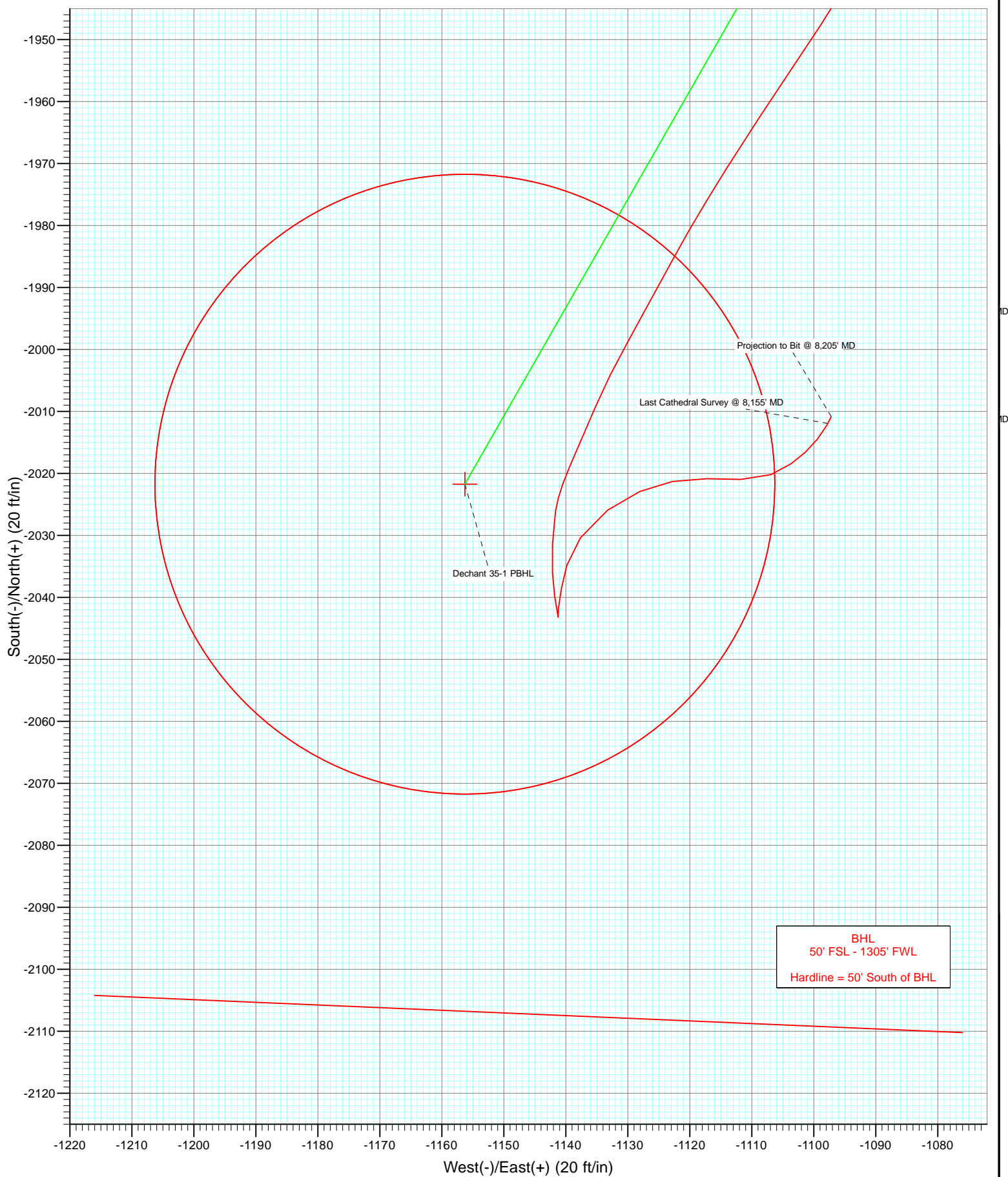


Azimuths to True North  
Magnetic North: 8.68°

Magnetic Field  
Strength: 52960.5nT  
Dip Angle: 66.87°  
Date: 1/23/2012  
Model: IGRF2010

Type	Target	Target	Azimuth	Origin	Type	N/S	E/W	From
Target	Dechant 35-1 PBHL	Dechant 35-1 PBHL	209.77	Slot		0.0	0.0	TVD
Name	Dechant 35-1 PBHL	TVD	+N/-S	+E/-W	Latitude	Longitude		
		7713.0	-2021.7	-1156.3	40.160404	-104.616619		

