



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WF01C-25 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:	WF01C-25 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	WF01C-25 I25 596			
Well Position	+N/-S	0.0 ft	Northing:	1,648,428.88 ft
	+E/-W	0.0 ft	Easting:	2,264,593.65 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	6/14/2012	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	358.84

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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,496.9	32.91	359.38	1,437.6	306.4	-3.3	3.00	3.00	0.00	359.38	
5,022.4	32.91	359.38	4,397.4	2,221.6	-24.0	0.00	0.00	0.00	0.00	
6,119.3	0.00	0.00	5,435.0	2,528.0	-27.3	3.00	-3.00	0.00	180.00	WF01C-25 I25 596 TC
6,250.8	0.33	239.62	5,566.5	2,527.8	-27.6	0.25	0.25	-91.53	239.62	
9,619.3	0.33	239.62	8,935.0	2,518.0	-44.3	0.00	0.00	0.00	0.00	WF01C-25 I25 596 PI
9,719.3	0.33	239.62	9,035.0	2,517.7	-44.8	0.00	0.00	0.00	0.00	
10,919.4	0.33	239.62	10,235.0	2,514.3	-50.7	0.00	0.00	0.00	0.00	

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Project:	North Piceance	MD Reference:	KB=22' @ 5846.0ft (Original Well Elev)
Site:	I25 596	North Reference:	True
Well:	WF01C-25 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	
200.0	0.00	0.00	200.0	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	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	KOP @ 400' MD
500.0	3.00	359.38	500.0	2.6	0.0	2.6	3.00	3.00	
600.0	6.00	359.38	599.6	10.5	-0.1	10.5	3.00	3.00	
700.0	9.00	359.38	698.8	23.5	-0.3	23.5	3.00	3.00	
800.0	12.00	359.38	797.1	41.7	-0.5	41.7	3.00	3.00	
900.0	15.00	359.38	894.3	65.1	-0.7	65.1	3.00	3.00	
1,000.0	18.00	359.38	990.2	93.5	-1.0	93.5	3.00	3.00	
1,100.0	21.00	359.38	1,084.4	126.8	-1.4	126.8	3.00	3.00	
1,200.0	24.00	359.38	1,176.8	165.1	-1.8	165.1	3.00	3.00	
1,300.0	27.00	359.38	1,267.1	208.2	-2.2	208.2	3.00	3.00	
1,400.0	30.00	359.38	1,354.9	255.9	-2.8	255.9	3.00	3.00	
1,496.9	32.91	359.38	1,437.6	306.4	-3.3	306.4	3.00	3.00	EOB; Inc=32.91°
1,500.0	32.91	359.38	1,440.2	308.1	-3.3	308.1	0.00	0.00	
1,600.0	32.91	359.38	1,524.1	362.4	-3.9	362.4	0.00	0.00	
1,700.0	32.91	359.38	1,608.1	416.7	-4.5	416.8	0.00	0.00	
1,800.0	32.91	359.38	1,692.1	471.1	-5.1	471.1	0.00	0.00	
1,900.0	32.91	359.38	1,776.0	525.4	-5.7	525.4	0.00	0.00	
2,000.0	32.91	359.38	1,860.0	579.7	-6.3	579.7	0.00	0.00	
2,100.0	32.91	359.38	1,943.9	634.0	-6.8	634.0	0.00	0.00	
