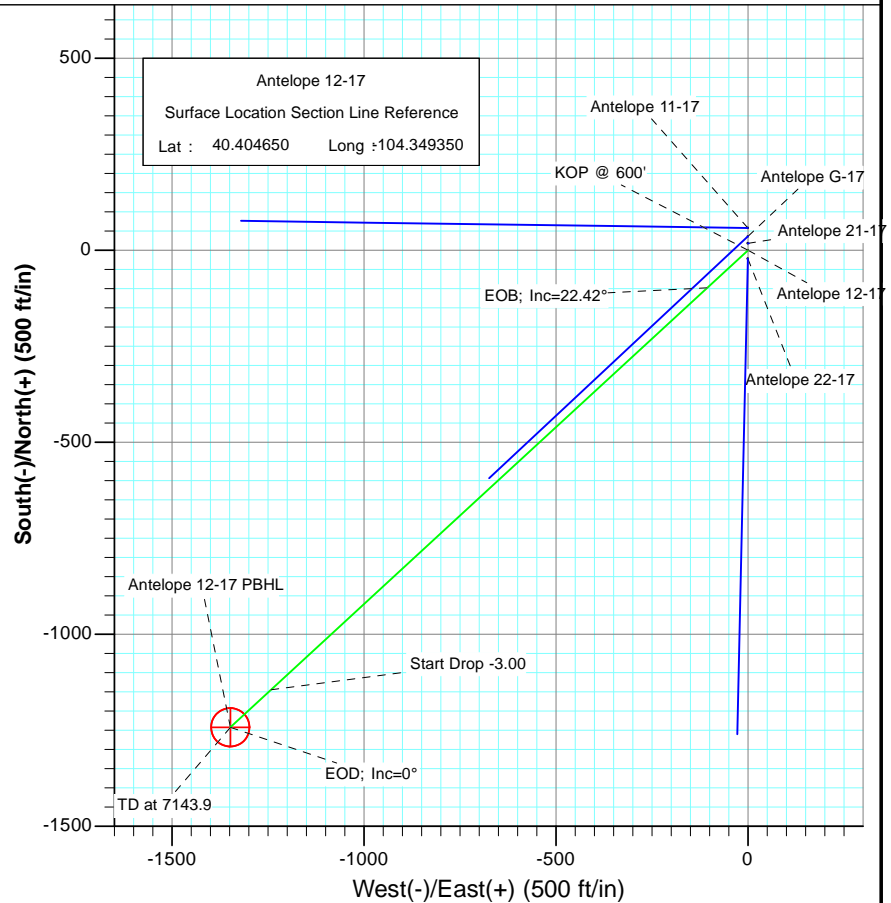


SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1347.3	22.42	227.34	1328.4	-97.8	-106.2	3.00	227.34	144.4	
4	5396.6	22.42	227.34	5071.6	-1144.4	-1241.8	0.00	0.00	1688.7	
5	6143.9	0.00	0.00	5800.0	-1242.2	-1348.0	3.00	180.00	1833.1	
6	7143.9	0.00	0.00	6800.0	-1242.2	-1348.0	0.00	0.00	1833.1	Antelope 12-17 PBHL



