

# HALLIBURTON

iCem<sup>®</sup> Service

## **URSA RESOURCES GROUP**

**For: Hans Wychgram**

Date: Thursday, September 14, 2017

**BMC D 21C-18-07-95 Surface PJR**

API# 05-045-23313-00

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)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	9/13/2017	15:00:00	USER					O/L time 2200
Event	2	Pre-Convoy Safety Meeting	9/13/2017	16:45:00	USER					
Event	3	Crew Leave Yard	9/13/2017	17:00:00	USER					1 Elite, 1 Freuhauf, 1 pickup
Event	4	Arrive At Location	9/13/2017	18:30:00	USER					Rig running wireline
Event	5	Assessment Of Location Safety Meeting	9/13/2017	18:45:00	USER					JSA completed - customer offered/received SDS - water test pH 7.5, Cl 0, temp 67 degrees
Event	6	Pre-Rig Up Safety Meeting	9/13/2017	21:15:00	USER					
Event	7	Rig-Up Equipment	9/13/2017	21:30:00	USER					Hard line w/ standpipe to floor, water hose to upright, bulk hose to silo
Event	8	Pre-Job Safety Meeting	9/13/2017	23:15:00	USER					All HES personnel, rig crew, and company rep - Rig circulating @ 9 bpm w/ 96 psi for ½ hr
Event	9	Start Job	9/13/2017	23:51:00	USER					TD 1755', TP 1736', SJ 44', Mud 10.4 ppg, 12 1/4" OH, 8 5/8" 32# casing
Event	10	Prime Lines	9/13/2017	23:52:32	COM5	8.33	2.0	37	2.0	Fresh water
Event	11	Test Lines	9/13/2017	23:57:22	COM5			3267		Pressure held well
Event	12	Pump H2O Spacer	9/13/2017	23:59:13	COM5	8.33	4.0	105	20.0	Fresh water - returns established
Event	13	Pump Lead Cement	9/14/2017	00:07:59	COM5	12.3	8.0	355	113.9	260 sks, 12.3 ppg, 2.46 yield, 14.17 gal/sk
Event	14	Check weight	9/14/2017	00:08:48	COM5	12.3				Recirc matched mud scales

Event	15	Pump Tail Cement	9/14/2017	00:23:36	COM5	12.8	8.0	285	46.6	120 sks, 12.8 ppg, 2.18 yield, 12.11 gal/sk
Event	16	Shutdown	9/14/2017	00:32:32	USER					Wash up on top of plug
Event	17	Drop Top Plug	9/14/2017	00:35:30	COM5					Plug launched – verified by company rep
Event	18	Pump Displacement	9/14/2017	00:36:21	COM5	8.33	10.0	689	103.0	Fresh water
Event	19	Slow Rate	9/14/2017	00:49:58	USER	8.33	2.0	405	@ 93	Good returns throughout job
Event	20	Bump Plug	9/14/2017	00:54:04	USER			418		Approx 35 bbls cement to surface
Event	21	Check Floats	9/14/2017	00:55:13	COM5			1060		Floats held – ½ bbl flowback
Event	22	End Job	9/14/2017	00:57:00	COM5					40 lbs sugar used
Event	23	Pre-Rig Down Safety Meeting	9/14/2017	01:15:00	USER					
Event	24	Rig-Down Equipment	9/14/2017	01:30:00	USER					
Event	25	Pre-Convoy Safety Meeting	9/14/2017	01:45:00	USER					
Event	26	Crew Leave Location	9/14/2017	02:00:00	USER					Thank you for using Halliburton - Ed Deussen and crew