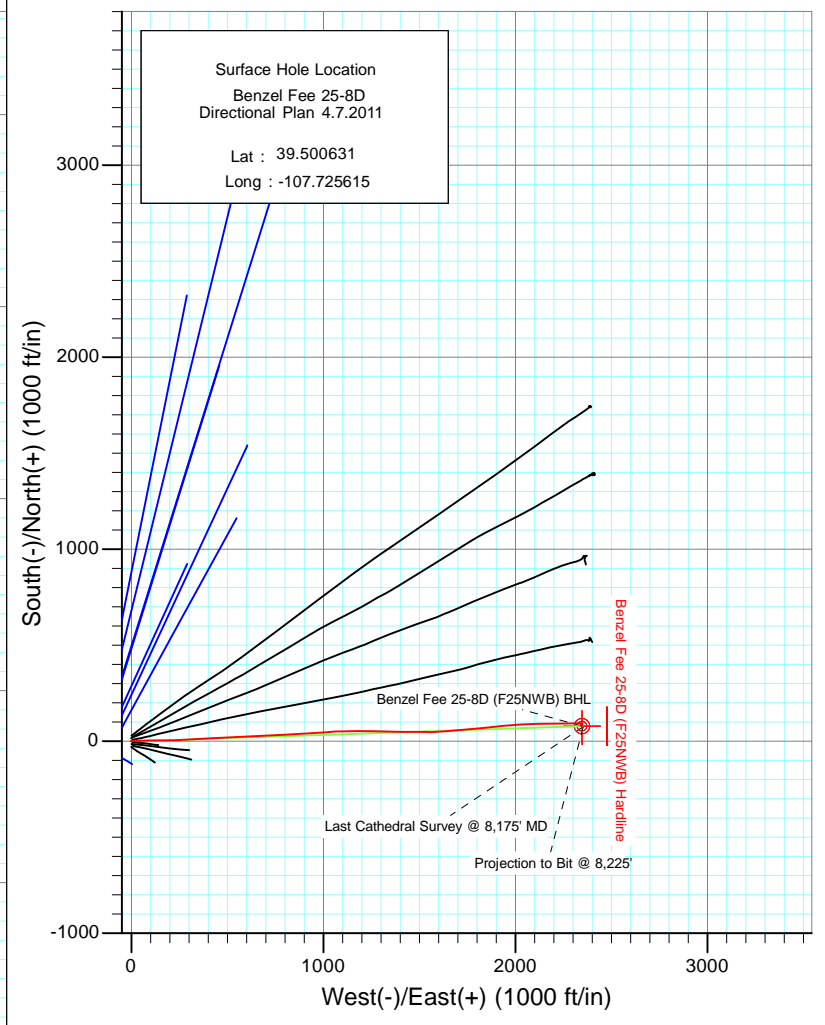
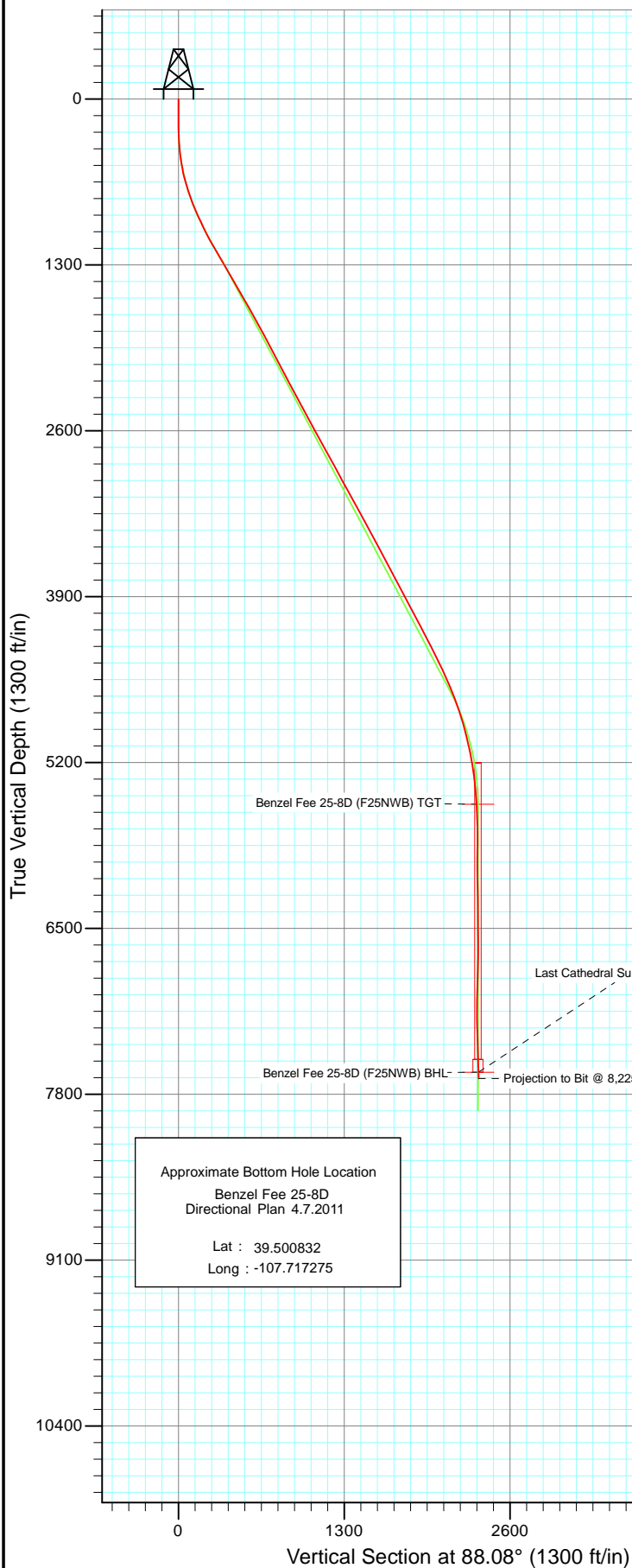




