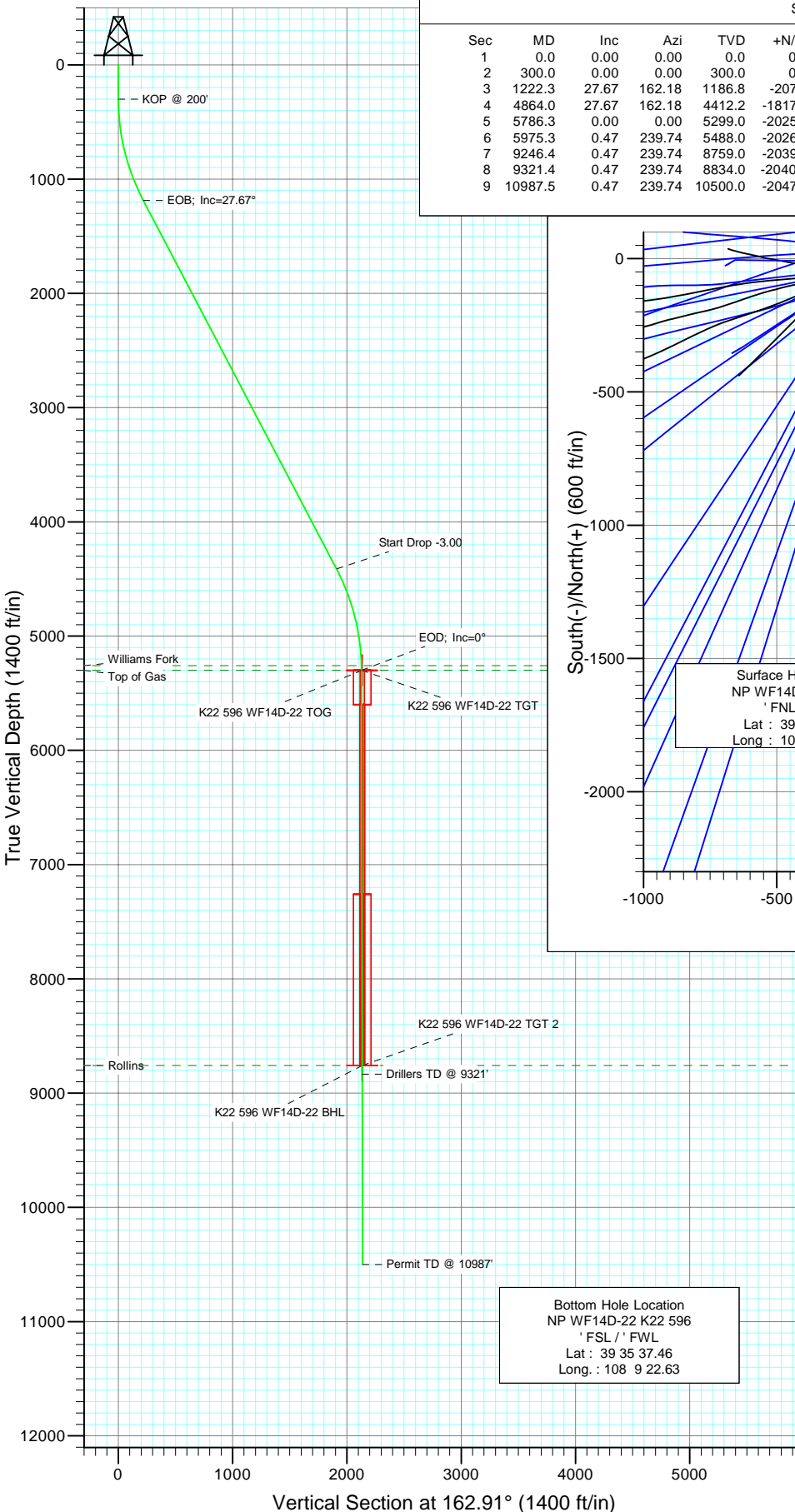
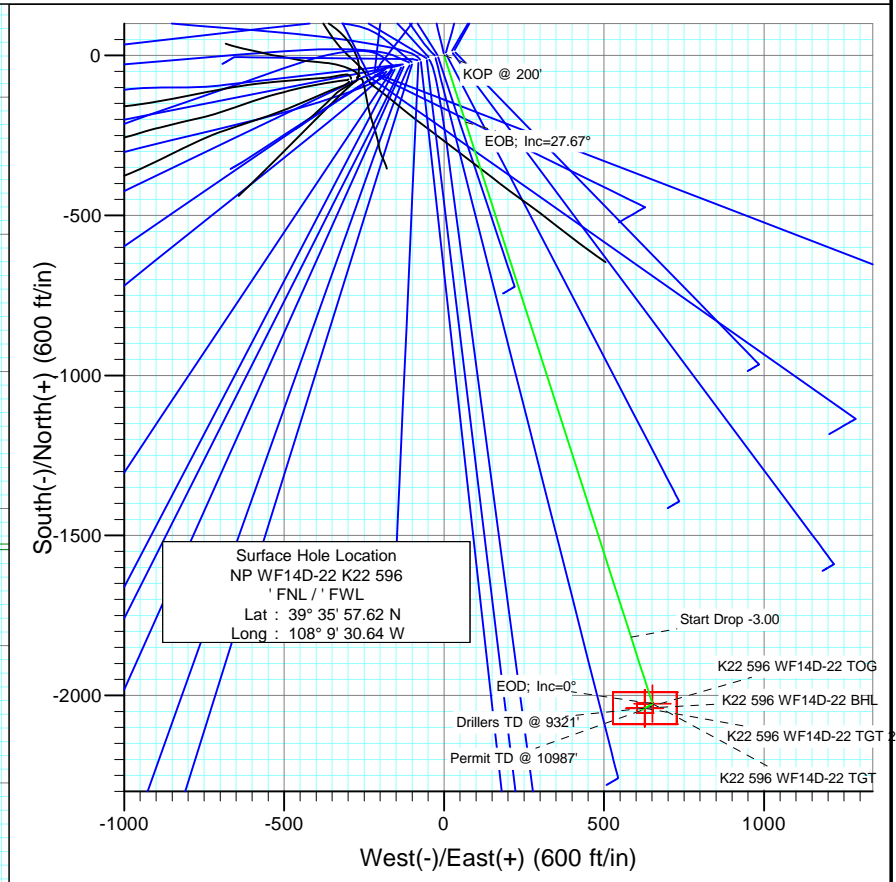




Project: North Piceance
Site: K22 596 Pad (S22-T5S-R96W)
Well: NP WF14D-22 K22 596
Wellbore: DD
Design: Plan #1



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	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	1222.3	27.67	162.18	1186.8	-207.9	66.8	3.00	162.18	218.4	
4	4864.0	27.67	162.18	4412.2	-1817.9	584.2	0.00	0.00	1909.3	
5	5786.3	0.00	0.00	5299.0	-2025.8	651.0	3.00	180.00	2127.7	K22 596 WF14D-22 TGT
6	5975.3	0.47	239.74	5488.0	-2026.2	650.3	0.25	239.74	2127.8	
7	9246.4	0.47	239.74	8759.0	-2039.8	627.0	0.00	0.00	2134.0	K22 596 WF14D-22 BHL
8	9321.4	0.47	239.74	8834.0	-2040.1	626.5	0.00	0.00	2134.1	
9	10987.5	0.47	239.74	10500.0	-2047.0	614.6	0.00	0.00	2137.3	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
5259.0	5746.3	Williams Fork
5299.0	5786.3	Top of Gas
8759.0	9246.4	Rollins

	Azimuths to True North Magnetic North: 10.74° Magnetic Field Strength: 52560.5nT Dip Angle: 65.87° Date: 12/2/2008 Model: IGRF200510
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DESIGN DETAILS: Plan #1					
85xxx; LR WELL @ 6548.0ft (Original Well Elev)					
Target	Azimuth	Origin	N/S	E/W	From TVD
K22 596 WF14D-22 BHL	162.91	Slot	0.0	0.0	0.0

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well NP WF14D-22 K22 596
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6548.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6548.0ft (Original Well Elev)
Site:	K22 596 Pad (S22-T5S-R96W)	North Reference:	True
Well:	NP WF14D-22 K22 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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		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 WF14D-22 K22 596					
Well Position	+N/-S	0.0 ft	Northing:	1,654,151.29 ft	Latitude:	39° 35' 57.62 N
	+E/-W	0.0 ft	Easting:	2,250,979.84 ft	Longitude:	108° 9' 30.64 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,524.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/2/2008	10.75	65.87	52,560

