



# **Caerus Operating LLC**

## **LONG STRING POST JOB REPORT**

**ELU O13 FED 24C-13-496 05-103-12499**  
**S:13 T:4S R:96W Rio Blanco CO**

CallSheet #: 90741  
Proposal #: 75049



**LONG STRING Post Job Report**

**Attention:** Mr. Cole Walton | (720) 880-6325 | cwalton@caerusoilandgas.com

Caerus Operating LLC

1001 17TH STREET | DENVER, CO 80202

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Dear Mr. Cole Walton,

Thank you for the opportunity to provide cementing services on this well. American Cementing strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact American Cementing at any time.

Sincerely,

**Addison Kneale**

Lab Technician II | (904) 228-9560 | addison.kneale@americacementing.com

**Field Office**      28730 US-6, Rifle, CO 81650  
Phone: (970) 657-1187

## Job Details & Summary

### Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	9.625	8.921	36	n/a	0	3500	0
Open Hole	Outer	n/a	8.75	n/a	n/a	3500	7456	25
Open Hole	Outer	n/a	8.75	n/a	n/a	7456	12855	0
Casing	Inner	4.5	3.92	13.5	Other	0	12838.2	0

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS-473		
Field Storage Silo	FSS-469		
Cement Trailer Float	CTF-273	TRC-115	Michael Hutchinson
Light Duty Vehicles	LDV-145		Stephen Lancaster
Cement Pump Float	CPF-058	TRH-964	Jeremy Bradbrook

### Timing

Event	Date/Time
ERTS	03/19/2024 00:00
Call Out	3/19/2024 12:00
Depart Facility	3/19/2024 14:45
On Location	3/19/2024 14:53
Rig Up Iron	3/19/2024 15:05
Job Started	3/19/2024 20:45
Job Completed	3/19/2024 23:59
Rig Down Iron	3/20/2024 00:25
Depart Location	3/20/2024 01:29

### General Job Information

Metrics	Value
Well Fluid Density	11.6 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	1283 bbls
Rig Circulation Time	2 hours
Calculated Displacement	190 bbls
Actual Displacement	190 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	N/A

### Job Details

Metrics	Value
Well Full Prior to Job	Yes
Well Fluid Density Into Well	11.6 lb/gal
Well Fluid Density Out of Well	11.6 lb/gal

### Job Details (cont.)

Metrics	Value
BHCT	227 °F
BHST	296 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	67 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	180	0-1000
Total Hardness	400 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	0 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

### Circulation

Lost Circulation Experienced	Losses into Spacer	Losses into Cement	Losses into Displacement
No	0	501	0

## Job Execution Information

Fluid	Product	Function	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sk)	Volume (bbl)	Designed Top (ft)
1	Mud Flush	Flush	8.45			40.86		20.00	1653
2	Scavenger	Scavenger	11.50	1.84	10.80		264.00	86.60	2000
3	Lead	Lead	11.50	1.84	10.80		825.00	270.62	3500
4	Tail	Tail	13.50	2.01	9.74		842.00	301.72	7456
5	Water + KCL Sub	DisplacementFinal	8.34			42.00		193.00	0

## Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	Flush	Mud Flush	SAPP	Surfactant	10.00	lb/bbl
1	Flush	Mud Flush	SS-201	Surfactant	0.50	gal/bbl
2	Scavenger	Scavenger	AEXT-1012	Extender	60.00	%
2	Scavenger	Scavenger	ASTM TYPE IL	Cement	40.00	%
2	Scavenger	Scavenger	A-2	Accelerator	1.00	%BWOB
2	Scavenger	Scavenger	A-5	Accelerator	3.00	%BWOW
2	Scavenger	Scavenger	BA-60	GasMigration	0.40	%BWOB
2	Scavenger	Scavenger	FL-66	FluidLoss	0.30	%BWOB
2	Scavenger	Scavenger	GW-86	Viscosifier	0.10	%BWOB
2	Scavenger	Scavenger	R-3	Retarder	0.40	%BWOB
2	Scavenger	Scavenger	R-7C	Retarder	0.10	%BWOB
2	Scavenger	Scavenger	XCem-308	Defoamer	0.30	%BWOB
3	Lead	Lead	AEXT-1012	Extender	60.00	%
3	Lead	Lead	ASTM TYPE IL	Cement	40.00	%
3	Lead	Lead	A-2	Accelerator	1.00	%BWOB
3	Lead	Lead	A-5	Accelerator	3.00	%BWOW
3	Lead	Lead	BA-60	GasMigration	0.40	%BWOB
3	Lead	Lead	FL-66	FluidLoss	0.30	%BWOB
3	Lead	Lead	GW-86	Viscosifier	0.10	%BWOB
3	Lead	Lead	R-3	Retarder	0.40	%BWOB
3	Lead	Lead	R-7C	Retarder	0.10	%BWOB
3	Lead	Lead	XCem-308	Defoamer	0.30	%BWOB
4	Tail	Tail	CLASS G	Cement	70.00	%
4	Tail	Tail	FLY ASH (POZZOLAN)	Extender	30.00	%
4	Tail	Tail	BA-60	GasMigration	0.20	%BWOB
4	Tail	Tail	BENTONITE	Viscosifier	8.00	%BWOB
4	Tail	Tail	FL-24	FluidLoss	0.40	%BWOB
4	Tail	Tail	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
4	Tail	Tail	S-8	StrengthRetrogression	26.00	%BWOB
4	Tail	Tail	XCem-308	Defoamer	0.30	%BWOB
4	Tail	Tail	XCem-916	Retarder	0.30	%BWOB

## Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	3/19/2024	12:00					CREW CALLED OUT FOR ON LOCATION TIME OF 3/19/2024 @ 17:00
2	Depart RCO	3/19/2024	13:30					AC CREW DEPARTS RCO YARD
3	Arrive On Location	3/19/2024	14:53					AC CREW ARRIVES ON LOCATION @ 14:53, RIG IS RUNNING CASING
4	Spot Equipment	3/19/2024	14:55					SPOT TRUCK S
5	Rig Up Iron	3/19/2024	15:05					RIG UP LINES HOSES
6	Finish Rigging up	3/19/2024	16:30					DONE RIGGING UP WAIT ON RIG TO FINISH RUNNING CASING 16:30
7	Rig Up Iron	3/19/2024	00:00					STAB HEAD AND RIG UP LINES TO HEAD, RIG UP STANDPIPE
8	Safety Meeting	3/19/2024	20:45					SAFETY MEETING WITH RIG CREW///, BLEW DOWN LINES FROM RIG FLOOR TO THE TRUCK
9	Fill Lines	3/19/2024	21:02	8.34	4	10	242	FILL LINES
10	Pressure Test Lines	3/19/2024	21:05	8.34	1	1	5100	PRESSURE TEST LINES TO 5000 PSI
11	Pump Mudflush	3/19/2024	21:16	8.45	5	20	228	PUMP MUD FLUSH WITH SURFACTANT
12	Pump Scavenger	3/19/2024	21:23	11.5	5.5	87	555	PUMP 87 BBLS SCAVENGER CEMENT, (full returns)
13	Pump Lead Cement	3/19/2024	21:37	11.5	5.5	10	380	BEGIN PUMPING 11.5 PPG LEAD CEMENT, DENSITY VERIFIED WITH PRESSURIZED MUD SCALE
14	Pump Lead Cement	3/19/2024	21:46	11.5	5.5	50	414	50 BBLS LEAD CEMENT PUMPED, (full returns)
15	Pump Lead Cement	3/19/2024	21:55	11.5	5.5	100	390	100 BBLS LEAD CEMENT PUMPED,
16	Pump Lead Cement	3/19/2024	22:04	11.5	5.5	150	404	150 BBLS LEAD CEMENT PUMPED
17	Pump Lead Cement	3/19/2024	22:13	11.5	5.5	200	402	200 BBLS LEAD CEMENT PUMPED
18	Pump Lead Cement	3/19/2024	22:26	11.5	5.5	271	378	271 BBLS LEAD CEMENT PUMPED ( full returns )
19	Pump Tail Cement	3/19/2024	22:27	13.5	5.5	5	381	BEGIN PUMPING TAIL AT 13.5 PPG, DENSITY VERIFIED WITH PRESSURIZED MUD SCALE
20	Pump Tail Cement	3/19/2024	22:36	13.5	5.5	50	596	50 BBLS TAIL CEMENT PUMPED
21	Pump Tail Cement	3/19/2024	22:44	13.5	5.5	100	600	100 BBLS TAIL CEMENT PUMPED, (shut air to parasite)
22	Pump Tail Cement	3/19/2024	22:53	13.5	5.5	150	615	150 BBLS TAIL CEMENT PUMPED (lost returns @ 143 bbls pumped 22:52)
23	Pump Tail Cement	3/19/2024	23:02	13.5	5.5	200	600	200 BBLS TAIL CEMENT PUMPED (616 bbls mud recovered)
24	Pump Tail Cement	3/19/2024	23:11	13.5	5.5	250	641	250 BBLS TAIL CEMENT PUMPED (no returns )
25	Pump Tail Cement	3/19/2024	23:15	13.5	5.5	275	572	275 BBLS TAIL CEMENT PUMPED
26	Pump Tail Cement	3/19/2024	23:24	13.5	5.5	302	659	302 BBLS TAIL CEMENT PUMPED
27	Clean Pumps and Lines	3/19/2024	23:25					SHUT DOWN, WASH PUMP AND LINES
28	Drop Top Plug	3/19/2024	23:33	8.34	7	5	359	DROP TOP PLUG, WITNESSED BY CUSTOMER REP. BEGIN RESCARE DISPLACEMENT

