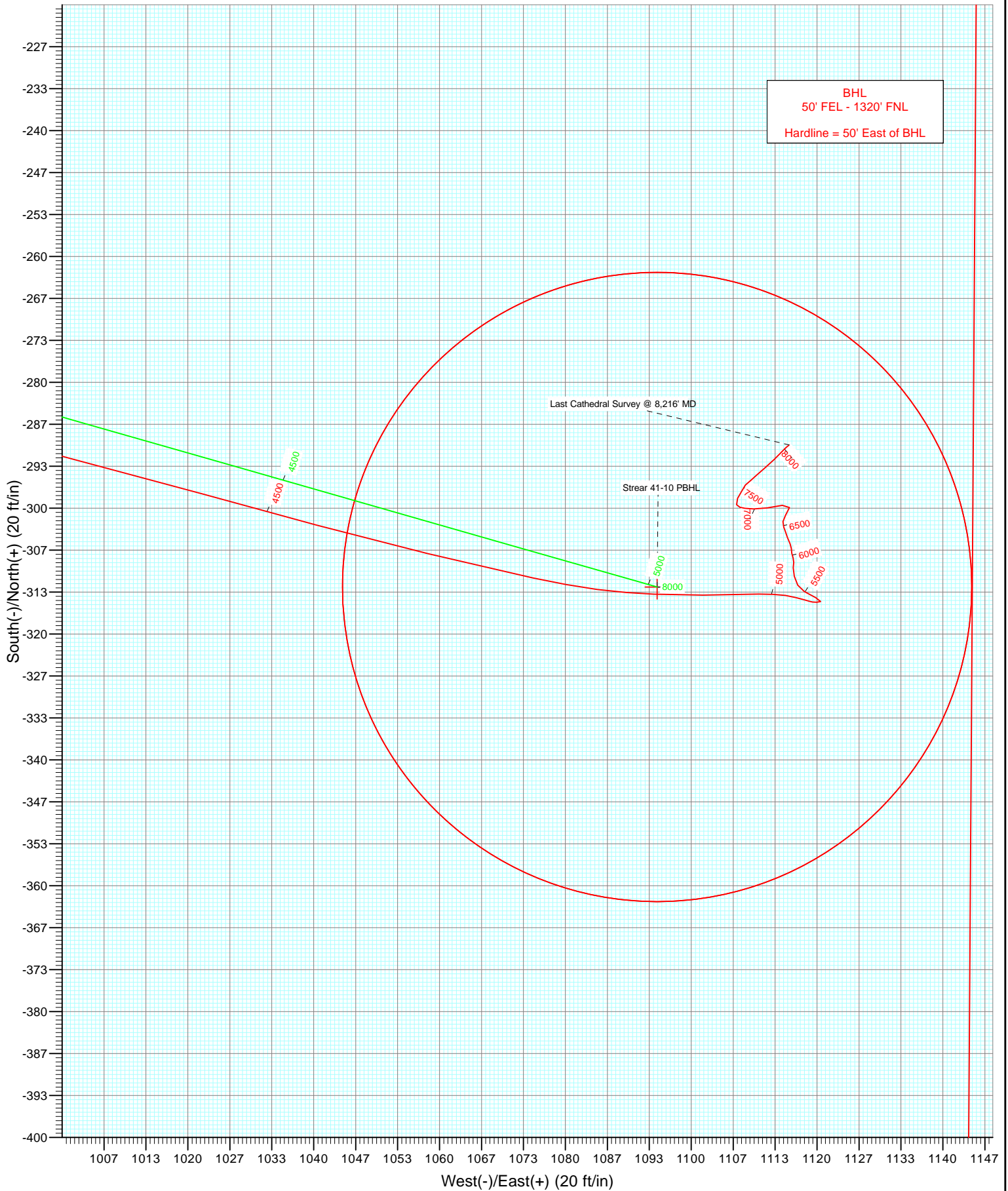


Azimuths to True North  
Magnetic North: 8.80°

Magnetic Field  
Strength: 52916.3snT  
Dip Angle: 66.81°  
Date: 3/1/2012  
Model: IGRF2010

Name		TVD		+N/-S		+E/-W		Latitude		Longitude	
Strear 41-10 PBHL		8064.0		-312.5		1094.6		40.156219		-104.867326	
Type	Target	Azimuth		Origin Type		N/S		E/W		From TVD	
Target	Strear 41-10 PBHL	105.94		Slot		0.0		0.0		0.0	

