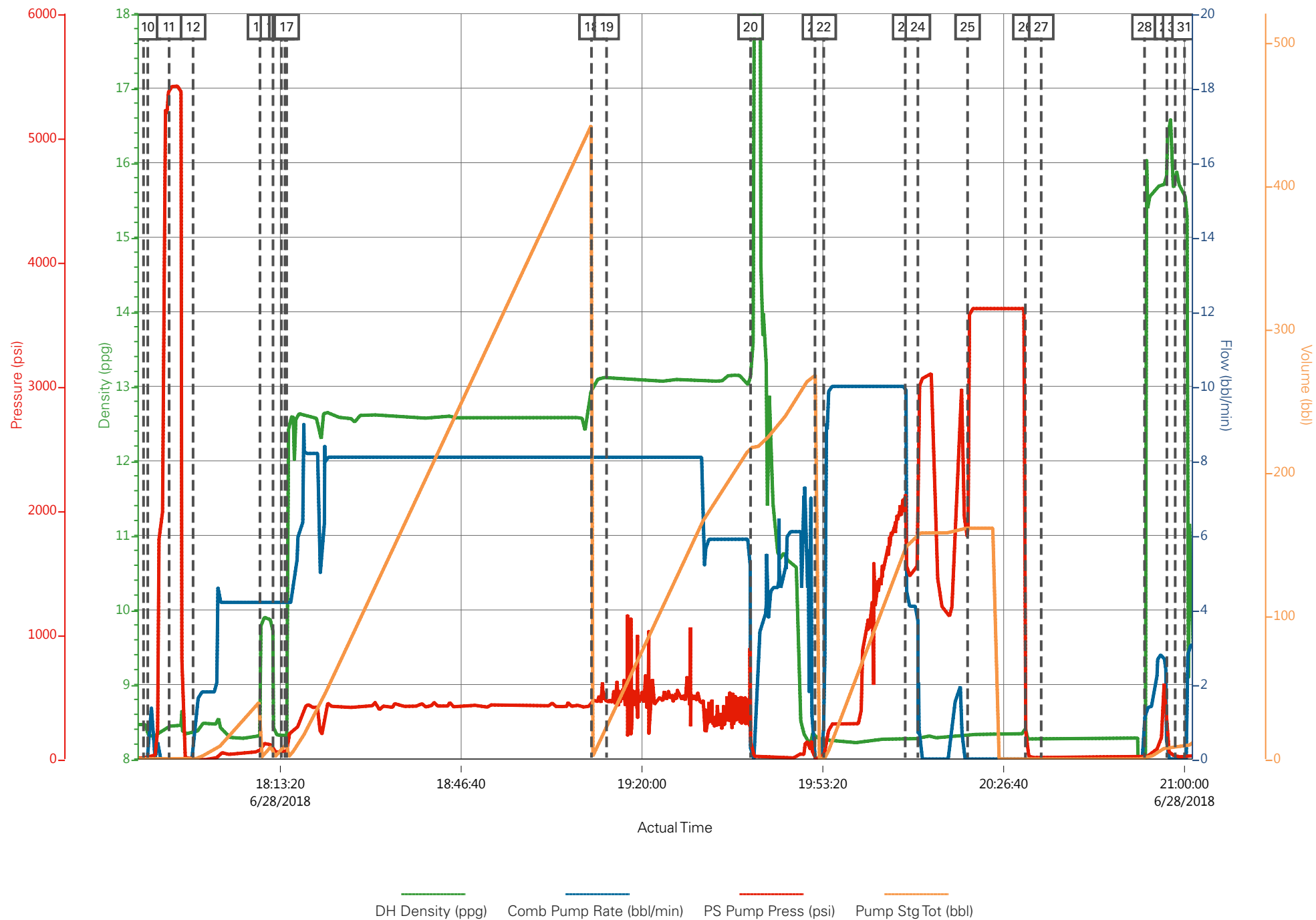
Well: CC 697-03-14E

Representative: MATT SETTLES

Sales Order #: 904949446

ELITE 8: HYDE / D. REEVES

LARAMIE - CC 697-03-14E - 4 1/2" PRODUCTION



Job Information

Request/Slurry	2482995/1	Rig Name	H&P 522	Date	21/JUN/2018
Submitted By	Connor Matthews	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Cascade Creek 0697-03-14E

Well Information

Casing/Liner Size	4.5 in	Depth MD	9875 ft	BHST	118°C / 245°F
Hole Size	8.75 in	Depth TVD	9700 ft	BHCT	79°C / 175°F
Pressure	6090 psi				

Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density
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Cement Information - Lead Design