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PLAN		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	162.91	

Plan Sections										
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	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,222.3	27.67	162.18	1,186.8	-207.9	66.8	3.00	3.00	0.00	162.18	
4,864.0	27.67	162.18	4,412.2	-1,817.9	584.2	0.00	0.00	0.00	0.00	
5,786.3	0.00	0.00	5,299.0	-2,025.8	651.0	3.00	-3.00	0.00	180.00	K22 596 WF14D-22 T
5,975.3	0.47	239.74	5,488.0	-2,026.2	650.3	0.25	0.25	-63.63	239.74	
9,246.4	0.47	239.74	8,759.0	-2,039.8	627.0	0.00	0.00	0.00	0.00	K22 596 WF14D-22 E
9,321.4	0.47	239.74	8,834.0	-2,040.1	626.5	0.00	0.00	0.00	0.00	
10,987.5	0.47	239.74	10,500.0	-2,047.0	614.6	0.00	0.00	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well NP WF14D-22 K22 596
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6548.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6548.0ft (Original Well Elev)
Site:	K22 596 Pad (S22-T5S-R96W)	North Reference:	True
Well:	NP WF14D-22 K22 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	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	
210.0	0.00	0.00	210.0	0.0	0.0	0.0	0.00	0.00	
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	
270.0	0.00	0.00	270.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'
330.0	0.90	162.18	330.0	-0.2	0.1	0.2	3.00	3.00	
360.0	1.80	162.18	360.0	-0.9	0.3	0.9	3.00	3.00	
390.0	2.70	162.18	390.0	-2.0	0.6	2.1	3.00	3.00	
420.0	3.60	162.18	419.9	-3.6	1.2	3.8	3.00	3.00	
450.0	4.50	162.18	449.8	-5.6	1.8	5.9	3.00	3.00	
480.0	5.40	162.18	479.7	-8.1	2.6	8.5	3.00	3.00	
510.0	6.30	162.18	509.6	-11.0	3.5	11.5	3.00	3.00	
540.0	7.20	162.18	539.4	-14.3	4.6	15.1	3.00	3.00	
570.0	8.10	162.18	569.1	-18.1	5.8	19.1	3.00	3.00	
600.0	9.00	162.18	598.8	-22.4	7.2	23.5	3.00	3.00	
630.0	9.90	162.18	628.4	-27.1	8.7	28.4	3.00	3.00	
660.0	10.80	162.18	657.9	-32.2	10.3	33.8	3.00	3.00	
690.0	11.70	162.18	687.3	-37.8	12.1	39.7	3.00	3.00	
720.0	12.60	162.18	716.6	-43.8	14.1	46.0	3.00	3.00	
750.0	13.50	162.18	745.8	-50.2	16.1	52.8	3.00	3.00	
