

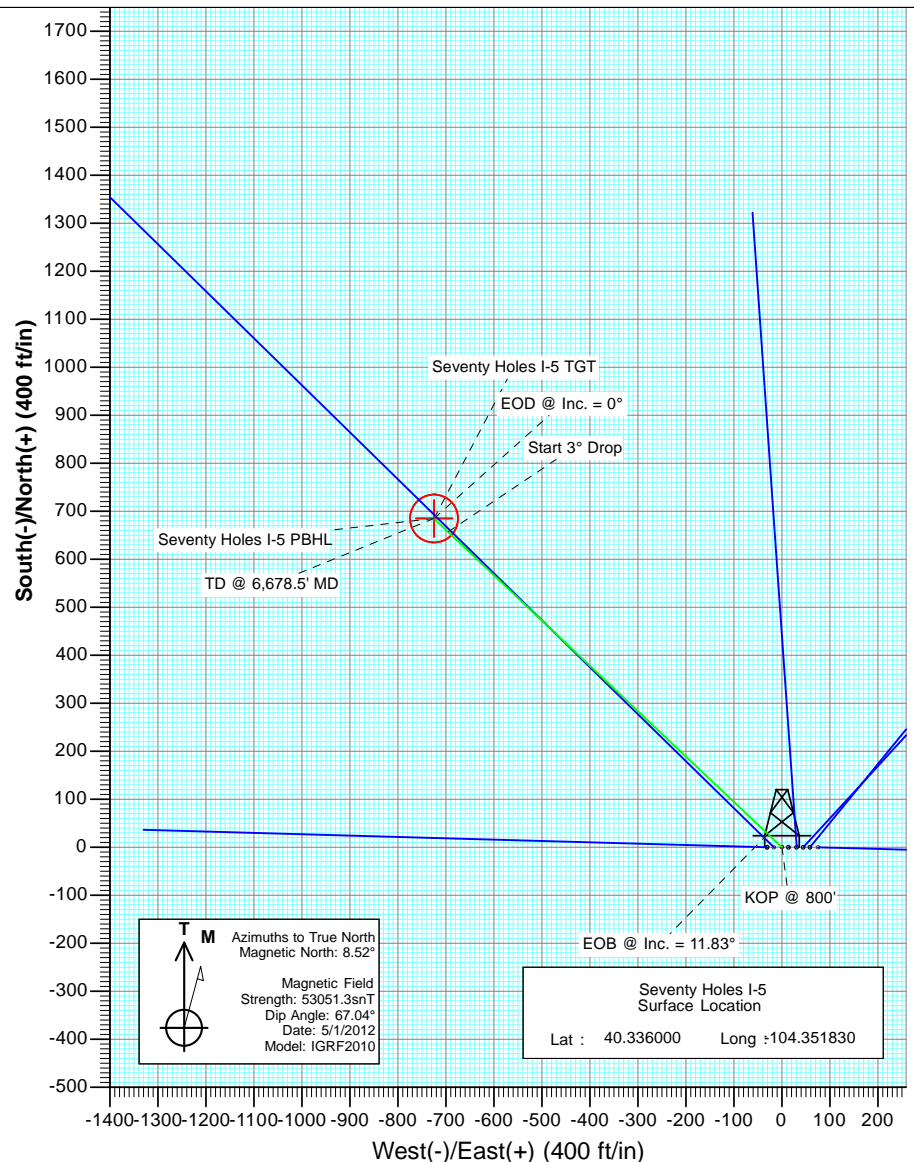
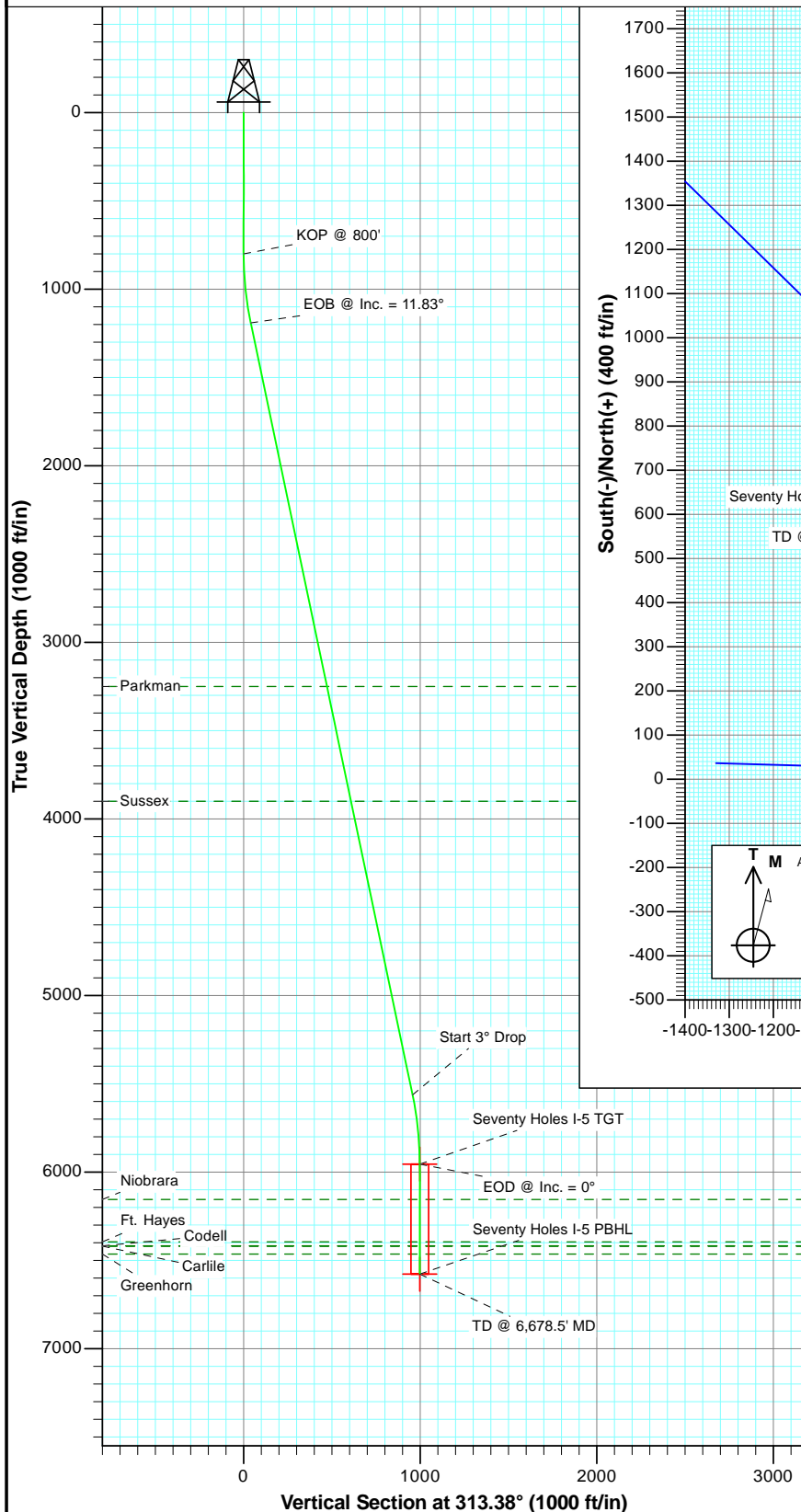


Project: Weld County
 Site: Seventy Holes 24-5 Pad
 Well: Seventy Holes I-5
 Wellbore: OH
 Plan: Plan #1



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	1194.5	11.83	313.38	1191.7	27.9	-29.5	3.00	313.38	40.6	
4	5661.1	11.83	313.38	5563.3	657.0	-695.3	0.00	0.00	956.6	
5	6055.5	0.00	0.00	5955.0	684.9	-724.8	3.00	180.00	997.2	Seventy Holes I-5 TGT
6	6678.5	0.00	0.00	6578.0	684.9	-724.8	0.00	0.00	997.2	Seventy Holes I-5 PBHL



T M Azimuths to True North
 Magnetic North: 8.52°
 Magnetic Field
 Strength: 53051.3snT
 Dip Angle: 67.04°
 Date: 5/1/2012
 Model: IGRF2010

Seventy Holes I-5
 Surface Location
 Lat : 40.336000 Long :104.351830

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3250.0	3297.5	Parkman
3900.0	3961.6	Sussex
6155.0	6255.5	Niobrara
6395.0	6495.5	Ft. Hayes
6418.0	6518.5	Codell
6419.0	6519.5	Carlile
6464.0	6564.5	Greenhorn

