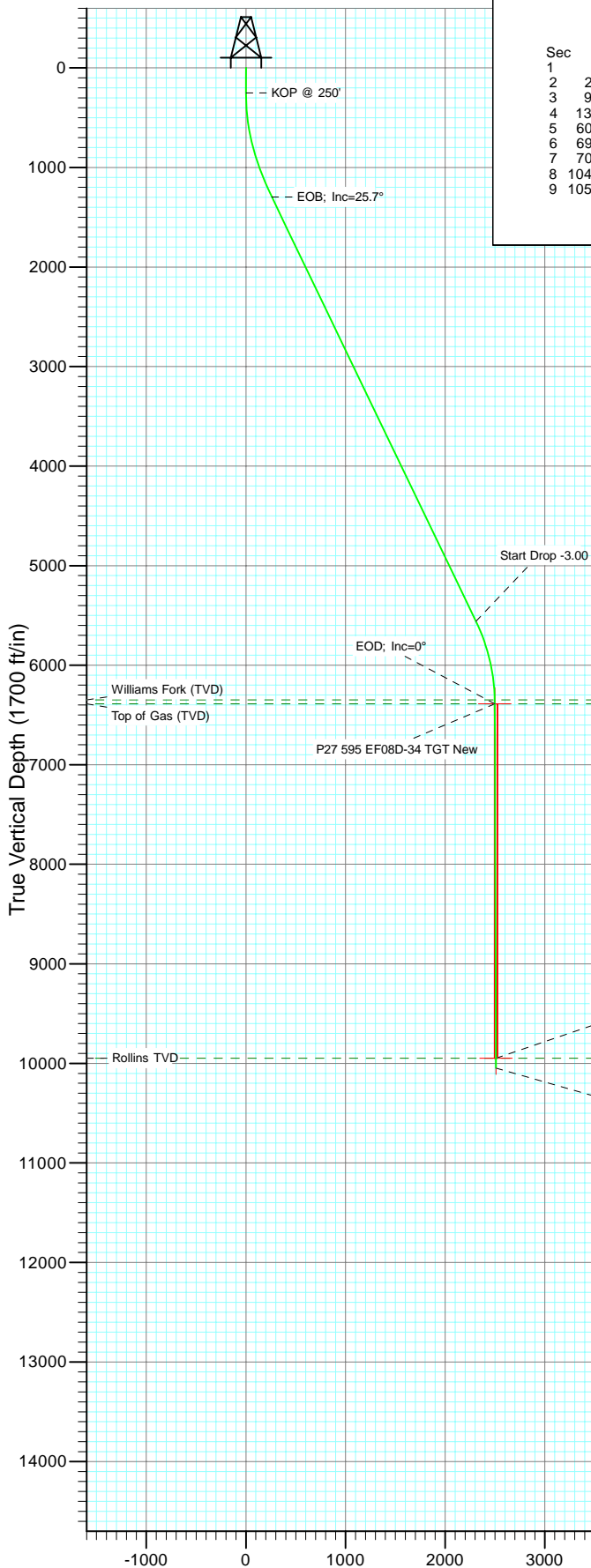




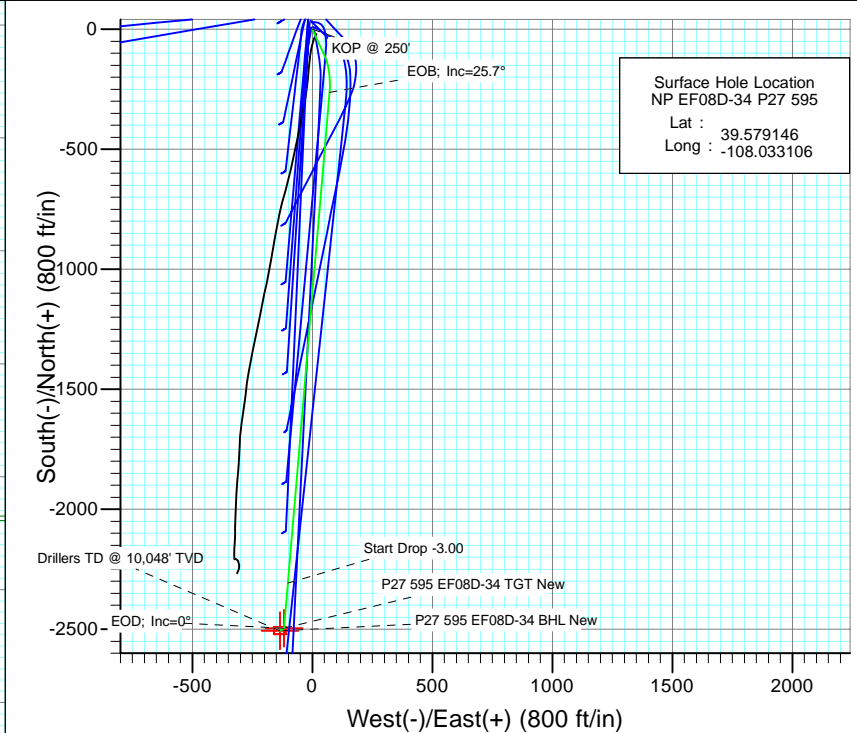
Project: North Piceance
Site: P27 595 (S27-T5S-R95W)
Well: NP EF08D-34 P27 595
Wellbore: DD
Design: Plan #2



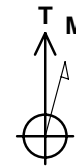
Vertical Section at 182.39° (1700 ft/in)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.0	
3	916.7	20.00	155.00	903.2	-104.4	48.7	3.00	155.00	102.3	
4	1341.3	25.70	184.85	1295.7	-262.6	71.7	3.00	78.16	259.4	
5	6073.5	25.70	184.85	5559.8	-2307.4	-101.7	0.00	0.00	2309.6	
6	6930.2	0.00	0.00	6388.0	-2495.6	-117.7	3.00	180.00	2498.3	P27 595 EF08D-34 TGT New
7	7059.8	0.32	239.55	6517.7	-2495.8	-118.0	0.25	239.55	2498.5	
8	10490.2	0.32	239.55	9948.0	-2505.6	-134.7	0.00	0.00	2509.1	P27 595 EF08D-34 BHL New
9	10590.2	0.32	239.55	10048.0	-2505.9	-135.2	0.00	0.00	2509.4	



Surface Hole Location
NP EF08D-34 P27 595
Lat : 39.579146
Long : -108.033106



Azimuths to True North
Magnetic North: 10.65°

Magnetic Field
Strength: 52539.0nT
Dip Angle: 65.87°
Date: 3/10/2009
Model: IGRF200510

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
6348.0	6890.2	Williams Fork (TVD)
6388.0	6930.2	Top of Gas (TVD)
9948.0	10490.2	Rollins TVD

Plan #2 NP EF08D-34 P27 595 95xxx; LR							
EF08D-34 P27 @ 6671.0ft (Original Well Elev) North American Datum 1983 Well NP EF08D-34 P27 595, True North							
