



Bonanza Creek Energy

State Antelope V41-B11-13HNC

API # 05-123-50289

Production

January 31, 2020

Quote #: QUO-41512-X2L5J2

Execution #: EXC-24239-B7K1N002



Bonanza Creek Energy

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

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

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

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

BJ Cementing Treatment Report

SERVICE SUPERVISOR	Zachary Hyde	FORMATION	NIOBRARA
CLIENT FIELD REPRESENTATIVE	Joel dill	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 (%)
Open Hole	8.50	0.00	0.00	11,485.00	6,175.00	7.00
Previous Casing	8.92	9.63	36.00	1,614.00	1,614.00	
Casing	4.78	5.50	20.00	11,475.00	6,175.00	

HARDWARE

Bottom Plug Used?	Yes	Centralizers Quantity	227.00
Bottom Plug Provided By	Non BJ	Centralizers Type	Rigid
Bottom Plug Size	5.500	Landing Collar Depth (ft)	
Top Plug Used?	Yes	Pipe Movement	None
Top Plug Provided By	Non BJ	Job Pumped Through	No Manifold
Top Plug Size	5.500	Top Connection Thread	BTC
Centralizers Used	Yes	Top Connection Size	5.5

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	PV Mud Out	10
Circulation Prior to Job	Yes	YP Mud In	7
Circulation Time (min)	120.00	YP Mud Out	7
Circulation Rate (bpm)	8.00	Solids Present at End of Circulation	No
Circulation Volume (bbls)	960.00	10 sec SGS	2
Lost Circulation Prior to Cement Job	No	10 min SGS	3
Mud Density In (ppg)	9.50	30 min SGS	4
Mud Density Out (ppg)	9.50	Flare Prior to / during the Cement Job	No
PV Mud In	10	Gas Present	No

TEMPERATURE

Ambient Temperature (°F)	20.00	Slurry Cement Temperature (°F)	70.00
Mix Water Temperature (°F)	70.00	Flow Line Temperature (°F)	128.00

Client: Bonanza Creek Energy

Well: STATE ANTELOPE V41-B11-13HNC

Well API: 05-123-50289

Start Date: 1/31/2020

End Date: 1/31/2020



FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H ₂ 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	1.4280	7.10	0.00	11,366.00	1985	2835.0000	504.8000
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	231.2000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
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	RETARDER, R-7C	2.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB
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
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Tail Slurry	IntegraCem LITE B03-CY02X	RETARDER, R-6	0.6000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02X	FLUID LOSS, FL-24	0.2000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02X	RETARDER, SR-20	0.8000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02X	IntegraCare EC-2	3.0000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02X	FLUID LOSS, FL-66	0.2000	BWOB
Tail Slurry	IntegraCem LITE B03-CY02X	IntegraGuard GW-86	0.1500	BWOB
Tail Slurry	IntegraCem LITE B03-CY02X	IntegraCem LITE B03-CY02X	100.0000	PCT
Tail Slurry	IntegraCem LITE B03-CY02X	FOAM PREVENTER, FP-25	0.3000	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

Client: Bonanza Creek Energy

Well: STATE ANTELOPE V41-B11-13HNC

Well API: 05-123-50289

Start Date: 1/31/2020

End Date: 1/31/2020



DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	35.00
Calculated Displacement Vol (bbls)	253.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	253.00	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)	5200.00	Total Volume Pumped (bbls)	817.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Full	Lost Circulation During Cement Job	No

BJ Cementing Event Log

Long String - Cheyenne, WY

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	01/30/2020 21:35	Callout					Crew gets called out. Requested time 130 1/31/20
2	01/30/2020 22:00	Depart for Location					Crew departs for location
3	01/31/2020 00:30	Arrive on Location					Crew arrives on location
4	01/31/2020 00:30	Spot Units					Spotted units
5	01/31/2020 00:40	Rig Up					Crew rigs up iron and hoses needed for job
6	01/31/2020 02:30	Rig					Crew waits for rig to circulate the rig
7	01/31/2020 03:00	STEACS Briefing					Crew has a briefing with company man and rig crew
8	01/31/2020 03:14	Prime Up	8.3300	3.00	3.00	100.00	Filled lines with 3 bbls
9	01/31/2020 03:18	Pressure Test					Pressure tested lines to 5500psi
10	01/31/2020 03:27	Pump Spacer	11.0000	5.00	20.00	400.00	Pumped 20 bbls of Spacer at 11ppg with surfactant
11	01/31/2020 03:33	Pump Spacer	12.0000	6.00	20.00	500.00	Pumped 20 bbls of Spacer at 12ppg with surfactant
12	01/31/2020 03:38	Pump Spacer	11.0000	6.00	20.00	500.00	Pumped 20 bbls of Spacer at 11ppg with surfactant
13	01/31/2020 03:43	Pump Tail Cement	13.5000	8.00	504.00	500.00	Pumped 504 bbls of Cement at 13.5ppg(1985sk,1.42yld,7.10gal/sk)
14	01/31/2020 04:56	End Pumping					Shutdown
15	01/31/2020 04:56	Wash Pumps and Lines					Washed pump and lines
16	01/31/2020 05:07	Drop Bottom Plug					Before dropping bottom, plug pumped 2 bbls of fresh water and retarder
17	01/31/2020 05:07	Drop Top Plug					Before dropping top plug pumped 3 bbls of Fresh water
18	01/31/2020 05:07	Pump Displacement	8.3300	8.00	230.00	3000.00	Pumped 230 bbls of Displacement at
19	01/31/2020 05:38	Spacer Back-to-Surface					At 158 away had spacer to surface.
20	01/31/2020 05:38	Cement Back-to-Surface					At 218 away got cement to surface. Had a total of 35 bbls back
21	01/31/2020 05:38	Pump Displacement	8.3300	3.00	23.00	2000.00	Slowed rate last 20bbls to 3 bpm
22	01/31/2020 05:44	Land Plug					Landed bottom plug it burst at 3053psi and top plug burst at 5200psi. Landed on calculated displacement
23	01/31/2020 05:45	Check Floats					Checked floats got 1.5 bbls back
24	01/31/2020 05:45	Rig Down					Crew rigs down iron and hoses

