HALLIBURTON

iCem® Service

TERRA ENERGY PARTNERS

For: Terra

Date: Sunday, September 03, 2017

SR 332-12 Production PJR

API #: 05-045-23429-00

Sincerely,

Grand Junction Cement Engineering

2.0 Real-Time Job Summary

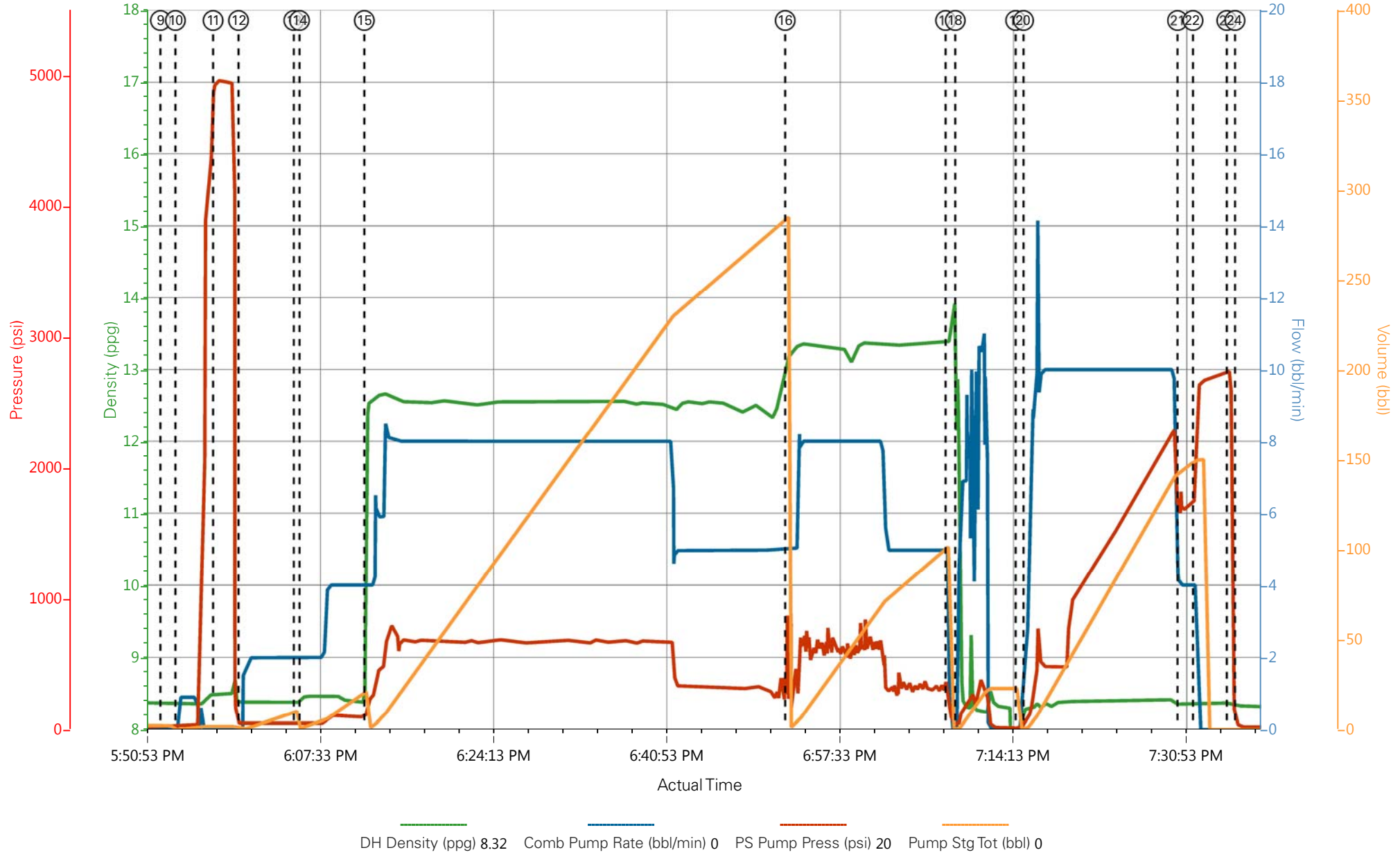
2.1 Job Event Log

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	9/8/2017	07:00:00	USER					ON LOCATION 13:00
Event	2	Pre-Convoy Safety Meeting	9/8/2017	09:45:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	9/8/2017	10:30:00	USER					1-ELITE, 1-660 BULK TRAILER, 1-550 PICK UP
Event	4	Assessment Of Location Safety Meeting	9/8/2017	12:00:00	USER					MET WITH COMPANY REP DISCUSSED NUMBERS, SDS OFFERED
Event	5	Pre-Rig Up Safety Meeting	9/8/2017	12:30:00	USER					ALL HES PRESENT
Event	6	Rig-Up Completed	9/8/2017	16:23:12	USER					1-ELITE, 1-660 BULK TRAILER, 1-FIELD SILO, 2" PUMP IRON, 4" SUCTION HOSE, 4.5" QL PLUG CONTAINER
Event	7	Other	9/8/2017	17:33:00	USER					WATER: TEMP-68, CL-0, PH-7. RIG CIRCULATED 1HR, 497 GPM, 447 PSI
Event	8	Pre-Job Safety Meeting	9/8/2017	17:35:00	USER					ALL HES PRESENT AND RIG CREW PRESENT
Event	9	Start Job	9/8/2017	17:52:30	USER	8.35	0.00	9.00	0.0	TD-9283', TP-9283.93', SJ-27.62', OH-8.75", MUD-10.1PPG, CSG-4.5" 11.6# P110, SCSG-9.625" 32.3# SHOE @ 1114'.

										CSG RECIPROCATED THROUGH JOB