Project: Mamm Creek
 Site: F25NWB Pad
 Well: Benzel Fee 25-8D (F25NWB Pad) Directional Plan 4.6.2011
 Wellbore: DD
 Design: FINAL



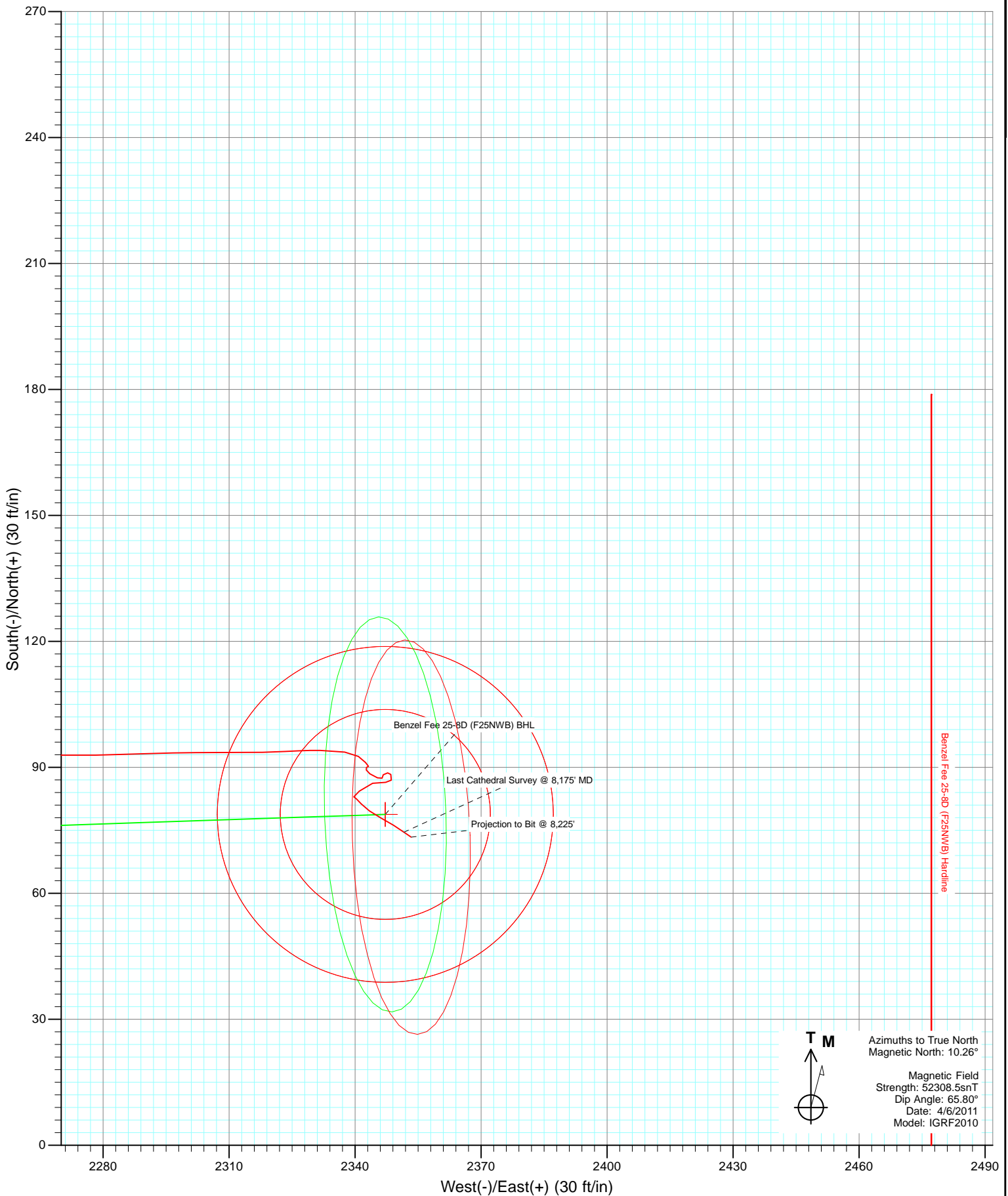
Azimuths to True North
 Magnetic North: 10.26°

