

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

For: Brandon Hilts and Abe Alexander

Date: Wednesday, February 15, 2017

TR 343-27-597 Surface

API# 05-045-23334-00

Sincerely,
Grand Junction Cement Engineering

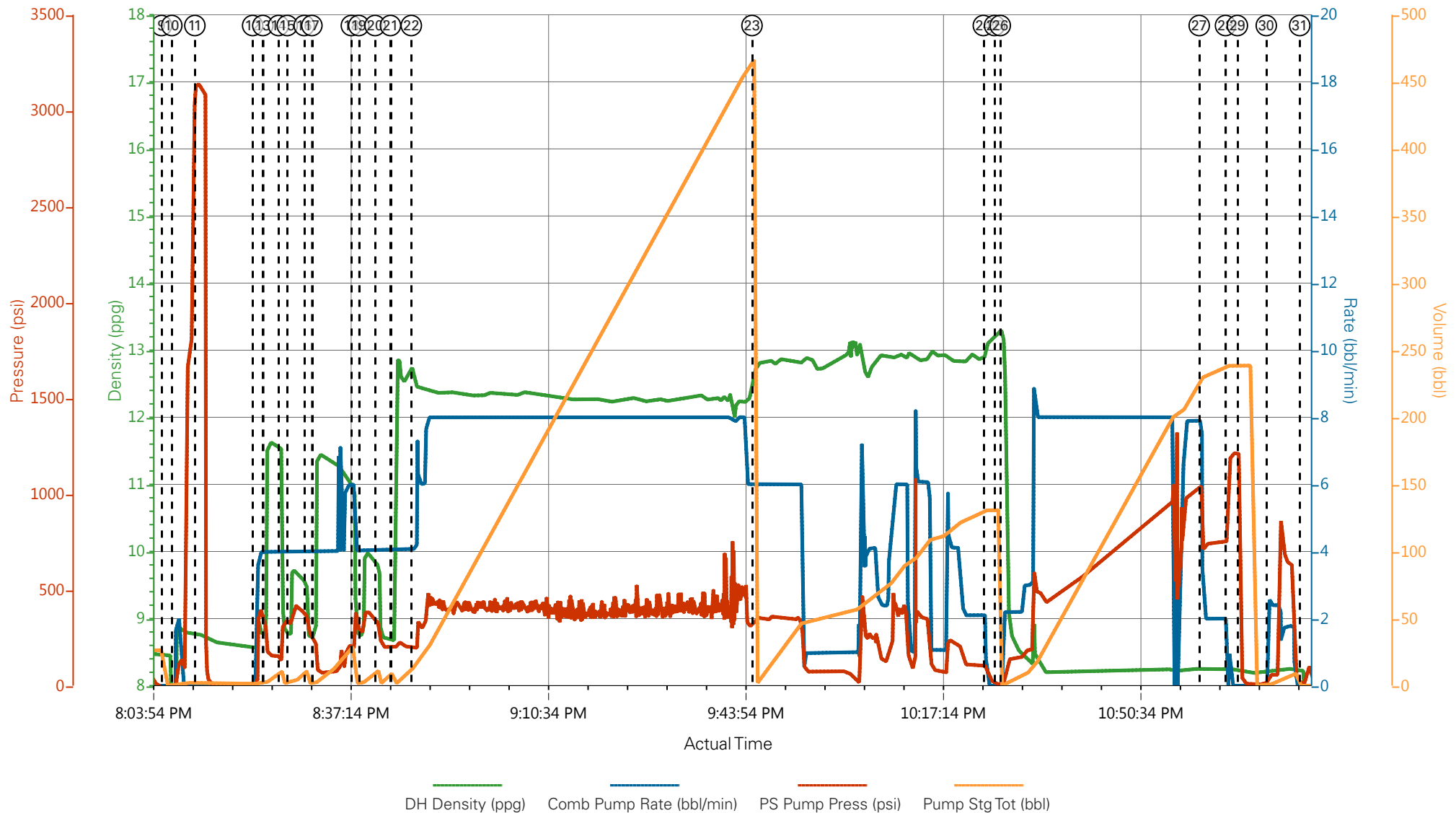
1.0 Real-Time Job Summary

1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	2/15/2017	09:00:00	USER					O/L time 1500 - crew already in field
Event	2	Pre-Convoy Safety Meeting	2/15/2017	09:15:00	USER					
Event	3	Crew Leave Previous Location	2/15/2017	09:30:00	USER					1 Elite, 1 660, 1 Transport, 1 pickup
Event	4	Arrive at Location from Other Job	2/15/2017	13:00:00	USER					Rig running casing
Event	5	Assessment Of Location Safety Meeting	2/15/2017	13:15:00	USER					JSA completed - customer offered/received SDS- water test pH
Event	6	Pre-Rig Up Safety Meeting	2/15/2017	13:30:00	USER					
Event	7	Rig-Up Equipment	2/15/2017	13:45:00	USER					Hard line to standpipe, water hoses to uprights, bulk hoses to silos
Event	8	Pre-Job Safety Meeting	2/15/2017	19:45:00	USER					All HES personnel, rig crew, and company rep
Event	9	Start Job	2/15/2017	20:05:51	USER					TD 3010', TP 2983', SJ 24.93', Mud 9.3 ppg, 14 3/4" OH, 9 5/8" 36# J55 casing from TD-896', 40# casing from 896'-surface
Event	10	Prime Lines	2/15/2017	20:07:34	COM5	8.33	2.0	165	2.0	Fresh water
Event	11	Test Lines	2/15/2017	20:11:28	COM5			3161		Pressure held well
Event	12	Pump H2O Spacer	2/15/2017	20:21:13	COM5	8.33	4.0	180	5.0	Fresh water ahead
Event	13	Pump Super Flush	2/15/2017	20:22:56	COM5	10.0	4.0	420	10.0	10 bbl
Event	14	Pump H2O Spacer	2/15/2017	20:25:35	COM5	8.33	4.0	220	5.0	
Event	15	Pump CaCl Water	2/15/2017	20:27:03	COM5	8.4	4.0	320	10.0	10 bbl
Event	16	Pump H2O Spacer	2/15/2017	20:29:55	COM5	8.33	4.0	205	5.0	

Event	17	Pump Super Flush	2/15/2017	20:31:13	COM5	10.0	4.0	415	10.0	10 bbl
Event	18	Pump H2O Spacer	2/15/2017	20:37:53	COM5	8.33	4.0	210	5.0	
Event	19	Pump CaCl Water	2/15/2017	20:39:08	COM5	8.4	4.0	290	10.0	10 bbl
Event	20	Pump H2O Spacer	2/15/2017	20:41:53	COM5	8.33	4.0	240	10.0	Fresh water behind spacer train
Event	21	Pump Lead Cement	2/15/2017	20:44:29	COM5	12.3	8.0	530	434.5	1025 sks VariCem, 12.3 ppg, 2.38 yield, 13.76 gal/sk
Event	22	Check weight	2/15/2017	20:48:00	COM5	12.3				Recirc matched mud scales
