

# HALLIBURTON

iCem<sup>®</sup> Service

## **TEP ROCKY MOUNTAIN LLC**

**For: Abe Alexander & Lynn Cass**

Date: Friday, November 18, 2016

**SR 344-12 Surface**

**API# 05-045-23256-00**

Sincerely,

**Grand Junction Cement Engineering**

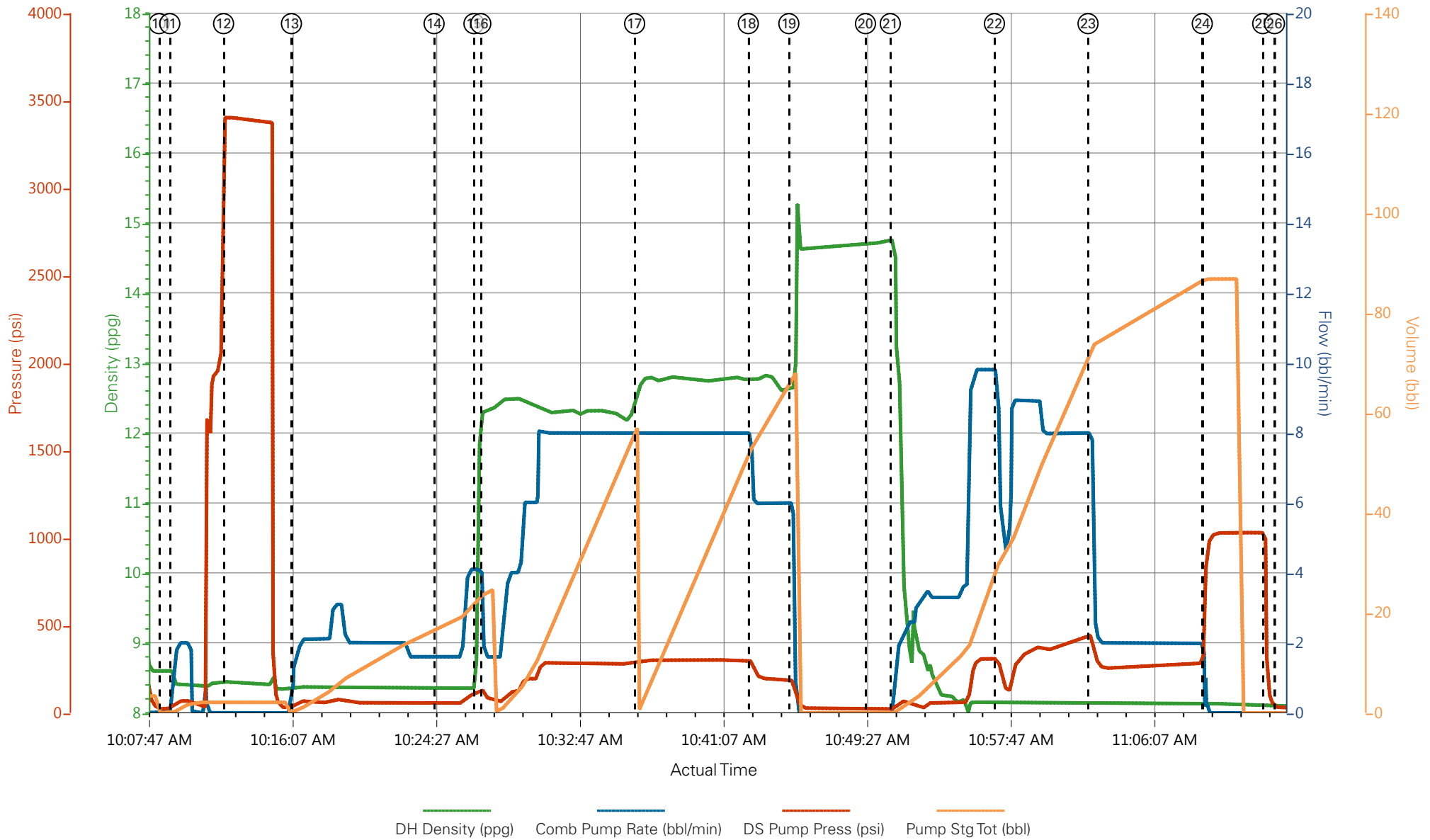
## 1.0 Real-Time Job Summary

### 1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	DS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	11/18/2016	01:00:00	USER					REQUESTED ON LOCATION @ 07:00
Event	2	Pre-Convoy Safety Meeting	11/18/2016	03:45:00	USER					ALL HES ARRIVED
Event	3	Crew Leave Yard	11/18/2016	04:00:00	USER					1 HT 400 PUMP TRUCK E6, 1 660 BULK TRUCK, 1 550 SERVICE PICKUP
Event	4	Arrive At Loc	11/18/2016	06:00:00	USER					RIG RUNNING CSG UPON HES ARRIVED
Event	5	Assessment Of Location Safety Meeting	11/18/2016	06:30:00	USER					MET WITH COMP REP, AND WENT OVER NUMBERS AND JOB PROCEDURE. WALKED AROUND LOCATION AND COLLECTED WATER SAMPLE (PH- 7.0, CHLORIDES-0, TEMP- 40F). COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES.
Event	6	Spot Equipment	11/18/2016	06:45:00	USER					1 HT 400 PUMP TRUCK E6, 1 660 BULK TRUCK, 1 550 SERVICE PICKUP
Event	7	Pre-Rig Up Safety Meeting	11/18/2016	07:15:00	USER					ALL HES PRESENT
Event	8	Rig-Up Equipment	11/18/2016	07:30:00	USER					HES RIGGED UP EQUIPMENT WITHOUT ENTERING RED ZONE
Event	9	Pre-Job Safety Meeting	11/18/2016	09:30:00	USER					ALL HES EMPLOYEES AND RIG CREW PRESENT, RIG CIRCULATED @ 17 BPM PRIOR TO JOB PRESSURE @ 75 PSI, GAS @ 25
Event	10	Start Job	11/18/2016	10:08:33	USER					TD 1146', TP 1136', SJ 46.36', CSG 9 5/8" 32.3# H-40, PIPE LENGTH 1141', OH 13.5", MUD 9.5 PPG

