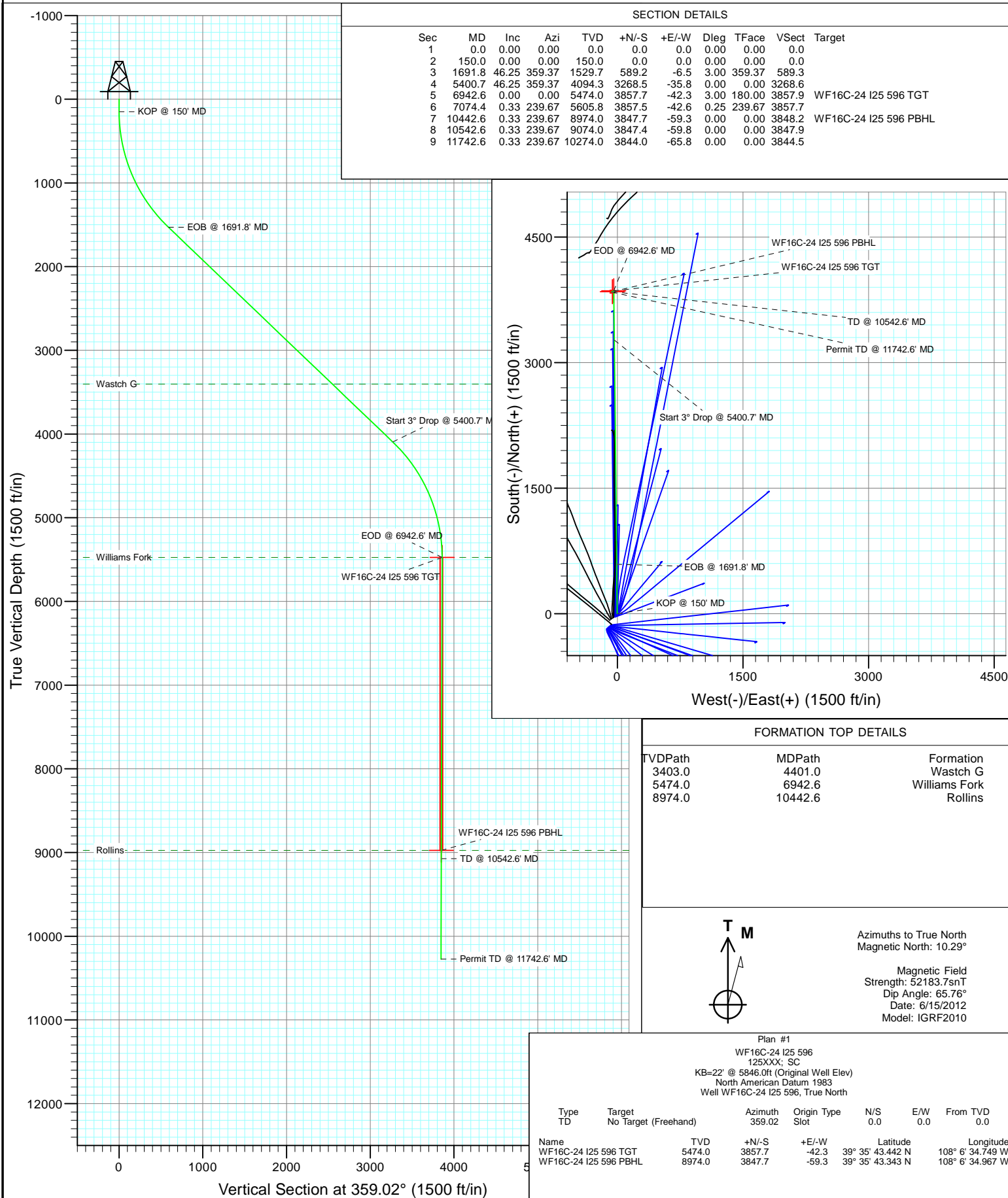




Project: North Piceance
Site: I25 596
Well: WF16C-24 I25 596
Wellbore: OH
Design: Plan #1



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WF16C-24 I25 596
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB=22' @ 5846.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	KB=22' @ 5846.0ft (Original Well Elev)
Site:	I25 596	North Reference:	True
Well:	WF16C-24 I25 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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	I25 596			
Site Position:		Northing:	1,648,435.29 ft	Latitude: 39.5847371
From:	Lat/Long	Easting:	2,264,601.34 ft	Longitude: -108.1096087
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence: -1.65 °

