

# HALLIBURTON

iCem<sup>®</sup> Service

## **TERRA ENERGY PARTNERS**

United States of America, COLORADO

### **For: Terra**

Date: Monday, October 08, 2018

### **Federal PA 332-24 Surface**

API# 05-045-23763

Sincerely,

**Grand Junction Cement Engineering**

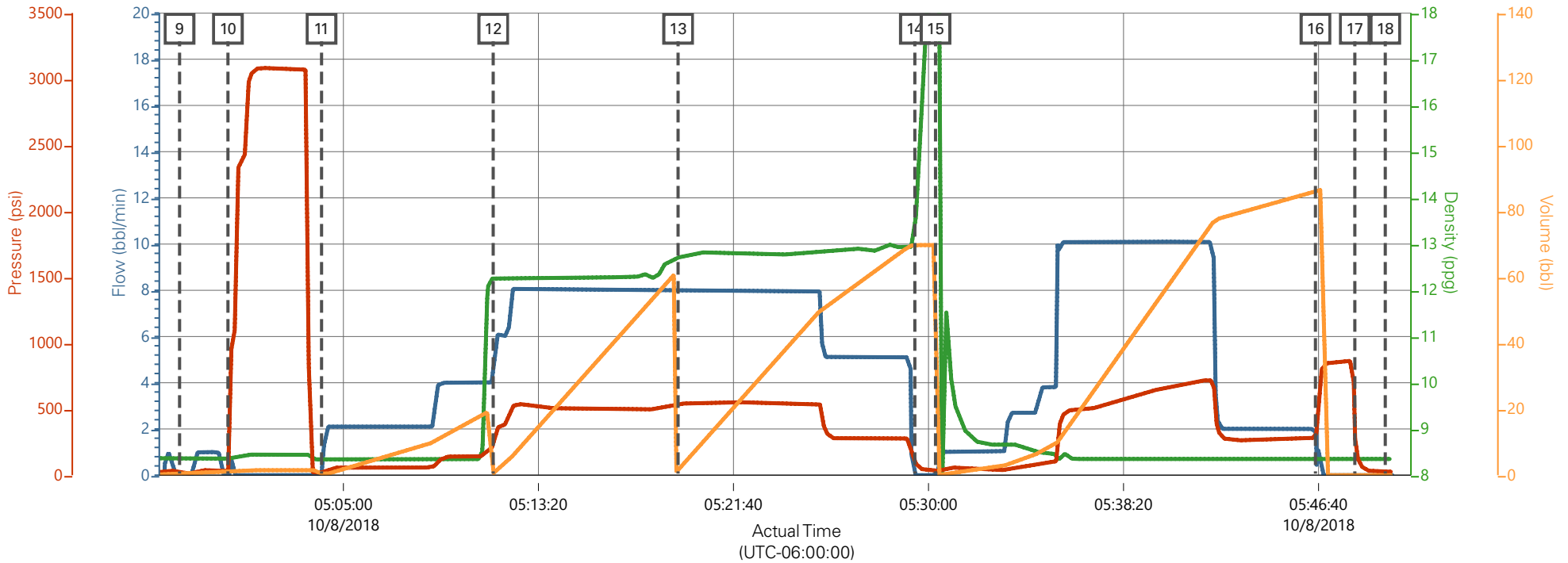
## 2.0 Real-Time Job Summary

### 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	10/7/2018	18:30:00	USER					REQUESTED ON LOCATION 10/8/18 @ 00:30
Event	2	Depart Yard Safety Meeting	10/7/2018	18:55:00	USER					JSA COMPLETED
Event	3	Crew Leave Shop	10/7/2018	19:00:00	USER					
Event	4	Arrive At Loc	10/8/2018	00:00:00	USER					RIG PULLING DRILL PIPE
Event	5	Assessment Of Location Safety Meeting	10/8/2018	00:05:00	USER					JSA COMPLETED
Event	6	Pre-Rig Up Safety Meeting	10/8/2018	01:00:00	USER					JSA COMPLETED
Event	7	Rig-Up Equipment	10/8/2018	01:05:00	USER					
Event	8	Pre-Job Safety Meeting	10/8/2018	03:00:00	USER					JSA COMPLETED, PRESSURIZED MUD SCALES CALIBRATED TO FRESH WATER
Event	9	Start Job	10/8/2018	04:58:00	COM4					9 5/8" - 36# CASING IN 13 1/2" OH, TD 1137', TP 1127.2', ST 41', WATER TEMP 55, PH 7, CHLORIDES 0
Event	10	Test Lines	10/8/2018	05:00:04	COM4			3000.00		TEST LINES TO 3000 PSI
Event	11	Pump Spacer 1	10/8/2018	05:04:04	COM4	4.00	8.33	150.00	20.00	20 BBLS FRESH WATER SPACER
Event	12	Pump Lead Cement	10/8/2018	05:11:24	COM4	8.00	12.30	500.00	53.00	53 BBLS LEAD CEMENT, 125 SKS @ 12.3 PPG / 2.38 YLD / 13.77 GAL/SK
Event	13	Pump Tail Cement	10/8/2018	05:19:18	COM4	8.00	12.80	550.00	65.80	65.8 BBLS TAIL CEMENT, 175 SKS @ 12.8 PPG / 2.11 YLD / 11.78 GAL/SK
