

# HALLIBURTON

iCem<sup>®</sup> Service

## **TERRA ENERGY PARTNERS**

Date: Thursday, April 19, 2018

### **RU 413-17**

API # 05-045-23740

Terra RU 413-17 Surface

Job Date: Monday, April 16, 2018

Sincerely,

**Grand Junction Cement Engineering**

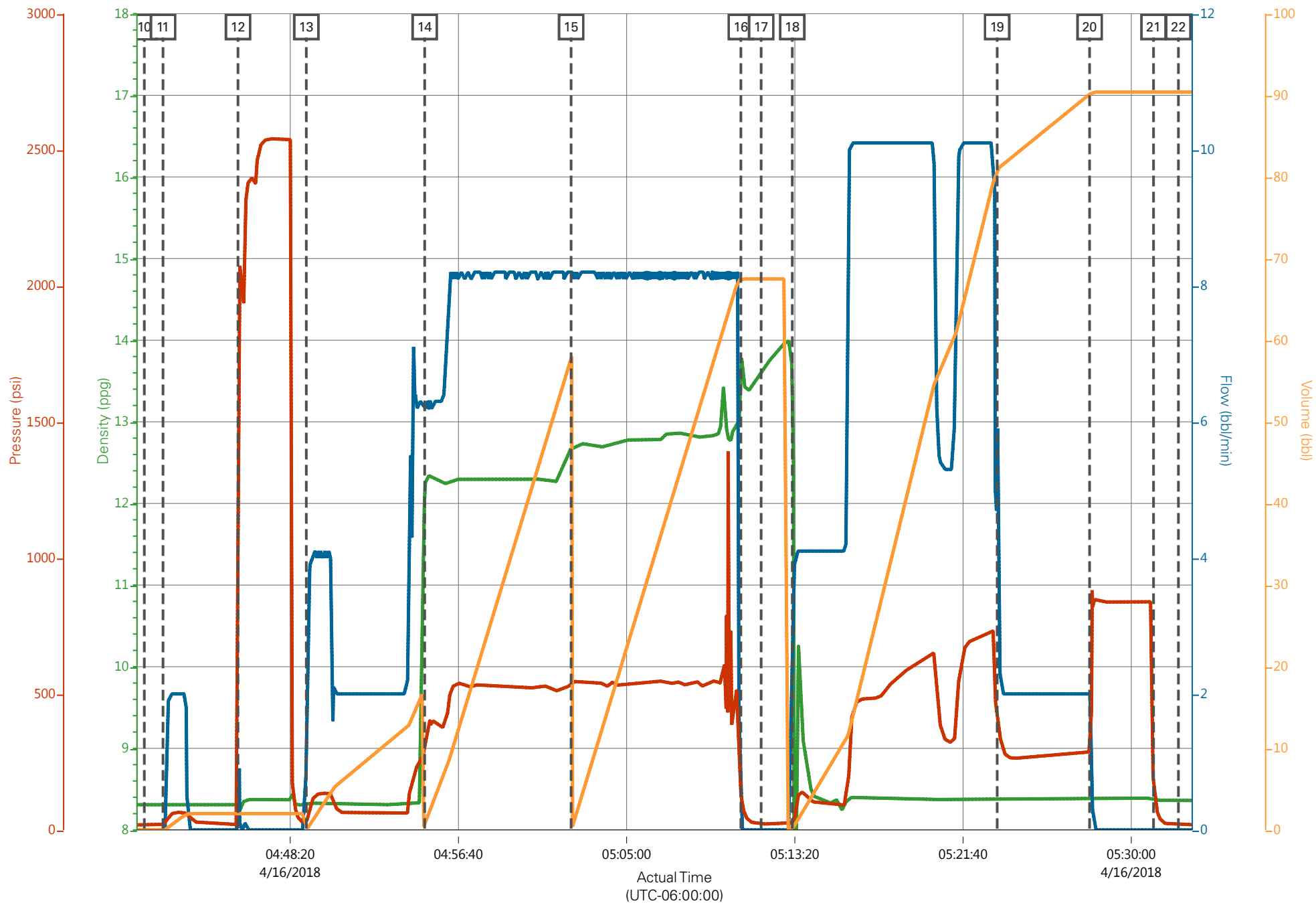
## Real-Time Job Summary

## 1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	4/15/2018	18:00:00						Requested on Location @ 00:00
Event	2	Pre-Convoy Safety Meeting	4/15/2018	21:00:00						
Event	3	Crew Leave Yard	4/15/2018	21:30:00						1 Elite, 1 660, 1 pickup
Event	4	Arrive at Rig	4/16/2018	00:00:00						Rig drilling
Event	5	Assessment Of Location Safety Meeting	4/16/2018	00:10:00						JSA completed - Customer offered/received SDS - water test pH 7.0, CI <200, temp 55 degrees
Event	6	Pre-Rig Up Safety Meeting	4/16/2018	00:20:00						
Event	7	Rig-Up Equipment	4/16/2018	00:30:00						1 hardline to standpipe, water hoses to upright, bulk hose to 660.
Event	8	Other	4/16/2018	00:50:00						Rig Circulated 30 mins prior to cement job at 450 gpm 300 psi
Event	9	Pre-Job Safety Meeting	4/16/2018	04:07:23						All HES personnel, rig crew, and company rep
Event	10	Start Job	4/16/2018	04:41:06						TD 1148', TP 1142.83, SJ 45.83', FC 1097 OH 13.5'', Csg 9.625'' 32.3#, Mud 9.2 ppg.
Event	11	Fill Lines	4/16/2018	04:42:02		8.33	2	65	5	Fresh Water
Event	12	Test Lines	4/16/2018	04:45:45				2537		Held pressure 2 minutes no leaks
Event	13	Pump Spacer	4/16/2018	04:49:08		8.33	6	115	15	Fresh Water
Event	14	Pump Lead Cement	4/16/2018	04:55:00		12.3	8	565	53	125 Sks 12.3 ppg 2.38 yield 13.77 gal/sk
Event	15	Pump Tail Cement	4/16/2018	05:02:15		12.8	8	575	65.8	175 Sks 12.8 ppg 2.11 yield 11.78 gal/sk
Event	16	Shutdown	4/16/2018	05:10:40						Wash up on top of plug

Event	17	Drop Top Plug	4/16/2018	05:11:40						
Event	18	Pump Displacement	4/16/2018	05:13:12	8.33	10	840	86.3	Fresh Water	
Event	19	Slow Rate	4/16/2018	05:23:21	8.33	2	280	76	Slow Rate 10 bbls to calculated displacement	
Event	20	Bump Plug	4/16/2018	05:27:56					Plug Bumped at 280 psi, Brought up to 840 psi	
Event	21	Check Floats	4/16/2018	05:31:06					Floats held – ½ bbl back to the truck	
Event	22	End Job	4/16/2018	05:32:20					good returns throughout job, 16 bbls of cement to surface.	
Event	23	Pre-Rig Down Safety Meeting	4/16/2018	05:43:33					90 lbs sugar, no add hours	
Event	24	Rig-Down Equipment	4/16/2018	05:48:11						
Event	25	Pre-Convoy Safety Meeting	4/16/2018	05:58:57						
Event	26	Crew Leave Location	4/16/2018	06:01:31					Thanks For Using Halliburton Cement. Chris Martinez And Crew.	

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