

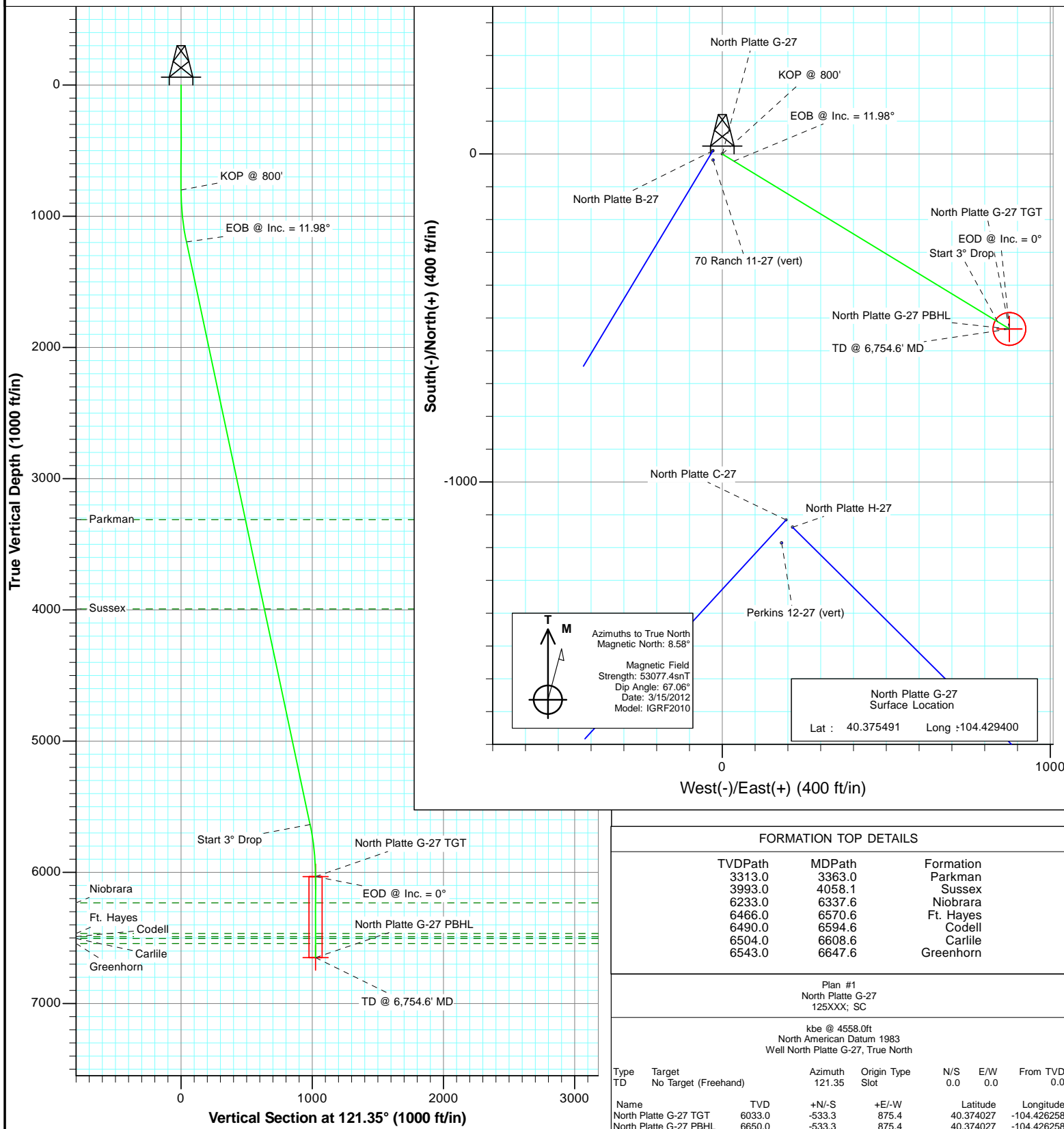


Project: Weld County
Site: 70 Ranch 11-27 Pad
Well: North Platte G-27
Wellbore: OH
Plan: Plan #1



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1199.2	11.98	121.35	1196.3	-21.6	35.5	3.00	121.35	41.6	
4	5738.4	11.98	121.35	5636.7	-511.7	839.9	0.00	0.00	983.5	
5	6137.6	0.00	0.00	6033.0	-533.3	875.4	3.00	180.00	1025.1	North Platte G-27 TGT
6	6754.6	0.00	0.00	6650.0	-533.3	875.4	0.00	0.00	1025.1	North Platte G-27 PBHL



FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
3313.0	3363.0	Parkman
3993.0	4058.1	Sussex
6233.0	6337.6	Niobrara
6466.0	6570.6	Ft. Hayes
6490.0	6594.6	Codell
6504.0	6608.6	Carlile
6543.0	6647.6	Greenhorn

