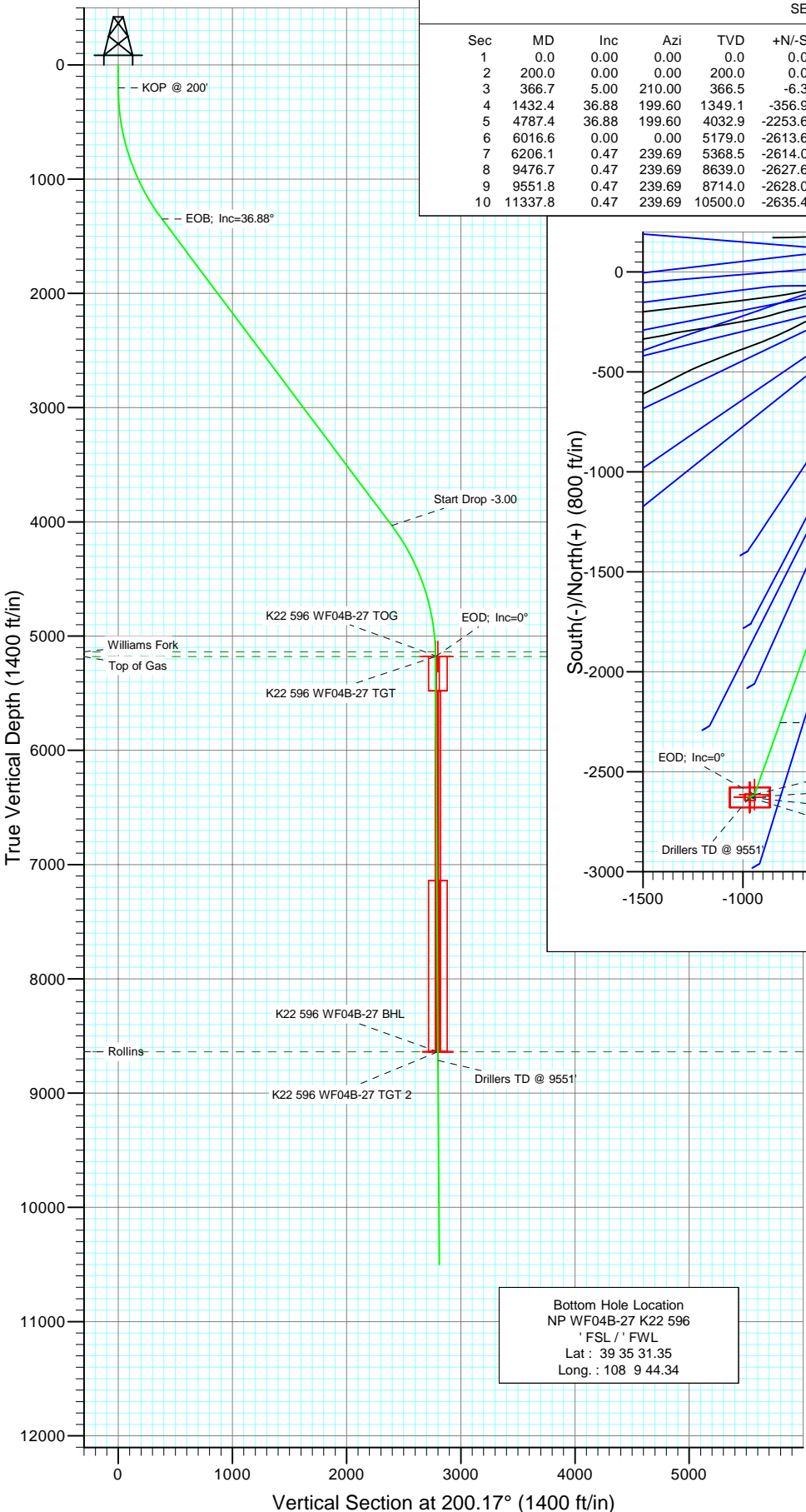
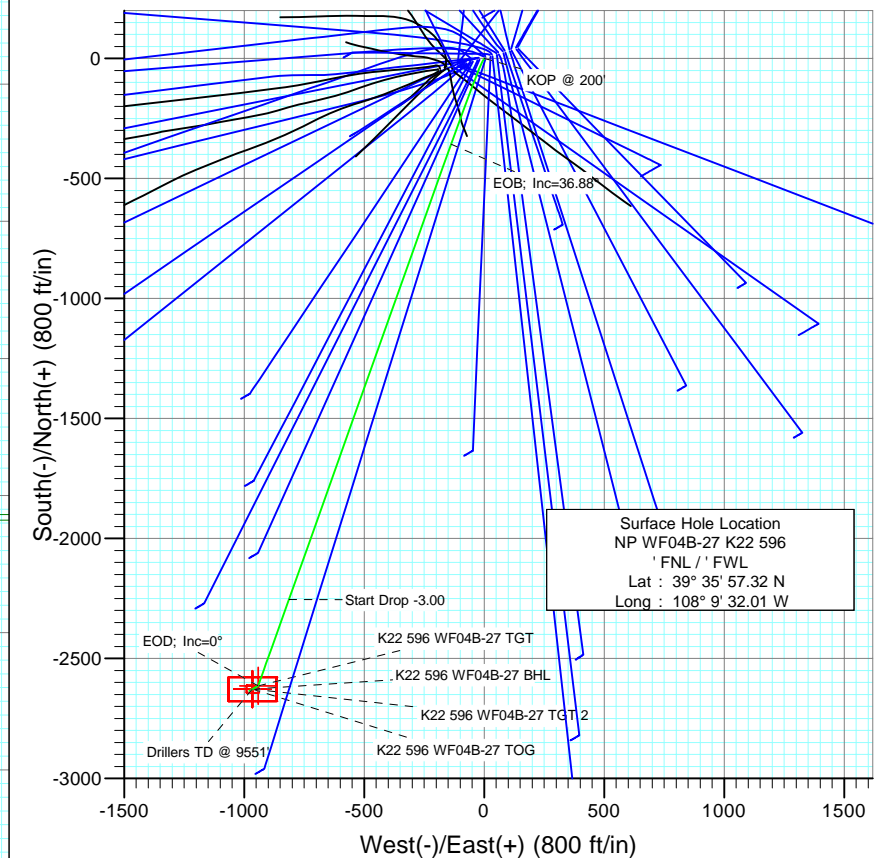




