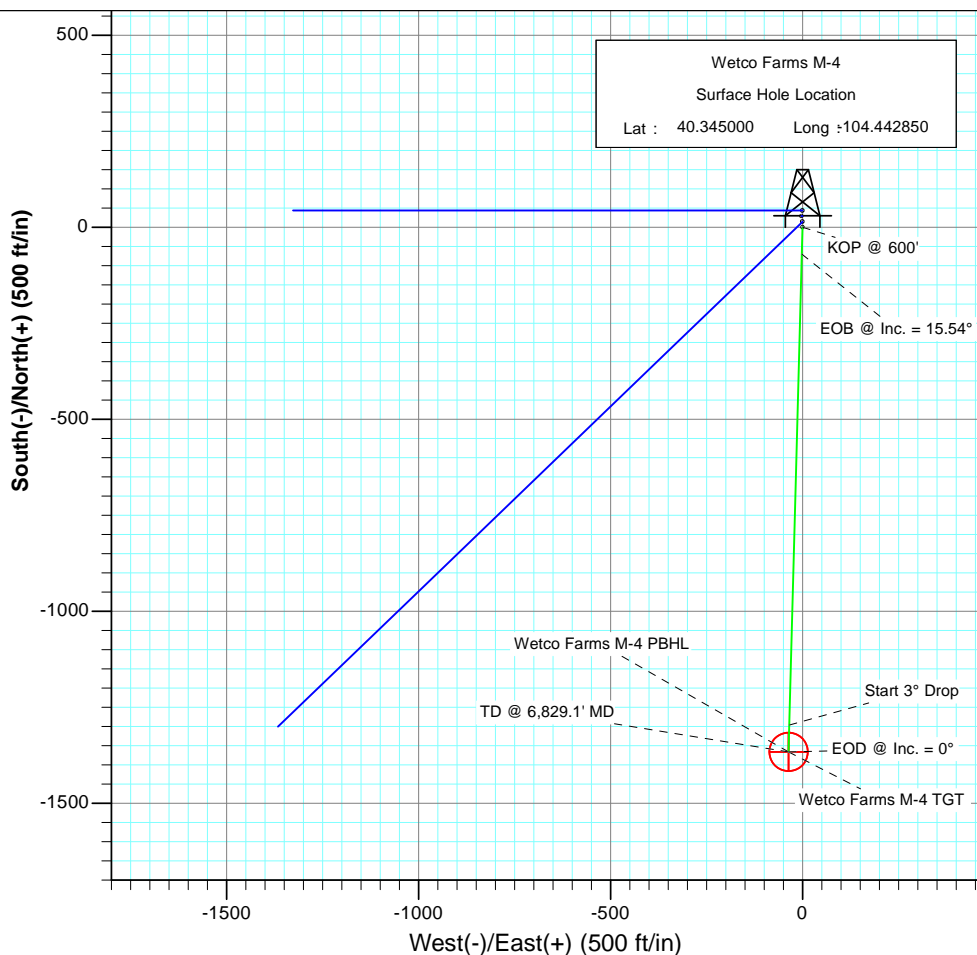
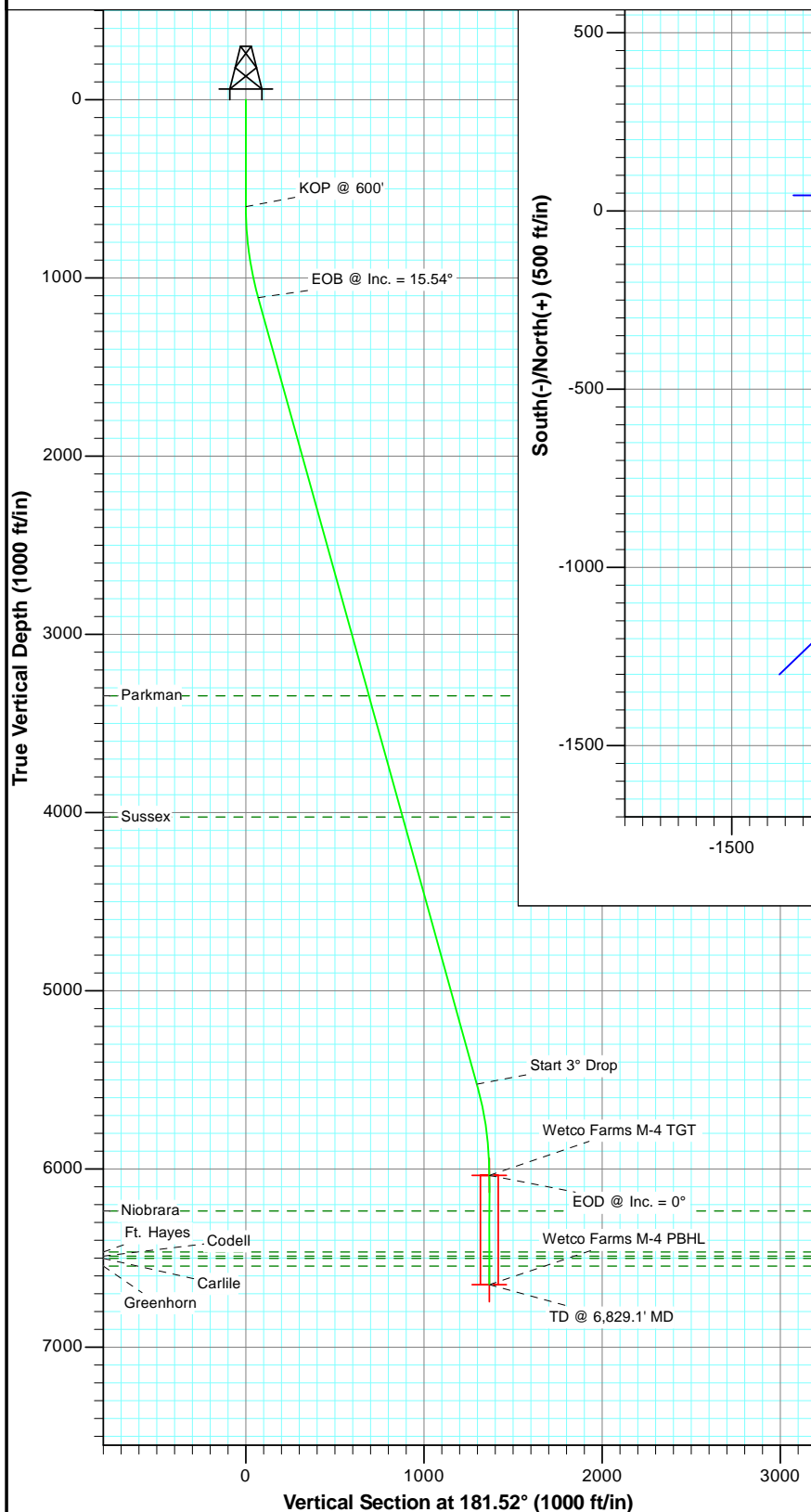