Plan #1

North Platte G-27

125XXX; SC

kbe @ 4558.0ft

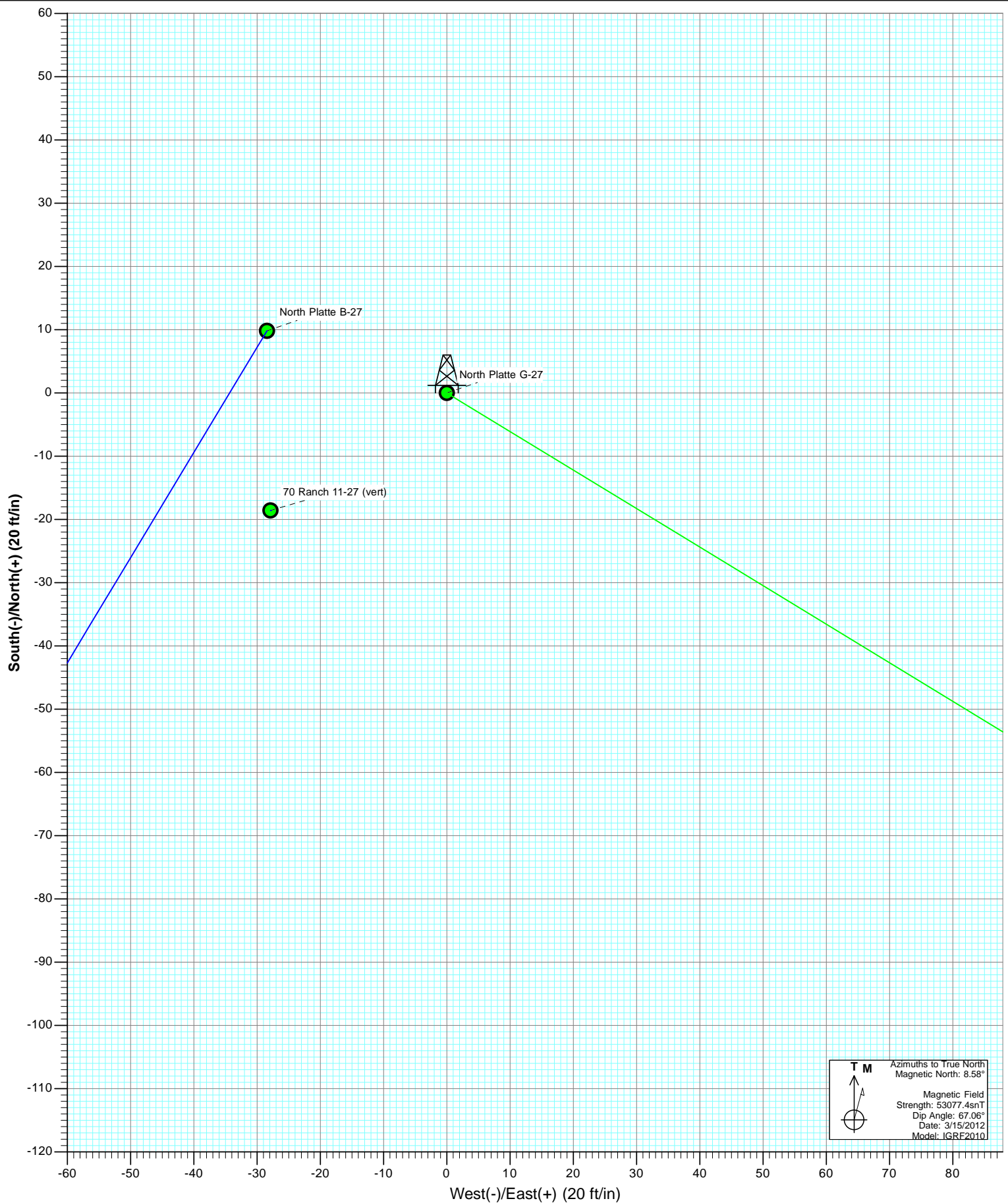
North American Datum 1983

Well North Platte G-27, True North

Type	Target	Azimuth	Origin	Type	N/S	E/W	From TVD
TD	No Target (Freehand)	121.35	Slot		0.0	0.0	0.0
Name		TVD	+N/-S	+E/-W	Latitude	Longitude	
North Platte G-27 TGT		6033.0	-533.3	875.4	40.374027	-104.426258	
North Platte G-27 PBHL		6650.0	-533.3	875.4	40.374027	-104.426258	