2,200.0	32.91	359.38	2,027.9	688.4	-7.4	688.4	0.00	0.00	
2,300.0	32.91	359.38	2,111.8	742.7	-8.0	742.7	0.00	0.00	
2,400.0	32.91	359.38	2,195.8	797.0	-8.6	797.0	0.00	0.00	
2,500.0	32.91	359.38	2,279.7	851.3	-9.2	851.3	0.00	0.00	
2,600.0	32.91	359.38	2,363.7	905.7	-9.8	905.7	0.00	0.00	
2,700.0	32.91	359.38	2,447.7	960.0	-10.4	960.0	0.00	0.00	
2,800.0	32.91	359.38	2,531.6	1,014.3	-11.0	1,014.3	0.00	0.00	
2,900.0	32.91	359.38	2,615.6	1,068.6	-11.5	1,068.6	0.00	0.00	
3,000.0	32.91	359.38	2,699.5	1,123.0	-12.1	1,123.0	0.00	0.00	
3,100.0	32.91	359.38	2,783.5	1,177.3	-12.7	1,177.3	0.00	0.00	
3,200.0	32.91	359.38	2,867.4	1,231.6	-13.3	1,231.6	0.00	0.00	
3,300.0	32.91	359.38	2,951.4	1,285.9	-13.9	1,285.9	0.00	0.00	
3,400.0	32.91	359.38	3,035.3	1,340.3	-14.5	1,340.3	0.00	0.00	
3,500.0	32.91	359.38	3,119.3	1,394.6	-15.1	1,394.6	0.00	0.00	
3,600.0	32.91	359.38	3,203.3	1,448.9	-15.6	1,448.9	0.00	0.00	
3,700.0	32.91	359.38	3,287.2	1,503.2	-16.2	1,503.2	0.00	0.00	
3,800.0	32.91	359.38	3,371.2	1,557.5	-16.8	1,557.6	0.00	0.00	
3,828.4	32.91	359.38	3,395.0	1,573.0	-17.0	1,573.0	0.00	0.00	Wastch G
3,900.0	32.91	359.38	3,455.1	1,611.9	-17.4	1,611.9	0.00	0.00	
4,000.0	32.91	359.38	3,539.1	1,666.2	-18.0	1,666.2	0.00	0.00	
4,100.0	32.91	359.38	3,623.0	1,720.5	-18.6	1,720.5	0.00	0.00	
4,200.0	32.91	359.38	3,707.0	1,774.8	-19.2	1,774.9	0.00	0.00	
4,300.0	32.91	359.38	3,790.9	1,829.2	-19.8	1,829.2	0.00	0.00	
4,400.0	32.91	359.38	3,874.9	1,883.5	-20.3	1,883.5	0.00	0.00	
4,500.0	32.91	359.38	3,958.9	1,937.8	-20.9	1,937.8	0.00	0.00	
4,600.0	32.91	359.38	4,042.8	1,992.1	-21.5	1,992.2	0.00	0.00	
4,700.0	32.91	359.38	4,126.8	2,046.5	-22.1	2,046.5	0.00	0.00	
4,800.0	32.91	359.38	4,210.7	2,100.8	-22.7	2,100.8	0.00	0.00	
4,900.0	32.91	359.38	4,294.7	2,155.1	-23.3	2,155.1	0.00	0.00	

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Project:	North Piceance	MD Reference:	KB=22' @ 5846.0ft (Original Well Elev)
Site:	I25 596	North Reference:	True
Well:	WF01C-25 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
5,000.0	32.91	359.38	4,378.6	2,209.4	-23.9	2,209.5	0.00	0.00	
5,022.4	32.91	359.38	4,397.4	2,221.6	-24.0	2,221.6	0.00	0.00	Start 3° Drop @ 5022.4' MD
5,100.0	30.58	359.38	4,463.4	2,262.4	-24.4	2,262.5	3.00	-3.00	
5,200.0	27.58	359.38	4,550.8	2,311.0	-25.0	2,311.1	3.00	-3.00	
5,300.0	24.58	359.38	4,640.6	2,355.0	-25.4	2,355.0	3.00	-3.00	
5,400.0	21.58	359.38	4,732.6	2,394.2	-25.9	2,394.2	3.00	-3.00	