780.0	14.40	162.18	775.0	-57.1	18.4	60.0	3.00	3.00	
810.0	15.30	162.18	804.0	-64.4	20.7	67.7	3.00	3.00	
840.0	16.20	162.18	832.8	-72.2	23.2	75.8	3.00	3.00	
870.0	17.10	162.18	861.6	-80.4	25.8	84.4	3.00	3.00	
900.0	18.00	162.18	890.2	-89.0	28.6	93.5	3.00	3.00	
930.0	18.90	162.18	918.6	-98.0	31.5	103.0	3.00	3.00	
960.0	19.80	162.18	946.9	-107.5	34.5	112.9	3.00	3.00	
990.0	20.70	162.18	975.1	-117.4	37.7	123.3	3.00	3.00	
1,020.0	21.60	162.18	1,003.1	-127.7	41.0	134.1	3.00	3.00	
1,050.0	22.50	162.18	1,030.9	-138.4	44.5	145.4	3.00	3.00	
1,080.0	23.40	162.18	1,058.5	-149.5	48.1	157.1	3.00	3.00	
1,110.0	24.30	162.18	1,085.9	-161.1	51.8	169.2	3.00	3.00	
1,140.0	25.20	162.18	1,113.2	-173.1	55.6	181.8	3.00	3.00	
1,170.0	26.10	162.18	1,140.2	-185.4	59.6	194.7	3.00	3.00	
1,200.0	27.00	162.18	1,167.1	-198.2	63.7	208.1	3.00	3.00	
1,222.3	27.67	162.18	1,186.8	-207.9	66.8	218.4	3.00	3.00	EOB; Inc=27.67°
1,230.0	27.67	162.18	1,193.7	-211.3	67.9	222.0	0.00	0.00	
1,260.0	27.67	162.18	1,220.3	-224.6	72.2	235.9	0.00	0.00	
1,290.0	27.67	162.18	1,246.8	-237.9	76.4	249.8	0.00	0.00	
1,320.0	27.67	162.18	1,273.4	-251.1	80.7	263.7	0.00	0.00	
1,350.0	27.67	162.18	1,300.0	-264.4	85.0	277.7	0.00	0.00	
1,380.0	27.67	162.18	1,326.5	-277.6	89.2	291.6	0.00	0.00	
1,410.0	27.67	162.18	1,353.1	-290.9	93.5	305.5	0.00	0.00	
1,440.0	27.67	162.18	1,379.7	-304.2	97.7	319.5	0.00	0.00	
1,470.0	27.67	162.18	1,406.2	-317.4	102.0	333.4	0.00	0.00	
1,500.0	27.67	162.18	1,432.8	-330.7	106.3	347.3	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well NP WF14D-22 K22 596
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6548.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6548.0ft (Original Well Elev)
Site:	K22 596 Pad (S22-T5S-R96W)	North Reference:	True
Well:	NP WF14D-22 K22 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	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
1,530.0	27.67	162.18	1,459.4	-344.0	110.5	361.3	0.00	0.00	
1,560.0	27.67	162.18	1,486.0	-357.2	114.8	375.2	0.00	0.00	