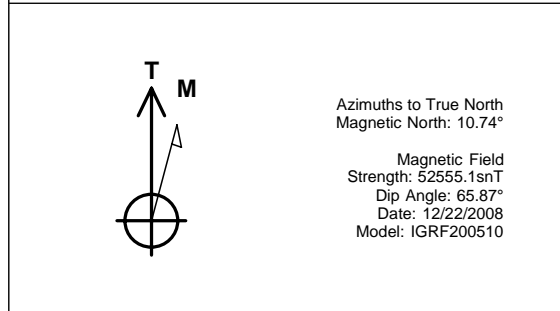
Project: North Piceance  
 Site: K22 596 Pad (S22-T5S-R96W)  
 Well: NP WF04B-27 K22 596  
 Wellbore: DD  
 Design: Plan #1



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	366.7	5.00	210.00	366.5	-6.3	-3.6	3.00	210.00	7.2	
4	1432.4	36.88	199.60	1349.1	-356.9	-137.6	3.00	-11.81	382.5	
5	4787.4	36.88	199.60	4032.9	-2253.6	-813.0	0.00	0.00	2395.7	
6	6016.6	0.00	0.00	5179.0	-2613.6	-941.2	3.00	180.00	2777.8	K22 596 WF04B-27 TGT
7	6206.1	0.47	239.69	5368.5	-2614.0	-941.9	0.25	239.69	2778.5	
8	9476.7	0.47	239.69	8639.0	-2627.6	-965.2	0.00	0.00	2799.3	K22 596 WF04B-27 BHL
9	9551.8	0.47	239.69	8714.0	-2628.0	-965.8	0.00	0.00	2799.8	
10	11337.8	0.47	239.69	10500.0	-2635.4	-978.5	0.00	0.00	2811.2	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
5139.0	5976.6	Williams Fork
5179.0	6016.6	Top of Gas
8639.0	9476.7	Rollins



DESIGN DETAILS: Plan #1					
85xxx; LR					
WELL @ 6546.0ft (Original Well Elev)					
Target	Azimuth	Origin	N/S	E/W	From TVD
K22 596 WF04B-27 BHL	200.17	Slot	0.0	0.0	0.0

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 2003.21 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well NP WF04B-27 K22 596
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 6546.0ft (Original Well Elev)
<b>Project:</b>	North Piceance	<b>MD Reference:</b>	WELL @ 6546.0ft (Original Well Elev)
<b>Site:</b>	K22 596 Pad (S22-T5S-R96W)	<b>North Reference:</b>	True
<b>Well:</b>	NP WF04B-27 K22 596	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

