



---

# **Caerus Operating LLC TWO-STAGE/MULTI-STAGE CEMENT POST JOB REPORT**

**BJU G35 FED #25B-35-496 05-045-24346  
S:35 T:4S R:96W Garfield CO**

CallSheet #: 81139  
Proposal #: 59225



**TWO-STAGE/MULTI-STAGE CEMENT Post Job Report**

**Attention:** Mr. Cole Walton | (720) 880-6325 | cwalton@caerusoilandgas.com  
Caerus Operating LLC  
1001 17TH STREET | DENVER, CO 80202

---

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,

**Michael Harold**

Field Engineer II | (970) 773-3636 | michael.harold@americacementing.com

**Field Office**      28730 US-6, Rifle, CO 81650  
Phone: (970) 657-1157

## Job Details & Summary

### Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	20	19.5	53	n/a	0	100	0
Open Hole	Outer	n/a	14.75	n/a	n/a	100	2500	25
Open Hole	Outer	n/a	14.75	n/a	n/a	2500	3011.6	0
Casing	Inner	9.625	8.921	36	n/a	0	3011.6	0

### Timing

Event	Date/Time
Call Out	4/22/2022 03:30
Depart Facility	4/22/2022 08:15
On Location	4/22/2022 09:45
Rig Up Iron	4/22/2022 09:57
Job Started	4/22/2022 12:04
Job Completed	4/23/2022 01:10
Rig Down Iron	4/23/2022 01:30
Depart Location	4/23/2022 02:15

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS(CTS)-469		
Field Storage Silo	FSS(CTS)-468		
AS Cement Trailer	CTF-9309	TRC(TRB)-201	
AS Cement Trailer	CTF-7145	TRC(TRB)-202	
Cement Trailer	CTF-254	TRC(TRB)-195	Martin, Chuck
Light Duty Vehicles	LDV-062		Lancaster, Stephen
Cement Pump	CPF-052	TRH-957	Brady, Shawn

### General Job Information

Metrics	Value
Well Fluid Density	10.2 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	242 bbls
Rig Circulation Time	0.75 hours
Calculated Displacement	226/70 bbls
Actual Displacement	226/70 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	105/45 bbls
Well Topped Out	Yes
Top Out Volume	14 bbls

### Job Details

Metrics	Value
Flare Prior to Job	No
Flare Prior to Job	0 units
Flare During Job	No
Flare During Job	0 units
Flare at End of Job	No
Flare at End of Job	0 units
Well Full Prior to Job	Yes
Well Fluid Density Into Well	10.2 lb/gal
Well Fluid Density Out of Well	10.2 lb/gal

### Job Details (cont.)

Metrics	Value
BHCT	90 °F
BHST	129 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	61 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	200 mg/L	0-3000 mg/L
Total Alkalinity	300	0-1000
Total Hardness	100 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	0 mg/L	0-1500 mg/L
Potassium	0 mg/L	0-3000 mg/L
Iron	100 mg/L	0-300 mg/L

### Circulation

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

### Job Execution Information

Fluid	Product	Function	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Designed Top (ft)
1	Water	Flush	8.34			42.00		40.00	786
2	Stage-1 Lead	Lead	12.00	2.52	14.80		490.00	220.14	1050
3	Stage-1 Tail	Tail	12.50	2.23	12.56		161.00	63.94	2500
4	Water	DisplacementFinal	8.34			42.00		229.00	0
1	Water	Flush	8.34			42.00		40.00	0
2	Stage-2 Primary	Primary	12.00	2.55	14.95		379.00	172.13	0
3	Water	DisplacementFinal	8.34			42.00		82.00	0

### Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Lead	Stage-1 Lead	ASTM TYPE I/II	Cement	100.00	%
2	Lead	Stage-1 Lead	A-10	Accelerator	5.00	%BWOB
2	Lead	Stage-1 Lead	A-2	Accelerator	3.00	lb/sk
2	Lead	Stage-1 Lead	FP-24	Defoamer	0.30	%BWOB
2	Lead	Stage-1 Lead	IntegraSeal PHENO	LostCirculation	0.50	lb/sk
2	Lead	Stage-1 Lead	IntegraSeal POLI	LostCirculation	0.25	lb/sk
2	Lead	Stage-1 Lead	R-7C	Retarder	0.30	%BWOB
2	Lead	Stage-1 Lead	STATIC FREE	Other	0.01	lb/sk
3	Tail	Stage-1 Tail	ASTM TYPE I/II	Cement	100.00	%
3	Tail	Stage-1 Tail	A-10	Accelerator	5.00	%BWOB
3	Tail	Stage-1 Tail	A-2	Accelerator	2.00	lb/sk
3	Tail	Stage-1 Tail	A-7P	Accelerator	2.00	lb/sk
3	Tail	Stage-1 Tail	FP-24	Defoamer	0.30	%BWOB
3	Tail	Stage-1 Tail	IntegraSeal PHENO	LostCirculation	0.50	lb/sk
3	Tail	Stage-1 Tail	IntegraSeal POLI	LostCirculation	0.25	lb/sk
3	Tail	Stage-1 Tail	STATIC FREE	Other	0.01	lb/sk
2	Primary	Stage-2 Primary	ASTM TYPE I/II	Cement	100.00	%
2	Primary	Stage-2 Primary	A-10	Accelerator	5.00	%BWOB
2	Primary	Stage-2 Primary	A-2	Accelerator	3.00	lb/sk
2	Primary	Stage-2 Primary	A-7P	Accelerator	2.00	lb/sk
2	Primary	Stage-2 Primary	FP-24	Defoamer	0.30	%BWOB
2	Primary	Stage-2 Primary	IntegraSeal POLI	LostCirculation	0.25	lb/sk
2	Primary	Stage-2 Primary	STATIC FREE	Other	0.01	lb/sk

## 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	4/22/2022	03:30					Crew called for job , yard time 7 am ,, On location time 10:00
2	Safety Meeting	4/22/2022	07:00					Journey Management meeting
3	Depart Yard	4/22/2022	08:15					Leave Rifle yard for location
4	Arrive on Location	4/22/2022	09:45					Arrived on location,
4	Spot Equipment	4/22/2022	09:50					Spotted Equipment
5	Safety Meeting	4/22/2022	09:55					Rig up safety meeting
6	Rig Up Iron	4/22/2022	09:57					Rig up iron
7	Safety Meeting	4/22/2022	12:04					Pre job meeting with all crews involved with cement job
8	Fill Lines Press Test	4/22/2022	12:28	8.34	2.5		70	Fill Lines and press test
9	Pump Stg 1 Lead Cement	4/22/2022	12:47	12	5	50	150	50 bbls lead pumped ( full returns )
10	Pump Stg 1 Lead Cement	4/22/2022	12:55	12	5	100	167	100 bbls lead pumped
11	Pump Stg 1 Lead Cement	4/22/2022	13:04	12	6	150	230	150 bbls lead pumped
12	Pump Stg 1 Lead Cement	4/22/2022	13:13	12	6	200	250	200 bbls lead pumped lost returns at 204 pumped 13:14
13	Pump Stg 1 Lead Cement	4/22/2022	13:23	12	7	250	322	250 bbls lead pumped
14	Pump Stg 1 Lead Cement	4/22/2022	13:28	12	7	300	316	300 bbls lead pumped Returns back at 315 bbls pumped
15	Pump Stg 1 Lead Cement	4/22/2022	13:35	12	7	350	314	350 bbls lead pumped
16	Pump Stg 1 Lead Cement	4/22/2022	13:41	12	7	392	321	392 bbls lead swapped to tail
17	Pump Stg 1 Tail Cement	4/22/2022	13:47	12	6.5	50	281	50 bbls stg 1 tail pumped
18	Pump Stg 1 Tail Cement	4/22/2022	13:48	12	6.5	64	287	64 bbls stg 1 tail pumped
19	Drop plug	4/22/2022	13:49					
20	Pump Displacement	4/22/2022	13:50	8.34	6.9	5	218	20 bbls pumped (returns back at 20 bbls pumped )
21	Pump Displacement	4/22/2022	14:01	8.34	7	50	290	50 bbls pumped
22	Pump Displacement	4/22/2022	14:10	8.34	7	100	448	100 bbls pumped ( full returns )
23	Pump Displacement	4/22/2022	14:17	8.34	7	150	573	150 bbls pumped
24	Pump Displacement	4/22/2022	14:25	8.34	4	200	603	200 bbls pumped ( lost returns when slowed to 4 bpm
25	Land Plug	4/22/2022	14:31	8.34	4	226	674	226 bbls pumped Landed plug , FCP 674 bump pressure 1190 psi
26	Check Floats	4/22/2022	14:32					Check floats, holding got 1 bbl back
27	Pumping down parasite	4/22/2022	14:41	8.34	2	10	546	Broke over at 546 psi @ 14:22
28	Drop Opening Plug	4/22/2022	14:50					Drop opening bomb at 14:50
29	Pumping	4/22/2022	14:55	8.34			440	Dv tool opened @ 440 psi 14:57

