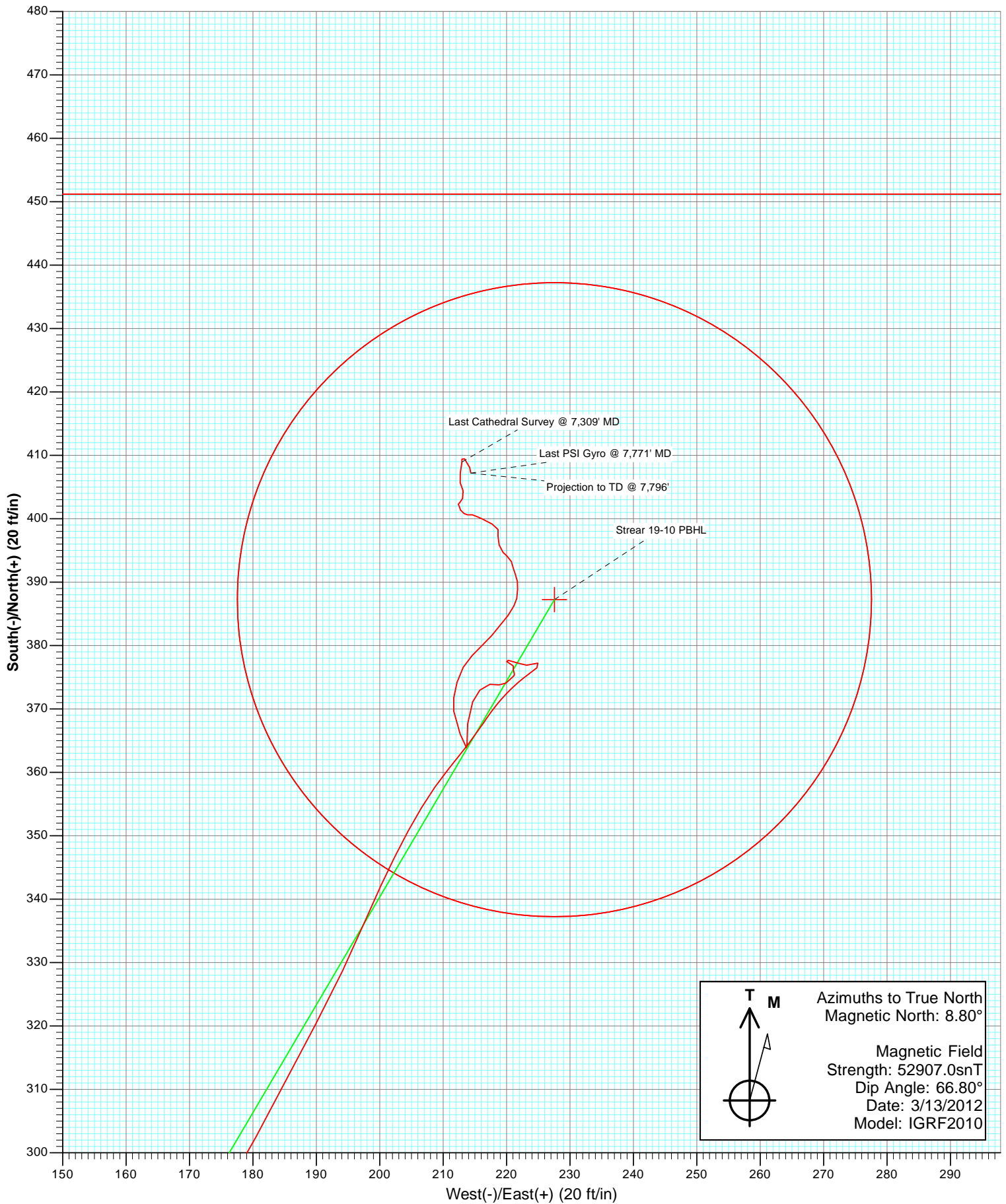


Azimuths to True North  
Magnetic North: 8.80°

Magnetic Field  
Strength: 52907.0snT  
Dip Angle: 66.80°  
Date: 3/13/2012  
Model: IGRF2010