1,590.0	27.67	162.18	1,512.5	-370.5	119.1	389.1	0.00	0.00	
1,620.0	27.67	162.18	1,539.1	-383.7	123.3	403.0	0.00	0.00	
1,650.0	27.67	162.18	1,565.7	-397.0	127.6	417.0	0.00	0.00	
1,680.0	27.67	162.18	1,592.2	-410.3	131.8	430.9	0.00	0.00	
1,710.0	27.67	162.18	1,618.8	-423.5	136.1	444.8	0.00	0.00	
1,740.0	27.67	162.18	1,645.4	-436.8	140.4	458.8	0.00	0.00	
1,770.0	27.67	162.18	1,671.9	-450.1	144.6	472.7	0.00	0.00	
1,800.0	27.67	162.18	1,698.5	-463.3	148.9	486.6	0.00	0.00	
1,830.0	27.67	162.18	1,725.1	-476.6	153.2	500.5	0.00	0.00	
1,860.0	27.67	162.18	1,751.6	-489.8	157.4	514.5	0.00	0.00	
1,890.0	27.67	162.18	1,778.2	-503.1	161.7	528.4	0.00	0.00	
1,920.0	27.67	162.18	1,804.8	-516.4	165.9	542.3	0.00	0.00	
1,950.0	27.67	162.18	1,831.4	-529.6	170.2	556.3	0.00	0.00	
1,980.0	27.67	162.18	1,857.9	-542.9	174.5	570.2	0.00	0.00	
2,010.0	27.67	162.18	1,884.5	-556.2	178.7	584.1	0.00	0.00	
2,040.0	27.67	162.18	1,911.1	-569.4	183.0	598.1	0.00	0.00	
2,070.0	27.67	162.18	1,937.6	-582.7	187.2	612.0	0.00	0.00	
2,100.0	27.67	162.18	1,964.2	-595.9	191.5	625.9	0.00	0.00	
2,130.0	27.67	162.18	1,990.8	-609.2	195.8	639.8	0.00	0.00	
2,160.0	27.67	162.18	2,017.3	-622.5	200.0	653.8	0.00	0.00	
2,190.0	27.67	162.18	2,043.9	-635.7	204.3	667.7	0.00	0.00	
2,220.0	27.67	162.18	2,070.5	-649.0	208.6	681.6	0.00	0.00	
2,250.0	27.67	162.18	2,097.1	-662.3	212.8	695.6	0.00	0.00	
2,280.0	27.67	162.18	2,123.6	-675.5	217.1	709.5	0.00	0.00	
2,310.0	27.67	162.18	2,150.2	-688.8	221.3	723.4	0.00	0.00	
2,340.0	27.67	162.18	2,176.8	-702.0	225.6	737.3	0.00	0.00	
2,370.0	27.67	162.18	2,203.3	-715.3	229.9	751.3	0.00	0.00	
2,400.0	27.67	162.18	2,229.9	-728.6	234.1	765.2	0.00	0.00	
2,430.0	27.67	162.18	2,256.5	-741.8	238.4	779.1	0.00	0.00	
2,460.0	27.67	162.18	2,283.0	-755.1	242.7	793.1	0.00	0.00	
2,490.0	27.67	162.18	2,309.6	-768.4	246.9	807.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well NP WF14D-22 K22 596
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6548.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6548.0ft (Original Well Elev)
