

HALLIBURTON

iCem[®] Service

Terra Energy Partners

For: Mark Mewshaw and Lynn Cass

Date: Monday, August 08, 2016

RU 523-7 Production

API# 05-045-23129-00

Sincerely,

Grand Junction Cement Engineering

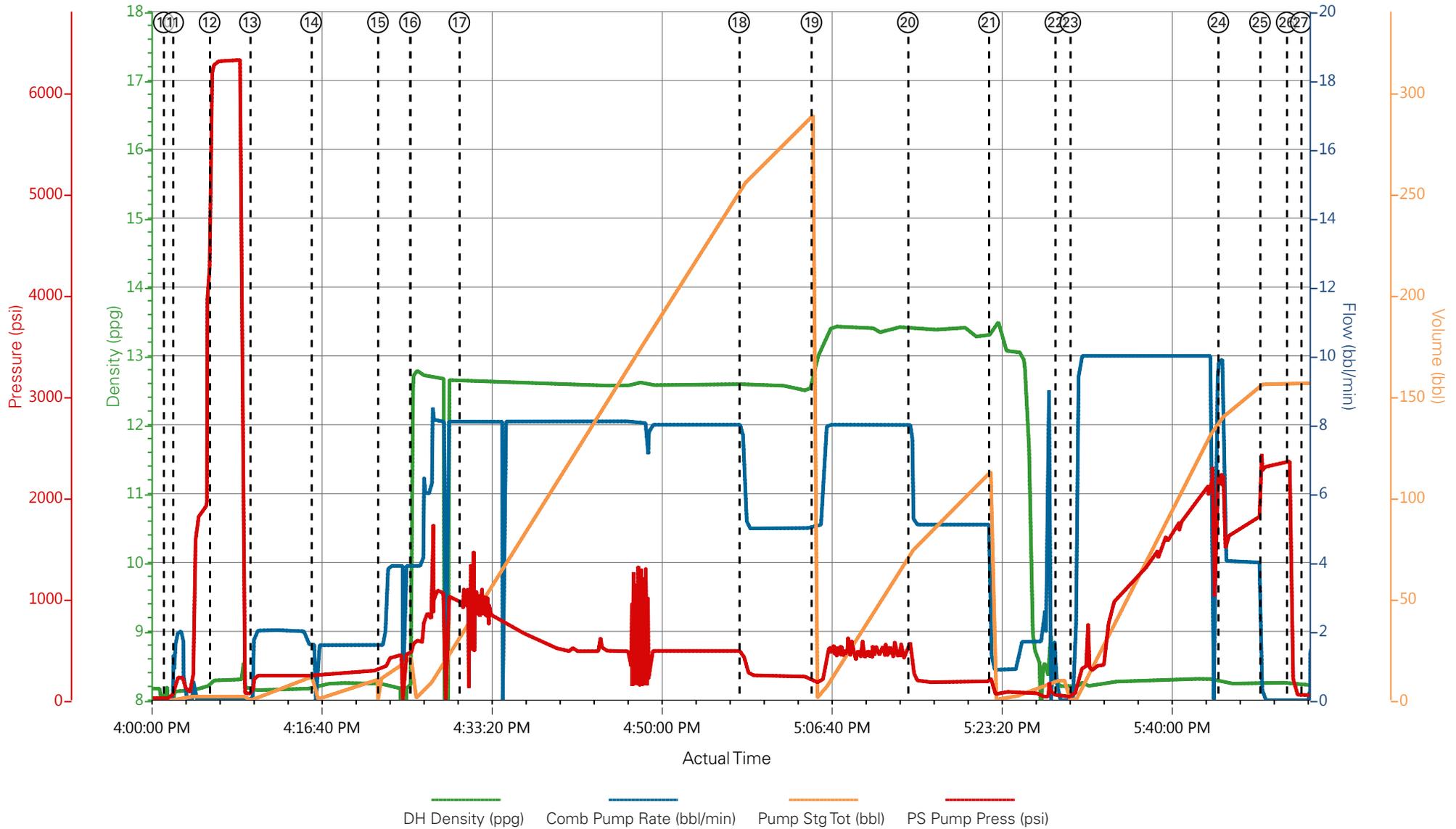
1.0 Real-Time Job Summary

1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Pass-Side Pump Pressure (psi)	Comments
Event	1	Call Out	8/8/2016	05:00:00	USER					REQUESTED ON LOC @ 11:00
Event	2	Pre-Convoy Safety Meeting	8/8/2016	07:45:00	USER					HES EE'S ATTENDED
Event	3	Crew Leave Yard	8/8/2016	08:00:00	USER					1 HT 400 PUMP TRUCK E8, 1 660 BULK TRUCK, 1 550 SERVICE PICKUP
Event	4	Arrive At Loc	8/8/2016	10:00:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	8/8/2016	10:30:00	USER					MET WITH COMP REP, AND WENT OVER NUMBERS AND JOB PROCEDURE. WALKED AROUND LOCATION AND COLLECTED WATER SAMPLE (PH- 7, CHLORIDES- 0, TEMP- 68F). COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES.
Event	6	Spot Equipment	8/8/2016	12:30:00	USER					1 HT 400 PUMP TRUCK E8, 1 660 BULK TRUCK, 1 550 SERVICE PICKUP
Event	7	Pre-Rig Up Safety Meeting	8/8/2016	12:45:00	USER					HES EE'S ATTENDED
Event	8	Rig-Up Equipment	8/8/2016	13:00:00	USER					HES RIGGED UP EQUIPMENT AND IRON TO RED ZONE.
Event	9	Pre-Job Safety Meeting	8/8/2016	15:30:00	USER					FINISHED RIGGING UP. ALL HES AND RIG CREWS ATTENDED
Event	10	Start Job	8/8/2016	16:01:30	USER					TD 9,660', TP 9650', SJ 28.85', OH 8 ¾", SURFACE CSG 9 5/8" 32.3# @1,131', PRODUCTION CSG 4 ½" 11.6 @ 9653.47', MUD 10.3 PPG
Event	11	Prime Lines	8/8/2016	16:02:25	USER	8.33	2.0	2	240	FRESH WATER
Event	12	Test Lines	8/8/2016	16:05:59	COM5				6300	PRESSURE HELD

