

HALLIBURTON

iCem[®] Service

LARAMIE ENERGY LLC

Date: Thursday, April 05, 2018

GUNDERSON 994-13-15E

API # 05-077-10527-00

Laramie Gunderson 994-13-15E SURFACE

Job Date: Tuesday, April 03, 2018

Sincerely,

Grand Junction Cement Engineering

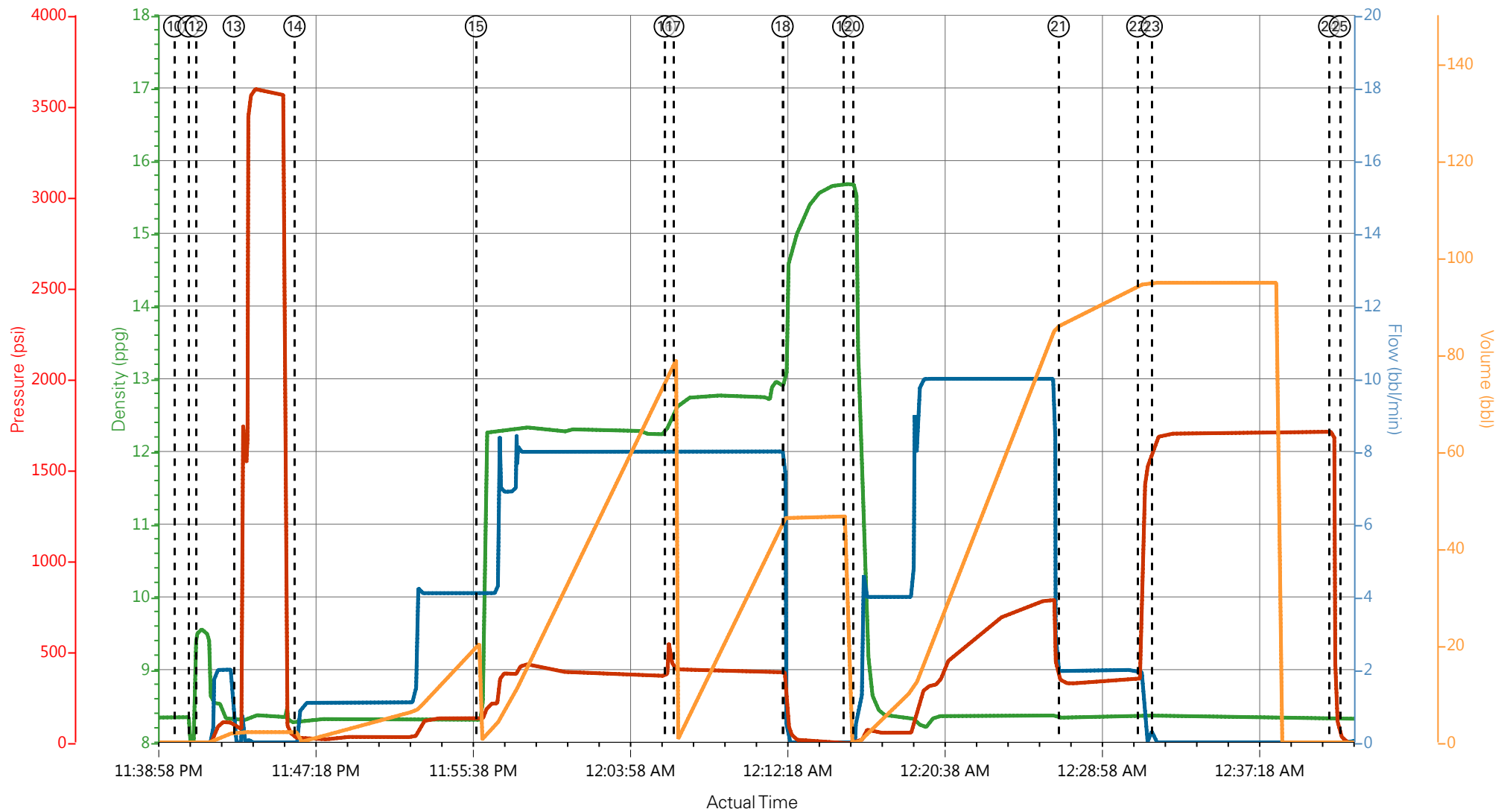
1.0 Real-Time Job Summary

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	4/3/2018	17:00:00	USER					ON LOCATION REQUESTED 23:00
Event	2	Pre-Convoy Safety Meeting	4/3/2018	19:30:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	4/3/2018	19:45:00	USER					
Event	4	Arrive at Location from Service Center	4/3/2018	22:00:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	4/3/2018	22:10:00	USER					MET WITH COMPANY REP SDS OFFERED
Event	6	Pre-Rig Up Safety Meeting	4/3/2018	22:15:00	USER					ALL HES PRESENT
Event	7	Rig-Up Completed	4/3/2018	23:00:00	USER					1-ELITE,1-660 BULK TRAILER, 8.625" QL, 2" PUMP IRON, 4" SUCTION HOSE
Event	8	Pre-Job Safety Meeting	4/3/2018	23:18:31	USER					ALL HES AND RIG CREW PRESENT
Event	9	Other	4/3/2018	23:24:06	USER					RIG CIRCULTED .5 HR 440 GPM, 200PSI. WATER:TEMP-48,CL-0,PH-7
Event	10	Start Job	4/3/2018	23:40:00	COM5	8.35	0.00	3.00	0.0	TD-1545', TP-1539.1', SJ-44.25', OH-11", CSG-8.625" 32# J55, MUD-9.2PPG
Event	11	Drop Bottom Plug	4/3/2018	23:40:45	USER					PLUG AWAY
Event	12	Prime Pumps	4/3/2018	23:41:09	USER	8.35	2.00	115.00	2.0	FRESH WATER
Event	13	Test Lines	4/3/2018	23:43:09	COM5	8.32	0.00	3598.00	2.0	ALL PRESSURE HELD ON LINES

