



# Bonanza Creek Energy

State Antelope X44-D14-13HNC

API # 05-123-50292

## Production

January 19, 2020

Quote #: QUO-41506-S2D6K5

Execution #: EXC-23967-M5T4D002



## Bonanza Creek Energy

Attention: Mr. Adam Conry | (303) 883.3351 | [AConry@bonanzacrk.com](mailto:AConry@bonanzacrk.com)

Bonanza Creek Energy | 410 17th St Suite 1400 | Denver, CO. 80202

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Dear Mr. Adam Conry,

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 | (307) 887-4243 | [Gage.Putnam@bjservices.com](mailto:Gage.Putnam@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

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# BJ Cementing Treatment Report

SERVICE SUPERVISOR	Hector Montoya	FORMATION	NIOBRARA
CLIENT FIELD REPRESENTATIVE	Bonanza Creek	RIG	Akita 519
DISTRICT	Cheyenne, WY	COUNTY	WELD
SERVICE	Cementing	STATE / PROVINCE	CO

## WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)
Casing	4.89	5.50	17.00	11,564.00	6,157.00	
Previous Casing	8.92	9.63	36.00	1,636.00	1,636.00	
Open Hole	8.50	0.00	0.00	11,574.00	6,157.00	7.00

## HARDWARE

Bottom Plug Used?	Yes	Centralizers Type	Rigid
Bottom Plug Provided By	Non BJ	Landing Collar Depth (ft)	
Bottom Plug Size	5.500	Max Casing Pressure - Rated (psi)	11080.00
Top Plug Used?	Yes	Max Casing Pressure - Operated (psi)	8864.00
Top Plug Provided By	Non BJ	Job Pumped Through	Manifold
Top Plug Size	5.500	Top Connection Thread	BTC
Centralizers Used	Yes	Top Connection Size	5.5
Centralizers Quantity	263.00		

## CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	PV Mud Out	9
Circulation Prior to Job	Yes	YP Mud In	4
Circulation Time (min)	90.00	YP Mud Out	4
Circulation Rate (bpm)	8.00	Solids Present at End of Circulation	No
Circulation Volume (bbls)	720.00	10 sec SGS	2
Lost Circulation Prior to Cement Job	No	10 min SGS	3
Mud Density In (ppg)	9.30	30 min SGS	4
Mud Density Out (ppg)	9.30	Flare Prior to / during the Cement Job	No
PV Mud In	9	Gas Present	No

Client: Bonanza Creek Energy

Well: STATE ANTELOPE #X44-D14-13HNC

Well API: 05-123-50292

Start Date: 1/19/2020

End Date: 1/19/2020



## TEMPERATURE

Ambient Temperature (°F)	30.00	Slurry Cement Temperature (°F)	65.00
Mix Water Temperature (°F)	60.00	Flow Line Temperature (°F)	114.00

## FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H <sub>2</sub> O REQ (gals/sk)	PLN TOP FLD (ft)	LENGTH (ft)	VOL (sk)	VOL (Cu Ft)	VOL (bbls)
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.0000			0.00				20.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	12.0000			0.00				20.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.0000			0.00				20.0000
Tail Slurry	IntegraCem LITE B03-CY02X	13.5000	1.4274	7.10	0.00	11,521.00	2010	2869.0000	510.9000
Displacement 2	Retarded Water	8.3337			13,244.00	0.00	0	0.0000	20.0000
Displacement Final	Displacement Final (Water)	8.3308			0.00			0.0000	235.0000