DD  
Dechant 35-1  
125079 134955; LR  
KBE @ 4853.0ft (Xtreme 14)  
North American Datum 1983  
Well Dechant 35-1, True North



## Survey Report

<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well Dechant 35-1
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 4853.0ft (Xtreme 14)
<b>Site:</b>	NESW Sec1-T2N-R65W (Dechant 23-1)	<b>MD Reference:</b>	KBE @ 4853.0ft (Xtreme 14)
<b>Well:</b>	Dechant 35-1	<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	NESW Sec1-T2N-R65W (Dechant 23-1)				
Site Position:		Northing:	1,304,604.07 ft	Latitude:	40.166119
From:	Lat/Long	Easting:	3,248,038.33 ft	Longitude:	-104.612481
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.57 °

Well	Dechant 35-1					
Well Position	+N/-S	0.0 ft	Northing:	1,304,543.96 ft	Latitude:	40.165954
	+E/-W	0.0 ft	Easting:	3,248,038.65 ft	Longitude:	-104.612482
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,838.0 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	1/23/2012	8.68	66.87	52,961

<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	209.77	

<b>Survey Program</b>	<b>Date</b>	1/28/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
90.0	8,205.0	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		
90.0	1.00	327.20	90.0	0.7	-0.4	-0.4	1.11	1.11		
184.0	0.80	241.20	184.0	1.0	-1.4	-0.2	1.32	-0.21		
277.0	1.70	200.20	277.0	-0.6	-2.5	1.7	1.31	0.97		
370.0	3.60	208.50	369.9	-4.4	-4.4	6.0	2.08	2.04		
461.0	6.10	205.60	460.5	-11.3	-7.8	13.7	2.76	2.75		
548.0	7.40	200.70	546.9	-20.7	-11.8	23.8	1.63	1.49		
638.0	9.30	204.70	636.0	-32.7	-16.9	36.8	2.21	2.11		
685.0	9.80	204.10	682.3	-39.8	-20.1	44.6	1.08	1.06		
768.0	10.50	201.90	764.0	-53.3	-25.8	59.1	0.96	0.84		
872.0	11.70	205.30	866.1	-71.6	-33.8	79.0	1.31	1.15		
961.0	14.40	214.90	952.8	-88.9	-44.0	99.0	3.88	3.03		
1,050.0	15.80	215.80	1,038.7	-107.8	-57.5	122.1	1.59	1.57		

