

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

United States of America, COLORADO

Date: Saturday, April 07, 2018

Federal RU 313-17

API# 05-045-23743

Terra Federal RU 313-17 Production

Job Date: Friday, April 06, 2018

Sincerely,

Grand Junction Cement Engineering

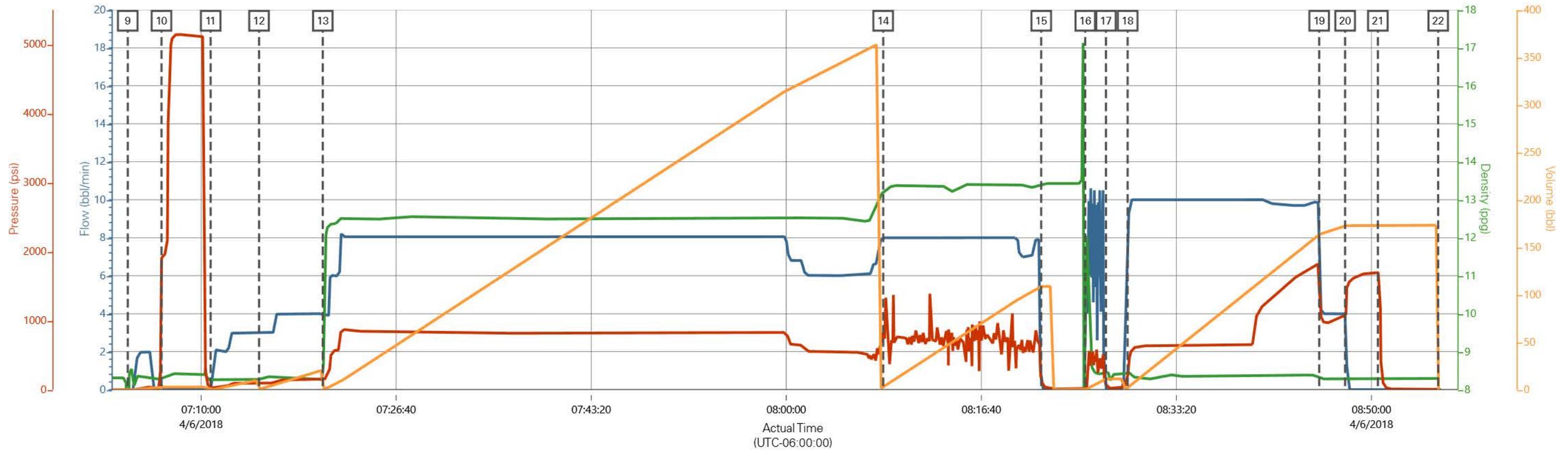
1.0 Real-Time Job Summary

1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DH Density (ppg)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	4/5/2018	09:00:00	USER					Customer called back and requested new on location time of 00:00 on 04/06/2018
Event	2	Pre-Convoy Safety Meeting	4/5/2018	11:00:00	USER					JSA Completed
Event	3	Crew Leave Yard	4/5/2018	11:05:00	USER					
Event	4	Arrive At Loc	4/5/2018	21:30:00	USER					Rig running casing.
Event	5	Assessment Of Location Safety Meeting	4/5/2018	21:35:00	USER					
Event	6	Pre-Rig Up Safety Meeting	4/5/2018	22:52:29	USER					JSA completed.
Event	7	Rig-Up Equipment	4/5/2018	22:55:00	USER					
Event	8	Pre-Job Safety Meeting	4/5/2018	23:00:00	USER					JSA completed.
Event	9	Start Job	4/6/2018	07:03:44	COM4					4 1/2" 11.6# casing, TD 10727', TP 10721', SJ 30.15', OH 8 3/4", Mud 9.0 PPG, Water test temp 65, PH 7, Chlorides 0
Event	10	Test Lines	4/6/2018	07:06:37	COM4	0.00	8.31	5000.00	3.00	Test lines to 5000 PSI.
Event	11	Pump H2O Spacer	4/6/2018	07:10:49	COM4	4.00	8.33	100.00	10.00	Pump 10 BBLS H2O spacer, 100 PSI.
Event	12	Pump Mudflush	4/6/2018	07:14:57	COM4	4.00	8.40	240.00	20.00	Pump 20 BBL Mudflush, 240 PSI.
Event	13	Pump Lead Cement	4/6/2018	07:20:24	COM4	8.00	12.5	830.00	324.90	Pump 324.9 BBL lead cement, 940 sks/12.5ppg/ 1.94 yld/ 9.6 gal/sk h2o req. 830 PSI.

