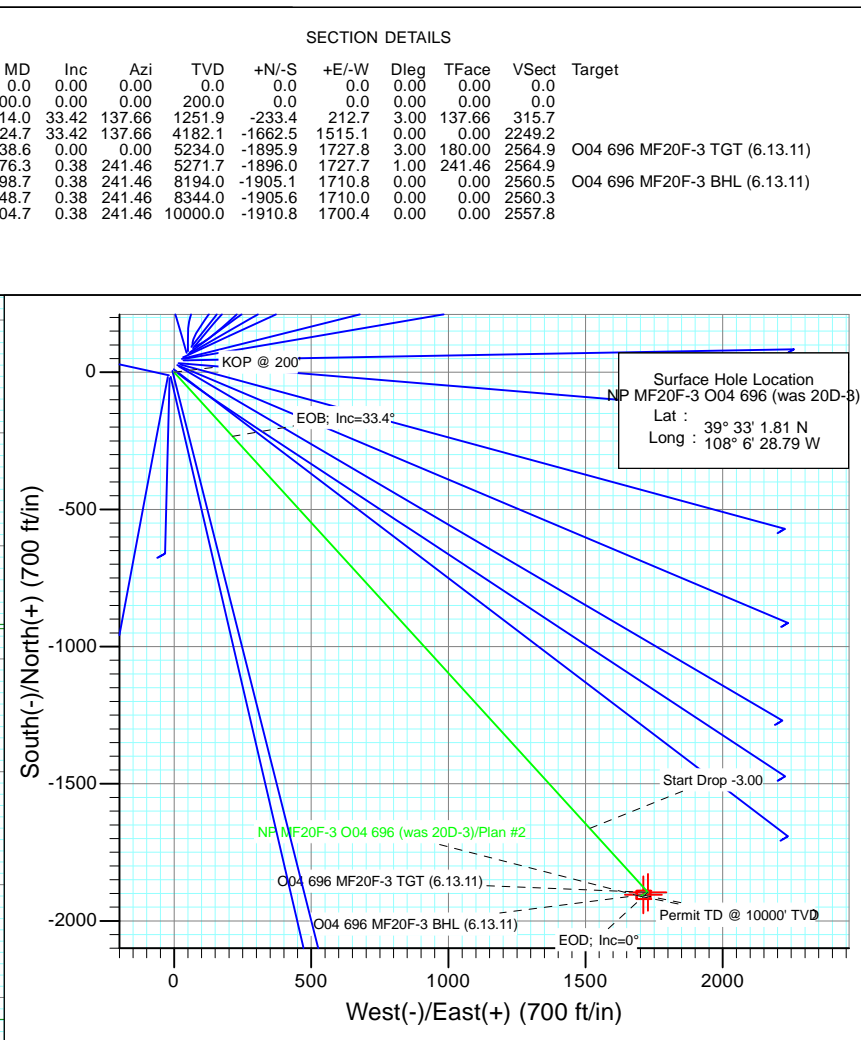
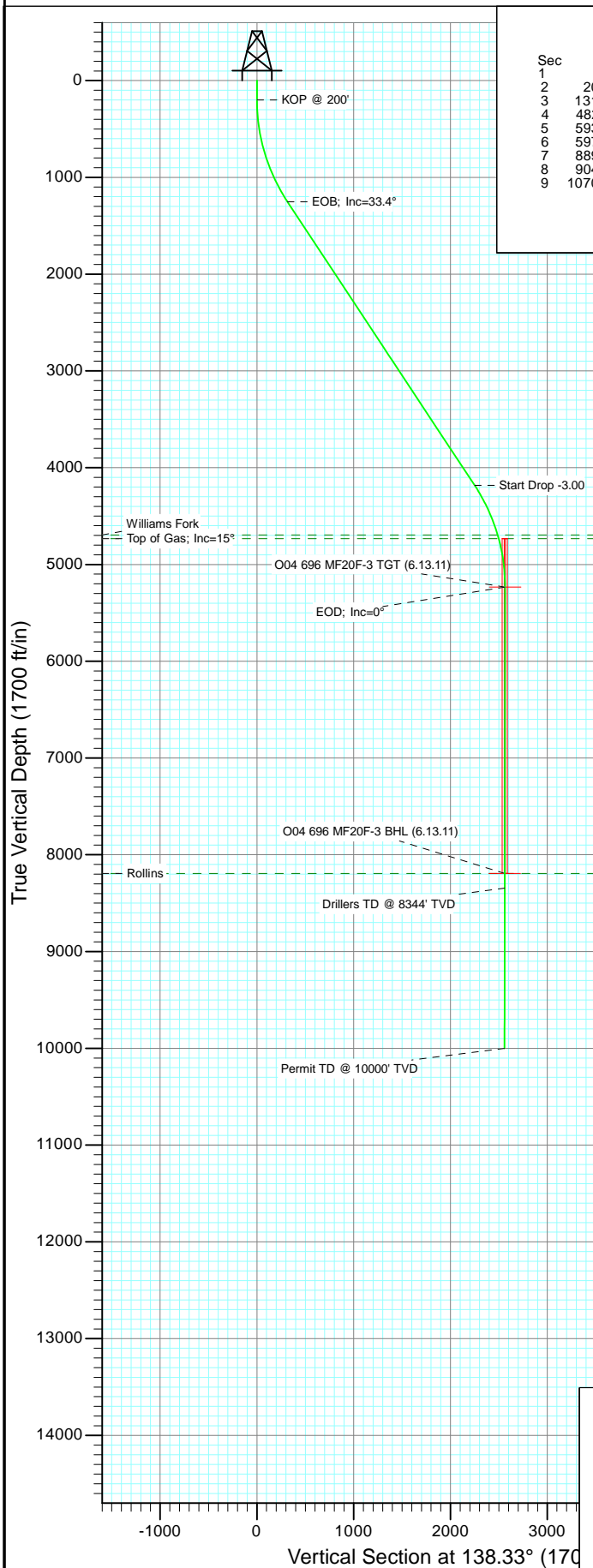




