# HALLIBURTON

# iCem® Service

#### **TERRA ENERGY PARTNERS**

For: Terra

Date: Tuesday, August 21, 2018

PA 522-26 Surface PJR

API# 05-045-23727-00

Sincerely,

**Grand Junction Cement Engineering** 

### **HALLIBURTON**

**Customer: TERRA ENERGY PARTNERS** 

Job: TEP PA 522-26

Case: Cement Surface Casing | SO#: 905079210

### 2.0 Real-Time Job Summary

Job Eve	nt Log									
Туре	Seq. No.	Graph Label	Date	Time	Source	DH Density	Comb Pump Rate	PS Pump Press	Pump Stg Tot	Comments
						(ppg)	(bbl/min)	(psi)	(bbl)	
Event	1	Call Out	8/20/2018	18:00:00	USER					
Event	2	Pre-Convoy Safety Meeting	8/20/2018	20:40:00	USER					
Event	3	Crew Leave Yard	8/20/2018	20:45:00	USER					
Event	4	Arrive At Loc	8/20/2018	22:00:00	USER					CREW WAS REQUESTED TO BE ON LOC @ 22: CREW ARRIVED AT 2200, RIG WAS PULLING DRILL PIPE
Event	5	Assessment Of Location Safety Meeting	8/20/2018	22:05:00	USER					
Event	6	Spot Equipment	8/20/2018	22:10:00	USER					
Event	7	Pre-Rig Up Safety Meeting	8/20/2018	22:15:00	USER					
Event	8	Rig-Up Equipment	8/20/2018	22:20:00	USER					
Event	9	Pre-Job Safety Meeting	8/20/2018	22:54:50	USER					PRESSURIZED MUD SCALES WERE VERIFIED C DRINKING WATER PRIOR TO JOB
Event	10	Start Job	8/21/2018	01:32:06	COM5					TD: 1153 TP: 1145.5 SJ: 45.65 MW: 9.5 PPG 9 5/8" 36#/FT CSG IN 13 1/2" OH WATER TES PH: 6.5 POTASSIUM: 700 CHLORIDES: 0 SULFATES: <200 TEMP: 70 DEG
Event	11	Test Lines	8/21/2018	01:35:38	COM5			3000.0		3000 PSI TEST SUCCESSFUL
Event	12	Pump Spacer 1	8/21/2018	01:39:39	COM5	8.33	4.00	128.00	20.0	FRESH H2O SPACER