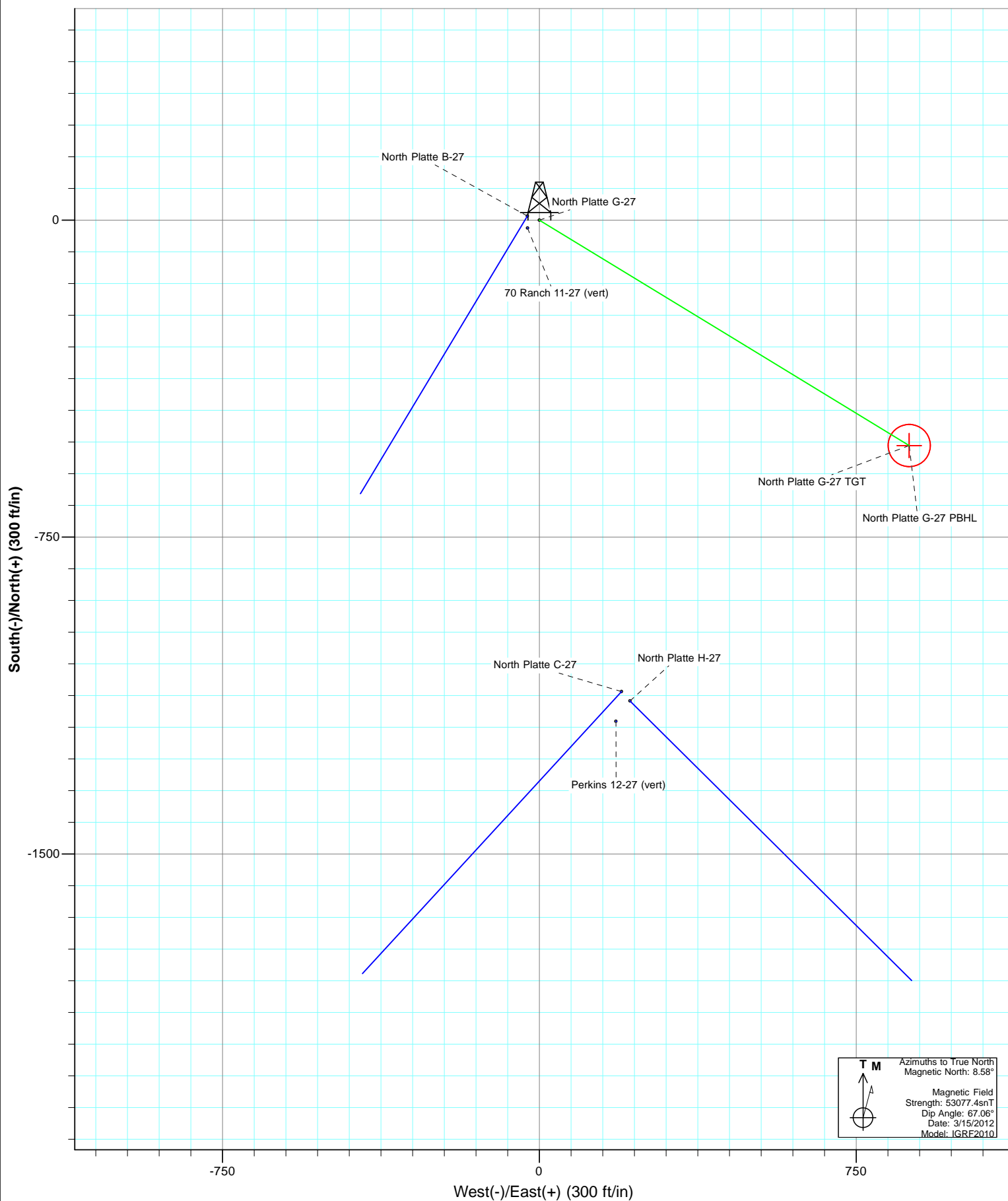


Project: Weld County
Site: 70 Ranch 11-27 Pad
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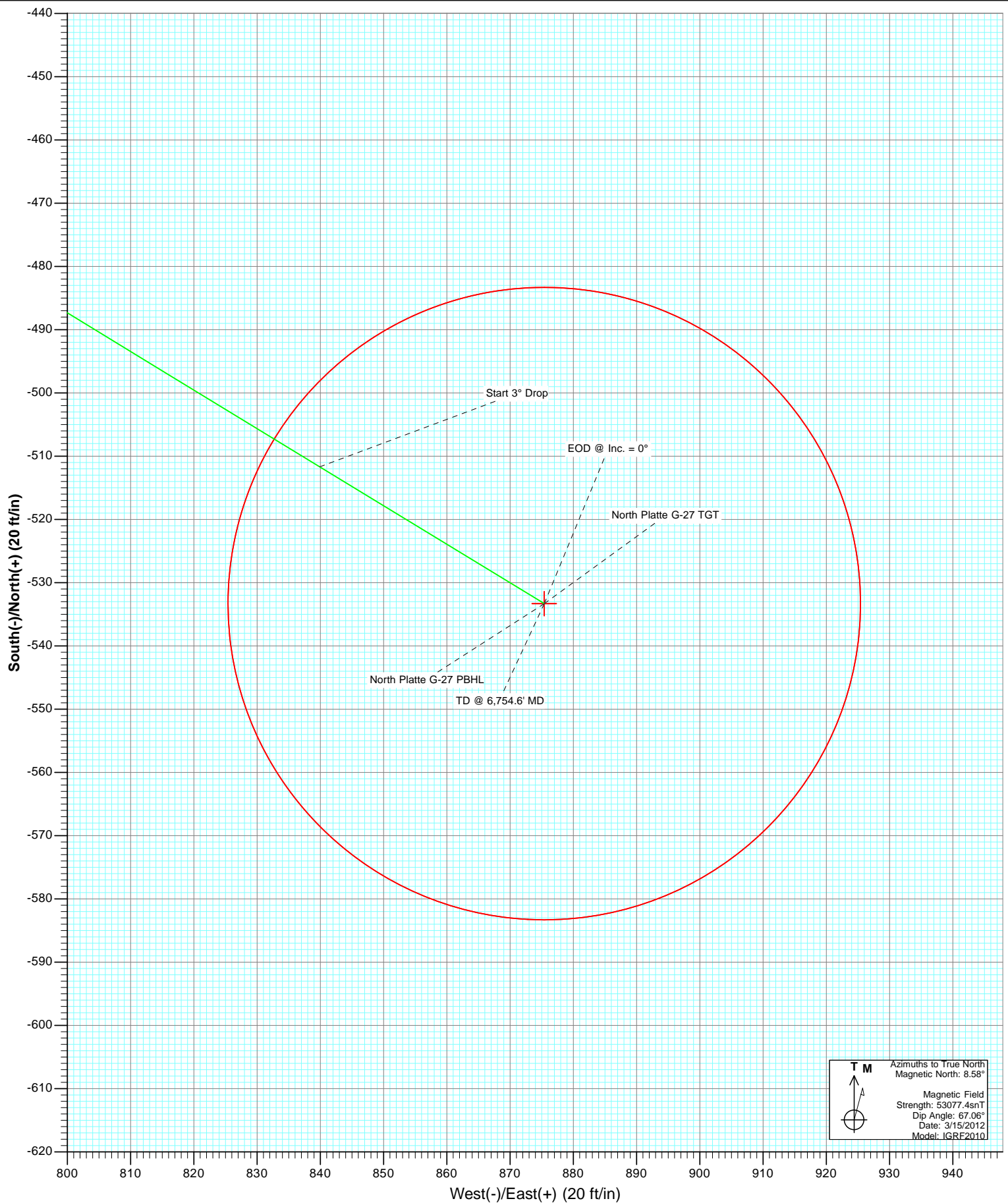


