

HALLIBURTON

iCem[®] Service

Laramie Energy LLC

United States of America, COLORADO

For: Aaron Duncan

Date: Tuesday, May 07, 2019

CC 697-04-10E Surface PJR

API# 05-045-23988-00

Sincerely,

Grand Junction Cement Engineering

2.0 Real-Time Job Summary

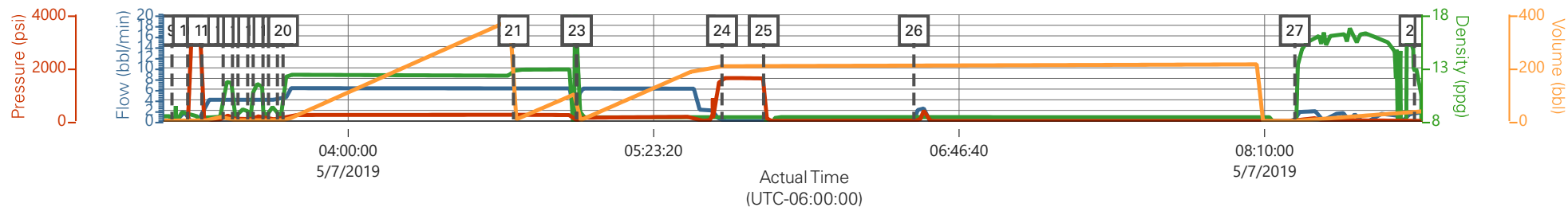
2.1 Job Event Log

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	5/6/2019	06:00:00	USER					REQUESTED ON LOCATION 5/7/19 @ 00:00
Event	2	Depart Yard Safety Meeting	5/6/2019	07:55:00	USER					JSA COMPLETED
Event	3	Crew Leave Shop	5/6/2019	08:00:00	USER					
Event	4	Arrive At Loc	5/7/2019	01:30:00	USER					TRACTOR ON PUMP WENT DOWN, CALLED FOR RELIEF TRACTOR, COMPANY REP INFORMED THAT WE WOULD BE LATE. ALL EQUIPMENT ON LOCATION @ 01:30 MAKING US 1:30 LATE, RIG ON BOTTOM CIRCULATING
Event	5	Assessment Of Location Safety Meeting	5/7/2019	01:35:00	USER					JSA COMPLETED
Event	6	Pre-Rig Up Safety Meeting	5/7/2019	01:40:00	USER					JSA COMPLETED
Event	7	Rig-Up Equipment	5/7/2019	01:47:45	USER					
Event	8	Pre-Job Safety Meeting	5/7/2019	02:30:00	USER					JSA COMPLETED, PRESSURIZED MUD SCALES CALIBRATED TO FRESH WATER
Event	9	Start Job	5/7/2019	03:11:58	COM4					9 5/8"-36# CASING IN 14 3/4" OH, TD 2607', TP 2597', ST 37.7', MUD 8.9 PPG, WATER TEMP 55, PH 7, CHLORIDES 0
Event	10	Test Lines	5/7/2019	03:16:15	COM4			3000.00		TEST LINES TO 3000 PSI
Event	11	Pump H2O	5/7/2019	03:20:06	COM4	4.00	8.33	70.00	0.00	10 BBLS FRESH WATER