Event	10	Prime Pumps	9/8/2017	17:53:56	COM5	8.38	1.70	45.00	2.0	FRESH WATER
Event	11	Test Lines	9/8/2017	17:57:33	COM5	8.50	0.00	4958.00	2.1	ALL PRESSURE HELD ON LINES
Event	12	Pump Water	9/8/2017	18:00:00	COM5	8.35	2.00	50.0	10.0	FRESH WATER
Event	13	Pump Mud Flush III	9/8/2017	18:05:19	COM5	8.38	4.00	107.00	20.0	MUD FLUSH III
Event	14	Check weight	9/8/2017	18:05:52	COM5					WEIGHT VERIFIED BY PRESSURIZED MUD SCALES
Event	15	Pump Lead Cement	9/8/2017	18:12:06	COM5	12.50	8.00	783.00	267.8	NEOCEM LEAD 775 SKS, 12.5 PPG, 1.94 CF/SK, 9.6 GAL/SK
Event	16	Pump Tail Cement	9/8/2017	18:52:35	COM5	13.30	8.00	746.00	81.6	THERMACEM TAIL 265 SKS, 13.3 PPG, 1.73 CF/SK, 7.81 GAL/SK
Event	17	Shutdown	9/8/2017	19:08:01	USER					END OF CEMENT
Event	18	Clean Lines	9/8/2017	19:08:56	USER					WASHED PUMPS AND LINES TO PIT, RIG BLEW AIR BACK TO CLEAR LINE
Event	19	Drop Top Plug	9/8/2017	19:14:45	COM5					PLUG AWAY
Event	20	Pump Displacement	9/8/2017	19:15:31	COM5	8.40	10.00	2285.00	142.0	KCL WATER, 1 GAL MMCR, 3-1# BE6
Event	21	Slow Rate	9/8/2017	19:30:19	USER	8.34	4.00	1805.00	133.0	SLOW RATE LAST 10 BBLS
Event	22	Bump Plug	9/8/2017	19:31:48	COM5	8.34	4.00	1750.00	142.0	PLUG BUMPED 1750 PSI
Event	23	Check Floats	9/8/2017	19:35:04	COM5	8.37	0.00	2740.00	0.0	FLOATS HELD, 1.5 BBLS BACK