Magnetic Field
 Strength: 52308.5snT
 Dip Angle: 65.80°
 Date: 4/6/2011
 Model: IGRF2010

DD Benzel Fee 25-8D (F25NWB Pad) Directional Plan 4.6.2011 115484/118155 (SH); SC						
kbe @ 5860.0ft North American Datum 1983 Well Benzel Fee 25-8D (F25NWB Pad) Directional Plan 4.6.2011, True North						
Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
Target	Benzel Fee 25-8D (F25NWB) BHL	88.08	Slot	0.0	0.0	0.0
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
3 Benzel Fee 25-8D (F25NWB) Hardline	-7614.0	78.8	2347.2	39.500847	-107.717297	
Benzel Fee 25-8D (F25NWB) TGT	5526.0	78.8	2347.2	39.500847	-107.717297	
Benzel Fee 25-8D (F25NWB) BHL	7627.0	78.8	2347.2	39.500847	-107.717297	

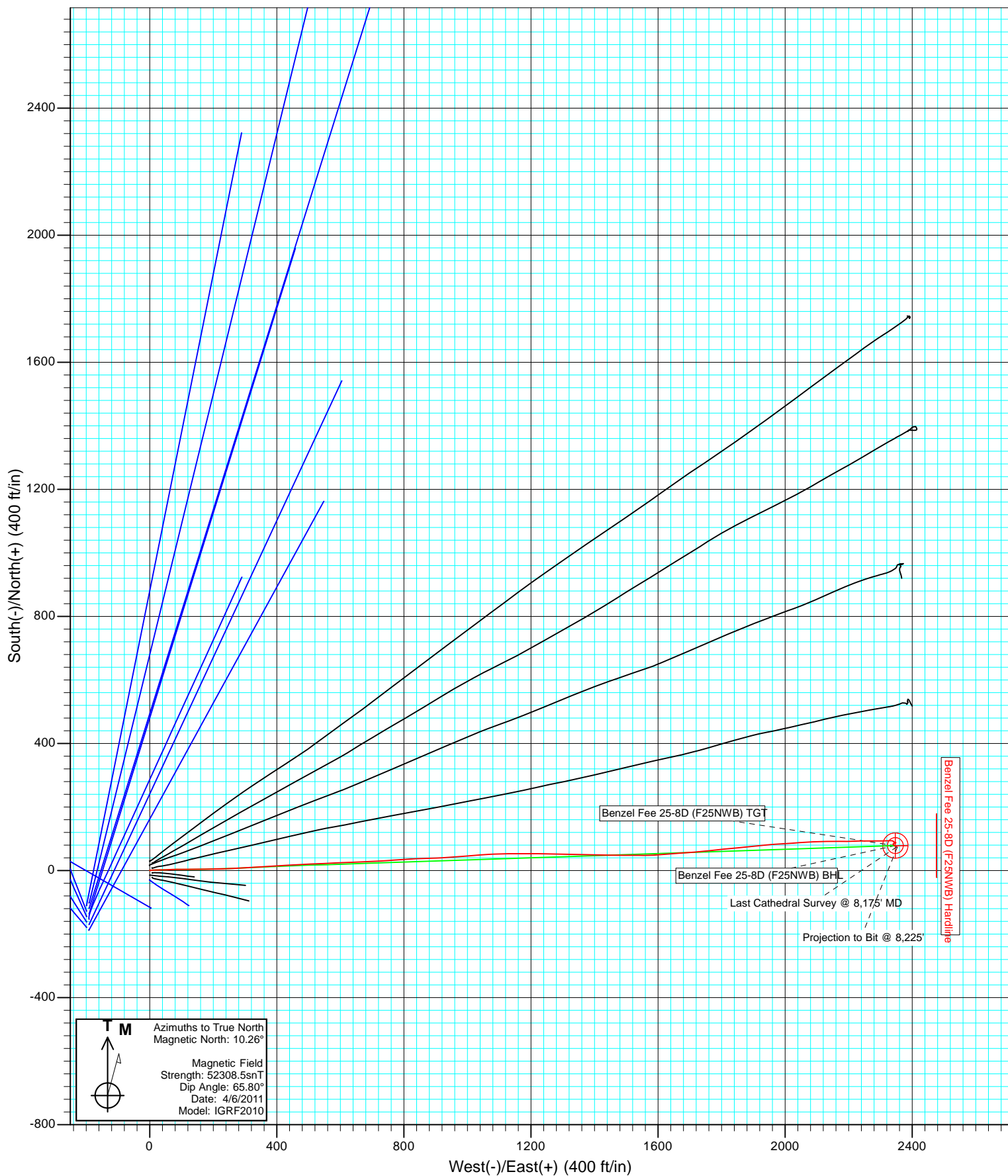


Project: Mamm Creek
Site: F25NWB Pad
Well: Benzel Fee 25-8D (F25NWB Pad) Directional Plan 4.6.2011
Wellbore: DD
Design: FINAL





Project: Mamm Creek
Site: F25NWB Pad
Well: Benzel Fee 25-8D (F25NWB Pad) Directional Plan 4.6.2011
Wellbore: DD
Design: DD



Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Benzel Fee 25-8D (F25NWB Pad) Directiona
Project:	Mamm Creek	TVD Reference:	kbe @ 5860.0ft
Site:	F25NWB Pad	MD Reference:	kbe @ 5860.0ft
Well:	Benzel Fee 25-8D (F25NWB Pad) Directional	North Reference:	True
Wellbore:	Plan 4.6.2011	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	USA EDM 5000 Multi Users DB

Project	Mamm Creek		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		F25NWB Pad			
Site Position:		Northing:	1,614,821.30 ft	Latitude:	39.500328
From:	Lat/Long	Easting:	2,371,946.03 ft	Longitude:	-107.725936
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.40 °

Well	Benzel Fee 25-8D (F25NWB Pad) Directional Plan 4.6.2011					
Well Position	+N/-S	0.0 ft	Northing:	1,614,929.40 ft	Latitude:	39.500631
	+E/-W	0.0 ft	Easting:	2,372,039.29 ft	Longitude:	-107.725615
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,829.0 ft

Wellbore		DD			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/6/2011	10.26	65.80	52,308