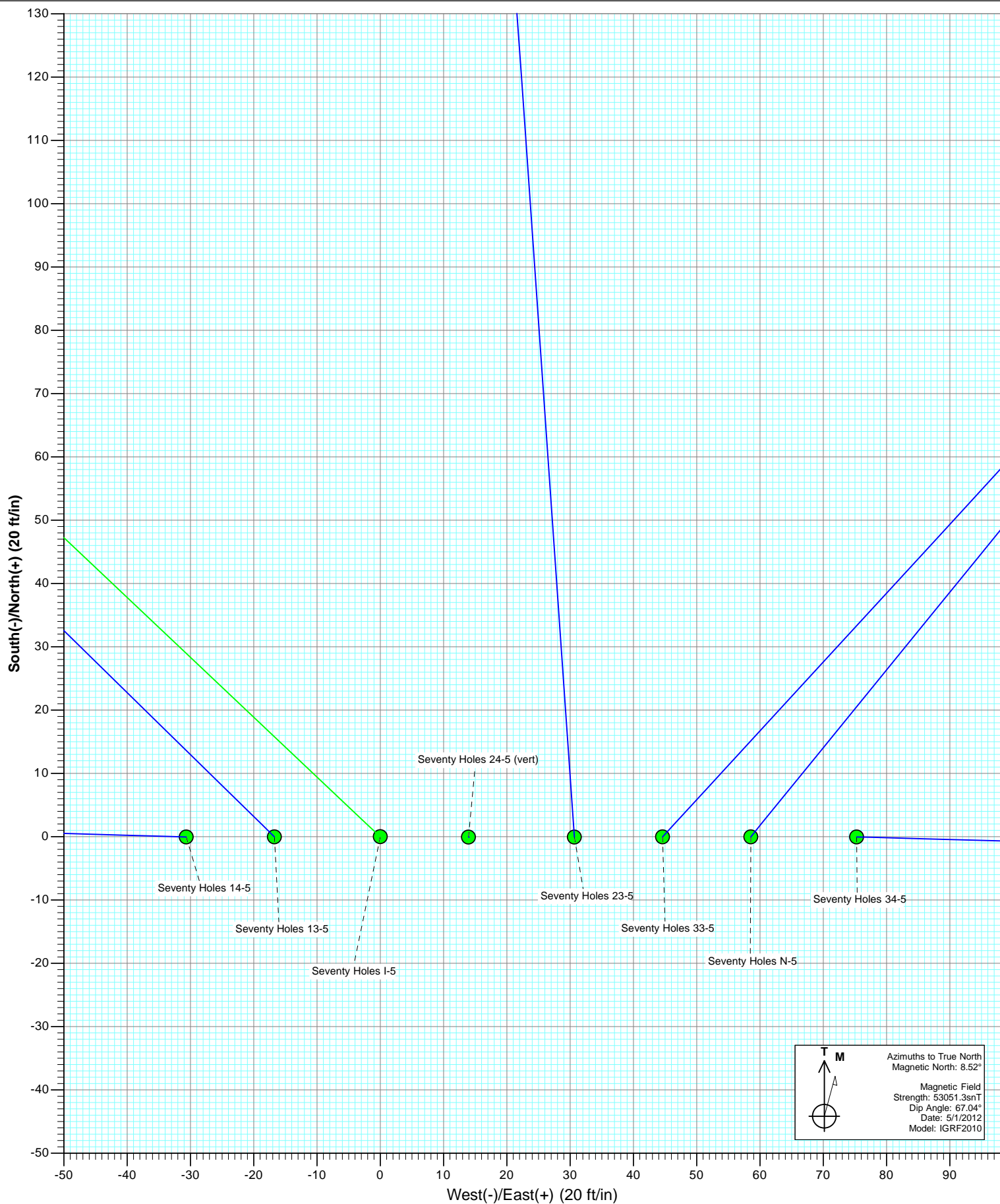
Plan #1
 Seventy Holes I-5
 125XXX; SC

KBE @ 4555.0ft (Original Well Elev)
 North American Datum 1983
 Well Seventy Holes I-5, True North

Type	Target	Azimuth	Origin	Type	N/S	E/W	From TVD
TD	No Target (Freehand)	313.38	Slot		0.0	0.0	0.0
Name		TVD	+N/-S	+E/-W	Latitude	Longitude	
Seventy Holes I-5 TGT		5955.0	684.9	-724.8	40.337880	-104.354430	
Seventy Holes I-5 PBHL		6578.0	684.9	-724.8	40.337880	-104.354430	

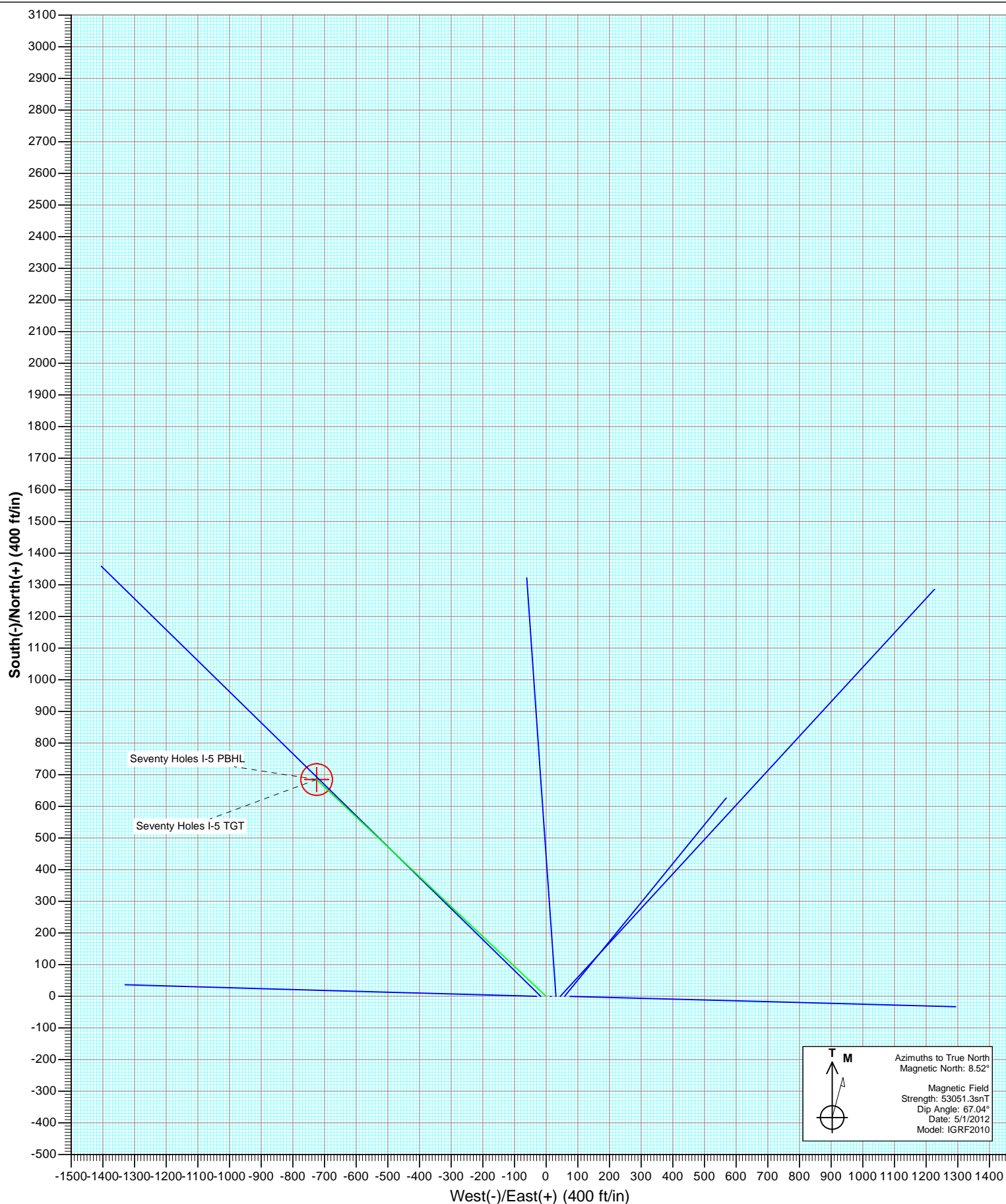


Project: Weld County
Site: Seventy Holes 24-5 Pad
Well: Seventy Holes I-5
Wellbore: OH
Plan: Plan #1