DD Strear 19-10 125231; 150755; DN						
15' KB @ 4989.0ft (Xtreme 14) North American Datum 1983 Well Strear 19-10, True North						
Type Target	Target Strear 19-10 PBHL	Azimuth 30.44	Origin Slot	Type Slot	N/S 0.0	E/W 0.0
From TVD		0.0				
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
Legal Box 19 Center	-7709.0	51.2	-65.6	40.149054	-104.881284	
Strear 19-10 PBHL	7709.0	387.2	227.5	40.149976	-104.880236	



# Cathedral Energy Services

## Survey Report

<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well Strear 19-10
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	15' KB @ 4989.0ft (Xtreme 14)
<b>Site:</b>	SESW Sec10-T2N-R67W (Strear 19-10)	<b>MD Reference:</b>	15' KB @ 4989.0ft (Xtreme 14)
<b>Well:</b>	Strear 19-10	<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		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 19-10					
Well Position	+N/-S	0.0 ft	Northing:	1,297,698.83 ft	Latitude:	40.148913
	+E/-W	0.0 ft	Easting:	3,173,027.37 ft	Longitude:	-104.881050
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,974.0 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	3/13/2012	8.80	66.80	52,907

<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	30.44	

<b>Survey Program</b>	<b>Date</b>	3/21/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
93.0	7,309.0	Survey #1 (DD)	MWD	Geolink MWD	
7,380.0	7,796.0	Survey #2 (DD)	Gyro	Gyro	

<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		
93.0	0.50	300.00	93.0	0.2	-0.4	0.0	0.54	0.54		
186.0	2.20	9.70	186.0	2.2	-0.4	1.7	2.24	1.83		
279.0	2.50	23.10	278.9	5.8	0.7	5.3	0.67	0.32		
372.0	5.20	30.50	371.7	11.3	3.6	11.6	2.95	2.90		
463.0	6.50	35.20	462.2	19.1	8.7	20.8	1.52	1.43		
552.0	9.10	33.80	550.4	29.0	15.5	32.9	2.93	2.92		
667.0	12.30	32.80	663.4	46.9	27.2	54.2	2.79	2.78		
742.0	11.60	29.20	736.7	60.2	35.2	69.7	1.36	-0.93		
847.0	13.60	28.10	839.2	80.3	46.2	92.6	1.92	1.90		
936.0	15.40	27.50	925.4	100.0	56.6	114.9	2.03	2.02		
1,024.0	16.30	30.50	1,010.0	121.0	68.2	138.9	1.38	1.02		