Event	24	End Job	9/8/2017	19:35:51	COM5	GOOD RETURNS THROUGH OUT JOB.
Event	25	Pre-Rig Down Safety Meeting	9/8/2017	19:40:00	USER	ALL HES PRESENT
Event	26	Rig-Down Completed	9/8/2017	21:00:00	USER	
Event	27	Pre-Convoy Safety Meeting	9/8/2017	21:15:00	USER	ALL HES PRESENT
Event	28	Crew Leave Location	9/8/2017	21:30:00	USER	THANK YOU FOR CHOOSING HALLIBURTON, ANDREW BRENNECKE AND CREW

TEP - YOUBERG SR 332-12 - 4.5" PRODUCTION



① Call Out
② Pre-Convoy Safety Meeting
③ Crew Leave Yard
④ Assessment Of Location Safety Meeting
⑤ Pre-Rig Up Safety Meeting
⑥ Rig-Up Completed
⑦ Other
⑧ Pre-Job Safety Meeting
⑨ Start Job
⑩ Prime Pumps
⑪ Test Lines
⑫ Pump Water
⑬ Pump Mud Flush III
⑭ Check weight
⑮ Pu
⑯ Pu

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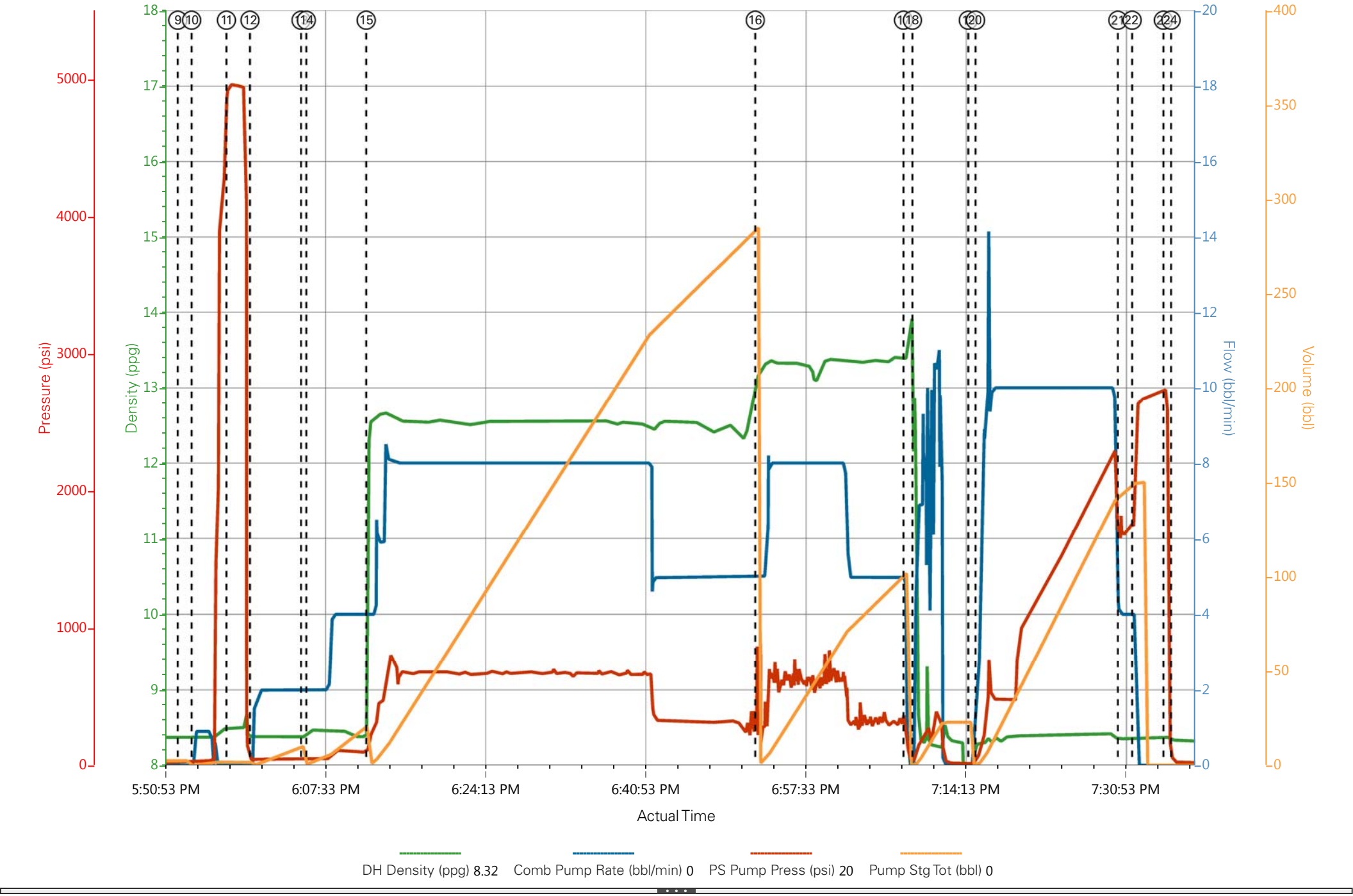
Created: 2017-09-08 13:40:21, Version: 4.2.393 Edit