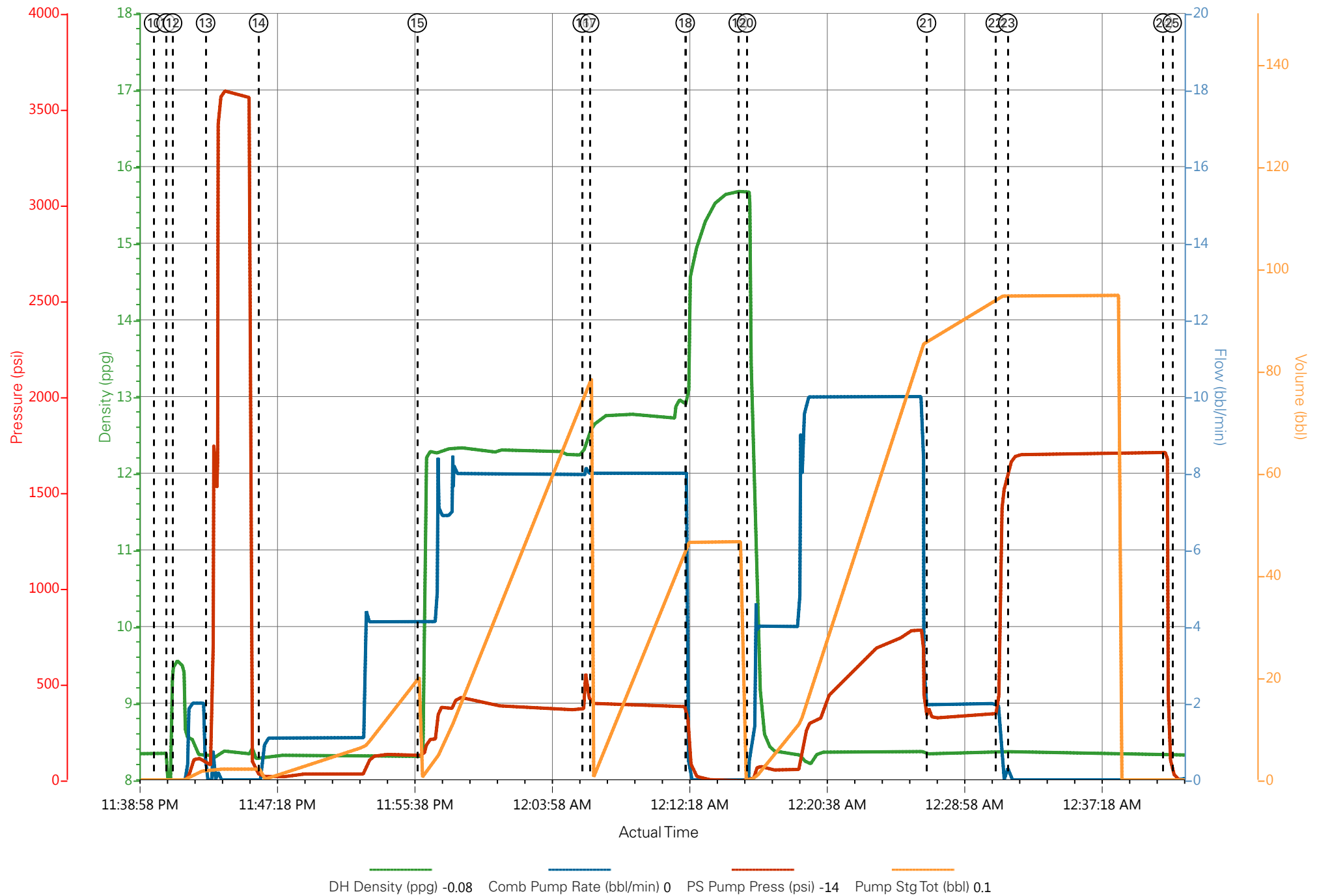
Event	14	Pump Spacer 1	4/3/2018	23:46:22	COM5	8.28	4.00	135.00	20.0	FRESH WATER
Event	15	Pump Lead Cement	4/3/2018	23:55:59	COM5	12.0	8.00	420.00	73.2	VARICEM 167SKS, 12.3PPG, 2.46CF/SK, 14.17GL/SK
Event	16	Bottom Plug Ruptured	4/4/2018	00:05:59	USER					BOTTOM PLUG RUPTURED 560PSI
Event	17	Pump Tail Cement	4/4/2018	00:06:26	COM5	12.80	8.00	401.00	42.3	VARICEM 109SKS, 12.8PPG, 2.18CF/SK, 12.11GL/SK
Event	18	Shutdown	4/4/2018	00:12:13	USER					WASHED UP ON TOP OF PLUG
Event	19	Drop Top Plug	4/4/2018	00:15:26	COM5					PLUG AWAY
Event	20	Pump Displacement	4/4/2018	00:15:56	COM5	8.33	10.00	787.00	91.0	FRESH WATER
Event	21	Slow Rate	4/4/2018	00:26:51	USER	8.33	2.00	325.00	81.0	SLOW RATE LAST 10 BBLS
Event	22	Bump Plug	4/4/2018	00:31:01	USER	8.35	1.90	345.00	91.0	PLUG BUMPED 345PSI
Event	23	Casing Test	4/4/2018	00:31:47	USER	8.37	0.00	1600.00	91.0	10 MINUTE CASING TEST
Event	24	Check Floats	4/4/2018	00:41:11	USER	8.33	0.00	1709.00	0.0	.5 BBL BACK FLOATS HELD
Event	25	End Job	4/4/2018	00:41:45	COM5					GOOD RETURNS THROUGH OUT JOB, 33 BBLS CEMENT TO SURFACE
Event	26	Post-Job Safety Meeting (Pre Rig-Down)	4/4/2018	00:48:04	USER					ALL HES PRESENT
Event	27	Rig-Down Completed	4/4/2018	01:15:00	USER					
Event	28	Pre-Convoy Safety Meeting	4/4/2018	01:35:00	USER					ALL HES PRESENT
Event	29	Crew Leave Location	4/4/2018	01:45:00	USER					THANK YOU FOR CHOOSING HALLIBURTON, ANDREW BRENNECKE AND CREW

