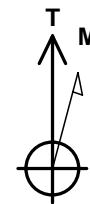
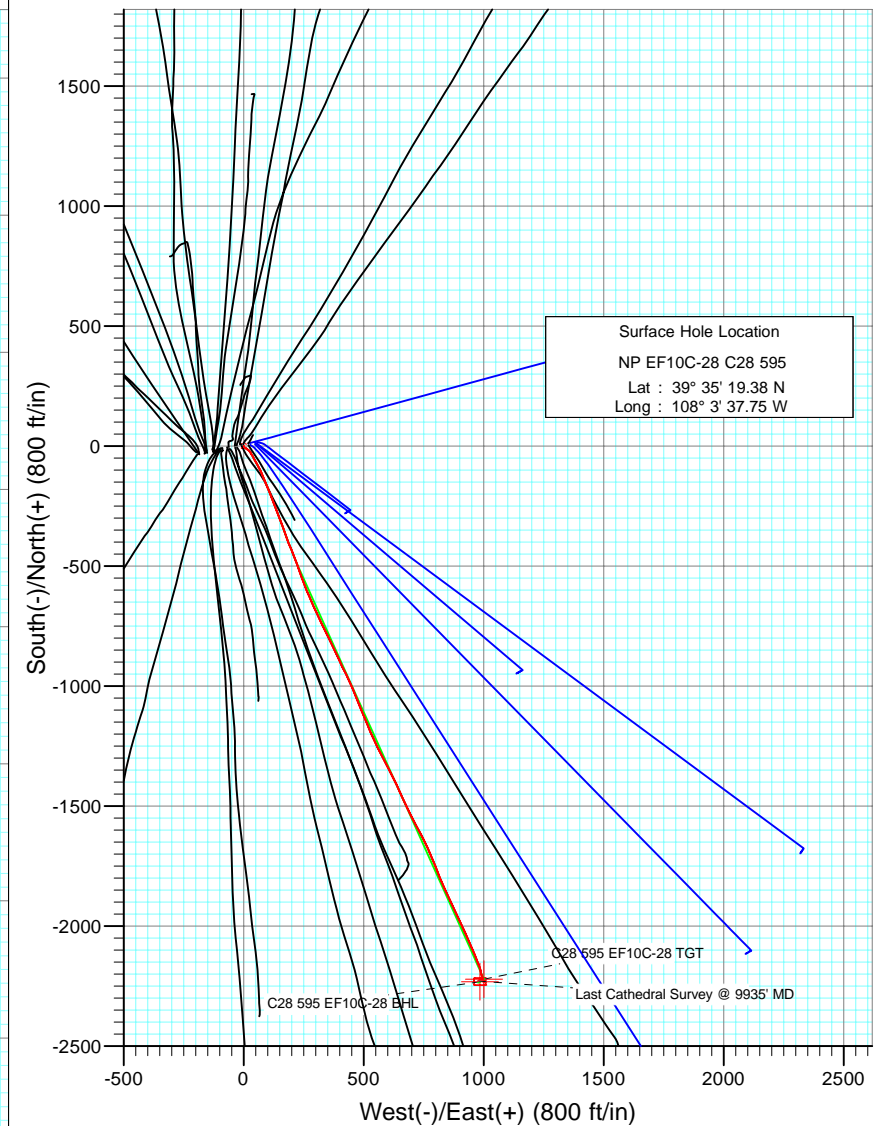
