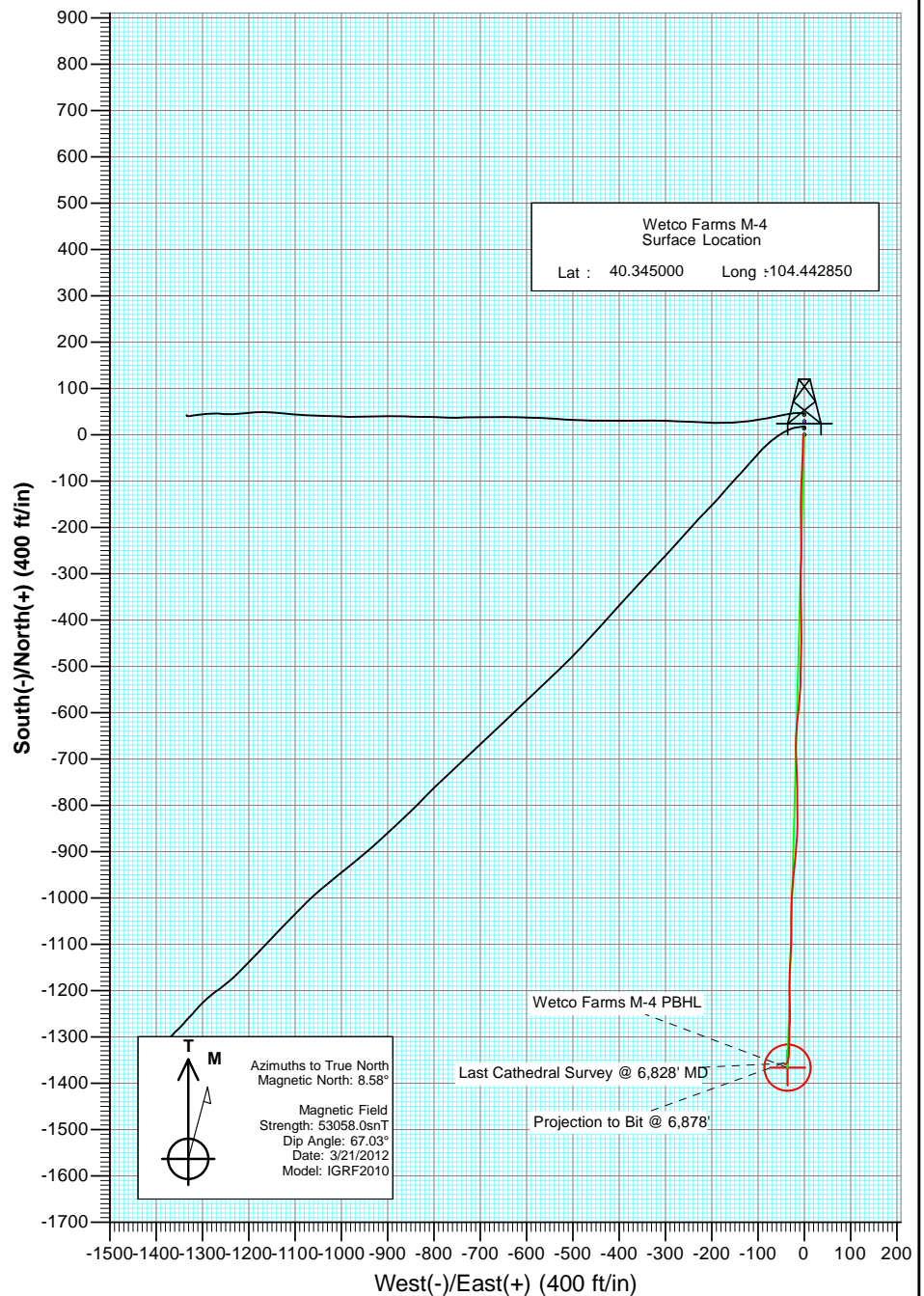
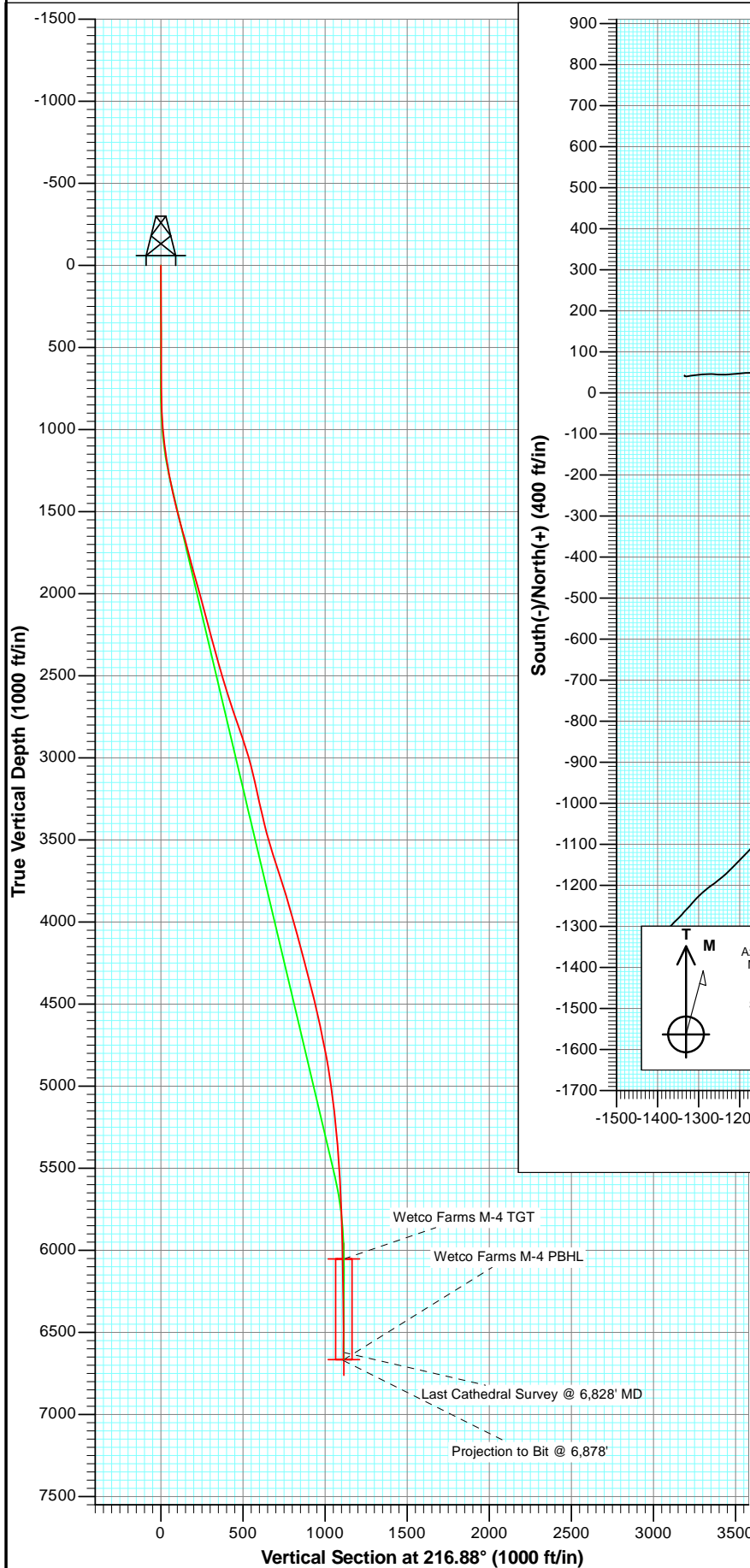