Event	13	Pump H2O Spacer	8/8/2016	16:09:56	COM5	8.33	2.0	10	250	FRESH WATER
Event	14	Pump Mud Flush Spacer	8/8/2016	16:15:56	COM5	8.4	2.0	20	290	20 BBL MUD FLUSH
Event	15	Check weight	8/8/2016	16:22:30	COM5					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	16	Pump Lead Cement	8/8/2016	16:25:37	COM5	12.5	8.0	289	700	835 SKS OF NEOCEM CMT 12.5 PPG, 1.94 FT3/SK, 9.58 GAL/SK
Event	17	Other	8/8/2016	16:30:29	USER					STARTED ADDING TUFF FIBER AT 30 BBL AWAY
Event	18	Slow Rate	8/8/2016	16:57:54	USER					SLOWED TO END SILO
Event	19	Pump Tail Cement	8/8/2016	17:04:59	COM5	13.3	8.0	81.6	550	265 SKS THERMACEM CMT 13.3 PPG, 1.73 FT3/SK, 7.81 GAL/SK
Event	20	Slow Rate	8/8/2016	17:14:26	USER					SLOWED TO END CMT
Event	21	Shutdown	8/8/2016	17:22:23	COM5					END OF CMT, CLEANED PUMP AND LINES TO TANK
Event	22	Drop Top Plug	8/8/2016	17:28:54	USER					VERIFIED BY FLAG INDICATOR
Event	23	Pump Displacement	8/8/2016	17:30:22	COM5	8.4	10.0	139	2000	1 GAL MMCR IN FIRST 10 BBLs, 3 LBS BE-6 FOR FIRST 30 BBLs, 1 BAG KCL IN EVERY TANK
Event	24	Slow Rate	8/8/2016	17:44:53	USER	8.4	4.0	10	2160	2160 LIFT PSI
Event	25	Bump Plug	8/8/2016	17:48:57	COM5	8.4	4.0	149	1625	BUMPED PLUG 1800 PSI BROUGHT TO 2320 PSI
Event	26	Check Floats	8/8/2016	17:51:34	USER				2320	FLOATS HELD .5 BBL FLOW BACK
Event	27	End Job	8/8/2016	17:52:57	USER					
Event	28	Pre-Rig Down Safety Meeting	8/8/2016	18:00:00	USER					HES PRESENT
Event	29	Rig-Down Equipment	8/8/2016	18:15:00	USER					1 HT 400 PUMP TRUCK E8, 1 660 BULK TRUCK, 1 550 SERVICE PICKUP
Event	30	Pre-Convoy Safety Meeting	8/8/2016	19:20:00	USER					HES PRESENT
Event	31	Crew Leave Location	8/8/2016	20:00:00	USER					THANK YOU FOR USING HALLIBURTON CMT, DUSTIN HYDE AND CREW