Design	DD			
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	88.08

Survey Program		Date	12/12/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
117.0	1,245.0	Survey #1 (DD)	MWD	Geolink MWD	
1,371.0	8,225.0	Survey #2 (DD)	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	
117.0	0.20	327.90	117.0	0.2	-0.1	-0.1	0.17	0.17	
147.0	0.10	346.70	147.0	0.2	-0.1	-0.1	0.37	-0.33	
178.0	0.40	63.10	178.0	0.3	-0.1	0.0	1.25	0.97	
209.0	0.80	73.90	209.0	0.4	0.3	0.3	1.34	1.29	
240.0	1.10	79.60	240.0	0.5	0.8	0.8	1.01	0.97	
270.0	1.80	82.60	270.0	0.7	1.5	1.5	2.35	2.33	
301.0	2.50	87.30	301.0	0.7	2.7	2.7	2.33	2.26	
332.0	3.50	83.00	331.9	0.9	4.3	4.3	3.30	3.23	
363.0	4.40	85.80	362.8	1.1	6.4	6.4	2.97	2.90	
393.0	5.30	87.70	392.7	1.2	8.9	9.0	3.05	3.00	
455.0	7.50	87.40	454.3	1.5	15.8	15.9	3.55	3.55	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Benzel Fee 25-8D (F25NWB Pad) Directional
Project:	Mamm Creek	TVD Reference:	kbe @ 5860.0ft
Site:	F25NWB Pad	MD Reference:	kbe @ 5860.0ft
Well:	Benzel Fee 25-8D (F25NWB Pad) Directional	North Reference:	True
Wellbore:	Open 4.6.2011	Survey Calculation Method:	Minimum Curvature
Design:	DD	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
485.0	8.60	85.60	484.1	1.8	20.0	20.1	3.76	3.67	
516.0	9.70	90.10	514.7	2.0	25.0	25.0	4.23	3.55	
547.0	11.00	88.70	545.2	2.0	30.5	30.6	4.27	4.19	
578.0	12.30	88.20	575.5	2.2	36.8	36.8	4.21	4.19	
640.0	15.00	88.60	635.8	2.6	51.4	51.5	4.36	4.35	
703.0	17.20	87.30	696.3	3.2	68.9	68.9	3.54	3.49	
798.0	20.40	89.90	786.2	3.9	99.5	99.5	3.48	3.37	
893.0	23.20	89.40	874.4	4.2	134.7	134.8	2.95	2.95	
988.0	25.20	89.70	961.0	4.5	173.7	173.7	2.11	2.11	
1,082.0	27.00	88.80	1,045.5	5.0	215.0	215.1	1.96	1.91	
1,177.0	29.50	87.00	1,129.1	6.7	259.9	260.0	2.78	2.63	
1,245.0	30.30	87.10	1,188.1	8.4	293.8	293.9	1.18	1.18	Last Cathedral Survey @ 1,245' MD
1,371.0	30.70	86.00	1,296.7	12.3	357.6	357.8	0.55	0.32	
1,466.0	30.00	86.50	1,378.6	15.4	405.5	405.8	0.78	-0.74	
1,561.0	28.80	87.80	1,461.4	17.8	452.1	452.4	1.43	-1.26	
1,655.0	30.90	86.90	1,542.9	19.9	498.8	499.2	2.28	2.23	
1,750.0	29.50	87.40	1,625.0	22.3	546.6	547.0	1.50	-1.47	
1,845.0	28.50	87.20	1,708.1	24.5	592.6	593.1	1.06	-1.05	
1,940.0	29.30	88.00	1,791.3	26.4	638.4	639.0	0.94	0.84	
2,035.0	28.10	87.80	1,874.6	28.1	684.0	684.6	1.27	-1.26	
2,129.0	27.10	86.90	1,957.9	30.1	727.5	728.1	1.15	-1.06	