Event	14	Pump Tail Cement	4/6/2018	08:08:17	COM4	8.00	13.30	750.00	81.60	Pump 81.6 BBL tail cement, 265 sks / 13.3 ppg / 1.73 yld / 7.81 gal/sk h2o req. 750 PSI.
Event	15	Shutdown	4/6/2018	08:21:47	USER					
Event	16	Clean Lines	4/6/2018	08:25:33	COM4					Clean lines to pit.
Event	17	Drop Top Plug	4/6/2018	08:27:19	COM4					Plug Away.
Event	18	Pump Displacement	4/6/2018	08:29:10	COM4	10.00	8.40	1800.00	165.70	Pump 165.7 BBL KCL displacement with 3 lbs BE-6, 1 gal MMCR. 1800 PSI. Lost returns at 55 BBL away, did not return.
Event	19	Slow Rate	4/6/2018	08:45:32	USER	4.00	8.40	1825.00	155.00	Slow rate at 155 BBL away, 1825 PSI.
Event	20	Bump Plug	4/6/2018	08:47:45	COM4	4.00	8.40	1080.00	165.70	Plug bumped at calculated displacement. Final circulating pressure 1080 PSI.
Event	21	Check Floats	4/6/2018	08:50:33	USER					Floats held. 1 BBL back to pump.
Event	22	End Job	4/6/2018	08:55:42	COM4					Pipe left static throughout, good returns throughout cement, lost returns on displacement, no sugar used, 1 add hour charged.
Event	23	Pre-Rig Down Safety Meeting	4/6/2018	09:00:00	USER					JSA completed.
Event	24	Rig-Down Equipment	4/6/2018	09:05:00	USER					
Event	25	Pre-Convoy Safety Meeting	4/6/2018	10:25:00	USER					JSA completed.
Event	26	Crew Leave Location	4/6/2018	10:30:00	USER					Thank you for choosing Halliburton Cementing of Grand Junction, CO - Ryan Martin and crew

TERRA - FEDERAL RU 313-17 - 4 1/2" PRODUCTION



— Comb Pump Rate (bbl/min) 0
 — DH Density (ppg) 8.29
 — PS Pump Press (psi) 4
 — Pump Stg Tot (bbl) 0

Job Information

Request/Slurry	2463349/1	Rig Name	H&P 318	Date	27/MAR/2018
Submitted By	Connor Matthews	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Terra Energy Partners	Location	Garfield	Well	RU 313-17

Well Information

Casing/Liner Size	4.5 in	Depth MD	10709 ft	BHST	127°C / 260°F
Hole Size	8.75 in	Depth TVD	10572 ft	BHCT	92°C / 198°F
Pressure	6700 psi				

Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density
--------------------------	-----------------------	----------------

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>	<u>Cement Properties</u>		
			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		