Project: North Piceance
Site: O04 696 (3rd)
Well: NP MF20F-3 O04 696 (was 20D-3)
Wellbore: DD
Design: Plan #2



Azimuths to True North
Magnetic North: 10.69°

Magnetic Field
Strength: 52525.7nT
Dip Angle: 65.84°
Date: 2/11/2009
Model: IGRF200510

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4694.0	5391.2	Williams Fork
4734.0	5432.8	Top of Gas; Inc=15°
8194.0	8898.7	Rollins

Plan #2
NP MF20F-3 O04 696 (was 20D-3)
95xxx; LR
WELL @ 6044.0ft (Original Well Elev)
North American Datum 1983
Well NP MF20F-3 O04 696 (was 20D-3), True North

Type TD	Target No Target (Freehand)	Azimuth 138.33	Origin Type Slot	N/S 0.0	E/W 0.0	From TVD 0.0
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
O04 696 MF20F-3 TGT (6.13.11)	5234.0	-1895.9	1727.8	39° 32' 43.07 N	108° 6' 6.73 W	
O04 696 MF20F-3 BHL (6.13.11)	8194.0	-1905.1	1710.8	39° 32' 42.98 N	108° 6' 6.95 W	

Planning Report

Database:	USA EDM 5000 US Multi Users DB	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site:	O04 696 (3rd)	North Reference:	True
Well:	NP MF20F-3 O04 696 (was 20D-3)	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	O04 696 (3rd)			
Site Position:		Northing:	1,635,941.08 ft	Latitude: 39° 33' 1.64 N
From:	Lat/Long	Easting:	2,264,673.43 ft	Longitude: 108° 6' 29.09 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence: -1.64 °

Well	NP MF20F-3 O04 696 (was 20D-3)			
Well Position	+N/-S	0.0 ft	Northing:	1,635,957.58 ft
	+E/-W	0.0 ft	Easting:	2,264,697.41 ft
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft
			Ground Level:	6,022.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2/11/2009	10.69	65.84	52,526

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	138.33

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,314.0	33.42	137.66	1,251.9	-233.4	212.7	3.00	3.00	0.00	137.66	
4,824.7	33.42	137.66	4,182.1	-1,662.5	1,515.1	0.00	0.00	0.00	0.00	
5,938.6	0.00	0.00	5,234.0	-1,895.9	1,727.8	3.00	-3.00	0.00	180.00	O04 696 MF20F-3 TC
5,976.3	0.38	241.46	5,271.7	-1,896.0	1,727.7	1.00	1.00	-314.84	241.46	
8,898.7	0.38	241.46	8,194.0	-1,905.1	1,710.8	0.00	0.00	0.00	0.00	O04 696 MF20F-3 B+
9,048.7	0.38	241.46	8,344.0	-1,905.6	1,710.0	0.00	0.00	0.00	0.00	
10,704.7	0.38	241.46	10,000.0	-1,910.8	1,700.4	0.00	0.00	0.00	0.00	

Planning Report

Database: USA EDM 5000 US Multi Users DB
Company: EnCana Oil & Gas (USA) Inc
Project: North Piceance
Site: O04 696 (3rd)
Well: NP MF20F-3 O04 696 (was 20D-3)
Wellbore: DD
Design: Plan #2