## **HALLIBURTON**

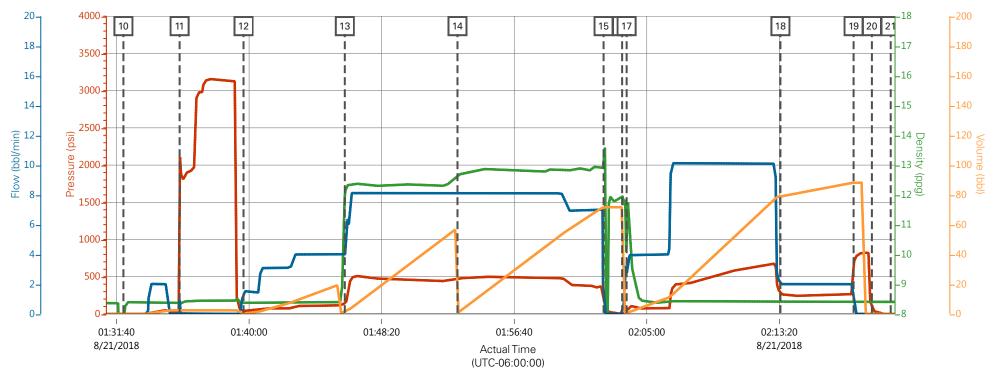
Customer: TERRA ENERGY PARTNERS

Job: TEP PA 522-26

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Event	13	Pump Lead Cement	8/21/2018	01:46:01	COM5	12.30	8.00	318.00	53.0	125 SKS @ 12.3 PPG 2.38 YLD 13.77 GAL/SK H2O
Event	14	Pump Tail Cement	8/21/2018	01:53:06	COM5	12.80	8.00	467.00	65.8	175 SKS @ 12.8 PPG 2.11 YLD 11.78 GAL/SK H2O
Event	15	Shutdown	8/21/2018	02:02:17	USER					
Event	16	Drop Top Plug	8/21/2018	02:03:27	COM5					PLUG AWAY
Event	17	Pump Displacement	8/21/2018	02:03:44	COM5	8.33	10.00	670.00	85.0	FRESH H2O DISPLACEMENT
Event	18	Slow Rate	8/21/2018	02:13:24	USER	8.33	2.00	280.00	75.0	
Event	19	Bump Plug	8/21/2018	02:18:00	COM5	8.33	2.00	810.00	85.0	PLUG BUMPED AT CALCULATED DISPLACEMENT
Event	20	Check Floats	8/21/2018	02:19:09	USER					FLAOTS HELD, GAINED 0.5 BBL BACK TO PUMP
Event	21	End Job	8/21/2018	02:20:20	COM5					
Event	22	Post-Job Safety Meeting (Pre Rig- Down)	8/21/2018	02:25:00	USER					GOOD CIRCULATION THROUGHOUT JOB. PIPE WAS LEFT STATIC. TOP PLUG USED. 40# SUGAR USED. CIRCULATED 25 BBL CMT TO SURFACE. NO ADD HOURS CHARGED.
Event	23	Rig-Down Equipment	8/21/2018	02:30:00	USER					
Event	24	Pre-Convoy Safety Meeting	8/21/2018	03:25:00	USER					
Event	25	Crew Leave Location	8/21/2018	03:30:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENTING OF GRAND JCT, CO ANTHONY ANDREWS AND CREW

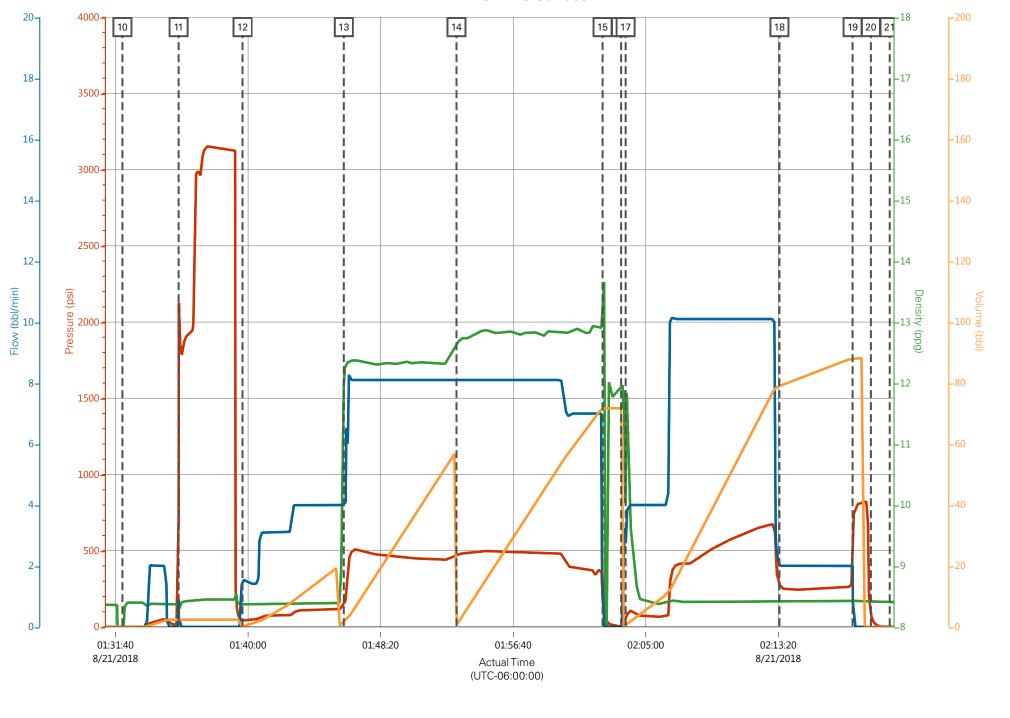
#### TEP PA 522-26 Surface



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

Desc	ription	Actual Time (UTC-06:00:00)	PS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	
10	Start Job	01:32:06	0.00	7.27	0.00	0.00	
	Test Lines	01:35:38	711.00	8.37	0.90	2.40	
	Pump Spacer 1	01:39:39	40.00	8.37	1.50	0.10	
	Pump Lead Cement	01:46:01	145.00	11.97	4.00	1.50	
	Pump Tail Cement	01:53:06	467.00	12.63	8.10	0.60	
	Shutdown	02:02:17	181.00	12.93	0.00	71.70	
16	Drop Top Plug	02:03:27	4.00	11.94	0.00	71.70	
	Pump Displacement	02:03:44	48.00	10.45	2.70	0.50	
	Slow Rate	02:13:24	280.00	8.41	2.00	79.10	
19 20	Bump Plug	02:18:00	677.00	8.41	2.00	88.20	
	Check Floats	02:19:09	84.00	8.40	0.00	0.00	
21	End Job	02:20:20	1.00	8.41	0.00	0.00	

#### TEP PA 522-26 Surface



Comb Pump Rate (bbl/min) Pump Stg Tot (bbl)

PS Pump Press (psi) DH Density (ppg)

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