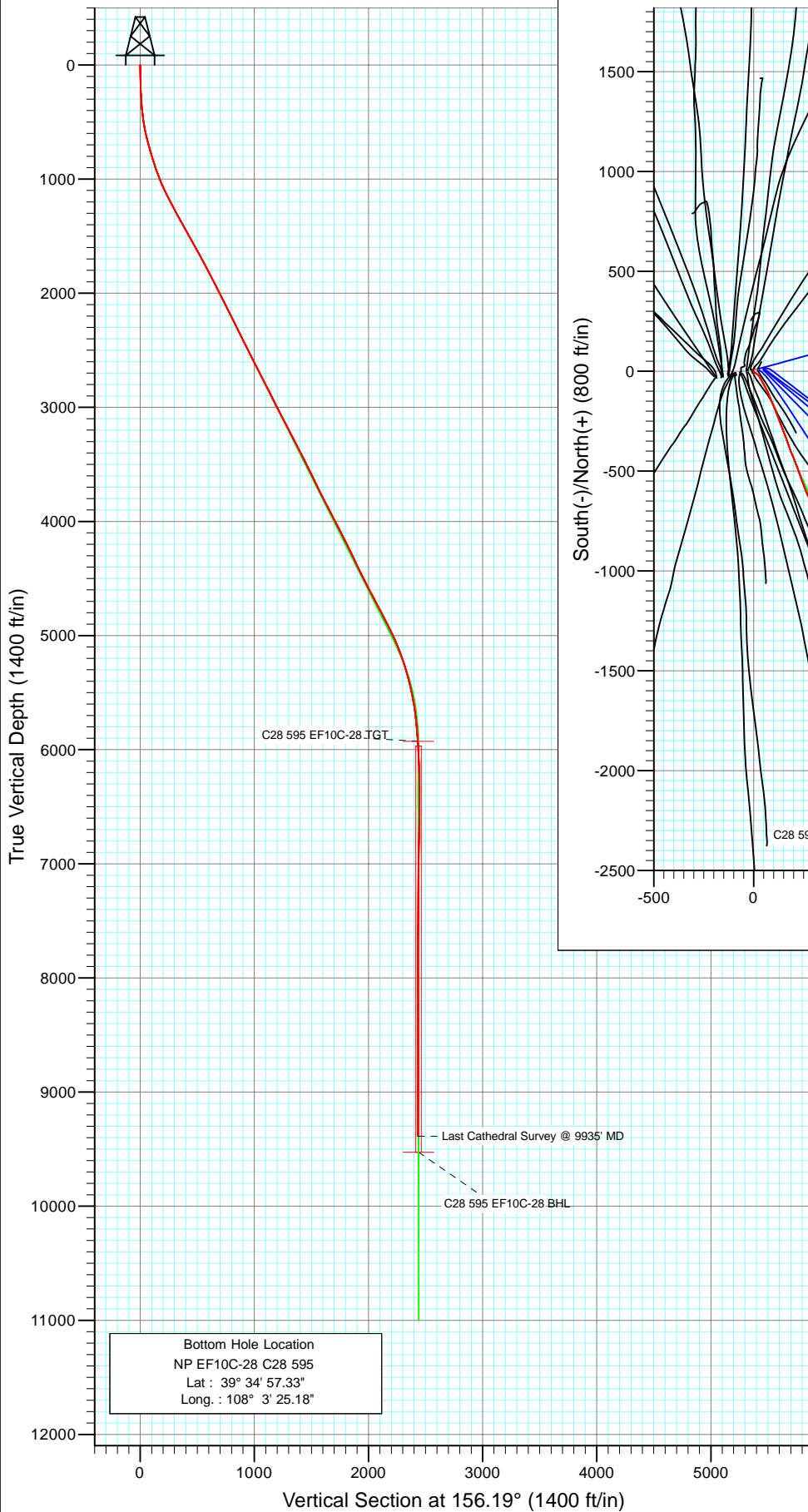