2,224.0	28.50	85.80	2,041.9	32.9	771.7	772.4	1.57	1.47	
2,319.0	27.50	86.00	2,125.8	36.1	816.2	817.0	1.06	-1.05	
2,414.0	28.00	88.30	2,209.9	38.3	860.4	861.2	1.24	0.53	
2,508.0	27.40	88.50	2,293.1	39.5	904.1	904.9	0.65	-0.64	
2,603.0	29.10	85.10	2,376.8	42.1	948.9	949.8	2.46	1.79	
2,698.0	28.40	86.30	2,460.1	45.5	994.5	995.5	0.95	-0.74	
2,793.0	27.80	84.70	2,543.9	49.0	1,039.1	1,040.2	1.01	-0.63	
2,887.0	29.30	88.20	2,626.5	51.7	1,083.9	1,085.1	2.39	1.60	
2,982.0	28.20	89.00	2,709.8	52.9	1,129.6	1,130.8	1.23	-1.16	
3,077.0	29.60	90.30	2,792.9	53.1	1,175.5	1,176.6	1.62	1.47	
3,172.0	28.50	90.30	2,876.0	52.9	1,221.7	1,222.7	1.16	-1.16	
3,266.0	27.90	90.30	2,958.8	52.7	1,266.1	1,267.1	0.64	-0.64	
3,361.0	29.20	92.00	3,042.3	51.7	1,311.5	1,312.5	1.61	1.37	
3,456.0	28.40	91.50	3,125.5	50.3	1,357.2	1,358.1	0.88	-0.84	
3,551.0	29.20	90.80	3,208.8	49.4	1,403.0	1,403.8	0.91	0.84	
3,645.0	28.40	91.20	3,291.1	48.6	1,448.2	1,449.1	0.88	-0.85	
3,740.0	29.30	89.40	3,374.4	48.4	1,494.1	1,494.9	1.32	0.95	
3,835.0	28.70	91.50	3,457.4	48.0	1,540.1	1,540.9	1.24	-0.63	
3,930.0	27.90	87.00	3,541.1	48.6	1,585.1	1,585.9	2.40	-0.84	
4,025.0	27.70	85.00	3,625.1	51.7	1,629.3	1,630.1	1.00	-0.21	
4,119.0	27.20	86.20	3,708.6	55.0	1,672.5	1,673.4	0.79	-0.53	
4,214.0	27.40	85.00	3,793.0	58.4	1,716.0	1,717.0	0.62	0.21	
4,309.0	29.30	84.10	3,876.6	62.7	1,760.9	1,762.0	2.05	2.00	
4,404.0	28.30	84.40	3,959.8	67.3	1,806.4	1,807.6	1.06	-1.05	
4,499.0	26.70	84.30	4,044.1	71.6	1,850.0	1,851.4	1.68	-1.68	
4,593.0	28.50	84.40	4,127.4	75.9	1,893.4	1,894.9	1.92	1.91	
4,687.0	26.50	84.20	4,210.8	80.2	1,936.6	1,938.2	2.13	-2.13	
4,782.0	27.20	86.80	4,295.5	83.5	1,979.3	1,981.0	1.44	0.74	
4,877.0	26.50	86.20	4,380.3	86.1	2,022.2	2,023.9	0.79	-0.74	
4,972.0	25.70	86.10	4,465.6	88.9	2,063.9	2,065.7	0.84	-0.84	
5,066.0	24.40	87.60	4,550.7	91.1	2,103.6	2,105.5	1.54	-1.38	
5,161.0	21.70	89.90	4,638.2	92.0	2,140.8	2,142.7	3.00	-2.84	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Benzel Fee 25-8D (F25NWB Pad) Directiona
Project:	Mamm Creek	TVD Reference:	kbe @ 5860.0ft
Site:	F25NWB Pad	MD Reference:	kbe @ 5860.0ft
Well:	Benzel Fee 25-8D (F25NWB Pad) Directional	North Reference:	True
Wellbore:	Ben 4.6.2011	Survey Calculation Method:	Minimum Curvature
Design:	DD	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
5,256.0	20.20	90.70	4,726.9	91.8	2,174.7	2,176.6	1.61	-1.58	