FORMATION TOP DETAILS

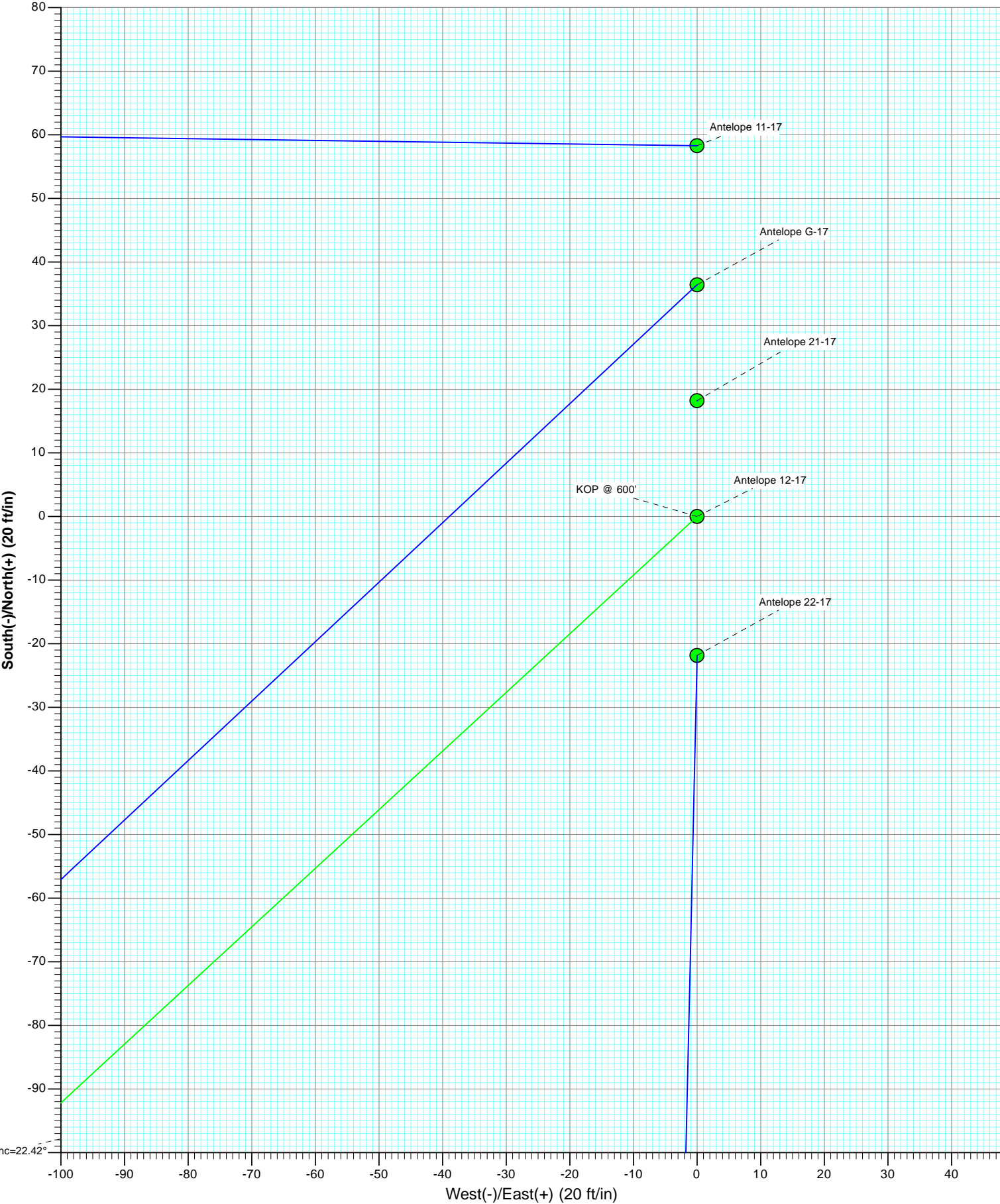
TVDPath	MDPath	Formation
6252.0	6595.9	Niobrara