Project: North Piceance
 Site: C28 595 (S28-T5S-R95W)
 Well: NP EF10C-28 C28 595
 Wellbore: DD
 Design: Final Survey



Azimuths to True North
 Magnetic North: 10.53°

Magnetic Field
 Strength: 52395.1nT
 Dip Angle: 65.83°
 Date: 6/2/2010
 Model: IGRF2010

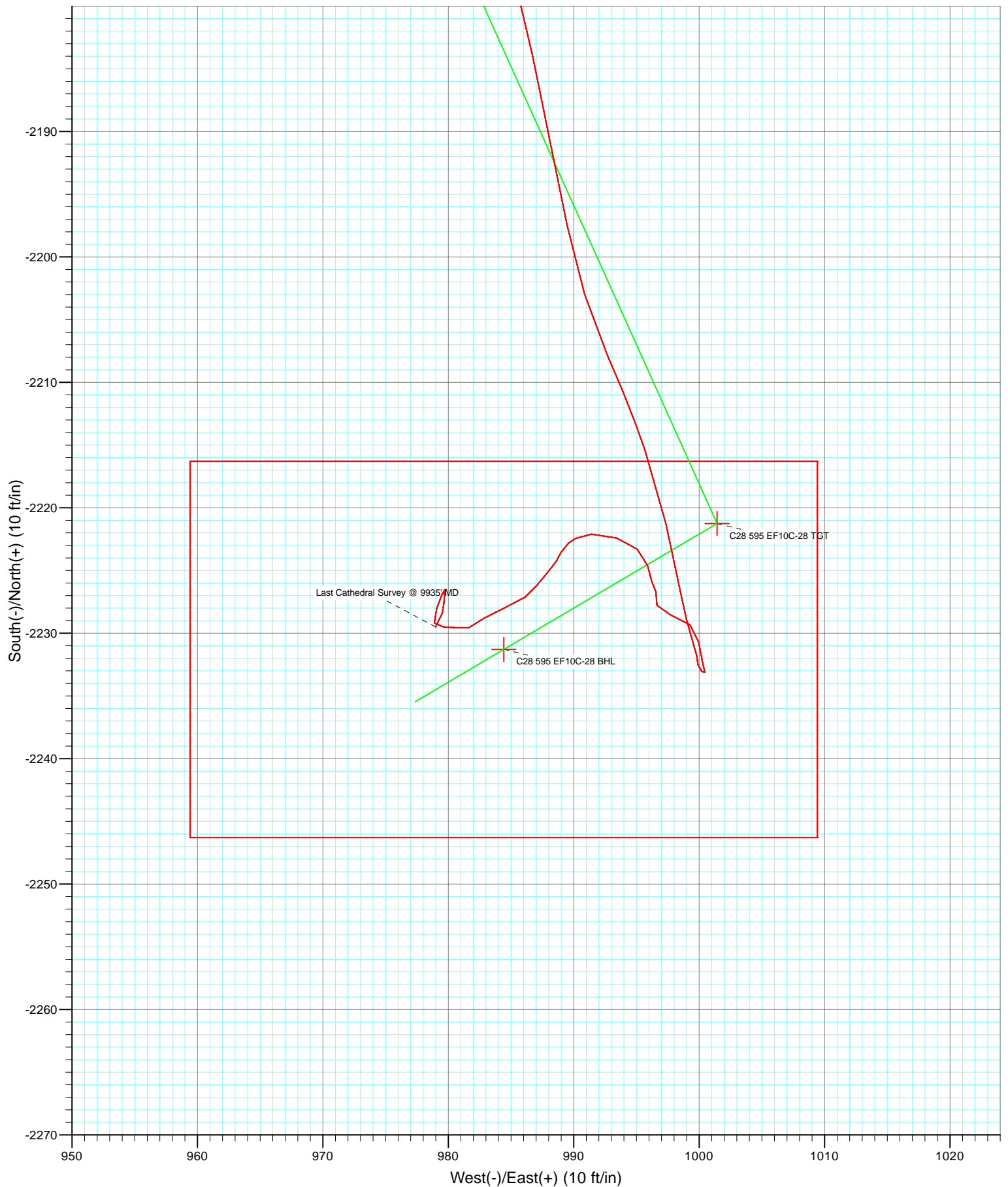
DESIGN DETAILS: DD

105110(SH) 105239 (MH) LR
 KBE @ 6197.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
C28 595 EF10C-28 BHL	156.19	Slot	0.0	0.0	0.0



Project: North Piceance
Site: C28 595 (S28-T5S-R95W)
Well: NP EF10C-28 C28 595
Wellbore: DD
Design: Final



Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP EF10C-28 C28 595
Project:	North Piceance	TVD Reference:	KBE @ 6197.0ft (Original Well Elev)
Site:	C28 595 (S28-T5S-R95W)	MD Reference:	KBE @ 6197.0ft (Original Well Elev)
Well:	NP EF10C-28 C28 595	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 US Multi Users DB

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

Site		C28 595 (S28-T5S-R95W)			
Site Position:		Northing:	1,649,466.64 ft	Latitude:	39° 35' 19.10 N
From:	Lat/Long	Easting:	2,278,319.64 ft	Longitude:	108° 3' 39.81 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.62 °

Well	NP EF10C-28 C28 595					
Well Position	+N/-S	0.0 ft	Northing:	1,649,490.65 ft	Latitude:	39° 35' 19.38 N
	+E/-W	0.0 ft	Easting:	2,278,481.26 ft	Longitude:	108° 3' 37.75 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,175.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/2/2010	10.53	65.83	52,395

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	156.19	

Survey Program	Date	3/9/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
172.0	9,935.0	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		
172.0	1.90	155.00	172.0	-2.6	1.2	2.9	1.10	1.10		
202.0	1.90	159.10	202.0	-3.5	1.6	3.8	0.45	0.00		
233.0	2.20	142.80	232.9	-4.5	2.1	4.9	2.11	0.97		
264.0	3.30	134.60	263.9	-5.6	3.1	6.3	3.76	3.55		
295.0	3.80	118.70	294.8	-6.7	4.7	8.0	3.55	1.61		
325.0	5.10	119.00	324.7	-7.8	6.7	9.8	4.33	4.33		
356.0	6.10	123.20	355.6	-9.4	9.3	12.3	3.48	3.23		
387.0	6.90	125.60	386.4	-11.4	12.2	15.3	2.72	2.58		
418.0	7.00	128.80	417.2	-13.6	15.2	18.6	1.29	0.32		
448.0	8.10	123.10	446.9	-15.9	18.4	22.0	4.43	3.67		
479.0	8.30	136.50	477.6	-18.7	21.7	25.9	6.18	0.65		
510.0	9.30	140.40	508.2	-22.3	24.9	30.4	3.75	3.23		

