



COGCC doc # 2597420

# Caerus

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## Surface Post Job Report

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Puckett 13B-26-697 05-045-23413

S:26 T:6S R:97W Garfield CO

Quote #:

Execution #:





# Caerus

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,

Gage Putnam  
Field Engineer I | (970) 632-2006 | [Gage.Putnam@BJServices.com](mailto:Gage.Putnam@BJServices.com)

Field Office 28730 US-6, Rifle, CO 81650  
Phone: (970) 632-2412

Sales Office 999 18th St. Suite 1200 Denver, CO 80202  
Phone: (281) 408-2361

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# Cementing Treatment



<b>Start Date</b>	1/5/2018	<b>Well</b>	Puckett 13B-26-697
<b>End Date</b>	1/5/2018	<b>County</b>	GARFIELD
<b>Client</b>	CAERUS OPERATING, LLC	<b>State/Province</b>	CO
<b>Client Field Rep</b>	George Urban	<b>API</b>	05-045-23413
<b>Service Supervisor</b>	Glen Gilliam	<b>Formation</b>	-
<b>Field Ticket No.</b>	Surface	<b>Rig</b>	H&P 330
<b>District</b>	Rifle, CO	<b>Type of Job</b>	Surface

## WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)	Grade	Thread
Previous Casing	19.50	20.00	52.73	100.00	100.00			
Open Hole	14.75			2,000.00	2,000.00	25.00		
Open Hole	14.75			2,545.00	2,545.00	0.00		
Casing	8.92	9.63	36.00	2,523.00	2,523.00		J-55	9.625

**Shoe Length (ft):** 43

## HARDWARE

<b>Bottom Plug Used?</b>	No	<b>Tool Type</b>	Float Collar
<b>Bottom Plug Provided By</b>	-	<b>Tool Depth (ft)</b>	2,480.00
<b>Bottom Plug Size</b>	-	<b>Max Tubing Pressure - Rated (psi)</b>	0.00
<b>Top Plug Used?</b>	Yes	<b>Max Tubing Pressure - Operated (psi)</b>	0.00
<b>Top Plug Provided By</b>	Non BJ	<b>Max Casing Pressure - Rated (psi)</b>	3,520.00
<b>Top Plug Size</b>	9.625	<b>Max Casing Pressure - Operated (psi)</b>	2,000.00
<b>Centralizers Used</b>	Yes	<b>Pipe Movement</b>	None
<b>Centralizers Quantity</b>	5.00	<b>Job Pumped Through</b>	No Manifold
<b>Centralizers Type</b>	Bow	<b>Top Connection Thread</b>	8 ROUND
<b>Landing Collar Depth (ft)</b>	2,480	<b>Top Connection Size</b>	9.625

# Cementing Treatment



## CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Solids Present at End of Circulation	No
Circulation Prior to Job	No	10 sec SGS	7.00
Circulation Time (min)	0.50	10 min SGS	15.00
Circulation Rate (bpm)	6.00	30 min SGS	27.00
Circulation Volume (bbls)	180.00	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	Yes	Gas Present	No
Mud Density In (ppg)	9.00	Gas Units	0
Mud Density Out (ppg)	9.00		
PV Mud In	16		
PV Mud Out	16		
YP Mud In	11		
YP Mud Out	11		

## TEMPERATURE

Ambient Temperature (°F)	20.00	Slurry Cement Temperature (°F)	-
Mix Water Temperature (°F)	80.00	Flow Line Temperature (°F)	90.00

## BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	Water	8.33					20.00
Spacer / Pre Flush / Flush	Water	8.33					20.00
Spacer / Pre Flush / Flush	Sodium Silicate	10.00					20.00
Lead Slurry	S100-12	12.00	2.5329	14.89	704	1,774.00	315.90
Tail Slurry	S100-12	12.50	2.2282	12.62	162	358.00	63.70
Displacement Final	Displacement	8.33				0.00	191.00
Top Out Slurry	S100-12	12.50	2.2282	12.62	255	568.00	101.20