TERRA ENERGY - YOUBERG RU 523-7 - 4 1/2" PRODUCTION



- | | | | | | |
|---|-----------------------------|-------------------------|---------------------|-------------------------------|-----------------------|
| ① Call Out | ⑦ Pre-Rig Up Safety Meeting | ⑬ Pump H2O Spacer | ⑰ Pump Tail Cement | ⑳ Bump Plug | ⑳ Crew Leave Location |
| ② Pre-Convoy Safety Meeting | ⑧ Rig-Up Equipment | ⑭ Pump Mud Flush Spacer | ⑱ Slow Rate | ㉑ Check Floats | |
| ③ Crew Leave Yard | ⑨ Pre-Job Safety Meeting | ⑮ Check weight | ㉒ Shutdown | ㉒ End Job | |
| ④ Arrive At Loc | ⑩ Start Job | ⑯ Pump Lead Cement | ㉓ Drop Top Plug | ㉓ Pre-Rig Down Safety Meeting | |
| ⑤ Assessment Of Location Safety Meeting | ⑪ Prime Lines | ⑰ Other | ㉔ Pump Displacement | ㉔ Rig-Down Equipment | |
| ⑥ Spot Equipment | ⑫ Test Lines | ⑱ Slow Rate | ㉕ Slow Rate | ㉕ Pre-Convoy Safety Meeting | |