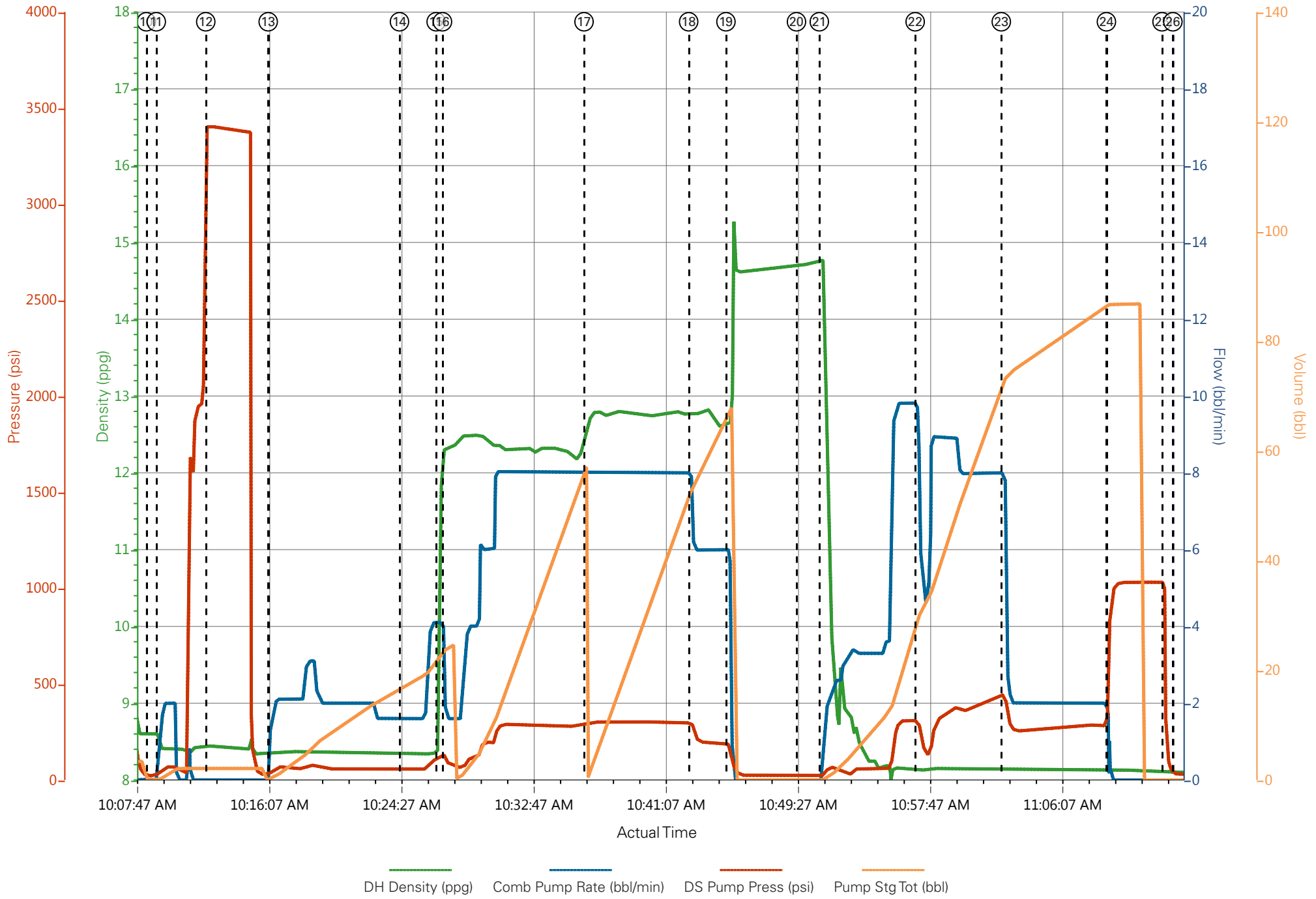
Event	11	Prime Lines	11/18/2016	10:09:10	USER	8.33	2.0	70	2	FRESH WATER
Event	12	Test Lines	11/18/2016	10:12:17	COM5			3400		PRESSURE HELD
Event	13	Pump H2O Spacer	11/18/2016	10:16:14	COM5	8.33	2.0	52	20	FRESH WATER
Event	14	Check weight	11/18/2016	10:24:30	COM5					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	15	Pump Lead Cement	11/18/2016	10:26:49	COM5	12.3	8.0	280	55.1	130 SKS VARICEM CMT 12.3 PPG, 2.38 FT3/SK, 13.77 GAL/SK.
Event	16	Slow Rate	11/18/2016	10:27:13	USER					SLOWED DUE TO BULK DELIVERY
Event	17	Pump Tail Cement	11/18/2016	10:36:08	COM5	12.8	8.0	300	65.8	175 SKS VARICEM CMT 12.8 PPG, 2.11 FT3/SK, 11.78 GAL/SK
Event	18	Slow Rate	11/18/2016	10:42:44	USER					SLOWED TO END CMT
Event	19	Shutdown	11/18/2016	10:45:05	USER					END OF CMT
Event	20	Drop Top Plug	11/18/2016	10:49:32	USER					VERIFIED BY FLAG INDICATOR
Event	21	Pump Displacement	11/18/2016	10:50:58	COM5	8.33	8.0	450	70	FRESH WATER
Event	22	Slow Rate	11/18/2016	10:57:01	USER					PULLING WATER OUT OF DAY TANK AND WASN'T GETTING IT FAST ENOUGH HAD TO SLOW RATE
Event	23	Slow Rate	11/18/2016	11:02:27	USER	8.33	2.0	280	16	SLOWED TO BUMP PLUG
Event	24	Bump Plug	11/18/2016	11:09:04	USER	8.33	2.0	270	86	PLUG BUMPED
Event	25	Check Floats	11/18/2016	11:12:35	USER			1030		FLOATS HELD 3/4 BBL FLOW BACK
Event	26	End Job	11/18/2016	11:13:16	USER					12 BBL OF CMT TO SURFACE, USED 20 LBS SUGAR
Event	27	Post-Job Safety Meeting (Pre Rig-Down)	11/18/2016	11:30:00	USER					ALL HES PRESENT