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
29	Pump Displacement	3/19/2024	23:39	8.34	8.8	50	1209	50 BBLS DISPLACEMENT PUMPED (no returns) CAUGHT PLUG @ 37 BBLS PUMPED
30	Pump Displacement	3/19/2024	23:45	8.34	8.8	100	1859	100 BBLS DISPLACEMENT PUMPED
31	Pump Displacement	3/19/2024	23:52	8.34	8.8	150	2623	150 BBLS DISPLACEMENT PUMPED (no returns)
32	Pump Displacement	3/19/2024	23:54	8.34	8.8	170	2781	170 BBLS DISPACMENT PUMPED (slow rate to 4 bpm)
33	Pump Displacement	3/19/2024	23:59	8.34	4	190	2369	190 BBLS DISPLACEMENT PUMPED
34	Land Plug	3/19/2024	23:59	8.34	4	190	3203	LAND PLUG, FCP - 2369 PSI, BUMPED TO 3203 PSI (00 SPACER AND CEMENT TO SURFACE)
35	Check Floats	3/20/2024	00:01					CHECK FLOATS, FLOATS HELD, 2 BBLS BACK
36	Pickel Pump	3/20/2024	00:12					PICKEL PUMP THROUGH KELLY HOSE TO THE CELLAR
37	Blow lines down	3/20/2024	00:17					BLOW DOWN TREATING LINES FROM PUMP TO THE CELLAR
38	Rig Down Iron	3/20/2024	00:25					RIG DOWN IRON AND HOSES
39	Depart Location	3/20/2024	01:29					DEPART LOCATION FOR RCO

## Pump Diagrams

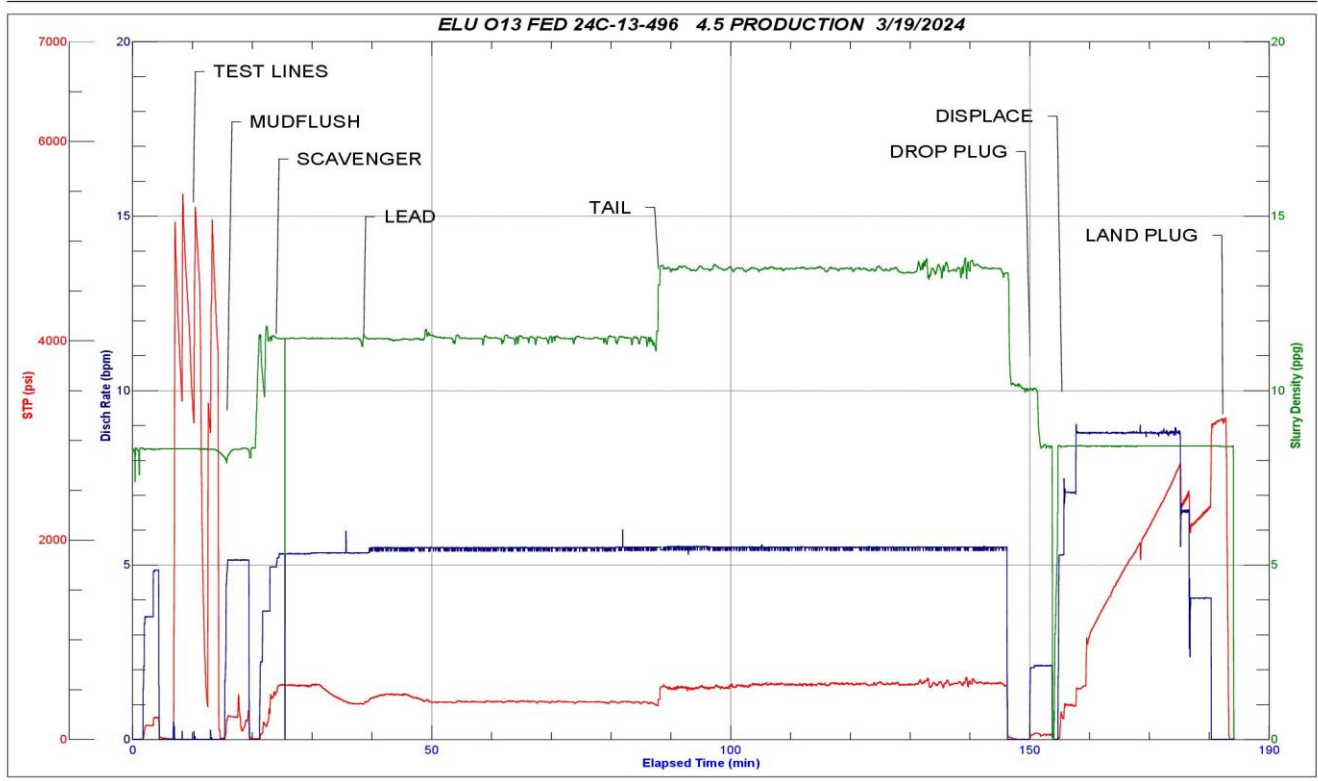


JobMaster Program Version 5.01C1

Job Number: 90741

Customer: CAERUS

Well Name: ELU 013 FED 24C-13-496



Job Start: Tuesday, March 19, 2024