Type	Target	TVD	Azimuth	Origin Type	N/S	E/W	From TVD
Target	P27 595 EF08D-34 BHL	182.39	182.39	Slot	0.0	0.0	0.0
Name	P27 595 EF08D-34 TGT New	6388.0	+N/-S	+E/-W	Latitude	Longitude	
	P27 595 EF08D-34 BHL New	9948.0	-2495.6	-117.7	39.572295	-108.033523	
			-2505.6	-134.7	39.572267	-108.033584	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well NP EF08D-34 P27 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	EF08D-34 P27 @ 6671.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	EF08D-34 P27 @ 6671.0ft (Original Well Elev)
Site:	P27 595 (S27-T5S-R95W)	North Reference:	True
Well:	NP EF08D-34 P27 595	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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		P27 595 (S27-T5S-R95W)			
Site Position:		Northing:	1,645,842.89 ft	Latitude:	39.579292
From:	Lat/Long	Easting:	2,286,079.88 ft	Longitude:	-108.033175
Position Uncertainty:	0.0 ft	Slot Radius:	0.000 in	Grid Convergence:	-1.60 °

Well	NP EF08D-34 P27 595					
Well Position	+N/-S	0.0 ft	Northing:	1,645,789.33 ft	Latitude:	39.579146
	+E/-W	0.0 ft	Easting:	2,286,097.93 ft	Longitude:	-108.033106
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,649.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	3/10/2009	10.65	65.87	52,539