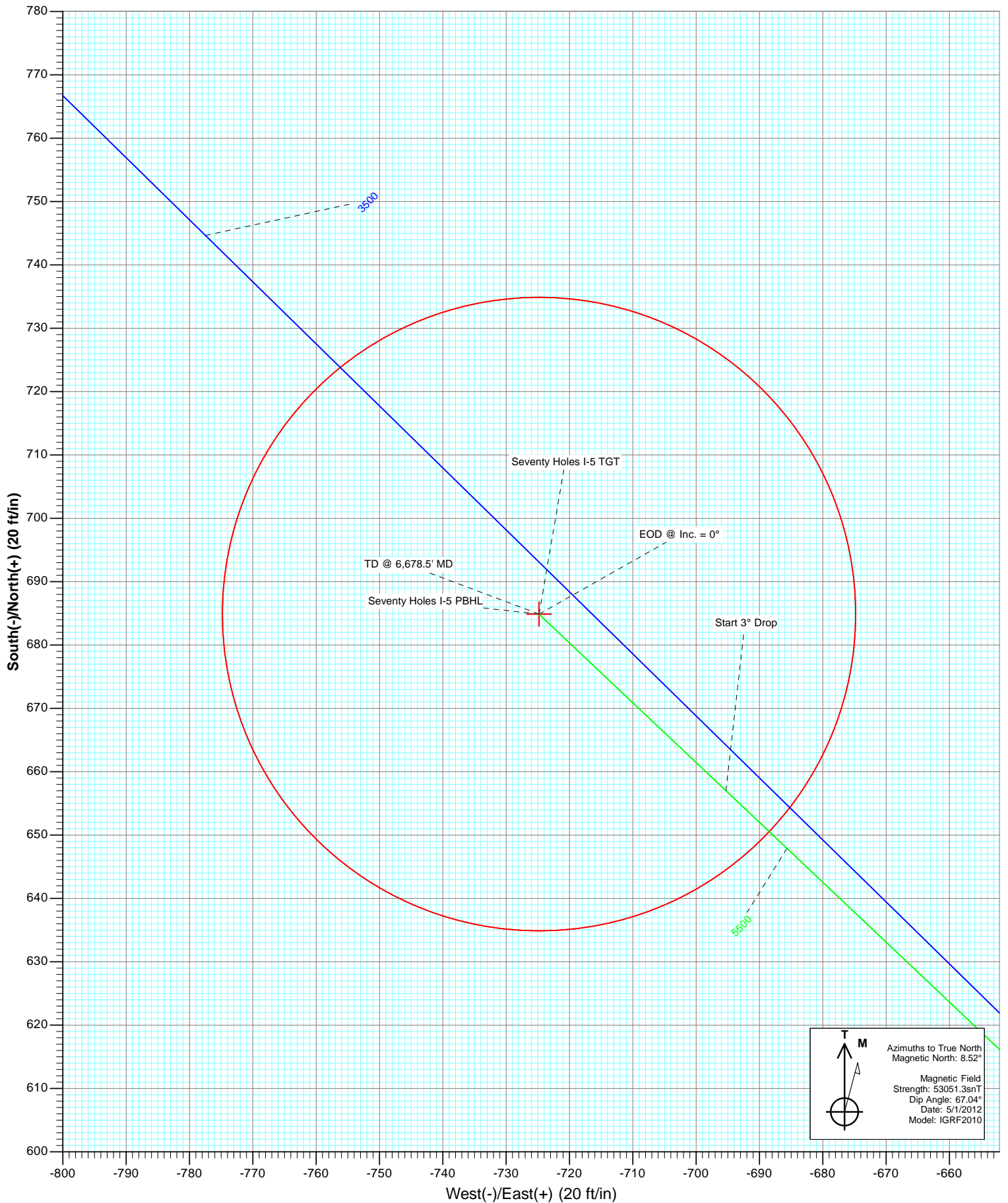


Project: Weld County
Site: Seventy Holes 24-5 Pad
Well: Seventy Holes I-5
Wellbore: OH
Plan: Plan #1





Project: Weld County
Site: Seventy Holes 24-5 Pad
Well: Seventy Holes I-5
Wellbore: OH
Plan: Plan #1



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Seventy Holes I-5
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4555.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4555.0ft (Original Well Elev)
Site:	Seventy Holes 24-5 Pad	North Reference:	True
Well:	Seventy Holes I-5	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		Seventy Holes 24-5 Pad			
Site Position:		Northing:	1,367,320.25 ft	Latitude:	40.336000
From:	Lat/Long	Easting:	3,320,060.09 ft	Longitude:	-104.351890
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.74 °

Well	Seventy Holes I-5					
Well Position	+N/-S	0.0 ft	Northing:	1,367,320.45 ft	Latitude:	40.336000
	+E/-W	0.0 ft	Easting:	3,320,076.82 ft	Longitude:	-104.351830
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	5/1/2012	8.52	67.04	53,051

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	313.38

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	
1,194.5	11.83	313.38	1,191.7	27.9	-29.5	3.00	3.00	0.00	313.38	
5,661.1	11.83	313.38	5,563.3	657.0	-695.3	0.00	0.00	0.00	0.00	
6,055.5	0.00	0.00	5,955.0	684.9	-724.8	3.00	-3.00	0.00	180.00	Seventy Holes I-5 TG
6,678.5	0.00	0.00	6,578.0	684.9	-724.8	0.00	0.00	0.00	0.00	Seventy Holes I-5 PB