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FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Tail Slurry	IntegraCem LITE B03-CY02X	IntegraGuard GW-86	0.1500	BWOB
Tail Slurry	IntegraCem LITE B03-CY02X	FLUID LOSS, FL-66	0.2000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02X	FLUID LOSS, FL-24	0.2000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02X	IntegraCem LITE B03-CY02X	100.0000	PCT
Tail Slurry	IntegraCem LITE B03-CY02X	IntegraCare EC-2	3.0000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02X	RETARDER, SR-20	0.7000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02X	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02X	RETARDER, R-6	0.6000	BWOB
Displacement 2	Retarded Water	BIOCIDE, BIOC11139W	0.0100	GPB
Displacement 2	Retarded Water	RETARDER, SR-61L	0.1000	GPB
Displacement Final	Displacement Final (Water)	BIOCIDE, BIOC11139W	0.0100	GPB

## DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	45.00
Calculated Displacement Vol (bbls)	255.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	255.00	Amt of Spacer to Surface	60.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amt Bled Back After Job	1.50
Bump Plug Pressure (psi)	3300.00	Total Volume Pumped (bbls)	825.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Full	Lost Circulation During Cement Job	No

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# BJ Cementing Event Log

Long String - Cheyenne, WY - Hector Montoya

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	01/19/2020 06:00	Callout					BJ Crew gets called out
2	01/19/2020 07:30	Other (See comment)					Load Up
3	01/19/2020 08:30	Arrive on Location					Arrive safely on location
4	01/19/2020 10:30	Rig Up					Rig Up
5	01/19/2020 12:00	Other (See comment)					Wait on Casing to be ran and rig to circulate
6	01/19/2020 15:30	Prime Up					Fill lines
7	01/19/2020 16:10	Pressure Test					Pressure Test
8	01/19/2020 16:19	Pump Spacer	11.0000	4.00	20.00	120.00	20bbl Spacer at 11ppg w/ surfactant
9	01/19/2020 16:24	Pump Spacer	12.0000	4.00	20.00	140.00	20bbl Spacer at 12ppg w/ surfactant
10	01/19/2020 16:28	Pump Spacer	11.0000	4.00	20.00	120.00	20bbl Spacer at 11ppg w/ surfactant
11	01/19/2020 16:34	Pump Tail Cement	13.5000	7.00	510.00	400.00	Primary 510bbl at 13.5ppg, 2010sks IntergraCem LITE B03-CYO2X, y-1.47, gps-7.45, Mix Water- 355bbl
12	01/19/2020 17:57	Wash Pumps and Lines					Wash pumps to the pit
13	01/19/2020 18:05	Pump Displacement	8.3300	3.00	2.00	300.00	Pump 2bbl Fresh Water
14	01/19/2020 18:06	Drop Bottom Plug					Drop Bottom Plug
15	01/19/2020 18:07	Pump Displacement	8.3300	3.00	3.00	310.00	Pump 3bbl Fresh water
16	01/19/2020 18:09	Drop Top Plug					Drop Top Plug
17	01/19/2020 18:10	Pump Displacement	8.3300	8.00	230.00	2900.00	Total Displacement 255bbl. First 20bbl with SR-61L, Biocide throughout
18	01/19/2020 18:48	Pump Displacement	8.3300	2.50	20.00	2800.00	Slow rate last 20bbl to 2.5bpm to land plug. Bottom Plug burst at 3350psi
19	01/19/2020 18:52	Land Plug				3300.00	Final Circulating pressure was 2800psi took to 3300psi. Burst plug at 4800psi and check floats after

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Well Name / API: STATE ANTELOPE  
X44-D14-13HNC / 05-123-50292

Well 11521  
MD:



Quote #: QUO-41506-S2D6K5

Plan #: ORD-23967-M5T4D0

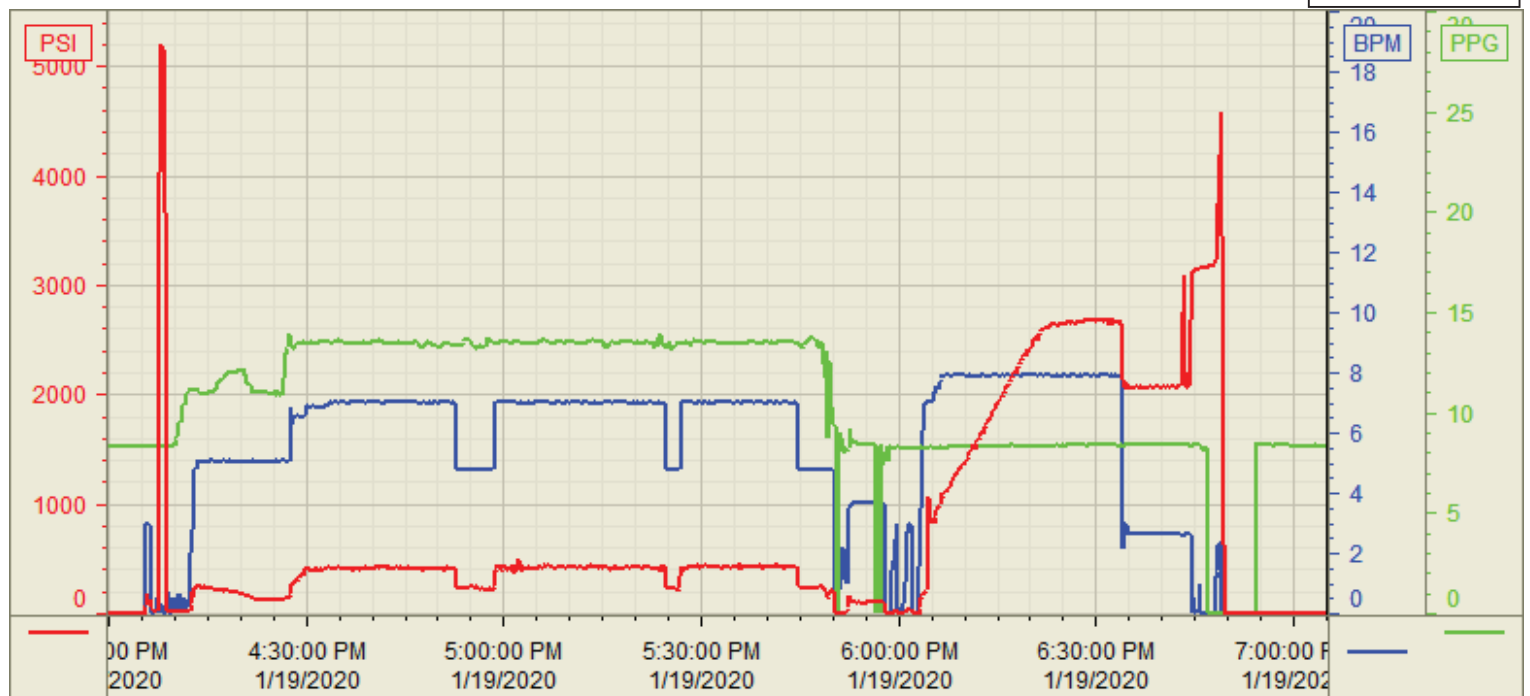
Execution #: EXC-23967-M5T4D002

20	01/19/2020 18:55	Check Floats					Floats Held, 1.5bbl back. 45bbl of cement to Surface
21	01/19/2020 18:56	Rig Down					Rig Down
22	01/19/2020 20:30	Leave Location					Leave location

Customer: BONANZA CREEK  
Well Number: STATE ANTELOPE  
Lease Info: X44-D14-13HNC



Print Date/Time  
1/19/2020 7:25:12 PM



	Name	Y value	X value/time stamp	Tag name Y
1	DS - Press (PSI)	-4.3	1/19/2020 7:04:56 PM	Cementer\DS_DISCHARGE_PRESS_DIAL
2	Recirc - Density (PPG)	8.37	1/19/2020 7:05:02 PM	Cementer\DENSITY_ACTUAL_RATE
3	Combined Rate	0.00	1/19/2020 7:05:02 PM	Cementer\Flow_Combined
4				
5				

Source: Control1 7:25:08 PM