# Cementing Treatment



Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	Sodium Silicate	SILICATE, SODIUM, A-3L	21.00	GPB
Lead Slurry	S100-12	CEMENT, ASTM TYPE III	100.00	PCT
Lead Slurry	S100-12	CEMENT EXTENDER, SODIUM METASILICATE, A-2	2.00	LBS/SK
Lead Slurry	S100-12	CEMENT EXTENDER, GYPSUM, A-10	5.00	BWOB
Lead Slurry	S100-12	IntegraSeal CELLO	0.13	LBS/SK
Lead Slurry	S100-12	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.00	LBS/SK
Lead Slurry	S100-12	FP-25, Dry Foam Preventer (BJS Only)	0.30	BWOB
Tail Slurry	S100-12	CEMENT, ASTM TYPE III	100.00	PCT
Tail Slurry	S100-12	FP-25, Dry Foam Preventer (BJS Only)	0.30	BWOB
Tail Slurry	S100-12	CEMENT EXTENDER, SODIUM METASILICATE, A-2	2.00	LBS/SK
Tail Slurry	S100-12	IntegraSeal CELLO	0.13	LBS/SK
Tail Slurry	S100-12	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.00	LBS/SK
Tail Slurry	S100-12	CEMENT EXTENDER, GYPSUM, A-10	5.00	BWOB
Top Out Slurry	S100-12	CEMENT, ASTM TYPE III	100.00	PCT
Top Out Slurry	S100-12	FP-25, Dry Foam Preventer (BJS Only)	0.30	BWOB
Top Out Slurry	S100-12	CEMENT EXTENDER, SODIUM METASILICATE, A-2	2.00	LBS/SK
Top Out Slurry	S100-12	IntegraSeal CELLO	0.13	LBS/SK
Top Out Slurry	S100-12	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.00	LBS/SK
Top Out Slurry	S100-12	CEMENT EXTENDER, GYPSUM, A-10	5.00	BWOB

# Cementing Treatment



## TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Comments
1/5/2018 8:18 AM	Water	2.00	20.00	40.00	
1/5/2018 8:29 AM	Sodium Silicate	5.00	20.00	192.00	
1/5/2018 8:33 AM	Water	5.00	20.00	177.00	
1/5/2018 8:47 AM	S100-12	4.00	315.90	98.00	LEAD
1/5/2018 9:45 AM	S100-12	4.20	63.70	108.00	TAIL
1/5/2018 10:04 AM	Displacement	3.40	190.20	29.00	
1/5/2018 4:23 PM	S100-12	3.00	101.00	93.00	255 SACKS TOP OUT

	Min	Max	Avg
Pressure (psi)	1.00	3,000.00	255.00
Rate (bpm)	1.00	6.80	5.50

## DISPLACEMENT AND END OF JOB SUMMARY

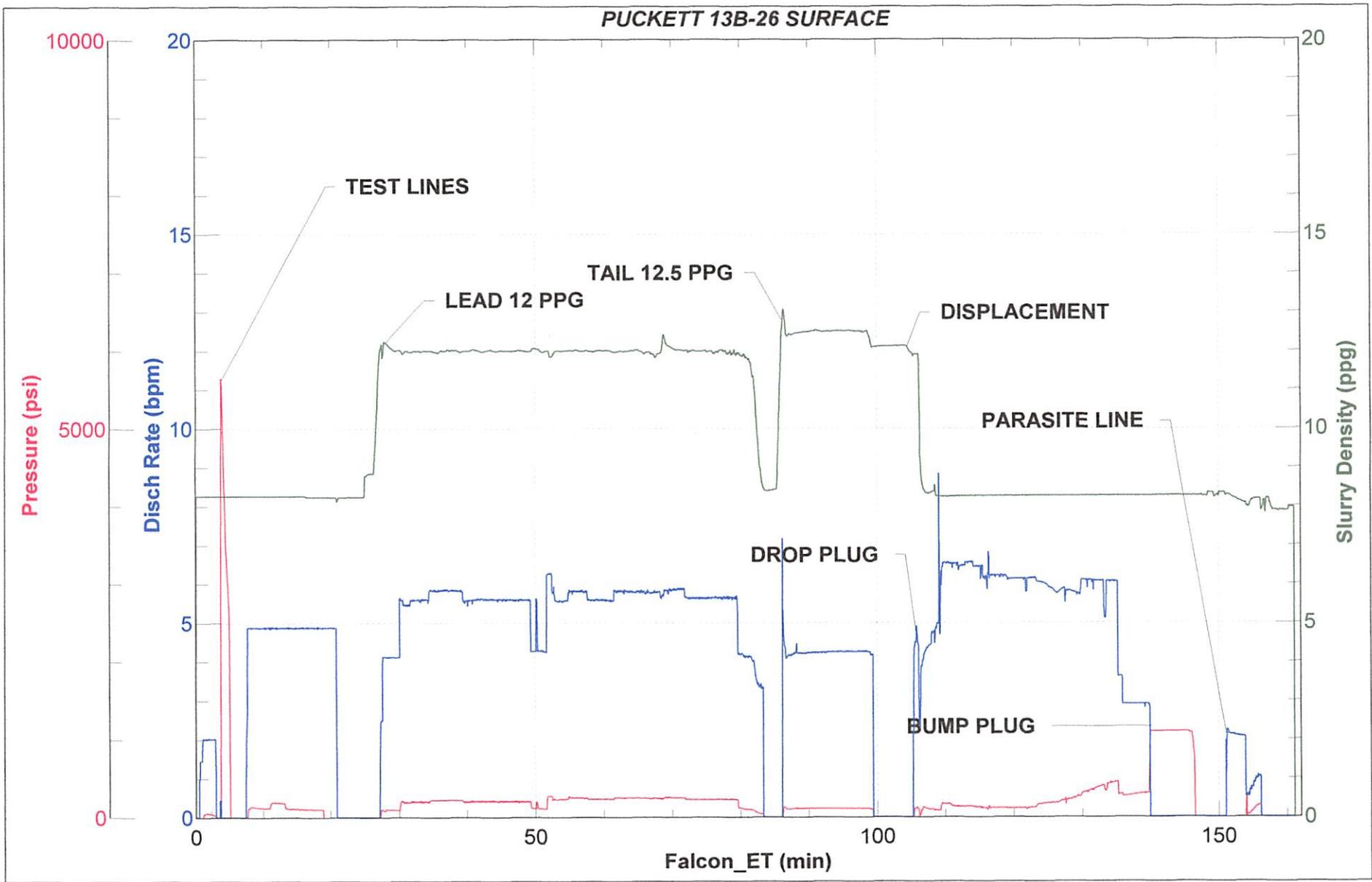
Displaced By	BJ	Amount of Cement Returned/Reversed	1.00
Calculated Displacement Volume (bbls)	191.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	191.00	Amount of Spacer to Surface	0.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	No	Amount Bled Back After Job	0.50
Bump Plug Pressure (psi)	309.00	Total Volume Pumped (bbls)	191.00
Were Returns Planned at Surface	No	Top Out Cement Spotted	Yes
Cement returns During Job	None	Lost Circulation During Cement Job	Yes

