

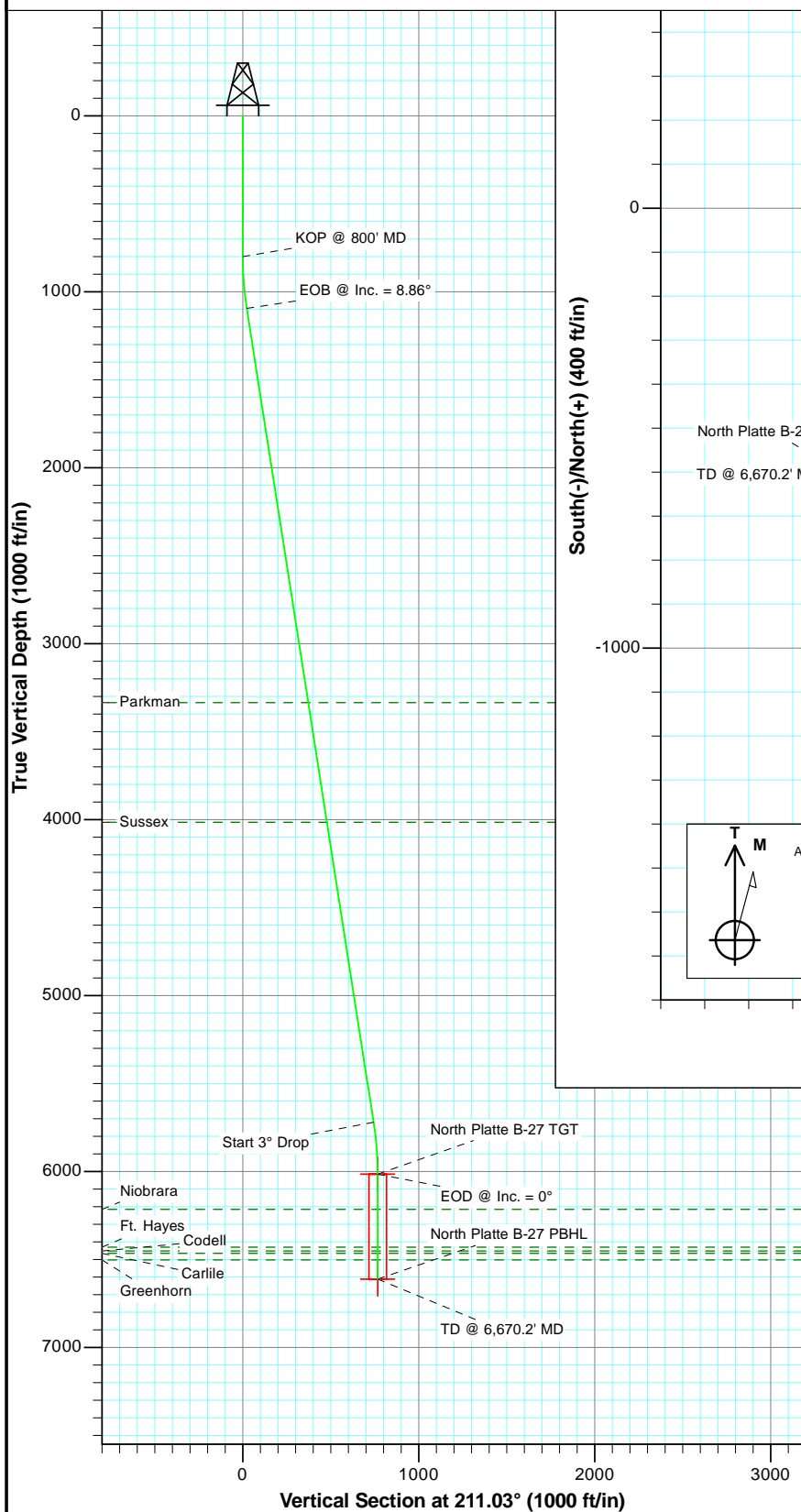


Project: Weld County
Site: 70 Ranch 11-27 Pad
Well: North Platte B-27
Wellbore: OH
Plan: Plan #1

