

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

United States of America, COLORADO

For: Terra

Date: Tuesday, June 12, 2018

Federal PA 533-26 Surface PJR

API #: 05-045-23706

Sincerely,

Grand Junction Cement Engineering

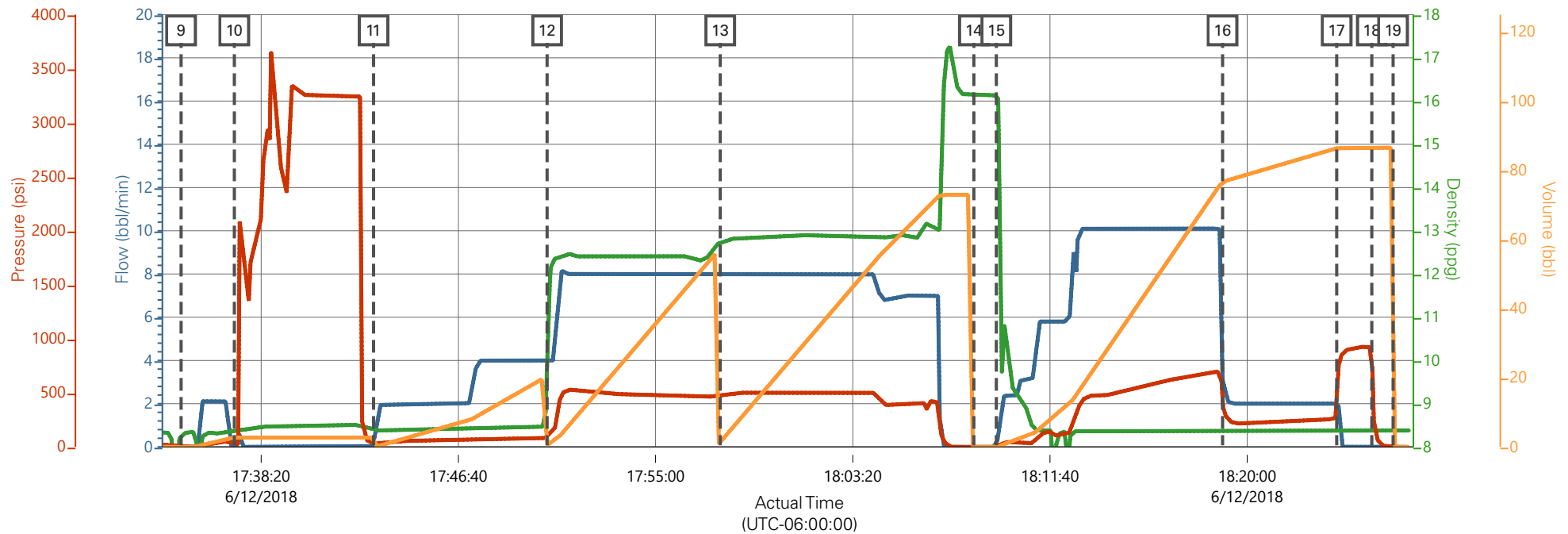
2.0 Real-Time Job Summary

2.1 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	6/12/2018	10:00:00	USER					REQUESTED ON LOCATION 6/12/18 @ 16:00
Event	2	Depart Yard Safety Meeting	6/12/2018	11:55:00	USER					JSA COMPLETED
Event	3	Crew Leave Shop	6/12/2018	12:00:00	USER					
Event	4	Arrive At Loc	6/12/2018	13:00:00	USER					RIG PULLING DRILL PIPE
Event	5	Assessment Of Location Safety Meeting	6/12/2018	13:05:00	USER					JSA COMPLETED
Event	6	Pre-Rig Up Safety Meeting	6/12/2018	13:55:00	USER					JSA COMPLETED
Event	7	Rig-Up Equipment	6/12/2018	14:00:00	USER					
Event	8	Pre-Job Safety Meeting	6/12/2018	17:00:00	USER					JSA COMPLETED
Event	9	Start Job	6/12/2018	17:34:57	COM4					9 5/8" - 36# CASING IN 13 1/2" OH, TD 1120', TP 1113.5', ST 43.9', MUD 9.6 PPG, WATER TEMP 65, PH 7, CHLORIDES 0
Event	10	Test Lines	6/12/2018	17:37:12	COM4			3000.00		TEST LINES TO 3000 PSI
Event	11	Pump Spacer 1	6/12/2018	17:43:05	COM4	4.00	8.33	90.00	20.00	20 BBL FRESH WATER
Event	12	Pump Lead Cement	6/12/2018	17:50:25	COM4	8.00	12.30	500.00	53.00	53 BBL LEAD CEMENT, 125 SKS @ 12.3 PPG / 2.38 YLD / 13.77 GAL/SK
Event	13	Pump Tail Cement	6/12/2018	17:57:44	COM4	8.00	12.80	500.00	65.80	65.8 BBL TAIL CEMENT, 175 SKS @ 12.8 PPG / 2.11 YLD / 11.78 GAL/SK