DD  
Strear 41-10  
125212 148355; LR  
KBE @ 4939.0ft (Xtreme 14)  
North American Datum 1983  
Well Strear 41-10, True North



# Cathedral Energy Services

## Survey Report

<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well Strear 41-10
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 4939.0ft (Xtreme 14)
<b>Site:</b>	NENE Sec10-T2N-R67W (Strear 17-10-9F)	<b>MD Reference:</b>	KBE @ 4939.0ft (Xtreme 14)
<b>Well:</b>	Strear 41-10	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB

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

Site		NENE Sec10-T2N-R67W (Strear 17-10-9F)			
Site Position:		Northing:	1,300,712.08 ft	Latitude:	40.157132
From:	Lat/Long	Easting:	3,175,747.83 ft	Longitude:	-104.871242
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.41 °

Well	Strear 41-10					
Well Position	+N/-S	0.0 ft	Northing:	1,300,692.04 ft	Latitude:	40.157077
	+E/-W	0.0 ft	Easting:	3,175,747.97 ft	Longitude:	-104.871242
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,924.0 ft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	3/1/2012	8.80	66.81	52,916

<b>Design</b>	DD				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	105.94	

<b>Survey Program</b>	<b>Date</b>	3/5/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
89.0	8,216.0	Survey #1 (DD)	MWD	Geolink MWD	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Formations / Comments</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00		
89.0	0.40	248.70	89.0	-0.1	-0.3	-0.2	0.45	0.45		
183.0	0.80	85.10	183.0	-0.2	0.1	0.1	1.27	0.43		
276.0	1.60	108.30	276.0	-0.5	1.9	2.0	0.99	0.86		
369.0	3.50	107.10	368.9	-1.8	5.9	6.1	2.04	2.04		
416.0	4.40	105.20	415.8	-2.7	9.0	9.4	1.93	1.91		
505.0	5.40	102.10	504.4	-4.4	16.4	17.0	1.16	1.12		
595.0	7.00	98.80	593.9	-6.2	25.9	26.6	1.82	1.78		
684.0	8.70	101.10	682.1	-8.3	37.9	38.7	1.94	1.91		
770.0	8.80	100.80	767.1	-10.8	50.8	51.8	0.13	0.12		
875.0	12.20	103.50	870.3	-14.9	69.4	70.9	3.27	3.24		
964.0	13.50	107.10	957.1	-20.1	88.5	90.6	1.71	1.46		
1,053.0	16.40	105.70	1,043.1	-26.6	110.5	113.6	3.28	3.26		