SECTION DETAILS

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	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1118.0	15.54	181.52	1111.6	-69.8	-1.9	3.00	181.52	69.8	
4	5698.1	15.54	181.52	5524.4	-1296.3	-34.4	0.00	0.00	1296.8	
5	6216.1	0.00	0.00	6036.0	-1366.1	-36.2	3.00	180.00	1366.6	Wetco Farms M-4 TGT
6	6829.1	0.00	0.00	6649.0	-1366.1	-36.2	0.00	0.00	1366.6	Wetco Farms M-4 PBHL



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3345.0	3436.1	Parkman
4025.0	4141.8	Sussex
6236.0	6416.1	Niobrara
6466.0	6646.1	Ft. Hayes
6489.0	6669.1	Codell
6502.0	6682.1	Carlile
6545.0	6725.1	Greenhorn



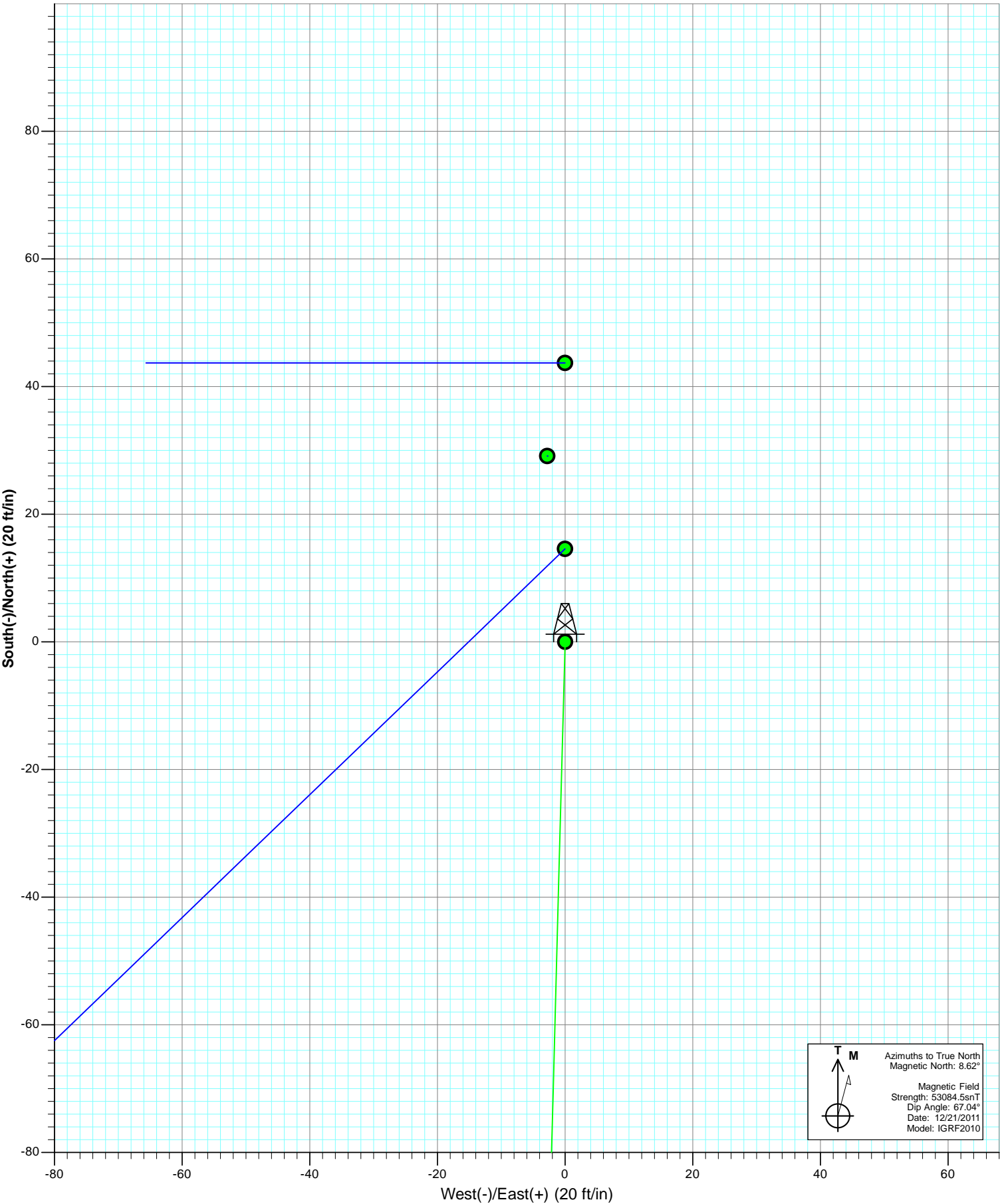
Azimuths to True North
Magnetic North: 8.62°