Site:	K22 596 Pad (S22-T5S-R96W)	North Reference:	True
Well:	NP WF14D-22 K22 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	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	27.67	162.18	2,318.5	-772.8	248.3	811.6	0.00	0.00	
2,600.0	27.67	162.18	2,407.0	-817.0	262.5	858.1	0.00	0.00	
2,700.0	27.67	162.18	2,495.6	-861.2	276.8	904.5	0.00	0.00	
2,800.0	27.67	162.18	2,584.2	-905.4	291.0	950.9	0.00	0.00	
2,900.0	27.67	162.18	2,672.7	-949.6	305.2	997.4	0.00	0.00	
3,000.0	27.67	162.18	2,761.3	-993.8	319.4	1,043.8	0.00	0.00	
3,100.0	27.67	162.18	2,849.9	-1,038.0	333.6	1,090.2	0.00	0.00	
3,200.0	27.67	162.18	2,938.4	-1,082.2	347.8	1,136.7	0.00	0.00	
3,300.0	27.67	162.18	3,027.0	-1,126.4	362.0	1,183.1	0.00	0.00	
3,400.0	27.67	162.18	3,115.6	-1,170.7	376.2	1,229.5	0.00	0.00	
3,500.0	27.67	162.18	3,204.1	-1,214.9	390.4	1,276.0	0.00	0.00	
3,600.0	27.67	162.18	3,292.7	-1,259.1	404.6	1,322.4	0.00	0.00	
3,700.0	27.67	162.18	3,381.2	-1,303.3	418.8	1,368.8	0.00	0.00	
3,800.0	27.67	162.18	3,469.8	-1,347.5	433.0	1,415.2	0.00	0.00	
3,900.0	27.67	162.18	3,558.4	-1,391.7	447.2	1,461.7	0.00	0.00	
4,000.0	27.67	162.18	3,646.9	-1,435.9	461.4	1,508.1	0.00	0.00	
4,100.0	27.67	162.18	3,735.5	-1,480.1	475.6	1,554.5	0.00	0.00	
4,200.0	27.67	162.18	3,824.1	-1,524.3	489.9	1,601.0	0.00	0.00	
4,300.0	27.67	162.18	3,912.6	-1,568.5	504.1	1,647.4	0.00	0.00	
4,400.0	27.67	162.18	4,001.2	-1,612.7	518.3	1,693.8	0.00	0.00	
4,500.0	27.67	162.18	4,089.8	-1,656.9	532.5	1,740.3	0.00	0.00	
4,600.0	27.67	162.18	4,178.3	-1,701.2	546.7	1,786.7	0.00	0.00	
4,700.0	27.67	162.18	4,266.9	-1,745.4	560.9	1,833.1	0.00	0.00	
4,800.0	27.67	162.18	4,355.5	-1,789.6	575.1	1,879.6	0.00	0.00	
4,864.0	27.67	162.18	4,412.2	-1,817.9	584.2	1,909.3	0.00	0.00	Start Drop -3.00
4,900.0	26.59	162.18	4,444.2	-1,833.5	589.2	1,925.7	3.00	-3.00	
5,000.0	23.59	162.18	4,534.7	-1,873.9	602.2	1,968.1	3.00	-3.00	
5,100.0	20.59	162.18	4,627.4	-1,909.7	613.7	2,005.7	3.00	-3.00	
5,200.0	17.59	162.18	4,721.9	-1,940.8	623.7	2,038.4	3.00	-3.00	
5,300.0	14.59	162.18	4,818.0	-1,967.2	632.2	2,066.1	3.00	-3.00	