Event	23	Pump Tail Cement	2/15/2017	21:45:31	COM5	12.8	6.0	340	129.6	345 sks VariCem, 12.8 ppg, 2.11yield, 11.78 gal/sk – Had to slow rate periodically to allow for dredge pump to keep up with returns – cement to surface during tail cement
Event	24	Shutdown	2/15/2017	22:24:35	USER					Wash up on top of plug
Event	25	Drop Top Plug	2/15/2017	22:26:27	COM5					Plug launched
Event	26	Pump Displacement	2/15/2017	22:27:26	COM5	8.33	8.0	1070	229.4	Fresh water
Event	27	Slow Rate	2/15/2017	23:01:01	COM5	8.33	2.0	740	@ 220	Good returns throughout entire job
Event	28	Bump Plug	2/15/2017	23:05:28	USER			780		Approx 280bbls cement to surface
Event	29	Check Floats	2/15/2017	23:07:28	USER			1225		Floats held -1 bbl flowback
Event	30	Pump Sugar Water	2/15/2017	23:12:21	USER					Clear parasite line
Event	31	End Job	2/15/2017	23:18:00	COM5					1 add hour, 60 lbs sugar – topout removed from ticket
Event	32	Pre-Rig Down Safety Meeting	2/15/2017	23:30:00	USER					
Event	33	Rig-Down Equipment	2/15/2017	23:45:00	USER					
Event	34	Pre-Convoy Safety Meeting	2/16/2017	00:45:00	USER					
Event	35	Crew Leave Location	2/16/2017	01:00:00	USER					Thank you for using Halliburton - Ed Deussen and crew

TERRA ENERGY - TR 434-27-597 - 9 5/8" Surface



- | | | | | | |
|---|--------------------------|--------------------|---------------------|----------------------|--------------------------------|
| ① Call Out | ⑦ Rig-Up Equipment | ⑬ Pump Super Flush | ⑰ Pump CaCl Water | 25 DropTop Plug | 31 End Job |
| ② Pre-Convoy Safety Meeting | ⑧ Pre-Job Safety Meeting | ⑭ Pump H2O Spacer | 20 Pump H2O Spacer | 26 Pump Displacement | 32 Pre-Rig Down Safety Meeting |
| ③ Crew Leave Previous Location | ⑨ Start Job | ⑮ Pump CaCl Water | 21 Pump Lead Cement | 27 Slow Rate | 33 Rig-Down Equipment |
| ④ Arrive at Location from Other Job | ⑩ Prime Lines | ⑯ Pump H2O Spacer | 22 Check weight | 28 Bump Plug | 34 Pre-Convoy Safety Meeting |
| ⑤ Assessment Of Location Safety Meeting | ⑪ Test Lines | ⑰ Pump Super Flush | 23 Pump Tail Cement | 29 Check Floats | 35 Crew Leave Location |
| ⑥ Pre-Rig Up Safety Meeting | ⑫ Pump H2O Spacer | ⑱ Pump H2O Spacer | 24 Shutdown | 30 Pump Sugar Water | |

TERRA ENERGY - TR 434-27-597 - 9 5/8" Surface

