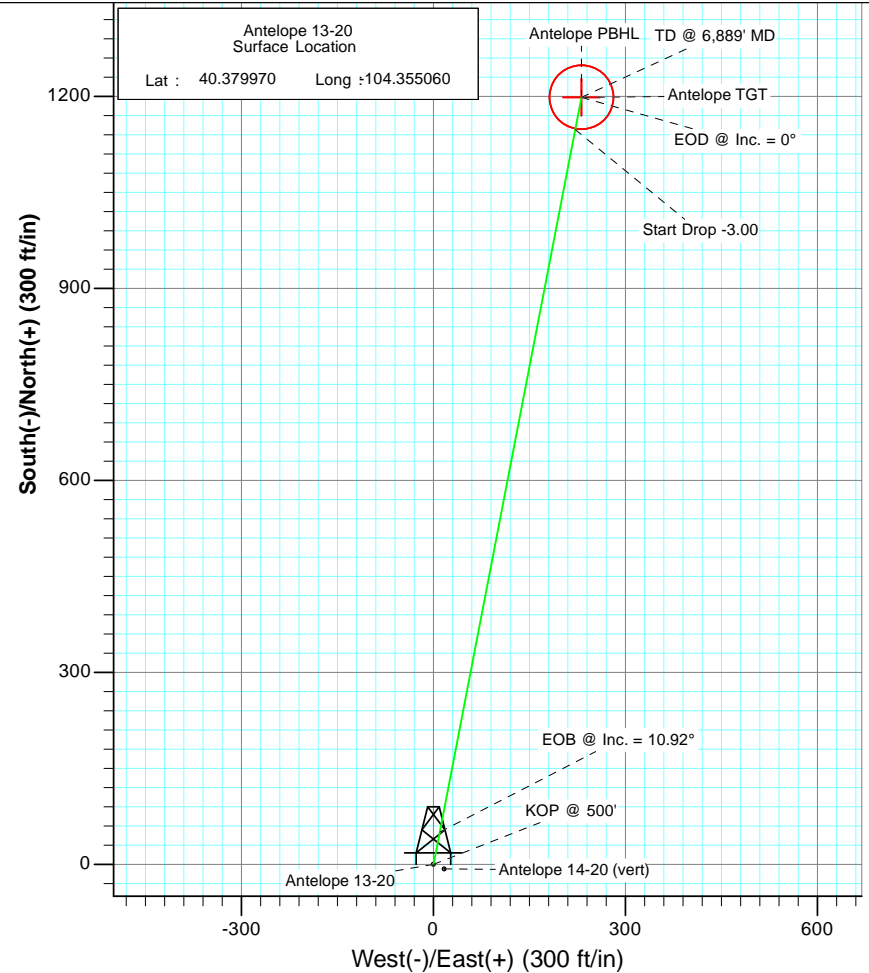


SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.0	
3	944.2	13.32	10.92	940.2	50.5	9.7	3.00	10.92	51.4	
4	5794.4	13.32	10.92	5659.8	1148.1	221.5	0.00	0.00	1169.2	
5	6238.6	0.00	0.00	6100.0	1198.5	231.2	3.00	180.00	1220.6	Antelope TGT
6	6888.6	0.00	0.00	6750.0	1198.5	231.2	0.00	0.00	1220.6	Antelope PBHL



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3450.0	3523.4	Parkman
4075.0	4165.7	Sussex
6325.0	6463.6	Niobrara



Azimuths to True North
Magnetic North: 8.65°

Magnetic Field
Strength: 53175.6nT
Dip Angle: 67.11°
Date: 5/13/2011
Model: IGRF2010

Plan #1
Antelope 13-20
115XXX; SC

KBE @ 4683.0ft (Original Well Elev)
North American Datum 1983
Well Antelope 13-20, True North

Type	Target	Azimuth	Origin	Type	N/S	E/W	From TVD
TD	No Target (Freehand)	10.92	Slot		0.0	0.0	0.0
Name	TVD	+N/-S	+E/-W	Latitude	Longitude		
Antelope TGT	6100.0	1198.5	231.2	40.383260	-104.354230		
Antelope PBHL	6750.0	1198.5	231.2	40.383260	-104.354230		

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Antelope 13-20
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4683.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4683.0ft (Original Well Elev)
Site:	Antelope 14-20 Pad	North Reference:	True
Well:	Antelope 13-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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

Site		Antelope 14-20 Pad			
Site Position:		Northing:	1,383,318.44 ft	Latitude:	40.379950
From:	Lat/Long	Easting:	3,318,986.45 ft	Longitude:	-104.355000
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.74 °

Well	Antelope 13-20					
Well Position	+N/-S	0.0 ft	Northing:	1,383,325.50 ft	Latitude:	40.379970
	+E/-W	0.0 ft	Easting:	3,318,969.64 ft	Longitude:	-104.355060
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,673.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/13/2011	8.65	67.11	53,176

