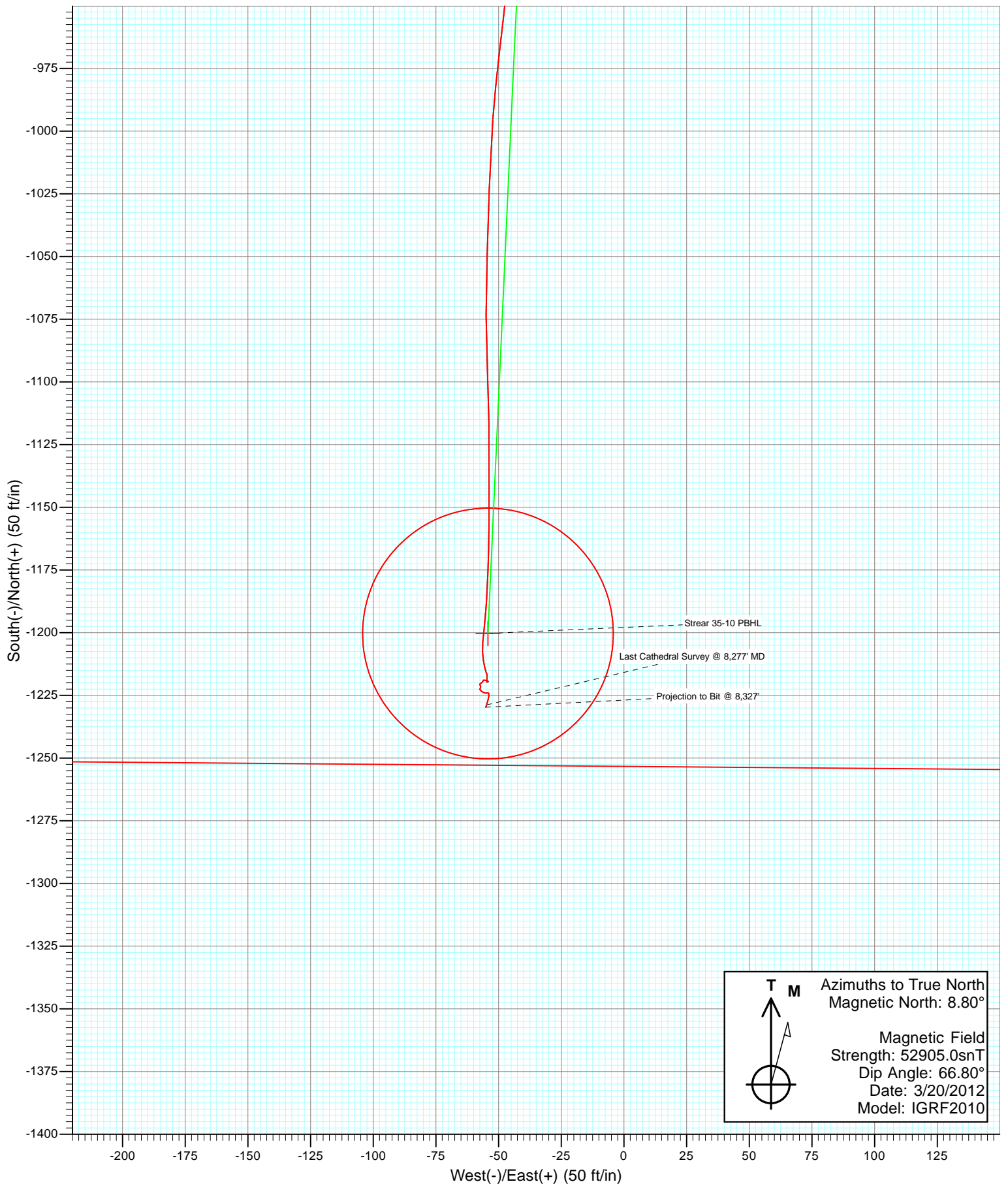


Azimuths to True North
Magnetic North: 8.80°

Magnetic Field
Strength: 52905.0nT
Dip Angle: 66.80°
Date: 3/20/2012
Model: IGRF2010

DD Strear 35-10 125235; 150855; DN 15' KB @ 4989.0ft (Xtreme 14) North American Datum 1983 Well Strear 35-10, True North							
Type Target	Target Strear 35-10 PBHL	Azimuth 182.59	Origin Slot	Type Type	N/S 0.0	E/W 0.0	From TVD 0.0
Name Strear 35-10 PBHL	TVD 8123.0	+N/-S -1200.3	+E/-W -54.2	Latitude 40.145590	Longitude -104.881244		