<b>Project</b>	North Piceance		
<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 Central Zone		

Site		K22 596 Pad (S22-T5S-R96W)			
Site Position:		Northing:	1,654,096.85 ft	Latitude:	39° 35' 57.02 N
From:	Lat/Long	Easting:	2,250,762.90 ft	Longitude:	108° 9' 33.39 W
Position Uncertainty:	0.0 ft	Slot Radius:	0.000 in	Grid Convergence:	-1.68 °

Well	NP WF04B-27 K22 596					
Well Position	+N/-S	0.0 ft	Northing:	1,654,124.10 ft	Latitude:	39° 35' 57.32 N
	+E/-W	0.0 ft	Easting:	2,250,871.77 ft	Longitude:	108° 9' 32.01 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,524.0 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>
	IGRF200510	12/22/2008	10.74	65.87	52,555

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	200.17

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
366.7	5.00	210.00	366.5	-6.3	-3.6	3.00	3.00	0.00	210.00	
1,432.4	36.88	199.60	1,349.1	-356.9	-137.6	3.00	2.99	-0.98	-11.81	
4,787.4	36.88	199.60	4,032.9	-2,253.6	-813.0	0.00	0.00	0.00	0.00	
6,016.6	0.00	0.00	5,179.0	-2,613.6	-941.2	3.00	-3.00	0.00	180.00	K22 596 WF04B-27 T
6,206.1	0.47	239.69	5,368.5	-2,614.0	-941.9	0.25	0.25	-63.50	239.69	
9,476.7	0.47	239.69	8,639.0	-2,627.6	-965.2	0.00	0.00	0.00	0.00	K22 596 WF04B-27 B
9,551.8	0.47	239.69	8,714.0	-2,628.0	-965.8	0.00	0.00	0.00	0.00	
11,337.8	0.47	239.69	10,500.0	-2,635.4	-978.5	0.00	0.00	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 2003.21 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well NP WF04B-27 K22 596
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 6546.0ft (Original Well Elev)
<b>Project:</b>	North Piceance	<b>MD Reference:</b>	WELL @ 6546.0ft (Original Well Elev)
<b>Site:</b>	K22 596 Pad (S22-T5S-R96W)	<b>North Reference:</b>	True
<b>Well:</b>	NP WF04B-27 K22 596	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
30.0	0.00	0.00	30.0	0.0	0.0	0.0	0.00	0.00	
60.0	0.00	0.00	60.0	0.0	0.0	0.0	0.00	0.00	
90.0	0.00	0.00	90.0	0.0	0.0	0.0	0.00	0.00	
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	
180.0	0.00	0.00	180.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'
210.0	0.30	210.00	210.0	0.0	0.0	0.0	3.00	3.00	
240.0	1.20	210.00	240.0	-0.4	-0.2	0.4	3.00	3.00	
270.0	2.10	210.00	270.0	-1.1	-0.6	1.3	3.00	3.00	
300.0	3.00	210.00	300.0	-2.3	-1.3	2.6	3.00	3.00	
330.0	3.90	210.00	329.9	-3.8	-2.2	4.4	3.00	3.00	
360.0	4.80	210.00	359.8	-5.8	-3.3	6.6	3.00	3.00	
366.7	5.00	210.00	366.5	-6.3	-3.6	7.2	3.00	3.00	
390.0	5.69	208.55	389.7	-8.2	-4.7	9.3	3.00	2.94	
420.0	6.57	207.14	419.5	-11.0	-6.2	12.5	3.00	2.96	
450.0	7.46	206.06	449.3	-14.3	-7.8	16.1	3.00	2.97	
480.0	8.36	205.21	479.0	-18.0	-9.6	20.2	3.00	2.97	
510.0	9.25	204.52	508.7	-22.2	-11.5	24.8	3.00	2.98	
540.0	10.15	203.96	538.2	-26.8	-13.6	29.9	3.00	2.98	
570.0	11.04	203.48	567.7	-31.9	-15.8	35.4	3.00	2.99	
600.0	11.94	203.08	597.1	-37.3	-18.2	41.3	3.00	2.99	
630.0	12.83	202.73	626.4	-43.3	-20.7	47.8	3.00	2.99	
660.0	13.73	202.42	655.6	-49.6	-23.3	54.6	3.00	2.99	
690.0	14.63	202.16	684.7	-56.4	-26.1	62.0	3.00	2.99	
720.0	15.53	201.92	713.7	-63.7	-29.1	69.8	3.00	2.99	
750.0	16.43	201.71	742.5	-71.3	-32.1	78.0	3.00	2.99	
780.0	17.32	201.52	771.2	-79.4	-35.3	86.7	3.00	2.99	
810.0	18.22	201.34	799.8	-88.0	-38.7	95.9	3.00	2.99	
840.0	19.12	201.19	828.2	-96.9	-42.2	105.5	3.00	3.00	
870.0	20.02	201.04	856.5	-106.3	-45.8	115.5	3.00	3.00	
900.0	20.92	200.91	884.6	-116.1	-49.5	126.0	3.00	3.00	
930.0	21.82	200.79	912.5	-126.3	-53.4	137.0	3.00	3.00	
960.0	22.72	200.68	940.3	-136.9	-57.5	148.3	3.00	3.00	
990.0	23.62	200.58	967.8	-148.0	-61.6	160.1	3.00	3.00	
1,020.0	24.51	200.48	995.2	-159.4	-65.9	172.4	3.00	3.00	
1,050.0	25.41	200.39	1,022.4	-171.3	-70.3	185.0	3.00	3.00	
1,080.0	26.31	200.30	1,049.4	-183.6	-74.9	198.1	3.00	3.00	
1,110.0	27.21	200.23	1,076.2	-196.2	-79.5	211.6	3.00	3.00	
1,140.0	28.11	200.15	1,102.8	-209.3	-84.4	225.6	3.00	3.00	
1,170.0	29.01	200.08	1,129.1	-222.8	-89.3	239.9	3.00	3.00	
1,200.0	29.91	200.01	1,155.3	-236.6	-94.3	254.7	3.00	3.00	
1,230.0	30.81	199.95	1,181.1	-250.9	-99.5	269.8	3.00	3.00	
1,260.0	31.71	199.89	1,206.8	-265.5	-104.8	285.4	3.00	3.00	
1,290.0	32.61	199.84	1,232.2	-280.5	-110.3	301.3	3.00	3.00	
1,320.0	33.51	199.78	1,257.3	-295.9	-115.8	317.7	3.00	3.00	
1,350.0	34.41	199.73	1,282.2	-311.7	-121.5	334.5	3.00	3.00	
1,380.0	35.31	199.68	1,306.8	-327.8	-127.2	351.6	3.00	3.00	
1,410.0	36.21	199.63	1,331.2	-344.4	-133.1	369.1	3.00	3.00	
1,432.4	36.88	199.60	1,349.2	-356.9	-137.6	382.5	3.00	2.99	EOB; Inc=36.88°
1,440.0	36.88	199.60	1,355.2	-361.2	-139.2	387.0	0.00	0.00	

