

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Antelope 14-17
<b>Company:</b>	Bonanza Creek Energy Operating Company, LLC	<b>TVD Reference:</b>	WELL @ 4652.0ft (Original Well Elev)
<b>Project:</b>	Weld County	<b>MD Reference:</b>	WELL @ 4652.0ft (Original Well Elev)
<b>Site:</b>	Antelope I-17	<b>North Reference:</b>	Grid
<b>Well:</b>	Antelope 14-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

<b>Project</b>	Weld County		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		Antelope I-17			
Site Position:		Northing:	1,389,136.37 ft	Latitude:	40.395890
From:	Lat/Long	Easting:	3,319,802.68 ft	Longitude:	-104.351800
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.74 °

Well	Antelope 14-17					
Well Position	+N/-S	0.0 ft	Northing:	1,389,096.25 ft	Latitude:	40.395780
	+E/-W	0.0 ft	Easting:	3,319,800.42 ft	Longitude:	-104.351810
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,642.0 ft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	12/20/2010	8.71	67.13	53,226

<b>Design</b>	Plan #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN		<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	226.56	

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,156.6	11.13	226.56	1,153.1	-37.1	-39.1	2.00	2.00	0.00	226.56	
5,328.9	11.13	226.56	5,246.9	-590.9	-624.1	0.00	0.00	0.00	0.00	
5,885.5	0.00	0.00	5,800.0	-627.9	-663.2	2.00	-2.00	0.00	180.00	Antelope 14-17 TGT
6,785.5	0.00	0.00	6,700.0	-627.9	-663.2	0.00	0.00	0.00	0.00	Antelope 14-17 PBHL

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<b>Company:</b>	Bonanza Creek Energy Operating Company, LLC	<b>TVD Reference:</b>	WELL @ 4652.0ft (Original Well Elev)
<b>Project:</b>	Weld County	<b>MD Reference:</b>	WELL @ 4652.0ft (Original Well Elev)
<b>Site:</b>	Antelope I-17	<b>North Reference:</b>	Grid
<b>Well:</b>	Antelope 14-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	KOP @ 600'
700.0	2.00	226.56	700.0	-1.2	-1.3	1.7	2.00	2.00	
800.0	4.00	226.56	799.8	-4.8	-5.1	7.0	2.00	2.00	
900.0	6.00	226.56	899.5	-10.8	-11.4	15.7	2.00	2.00	
1,000.0	8.00	226.56	998.7	-19.2	-20.2	27.9	2.00	2.00	
1,100.0	10.00	226.56	1,097.5	-29.9	-31.6	43.5	2.00	2.00	
1,156.6	11.13	226.56	1,153.1	-37.1	-39.1	53.9	2.00	2.00	EOB @ Inc. = 11.13°
1,200.0	11.13	226.56	1,195.7	-42.8	-45.2	62.3	0.00	0.00	
1,300.0	11.13	226.56	1,293.8	-56.1	-59.2	81.6	0.00	0.00	
1,400.0	11.13	226.56	1,391.9	-69.4	-73.3	100.9	0.00	0.00	
1,500.0	11.13	226.56	1,490.0	-82.6	-87.3	120.2	0.00	0.00	
1,600.0	11.13	226.56	1,588.2	-95.9	-101.3	139.5	0.00	0.00	
1,700.0	11.13	226.56	1,686.3	-109.2	-115.3	158.8	0.00	0.00	
1,800.0	11.13	226.56	1,784.4	-122.5	-129.3	178.1	0.00	0.00	
1,900.0	11.13	226.56	1,882.5	-135.7	-143.4	197.4	0.00	0.00	
2,000.0	11.13	226.56	1,980.6	-149.0	-157.4	216.7	0.00	0.00	
2,100.0	11.13	226.56	2,078.8	-162.3	-171.4	236.0	0.00	0.00	
2,200.0	11.13	226.56	2,176.9	-175.6	-185.4	255.3	0.00	0.00	
2,300.0	11.13	226.56	2,275.0	-188.8	-199.4	274.6	0.00	0.00	
2,400.0	11.13	226.56	2,373.1	-202.1	-213.5	294.0	0.00	0.00	
2,500.0	11.13	226.56	2,471.2	-215.4	-227.5	313.3	0.00	0.00	
2,600.0	11.13	226.56	2,569.3	-228.7	-241.5	332.6	0.00	0.00	
2,700.0	11.13	226.56	2,667.5	-241.9	-255.5	351.9	0.00	0.00	
2,800.0	11.13	226.56	2,765.6	-255.2	-269.5	371.2	0.00	0.00	
2,900.0	11.13	226.56	2,863.7	-268.5	-283.5	390.5	0.00	0.00	
3,000.0	11.13	226.56	2,961.8	-281.7	-297.6	409.8	0.00	0.00	
3,100.0	11.13	226.56	3,059.9	-295.0	-311.6	429.1	0.00	0.00	
3,200.0	11.13	226.56	3,158.1	-308.3	-325.6	448.4	0.00	0.00	
3,300.0	11.13	226.56	3,256.2	-321.6	-339.6	467.7	0.00	0.00	
3,400.0	11.13	226.56	3,354.3	-334.8	-353.6	487.0	0.00	0.00	
3,500.0	11.13	226.56	3,452.4	-348.1	-367.7	506.3	0.00	0.00	
3,600.0	11.13	226.56	3,550.5	-361.4	-381.7	525.6	0.00	0.00	
3,700.0	11.13	226.56	3,648.7	-374.7	-395.7	544.9	0.00	0.00	
3,800.0	11.13	226.56	3,746.8	-387.9	-409.7	564.2	0.00	0.00	
3,900.0	11.13	226.56	3,844.9	-401.2	-423.7	583.5	0.00	0.00	
4,000.0	11.13	226.56	3,943.0	-414.5	-437.8	602.8	0.00	0.00	
4,100.0	11.13	226.56	4,041.1	-427.8	-451.8	622.2	0.00	0.00	
4,200.0	11.13	226.56	4,139.2	-441.0	-465.8	641.5	0.00	0.00	
4,300.0	11.13	226.56	4,237.4	-454.3	-479.8	660.8	0.00	0.00	
4,400.0	11.13	226.56	4,335.5	-467.6	-493.8	680.1	0.00	0.00	
4,500.0	11.13	226.56	4,433.6	-480.8	-507.9	699.4	0.00	0.00	
4,600.0	11.13	226.56	4,531.7	-494.1	-521.9	718.7	0.00	0.00	
4,700.0	11.13	226.56	4,629.8	-507.4	-535.9	738.0	0.00	0.00	
4,800.0	11.13	226.56	4,728.0	-520.7	-549.9	757.3	0.00	0.00	
4,900.0	11.13	226.56	4,826.1	-533.9	-563.9	776.6	0.00	0.00	
5,000.0	11.13	226.56	4,924.2	-547.2	-577.9	795.9	0.00	0.00	