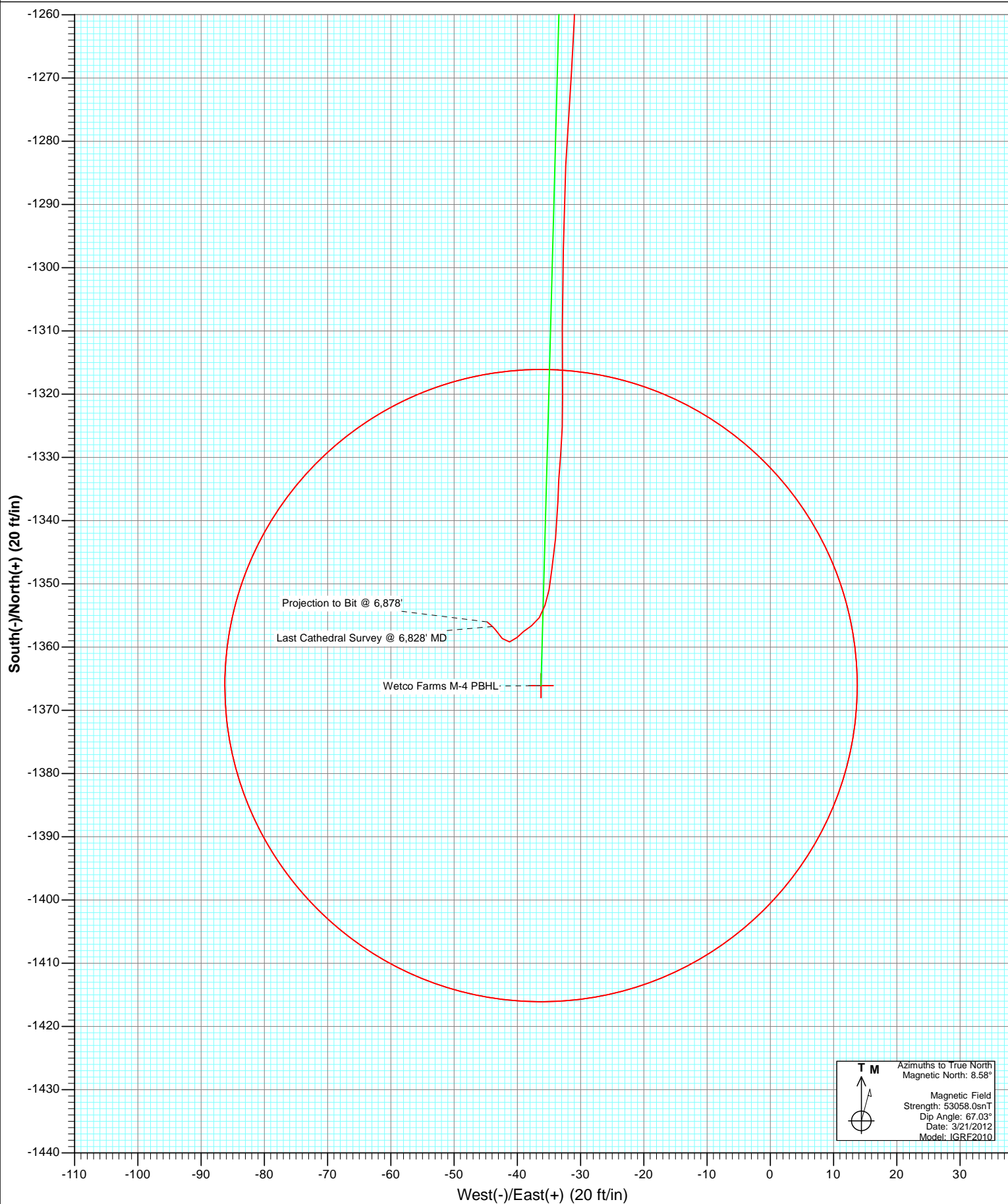
Project: Weld County
Site: Wetco Farms L-4 Pad
Well: Wetco Farms M-4
Wellbore: OH
Plan: AB FINAL



