Caerus Operating LLC
TWO-STAGE/MULTI-STAGE (Pumped As Single Stage) CEMENT POST JOB REPORT

BJU G35 FED 12D-35-496 05-045-24331
S:35 T:4S R:96W Garfield CO

CallSheet #: 80070
Proposal #: 57643

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@americancementing.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	503	0
Casing	Inner	9.625	8.921	36	n/a	0	3003	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS(CTS)-469		
Field Storage Silo	FSS(CTS)-468		
Cement Trailer	CTF-263	TRC(TRB)-202	Hansen, James
AS Cement Trailer	CTF-7145	TRC(TRB)-090	
AS Cement Trailer	CTF-9898	TRC(TRB)-090	
Cement Pump Float	CPF-136	TRH-1137	Aden, Mark
Light Duty Vehicles	LDV-061		Lancaster, Stephen

Timing

Event	Date/Time
Call Out	3/2/2022 06:00
Depart Facility	3/2/2022 10:30
On Location	3/2/2022 11:20
Rig Up Iron	3/2/2022 11:50
Job Started	3/2/2022 17:35
Job Completed	3/2/2022 23:05
Rig Down Iron	3/2/2022 23:37
Depart Location	3/3/2022 00:20

General Job Information

Metrics	Value
Well Fluid Density	9.6 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	467 bbls
Rig Circulation Time	1.2 hours
Calculated Displacement	226 bbls
Actual Displacement	226 bbls
Total Spacer to Surface	30 bbls
Total CMT to Surface	18 bbls
Well Topped Out	Yes
Top Out Volume	5 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	9.6 lb/gal
Well Fluid Density Out of Well	9.6 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	5.5-8.5
Chlorides	200 mg/L	0-3000 mg/L
Total Alkalinity	120	0-1000
Total Hardness	180 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	0 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 ($ft^{3/sk}$)	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	14.79		491.00	220.22	1050
3	Stage-1 Tail	Tail	12.50	2.23	12.55		162.00	64.23	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	14.93		380.00	172.29	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	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	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	IntegraSeal POLI	LostCirculation	0.25	lb/sk
2	Primary	Stage-2 Primary	STATIC FREE	Other	0.01	lb/sk