## Survey Report

<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well Dechant 35-1
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 4853.0ft (Xtreme 14)
<b>Site:</b>	NESW Sec1-T2N-R65W (Dechant 23-1)	<b>MD Reference:</b>	KBE @ 4853.0ft (Xtreme 14)
<b>Well:</b>	Dechant 35-1	<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
1,138.0	17.50	214.40	1,123.0	-128.4	-71.9	147.2	1.98	1.93	
1,227.0	19.80	213.20	1,207.3	-152.1	-87.8	175.6	2.62	2.58	
1,316.0	21.70	212.50	1,290.6	-178.6	-104.9	207.1	2.15	2.13	
1,404.0	23.50	209.70	1,371.8	-207.5	-122.3	240.9	2.38	2.05	
1,490.0	23.60	207.60	1,450.6	-237.7	-138.8	275.2	0.98	0.12	
1,579.0	25.10	206.90	1,531.7	-270.3	-155.6	311.9	1.72	1.69	
1,668.0	26.80	202.20	1,611.7	-305.7	-171.7	350.6	3.00	1.91	
1,756.0	28.50	202.70	1,689.7	-343.5	-187.3	391.1	1.95	1.93	
1,845.0	28.10	204.40	1,768.1	-382.1	-204.1	433.1	1.01	-0.45	
1,932.0	28.70	207.50	1,844.6	-419.3	-222.2	474.3	1.83	0.69	
2,021.0	28.00	211.10	1,922.9	-456.2	-242.9	516.6	2.08	-0.79	
2,110.0	25.70	208.40	2,002.3	-491.1	-262.9	556.8	2.92	-2.58	
2,198.0	25.00	206.50	2,081.9	-524.5	-280.3	594.4	1.22	-0.80	
2,285.0	26.50	208.20	2,160.2	-558.0	-297.6	632.2	1.92	1.72	
2,373.0	26.60	209.50	2,238.9	-592.5	-316.6	671.5	0.67	0.11	
2,463.0	28.50	212.90	2,318.7	-628.1	-338.2	713.1	2.74	2.11	
2,551.0	27.60	214.50	2,396.4	-662.5	-361.1	754.4	1.33	-1.02	
2,641.0	26.90	216.60	2,476.4	-696.0	-385.1	795.4	1.32	-0.78	
2,729.0	28.70	216.10	2,554.2	-729.1	-409.4	836.1	2.06	2.05	
2,817.0	29.00	216.20	2,631.3	-763.4	-434.5	878.3	0.35	0.34	
2,905.0	31.20	213.60	2,707.5	-799.6	-459.7	922.3	2.91	2.50	
2,993.0	31.10	213.60	2,782.8	-837.5	-484.9	967.7	0.11	-0.11	
3,081.0	30.10	212.90	2,858.5	-874.9	-509.4	1,012.4	1.21	-1.14	
3,171.0	28.60	212.10	2,937.0	-912.1	-533.1	1,056.5	1.72	-1.67	
3,261.0	30.40	210.80	3,015.3	-949.9	-556.2	1,100.8	2.12	2.00	
3,350.0	29.50	211.40	3,092.4	-988.0	-579.2	1,145.2	1.07	-1.01	
3,438.0	31.10	211.60	3,168.4	-1,025.9	-602.4	1,189.6	1.82	1.82	
3,524.0	29.90	211.60	3,242.5	-1,063.0	-625.3	1,233.2	1.40	-1.40	
3,613.0	28.20	210.60	3,320.3	-1,100.0	-647.6	1,276.4	1.99	-1.91	
3,701.0	28.60	207.40	3,397.7	-1,136.6	-667.9	1,318.2	1.79	0.45	
3,789.0	29.80	207.60	3,474.5	-1,174.7	-687.7	1,361.1	1.37	1.36	
3,876.0	30.00	210.50	3,549.9	-1,212.6	-708.8	1,404.5	1.68	0.23	
3,966.0	30.00	210.40	3,627.9	-1,251.4	-731.6	1,449.5	0.06	0.00	
4,056.0	29.80	208.00	3,705.9	-1,290.5	-753.4	1,494.3	1.35	-0.22	
4,144.0	28.90	207.00	3,782.6	-1,328.8	-773.4	1,537.4	1.16	-1.02	
4,232.0	30.10	209.30	3,859.2	-1,367.0	-793.8	1,580.7	1.87	1.36	
4,322.0	31.00	208.80	3,936.7	-1,407.0	-816.0	1,626.5	1.04	1.00	
4,411.0	29.70	207.90	4,013.5	-1,446.6	-837.4	1,671.4	1.55	-1.46	
4,501.0	30.00	205.60	4,091.6	-1,486.6	-857.5	1,716.2	1.31	0.33	
4,591.0	26.90	204.10	4,170.7	-1,525.4	-875.6	1,758.9	3.53	-3.44	
4,680.0	28.60	205.00	4,249.4	-1,563.1	-892.8	1,800.1	1.97	1.91	
4,767.0	26.00	207.50	4,326.8	-1,598.9	-910.4	1,839.9	3.27	-2.99	
4,855.0	26.90	208.70	4,405.5	-1,633.5	-928.9	1,879.1	1.19	1.02	
4,943.0	27.20	209.50	4,483.9	-1,668.5	-948.3	1,919.1	0.54	0.34	
5,033.0	26.30	207.40	4,564.3	-1,704.1	-967.7	1,959.6	1.45	-1.00	
5,121.0	25.40	209.00	4,643.5	-1,737.9	-985.8	1,998.0	1.29	-1.02	
5,208.0	21.40	208.30	4,723.3	-1,768.2	-1,002.4	2,032.5	4.61	-4.60	
5,296.0	19.40	208.60	4,805.8	-1,795.2	-1,017.0	2,063.2	2.28	-2.27	
5,386.0	16.70	206.60	4,891.3	-1,819.9	-1,029.9	2,091.0	3.08	-3.00	
5,475.0	16.70	208.60	4,976.6	-1,842.5	-1,041.8	2,116.6	0.65	0.00	
5,563.0	18.60	208.20	5,060.4	-1,866.0	-1,054.4	2,143.3	2.16	2.16	
5,651.0	18.50	206.10	5,143.9	-1,890.9	-1,067.2	2,171.2	0.77	-0.11	
5,739.0	15.50	209.20	5,228.0	-1,913.7	-1,079.1	2,196.9	3.56	-3.41	