Customer Name CAERUS  
 Well Name PUCKETT 13B-26  
 Job Type Surface

District Rifle  
 Supervisor GLEN GILLIAM  
 Engineer ZEN KEITH



Seq No.	Start Date	Start Time	Event	Equipment	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	1/4/2018	23:30	CALLOUT						BJ CREW CALLED OUT WITH AN RTS OF 06:00 1-5-18
2	1/5/2018	2:00	JOURNEY STEACS						JOURNEY STEACS MEETING WITH BJ CREW
3	1/5/2018	2:15	DEPART YARD						BJ CREW DEPARTS YARD HEADED TO LOCATION
4	1/5/2018	4:00	ARRIVE ON LOCATION						BJ CREW ARRIVES ON LOCATION
5	1/5/2018	4:15	STEACS RIG UP/JOB						STEACS MEETING WITH BJ CREW ON RIG UP AND JOB PROCEDURE
6	1/5/2018	4:30	RIG UP EQUIPMENT						BJ CREW RIGS UP ALL EQUIPMENT
7	1/5/2018	5:15	DOWN TIME						BJ CREW DOWN, RIG RUNNING CASING
8	1/5/2018	6:40	PIPE ON BOTTOM						RIG LANDED LAST JOINT, CIRCULATING .5 HR
9	1/5/2018	7:15	SAFETY MEETING						SAFETY MEETING WITH RIG CREW
10	1/5/2018	8:05	STAB HEAD TO WELL						BJ CREW STABS HEAD TO WELL
11	1/5/2018	8:18	FILL LINES		8.33	2	5	40	FILL LINES WITH 5 BBLs FRESH WATER
12	1/5/2018	8:21	TEST LINES						TEST LINES AT 3000 PSI
13	1/5/2018	8:26	FRESH WATER SPACER		8.33	5	15	116	15 BBLs FRESH WATER SPACER
14	1/5/2018	8:29	SODIUM SILICATE		9	5	20	192	20 BBLs SODIUM SILICATE SPACER
15	1/5/2018	8:33	FRESH WATER SPACER		8.33	5	20	177	20 BBLs FRESH WATER SPACER
16	1/5/2018	8:40	BATCH UP LEAD		12				BATCH UP LEAD CEMENT AT 12 PPG
17	1/5/2018	8:45	LEAD DOWN HOLE		12	4		98	LEAD CEMENT DOWN HOLE AT 12 PPG
18	1/5/2018	8:55	50 BBLs GONE		12	5	50	220	50 BBLs GONE LEAD CEMENT
19	1/5/2018	9:04	100 BBLs GONE		12	5.5	100	203	100 BBLs GONE LEAD CEMENT
20	1/5/2018	9:14	150 BBLs GONE		12	5.8	150	253	150 BBLs GONE LEAD CEMENT
21	1/5/2018	9:23	200 BBLs GONE		12	5.8	200	246	200 BBLs GONE LEAD CEMENT
22	1/5/2018	9:31	250 BBLs GONE		12	5.8	250	230	250 BBLs GONE LEAD CEMENT
23	1/5/2018	9:41	300 BBLs GONE		12	5.8	300	101	300 BBLs GONE LEAD CEMENT/ 317 BBLs TOTAL
24	1/5/2018	9:43	BATCH UP TAIL		12.5				BATCH UP TAIL CEMENT AT 12.5 PPG
25	1/5/2018	9:45	TAIL DOWN HOLE		12.5	4.2		108	TAIL CEMENT DOWN HOLE AT 12.5 PPG
26	1/5/2018	9:56	50 BBLs GONE		12.5	4.2	50	107	50 BBLs GONE TAIL CEMENT/ 60 BBLs TOTAL
27	1/5/2018	10:04	DROP PLUG/DISPLACE		12.5	3.4	4	29	SHUT DOWN, DROP TOP PLUG, START DISPLACEMENT WITH 4 BBLs OF CEMENT ON TOP OF PLUG
