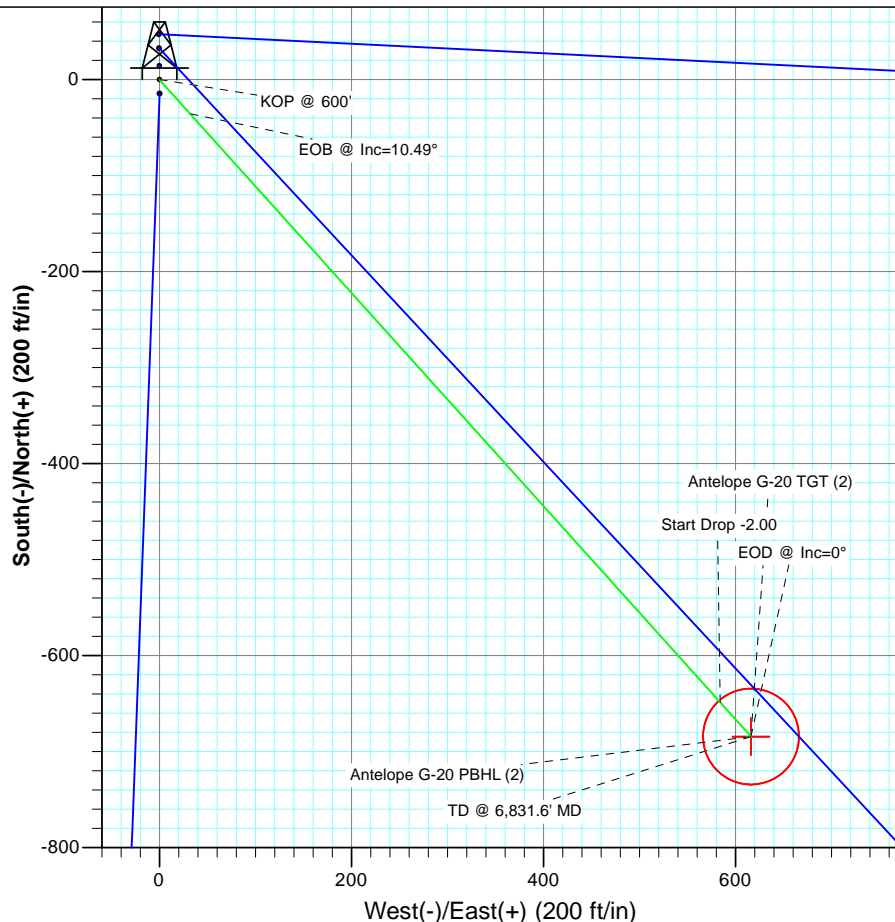


SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	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	1124.4	10.49	138.00	1121.4	-35.6	32.0	2.00	138.00	47.9	
4	5657.2	10.49	138.00	5578.6	-648.7	584.1	0.00	0.00	872.9	
5	6181.6	0.00	0.00	6100.0	-684.2	616.1	2.00	180.00	920.8	Antelope G-20 TGT (2)
6	6831.6	0.00	0.00	6750.0	-684.2	616.1	0.00	0.00	920.8	Antelope G-20 PBHL (2)



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3450.0	3492.5	Parkman
4075.0	4128.1	Sussex
6325.0	6406.6	Niobrara



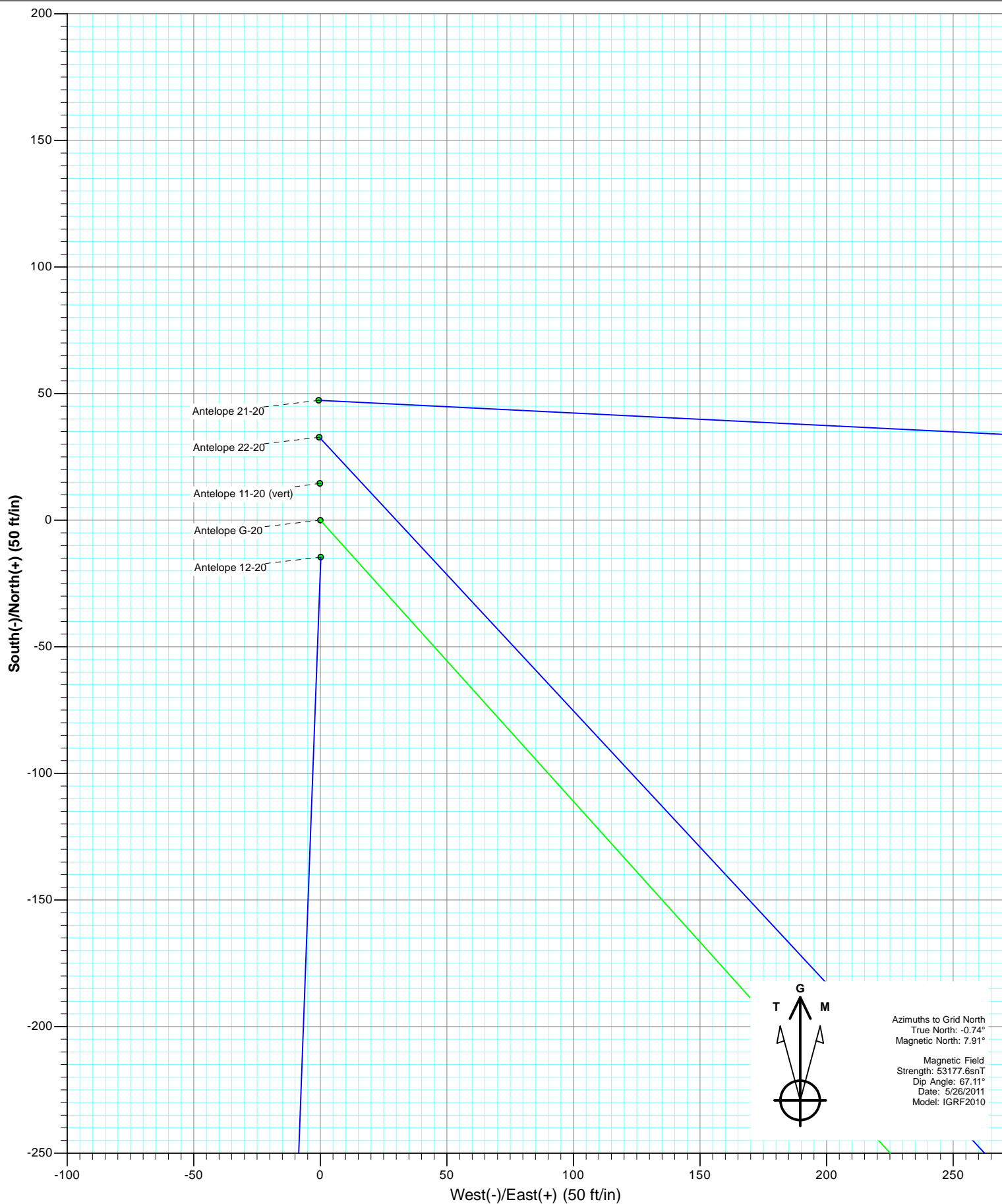
Azimuths to Grid North
True North: -0.74°
Magnetic North: 7.91°