Cathedral Energy Services

Survey Report

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Strear 35-10
Project:	DJ Wattenberg	TVD Reference:	15' KB @ 4989.0ft (Xtreme 14)
Site:	SESW Sec10-T2N-R67W (Strear 19-10)	MD Reference:	15' KB @ 4989.0ft (Xtreme 14)
Well:	Strear 35-10	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	USA EDM 5000 Multi Users DB

Project	DJ Wattenberg		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		SESW Sec10-T2N-R67W (Strear 19-10)			
Site Position:		Northing:	1,297,698.84 ft	Latitude:	40.148913
From:	Lat/Long	Easting:	3,173,027.37 ft	Longitude:	-104.881050
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.40 °

Well	Strear 35-10					
Well Position	+N/-S	0.0 ft	Northing:	1,297,688.63 ft	Latitude:	40.148885
	+E/-W	0.0 ft	Easting:	3,173,027.44 ft	Longitude:	-104.881050
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,974.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/20/2012	8.80	66.80	52,905

Design	DD				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	182.59	

Survey Program	Date	4/10/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
93.0	8,327.0	Survey #1 (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		
93.0	0.50	55.10	93.0	0.2	0.3	-0.2	0.54	0.54		
186.0	1.00	160.40	186.0	-0.3	0.9	0.3	1.32	0.54		
280.0	2.80	172.30	279.9	-3.3	1.5	3.3	1.95	1.91		
373.0	5.00	178.10	372.7	-9.7	2.0	9.6	2.40	2.37		
463.0	7.30	179.20	462.2	-19.3	2.2	19.2	2.56	2.56		
550.0	9.30	179.00	548.3	-31.8	2.4	31.7	2.30	2.30		
638.0	11.50	183.40	634.8	-47.7	2.0	47.6	2.66	2.50		
667.0	11.60	183.10	663.2	-53.5	1.6	53.4	0.40	0.34		
738.0	11.50	183.80	732.8	-67.7	0.8	67.6	0.24	-0.14		
814.0	12.90	190.20	807.1	-83.6	-1.2	83.6	2.56	1.84		
900.0	15.10	187.90	890.5	-104.2	-4.5	104.3	2.64	2.56		
990.0	16.40	189.90	977.1	-128.3	-8.3	128.5	1.57	1.44		