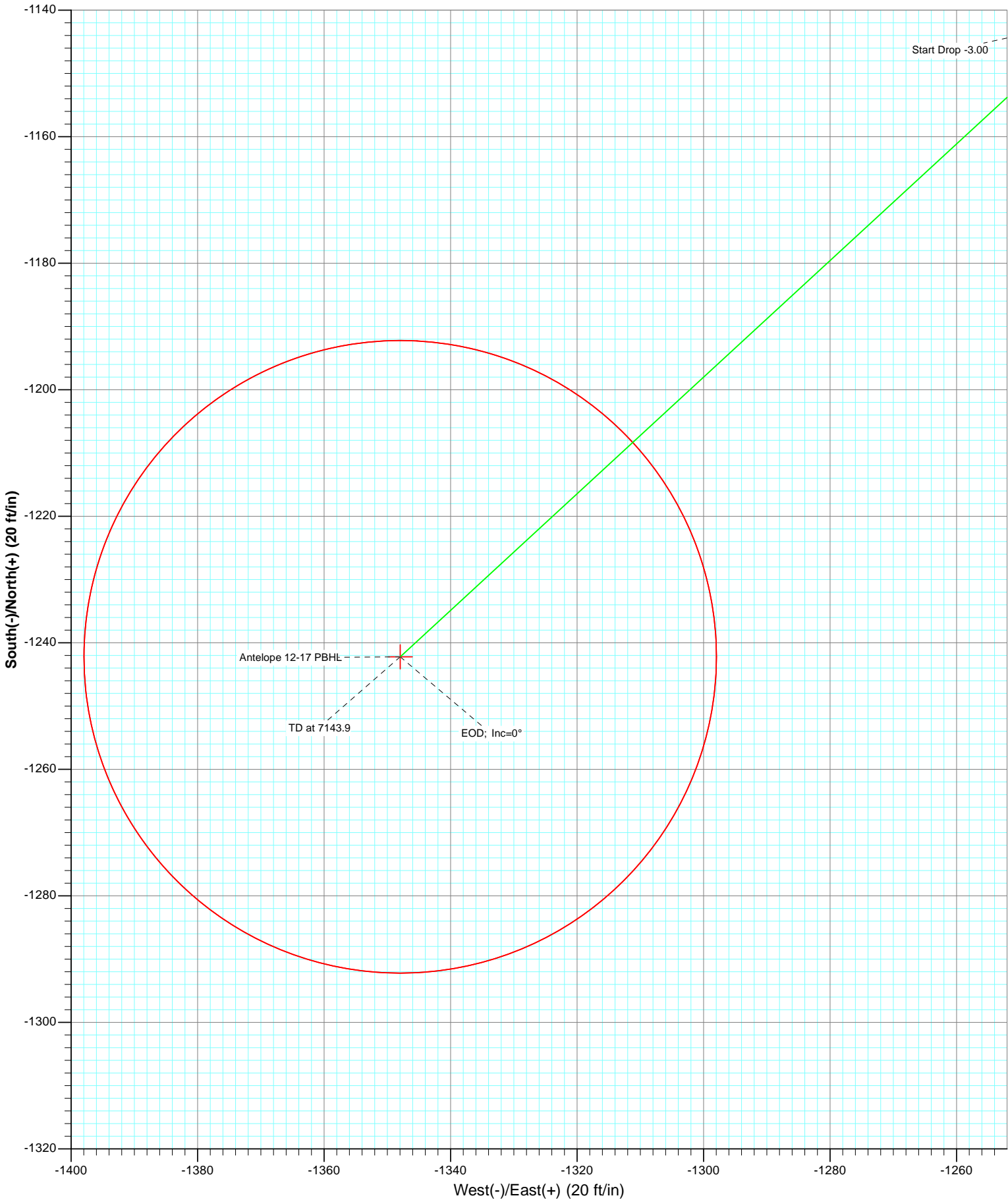


Azimuths to True North  
Magnetic North: 8.69°

Magnetic Field  
Strength: 53219.8snT  
Dip Angle: 67.14°  
Date: 1/27/2011  
Model: IGRF2010

Plan #1 Antelope 12-17 11500x LR Ground Elevation @ 4690.0 KBE @ 4700.0ft (Mid Con #1) North American Datum 1983 Well Antelope 12-17, True North						
Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
TD	No Target (Freehand)	227.34	Slot	0.0	0.0	0.0
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
Antelope 12-17 PBHL	6800.0	-1242.2	-1348.0	40.401240	-104.354190	





## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Antelope 12-17
<b>Company:</b>	Bonanza Creek Energy Operating Company, LLC	<b>TVD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Site:</b>	Antelope 21-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Antelope 12-17	<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 21-17 Pad			
Site Position:		Northing:	1,392,394.47 ft	Latitude:	40.404810
From:	Lat/Long	Easting:	3,320,442.85 ft	Longitude:	-104.349350
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.74 °