Design	Plan #2				
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	182.39	

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	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.00	0.00	
916.7	20.00	155.00	903.2	-104.4	48.7	3.00	3.00	0.00	155.00	
1,341.3	25.70	184.85	1,295.7	-262.6	71.7	3.00	1.34	7.03	78.16	
6,073.5	25.70	184.85	5,559.8	-2,307.4	-101.7	0.00	0.00	0.00	0.00	
6,930.2	0.00	0.00	6,388.0	-2,495.6	-117.7	3.00	-3.00	0.00	180.00	P27 595 EF08D-34 T
7,059.8	0.32	239.55	6,517.7	-2,495.8	-118.0	0.25	0.25	-92.90	239.55	
10,490.2	0.32	239.55	9,948.0	-2,505.6	-134.7	0.00	0.00	0.00	0.00	P27 595 EF08D-34 B
10,590.2	0.32	239.55	10,048.0	-2,505.9	-135.2	0.00	0.00	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well NP EF08D-34 P27 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	EF08D-34 P27 @ 6671.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	EF08D-34 P27 @ 6671.0ft (Original Well Elev)
Site:	P27 595 (S27-T5S-R95W)	North Reference:	True
Well:	NP EF08D-34 P27 595	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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	
100.0	0.00	0.00	100.0	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	
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	KOP @ 250'
300.0	1.50	155.00	300.0	-0.6	0.3	0.6	3.00	3.00	
400.0	4.50	155.00	399.8	-5.3	2.5	5.2	3.00	3.00	
500.0	7.50	155.00	499.3	-14.8	6.9	14.5	3.00	3.00	
600.0	10.50	155.00	598.0	-29.0	13.5	28.4	3.00	3.00	
700.0	13.50	155.00	695.8	-47.8	22.3	46.9	3.00	3.00	
800.0	16.50	155.00	792.4	-71.3	33.2	69.8	3.00	3.00	
900.0	19.50	155.00	887.5	-99.3	46.3	97.3	3.00	3.00	
916.7	20.00	155.00	903.2	-104.4	48.7	102.3	3.00	3.00	
1,000.0	20.65	161.95	981.4	-131.3	59.3	128.7	3.00	0.78	
1,100.0	21.78	169.65	1,074.6	-166.3	68.1	163.3	3.00	1.12	
1,200.0	23.22	176.53	1,167.0	-204.2	72.6	201.0	3.00	1.44	
1,300.0	24.93	182.58	1,258.3	-245.0	72.8	241.7	3.00	1.71	
1,341.3	25.70	184.85	1,295.7	-262.6	71.7	259.4	3.00	1.87	EOB; Inc=25.7°
1,400.0	25.70	184.85	1,348.5	-288.0	69.5	284.8	0.00	0.00	
1,500.0	25.70	184.85	1,438.7	-331.2	65.9	328.1	0.00	0.00	
1,600.0	25.70	184.85	1,528.8	-374.4	62.2	371.5	0.00	0.00	
1,700.0	25.70	184.85	1,618.9	-417.6	58.5	414.8	0.00	0.00	
1,800.0	25.70	184.85	1,709.0	-460.8	54.9	458.1	0.00	0.00	
1,900.0	25.70	184.85	1,799.1	-504.0	51.2	501.4	0.00	0.00	
2,000.0	25.70	184.85	1,889.2	-547.2	47.5	544.8	0.00	0.00	
2,100.0	25.70	184.85	1,979.3	-590.4	43.9	588.1	0.00	0.00	
2,200.0	25.70	184.85	2,069.4	-633.6	40.2	631.4	0.00	0.00	
2,300.0	25.70	184.85	2,159.5	-676.8	36.5	674.7	0.00	0.00	
2,400.0	25.70	184.85	2,249.6	-720.0	32.9	718.0	0.00	0.00	
2,500.0	25.70	184.85	2,339.7	-763.3	29.2	761.4	0.00	0.00	
2,600.0	25.70	184.85	2,429.9	-806.5	25.6	804.7	0.00	0.00	
2,700.0	25.70	184.85	2,520.0	-849.7	21.9	848.0	0.00	0.00	
2,800.0	25.70	184.85	2,610.1	-892.9	18.2	891.3	0.00	0.00	
2,900.0	25.70	184.85	2,700.2	-936.1	14.6	934.7	0.00	0.00	
3,000.0	25.70	184.85	2,790.3	-979.3	10.9	978.0	0.00	0.00	
3,100.0	25.70	184.85	2,880.4	-1,022.5	7.2	1,021.3	0.00	0.00	
3,200.0	25.70	184.85	2,970.5	-1,065.7	3.6	1,064.6	0.00	0.00	