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	10.92

Plan Sections										
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	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
944.2	13.32	10.92	940.2	50.5	9.7	3.00	3.00	0.00	10.92	
5,794.4	13.32	10.92	5,659.8	1,148.1	221.5	0.00	0.00	0.00	0.00	
6,238.6	0.00	0.00	6,100.0	1,198.5	231.2	3.00	-3.00	0.00	180.00	Antelope TGT
6,888.6	0.00	0.00	6,750.0	1,198.5	231.2	0.00	0.00	0.00	0.00	Antelope PBHL

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Antelope 13-20
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4683.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4683.0ft (Original Well Elev)
Site:	Antelope 14-20 Pad	North Reference:	True
Well:	Antelope 13-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	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	KOP @ 500'
600.0	3.00	10.92	600.0	2.6	0.5	2.6	3.00	3.00	
700.0	6.00	10.92	699.6	10.3	2.0	10.5	3.00	3.00	
800.0	9.00	10.92	798.8	23.1	4.5	23.5	3.00	3.00	
900.0	12.00	10.92	897.1	41.0	7.9	41.7	3.00	3.00	
944.2	13.32	10.92	940.2	50.5	9.7	51.4	3.00	3.00	EOB @ Inc. = 10.92°
1,000.0	13.32	10.92	994.5	63.1	12.2	64.3	0.00	0.00	
1,100.0	13.32	10.92	1,091.8	85.7	16.5	87.3	0.00	0.00	
1,200.0	13.32	10.92	1,189.1	108.4	20.9	110.4	0.00	0.00	
1,300.0	13.32	10.92	1,286.4	131.0	25.3	133.4	0.00	0.00	
1,400.0	13.32	10.92	1,383.7	153.6	29.6	156.5	0.00	0.00	
1,500.0	13.32	10.92	1,481.0	176.3	34.0	179.5	0.00	0.00	
1,600.0	13.32	10.92	1,578.4	198.9	38.4	202.6	0.00	0.00	
1,700.0	13.32	10.92	1,675.7	221.5	42.7	225.6	0.00	0.00	
1,800.0	13.32	10.92	1,773.0	244.2	47.1	248.7	0.00	0.00	
1,900.0	13.32	10.92	1,870.3	266.8	51.5	271.7	0.00	0.00	
2,000.0	13.32	10.92	1,967.6	289.4	55.8	294.8	0.00	0.00	
2,100.0	13.32	10.92	2,064.9	312.0	60.2	317.8	0.00	0.00	
2,200.0	13.32	10.92	2,162.2	334.7	64.6	340.8	0.00	0.00	
2,300.0	13.32	10.92	2,259.5	357.3	68.9	363.9	0.00	0.00	
2,400.0	13.32	10.92	2,356.8	379.9	73.3	386.9	0.00	0.00	
2,500.0	13.32	10.92	2,454.1	402.6	77.7	410.0	0.00	0.00	
2,600.0	13.32	10.92	2,551.4	425.2	82.0	433.0	0.00	0.00	
2,700.0	13.32	10.92	2,648.7	447.8	86.4	456.1	0.00	0.00	
2,800.0	13.32	10.92	2,746.0	470.4	90.8	479.1	0.00	0.00	
2,900.0	13.32	10.92	2,843.4	493.1	95.1	502.2	0.00	0.00	
3,000.0	13.32	10.92	2,940.7	515.7	99.5	525.2	0.00	0.00	
3,100.0	13.32	10.92	3,038.0	538.3	103.9	548.3	0.00	0.00	
3,200.0	13.32	10.92	3,135.3	561.0	108.2	571.3	0.00	0.00	
3,300.0	13.32	10.92	3,232.6	583.6	112.6	594.4	0.00	0.00	
3,400.0	13.32	10.92	3,329.9	606.2	117.0	617.4	0.00	0.00	
3,500.0	13.32	10.92	3,427.2	628.9	121.3	640.5	0.00	0.00	
3,523.4	13.32	10.92	3,450.0	634.2	122.3	645.9	0.00	0.00	Parkman
3,600.0	13.32	10.92	3,524.5	651.5	125.7	663.5	0.00	0.00	
3,700.0	13.32	10.92	3,621.8	674.1	130.0	686.5	0.00	0.00	
3,800.0	13.32	10.92	3,719.1	696.7	134.4	709.6	0.00	0.00	
3,900.0	13.32	10.92	3,816.4	719.4	138.8	732.6	0.00	0.00	
4,000.0	13.32	10.92	3,913.7	742.0	143.1	755.7	0.00	0.00	
4,100.0	13.32	10.92	4,011.1	764.6	147.5	778.7	0.00	0.00	
4,165.7	13.32	10.92	4,075.0	779.5	150.4	793.9	0.00	0.00	Sussex
4,200.0	13.32	10.92	4,108.4	787.3	151.9	801.8	0.00	0.00	
4,300.0	13.32	10.92	4,205.7	809.9	156.2	824.8	0.00	0.00	
4,400.0	13.32	10.92	4,303.0	832.5	160.6	847.9	0.00	0.00	
4,500.0	13.32	10.92	4,400.3	855.2	165.0	870.9	0.00	0.00	
4,600.0	13.32	10.92	4,497.6	877.8	169.3	894.0	0.00	0.00	
4,700.0	13.32	10.92	4,594.9	900.4	173.7	917.0	0.00	0.00	
4,800.0	13.32	10.92	4,692.2	923.0	178.1	940.1	0.00	0.00	