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well Strear 19-10
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	15' KB @ 4989.0ft (Xtreme 14)
<b>Site:</b>	SESW Sec10-T2N-R67W (Strear 19-10)	<b>MD Reference:</b>	15' KB @ 4989.0ft (Xtreme 14)
<b>Well:</b>	Strear 19-10	<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
1,112.0	15.60	36.50	1,094.6	141.2	81.5	163.0	2.03	-0.80	
1,201.0	15.40	35.60	1,180.4	160.4	95.5	186.7	0.35	-0.22	
1,289.0	16.00	32.70	1,265.1	180.1	108.9	210.4	1.12	0.68	
1,377.0	15.10	32.80	1,349.9	199.9	121.7	234.0	1.02	-1.02	
1,465.0	16.20	29.20	1,434.6	220.3	133.9	257.7	1.67	1.25	
1,554.0	16.50	27.30	1,520.0	242.4	145.7	282.8	0.69	0.34	
1,643.0	16.00	29.80	1,605.5	264.2	157.6	307.6	0.97	-0.56	
1,731.0	13.90	32.90	1,690.5	283.6	169.4	330.3	2.55	-2.39	
1,820.0	14.50	28.20	1,776.8	302.4	180.4	352.2	1.46	0.67	
1,907.0	12.40	27.60	1,861.4	320.3	189.9	372.4	2.42	-2.41	
1,997.0	11.10	23.30	1,949.5	336.8	197.8	390.6	1.74	-1.44	
2,087.0	8.60	28.40	2,038.2	350.7	204.4	405.9	2.94	-2.78	
2,176.0	6.70	39.20	2,126.4	360.6	210.9	417.7	2.67	-2.13	
2,265.0	5.20	34.30	2,214.9	367.9	216.4	426.9	1.78	-1.69	
2,353.0	3.30	46.30	2,302.7	373.0	220.5	433.3	2.37	-2.16	
2,443.0	1.30	57.00	2,392.6	375.3	223.3	436.7	2.26	-2.22	
2,531.0	1.20	47.60	2,480.6	376.5	224.8	438.5	0.26	-0.11	
2,619.0	0.70	282.70	2,568.5	377.2	224.9	439.2	1.93	-0.57	
2,707.0	0.70	236.20	2,656.5	377.1	224.0	438.5	0.63	0.00	
2,795.0	0.50	294.40	2,744.5	376.9	223.2	438.0	0.69	-0.23	
2,882.0	1.20	278.60	2,831.5	377.2	221.9	437.6	0.84	0.80	
2,969.0	1.10	293.60	2,918.5	377.7	220.3	437.2	0.36	-0.11	
3,059.0	1.00	133.50	3,008.5	377.5	220.0	436.9	2.30	-0.11	
3,147.0	0.40	98.80	3,096.5	376.9	220.9	436.9	0.81	-0.68	
3,236.0	0.20	235.60	3,185.5	376.8	221.1	436.8	0.63	-0.22	
3,326.0	0.60	165.70	3,275.5	376.2	221.1	436.4	0.63	0.44	
3,414.0	0.40	166.90	3,363.5	375.5	221.2	435.8	0.23	-0.23	
3,502.0	0.20	301.10	3,451.5	375.3	221.2	435.6	0.63	-0.23	
3,592.0	0.70	210.10	3,541.5	374.9	220.8	435.0	0.81	0.56	
3,680.0	0.90	241.40	3,629.5	374.1	219.9	433.9	0.54	0.23	
3,769.0	0.60	278.80	3,718.5	373.8	218.8	433.1	0.63	-0.34	
3,857.0	1.30	270.40	3,806.5	373.9	217.4	432.5	0.81	0.80	
3,946.0	1.40	211.70	3,895.4	373.0	215.8	430.9	1.49	0.11	
4,034.0	1.40	211.20	3,983.4	371.1	214.7	428.7	0.01	0.00	
4,122.0	3.30	185.50	4,071.3	367.7	213.9	425.4	2.42	2.16	
4,209.0	1.10	171.20	4,158.3	364.4	213.7	422.4	2.59	-2.53	
4,299.0	0.60	331.50	4,248.3	363.9	213.7	422.0	1.86	-0.56	
4,389.0	2.40	336.40	4,338.2	366.1	212.7	423.4	2.00	2.00	
4,477.0	2.50	351.90	4,426.2	369.7	211.7	425.9	0.76	0.11	
4,565.0	3.60	16.50	4,514.0	374.2	212.2	430.1	1.92	1.25	
4,653.0	2.90	45.50	4,601.9	378.4	214.6	435.0	2.00	-0.80	
4,742.0	2.80	43.30	4,690.8	381.6	217.7	439.3	0.17	-0.11	
4,829.0	2.60	34.70	4,777.7	384.7	220.2	443.3	0.52	-0.23	
4,919.0	1.30	12.60	4,867.6	387.4	221.6	446.3	1.64	-1.44	
5,009.0	0.60	347.40	4,957.6	388.9	221.7	447.6	0.89	-0.78	
5,098.0	1.00	5.80	5,046.6	390.1	221.7	448.7	0.53	0.45	
5,186.0	0.70	311.50	5,134.6	391.2	221.4	449.5	0.93	-0.34	
5,274.0	0.70	11.20	5,222.6	392.1	221.1	450.1	0.79	0.00	
5,362.0	1.00	324.20	5,310.6	393.3	220.7	450.9	0.83	0.34	
5,451.0	0.40	314.00	5,399.6	394.1	220.1	451.3	0.69	-0.67	
5,539.0	0.70	312.50	5,487.6	394.7	219.5	451.5	0.34	0.34	
5,627.0	1.10	344.30	5,575.6	395.9	218.8	452.2	0.71	0.45	
5,716.0	0.70	6.20	5,664.6	397.2	218.7	453.2	0.59	-0.45	