Event	14	Drop Top Plug	6/12/2018	18:08:27	COM4					PLUG AWAY
Event	15	Pump Displacement	6/12/2018	18:09:24	COM4	10.00	8.33	700.00	82.70	82.7 BBL FRESH WATER
Event	16	Slow Rate	6/12/2018	18:18:58	USER	2.00	8.33	240.00	72.00	SLOW TO 2 BBL/MIN, 700 PSI @ 10/MIN TO 240 PSI @ 2/MIN
Event	17	Bump Plug	6/12/2018	18:23:47	COM4	2.00	8.33	260.00	82.70	PLUG BUMPED AT CALCULATED, FINAL CIRCULATING PRESSURE 260 PSI, BROUGHT UP TO 900 PSI
Event	18	Check Floats	6/12/2018	18:25:16	COM4					FLOATS HELD, 1/2 BBL BACK TO PUMP
Event	19	End Job	6/12/2018	18:26:10	COM4					GOOD CIRCULATION THROUGHOUT, PIPE LEFT STATIC, 18 BBLS LEAD CEMENT TO SURFACE, 40# SUGAR USED AND NO ADD HOURS CHARGED
Event	20	Pre-Rig Down Safety Meeting	6/12/2018	18:30:00	USER					JSA COMPLETED
Event	21	Rig-Down Equipment	6/12/2018	18:35:00	USER					
Event	22	Pre-Convoy Safety Meeting	6/12/2018	18:55:00	USER					JSA COMPLETED
Event	23	Crew Leave Location	6/12/2018	19:00:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENTING OF GRAND JUNCTION, CO - RYAN MARTIN AND CREW

TEP - FEDERAL PA 533-26 - 9 5/8" SURFACE CASING



Description	Actual Time (UTC-06:00:00)	Comb Pump Rate (bbl/min)	DH Density (ppg)	PS Pump Press (psi)	Pump Stg Tot (bbl)
9 Start Job	17:34:57	0.00	8.29	6.00	0.00
10 Test Lines	17:37:12	0.00	8.38	30.00	2.70
11 Pump Spacer 1	17:43:05	0.00	8.41	25.00	0.00
12 Pump Lead Cement	17:50:25	4.00	9.76	86.00	0.50
13 Pump Tail Cement	17:57:44	8.00	12.74	484.00	1.30
14 Drop Top Plug	18:08:27	0.00	16.18	-5.00	0.00
15 Pump Displacement	18:09:24	0.00	16.12	-4.00	0.00
16 Slow Rate	18:18:58	3.10	8.38	404.00	76.60
17 Bump Plug	18:23:47	2.00	8.38	291.00	86.40
18 Check Floats	18:25:16	0.00	8.41	915.00	86.50
19 End Job	18:26:10	0.00	8.38	-6.00	0.00

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Created: 2018-06-12 12:18:21, (UTC-06:00), Version: 4.5.139