Well	WF16C-24 I25 596			
Well Position	+N/-S	0.0 ft	Northing:	1,648,460.87 ft
	+E/-W	0.0 ft	Easting:	2,264,632.05 ft
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft
			Ground Level:	5,824.0 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	6/15/2012	10.29	65.76	52,184

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	359.02

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	
150.0	0.00	0.00	150.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,691.8	46.25	359.37	1,529.7	589.2	-6.5	3.00	3.00	0.00	359.37	
5,400.7	46.25	359.37	4,094.3	3,268.5	-35.8	0.00	0.00	0.00	0.00	
6,942.6	0.00	0.00	5,474.0	3,857.7	-42.3	3.00	-3.00	0.00	180.00	WF16C-24 I25 596 TC
7,074.4	0.33	239.67	5,605.8	3,857.5	-42.6	0.25	0.25	-91.29	239.67	
10,442.6	0.33	239.67	8,974.0	3,847.7	-59.3	0.00	0.00	0.00	0.00	WF16C-24 I25 596 PI
10,542.6	0.33	239.67	9,074.0	3,847.4	-59.8	0.00	0.00	0.00	0.00	
11,742.6	0.33	239.67	10,274.0	3,844.0	-65.8	0.00	0.00	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WF16C-24 I25 596
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB=22' @ 5846.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	KB=22' @ 5846.0ft (Original Well Elev)
Site:	I25 596	North Reference:	True
Well:	WF16C-24 I25 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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	
100.0	0.00	0.00	100.0	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	KOP @ 150' MD
200.0	1.50	359.37	200.0	0.7	0.0	0.7	3.00	3.00	
300.0	4.50	359.37	299.8	5.9	-0.1	5.9	3.00	3.00	
400.0	7.50	359.37	399.3	16.3	-0.2	16.3	3.00	3.00	
500.0	10.50	359.37	498.0	32.0	-0.4	32.0	3.00	3.00	
600.0	13.50	359.37	595.8	52.8	-0.6	52.8	3.00	3.00	
700.0	16.50	359.37	692.4	78.6	-0.9	78.6	3.00	3.00	
800.0	19.50	359.37	787.5	109.5	-1.2	109.5	3.00	3.00	
900.0	22.50	359.37	880.9	145.4	-1.6	145.4	3.00	3.00	
1,000.0	25.50	359.37	972.2	186.0	-2.0	186.0	3.00	3.00	
1,100.0	28.50	359.37	1,061.3	231.4	-2.5	231.4	3.00	3.00	
1,200.0	31.50	359.37	1,147.9	281.4	-3.1	281.4	3.00	3.00	
1,300.0	34.50	359.37	1,231.8	335.9	-3.7	335.9	3.00	3.00	
1,400.0	37.50	359.37	1,312.6	394.6	-4.3	394.7	3.00	3.00	
1,500.0	40.50	359.37	1,390.4	457.6	-5.0	457.6	3.00	3.00	