Event	12	Pump SUPERFLUSH	5/7/2019	03:25:56	COM4	4.00	11.00	240.00	10.00	10 BBLS SUPERFLUSH
Event	13	Pump H2O	5/7/2019	03:28:28	COM4	4.00	8.33	70.00	5.00	5 BBLS FRESH WATER
Event	14	Pump CaCl WATER	5/7/2019	03:29:58	COM4	4.00	9.00	120.00	10.00	10 BBLS CaCl WATER
Event	15	Pump H2O	5/7/2019	03:32:36	COM4	4.00	8.33	70.00	5.00	5 BBLS FRESH WATER
Event	16	Pump SUPERFLUSH	5/7/2019	03:34:07	COM4	4.00	11.00	240.00	10.00	10 BBLS SUPERFLUSH
Event	17	Pump H2O	5/7/2019	03:36:47	COM4	4.00	8.33	70.00	5.00	5 BBLS FRESH WATER
Event	18	Pump CaCl WATER	5/7/2019	03:38:18	COM4	4.00	9.00	120.00	10.00	10 BBLS CaCl WATER
Event	19	Pump H2O	5/7/2019	03:40:43	COM4	4.00	8.33	70.00	10.00	10 BBLS FRESH WATER
Event	20	Pump Lead Cement	5/7/2019	03:42:15	COM4	6.00	12.30	250.00	370.60	370.6 BBLS LEAD CEMENT, 878 SKS @ 12.3 PPG / 2.37 YLD / 13.74 GAL/SK
Event	21	Pump Tail Cement	5/7/2019	04:44:52	COM4	6.00	12.80	230.00	94.70	94.7 BBLS TAIL CEMENT, 252 SKS @ 12.8 PPG / 2.11 YLD / 11.75 GAL/SK
Event	22	Drop Top Plug	5/7/2019	05:02:15	COM4					PLUG AWAY
Event	23	Pump Displacement	5/7/2019	05:02:24	COM4	6.00	8.33	150.00	197.80	197.8 BBLS FRESH WATER DISPLACEMENT
Event	24	Bump Plug	5/7/2019	05:41:59	COM4	2.00	8.33	35.00	197.80	PLUG BUMPED AT CALCULATED, FINAL LIFT PRESSURE 35 PSI, BROUGHT TO 1600 PSI FOR 10 MINUTE CASING TEST
Event	25	Check Floats	5/7/2019	05:53:21	USER					FINAL PRESSURE ON CASING TEST 1614 PSI, FLOATS HELD, 2 BBLS BACK TO PUMP
Event	26	Pump Water	5/7/2019	06:34:12	USER	2.00	8.33	440.00	8.00	PUMP 8 BBLS SUGAR WATER TO CLEAR PARASITE
Event	27	PUMP TOP OUT	5/7/2019	08:18:06	COM4	2.00	15.60	115.00	29.50	PUMP 29.5 BBLS TOPOUT CEMENT, 139 SKS @ 15.6 PPG / 1.19 YLD / 5.24 GAL/SK, 2 SKS CaCl AND 5 BBLS SUPERFLUSH USED
Event	28	End Job	5/7/2019	08:50:53	COM4					PIPE LEFT STATIC, NO RETURNS THROUGHOUT ENTIRE JOB. TOP PLUG, 70# SUGAR, 22 SKS CaCl AND 25 BBLS SUPERFLUSH USED, NO ADD HOURS CHARGED

Event	29	Pre-Rig Down Safety Meeting	5/7/2019	08:55:00	USER	JSA COMPLETED
Event	30	Rig-Down Equipment	5/7/2019	09:00:00	USER	
Event	31	Pre-Convoy Safety Meeting	5/7/2019	10:25:00	USER	JSA COMPLETED
Event	32	Crew Leave Location	5/7/2019	10:30:00	USER	THANK YOU FOR CHOOSING HALLIBURTON CEMENTING OF GRAND JUNCTION, CO - RYAN MARTIN AND CREW

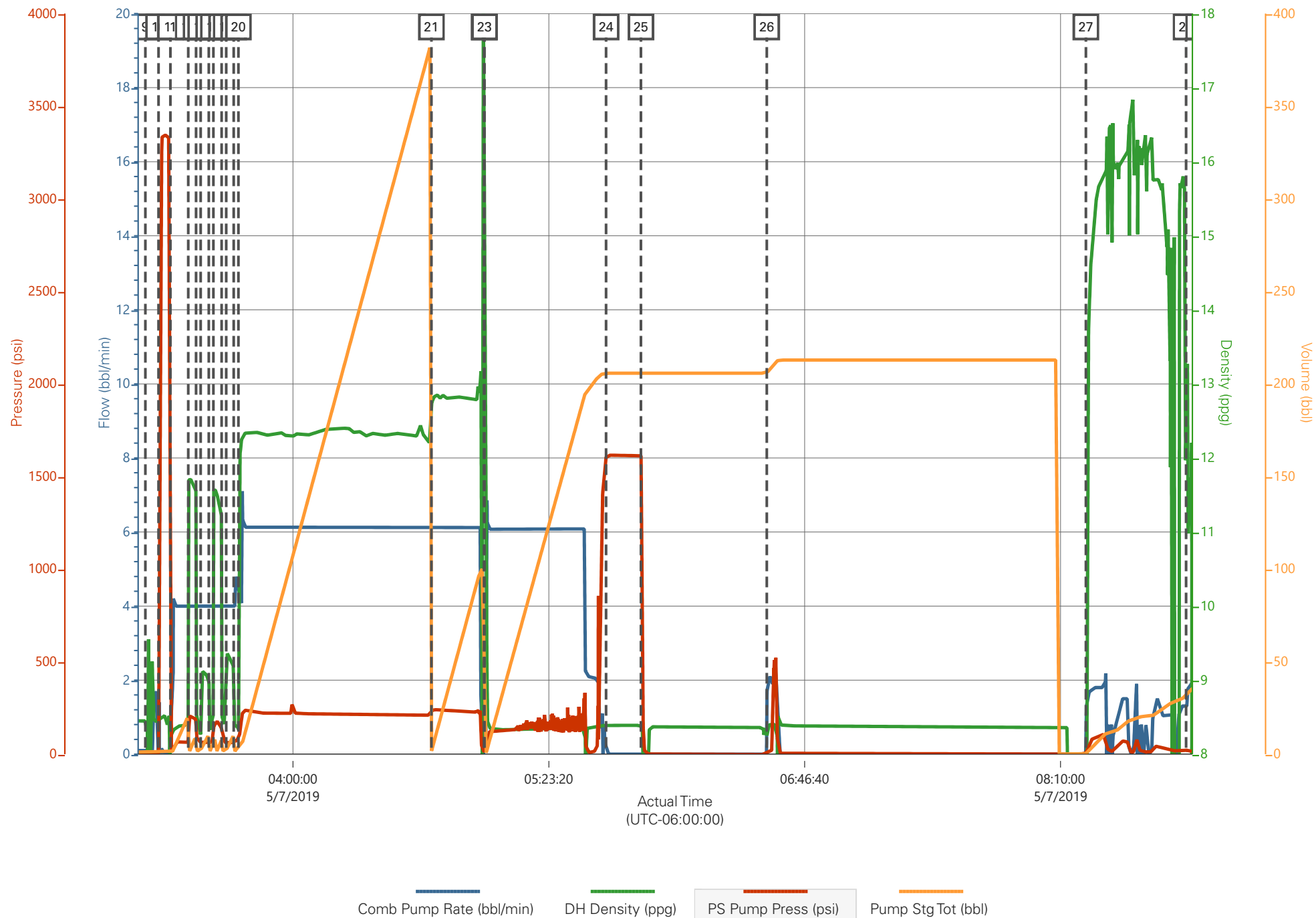
LARAMIE - CC 697-04-10E - 9 5/8" SURFACE CASING TOP OUT