Project: Weld County
Site: 70 Ranch 11-27 Pad
Well: North Platte G-27
Wellbore: OH
Plan: Plan #1





Project: Weld County
Site: 70 Ranch 11-27 Pad
Well: North Platte G-27
Wellbore: OH
Plan: Plan #1



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well North Platte G-27
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	kbe @ 4558.0ft
Project:	Weld County	MD Reference:	kbe @ 4558.0ft
Site:	70 Ranch 11-27 Pad	North Reference:	True
Well:	North Platte G-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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		70 Ranch 11-27 Pad			
Site Position:		Northing:	1,381,416.31 ft	Latitude:	40.375440
From:	Lat/Long	Easting:	3,298,252.70 ft	Longitude:	-104.429500
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.69 °

Well	North Platte G-27					
Well Position	+N/-S	0.0 ft	Northing:	1,381,435.21 ft	Latitude:	40.375491
	+E/-W	0.0 ft	Easting:	3,298,280.33 ft	Longitude:	-104.429400
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,548.0 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/15/2012	8.58	67.06	53,077

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	121.35

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	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,199.2	11.98	121.35	1,196.3	-21.6	35.5	3.00	3.00	0.00	121.35	
5,738.4	11.98	121.35	5,636.7	-511.7	839.9	0.00	0.00	0.00	0.00	
6,137.6	0.00	0.00	6,033.0	-533.3	875.4	3.00	-3.00	0.00	180.00	North Platte G-27 TG
6,754.6	0.00	0.00	6,650.0	-533.3	875.4	0.00	0.00	0.00	0.00	North Platte G-27 PBI