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP EF10C-28 C28 595
Project:	North Piceance	TVD Reference:	KBE @ 6197.0ft (Original Well Elev)
Site:	C28 595 (S28-T5S-R95W)	MD Reference:	KBE @ 6197.0ft (Original Well Elev)
Well:	NP EF10C-28 C28 595	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 US 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
540.0	10.50	146.30	537.8	-26.4	27.9	35.5	5.23	4.00	
571.0	11.50	147.90	568.2	-31.4	31.1	41.3	3.37	3.23	
602.0	12.70	151.40	598.5	-37.0	34.4	47.8	4.54	3.87	
633.0	13.70	151.30	628.7	-43.2	37.8	54.8	3.23	3.23	
665.0	13.60	152.90	659.8	-49.9	41.3	62.3	1.22	-0.31	
697.0	15.00	150.70	690.8	-56.9	45.1	70.2	4.69	4.37	
729.0	15.70	148.60	721.7	-64.2	49.4	78.6	2.79	2.19	
761.0	16.10	151.40	752.4	-71.8	53.7	87.3	2.70	1.25	
858.0	18.10	152.90	845.2	-97.0	67.0	115.8	2.11	2.06	
953.0	19.70	157.20	935.0	-124.9	80.0	146.5	2.23	1.68	
985.0	19.90	157.80	965.1	-134.9	84.1	157.4	0.89	0.62	
1,017.0	20.20	160.30	995.2	-145.1	88.0	168.3	2.84	0.94	
1,048.0	22.10	157.10	1,024.1	-155.6	92.1	179.5	7.17	6.13	
1,080.0	23.40	157.50	1,053.6	-167.0	96.9	191.9	4.09	4.06	
1,144.0	26.50	157.40	1,111.6	-191.9	107.2	218.9	4.84	4.84	
1,239.0	27.60	160.10	1,196.3	-232.2	122.9	262.0	1.74	1.16	
1,334.0	28.70	157.00	1,280.0	-273.9	139.3	306.8	1.93	1.16	
1,430.0	28.50	161.00	1,364.3	-316.7	155.8	352.7	2.01	-0.21	
1,525.0	29.00	161.20	1,447.6	-360.0	170.6	398.2	0.54	0.53	
1,621.0	29.80	157.70	1,531.2	-404.1	187.1	445.2	1.97	0.83	
1,704.0	29.60	157.80	1,603.3	-442.1	202.7	486.3	0.25	-0.24	
1,847.0	28.00	160.90	1,728.7	-506.6	227.0	555.1	1.53	-1.12	
1,943.0	26.90	159.40	1,813.8	-548.2	242.0	599.2	1.35	-1.15	
2,038.0	26.90	158.50	1,898.6	-588.3	257.5	642.2	0.43	0.00	
2,133.0	27.50	157.40	1,983.1	-628.5	273.8	685.6	0.82	0.63	
2,229.0	27.60	154.80	2,068.2	-669.1	291.8	730.0	1.26	0.10	
2,325.0	26.60	154.90	2,153.6	-708.7	310.3	773.7	1.04	-1.04	
2,420.0	25.70	153.90	2,238.9	-746.5	328.4	815.5	1.05	-0.95	
2,515.0	26.00	154.90	2,324.4	-783.8	346.3	856.9	0.56	0.32	
2,611.0	26.90	153.90	2,410.4	-822.4	364.8	899.7	1.05	0.94	
2,706.0	26.60	154.80	2,495.2	-860.9	383.3	942.4	0.53	-0.32	
2,801.0	27.70	155.10	2,579.7	-900.2	401.7	985.7	1.17	1.16	
2,897.0	26.50	152.90	2,665.2	-939.5	420.8	1,029.4	1.63	-1.25	
2,992.0	27.10	155.20	2,750.0	-978.0	439.5	1,072.2	1.26	0.63	
3,087.0	27.20	157.10	2,834.5	-1,017.7	457.1	1,115.6	0.92	0.11	
3,182.0	25.90	157.50	2,919.5	-1,056.8	473.5	1,158.0	1.38	-1.37	
3,277.0	26.90	158.40	3,004.6	-1,096.0	489.3	1,200.2	1.13	1.05	
3,373.0	27.70	158.90	3,089.9	-1,137.0	505.3	1,244.2	0.87	0.83	
3,468.0	28.30	155.50	3,173.8	-1,178.1	522.6	1,288.8	1.79	0.63	
3,564.0	27.20	156.40	3,258.7	-1,218.9	540.9	1,333.5	1.23	-1.15	
3,659.0	27.50	154.60	3,343.1	-1,258.6	559.0	1,377.1	0.93	0.32	
3,754.0	27.10	152.00	3,427.5	-1,297.5	578.5	1,420.6	1.32	-0.42	