LARAMIE - GUNDERSON 994-13-15E - 8.625" SURFACE



- | | | | | | |
|--|-----------------------------|--------------------|------------------------|-----------------|---|
| ① Call Out | ⑥ Pre-Rig Up Safety Meeting | ⑪ Drop Bottom Plug | ⑯ Bottom Plug Ruptured | 21 Slow Rate | 26 Post-Job Safety Meeting (Pre Rig-Down) |
| ② Pre-Convoy Safety Meeting | ⑦ Rig-Up Completed | ⑫ Prime Pumps | ⑰ Pump Tail Cement | 22 Bump Plug | 27 Rig-Down Completed |
| ③ Crew Leave Yard | ⑧ Pre-Job Safety Meeting | ⑬ Test Lines | ⑱ Shutdown | 23 Casing Test | 28 Pre-Convoy Safety Meeting |
| ④ Arrive at Location from Service Center | ⑨ Other | ⑭ Pump Spacer 1 | ⑲ Drop Top Plug | 24 Check Floats | 29 Crew Leave Location |
| ⑤ Assessment Of Location Safety Meeting | ⑩ Start Job | ⑮ Pump Lead Cement | 20 Pump Displacement | 25 End Job | |

LARAMIE - GUNDERSON 994-13-15E - 8.625" SURFACE



HALLIBURTON

iCem[®] Service

LARAMIE ENERGY LLC

Date: Saturday, April 07, 2018

GUNDERSON 994-13-15E

Laramie Gunderson 994-13-15E Production

Job Date: Friday, April 06, 2018

Sincerely,

Grand Junction Cement Engineering

1.0 Real-Time Job Summary

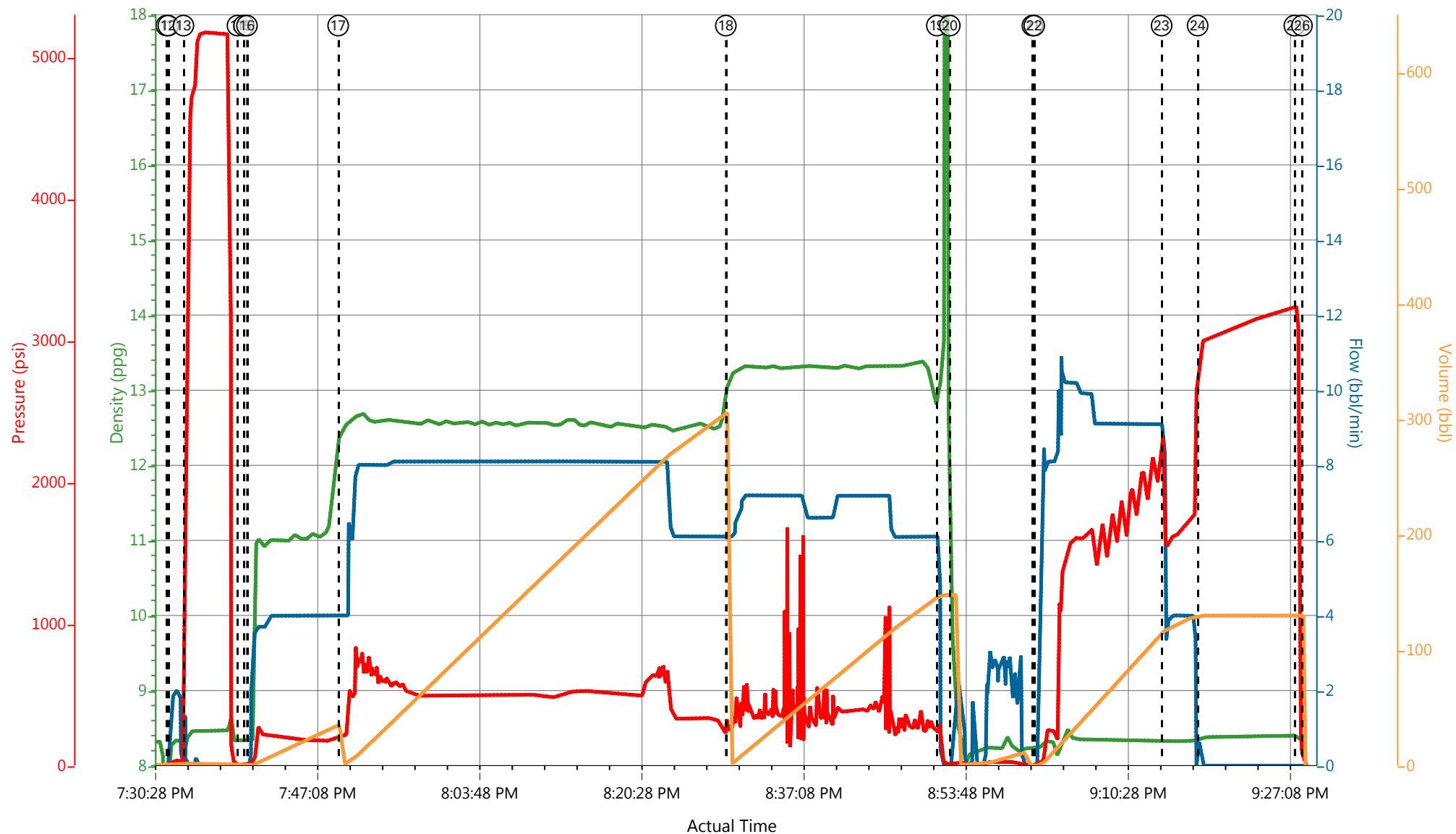
1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pass-Side Pump Pressure (psi)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	4/6/2018	10:00:00	USER					ON LOCATION 16:00