3,300.0	25.70	184.85	3,060.6	-1,108.9	-0.1	1,108.0	0.00	0.00	
3,400.0	25.70	184.85	3,150.7	-1,152.1	-3.8	1,151.3	0.00	0.00	
3,500.0	25.70	184.85	3,240.8	-1,195.4	-7.4	1,194.6	0.00	0.00	
3,600.0	25.70	184.85	3,330.9	-1,238.6	-11.1	1,237.9	0.00	0.00	
3,700.0	25.70	184.85	3,421.0	-1,281.8	-14.8	1,281.3	0.00	0.00	
3,800.0	25.70	184.85	3,511.2	-1,325.0	-18.4	1,324.6	0.00	0.00	
3,900.0	25.70	184.85	3,601.3	-1,368.2	-22.1	1,367.9	0.00	0.00	
4,000.0	25.70	184.85	3,691.4	-1,411.4	-25.7	1,411.2	0.00	0.00	
4,100.0	25.70	184.85	3,781.5	-1,454.6	-29.4	1,454.6	0.00	0.00	
4,200.0	25.70	184.85	3,871.6	-1,497.8	-33.1	1,497.9	0.00	0.00	
4,300.0	25.70	184.85	3,961.7	-1,541.0	-36.7	1,541.2	0.00	0.00	
4,400.0	25.70	184.85	4,051.8	-1,584.2	-40.4	1,584.5	0.00	0.00	
4,500.0	25.70	184.85	4,141.9	-1,627.4	-44.1	1,627.9	0.00	0.00	
4,600.0	25.70	184.85	4,232.0	-1,670.7	-47.7	1,671.2	0.00	0.00	
4,700.0	25.70	184.85	4,322.1	-1,713.9	-51.4	1,714.5	0.00	0.00	
4,800.0	25.70	184.85	4,412.2	-1,757.1	-55.1	1,757.8	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well NP EF08D-34 P27 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	EF08D-34 P27 @ 6671.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	EF08D-34 P27 @ 6671.0ft (Original Well Elev)
Site:	P27 595 (S27-T5S-R95W)	North Reference:	True
Well:	NP EF08D-34 P27 595	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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
4,900.0	25.70	184.85	4,502.3	-1,800.3	-58.7	1,801.2	0.00	0.00	
5,000.0	25.70	184.85	4,592.5	-1,843.5	-62.4	1,844.5	0.00	0.00	
5,100.0	25.70	184.85	4,682.6	-1,886.7	-66.1	1,887.8	0.00	0.00	
5,200.0	25.70	184.85	4,772.7	-1,929.9	-69.7	1,931.1	0.00	0.00	
5,300.0	25.70	184.85	4,862.8	-1,973.1	-73.4	1,974.5	0.00	0.00	
5,400.0	25.70	184.85	4,952.9	-2,016.3	-77.1	2,017.8	0.00	0.00	
5,500.0	25.70	184.85	5,043.0	-2,059.5	-80.7	2,061.1	0.00	0.00	
5,600.0	25.70	184.85	5,133.1	-2,102.7	-84.4	2,104.4	0.00	0.00	
5,700.0	25.70	184.85	5,223.2	-2,146.0	-88.0	2,147.8	0.00	0.00	
5,800.0	25.70	184.85	5,313.3	-2,189.2	-91.7	2,191.1	0.00	0.00	
5,900.0	25.70	184.85	5,403.4	-2,232.4	-95.4	2,234.4	0.00	0.00	
6,000.0	25.70	184.85	5,493.5	-2,275.6	-99.0	2,277.7	0.00	0.00	
6,073.5	25.70	184.85	5,559.8	-2,307.3	-101.7	2,309.6	0.00	0.00	Start Drop -3.00
6,100.0	24.91	184.85	5,583.7	-2,318.6	-102.7	2,320.9	3.00	-3.00	
6,200.0	21.91	184.85	5,675.5	-2,358.2	-106.0	2,360.6	3.00	-3.00	
6,300.0	18.91	184.85	5,769.2	-2,392.9	-109.0	2,395.4	3.00	-3.00	
6,400.0	15.91	184.85	5,864.6	-2,422.7	-111.5	2,425.3	3.00	-3.00	
6,500.0	12.91	184.85	5,961.5	-2,447.5	-113.6	2,450.1	3.00	-3.00	
6,600.0	9.91	184.85	6,059.5	-2,467.2	-115.3	2,469.9	3.00	-3.00	
6,700.0	6.91	184.85	6,158.4	-2,481.8	-116.5	2,484.5	3.00	-3.00	
6,800.0	3.91	184.85	6,257.9	-2,491.2	-117.3	2,493.9	3.00	-3.00	
6,890.2	1.20	184.85	6,348.0	-2,495.2	-117.7	2,497.9	3.00	-3.00	Williams Fork (TVD)
6,900.0	0.91	184.85	6,357.8	-2,495.4	-117.7	2,498.1	3.00	-3.00	
6,930.2	0.00	0.00	6,388.0	-2,495.6	-117.7	2,498.3	3.00	-3.00	EOD; Inc=0° - Top of Gas (TVD) - P27 595 EFO