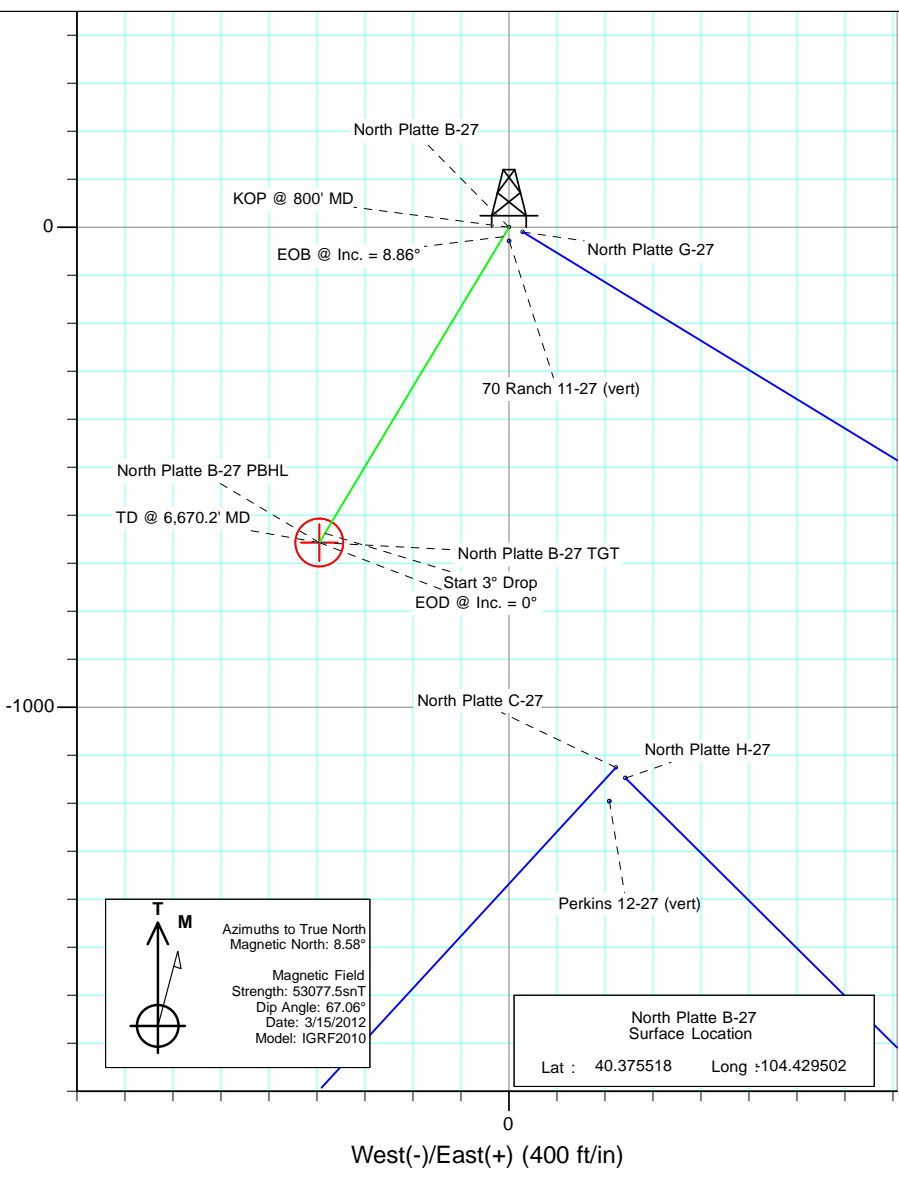


SECTION DETAILS

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	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1095.2	8.86	211.03	1094.0	-19.5	-11.7	3.00	211.03	22.8	
4	5778.0	8.86	211.03	5721.0	-637.3	-383.3	0.00	0.00	743.7	
5	6073.2	0.00	0.00	6015.0	-656.8	-395.1	3.00	180.00	766.5	North Platte B-27 TGT
6	6670.2	0.00	0.00	6612.0	-656.8	-395.1	0.00	0.00	766.5	North Platte B-27 PBHL



South(-)/North(+) (400 ft/in)



FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
3335.0	3363.2	Parkman
4015.0	4051.4	Sussex
6215.0	6273.2	Niobrara
6430.0	6488.2	Ft. Hayes
6452.0	6510.2	Codell
6465.0	6523.2	Carlile
6503.0	6561.2	Greenhorn