Event	2	Pre-Convoy Safety Meeting	4/6/2018	12:00:00	USER					JOURNEY CREATED - ALL HES INVOLVED IN SAFETY MEETING
Event	3	Crew Leave Yard	4/6/2018	12:15:00	USER					1-F-550 PICKUP, 1-ELITE PUMP TRUCK, 1-660 BULK TRUCK
Event	4	Arrive At Loc	4/6/2018	14:00:00	USER					HES ARRIVED 2-HOURS EARLY - HES REP SPOKE WITH COMPANY REP
Event	5	Assessment Of Location Safety Meeting	4/6/2018	14:15:00	USER					RIG WAS RUNNING CASING - HES SPOTTED EQUIPMENT AND HELD SAFETY MEETING
Event	6	Pre-Rig Up Safety Meeting	4/6/2018	14:25:00	USER					JSA FILLED OUT AND REVIEWED BY ALL HES - ALL HES IN ATTENDANCE FOR SAFETY MEETING
Event	7	Rig-Up Equipment	4/6/2018	14:30:00	USER					RIG-UP IRON TO THE RIG STAND PIPE AND IRON TO THE RIG CELLAR FOR WASH UP, WATER HOSES TO BOTH THE RIG UPRIGHT AND RIG DAY TANK, BULK EQUIPMENT TO PUMP TRUCK
Event	8	Rig-Up Completed	4/6/2018	15:30:00	USER					COMPLETED SAFELY
Event	9	Well Info/Water Test	4/6/2018	15:45:00	USER					TD: 8291FT TP: 8281FT SJ: 86.73FT OH: 7 7/8" CSG: 4 1/2" 11.6# P-110 SRF: 1530FT 8 5/8" 24# - WATER TEST: PH- 7 CHLOR- 0 TEMP- 55
Event	10	Pre-Job Safety Meeting	4/6/2018	18:00:00	USER					ALL HES, RIG CREW AND COMPANY REP IN ATTENDANCE TO DISCUSS JOB PROCEDURES
Event	11	Start Job	4/6/2018	19:31:57	COM5					START JOB