Well	Antelope 12-17					
Well Position	+N/-S	0.0 ft	Northing:	1,392,336.18 ft	Latitude:	40.404650
	+E/-W	0.0 ft	Easting:	3,320,443.61 ft	Longitude:	-104.349350
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,690.0 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</b>
			(°)	(°)	(nT)
	IGRF2010	1/27/2011	8.69	67.14	53,220

<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)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	227.34

<b>Plan Sections</b>										
<b>Measured</b>	<b>Inclination</b>	<b>Azimuth</b>	<b>Vertical</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Dogleg</b>	<b>Build</b>	<b>Turn</b>	<b>TFO</b>	<b>Target</b>
<b>Depth</b>	<b>(°)</b>	<b>(°)</b>	<b>Depth</b>	<b>(ft)</b>	<b>(ft)</b>	<b>Rate</b>	<b>Rate</b>	<b>Rate</b>	<b>(°)</b>	
<b>(ft)</b>			<b>(ft)</b>			<b>(°/100ft)</b>	<b>(°/100ft)</b>	<b>(°/100ft)</b>		
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	
1,347.3	22.42	227.34	1,328.4	-97.8	-106.2	3.00	3.00	0.00	227.34	
5,396.6	22.42	227.34	5,071.6	-1,144.4	-1,241.8	0.00	0.00	0.00	0.00	
6,143.9	0.00	0.00	5,800.0	-1,242.2	-1,348.0	3.00	-3.00	0.00	180.00	
7,143.9	0.00	0.00	6,800.0	-1,242.2	-1,348.0	0.00	0.00	0.00	0.00	Antelope 12-17 PBHL

# Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Antelope 12-17
<b>Company:</b>	Bonanza Creek Energy Operating Company, LLC	<b>TVD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Site:</b>	Antelope 21-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Antelope 12-17	<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	3.00	227.34	700.0	-1.8	-1.9	2.6	3.00	3.00	
800.0	6.00	227.34	799.6	-7.1	-7.7	10.5	3.00	3.00	
900.0	9.00	227.34	898.8	-15.9	-17.3	23.5	3.00	3.00	
1,000.0	12.00	227.34	997.1	-28.3	-30.7	41.7	3.00	3.00	
1,100.0	15.00	227.34	1,094.3	-44.1	-47.9	65.1	3.00	3.00	
1,200.0	18.00	227.34	1,190.2	-63.3	-68.7	93.5	3.00	3.00	
1,300.0	21.00	227.34	1,284.4	-86.0	-93.3	126.9	3.00	3.00	
1,347.3	22.42	227.34	1,328.4	-97.8	-106.2	144.4	3.00	3.00	EOB; Inc=22.42°
1,400.0	22.42	227.34	1,377.1	-111.4	-120.9	164.4	0.00	0.00	
1,500.0	22.42	227.34	1,469.5	-137.3	-149.0	202.6	0.00	0.00	
1,600.0	22.42	227.34	1,562.0	-163.1	-177.0	240.7	0.00	0.00	
1,700.0	22.42	227.34	1,654.4	-189.0	-205.1	278.9	0.00	0.00	
1,800.0	22.42	227.34	1,746.9	-214.8	-233.1	317.0	0.00	0.00	
1,900.0	22.42	227.34	1,839.3	-240.7	-261.2	355.1	0.00	0.00	
2,000.0	22.42	227.34	1,931.7	-266.5	-289.2	393.3	0.00	0.00	
2,100.0	22.42	227.34	2,024.2	-292.4	-317.3	431.4	0.00	0.00	
2,200.0	22.42	227.34	2,116.6	-318.2	-345.3	469.6	0.00	0.00	
2,300.0	22.42	227.34	2,209.1	-344.1	-373.3	507.7	0.00	0.00	
2,400.0	22.42	227.34	2,301.5	-369.9	-401.4	545.8	0.00	0.00	
2,500.0	22.42	227.34	2,393.9	-395.7	-429.4	584.0	0.00	0.00	
2,600.0	22.42	227.34	2,486.4	-421.6	-457.5	622.1	0.00	0.00	
2,700.0	22.42	227.34	2,578.8	-447.4	-485.5	660.3	0.00	0.00	
2,800.0	22.42	227.34	2,671.3	-473.3	-513.6	698.4	0.00	0.00	
2,900.0	22.42	227.34	2,763.7	-499.1	-541.6	736.5	0.00	0.00	
3,000.0	22.42	227.34	2,856.2	-525.0	-569.7	774.7	0.00	0.00	
3,100.0	22.42	227.34	2,948.6	-550.8	-597.7	812.8	0.00	0.00	
3,200.0	22.42	227.34	3,041.0	-576.7	-625.8	850.9	0.00	0.00	
3,300.0	22.42	227.34	3,133.5	-602.5	-653.8	889.1	0.00	0.00	
3,400.0	22.42	227.34	3,225.9	-628.4	-681.8	927.2	0.00	0.00	
3,500.0	22.42	227.34	3,318.4	-654.2	-709.9	965.4	0.00	0.00	
3,600.0	22.42	227.34	3,410.8	-680.0	-737.9	1,003.5	0.00	0.00	
3,700.0	22.42	227.34	3,503.2	-705.9	-766.0	1,041.6	0.00	0.00	
3,800.0	22.42	227.34	3,595.7	-731.7	-794.0	1,079.8	0.00	0.00	
3,900.0	22.42	227.34	3,688.1	-757.6	-822.1	1,117.9	0.00	0.00	
4,000.0	22.42	227.34	3,780.6	-783.4	-850.1	1,156.1	0.00	0.00	
4,100.0	22.42	227.34	3,873.0	-809.3	-878.2	1,194.2	0.00	0.00	
4,200.0	22.42	227.34	3,965.5	-835.1	-906.2	1,232.3	0.00	0.00	
4,300.0	22.42	227.34	4,057.9	-861.0	-934.3	1,270.5	0.00	0.00	
4,400.0	22.42	227.34	4,150.3	-886.8	-962.3	1,308.6	0.00	0.00	
4,500.0	22.42	227.34	4,242.8	-912.7	-990.4	1,346.8	0.00	0.00	
4,600.0	22.42	227.34	4,335.2	-938.5	-1,018.4	1,384.9	0.00	0.00	
4,700.0	22.42	227.34	4,427.7	-964.3	-1,046.4	1,423.0	0.00	0.00	
4,800.0	22.42	227.34	4,520.1	-990.2	-1,074.5	1,461.2	0.00	0.00	
4,900.0	22.42	227.34	4,612.5	-1,016.0	-1,102.5	1,499.3	0.00	0.00	
5,000.0	22.42	227.34	4,705.0	-1,041.9	-1,130.6	1,537.4	0.00	0.00	