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Seventy Holes I-5
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4555.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4555.0ft (Original Well Elev)
Site:	Seventy Holes 24-5 Pad	North Reference:	True
Well:	Seventy Holes I-5	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	313.38	900.0	1.8	-1.9	2.6	3.00	3.00	
1,000.0	6.00	313.38	999.6	7.2	-7.6	10.5	3.00	3.00	
1,100.0	9.00	313.38	1,098.8	16.1	-17.1	23.5	3.00	3.00	
1,194.5	11.83	313.38	1,191.7	27.9	-29.5	40.6	3.00	3.00	EOB @ Inc. = 11.83°
1,200.0	11.83	313.38	1,197.1	28.7	-30.3	41.7	0.00	0.00	
1,300.0	11.83	313.38	1,295.0	42.7	-45.2	62.2	0.00	0.00	
1,400.0	11.83	313.38	1,392.8	56.8	-60.1	82.7	0.00	0.00	
1,500.0	11.83	313.38	1,490.7	70.9	-75.0	103.3	0.00	0.00	
1,600.0	11.83	313.38	1,588.6	85.0	-90.0	123.8	0.00	0.00	
1,700.0	11.83	313.38	1,686.5	99.1	-104.9	144.3	0.00	0.00	
1,800.0	11.83	313.38	1,784.3	113.2	-119.8	164.8	0.00	0.00	
1,900.0	11.83	313.38	1,882.2	127.3	-134.7	185.3	0.00	0.00	
2,000.0	11.83	313.38	1,980.1	141.3	-149.6	205.8	0.00	0.00	
2,100.0	11.83	313.38	2,078.0	155.4	-164.5	226.3	0.00	0.00	
2,200.0	11.83	313.38	2,175.8	169.5	-179.4	246.8	0.00	0.00	
2,300.0	11.83	313.38	2,273.7	183.6	-194.3	267.3	0.00	0.00	
2,400.0	11.83	313.38	2,371.6	197.7	-209.2	287.8	0.00	0.00	
2,500.0	11.83	313.38	2,469.5	211.8	-224.1	308.3	0.00	0.00	
2,600.0	11.83	313.38	2,567.3	225.9	-239.0	328.8	0.00	0.00	
2,700.0	11.83	313.38	2,665.2	239.9	-253.9	349.3	0.00	0.00	
2,800.0	11.83	313.38	2,763.1	254.0	-268.8	369.9	0.00	0.00	
2,900.0	11.83	313.38	2,861.0	268.1	-283.7	390.4	0.00	0.00	
3,000.0	11.83	313.38	2,958.8	282.2	-298.6	410.9	0.00	0.00	
3,100.0	11.83	313.38	3,056.7	296.3	-313.5	431.4	0.00	0.00	
3,200.0	11.83	313.38	3,154.6	310.4	-328.4	451.9	0.00	0.00	
3,297.5	11.83	313.38	3,250.0	324.1	-343.0	471.9	0.00	0.00	Parkman
3,300.0	11.83	313.38	3,252.4	324.4	-343.4	472.4	0.00	0.00	
3,400.0	11.83	313.38	3,350.3	338.5	-358.3	492.9	0.00	0.00	
3,500.0	11.83	313.38	3,448.2	352.6	-373.2	513.4	0.00	0.00	
3,600.0	11.83	313.38	3,546.1	366.7	-388.1	533.9	0.00	0.00	
3,700.0	11.83	313.38	3,643.9	380.8	-403.0	554.4	0.00	0.00	
3,800.0	11.83	313.38	3,741.8	394.9	-417.9	574.9	0.00	0.00	
3,900.0	11.83	313.38	3,839.7	409.0	-432.8	595.4	0.00	0.00	
3,961.6	11.83	313.38	3,900.0	417.6	-442.0	608.1	0.00	0.00	Sussex
4,000.0	11.83	313.38	3,937.6	423.0	-447.7	616.0	0.00	0.00	
4,100.0	11.83	313.38	4,035.4	437.1	-462.6	636.5	0.00	0.00	
4,200.0	11.83	313.38	4,133.3	451.2	-477.5	657.0	0.00	0.00	
4,300.0	11.83	313.38	4,231.2	465.3	-492.4	677.5	0.00	0.00	
4,400.0	11.83	313.38	4,329.1	479.4	-507.3	698.0	0.00	0.00	
4,500.0	11.83	313.38	4,426.9	493.5	-522.2	718.5	0.00	0.00	
4,600.0	11.83	313.38	4,524.8	507.6	-537.1	739.0	0.00	0.00	
4,700.0	11.83	313.38	4,622.7	521.6	-552.0	759.5	0.00	0.00	
4,800.0	11.83	313.38	4,720.6	535.7	-566.9	780.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Seventy Holes I-5
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4555.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4555.0ft (Original Well Elev)
Site:	Seventy Holes 24-5 Pad	North Reference:	True
Well:	Seventy Holes I-5	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	11.83	313.38	4,818.4	549.8	-581.8	800.5	0.00	0.00	
5,000.0	11.83	313.38	4,916.3	563.9	-596.8	821.0	0.00	0.00	
5,100.0	11.83	313.38	5,014.2	578.0	-611.7	841.5	0.00	0.00	
5,200.0	11.83	313.38	5,112.1	592.1	-626.6	862.0	0.00	0.00	
5,300.0	11.83	313.38	5,209.9	606.2	-641.5	882.6	0.00	0.00	
5,400.0	11.83	313.38	5,307.8	620.2	-656.4	903.1	0.00	0.00	
5,500.0	11.83	313.38	5,405.7	634.3	-671.3	923.6	0.00	0.00	
5,600.0	11.83	313.38	5,503.6	648.4	-686.2	944.1	0.00	0.00	
5,661.1	11.83	313.38	5,563.3	657.0	-695.3	956.6	0.00	0.00	Start 3° Drop
5,700.0	10.67	313.38	5,601.5	662.2	-700.8	964.2	3.00	-3.00	
5,800.0	7.67	313.38	5,700.2	673.2	-712.4	980.1	3.00	-3.00	
5,900.0	4.67	313.38	5,799.6	680.5	-720.2	990.9	3.00	-3.00	
6,000.0	1.67	313.38	5,899.5	684.3	-724.2	996.4	3.00	-3.00	
6,055.5	0.00	0.00	5,955.0	684.9	-724.8	997.2	3.00	-3.00	EOD @ Inc. = 0°
6,100.0	0.00	0.00	5,999.5	684.9	-724.8	997.2	0.00	0.00	
6,200.0	0.00	0.00	6,099.5	684.9	-724.8	997.2	0.00	0.00	
6,255.5	0.00	0.00	6,155.0	684.9	-724.8	997.2	0.00	0.00	Niobrara
6,300.0	0.00	0.00	6,199.5	684.9	-724.8	997.2	0.00	0.00	
6,400.0	0.00	0.00	6,299.5	684.9	-724.8	997.2	0.00	0.00	
6,495.5	0.00	0.00	6,395.0	684.9	-724.8	997.2	0.00	0.00	Ft. Hayes
6,500.0	0.00	0.00	6,399.5	684.9	-724.8	997.2	0.00	0.00	
6,518.5	0.00	0.00	6,418.0	684.9	-724.8	997.2	0.00	0.00	Codell
6,519.5	0.00	0.00	6,419.0	684.9	-724.8	997.2	0.00	0.00	Carlile
6,564.5	0.00	0.00	6,464.0	684.9	-724.8	997.2	0.00	0.00	Greenhorn
6,600.0	0.00	0.00	6,499.5	684.9	-724.8	997.2	0.00	0.00	
6,678.5	0.00	0.00	6,578.0	684.9	-724.8	997.2	0.00	0.00	TD @ 6,678.5' 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									
Seventy Holes I-5 PBHL	0.00	0.00	6,578.0	684.9	-724.8	1,367,995.90	3,319,343.22	40.337880	-104.354430
- plan hits target center									
- Circle (radius 50.0)									
Seventy Holes I-5 TGT	0.00	0.00	5,955.0	684.9	-724.8	1,367,995.90	3,319,343.22	40.337880	-104.354430
- plan hits target center									
- Point									

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Seventy Holes I-5
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4555.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4555.0ft (Original Well Elev)
Site:	Seventy Holes 24-5 Pad	North Reference:	True
Well:	Seventy Holes I-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,297.5	3,250.0	Parkman				
3,961.6	3,900.0	Sussex				
6,255.5	6,155.0	Niobrara				
6,495.5	6,395.0	Ft. Hayes				
6,518.5	6,418.0	Codell				
6,519.5	6,419.0	Carlile				
6,564.5	6,464.0	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'	
1,194.5	1,191.7	27.9	-29.5	EOB @ Inc. = 11.83°	
5,661.1	5,563.3	657.0	-695.3	Start 3° Drop	
6,055.5	5,955.0	684.9	-724.8	EOD @ Inc. = 0°	
6,678.5	6,578.0	684.9	-724.8	TD @ 6,678.5' MD	

Bonanza Creek Energy Operating Company, LLC

Weld County

Seventy Holes 24-5 Pad

Seventy Holes I-5

OH

Plan #1

Anticollision Report

01 May, 2012

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Seventy Holes I-5
Project:	Weld County	TVD Reference:	KBE @ 4555.0ft (Original Well Elev)
Reference Site:	Seventy Holes 24-5 Pad	MD Reference:	KBE @ 4555.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Seventy Holes I-5	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	5/1/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	6,678.5	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						
Seventy Holes 24-5 Pad						
Seventy Holes 13-5 - OH - Plan #1	0.0	0.0	16.7			
Seventy Holes 13-5 - OH - Plan #1	600.0	600.0	16.7	16.7	10,000.000	CC, ES
Seventy Holes 14-5 - OH - Plan #1	0.0	5.0	30.7			
Seventy Holes 14-5 - OH - Plan #1	764.9	769.9	30.7	30.7	10,000.000	CC, ES
Seventy Holes 23-5 - OH - Plan #1	0.0	0.0	30.7			
Seventy Holes 23-5 - OH - Plan #1	800.0	800.0	30.7	30.7	10,000.000	CC, ES
Seventy Holes 24-5 (vert) - OH - Plan #1	0.0	15.0	13.9			
Seventy Holes 24-5 (vert) - OH - Plan #1	800.0	815.0	13.9	13.9	10,000.000	CC, ES
Seventy Holes 33-5 - OH - Plan #1	0.0	0.0	44.6			
Seventy Holes 33-5 - OH - Plan #1	800.0	800.0	44.6	44.6	10,000.000	CC, ES
Seventy Holes 34-5 - OH - Plan #1	0.0	0.0	75.3			
Seventy Holes 34-5 - OH - Plan #1	800.0	800.0	75.3	75.3	10,000.000	CC, ES
Seventy Holes N-5 - OH - Plan #1	0.0	15.0	58.5			
Seventy Holes N-5 - OH - Plan #1	800.0	815.0	58.5	58.5	10,000.000	CC, ES

