

# HALLIBURTON

iCem<sup>®</sup> Service

## **TERRA ENERGY PARTNERS**

**For: Terra**

Date: Thursday, May 10, 2018

RU 414-17 Production

API# 05-045-23747

Sincerely,

Grand Junction Cement Engineering

## 1.0 Real-Time Job Summary

## 1.1 Job Event Log

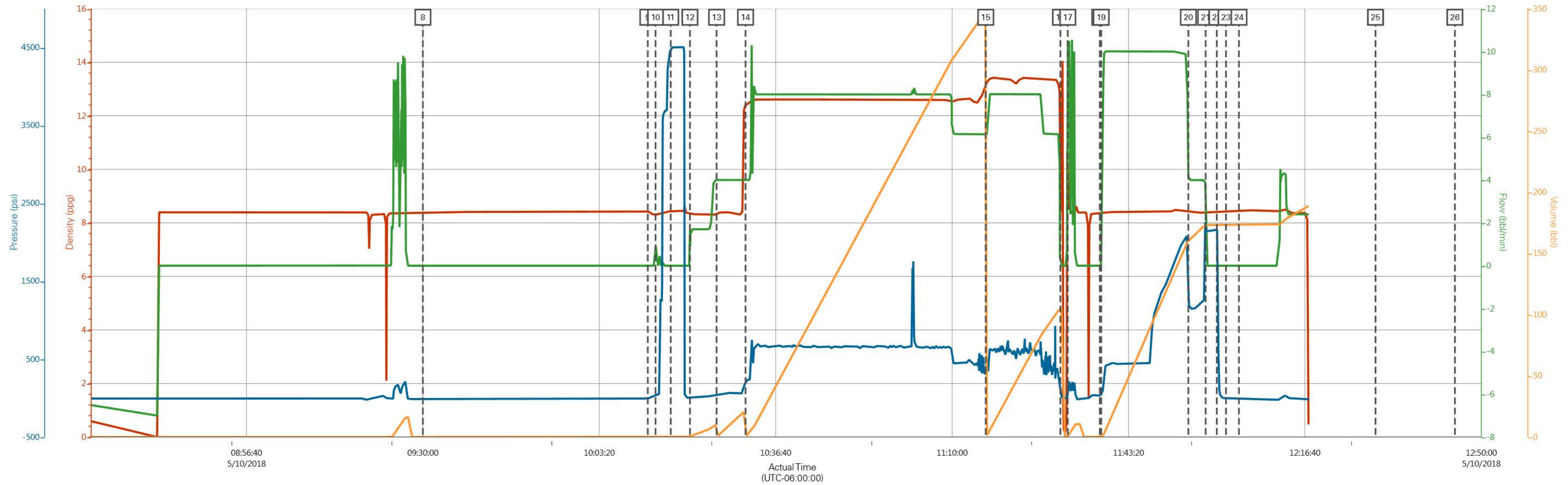
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	5/9/2018	22:30:00	USER					REQUESTED ON LOCATION @ 0430
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	5/9/2018	23:30:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	Crew Leave Yard	5/9/2018	23:45:00	USER					1 F550, 1 PUMP TRUCK & 1 660 BULK TURCK
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	5/10/2018	01:00:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	5/10/2018	03:30:00	USER					MET WITH COMP REP AND WENT OVER NUMBERS AND JOB PROCEDURE. WALKED AROUND LOCATION AND COLLECTED WATER SAMPLE (PH- 7, CHLORIDES- 0, TEMP- 71F). COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES.
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	5/10/2018	04:00:00	USER					ALL HES PRESENT
Event	7	Rig-Up Completed	Rig-Up Completed	5/10/2018	05:00:00	USER					HES RIGGED UP EQUIPMENT WITHOUT ENTERING RED ZONE.
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	5/10/2018	09:30:00	USER					ALL HES AND RIG CREW PRESENT
Event	9	Start Job	Start Job	5/10/2018	10:12:30	COM6					TD 10787', TP 10782.03', SJ 30.91', OH 8.75", CSG 4.5" 11.6#, MUD 9.1 PPG. RIG CIRCULATED WELL @ 10 BPM WITH 800 PSI.

Event	10	Prime Pumps	Prime Pumps	5/10/2018	10:13:58	USER	74.00	8.31	1.00	2.00	8.33 PPG FRESH WATER (2 BBL)
Event	11	Test Lines	Test Lines	5/10/2018	10:16:50	COM6	4497.00	8.33	0.50	0.50	ALL LINES HELD PRESSURE AT 4497 PSI
Event	12	Pump Spacer 1	Pump Spacer 1	5/10/2018	10:20:28	COM6	100.00	8.33	1.80	10.00	8.33 PPG FRESH WATER (10 BBL)
Event	13	Pump Spacer 2	Pump Spacer 2	5/10/2018	10:25:30	COM6	143.00	8.33	4.00	10.00	8.4 PPG MUDFLUSH III (20 BBL)
Event	14	Pump Lead Cement	Pump Lead Cement	5/10/2018	10:30:58	COM6	608.00	12.50	8.00	325.00	NEOCEM CEMENT 940 SKS (325 BBLS), 12.5 PPG, 1.94 FT3/SK, 9.6 GAL/SK
Event	15	Pump Tail Cement	Pump Tail Cement	5/10/2018	11:16:21	COM6	637.00	13.30	8.00	82.00	THERMACEM CEMENT 265 SKS (82 BBLS), 13.3 PPG, 1.73 FT3/SK, 7.81 GAL/SK
Event	16	Shutdown	Shutdown	5/10/2018	11:30:28	USER					END OF CMT
Event	17	Clean Lines	Clean Lines	5/10/2018	11:31:51	USER					WASH UP PUMPS AND LINES
Event	18	Pump Displacement	Pump Displacement	5/10/2018	11:37:54	COM6	2094.00	8.33	10.00	156.70	8.34 PPG FRESH WATER (166.7 BBLS) 3 BAGS BE6, 1 GAL MMCR & 16 SKS KCL
Event	19	Drop Top Plug	Drop Top Plug	5/10/2018	11:38:11	USER					PLUG WENT, VERIFIED BY CO REP
Event	20	Slow Rate	Slow Rate	5/10/2018	11:54:39	USER	1346.00	8.44	2.00	166.70	SLOW RATE TO 2 BPM 4 BPM PER CO REP TO LAND PLUG
Event	21	Bump Plug	Bump Plug	5/10/2018	11:57:55	USER	2170.00	8.38	2.00	166.70	LAND PLUG AT 13500 PSI, BROUGHT UP TO 2164 PSI FOR A 10 MIN CSG TEST.
Event	22	Check Floats	Check Floats	5/10/2018	12:00:01	USER	2164.00	8.40	0.00	166.70	FLOATS HELD, 1 BBL BACK TO TRUCK
Event	23	End Job	End Job	5/10/2018	12:01:45	USER					RETURNS TO START JOB, PARTIAL RETURNS ON CEMENT AND

DISPLACEMENT, LAND  
PRESSURE WAS 500 PSI LESS  
THAN CALCULATED, PIPE  
WAS RECIPROCATED.

Event	24	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	5/10/2018	12:04:12	USER	ALL HES PRESENT
Event	25	Rig-Down Completed	Rig-Down Completed	5/10/2018	12:30:00	USER	ALL HES PRESENT
Event	26	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	5/10/2018	12:45:00	USER	ALL HES PRESENT
Event	27	Crew Leave Location	Crew Leave Location	5/10/2018	13:00:00	USER	THANK YOU FOR CHOOSING HALLIBURTON CEMENT, CHRIS SMITH AND CREW

# RU 414-17 Production



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