OH Wetco Farms M-4 125216/150255; SC						
kbe @ 4592.0ft North American Datum 1983 Well Wetco Farms M-4, True North						
Type	Target		Azimuth	Origin Type	N/S	E/W
User	No Target (Freehand)		216.88	Slot	0.0	0.0
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
Wetco Farms M-4 TGT	6053.0	-1366.1	-36.2	40.341250	-104.442980	
Wetco Farms M-4 PBHL	6666.0	-1366.1	-36.2	40.341250	-104.442980	



Project: Weld County
Site: Wetco Farms L-4 Pad
Well: Wetco Farms M-4
Wellbore: OH
Plan: AB FINAL



Cathedral Energy Services

Survey Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Wetco Farms M-4
Project:	Weld County	TVD Reference:	kbe @ 4592.0ft
Site:	Wetco Farms L-4 Pad	MD Reference:	kbe @ 4592.0ft
Well:	Wetco Farms M-4	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	USA EDM 5000 Multi Users DB

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:	1,370,283.34 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:	4,566.0 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/21/2012	8.58	67.03	53,058

Design	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	216.88

Survey Program	Date	4/24/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
747.0	6,878.0	Survey #1 (OH)	MWD	Geolink MWD	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00		
747.0	0.40	237.80	747.0	-1.4	-2.2	2.4	0.05	0.05		
842.0	2.10	179.80	842.0	-3.3	-2.5	4.1	2.02	1.79		
936.0	4.40	184.00	935.8	-8.6	-2.7	8.5	2.46	2.45		
1,031.0	6.70	182.10	1,030.4	-17.8	-3.2	16.2	2.43	2.42		
1,126.0	8.30	181.70	1,124.5	-30.2	-3.6	26.3	1.69	1.68		
1,221.0	11.60	179.50	1,218.1	-46.6	-3.7	39.5	3.50	3.47		
1,315.0	14.40	183.90	1,309.7	-67.7	-4.4	56.8	3.16	2.98		
1,409.0	15.90	181.90	1,400.4	-92.3	-5.6	77.2	1.69	1.60		
1,503.0	16.70	183.20	1,490.6	-118.6	-6.8	99.0	0.94	0.85		
1,598.0	18.10	179.90	1,581.3	-147.0	-7.6	122.1	1.80	1.47		
1,692.0	19.20	179.40	1,670.4	-177.1	-7.4	146.1	1.18	1.17		
1,786.0	18.50	179.30	1,759.3	-207.4	-7.0	170.1	0.75	-0.74		

Cathedral Energy Services

Survey Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Wetco Farms M-4
Project:	Weld County	TVD Reference:	kbe @ 4592.0ft
Site:	Wetco Farms L-4 Pad	MD Reference:	kbe @ 4592.0ft
Well:	Wetco Farms M-4	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
1,880.0	18.80	179.20	1,848.4	-237.5	-6.6	193.9	0.32	0.32	
1,975.0	19.20	180.80	1,938.2	-268.4	-6.6	218.7	0.69	0.42	
2,069.0	18.90	183.50	2,027.1	-299.1	-7.8	243.9	0.99	-0.32	
2,163.0	18.00	178.30	2,116.2	-328.8	-8.3	268.0	1.99	-0.96	
2,258.0	19.00	178.00	2,206.3	-358.9	-7.3	291.5	1.06	1.05	
2,353.0	18.80	180.10	2,296.2	-389.7	-6.8	315.8	0.75	-0.21	
2,448.0	19.40	179.30	2,386.0	-420.7	-6.6	340.5	0.69	0.63	
2,542.0	19.10	180.70	2,474.7	-451.7	-6.6	365.3	0.59	-0.32	
2,636.0	20.90	181.80	2,563.0	-483.9	-7.3	391.5	1.96	1.91	