Cathedral Energy Services

Survey Report

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Strear 35-10
Project:	DJ Wattenberg	TVD Reference:	15' KB @ 4989.0ft (Xtreme 14)
Site:	SESW Sec10-T2N-R67W (Strear 19-10)	MD Reference:	15' KB @ 4989.0ft (Xtreme 14)
Well:	Strear 35-10	North Reference:	True
Wellbore:	DD	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
1,078.0	16.70	186.40	1,061.5	-153.1	-11.8	153.5	1.18	0.34	
1,168.0	16.80	183.40	1,147.7	-178.9	-14.0	179.4	0.97	0.11	
1,256.0	17.30	184.40	1,231.8	-204.7	-15.8	205.2	0.66	0.57	
1,344.0	18.00	180.30	1,315.7	-231.3	-16.8	231.8	1.62	0.80	
1,433.0	17.90	179.80	1,400.3	-258.7	-16.9	259.2	0.21	-0.11	
1,521.0	18.10	180.70	1,484.0	-285.9	-17.0	286.4	0.39	0.23	
1,610.0	17.40	179.70	1,568.8	-313.1	-17.1	313.5	0.86	-0.79	
1,699.0	16.50	178.40	1,653.9	-339.0	-16.7	339.4	1.10	-1.01	
1,787.0	16.50	178.80	1,738.3	-364.0	-16.1	364.3	0.13	0.00	
1,875.0	16.30	178.80	1,822.7	-388.8	-15.5	389.1	0.23	-0.23	
1,964.0	16.10	181.80	1,908.2	-413.7	-15.7	413.9	0.97	-0.22	
2,052.0	16.10	185.10	1,992.8	-438.0	-17.1	438.3	1.04	0.00	
2,141.0	16.50	184.50	2,078.2	-462.9	-19.2	463.3	0.49	0.45	
2,230.0	15.60	187.00	2,163.7	-487.4	-21.7	487.9	1.27	-1.01	
2,319.0	15.30	186.20	2,249.5	-510.9	-24.4	511.5	0.41	-0.34	
2,407.0	16.40	183.40	2,334.1	-534.9	-26.4	535.5	1.52	1.25	
2,493.0	15.20	183.00	2,416.9	-558.2	-27.7	558.9	1.40	-1.40	
2,581.0	15.00	181.20	2,501.9	-581.2	-28.5	581.8	0.58	-0.23	
2,671.0	13.90	178.80	2,589.0	-603.6	-28.6	604.3	1.39	-1.22	
2,760.0	15.20	182.10	2,675.2	-626.0	-28.8	626.6	1.73	1.46	
2,848.0	14.70	178.90	2,760.2	-648.6	-29.0	649.3	1.10	-0.57	
2,938.0	16.30	184.60	2,846.9	-672.7	-29.8	673.3	2.45	1.78	
3,026.0	17.40	188.50	2,931.1	-698.0	-32.7	698.7	1.79	1.25	
3,114.0	15.40	186.20	3,015.5	-722.6	-35.9	723.5	2.39	-2.27	
3,203.0	16.90	185.50	3,101.0	-747.2	-38.4	748.2	1.70	1.69	
3,292.0	16.30	183.90	3,186.3	-772.6	-40.5	773.6	0.85	-0.67	
3,382.0	14.40	181.10	3,273.1	-796.4	-41.6	797.4	2.27	-2.11	
3,469.0	13.00	181.20	3,357.6	-817.0	-42.0	818.0	1.61	-1.61	
3,557.0	13.00	182.80	3,443.4	-836.8	-42.7	837.8	0.41	0.00	
3,646.0	12.70	182.30	3,530.1	-856.5	-43.6	857.6	0.36	-0.34	
3,733.0	14.20	182.90	3,614.8	-876.7	-44.5	877.9	1.73	1.72	
3,823.0	14.90	180.70	3,701.9	-899.3	-45.2	900.5	0.99	0.78	
3,911.0	14.20	181.30	3,787.0	-921.4	-45.6	922.6	0.81	-0.80	
3,999.0	15.60	185.50	3,872.1	-944.0	-47.0	945.2	2.01	1.59	
4,088.0	17.30	187.00	3,957.4	-969.1	-49.7	970.3	1.97	1.91	
4,176.0	18.00	184.20	4,041.3	-995.6	-52.3	997.0	1.25	0.80	
4,266.0	18.00	181.60	4,126.9	-1,023.4	-53.7	1,024.8	0.89	0.00	
4,352.0	16.30	182.20	4,209.1	-1,048.7	-54.5	1,050.1	1.99	-1.98	
4,440.0	16.40	179.70	4,293.5	-1,073.5	-55.0	1,074.9	0.81	0.11	
4,528.0	14.00	177.60	4,378.4	-1,096.5	-54.4	1,097.9	2.80	-2.73	
4,618.0	11.60	179.30	4,466.2	-1,116.5	-53.9	1,117.8	2.70	-2.67	
4,706.0	11.20	180.10	4,552.5	-1,133.9	-53.8	1,135.1	0.49	-0.45	
4,796.0	9.80	180.20	4,640.9	-1,150.3	-53.8	1,151.5	1.56	-1.56	
4,884.0	9.50	181.20	4,727.7	-1,165.0	-54.0	1,166.3	0.39	-0.34	
4,973.0	9.00	181.90	4,815.5	-1,179.3	-54.4	1,180.6	0.58	-0.56	
5,060.0	6.20	185.50	4,901.8	-1,190.8	-55.1	1,192.1	3.26	-3.22	
5,148.0	4.00	185.00	4,989.4	-1,198.6	-55.8	1,199.9	2.50	-2.50	
5,238.0	2.50	188.40	5,079.3	-1,203.7	-56.3	1,205.0	1.68	-1.67	
5,327.0	2.80	174.70	5,168.2	-1,207.7	-56.4	1,209.1	0.78	0.34	
5,415.0	1.80	171.70	5,256.1	-1,211.2	-56.0	1,212.5	1.14	-1.14	
5,504.0	1.60	167.00	5,345.1	-1,213.8	-55.5	1,215.1	0.27	-0.22	
5,594.0	0.70	153.80	5,435.0	-1,215.6	-55.0	1,216.8	1.04	-1.00	
5,682.0	0.70	170.20	5,523.0	-1,216.6	-54.7	1,217.8	0.23	0.00	

