



Caerus

SURFACE POST JOB REPORT

Puckett 44A-24 05-045-23194
S:24 T:6S R:97W Garfield CO

CallSheet #: 1412
Proposal #: 13735



SURFACE Post Job Report

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

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,

Zen Keith

Technical Specialist-II | (307) 757-7178 | Zen.Keith@bjservices.com

Field Office 28730 US-6, Rifle, CO 81650
Phone: (307) 360-3062

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



Table of Contents

1 Job Details & Summary	3
1.1 Geometry	3
1.2 Equipment / People	3
1.3 Timing	3
1.4 General Job Information	3
1.5 Well Fluid Details	3
1.6 Job Details	3
1.7 Job Details (cont.)	3
1.8 Circulation	4
1.9 Job Execution Information	4
1.10 Job Fluid Details	4
2 Job Logs	5
3 Water Analysis	7
4 Pump Diagrams	8

1 Job Details & Summary

1.1 Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
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	2550	0
Casing	Outer	20	19.5	53	n/a	0	100	0
Casing	Inner	9.625	8.921	36	LTC	0	2519	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Field Storage Silo	21		
Cement Pump	C156	Youngberg, Wendell	40
Light Duty Pickups	2	Roush, James	40
Cement Chemical	401	Busheri, Hamza	40
Field Storage Silo	23		

1.3 Timing

Event	Date/Time
Call Out	9/28/2017 09:00
Depart Facility	9/28/2017 10:30
On Location	9/28/2017 12:30
Rig Up Iron	9/28/2017 13:30
Job Started	9/28/2017 22:23
Job Completed	9/29/2017 10:30
Rig Down Iron	9/29/2017 11:00
Depart Location	9/29/2017 11:40

1.4 General Job Information

Metrics	Value
Well Fluid Density	8.3 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	200 bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	191 bbls
Actual Displacement	191 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	Yes
Top Out Volume	140 bbls

1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	4
Yield Point	6
10 sec. SGS	1
10 min. SGS	2
30 min. SGS	3
Filtrate	28
Flow Line Temp.	59

1.6 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	No
Well Fluid Density Into Well	8.34 lb/gal
Well Fluid Density Out of Well	0 lb/gal

1.7 Job Details (cont.)

Metrics	Value
BHCT	94 °F
BHST	128 °F



1.8 Circulation

Lost Circulation Experienced
Yes

Circulation Details:

NO RETURNS DURING THE ENTIRE JOB

1.9 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /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	S100-12	Lead	12.00	2.53	14.85		703.00	316.33	0
1	5	S100-12	Tail	12.50	2.22	12.58		162.00	64.15	2000
1	6	Water	DisplacementFinal	8.33			42.00		191.00	0
1	7	S100-12	Topout	12.50	2.22	12.58		600.00	237.60	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	S100-12	AC3-10	Cement	100.00	%
1	4	Lead	S100-12	ACL-10	Accelerator	2.00	lb/sk
1	4	Lead	S100-12	ACL-20	Accelerator	5.00	%BWOB
1	4	Lead	S100-12	ADF-11	Defoamer	0.30	%BWOB
1	4	Lead	S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	4	Lead	S100-12	AXE-30	Extender	2.00	lb/sk
1	5	Tail	S100-12	AC3-10	Cement	100.00	%
1	5	Tail	S100-12	ACL-10	Accelerator	2.00	lb/sk
1	5	Tail	S100-12	ACL-20	Accelerator	5.00	%BWOB
1	5	Tail	S100-12	ADF-11	Defoamer	0.30	%BWOB
1	5	Tail	S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	5	Tail	S100-12	AXE-30	Extender	2.00	lb/sk
1	7	Topout	S100-12	AC3-10	Cement	100.00	%
1	7	Topout	S100-12	ACL-10	Accelerator	2.00	lb/sk
1	7	Topout	S100-12	ACL-20	Accelerator	5.00	%BWOB
1	7	Topout	S100-12	ADF-11	Defoamer	0.30	%BWOB
1	7	Topout	S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	7	Topout	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	Callout	9/28/2017	09:00					BJ CREW CALLED WITH A RTS OF 2 PM
2	JOURNEY MANAGEMENT	9/28/2017	10:00					JOURNEY MANAGEMENT MEETING WITH BJ CREW
3	LEAVE DISTRICT	9/28/2017	10:30					LEAVE DISTRICT
4	ARRIVE LOCATION	9/28/2017	12:30					ARRIVE AT CAERUS LOCATION
5	SAFETY MEETING	9/28/2017	13:00					STEACS BRIEFING WITH BJ CREW
6	SPOT TRUCKS RIG UP EQUIPMENT	9/28/2017	13:30					SPOT TRUCKS AND RIG IN EQUIPMENT
7	BJ ON STANDBY	9/28/2017	15:00					BJ ON STANDBY, RIG RUNNING CASING
8	PIPE ON BOTTOM	9/28/2017	20:00					CASING ON BOTTOM
9	SAFETY MEETING	9/28/2017	20:30					SAFETY MEETING WITH RIG CREW
10	RIG UP CEMENT HEAD TO CASING	9/28/2017	22:00					RIG UP CEMENT HEAD TO CASING
11	SAFETY MEETING WITH RIG	9/28/2017	22:10					SAFETY MEETING WITH RIG CREW AND COMPANY MAN
12	BREAK CIRCULATION	9/28/2017	22:23	8.34	3	5	40	BREAK CIRCULATION
13	TEST LINES	9/28/2017	22:26					TEST LINES 3000 PSI'
14	FRESH WATER	9/28/2017	22:30	8.34	5.5	15	102	FRESH WATER SPACER
15	SODIUM SILICATE MIX	9/28/2017	22:32	9	5.5	20	107	SODIUM SILICATE MIX AHEAD
16	FRESH WATER	9/28/2017	22:35	8.34	5.5	20	98	FRESH WATER SPACER
17	BATCH UP LEAD CEMENT	9/28/2017	22:50	12				BATCH UP LEAD CEMENT @ 12.0 PPG
18	LEAD SLURRY DOWN HOLE	9/28/2017	22:54	12	6	317	111	LEAD SLURRY DOWN HOLE
19	LEAD SLURRY	9/28/2017	23:00	12	6		127	50 BBLS GONE LEAD SLURRY
20	LEAD SLURRY	9/28/2017	23:08	12	6		130	100 BBLS GONE LEAD SLURRY
21	LEAD SLURRY	9/28/2017	23:15	12	6		130	150 BBLS GONE LEAD SLURRY
22	LEAD SLURRY	9/28/2017	23:22	12	6		120	200 BBLS GONE LEAD SLURRY
23	LEAD SLURRY	9/28/2017	23:31	12	6		132	250 BBLS GONE LEAD SLURRY
24	LEAD SLURRY	9/28/2017	23:38	12	6		128	300 BBLS GONE LEAD SLURRY
25	BATCH UP TAIL SLURRY	9/28/2017	23:41	12.5				BATCH UP TAIL SLURRY @ 12.5 PPG
26	TAIL SLURRY DOWN HOLE	9/28/2017	23:42	12.5	6	64	144	TAIL SLURRY DOWN HOLE @ 12.5 PPG
27	TAIL SLURRY	9/28/2017	23:48	12.5	6		135	50 BBLS GONE TAIL SLURRY
28	SHUT DOWN DROP PLUG	9/28/2017	23:51					DROP TOP PLUG



29	2 BBLS TAIL SLURRY	9/28/2017	23:53	12.5	3	2	52	2 BBLS CEMENT ON TOP OF TOP PLUG
30	DISPLACEMENT	9/28/2017	23:54	8.34	6	189	57	START DISPLACEMENT
31	DISPLACEMENT	9/29/2017	00:02	8.34	6		60	50 BBLS GONE DISPLACEMENT
32	DISPLACEMENT	9/29/2017	00:10	8.34	6		61	100 BBLS DISPLACEMENT
33	DISPLACEMENT	9/29/2017	00:19	8.34	6		73	150 BBLS GONE DISPLACEMENT
34	SLOW RATE	9/29/2017	00:24	8.34	2		62	SLOW RATE TO BUMP
35	BUMP PLUG	9/29/2017	00:26					BUMP PLUG TO 580 PSI
36	BLEED PRESSURE	9/29/2017	00:30					BLEED PRESSURE 0.5 BBLS BACK, FLOATS HELD
37	PUMP PARASITE LINE	9/29/2017	00:33	8.34	1	10	151	PUMP 10 BBLS SUGAR WATER DOWN PARASITE LINE
38	PUMP 200 SACKS	9/29/2017	00:53	12.5	4	79	41	MIX AND PUMP 200 SACKS (79 BBLS) CEMENT DOWN BACKSIDE
39	SHUT DOWN START WASH UP	9/29/2017	01:30					SHUT DOWN NO RETURNS START WASH UP PROCESS
40	BJ ON STANDBY	9/29/2017	02:00					BJ ON STANDBY, RIG RIGGING UP BOP'S
41	RIG UP TO PUMP TOP OUT	9/29/2017	08:00					RIG UP TO PUMP TOP OUT
42	PUMP CACL WATER	9/29/2017	09:00	8.55	2	10	25	PUMP CACL WATER
43	PUMP FRESH WATER	9/29/2017	09:13	8.34	2	2	21	FRESH WATER SPACER
44	BATCH UP CEMENT	9/29/2017	09:15	12.5	2	61	89	PUMP TOP OUT WITH SODIUM SILICATE
45	CEMENT TO SURFACE	9/29/2017	10:30	12.5				CEMENT TO SURFACE
46	RIG DOWN MEETING	9/29/2017	10:45					RIG DOWN MEETING WITH BJ
47	RIG DOWN EQUIPMENT	9/29/2017	11:00					RIG DOWN ALL EQUIPMENT
48	DEPART LOCATION	9/29/2017	11:30					BJ DEPART LOCATION
49	*MISC*	9/29/2017	00:00					FCP-78 PSI, BUMP PLUG 580 PSI, CHECK FLOATS 0.5 BBLS BACK FLOATS HELD, PUMP TOP OUT 140 BBLS 12.5 CEMENT (354 SACKS) Y-2.22, MW-12.58