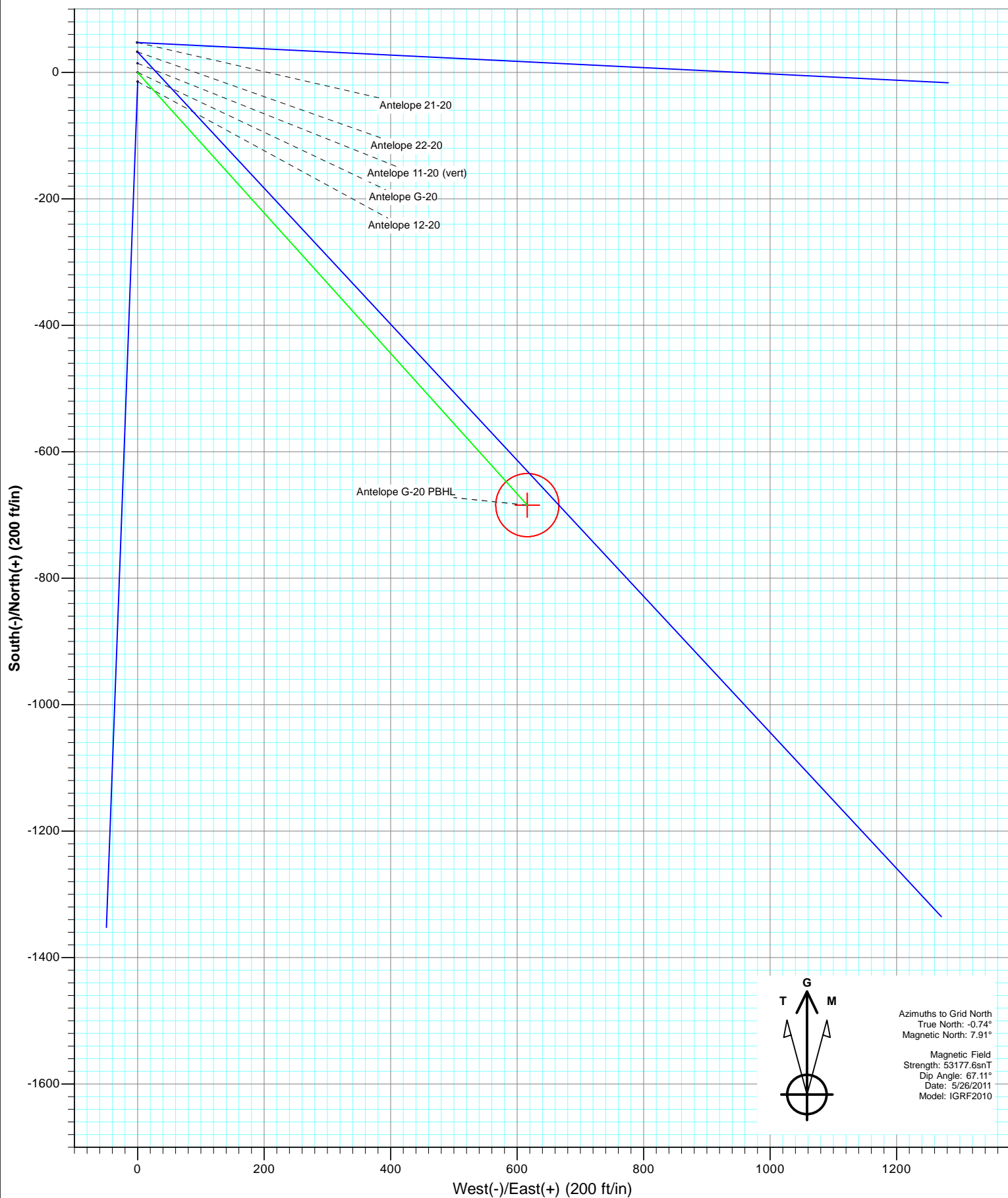
Magnetic Field
Strength: 53177.6nT
Dip Angle: 67.11°
Date: 5/26/2011
Model: IGRF2010

Plan #3
Antelope G-20
115XXX; SC

WELL @ 4661.0ft (Original Well Elev)
North American Datum 1983
Well Antelope G-20, Grid North