# Cathedral Energy Services

## Planning Report

**Database:** EDM 2003.21 US Multi Users DB  
**Company:** EnCana Oil & Gas (USA) Inc  
**Project:** North Piceance  
**Site:** K22 596 Pad (S22-T5S-R96W)  
**Well:** NP WF04B-27 K22 596  
**Wellbore:** DD  
**Design:** Plan #1

**Local Co-ordinate Reference:**  
**TVD Reference:**  
**MD Reference:**  
**North Reference:**  
**Survey Calculation Method:**

Well NP WF04B-27 K22 596  
 WELL @ 6546.0ft (Original Well Elev)  
 WELL @ 6546.0ft (Original Well Elev)  
 True  
 Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
1,470.0	36.88	199.60	1,379.2	-378.2	-145.2	405.0	0.00	0.00	
1,500.0	36.88	199.60	1,403.2	-395.1	-151.2	423.0	0.00	0.00	
1,530.0	36.88	199.60	1,427.2	-412.1	-157.3	441.1	0.00	0.00	
1,560.0	36.88	199.60	1,451.2	-429.1	-163.3	459.1	0.00	0.00	
1,590.0	36.88	199.60	1,475.2	-446.0	-169.4	477.1	0.00	0.00	
1,620.0	36.88	199.60	1,499.2	-463.0	-175.4	495.1	0.00	0.00	
1,650.0	36.88	199.60	1,523.2	-479.9	-181.4	513.1	0.00	0.00	
1,680.0	36.88	199.60	1,547.2	-496.9	-187.5	531.1	0.00	0.00	
1,710.0	36.88	199.60	1,571.2	-513.9	-193.5	549.1	0.00	0.00	
1,740.0	36.88	199.60	1,595.2	-530.8	-199.5	567.1	0.00	0.00	
1,770.0	36.88	199.60	1,619.2	-547.8	-205.6	585.1	0.00	0.00	
1,800.0	36.88	199.60	1,643.2	-564.7	-211.6	603.1	0.00	0.00	
1,830.0	36.88	199.60	1,667.2	-581.7	-217.7	621.1	0.00	0.00	
1,860.0	36.88	199.60	1,691.2	-598.7	-223.7	639.1	0.00	0.00	
1,890.0	36.88	199.60	1,715.2	-615.6	-229.7	657.1	0.00	0.00	
1,920.0	36.88	199.60	1,739.2	-632.6	-235.8	675.1	0.00	0.00	
1,950.0	36.88	199.60	1,763.2	-649.5	-241.8	693.1	0.00	0.00	
1,980.0	36.88	199.60	1,787.2	-666.5	-247.9	711.1	0.00	0.00	
2,010.0	36.88	199.60	1,811.2	-683.5	-253.9	729.1	0.00	0.00	
2,040.0	36.88	199.60	1,835.2	-700.4	-259.9	747.1	0.00	0.00	
2,070.0	36.88	199.60	1,859.2	-717.4	-266.0	765.1	0.00	0.00	
2,100.0	36.88	199.60	1,883.2	-734.3	-272.0	783.1	0.00	0.00	
2,130.0	36.88	199.60	1,907.2	-751.3	-278.1	801.1	0.00	0.00	
2,160.0	36.88	199.60	1,931.2	-768.3	-284.1	819.1	0.00	0.00	
2,190.0	36.88	199.60	1,955.2	-785.2	-290.1	837.1	0.00	0.00	
2,220.0	36.88	199.60	1,979.2	-802.2	-296.2	855.1	0.00	0.00	
2,250.0	36.88	199.60	2,003.2	-819.1	-302.2	873.1	0.00	0.00	
2,280.0	36.88	199.60	2,027.2	-836.1	-308.3	891.1	0.00	0.00	
2,310.0	36.88	199.60	2,051.2	-853.1	-314.3	909.1	0.00	0.00	
2,340.0	36.88	199.60	2,075.2	-870.0	-320.3	927.1	0.00	0.00	
2,370.0	36.88	199.60	2,099.2	-887.0	-326.4	945.1	0.00	0.00	
2,400.0	36.88	199.60	2,123.2	-903.9	-332.4	963.1	0.00	0.00	