5,351.0	17.70	88.10	4,816.7	92.1	2,205.6	2,207.4	2.78	-2.63	
5,446.0	16.20	88.50	4,907.6	92.9	2,233.3	2,235.1	1.58	-1.58	
5,540.0	13.40	91.80	4,998.5	92.9	2,257.3	2,259.1	3.11	-2.98	
5,635.0	12.00	88.00	5,091.1	92.9	2,278.1	2,280.0	1.72	-1.47	
5,730.0	10.40	88.90	5,184.3	93.4	2,296.6	2,298.4	1.69	-1.68	
5,825.0	8.00	90.40	5,278.1	93.6	2,311.8	2,313.6	2.54	-2.53	
5,919.0	6.10	86.70	5,371.4	93.8	2,323.3	2,325.1	2.08	-2.02	
6,014.0	4.00	90.70	5,466.0	94.0	2,331.7	2,333.5	2.24	-2.21	
6,109.0	3.10	98.10	5,560.8	93.6	2,337.5	2,339.3	1.06	-0.95	
6,204.0	1.20	131.70	5,655.8	92.6	2,340.8	2,342.6	2.32	-2.00	
6,299.0	1.50	130.80	5,750.7	91.1	2,342.5	2,344.2	0.32	0.32	
6,393.0	0.30	253.00	5,844.7	90.3	2,343.2	2,344.9	1.79	-1.28	
6,488.0	0.40	222.80	5,939.7	90.0	2,342.7	2,344.4	0.22	0.11	
6,582.0	0.50	153.00	6,033.7	89.3	2,342.7	2,344.4	0.55	0.11	
6,677.0	1.00	128.80	6,128.7	88.5	2,343.5	2,345.2	0.61	0.53	
6,771.0	1.50	109.60	6,222.7	87.5	2,345.3	2,346.9	0.69	0.53	
6,866.0	0.40	349.40	6,317.7	87.4	2,346.4	2,348.0	1.83	-1.16	
6,962.0	0.70	36.90	6,413.7	88.2	2,346.7	2,348.3	0.54	0.31	
7,059.0	0.80	90.20	6,510.7	88.7	2,347.7	2,349.4	0.70	0.10	
7,154.0	0.50	169.40	6,605.7	88.3	2,348.5	2,350.1	0.91	-0.32	
7,251.0	1.10	176.20	6,702.7	87.0	2,348.6	2,350.2	0.63	0.62	
7,345.0	1.80	284.90	6,796.6	86.4	2,347.3	2,348.8	2.54	0.74	
7,440.0	2.10	249.30	6,891.6	86.2	2,344.2	2,345.8	1.29	0.32	
7,535.0	2.40	231.00	6,986.5	84.3	2,341.0	2,342.5	0.82	0.32	
7,629.0	0.30	115.00	7,080.5	83.0	2,339.7	2,341.2	2.71	-2.23	
7,724.0	0.70	133.70	7,175.5	82.5	2,340.3	2,341.8	0.45	0.42	
7,819.0	1.30	137.90	7,270.5	81.3	2,341.5	2,342.9	0.64	0.63	
7,913.0	1.80	125.80	7,364.4	79.6	2,343.4	2,344.8	0.63	0.53	
8,008.0	2.00	118.00	7,459.4	78.0	2,346.1	2,347.4	0.34	0.21	
8,103.0	2.30	121.70	7,554.3	76.2	2,349.2	2,350.4	0.35	0.32	
8,175.0	2.40	124.90	7,626.3	74.6	2,351.6	2,352.8	0.23	0.14	Last Cathedral Survey @ 8,175' MD Projection to Bit @ 8,225'
8,225.0	2.40	124.90	7,676.2	73.4	2,353.3	2,354.5	0.00	0.00	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Benzel Fee 25-8D (F25NWB Pad) Directiona
Project:	Mamm Creek	TVD Reference:	kbe @ 5860.0ft
Site:	F25NWB Pad	MD Reference:	kbe @ 5860.0ft
Well:	Benzel Fee 25-8D (F25NWB Pad) Directional	North Reference:	True
Wellbore:	Ben 4.6.2011	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	USA EDM 5000 Multi Users DB