3 Water Analysis

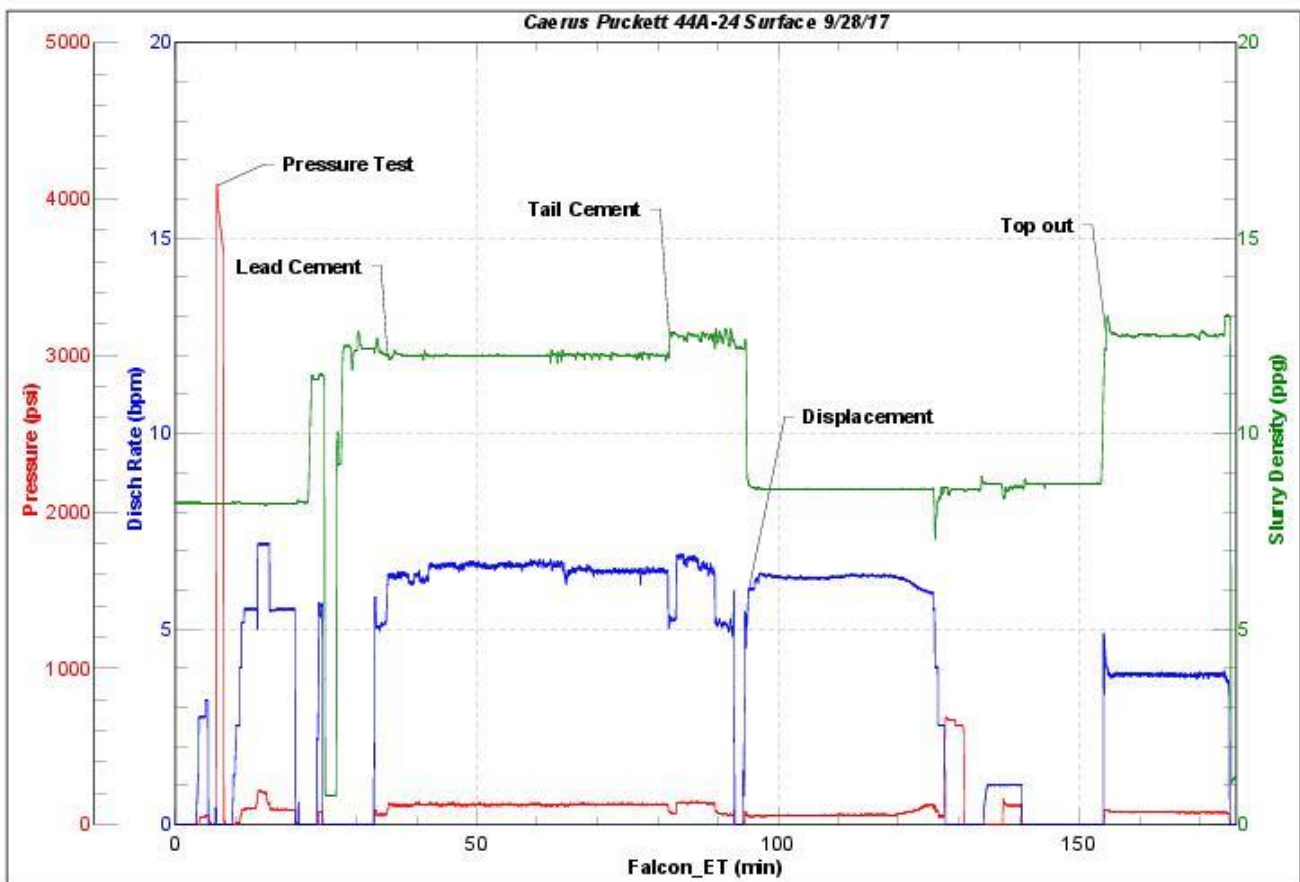
Metrics	Value	Recommended
Water Source	None	
Temperature	58 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	220	0-1000
Total Hardness	275 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	250 mg/L	0-3000 mg/L
Iron	0.02 mg/L	0-300 mg/L