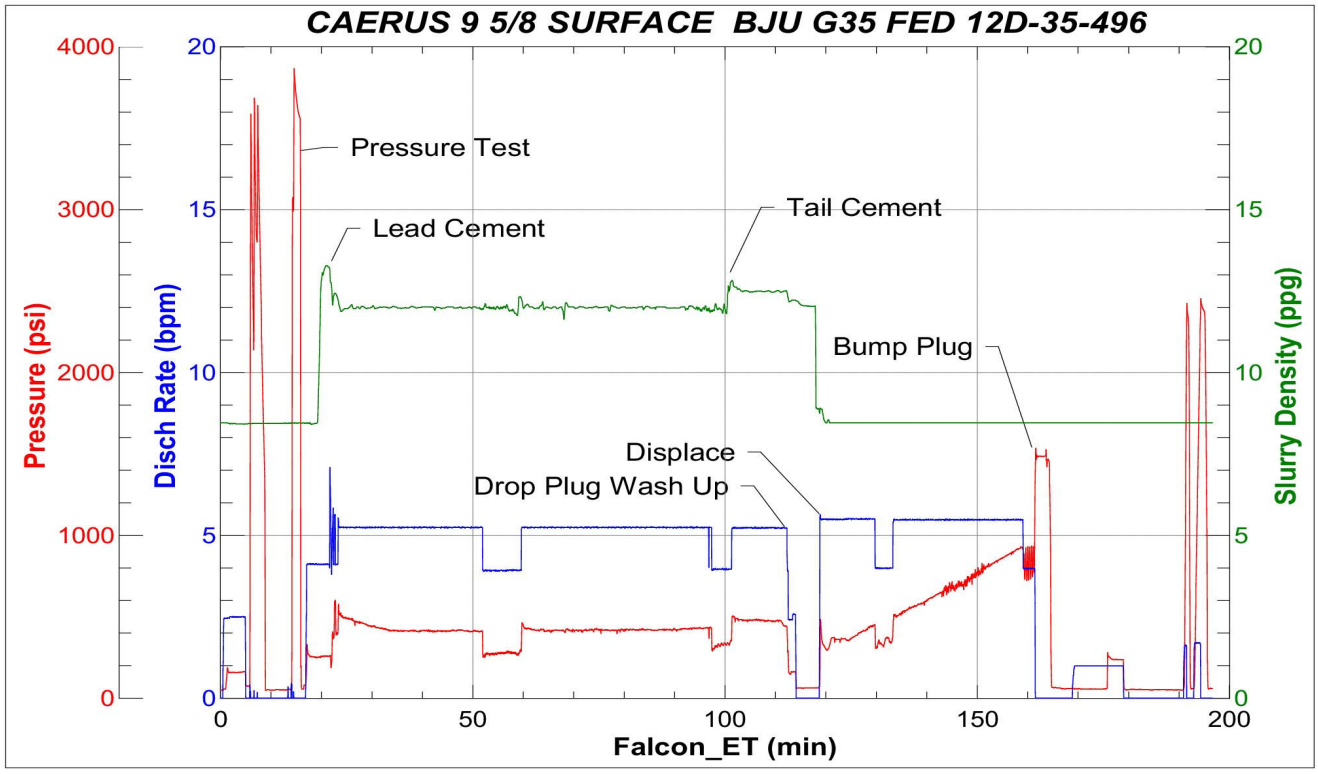
Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	3/2/2022	06:00					Crew called for job , yard time 7 am, On location time 11 am
2	Safety Meeting	3/2/2022	07:30					Journey Management meeting
3	Depart Yard	3/2/2022	10:30					Leave Rifle, CO yard for location
4	Arrive on Location	3/2/2022	11:20					Arrived on location, Still had a lot of casing to run. Got with co rep and he said this would be a 1 stage job,,
5	Safety Meeting	3/2/2022	11:30					Rig up safety meeting
6	Spot Units	3/2/2022	11:40					Spot all equipment for rig up
7	Rig up	3/2/2022	11:50					Rig up all equipment
8	Finish rigging up iron	3/2/2022	12:35					Crew on standby while rig finishes running casing
9	Safety Meeting	3/2/2022	17:35					Pre job meeting with all crews involved with cement job
10	Fill Lines	3/2/2022	18:00	8.34	2.5	10	70	Fill lines for press test
11	Pressure Test	3/2/2022	18:05	8.34	1	10	3080	Press test pump and lines to wellhead, had a leak on the double wing chicksan, changed out rubber and good test
12	Fresh Flush	3/2/2022	18:13	8.34	5	20	350	Pump 20 bbls fresh water
13	Lead Cement	3/2/2022	18:17	12	5	10	390	392 BBLS Lead CMT – 12 # 2.52 Y 14.8 MW 869 sks 10 bbls away
14	Lead Cement	3/2/2022	18:27	12	5	50	405	50 bbls pumped
15	Lead Cement	3/2/2022	18:36	12	5	100	417	100 bbls pumped
16	Lead Cement	3/2/2022	18:46	12	5	150	421	150 bbls pumped
17	Lead Cement	3/2/2022	18:57	12	5	200	418	200 bbls pumped
18	Lead Cement	3/2/2022	19:07	12	5	250	406	250 bbls pumped
19	Lead Cement	3/2/2022	19:17	12	5	300	422	300 bbls pumped
20	Lead Cement	3/2/2022	19:26	12	5	350	431	350 bbls pumped
21	Lead Cement	3/2/2022	19:36	12	5	392	435	392 bbls pumped swapped to tail 12.5#,2.23y,12.6 mw 161 sks
22	Tail Cement	3/2/2022	19:38	12.5	5	10	422	10 bbls pumped
23	Tail Cement	3/2/2022	19:47	12.5	5	50	476	50 bbls pumped
24	Tail Cement	3/2/2022	19:50	12.5	5	64	479	64 bbls pumped
25	Drop plug	3/2/2022	19:51					Drop plug
26	Displacement	3/2/2022	19:57	8.34	5.5	16	307	Got returns at 16 bbls pumped
27	Displacement	3/2/2022	19:59	8.34	5.6	30	264	Lost returns at 25 bbls pumped
28	Displacement	3/2/2022	20:04	8.34	5.6	50	412	No returns
29	Displacement	3/2/2022	20:08	8.34	4	70	371	No returns
30	Displacement	3/2/2022	20:12	8.34	4	92	549	Got full returns at 92 bbls pumped 20:12
31	Displacement	3/2/2022	20:16	8.34	5	110	630	Full returns
32	Displacement	3/2/2022	20:20	8.34	5	130	693	Full returns
34	Displacement	3/2/2022	20:23	8.34	5	147	699	Partial returns @ 147 pumped 20:23
35	Displacement	3/2/2022	20:26	8.34	5	156	712	Full returns @ 156 bbls pumped 20:26
36	Displacement	3/2/2022	20:32	8.34	5	190	865	Full returns
37	Bump plug	3/2/2022	20:38	8.34	4	226	1480	Bump plug at 1480 20:38 Final circ press was 935 psi Cement to surface at 208 pumped 18 bbls cement to surface
38	Check Floats	3/2/2022	20:39					Floats holding got 1.5 bbls back
40	Pump through parasite	3/2/2022	20:44	8.34	1.5	7	381	Broke over at 7 bbls pumped 381 psi
41	Press up on cancel plug	3/2/2022	20:59	8.34	1.5	1	2448	Press up on cancellation plug to 2448 psi