2,430.0	36.88	199.60	2,147.2	-920.9	-338.5	981.1	0.00	0.00	
2,460.0	36.88	199.60	2,171.2	-937.9	-344.5	999.1	0.00	0.00	
2,490.0	36.88	199.60	2,195.2	-954.8	-350.5	1,017.1	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 2003.21 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well NP WF04B-27 K22 596
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 6546.0ft (Original Well Elev)
<b>Project:</b>	North Piceance	<b>MD Reference:</b>	WELL @ 6546.0ft (Original Well Elev)
<b>Site:</b>	K22 596 Pad (S22-T5S-R96W)	<b>North Reference:</b>	True
<b>Well:</b>	NP WF04B-27 K22 596	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
2,500.0	36.88	199.60	2,203.2	-960.5	-352.5	1,023.1	0.00	0.00	
2,600.0	36.88	199.60	2,283.2	-1,017.0	-372.7	1,083.1	0.00	0.00	
2,700.0	36.88	199.60	2,363.1	-1,073.5	-392.8	1,143.1	0.00	0.00	
2,800.0	36.88	199.60	2,443.1	-1,130.1	-412.9	1,203.2	0.00	0.00	
2,900.0	36.88	199.60	2,523.1	-1,186.6	-433.1	1,263.2	0.00	0.00	
3,000.0	36.88	199.60	2,603.1	-1,243.1	-453.2	1,323.2	0.00	0.00	
3,100.0	36.88	199.60	2,683.1	-1,299.7	-473.3	1,383.2	0.00	0.00	
3,200.0	36.88	199.60	2,763.1	-1,356.2	-493.5	1,443.2	0.00	0.00	
3,300.0	36.88	199.60	2,843.1	-1,412.7	-513.6	1,503.2	0.00	0.00	
3,400.0	36.88	199.60	2,923.1	-1,469.3	-533.7	1,563.2	0.00	0.00	
3,500.0	36.88	199.60	3,003.1	-1,525.8	-553.9	1,623.2	0.00	0.00	
3,600.0	36.88	199.60	3,083.1	-1,582.3	-574.0	1,683.2	0.00	0.00	
3,700.0	36.88	199.60	3,163.1	-1,638.9	-594.1	1,743.2	0.00	0.00	
3,800.0	36.88	199.60	3,243.1	-1,695.4	-614.2	1,803.2	0.00	0.00	
3,900.0	36.88	199.60	3,323.0	-1,751.9	-634.4	1,863.2	0.00	0.00	
4,000.0	36.88	199.60	3,403.0	-1,808.5	-654.5	1,923.2	0.00	0.00	
4,100.0	36.88	199.60	3,483.0	-1,865.0	-674.6	1,983.3	0.00	0.00	
4,200.0	36.88	199.60	3,563.0	-1,921.5	-694.8	2,043.3	0.00	0.00	
4,300.0	36.88	199.60	3,643.0	-1,978.1	-714.9	2,103.3	0.00	0.00	
4,400.0	36.88	199.60	3,723.0	-2,034.6	-735.0	2,163.3	0.00	0.00	
4,500.0	36.88	199.60	3,803.0	-2,091.1	-755.2	2,223.3	0.00	0.00	
4,600.0	36.88	199.60	3,883.0	-2,147.7	-775.3	2,283.3	0.00	0.00	
4,700.0	36.88	199.60	3,963.0	-2,204.2	-795.4	2,343.3	0.00	0.00	
4,787.4	36.88	199.60	4,032.9	-2,253.6	-813.0	2,395.8	0.00	0.00	Start Drop -3.00
4,800.0	36.50	199.60	4,043.0	-2,260.7	-815.5	2,403.3	3.01	-3.01	
4,900.0	33.50	199.60	4,124.9	-2,314.7	-834.8	2,460.6	3.00	-3.00	
5,000.0	30.50	199.60	4,209.7	-2,364.7	-852.6	2,513.6	3.00	-3.00	
5,100.0	27.50	199.60	4,297.2	-2,410.3	-868.8	2,562.1	3.00	-3.00	