Event	28	Rig-Down Completed	11/18/2016	13:30:00	USER					RIG DOWN COMPLETE. PUMP BLOWN DOWN
Event	29	Pre-Convoy Safety Meeting	11/18/2016	13:45:00	USER					ALL HES PRESENT
Event	30	Crew Leave Location	11/18/2016	14:00:00	USER					THANK YOU FOR USING HALLIBURTON CMT, DUSTIN HYDE AND CREW.

# TERRA, SR 344-12, 9 5/8" SURFACE



- |   |                             |                    |                    |                      |   |
|---|-----------------------------|--------------------|--------------------|----------------------|---|
| ① Call Out                              | ⑥ Spot Equipment            | ⑪ Prime Lines      | ⑯ Slow Rate        | 21 Pump Displacement | 26 End Job                                |
| ② Pre-Convoy Safety Meeting             | ⑦ Pre-Rig Up Safety Meeting | ⑫ Test Lines       | ⑰ Pump Tail Cement | 22 Slow Rate         | 27 Post-Job Safety Meeting (Pre Rig-Down) |
| ③ Crew Leave Yard                       | ⑧ Rig-Up Equipment          | ⑬ Pump H2O Spacer  | ⑱ Slow Rate        | 23 Slow Rate         | 28 Rig-Down Completed                     |
| ④ Arrive At Loc                         | ⑨ Pre-Job Safety Meeting    | ⑭ Check weight     | ⑲ Shutdown         | 24 Bump Plug         | 29 Pre-Convoy Safety Meeting              |
| ⑤ Assessment Of Location Safety Meeting | ⑩ Start Job                 | ⑮ Pump Lead Cement | 20 Drop Top Plug   | 25 Check Floats      | 30 Crew Leave Location                    |

TERRA, SR 344-12, 9 5/8" SURFACE



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