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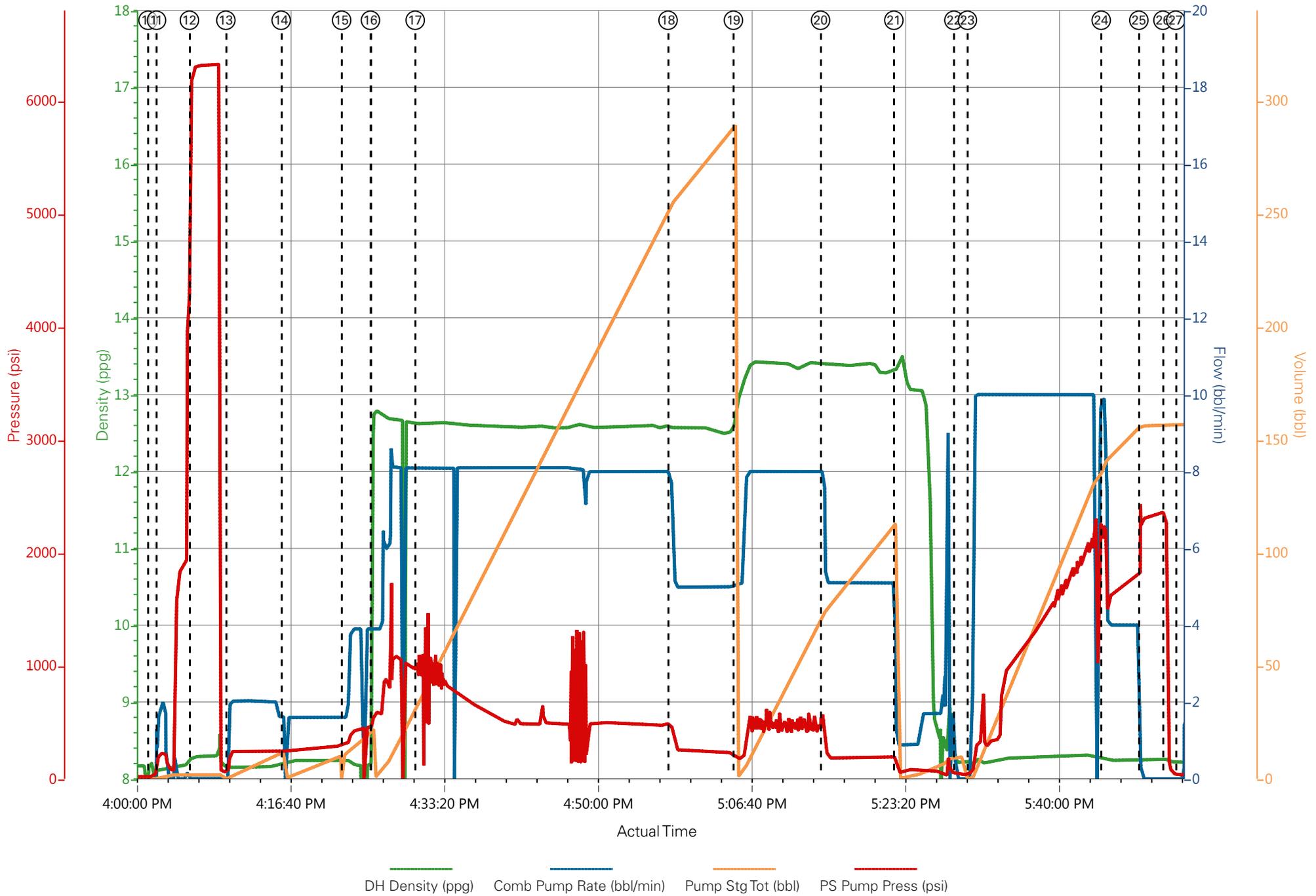
Edit

Customer: TEP ROCKY MOUNTAIN LLC
 Representative: BEAUDE OAKS

Job Date: 8/8/2016
 Sales Order #: 903465056

Well: YOUBERG RU 523-7
 ELITE 8 : ADAM ANGELO

TERRA ENERGY - YOUBERG RU 523-7 - 4 1/2" PRODUCTION



Job Information

Request/Slurry	2332835/2	Rig Name	H&P 318	Date	03/AUG/2016
Submitted By	Aaron Katz	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Terra Energy Partners	Location	Garfield	Well	RU 523-7

Well Information

Casing/Liner Size	4.5 in	Depth MD	9600 ft	BHST	115°C / 239°F
Hole Size	8.75 in	Depth TVD	9375 ft	BHCT	76°C / 169°F
Pressure	5860 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				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

04/AUG/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)
169	5860	47	6	6:40	6:52	7:06	7:42	8:18

