

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

Rock Springs District, COLORADO

For: Terra

Date: Wednesday, May 15, 2019

RWF 442-18 Surface

API#05-045-24035

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	5/15/2019	02:00:00	USER					REQUESTED ON LOCATION @ 0900
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	5/15/2019	04:00:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	Crew Leave Yard	5/15/2019	04:30:00	USER					1 F550, 1 PUMP TRUCK, 1 660 BULK TURCK
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	5/15/2019	06:30:00	USER					RIG PULLING DRILL PIPE
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	5/15/2019	07:00:00	USER					MET WITH COMP REP GARRETT AND WENT OVER NUMBERS AND JOB PROCEDURE. WALKED AROUND LOCATION AND COLLECTED WATER SAMPLE (PH- 7, CHLORIDES- 0, TEMP- 68F). COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES.
Event	6	Pre-Rig Up Safety Meeting	Safety Meeting - Pre Rig-Up	5/15/2019	09:30:00	USER					ALL HES PRESENT
Event	7	Rig-Up Equipment	Rig-Up Equipment	5/15/2019	09:30:00	USER					HES RIGGED UP EQUIPMENT WITHOUT ENTERING RED ZONE.
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	5/15/2019	11:30:00	USER					ALL HES AND RIG CREW PRESENT
Event	9	Start Job	Start Job	5/15/2019	11:48:03	COM2					TD 1118', TP 1112.63', SJ 44.44', OH 13.5", CSG 9.625" 36#, MUD 9.3 PPG.

RIG CIRCULATED WELL @ 10
BPM WITH 400 PSI FOR
APPROX .5 HRS.

Event	10	Prime Pumps	Prime Pumps	5/15/2019	11:49:42	USER	67.00	8.33	2.00	2.00	8.33 PPG FRESH WATER
Event	11	Test Lines	Test Lines	5/15/2019	11:52:27	COM2	2618.00	8.33	0.50	0.50	ALL LINES HELD PRESSURE AT 2618 PSI
Event	12	Pump Spacer 1	Pump Spacer 1	5/15/2019	11:55:12	COM2	141.00	8.33	4.00	20.00	FRESH WATER (20 BBL), 8.33 PPG
Event	13	Pump Lead Cement	Pump Lead Cement	5/15/2019	12:03:32	COM2	205.00	12.30	8.00	53.10	NEOCEM CEMENT 125 SKS (53 BBLS), 12.3 PPG, 2.38 FT3/SK, 13.77 GAL/SK
Event	14	Pump Tail Cement	Pump Tail Cement	5/15/2019	12:11:03	COM2	570.00	12.80	8.00	66.00	NEOCEM CEMENT 175 SKS (66 BBLS), 12.8 PPG, 2.11 FT3/SK, 11.78 GAL/SK
Event	15	Shutdown	Shutdown	5/15/2019	12:20:38	USER					END OF CMT
Event	16	Drop Top Plug	Drop Top Plug	5/15/2019	12:22:40	USER					PLUG WENT, VERIFIED BY CO REP. WASHED UP ON TOP OF THE PLUG.
Event	17	Pump Displacement	Pump Displacement	5/15/2019	12:23:06	COM2	740.00	8.33	10.00	72.20	FRESH WATER (82.2 BBLS), 8.33 PPG
Event	18	Slow Rate	Slow Rate	5/15/2019	12:31:59	USER	286.00	8.33	2.00	10.00	SLOW RATE TO 2 BPM PER CO REP TO LAND PLUG
Event	19	Bump Plug	Bump Plug	5/15/2019	12:38:56	USER	848.00	8.33	2.00	82.20	LAND PLUG AT 286 PSI (848 PSI)
Event	20	Check Floats	Check Floats	5/15/2019	12:41:28	USER	848.00	8.33	0.00	82.80	FLOATS HELD, 1 BBL BACK TO TRUCK
Event	21	End Job	End Job	5/15/2019	12:42:21	COM2					GOOD RETURNS THROUGHOUT, 27 BBL OF GOOD CEMENT TO SURFACE
Event	22	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	5/15/2019	12:45:00	USER					ALL HES PRESENT

Event	23	Rig-Down Equipment	Rig-Down Equipment	5/15/2019	12:55:00	USER	ALL HES PRESENT
Event	24	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	5/15/2019	13:30:00	USER	ALL HES PRESENT
Event	25	Crew Leave Location	Crew Leave Location	5/15/2019	13:45:00	USER	THANK YOU FOR CHOOSING HALLIBURTON CEMENT, CHRIS SMITH AND CREW

2.0 Attachments

2.1 CHART.png