Type	Target	Azimuth	Origin	Type	N/S	E/W	From
TD	No Target (Freehand)	138.00	Slot		0.0	0.0	TVD
							0.0
Name	TVD	+N/-S	+E/-W	Latitude	Longitude		
Antelope G-20 TGT (2)	6100.0	-684.2	616.1	40.388620	-104.351890		
Antelope G-20 PBHL (2)	6750.0	-684.2	616.1	40.388620	-104.351890		





Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Antelope G-20
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	WELL @ 4661.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	WELL @ 4661.0ft (Original Well Elev)
Site:	Antelope 11-20 Pad	North Reference:	Grid
Well:	Antelope G-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

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 11-20 Pad			
Site Position:		Northing:	1,387,186.65 ft	Latitude:	40.390560
From:	Lat/Long	Easting:	3,319,195.57 ft	Longitude:	-104.354070
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.74 °

Well	Antelope G-20					
Well Position	+N/-S	0.0 ft	Northing:	1,387,172.06 ft	Latitude:	40.390520
	+E/-W	0.0 ft	Easting:	3,319,195.76 ft	Longitude:	-104.354070
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,651.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/26/2011	8.65	67.11	53,178

Design	Plan #3				
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	138.00	

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	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,124.4	10.49	138.00	1,121.4	-35.6	32.0	2.00	2.00	0.00	138.00	
5,657.2	10.49	138.00	5,578.6	-648.7	584.1	0.00	0.00	0.00	0.00	
6,181.6	0.00	0.00	6,100.0	-684.2	616.1	2.00	-2.00	0.00	180.00	Antelope G-20 TGT (Z)
6,831.6	0.00	0.00	6,750.0	-684.2	616.1	0.00	0.00	0.00	0.00	Antelope G-20 PBHL

Planning Report

Database: USA EDM 5000 Multi Users DB
Company: Bonanza Creek Energy Operating Company, LLC
Project: Weld County
Site: Antelope 11-20 Pad
Well: Antelope G-20
Wellbore: DD
Design: Plan #3

Local Co-ordinate Reference: Well Antelope G-20
TVD Reference: WELL @ 4661.0ft (Original Well Elev)
MD Reference: WELL @ 4661.0ft (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
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	138.00	700.0	-1.3	1.2	1.7	2.00	2.00	
800.0	4.00	138.00	799.8	-5.2	4.7	7.0	2.00	2.00	
900.0	6.00	138.00	899.5	-11.7	10.5	15.7	2.00	2.00	
1,000.0	8.00	138.00	998.7	-20.7	18.7	27.9	2.00	2.00	
1,100.0	10.00	138.00	1,097.5	-32.3	29.1	43.5	2.00	2.00	
1,124.4	10.49	138.00	1,121.4	-35.6	32.0	47.9	2.00	2.00	EOB @ Inc=10.49°
1,200.0	10.49	138.00	1,195.8	-45.8	41.2	61.6	0.00	0.00	
1,300.0	10.49	138.00	1,294.1	-59.3	53.4	79.8	0.00	0.00	
1,400.0	10.49	138.00	1,392.5	-72.8	65.6	98.0	0.00	0.00	
1,500.0	10.49	138.00	1,490.8	-86.4	77.8	116.2	0.00	0.00	
1,600.0	10.49	138.00	1,589.1	-99.9	90.0	134.4	0.00	0.00	
1,700.0	10.49	138.00	1,687.5	-113.4	102.1	152.6	0.00	0.00	
1,800.0	10.49	138.00	1,785.8	-126.9	114.3	170.8	0.00	0.00	
1,900.0	10.49	138.00	1,884.1	-140.5	126.5	189.0	0.00	0.00	
2,000.0	10.49	138.00	1,982.4	-154.0	138.7	207.2	0.00	0.00	
2,100.0	10.49	138.00	2,080.8	-167.5	150.9	225.4	0.00	0.00	
2,200.0	10.49	138.00	2,179.1	-181.1	163.0	243.6	0.00	0.00	
2,300.0	10.49	138.00	2,277.4	-194.6	175.2	261.8	0.00	0.00	
2,400.0	10.49	138.00	2,375.8	-208.1	187.4	280.0	0.00	0.00	
2,500.0	10.49	138.00	2,474.1	-221.6	199.6	298.2	0.00	0.00	
2,600.0	10.49	138.00	2,572.4	-235.2	211.8	316.4	0.00	0.00	
2,700.0	10.49	138.00	2,670.8	-248.7	223.9	334.6	0.00	0.00	
2,800.0	10.49	138.00	2,769.1	-262.2	236.1	352.9	0.00	0.00	
2,900.0	10.49	138.00	2,867.4	-275.7	248.3	371.1	0.00	0.00	
3,000.0	10.49	138.00	2,965.7	-289.3	260.5	389.3	0.00	0.00	
3,100.0	10.49	138.00	3,064.1	-302.8	272.7	407.5	0.00	0.00	
3,200.0	10.49	138.00	3,162.4	-316.3	284.8	425.7	0.00	0.00	
3,300.0	10.49	138.00	3,260.7	-329.8	297.0	443.9	0.00	0.00	
3,400.0	10.49	138.00	3,359.1	-343.4	309.2	462.1	0.00	0.00	
3,492.5	10.49	138.00	3,450.0	-355.9	320.5	478.9	0.00	0.00	Parkman
3,500.0	10.49	138.00	3,457.4	-356.9	321.4	480.3	0.00	0.00	
3,600.0	10.49	138.00	3,555.7	-370.4	333.6	498.5	0.00	0.00	
3,700.0	10.49	138.00	3,654.1	-383.9	345.7	516.7	0.00	0.00	
3,800.0	10.49	138.00	3,752.4	-397.5	357.9	534.9	0.00	0.00	
3,900.0	10.49	138.00	3,850.7	-411.0	370.1	553.1	0.00	0.00	
4,000.0	10.49	138.00	3,949.0	-424.5	382.3	571.3	0.00	0.00	
4,100.0	10.49	138.00	4,047.4	-438.0	394.5	589.5	0.00	0.00	
4,128.1	10.49	138.00	4,075.0	-441.8	397.9	594.6	0.00	0.00	Sussex
4,200.0	10.49	138.00	4,145.7	-451.6	406.6	607.7	0.00	0.00	
4,300.0	10.49	138.00	4,244.0	-465.1	418.8	625.9	0.00	0.00	
4,400.0	10.49	138.00	4,342.4	-478.6	431.0	644.1	0.00	0.00	
4,500.0	10.49	138.00	4,440.7	-492.2	443.2	662.3	0.00	0.00	
4,600.0	10.49	138.00	4,539.0	-505.7	455.4	680.5	0.00	0.00	
4,700.0	10.49	138.00	4,637.3	-519.2	467.5	698.7	0.00	0.00	
4,800.0	10.49	138.00	4,735.7	-532.7	479.7	716.9	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Antelope G-20
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	WELL @ 4661.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	WELL @ 4661.0ft (Original Well Elev)
Site:	Antelope 11-20 Pad	North Reference:	Grid
Well:	Antelope G-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

