

HALLIBURTON

iCem[®] Service

TERRA ENERGY PARTNERS

United States of America, COLORADO

Date: Wednesday, March 13, 2019

SG 411-22 Surface

Terra SG 411-22 Surface

API# 05-045-24135-00

Job Date : February 25, 2019

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	2/25/2019	10:00:00						Requested on Location @ 15:00
Event	2	Pre-Convoy Safety Meeting	2/25/2019	11:50:00						
Event	3	Crew Leave Yard	2/25/2019	12:00:00						1 Elite, 1 660's, 1 pickup
Event	4	Arrive At Loc	2/25/2019	15:00:00						Rig running casing
Event	5	Assessment Of Location Safety Meeting	2/25/2019	15:20:00						JSA completed - Customer offered/received SDS - water test pH 7.0, Cl <200, temp 70 degrees
Event	6	Pre-Rig Up Safety Meeting	2/25/2019	15:30:00						
Event	7	Rig-Up Equipment	2/25/2019	15:40:00						DME iron to ground manifold, standpipe. Water hoses to both uprights, bulk hose to 660.
Event	8	Other	2/25/2019	15:45:00						Rig Circulated 1 hrs prior to cement job at 8 bpm @ 300 psi. Mud scales calibrated to drinking water prior to job.
Event	9	Pre-Job Safety Meeting	2/25/2019	16:40:00						All HES personnel, rig crew, and company rep.
Event	10	Start Job	2/25/2019	18:22:08						TD 1015', TP 1008.90', SJ 41.19', OH 13.5", Csg 9.5/8" 32.3 lb/ft H-40, Mud 9.6 ppg.
Event	11	Fill Lines	2/25/2019	18:22:33		8.33	2	80	5	Fresh Water
Event	12	Test Lines	2/25/2019	18:25:50				2366		Held pressure 2 minutes
Event	13	Pump Spacer	2/25/2019	18:30:35		8.33	4	190	15	Fresh Water
Event	14	Check Weight	2/25/2019	18:34:40						Density verified via mud cup
Event	15	Pump Lead Cement	2/25/2019	18:38:20		12.3	7	460	42.4	100 sacks, 12.3 ppg, 2.38 yield, 13.77 gal/sk
Event	16	Pump Tail Cement	2/25/2019	18:45:52		12.8	8	500	65.8	175 sks, 12.8 ppg, 1.32 Yield, 13.77 gal/sk

Event	17	Shutdown	2/25/2019	18:58:28						Wash up on plug
Event	18	Drop Top Plug	2/25/2019	18:59:45						Co-Rep Verify Plug Launched
Event	19	Pump Displacement	2/25/2019	19:01:17	8.33	10	780	76.2		Fresh Water
Event	20	Slow Rate	2/25/2019	19:11:25	8.33	2	280	66		Slow Rate 10 bbls to Calculated Displacement
Event	21	Bump Plug	2/25/2019	19:15:11			882			Plug Bumped at 280 psi, Brought up to 882 psi
Event	22	Check Floats	2/25/2019	19:18:28						Floats held – .75 bbl back to the truck
Event	23	End Job	2/25/2019	19:19:41						Good returns throughout job. 16 bbl of cement to surface
Event	24	Pre-Rig Down Safety Meeting	2/25/2019	19:34:21						80 lbs of sugar used, HES top plug used, 0 add hours.
Event	25	Rig-Down Equipment	2/25/2019	19:37:02						
Event	26	Pre-Convoy Safety Meeting	2/25/2019	19:50:00						
Event	27	Crew Leave Location	2/25/2019	20:00:00						Thanks for using Halliburton Cement, Chris Martinez and crew.

Terra, SG 411-22 9 5/8" Surface