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Antelope 12-17
<b>Company:</b>	Bonanza Creek Energy Operating Company, LLC	<b>TVD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Site:</b>	Antelope 21-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Antelope 12-17	<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
5,100.0	22.42	227.34	4,797.4	-1,067.7	-1,158.6	1,575.6	0.00	0.00	
5,200.0	22.42	227.34	4,889.9	-1,093.6	-1,186.7	1,613.7	0.00	0.00	
5,300.0	22.42	227.34	4,982.3	-1,119.4	-1,214.7	1,651.9	0.00	0.00	
5,396.6	22.42	227.34	5,071.6	-1,144.4	-1,241.8	1,688.7	0.00	0.00	Start Drop -3.00
5,400.0	22.32	227.34	5,074.8	-1,145.3	-1,242.8	1,690.0	3.00	-3.00	
5,500.0	19.32	227.34	5,168.2	-1,169.3	-1,268.9	1,725.5	3.00	-3.00	
5,600.0	16.32	227.34	5,263.4	-1,190.1	-1,291.4	1,756.1	3.00	-3.00	
5,700.0	13.32	227.34	5,360.1	-1,207.4	-1,310.2	1,781.7	3.00	-3.00	
5,800.0	10.32	227.34	5,457.9	-1,221.3	-1,325.3	1,802.2	3.00	-3.00	
5,900.0	7.32	227.34	5,556.7	-1,231.7	-1,336.5	1,817.5	3.00	-3.00	
6,000.0	4.32	227.34	5,656.2	-1,238.5	-1,344.0	1,827.6	3.00	-3.00	
6,100.0	1.32	227.34	5,756.1	-1,241.9	-1,347.6	1,832.6	3.00	-3.00	
6,143.9	0.00	0.00	5,800.0	-1,242.2	-1,348.0	1,833.1	3.00	-3.00	EOD; Inc=0°
6,200.0	0.00	0.00	5,856.1	-1,242.2	-1,348.0	1,833.1	0.00	0.00	
6,300.0	0.00	0.00	5,956.1	-1,242.2	-1,348.0	1,833.1	0.00	0.00	
6,400.0	0.00	0.00	6,056.1	-1,242.2	-1,348.0	1,833.1	0.00	0.00	
6,500.0	0.00	0.00	6,156.1	-1,242.2	-1,348.0	1,833.1	0.00	0.00	
6,595.9	0.00	0.00	6,252.0	-1,242.2	-1,348.0	1,833.1	0.00	0.00	Niobrara
6,600.0	0.00	0.00	6,256.1	-1,242.2	-1,348.0	1,833.1	0.00	0.00	
6,700.0	0.00	0.00	6,356.1	-1,242.2	-1,348.0	1,833.1	0.00	0.00	
6,800.0	0.00	0.00	6,456.1	-1,242.2	-1,348.0	1,833.1	0.00	0.00	
6,900.0	0.00	0.00	6,556.1	-1,242.2	-1,348.0	1,833.1	0.00	0.00	
7,000.0	0.00	0.00	6,656.1	-1,242.2	-1,348.0	1,833.1	0.00	0.00	
7,100.0	0.00	0.00	6,756.1	-1,242.2	-1,348.0	1,833.1	0.00	0.00	
7,143.9	0.00	0.00	6,800.0	-1,242.2	-1,348.0	1,833.1	0.00	0.00	TD at 7143.9 - Antelope 12-17 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 12-17 PBHL - plan hits target center - Circle (radius 50.0)	0.00	0.00	6,800.0	-1,242.2	-1,348.0	1,391,076.59	3,319,111.87	40.401240	-104.354190

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,595.9	6,252.0	Niobrara		0.00	

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Antelope 12-17
<b>Company:</b>	Bonanza Creek Energy Operating Company, LLC	<b>TVD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Site:</b>	Antelope 21-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Antelope 12-17	<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'
1,347.3	1,328.4	-97.8	-106.2	EOB; Inc=22.42°
5,396.6	5,071.6	-1,144.4	-1,241.8	Start Drop -3.00
6,143.9	5,800.0	-1,242.2	-1,348.0	EOD; Inc=0°
7,143.9	6,800.0	-1,242.2	-1,348.0	TD at 7143.9

# **Bonanza Creek Energy Operating Company, LLC**

**Weld County**

**Antelope 21-17 Pad**

**Antelope 12-17**

**DD**

**Plan #1**

## **Anticollision Report**

**27 January, 2011**



## Anticollision Report

<b>Company:</b>	Bonanza Creek Energy Operating Company, LLC	<b>Local Co-ordinate Reference:</b>	Well Antelope 12-17
<b>Project:</b>	Weld County	<b>TVD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Reference Site:</b>	Antelope 21-17 Pad	<b>MD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Antelope 12-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.0ft	<b>Error Model:</b>	Systematic Ellipse
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 100.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	1/27/2011		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	7,143.9	Plan #1 (DD)	MWD	Geolink MWD