## Survey Report

<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well Dechant 35-1
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 4853.0ft (Xtreme 14)
<b>Site:</b>	NESW Sec1-T2N-R65W (Dechant 23-1)	<b>MD Reference:</b>	KBE @ 4853.0ft (Xtreme 14)
<b>Well:</b>	Dechant 35-1	<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
5,827.0	15.80	209.90	5,312.8	-1,934.3	-1,090.8	2,220.7	0.40	0.34	
5,916.0	14.00	214.20	5,398.8	-1,953.8	-1,102.9	2,243.5	2.37	-2.02	
6,004.0	12.70	212.20	5,484.4	-1,970.7	-1,114.0	2,263.8	1.57	-1.48	
6,091.0	10.70	208.50	5,569.6	-1,985.9	-1,123.0	2,281.4	2.45	-2.30	
6,179.0	8.30	208.90	5,656.4	-1,998.7	-1,130.0	2,296.0	2.73	-2.73	
6,267.0	7.20	203.50	5,743.6	-2,009.3	-1,135.2	2,307.8	1.50	-1.25	
6,356.0	6.20	203.10	5,832.0	-2,018.8	-1,139.3	2,318.1	1.12	-1.12	
6,446.0	3.60	188.40	5,921.6	-2,026.1	-1,141.7	2,325.6	3.19	-2.89	
6,536.0	3.20	181.50	6,011.5	-2,031.4	-1,142.1	2,330.4	0.64	-0.44	
6,625.0	2.80	178.10	6,100.3	-2,036.1	-1,142.1	2,334.4	0.49	-0.45	
6,713.0	2.10	170.30	6,188.3	-2,039.8	-1,141.8	2,337.5	0.88	-0.80	
6,802.0	1.20	171.30	6,277.2	-2,042.3	-1,141.4	2,339.5	1.01	-1.01	
6,892.0	0.10	351.50	6,367.2	-2,043.2	-1,141.2	2,340.2	1.44	-1.22	
6,979.0	1.90	3.00	6,454.2	-2,041.7	-1,141.2	2,338.8	2.07	2.07	
7,069.0	2.20	13.30	6,544.1	-2,038.5	-1,140.7	2,335.9	0.53	0.33	
7,158.0	2.60	13.80	6,633.1	-2,034.9	-1,139.8	2,332.3	0.45	0.45	
7,247.0	3.90	33.90	6,721.9	-2,030.4	-1,137.7	2,327.3	1.92	1.46	
7,335.0	4.40	53.90	6,809.7	-2,025.9	-1,133.3	2,321.2	1.73	0.57	
7,422.0	3.60	67.20	6,896.5	-2,022.9	-1,128.0	2,316.0	1.40	-0.92	
7,510.0	3.60	78.60	6,984.3	-2,021.3	-1,122.8	2,312.0	0.81	0.00	
7,600.0	3.60	92.30	7,074.1	-2,020.8	-1,117.2	2,308.9	0.95	0.00	
7,686.0	3.60	90.50	7,160.0	-2,021.0	-1,111.8	2,306.3	0.13	0.00	
7,776.0	2.80	68.10	7,249.8	-2,020.2	-1,106.9	2,303.2	1.63	-0.89	
7,865.0	2.00	53.40	7,338.7	-2,018.4	-1,103.7	2,300.1	1.13	-0.90	
7,953.0	1.90	48.80	7,426.7	-2,016.6	-1,101.3	2,297.3	0.21	-0.11	
8,041.0	1.80	35.40	7,514.6	-2,014.5	-1,099.4	2,294.5	0.50	-0.11	
8,129.0	1.40	34.50	7,602.6	-2,012.5	-1,098.0	2,292.1	0.46	-0.45	
8,155.0	1.40	26.50	7,628.6	-2,011.9	-1,097.7	2,291.4	0.75	0.00	Last Cathedral Survey @ 8,155' MD
8,205.0	1.40	26.50	7,678.6	-2,010.8	-1,097.2	2,290.2	0.00	0.00	Projection to Bit @ 8,205' 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									
Dechant 35-1 PBHL	0.00	0.00	7,713.0	-2,021.7	-1,156.3	1,302,510.76	3,246,902.67	40.160404	-104.616619
- actual wellpath misses target center by 69.3ft at 8205.0ft MD (7678.6 TVD, -2010.8 N, -1097.2 E)									
- Circle (radius 50.0)									

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
8,155.0	7,628.6	-2,011.9	-1,097.7	Last Cathedral Survey @ 8,155' MD	
8,205.0	7,678.6	-2,010.8	-1,097.2	Projection to Bit @ 8,205' MD	

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------