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Seventy Holes I-5
Project:	Weld County	TVD Reference:	KBE @ 4555.0ft (Original Well Elev)
Reference Site:	Seventy Holes 24-5 Pad	MD Reference:	KBE @ 4555.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Seventy Holes I-5	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												Seventy Holes 24-5 Pad - Seventy Holes 13-5 - 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	-90.03	0.0	-16.7	16.7						
100.0	100.0	100.0	100.0	0.2	0.2	-90.03	0.0	-16.7	16.7	16.7	0.00	N/A			
200.0	200.0	200.0	200.0	0.3	0.3	-90.03	0.0	-16.7	16.7	16.7	0.00	N/A			
300.0	300.0	300.0	300.0	0.5	0.5	-90.03	0.0	-16.7	16.7	16.7	0.00	N/A			
400.0	400.0	400.0	400.0	0.7	0.7	-90.03	0.0	-16.7	16.7	16.7	0.00	N/A			
500.0	500.0	500.0	500.0	0.9	0.9	-90.03	0.0	-16.7	16.7	16.7	0.00	N/A			
600.0	600.0	600.0	600.0	1.0	1.0	-90.03	0.0	-16.7	16.7	16.7	0.00	N/A CC, ES			
700.0	700.0	699.3	699.2	1.2	1.2	-84.47	1.8	-18.6	18.7	18.7	0.00	N/A			
800.0	800.0	798.0	797.7	1.4	1.4	-73.41	7.2	-24.1	25.2	25.2	0.00	N/A			
900.0	900.0	896.1	894.9	1.6	1.6	-18.76	16.0	-33.1	34.6	34.6	0.00	N/A			
1,000.0	999.6	993.7	990.9	1.7	1.9	-14.14	28.3	-45.6	44.3	44.3	0.00	N/A			
1,100.0	1,098.8	1,090.7	1,085.3	2.0	2.3	-11.13	43.8	-61.5	54.1	54.1	0.00	N/A			
1,200.0	1,197.1	1,187.3	1,178.1	2.3	2.8	-9.00	62.7	-80.7	63.7	63.7	0.00	N/A			
1,300.0	1,295.0	1,283.1	1,268.6	2.6	3.3	-7.15	84.5	-103.1	76.1	76.1	0.00	N/A			
1,400.0	1,392.8	1,377.9	1,356.6	2.9	3.9	-5.47	109.3	-128.4	93.4	93.4	0.00	N/A			
1,500.0	1,490.7	1,476.1	1,447.0	3.3	4.6	-4.19	136.1	-155.7	112.5	112.5	0.00	N/A			
1,600.0	1,588.6	1,574.2	1,537.3	3.6	5.3	-3.28	162.8	-183.1	131.8	131.8	0.00	N/A			
1,700.0	1,686.5	1,672.3	1,627.6	4.0	6.0	-2.60	189.6	-210.4	151.0	151.0	0.00	N/A			
1,800.0	1,784.3	1,770.4	1,718.0	4.4	6.6	-2.07	216.4	-237.8	170.3	170.3	0.00	N/A			
1,900.0	1,882.2	1,868.5	1,808.3	4.8	7.3	-1.65	243.2	-265.2	189.5	189.5	0.00	N/A			
2,000.0	1,980.1	1,966.6	1,898.7	5.2	8.0	-1.31	270.0	-292.5	208.8	208.8	0.00	N/A			
2,100.0	2,078.0	2,064.8	1,989.0	5.5	8.7	-1.03	296.7	-319.9	228.1	228.1	0.00	N/A			
2,200.0	2,175.8	2,162.9	2,079.3	5.9	9.4	-0.79	323.5	-347.2	247.4	247.4	0.00	N/A			
2,300.0	2,273.7	2,261.0	2,169.7	6.3	10.1	-0.59	350.3	-374.6	266.7	266.7	0.00	N/A			
2,400.0	2,371.6	2,359.1	2,260.0	6.7	10.9	-0.41	377.1	-402.0	286.0	286.0	0.00	N/A			
2,500.0	2,469.5	2,457.2	2,350.4	7.1	11.6	-0.25	403.9	-429.3	305.3	305.3	0.00	N/A			
2,600.0	2,567.3	2,555.4	2,440.7	7.5	12.3	-0.12	430.6	-456.7	324.6	324.6	0.00	N/A			
2,700.0	2,665.2	2,653.5	2,531.0	7.9	13.0	0.00	457.4	-484.0	343.9	343.9	0.00	N/A			
2,800.0	2,763.1	2,751.6	2,621.4	8.3	13.7	0.11	484.2	-511.4	363.2	363.2	0.00	N/A			
2,900.0	2,861.0	2,849.7	2,711.7	8.7	14.4	0.21	511.0	-538.7	382.5	382.5	0.00	N/A			
3,000.0	2,958.8	2,947.8	2,802.1	9.1	15.1	0.30	537.8	-566.1	401.8	401.8	0.00	N/A			
3,100.0	3,056.7	3,045.9	2,892.4	9.5	15.8	0.38	564.5	-593.5	421.1	421.1	0.00	N/A			
3,200.0	3,154.6	3,144.1	2,982.8	9.9	16.5	0.45	591.3	-620.8	440.4	440.4	0.00	N/A			
3,300.0	3,252.4	3,242.2	3,073.1	10.3	17.2	0.52	618.1	-648.2	459.7	459.7	0.00	N/A			
3,400.0	3,350.3	3,340.3	3,163.4	10.7	18.0	0.58	644.9	-675.5	479.0	479.0	0.00	N/A			
3,500.0	3,448.2	3,438.4	3,253.8	11.1	18.7	0.64	671.7	-702.9	498.3	498.3	0.00	N/A			

