



---

# **Bonanza Creek Energy**

## **PRODUCTION POST JOB REPORT**

North Platte #24-21-23HNC 05-123-44438  
S:26 T:5N R:63W Weld CO

CallSheet #: 1510  
Proposal #: 13918



**PRODUCTION Post Job Report**

**Attention:** Mr. Joel Dill | (720) 633-5871 | jdill@bonanzacrk.com  
Bonanza Creek Energy  
730 17th Street, Suite 610 | Denver, CO 80202

---

Dear Mr. Dill,

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,

**Jason Creel**

Field Engineer | (307) 256-0306 | Jason.Creel@BJSERVICES.COM

**Field Office**      1716 East Allison Rd., Cheyenne WY, 82007  
Phone: (307) 638-5585

**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 ..... 6

4 Pump Diagrams ..... 6

## 1 Job Details & Summary

### 1.1 Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	9.625	8.921	36	n/a	0	1603	0
Casing	Inner	5.5	4.892	17	n/a	0	11096	0
Open Hole	Outer	n/a	8.5	n/a	n/a	1603	11110	10

### 1.2 Equipment / People

Unit Type	Unit	Employee #1	Employee #2	Mileage
Silo	193			160
Silo	675			160
Bulk Trailer	PPC41309	Borst, David		160
Cement Pump	102	Vasquez, Mike		160
Light Duty Pickups	7	Chambers, Andrew	Cook, John	160

### 1.3 Timing

Event	Date/Time
Call Out	10/11/2017 14:30
Depart Facility	10/11/2017 16:15
On Location	10/11/2017 18:30
Rig Up Iron	10/11/2017 19:00
Job Started	10/12/2017 02:06
Job Completed	10/12/2017 05:32
Rig Down Iron	10/12/2017 05:40
Depart Location	10/12/2017 07:30

### 1.4 General Job Information

Metrics	Value
Well Fluid Density	9.2 lb/gal
Well Fluid Type	OBM
Rig Circulation Vol	700 bbls
Rig Circulation Time	2 hours
Calculated Displacement	256 bbls
Actual Displacement	256 bbls
Total Spacer to Surface	40 bbls
Total CMT to Surface	56 bbls

### 1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	12
Yield Point	8
10 sec. SGS	8
10 min. SGS	8
30 min. SGS	10
Filtrate	8.5
Flow Line Temp.	100

### 1.6 Job Details

Metrics	Value
Flare Prior to Job	No
Flare Prior to Job	3000 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	9.2 lb/gal
Well Fluid Density Out of Well	9.2 lb/gal

### 1.7 Job Details (cont.)

Metrics	Value
BHCT	212 °F
BHST	212 °F



### 1.8 Circulation

Lost Circulation Experienced
No

### 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 (sk)	Volume (bbl)	Top (ft)
1	1	CD Spacer	Spacer	11.00			32.75		40.00	0
1	2	P100-X2	Lead	12.50	2.07	11.81		622.00	229.46	0
1	3	P50-X1	Tail	13.50	1.47	7.43		1049.00	275.51	5000
1	4	MMCR Water	Displacement	8.33			41.90		20.00	10205
1	5	Water	Displacement Final	8.33			41.99		238.00	0

### 1.10 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	1	Spacer	CD Spacer	ASR-20	Strength Retrogression	179.85	lb/bbl
1	1	Spacer	CD Spacer	AR-31	Retarder	0.51	lb/bbl
1	1	Spacer	CD Spacer	ASF-20	Surfactant	0.50	gal/bbl
1	1	Spacer	CD Spacer	ASF-80	Surfactant	0.50	gal/bbl
1	1	Spacer	CD Spacer	AVS-10	Viscosifier	0.80	lb/bbl
1	2	Lead	P100-X2	AC3-10	Cement	100.00	%
1	2	Lead	P100-X2	ABX-30	Bond Enhancer	0.40	%BWOB
1	2	Lead	P100-X2	ADF-11	Defoamer	0.30	%BWOB
1	2	Lead	P100-X2	AFL-10	Fluid Loss	0.30	%BWOB
1	2	Lead	P100-X2	ALC-10	Lost Circulation	0.13	lb/sk
1	2	Lead	P100-X2	AR-31	Retarder	0.18	%BWOB
1	2	Lead	P100-X2	AVS-20	Viscosifier	0.10	%BWOB
1	3	Tail	P50-X1	ACG-10	Cement	50.00	%
1	3	Tail	P50-X1	AFA-10	Extender	50.00	%
1	3	Tail	P50-X1	ADF-11	Defoamer	0.30	%BWOB
1	3	Tail	P50-X1	AFL-50	Fluid Loss	0.20	%BWOB
1	3	Tail	P50-X1	AR-20	Retarder	0.10	%BWOB
1	3	Tail	P50-X1	AVS-10	Viscosifier	0.10	%BWOB
1	3	Tail	P50-X1	AVS-50	Viscosifier	2.00	%BWOB
1	4	Displacement	MMCR Water	AR-61	Retarder	0.10	gal/bbl
1	5	Displacement Final	Water	Biocide	Other	0.01	gal/bbl



## 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	10/11/2017	14:30					Bj crew gets called out for job.
2	Safety Meeting	10/11/2017	16:00					Bj crew talks about the hazards of driving to location.
3	Depart Yard	10/11/2017	16:15					Depart yard.
4	Arrive At Location	10/11/2017	18:30					Arrive at location
5	Safety Meeting	10/11/2017	18:45					Bj crew talks about the hazards of spotting in and rigging up.
6	Rig Up	10/11/2017	19:00					Rig up.
7	Other	10/11/2017	19:30					Waiting on rig to finish running casing.
8	Safety Meeting	10/12/2017	01:45					Bj and rig crew talk about the dangers of pumping the job.
9	Fill Lines	10/12/2017	02:06	8.33	2	3		Pump 3 bbls of water to fill lines.
10	Pump Spacer	10/12/2017	02:09	11	4	40		Pump 40 bbls of CD spacer.
11	Pump Lead	10/12/2017	02:34	12.5	6	229.5		Pump 229.5 bbls of P100-X2 lead cement at 12.5 ppg, 2.07 yld, 8.01 wtr. (622 sks).
12	Pump Tail	10/12/2017	03:19	13.5	6	275.5		Pump 275.5 bbls of P50-x1 tail cement at 13.5 ppg, 1.47 yld, 7.43 wtr. (1049 sks).
13	Shutdown/Wash Pump	10/12/2017	04:25					Wash pumps and lines to pit.
14	Drop Top Plug	10/12/2017	04:37					Company man witnesses plug drop.
15	Pump Displacement	10/12/2017	04:43	8.33	6	2100		Pump 256 bbls of water displacement.
16	Slow Rate	10/12/2017	05:27	8.33	3	2000		Slow rate to 3 bbl/min to land plug.
17	Land Plug	10/12/2017	05:30			3000		Land plug at 2000 psi, Brought pressure up to 3000 psi
18	Check Floats	10/12/2017	05:32					Floats Held. Got 3 bbls back.
19	Safety Meeting	10/12/2017	05:32					Bj crew talk about the hazards of rigging down.
20	Rig Down	10/12/2017	05:40					Rig down.
21	Safety Meeting	10/12/2017	06:20					Bj crew talks about hazards of driving back from location.
22	Depart Locations	10/12/2017	07:30					Depart Location.

### 3 Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	62 °F	50-80 °F
pH Level	7.5	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	250	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	>200 mg/L	0-1500 mg/L
Potassium	450 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

### 4 Pump Diagrams