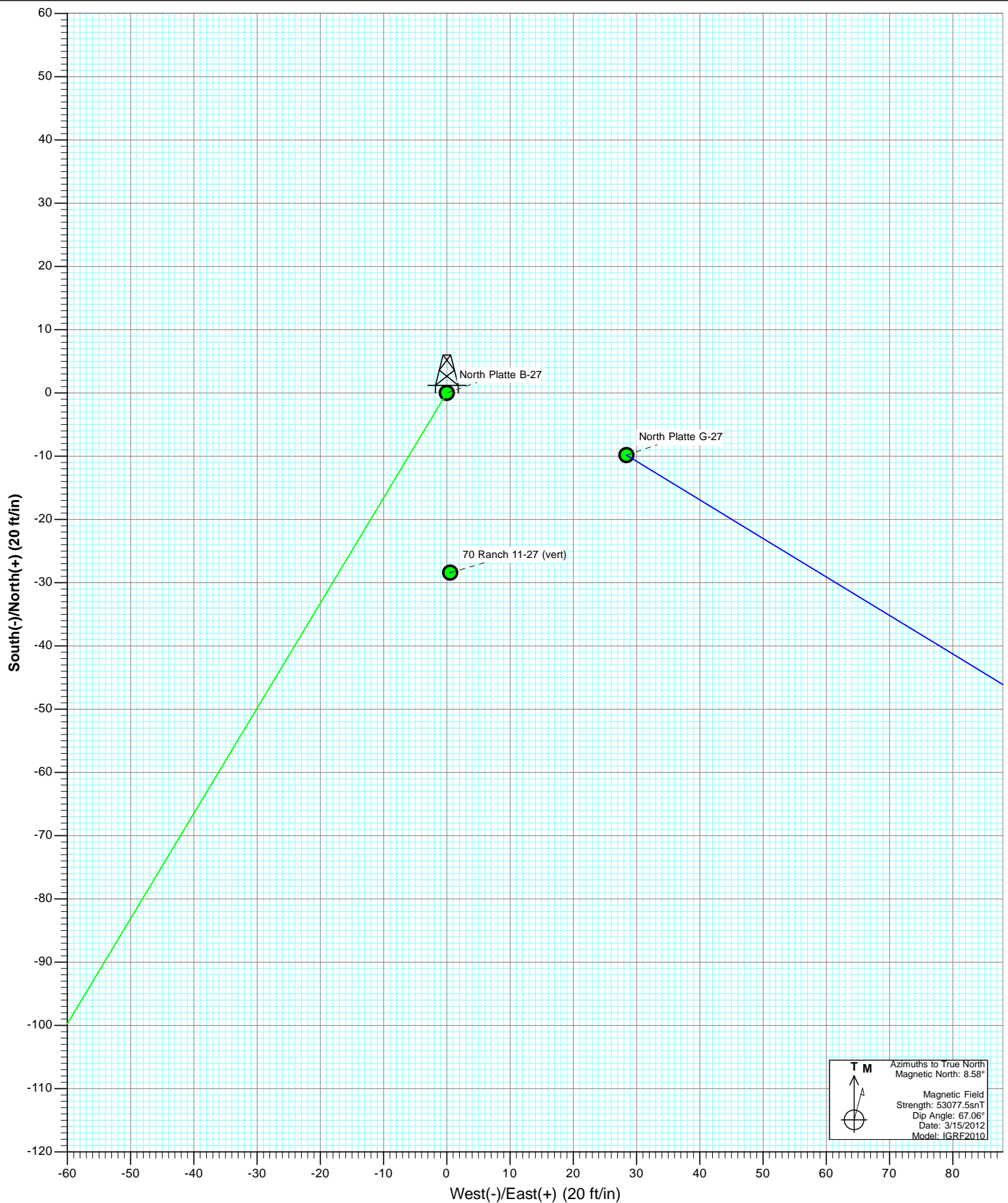
Plan #1
North Platte B-27
125XXX; SC

KBE @ 4555.0ft
North American Datum 1983
Well North Platte B-27, True North

Type	Target	Azimuth	Origin	Type	N/S	E/W	From	TVD
TD	No Target (Freehand)	211.03	Slot		0.0	0.0		0.0
Name		TVD	+N/-S	+E/-W	Latitude	Longitude		
North Platte B-27 TGT		6015.0	-656.8	-395.1	40.373715	-104.430920		
North Platte B-27 PBHL		6612.0	-656.8	-395.1	40.373715	-104.430920		

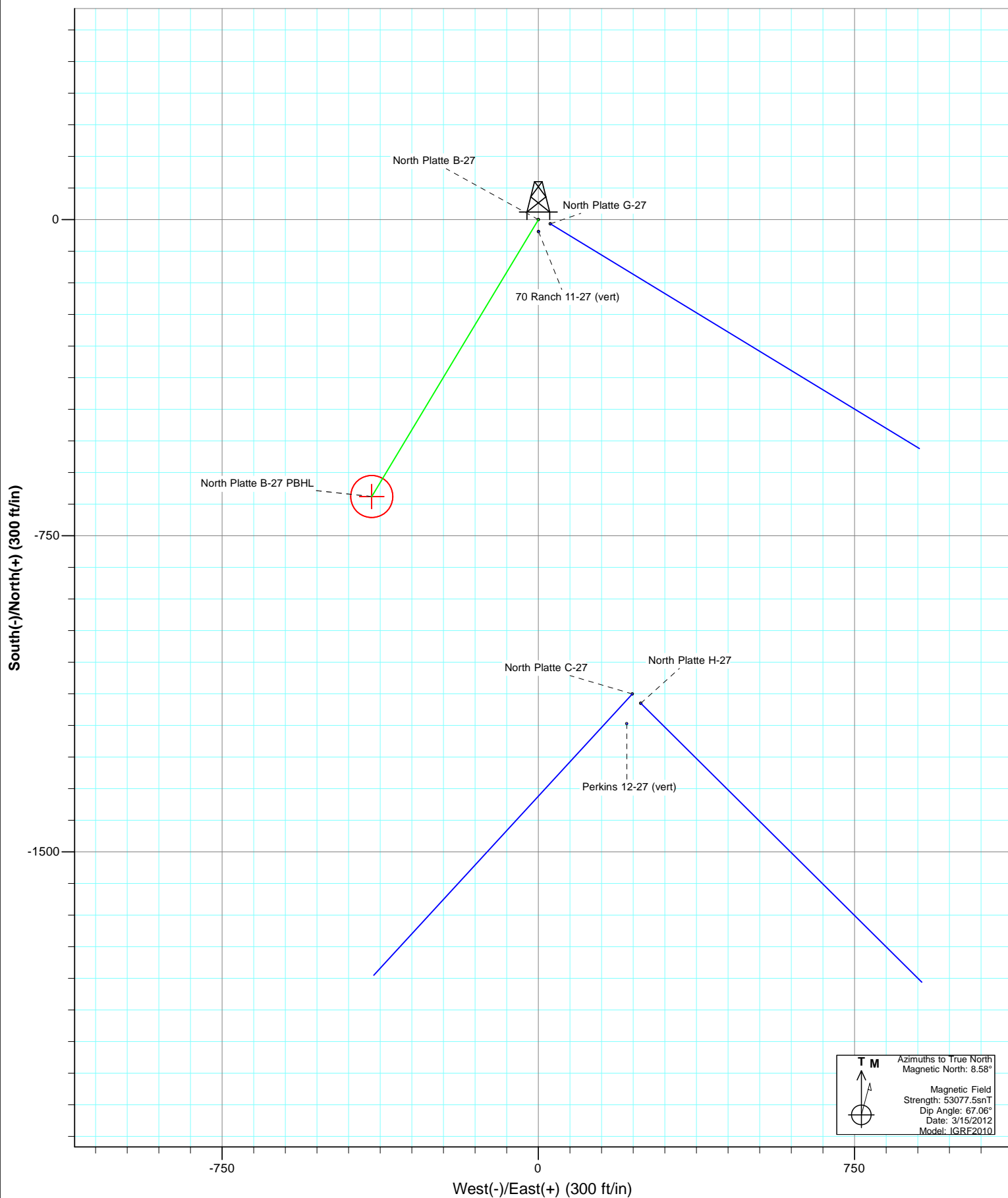


Project: Weld County
Site: 70 Ranch 11-27 Pad
Well: North Platte B-27
Wellbore: OH
Plan: Plan #1