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well Strear 19-10
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	15' KB @ 4989.0ft (Xtreme 14)
<b>Site:</b>	SESW Sec10-T2N-R67W (Strear 19-10)	<b>MD Reference:</b>	15' KB @ 4989.0ft (Xtreme 14)
<b>Well:</b>	Strear 19-10	<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
5,805.0	0.70	353.50	5,753.5	398.3	218.7	454.2	0.17	0.00	
5,893.0	1.20	289.50	5,841.5	399.1	217.7	454.4	1.24	0.57	
5,983.0	1.20	306.70	5,931.5	400.0	216.1	454.4	0.40	0.00	
6,072.0	0.90	274.00	6,020.5	400.6	214.6	454.1	0.74	-0.34	
6,162.0	0.10	240.00	6,110.5	400.6	213.9	453.8	0.91	-0.89	
6,251.0	0.70	295.90	6,199.5	400.8	213.3	453.7	0.73	0.67	
6,340.0	0.40	344.30	6,288.5	401.4	212.7	453.8	0.59	-0.34	
6,427.0	0.40	336.20	6,375.5	401.9	212.5	454.2	0.06	0.00	
6,515.0	0.10	355.40	6,463.5	402.3	212.4	454.5	0.35	-0.34	
6,603.0	0.50	48.80	6,551.5	402.6	212.7	454.9	0.51	0.45	
6,692.0	0.40	16.40	6,640.5	403.2	213.1	455.6	0.30	-0.11	
6,780.0	0.40	352.00	6,728.5	403.8	213.1	456.1	0.19	0.00	
6,868.0	0.10	160.80	6,816.5	404.0	213.1	456.3	0.57	-0.34	
6,955.0	0.20	16.60	6,903.5	404.1	213.2	456.4	0.33	0.11	
7,043.0	0.40	342.30	6,991.5	404.5	213.1	456.7	0.30	0.23	
7,131.0	1.20	340.00	7,079.5	405.7	212.7	457.5	0.91	0.91	
7,221.0	0.90	29.00	7,169.5	407.2	212.7	458.8	1.01	-0.33	
7,309.0	1.50	354.90	7,257.4	408.9	212.9	460.5	1.03	0.68	Last Cathedral Survey @ 7,309' MD
7,380.0	1.06	128.47	7,328.4	409.5	213.4	461.1	3.32	-0.62	
7,471.0	1.12	169.63	7,419.4	408.1	214.2	460.3	0.84	0.07	
7,560.0	0.00	0.00	7,508.4	407.2	214.4	459.7	1.26	-1.26	
7,650.0	0.00	0.00	7,598.4	407.2	214.4	459.7	0.00	0.00	
7,740.0	0.00	0.00	7,688.4	407.2	214.4	459.7	0.00	0.00	
7,771.0	0.00	0.00	7,719.4	407.2	214.4	459.7	0.00	0.00	Last PSI Gyro @ 7,771' MD
7,796.0	0.00	0.00	7,744.4	407.2	214.4	459.7	0.00	0.00	Projection to TD @ 7,796'

### 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									
Legal Box 19 Center	0.00	0.00	-7,709.0	51.2	-65.6	1,297,749.58	3,172,961.47	40.149054	-104.881284
- actual wellpath misses target center by 7709.4ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Rectangle (sides W800.0 H800.0 D0.0)									
Strear 19-10 PBHL	0.00	0.00	7,709.0	387.2	227.5	1,298,087.65	3,173,252.21	40.149976	-104.880236
- actual wellpath misses target center by 23.9ft at 7760.6ft MD (7709.0 TVD, 407.2 N, 214.4 E)									
- Circle (radius 50.0)									

### Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates	Comment
+N/-S (ft)	+E/-W (ft)		
7,309.0	7,257.4	408.9	212.9
Last Cathedral Survey @ 7,309' MD			

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