Event	14	Drop Top Plug	10/8/2018	05:29:25	USER					PLUG AWAY
Event	15	Pump Displacement	10/8/2018	05:30:18	COM4	10.00	8.33	720.00	84.00	84 BBLS FRESH WATER DISPLACEMENT
Event	16	Bump Plug	10/8/2018	05:46:32	COM4	2.00	8.33	280.00	84.00	PLUG BUMPED AT CALCULATED, FINAL CIRCULATING

						PRESSURE 280 PSI @ 2 BBL/MIN, BROUGHT TO 840 PSI
Event	17	Check Floats	10/8/2018	05:48:13	USER	FLOATS HELD, 1 BBL BACK TO PUMP
Event	18	End Job	10/8/2018	05:49:31	COM4	PIPE LEFT STATIC, GOOD RETURNS THROUGHOUT, 40# SUGAR AND TOP PLUG USED, NO ADD HOURS, 20 BBLS CEMENT TO SURFACE
Event	19	Pre-Rig Down Safety Meeting	10/8/2018	06:00:00	USER	JSA COMPLETED
Event	20	Rig-Down Equipment	10/8/2018	06:05:00	USER	
Event	21	Pre-Convoy Safety Meeting	10/8/2018	06:25:00	USER	JSA COMPLETED
Event	22	Crew Leave Location	10/8/2018	06:30:00	USER	THANK YOU FOR CHOOSING HALLIBURTON CEMENTING OF GRAND JUNCTION, CO - RYAN MARTIN AND CREW

# TEP - FEDERAL PA 332-24 - 9 5/8" SURFACE CASING



— Comb Pump Rate (bbl/min) 0    
 — DH Density (ppg) 8.35    
 — PS Pump Press (psi) 26    
 — Pump Stg Tot (bbl) 0

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	04:58:00	0.00	8.37	19.00	0.30
10 Test Lines	05:00:04	0.00	8.36	31.00	1.40
11 Pump Spacer 1	05:04:04	0.10	8.35	18.00	0.00
12 Pump Lead Cement	05:11:24	4.00	12.26	217.00	0.50
13 Pump Tail Cement	05:19:18	8.00	12.71	536.00	1.60
14 Drop Top Plug	05:29:25	0.00	13.30	99.00	69.70
15 Pump Displacement	05:30:18	0.00	20.55	30.00	0.00
16 Bump Plug	05:46:32	2.00	8.36	283.00	86.20
17 Check Floats	05:48:13	0.00	8.37	302.00	0.00
18 End Job	05:49:31	0.00	8.35	26.00	0.00