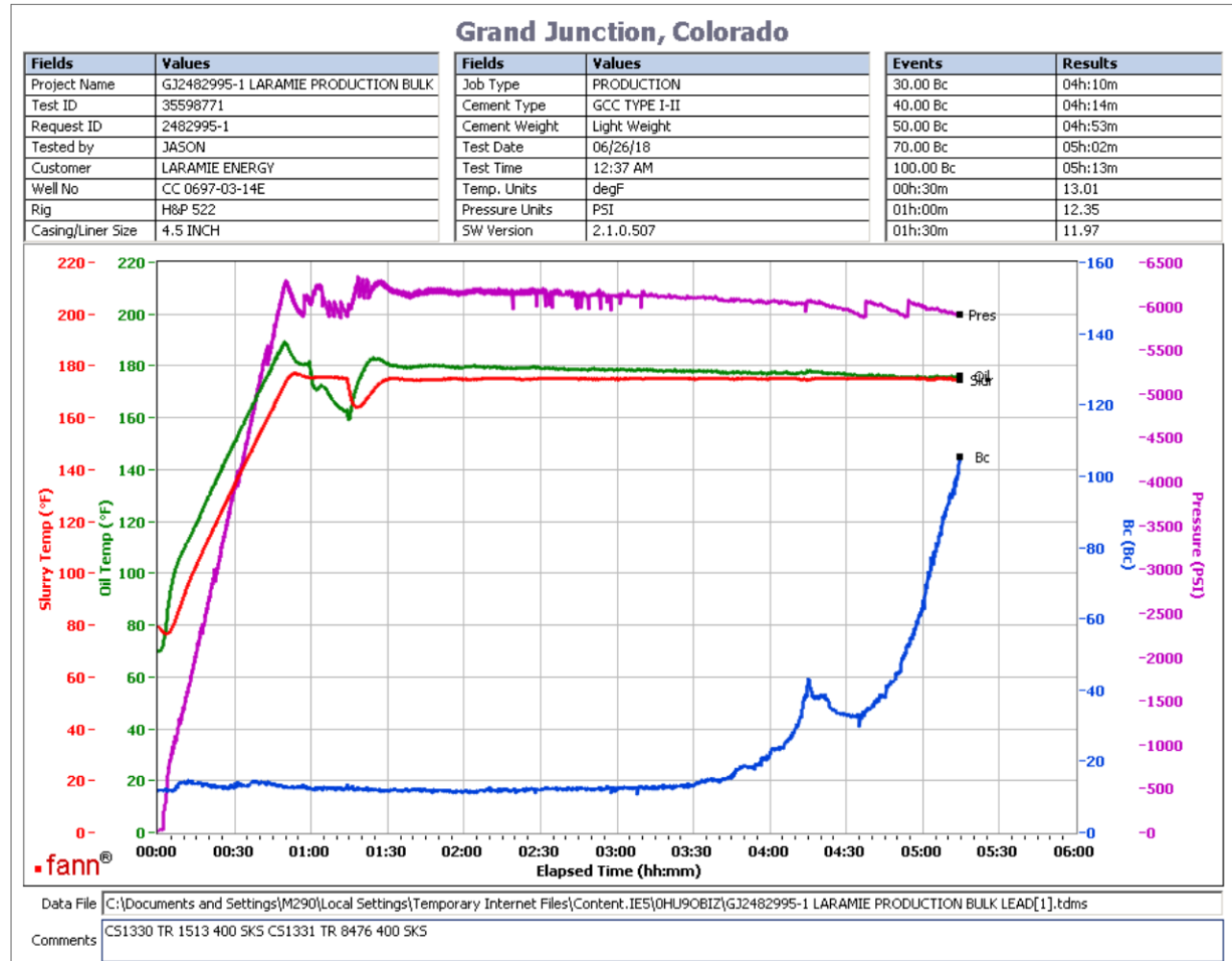
<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	Cement Properties		
		NeoCem GJ2 Lead				Slurry Density	12.5	lbm/gal
						Slurry Yield	1.946	ft3/sack
						Water Requirement	9.615	gal/sack
						Total Mix Fluid	9.615	gal/sack
						Water Source	Fresh Water	
						Water Chloride		

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Thickening Time - ON-OFF-ON

26/JUN/2018

Test Temp (degF)	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)
175	6090	49	4:10	4:53	5:02	5:13	12	59	15	14



Total SKS = 1143
 CS1330 TR 1513 400 SKS
 CS1331 TR 8476 400 SKS
 Deflection: 13 – 14