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	10.49	138.00	4,834.0	-546.3	491.9	735.1	0.00	0.00	
5,000.0	10.49	138.00	4,932.3	-559.8	504.1	753.3	0.00	0.00	
5,100.0	10.49	138.00	5,030.7	-573.3	516.3	771.5	0.00	0.00	
5,200.0	10.49	138.00	5,129.0	-586.8	528.4	789.7	0.00	0.00	
5,300.0	10.49	138.00	5,227.3	-600.4	540.6	807.9	0.00	0.00	
5,400.0	10.49	138.00	5,325.7	-613.9	552.8	826.1	0.00	0.00	
5,500.0	10.49	138.00	5,424.0	-627.4	565.0	844.3	0.00	0.00	
5,600.0	10.49	138.00	5,522.3	-640.9	577.2	862.5	0.00	0.00	
5,657.2	10.49	138.00	5,578.6	-648.7	584.1	872.9	0.00	0.00	Start Drop -2.00
5,700.0	9.63	138.00	5,620.7	-654.2	589.1	880.4	2.00	-2.00	
5,800.0	7.63	138.00	5,719.6	-665.4	599.2	895.4	2.00	-2.00	
5,900.0	5.63	138.00	5,818.9	-674.0	606.9	906.9	2.00	-2.00	
6,000.0	3.63	138.00	5,918.6	-680.0	612.3	915.0	2.00	-2.00	
6,100.0	1.63	138.00	6,018.4	-683.4	615.4	919.6	2.00	-2.00	
6,181.6	0.00	0.00	6,100.0	-684.2	616.1	920.8	2.00	-2.00	EOD @ Inc=0°
6,200.0	0.00	0.00	6,118.4	-684.2	616.1	920.8	0.00	0.00	
6,300.0	0.00	0.00	6,218.4	-684.2	616.1	920.8	0.00	0.00	
6,400.0	0.00	0.00	6,318.4	-684.2	616.1	920.8	0.00	0.00	
6,406.6	0.00	0.00	6,325.0	-684.2	616.1	920.8	0.00	0.00	Niobrara
6,500.0	0.00	0.00	6,418.4	-684.2	616.1	920.8	0.00	0.00	
6,600.0	0.00	0.00	6,518.4	-684.2	616.1	920.8	0.00	0.00	
6,700.0	0.00	0.00	6,618.4	-684.2	616.1	920.8	0.00	0.00	
6,800.0	0.00	0.00	6,718.4	-684.2	616.1	920.8	0.00	0.00	
6,831.6	0.00	0.00	6,750.0	-684.2	616.1	920.8	0.00	0.00	TD @ 6,831.6' MD

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 G-20 PBHL - plan misses target center by 11.6ft at 6800.0ft MD (6718.4 TVD, -684.2 N, 616.1 E) - Circle (radius 50.0)	0.00	0.00	6,730.0	-684.2	616.1	1,386,487.83	3,319,811.91	40.388620	-104.351890
Antelope G-20 PBHL (2) - plan hits target center - Circle (radius 50.0)	0.00	0.00	6,750.0	-684.2	616.1	1,386,487.83	3,319,811.91	40.388620	-104.351890
Antelope G-20 TGT - plan misses target center by 12.7ft at 5912.2ft MD (5831.0 TVD, -674.8 N, 607.7 E) - Point	0.00	0.00	5,830.0	-684.2	616.1	1,386,487.83	3,319,811.91	40.388620	-104.351890
Antelope G-20 TGT (2) - plan hits target center - Point	0.00	0.00	6,100.0	-684.2	616.1	1,386,487.83	3,319,811.91	40.388620	-104.351890

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Antelope G-20
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	WELL @ 4661.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	WELL @ 4661.0ft (Original Well Elev)
Site:	Antelope 11-20 Pad	North Reference:	Grid
Well:	Antelope G-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,492.5	3,450.0	Parkman				
4,128.1	4,075.0	Sussex				
6,406.6	6,325.0	Niobrara				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
600.0	600.0	0.0	0.0	KOP @ 600'	
1,124.4	1,121.4	-35.6	32.0	EOB @ Inc=10.49°	
5,657.2	5,578.6	-648.7	584.1	Start Drop -2.00	
6,181.6	6,100.0	-684.2	616.1	EOD @ Inc=0°	
6,831.6	6,750.0	-684.2	616.1	TD @ 6,831.6' MD	