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

Operation Test Results Request ID 2463349/1

Thickening Time - ON-OFF-ON

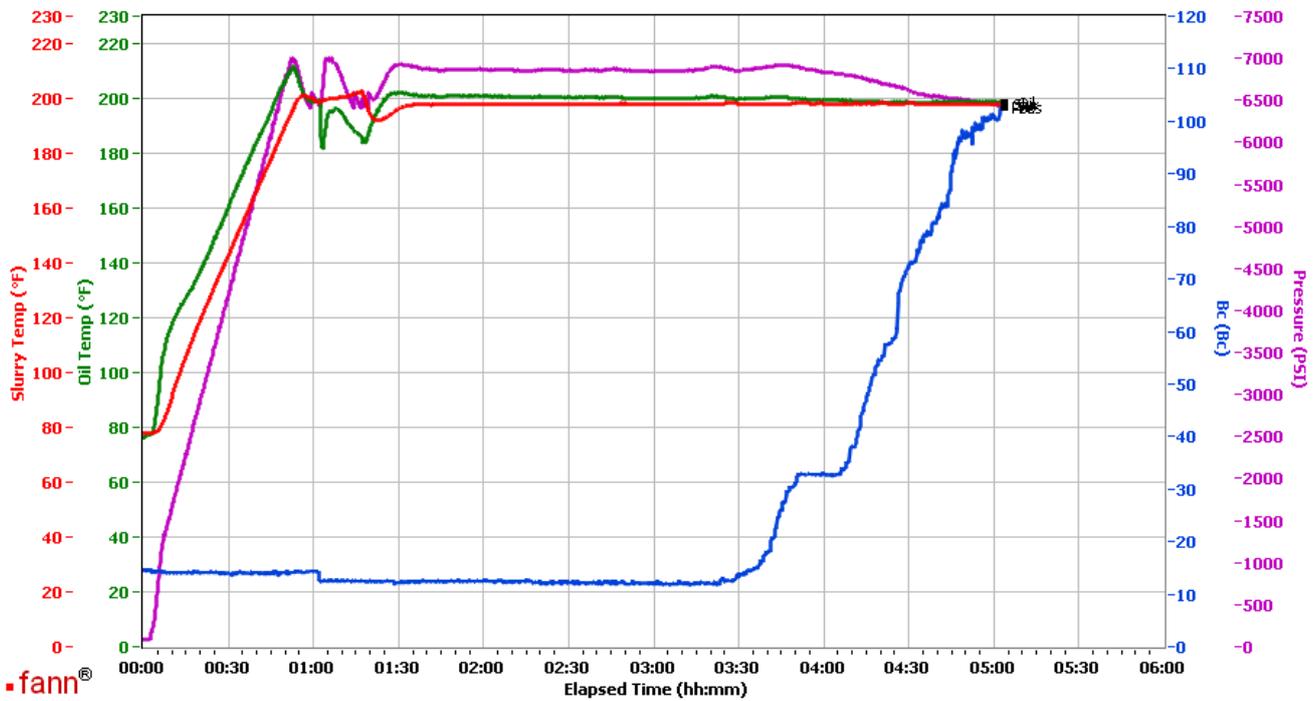
01/APR/2018

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)
198	6700	52	3:48	4:16	4:27	4:56	15	62	15	13

Total sks = 940
 CS0769, Trailer 1513, 400 sks
 CS0770, Trailer 8476, 400 sks
 CS0771, Trailer 5692, 140 sks
 deflected from 14Bc--- > 13Bc

Grand Junction Colorado

Fields	Values	Fields	Values	Events	Results
Project Name	2463349-1 TERRA BULK PRODUCTION LEAD	Job Type	PRODUCTION CASING	30.00 Bc	03h:48m
Test ID	35370061 - TT	Cement Type	HOLCIM TYPE I-II	40.00 Bc	04h:11m
Request ID	2463349-1	Cement Weight	Standard	50.00 Bc	04h:16m
Tested by	CT	Test Date	03/31/18	70.00 Bc	04h:27m
Customer	TERRA ENERGY PARTNERS	Test Time	01:25 PM	100.00 Bc	04h:56m
Well No	RU 313-17	Temp. Units	degF	00h:30m	14.03
Rig	H&P 318	Pressure Units	PSI	01h:00m	14.31
Casing/Liner Size	4.5 INCH	SW Version	2.1.0.507	01h:30m	12.09



Data File C:\Documents and Settings\M290\Local Settings\Temporary Internet Files\Content.IE5\K9YZ0P2R\GJ2463349-1 TERRA BULK PRODUCTION LEAD[1].tdms
 Comments CS0769, TRAILER 1513, 400 SKS - CS0770, TRAILER 8476, 400 SKS - CS0771, TRAILER 5692, 140 SKS

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

Job Information

Request/Slurry	2463350/1	Rig Name	H&P 318	Date	27/MAR/2018
Submitted By	Connor Matthews	Job Type	Production Casing	Bulk Plant	Grand Junction
Customer	Terra Energy Partners	Location	Garfield	Well	RU 313-17

Well Information

Casing/Liner Size	4.5 in	Depth MD	10709 ft	BHST	127°C / 260°F
Hole Size	8.75 in	Depth TVD	10572 ft	BHCT	92°C / 198°F
Pressure	6700 psi				

Drilling Fluid Information

Mud Supplier Name		Mud Trade Name		Density	
--------------------------	--	-----------------------	--	----------------	--