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Seventy Holes I-5
Project:	Weld County	TVD Reference:	KBE @ 4555.0ft (Original Well Elev)
Reference Site:	Seventy Holes 24-5 Pad	MD Reference:	KBE @ 4555.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Seventy Holes I-5	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												Seventy Holes 24-5 Pad - Seventy Holes 14-5 - 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	5.0	5.0	0.0	0.0	-90.06	0.0	-30.7	30.7						
100.0	100.0	105.0	105.0	0.2	0.2	-90.06	0.0	-30.7	30.7	30.7	0.00	N/A			
200.0	200.0	205.0	205.0	0.3	0.3	-90.06	0.0	-30.7	30.7	30.7	0.00	N/A			
300.0	300.0	305.0	305.0	0.5	0.5	-90.06	0.0	-30.7	30.7	30.7	0.00	N/A			
400.0	400.0	405.0	405.0	0.7	0.7	-90.06	0.0	-30.7	30.7	30.7	0.00	N/A			
500.0	500.0	505.0	505.0	0.9	0.9	-90.06	0.0	-30.7	30.7	30.7	0.00	N/A			
600.0	600.0	605.0	605.0	1.0	1.0	-90.06	0.0	-30.7	30.7	30.7	0.00	N/A			
700.0	700.0	705.0	705.0	1.2	1.2	-90.06	0.0	-30.7	30.7	30.7	0.00	N/A			
764.9	764.9	769.9	769.9	1.3	1.3	-90.06	0.0	-30.7	30.7	30.7	0.00	N/A CC, ES			
800.0	800.0	804.9	804.9	1.4	1.4	-90.06	0.0	-30.7	30.7	30.7	0.00	N/A			
900.0	900.0	903.3	903.2	1.6	1.6	-46.48	0.0	-33.5	31.6	31.6	0.00	N/A			
1,000.0	999.6	1,001.5	1,001.1	1.7	1.8	-54.64	0.3	-41.3	34.6	34.6	0.00	N/A			
1,100.0	1,098.8	1,100.0	1,098.8	2.0	2.0	-65.34	0.6	-54.2	40.5	40.5	0.00	N/A			
1,200.0	1,197.1	1,196.4	1,193.6	2.3	2.3	-75.38	1.1	-71.6	50.4	50.4	0.00	N/A			
1,300.0	1,295.0	1,292.9	1,287.4	2.6	2.6	-81.35	1.7	-93.9	64.8	64.8	0.00	N/A			
1,400.0	1,392.8	1,390.5	1,381.5	2.9	3.0	-83.35	2.5	-120.0	82.5	82.5	0.00	N/A			
1,500.0	1,490.7	1,488.9	1,476.2	3.3	3.5	-84.57	3.2	-146.5	100.4	100.4	0.00	N/A			
1,600.0	1,588.6	1,587.3	1,571.0	3.6	3.9	-85.43	4.0	-173.0	118.2	118.2	0.00	N/A			
1,700.0	1,686.5	1,685.6	1,665.7	4.0	4.4	-86.05	4.7	-199.6	136.2	136.2	0.00	N/A			
1,800.0	1,784.3	1,784.0	1,760.4	4.4	4.9	-86.54	5.5	-226.1	154.1	154.1	0.00	N/A			
1,900.0	1,882.2	1,882.4	1,855.1	4.8	5.3	-86.92	6.2	-252.6	172.0	172.0	0.00	N/A			
2,000.0	1,980.1	1,980.8	1,949.9	5.2	5.8	-87.23	6.9	-279.1	190.0	190.0	0.00	N/A			
2,100.0	2,078.0	2,079.1	2,044.6	5.5	6.3	-87.48	7.7	-305.6	207.9	207.9	0.00	N/A			
2,200.0	2,175.8	2,177.5	2,139.3	5.9	6.8	-87.70	8.4	-332.2	225.8	225.8	0.00	N/A			
2,300.0	2,273.7	2,275.9	2,234.1	6.3	7.3	-87.88	9.2	-358.7	243.8	243.8	0.00	N/A			
2,400.0	2,371.6	2,374.2	2,328.8	6.7	7.8	-88.04	9.9	-385.2	261.8	261.8	0.00	N/A			
2,500.0	2,469.5	2,472.6	2,423.5	7.1	8.3	-88.18	10.7	-411.7	279.7	279.7	0.00	N/A			
2,600.0	2,567.3	2,571.0	2,518.2	7.5	8.8	-88.30	11.4	-438.2	297.7	297.7	0.00	N/A			
2,700.0	2,665.2	2,669.4	2,613.0	7.9	9.3	-88.41	12.2	-464.8	315.6	315.6	0.00	N/A			
2,800.0	2,763.1	2,767.7	2,707.7	8.3	9.8	-88.51	12.9	-491.3	333.6	333.6	0.00	N/A			
2,900.0	2,861.0	2,866.1	2,802.4	8.7	10.3	-88.59	13.7	-517.8	351.5	351.5	0.00	N/A			
3,000.0	2,958.8	2,964.5	2,897.1	9.1	10.8	-88.67	14.4	-544.3	369.5	369.5	0.00	N/A			
3,100.0	3,056.7	3,062.9	2,991.9	9.5	11.3	-88.74	15.1	-570.8	387.4	387.4	0.00	N/A			
3,200.0	3,154.6	3,161.2	3,086.6	9.9	11.8	-88.80	15.9	-597.4	405.4	405.4	0.00	N/A			
3,300.0	3,252.4	3,259.6	3,181.3	10.3	12.3	-88.86	16.6	-623.9	423.4	423.4	0.00	N/A			
3,400.0	3,350.3	3,358.0	3,276.1	10.7	12.8	-88.92	17.4	-650.4	441.3	441.3	0.00	N/A			
3,500.0	3,448.2	3,456.3	3,370.8	11.1	13.3	-88.97	18.1	-676.9	459.3	459.3	0.00	N/A			
3,600.0	3,546.1	3,554.7	3,465.5	11.5	13.8	-89.01	18.9	-703.4	477.3	477.3	0.00	N/A			
3,700.0	3,643.9	3,653.1	3,560.2	11.9	14.3	-89.06	19.6	-730.0	495.2	495.2	0.00	N/A			