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

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	03:11:58	0.10	8.45	1.00	1.50	
10 Test Lines	03:16:15	0.10	8.47	4.00	2.10	
11 Pump H2O	03:20:06	0.00	8.35	2.00	0.00	
12 Pump SUPERFLUSH	03:25:56	4.00	9.78	71.00	20.90	
13 Pump H2O	03:28:28	4.00	10.83	144.00	0.00	
14 Pump CaCl WATER	03:29:58	4.00	8.31	59.00	0.40	
15 Pump H2O	03:32:36	4.00	9.09	54.00	10.80	
16 Pump SUPERFLUSH	03:34:07	4.00	11.03	90.00	6.00	
17 Pump H2O	03:36:47	4.00	10.58	129.00	7.80	
18 Pump CaCl WATER	03:38:18	4.00	9.10	60.00	1.00	
19 Pump H2O	03:40:43	4.00	8.81	61.00	0.00	
20 Pump Lead Cement	03:42:15	4.40	8.30	78.00	0.10	
21 Pump Tail Cement	04:45:06	6.20	12.69	235.00	1.40	
22 Drop Top Plug	05:02:15	0.00	16.97	1.00	100.30	
23 Pump Displacement	05:02:24	0.00	16.59	0.00	100.30	
24 Bump Plug	05:41:59	0.00	8.39	1608.00	205.80	
25 Check Floats	05:53:21	0.00	8.39	1614.00	205.80	
26 Pump Water	06:34:19	0.40	8.27	7.00	205.80	
27 PUMP TOP OUT	08:18:14	0.00	-0.07	1.00	0.00	
28 End Job	08:50:53	1.30	12.76	18.01	31.60	