Local Co-ordinate Reference: Well NP MF20F-3 O04 696 (was 20D-3)
TVD Reference: WELL @ 6044.0ft (Original Well Elev)
MD Reference: WELL @ 6044.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: 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
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	137.66	210.0	0.0	0.0	0.0	3.00	3.00	
240.0	1.20	137.66	240.0	-0.3	0.3	0.4	3.00	3.00	
270.0	2.10	137.66	270.0	-0.9	0.9	1.3	3.00	3.00	
300.0	3.00	137.66	300.0	-1.9	1.8	2.6	3.00	3.00	
330.0	3.90	137.66	329.9	-3.3	3.0	4.4	3.00	3.00	
360.0	4.80	137.66	359.8	-5.0	4.5	6.7	3.00	3.00	
390.0	5.70	137.66	389.7	-7.0	6.4	9.4	3.00	3.00	
420.0	6.60	137.66	419.5	-9.4	8.5	12.7	3.00	3.00	
450.0	7.50	137.66	449.3	-12.1	11.0	16.3	3.00	3.00	
480.0	8.40	137.66	479.0	-15.1	13.8	20.5	3.00	3.00	
510.0	9.30	137.66	508.6	-18.6	16.9	25.1	3.00	3.00	
540.0	10.20	137.66	538.2	-22.3	20.3	30.2	3.00	3.00	
570.0	11.10	137.66	567.7	-26.4	24.1	35.7	3.00	3.00	
600.0	12.00	137.66	597.1	-30.8	28.1	41.7	3.00	3.00	
630.0	12.90	137.66	626.4	-35.6	32.5	48.2	3.00	3.00	
660.0	13.80	137.66	655.6	-40.7	37.1	55.1	3.00	3.00	
690.0	14.70	137.66	684.6	-46.2	42.1	62.5	3.00	3.00	
720.0	15.60	137.66	713.6	-52.0	47.4	70.3	3.00	3.00	
750.0	16.50	137.66	742.4	-58.1	53.0	78.6	3.00	3.00	
780.0	17.40	137.66	771.1	-64.6	58.9	87.4	3.00	3.00	
810.0	18.30	137.66	799.7	-71.4	65.1	96.6	3.00	3.00	
840.0	19.20	137.66	828.1	-78.5	71.6	106.2	3.00	3.00	
870.0	20.10	137.66	856.3	-86.0	78.4	116.3	3.00	3.00	
900.0	21.00	137.66	884.4	-93.8	85.4	126.8	3.00	3.00	
930.0	21.90	137.66	912.4	-101.9	92.8	137.8	3.00	3.00	
960.0	22.80	137.66	940.1	-110.3	100.5	149.2	3.00	3.00	
990.0	23.70	137.66	967.7	-119.1	108.5	161.1	3.00	3.00	
1,020.0	24.60	137.66	995.0	-128.1	116.8	173.3	3.00	3.00	
1,050.0	25.50	137.66	1,022.2	-137.5	125.3	186.0	3.00	3.00	
1,080.0	26.40	137.66	1,049.2	-147.2	134.2	199.2	3.00	3.00	
1,110.0	27.30	137.66	1,076.0	-157.2	143.3	212.7	3.00	3.00	
1,140.0	28.20	137.66	1,102.5	-167.6	152.7	226.7	3.00	3.00	
1,170.0	29.10	137.66	1,128.8	-178.2	162.4	241.1	3.00	3.00	
1,200.0	30.00	137.66	1,154.9	-189.1	172.4	255.9	3.00	3.00	
1,230.0	30.90	137.66	1,180.8	-200.4	182.6	271.1	3.00	3.00	
1,260.0	31.80	137.66	1,206.4	-211.9	193.1	286.7	3.00	3.00	
1,290.0	32.70	137.66	1,231.8	-223.7	203.9	302.7	3.00	3.00	
1,314.0	33.42	137.66	1,251.9	-233.4	212.7	315.7	3.00	3.00	EOB; Inc=33.4°
1,320.0	33.42	137.66	1,256.9	-235.8	214.9	319.1	0.00	0.00	
1,350.0	33.42	137.66	1,281.9	-248.1	226.1	335.6	0.00	0.00	
1,380.0	33.42	137.66	1,307.0	-260.3	237.2	352.1	0.00	0.00	
1,410.0	33.42	137.66	1,332.0	-272.5	248.3	368.6	0.00	0.00	
1,440.0	33.42	137.66	1,357.1	-284.7	259.4	385.2	0.00	0.00	
1,470.0	33.42	137.66	1,382.1	-296.9	270.6	401.7	0.00	0.00	