Customer : TERRA ENERGY PARTNERS
Representative : NATHAN BURR
Job Date : 9/8/2017 4:33:04 PM
Sales Order # : 904282568
Well : YOUBERG SR 332-12
ELITE#8 : A.BRENNECKE/D.HYDE

TEP - YOUBERG SR 332-12 - 4.5" PRODUCTION



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Rockies, Grand Junction

Lab Results- Lead

Job Information

Request/Slurry	2414544/1	**Rig Name**	H&P 318	**Date**	03/SEP/2017
Submitted By	Aaron Katz	**Job Type**	Production Casing	**Bulk Plant**	Grand Junction
Customer	Terra Energy Partners	**Location**	Garfield	**Well**	SR 332-12

Well Information

Casing/Liner Size	4.5 in	**Depth MD**	9310 ft	**BHST**	115°C / 239°F
Hole Size	8.75 in	**Depth TVD**	9302 ft	**BHCT**	76°C / 169°F
Pressure	5800 psi				

Drilling Fluid Information

Mud Supplier Name	**Mud Trade Name**	**Density**

Cement Information - Lead Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.
		NeoCem Lead			

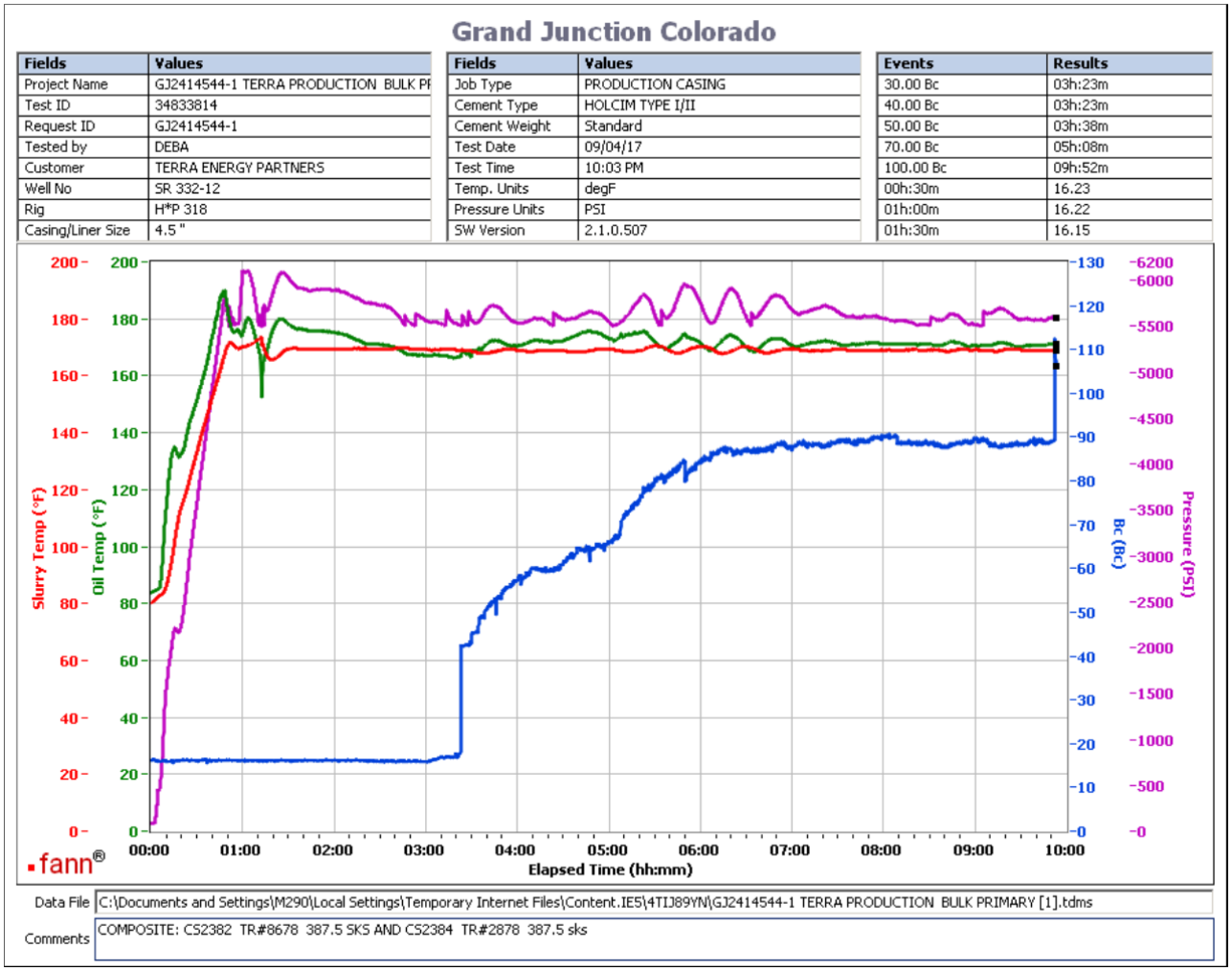
Cement Properties

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		

Operation Test Results Request ID 2414544/1

Thickening Time - ON-OFF-ON 05/SEP/2017

Test Temp (°F)	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)
169	5800	47	3:23	3:38	5:08	9:52	16	57	15	16



Fields	Values
Project Name	GJ2414544-1 TERRA PRODUCTION BULK PI
Test ID	34833814
Request ID	GJ2414544-1