2,731.0	22.00	181.30	2,651.5	-518.6	-8.3	419.8	1.17	1.16	
2,827.0	22.60	182.50	2,740.3	-555.0	-9.5	449.6	0.78	0.62	
2,922.0	21.50	186.50	2,828.3	-590.5	-12.3	479.7	1.96	-1.16	
3,015.0	21.30	185.80	2,914.9	-624.3	-15.9	508.9	0.35	-0.22	
3,110.0	18.90	180.90	3,004.1	-656.8	-17.9	536.1	3.08	-2.53	
3,204.0	17.40	178.60	3,093.5	-686.1	-17.8	559.5	1.77	-1.60	
3,298.0	16.30	177.30	3,183.4	-713.3	-16.8	580.7	1.24	-1.17	
3,393.0	15.40	178.60	3,274.8	-739.3	-15.9	600.9	1.02	-0.95	
3,487.0	16.10	179.90	3,365.3	-764.8	-15.5	621.1	0.83	0.74	
3,582.0	18.80	179.30	3,455.9	-793.3	-15.3	643.7	2.85	2.84	
3,677.0	20.90	179.30	3,545.2	-825.5	-14.9	669.3	2.21	2.21	
3,771.0	21.60	182.20	3,632.9	-859.6	-15.4	696.8	1.34	0.74	
3,866.0	20.70	185.50	3,721.5	-893.8	-17.7	725.5	1.57	-0.95	
3,961.0	19.90	185.90	3,810.6	-926.6	-21.0	753.7	0.85	-0.84	
4,056.0	19.00	184.80	3,900.1	-958.1	-23.9	780.7	1.02	-0.95	
4,149.0	18.20	184.30	3,988.3	-987.6	-26.3	805.8	0.88	-0.86	
4,243.0	18.20	181.90	4,077.6	-1,016.9	-27.9	830.2	0.80	0.00	
4,338.0	18.50	179.00	4,167.8	-1,046.8	-28.1	854.2	1.01	0.32	
4,433.0	18.20	180.30	4,257.9	-1,076.7	-27.9	878.0	0.53	-0.32	
4,528.0	17.20	182.60	4,348.4	-1,105.6	-28.6	901.5	1.28	-1.05	
4,623.0	17.30	183.20	4,439.2	-1,133.7	-30.0	924.9	0.21	0.11	
4,717.0	15.40	183.40	4,529.3	-1,160.2	-31.6	947.0	2.02	-2.02	
4,811.0	14.60	179.90	4,620.1	-1,184.5	-32.3	966.8	1.29	-0.85	
4,905.0	14.90	177.70	4,711.0	-1,208.4	-31.8	985.7	0.68	0.32	
5,000.0	14.00	179.70	4,803.0	-1,232.1	-31.2	1,004.3	1.08	-0.95	
5,094.0	10.80	178.80	4,894.8	-1,252.3	-31.0	1,020.3	3.41	-3.40	
5,188.0	9.60	184.50	4,987.4	-1,268.9	-31.4	1,033.8	1.67	-1.28	
5,282.0	8.70	182.40	5,080.2	-1,283.8	-32.3	1,046.3	1.02	-0.96	
5,376.0	7.80	180.90	5,173.2	-1,297.3	-32.7	1,057.3	0.98	-0.96	
5,470.0	7.10	180.40	5,266.4	-1,309.5	-32.9	1,067.2	0.75	-0.74	
5,565.0	6.10	179.30	5,360.8	-1,320.4	-32.8	1,075.9	1.06	-1.05	
5,659.0	5.10	184.90	5,454.3	-1,329.5	-33.1	1,083.4	1.21	-1.06	
5,753.0	3.90	181.40	5,548.0	-1,336.9	-33.6	1,089.5	1.31	-1.28	
5,848.0	3.30	186.20	5,642.8	-1,342.9	-33.9	1,094.5	0.71	-0.63	
5,942.0	2.50	187.50	5,736.7	-1,347.6	-34.5	1,098.6	0.85	-0.85	
6,036.0	1.60	188.80	5,830.6	-1,350.9	-35.0	1,101.6	0.96	-0.96	
6,131.0	1.50	200.00	5,925.6	-1,353.4	-35.6	1,103.9	0.34	-0.11	
6,227.0	1.10	211.30	6,021.6	-1,355.3	-36.5	1,106.1	0.49	-0.42	
6,322.0	1.10	237.00	6,116.6	-1,356.6	-37.7	1,107.8	0.52	0.00	
6,416.0	0.80	229.40	6,210.6	-1,357.5	-39.0	1,109.3	0.35	-0.32	
6,509.0	0.90	226.60	6,303.5	-1,358.5	-40.0	1,110.7	0.12	0.11	
6,605.0	0.80	253.50	6,399.5	-1,359.2	-41.2	1,111.9	0.42	-0.10	
6,698.0	1.10	323.00	6,492.5	-1,358.6	-42.4	1,112.2	1.19	0.32	
6,792.0	1.00	322.40	6,586.5	-1,357.3	-43.4	1,111.8	0.11	-0.11	