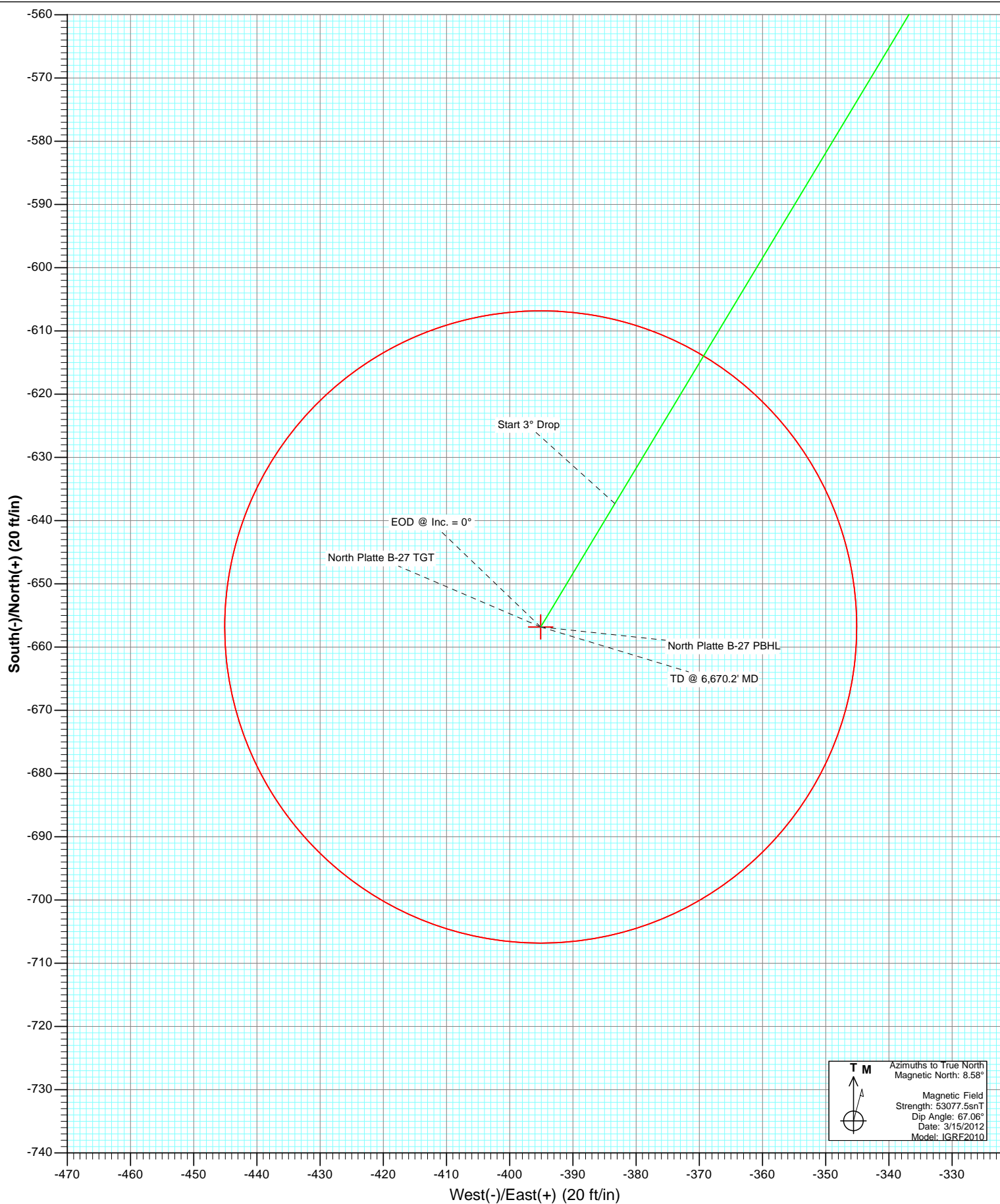


Project: Weld County
Site: 70 Ranch 11-27 Pad
Well: North Platte B-27
Wellbore: OH
Plan: Plan #1





Project: Weld County
Site: 70 Ranch 11-27 Pad
Well: North Platte B-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 B-27
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4555.0ft
Project:	Weld County	MD Reference:	KBE @ 4555.0ft
Site:	70 Ranch 11-27 Pad	North Reference:	True
Well:	North Platte B-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 B-27					
Well Position	+N/-S	0.0 ft	Northing:	1,381,444.71 ft	Latitude:	40.375518
	+E/-W	0.0 ft	Easting:	3,298,251.80 ft	Longitude:	-104.429502
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,545.0 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	211.03

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	
1,095.2	8.86	211.03	1,094.0	-19.5	-11.7	3.00	3.00	0.00	211.03	
5,778.0	8.86	211.03	5,721.0	-637.3	-383.3	0.00	0.00	0.00	0.00	
6,073.2	0.00	0.00	6,015.0	-656.8	-395.1	3.00	-3.00	0.00	180.00	North Platte B-27 TGI
6,670.2	0.00	0.00	6,612.0	-656.8	-395.1	0.00	0.00	0.00	0.00	North Platte B-27 PBI

