

HALLIBURTON

iCem[®] Service

TERRACE ENERGY LLC - EBUS

United States of America, COLORADO

For: Garrett Wade

Date: Wednesday, July 11, 2018

PA 12-26 Surface PJR

API #: 05-045-23703

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 (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	7/10/2018	22:30:00						Requested on Location @ 05:00
Event	2	Pre-Convoy Safety Meeting	7/11/2018	00:10:00						
Event	3	Crew Leave Yard	7/11/2018	00:30:00						1 Elite, 1 660, 1 pickup
Event	4	Arrive at Location from Service Center	7/11/2018	05:00:00						Rig running casing
Event	5	Assessment Of Location Safety Meeting	7/11/2018	05:10:00						JSA completed - Customer offered/received SDS - water test pH 7.0, Cl <200, temp 70 degrees
Event	6	Pre-Rig Up Safety Meeting	7/11/2018	05:20:00						1 hardline to standpipe, water hoses to upright, bulk hose to 660.
Event	7	Other	7/11/2018	08:00:00						Rig Circulated 30 mins prior to cement job at 450 gpm 300 psi
Event	8	Pre-Job Safety Meeting	7/11/2018	09:20:00						All HES personnel, rig crew, and company rep
Event	9	Start Job	7/11/2018	11:10:27						TD 1118', TP 1110.13, SJ 42.02', FC 1068.11 OH 13.5", Csg 9.625" 36 lb/ft, Mud 9.3 ppg.
Event	10	Fill Lines	7/11/2018	11:11:06		8.33	2	48	5	Fresh Water
Event	11	Test Lines	7/11/2018	11:13:59				2373		Held pressure 2 minutes no leaks

Event	12	Pump Spacer 1	7/11/2018	11:22:10	8.33	4	84	15	Fresh Water
Event	13	Check Weight	7/11/2018	11:24:43					Density Verified via Mud Scales
Event	14	Pump Lead Cement	7/11/2018	11:26:35	12.3	8	450	53	125 Sks 12.3 ppg 2.38 yield 13.77 gal/sk
Event	15	Pump Tail Cement	7/11/2018	11:34:14	12.8	8	475	65.8	175 Sks 12.8 ppg 2.11 yield 11.78 gal/sk
Event	16	Shutdown	7/11/2018	11:43:59					Wash up on top of plug
Event	17	Drop Top Plug	7/11/2018	11:44:58					
Event	18	Pump Displacement	7/11/2018	11:45:49	8.33	10	573	82.6	Fresh Water
Event	19	Slow Rate	7/11/2018	11:56:42	8.33	2	230	72	Slow Rate 10 bbls to calculated displacement
Event	20	Bump Plug	7/11/2018	12:01:24			735		
Event	21	Check Floats	7/11/2018	12:03:51					Floats held – ½ bbl back to the truck
Event	22	End Job	7/11/2018	12:04:36					Good returns throughout job, 28 bbls of cement to surface.
Event	23	Post-Job Safety Meeting (Pre Rig-Down)	7/11/2018	12:14:55					40 lbs sugar, No add hours
Event	24	Pre-Convoy Safety Meeting	7/11/2018	12:46:03					
Event	25	Crew Leave Location	7/11/2018	12:50:39					Thanks For Using Halliburton Cement. Chris Martinez And Crew.

Terra, PA 12-26, 9 5/8" Surface