5,200.0	24.50	199.60	4,387.0	-2,451.6	-883.5	2,605.9	3.00	-3.00	
5,300.0	21.50	199.60	4,479.1	-2,488.4	-896.6	2,645.0	3.00	-3.00	
5,400.0	18.50	199.60	4,573.0	-2,520.6	-908.1	2,679.2	3.00	-3.00	
5,500.0	15.50	199.60	4,668.6	-2,548.2	-917.9	2,708.4	3.00	-3.00	
5,600.0	12.50	199.60	4,765.7	-2,571.0	-926.0	2,732.6	3.00	-3.00	
5,700.0	9.50	199.60	4,863.8	-2,588.9	-932.4	2,751.7	3.00	-3.00	
5,800.0	6.50	199.60	4,962.8	-2,602.0	-937.1	2,765.6	3.00	-3.00	
5,900.0	3.50	199.60	5,062.4	-2,610.2	-940.0	2,774.3	3.00	-3.00	
5,976.6	1.20	199.60	5,139.0	-2,613.2	-941.1	2,777.4	3.00	-3.00	Williams Fork
6,000.0	0.50	199.60	5,162.4	-2,613.5	-941.2	2,777.8	3.00	-3.00	
6,016.6	0.00	0.00	5,179.0	-2,613.6	-941.2	2,777.8	3.00	-3.00	EOD; Inc=0° - Top of Gas - K22 596 WF04B-27
6,016.7	0.00	239.69	5,179.1	-2,613.6	-941.2	2,777.8	0.00	0.00	K22 596 WF04B-27 TOG
6,100.0	0.21	239.69	5,262.4	-2,613.7	-941.3	2,778.0	0.25	0.25	
6,200.0	0.46	239.69	5,362.4	-2,614.0	-941.8	2,778.4	0.25	0.25	
6,206.1	0.47	239.69	5,368.5	-2,614.0	-941.9	2,778.5	0.25	0.25	
6,300.0	0.47	239.69	5,462.4	-2,614.4	-942.5	2,779.1	0.00	0.00	
6,400.0	0.47	239.69	5,562.4	-2,614.8	-943.3	2,779.7	0.00	0.00	
6,500.0	0.47	239.69	5,662.4	-2,615.2	-944.0	2,780.3	0.00	0.00	
6,600.0	0.47	239.69	5,762.3	-2,615.6	-944.7	2,781.0	0.00	0.00	
6,700.0	0.47	239.69	5,862.3	-2,616.1	-945.4	2,781.6	0.00	0.00	
6,800.0	0.47	239.69	5,962.3	-2,616.5	-946.1	2,782.2	0.00	0.00	
6,900.0	0.47	239.69	6,062.3	-2,616.9	-946.8	2,782.9	0.00	0.00	
7,000.0	0.47	239.69	6,162.3	-2,617.3	-947.5	2,783.5	0.00	0.00	
7,100.0	0.47	239.69	6,262.3	-2,617.7	-948.3	2,784.2	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 2003.21 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well NP WF04B-27 K22 596
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 6546.0ft (Original Well Elev)
<b>Project:</b>	North Piceance	<b>MD Reference:</b>	WELL @ 6546.0ft (Original Well Elev)
<b>Site:</b>	K22 596 Pad (S22-T5S-R96W)	<b>North Reference:</b>	True
<b>Well:</b>	NP WF04B-27 K22 596	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
7,200.0	0.47	239.69	6,362.3	-2,618.1	-949.0	2,784.8	0.00	0.00	
7,300.0	0.47	239.69	6,462.3	-2,618.6	-949.7	2,785.4	0.00	0.00	
7,400.0	0.47	239.69	6,562.3	-2,619.0	-950.4	2,786.1	0.00	0.00	
7,500.0	0.47	239.69	6,662.3	-2,619.4	-951.1	2,786.7	0.00	0.00	
7,600.0	0.47	239.69	6,762.3	-2,619.8	-951.8	2,787.3	0.00	0.00	
7,700.0	0.47	239.69	6,862.3	-2,620.2	-952.5	2,788.0	0.00	0.00	
7,800.0	0.47	239.69	6,962.3	-2,620.6	-953.3	2,788.6	0.00	0.00	