Cathedral Energy Services

Planning Report

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Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4555.0ft
Project:	Weld County	MD Reference:	KBE @ 4555.0ft
Site:	70 Ranch 11-27 Pad	North Reference:	True
Well:	North Platte B-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' MD
900.0	3.00	211.03	900.0	-2.2	-1.3	2.6	3.00	3.00	
1,000.0	6.00	211.03	999.6	-9.0	-5.4	10.5	3.00	3.00	
1,095.2	8.86	211.03	1,094.0	-19.5	-11.7	22.8	3.00	3.00	EOB @ Inc. = 8.86°
1,100.0	8.86	211.03	1,098.8	-20.1	-12.1	23.5	0.00	0.00	
1,200.0	8.86	211.03	1,197.6	-33.3	-20.1	38.9	0.00	0.00	
1,300.0	8.86	211.03	1,296.4	-46.5	-28.0	54.3	0.00	0.00	
1,400.0	8.86	211.03	1,395.2	-59.7	-35.9	69.7	0.00	0.00	
1,500.0	8.86	211.03	1,494.0	-72.9	-43.9	85.1	0.00	0.00	
1,600.0	8.86	211.03	1,592.8	-86.1	-51.8	100.5	0.00	0.00	
1,700.0	8.86	211.03	1,691.6	-99.3	-59.7	115.9	0.00	0.00	
1,800.0	8.86	211.03	1,790.4	-112.5	-67.7	131.3	0.00	0.00	
1,900.0	8.86	211.03	1,889.2	-125.7	-75.6	146.7	0.00	0.00	
2,000.0	8.86	211.03	1,988.0	-138.9	-83.5	162.1	0.00	0.00	
2,100.0	8.86	211.03	2,086.8	-152.1	-91.5	177.5	0.00	0.00	
2,200.0	8.86	211.03	2,185.7	-165.3	-99.4	192.9	0.00	0.00	
2,300.0	8.86	211.03	2,284.5	-178.5	-107.3	208.3	0.00	0.00	
2,400.0	8.86	211.03	2,383.3	-191.7	-115.3	223.7	0.00	0.00	
2,500.0	8.86	211.03	2,482.1	-204.8	-123.2	239.0	0.00	0.00	
2,600.0	8.86	211.03	2,580.9	-218.0	-131.2	254.4	0.00	0.00	
2,700.0	8.86	211.03	2,679.7	-231.2	-139.1	269.8	0.00	0.00	
2,800.0	8.86	211.03	2,778.5	-244.4	-147.0	285.2	0.00	0.00	
2,900.0	8.86	211.03	2,877.3	-257.6	-155.0	300.6	0.00	0.00	
3,000.0	8.86	211.03	2,976.1	-270.8	-162.9	316.0	0.00	0.00	
3,100.0	8.86	211.03	3,074.9	-284.0	-170.8	331.4	0.00	0.00	
3,200.0	8.86	211.03	3,173.7	-297.2	-178.8	346.8	0.00	0.00	
3,300.0	8.86	211.03	3,272.5	-310.4	-186.7	362.2	0.00	0.00	
3,363.2	8.86	211.03	3,335.0	-318.7	-191.7	371.9	0.00	0.00	Parkman
3,400.0	8.86	211.03	3,371.3	-323.6	-194.6	377.6	0.00	0.00	
3,500.0	8.86	211.03	3,470.2	-336.8	-202.6	393.0	0.00	0.00	
3,600.0	8.86	211.03	3,569.0	-350.0	-210.5	408.4	0.00	0.00	
3,700.0	8.86	211.03	3,667.8	-363.2	-218.4	423.8	0.00	0.00	
3,800.0	8.86	211.03	3,766.6	-376.3	-226.4	439.2	0.00	0.00	
3,900.0	8.86	211.03	3,865.4	-389.5	-234.3	454.6	0.00	0.00	
4,000.0	8.86	211.03	3,964.2	-402.7	-242.3	470.0	0.00	0.00	
4,051.4	8.86	211.03	4,015.0	-409.5	-246.3	477.9	0.00	0.00	Sussex
4,100.0	8.86	211.03	4,063.0	-415.9	-250.2	485.4	0.00	0.00	
4,200.0	8.86	211.03	4,161.8	-429.1	-258.1	500.8	0.00	0.00	
4,300.0	8.86	211.03	4,260.6	-442.3	-266.1	516.2	0.00	0.00	
4,400.0	8.86	211.03	4,359.4	-455.5	-274.0	531.6	0.00	0.00	
4,500.0	8.86	211.03	4,458.2	-468.7	-281.9	547.0	0.00	0.00	
4,600.0	8.86	211.03	4,557.0	-481.9	-289.9	562.4	0.00	0.00	
4,700.0	8.86	211.03	4,655.8	-495.1	-297.8	577.7	0.00	0.00	
4,800.0	8.86	211.03	4,754.7	-508.3	-305.7	593.1	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well North Platte B-27
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4555.0ft
Project:	Weld County	MD Reference:	KBE @ 4555.0ft
Site:	70 Ranch 11-27 Pad	North Reference:	True
Well:	North Platte B-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
4,900.0	8.86	211.03	4,853.5	-521.5	-313.7	608.5	0.00	0.00	
5,000.0	8.86	211.03	4,952.3	-534.7	-321.6	623.9	0.00	0.00	
5,100.0	8.86	211.03	5,051.1	-547.9	-329.5	639.3	0.00	0.00	
5,200.0	8.86	211.03	5,149.9	-561.0	-337.5	654.7	0.00	0.00	
5,300.0	8.86	211.03	5,248.7	-574.2	-345.4	670.1	0.00	0.00	
5,400.0	8.86	211.03	5,347.5	-587.4	-353.4	685.5	0.00	0.00	
5,500.0	8.86	211.03	5,446.3	-600.6	-361.3	700.9	0.00	0.00	
5,600.0	8.86	211.03	5,545.1	-613.8	-369.2	716.3	0.00	0.00	
5,700.0	8.86	211.03	5,643.9	-627.0	-377.2	731.7	0.00	0.00	
5,778.0	8.86	211.03	5,721.0	-637.3	-383.3	743.7	0.00	0.00	Start 3° Drop
5,800.0	8.20	211.03	5,742.8	-640.1	-385.0	747.0	3.00	-3.00	
5,900.0	5.20	211.03	5,842.1	-650.1	-391.0	758.6	3.00	-3.00	
6,000.0	2.20	211.03	5,941.8	-655.6	-394.4	765.1	3.00	-3.00	
6,073.2	0.00	0.00	6,015.0	-656.8	-395.1	766.5	3.00	-3.00	EOD @ Inc. = 0°
6,100.0	0.00	0.00	6,041.8	-656.8	-395.1	766.5	0.00	0.00	
6,200.0	0.00	0.00	6,141.8	-656.8	-395.1	766.5	0.00	0.00	
6,273.2	0.00	0.00	6,215.0	-656.8	-395.1	766.5	0.00	0.00	Niobrara
6,300.0	0.00	0.00	6,241.8	-656.8	-395.1	766.5	0.00	0.00	
6,400.0	0.00	0.00	6,341.8	-656.8	-395.1	766.5	0.00	0.00	
6,488.2	0.00	0.00	6,430.0	-656.8	-395.1	766.5	0.00	0.00	Ft. Hayes
6,500.0	0.00	0.00	6,441.8	-656.8	-395.1	766.5	0.00	0.00	
6,510.2	0.00	0.00	6,452.0	-656.8	-395.1	766.5	0.00	0.00	Codell
6,523.2	0.00	0.00	6,465.0	-656.8	-395.1	766.5	0.00	0.00	Carlile
6,561.2	0.00	0.00	6,503.0	-656.8	-395.1	766.5	0.00	0.00	Greenhorn
6,600.0	0.00	0.00	6,541.8	-656.8	-395.1	766.5	0.00	0.00	
6,670.2	0.00	0.00	6,612.0	-656.8	-395.1	766.5	0.00	0.00	TD @ 6,670.2' 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 B-27 PBHL	0.00	0.00	6,612.0	-656.8	-395.1	1,380,783.17	3,297,864.68	40.373715	-104.430920
- plan hits target center									
- Circle (radius 50.0)									
North Platte B-27 TGT	0.00	0.00	6,015.0	-656.8	-395.1	1,380,783.17	3,297,864.68	40.373715	-104.430920
- plan hits target center									
- Point									