Client: Bonanza Creek Energy

Well Name / API: STATE ANTELOPE V41-B11-13HNC / 05-123-50289

Well 11366
MD:



Quote #: QUO-41512-X2L5J2

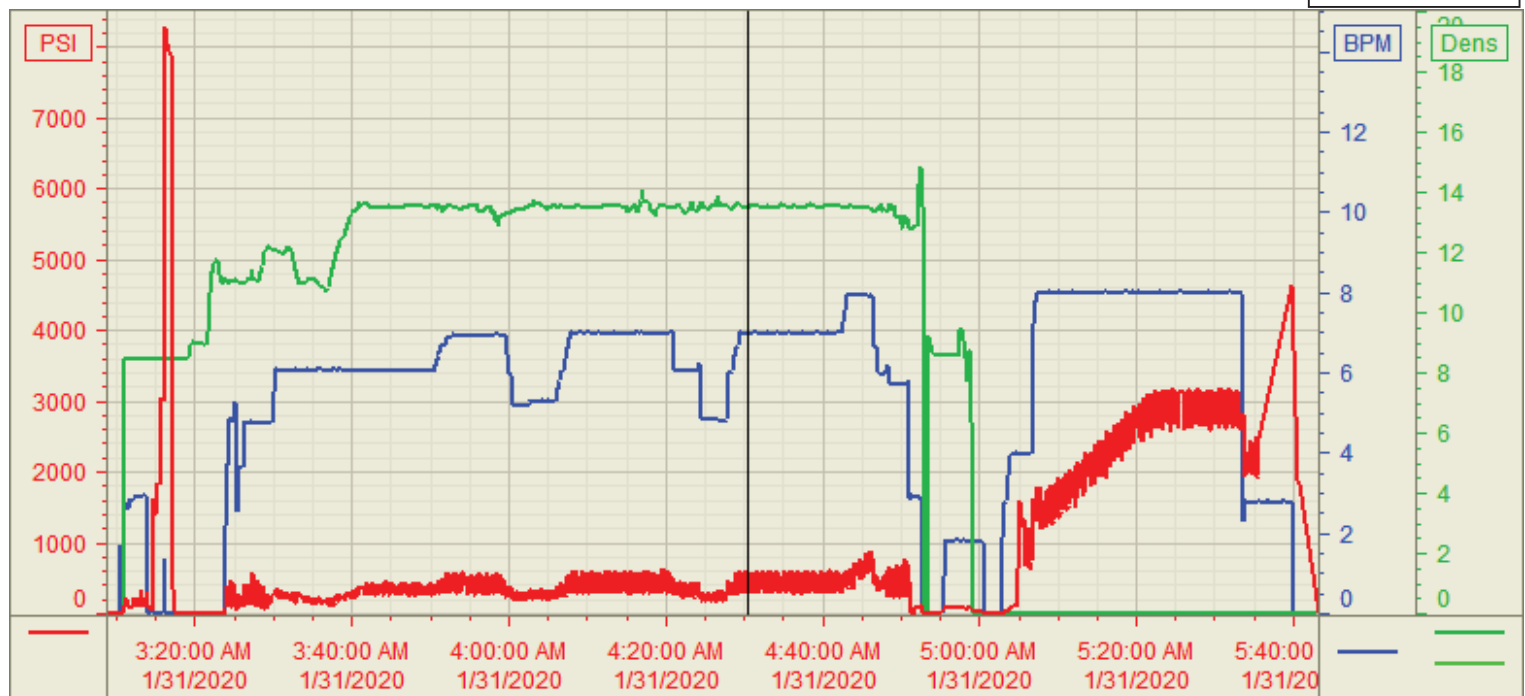
Plan #: ORD-24239-B7K1N0

Execution #: EXC-24239-B7K1N002

Customer: Bonanza Creek
Well Number: #V41-B11-13HNC
Lease Info: State Antelope



Print Date/Time
1/31/2020 6:11:50 AM



	Name	Y value	X value/time stamp	Tag name Y
1	DS - Press (PSI)	271.3	1/31/2020 4:30:31 AM	CementerDS_DISCHARGE_PRESS_DIAL
2	Den - Density (PPG)	13.51 i.	1/31/2020 4:30:31 AM i.	CementerDENSITY_ACTUAL_RATE
3	Den2 - Discharge Density (PPG)	-0.24 i.	1/31/2020 4:30:31 AM i.	CementerDENSITY2_ACTUAL_RATE
4	Flow Rate (BBLS)	6.98	1/31/2020 4:30:33 AM	CementerFlow_Combined
5				

Source: Control1 6:11:44 AM