7,900.0	0.47	239.69	7,062.3	-2,621.1	-954.0	2,789.3	0.00	0.00	
8,000.0	0.47	239.69	7,162.3	-2,621.5	-954.7	2,789.9	0.00	0.00	
8,100.0	0.47	239.69	7,262.3	-2,621.9	-955.4	2,790.5	0.00	0.00	
8,200.0	0.47	239.69	7,362.3	-2,622.3	-956.1	2,791.2	0.00	0.00	
8,300.0	0.47	239.69	7,462.3	-2,622.7	-956.8	2,791.8	0.00	0.00	
8,400.0	0.47	239.69	7,562.3	-2,623.1	-957.5	2,792.4	0.00	0.00	
8,500.0	0.47	239.69	7,662.3	-2,623.6	-958.2	2,793.1	0.00	0.00	
8,600.0	0.47	239.69	7,762.3	-2,624.0	-959.0	2,793.7	0.00	0.00	
8,700.0	0.47	239.69	7,862.3	-2,624.4	-959.7	2,794.4	0.00	0.00	
8,800.0	0.47	239.69	7,962.3	-2,624.8	-960.4	2,795.0	0.00	0.00	
8,900.0	0.47	239.69	8,062.3	-2,625.2	-961.1	2,795.6	0.00	0.00	
9,000.0	0.47	239.69	8,162.3	-2,625.7	-961.8	2,796.3	0.00	0.00	
9,100.0	0.47	239.69	8,262.3	-2,626.1	-962.5	2,796.9	0.00	0.00	
9,200.0	0.47	239.69	8,362.3	-2,626.5	-963.2	2,797.5	0.00	0.00	
9,300.0	0.47	239.69	8,462.3	-2,626.9	-964.0	2,798.2	0.00	0.00	
9,400.0	0.47	239.69	8,562.3	-2,627.3	-964.7	2,798.8	0.00	0.00	
9,476.7	0.47	239.69	8,639.0	-2,627.6	-965.2	2,799.3	0.00	0.00	Rollins - K22 596 WF04B-27 TGT 2 - K22 596 V
9,500.0	0.47	239.69	8,662.2	-2,627.7	-965.4	2,799.5	0.00	0.00	
9,551.8	0.47	239.69	8,714.0	-2,628.0	-965.8	2,799.8	0.00	0.00	Drillers TD @ 9551'
9,600.0	0.47	239.69	8,762.2	-2,628.2	-966.1	2,800.1	0.00	0.00	
9,700.0	0.47	239.69	8,862.2	-2,628.6	-966.8	2,800.7	0.00	0.00	
9,800.0	0.47	239.69	8,962.2	-2,629.0	-967.5	2,801.4	0.00	0.00	
9,900.0	0.47	239.69	9,062.2	-2,629.4	-968.2	2,802.0	0.00	0.00	
10,000.0	0.47	239.69	9,162.2	-2,629.8	-969.0	2,802.6	0.00	0.00	
10,100.0	0.47	239.69	9,262.2	-2,630.2	-969.7	2,803.3	0.00	0.00	
10,200.0	0.47	239.69	9,362.2	-2,630.7	-970.4	2,803.9	0.00	0.00	
10,300.0	0.47	239.69	9,462.2	-2,631.1	-971.1	2,804.6	0.00	0.00	
10,400.0	0.47	239.69	9,562.2	-2,631.5	-971.8	2,805.2	0.00	0.00	
10,500.0	0.47	239.69	9,662.2	-2,631.9	-972.5	2,805.8	0.00	0.00	
10,600.0	0.47	239.69	9,762.2	-2,632.3	-973.2	2,806.5	0.00	0.00	
10,700.0	0.47	239.69	9,862.2	-2,632.7	-974.0	2,807.1	0.00	0.00	
10,800.0	0.47	239.69	9,962.2	-2,633.2	-974.7	2,807.7	0.00	0.00	
10,900.0	0.47	239.69	10,062.2	-2,633.6	-975.4	2,808.4	0.00	0.00	
11,000.0	0.47	239.69	10,162.2	-2,634.0	-976.1	2,809.0	0.00	0.00	
11,100.0	0.47	239.69	10,262.2	-2,634.4	-976.8	2,809.7	0.00	0.00	
11,200.0	0.47	239.69	10,362.2	-2,634.8	-977.5	2,810.3	0.00	0.00	
11,300.0	0.47	239.69	10,462.2	-2,635.2	-978.2	2,810.9	0.00	0.00	
11,337.8	0.47	239.69	10,500.0	-2,635.4	-978.5	2,811.2	0.00	0.00	Permit TD @ 11337'

