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# Caerus

## SURFACE POST JOB REPORT

Puckett 31C-26-697 05-045-23361  
S:26 T:6N R:97W Garfield CO

CallSheet #: 632  
Proposal #: 13069



**SURFACE Post Job Report**

**Attention:** Mr. Steve Schmitz | (720) 880-6412 | [sschmitz@caerusoilandgas.com](mailto:sschmitz@caerusoilandgas.com)  
Caerus  
1001 17th Street, Suite 1600 | Denver, CO 80202

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Dear Mr. Schmitz,

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

Sincerely,

**Oscar Medrano**

Technical Specialist-II | (307) 996-6222 | [Oscar.Medrano@bjservices.com](mailto:Oscar.Medrano@bjservices.com)

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## 1 Job Details & Summary

### 1.1 Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Casing	Inner	9.625	8.835	36	LTC	0	2526	0
Open Hole	Outer	n/a	14.75	n/a	n/a	100	2000	25
Open Hole	Outer	n/a	14.75	n/a	n/a	2000	2532	0
Casing	Outer	20	19.5	53	n/a	0	100	0

### 1.2 Equipment / People

Unit Type	Unit	Employee #1	Employee #2
Cement Pump	104	Acuna, Roger	Martinez, Michael
Cement Chemical	401		
Light Duty Pickups	5	Staples, Anthony	Vasquez, Mike
Silo	650		
Silo	651		
Silo	652		

### 1.3 Timing

Event	Date/Time
Call Out	3/16/2017 22:00
Depart Facility	3/16/2017 22:15
On Location	3/16/2017 23:30
Rig Up Iron	3/16/2017 23:45
Job Started	3/17/2017 01:54
Job Completed	3/17/2017 09:30
Rig Down Iron	3/17/2017 09:31
Depart Location	3/17/2017 11:00

### 1.4 General Job Information

Metrics	Value
Well Fluid Density	9.2 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	315 bbls
Rig Circulation Time	1.5 hours
Calculated Displacement	191.88 bbls
Actual Displacement	192 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	Yes
Top Out Volume	7.5 bbls

### 1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	18
Yield Point	17
10 sec. SGS	5
10 min. SGS	12
30 min. SGS	38

### 1.6 Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	9.2 lb/gal
Well Fluid Density Out of Well	9.2 lb/gal

### 1.7 Job Details (cont.)

Metrics	Value
BHCT	94 °F
BHST	128 °F

### 1.8 Circulation

Lost Circulation Experienced	Losses into Spacer
Yes	10

#### Circulation Details:

Lost Circulation about 10 bbls into Spacer and never came back

### 1.9 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Top (ft)
1	1	Water	Flush	8.33			42.00		20.00	0
1	2	Sodium Silicate	Flush	10.00			21.00		20.00	0
1	3	Water	Flush	8.33			42.00		20.00	0
1	4	ALTCem S100-12	Lead	12.00	2.53	14.85		703.00	316.33	0
1	5	ALTCem S100-12	Tail	12.50	2.22	12.58		161.00	63.76	2028
1	6	Water	Displacement	8.33			42.00		10.00	2328
1	7	Mud	Displacement	8.33			42.00		160.00	218
1	8	Water	DisplacementFinal	8.33			42.00		17.00	0
1	9	ALTCem S100-12	Topout	12.50	2.22	12.58		19.00	7.50	0

### 1.10 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Flush	Sodium Silicate	ASF-10	Extender	21.00	gal/bbl
1	4	Lead	ALTCem S100-12	AC3-10	Cement	100.00	%
1	4	Lead	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	4	Lead	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	4	Lead	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	4	Lead	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	4	Lead	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk
1	5	Tail	ALTCem S100-12	AC3-10	Cement	100.00	%
1	5	Tail	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk



1	5	Tail	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	5	Tail	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	5	Tail	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	5	Tail	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk
1	9	Topout	ALTCem S100-12	AC3-10	Cement	100.00	%
1	9	Topout	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	9	Topout	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	9	Topout	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	9	Topout	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	9	Topout	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk



## 2 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	Call Out	3/16/2017	22:00					
2	Arrive on Location	3/16/2017	23:30					Rig Finishing Up Running Casing
3	Spot Trucks	3/16/2017	23:40					
4	Rig Up	3/16/2017	23:45					
5	Safety Meeting	3/17/2017	00:30					
6	Load Lines	3/17/2017	01:54	8.34	2	2	200	
7	Pressure Test	3/17/2017	01:56	8.34			3082	
8	Spacer	3/17/2017	01:59	8.34	3	18	210	Fresh Water
9	Spacer	3/17/2017	02:05	10	3	20	200	Sodium Silicate
10	Spacer	3/17/2017	02:12	8.34	3	20	200	Fresh Water
11	Lead Cement	3/17/2017	02:18	12	3	10	200	Batch, Weigh, and Pump 703sks of 12# Lead Cement
12	Rate Change	3/17/2017	02:21	12	5	306	120	Total Pumped 316 Bbls
13	Tail Cement	3/17/2017	03:30	12.5	5	33	100	Pump 161sks of 12.5# Tail Cement. Calculated top of Tail Cement is 2028ft
14	Rate Change	3/17/2017	03:38	12.5	3	31	90	Total Pumped 64 Bbls
15	Shut Down	3/17/2017	03:55	8.34				Wash Up Mixing Tub
16	Drop Plug	3/17/2017	03:58					
17	Displacement	3/17/2017	03:59	8.34	4	10	0	
18	Displacement	3/17/2017	04:15	8.34	5	40	50	50 bbls Away
19	Displacement	3/17/2017	04:26	8.34	5	50	200	100 bbls Away
20	Displacement	3/17/2017	04:39	8.34	5	50	320	150 bbls Away
21	Displacement	3/17/2017	04:46	8.34	2	30	200	180 bbls Away Drop Rate to 2bpm
22	Displacement	3/17/2017	04:52	8.34	2	11	400	191 bbls Away
23	Bump	3/17/2017	04:53	8.34			900	Bumped Plug @ 191 Bbls away Final Lift was 400psi landed 900 psi. No Cement and No Returns During Cementing
24	Casing Test	3/17/2017	04:55	8.34			1514	Increased Psi from 900 psi to 1514 psi for the Casing Test
25	Check Floats	3/17/2017	05:10	8.34				Check Floats. 1 bbl back
26	Pump	3/17/2017	05:17	8.34	2	10	0	Pumped 10 bbls sugar water down parasite line
27	Shut Down	3/17/2017	05:23					
28	Rig Down Head	3/17/2017	05:24					Rigged Down Head, Waiting Until Top Out can Be Done
29	Batch Up	3/17/2017	09:15	12.5				Batch Up Tub For Top Out
30	Pump	3/17/2017	09:21	12.5		4	0	Pumped 10sks of 12.5# Top Out
31	Pump	3/17/2017	09:26	12.5		3.5	0	Pumped 9sks of 12.5# Top Out
32	Rig Down Job	3/17/2017	09:30					
33	Leave Location	3/17/2017	11:00					