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Seventy Holes I-5
Project:	Weld County	TVD Reference:	KBE @ 4555.0ft (Original Well Elev)
Reference Site:	Seventy Holes 24-5 Pad	MD Reference:	KBE @ 4555.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Seventy Holes I-5	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													Offset Site Error:	0.0 ft
Seventy Holes 24-5 Pad - Seventy Holes 23-5 - OH - Plan #1													Offset Well Error:	0.0 ft
Survey Program: 0-MWD														
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	90.08	0.0	30.7	30.7					
100.0	100.0	100.0	100.0	0.2	0.2	90.08	0.0	30.7	30.7	30.7	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	90.08	0.0	30.7	30.7	30.7	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	90.08	0.0	30.7	30.7	30.7	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	90.08	0.0	30.7	30.7	30.7	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	90.08	0.0	30.7	30.7	30.7	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	90.08	0.0	30.7	30.7	30.7	0.00	N/A		
700.0	700.0	700.0	700.0	1.2	1.2	90.08	0.0	30.7	30.7	30.7	0.00	N/A		
800.0	800.0	800.0	800.0	1.4	1.4	90.08	0.0	30.7	30.7	30.7	0.00	N/A CC, ES		
900.0	900.0	900.1	900.0	1.6	1.6	135.21	2.6	30.5	32.4	32.4	0.00	N/A		
1,000.0	999.6	999.9	999.6	1.7	1.7	131.58	10.4	29.9	37.7	37.7	0.00	N/A		
1,100.0	1,098.8	1,099.4	1,098.1	2.0	2.0	127.35	23.3	29.0	46.7	46.7	0.00	N/A		
1,200.0	1,197.1	1,198.2	1,195.3	2.3	2.3	123.56	41.2	27.8	59.5	59.5	0.00	N/A		
1,300.0	1,295.0	1,296.2	1,290.7	2.6	2.6	118.99	63.9	26.2	74.6	74.6	0.00	N/A		
1,400.0	1,392.8	1,394.1	1,384.9	2.9	3.0	113.47	90.5	24.4	91.3	91.3	0.00	N/A		
1,500.0	1,490.7	1,492.4	1,479.3	3.3	3.5	109.46	117.6	22.5	108.7	108.7	0.00	N/A		
1,600.0	1,588.6	1,590.6	1,573.7	3.6	3.9	106.56	144.7	20.6	126.5	126.5	0.00	N/A		
1,700.0	1,686.5	1,688.8	1,668.1	4.0	4.4	104.38	171.7	18.7	144.5	144.5	0.00	N/A		
1,800.0	1,784.3	1,787.1	1,762.5	4.4	4.8	102.69	198.8	16.8	162.7	162.7	0.00	N/A		
1,900.0	1,882.2	1,885.3	1,856.9	4.8	5.3	101.33	225.9	14.9	181.0	181.0	0.00	N/A		
2,000.0	1,980.1	1,983.5	1,951.3	5.2	5.8	100.22	252.9	13.1	199.3	199.3	0.00	N/A		
2,100.0	2,078.0	2,081.8	2,045.7	5.5	6.3	99.30	280.0	11.2	217.8	217.8	0.00	N/A		
2,200.0	2,175.8	2,180.0	2,140.1	5.9	6.8	98.53	307.1	9.3	236.2	236.2	0.00	N/A		
2,300.0	2,273.7	2,278.2	2,234.6	6.3	7.3	97.86	334.2	7.4	254.7	254.7	0.00	N/A		
2,400.0	2,371.6	2,376.5	2,329.0	6.7	7.7	97.29	361.2	5.5	273.3	273.3	0.00	N/A		
2,500.0	2,469.5	2,474.7	2,423.4	7.1	8.2	96.79	388.3	3.7	291.8	291.8	0.00	N/A		
2,600.0	2,567.3	2,572.9	2,517.8	7.5	8.7	96.35	415.4	1.8	310.4	310.4	0.00	N/A		
2,700.0	2,665.2	2,671.2	2,612.2	7.9	9.2	95.96	442.4	-0.1	329.0	329.0	0.00	N/A		
2,800.0	2,763.1	2,769.4	2,706.6	8.3	9.7	95.61	469.5	-2.0	347.6	347.6	0.00	N/A		
2,900.0	2,861.0	2,867.6	2,801.0	8.7	10.2	95.29	496.6	-3.9	366.2	366.2	0.00	N/A		
3,000.0	2,958.8	2,965.9	2,895.4	9.1	10.7	95.01	523.7	-5.8	384.8	384.8	0.00	N/A		
3,100.0	3,056.7	3,064.1	2,989.8	9.5	11.2	94.75	550.7	-7.6	403.5	403.5	0.00	N/A		
3,200.0	3,154.6	3,162.3	3,084.2	9.9	11.7	94.52	577.8	-9.5	422.1	422.1	0.00	N/A		
3,300.0	3,252.4	3,260.6	3,178.7	10.3	12.2	94.30	604.9	-11.4	440.8	440.8	0.00	N/A		
3,400.0	3,350.3	3,358.8	3,273.1	10.7	12.7	94.11	631.9	-13.3	459.4	459.4	0.00	N/A		
3,500.0	3,448.2	3,457.0	3,367.5	11.1	13.2	93.92	659.0	-15.2	478.1	478.1	0.00	N/A		
3,600.0	3,546.1	3,555.3	3,461.9	11.5	13.7	93.76	686.1	-17.1	496.7	496.7	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Seventy Holes I-5
Project:	Weld County	TVD Reference:	KBE @ 4555.0ft (Original Well Elev)
Reference Site:	Seventy Holes 24-5 Pad	MD Reference:	KBE @ 4555.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Seventy Holes I-5	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														Offset Site Error:	0.0 ft
Seventy Holes 24-5 Pad - Seventy Holes 24-5 (vert) - OH - Plan #1														Offset Well Error:	0.0 ft
Survey Program: 0-MWD															
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	15.0	15.0	0.0	0.0	90.20	0.0	13.9	13.9						
100.0	100.0	115.0	115.0	0.2	0.2	90.20	0.0	13.9	13.9	13.9	0.00	N/A			
200.0	200.0	215.0	215.0	0.3	0.4	90.20	0.0	13.9	13.9	13.9	0.00	N/A			
300.0	300.0	315.0	315.0	0.5	0.5	90.20	0.0	13.9	13.9	13.9	0.00	N/A			
400.0	400.0	415.0	415.0	0.7	0.7	90.20	0.0	13.9	13.9	13.9	0.00	N/A			
500.0	500.0	515.0	515.0	0.9	0.9	90.20	0.0	13.9	13.9	13.9	0.00	N/A			
600.0	600.0	615.0	615.0	1.0	1.1	90.20	0.0	13.9	13.9	13.9	0.00	N/A			
700.0	700.0	715.0	715.0	1.2	1.2	90.20	0.0	13.9	13.9	13.9	0.00	N/A			
800.0	800.0	815.0	815.0	1.4	1.4	90.20	0.0	13.9	13.9	13.9	0.00	N/A CC, ES			
900.0	900.0	915.0	915.0	1.6	1.6	143.23	0.0	13.9	15.9	15.9	0.00	N/A			
1,000.0	999.6	1,014.6	1,014.6	1.7	1.8	155.07	0.0	13.9	22.7	22.7	0.00	N/A			
1,100.0	1,098.8	1,113.8	1,113.8	2.0	1.9	164.00	0.0	13.9	35.0	35.0	0.00	N/A			
1,200.0	1,197.1	1,212.1	1,212.1	2.3	2.1	169.36	0.0	13.9	52.8	52.8	0.00	N/A			
1,300.0	1,295.0	1,310.0	1,310.0	2.6	2.3	172.33	0.0	13.9	73.0	73.0	0.00	N/A			
1,400.0	1,392.8	1,407.8	1,407.8	2.9	2.4	174.01	0.0	13.9	93.4	93.4	0.00	N/A			
1,500.0	1,490.7	1,505.7	1,505.7	3.3	2.6	175.09	0.0	13.9	113.8	113.8	0.00	N/A			
1,600.0	1,588.6	1,603.6	1,603.6	3.6	2.8	175.84	0.0	13.9	134.3	134.3	0.00	N/A			
1,700.0	1,686.5	1,701.5	1,701.5	4.0	3.0	176.39	0.0	13.9	154.7	154.7	0.00	N/A			
1,800.0	1,784.3	1,799.3	1,799.3	4.4	3.1	176.81	0.0	13.9	175.2	175.2	0.00	N/A			
1,900.0	1,882.2	1,897.2	1,897.2	4.8	3.3	177.15	0.0	13.9	195.7	195.7	0.00	N/A			
2,000.0	1,980.1	1,995.1	1,995.1	5.2	3.5	177.42	0.0	13.9	216.2	216.2	0.00	N/A			
2,100.0	2,078.0	2,093.0	2,093.0	5.5	3.6	177.64	0.0	13.9	236.7	236.7	0.00	N/A			
2,200.0	2,175.8	2,190.8	2,190.8	5.9	3.8	177.83	0.0	13.9	257.1	257.1	0.00	N/A			
2,300.0	2,273.7	2,288.7	2,288.7	6.3	4.0	177.99	0.0	13.9	277.6	277.6	0.00	N/A			
2,400.0	2,371.6	2,386.6	2,386.6	6.7	4.1	178.13	0.0	13.9	298.1	298.1	0.00	N/A			
2,500.0	2,469.5	2,484.5	2,484.5	7.1	4.3	178.25	0.0	13.9	318.6	318.6	0.00	N/A			
2,600.0	2,567.3	2,582.3	2,582.3	7.5	4.5	178.35	0.0	13.9	339.1	339.1	0.00	N/A			
2,700.0	2,665.2	2,680.2	2,680.2	7.9	4.7	178.45	0.0	13.9	359.6	359.6	0.00	N/A			
2,800.0	2,763.1	2,778.1	2,778.1	8.3	4.8	178.53	0.0	13.9	380.1	380.1	0.00	N/A			
2,900.0	2,861.0	2,876.0	2,876.0	8.7	5.0	178.61	0.0	13.9	400.6	400.6	0.00	N/A			
3,000.0	2,958.8	2,973.8	2,973.8	9.1	5.2	178.67	0.0	13.9	421.1	421.1	0.00	N/A			
3,100.0	3,056.7	3,071.7	3,071.7	9.5	5.3	178.74	0.0	13.9	441.6	441.6	0.00	N/A			
3,200.0	3,154.6	3,169.6	3,169.6	9.9	5.5	178.79	0.0	13.9	462.2	462.2	0.00	N/A			
3,300.0	3,252.4	3,267.4	3,267.4	10.3	5.7	178.84	0.0	13.9	482.7	482.7	0.00	N/A			