7,000.0	0.17	239.55	6,457.8	-2,495.7	-117.8	2,498.4	0.25	0.25	
7,059.8	0.32	239.55	6,517.7	-2,495.8	-118.0	2,498.5	0.25	0.25	
7,100.0	0.32	239.55	6,557.8	-2,495.9	-118.2	2,498.7	0.00	0.00	
7,200.0	0.32	239.55	6,657.8	-2,496.2	-118.7	2,499.0	0.00	0.00	
7,300.0	0.32	239.55	6,757.8	-2,496.5	-119.2	2,499.3	0.00	0.00	
7,400.0	0.32	239.55	6,857.8	-2,496.8	-119.7	2,499.6	0.00	0.00	
7,500.0	0.32	239.55	6,957.8	-2,497.0	-120.2	2,499.9	0.00	0.00	
7,600.0	0.32	239.55	7,057.8	-2,497.3	-120.7	2,500.2	0.00	0.00	
7,700.0	0.32	239.55	7,157.8	-2,497.6	-121.1	2,500.5	0.00	0.00	
7,800.0	0.32	239.55	7,257.8	-2,497.9	-121.6	2,500.8	0.00	0.00	
7,900.0	0.32	239.55	7,357.8	-2,498.2	-122.1	2,501.1	0.00	0.00	
8,000.0	0.32	239.55	7,457.8	-2,498.5	-122.6	2,501.4	0.00	0.00	
8,100.0	0.32	239.55	7,557.8	-2,498.8	-123.1	2,501.7	0.00	0.00	
8,200.0	0.32	239.55	7,657.8	-2,499.1	-123.6	2,502.0	0.00	0.00	
8,300.0	0.32	239.55	7,757.8	-2,499.3	-124.1	2,502.3	0.00	0.00	
8,400.0	0.32	239.55	7,857.8	-2,499.6	-124.6	2,502.6	0.00	0.00	
8,500.0	0.32	239.55	7,957.8	-2,499.9	-125.0	2,503.0	0.00	0.00	
8,600.0	0.32	239.55	8,057.8	-2,500.2	-125.5	2,503.3	0.00	0.00	
8,700.0	0.32	239.55	8,157.8	-2,500.5	-126.0	2,503.6	0.00	0.00	
8,800.0	0.32	239.55	8,257.8	-2,500.8	-126.5	2,503.9	0.00	0.00	
8,900.0	0.32	239.55	8,357.8	-2,501.1	-127.0	2,504.2	0.00	0.00	
9,000.0	0.32	239.55	8,457.8	-2,501.3	-127.5	2,504.5	0.00	0.00	
9,100.0	0.32	239.55	8,557.8	-2,501.6	-128.0	2,504.8	0.00	0.00	
9,200.0	0.32	239.55	8,657.8	-2,501.9	-128.5	2,505.1	0.00	0.00	
9,300.0	0.32	239.55	8,757.8	-2,502.2	-128.9	2,505.4	0.00	0.00	
9,400.0	0.32	239.55	8,857.8	-2,502.5	-129.4	2,505.7	0.00	0.00	
9,500.0	0.32	239.55	8,957.8	-2,502.8	-129.9	2,506.0	0.00	0.00	
9,600.0	0.32	239.55	9,057.8	-2,503.1	-130.4	2,506.3	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well NP EF08D-34 P27 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	EF08D-34 P27 @ 6671.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	EF08D-34 P27 @ 6671.0ft (Original Well Elev)
Site:	P27 595 (S27-T5S-R95W)	North Reference:	True
Well:	NP EF08D-34 P27 595	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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
9,700.0	0.32	239.55	9,157.8	-2,503.4	-130.9	2,506.6	0.00	0.00	
9,800.0	0.32	239.55	9,257.8	-2,503.6	-131.4	2,506.9	0.00	0.00	
9,900.0	0.32	239.55	9,357.8	-2,503.9	-131.9	2,507.3	0.00	0.00	
10,000.0	0.32	239.55	9,457.8	-2,504.2	-132.4	2,507.6	0.00	0.00	
10,100.0	0.32	239.55	9,557.8	-2,504.5	-132.8	2,507.9	0.00	0.00	
10,200.0	0.32	239.55	9,657.8	-2,504.8	-133.3	2,508.2	0.00	0.00	
10,300.0	0.32	239.55	9,757.8	-2,505.1	-133.8	2,508.5	0.00	0.00	
10,400.0	0.32	239.55	9,857.8	-2,505.4	-134.3	2,508.8	0.00	0.00	
10,489.3	0.32	239.55	9,947.1	-2,505.6	-134.7	2,509.1	0.00	0.00	P27 595 EF08D-34 BHL
10,490.2	0.32	239.55	9,948.0	-2,505.6	-134.7	2,509.1	0.00	0.00	Rollins TVD - P27 595 EF08D-34 BHL New
10,500.0	0.32	239.55	9,957.8	-2,505.6	-134.8	2,509.1	0.00	0.00	
10,590.2	0.32	239.55	10,048.0	-2,505.9	-135.2	2,509.4	0.00	0.00	Drillers TD @ 10,048' TVD