5,400.0	11.59	162.18	4,915.3	-1,988.7	639.1	2,088.7	3.00	-3.00	
5,500.0	8.59	162.18	5,013.8	-2,005.4	644.4	2,106.2	3.00	-3.00	
5,600.0	5.59	162.18	5,113.0	-2,017.1	648.2	2,118.6	3.00	-3.00	
5,700.0	2.59	162.18	5,212.7	-2,023.9	650.4	2,125.7	3.00	-3.00	
5,746.3	1.20	162.18	5,259.0	-2,025.4	650.9	2,127.2	3.00	-3.00	Williams Fork
5,786.3	0.00	0.00	5,299.0	-2,025.8	651.0	2,127.7	3.00	-3.00	EOD; Inc=0° - Top of Gas - K22 596 WF14D-22
5,800.0	0.03	239.74	5,312.7	-2,025.8	651.0	2,127.7	0.25	0.25	
5,900.0	0.28	239.74	5,412.7	-2,025.9	650.8	2,127.7	0.25	0.25	
5,975.3	0.47	239.74	5,488.0	-2,026.2	650.3	2,127.8	0.25	0.25	
6,000.0	0.47	239.74	5,512.7	-2,026.3	650.2	2,127.9	0.00	0.00	
6,100.0	0.47	239.74	5,612.7	-2,026.7	649.4	2,128.1	0.00	0.00	
6,200.0	0.47	239.74	5,712.7	-2,027.1	648.7	2,128.3	0.00	0.00	
6,300.0	0.47	239.74	5,812.7	-2,027.5	648.0	2,128.4	0.00	0.00	
6,400.0	0.47	239.74	5,912.7	-2,027.9	647.3	2,128.6	0.00	0.00	
6,500.0	0.47	239.74	6,012.7	-2,028.4	646.6	2,128.8	0.00	0.00	
6,600.0	0.47	239.74	6,112.7	-2,028.8	645.9	2,129.0	0.00	0.00	
6,700.0	0.47	239.74	6,212.7	-2,029.2	645.2	2,129.2	0.00	0.00	
6,800.0	0.47	239.74	6,312.7	-2,029.6	644.5	2,129.4	0.00	0.00	
6,900.0	0.47	239.74	6,412.7	-2,030.0	643.7	2,129.6	0.00	0.00	
7,000.0	0.47	239.74	6,512.7	-2,030.4	643.0	2,129.8	0.00	0.00	
7,100.0	0.47	239.74	6,612.7	-2,030.9	642.3	2,129.9	0.00	0.00	
7,200.0	0.47	239.74	6,712.7	-2,031.3	641.6	2,130.1	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well NP WF14D-22 K22 596
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6548.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6548.0ft (Original Well Elev)
Site:	K22 596 Pad (S22-T5S-R96W)	North Reference:	True
Well:	NP WF14D-22 K22 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	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
7,300.0	0.47	239.74	6,812.7	-2,031.7	640.9	2,130.3	0.00	0.00	
7,400.0	0.47	239.74	6,912.7	-2,032.1	640.2	2,130.5	0.00	0.00	
7,500.0	0.47	239.74	7,012.7	-2,032.5	639.5	2,130.7	0.00	0.00	
