

# HALLIBURTON

iCem<sup>®</sup> Service

## **TERRA ENERGY PARTNERS**

**For: Terra**

Date: Tuesday, January 23, 2018

**SR 524-12 Surface PJR**

API #: 05-045-23446

Sincerely,

**Grand Junction Cement Engineering**

## 2.0 Real-Time Job Summary

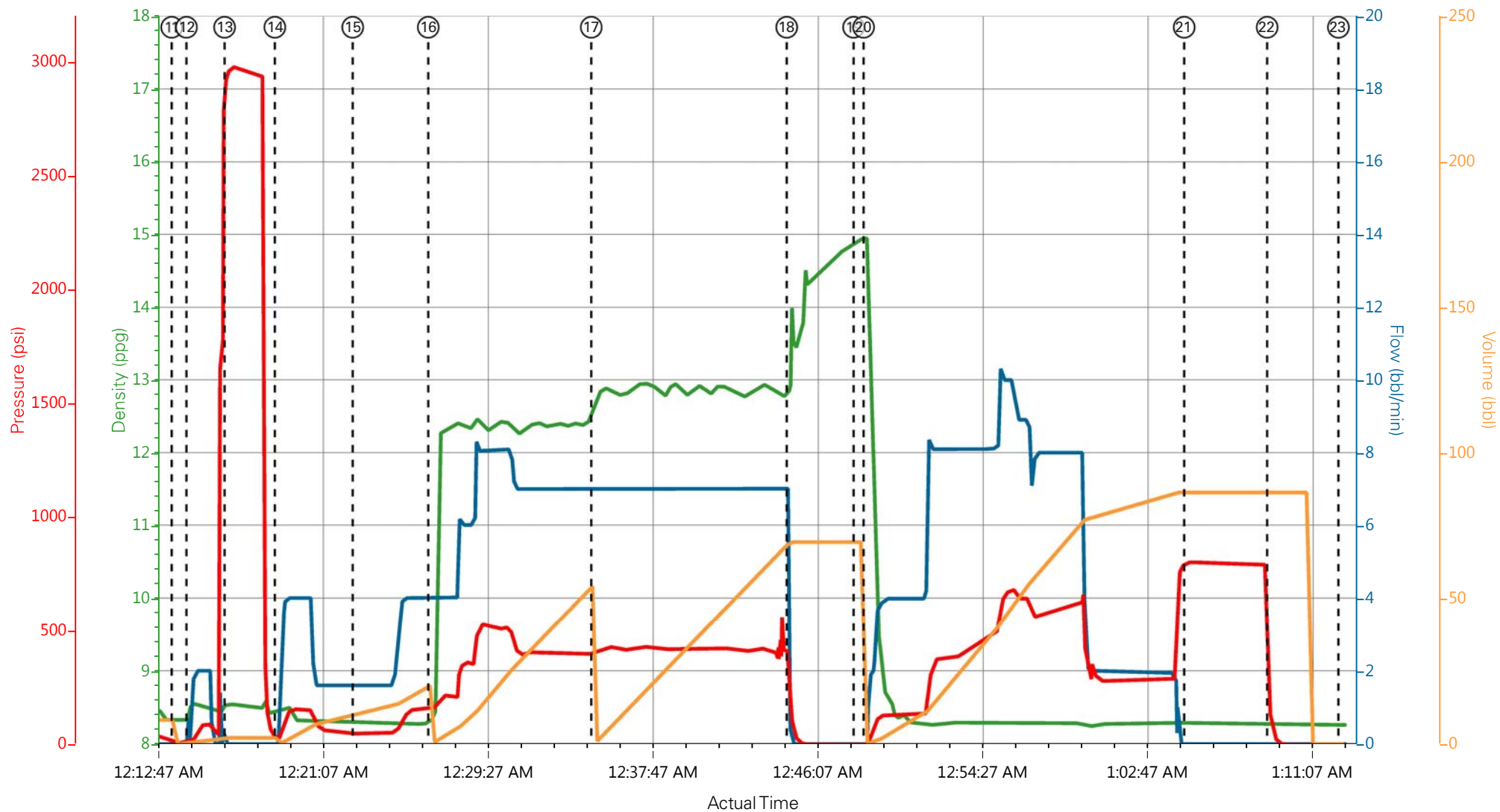
## 2.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Driv-Side Pump Pressure (psi)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	1/22/2018	12:00:00	USER					ON LOCATION 18:00
Event	2	Pre-Convoy Safety Meeting	1/22/2018	15:45:00	USER					JOURNEY CREATED - ALL HES INVOLVED IN SAFETY MEETING
Event	3	Crew Leave Yard	1/22/2018	16:00:00	USER					CREW ROLLED AFTER FINISHING 10-HOUR RESET IN THE FIELD
Event	4	Arrive At Loc	1/22/2018	16:30:00	USER					ARRIVED 16:30
Event	5	Assessment Of Location Safety Meeting	1/22/2018	16:45:00	USER					RIG WAS DRILLING - HES REP SPOKE WITH COMPANY REP AND WOC SIGNED
Event	6	Pre-Rig Up Safety Meeting	1/22/2018	18:30:00	USER					JSA FILLED OUT - ALL HES INVOLVED IN SAFETY MEETING
Event	7	Well Info/Water Test	1/22/2018	19:35:00	USER					TD: 1149FT TP: 1142FT SJ: 33FT OH: 13 1/2" CSG: 9 5/8" 32.3# J-55 MUD WT: 9.2 / WATER TEST: TEMP- 45 CHLOR- 0 PH- 7
Event	8	Rig-Up Equipment	1/22/2018	20:00:00	USER					RIG-UP IRON TO THE STAND PIPE - WATER HOSES TO BOTH RIG UPRIGHTS - BULK TRUCK TO PUMP TRUCK
Event	9	Rig-Up Completed	1/22/2018	20:45:00	USER					COMPLETED SAFELY
Event	10	Pre-Job Safety Meeting	1/22/2018	23:30:00	USER					ALL HES, RIG CREW AND COMPANY REP INVOLVED TO DISCUSS JOB PROCEDURES