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Antelope 13-20
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4683.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4683.0ft (Original Well Elev)
Site:	Antelope 14-20 Pad	North Reference:	True
Well:	Antelope 13-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	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
4,900.0	13.32	10.92	4,789.5	945.7	182.4	963.1	0.00	0.00	
5,000.0	13.32	10.92	4,886.8	968.3	186.8	986.2	0.00	0.00	
5,100.0	13.32	10.92	4,984.1	990.9	191.2	1,009.2	0.00	0.00	
5,200.0	13.32	10.92	5,081.4	1,013.6	195.5	1,032.2	0.00	0.00	
5,300.0	13.32	10.92	5,178.7	1,036.2	199.9	1,055.3	0.00	0.00	
5,400.0	13.32	10.92	5,276.1	1,058.8	204.3	1,078.3	0.00	0.00	
5,500.0	13.32	10.92	5,373.4	1,081.4	208.6	1,101.4	0.00	0.00	
5,600.0	13.32	10.92	5,470.7	1,104.1	213.0	1,124.4	0.00	0.00	
5,700.0	13.32	10.92	5,568.0	1,126.7	217.4	1,147.5	0.00	0.00	
5,794.4	13.32	10.92	5,659.8	1,148.1	221.5	1,169.2	0.00	0.00	Start Drop -3.00
5,800.0	13.16	10.92	5,665.3	1,149.3	221.7	1,170.5	3.00	-3.00	
5,900.0	10.16	10.92	5,763.2	1,169.2	225.6	1,190.7	3.00	-3.00	
6,000.0	7.16	10.92	5,862.1	1,183.9	228.4	1,205.8	3.00	-3.00	
6,100.0	4.16	10.92	5,961.6	1,193.6	230.3	1,215.6	3.00	-3.00	
6,200.0	1.16	10.92	6,061.4	1,198.2	231.1	1,220.3	3.00	-3.00	
6,238.6	0.00	0.00	6,100.0	1,198.5	231.2	1,220.6	3.00	-3.00	EOD @ Inc. = 0°
6,300.0	0.00	0.00	6,161.4	1,198.5	231.2	1,220.6	0.00	0.00	
6,400.0	0.00	0.00	6,261.4	1,198.5	231.2	1,220.6	0.00	0.00	
6,463.6	0.00	0.00	6,325.0	1,198.5	231.2	1,220.6	0.00	0.00	Niobrara
6,500.0	0.00	0.00	6,361.4	1,198.5	231.2	1,220.6	0.00	0.00	
6,600.0	0.00	0.00	6,461.4	1,198.5	231.2	1,220.6	0.00	0.00	
6,700.0	0.00	0.00	6,561.4	1,198.5	231.2	1,220.6	0.00	0.00	
6,800.0	0.00	0.00	6,661.4	1,198.5	231.2	1,220.6	0.00	0.00	
6,888.6	0.00	0.00	6,750.0	1,198.5	231.2	1,220.6	0.00	0.00	TD @ 6,889' MD

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	
- Shape									Latitude Longitude
Antelope TGT		0.00	0.00	6,100.0	1,198.5	231.2	1,384,526.93	3,319,185.36	40.383260 -104.354230
- plan hits target center									
- Point									
Antelope PBHL		0.00	0.00	6,750.0	1,198.5	231.2	1,384,526.93	3,319,185.36	40.383260 -104.354230
- plan hits target center									
- Circle (radius 50.0)									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,523.4	3,450.0	Parkman				
4,165.7	4,075.0	Sussex				
6,463.6	6,325.0	Niobrara				

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Antelope 13-20
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4683.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4683.0ft (Original Well Elev)
Site:	Antelope 14-20 Pad	North Reference:	True
Well:	Antelope 13-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
500.0	500.0	0.0	0.0	KOP @ 500'
944.2	940.2	50.5	9.7	EOB @ Inc. = 10.92°
5,794.4	5,659.8	1,148.1	221.5	Start Drop -3.00
6,238.6	6,100.0	1,198.5	231.2	EOD @ Inc. = 0°
6,888.6	6,750.0	1,198.5	231.2	TD @ 6,889' MD