Bonanza Creek Energy Operating Company, LLC

Weld County

Antelope 11-20 Pad

Antelope G-20

DD

Plan #3

Anticollision Report

03 July, 2011

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope G-20
Project:	Weld County	TVD Reference:	WELL @ 4661.0ft (Original Well Elev)
Reference Site:	Antelope 11-20 Pad	MD Reference:	WELL @ 4661.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Antelope G-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Reference	Plan #3		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	7/3/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	6,831.6	Plan #3 (DD)	MWD	Geolink MWD

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Antelope 11-20 Pad						
Antelope 11-20 (vert) - V - Plan #3	0.0	0.0	14.6			
Antelope 11-20 (vert) - V - Plan #3	600.0	600.0	14.6	14.6	10,000.000	CC, ES
Antelope 12-20 - DD - Plan #3	0.0	0.0	14.6			
Antelope 12-20 - DD - Plan #3	600.0	600.0	14.6	14.6	10,000.000	CC, ES
Antelope 21-20 - DD - Plan #3	0.0	0.0	47.4			
Antelope 21-20 - DD - Plan #3	600.0	600.0	47.4	47.4	10,000.000	CC, ES
Antelope 22-20 - DD - Plan #3	0.0	0.0	32.8			
Antelope 22-20 - DD - Plan #3	875.6	877.7	22.2	22.2	10,000.000	CC, ES

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope G-20
Project:	Weld County	TVD Reference:	WELL @ 4661.0ft (Original Well Elev)
Reference Site:	Antelope 11-20 Pad	MD Reference:	WELL @ 4661.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Antelope G-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Antelope 11-20 Pad - Antelope 11-20 (vert) - V - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-0.74	14.6	-0.2	14.6					
100.0	100.0	100.0	100.0	0.2	0.2	-0.74	14.6	-0.2	14.6	14.6	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	-0.74	14.6	-0.2	14.6	14.6	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	-0.74	14.6	-0.2	14.6	14.6	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	-0.74	14.6	-0.2	14.6	14.6	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	-0.74	14.6	-0.2	14.6	14.6	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	-0.74	14.6	-0.2	14.6	14.6	0.00	N/A CC, ES		
700.0	700.0	700.0	700.0	1.2	1.2	-142.87	14.6	-0.2	15.9	15.9	0.00	N/A		
800.0	799.8	799.8	799.8	1.4	1.4	-151.75	14.6	-0.2	20.3	20.3	0.00	N/A		
900.0	899.5	899.5	899.5	1.6	1.6	-160.07	14.6	-0.2	28.3	28.3	0.00	N/A		
1,000.0	998.7	998.7	998.7	1.8	1.7	-165.97	14.6	-0.2	40.0	40.0	0.00	N/A		
1,100.0	1,097.5	1,097.5	1,097.5	2.1	1.9	-169.84	14.6	-0.2	55.3	55.3	0.00	N/A		
1,200.0	1,195.8	1,195.8	1,195.8	2.4	2.1	-172.33	14.6	-0.2	73.2	73.2	0.00	N/A		
1,300.0	1,294.1	1,294.1	1,294.1	2.7	2.2	-173.85	14.6	-0.2	91.3	91.3	0.00	N/A		
1,400.0	1,392.5	1,392.5	1,392.5	3.1	2.4	-174.88	14.6	-0.2	109.4	109.4	0.00	N/A		
1,500.0	1,490.8	1,490.8	1,490.8	3.4	2.6	-175.61	14.6	-0.2	127.5	127.5	0.00	N/A		
1,600.0	1,589.1	1,589.1	1,589.1	3.7	2.8	-176.15	14.6	-0.2	145.7	145.7	0.00	N/A		
1,700.0	1,687.5	1,687.5	1,687.5	4.1	2.9	-176.58	14.6	-0.2	163.9	163.9	0.00	N/A		
1,800.0	1,785.8	1,785.8	1,785.8	4.4	3.1	-176.92	14.6	-0.2	182.0	182.0	0.00	N/A		
1,900.0	1,884.1	1,884.1	1,884.1	4.8	3.3	-177.20	14.6	-0.2	200.2	200.2	0.00	N/A		
2,000.0	1,982.4	1,982.4	1,982.4	5.1	3.4	-177.44	14.6	-0.2	218.4	218.4	0.00	N/A		
2,100.0	2,080.8	2,080.8	2,080.8	5.5	3.6	-177.63	14.6	-0.2	236.6	236.6	0.00	N/A		
2,200.0	2,179.1	2,179.1	2,179.1	5.9	3.8	-177.80	14.6	-0.2	254.8	254.8	0.00	N/A		
2,300.0	2,277.4	2,277.4	2,277.4	6.2	4.0	-177.95	14.6	-0.2	273.0	273.0	0.00	N/A		
2,400.0	2,375.8	2,375.8	2,375.8	6.6	4.1	-178.08	14.6	-0.2	291.2	291.2	0.00	N/A		
2,500.0	2,474.1	2,474.1	2,474.1	6.9	4.3	-178.19	14.6	-0.2	309.3	309.3	0.00	N/A		
2,600.0	2,572.4	2,572.4	2,572.4	7.3	4.5	-178.29	14.6	-0.2	327.5	327.5	0.00	N/A		
2,700.0	2,670.8	2,670.8	2,670.8	7.6	4.6	-178.38	14.6	-0.2	345.7	345.7	0.00	N/A		
2,800.0	2,769.1	2,769.1	2,769.1	8.0	4.8	-178.46	14.6	-0.2	363.9	363.9	0.00	N/A		
2,900.0	2,867.4	2,867.4	2,867.4	8.4	5.0	-178.53	14.6	-0.2	382.1	382.1	0.00	N/A		
3,000.0	2,965.7	2,965.7	2,965.7	8.7	5.2	-178.60	14.6	-0.2	400.3	400.3	0.00	N/A		
3,100.0	3,064.1	3,064.1	3,064.1	9.1	5.3	-178.66	14.6	-0.2	418.5	418.5	0.00	N/A		
3,200.0	3,162.4	3,162.4	3,162.4	9.4	5.5	-178.72	14.6	-0.2	436.7	436.7	0.00	N/A		
3,300.0	3,260.7	3,260.7	3,260.7	9.8	5.7	-178.77	14.6	-0.2	454.9	454.9	0.00	N/A		
3,400.0	3,359.1	3,359.1	3,359.1	10.2	5.8	-178.82	14.6	-0.2	473.1	473.1	0.00	N/A		
3,500.0	3,457.4	3,457.4	3,457.4	10.5	6.0	-178.86	14.6	-0.2	491.3	491.3	0.00	N/A		