Magnetic Field
Strength: 53084.5snT
Dip Angle: 67.04°
Date: 12/21/2011
Model: IGRF2010

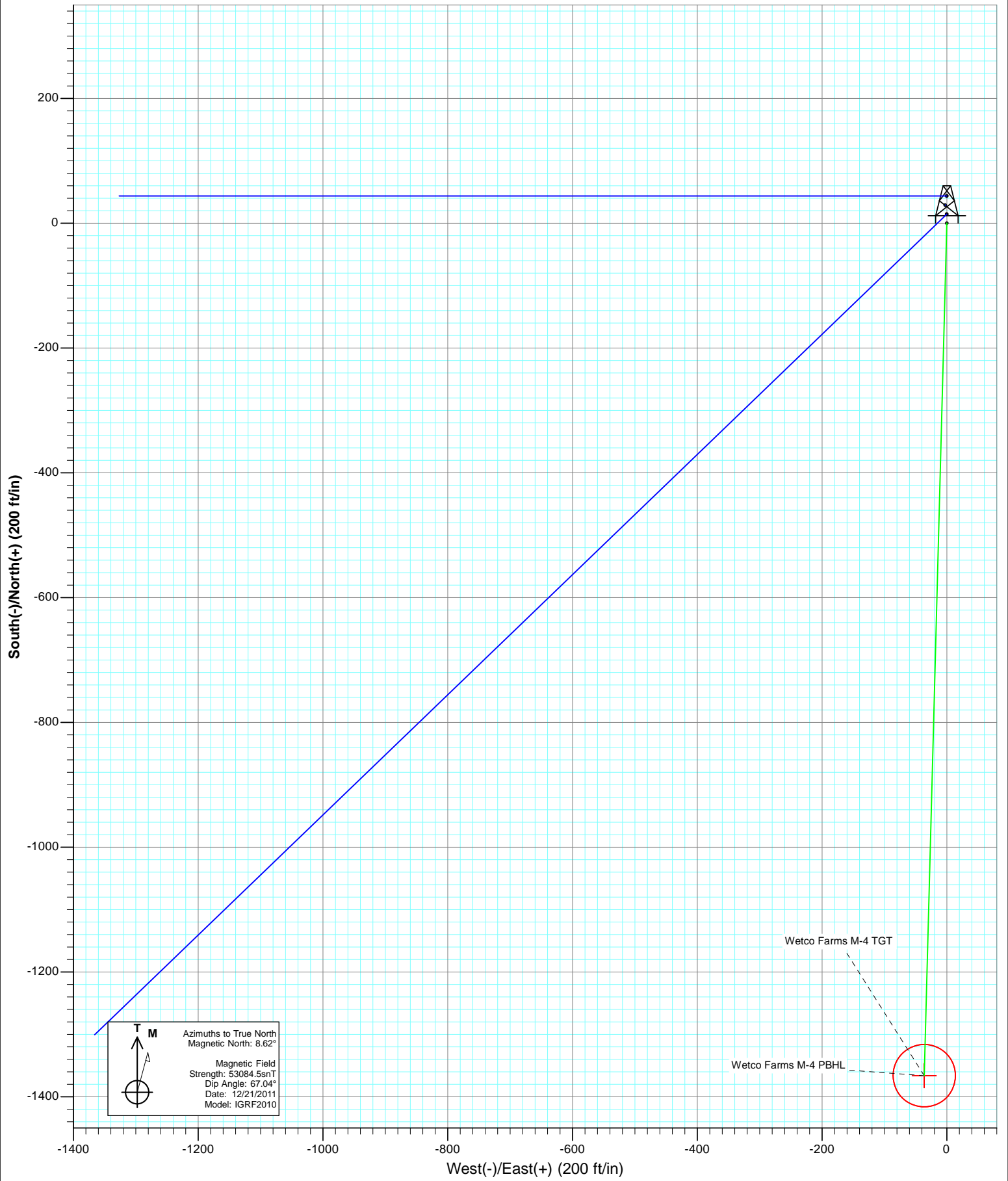
Plan #1
Wetco Farms M-4
125XXX; SC

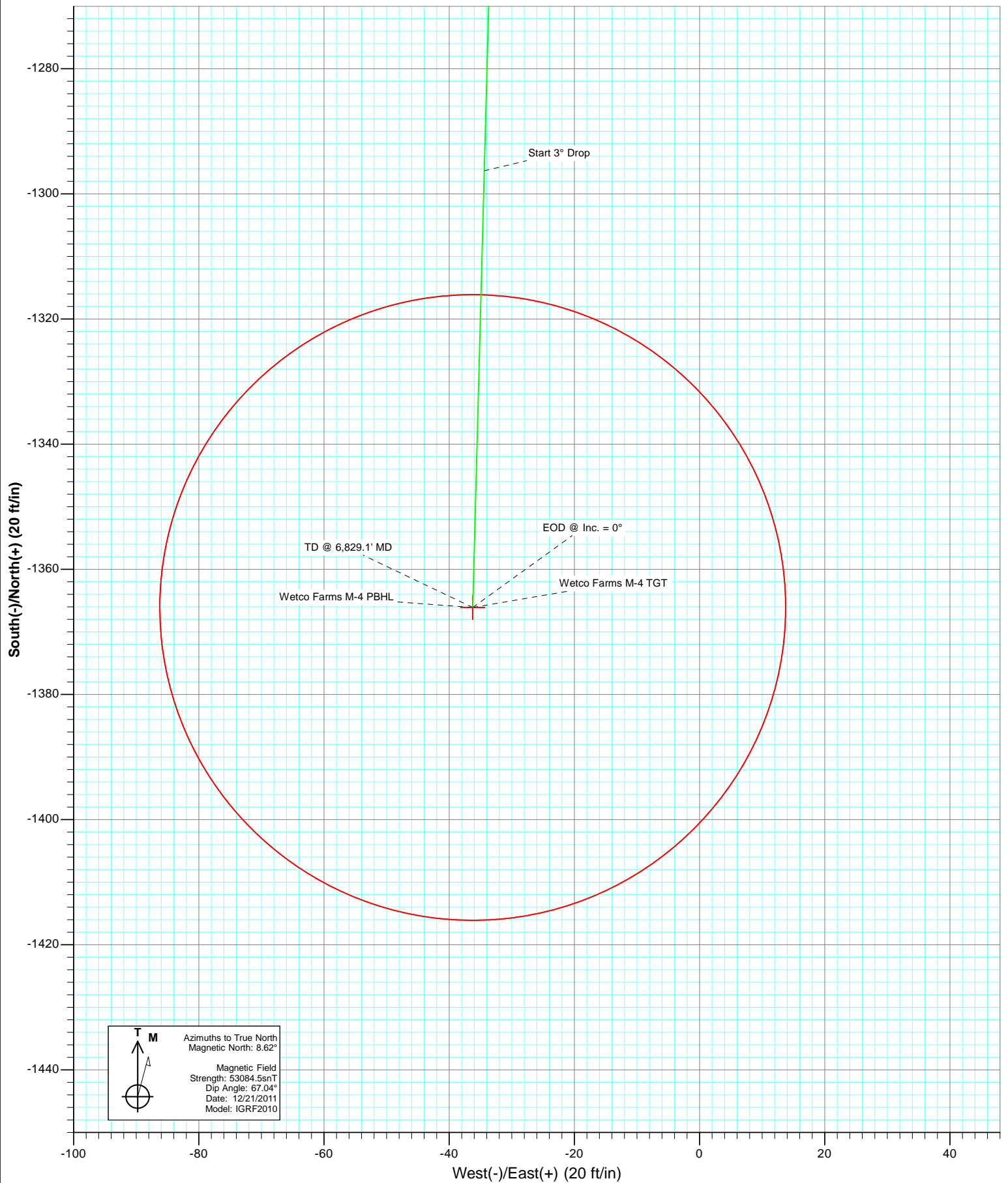
KBE @ 4575.0ft (Original Well Elev)
North American Datum 1983
Well Wetco Farms M-4, True North

Type	Target	Azimuth	Origin	Type	N/S	E/W	From
TD	No Target (Freehand)	181.52	Slot		0.0	0.0	TVD
							0.0
Name		TVD	+N/-S	+E/-W	Latitude	Longitude	
Wetco Farms M-4 TGT		6036.0	-1366.1	-36.2	40.341250	-104.442980	
Wetco Farms M-4 PBHL		6649.0	-1366.1	-36.2	40.341250	-104.442980	



T M
Azimuths to True North
Magnetic North: 8.62°
Magnetic Field
Strength: 53084.5snT
Dip Angle: 67.04°
Date: 12/21/2011
Model: IGRF2010





Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Wetco Farms M-4
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4575.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4575.0ft (Original Well Elev)
Site:	Wetco Farms L-4 Pad	North Reference:	True
Well:	Wetco Farms M-4	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		Wetco Farms L-4 Pad			
Site Position:		Northing:	1,370,312.33 ft	Latitude:	40.345080
From:	Lat/Long	Easting:	3,294,651.41 ft	Longitude:	-104.442900
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.68 °

Well	Wetco Farms M-4					
Well Position	+N/-S	0.0 ft	Northing:	1,370,283.35 ft	Latitude:	40.345000
	+E/-W	0.0 ft	Easting:	3,294,665.70 ft	Longitude:	-104.442850
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,565.0 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	12/21/2011	8.62	67.04	53,084

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	181.52

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	
1,118.0	15.54	181.52	1,111.6	-69.8	-1.9	3.00	3.00	0.00	181.52	
5,698.1	15.54	181.52	5,524.4	-1,296.3	-34.4	0.00	0.00	0.00	0.00	
6,216.1	0.00	0.00	6,036.0	-1,366.1	-36.2	3.00	-3.00	0.00	180.00	Wetco Farms M-4 TG
6,829.1	0.00	0.00	6,649.0	-1,366.1	-36.2	0.00	0.00	0.00	0.00	Wetco Farms M-4 PB