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Seventy Holes I-5
Project:	Weld County	TVD Reference:	KBE @ 4555.0ft (Original Well Elev)
Reference Site:	Seventy Holes 24-5 Pad	MD Reference:	KBE @ 4555.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Seventy Holes I-5	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		Seventy Holes 24-5 Pad - Seventy Holes 33-5 - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning				
(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	90.02	0.0	44.6	44.6								
100.0	100.0	100.0	100.0	0.2	0.2	90.02	0.0	44.6	44.6	44.6	0.00	N/A					
200.0	200.0	200.0	200.0	0.3	0.3	90.02	0.0	44.6	44.6	44.6	0.00	N/A					
300.0	300.0	300.0	300.0	0.5	0.5	90.02	0.0	44.6	44.6	44.6	0.00	N/A					
400.0	400.0	400.0	400.0	0.7	0.7	90.02	0.0	44.6	44.6	44.6	0.00	N/A					
500.0	500.0	500.0	500.0	0.9	0.9	90.02	0.0	44.6	44.6	44.6	0.00	N/A					
600.0	600.0	600.0	600.0	1.0	1.0	90.02	0.0	44.6	44.6	44.6	0.00	N/A					
700.0	700.0	700.0	700.0	1.2	1.2	90.02	0.0	44.6	44.6	44.6	0.00	N/A					
800.0	800.0	800.0	800.0	1.4	1.4	90.02	0.0	44.6	44.6	44.6	0.00	N/A CC, ES					
900.0	900.0	898.3	898.3	1.6	1.6	136.45	1.8	46.3	48.2	48.2	0.00	N/A					
1,000.0	999.6	995.9	995.5	1.7	1.7	135.99	7.4	51.4	59.1	59.1	0.00	N/A					
1,100.0	1,098.8	1,091.9	1,090.7	2.0	2.0	135.44	16.4	59.7	77.2	77.2	0.00	N/A					
1,200.0	1,197.1	1,185.7	1,183.1	2.3	2.2	134.90	28.6	70.9	102.2	102.2	0.00	N/A					
1,300.0	1,295.0	1,277.3	1,272.3	2.6	2.6	134.12	43.7	84.8	131.9	131.9	0.00	N/A					
1,400.0	1,392.8	1,366.7	1,358.4	2.9	2.9	132.50	61.4	101.1	164.9	164.9	0.00	N/A					
1,500.0	1,490.7	1,453.7	1,441.0	3.3	3.4	130.58	81.5	119.6	201.1	201.1	0.00	N/A					
1,600.0	1,588.6	1,540.0	1,521.7	3.6	3.9	128.58	104.1	140.3	240.6	240.6	0.00	N/A					
1,700.0	1,686.5	1,631.2	1,606.5	4.0	4.4	126.88	128.7	162.9	281.0	281.0	0.00	N/A					
1,800.0	1,784.3	1,722.3	1,691.3	4.4	5.0	125.62	153.3	185.5	321.7	321.7	0.00	N/A					
1,900.0	1,882.2	1,813.5	1,776.2	4.8	5.6	124.63	177.9	208.1	362.4	362.4	0.00	N/A					
2,000.0	1,980.1	1,904.7	1,861.0	5.2	6.2	123.85	202.5	230.7	403.2	403.2	0.00	N/A					
2,100.0	2,078.0	1,995.8	1,945.8	5.5	6.8	123.21	227.1	253.4	444.1	444.1	0.00	N/A					
2,200.0	2,175.8	2,087.0	2,030.6	5.9	7.4	122.67	251.7	276.0	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 Seventy Holes I-5
Project:	Weld County	TVD Reference:	KBE @ 4555.0ft (Original Well Elev)
Reference Site:	Seventy Holes 24-5 Pad	MD Reference:	KBE @ 4555.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Seventy Holes I-5	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		Seventy Holes 24-5 Pad - Seventy Holes 34-5 - 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	90.02	0.0	75.3	75.3					
100.0	100.0	100.0	100.0	0.2	0.2	90.02	0.0	75.3	75.3	75.3	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	90.02	0.0	75.3	75.3	75.3	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	90.02	0.0	75.3	75.3	75.3	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	90.02	0.0	75.3	75.3	75.3	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	90.02	0.0	75.3	75.3	75.3	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	90.02	0.0	75.3	75.3	75.3	0.00	N/A		
700.0	700.0	700.0	700.0	1.2	1.2	90.02	0.0	75.3	75.3	75.3	0.00	N/A		
800.0	800.0	800.0	800.0	1.4	1.4	90.02	0.0	75.3	75.3	75.3	0.00	N/A CC, ES		
900.0	900.0	896.0	895.9	1.6	1.5	137.84	-0.1	77.7	79.7	79.7	0.00	N/A		
1,000.0	999.6	990.7	990.4	1.7	1.7	140.71	-0.3	84.8	93.1	93.1	0.00	N/A		
1,100.0	1,098.8	1,082.8	1,081.8	2.0	1.9	143.90	-0.6	96.2	115.7	115.7	0.00	N/A		
1,200.0	1,197.1	1,171.4	1,169.1	2.3	2.2	146.63	-1.0	111.3	147.3	147.3	0.00	N/A		
1,300.0	1,295.0	1,256.4	1,252.1	2.6	2.5	148.83	-1.5	129.5	185.3	185.3	0.00	N/A		
1,400.0	1,392.8	1,344.3	1,337.2	2.9	2.8	150.16	-2.1	151.5	226.6	226.6	0.00	N/A		
1,500.0	1,490.7	1,435.2	1,425.1	3.3	3.2	151.10	-2.7	174.4	268.2	268.2	0.00	N/A		
1,600.0	1,588.6	1,526.0	1,513.0	3.6	3.6	151.79	-3.3	197.3	309.9	309.9	0.00	N/A		
1,700.0	1,686.5	1,616.9	1,600.9	4.0	4.0	152.32	-3.9	220.3	351.6	351.6	0.00	N/A		
1,800.0	1,784.3	1,707.7	1,688.8	4.4	4.4	152.74	-4.5	243.2	393.3	393.3	0.00	N/A		
1,900.0	1,882.2	1,798.6	1,776.7	4.8	4.8	153.07	-5.2	266.1	435.1	435.1	0.00	N/A		
2,000.0	1,980.1	1,889.4	1,864.6	5.2	5.2	153.35	-5.8	289.1	476.8	476.8	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Seventy Holes I-5
Project:	Weld County	TVD Reference:	KBE @ 4555.0ft (Original Well Elev)
Reference Site:	Seventy Holes 24-5 Pad	MD Reference:	KBE @ 4555.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Seventy Holes I-5	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												Seventy Holes 24-5 Pad - Seventy Holes N-5 - 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	15.0	15.0	0.0	0.0	90.01	0.0	58.5	58.5								
100.0	100.0	115.0	115.0	0.2	0.2	90.01	0.0	58.5	58.5	58.5	0.00	N/A					
200.0	200.0	215.0	215.0	0.3	0.4	90.01	0.0	58.5	58.5	58.5	0.00	N/A					
300.0	300.0	315.0	315.0	0.5	0.5	90.01	0.0	58.5	58.5	58.5	0.00	N/A					
400.0	400.0	415.0	415.0	0.7	0.7	90.01	0.0	58.5	58.5	58.5	0.00	N/A					
500.0	500.0	515.0	515.0	0.9	0.9	90.01	0.0	58.5	58.5	58.5	0.00	N/A					
600.0	600.0	615.0	615.0	1.0	1.1	90.01	0.0	58.5	58.5	58.5	0.00	N/A					
700.0	700.0	715.0	715.0	1.2	1.2	90.01	0.0	58.5	58.5	58.5	0.00	N/A					
800.0	800.0	815.0	815.0	1.4	1.4	90.01	0.0	58.5	58.5	58.5	0.00	N/A CC, ES					
900.0	900.0	915.0	915.0	1.6	1.6	138.29	0.0	58.5	60.5	60.5	0.00	N/A					
1,000.0	999.6	1,014.4	1,014.4	1.7	1.8	142.62	0.0	58.6	66.6	66.6	0.00	N/A					
1,100.0	1,098.8	1,111.6	1,111.5	2.0	1.9	146.10	2.5	60.6	78.9	78.9	0.00	N/A					
1,200.0	1,197.1	1,207.6	1,207.2	2.3	2.1	147.48	8.7	65.7	98.2	98.2	0.00	N/A					
1,300.0	1,295.0	1,302.2	1,301.0	2.6	2.3	147.12	18.5	73.6	121.6	121.6	0.00	N/A					
1,400.0	1,392.8	1,398.1	1,395.4	2.9	2.6	145.60	31.1	83.9	146.8	146.8	0.00	N/A					
1,500.0	1,490.7	1,494.8	1,490.7	3.3	2.8	144.46	44.0	94.4	172.2	172.2	0.00	N/A					
1,600.0	1,588.6	1,591.4	1,585.9	3.6	3.1	143.61	56.9	104.9	197.6	197.6	0.00	N/A					
1,700.0	1,686.5	1,688.1	1,681.2	4.0	3.4	142.95	69.8	115.4	223.1	223.1	0.00	N/A					
1,800.0	1,784.3	1,784.8	1,776.4	4.4	3.7	142.43	82.7	125.9	248.6	248.6	0.00	N/A					
1,900.0	1,882.2	1,881.5	1,871.6	4.8	4.0	142.01	95.6	136.4	274.1	274.1	0.00	N/A					
2,000.0	1,980.1	1,978.2	1,966.9	5.2	4.3	141.66	108.5	146.9	299.6	299.6	0.00	N/A					
2,100.0	2,078.0	2,074.8	2,062.1	5.5	4.6	141.36	121.4	157.4	325.1	325.1	0.00	N/A					
2,200.0	2,175.8	2,171.5	2,157.3	5.9	4.9	141.10	134.3	167.9	350.6	350.6	0.00	N/A					
2,300.0	2,273.7	2,268.2	2,252.6	6.3	5.3	140.89	147.1	178.3	376.2	376.2	0.00	N/A					
2,400.0	2,371.6	2,364.9	2,347.8	6.7	5.6	140.69	160.0	188.8	401.7	401.7	0.00	N/A					
2,500.0	2,469.5	2,461.5	2,443.0	7.1	5.9	140.53	172.9	199.3	427.2	427.2	0.00	N/A					
2,600.0	2,567.3	2,558.2	2,538.3	7.5	6.2	140.38	185.8	209.8	452.8	452.8	0.00	N/A					
2,700.0	2,665.2	2,654.9	2,633.5	7.9	6.5	140.24	198.7	220.3	478.3	478.3	0.00	N/A					

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Seventy Holes I-5
Project:	Weld County	TVD Reference:	KBE @ 4555.0ft (Original Well Elev)
Reference Site:	Seventy Holes 24-5 Pad	MD Reference:	KBE @ 4555.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Seventy Holes I-5	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 (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Seventy Holes I-5
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.74°