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 ft3/sack
						Water Requirement	7.799 gal/sack
						Total Mix Fluid	7.799 gal/sack
						Water Source	Fresh Water
						Water Chloride	

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

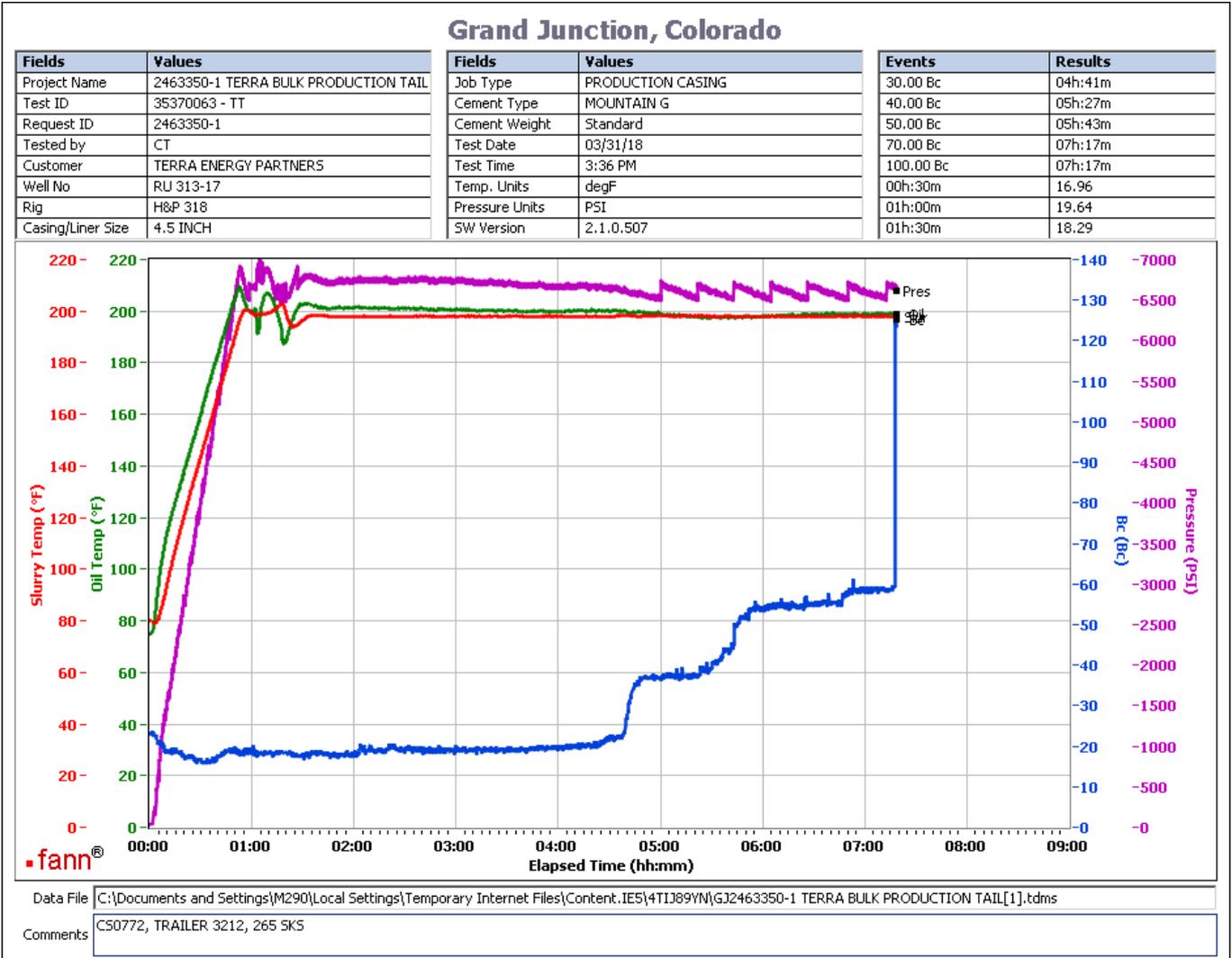
Operation Test Results Request ID 2463350/1

Thickening Time - ON-OFF-ON

01/APR/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)
198	6700	52	4:41	3:43	7:17	7:17	23	62	15	9

Total sks = 265
 CS0772, Trailer 3212, 265 sks
 deflected from 18Bc--- > 19Bc



This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.