3,849.0	25.60	151.90	3,512.7	-1,334.7	598.3	1,462.7	1.58	-1.58	
3,945.0	26.20	153.10	3,599.0	-1,371.9	617.7	1,504.5	0.83	0.62	
4,040.0	25.80	154.10	3,684.4	-1,409.2	636.2	1,546.1	0.62	-0.42	
4,135.0	27.00	155.60	3,769.5	-1,447.5	654.2	1,588.4	1.45	1.26	
4,231.0	27.70	156.90	3,854.8	-1,487.8	671.9	1,632.5	0.96	0.73	
4,326.0	27.90	151.90	3,938.8	-1,527.8	691.1	1,676.7	2.46	0.21	
4,422.0	26.60	152.20	4,024.2	-1,566.6	711.7	1,720.6	1.36	-1.35	
4,517.0	27.60	152.90	4,108.7	-1,605.0	731.6	1,763.7	1.10	1.05	
4,613.0	27.00	153.00	4,194.0	-1,644.2	751.6	1,807.7	0.63	-0.62	
4,708.0	25.40	156.20	4,279.3	-1,682.1	769.6	1,849.6	2.25	-1.68	
4,803.0	25.50	156.80	4,365.1	-1,719.5	785.9	1,890.4	0.29	0.11	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP EF10C-28 C28 595
Project:	North Piceance	TVD Reference:	KBE @ 6197.0ft (Original Well Elev)
Site:	C28 595 (S28-T5S-R95W)	MD Reference:	KBE @ 6197.0ft (Original Well Elev)
Well:	NP EF10C-28 C28 595	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 US 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
4,898.0	26.10	159.20	4,450.6	-1,757.8	801.4	1,931.8	1.27	0.63	
4,994.0	27.20	157.70	4,536.4	-1,797.9	817.2	1,974.8	1.34	1.15	
5,089.0	28.20	157.30	4,620.5	-1,838.7	834.1	2,018.9	1.07	1.05	
5,185.0	28.20	153.40	4,705.1	-1,879.9	853.0	2,064.3	1.92	0.00	
5,280.0	26.60	154.10	4,789.5	-1,919.1	872.4	2,107.9	1.72	-1.68	
5,376.0	27.20	155.50	4,875.1	-1,958.4	890.9	2,151.4	0.91	0.62	
5,471.0	26.70	155.10	4,959.8	-1,997.5	908.9	2,194.4	0.56	-0.53	
5,567.0	23.90	155.50	5,046.5	-2,034.8	926.0	2,235.4	2.92	-2.92	
5,663.0	21.00	157.30	5,135.3	-2,068.3	940.7	2,272.1	3.10	-3.02	
5,758.0	18.40	156.50	5,224.7	-2,097.8	953.3	2,304.1	2.75	-2.74	
5,853.0	16.00	158.90	5,315.4	-2,123.8	963.9	2,332.2	2.63	-2.53	
5,949.0	14.30	157.90	5,408.1	-2,147.1	973.2	2,357.2	1.79	-1.77	
6,044.0	12.10	157.60	5,500.6	-2,167.2	981.4	2,378.9	2.32	-2.32	
6,139.0	9.40	168.40	5,593.9	-2,184.0	986.7	2,396.5	3.53	-2.84	
6,235.0	7.10	168.60	5,688.9	-2,197.5	989.5	2,409.9	2.40	-2.40	
6,330.0	6.00	156.10	5,783.3	-2,207.8	992.7	2,420.6	1.89	-1.16	
6,424.0	4.00	161.70	5,876.9	-2,215.4	995.7	2,428.8	2.19	-2.13	
6,519.0	3.40	167.00	5,971.7	-2,221.3	997.4	2,434.9	0.73	-0.63	
6,615.0	3.10	168.80	6,067.6	-2,226.6	998.5	2,440.2	0.33	-0.31	
6,711.0	1.80	162.10	6,163.5	-2,230.6	999.5	2,444.2	1.38	-1.35	
6,806.0	0.60	182.30	6,258.5	-2,232.5	999.9	2,446.2	1.32	-1.26	
6,901.0	0.40	100.50	6,353.5	-2,233.1	1,000.2	2,446.8	0.71	-0.21	
6,996.0	0.10	280.50	6,448.5	-2,233.1	1,000.5	2,446.9	0.53	-0.32	
7,091.0	1.00	352.10	6,543.5	-2,232.3	1,000.3	2,446.1	1.02	0.95	
7,187.0	0.90	346.40	6,639.4	-2,230.7	1,000.0	2,444.5	0.14	-0.10	
7,282.0	1.00	321.00	6,734.4	-2,229.3	999.3	2,443.0	0.45	0.11	
7,377.0	1.30	279.10	6,829.4	-2,228.5	997.7	2,441.6	0.91	0.32	