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 2003.21 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well NP WF04B-27 K22 596
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 6546.0ft (Original Well Elev)
<b>Project:</b>	North Piceance	<b>MD Reference:</b>	WELL @ 6546.0ft (Original Well Elev)
<b>Site:</b>	K22 596 Pad (S22-T5S-R96W)	<b>North Reference:</b>	True
<b>Well:</b>	NP WF04B-27 K22 596	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
K22 596 WF04B-27 TG1	0.00	0.00	8,639.0	-2,627.6	-965.2	1,651,525.83	2,249,830.07	39° 35' 31.35 N	108° 9' 44.34 W
- plan hits target center									
- Rectangle (sides W100.0 H200.0 D0.0)									
K22 596 WF04B-27 BHL	0.00	0.00	8,639.0	-2,627.6	-965.2	1,651,525.83	2,249,830.07	39° 35' 31.35 N	108° 9' 44.34 W
- plan hits target center									
- Rectangle (sides W30.0 H50.0 D0.0)									
K22 596 WF04B-27 TG1	0.00	0.00	5,179.0	-2,613.6	-941.2	1,651,539.16	2,249,854.49	39° 35' 31.49 N	108° 9' 44.03 W
- plan hits target center									
- Point									
K22 596 WF04B-27 TOC	0.00	0.00	5,179.0	-2,627.6	-965.2	1,651,525.83	2,249,830.07	39° 35' 31.35 N	108° 9' 44.34 W
- plan misses target center by 27.8ft at 6016.6ft MD (5179.0 TVD, -2613.6 N, -941.2 E)									
- Rectangle (sides W100.0 H200.0 D300.0)									

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
5,976.6	5,139.0	Williams Fork		0.00	
6,016.6	5,179.0	Top of Gas		0.00	
9,476.7	8,639.0	Rollins		0.00	

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP @ 200'
1,432.4	1,349.1	-6.3	-3.6	EOB; Inc=36.88°
4,787.4	4,032.9	-356.9	-137.6	Start Drop -3.00
6,016.6	5,179.0	-2,253.6	-813.0	EOD; Inc=0°
9,551.8	8,714.0	-2,613.6	-941.2	Drillers TD @ 9551'
11,337.8	10,500.0	-2,614.0	-941.9	Permit TD @ 11337'