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well North Platte G-27
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	kbe @ 4558.0ft
Project:	Weld County	MD Reference:	kbe @ 4558.0ft
Site:	70 Ranch 11-27 Pad	North Reference:	True
Well:	North Platte G-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	KOP @ 800'
900.0	3.00	121.35	900.0	-1.4	2.2	2.6	3.00	3.00	
1,000.0	6.00	121.35	999.6	-5.4	8.9	10.5	3.00	3.00	
1,100.0	9.00	121.35	1,098.8	-12.2	20.1	23.5	3.00	3.00	
1,199.2	11.98	121.35	1,196.3	-21.6	35.5	41.6	3.00	3.00	EOB @ Inc. = 11.98°
1,300.0	11.98	121.35	1,294.9	-32.5	53.4	62.5	0.00	0.00	
1,400.0	11.98	121.35	1,392.7	-43.3	71.1	83.2	0.00	0.00	
1,500.0	11.98	121.35	1,490.6	-54.1	88.8	104.0	0.00	0.00	
1,600.0	11.98	121.35	1,588.4	-64.9	106.5	124.7	0.00	0.00	
1,700.0	11.98	121.35	1,686.2	-75.7	124.2	145.5	0.00	0.00	
1,800.0	11.98	121.35	1,784.0	-86.5	142.0	166.2	0.00	0.00	
1,900.0	11.98	121.35	1,881.8	-97.3	159.7	187.0	0.00	0.00	
2,000.0	11.98	121.35	1,979.7	-108.1	177.4	207.7	0.00	0.00	
2,100.0	11.98	121.35	2,077.5	-118.9	195.1	228.5	0.00	0.00	
2,200.0	11.98	121.35	2,175.3	-129.7	212.9	249.2	0.00	0.00	
2,300.0	11.98	121.35	2,273.1	-140.5	230.6	270.0	0.00	0.00	
2,400.0	11.98	121.35	2,371.0	-151.3	248.3	290.7	0.00	0.00	
2,500.0	11.98	121.35	2,468.8	-162.1	266.0	311.5	0.00	0.00	
2,600.0	11.98	121.35	2,566.6	-172.9	283.7	332.2	0.00	0.00	
2,700.0	11.98	121.35	2,664.4	-183.7	301.5	353.0	0.00	0.00	
2,800.0	11.98	121.35	2,762.3	-194.4	319.2	373.8	0.00	0.00	
2,900.0	11.98	121.35	2,860.1	-205.2	336.9	394.5	0.00	0.00	
3,000.0	11.98	121.35	2,957.9	-216.0	354.6	415.3	0.00	0.00	
3,100.0	11.98	121.35	3,055.7	-226.8	372.4	436.0	0.00	0.00	
3,200.0	11.98	121.35	3,153.5	-237.6	390.1	456.8	0.00	0.00	
3,300.0	11.98	121.35	3,251.4	-248.4	407.8	477.5	0.00	0.00	
3,363.0	11.98	121.35	3,313.0	-255.2	419.0	490.6	0.00	0.00	Parkman
3,400.0	11.98	121.35	3,349.2	-259.2	425.5	498.3	0.00	0.00	
3,500.0	11.98	121.35	3,447.0	-270.0	443.2	519.0	0.00	0.00	
3,600.0	11.98	121.35	3,544.8	-280.8	461.0	539.8	0.00	0.00	
3,700.0	11.98	121.35	3,642.7	-291.6	478.7	560.5	0.00	0.00	
3,800.0	11.98	121.35	3,740.5	-302.4	496.4	581.3	0.00	0.00	
3,900.0	11.98	121.35	3,838.3	-313.2	514.1	602.0	0.00	0.00	
4,000.0	11.98	121.35	3,936.1	-324.0	531.8	622.8	0.00	0.00	
4,058.1	11.98	121.35	3,993.0	-330.3	542.1	634.8	0.00	0.00	Sussex
4,100.0	11.98	121.35	4,034.0	-334.8	549.6	643.5	0.00	0.00	
4,200.0	11.98	121.35	4,131.8	-345.6	567.3	664.3	0.00	0.00	
4,300.0	11.98	121.35	4,229.6	-356.4	585.0	685.0	0.00	0.00	
4,400.0	11.98	121.35	4,327.4	-367.2	602.7	705.8	0.00	0.00	
4,500.0	11.98	121.35	4,425.3	-378.0	620.5	726.5	0.00	0.00	
4,600.0	11.98	121.35	4,523.1	-388.8	638.2	747.3	0.00	0.00	
4,700.0	11.98	121.35	4,620.9	-399.6	655.9	768.0	0.00	0.00	
4,800.0	11.98	121.35	4,718.7	-410.4	673.6	788.8	0.00	0.00	
4,900.0	11.98	121.35	4,816.5	-421.2	691.3	809.5	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well North Platte G-27
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	kbe @ 4558.0ft
Project:	Weld County	MD Reference:	kbe @ 4558.0ft
Site:	70 Ranch 11-27 Pad	North Reference:	True
Well:	North Platte G-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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
5,000.0	11.98	121.35	4,914.4	-432.0	709.1	830.3	0.00	0.00	
5,100.0	11.98	121.35	5,012.2	-442.8	726.8	851.0	0.00	0.00	
5,200.0	11.98	121.35	5,110.0	-453.5	744.5	871.8	0.00	0.00	
5,300.0	11.98	121.35	5,207.8	-464.3	762.2	892.5	0.00	0.00	
5,400.0	11.98	121.35	5,305.7	-475.1	779.9	913.3	0.00	0.00	
5,500.0	11.98	121.35	5,403.5	-485.9	797.7	934.0	0.00	0.00	
5,600.0	11.98	121.35	5,501.3	-496.7	815.4	954.8	0.00	0.00	
5,700.0	11.98	121.35	5,599.1	-507.5	833.1	975.5	0.00	0.00	
5,738.4	11.98	121.35	5,636.7	-511.7	839.9	983.5	0.00	0.00	Start 3° Drop
5,800.0	10.13	121.35	5,697.1	-517.8	850.0	995.3	3.00	-3.00	
5,900.0	7.13	121.35	5,796.0	-525.6	862.8	1,010.3	3.00	-3.00	
6,000.0	4.13	121.35	5,895.5	-530.7	871.2	1,020.1	3.00	-3.00	
6,100.0	1.13	121.35	5,995.4	-533.1	875.1	1,024.7	3.00	-3.00	
6,137.6	0.00	0.00	6,033.0	-533.3	875.4	1,025.1	3.00	-3.00	EOD @ Inc. = 0°
6,200.0	0.00	0.00	6,095.4	-533.3	875.4	1,025.1	0.00	0.00	
6,300.0	0.00	0.00	6,195.4	-533.3	875.4	1,025.1	0.00	0.00	
6,337.6	0.00	0.00	6,233.0	-533.3	875.4	1,025.1	0.00	0.00	Niobrara
6,400.0	0.00	0.00	6,295.4	-533.3	875.4	1,025.1	0.00	0.00	
6,500.0	0.00	0.00	6,395.4	-533.3	875.4	1,025.1	0.00	0.00	
6,570.6	0.00	0.00	6,466.0	-533.3	875.4	1,025.1	0.00	0.00	Ft. Hayes
6,594.6	0.00	0.00	6,490.0	-533.3	875.4	1,025.1	0.00	0.00	Codell
6,600.0	0.00	0.00	6,495.4	-533.3	875.4	1,025.1	0.00	0.00	
6,608.6	0.00	0.00	6,504.0	-533.3	875.4	1,025.1	0.00	0.00	Carlile
6,647.6	0.00	0.00	6,543.0	-533.3	875.4	1,025.1	0.00	0.00	Greenhorn
6,700.0	0.00	0.00	6,595.4	-533.3	875.4	1,025.1	0.00	0.00	
6,754.6	0.00	0.00	6,650.0	-533.3	875.4	1,025.1	0.00	0.00	TD @ 6,754.6' MD