Planning Report

Database:	USA EDM 5000 US Multi Users DB	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site:	O04 696 (3rd)	North Reference:	True
Well:	NP MF20F-3 O04 696 (was 20D-3)	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
1,500.0	33.42	137.66	1,407.1	-309.1	281.7	418.2	0.00	0.00	
1,530.0	33.42	137.66	1,432.2	-321.3	292.8	434.7	0.00	0.00	
1,560.0	33.42	137.66	1,457.2	-333.5	304.0	451.2	0.00	0.00	
1,590.0	33.42	137.66	1,482.3	-345.8	315.1	467.8	0.00	0.00	
1,620.0	33.42	137.66	1,507.3	-358.0	326.2	484.3	0.00	0.00	
1,650.0	33.42	137.66	1,532.3	-370.2	337.4	500.8	0.00	0.00	
1,680.0	33.42	137.66	1,557.4	-382.4	348.5	517.3	0.00	0.00	
1,710.0	33.42	137.66	1,582.4	-394.6	359.6	533.8	0.00	0.00	
1,740.0	33.42	137.66	1,607.5	-406.8	370.7	550.4	0.00	0.00	
1,770.0	33.42	137.66	1,632.5	-419.0	381.9	566.9	0.00	0.00	
1,800.0	33.42	137.66	1,657.5	-431.2	393.0	583.4	0.00	0.00	
1,830.0	33.42	137.66	1,682.6	-443.5	404.1	599.9	0.00	0.00	
1,860.0	33.42	137.66	1,707.6	-455.7	415.3	616.5	0.00	0.00	
1,890.0	33.42	137.66	1,732.7	-467.9	426.4	633.0	0.00	0.00	
1,920.0	33.42	137.66	1,757.7	-480.1	437.5	649.5	0.00	0.00	
1,950.0	33.42	137.66	1,782.7	-492.3	448.7	666.0	0.00	0.00	
1,980.0	33.42	137.66	1,807.8	-504.5	459.8	682.5	0.00	0.00	
2,010.0	33.42	137.66	1,832.8	-516.7	470.9	699.1	0.00	0.00	
2,040.0	33.42	137.66	1,857.9	-528.9	482.0	715.6	0.00	0.00	
2,070.0	33.42	137.66	1,882.9	-541.1	493.2	732.1	0.00	0.00	
2,100.0	33.42	137.66	1,907.9	-553.4	504.3	748.6	0.00	0.00	
2,130.0	33.42	137.66	1,933.0	-565.6	515.4	765.2	0.00	0.00	
2,160.0	33.42	137.66	1,958.0	-577.8	526.6	781.7	0.00	0.00	
2,190.0	33.42	137.66	1,983.1	-590.0	537.7	798.2	0.00	0.00	
2,220.0	33.42	137.66	2,008.1	-602.2	548.8	814.7	0.00	0.00	
2,250.0	33.42	137.66	2,033.1	-614.4	559.9	831.2	0.00	0.00	
2,280.0	33.42	137.66	2,058.2	-626.6	571.1	847.8	0.00	0.00	
2,310.0	33.42	137.66	2,083.2	-638.8	582.2	864.3	0.00	0.00	
2,340.0	33.42	137.66	2,108.3	-651.1	593.3	880.8	0.00	0.00	
2,370.0	33.42	137.66	2,133.3	-663.3	604.5	897.3	0.00	0.00	
2,400.0	33.42	137.66	2,158.3	-675.5	615.6	913.8	0.00	0.00	
2,430.0	33.42	137.66	2,183.4	-687.7	626.7	930.4	0.00	0.00	
2,460.0	33.42	137.66	2,208.4	-699.9	637.9	946.9	0.00	0.00	
2,490.0	33.42	137.66	2,233.5	-712.1	649.0	963.4	0.00	0.00	

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
O04 696 MF20F-3 BHL	0.00	0.00	8,194.0	-1,905.1	1,710.8	1,634,004.13	2,266,352.84	39° 32' 42.98 N	108° 6' 6.95 W
- hit/miss target									
- Shape									
- plan misses target center by 6170.8ft at 2490.0ft MD (2233.5 TVD, -712.1 N, 649.0 E)									
- Rectangle (sides W30.0 H50.0 D0.0)									
O04 696 MF20F-3 TGT	0.00	0.00	5,234.0	-1,895.9	1,727.8	1,634,012.87	2,266,370.08	39° 32' 43.07 N	108° 6' 6.73 W
- hit/miss target									
- Shape									
- plan misses target center by 3401.2ft at 2490.0ft MD (2233.5 TVD, -712.1 N, 649.0 E)									
- Point									

Planning Report

Database: USA EDM 5000 US Multi Users DB
Company: EnCana Oil & Gas (USA) Inc
Project: North Piceance
Site: O04 696 (3rd)
Well: NP MF20F-3 O04 696 (was 20D-3)
Wellbore: DD
Design: Plan #2