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Wetco Farms M-4
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4575.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4575.0ft (Original Well Elev)
Site:	Wetco Farms L-4 Pad	North Reference:	True
Well:	Wetco Farms M-4	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	KOP @ 600'
700.0	3.00	181.52	700.0	-2.6	-0.1	2.6	3.00	3.00	
800.0	6.00	181.52	799.6	-10.5	-0.3	10.5	3.00	3.00	
900.0	9.00	181.52	898.8	-23.5	-0.6	23.5	3.00	3.00	
1,000.0	12.00	181.52	997.1	-41.7	-1.1	41.7	3.00	3.00	
1,100.0	15.00	181.52	1,094.3	-65.1	-1.7	65.1	3.00	3.00	
1,118.0	15.54	181.52	1,111.6	-69.8	-1.9	69.8	3.00	3.00	EOB @ Inc. = 15.54°
1,200.0	15.54	181.52	1,190.7	-91.8	-2.4	91.8	0.00	0.00	
1,300.0	15.54	181.52	1,287.0	-118.5	-3.1	118.6	0.00	0.00	
1,400.0	15.54	181.52	1,383.4	-145.3	-3.9	145.4	0.00	0.00	
1,500.0	15.54	181.52	1,479.7	-172.1	-4.6	172.2	0.00	0.00	
1,600.0	15.54	181.52	1,576.1	-198.9	-5.3	198.9	0.00	0.00	
1,700.0	15.54	181.52	1,672.4	-225.6	-6.0	225.7	0.00	0.00	
1,800.0	15.54	181.52	1,768.7	-252.4	-6.7	252.5	0.00	0.00	
1,900.0	15.54	181.52	1,865.1	-279.2	-7.4	279.3	0.00	0.00	
2,000.0	15.54	181.52	1,961.4	-306.0	-8.1	306.1	0.00	0.00	
2,100.0	15.54	181.52	2,057.8	-332.8	-8.8	332.9	0.00	0.00	
2,200.0	15.54	181.52	2,154.1	-359.5	-9.5	359.7	0.00	0.00	
2,300.0	15.54	181.52	2,250.5	-386.3	-10.2	386.5	0.00	0.00	
2,400.0	15.54	181.52	2,346.8	-413.1	-11.0	413.2	0.00	0.00	
2,500.0	15.54	181.52	2,443.2	-439.9	-11.7	440.0	0.00	0.00	
2,600.0	15.54	181.52	2,539.5	-466.7	-12.4	466.8	0.00	0.00	
2,700.0	15.54	181.52	2,635.9	-493.4	-13.1	493.6	0.00	0.00	
2,800.0	15.54	181.52	2,732.2	-520.2	-13.8	520.4	0.00	0.00	
2,900.0	15.54	181.52	2,828.5	-547.0	-14.5	547.2	0.00	0.00	
3,000.0	15.54	181.52	2,924.9	-573.8	-15.2	574.0	0.00	0.00	
3,100.0	15.54	181.52	3,021.2	-600.6	-15.9	600.8	0.00	0.00	
3,200.0	15.54	181.52	3,117.6	-627.3	-16.6	627.6	0.00	0.00	
3,300.0	15.54	181.52	3,213.9	-654.1	-17.4	654.3	0.00	0.00	
3,400.0	15.54	181.52	3,310.3	-680.9	-18.1	681.1	0.00	0.00	
3,436.1	15.54	181.52	3,345.0	-690.6	-18.3	690.8	0.00	0.00	Parkman
3,500.0	15.54	181.52	3,406.6	-707.7	-18.8	707.9	0.00	0.00	
3,600.0	15.54	181.52	3,503.0	-734.5	-19.5	734.7	0.00	0.00	
3,700.0	15.54	181.52	3,599.3	-761.2	-20.2	761.5	0.00	0.00	
3,800.0	15.54	181.52	3,695.6	-788.0	-20.9	788.3	0.00	0.00	
3,900.0	15.54	181.52	3,792.0	-814.8	-21.6	815.1	0.00	0.00	
4,000.0	15.54	181.52	3,888.3	-841.6	-22.3	841.9	0.00	0.00	
4,100.0	15.54	181.52	3,984.7	-868.4	-23.0	868.7	0.00	0.00	
4,141.8	15.54	181.52	4,025.0	-879.6	-23.3	879.9	0.00	0.00	Sussex
4,200.0	15.54	181.52	4,081.0	-895.1	-23.7	895.4	0.00	0.00	
4,300.0	15.54	181.52	4,177.4	-921.9	-24.5	922.2	0.00	0.00	
4,400.0	15.54	181.52	4,273.7	-948.7	-25.2	949.0	0.00	0.00	
4,500.0	15.54	181.52	4,370.1	-975.5	-25.9	975.8	0.00	0.00	
4,600.0	15.54	181.52	4,466.4	-1,002.3	-26.6	1,002.6	0.00	0.00	
4,700.0	15.54	181.52	4,562.8	-1,029.0	-27.3	1,029.4	0.00	0.00	
4,800.0	15.54	181.52	4,659.1	-1,055.8	-28.0	1,056.2	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Wetco Farms M-4
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4575.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4575.0ft (Original Well Elev)
Site:	Wetco Farms L-4 Pad	North Reference:	True
Well:	Wetco Farms M-4	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	15.54	181.52	4,755.4	-1,082.6	-28.7	1,083.0	0.00	0.00	
5,000.0	15.54	181.52	4,851.8	-1,109.4	-29.4	1,109.8	0.00	0.00	
5,100.0	15.54	181.52	4,948.1	-1,136.1	-30.1	1,136.5	0.00	0.00	
5,200.0	15.54	181.52	5,044.5	-1,162.9	-30.8	1,163.3	0.00	0.00	
5,300.0	15.54	181.52	5,140.8	-1,189.7	-31.6	1,190.1	0.00	0.00	
5,400.0	15.54	181.52	5,237.2	-1,216.5	-32.3	1,216.9	0.00	0.00	
5,500.0	15.54	181.52	5,333.5	-1,243.3	-33.0	1,243.7	0.00	0.00	
5,600.0	15.54	181.52	5,429.9	-1,270.0	-33.7	1,270.5	0.00	0.00	
5,698.1	15.54	181.52	5,524.4	-1,296.3	-34.4	1,296.8	0.00	0.00	Start 3° Drop
5,700.0	15.48	181.52	5,526.2	-1,296.8	-34.4	1,297.3	3.00	-3.00	
5,800.0	12.48	181.52	5,623.2	-1,321.0	-35.0	1,321.4	3.00	-3.00	
5,900.0	9.48	181.52	5,721.4	-1,340.0	-35.5	1,340.5	3.00	-3.00	
6,000.0	6.48	181.52	5,820.4	-1,353.9	-35.9	1,354.4	3.00	-3.00	
6,100.0	3.48	181.52	5,920.0	-1,362.6	-36.1	1,363.1	3.00	-3.00	
6,200.0	0.48	181.52	6,019.9	-1,366.0	-36.2	1,366.5	3.00	-3.00	
6,216.1	0.00	0.00	6,036.0	-1,366.1	-36.2	1,366.6	3.00	-3.00	EOD @ Inc. = 0°
6,300.0	0.00	0.00	6,119.9	-1,366.1	-36.2	1,366.6	0.00	0.00	
6,400.0	0.00	0.00	6,219.9	-1,366.1	-36.2	1,366.6	0.00	0.00	
6,416.1	0.00	0.00	6,236.0	-1,366.1	-36.2	1,366.6	0.00	0.00	Niobrara
6,500.0	0.00	0.00	6,319.9	-1,366.1	-36.2	1,366.6	0.00	0.00	
6,600.0	0.00	0.00	6,419.9	-1,366.1	-36.2	1,366.6	0.00	0.00	
6,646.1	0.00	0.00	6,466.0	-1,366.1	-36.2	1,366.6	0.00	0.00	Ft. Hayes
6,669.1	0.00	0.00	6,489.0	-1,366.1	-36.2	1,366.6	0.00	0.00	Codell
6,682.1	0.00	0.00	6,502.0	-1,366.1	-36.2	1,366.6	0.00	0.00	Carlile
6,700.0	0.00	0.00	6,519.9	-1,366.1	-36.2	1,366.6	0.00	0.00	
6,725.1	0.00	0.00	6,545.0	-1,366.1	-36.2	1,366.6	0.00	0.00	Greenhorn
6,800.0	0.00	0.00	6,619.9	-1,366.1	-36.2	1,366.6	0.00	0.00	
6,829.1	0.00	0.00	6,649.0	-1,366.1	-36.2	1,366.6	0.00	0.00	TD @ 6,829.1' 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									
Wetco Farms M-4 TGT	0.00	0.00	6,036.0	-1,366.1	-36.2	1,368,916.92	3,294,645.75	40.341250	-104.442980
- plan hits target center									
- Point									
Wetco Farms M-4 PBHL	0.00	0.00	6,649.0	-1,366.1	-36.2	1,368,916.92	3,294,645.75	40.341250	-104.442980
- plan hits target center									
- Circle (radius 50.0)									