28	1/5/2018	10:15	50 BBLs GONE		8.33	6	50	112	50 BBLs GONE DISPLACEMENT
29	1/5/2018	10:21	100 BBLs GONE		8.33	6	100	118	100 BBLs GONE DISPLACEMENT
30	1/5/2018	10:30	150 BBLs GONE		8.33	6	150	340	150 BBLs GONE DISPLACEMENT
31	1/5/2018	10:39	BUMP PLUG		8.33	3	191	309	BUMP PLUG, FCP-309 PSI TOOK TO 1100 PSI HELD FOR 5 MINS
32	1/5/2018	10:44	CHECK FLOATS						FLOATS HELD .5 BBLs BACK
33	1/5/2018	10:50	PUMP PARASITE		8.4	2.25	10	345	PUMPED 10 BBLs SUGAR WATER DOWN PARASITE LINE, PRESSURE BROKE OVER AT 345 PSI ABOUT 7 BBLs
34	1/5/2018	11:00	CLEAN PUMP						CLEAN PUMP AND STEACS ON TOPOUT JOB
35	1/5/2018	12:00	DOWN TIME						BJ CREW DOWN, START TOPOUT AROUND 15:00
36	1/5/2018	15:30	STEACS TOPOUT						STEACS MEETING WITH BJ CREW ON TOPOUT JOB
37	1/5/2018	15:45	RIG UP EQUIPMENT						BJ CREW RIGS UP TOPOUT EQUIPMENT
38	1/5/2018	16:13	PUMP CALCIUM CHLORIDE		8.5	2	2	39	PUMP 200IBS OF CALCIUM CHLORIDE IN 2 BBLs OF FRESH WATER
39	1/5/2018	16:16	BATCH UP CEMENT		12.5				BATCH UP TOPOUT CEMENT AT 12.5 PPG
40	1/5/2018	16:23	CEMENT DOWN HOLE		12.5	3		96	START PUMPING TOPOUT CEMENT DOWN HOLE AT 12.5 PPG
41	1/5/2018	16:40	50 BBLs GONE		12.5	3	50	93	50 BBLs GONE/ 79 BBLs TOTAL-200 SACKS
42	1/5/2018	18:40	PUMP CALCIUM CHLORIDE		8.5	2	2	40	PUMP 200IBS OF CALCIUM CHLORIDE IN 2 BBLs OF FRESH WATER
43	1/5/2018	18:47	BATCH UP CEMENT		12.5				BATCH UP TOPOUT CEMENT AT 12.5 PPG
44	1/5/2018	19:00	CEMENT TO SURFACE		12.5	3	22	91	CEMENT TO SURFACE, JOB COMPLETE 255 SACKS TOTAL/101 BBLs
45	1/5/2018	19:05	STEACS RIG DOWN						STEACS MEETING WITH BJ CREW ON RIG DOWN EQUIPMENT
46	1/5/2018	19:10	RIG DOWN EQUIPMENT						BJ CREW RIGS DOWN EQUIPMENT AND WASH PUMP
47	1/5/2018	20:00	AAR/ JOB COMPLETE						AAR WITH BJ CREW ON JOB, PRE-TRIP TRUCKS
48	1/5/2018	20:15	STEACS/ JOURNEY						STEACS/ JOURNEY WITH BJ CREW
49	1/5/2018	21:00	DEPART LOCATION						BJ CREW DEPARTS LOCATION, STOP AT TOP GUARD SHACK
50	1/5/2018		***MISC***						BUMP PLUG, FCP-309 PSI TOOK TO 1100 PSI FLOATS HELD .5 BBLs BACK, TOPOUT WAS 255 SACKS, 101 BBLs, CALCULATED HEIGHT OF TAIL WAS 502' CALCULATED HEIGHT OF LEAD WAS 2612', HEIGHT OF TOPOUT





JobMaster Program Version 4.02C1

Job Number: 2086

Customer: CAERUS

Well Name: PUCKETT 13B-26

