

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

United States of America, COLORADO

For: TEP

Date: Sunday, December 02, 2018

GM 311-8 Surface PJR

API #: 05-045-24017

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	12/2/2018	09:00:00	USER					Requested on Location @ 14:00
Event	2	Pre-Convoy Safety Meeting	12/2/2018	11:45:00	USER					All HES Present
Event	3	Crew Leave Yard	12/2/2018	12:00:00	USER					1 frue, 1 pickup, elite on location
Event	4	Arrive at Location from Service Center	12/2/2018	13:30:00	USER					Rig running casing
Event	5	Assessment Of Location Safety Meeting	12/2/2018	13:45:00	USER					JSA completed - Customer offered/received SDS - water test pH 7.0, Cl <200, temp 68 degrees
Event	6	Pre-Rig Up Safety Meeting	12/2/2018	15:00:00	USER					1 hardline to standpipe, water hoses to upright, bulk hose to silo.
Event	7	Pre-Job Safety Meeting	12/2/2018	15:52:59	USER					All HES personnel, rig crew, and company rep
Event	8	Other	12/2/2018	15:53:00	USER					Rig Circulated 3 bottoms up prior to cement job at 450 gpm 150 psi
Event	9	Start Job	12/2/2018	16:30:00	USER	8.40	0.00	6.00	0.00	TD 1037', TP 1042.19, SJ 31.19', OH 17'', Csg 13.375" 54.5 lb/ft, Mud 9.2 ppg.
Event	10	Fill Lines	12/2/2018	16:31:03	USER	8.46	0.00	48.00	2.00	Fresh Water
Event	11	Test Lines	12/2/2018	16:37:07	USER	8.57	0.00	2701.00	2.10	Held pressure 2 minutes no leaks
Event	12	Pump Spacer 1	12/2/2018	16:40:00	USER	8.35	4.00	163.00	20.00	Fresh Water
Event	13	Check Weight	12/2/2018	16:46:56	USER					Density Verified via Mud Scales
Event	14	Pump Lead Cement	12/2/2018	16:48:01	USER	12.30	8.00	601.00	74.20	175 Sks 12.3 ppg 2.38 yield 13.77 gal/sk
Event	15	Pump Tail Cement	12/2/2018	16:57:53	USER	12.80	8.00	600.00	80.80	215 Sks 12.8 ppg 2.11 yield 11.78 gal/sk
Event	16	Check Weight	12/2/2018	16:58:20	COM5					Density Verified via Mud Scales

Event	17	Shutdown	12/2/2018	17:10:47	USER					Wash up on top of plug
Event	18	Drop Top Plug	12/2/2018	17:13:01	USER					Plug away
Event	19	Pump Displacement	12/2/2018	17:13:45	USER	8.33	10.00	630.00	156.20	Fresh Water
Event	20	Slow Rate	12/2/2018	17:33:52	USER	8.36	2.00	269.00	144.90	Slow Rate 10 bbls to calculated displacement
Event	21	Bump Plug	12/2/2018	17:38:28	USER	8.35	2.00	268.00	156.20	Plug Bumped at 268 psi, Brought up to 863 psi
Event	22	Check Floats	12/2/2018	17:40:33	USER	8.35	0.00	863.00	156.90	Floats held – 1 bbl back to the truck
Event	23	End Job	12/2/2018	17:42:00	USER					Good returns throughout job, 64 bbls of cement to surface.
Event	24	Post-Job Safety Meeting (Pre Rig-Down)	12/2/2018	17:45:00	USER					
Event	25	Pre-Convoy Safety Meeting	12/2/2018	18:45:00	USER					
Event	26	Crew Leave Location	12/2/2018	19:00:00	USER					Thanks For Using Halliburton Cement. Andrew Brennecke And Crew.

TEP - FEDERAL GM 311-8 - 13.375" SURFACE

