

# HALLIBURTON

iCem<sup>®</sup> Service

## **CATAMOUNT ENERGY PARTNERS LLC-EBUS**

Rock Springs District, COLORADO

**For: JOSH BONDS**

Date: Monday, June 24, 2019

## **EAST BULL CREEK**

ARCHULETA, CATAMOUNT ENERGY PARTNERS LLC-EBUS

Case 1

Job Date: Monday, June 24, 2019

Sincerely,

**ULRICH NDILIRA ROTAM**

## Legal Notice

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## 1.0 Job Design

## 1.1 Pump Schedule

Description	Stage No.	Density (ppg)	Rate (bbl/min)	Yield (ft <sup>3</sup> /sack)	Water Req. (gal/sack)	Volume (bbl)	Bulk Cement (sacks)	Duration (min)
Spud Mud	1	8.40	3.00			0.00		0.00
Fresh Water	2	8.33	3.00			10.00		3.33
Surface Blend 2467065/1	3	15.80	3.50	1.1638	5.004	59.08	285.00	16.88
Top Plug/Start Displacement								
Fresh Water	4-1	8.33	3.50			28.00		8.00
Fresh Water	4-2	8.33	1.50			8.68		5.78
Total:						105.75		34.00

\*Pump schedule may include additional rows for displacement if "Automatic Rate Adjustment" was enabled and ECDs approached the fracture gradient

## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	PS Pump Rate (bbl/min)	PS Pmp Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	6/23/2019	20:00:00	USER					CEMENT CREW CALLED OUT
Event	2	HES Resources on Location and Available to Perform Job	HES Resources on Location and Available to Perform Job	6/23/2019	20:10:35	USER					CEMENT CREW ON LOCATION WAITING THE JOB.
Event	3	Comment	Comment	6/23/2019	21:21:36	USER					RIG CREW PREPAIRING TO DRILL 12 1/4 HOLE
Event	4	Comment	Tubulars	6/23/2019	21:21:41	USER					WELL DATA: OH 12 1/4 TD = 540 FT, CASING 9 5/8 36 LBS/FT FS=525 FT, FC=480.48 FT
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	6/24/2019	07:25:26	USER					SAFETY MEETING HELD WITH CEMENT CREW
Event	6	Rig-Up Equipment	Rig-Up Equipment	6/24/2019	07:30:09	USER					CEMENT CREW RIG UP EQUIPMENT
Event	7	Resume	Water Test	6/24/2019	08:07:52	USER	-19.00	8.45	0.00	0.00	TEMPERATURE = 70 DEG, CHLORIDES =0, PH= 7.
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/24/2019	08:10:36	USER	-20.00	8.45	0.00	0.00	SAFETY MEETING HELD WITH EVERYONE ON LOCATION PRIOR TO START CEMENT JOB.
Event	9	Prime Pumps	Prime Pumps	6/24/2019	08:29:19	USER	-18.00	8.51	0.00	0.00	PRIME CEMENT UNIT PRIOR TO START JOB
Event	10	Pressure Test	Pressure Test	6/24/2019	08:35:28	USER	363.00	8.41	0.00	14.40	FLUSH SURFACE LINE WITH FRESH WATER, PRESSURE TEST GOOD TO 2500 PSI
Event	11	Pump Spacer	Pump Spacer	6/24/2019	08:40:12	USER	2454.00	8.45	0.00	14.40	PUMPED 10 BBLS H2O AS SPACER

Event	12	Pump Cement	Pump Cement	6/24/2019	08:47:07	USER	78.00	14.96	4.10	0.30	285 SKS OF CEMENT, 1.18 CUFT/SK AT 5.24 GPS = 59.8 BBLs @15.8 PPG, 35.5 BBLs OF H2O REQUIRED.
Event	13	Shutdown	Shutdown	6/24/2019	08:58:09	USER	78.00	16.83	3.50	51.70	SHUTDOWN DROP TOP PLUG
Event	14	Pump Displacement	Pump Displacement	6/24/2019	09:05:21	USER	1.00	2.74	0.00	58.80	CALCULATED 37.14 BBLs TO DISPLACE CEMENT, ACTUALLY PUMPED 35 BBLs TANK TO TANK MARK
Event	15	Cement Returns to Surface	Cement Returns to Surface	6/24/2019	09:10:52	USER	166.00	7.61	3.90	12.10	CALCULATED 27.6 BBLs OF CEMENT BACK TO SURFACE, ACTUALLY CIRCULATED 24 BBLs OF 100%CEMENT BACK TO SURFACE
Event	16	Bump Plug	Bump Plug	6/24/2019	09:15:10	USER	286.00	7.54	4.50	31.60	CALCULATED 185.45 PSI TO LAND PLUG, PLUG BUMPED AT 250 PSI PRESSURE UP TO 700 PSI HOLDING.
Event	17	Check Floats	Check Floats	6/24/2019	09:20:37	USER	548.00	7.60	0.00	45.40	CHECK FLOATS, FLOATS HELD 0.5 BBLs BACK
Event	18	Shutdown	Shutdown	6/24/2019	09:30:55	USER					SHUTDOWN END OF JOB, THANK YOU FOR CHOOSING HALLIBURTON ULRICH NDILIRA ROTAM AND CREW
Event	19	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	6/24/2019	09:40:14	USER					SAFETY MEETING HELD WITH CEMENT CREW FOR RIG DOWN
Event	20	Rig-Down Equipment	Rig-Down Equipment	6/24/2019	09:45:25	USER					CEMENT CREW RIG DOWN EQUIPMENT
Event	21	Depart Location Safety Meeting	Depart Location Safety Meeting	6/24/2019	10:52:41	USER					SAFETY MEETING HELD WITH CEMENT CREW PRIOR TO DEPART LOCATION
Event	22	Depart Location	Depart Location	6/24/2019	11:10:52	USER					CEMENT CREW DEPART LOCATION

## 3.0 Custom Graphs

CATAMOUNT - EBC #4 SURFACE

