

# HALLIBURTON

iCem<sup>®</sup> Service

## **TERRA ENERGY PARTNERS**

Rock Springs District, CO

### **For: TEP**

Date: Tuesday, September 24, 2019

### **PA 422-24**

### **API# 05-045-23894**

Garfield, PA 422-24

Case 1

Job Date: Tuesday, September 24, 2019

Sincerely,

Rock Springs Engineering

iCem<sup>®</sup> Service

(v. 5.0.161.0)

Created: Tuesday, September 24, 2019

## 1.0 Real-Time Job Summary

### 1.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	PS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Pre-Job Safety Meeting	9/23/2019	11:55:00	USER					ALL HES EMPLOYEES AND RIG CREW PRESENT, RIG CIRCULATED @ 10 BPM PRIOR TO JOB PRESSURE @ 1072 PSI
Event	2	Call Out	9/23/2019	17:00:00	USER					REQUESTED ON LOCATION @ 23:00
Event	3	Pre-Convoy Safety Meeting	9/23/2019	19:00:00	USER					ALL HES PRESENT
Event	4	Crew Leave Yard	9/23/2019	19:15:00	USER					1 HT 400 PUMP TRUCK, 1 660 BULK TRUCK, 1 F550 SERVICE TRUCK
Event	5	Arrive At Loc	9/23/2019	20:30:00	USER					RIG RUNNING CASING WHEN HES ARRIVED AT LOCATION
Event	6	Assessment Of Location Safety Meeting	9/23/2019	20:45:00	USER					MET WITH COMP REP, AND WENT OVER NUMBERS AND JOB PROCEDURE. WALKED AROUND LOCATION AND COLLECTED WATER SAMPLE (PH-7.0, CHLORIDES-0, TEMP-65F). COMP REP WAS OFFERED SDS FOR ALL CHEMICALS USED BY HES. CALIBRATED MUD SCALES ON WATER.
Event	7	Pre-Rig Up Safety Meeting	9/23/2019	21:00:00	USER					ALL HES PRESENT
Event	8	Rig-Up Equipment	9/23/2019	21:15:00	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	9	Start Job	9/24/2019	00:10:27	COM4					TD 9139', TP 9129', SJ 31.83', SURFACE CSG 9 5/8" 36#, PRODUCTION CSG 4 1/2" 11.6# P-110, OH 8 3/4", MUD 13.3 PPG
Event	10	Prime Pumps	9/24/2019	00:11:05	USER	335.00	8.33	2.00	2.00	8.33 PPG FRESH WATER
Event	11	Test Lines	9/24/2019	00:14:26	COM4	5266.00	8.33	0.50	0.50	ALL LINES HELD PRESSURE AT 5267 PSI
Event	12	Pump Spacer 1	9/24/2019	00:17:14	COM4	620.00	8.33	4.00	20.00	20 BBLS MUD FLUSH
Event	13	Pump Lead Cement	9/24/2019	00:25:46	COM4	1413.00	14.20	8.00	318.00	1030 SKS NEOCEM CMT 14.2PPG, 1.73 FT3/SK, 7.78 GAL/SK.
Event	14	Check Weight	9/24/2019	00:27:48	COM4	1544.00	14.18	8.10	15.20	WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES

Event	15	Shutdown	9/24/2019	00:36:30	USER					SHUTDOWN TO TIGHTEN IRON
Event	16	Shutdown	9/24/2019	01:12:43	USER					END OF CEMENT. CLEAN PUMPS AND LINES TO PIT.
Event	17	Drop Top Plug	9/24/2019	01:20:05	COM4					PLUG WENT
Event	18	Pump Displacement	9/24/2019	01:20:41	COM4	2965.00	8.33	10.00	131.00	1 GAL MMCR IN FIRST 10 BBLS, 3 LBS BE-6 IN FIRST 30 BBLS, 1 50 LB. BAG KCL THROUGHOUT DISPLACEMENT
Event	19	Shutdown	9/24/2019	01:23:17	USER	2350.00	8.33	4.00	10.00	SHUTDOWN TO TIGHTEN IRON
Event	20	Bump Plug	9/24/2019	01:39:04	COM4	2552.00	8.33	4.00	141.00	LANDED PLUG AT 2550 PSI, BROUGHT UP TO 3218 PSI
Event	21	Check Floats	9/24/2019	01:40:38	USER	3218.00	8.33	0.00	141.00	1.5 BBLS BACK TO TRUCK, FLOATS HELD
Event	22	End Job	9/24/2019	01:42:00	COM4					GOOD RETURNS THROUGHOUT JOB. PIPE WAS RECIPRICATED ONLY 10'. NO SUGAR USED. NO CEMENT TO SURFACE.
Event	23	Post-Job Safety Meeting (Pre Rig-Down)	9/24/2019	01:45:00	USER					ALL HES PRESENT
Event	24	Rig-Down Equipment	9/24/2019	01:50:00	USER					ALL HES PRESENT
Event	25	Pre-Convoy Safety Meeting	9/24/2019	02:30:00	USER					ALL HES PRESENT
Event	26	Crew Leave Location	9/24/2019	02:35:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENT, CHRIS SMITH AND CREW.

2.0 Attachments

2.1 Case 1-Custom Results.png