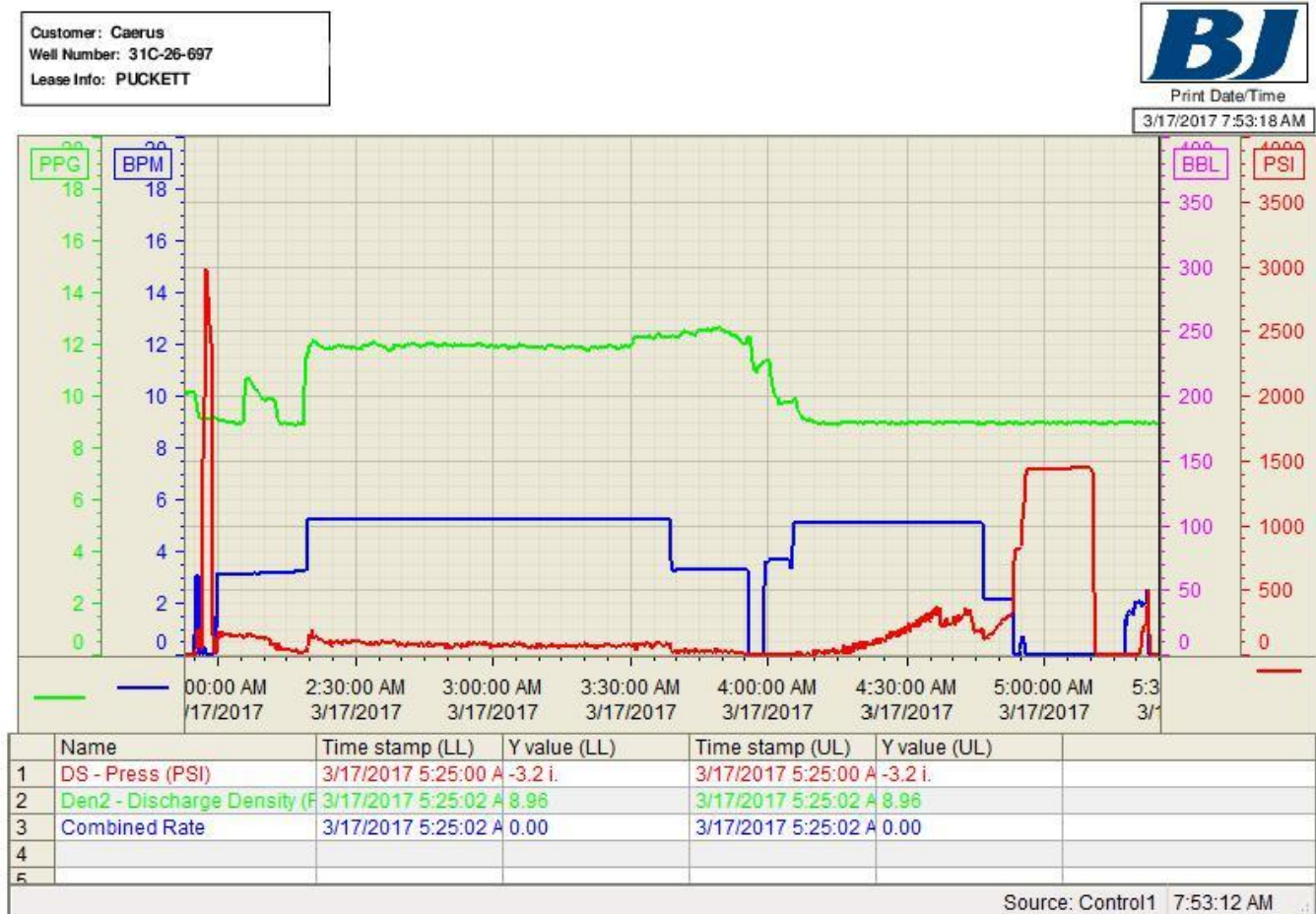


### 3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	88 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	120	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	70 mg/L	0-100 mg/L
Sulfates	>200 mg/L	0-1500 mg/L
Potassium	250 mg/L	0-3000 mg/L
Iron	1 mg/L	0-300 mg/L

### 4 Pump Diagrams

Job Chart







Top-Out Chart