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope G-20
Project:	Weld County	TVD Reference:	WELL @ 4661.0ft (Original Well Elev)
Reference Site:	Antelope 11-20 Pad	MD Reference:	WELL @ 4661.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Antelope G-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Antelope 11-20 Pad - Antelope 12-20 - DD - Plan #3													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	179.26	-14.6	0.2	14.6					
100.0	100.0	100.0	100.0	0.2	0.2	179.26	-14.6	0.2	14.6	14.6	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	179.26	-14.6	0.2	14.6	14.6	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	179.26	-14.6	0.2	14.6	14.6	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	179.26	-14.6	0.2	14.6	14.6	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	179.26	-14.6	0.2	14.6	14.6	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	179.26	-14.6	0.2	14.6	14.6	0.00	N/A CC, ES		
700.0	700.0	699.5	699.5	1.2	1.2	45.95	-16.3	0.1	15.0	15.0	0.00	N/A		
800.0	799.8	798.9	798.7	1.4	1.4	58.06	-21.5	-0.1	17.0	17.0	0.00	N/A		
900.0	899.5	898.0	897.5	1.6	1.6	72.21	-30.0	-0.4	21.5	21.5	0.00	N/A		
1,000.0	998.7	996.9	995.6	1.8	1.8	83.69	-42.0	-0.8	29.0	29.0	0.00	N/A		
1,100.0	1,097.5	1,095.4	1,092.9	2.1	2.1	91.58	-57.3	-1.4	39.7	39.7	0.00	N/A		
1,200.0	1,195.8	1,193.4	1,189.2	2.4	2.4	95.89	-75.8	-2.1	53.1	53.1	0.00	N/A		
1,300.0	1,294.1	1,290.9	1,284.3	2.7	2.8	96.27	-97.4	-2.9	68.7	68.7	0.00	N/A		
1,400.0	1,392.5	1,387.7	1,377.9	3.1	3.2	94.73	-122.1	-3.8	86.4	86.4	0.00	N/A		
1,500.0	1,490.8	1,485.8	1,472.1	3.4	3.6	92.89	-148.9	-4.8	105.3	105.3	0.00	N/A		
1,600.0	1,589.1	1,583.9	1,566.5	3.7	4.1	91.60	-175.8	-5.8	124.3	124.3	0.00	N/A		
1,700.0	1,687.5	1,682.1	1,660.9	4.1	4.6	90.66	-202.7	-6.8	143.3	143.3	0.00	N/A		
1,800.0	1,785.8	1,780.2	1,755.3	4.4	5.0	89.94	-229.5	-7.8	162.4	162.4	0.00	N/A		
1,900.0	1,884.1	1,878.3	1,849.7	4.8	5.5	89.37	-256.4	-8.8	181.4	181.4	0.00	N/A		
2,000.0	1,982.4	1,976.5	1,944.1	5.1	6.0	88.90	-283.3	-9.8	200.5	200.5	0.00	N/A		
2,100.0	2,080.8	2,074.6	2,038.5	5.5	6.5	88.52	-310.1	-10.8	219.7	219.7	0.00	N/A		
2,200.0	2,179.1	2,172.8	2,132.9	5.9	7.0	88.20	-337.0	-11.8	238.8	238.8	0.00	N/A		
2,300.0	2,277.4	2,270.9	2,227.3	6.2	7.5	87.93	-363.9	-12.8	257.9	257.9	0.00	N/A		
2,400.0	2,375.8	2,369.1	2,321.7	6.6	8.0	87.69	-390.7	-13.8	277.0	277.0	0.00	N/A		
2,500.0	2,474.1	2,467.2	2,416.1	6.9	8.4	87.49	-417.6	-14.7	296.2	296.2	0.00	N/A		
2,600.0	2,572.4	2,565.4	2,510.5	7.3	8.9	87.31	-444.5	-15.7	315.3	315.3	0.00	N/A		
2,700.0	2,670.8	2,663.5	2,604.8	7.6	9.4	87.15	-471.3	-16.7	334.4	334.4	0.00	N/A		
2,800.0	2,769.1	2,761.7	2,699.2	8.0	9.9	87.01	-498.2	-17.7	353.6	353.6	0.00	N/A		
2,900.0	2,867.4	2,859.8	2,793.6	8.4	10.4	86.88	-525.1	-18.7	372.7	372.7	0.00	N/A		
3,000.0	2,965.7	2,958.0	2,888.0	8.7	10.9	86.76	-551.9	-19.7	391.9	391.9	0.00	N/A		
3,100.0	3,064.1	3,056.1	2,982.4	9.1	11.4	86.66	-578.8	-20.7	411.0	411.0	0.00	N/A		
3,200.0	3,162.4	3,154.3	3,076.8	9.4	11.9	86.56	-605.7	-21.7	430.1	430.1	0.00	N/A		
3,300.0	3,260.7	3,252.4	3,171.2	9.8	12.4	86.48	-632.5	-22.7	449.3	449.3	0.00	N/A		
3,400.0	3,359.1	3,350.6	3,265.6	10.2	12.9	86.40	-659.4	-23.7	468.4	468.4	0.00	N/A		
3,500.0	3,457.4	3,448.7	3,360.0	10.5	13.4	86.32	-686.3	-24.7	487.6	487.6	0.00	N/A		