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
Antelope 21-17 Pad						
Antelope 11-17 - DD - Plan #1	0.0	0.0	58.3			
Antelope 11-17 - DD - Plan #1	600.0	600.0	58.3	58.3	10,000.000	CC, ES
Antelope 21-17 - DD - Plan #1	0.0	0.0	18.2			
Antelope 21-17 - DD - Plan #1	600.0	600.0	18.2	18.2	10,000.000	CC, ES
Antelope 22-17 - DD - Plan #1	0.0	0.0	21.9			
Antelope 22-17 - DD - Plan #1	600.0	600.0	21.9	21.9	10,000.000	CC, ES
Antelope G-17 - DD - Plan #1	0.0	0.0	36.4			
Antelope G-17 - DD - Plan #1	962.1	966.7	35.9	35.9	10,000.000	CC, ES

## Anticollision Report

<b>Company:</b>	Bonanza Creek Energy Operating Company, LLC	<b>Local Co-ordinate Reference:</b>	Well Antelope 12-17
<b>Project:</b>	Weld County	<b>TVD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Reference Site:</b>	Antelope 21-17 Pad	<b>MD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Antelope 12-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Antelope 21-17 Pad - Antelope 11-17 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	58.3	0.0	58.3					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	58.3	0.0	58.3	58.3	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	58.3	0.0	58.3	58.3	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	58.3	0.0	58.3	58.3	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	58.3	0.0	58.3	58.3	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	0.00	58.3	0.0	58.3	58.3	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	0.00	58.3	0.0	58.3	58.3	0.00	N/A CC, ES		
700.0	700.0	699.9	699.9	1.2	1.2	131.96	58.3	-2.6	60.1	60.1	0.00	N/A		
800.0	799.6	799.6	799.3	1.4	1.4	130.10	58.4	-10.4	65.6	65.6	0.00	N/A		
900.0	898.8	898.9	897.7	1.6	1.6	127.58	58.6	-23.3	74.8	74.8	0.00	N/A		
1,000.0	997.1	997.5	994.6	2.0	2.0	124.90	58.9	-41.2	87.8	87.8	0.00	N/A		

# Anticollision Report

<b>Company:</b>	Bonanza Creek Energy Operating Company, LLC	<b>Local Co-ordinate Reference:</b>	Well Antelope 12-17
<b>Project:</b>	Weld County	<b>TVD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Reference Site:</b>	Antelope 21-17 Pad	<b>MD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Antelope 12-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Antelope 21-17 Pad - Antelope 21-17 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	0.00	18.2	0.0	18.2					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	18.2	0.0	18.2	18.2	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	18.2	0.0	18.2	18.2	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	18.2	0.0	18.2	18.2	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	18.2	0.0	18.2	18.2	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	0.00	18.2	0.0	18.2	18.2	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	0.00	18.2	0.0	18.2	18.2	0.00	N/A CC, ES		
700.0	700.0	700.0	700.0	1.2	1.2	138.12	18.2	0.0	20.1	20.1	0.00	N/A		
800.0	799.6	799.6	799.6	1.4	1.4	149.44	18.2	0.0	26.4	26.4	0.00	N/A		
900.0	898.8	898.8	898.8	1.6	1.6	159.28	18.2	0.0	38.3	38.3	0.00	N/A		
1,000.0	997.1	997.1	997.1	2.0	1.7	165.79	18.2	0.0	55.7	55.7	0.00	N/A		
1,100.0	1,094.3	1,094.3	1,094.3	2.3	1.9	169.85	18.2	0.0	78.6	78.6	0.00	N/A		