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**Database:** EDM 5000.1 US Multi Users DB  
**Company:** Bonanza Creek Energy Operating Company, LLC  
**Project:** Weld County  
**Site:** Antelope I-17  
**Well:** Antelope 14-17  
**Wellbore:** DD  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Antelope 14-17  
**TVD Reference:** WELL @ 4652.0ft (Original Well Elev)  
**MD Reference:** WELL @ 4652.0ft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
5,100.0	11.13	226.56	5,022.3	-560.5	-592.0	815.2	0.00	0.00	
5,200.0	11.13	226.56	5,120.4	-573.8	-606.0	834.5	0.00	0.00	
5,300.0	11.13	226.56	5,218.6	-587.0	-620.0	853.8	0.00	0.00	
5,328.9	11.13	226.56	5,246.9	-590.9	-624.1	859.4	0.00	0.00	Start Drop -2.00
5,400.0	9.71	226.56	5,316.8	-599.7	-633.4	872.3	2.00	-2.00	
5,500.0	7.71	226.56	5,415.7	-610.1	-644.4	887.4	2.00	-2.00	
5,600.0	5.71	226.56	5,515.0	-618.2	-652.9	899.1	2.00	-2.00	
5,700.0	3.71	226.56	5,614.6	-623.8	-658.8	907.3	2.00	-2.00	
5,800.0	1.71	226.56	5,714.5	-627.1	-662.3	912.0	2.00	-2.00	
5,885.5	0.00	0.00	5,800.0	-627.9	-663.2	913.3	2.00	-2.00	EOD @ Inc. = 0° - Antelope 14-17 TGT
5,900.0	0.00	0.00	5,814.5	-627.9	-663.2	913.3	0.00	0.00	
6,000.0	0.00	0.00	5,914.5	-627.9	-663.2	913.3	0.00	0.00	
6,100.0	0.00	0.00	6,014.5	-627.9	-663.2	913.3	0.00	0.00	
6,200.0	0.00	0.00	6,114.5	-627.9	-663.2	913.3	0.00	0.00	
6,300.0	0.00	0.00	6,214.5	-627.9	-663.2	913.3	0.00	0.00	
6,337.5	0.00	0.00	6,252.0	-627.9	-663.2	913.3	0.00	0.00	Niobrara
6,400.0	0.00	0.00	6,314.5	-627.9	-663.2	913.3	0.00	0.00	
6,500.0	0.00	0.00	6,414.5	-627.9	-663.2	913.3	0.00	0.00	
6,600.0	0.00	0.00	6,514.5	-627.9	-663.2	913.3	0.00	0.00	
6,700.0	0.00	0.00	6,614.5	-627.9	-663.2	913.3	0.00	0.00	
6,785.5	0.00	0.00	6,700.0	-627.9	-663.2	913.3	0.00	0.00	TD at 6785.5 - Antelope 14-17 PBHL

### Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Antelope 14-17 TGT - plan hits target center - Point	0.00	0.00	5,800.0	-627.9	-663.2	1,388,468.32	3,319,137.22	40.394080	-104.354220
Antelope 14-17 PBHL - plan hits target center - Circle (radius 50.0)	0.00	0.00	6,700.0	-627.9	-663.2	1,388,468.32	3,319,137.22	40.394080	-104.354220

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,337.5	6,252.0	Niobrara		0.00	

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<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Antelope 14-17
<b>Company:</b>	Bonanza Creek Energy Operating Company, LLC	<b>TVD Reference:</b>	WELL @ 4652.0ft (Original Well Elev)
<b>Project:</b>	Weld County	<b>MD Reference:</b>	WELL @ 4652.0ft (Original Well Elev)
<b>Site:</b>	Antelope I-17	<b>North Reference:</b>	Grid
<b>Well:</b>	Antelope 14-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
600.0	600.0	0.0	0.0	KOP @ 600'
1,156.6	1,153.1	-37.1	-39.1	EOB @ Inc. = 11.13°
5,328.9	5,246.9	-590.9	-624.1	Start Drop -2.00
5,885.5	5,800.0	-627.9	-663.2	EOD @ Inc. = 0°
6,785.5	6,700.0	-627.9	-663.2	TD at 6785.5