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well North Platte B-27
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4555.0ft
Project:	Weld County	MD Reference:	KBE @ 4555.0ft
Site:	70 Ranch 11-27 Pad	North Reference:	True
Well:	North Platte B-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,363.2	3,335.0	Parkman				
4,051.4	4,015.0	Sussex				
6,273.2	6,215.0	Niobrara				
6,488.2	6,430.0	Ft. Hayes				
6,510.2	6,452.0	Codell				
6,523.2	6,465.0	Carlile				
6,561.2	6,503.0	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' MD	
1,095.2	1,094.0	-19.5	-11.7	EOB @ Inc. = 8.86°	
5,778.0	5,721.0	-637.3	-383.3	Start 3° Drop	
6,073.2	6,015.0	-656.8	-395.1	EOD @ Inc. = 0°	
6,670.2	6,612.0	-656.8	-395.1	TD @ 6,670.2' MD	

Bonanza Creek Energy Operating Company, LLC

Weld County

70 Ranch 11-27 Pad

North Platte B-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 B-27
Project:	Weld County	TVD Reference:	KBE @ 4555.0ft
Reference Site:	70 Ranch 11-27 Pad	MD Reference:	KBE @ 4555.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte B-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:	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	3/17/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	6,670.2	Plan #1 (OH)	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	
70 Ranch 11-27 Pad							
70 Ranch 11-27 (vert) - OH - Plan #1	0.0	3.0	28.4				
70 Ranch 11-27 (vert) - OH - Plan #1	1,103.6	1,105.3	15.1	15.1	10,000.000	CC, ES	
North Platte G-27 - OH - Plan #1	0.0	3.0	30.1				
North Platte G-27 - OH - Plan #1	765.6	768.6	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 B-27
Project:	Weld County	TVD Reference:	KBE @ 4555.0ft
Reference Site:	70 Ranch 11-27 Pad	MD Reference:	KBE @ 4555.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte B-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									
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	3.0	3.0	0.0	0.0	178.88	-28.4	0.6	28.4						
100.0	100.0	103.0	103.0	0.2	0.2	178.88	-28.4	0.6	28.4	28.4	0.00	N/A			
200.0	200.0	203.0	203.0	0.3	0.3	178.88	-28.4	0.6	28.4	28.4	0.00	N/A			
300.0	300.0	303.0	303.0	0.5	0.5	178.88	-28.4	0.6	28.4	28.4	0.00	N/A			
400.0	400.0	403.0	403.0	0.7	0.7	178.88	-28.4	0.6	28.4	28.4	0.00	N/A			
500.0	500.0	503.0	503.0	0.9	0.9	178.88	-28.4	0.6	28.4	28.4	0.00	N/A			
600.0	600.0	603.0	603.0	1.0	1.0	178.88	-28.4	0.6	28.4	28.4	0.00	N/A			
700.0	700.0	703.0	703.0	1.2	1.2	178.88	-28.4	0.6	28.4	28.4	0.00	N/A			
800.0	800.0	803.0	803.0	1.4	1.4	178.88	-28.4	0.6	28.4	28.4	0.00	N/A			
900.0	900.0	903.0	903.0	1.6	1.6	-35.23	-28.4	0.6	26.2	26.2	0.00	N/A			
1,000.0	999.6	1,002.6	1,002.6	1.7	1.7	-48.20	-28.4	0.6	20.3	20.3	0.00	N/A			
1,100.0	1,098.8	1,101.8	1,101.8	2.0	1.9	-87.94	-28.4	0.6	15.1	15.1	0.00	N/A			
1,103.6	1,102.3	1,105.3	1,105.3	2.0	1.9	-90.00	-28.4	0.6	15.1	15.1	0.00	N/A CC, ES			
1,200.0	1,197.6	1,200.6	1,200.6	2.2	2.1	-134.13	-28.4	0.6	21.2	21.2	0.00	N/A			
1,300.0	1,296.4	1,299.4	1,299.4	2.5	2.3	-153.16	-28.4	0.6	33.8	33.8	0.00	N/A			
1,400.0	1,395.2	1,398.2	1,398.2	2.8	2.4	-161.46	-28.4	0.6	48.1	48.1	0.00	N/A			
1,500.0	1,494.0	1,497.0	1,497.0	3.1	2.6	-165.92	-28.4	0.6	62.9	62.9	0.00	N/A			
1,600.0	1,592.8	1,595.8	1,595.8	3.4	2.8	-168.68	-28.4	0.6	77.9	77.9	0.00	N/A			
1,700.0	1,691.6	1,694.6	1,694.6	3.7	2.9	-170.54	-28.4	0.6	93.1	93.1	0.00	N/A			
1,800.0	1,790.4	1,793.4	1,793.4	4.0	3.1	-171.88	-28.4	0.6	108.3	108.3	0.00	N/A			
1,900.0	1,889.2	1,892.2	1,892.2	4.3	3.3	-172.89	-28.4	0.6	123.5	123.5	0.00	N/A			
2,000.0	1,988.0	1,991.0	1,991.0	4.6	3.5	-173.67	-28.4	0.6	138.8	138.8	0.00	N/A			
2,100.0	2,086.8	2,089.8	2,089.8	4.9	3.6	-174.30	-28.4	0.6	154.1	154.1	0.00	N/A			
2,200.0	2,185.7	2,188.7	2,188.7	5.2	3.8	-174.82	-28.4	0.6	169.5	169.5	0.00	N/A			
2,300.0	2,284.5	2,287.5	2,287.5	5.5	4.0	-175.25	-28.4	0.6	184.8	184.8	0.00	N/A			
2,400.0	2,383.3	2,386.3	2,386.3	5.8	4.1	-175.62	-28.4	0.6	200.2	200.2	0.00	N/A			
2,500.0	2,482.1	2,485.1	2,485.1	6.1	4.3	-175.93	-28.4	0.6	215.5	215.5	0.00	N/A			
2,600.0	2,580.9	2,583.9	2,583.9	6.4	4.5	-176.20	-28.4	0.6	230.9	230.9	0.00	N/A			
2,700.0	2,679.7	2,682.7	2,682.7	6.8	4.7	-176.44	-28.4	0.6	246.2	246.2	0.00	N/A			
2,800.0	2,778.5	2,781.5	2,781.5	7.1	4.8	-176.65	-28.4	0.6	261.6	261.6	0.00	N/A			
2,900.0	2,877.3	2,880.3	2,880.3	7.4	5.0	-176.83	-28.4	0.6	277.0	277.0	0.00	N/A			
3,000.0	2,976.1	2,979.1	2,979.1	7.7	5.2	-177.00	-28.4	0.6	292.4	292.4	0.00	N/A			
3,100.0	3,074.9	3,077.9	3,077.9	8.0	5.4	-177.15	-28.4	0.6	307.7	307.7	0.00	N/A			
3,200.0	3,173.7	3,176.7	3,176.7	8.3	5.5	-177.29	-28.4	0.6	323.1	323.1	0.00	N/A			
3,300.0	3,272.5	3,275.5	3,275.5	8.7	5.7	-177.41	-28.4	0.6	338.5	338.5	0.00	N/A			
3,400.0	3,371.3	3,374.3	3,374.3	9.0	5.9	-177.52	-28.4	0.6	353.9	353.9	0.00	N/A			
3,500.0	3,470.2	3,473.2	3,473.2	9.3	6.0	-177.62	-28.4	0.6	369.3	369.3	0.00	N/A			
3,600.0	3,569.0	3,572.0	3,572.0	9.6	6.2	-177.72	-28.4	0.6	384.6	384.6	0.00	N/A			
3,700.0	3,667.8	3,670.8	3,670.8	9.9	6.4	-177.81	-28.4	0.6	400.0	400.0	0.00	N/A			
3,800.0	3,766.6	3,769.6	3,769.6	10.2	6.6	-177.89	-28.4	0.6	415.4	415.4	0.00	N/A			
3,900.0	3,865.4	3,868.4	3,868.4	10.6	6.7	-177.96	-28.4	0.6	430.8	430.8	0.00	N/A			
4,000.0	3,964.2	3,967.2	3,967.2	10.9	6.9	-178.03	-28.4	0.6	446.2	446.2	0.00	N/A			
4,100.0	4,063.0	4,066.0	4,066.0	11.2	7.1	-178.10	-28.4	0.6	461.6	461.6	0.00	N/A			
4,200.0	4,161.8	4,164.8	4,164.8	11.5	7.3	-178.16	-28.4	0.6	477.0	477.0	0.00	N/A			
4,300.0	4,260.6	4,263.6	4,263.6	11.8	7.4	-178.22	-28.4	0.6	492.3	492.3	0.00	N/A			