7,472.0	0.70	2.10	6,924.4	-2,227.8	996.6	2,440.5	1.47	-0.63	
7,567.0	0.60	347.10	7,019.4	-2,226.7	996.6	2,439.5	0.21	-0.11	
7,662.0	0.50	328.70	7,114.4	-2,225.9	996.2	2,438.6	0.21	-0.11	
7,757.0	1.10	353.00	7,209.4	-2,224.6	995.9	2,437.3	0.71	0.63	
7,852.0	1.00	299.00	7,304.4	-2,223.3	995.1	2,435.8	1.01	-0.11	
7,948.0	1.20	298.50	7,400.4	-2,222.4	993.4	2,434.3	0.21	0.21	
8,043.0	1.40	262.10	7,495.3	-2,222.1	991.4	2,433.2	0.88	0.21	
8,138.0	0.30	218.50	7,590.3	-2,222.5	990.1	2,433.0	1.26	-1.16	
8,234.0	0.50	245.60	7,686.3	-2,222.8	989.6	2,433.1	0.28	0.21	
8,329.0	0.70	200.50	7,781.3	-2,223.5	989.0	2,433.6	0.52	0.21	
8,425.0	0.30	226.60	7,877.3	-2,224.3	988.6	2,434.1	0.47	-0.42	
8,520.0	0.90	215.00	7,972.3	-2,225.0	988.0	2,434.5	0.64	0.63	
8,616.0	0.80	224.60	8,068.3	-2,226.1	987.1	2,435.2	0.18	-0.10	
8,711.0	0.90	224.80	8,163.3	-2,227.1	986.1	2,435.7	0.11	0.11	
8,807.0	1.20	256.00	8,259.3	-2,227.9	984.6	2,435.8	0.66	0.31	
8,903.0	1.20	230.20	8,355.2	-2,228.8	982.9	2,435.9	0.56	0.00	
8,998.0	0.60	253.70	8,450.2	-2,229.6	981.6	2,436.1	0.73	-0.63	
9,093.0	0.50	291.50	8,545.2	-2,229.6	980.8	2,435.7	0.39	-0.11	
9,189.0	0.90	263.40	8,641.2	-2,229.5	979.6	2,435.2	0.54	0.42	
9,284.0	0.50	3.50	8,736.2	-2,229.2	978.9	2,434.6	1.16	-0.42	
9,379.0	0.90	12.90	8,831.2	-2,228.0	979.1	2,433.7	0.44	0.42	
9,475.0	0.50	32.50	8,927.2	-2,226.9	979.5	2,432.8	0.48	-0.42	
9,571.0	0.10	30.00	9,023.2	-2,226.5	979.7	2,432.5	0.42	-0.42	
9,666.0	0.40	193.80	9,118.2	-2,226.8	979.7	2,432.8	0.52	0.32	
9,761.0	0.60	177.00	9,213.2	-2,227.6	979.7	2,433.5	0.26	0.21	
9,856.0	0.40	206.00	9,308.2	-2,228.4	979.5	2,434.2	0.33	-0.21	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP EF10C-28 C28 595
Project:	North Piceance	TVD Reference:	KBE @ 6197.0ft (Original Well Elev)
Site:	C28 595 (S28-T5S-R95W)	MD Reference:	KBE @ 6197.0ft (Original Well Elev)
Well:	NP EF10C-28 C28 595	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 US 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
9,935.0	1.40	206.00	9,387.2	-2,229.5	979.0	2,435.0	1.27	1.27	Last Cathedral Survey @ 9935' 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
- Shape									
C28 595 EF10C-28 TGT	0.00	0.00	5,927.0	-2,221.3	1,001.4	1,647,242.06	2,279,419.70	39° 34' 57.43 N	108° 3' 24.96 W
- survey misses target center by 5.4ft at 6474.4ft MD (5927.2 TVD, -2218.6 N, 996.7 E)									
- Point									
C28 595 EF10C-28 BHL	0.00	0.00	9,527.0	-2,231.3	984.4	1,647,232.51	2,279,402.43	39° 34' 57.33 N	108° 3' 25.18 W
- survey misses target center by 139.9ft at 9935.0ft MD (9387.2 TVD, -2229.5 N, 979.0 E)									
- Rectangle (sides W30.0 H50.0 D0.0)									

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates	Comment
		+N/-S (ft) +E/-W (ft)	
9,935.0	9,387.2	-2,229.5 979.0	Last Cathedral Survey @ 9935' MD

Checked By: _____ Approved By: _____ Date: _____