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
North Platte G-27 PBHL	0.00	0.00	6,650.0	-533.3	875.4	1,380,912.52	3,299,162.13	40.374027	-104.426258
- plan hits target center									
- Circle (radius 50.0)									
North Platte G-27 TGT	0.00	0.00	6,033.0	-533.3	875.4	1,380,912.52	3,299,162.13	40.374027	-104.426258
- plan hits target center									
- Point									

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well North Platte G-27
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	kbe @ 4558.0ft
Project:	Weld County	MD Reference:	kbe @ 4558.0ft
Site:	70 Ranch 11-27 Pad	North Reference:	True
Well:	North Platte G-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,363.0	3,313.0	Parkman				
4,058.1	3,993.0	Sussex				
6,337.6	6,233.0	Niobrara				
6,570.6	6,466.0	Ft. Hayes				
6,594.6	6,490.0	Codell				
6,608.6	6,504.0	Carlile				
6,647.6	6,543.0	Greenhorn				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
800.0	800.0	0.0	0.0	KOP @ 800'	
1,199.2	1,196.3	-21.6	35.5	EOB @ Inc. = 11.98°	
5,738.4	5,636.7	-511.7	839.9	Start 3° Drop	
6,137.6	6,033.0	-533.3	875.4	EOD @ Inc. = 0°	
6,754.6	6,650.0	-533.3	875.4	TD @ 6,754.6' MD	

Bonanza Creek Energy Operating Company, LLC

Weld County

70 Ranch 11-27 Pad

North Platte G-27

OH

Plan #1

Anticollision Report

17 March, 2012

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well North Platte G-27
Project:	Weld County	TVD Reference:	kbe @ 4558.0ft
Reference Site:	70 Ranch 11-27 Pad	MD Reference:	kbe @ 4558.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte G-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
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	3/17/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	6,754.6	Plan #1 (OH)	MWD	Geolink MWD	

Summary							
Site Name	Reference	Offset	Distance		Separation	Warning	
	Measured	Measured	Between	Between			
Offset Well - Wellbore - Design	Depth	Depth	Centres	Ellipses	Factor		
	(ft)	(ft)	(ft)	(ft)			
70 Ranch 11-27 Pad							
70 Ranch 11-27 (vert) - OH - Plan #1	0.0	0.0	33.5				
70 Ranch 11-27 (vert) - OH - Plan #1	800.0	800.0	33.5	33.5	10,000.000	CC, ES	
North Platte B-27 - OH - Plan #1	0.0	0.0	30.2				
North Platte B-27 - OH - Plan #1	800.0	797.0	30.1	30.1	10,000.000	CC, ES	
Perkins 12-27 Pad							
North Platte C-27 - OH - Plan #2						Out of range	
North Platte H-27 - OH - Plan #2						Out of range	
Perkins 12-27 (vert) - OH - Plan #1						Out of range	