Event	11	Start Job	1/23/2018	00:13:39	COM5					START JOB
Event	12	Fill Lines	1/23/2018	00:14:24	USER	8.34	2	88	2	FILL LINES WITH 2 BBLS WATER AHEAD TO PRESSURE TEST LINES
Event	13	Test Lines	1/23/2018	00:16:19	COM5			3000		PRESSURE TEST LINES TO 3000 PSI - PRESSURE TEST GOOD
Event	14	Fresh Water Spacer	1/23/2018	00:18:51	COM5	8.34	4	156	20	20 BBLS FRESH WATER AHEAD
Event	15	Check weight	1/23/2018	00:22:47	COM5					
Event	16	Pump Lead Cement	1/23/2018	00:26:36	COM5	12.3	7	450	52.9	125 SKS OF VARICEM CEMENT (52.9BBLS) 12.3PPG 2.38YIELD 13.77GAL/SK WEIGHT OF CEMENT VERIFIED VIA PRESSURIZED MUD SCALES THROUGHOUT LEAD CEMENT
Event	17	Pump Tail Cement	1/23/2018	00:34:50	COM5	12.8	7	475	65.7	175 SKS OF VARICEM CEMENT (65.7BBLS) 12.8PPG 2.11YIELD 11.78GAL/SK WEIGHT OF CEMENT VERIFIED VIA MUD SCALES THROUGHOUT TAIL CEMENT
Event	18	Shutdown	1/23/2018	00:44:43	USER					SHUTDOWN END OF CEMENT - HES WASHED UP ON TOP OF THE PLUG - READY TANKS FOR DISPLACEMENT
Event	19	Drop Top Plug	1/23/2018	00:48:05	USER					TOP PLUG AWAY NO PROBLEMS
Event	20	Pump Displacement	1/23/2018	00:48:36	COM5	8.34	8	650	77.7	FRESH WATER DISPLACEMENT
Event	21	Bump Plug	1/23/2018	01:04:47	COM5	8.34	2	315	87.7	PLUG BUMPED AT

						CALCULATED DISPLACEMENT - PLUG BUMPED AT 315 PSI TOOK TO 835 PSI
Event	22	Check Floats	1/23/2018	01:08:59	COM5	835  FLOATS HELD .5 BBL BACK TO TANKS - 27 BBLs OF CEMENT TO SURFACE - RIG USED 40 POUNDS OF SUGAR
Event	23	End Job	1/23/2018	01:12:35	COM5	THANK YOU FOR CHOOSING HALLIBURTON CEMENT CARL KUKUS AND CREW
Event	24	Pre-Rig Down Safety Meeting	1/23/2018	01:15:00	USER	JSA REVIEWED - ALL HES INVOLVED IN SAFETY MEETING
Event	25	Rig-Down Equipment	1/23/2018	01:20:00	USER	WASH UP AND BLOW DOWN PUMP TRUCK - RIG DOWN ALL LINES AND EQUIPMENT
Event	26	Rig-Down Completed	1/23/2018	02:10:00	USER	COMPLETED
Event	27	Pre-Convoy Safety Meeting	1/23/2018	02:15:00	USER	JOURNEY CREATED - ALL HES INVOLVED IN SAFETY MEETING
Event	28	Crew Leave Location	1/23/2018	02:25:00	USER	1-F-550 PICKUP, 1-ELITE PUMP TRUCK, 1-660 BULK TRUCK

# TEP - WARE SR 524-12 - 904586947 - 9 5/8" SURFACE



DH Density (ppg) 8.26    Comb Pump Rate (bbl/min) 0    DS Pump Press (psi) -7    Pump Stg Tot (bbl) 0

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|---|--------------------------|---------------------|
| ① Call Out                              | ⑨ Rig-Up Completed       | ⑰ Pump Tail Cement  |
| ② Pre-Convoy Safety Meeting             | ⑩ Pre-Job Safety Meeting | ⑱ Shutdown          |
| ③ Crew Leave Yard                       | ⑪ Start Job              | ⑲ Drop Top Plug     |
| ④ Arrive At Loc                         | ⑫ Fill Lines             | ⑳ Pump Displacement |
| ⑤ Assessment Of Location Safety Meeting | ⑬ Test Lines             | ㉑ Bump Plug         |
| ⑥ Pre-Rig Up Safety Meeting             | ⑭ Fresh Water Spacer     | ㉒ Check Floats      |
| ⑦ Well Info/Water Test                  | ⑮ Check weight           | ㉓ End Job           |
| ⑧ Rig-Up Equipment                      | ⑯ Pump Lead Cement       |                     |

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