Cathedral Energy Services

Survey Report

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Strear 35-10
Project:	DJ Wattenberg	TVD Reference:	15' KB @ 4989.0ft (Xtreme 14)
Site:	SESW Sec10-T2N-R67W (Strear 19-10)	MD Reference:	15' KB @ 4989.0ft (Xtreme 14)
Well:	Strear 35-10	North Reference:	True
Wellbore:	DD	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
5,769.0	0.50	174.60	5,610.0	-1,217.5	-54.6	1,218.7	0.24	-0.23	
5,857.0	0.70	192.50	5,698.0	-1,218.4	-54.6	1,219.6	0.31	0.23	
5,947.0	0.40	177.40	5,788.0	-1,219.2	-54.8	1,220.5	0.37	-0.33	
6,035.0	0.10	161.60	5,876.0	-1,219.6	-54.7	1,220.8	0.35	-0.34	
6,123.0	0.40	72.10	5,964.0	-1,219.6	-54.4	1,220.8	0.47	0.34	
6,211.0	0.00	172.50	6,052.0	-1,219.5	-54.1	1,220.7	0.45	-0.45	
6,300.0	0.40	311.30	6,141.0	-1,219.3	-54.3	1,220.5	0.45	0.45	
6,343.0	0.60	287.20	6,184.0	-1,219.1	-54.7	1,220.3	0.67	0.47	
6,432.0	0.20	277.80	6,273.0	-1,219.0	-55.3	1,220.2	0.45	-0.45	
6,518.0	0.40	270.10	6,359.0	-1,218.9	-55.7	1,220.2	0.24	0.23	
6,606.0	0.00	193.90	6,447.0	-1,218.9	-56.0	1,220.2	0.45	-0.45	
6,696.0	0.10	261.10	6,537.0	-1,219.0	-56.1	1,220.2	0.11	0.11	
6,786.0	0.50	195.90	6,627.0	-1,219.3	-56.3	1,220.6	0.52	0.44	
6,875.0	0.30	246.20	6,716.0	-1,219.8	-56.6	1,221.1	0.43	-0.22	
6,963.0	0.40	231.20	6,804.0	-1,220.1	-57.1	1,221.4	0.15	0.11	
7,052.0	0.30	223.50	6,893.0	-1,220.5	-57.5	1,221.8	0.12	-0.11	
7,141.0	0.50	139.00	6,982.0	-1,220.9	-57.4	1,222.3	0.63	0.22	
7,229.0	0.50	187.90	7,070.0	-1,221.6	-57.2	1,222.9	0.47	0.00	
7,317.0	0.30	210.30	7,158.0	-1,222.2	-57.3	1,223.5	0.28	-0.23	
7,405.0	0.30	192.10	7,246.0	-1,222.6	-57.5	1,223.9	0.11	0.00	
7,492.0	0.50	113.20	7,333.0	-1,223.0	-57.2	1,224.3	0.61	0.23	
7,580.0	0.50	150.50	7,421.0	-1,223.5	-56.7	1,224.8	0.36	0.00	
7,670.0	0.40	81.30	7,511.0	-1,223.7	-56.2	1,225.0	0.58	-0.11	
7,758.0	0.60	125.10	7,599.0	-1,224.0	-55.5	1,225.2	0.47	0.23	
7,847.0	0.50	67.90	7,688.0	-1,224.1	-54.7	1,225.3	0.60	-0.11	
7,937.0	0.20	93.10	7,778.0	-1,223.9	-54.2	1,225.1	0.37	-0.33	
8,025.0	0.40	150.60	7,866.0	-1,224.2	-53.9	1,225.4	0.38	0.23	
8,114.0	1.10	193.10	7,955.0	-1,225.3	-53.9	1,226.5	0.95	0.79	
8,204.0	1.40	190.80	8,045.0	-1,227.2	-54.3	1,228.5	0.34	0.33	
8,277.0	1.10	201.30	8,117.9	-1,228.8	-54.8	1,230.0	0.52	-0.41	Last Cathedral Survey @ 8,277' MD
8,327.0	1.10	201.30	8,167.9	-1,229.7	-55.1	1,230.9	0.00	0.00	Projection to Bit @ 8,327'

Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
Strear 35-10 PBHL	0.00	0.00	8,123.0	-1,200.3	-54.2	1,296,487.99	3,172,981.59	40.145590	-104.881244
- survey misses target center by 28.9ft at 8277.0ft MD (8117.9 TVD, -1228.8 N, -54.8 E)									
- Circle (radius 50.0)									

Survey Annotations

	Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
			+N/-S (ft)	+E/-W (ft)	
	8,277.0	8,117.9	-1,228.8	-54.8	Last Cathedral Survey @ 8,277' MD
	8,327.0	8,167.9	-1,229.7	-55.1	Projection to Bit @ 8,327'

Checked By: _____ Approved By: _____ Date: _____