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
42	Waiting	12/30/1899	00:00					Stand by for 2 hours to pump top out
43	Start top out cement	3/2/2022	22:58	12.5	1	5	112	Topped out with 5 bbls cement
44	Clean Pumps and Lines	3/2/2022	23:05					Wash up pump and lines to the cellar
45	Clean Pumps and Lines	3/2/2022	23:20					Pickel pump to the cellar
46	Safety Meeting	3/2/2022	23:35					Held pre rig down safety meeting
47	Rig Down Iron	3/2/2022	23:37					Rig down iron
48	Depart Location	3/3/2022	00:20					Leave location

Pump Diagrams

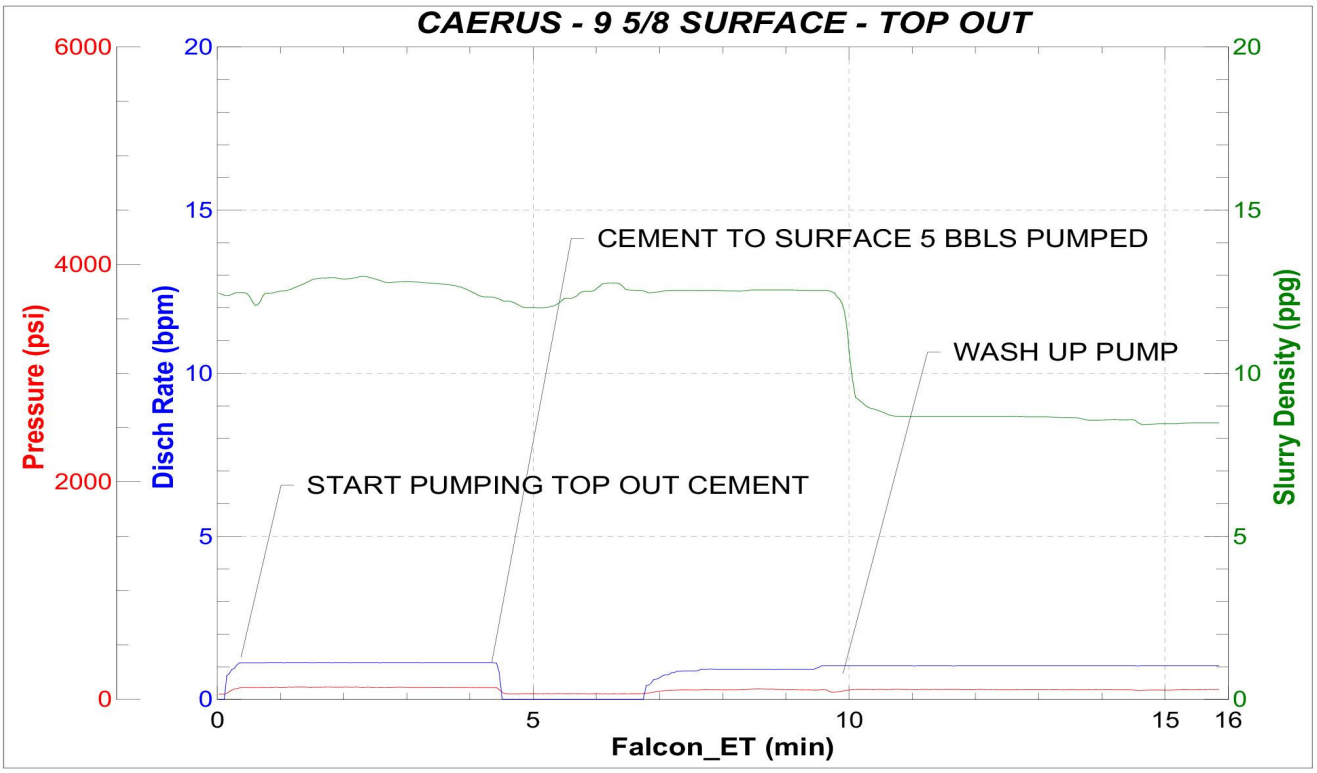
JobMaster Program Version 5.01C1
Job Number: 57643
Customer: Caerus 9 5/8 Surface
Well Name: BJU G35 FED 12D-35-496



BJ Services

Job Start: Wednesday, March 02, 2022

JobMaster Program Version 5.01C1
Job Number: 57643
Customer: Caerus top out
Well Name: BJU G35 FED 12D-35-496



BJ Services

Job Start: Wednesday, March 02, 2022