5,500.0	18.58	359.38	4,826.5	2,428.5	-26.2	2,428.5	3.00	-3.00	
5,600.0	15.58	359.38	4,922.1	2,457.8	-26.5	2,457.9	3.00	-3.00	
5,700.0	12.58	359.38	5,019.1	2,482.2	-26.8	2,482.2	3.00	-3.00	
5,800.0	9.58	359.38	5,117.2	2,501.4	-27.0	2,501.4	3.00	-3.00	
5,900.0	6.58	359.38	5,216.2	2,515.4	-27.2	2,515.5	3.00	-3.00	
6,000.0	3.58	359.38	5,315.8	2,524.3	-27.3	2,524.3	3.00	-3.00	
6,100.0	0.58	359.38	5,415.7	2,527.9	-27.3	2,527.9	3.00	-3.00	
6,119.3	0.00	0.00	5,435.0	2,528.0	-27.3	2,528.0	3.00	-3.00	EOD @ 6119.3' MD - Williams Fork
6,200.0	0.20	239.62	5,515.7	2,527.9	-27.4	2,528.0	0.25	0.25	
6,250.8	0.33	239.62	5,566.5	2,527.8	-27.6	2,527.9	0.25	0.25	
6,300.0	0.33	239.62	5,615.7	2,527.7	-27.9	2,527.7	0.00	0.00	
6,400.0	0.33	239.62	5,715.7	2,527.4	-28.4	2,527.4	0.00	0.00	
6,500.0	0.33	239.62	5,815.7	2,527.1	-28.9	2,527.2	0.00	0.00	
6,600.0	0.33	239.62	5,915.7	2,526.8	-29.4	2,526.9	0.00	0.00	
6,700.0	0.33	239.62	6,015.7	2,526.5	-29.8	2,526.6	0.00	0.00	
6,800.0	0.33	239.62	6,115.7	2,526.2	-30.3	2,526.3	0.00	0.00	
6,900.0	0.33	239.62	6,215.7	2,525.9	-30.8	2,526.0	0.00	0.00	
7,000.0	0.33	239.62	6,315.7	2,525.6	-31.3	2,525.8	0.00	0.00	
7,100.0	0.33	239.62	6,415.7	2,525.3	-31.8	2,525.5	0.00	0.00	
7,200.0	0.33	239.62	6,515.7	2,525.1	-32.3	2,525.2	0.00	0.00	
7,300.0	0.33	239.62	6,615.7	2,524.8	-32.8	2,524.9	0.00	0.00	
7,400.0	0.33	239.62	6,715.7	2,524.5	-33.3	2,524.6	0.00	0.00	
7,500.0	0.33	239.62	6,815.7	2,524.2	-33.8	2,524.4	0.00	0.00	
7,600.0	0.33	239.62	6,915.7	2,523.9	-34.3	2,524.1	0.00	0.00	
7,700.0	0.33	239.62	7,015.7	2,523.6	-34.8	2,523.8	0.00	0.00	
7,800.0	0.33	239.62	7,115.7	2,523.3	-35.3	2,523.5	0.00	0.00	
7,900.0	0.33	239.62	7,215.7	2,523.0	-35.8	2,523.2	0.00	0.00	
8,000.0	0.33	239.62	7,315.7	2,522.7	-36.3	2,523.0	0.00	0.00	
8,100.0	0.33	239.62	7,415.7	2,522.4	-36.8	2,522.7	0.00	0.00	
8,200.0	0.33	239.62	7,515.7	2,522.2	-37.3	2,522.4	0.00	0.00	
8,300.0	0.33	239.62	7,615.7	2,521.9	-37.8	2,522.1	0.00	0.00	
8,400.0	0.33	239.62	7,715.7	2,521.6	-38.3	2,521.8	0.00	0.00	
8,500.0	0.33	239.62	7,815.7	2,521.3	-38.8	2,521.6	0.00	0.00	
8,600.0	0.33	239.62	7,915.7	2,521.0	-39.3	2,521.3	0.00	0.00	
8,700.0	0.33	239.62	8,015.7	2,520.7	-39.8	2,521.0	0.00	0.00	
8,800.0	0.33	239.62	8,115.7	2,520.4	-40.2	2,520.7	0.00	0.00	
8,900.0	0.33	239.62	8,215.7	2,520.1	-40.7	2,520.4	0.00	0.00	
9,000.0	0.33	239.62	8,315.7	2,519.8	-41.2	2,520.2	0.00	0.00	