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well Strear 41-10
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 4939.0ft (Xtreme 14)
<b>Site:</b>	NENE Sec10-T2N-R67W (Strear 17-10-9F)	<b>MD Reference:</b>	KBE @ 4939.0ft (Xtreme 14)
<b>Well:</b>	Strear 41-10	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	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
1,143.0	18.60	106.40	1,128.9	-34.1	136.5	140.7	2.46	2.44	
1,231.0	18.90	107.80	1,212.2	-42.4	163.6	168.9	0.61	0.34	
1,320.0	18.10	108.60	1,296.6	-51.2	190.4	197.1	0.94	-0.90	
1,410.0	17.10	108.70	1,382.4	-59.9	216.2	224.3	1.11	-1.11	
1,499.0	16.70	110.50	1,467.6	-68.6	240.6	250.1	0.74	-0.45	
1,589.0	16.30	109.20	1,553.8	-77.3	264.6	275.6	0.60	-0.44	
1,678.0	16.20	108.80	1,639.3	-85.4	288.2	300.5	0.17	-0.11	
1,766.0	15.60	109.90	1,723.9	-93.4	310.9	324.6	0.76	-0.68	
1,854.0	16.00	103.70	1,808.6	-100.3	333.8	348.5	1.97	0.45	
1,943.0	15.60	104.00	1,894.2	-106.1	357.3	372.7	0.46	-0.45	
2,031.0	14.90	102.60	1,979.1	-111.4	379.9	395.8	0.90	-0.80	
2,119.0	14.70	104.40	2,064.2	-116.6	401.7	418.3	0.57	-0.23	
2,209.0	15.50	102.20	2,151.1	-122.0	424.5	441.7	1.09	0.89	
2,299.0	15.30	100.50	2,237.9	-126.7	448.0	465.5	0.55	-0.22	
2,388.0	15.70	104.80	2,323.7	-131.9	471.2	489.3	1.37	0.45	
2,478.0	15.00	101.70	2,410.4	-137.4	494.3	513.1	1.20	-0.78	
2,565.0	15.50	108.60	2,494.4	-143.4	516.4	535.9	2.16	0.57	
2,654.0	14.90	108.60	2,580.3	-150.8	538.5	559.2	0.67	-0.67	
2,742.0	14.40	107.20	2,665.4	-157.7	559.7	581.5	0.70	-0.57	
2,832.0	15.20	104.10	2,752.4	-163.9	581.8	604.4	1.25	0.89	
2,920.0	14.70	105.30	2,837.4	-169.6	603.8	627.1	0.67	-0.57	
3,010.0	14.20	104.70	2,924.6	-175.4	625.5	649.6	0.58	-0.56	
3,098.0	16.20	105.10	3,009.5	-181.4	647.7	672.7	2.28	2.27	
3,185.0	15.20	104.10	3,093.3	-187.3	670.5	696.2	1.19	-1.15	
3,273.0	14.60	104.10	3,178.3	-192.8	692.5	718.8	0.68	-0.68	
3,362.0	13.70	107.60	3,264.6	-198.7	713.4	740.5	1.39	-1.01	
3,450.0	15.40	109.00	3,349.8	-205.7	734.4	762.6	1.97	1.93	
3,540.0	14.50	104.70	3,436.7	-212.5	756.6	785.8	1.59	-1.00	
3,628.0	15.80	102.80	3,521.7	-217.9	778.9	808.8	1.58	1.48	
3,716.0	16.70	104.40	3,606.2	-223.7	802.8	833.4	1.14	1.02	
3,804.0	16.20	108.90	3,690.6	-230.8	826.7	858.3	1.56	-0.57	
3,892.0	16.40	111.80	3,775.0	-239.4	849.9	882.9	0.95	0.23	
3,981.0	16.90	113.10	3,860.3	-249.2	873.4	908.3	0.70	0.56	
4,067.0	15.10	114.30	3,943.0	-258.7	895.1	931.8	2.13	-2.09	
4,156.0	15.50	109.80	4,028.8	-267.5	916.9	955.1	1.41	0.45	
4,242.0	14.30	108.60	4,111.9	-274.8	937.8	977.2	1.44	-1.40	
4,330.0	15.40	104.70	4,197.0	-281.2	959.4	999.7	1.69	1.25	
4,419.0	13.80	104.40	4,283.1	-286.8	981.1	1,022.1	1.80	-1.80	
4,505.0	14.50	104.80	4,366.5	-292.1	1,001.4	1,043.1	0.82	0.81	
4,595.0	13.30	105.30	4,453.9	-297.7	1,022.3	1,064.8	1.34	-1.33	
4,681.0	12.20	105.20	4,537.7	-302.7	1,040.6	1,083.7	1.28	-1.28	
4,769.0	11.50	103.50	4,623.9	-307.2	1,058.1	1,101.8	0.89	-0.80	
4,858.0	10.80	102.50	4,711.2	-311.1	1,074.9	1,119.0	0.82	-0.79	
4,946.0	8.80	94.40	4,797.9	-313.4	1,089.7	1,133.8	2.76	-2.27	
5,036.0	6.80	88.80	4,887.1	-313.8	1,101.8	1,145.7	2.37	-2.22	
5,124.0	4.80	89.20	4,974.6	-313.6	1,110.7	1,154.2	2.27	-2.27	
5,211.0	3.10	105.20	5,061.4	-314.2	1,116.6	1,160.0	2.31	-1.95	
5,300.0	0.40	104.10	5,150.3	-314.9	1,119.3	1,162.7	3.03	-3.03	
5,388.0	0.50	82.70	5,238.3	-314.9	1,119.9	1,163.4	0.22	0.11	
5,477.0	0.30	75.10	5,327.3	-314.8	1,120.6	1,163.9	0.23	-0.22	
5,565.0	1.50	298.80	5,415.3	-314.2	1,119.8	1,163.0	1.97	1.36	
5,655.0	1.10	298.00	5,505.3	-313.2	1,118.0	1,161.0	0.44	-0.44	
5,743.0	0.90	334.50	5,593.3	-312.2	1,116.9	1,159.7	0.74	-0.23	