Local Co-ordinate Reference: Well NP MF20F-3 O04 696 (was 20D-3)
TVD Reference: WELL @ 6044.0ft (Original Well Elev)
MD Reference: WELL @ 6044.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: 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
2,500.0	33.42	137.66	2,241.8	-716.2	652.7	968.9	0.00	0.00	
2,600.0	33.42	137.66	2,325.3	-756.9	689.8	1,024.0	0.00	0.00	
2,700.0	33.42	137.66	2,408.7	-797.6	726.9	1,079.1	0.00	0.00	
2,800.0	33.42	137.66	2,492.2	-838.3	764.0	1,134.1	0.00	0.00	
2,900.0	33.42	137.66	2,575.7	-879.0	801.1	1,189.2	0.00	0.00	
3,000.0	33.42	137.66	2,659.1	-919.7	838.2	1,244.3	0.00	0.00	
3,100.0	33.42	137.66	2,742.6	-960.4	875.3	1,299.4	0.00	0.00	
3,200.0	33.42	137.66	2,826.1	-1,001.1	912.4	1,354.4	0.00	0.00	
3,300.0	33.42	137.66	2,909.5	-1,041.9	949.5	1,409.5	0.00	0.00	
3,400.0	33.42	137.66	2,993.0	-1,082.6	986.6	1,464.6	0.00	0.00	
3,500.0	33.42	137.66	3,076.5	-1,123.3	1,023.7	1,519.6	0.00	0.00	
3,600.0	33.42	137.66	3,159.9	-1,164.0	1,060.8	1,574.7	0.00	0.00	
3,700.0	33.42	137.66	3,243.4	-1,204.7	1,097.9	1,629.8	0.00	0.00	
3,800.0	33.42	137.66	3,326.9	-1,245.4	1,135.0	1,684.9	0.00	0.00	
3,900.0	33.42	137.66	3,410.3	-1,286.1	1,172.1	1,739.9	0.00	0.00	
4,000.0	33.42	137.66	3,493.8	-1,326.8	1,209.2	1,795.0	0.00	0.00	
4,100.0	33.42	137.66	3,577.3	-1,367.5	1,246.3	1,850.1	0.00	0.00	
4,200.0	33.42	137.66	3,660.7	-1,408.2	1,283.4	1,905.1	0.00	0.00	
4,300.0	33.42	137.66	3,744.2	-1,448.9	1,320.5	1,960.2	0.00	0.00	
4,400.0	33.42	137.66	3,827.7	-1,489.6	1,357.6	2,015.3	0.00	0.00	
4,500.0	33.42	137.66	3,911.1	-1,530.3	1,394.7	2,070.4	0.00	0.00	
4,600.0	33.42	137.66	3,994.6	-1,571.1	1,431.8	2,125.4	0.00	0.00	
4,700.0	33.42	137.66	4,078.1	-1,611.8	1,468.9	2,180.5	0.00	0.00	
4,800.0	33.42	137.66	4,161.5	-1,652.5	1,506.0	2,235.6	0.00	0.00	
4,824.7	33.42	137.66	4,182.1	-1,662.5	1,515.1	2,249.2	0.00	0.00	Start Drop -3.00
4,900.0	31.16	137.66	4,245.8	-1,692.2	1,542.2	2,289.4	3.00	-3.00	
5,000.0	28.16	137.66	4,332.7	-1,728.8	1,575.5	2,338.9	3.00	-3.00	
5,100.0	25.16	137.66	4,422.0	-1,762.0	1,605.8	2,383.7	3.00	-3.00	
5,200.0	22.16	137.66	4,513.6	-1,791.6	1,632.8	2,423.9	3.00	-3.00	
5,300.0	19.16	137.66	4,607.2	-1,817.7	1,656.5	2,459.1	3.00	-3.00	
5,391.2	16.42	137.66	4,694.0	-1,838.3	1,675.3	2,487.0	3.00	-3.00	Williams Fork
5,400.0	16.16	137.66	4,702.5	-1,840.1	1,677.0	2,489.5	3.00	-3.00	
5,432.8	15.18	137.66	4,734.0	-1,846.7	1,682.9	2,498.3	3.00	-3.00	Top of Gas; Inc=15°
5,500.0	13.16	137.66	4,799.2	-1,858.8	1,694.0	2,514.8	3.00	-3.00	
5,600.0	10.16	137.66	4,897.1	-1,873.8	1,707.6	2,535.0	3.00	-3.00	
5,700.0	7.16	137.66	4,996.0	-1,884.9	1,717.8	2,550.0	3.00	-3.00	
5,800.0	4.16	137.66	5,095.5	-1,892.2	1,724.4	2,559.9	3.00	-3.00	
5,900.0	1.16	137.66	5,195.4	-1,895.6	1,727.5	2,564.5	3.00	-3.00	
5,938.6	0.00	0.00	5,234.0	-1,895.9	1,727.8	2,564.9	3.00	-3.00	EOD; Inc=0° - O04 696 MF20F-3 TGT (6.13.11)
5,976.3	0.38	241.46	5,271.7	-1,896.0	1,727.7	2,564.9	1.00	1.00	
6,000.0	0.38	241.46	5,295.4	-1,896.0	1,727.6	2,564.9	0.00	0.00	
6,100.0	0.38	241.46	5,395.4	-1,896.3	1,727.0	2,564.7	0.00	0.00	
6,200.0	0.38	241.46	5,495.3	-1,896.7	1,726.4	2,564.6	0.00	0.00	
6,300.0	0.38	241.46	5,595.3	-1,897.0	1,725.8	2,564.4	0.00	0.00	
6,400.0	0.38	241.46	5,695.3	-1,897.3	1,725.2	2,564.3	0.00	0.00	
6,500.0	0.38	241.46	5,795.3	-1,897.6	1,724.7	2,564.1	0.00	0.00	
6,600.0	0.38	241.46	5,895.3	-1,897.9	1,724.1	2,564.0	0.00	0.00	
6,700.0	0.38	241.46	5,995.3	-1,898.2	1,723.5	2,563.8	0.00	0.00	
6,800.0	0.38	241.46	6,095.3	-1,898.5	1,722.9	2,563.7	0.00	0.00	
6,900.0	0.38	241.46	6,195.3	-1,898.9	1,722.4	2,563.5	0.00	0.00	
7,000.0	0.38	241.46	6,295.3	-1,899.2	1,721.8	2,563.4	0.00	0.00	
7,100.0	0.38	241.46	6,395.3	-1,899.5	1,721.2	2,563.2	0.00	0.00	

Planning Report

Database: USA EDM 5000 US Multi Users DB
Company: EnCana Oil & Gas (USA) Inc
Project: North Piceance
Site: O04 696 (3rd)
Well: NP MF20F-3 O04 696 (was 20D-3)
Wellbore: DD
Design: Plan #2