9,100.0	0.33	239.62	8,415.7	2,519.5	-41.7	2,519.9	0.00	0.00	
9,200.0	0.33	239.62	8,515.7	2,519.3	-42.2	2,519.6	0.00	0.00	
9,300.0	0.33	239.62	8,615.7	2,519.0	-42.7	2,519.3	0.00	0.00	
9,400.0	0.33	239.62	8,715.7	2,518.7	-43.2	2,519.0	0.00	0.00	
9,500.0	0.33	239.62	8,815.7	2,518.4	-43.7	2,518.8	0.00	0.00	
9,600.0	0.33	239.62	8,915.7	2,518.1	-44.2	2,518.5	0.00	0.00	
9,619.3	0.33	239.62	8,935.0	2,518.0	-44.3	2,518.4	0.00	0.00	Rollins
9,700.0	0.33	239.62	9,015.7	2,517.8	-44.7	2,518.2	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:	WF01C-25 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
9,719.3	0.33	239.62	9,035.0	2,517.7	-44.8	2,518.1	0.00	0.00	TD @ 9719.3' MD
9,800.0	0.33	239.62	9,115.7	2,517.5	-45.2	2,517.9	0.00	0.00	
9,900.0	0.33	239.62	9,215.7	2,517.2	-45.7	2,517.6	0.00	0.00	
10,000.0	0.33	239.62	9,315.7	2,516.9	-46.2	2,517.4	0.00	0.00	
10,100.0	0.33	239.62	9,415.7	2,516.6	-46.7	2,517.1	0.00	0.00	
10,200.0	0.33	239.62	9,515.7	2,516.4	-47.2	2,516.8	0.00	0.00	
10,300.0	0.33	239.62	9,615.7	2,516.1	-47.7	2,516.5	0.00	0.00	
10,400.0	0.33	239.62	9,715.7	2,515.8	-48.2	2,516.2	0.00	0.00	
10,500.0	0.33	239.62	9,815.7	2,515.5	-48.7	2,516.0	0.00	0.00	
10,600.0	0.33	239.62	9,915.7	2,515.2	-49.2	2,515.7	0.00	0.00	
10,700.0	0.33	239.62	10,015.7	2,514.9	-49.7	2,515.4	0.00	0.00	
10,800.0	0.33	239.62	10,115.7	2,514.6	-50.1	2,515.1	0.00	0.00	
10,900.0	0.33	239.62	10,215.6	2,514.3	-50.6	2,514.8	0.00	0.00	
10,919.4	0.33	239.62	10,235.0	2,514.3	-50.7	2,514.8	0.00	0.00	Permit TD @ 10919.4' MD

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									
WF01C-25 I25 596 PBH	0.00	0.00	8,935.0	2,518.0	-44.3	1,650,947.15	2,264,621.69	39.5916318	-108.1097925
- plan hits target center									
- Rectangle (sides W30.0 H50.0 D0.0)									
WF01C-25 I25 596 TGT	0.00	0.00	5,435.0	2,528.0	-27.3	1,650,956.62	2,264,638.98	39.5916591	-108.1097322
- plan hits target center									
- Point									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,828.4	3,395.0	Wastch G				
6,119.3	5,435.0	Williams Fork				
9,619.3	8,935.0	Rollins				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
400.0	400.0	0.0	0.0	KOP @ 400' MD	
1,496.9	1,437.6	306.4	-3.3	EOB; Inc=32.91°	
5,022.4	4,397.4	2,221.6	-24.0	Start 3° Drop @ 5022.4' MD	
6,119.3	5,435.0	2,528.0	-27.3	EOD @ 6119.3' MD	
9,719.3	9,035.0	2,527.8	-27.6	TD @ 9719.3' MD	
10,919.4	10,235.0	2,518.0	-44.3	Permit TD @ 10919.4' MD	