Tested by	DEBA
Customer	TERRA ENERGY PARTNERS
Well No	SR 332-12
Rig	H*P 318
Casing/Liner Size	4.5 "

Fields	Values
Job Type	PRODUCTION CASING
Cement Type	HOLCIM TYPE I/II
Cement Weight	Standard
Test Date	09/04/17
Test Time	10:03 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	03h:23m
40.00 Bc	03h:23m
50.00 Bc	03h:38m
70.00 Bc	05h:08m
100.00 Bc	09h:52m
00h:30m	16.23
01h:00m	16.22
01h:30m	16.15

Total sks= 775
Composite:
CS2384 TR# 2878 387.5 SKS
CS2382 TR# 8678 387.5 SKS
no deflection was observed. 16Bc--- > 16Bc

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Rockies, Grand Junction

Lab Results- Tail

Job Information

Request/Slurry	2414545/1	**Rig Name**	H&P 318	**Date**	03/SEP/2017
Submitted By	Aaron Katz	**Job Type**	Production Casing	**Bulk Plant**	Grand Junction
Customer	Terra Energy Partners	**Location**	Garfield	**Well**	SR 332-12

Well Information

Casing/Liner Size	4.5 in	**Depth MD**	9310 ft	**BHST**	115°C / 239°F
Hole Size	8.75 in	**Depth TVD**	9302 ft	**BHCT**	76°C / 169°F
Pressure	5800 psi				

Drilling Fluid Information

Mud Supplier Name	**Mud Trade Name**	**Density**

Cement Information - Tail Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.
		ThermaCem Tail			

Cement Properties

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	Fresh Water	
Water Chloride		