total sks=835

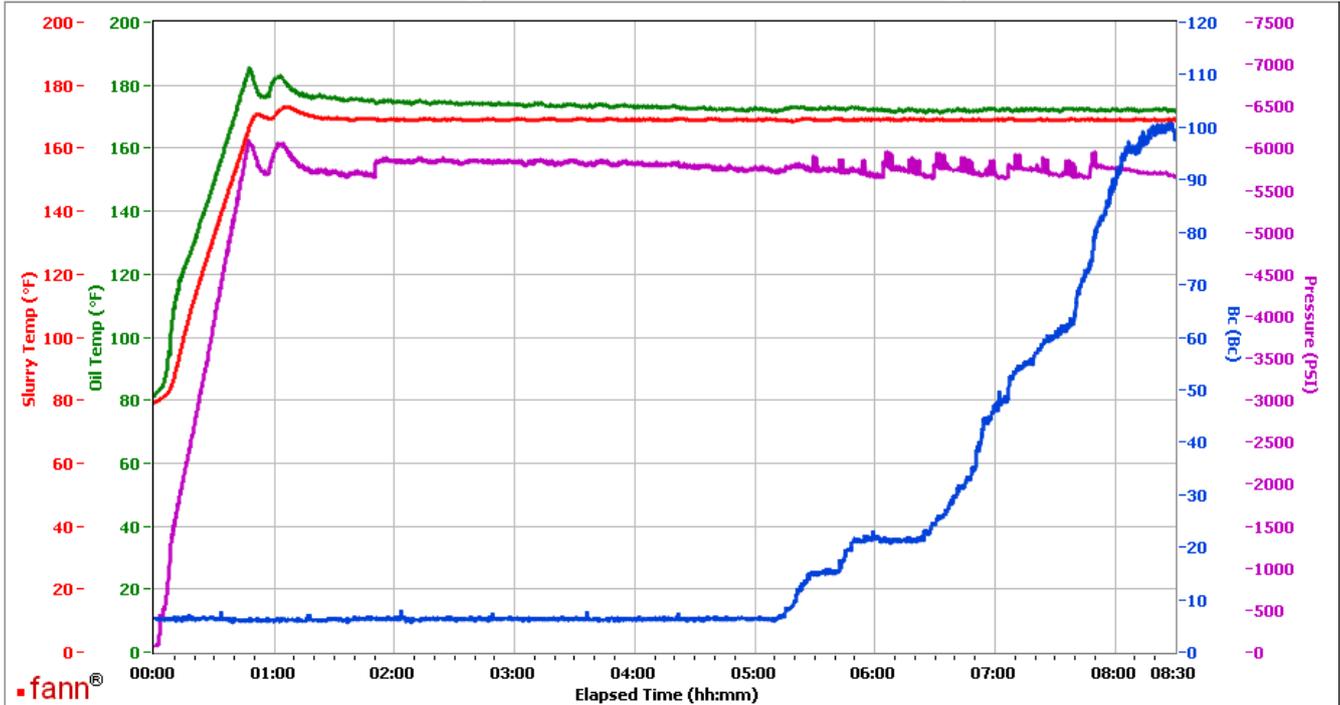
CS0713 TR 8677 417.5 SKS

Grand Junction, Colorado

Fields	Values
Project Name	GJ2332835-2 TERRA PRODUCTION BULK LE
Test ID	GJ2332835-2 TERRA PRODUCTION BULK LE
Request ID	GJ2332835-2 TERRA PRODUCTION BULK LE
Tested by	JASON
Customer	TERRA ENERGY PARTNERS
Well No	RU 523-7
Rig	H&P 318
Casing/Liner Size	4.5

Fields	Values
Job Type	PRODUCTION
Cement Type	NEOCEM
Cement Weight	Light Weight
Test Date	08/04/16
Test Time	02:23 AM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	06h:40m
40.00 Bc	06h:52m
50.00 Bc	07h:06m
70.00 Bc	07h:42m
100.00 Bc	08h:18m
00h:30m	6.40
01h:00m	6.05
01h:30m	6.37



Data File C:\Documents and Settings\M290\Desktop\Test Data\GJ2332835-2 TERRA BULK LEAD.tdms
 Comments CS0713 TR 8677 417.5 SKS

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Operation Test Results Request ID 2332835/1

Thickening Time

04/AUG/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)
169	5860	47	6	6:49	7:23	7:54	14:02	14:10