Local Co-ordinate Reference: Well NP MF20F-3 O04 696 (was 20D-3)
TVD Reference: WELL @ 6044.0ft (Original Well Elev)
MD Reference: WELL @ 6044.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: 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
7,200.0	0.38	241.46	6,495.3	-1,899.8	1,720.6	2,563.1	0.00	0.00	
7,300.0	0.38	241.46	6,595.3	-1,900.1	1,720.0	2,562.9	0.00	0.00	
7,400.0	0.38	241.46	6,695.3	-1,900.4	1,719.5	2,562.8	0.00	0.00	
7,500.0	0.38	241.46	6,795.3	-1,900.7	1,718.9	2,562.6	0.00	0.00	
7,600.0	0.38	241.46	6,895.3	-1,901.1	1,718.3	2,562.5	0.00	0.00	
7,700.0	0.38	241.46	6,995.3	-1,901.4	1,717.7	2,562.3	0.00	0.00	
7,800.0	0.38	241.46	7,095.3	-1,901.7	1,717.2	2,562.2	0.00	0.00	
7,900.0	0.38	241.46	7,195.3	-1,902.0	1,716.6	2,562.0	0.00	0.00	
8,000.0	0.38	241.46	7,295.3	-1,902.3	1,716.0	2,561.9	0.00	0.00	
8,100.0	0.38	241.46	7,395.3	-1,902.6	1,715.4	2,561.7	0.00	0.00	
8,200.0	0.38	241.46	7,495.3	-1,902.9	1,714.9	2,561.6	0.00	0.00	
8,300.0	0.38	241.46	7,595.3	-1,903.3	1,714.3	2,561.4	0.00	0.00	
8,400.0	0.38	241.46	7,695.3	-1,903.6	1,713.7	2,561.3	0.00	0.00	
8,500.0	0.38	241.46	7,795.3	-1,903.9	1,713.1	2,561.1	0.00	0.00	
8,600.0	0.38	241.46	7,895.3	-1,904.2	1,712.5	2,561.0	0.00	0.00	
8,700.0	0.38	241.46	7,995.3	-1,904.5	1,712.0	2,560.8	0.00	0.00	
8,800.0	0.38	241.46	8,095.3	-1,904.8	1,711.4	2,560.7	0.00	0.00	
8,898.7	0.38	241.46	8,194.0	-1,905.1	1,710.8	2,560.5	0.00	0.00	Rollins - O04 696 MF20F-3 BHL (6.13.11)
8,900.0	0.38	241.46	8,195.3	-1,905.1	1,710.8	2,560.5	0.00	0.00	
9,000.0	0.38	241.46	8,295.3	-1,905.5	1,710.2	2,560.4	0.00	0.00	
9,048.7	0.38	241.46	8,344.0	-1,905.6	1,710.0	2,560.3	0.00	0.00	Drillers TD @ 8344' TVD
9,100.0	0.38	241.46	8,395.3	-1,905.8	1,709.7	2,560.2	0.00	0.00	
9,200.0	0.38	241.46	8,495.3	-1,906.1	1,709.1	2,560.1	0.00	0.00	
9,300.0	0.38	241.46	8,595.3	-1,906.4	1,708.5	2,559.9	0.00	0.00	
9,400.0	0.38	241.46	8,695.3	-1,906.7	1,707.9	2,559.8	0.00	0.00	
9,500.0	0.38	241.46	8,795.3	-1,907.0	1,707.4	2,559.6	0.00	0.00	
9,600.0	0.38	241.46	8,895.3	-1,907.3	1,706.8	2,559.5	0.00	0.00	
9,700.0	0.38	241.46	8,995.3	-1,907.7	1,706.2	2,559.3	0.00	0.00	
9,800.0	0.38	241.46	9,095.3	-1,908.0	1,705.6	2,559.2	0.00	0.00	
9,900.0	0.38	241.46	9,195.3	-1,908.3	1,705.0	2,559.0	0.00	0.00	
10,000.0	0.38	241.46	9,295.3	-1,908.6	1,704.5	2,558.9	0.00	0.00	
10,100.0	0.38	241.46	9,395.3	-1,908.9	1,703.9	2,558.7	0.00	0.00	
10,200.0	0.38	241.46	9,495.3	-1,909.2	1,703.3	2,558.6	0.00	0.00	
10,300.0	0.38	241.46	9,595.3	-1,909.5	1,702.7	2,558.4	0.00	0.00	
10,400.0	0.38	241.46	9,695.3	-1,909.8	1,702.2	2,558.3	0.00	0.00	
10,500.0	0.38	241.46	9,795.3	-1,910.2	1,701.6	2,558.1	0.00	0.00	
10,600.0	0.38	241.46	9,895.3	-1,910.5	1,701.0	2,558.0	0.00	0.00	
10,700.0	0.38	241.46	9,995.3	-1,910.8	1,700.4	2,557.8	0.00	0.00	
10,704.7	0.38	241.46	10,000.0	-1,910.8	1,700.4	2,557.8	0.00	0.00	Permit TD @ 10000' TVD