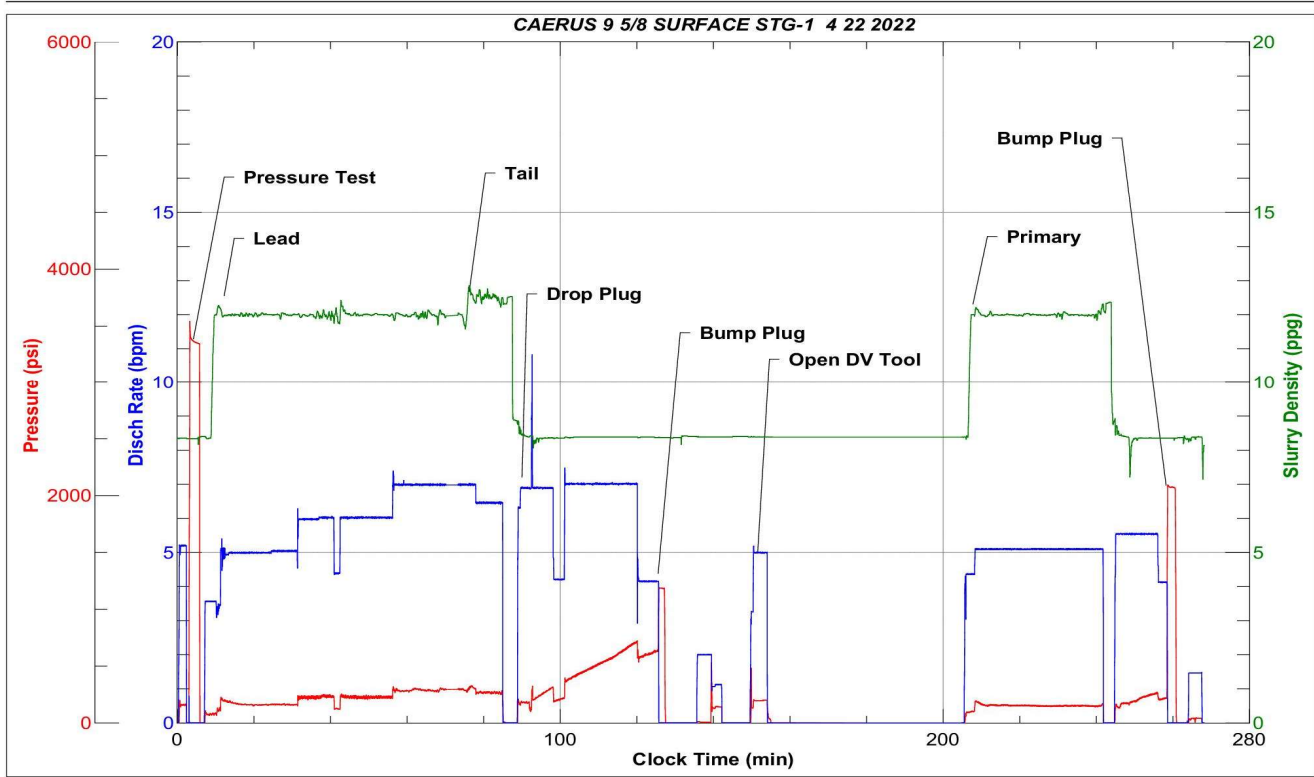


Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
30	Pumping	4/22/2022	14:59	8.34	5	20	199	Pumped 20 bbls shutdown
31		4/22/2022	15:05					Rig circulated 105 bbls above DV tool
32		4/22/2022	00:00					START STG 2
34	Pump Spacer	4/22/2022	15:50	8.34	5	10	175	Pumped 10 bbls spacer ahead
35	Stg 2 primary cement	4/22/2022	15:53	12	5.1	10	186	Start Stg 2 Primary cement 10 bbls pumped
36	Stg 2 primary cement	4/22/2022	15:58	12	5.1	50	179	50 bbls stg 2 primary pumped
37	Stg 2 primary cement	4/22/2022	16:12	12	5.1	100	174	100 bbls pumped ( full returns )
38	Stg 2 Primary Cemnent	4/22/2022	16:22	12	5.1	150	185	150 bbls pumped
43	Stg 2 primary cement	4/22/2022	16:25	12	5.1	172	172	172 bbls pumped
44	Drop Plug	4/22/2022	16:26	8.34				Drop Plug
45	Pump Displacement	4/22/2022	16:33	8.34	5.5	20	177	Start Displacing 20 bbls pumped
46	Pump Displacement	4/22/2022	16:39	8.34	5.5	50	177	50 bbls Pumped
47	Land Plug	4/22/2022	16:44	8.34	4	70	2080	70 bbls pumped , Plug Landed FCP 274, bump pressure was 2080psi 45 bbls cement to surface
48		4/23/2022	01:04					START TOP OUT
49	Pump topout cement	4/23/2022	01:05	15.8	2	5	97	Pump 5 bbls top out cement
50	Pump topout cement	4/23/2022	01:10	15.8	2	14	96	Cement to surface @ 14 bbls pumped
51	Pump topout cement	4/23/2022	01:11	15.8	2	20	89	Total pumped 20 bbls , 6 bbls to surface
52	Rig Down Iron	4/23/2022	01:30					Rig down iron
53	Depart Location	4/23/2022	02:15					Depart Location

# Pump Diagrams



JobMaster Program Version 5.01C1  
Job Number: 81139  
Customer: Caerus  
Well Name: BJU F35 FED #25b-35-496