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Wetco Farms M-4
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4575.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4575.0ft (Original Well Elev)
Site:	Wetco Farms L-4 Pad	North Reference:	True
Well:	Wetco Farms M-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,436.1	3,345.0	Parkman				
4,141.8	4,025.0	Sussex				
6,416.1	6,236.0	Niobrara				
6,646.1	6,466.0	Ft. Hayes				
6,669.1	6,489.0	Codell				
6,682.1	6,502.0	Carlile				
6,725.1	6,545.0	Greenhorn				

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'	
1,118.0	1,111.6	-69.8	-1.9	EOB @ Inc. = 15.54°	
5,698.1	5,524.4	-1,296.3	-34.4	Start 3° Drop	
6,216.1	6,036.0	-1,366.1	-36.2	EOD @ Inc. = 0°	
6,829.1	6,649.0	-1,366.1	-36.2	TD @ 6,829.1' MD	

Bonanza Creek Energy Operating Company, LLC

Weld County

Wetco Farms L-4 Pad

Wetco Farms M-4

OH

Plan #1

Anticollision Report

21 December, 2011

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Wetco Farms M-4
Project:	Weld County	TVD Reference:	KBE @ 4575.0ft (Original Well Elev)
Reference Site:	Wetco Farms L-4 Pad	MD Reference:	KBE @ 4575.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms M-4	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	12/21/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	6,829.1	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
Offset Well - Wellbore - Design						
Wetco Farms L-4 Pad						
Wetco Farms G-4 - OH - Plan #2	0.0	0.0	43.7			
Wetco Farms G-4 - OH - Plan #2	600.0	600.0	43.7	43.7	10,000.000	CC, ES
Wetco Farms H-4 - OH - Plan #1	0.0	0.0	14.6			
Wetco Farms H-4 - OH - Plan #1	600.0	600.0	14.6	14.6	10,000.000	CC, ES
Wetco Farms L-4 (vert) - VH - Plan #1	0.0	0.0	29.3			
Wetco Farms L-4 (vert) - VH - Plan #1	600.0	600.0	29.3	29.3	10,000.000	CC, ES