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well Strear 41-10
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 4939.0ft (Xtreme 14)
<b>Site:</b>	NENE Sec10-T2N-R67W (Strear 17-10-9F)	<b>MD Reference:</b>	KBE @ 4939.0ft (Xtreme 14)
<b>Well:</b>	Strear 41-10	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	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
5,831.0	1.10	341.40	5,681.3	-310.8	1,116.4	1,158.8	0.26	0.23	
5,919.0	0.70	11.30	5,769.3	-309.5	1,116.2	1,158.3	0.69	-0.45	
6,009.0	0.40	355.40	5,859.3	-308.6	1,116.3	1,158.1	0.37	-0.33	
6,097.0	0.50	349.50	5,947.3	-307.9	1,116.2	1,157.8	0.13	0.11	
6,183.0	0.60	340.40	6,033.3	-307.1	1,116.0	1,157.4	0.15	0.12	
6,271.0	0.40	18.00	6,121.3	-306.4	1,115.9	1,157.2	0.42	-0.23	
6,359.0	0.70	326.60	6,209.3	-305.7	1,115.7	1,156.8	0.62	0.34	
6,447.0	0.80	345.90	6,297.2	-304.6	1,115.3	1,156.0	0.31	0.11	
6,537.0	0.40	334.30	6,387.2	-303.7	1,115.0	1,155.5	0.46	-0.44	
6,625.0	0.60	342.80	6,475.2	-303.0	1,114.7	1,155.1	0.24	0.23	
6,713.0	0.60	1.20	6,563.2	-302.1	1,114.6	1,154.7	0.22	0.00	
6,801.0	0.90	36.60	6,651.2	-301.1	1,115.0	1,154.8	0.61	0.34	
6,889.0	0.90	17.30	6,739.2	-299.9	1,115.6	1,155.1	0.34	0.00	
6,977.0	1.80	257.10	6,827.2	-299.5	1,114.5	1,153.9	2.71	1.02	
7,067.0	1.40	263.90	6,917.2	-300.0	1,112.0	1,151.6	0.49	-0.44	
7,155.0	1.30	268.20	7,005.1	-300.1	1,109.9	1,149.7	0.16	-0.11	
7,244.0	0.60	288.10	7,094.1	-300.0	1,108.5	1,148.3	0.86	-0.79	
7,333.0	0.40	270.70	7,183.1	-299.9	1,107.7	1,147.5	0.28	-0.22	
7,421.0	0.60	331.60	7,271.1	-299.4	1,107.2	1,146.9	0.61	0.23	
7,510.0	0.90	32.30	7,360.1	-298.4	1,107.4	1,146.7	0.90	0.34	
7,598.0	0.80	26.60	7,448.1	-297.3	1,108.0	1,147.1	0.15	-0.11	
7,688.0	0.70	37.30	7,538.1	-296.3	1,108.6	1,147.4	0.19	-0.11	
7,776.0	0.70	60.30	7,626.1	-295.6	1,109.4	1,147.9	0.32	0.00	
7,864.0	1.10	40.40	7,714.1	-294.7	1,110.4	1,148.7	0.57	0.45	
7,954.0	1.10	57.10	7,804.1	-293.6	1,111.7	1,149.6	0.35	0.00	
8,043.0	1.50	41.30	7,893.0	-292.2	1,113.2	1,150.7	0.60	0.45	
8,168.0	0.90	49.60	8,018.0	-290.4	1,115.0	1,151.9	0.50	-0.48	
8,213.6	0.71	51.85	8,063.6	-290.0	1,115.5	1,152.3	0.42	-0.42	Strear 41-10 PBHL
8,216.0	0.70	52.00	8,066.0	-290.0	1,115.5	1,152.3	0.42	-0.42	Last Cathedral Survey @ 8,216' MD

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude Longitude
Strear 41-10 PBHL		0.00	0.00	8,064.0	-312.5	1,094.6	1,300,387.29	3,176,844.73	40.156219 -104.867326
- actual wellpath misses target center by 30.8ft at 8213.6ft MD (8063.6 TVD, -290.0 N, 1115.5 E)									
- Circle (radius 50.0)									

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
8,216.0	8,066.0	-290.0	1,115.5	Last Cathedral Survey @ 8,216' MD	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_