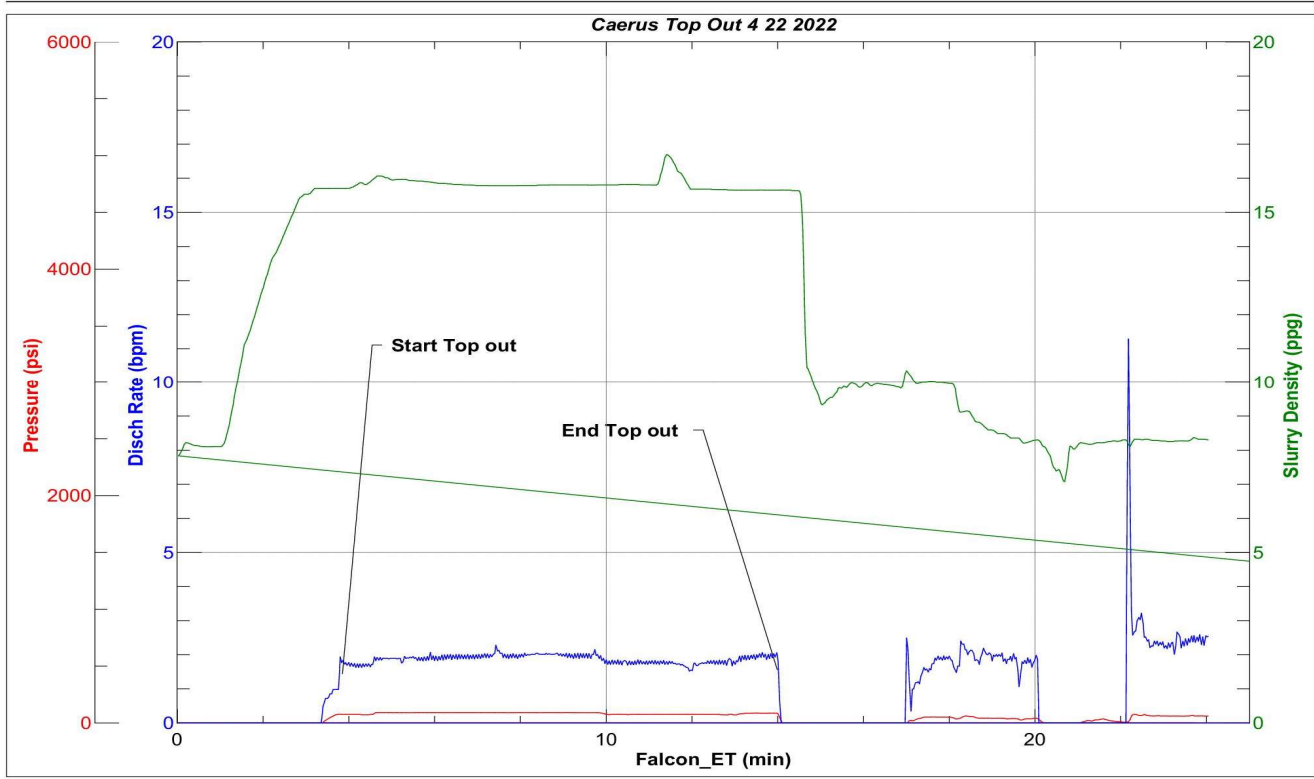


BJ Services

Job Start: Friday, April 22, 2022



JobMaster Program Version 5.01C1  
Job Number: 81139  
Customer: Caerus  
Well Name: BJU G35 FED #25B-35-496

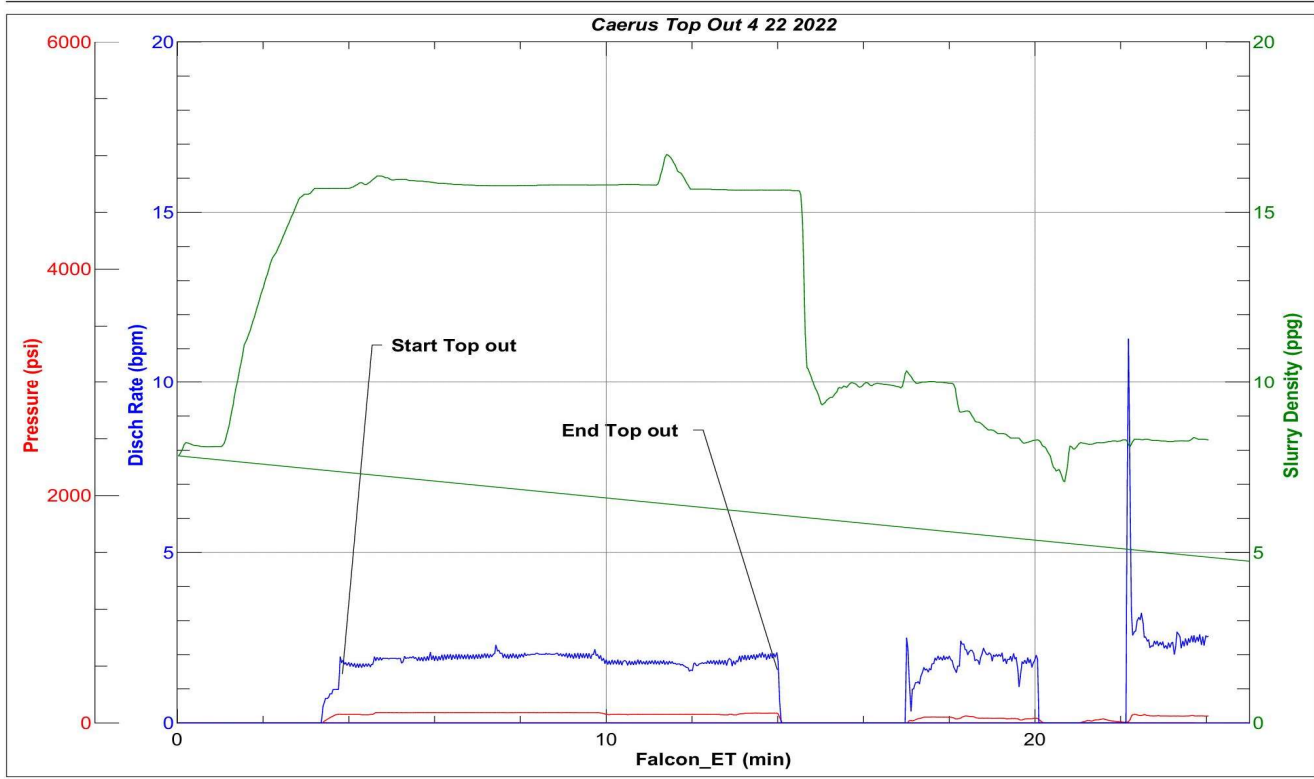


BJ Services

Job Start: Friday, April 22, 2022



JobMaster Program Version 5.01C1  
Job Number: 81139  
Customer: Caerus  
Well Name: BJU G35 FED #25B-35-496



BJ Services

Job Start: Friday, April 22, 2022