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well North Platte G-27
Project:	Weld County	TVD Reference:	kbe @ 4558.0ft
Reference Site:	70 Ranch 11-27 Pad	MD Reference:	kbe @ 4558.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte G-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design 70 Ranch 11-27 Pad - 70 Ranch 11-27 (vert) - OH - Plan #1													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	-123.69	-18.6	-27.9	33.5					
100.0	100.0	100.0	100.0	0.2	0.2	-123.69	-18.6	-27.9	33.5	33.5	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	-123.69	-18.6	-27.9	33.5	33.5	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	-123.69	-18.6	-27.9	33.5	33.5	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	-123.69	-18.6	-27.9	33.5	33.5	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	-123.69	-18.6	-27.9	33.5	33.5	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	-123.69	-18.6	-27.9	33.5	33.5	0.00	N/A		
700.0	700.0	700.0	700.0	1.2	1.2	-123.69	-18.6	-27.9	33.5	33.5	0.00	N/A		
800.0	800.0	800.0	800.0	1.4	1.4	-123.69	-18.6	-27.9	33.5	33.5	0.00	N/A CC, ES		
900.0	900.0	900.0	900.0	1.6	1.6	118.85	-18.6	-27.9	34.7	34.7	0.00	N/A		
1,000.0	999.6	999.6	999.6	1.7	1.7	128.86	-18.6	-27.9	39.1	39.1	0.00	N/A		
1,100.0	1,098.8	1,098.8	1,098.8	2.0	1.9	140.77	-18.6	-27.9	48.4	48.4	0.00	N/A		
1,200.0	1,197.1	1,197.1	1,197.1	2.3	2.1	150.95	-18.6	-27.9	63.6	63.6	0.00	N/A		
1,300.0	1,294.9	1,294.9	1,294.9	2.6	2.2	157.95	-18.6	-27.9	82.4	82.4	0.00	N/A		
1,400.0	1,392.7	1,392.7	1,392.7	2.9	2.4	162.32	-18.6	-27.9	102.0	102.0	0.00	N/A		
1,500.0	1,490.6	1,490.6	1,490.6	3.3	2.6	165.28	-18.6	-27.9	122.0	122.0	0.00	N/A		
1,600.0	1,588.4	1,588.4	1,588.4	3.7	2.8	167.40	-18.6	-27.9	142.1	142.1	0.00	N/A		
1,700.0	1,686.2	1,686.2	1,686.2	4.0	2.9	169.00	-18.6	-27.9	162.5	162.5	0.00	N/A		
1,800.0	1,784.0	1,784.0	1,784.0	4.4	3.1	170.24	-18.6	-27.9	182.9	182.9	0.00	N/A		
1,900.0	1,881.8	1,881.8	1,881.8	4.8	3.3	171.23	-18.6	-27.9	203.4	203.4	0.00	N/A		
2,000.0	1,979.7	1,979.7	1,979.7	5.2	3.4	172.04	-18.6	-27.9	223.9	223.9	0.00	N/A		
2,100.0	2,077.5	2,077.5	2,077.5	5.6	3.6	172.71	-18.6	-27.9	244.5	244.5	0.00	N/A		
2,200.0	2,175.3	2,175.3	2,175.3	6.0	3.8	173.28	-18.6	-27.9	265.1	265.1	0.00	N/A		
2,300.0	2,273.1	2,273.1	2,273.1	6.4	3.9	173.77	-18.6	-27.9	285.7	285.7	0.00	N/A		
2,400.0	2,371.0	2,371.0	2,371.0	6.8	4.1	174.19	-18.6	-27.9	306.4	306.4	0.00	N/A		
2,500.0	2,468.8	2,468.8	2,468.8	7.2	4.3	174.56	-18.6	-27.9	327.0	327.0	0.00	N/A		
2,600.0	2,566.6	2,566.6	2,566.6	7.6	4.5	174.88	-18.6	-27.9	347.7	347.7	0.00	N/A		
2,700.0	2,664.4	2,664.4	2,664.4	8.0	4.6	175.17	-18.6	-27.9	368.4	368.4	0.00	N/A		
2,800.0	2,762.3	2,762.3	2,762.3	8.4	4.8	175.43	-18.6	-27.9	389.1	389.1	0.00	N/A		
2,900.0	2,860.1	2,860.1	2,860.1	8.8	5.0	175.66	-18.6	-27.9	409.8	409.8	0.00	N/A		
3,000.0	2,957.9	2,957.9	2,957.9	9.2	5.1	175.87	-18.6	-27.9	430.5	430.5	0.00	N/A		
3,100.0	3,055.7	3,055.7	3,055.7	9.6	5.3	176.06	-18.6	-27.9	451.2	451.2	0.00	N/A		
3,200.0	3,153.5	3,153.5	3,153.5	10.0	5.5	176.23	-18.6	-27.9	471.9	471.9	0.00	N/A		
3,300.0	3,251.4	3,251.4	3,251.4	10.4	5.7	176.39	-18.6	-27.9	492.6	492.6	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well North Platte G-27
Project:	Weld County	TVD Reference:	kbe @ 4558.0ft
Reference Site:	70 Ranch 11-27 Pad	MD Reference:	kbe @ 4558.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte G-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design 70 Ranch 11-27 Pad - North Platte B-27 - OH - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	-70.91	9.8	-28.4	30.2				
100.0	100.0	97.0	97.0	0.2	0.2	-70.91	9.8	-28.4	30.1	30.1	0.00	N/A	
200.0	200.0	197.0	197.0	0.3	0.3	-70.91	9.8	-28.4	30.1	30.1	0.00	N/A	
300.0	300.0	297.0	297.0	0.5	0.5	-70.91	9.8	-28.4	30.1	30.1	0.00	N/A	
400.0	400.0	397.0	397.0	0.7	0.7	-70.91	9.8	-28.4	30.1	30.1	0.00	N/A	
500.0	500.0	497.0	497.0	0.9	0.8	-70.91	9.8	-28.4	30.1	30.1	0.00	N/A	
600.0	600.0	597.0	597.0	1.0	1.0	-70.91	9.8	-28.4	30.1	30.1	0.00	N/A	
700.0	700.0	697.0	697.0	1.2	1.2	-70.91	9.8	-28.4	30.1	30.1	0.00	N/A	
800.0	800.0	797.0	797.0	1.4	1.4	-70.91	9.8	-28.4	30.1	30.1	0.00	N/A CC, ES	
900.0	900.0	896.6	896.5	1.6	1.5	164.55	7.7	-29.7	33.2	33.2	0.00	N/A	
1,000.0	999.6	995.3	995.0	1.7	1.7	157.45	1.3	-33.6	43.1	43.1	0.00	N/A	
1,100.0	1,098.8	1,092.5	1,091.4	2.0	2.0	150.80	-9.3	-39.9	60.3	60.3	0.00	N/A	
1,200.0	1,197.1	1,189.6	1,187.3	2.3	2.2	147.27	-22.1	-47.6	83.6	83.6	0.00	N/A	
1,300.0	1,294.9	1,286.3	1,282.9	2.6	2.5	146.26	-34.9	-55.3	109.1	109.1	0.00	N/A	
1,400.0	1,392.7	1,383.0	1,378.4	2.9	2.7	145.64	-47.6	-63.0	134.6	134.6	0.00	N/A	
1,500.0	1,490.6	1,479.7	1,473.9	3.3	3.0	145.22	-60.4	-70.7	160.2	160.2	0.00	N/A	
1,600.0	1,588.4	1,576.3	1,569.4	3.7	3.3	144.91	-73.1	-78.3	185.7	185.7	0.00	N/A	
1,700.0	1,686.2	1,673.0	1,664.9	4.0	3.6	144.68	-85.9	-86.0	211.3	211.3	0.00	N/A	
1,800.0	1,784.0	1,769.7	1,760.5	4.4	3.9	144.49	-98.7	-93.7	236.9	236.9	0.00	N/A	
1,900.0	1,881.8	1,866.4	1,856.0	4.8	4.2	144.35	-111.4	-101.4	262.4	262.4	0.00	N/A	
2,000.0	1,979.7	1,963.0	1,951.5	5.2	4.5	144.23	-124.2	-109.0	288.0	288.0	0.00	N/A	
2,100.0	2,077.5	2,059.7	2,047.0	5.6	4.8	144.12	-136.9	-116.7	313.6	313.6	0.00	N/A	
2,200.0	2,175.3	2,156.4	2,142.6	6.0	5.1	144.04	-149.7	-124.4	339.1	339.1	0.00	N/A	
2,300.0	2,273.1	2,253.1	2,238.1	6.4	5.4	143.97	-162.4	-132.0	364.7	364.7	0.00	N/A	
2,400.0	2,371.0	2,349.7	2,333.6	6.8	5.7	143.90	-175.2	-139.7	390.3	390.3	0.00	N/A	
2,500.0	2,468.8	2,446.4	2,429.1	7.2	6.0	143.84	-187.9	-147.4	415.8	415.8	0.00	N/A	
2,600.0	2,566.6	2,543.1	2,524.6	7.6	6.3	143.79	-200.7	-155.1	441.4	441.4	0.00	N/A	
2,700.0	2,664.4	2,639.8	2,620.2	8.0	6.6	143.75	-213.4	-162.7	467.0	467.0	0.00	N/A	
2,800.0	2,762.3	2,736.4	2,715.7	8.4	6.9	143.71	-226.2	-170.4	492.5	492.5	0.00	N/A	