Event	12	Fill Lines	4/6/2018	19:32:08	USER	8.34	2	40	2	FILL LINES WITH 2BBLs OF WATER TO PRESSURE TEST
Event	13	Test Lines	4/6/2018	19:33:42	COM5			5208		PRESSURE TEST LINES TO 5208PSI - PRESSURE TEST GOOD
Event	14	Check weight	4/6/2018	19:39:15	COM5					VERIFIED WEIGHT OF TUNED SPACER PRIOR TO PUMPING
Event	15	Drop Bottom Plug	4/6/2018	19:39:55	USER					BOTTOM PLUG LAUNCHED NO PROBLEMS
Event	16	Tuned Spacer	4/6/2018	19:40:14	COM5	11	4	218	40	40BBLs OF TUNED SPACER AHEAD 11PPG 4.86YIELD 31.9GAL/SK WEIGHT OF CEMENT VERIFIED VIA PRESSURIZED MUD SCALES THROUGHOUT TUNED SPACER
Event	17	Pump Lead Cement	4/6/2018	19:49:36	COM5	12.5	8	750	298.5	864SKs OF NEOCEM CEMENT (298.5BBLs) 12.5PPG 1.94YIELD 9.6GAL/SK WEIGHT OF CEMENT VERIFIED VIA PRESSURIZED MUD SCALES THROUGHOUT LEAD CEMENT
Event	18	Pump Tail Cement	4/6/2018	20:29:27	COM5	13.3	6	400	121.7	395SKs OF THERMACEM CEMENT (121.7BBLs) 13.3PPG 1.73YIELD 7.81GAL/SK WEIGHT OF CEMENT VERIFIED VIA PRESSURIZED MUD SCALES THROUGHOUT TAIL CEMENT
Event	19	Shutdown	4/6/2018	20:51:09	USER					SHUTDOWN END OF CEMENT
Event	20	Clean Lines	4/6/2018	20:52:29	USER					CLEAN LINES TO THE RIG CELLAR
Event	21	Drop Top Plug	4/6/2018	21:00:58	USER					TOP PLUG LAUNCHED NO PROBLEMS
Event	22	Pump Displacement	4/6/2018	21:01:10	COM5	8.34	9	2300	117.1	FRESH WATER DISPLACEMENT WITH 1-GAL MMCR, 5-GAL CLA-WEB AND 5-GALS OF BIOCIDES PROVIDED BY THE RIG
Event	23	Slow Rate	4/6/2018	21:14:15	USER	8.34	4	1590	10	SLOW RATE TO BUMP THE PLUG - PRESSURE PRIOR TO SLOWING WAS 2300PSI AT 9BPM - PRESSURE AFTER SLOWING WAS 1590PSI AT 4BPM
Event	24	Bump Plug	4/6/2018	21:17:58	COM5	8.34	4	1764	127.1	PLUG BUMPED AT CALCULATED DISPLACEMENT - PLUG BUMPED AT 1764PSI AT 4BPM TOOK TO 3000 PSI FOR 10- MIN CASING TEST
Event	25	Check Floats	4/6/2018	21:27:54	USER			3283		FLOATS HELD 1.5BBLs BACK TO TANK - 5BBLs OF TUNED SPACER TO SURFACE - RIG USED 40 POUNDS OF SUGAR
Event	26	End Job	4/6/2018	21:28:41	COM5					THANK YOU FOR CHOOSING HALLIBURTON CEMENT CARL KUKUS AND CREW
Event	27	Pre-Rig Down Safety Meeting	4/6/2018	21:30:00	USER					JSA REVIEWED - ALL HES INVOLVED IN SAFETY MEETING
Event	28	Rig-Down Equipment	4/6/2018	21:35:00	USER					WASH UP AND BLOW DOWN PUMP TRUCK - RIG DOWN

						ALL LINES AND EQUIPMENT
Event	29	Rig-Down Completed	4/6/2018	22:35:00	USER	COMPLETED SAFELY
Event	30	Pre-Convoy Safety Meeting	4/6/2018	22:40:00	USER	JOURNEY CREATED - ALL HES IN ATTENDANCE FOR SAFETY MEETING
Event	31	Crew Leave Location	4/6/2018	22:45:00	USER	1-F-550 PICKUP, 1-ELITE PUMP TRUCK, 1-660 BULK TRUCK

LARAMIE - GUNDERSON 994-13-15E - 904762376 - 4 1/2" PRODUCTION



DH Density (ppg) 8.31 Comb Pump Rate (bbl/min) 0 PS Pump Press (psi) 4 Pump Stg Tot (bbl) 0