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Wetco Farms M-4
Project:	Weld County	TVD Reference:	KBE @ 4575.0ft (Original Well Elev)
Reference Site:	Wetco Farms L-4 Pad	MD Reference:	KBE @ 4575.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms M-4	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 Wetco Farms L-4 Pad - Wetco Farms G-4 - OH - Plan #2													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	0.00	43.7	0.0	43.7					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	43.7	0.0	43.7	43.7	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	43.7	0.0	43.7	43.7	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	43.7	0.0	43.7	43.7	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	43.7	0.0	43.7	43.7	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	0.00	43.7	0.0	43.7	43.7	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	0.00	43.7	0.0	43.7	43.7	0.00	N/A CC, ES		
700.0	700.0	699.9	699.8	1.2	1.2	175.33	43.7	-2.6	46.4	46.4	0.00	N/A		
800.0	799.6	798.9	798.6	1.4	1.4	167.86	43.7	-10.4	55.1	55.1	0.00	N/A		
900.0	898.8	896.5	895.3	1.6	1.6	159.71	43.7	-23.0	70.9	70.9	0.00	N/A		
1,000.0	997.1	991.7	989.0	2.0	1.9	153.01	43.7	-40.0	94.2	94.2	0.00	N/A		
1,100.0	1,094.3	1,084.1	1,078.9	2.3	2.3	148.01	43.7	-61.0	124.8	124.8	0.00	N/A		
1,200.0	1,190.7	1,176.8	1,168.4	2.8	2.7	144.86	43.7	-85.0	160.2	160.2	0.00	N/A		
1,300.0	1,287.0	1,270.0	1,258.4	3.2	3.1	142.89	43.7	-109.3	196.0	196.0	0.00	N/A		
1,400.0	1,383.4	1,363.2	1,348.5	3.7	3.5	141.53	43.7	-133.5	231.9	231.9	0.00	N/A		
1,500.0	1,479.7	1,456.4	1,438.5	4.1	4.0	140.53	43.7	-157.7	267.8	267.8	0.00	N/A		
1,600.0	1,576.1	1,549.6	1,528.5	4.6	4.4	139.77	43.7	-182.0	303.9	303.9	0.00	N/A		
1,700.0	1,672.4	1,642.8	1,618.5	5.1	4.9	139.17	43.7	-206.2	339.9	339.9	0.00	N/A		
1,800.0	1,768.7	1,736.1	1,708.5	5.6	5.3	138.68	43.7	-230.4	376.0	376.0	0.00	N/A		
1,900.0	1,865.1	1,829.3	1,798.5	6.1	5.8	138.28	43.7	-254.7	412.1	412.1	0.00	N/A		
2,000.0	1,961.4	1,922.5	1,888.5	6.6	6.2	137.95	43.7	-278.9	448.3	448.3	0.00	N/A		
2,100.0	2,057.8	2,015.7	1,978.5	7.1	6.7	137.66	43.7	-303.1	484.4	484.4	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Wetco Farms M-4
Project:	Weld County	TVD Reference:	KBE @ 4575.0ft (Original Well Elev)
Reference Site:	Wetco Farms L-4 Pad	MD Reference:	KBE @ 4575.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms M-4	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 Wetco Farms L-4 Pad - Wetco Farms H-4 - 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 (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	14.6	0.0	14.6					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	14.6	0.0	14.6	14.6	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	14.6	0.0	14.6	14.6	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	14.6	0.0	14.6	14.6	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	14.6	0.0	14.6	14.6	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	0.00	14.6	0.0	14.6	14.6	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	0.00	14.6	0.0	14.6	14.6	0.00	N/A CC, ES		
700.0	700.0	700.5	700.4	1.2	1.2	171.67	12.7	-1.9	15.5	15.5	0.00	N/A		
800.0	799.6	800.7	800.4	1.4	1.4	156.02	7.3	-7.6	19.2	19.2	0.00	N/A		
900.0	898.8	900.5	899.3	1.6	1.6	141.21	-1.8	-17.0	27.2	27.2	0.00	N/A		
1,000.0	997.1	999.6	996.7	2.0	2.0	131.24	-14.3	-30.0	39.8	39.8	0.00	N/A		
1,100.0	1,094.3	1,097.8	1,092.2	2.3	2.3	125.01	-30.2	-46.5	56.8	56.8	0.00	N/A		
1,200.0	1,190.7	1,195.0	1,185.4	2.8	2.8	120.32	-49.2	-66.2	76.9	76.9	0.00	N/A		
1,300.0	1,287.0	1,291.0	1,276.0	3.2	3.4	114.90	-71.2	-89.1	98.7	98.7	0.00	N/A		
1,400.0	1,383.4	1,386.8	1,365.0	3.7	4.0	109.63	-95.8	-114.6	122.7	122.7	0.00	N/A		
1,500.0	1,479.7	1,483.3	1,454.5	4.1	4.6	105.89	-120.8	-140.6	147.6	147.6	0.00	N/A		
1,600.0	1,576.1	1,579.7	1,543.9	4.6	5.2	103.23	-145.9	-166.7	172.9	172.9	0.00	N/A		
1,700.0	1,672.4	1,676.2	1,633.4	5.1	5.9	101.25	-171.0	-192.7	198.5	198.5	0.00	N/A		