Cathedral Energy Services

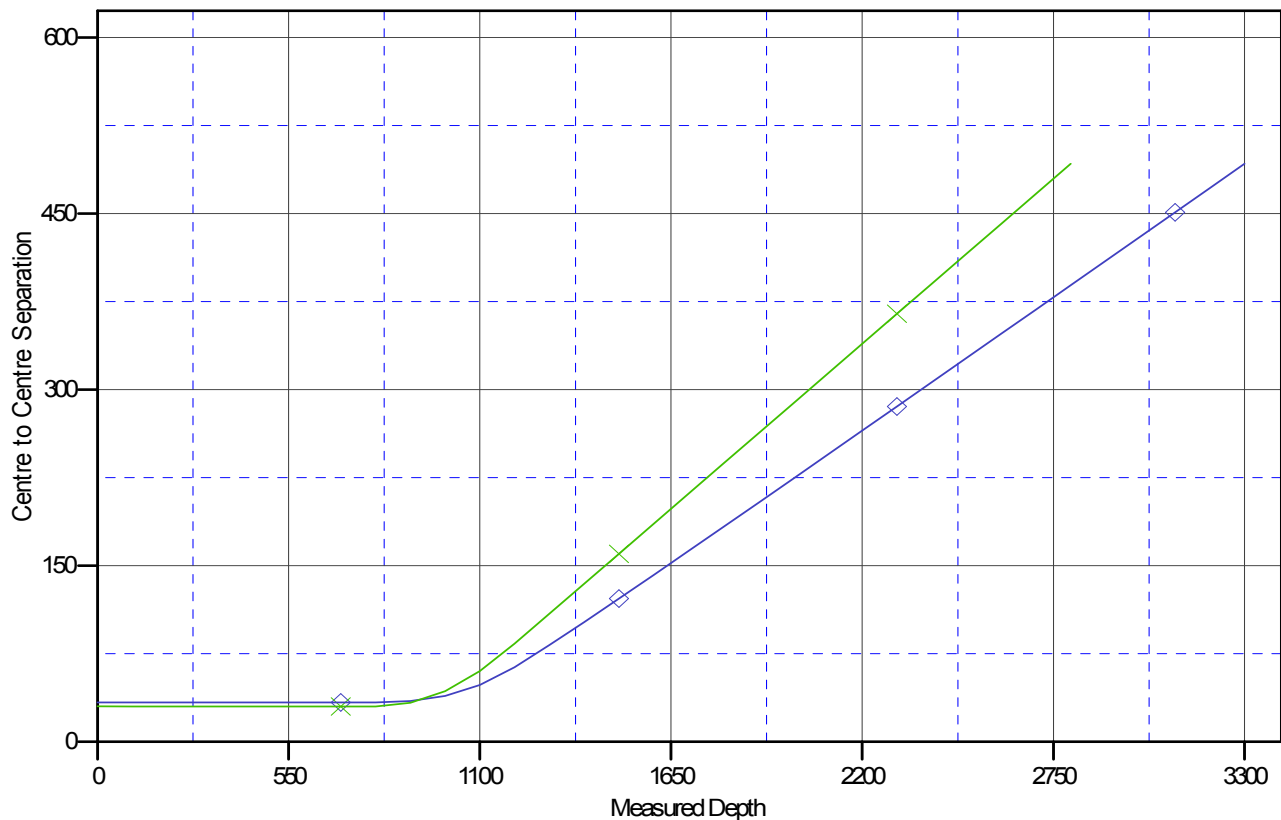
Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well North Platte G-27
Project:	Weld County	TVD Reference:	kbe @ 4558.0ft
Reference Site:	70 Ranch 11-27 Pad	MD Reference:	kbe @ 4558.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte G-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to kbe @ 4558.0ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: North Platte G-27
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.69°

Ladder Plot



LEGEND

◆ 70 Ranch 11-27 (vert), OH, Plan #1 V0 ✕ North Platte B-27, OH, Plan #1 V0