# Anticollision Report

<b>Company:</b>	Bonanza Creek Energy Operating Company, LLC	<b>Local Co-ordinate Reference:</b>	Well Antelope 12-17
<b>Project:</b>	Weld County	<b>TVD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Reference Site:</b>	Antelope 21-17 Pad	<b>MD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Antelope 12-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Antelope 21-17 Pad - Antelope 22-17 - DD - Plan #1											Offset Site Error:		0.0 ft
Survey Program:		0-MWD											Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
							+N/-S (ft)	+E/-W (ft)							
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-21.9	0.0	21.9						
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-21.9	0.0	21.9	21.9	0.00	N/A			
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-21.9	0.0	21.9	21.9	0.00	N/A			
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-21.9	0.0	21.9	21.9	0.00	N/A			
400.0	400.0	400.0	400.0	0.7	0.7	-180.00	-21.9	0.0	21.9	21.9	0.00	N/A			
500.0	500.0	500.0	500.0	0.9	0.9	-180.00	-21.9	0.0	21.9	21.9	0.00	N/A			
600.0	600.0	600.0	600.0	1.0	1.0	-180.00	-21.9	0.0	21.9	21.9	0.00	N/A CC, ES			
700.0	700.0	698.8	698.8	1.2	1.2	-51.97	-24.4	-0.1	22.7	22.7	0.00	N/A			
800.0	799.6	797.4	797.1	1.4	1.4	-63.58	-32.0	-0.2	26.2	26.2	0.00	N/A			
900.0	898.8	895.5	894.3	1.6	1.6	-76.61	-44.7	-0.5	33.6	33.6	0.00	N/A			
1,000.0	997.1	992.9	990.2	2.0	1.9	-86.89	-62.1	-0.9	45.6	45.6	0.00	N/A			
1,100.0	1,094.3	1,089.4	1,084.1	2.3	2.3	-93.84	-84.2	-1.4	62.2	62.2	0.00	N/A			
1,200.0	1,190.2	1,187.1	1,178.5	2.8	2.7	-99.81	-109.1	-2.0	81.8	81.8	0.00	N/A			

# Anticollision Report

<b>Company:</b>	Bonanza Creek Energy Operating Company, LLC	<b>Local Co-ordinate Reference:</b>	Well Antelope 12-17
<b>Project:</b>	Weld County	<b>TVD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Reference Site:</b>	Antelope 21-17 Pad	<b>MD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Antelope 12-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Antelope 21-17 Pad - Antelope G-17 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	36.4	0.0	36.4					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	36.4	0.0	36.4	36.4	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	36.4	0.0	36.4	36.4	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	36.4	0.0	36.4	36.4	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	36.4	0.0	36.4	36.4	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	0.00	36.4	0.0	36.4	36.4	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	0.00	36.4	0.0	36.4	36.4	0.00	N/A		
700.0	700.0	701.3	701.3	1.2	1.2	132.64	34.6	-2.0	36.4	36.4	0.00	N/A		
800.0	799.6	802.6	802.3	1.4	1.4	132.59	29.1	-7.8	36.3	36.3	0.00	N/A		
900.0	898.8	903.9	902.7	1.6	1.7	132.49	19.9	-17.6	36.1	36.1	0.00	N/A		
962.1	959.9	966.7	964.5	1.8	1.8	132.43	12.5	-25.6	35.9	35.9	0.00	N/A CC, ES		
1,000.0	997.1	1,004.7	1,001.7	2.0	2.0	132.97	7.6	-30.8	36.2	36.2	0.00	N/A		
1,100.0	1,094.3	1,104.5	1,099.8	2.3	2.3	138.05	-5.2	-44.5	39.5	39.5	0.00	N/A		
1,200.0	1,190.2	1,204.0	1,197.6	2.8	2.6	146.11	-17.9	-58.1	47.3	47.3	0.00	N/A		
1,300.0	1,284.4	1,302.9	1,294.7	3.4	2.9	154.06	-30.5	-71.6	60.4	60.4	0.00	N/A		
1,400.0	1,377.1	1,400.9	1,391.0	4.1	3.3	160.32	-43.1	-85.0	78.5	78.5	0.00	N/A		
1,500.0	1,469.5	1,498.9	1,487.2	4.7	3.6	164.37	-55.6	-98.4	97.7	97.7	0.00	N/A		

## Anticollision Report

<b>Company:</b>	Bonanza Creek Energy Operating Company, LLC	<b>Local Co-ordinate Reference:</b>	Well Antelope 12-17
<b>Project:</b>	Weld County	<b>TVD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Reference Site:</b>	Antelope 21-17 Pad	<b>MD Reference:</b>	KBE @ 4700.0ft (Mid Con #1)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Antelope 12-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KBE @ 4700.0ft (Mid Con #1)  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000 °

Coordinates are relative to: Antelope 12-17  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.74°