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Benzel Fee 25-8D (F25NWB Pad)	0.00	0.00	5,526.0	78.8	2,347.2	1,614,950.68	2,374,387.70	39.500847	-107.717297
- actual wellpath misses target center by 19.0ft at 6074.9ft MD (5526.8 TVD, 93.9 N, 2335.6 E)									
- Circle (radius 25.0)									
Benzel Fee 25-8D (F25NWB Pad)	0.00	0.00	-7,614.0	78.8	2,347.2	1,614,950.68	2,374,387.70	39.500847	-107.717297
- actual wellpath misses target center by 7968.0ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Polygon									
Point 1			-7,614.0	100.0	130.0	1,615,047.46	2,374,520.11		
Point 2			-7,614.0	-100.0	130.0	1,614,847.52	2,374,515.21		
Benzel Fee 25-8D (F25NWB Pad)	0.00	0.00	7,627.0	78.8	2,347.2	1,614,950.68	2,374,387.70	39.500847	-107.717297
- actual wellpath misses target center by 6.2ft at 8175.0ft MD (7626.3 TVD, 74.6 N, 2351.6 E)									
- Circle (radius 40.0)									

Design Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
1,245.0	1,188.1	8.4	293.8	Last Cathedral Survey @ 1,245' MD
8,175.0	7,626.3	74.6	2,351.6	Last Cathedral Survey @ 8,175' MD
8,225.0	7,676.2	73.4	2,353.3	Projection to Bit @ 8,225'

Checked By: _____ Approved By: _____ Date: _____