4 Pump Diagrams

Job Chart



JobMaster Program Version 4.02C1
Job Number: 1412
Customer: CAERUS
Well Name: PUCKETT 44A-24



BJ Services

Job Start: Thursday, September 28, 2017

Top Out Chart

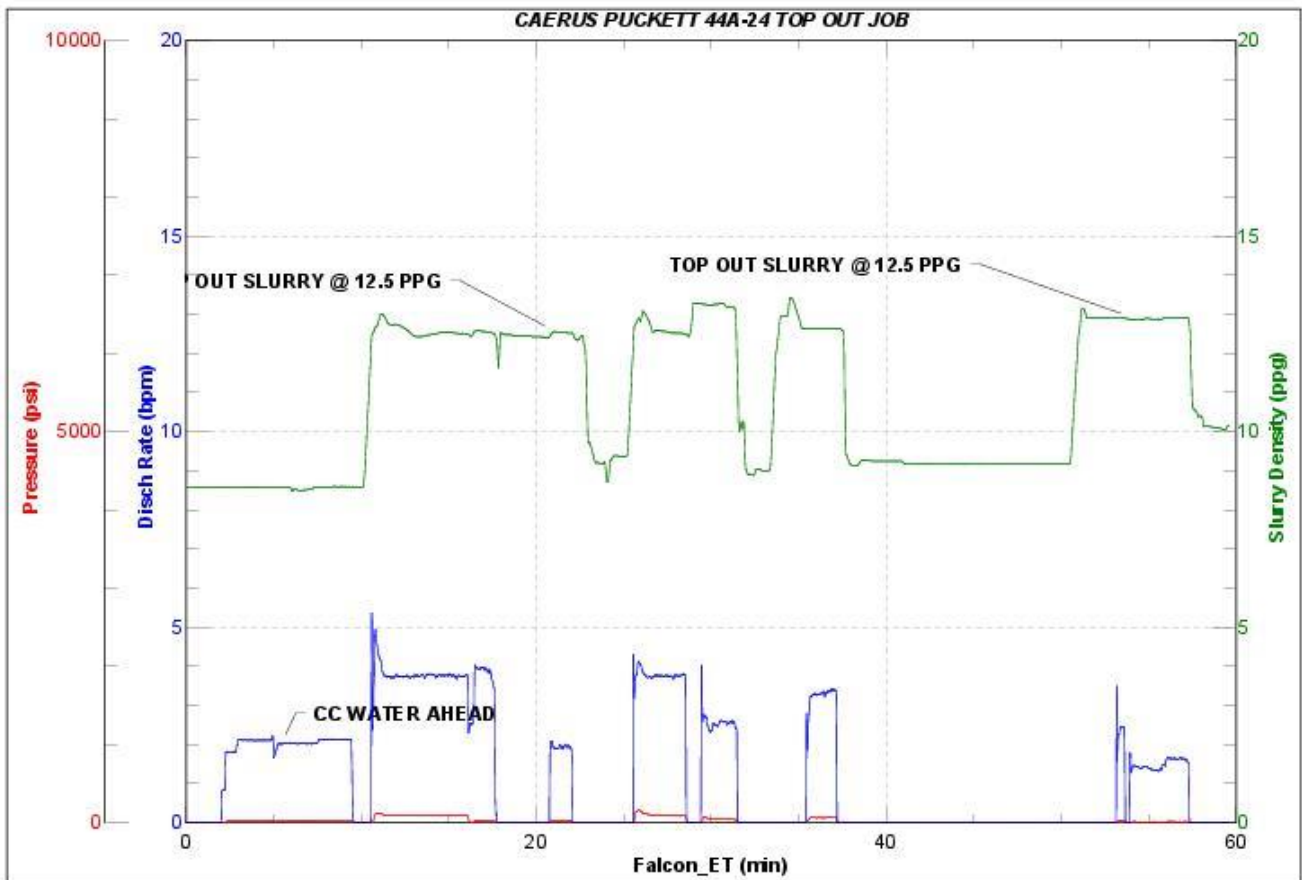


JobMaster Program Version 4.02C1

Job Number: 1412

Customer: CAERUS

Well Name: PUCKETT 44A-24



BJ Services

Job Start: Friday, September 29, 2017