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well North Platte B-27
Project:	Weld County	TVD Reference:	KBE @ 4555.0ft
Reference Site:	70 Ranch 11-27 Pad	MD Reference:	KBE @ 4555.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte B-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 G-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		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			
0.0	0.0	3.0	3.0	0.0	0.0	109.09	-9.8	28.4	30.1					
100.0	100.0	103.0	103.0	0.2	0.2	109.09	-9.8	28.4	30.1	30.1	0.00	N/A		
200.0	200.0	203.0	203.0	0.3	0.3	109.09	-9.8	28.4	30.1	30.1	0.00	N/A		
300.0	300.0	303.0	303.0	0.5	0.5	109.09	-9.8	28.4	30.1	30.1	0.00	N/A		
400.0	400.0	403.0	403.0	0.7	0.7	109.09	-9.8	28.4	30.1	30.1	0.00	N/A		
500.0	500.0	503.0	503.0	0.9	0.9	109.09	-9.8	28.4	30.1	30.1	0.00	N/A		
600.0	600.0	603.0	603.0	1.0	1.0	109.09	-9.8	28.4	30.1	30.1	0.00	N/A		
700.0	700.0	703.0	703.0	1.2	1.2	109.09	-9.8	28.4	30.1	30.1	0.00	N/A		
765.6	765.6	768.6	768.6	1.3	1.3	109.09	-9.8	28.4	30.1	30.1	0.00	N/A CC, ES		
800.0	800.0	803.0	803.0	1.4	1.4	109.09	-9.8	28.4	30.1	30.1	0.00	N/A		
900.0	900.0	901.3	901.3	1.6	1.6	-105.20	-11.2	30.7	33.3	33.3	0.00	N/A		
1,000.0	999.6	998.8	998.5	1.7	1.7	-112.04	-15.2	37.3	43.3	43.3	0.00	N/A		
1,100.0	1,098.8	1,094.9	1,093.7	2.0	2.0	-118.24	-21.7	47.8	60.5	60.5	0.00	N/A		
1,200.0	1,197.6	1,189.1	1,186.4	2.2	2.2	-121.47	-30.4	62.1	83.5	83.5	0.00	N/A		
1,300.0	1,296.4	1,285.4	1,280.6	2.5	2.5	-122.48	-40.8	79.2	109.0	109.0	0.00	N/A		
1,400.0	1,395.2	1,382.1	1,375.2	2.8	2.9	-123.10	-51.2	96.3	134.5	134.5	0.00	N/A		
1,500.0	1,494.0	1,478.7	1,469.7	3.1	3.2	-123.53	-61.6	113.5	160.1	160.1	0.00	N/A		
1,600.0	1,592.8	1,575.4	1,564.3	3.4	3.6	-123.84	-72.1	130.6	185.6	185.6	0.00	N/A		
1,700.0	1,691.6	1,672.1	1,658.9	3.7	3.9	-124.07	-82.5	147.7	211.2	211.2	0.00	N/A		
1,800.0	1,790.4	1,768.8	1,753.5	4.0	4.3	-124.25	-93.0	164.9	236.7	236.7	0.00	N/A		
1,900.0	1,889.2	1,865.4	1,848.0	4.3	4.7	-124.40	-103.4	182.0	262.3	262.3	0.00	N/A		
2,000.0	1,988.0	1,962.1	1,942.6	4.6	5.0	-124.52	-113.8	199.1	287.9	287.9	0.00	N/A		
2,100.0	2,086.8	2,058.8	2,037.2	4.9	5.4	-124.62	-124.3	216.2	313.4	313.4	0.00	N/A		
2,200.0	2,185.7	2,155.5	2,131.7	5.2	5.8	-124.71	-134.7	233.4	339.0	339.0	0.00	N/A		
2,300.0	2,284.5	2,252.1	2,226.3	5.5	6.2	-124.78	-145.1	250.5	364.6	364.6	0.00	N/A		
2,400.0	2,383.3	2,348.8	2,320.9	5.8	6.6	-124.85	-155.6	267.6	390.1	390.1	0.00	N/A		
2,500.0	2,482.1	2,445.5	2,415.5	6.1	6.9	-124.90	-166.0	284.8	415.7	415.7	0.00	N/A		
2,600.0	2,580.9	2,542.2	2,510.0	6.4	7.3	-124.95	-176.4	301.9	441.3	441.3	0.00	N/A		
2,700.0	2,679.7	2,638.8	2,604.6	6.8	7.7	-125.00	-186.9	319.0	466.9	466.9	0.00	N/A		
2,800.0	2,778.5	2,735.5	2,699.2	7.1	8.1	-125.04	-197.3	336.2	492.4	492.4	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well North Platte B-27
Project:	Weld County	TVD Reference:	KBE @ 4555.0ft
Reference Site:	70 Ranch 11-27 Pad	MD Reference:	KBE @ 4555.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte B-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 @ 4555.0ft