1,800.0	1,768.7	1,772.7	1,722.8	5.6	6.5	99.72	-196.1	-218.8	224.2	224.2	0.00	N/A		
1,900.0	1,865.1	1,869.2	1,812.3	6.1	7.2	98.51	-221.1	-244.8	250.0	250.0	0.00	N/A		
2,000.0	1,961.4	1,965.7	1,901.7	6.6	7.9	97.52	-246.2	-270.8	276.0	276.0	0.00	N/A		
2,100.0	2,057.8	2,062.1	1,991.2	7.1	8.5	96.70	-271.3	-296.9	302.0	302.0	0.00	N/A		
2,200.0	2,154.1	2,158.6	2,080.6	7.5	9.2	96.02	-296.3	-322.9	328.0	328.0	0.00	N/A		
2,300.0	2,250.5	2,255.1	2,170.1	8.0	9.8	95.43	-321.4	-348.9	354.1	354.1	0.00	N/A		
2,400.0	2,346.8	2,351.6	2,259.5	8.5	10.5	94.92	-346.5	-375.0	380.2	380.2	0.00	N/A		
2,500.0	2,443.2	2,448.1	2,349.0	9.0	11.2	94.48	-371.5	-401.0	406.4	406.4	0.00	N/A		
2,600.0	2,539.5	2,544.5	2,438.4	9.5	11.8	94.09	-396.6	-427.1	432.5	432.5	0.00	N/A		
2,700.0	2,635.9	2,641.0	2,527.9	10.0	12.5	93.75	-421.7	-453.1	458.7	458.7	0.00	N/A		
2,800.0	2,732.2	2,737.5	2,617.3	10.5	13.2	93.44	-446.7	-479.1	484.9	484.9	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Wetco Farms M-4
Project:	Weld County	TVD Reference:	KBE @ 4575.0ft (Original Well Elev)
Reference Site:	Wetco Farms L-4 Pad	MD Reference:	KBE @ 4575.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms M-4	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 Wetco Farms L-4 Pad - Wetco Farms L-4 (vert) - VH - 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 Uncertainty Axis	Separation Factor	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)				
0.0	0.0	0.0	0.0	0.0	0.0	-5.47	29.1	-2.8	29.3					
100.0	100.0	100.0	100.0	0.2	0.2	-5.47	29.1	-2.8	29.3	29.3	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	-5.47	29.1	-2.8	29.3	29.3	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	-5.47	29.1	-2.8	29.3	29.3	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	-5.47	29.1	-2.8	29.3	29.3	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	-5.47	29.1	-2.8	29.3	29.3	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	-5.47	29.1	-2.8	29.3	29.3	0.00	N/A CC, ES		
700.0	700.0	700.0	700.0	1.2	1.2	173.58	29.1	-2.8	31.9	31.9	0.00	N/A		
800.0	799.6	799.6	799.6	1.4	1.4	174.82	29.1	-2.8	39.7	39.7	0.00	N/A		
900.0	898.8	898.8	898.8	1.6	1.6	176.08	29.1	-2.8	52.7	52.7	0.00	N/A		
1,000.0	997.1	997.1	997.1	2.0	1.7	177.06	29.1	-2.8	70.9	70.9	0.00	N/A		
1,100.0	1,094.3	1,094.3	1,094.3	2.3	1.9	177.76	29.1	-2.8	94.2	94.2	0.00	N/A		
1,200.0	1,190.7	1,190.7	1,190.7	2.8	2.1	178.25	29.1	-2.8	120.9	120.9	0.00	N/A		
1,300.0	1,287.0	1,287.0	1,287.0	3.2	2.2	178.57	29.1	-2.8	147.7	147.7	0.00	N/A		
1,400.0	1,383.4	1,383.4	1,383.4	3.7	2.4	178.79	29.1	-2.8	174.4	174.4	0.00	N/A		
1,500.0	1,479.7	1,479.7	1,479.7	4.1	2.6	178.95	29.1	-2.8	201.2	201.2	0.00	N/A		
1,600.0	1,576.1	1,576.1	1,576.1	4.6	2.7	179.07	29.1	-2.8	228.0	228.0	0.00	N/A		
1,700.0	1,672.4	1,672.4	1,672.4	5.1	2.9	179.17	29.1	-2.8	254.8	254.8	0.00	N/A		
1,800.0	1,768.7	1,768.7	1,768.7	5.6	3.1	179.25	29.1	-2.8	281.6	281.6	0.00	N/A		
1,900.0	1,865.1	1,865.1	1,865.1	6.1	3.2	179.31	29.1	-2.8	308.4	308.4	0.00	N/A		
2,000.0	1,961.4	1,961.4	1,961.4	6.6	3.4	179.37	29.1	-2.8	335.2	335.2	0.00	N/A		
2,100.0	2,057.8	2,057.8	2,057.8	7.1	3.6	179.42	29.1	-2.8	361.9	361.9	0.00	N/A		
2,200.0	2,154.1	2,154.1	2,154.1	7.5	3.7	179.46	29.1	-2.8	388.7	388.7	0.00	N/A		
2,300.0	2,250.5	2,250.5	2,250.5	8.0	3.9	179.49	29.1	-2.8	415.5	415.5	0.00	N/A		
2,400.0	2,346.8	2,346.8	2,346.8	8.5	4.1	179.52	29.1	-2.8	442.3	442.3	0.00	N/A		
2,500.0	2,443.2	2,443.2	2,443.2	9.0	4.2	179.55	29.1	-2.8	469.1	469.1	0.00	N/A		
2,600.0	2,539.5	2,539.5	2,539.5	9.5	4.4	179.57	29.1	-2.8	495.9	495.9	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Wetco Farms M-4
Project:	Weld County	TVD Reference:	KBE @ 4575.0ft (Original Well Elev)
Reference Site:	Wetco Farms L-4 Pad	MD Reference:	KBE @ 4575.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms M-4	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 @ 4575.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: Wetco Farms M-4
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.68°