- ① Call Out
- ② Pre-Convoy Safety Meeting
- ③ Crew Leave Yard
- ④ Arrive At Loc
- ⑤ Assessment Of Location Safety Meeting
- ⑥ Pre-Rig Up Safety Meeting
- ⑦ Rig-Up Equipment
- ⑧ Rig-Up Completed
- ⑨ Well Info/Water Test
- ⑩ Pre-Job Safety Meeting
- ⑪ Start Job
- ⑫ Fill Lines
- ⑬ Test Lines
- ⑭ Check weight
- ⑮ Drop Bottom Plu
- ⑯ Tuned Spacer

HALLIBURTON | iCem® Service

Created: 2018-04-06 11:38:08, Version: 4.2.393

Edit

Customer : LARAMIE ENERGY II LLC

Job Date : 4/6/2018 2:17:28 PM

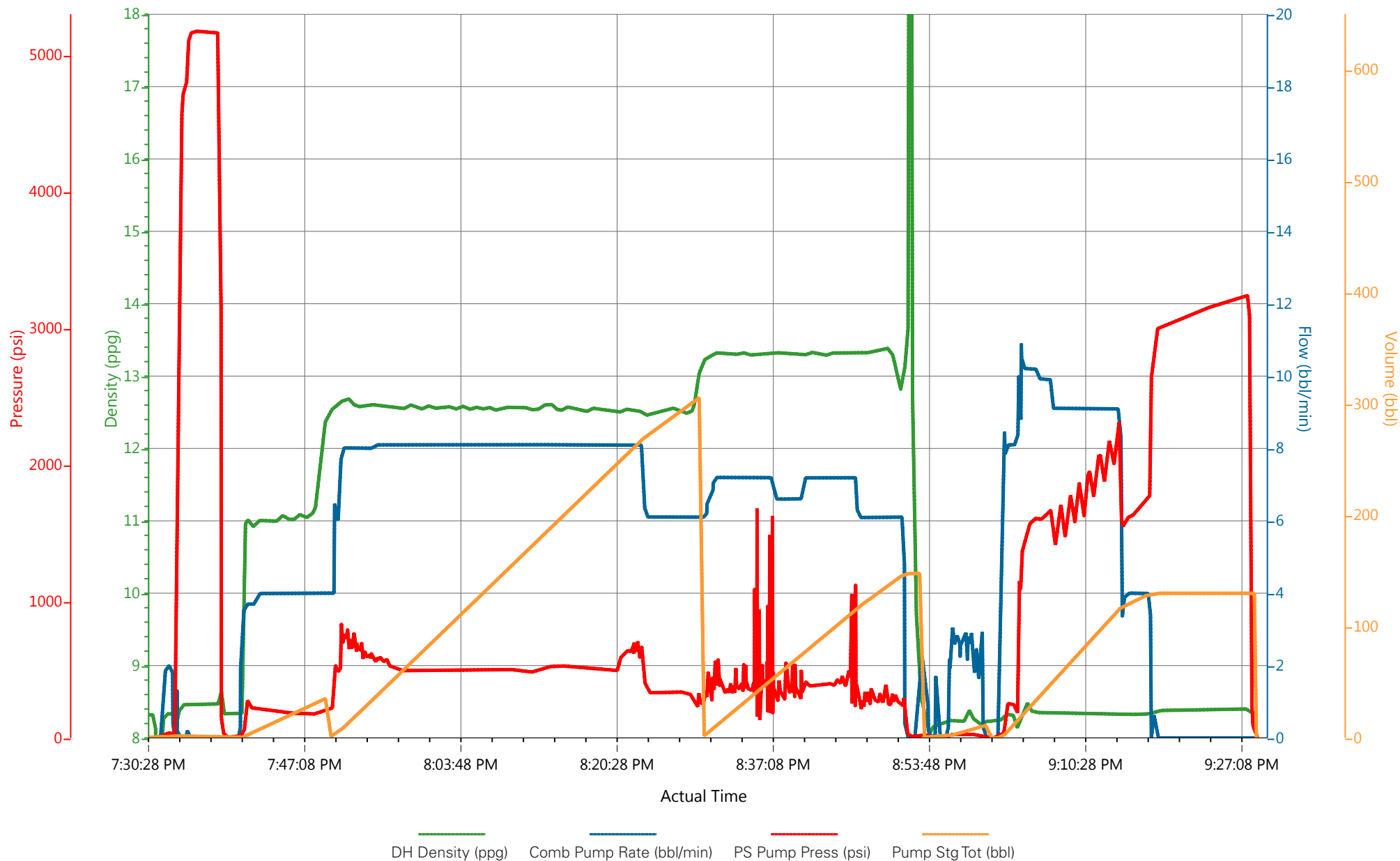
Well : GUNDERSON 994-13-15E

Representative : Tyler Hale

Sales Order # : 904762376

Elite 1 : D. Martin/C. Kukus

LARAMIE - GUNDERSON 994-13-15E - 904762376 - 4 1/2" PRODUCTION



HALLIBURTON

Rockies, Grand Junction

Lab Results- Lead

Job Information

Request/Slurry	2464560/1	Rig Name	H&P 522	Date	02/APR/2018
Submitted By	Aaron Katz	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Gunderson 0994-13-15E