Edit

Customer : TERRA ENERGY PARTNERS

Job Date : 6/12/2018

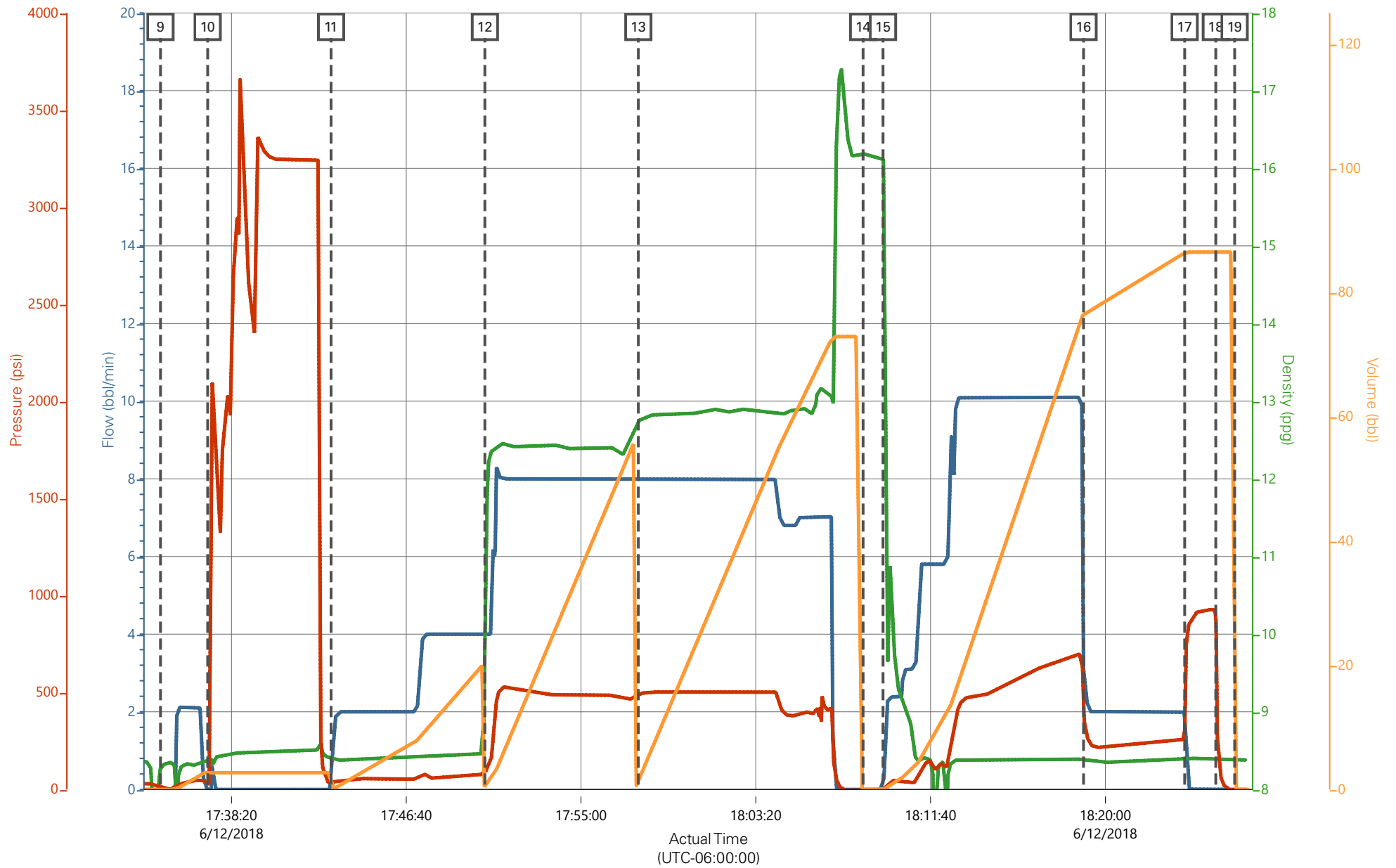
Well : FEDERAL

Representative : COY BURR

Sales Order # : 904917688

ELITE #4 : TRA VIS BROWN / RYAN MARTIN

TEP - FEDERAL PA 533-26 - 9 5/8" SURFACE CASING



Comb Pump Rate (bbl/min) 0 DH Density (ppg) 8.38 PS Pump Press (psi) -7 Pump Stg Tot (bbl) 0