Planning Report

Database:	USA EDM 5000 US Multi Users DB	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site:	O04 696 (3rd)	North Reference:	True
Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
O04 696 MF20F-3 BHL - plan hits target center - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	8,194.0	-1,905.1	1,710.8	1,634,004.13	2,266,352.84	39° 32' 42.98 N	108° 6' 6.95 W
O04 696 MF20F-3 TGT - plan hits target center - Point	0.00	0.00	5,234.0	-1,895.9	1,727.8	1,634,012.87	2,266,370.08	39° 32' 43.07 N	108° 6' 6.73 W

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
5,391.2	4,694.0	Williams Fork		0.00	
5,432.8	4,734.0	Top of Gas; Inc=15°		0.00	
8,898.7	8,194.0	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'
1,314.0	1,251.9	-233.4	212.7	EOB; Inc=33.4°
4,824.7	4,182.1	-1,662.5	1,515.1	Start Drop -3.00
5,938.6	5,234.0	-1,895.9	1,727.8	EOD; Inc=0°
9,048.7	8,344.0	-1,896.0	1,727.7	Drillers TD @ 8344' TVD
10,704.7	10,000.0	-1,905.1	1,710.8	Permit TD @ 10000' TVD

EnCana Oil & Gas (USA) Inc

North Piceance

O04 696 (3rd)

NP MF20F-3 O04 696 (was 20D-3)