Operation Test Results Request ID 2414545/1

Thickening Time - ON-OFF-ON 04/SEP/2017

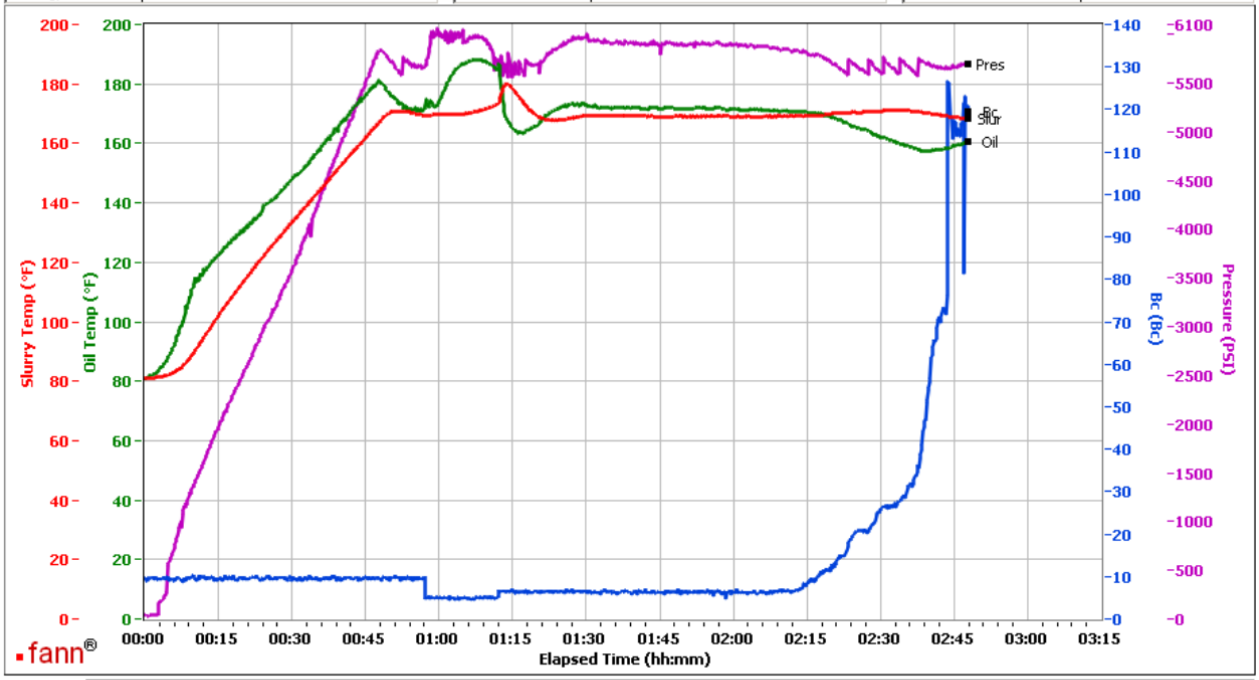
Test Temp (°F)	Pressure (psi)	Reached in (min)	30 Bc (hh:min)	50 Bc (hh:min)	70 Bc (hh:min)	100 Bc (hh:min)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)
169	5800	47	2:351	2:39	2:41	2:43	9	57	15	6

Grand Junction, Colorado

Fields	Values
Project Name	GJ2414545-1 TERRA PRODUCTION BULK TA
Test ID	34833816
Request ID	GJ2414545-1 TERRA PRODUCTION BULK TA
Tested by	DEBA
Customer	TERRA ENERGY PARTNERS
Well No	SR 332-12
Rig	H&P 318
Casing/Liner Size	4.5

Fields	Values
Job Type	PRODUCTION CASING
Cement Type	MOUNTAIN G
Cement Weight	Standard
Test Date	09/04/17
Test Time	09:22 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	02h:35m
40.00 Bc	02h:38m
50.00 Bc	02h:39m
70.00 Bc	02h:41m
100.00 Bc	02h:43m
00h:30m	8.99
01h:00m	4.91
01h:30m	6.64



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Comments CS2383 TR#2394 265 SKS

CS2383 TR#2398 265 SKS
no significant deflection was observed. 5Bc--- > 6Bc