LARAMIE - CC 697-04-10E - 9 5/8" SURFACE CASING TOP OUT



HALLIBURTON

iCem[®] Service

LARAMIE ENERGY II LLC

For: Laramie

Date: Saturday, May 11, 2019

CC 0697-04-10E Production

API# 05-045-23988-00

Job Date: Saturday, May 11, 2019

Sincerely,

Grand Junction Cement Engineering

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	5/10/2019	13:00:00	USER					REQUESTED ON LOCATION @ 20:00
Event	2	Pre-Convoy Safety Meeting	5/10/2019	15:00:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	5/10/2019	15:11:00	USER					1 HT 400 PUMP TRUCK, 1 660 BULK TRUCK, 1 550 SERVICE PICKUP
Event	4	Arrive At Loc	5/10/2019	18:30:00	USER					RIG RUNNING CASING WHEN HES ARRIVED AT LOCATION
Event	5	Assessment Of Location Safety Meeting	5/10/2019	18:40:00	USER					MET WITH COMP REP, AND WENT OVER NUMBERS AND JOB PROCEDURE. WALKED AROUND LOCATION AND COLLECTED WATER SAMPLE (PH-7.0, CHLORIDES-500, TEMP-50F). COMP REP WAS OFFERED SDS FOR ALL CHEMICALS USED BY HES. CALIBRATED MUD SCALES ON WATER.
Event	6	Pre-Rig Up Safety Meeting	5/10/2019	18:50:00	USER					ALL HES PRESENT
Event	7	Rig-Up Equipment	5/10/2019	19:00:00	USER					HES RIGGED UP 1 HT 400 PUMP TRUCK, 1 660 BULK TRUCK, 2 CEMENT SILOS, 2" DISCHARGE IRON, AND 4" SUCTION HOSE WITHOUT ENTERING RED ZONE.

Event	8	Pre-Job Safety Meeting	5/10/2019	21:30:00	USER					ALL HES EMPLOYEES AND RIG CREW PRESENT. RIG CIRCULATED @ 11 BPM PRIOR TO JOB. PRESSURE WAS 630PSI. 1000CFM ON PARASITE LINE.
Event	9	Start Job	5/10/2019	21:45:31	COM4					TD 10.088', TP 10,078' OF 4 1/2" 11.6# P110 CSG, SJ 95.77', SURFACE CSG 9 5/8" 36# J55 SET @ 2597', OH 8 3/4", MUD 9 PPG
Event	10	Prime Lines	5/10/2019	21:47:20	USER	8.33	2	33	4	FRESH WATER
Event	11	Test Lines	5/10/2019	21:51:14	COM4			5060		ALL LINES HELD PRESSURE AT 5060 PSI
Event	12	Mud Flush	5/10/2019	21:55:18	COM4	8.4	4	115	60	60BBLs MUD FLUSH
Event	13	Pump Lead Cement	5/10/2019	22:13:12	COM4	12.5	8	750	348	1007 SKS OF NEOCEM CMT 12.5 PPG, 1.94 FT3/SK, 9.59 GAL/SK.
Event	14	Check Weight	5/10/2019	22:17:58	USER					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	15	Pump Tail Cement	5/10/2019	23:04:22	COM4	13.0	8	800	198	535 SKS NEOCEM CMT 13. PPG, 2.07 FT3/SK, 9.42 GAL/SK.
Event	16	Check Weight	5/10/2019	23:08:35	USER					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	17	Shutdown	5/10/2019	23:38:21	USER					END OF CEMENT. CLEAN PUMPS AND LINES TO CELLAR.
Event	18	Pump Displacement	5/10/2019	23:42:42	COM4	8.4	10	2666	154.7	1 GAL MMCR IN FIRST 10 BBLs, 5 GALS CLAY WEB THROUGHOUT DISPLACEMENT
Event	19	Drop Top Plugs	5/10/2019	23:43:26	USER					VERIFIED BY PLUG INDICATOR

Event	20	Slow Rate	5/10/2019	23:58:45	USER	8.4	4	1860	144.7	SLOW RATE TO 4 BPM TO BUMP PLUG
Event	21	Bump Plug	5/11/2019	00:01:07	USER	8.4	4	1920	154.7	LANDED PLUG AT 1920 PSI, BROUGHT UP TO 2555 PSI, HELD FOR TEN MINUTE CASING TEST.
Event	22	Check Floats	5/11/2019	00:10:56	USER					FLOATS HELD, 1.5 BBL BACK TO TRUCK
Event	23	Pump Down Parasite	5/11/2019	00:32:21	COM4	15.6	2	450	6.3	PUMPED 6.3BBLS OF TOP OUT DOWN THE PARASITE STRING 30 SKS OF TYPE I-II CMT 15.6 PPG, 1.18 FT3/SK, 5.23 GAL/SK.
Event	24	End Job	5/11/2019	00:39:16	COM4					PARTIAL RETURNS THROUGH JOB WITH 1000CFM ON PARASITE. SHUT OFF AIR TO PARASITE AT 100BBLS GONE ON DISPLACEMENT AND LOST RETURNS AT 120BBLS GONE. NO SPACER TO SURFACE, USED 2 TOP PLUGS AND 60# OF SUGAR.
Event	25	Post-Job Safety Meeting (Pre Rig-Down)	5/11/2019	00:45:00	USER					ALL HES PRESENT
Event	26	Rig-Down Equipment	5/11/2019	01:00:00	USER					ALL HES PRESENT
Event	27	Pre-Convoy Safety Meeting	5/11/2019	02:00:00	USER					ALL HES PRESENT
Event	28	Crew Leave Location	5/11/2019	02:15:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENT, SHAWN BLOSSOM AND CREW.