Offset Depths are relative to Offset Datum

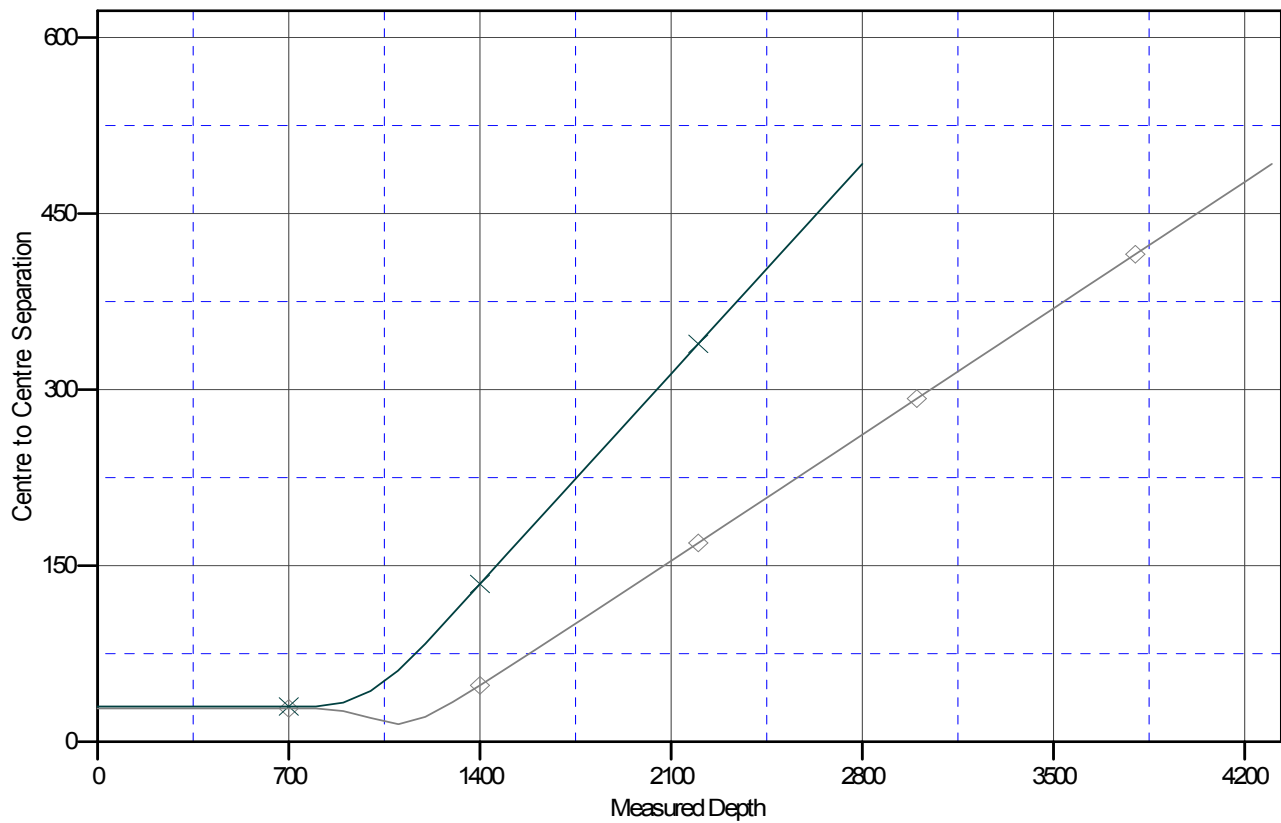
Central Meridian is -105.500000 °

Coordinates are relative to: North Platte B-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 G-27, OH, Plan #1 V0