Well Information

Casing/Liner Size	4.5 in	Depth MD	8279 ft	BHST	112°C / 233°F
Hole Size	7.875 in	Depth TVD	7457 ft	BHCT	75°C / 167°F
Pressure	4520 psi				

Drilling Fluid Information

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



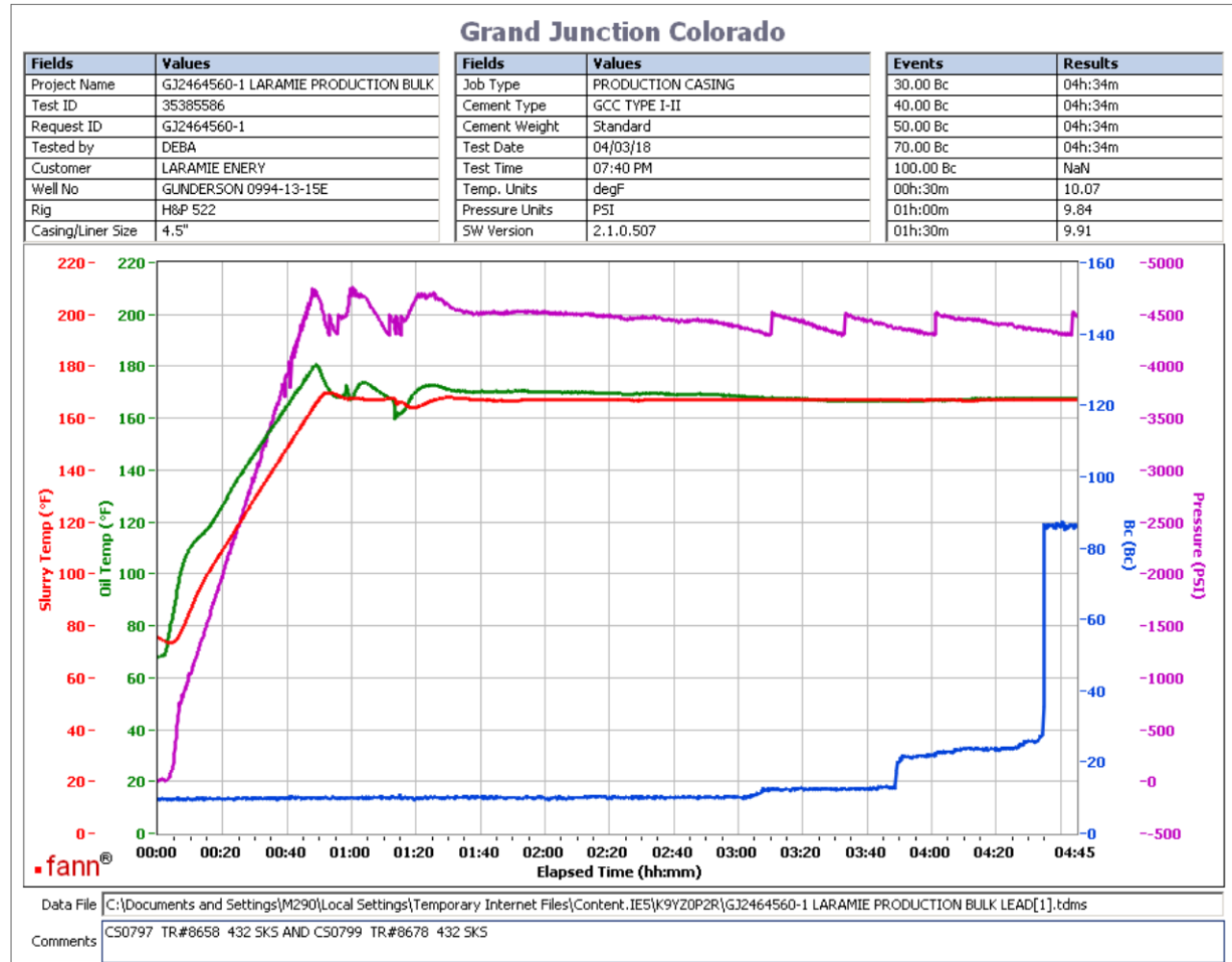
<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	Cement Properties		
		NeoCem GJ2 Lead				Slurry Density	12.5	lbm/gal
						Slurry Yield	1.941	ft3/sack
						Water Requirement	9.623	gal/sack
						Total Mix Fluid	9.623	gal/sack
						Water Source	Fresh Water	
						Water Chloride		

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Thickening Time - ON-OFF-ON

04/APR/2018

Test Temp (degF)	Pressure (psi)	Reached in (min)	30 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)	Termination time (hh:mm)	Termination Bc
167	4520	48	4:34	4:34	4:34	10	58	15	10	11:49	93



Total sks = 864

Composite:

CS0797 TR#8658 432 SKS

CS0799 TR#8678 432 SKS

Deflection: 10 - 10

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Job Information

Request/Slurry	2464561/1	Rig Name	H&P 522	Date	02/APR/2018
Submitted By	Aaron Katz	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Laramie Energy	Location	Garfield	Well	Gunderson 0994-13-15E

Well Information

Casing/Liner Size	4.5 in	Depth MD	8279 ft	BHST	112°C / 233°F
Hole Size	7.875 in	Depth TVD	7457 ft	BHCT	75°C / 167°F
Pressure	4520 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



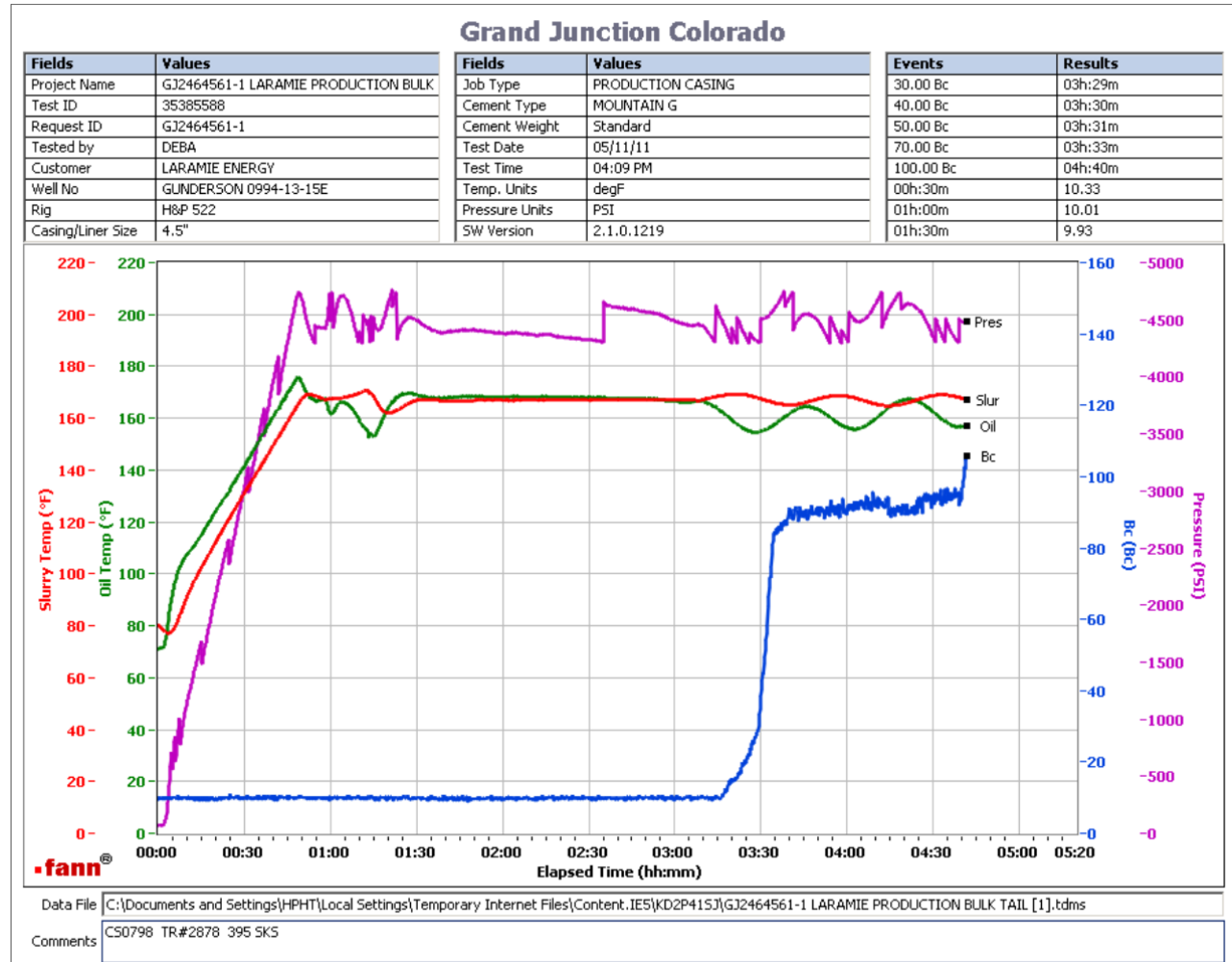
<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	Cement Properties		
		ThermaCem GJ2 Tail				Slurry Density	13.3	lbm/gal
						Slurry Yield	1.733	ft3/sack
						Water Requirement	7.799	gal/sack
						Total Mix Fluid	7.799	gal/sack
						Water Source	Field (Fresh) Water	
						Water Chloride	N/A	

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Thickening Time - ON-OFF-ON

04/APR/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)
167	4520	48	3:29	3:31	3:33	4:40	10	58	15	9



Total sks = 395
 CS0798 TR#2878 395 SKS
 Deflection: 9 - 9

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