Cathedral Energy Services

Survey Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Wetco Farms M-4
Project:	Weld County	TVD Reference:	kbe @ 4592.0ft
Site:	Wetco Farms L-4 Pad	MD Reference:	kbe @ 4592.0ft
Well:	Wetco Farms M-4	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
6,828.0	1.30	311.70	6,622.5	-1,356.8	-43.9	1,111.6	1.02	0.83	Last Cathedral Survey @ 6,828' MD
6,878.0	1.30	311.70	6,672.5	-1,356.0	-44.8	1,111.5	0.00	0.00	Projection to Bit @ 6,878'

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Wetco Farms M-4 TGT - actual wellpath misses target center by 10.3ft at 6258.5ft MD (6053.1 TVD, -1355.8 N, -36.9 E) - Point	0.00	0.00	6,053.0	-1,366.1	-36.2	1,368,916.92	3,294,645.75	40.341250	-104.442980
Wetco Farms M-4 PBHL - actual wellpath misses target center by 13.1ft at 6871.2ft MD (6665.7 TVD, -1356.1 N, -44.6 E) - Circle (radius 50.0)	0.00	0.00	6,666.0	-1,366.1	-36.2	1,368,916.92	3,294,645.75	40.341250	-104.442980

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
6,828.0	6,622.5	-1,356.8	-43.9	Last Cathedral Survey @ 6,828' MD
6,878.0	6,672.5	-1,356.0	-44.8	Projection to Bit @ 6,878'

Checked By: _____ Approved By: _____ Date: _____