1,600.0	43.50	359.37	1,464.7	524.5	-5.8	524.5	3.00	3.00	
1,691.8	46.25	359.37	1,529.7	589.2	-6.5	589.3	3.00	3.00	EOB @ 1691.8' MD
1,700.0	46.25	359.37	1,535.4	595.2	-6.5	595.2	0.00	0.00	
1,800.0	46.25	359.37	1,604.5	667.4	-7.3	667.4	0.00	0.00	
1,900.0	46.25	359.37	1,673.7	739.6	-8.1	739.7	0.00	0.00	
2,000.0	46.25	359.37	1,742.8	811.9	-8.9	811.9	0.00	0.00	
2,100.0	46.25	359.37	1,812.0	884.1	-9.7	884.1	0.00	0.00	
2,200.0	46.25	359.37	1,881.1	956.3	-10.5	956.4	0.00	0.00	
2,300.0	46.25	359.37	1,950.3	1,028.6	-11.3	1,028.6	0.00	0.00	
2,400.0	46.25	359.37	2,019.4	1,100.8	-12.1	1,100.9	0.00	0.00	
2,500.0	46.25	359.37	2,088.5	1,173.0	-12.9	1,173.1	0.00	0.00	
2,600.0	46.25	359.37	2,157.7	1,245.3	-13.7	1,245.3	0.00	0.00	
2,700.0	46.25	359.37	2,226.8	1,317.5	-14.4	1,317.6	0.00	0.00	
2,800.0	46.25	359.37	2,296.0	1,389.8	-15.2	1,389.8	0.00	0.00	
2,900.0	46.25	359.37	2,365.1	1,462.0	-16.0	1,462.1	0.00	0.00	
3,000.0	46.25	359.37	2,434.3	1,534.2	-16.8	1,534.3	0.00	0.00	
3,100.0	46.25	359.37	2,503.4	1,606.5	-17.6	1,606.5	0.00	0.00	
3,200.0	46.25	359.37	2,572.6	1,678.7	-18.4	1,678.8	0.00	0.00	
3,300.0	46.25	359.37	2,641.7	1,750.9	-19.2	1,751.0	0.00	0.00	
3,400.0	46.25	359.37	2,710.9	1,823.2	-20.0	1,823.3	0.00	0.00	
3,500.0	46.25	359.37	2,780.0	1,895.4	-20.8	1,895.5	0.00	0.00	
3,600.0	46.25	359.37	2,849.1	1,967.7	-21.6	1,967.7	0.00	0.00	
3,700.0	46.25	359.37	2,918.3	2,039.9	-22.4	2,040.0	0.00	0.00	
3,800.0	46.25	359.37	2,987.4	2,112.1	-23.2	2,112.2	0.00	0.00	
3,900.0	46.25	359.37	3,056.6	2,184.4	-24.0	2,184.5	0.00	0.00	
4,000.0	46.25	359.37	3,125.7	2,256.6	-24.7	2,256.7	0.00	0.00	
4,100.0	46.25	359.37	3,194.9	2,328.8	-25.5	2,328.9	0.00	0.00	
4,200.0	46.25	359.37	3,264.0	2,401.1	-26.3	2,401.2	0.00	0.00	
4,300.0	46.25	359.37	3,333.2	2,473.3	-27.1	2,473.4	0.00	0.00	
4,400.0	46.25	359.37	3,402.3	2,545.6	-27.9	2,545.7	0.00	0.00	
4,401.0	46.25	359.37	3,403.0	2,546.3	-27.9	2,546.4	0.00	0.00	Wastch G
4,500.0	46.25	359.37	3,471.5	2,617.8	-28.7	2,617.9	0.00	0.00	
4,600.0	46.25	359.37	3,540.6	2,690.0	-29.5	2,690.1	0.00	0.00	
4,700.0	46.25	359.37	3,609.8	2,762.3	-30.3	2,762.4	0.00	0.00	
4,800.0	46.25	359.37	3,678.9	2,834.5	-31.1	2,834.6	0.00	0.00	