7,600.0	0.47	239.74	7,112.7	-2,032.9	638.8	2,130.9	0.00	0.00	
7,700.0	0.47	239.74	7,212.7	-2,033.4	638.0	2,131.1	0.00	0.00	
7,800.0	0.47	239.74	7,312.6	-2,033.8	637.3	2,131.3	0.00	0.00	
7,900.0	0.47	239.74	7,412.6	-2,034.2	636.6	2,131.4	0.00	0.00	
8,000.0	0.47	239.74	7,512.6	-2,034.6	635.9	2,131.6	0.00	0.00	
8,100.0	0.47	239.74	7,612.6	-2,035.0	635.2	2,131.8	0.00	0.00	
8,200.0	0.47	239.74	7,712.6	-2,035.4	634.5	2,132.0	0.00	0.00	
8,300.0	0.47	239.74	7,812.6	-2,035.8	633.8	2,132.2	0.00	0.00	
8,400.0	0.47	239.74	7,912.6	-2,036.3	633.1	2,132.4	0.00	0.00	
8,500.0	0.47	239.74	8,012.6	-2,036.7	632.3	2,132.6	0.00	0.00	
8,600.0	0.47	239.74	8,112.6	-2,037.1	631.6	2,132.8	0.00	0.00	
8,700.0	0.47	239.74	8,212.6	-2,037.5	630.9	2,133.0	0.00	0.00	
8,800.0	0.47	239.74	8,312.6	-2,037.9	630.2	2,133.1	0.00	0.00	
8,900.0	0.47	239.74	8,412.6	-2,038.3	629.5	2,133.3	0.00	0.00	
9,000.0	0.47	239.74	8,512.6	-2,038.8	628.8	2,133.5	0.00	0.00	
9,100.0	0.47	239.74	8,612.6	-2,039.2	628.1	2,133.7	0.00	0.00	
9,200.0	0.47	239.74	8,712.6	-2,039.6	627.4	2,133.9	0.00	0.00	
9,246.4	0.47	239.74	8,759.0	-2,039.8	627.0	2,134.0	0.00	0.00	Rollins - K22 596 WF14D-22 TGT 2 - K22 596 \
9,300.0	0.47	239.74	8,812.6	-2,040.0	626.6	2,134.1	0.00	0.00	
9,321.4	0.47	239.74	8,834.0	-2,040.1	626.5	2,134.1	0.00	0.00	Drillers TD @ 9321'
9,400.0	0.47	239.74	8,912.6	-2,040.4	625.9	2,134.3	0.00	0.00	
9,500.0	0.47	239.74	9,012.6	-2,040.8	625.2	2,134.5	0.00	0.00	
9,600.0	0.47	239.74	9,112.6	-2,041.2	624.5	2,134.6	0.00	0.00	
9,700.0	0.47	239.74	9,212.6	-2,041.7	623.8	2,134.8	0.00	0.00	
9,800.0	0.47	239.74	9,312.6	-2,042.1	623.1	2,135.0	0.00	0.00	
9,900.0	0.47	239.74	9,412.6	-2,042.5	622.4	2,135.2	0.00	0.00	
10,000.0	0.47	239.74	9,512.6	-2,042.9	621.7	2,135.4	0.00	0.00	
10,100.0	0.47	239.74	9,612.6	-2,043.3	620.9	2,135.6	0.00	0.00	
10,200.0	0.47	239.74	9,712.6	-2,043.7	620.2	2,135.8	0.00	0.00	
10,300.0	0.47	239.74	9,812.6	-2,044.2	619.5	2,136.0	0.00	0.00	
10,400.0	0.47	239.74	9,912.6	-2,044.6	618.8	2,136.1	0.00	0.00	
10,500.0	0.47	239.74	10,012.6	-2,045.0	618.1	2,136.3	0.00	0.00	