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									
P27 595 EF08D-34 TGT	0.00	0.00	6,386.0	-2,893.5	-97.3	1,642,899.70	2,285,919.99	39.571202	-108.033451
- plan misses target center by 398.4ft at 6930.2ft MD (6388.0 TVD, -2495.6 N, -117.7 E)									
- Point									
P27 595 EF08D-34 BHL	0.00	0.00	9,948.0	-2,505.6	-134.7	1,643,288.44	2,285,893.38	39.572267	-108.033584
- plan hits target center									
- Rectangle (sides W30.0 H50.0 D0.0)									
P27 595 EF08D-34 TGT	0.00	0.00	6,388.0	-2,495.6	-117.7	1,643,297.99	2,285,910.70	39.572295	-108.033523
- plan hits target center									
- Point									
P27 595 EF08D-34 BHL	0.00	0.00	9,946.0	-2,903.5	-121.3	1,642,890.39	2,285,895.70	39.571175	-108.033536
- plan misses target center by 398.1ft at 10489.3ft MD (9947.1 TVD, -2505.6 N, -134.7 E)									
- Rectangle (sides W30.0 H50.0 D0.0)									

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,890.2	6,348.0	Williams Fork (TVD)			
6,930.2	6,388.0	Top of Gas (TVD)			
10,490.2	9,948.0	Rollins TVD			

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
250.0	250.0	0.0	0.0	KOP @ 250'
1,341.3	1,295.7	-104.4	48.7	EOB; Inc=25.7°
6,073.5	5,559.8	-262.6	71.7	Start Drop -3.00
6,930.2	6,388.0	-2,307.4	-101.7	EOD; Inc=0°
10,590.2	10,048.0	-2,495.6	-117.7	Drillers TD @ 10,048' TVD