Planning Report

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Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB=22' @ 5846.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	KB=22' @ 5846.0ft (Original Well Elev)
Site:	I25 596	North Reference:	True
Well:	WF16C-24 I25 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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
4,900.0	46.25	359.37	3,748.0	2,906.7	-31.9	2,906.9	0.00	0.00	
5,000.0	46.25	359.37	3,817.2	2,979.0	-32.7	2,979.1	0.00	0.00	
5,100.0	46.25	359.37	3,886.3	3,051.2	-33.5	3,051.3	0.00	0.00	
5,200.0	46.25	359.37	3,955.5	3,123.5	-34.2	3,123.6	0.00	0.00	
5,300.0	46.25	359.37	4,024.6	3,195.7	-35.0	3,195.8	0.00	0.00	
5,400.0	46.25	359.37	4,093.8	3,267.9	-35.8	3,268.1	0.00	0.00	
5,400.7	46.25	359.37	4,094.3	3,268.5	-35.8	3,268.6	0.00	0.00	Start 3° Drop @ 5400.7' MD
5,500.0	43.28	359.37	4,164.8	3,338.4	-36.6	3,338.5	3.00	-3.00	
5,600.0	40.28	359.37	4,239.3	3,405.0	-37.3	3,405.1	3.00	-3.00	
5,700.0	37.28	359.37	4,317.3	3,467.6	-38.0	3,467.7	3.00	-3.00	
5,800.0	34.28	359.37	4,398.4	3,526.0	-38.7	3,526.2	3.00	-3.00	
5,900.0	31.28	359.37	4,482.5	3,580.2	-39.3	3,580.3	3.00	-3.00	
6,000.0	28.28	359.37	4,569.2	3,629.8	-39.8	3,630.0	3.00	-3.00	
6,100.0	25.28	359.37	4,658.5	3,674.9	-40.3	3,675.0	3.00	-3.00	
6,200.0	22.28	359.37	4,750.0	3,715.2	-40.7	3,715.3	3.00	-3.00	
6,300.0	19.28	359.37	4,843.5	3,750.6	-41.1	3,750.8	3.00	-3.00	
6,400.0	16.28	359.37	4,938.7	3,781.2	-41.5	3,781.3	3.00	-3.00	
6,500.0	13.28	359.37	5,035.4	3,806.7	-41.7	3,806.8	3.00	-3.00	
6,600.0	10.28	359.37	5,133.3	3,827.1	-42.0	3,827.2	3.00	-3.00	
6,700.0	7.28	359.37	5,232.1	3,842.3	-42.1	3,842.5	3.00	-3.00	
6,800.0	4.28	359.37	5,331.6	3,852.4	-42.2	3,852.5	3.00	-3.00	
6,900.0	1.28	359.37	5,431.5	3,857.2	-42.3	3,857.4	3.00	-3.00	
6,942.6	0.00	0.00	5,474.0	3,857.7	-42.3	3,857.9	3.00	-3.00	EOD @ 6942.6' MD - Williams Fork
7,000.0	0.14	239.67	5,531.4	3,857.7	-42.4	3,857.8	0.25	0.25	
7,074.4	0.33	239.67	5,605.8	3,857.5	-42.6	3,857.7	0.25	0.25	
7,100.0	0.33	239.67	5,631.4	3,857.4	-42.8	3,857.6	0.00	0.00	
7,200.0	0.33	239.67	5,731.4	3,857.1	-43.3	3,857.3	0.00	0.00	
7,300.0	0.33	239.67	5,831.4	3,856.9	-43.7	3,857.0	0.00	0.00	
7,400.0	0.33	239.67	5,931.4	3,856.6	-44.2	3,856.8	0.00	0.00	
7,500.0	0.33	239.67	6,031.4	3,856.3	-44.7	3,856.5	0.00	0.00	
7,600.0	0.33	239.67	6,131.4	3,856.0	-45.2	3,856.2	0.00	0.00	
7,700.0	0.33	239.67	6,231.4	3,855.7	-45.7	3,855.9	0.00	0.00	
7,800.0	0.33	239.67	6,331.4	3,855.4	-46.2	3,855.6	0.00	0.00	
7,900.0	0.33	239.67	6,431.4	3,855.1	-46.7	3,855.3	0.00	0.00	
8,000.0	0.33	239.67	6,531.4	3,854.8	-47.2	3,855.1	0.00	0.00	
8,100.0	0.33	239.67	6,631.4	3,854.5	-47.7	3,854.8	0.00	0.00	
8,200.0	0.33	239.67	6,731.4	3,854.2	-48.2	3,854.5	0.00	0.00	
8,300.0	0.33	239.67	6,831.4	3,853.9	-48.7	3,854.2	0.00	0.00	
8,400.0	0.33	239.67	6,931.4	3,853.7	-49.2	3,853.9	0.00	0.00	
8,500.0	0.33	239.67	7,031.4	3,853.4	-49.7	3,853.7	0.00	0.00	
8,600.0	0.33	239.67	7,131.4	3,853.1	-50.2	3,853.4	0.00	0.00	
8,700.0	0.33	239.67	7,231.4	3,852.8	-50.7	3,853.1	0.00	0.00	
8,800.0	0.33	239.67	7,331.4	3,852.5	-51.2	3,852.8	0.00	0.00	
8,900.0	0.33	239.67	7,431.4	3,852.2	-51.7	3,852.5	0.00	0.00	
9,000.0	0.33	239.67	7,531.4	3,851.9	-52.2	3,852.2	0.00	0.00	
9,100.0	0.33	239.67	7,631.4	3,851.6	-52.7	3,852.0	0.00	0.00	
9,200.0	0.33	239.67	7,731.4	3,851.3	-53.2	3,851.7	0.00	0.00	
9,300.0	0.33	239.67	7,831.4	3,851.0	-53.7	3,851.4	0.00	0.00	
9,400.0	0.33	239.67	7,931.4	3,850.8	-54.2	3,851.1	0.00	0.00	
9,500.0	0.33	239.67	8,031.4	3,850.5	-54.7	3,850.8	0.00	0.00	
9,600.0	0.33	239.67	8,131.4	3,850.2	-55.2	3,850.6	0.00	0.00	
9,700.0	0.33	239.67	8,231.4	3,849.9	-55.7	3,850.3	0.00	0.00	