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope G-20
Project:	Weld County	TVD Reference:	WELL @ 4661.0ft (Original Well Elev)
Reference Site:	Antelope 11-20 Pad	MD Reference:	WELL @ 4661.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Antelope G-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Antelope 11-20 Pad - Antelope 21-20 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-0.74	47.4	-0.6	47.4					
100.0	100.0	100.0	100.0	0.2	0.2	-0.74	47.4	-0.6	47.4	47.4	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	-0.74	47.4	-0.6	47.4	47.4	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	-0.74	47.4	-0.6	47.4	47.4	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	-0.74	47.4	-0.6	47.4	47.4	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	-0.74	47.4	-0.6	47.4	47.4	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	-0.74	47.4	-0.6	47.4	47.4	0.00	N/A CC, ES		
700.0	700.0	700.1	700.1	1.2	1.2	-138.02	47.3	1.1	48.6	48.6	0.00	N/A		
800.0	799.8	800.1	799.9	1.4	1.4	-136.07	47.0	6.4	52.2	52.2	0.00	N/A		
900.0	899.5	899.8	899.3	1.6	1.6	-133.37	46.6	15.0	58.4	58.4	0.00	N/A		
1,000.0	998.7	999.3	998.0	1.8	1.8	-130.41	46.0	27.1	67.2	67.2	0.00	N/A		
1,100.0	1,097.5	1,098.3	1,095.8	2.1	2.1	-127.57	45.2	42.6	78.7	78.7	0.00	N/A		
1,200.0	1,195.8	1,196.8	1,192.5	2.4	2.4	-124.70	44.3	61.3	92.3	92.3	0.00	N/A		
1,300.0	1,294.1	1,294.8	1,288.1	2.7	2.8	-120.89	43.2	83.1	106.9	106.9	0.00	N/A		
1,400.0	1,392.5	1,392.6	1,382.5	3.1	3.2	-116.58	42.0	108.0	122.8	122.8	0.00	N/A		
1,500.0	1,490.8	1,490.8	1,477.4	3.4	3.7	-112.97	40.7	133.7	139.5	139.5	0.00	N/A		
1,600.0	1,589.1	1,589.1	1,572.2	3.7	4.1	-110.13	39.4	159.3	156.6	156.6	0.00	N/A		
1,700.0	1,687.5	1,687.3	1,667.1	4.1	4.6	-107.86	38.2	185.0	174.0	174.0	0.00	N/A		
1,800.0	1,785.8	1,785.6	1,761.9	4.4	5.1	-106.00	36.9	210.7	191.6	191.6	0.00	N/A		
1,900.0	1,884.1	1,883.9	1,856.7	4.8	5.5	-104.45	35.6	236.3	209.3	209.3	0.00	N/A		
2,000.0	1,982.4	1,982.1	1,951.6	5.1	6.0	-103.15	34.3	262.0	227.2	227.2	0.00	N/A		
2,100.0	2,080.8	2,080.4	2,046.4	5.5	6.5	-102.03	33.1	287.7	245.2	245.2	0.00	N/A		
2,200.0	2,179.1	2,178.7	2,141.3	5.9	7.0	-101.07	31.8	313.4	263.3	263.3	0.00	N/A		
2,300.0	2,277.4	2,276.9	2,236.1	6.2	7.5	-100.24	30.5	339.0	281.5	281.5	0.00	N/A		
2,400.0	2,375.8	2,375.2	2,331.0	6.6	7.9	-99.50	29.3	364.7	299.6	299.6	0.00	N/A		
2,500.0	2,474.1	2,473.5	2,425.8	6.9	8.4	-98.85	28.0	390.4	317.9	317.9	0.00	N/A		
2,600.0	2,572.4	2,571.7	2,520.6	7.3	8.9	-98.27	26.7	416.0	336.1	336.1	0.00	N/A		
2,700.0	2,670.8	2,670.0	2,615.5	7.6	9.4	-97.74	25.4	441.7	354.4	354.4	0.00	N/A		
2,800.0	2,769.1	2,768.2	2,710.3	8.0	9.9	-97.27	24.2	467.4	372.8	372.8	0.00	N/A		
2,900.0	2,867.4	2,866.5	2,805.2	8.4	10.4	-96.85	22.9	493.1	391.1	391.1	0.00	N/A		
3,000.0	2,965.7	2,964.8	2,900.0	8.7	10.9	-96.46	21.6	518.7	409.5	409.5	0.00	N/A		
3,100.0	3,064.1	3,063.0	2,994.9	9.1	11.4	-96.10	20.4	544.4	427.8	427.8	0.00	N/A		
3,200.0	3,162.4	3,161.3	3,089.7	9.4	11.9	-95.78	19.1	570.1	446.2	446.2	0.00	N/A		
3,300.0	3,260.7	3,259.6	3,184.5	9.8	12.3	-95.48	17.8	595.7	464.6	464.6	0.00	N/A		
3,400.0	3,359.1	3,357.8	3,279.4	10.2	12.8	-95.20	16.5	621.4	483.1	483.1	0.00	N/A		