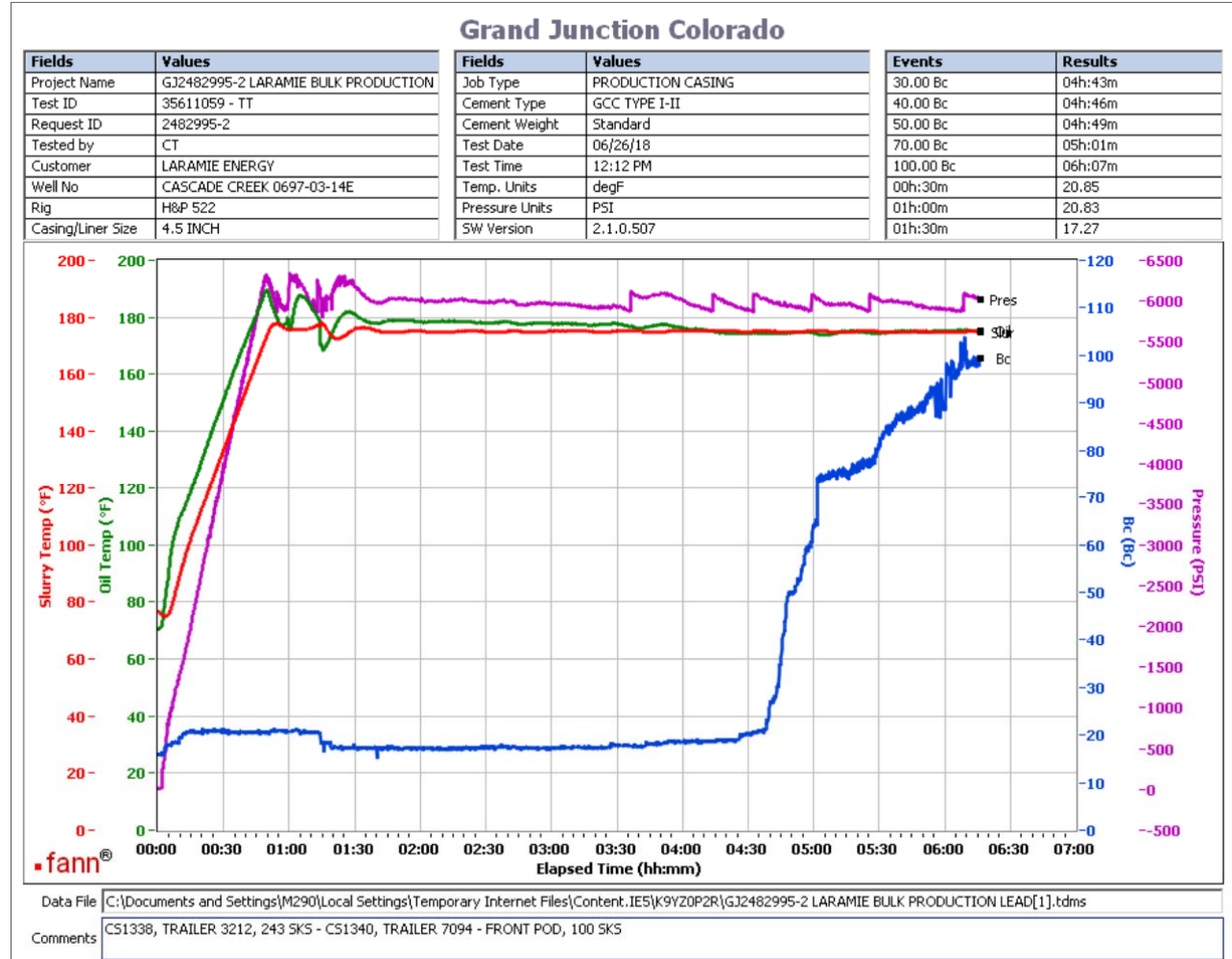
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Operation Test Results Request ID 2482995/2

Thickening Time - ON-OFF-ON

26/JUN/2018

Test Temp (degF)	Pressure (psi)	Reached in (min)	30 Bc (hh:min)	50 Bc (hh:min)	70 Bc (hh:min)	100 Bc (hh:min)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)
175	6090	49	4:43	4:49	5:01	6:07	16	59	15	20



Total SKS = 1143
 CS1338, Trailer 3212, 243 sks
 CS1340, Trailer 7094 - Front Pod, 100 sks
 no deflection, 20Bc-- > 20Bc

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Job Information

Request/Slurry	2482996/1	Rig Name	H&P 522	Date	21/JUN/2018
Submitted By	Connor Matthews	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Cascade Creek 0697-03-14E

Well Information

Casing/Liner Size	4.5 in	Depth MD	9875 ft	BHST	118°C / 245°F
Hole Size	8.75 in	Depth TVD	9700 ft	BHCT	79°C / 175°F
Pressure	6090 psi				

Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density
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Cement Information - Tail Design



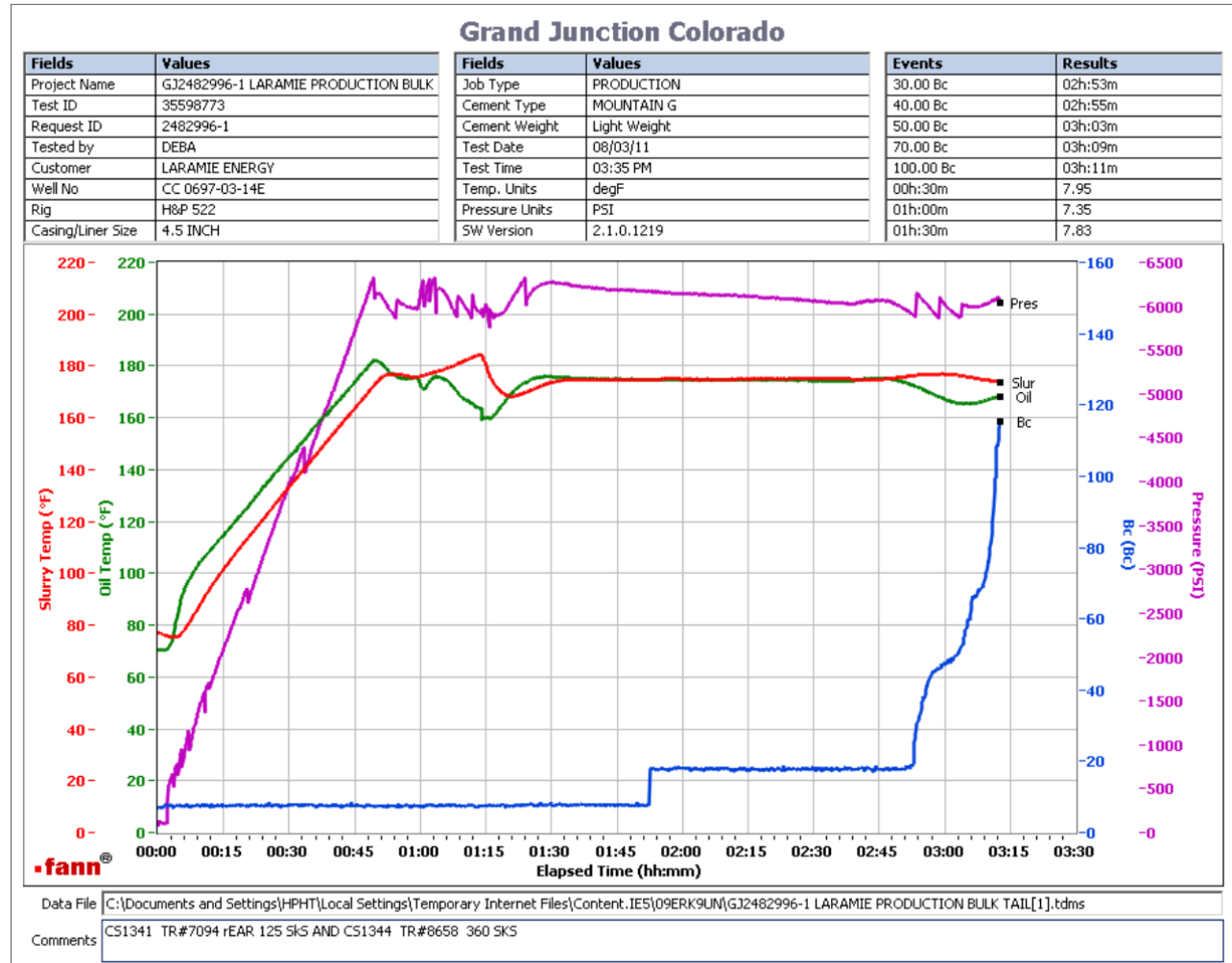
<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	Cement Properties		
		NeoCem HT Tail				Slurry Density	13	lbm/gal
						Slurry Yield	2.069	ft3/sack
						Water Requirement	9.408	gal/sack
						Total Mix Fluid	9.408	gal/sack
						Water Source	Fresh Water	
						Water Chloride		

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Thickening Time - ON-OFF-ON

27/JUN/2018

Test Temp (degF)	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)
175	6090	49	2:53	3:03	3:09	3:11	7	59	15	18



Total SkS = 485
 CS1341 TR#7094 Rear 125 SKS
 CS1344 TR#8658 360 SKS
 Deflection: 8 - 18

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