total sks=835

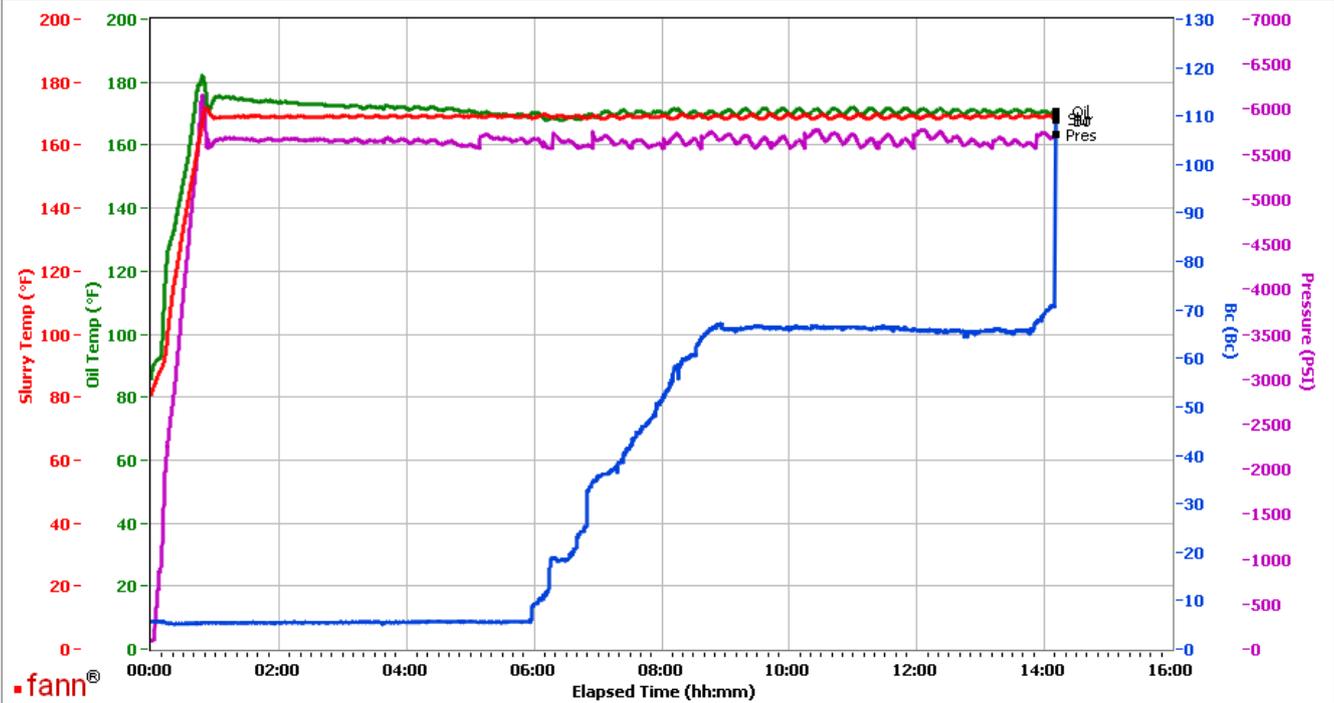
CS0712 TR 8658 417.5 SKS

Grand Junction Colorado

Fields	Values
Project Name	GJ2332835-1 TERRA PRODUCTION BULK LE
Test ID	GJ2332835-1 TERRA PRODUCTION BULK LE
Request ID	GJ2332835-1 TERRA PRODUCTION BULK LE
Tested by	JASON
Customer	TERRA ENERGY PARTNERS
Well No	RU 523-7
Rig	H&P 318
Casing/Liner Size	4.5

Fields	Values
Job Type	PRODUCTION
Cement Type	NEOCEM
Cement Weight	Light Weight
Test Date	08/04/16
Test Time	12:45 AM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	06h:49m
40.00 Bc	07h:23m
50.00 Bc	07h:54m
70.00 Bc	14h:02m
100.00 Bc	14h:10m
00h:30m	5.41
01h:00m	5.41
01h:30m	5.41



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 Comments CS0712 TR 8658 417.5 SKS

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Job Information

Request/Slurry	2332834/1	Rig Name	H&P 318	Date	03/AUG/2016
Submitted By	Aaron Katz	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Terra Energy Partners	Location	Garfield	Well	RU 523-7

Well Information

Casing/Liner Size	4.5 in	Depth MD	9600 ft	BHST	115°C / 239°F
Hole Size	8.75 in	Depth TVD	9375 ft	BHCT	76°C / 169°F
Pressure	5860 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		
		ThermaCem				Slurry Density	13.3	lbm/gal
						Slurry Yield	1.733	ft ³ /sack
						Water Requirement	7.799	gal/sack
						Total Mix Fluid	7.799	gal/sack
						Water Source	Fresh Water	
						Water Chloride		

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Operation Test Results Request ID 2332834/1

Thickening Time

04/AUG/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)
169	5860	47	11	2:47	2:55	3:13	3:31	3:34