10,600.0	0.47	239.74	10,112.6	-2,045.4	617.4	2,136.5	0.00	0.00	
10,700.0	0.47	239.74	10,212.6	-2,045.8	616.7	2,136.7	0.00	0.00	
10,800.0	0.47	239.74	10,312.5	-2,046.2	616.0	2,136.9	0.00	0.00	
10,900.0	0.47	239.74	10,412.5	-2,046.7	615.2	2,137.1	0.00	0.00	
10,987.5	0.47	239.74	10,500.0	-2,047.0	614.6	2,137.3	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well NP WF14D-22 K22 596
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6548.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6548.0ft (Original Well Elev)
Site:	K22 596 Pad (S22-T5S-R96W)	North Reference:	True
Well:	NP WF14D-22 K22 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	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 WF14D-22 TG ⁺	0.00	0.00	5,299.0	-2,025.8	651.0	1,652,107.32	2,251,571.29	39° 35' 37.60 N	108° 9' 22.32 W
- plan hits target center									
- Point									
K22 596 WF14D-22 TG ⁺	0.00	0.00	8,759.0	-2,039.8	627.0	1,652,094.04	2,251,546.92	39° 35' 37.46 N	108° 9' 22.63 W
- plan hits target center									
- Rectangle (sides W100.0 H200.0 D0.0)									
K22 596 WF14D-22 BHL	0.00	0.00	8,759.0	-2,039.8	627.0	1,652,094.04	2,251,546.92	39° 35' 37.46 N	108° 9' 22.63 W
- plan hits target center									
- Rectangle (sides W30.0 H50.0 D0.0)									
K22 596 WF14D-22 TO ⁺	0.00	0.00	5,299.0	-2,039.8	627.0	1,652,094.04	2,251,546.92	39° 35' 37.46 N	108° 9' 22.63 W
- plan misses target center by 27.8ft at 5786.3ft MD (5299.0 TVD, -2025.8 N, 651.0 E)									
- Rectangle (sides W100.0 H200.0 D300.0)									

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
5,746.3	5,259.0	Williams Fork		0.00	
5,786.3	5,299.0	Top of Gas		0.00	
9,246.4	8,759.0	Rollins		0.00	

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
300.0	300.0	0.0	0.0	KOP @ 200'
1,222.3	1,186.8	-207.9	66.8	EOB; Inc=27.67°
4,864.0	4,412.2	-1,817.9	584.2	Start Drop -3.00
5,786.3	5,299.0	-2,025.8	651.0	EOD; Inc=0°
9,321.4	8,834.0	-2,026.2	650.3	Drillers TD @ 9321'
10,987.5	10,500.0	-2,039.8	627.0	Permit TD @ 10987'