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope G-20
Project:	Weld County	TVD Reference:	WELL @ 4661.0ft (Original Well Elev)
Reference Site:	Antelope 11-20 Pad	MD Reference:	WELL @ 4661.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Antelope G-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Antelope 11-20 Pad - Antelope 22-20 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-0.74	32.8	-0.4	32.8					
100.0	100.0	100.0	100.0	0.2	0.2	-0.74	32.8	-0.4	32.8	32.8	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	-0.74	32.8	-0.4	32.8	32.8	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	-0.74	32.8	-0.4	32.8	32.8	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	-0.74	32.8	-0.4	32.8	32.8	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	-0.74	32.8	-0.4	32.8	32.8	0.00	N/A		
600.0	600.0	601.2	601.1	1.0	1.0	2.60	30.8	1.4	30.9	30.9	0.00	N/A		
700.0	700.0	702.0	701.6	1.2	1.2	-125.89	25.0	6.8	26.9	26.9	0.00	N/A		
800.0	799.8	802.3	801.0	1.4	1.5	-109.57	15.3	15.8	23.4	23.4	0.00	N/A		
875.6	875.2	877.7	875.2	1.5	1.7	-91.75	5.5	24.9	22.2	22.2	0.00	N/A CC, ES		
900.0	899.5	902.0	899.0	1.6	1.8	-85.29	1.9	28.3	22.4	22.4	0.00	N/A		
1,000.0	998.7	1,000.9	995.2	1.8	2.2	-59.88	-15.1	44.0	26.2	26.2	0.00	N/A		
1,100.0	1,097.5	1,099.0	1,089.2	2.1	2.7	-41.56	-35.5	63.0	35.0	35.0	0.00	N/A		
1,200.0	1,195.8	1,196.0	1,180.7	2.4	3.3	-29.77	-59.1	85.0	48.1	48.1	0.00	N/A		
1,300.0	1,294.1	1,294.4	1,272.6	2.7	3.9	-22.26	-84.8	108.8	64.7	64.7	0.00	N/A		
1,400.0	1,392.5	1,392.8	1,364.5	3.1	4.5	-17.84	-110.5	132.7	81.8	81.8	0.00	N/A		
1,500.0	1,490.8	1,491.1	1,456.4	3.4	5.1	-14.96	-136.1	156.6	99.3	99.3	0.00	N/A		
1,600.0	1,589.1	1,589.5	1,548.3	3.7	5.8	-12.95	-161.8	180.4	117.0	117.0	0.00	N/A		
1,700.0	1,687.5	1,687.8	1,640.2	4.1	6.4	-11.46	-187.5	204.3	134.7	134.7	0.00	N/A		
1,800.0	1,785.8	1,786.2	1,732.1	4.4	7.0	-10.32	-213.2	228.1	152.5	152.5	0.00	N/A		
1,900.0	1,884.1	1,884.6	1,824.1	4.8	7.7	-9.42	-238.8	252.0	170.4	170.4	0.00	N/A		
2,000.0	1,982.4	1,982.9	1,916.0	5.1	8.3	-8.69	-264.5	275.9	188.3	188.3	0.00	N/A		
2,100.0	2,080.8	2,081.3	2,007.9	5.5	9.0	-8.09	-290.2	299.7	206.2	206.2	0.00	N/A		
2,200.0	2,179.1	2,179.6	2,099.8	5.9	9.6	-7.58	-315.9	323.6	224.2	224.2	0.00	N/A		
2,300.0	2,277.4	2,278.0	2,191.7	6.2	10.3	-7.15	-341.5	347.5	242.1	242.1	0.00	N/A		
2,400.0	2,375.8	2,376.4	2,283.6	6.6	10.9	-6.78	-367.2	371.3	260.1	260.1	0.00	N/A		
2,500.0	2,474.1	2,474.7	2,375.5	6.9	11.5	-6.46	-392.9	395.2	278.1	278.1	0.00	N/A		
2,600.0	2,572.4	2,573.1	2,467.4	7.3	12.2	-6.17	-418.6	419.0	296.1	296.1	0.00	N/A		
2,700.0	2,670.8	2,671.4	2,559.3	7.6	12.8	-5.92	-444.2	442.9	314.0	314.0	0.00	N/A		
2,800.0	2,769.1	2,769.8	2,651.2	8.0	13.5	-5.69	-469.9	466.8	332.0	332.0	0.00	N/A		
2,900.0	2,867.4	2,868.2	2,743.1	8.4	14.1	-5.49	-495.6	490.6	350.0	350.0	0.00	N/A		
3,000.0	2,965.7	2,966.5	2,835.0	8.7	14.8	-5.31	-521.3	514.5	368.0	368.0	0.00	N/A		
3,100.0	3,064.1	3,064.9	2,926.9	9.1	15.4	-5.15	-547.0	538.4	386.1	386.1	0.00	N/A		
3,200.0	3,162.4	3,163.2	3,018.8	9.4	16.1	-5.00	-572.6	562.2	404.1	404.1	0.00	N/A		
3,300.0	3,260.7	3,261.6	3,110.7	9.8	16.7	-4.86	-598.3	586.1	422.1	422.1	0.00	N/A		
3,400.0	3,359.1	3,360.0	3,202.6	10.2	17.4	-4.73	-624.0	609.9	440.1	440.1	0.00	N/A		
3,500.0	3,457.4	3,458.3	3,294.5	10.5	18.0	-4.62	-649.7	633.8	458.1	458.1	0.00	N/A		
3,600.0	3,555.7	3,556.7	3,386.4	10.9	18.7	-4.51	-675.3	657.7	476.1	476.1	0.00	N/A		
3,700.0	3,654.1	3,655.0	3,478.3	11.3	19.3	-4.41	-701.0	681.5	494.2	494.2	0.00	N/A		

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope G-20
Project:	Weld County	TVD Reference:	WELL @ 4661.0ft (Original Well Elev)
Reference Site:	Antelope 11-20 Pad	MD Reference:	WELL @ 4661.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	Grid
Reference Well:	Antelope G-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4661.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Antelope G-20
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.74°