Total sacks=265

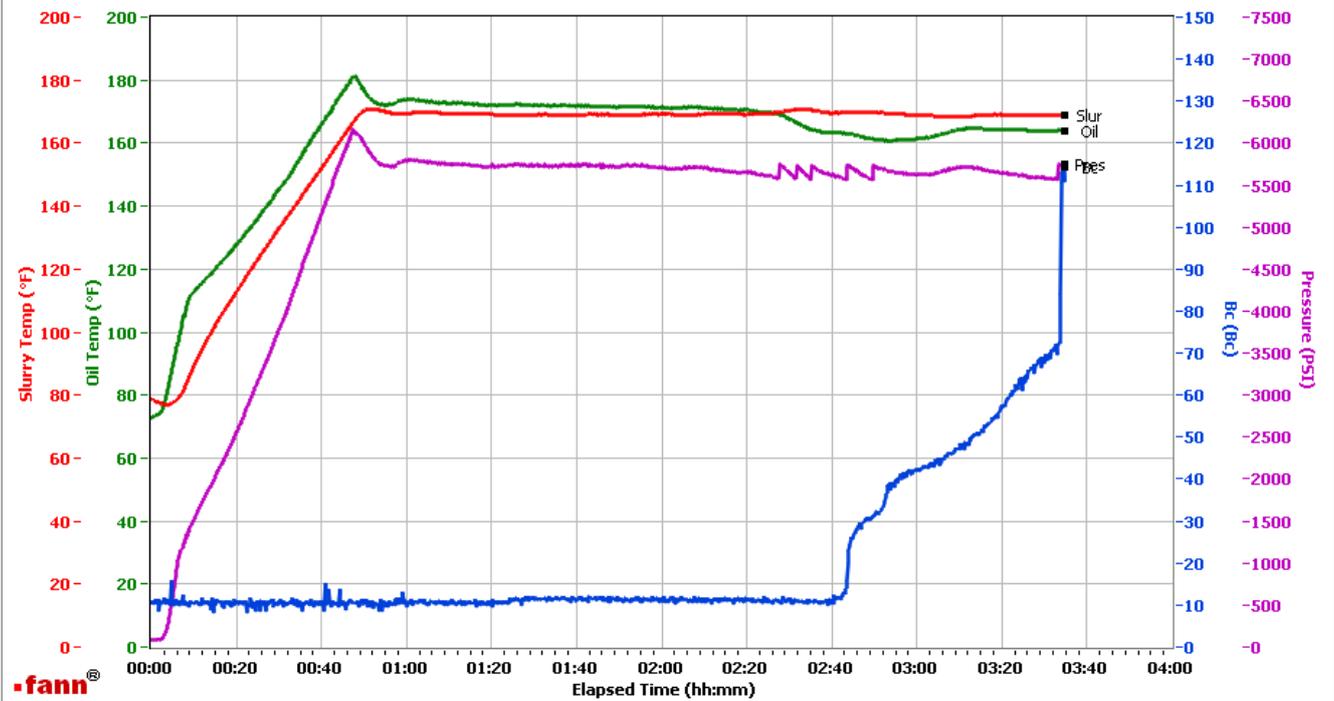
CS0719 TR#7094 265 SKS

Grand Junction Colorado

Fields	Values
Project Name	GJ2332834-1
Test ID	GJ2332834-1 TERRA BULK TAIL
Request ID	
Tested by	DEBA
Customer	TERRA ENERGY PARTNERS
Well No	RU 523-7
Rig	
Casing/Liner Size	

Fields	Values
Job Type	
Cement Type	
Cement Weight	Standard
Test Date	08/04/16
Test Time	08:04 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.1.0.507

Events	Results
30.00 Bc	02h:47m
40.00 Bc	02h:55m
50.00 Bc	03h:13m
70.00 Bc	03h:31m
100.00 Bc	03h:34m
00h:30m	10.85
01h:00m	10.59
01h:30m	11.43



Data File C:\Documents and Settings\Administrator\Desktop\Test Data\GJ2332834-1 TERRA BULK TAIL.tdms

Comments CS0719 TR# 7094 265 SKS

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