▼ **HALLIBURTON** | iCem® Service

Created: 2018-10-08 00:14:09, (UTC-06:00), Version: 4.5.139

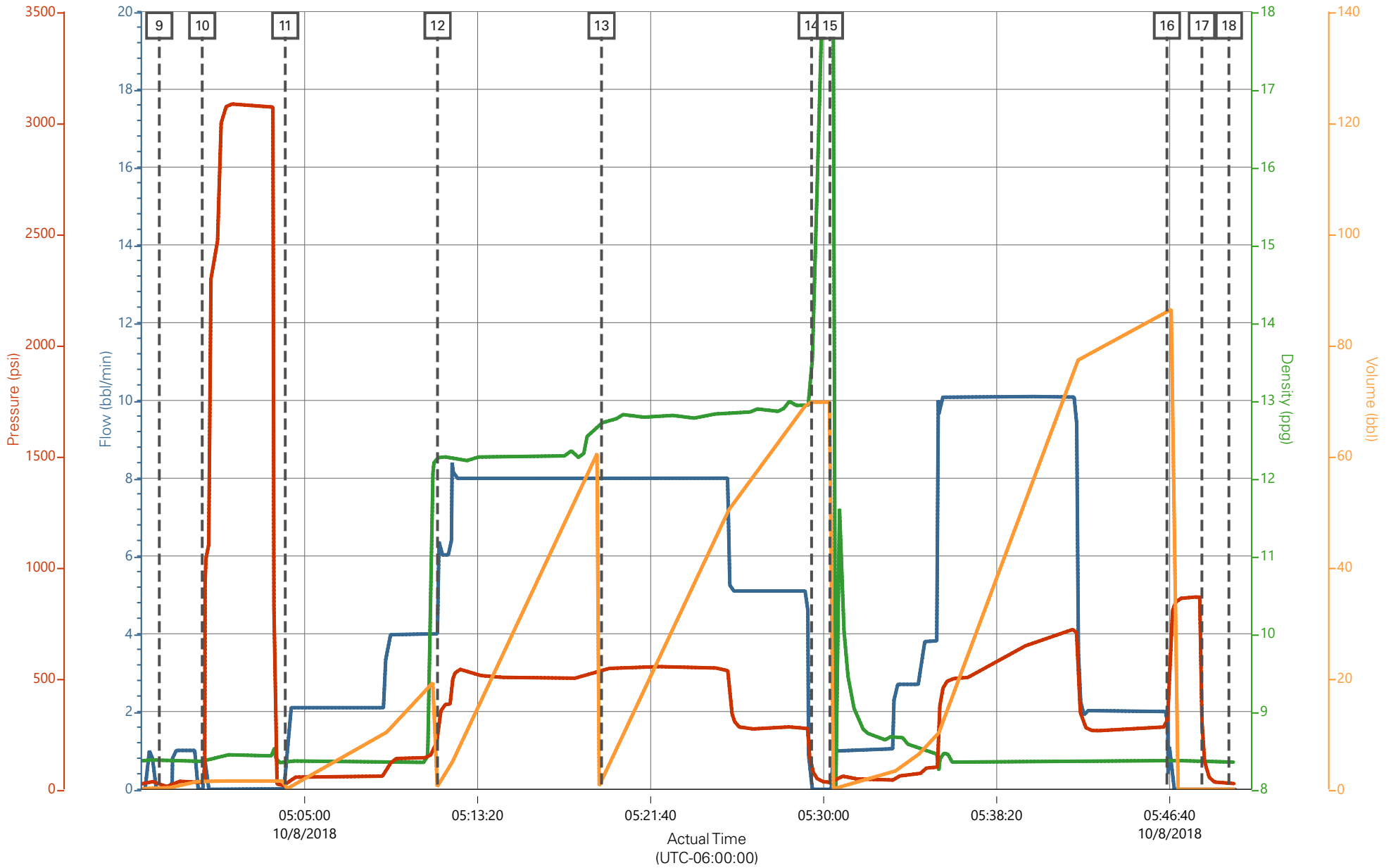
Edit

Customer : TERRA ENERGY PARTNERS  
 Representative : COY BURR

Job Date : 10/8/2018  
 Sales Order # : 905187561

Well : FEDERAL PA 332-24  
 ELITE #4 : ADAM ANGELO / RYAN MARTIN

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 — PS Pump Press (psi) 26    
 — Pump Stg Tot (bb) 0