Planning Report

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Project:	North Piceance	MD Reference:	KB=22' @ 5846.0ft (Original Well Elev)
Site:	I25 596	North Reference:	True
Well:	WF16C-24 I25 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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
9,800.0	0.33	239.67	8,331.4	3,849.6	-56.2	3,850.0	0.00	0.00	
9,900.0	0.33	239.67	8,431.4	3,849.3	-56.7	3,849.7	0.00	0.00	
10,000.0	0.33	239.67	8,531.4	3,849.0	-57.2	3,849.4	0.00	0.00	
10,100.0	0.33	239.67	8,631.4	3,848.7	-57.6	3,849.1	0.00	0.00	
10,200.0	0.33	239.67	8,731.4	3,848.4	-58.1	3,848.9	0.00	0.00	
10,300.0	0.33	239.67	8,831.4	3,848.1	-58.6	3,848.6	0.00	0.00	
10,400.0	0.33	239.67	8,931.4	3,847.9	-59.1	3,848.3	0.00	0.00	
10,442.6	0.33	239.67	8,974.0	3,847.7	-59.3	3,848.2	0.00	0.00	Rollins
10,500.0	0.33	239.67	9,031.4	3,847.6	-59.6	3,848.0	0.00	0.00	
10,542.6	0.33	239.67	9,074.0	3,847.4	-59.8	3,847.9	0.00	0.00	TD @ 10542.6' MD
10,600.0	0.33	239.67	9,131.4	3,847.3	-60.1	3,847.7	0.00	0.00	
10,700.0	0.33	239.67	9,231.4	3,847.0	-60.6	3,847.5	0.00	0.00	
10,800.0	0.33	239.67	9,331.4	3,846.7	-61.1	3,847.2	0.00	0.00	
10,900.0	0.33	239.67	9,431.4	3,846.4	-61.6	3,846.9	0.00	0.00	
11,000.0	0.33	239.67	9,531.4	3,846.1	-62.1	3,846.6	0.00	0.00	
11,100.0	0.33	239.67	9,631.4	3,845.8	-62.6	3,846.3	0.00	0.00	
11,200.0	0.33	239.67	9,731.4	3,845.5	-63.1	3,846.0	0.00	0.00	
11,300.0	0.33	239.67	9,831.4	3,845.2	-63.6	3,845.8	0.00	0.00	
11,400.0	0.33	239.67	9,931.4	3,844.9	-64.1	3,845.5	0.00	0.00	
11,500.0	0.33	239.67	10,031.4	3,844.7	-64.6	3,845.2	0.00	0.00	
11,600.0	0.33	239.67	10,131.4	3,844.4	-65.1	3,844.9	0.00	0.00	
11,700.0	0.33	239.67	10,231.4	3,844.1	-65.6	3,844.6	0.00	0.00	
11,742.6	0.33	239.67	10,274.0	3,844.0	-65.8	3,844.5	0.00	0.00	Permit TD @ 11742.6' 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									
WF16C-24 I25 596 TGT	0.00	0.00	5,474.0	3,857.7	-42.3	1,652,318.20	2,264,700.56	39.5954005	-108.1096525
- plan hits target center									
- Point									
WF16C-24 I25 596 PBH	0.00	0.00	8,974.0	3,847.7	-59.3	1,652,308.72	2,264,683.23	39.5953731	-108.1097130
- plan hits target center									
- Rectangle (sides W30.0 H50.0 D0.0)									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,401.0	3,403.0	Wastch G				
6,942.6	5,474.0	Williams Fork				
10,442.6	8,974.0	Rollins				

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WF16C-24 I25 596
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB=22' @ 5846.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	KB=22' @ 5846.0ft (Original Well Elev)
Site:	I25 596	North Reference:	True
Well:	WF16C-24 I25 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
150.0	150.0	0.0	0.0	KOP @ 150' MD
1,691.8	1,529.7	589.2	-6.5	EOB @ 1691.8' MD
5,400.7	4,094.3	3,268.5	-35.8	Start 3° Drop @ 5400.7' MD
6,942.6	5,474.0	3,857.7	-42.3	EOD @ 6942.6' MD
10,542.6	9,074.0	3,857.5	-42.6	TD @ 10542.6' MD
11,742.6	10,274.0	3,847.7	-59.3	Permit TD @ 11742.6' MD