DD

Plan #2

Anticollision Report

14 June, 2011

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 100.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	6/14/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	10,704.7	Plan #2 (DD)	MWD	Geolink MWD	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 004 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	004 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 004 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
004 696 (3rd)						
NP MF01D-9 004 696 (was 17C-4) - DD - Plan #2	200.0	200.0	8.0	7.4	12.948	CC, ES
NP MF01D-9 004 696 (was 17C-4) - DD - Plan #2	400.0	400.6	13.8	12.5	10.367	SF
NP MF02A-9 004 696 (was 18C-4) - DD - Plan #2	200.0	200.0	29.1	28.5	46.860	CC, ES
NP MF02A-9 004 696 (was 18C-4) - DD - Plan #2	600.0	592.3	64.8	62.3	25.376	SF
NP MF06A-3 004 696 (was 11C-3) - DD - Plan #2	200.0	200.0	91.8	91.2	147.730	CC, ES
NP MF06A-3 004 696 (was 11C-3) - DD - Plan #2	300.0	295.9	94.6	93.7	97.236	SF
NP MF06B-3 004 696 (was 15A-4) - DD - Plan #2						Out of range
NP MF06C-3 004 696 (was 09C-4) - DD - Plan #2						Out of range
NP MF06E-3 004 696 (was 11B-3) - DD - Plan #2						Out of range
NP MF08B-9 004 696 (was 01B-9) - DD - Plan #2	200.0	200.0	20.5	19.9	32.950	CC, ES
NP MF08B-9 004 696 (was 01B-9) - DD - Plan #2	900.0	889.7	82.5	76.8	14.459	SF
NP MF11A-3 004 696 (was 12C-3) - DD - Plan #2						Out of range
NP MF11B-3 004 696 (was 14A-3) - DD - Plan #2	200.0	200.0	91.3	90.7	146.989	CC, ES
NP MF11B-3 004 696 (was 14A-3) - DD - Plan #2	300.0	295.5	94.2	93.2	96.954	SF
NP MF11D-3 004 696 (was 14B-3) - DD - Plan #2	200.0	200.0	83.7	83.0	134.634	CC, ES
NP MF11D-3 004 696 (was 14B-3) - DD - Plan #2	400.0	391.4	94.9	93.5	69.451	SF
NP MF11E-3 004 696 (was 13A-3) - DD - Plan #2	200.0	200.0	63.8	63.2	102.644	CC, ES
NP MF11E-3 004 696 (was 13A-3) - DD - Plan #2	500.0	489.5	89.8	88.0	48.401	SF
NP MF11G-3 004 696 (was 14C-3) - DD - Plan #2	200.0	200.0	56.2	55.5	90.384	CC, ES
NP MF11G-3 004 696 (was 14C-3) - DD - Plan #2	600.0	591.8	87.8	85.4	37.190	SF
NP MF14A-3 004 696 (was 13B-3) - DD - Plan #2	200.0	200.0	63.2	62.6	101.685	CC, ES
NP MF14A-3 004 696 (was 13B-3) - DD - Plan #2	500.0	491.2	84.3	82.4	44.558	SF
NP MF14C-3 004 696 (was 14D-3) - DD - Plan #2	200.0	200.0	55.5	54.9	89.330	CC, ES
NP MF14C-3 004 696 (was 14D-3) - DD - Plan #2	600.0	590.0	88.6	86.0	34.468	SF
NP MF14D-3 004 696 (was 19A-3) - DD - Plan #2	200.0	200.0	36.9	36.3	59.358	CC, ES
NP MF14D-3 004 696 (was 19A-3) - DD - Plan #2	800.0	793.6	98.5	94.6	25.097	SF
NP MF14E-3 004 696 (was 19B-3) - DD - Plan #2	200.0	200.0	35.8	35.2	57.662	CC, ES
NP MF14E-3 004 696 (was 19B-3) - DD - Plan #2	800.0	791.4	87.5	83.0	19.286	SF
NP MF15A-4 004 696 (was 11D-3) - DD - Plan #2	200.0	200.0	84.1	83.5	135.424	CC, ES
NP MF15A-4 004 696 (was 11D-3) - DD - Plan #2	400.0	392.4	95.1	93.8	69.384	SF
NP MF15D-4 004 696 (was 01B-9) - DD - Plan #2	200.0	200.0	21.8	21.2	35.160	CC, ES
NP MF15D-4 004 696 (was 01B-9) - DD - Plan #2	400.0	398.8	27.7	26.3	20.467	SF
NP MF18B-4 004 696 (was 01A-9) - DD - Plan #2	200.0	200.0	28.2	27.5	45.306	CC, ES
NP MF18B-4 004 696 (was 01A-9) - DD - Plan #2	700.0	693.9	66.3	63.1	20.737	SF
NP MF19A-3 004 696 (was 17B-4) - DD - Plan #2	200.0	200.0	28.5	27.9	45.870	CC, ES
NP MF19A-3 004 696 (was 17B-4) - DD - Plan #2	1,000.0	998.0	97.9	91.1	14.494	SF
NP MF19C-3 004 696 (was 20B-3) - DD - Plan #2	200.0	200.0	27.4	26.7	44.030	CC, ES
NP MF19C-3 004 696 (was 20B-3) - DD - Plan #2	1,100.0	1,093.9	89.6	80.6	9.997	SF
NP MF19D-3 004 696 (was 19C-3) - DD - Plan #2	200.0	200.0	11.2	10.6	18.089	CC, ES
NP MF19D-3 004 696 (was 19C-3) - DD - Plan #2	300.0	300.0	13.5	12.5	13.876	SF
NP MF19E-3 004 696 (was 19D-3) - DD - Plan #2	200.0	200.0	7.7	7.1	12.356	CC, ES
NP MF19E-3 004 696 (was 19D-3) - DD - Plan #2	1,400.0	1,396.4	73.6	58.6	4.915	SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design O04 696 (3rd) - NP MF01D-9 O04 696 (was 17C-4) - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-51.16	5.0	-6.3	8.0					
100.0	100.0	100.0	100.0	0.1	0.1	-51.16	5.0	-6.3	8.0	7.8	0.27	29.549		
200.0	200.0	200.0	200.0	0.3	0.3	-51.16	5.0	-6.3	8.0	7.4	0.62	12.948 CC, ES		
300.0	300.0	300.2	300.2	0.5	0.5	171.21	4.4	-6.1	10.1	9.1	0.97	10.416		
400.0	399.6	400.6	400.4	0.7	0.7	163.00	-0.7	-4.8	13.8	12.5	1.33	10.367 SF		
500.0	498.8	500.9	500.2	1.0	0.9	152.05	-10.9	-2.2	19.3	17.5	1.76	10.921		
600.0	597.1	601.1	599.1	1.4	1.2	142.33	-26.2	1.6	27.0	24.6	2.34	11.525		
700.0	694.3	701.1	696.9	1.8	1.6	134.77	-46.4	6.7	37.3	34.1	3.11	11.973		
800.0	790.2	800.7	793.1	2.4	2.1	129.10	-71.4	13.0	50.1	46.0	4.07	12.288		
900.0	884.4	900.0	887.5	3.0	2.7	124.80	-101.2	20.5	65.4	60.2	5.22	12.523		
1,000.0	976.8	998.8	979.7	3.7	3.3	121.45	-135.5	29.2	83.2	76.6	6.54	12.706		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-126.19	-17.2	-23.5	29.1						
100.0	100.0	100.0	100.0	0.1	0.1	-126.19	-17.2	-23.5	29.1	28.8	0.27	106.937			
200.0	200.0	200.0	200.0	0.3	0.3	-126.19	-17.2	-23.5	29.1	28.5	0.62	46.860	CC, ES		
300.0	300.0	298.8	298.8	0.5	0.5	97.60	-19.7	-24.0	31.3	30.3	0.98	31.902			
400.0	399.6	397.4	397.0	0.7	0.7	100.89	-27.2	-25.4	37.9	36.5	1.40	27.131			
500.0	498.8	495.3	494.1	1.0	1.0	104.31	-39.6	-27.7	49.1	47.2	1.91	25.657			
600.0	597.1	592.3	589.5	1.4	1.3	107.01	-56.6	-30.9	64.8	62.3	2.56	25.376	SF		
700.0	694.3	688.1	682.8	1.8	1.8	108.86	-78.2	-34.9	85.1	81.8	3.33	25.523			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty	Separation				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor			
0.0	0.0	0.0	0.0	0.0	0.0	33.10	76.9	50.1	91.8						
100.0	100.0	100.0	100.0	0.1	0.1	33.10	76.9	50.1	91.8	91.5	0.27	337.127			
200.0	200.0	200.0	200.0	0.3	0.3	33.10	76.9	50.1	91.8	91.2	0.62	147.730 CC, ES			
300.0	300.0	295.9	295.9	0.5	0.5	-106.74	79.3	50.1	94.6	93.7	0.97	97.236 SF			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design O04 696 (3rd) - NP MF08B-9 O04 696 (was 01B-9) - DD - Plan #2												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-142.25	-16.2	-12.5	20.5				
100.0	100.0	100.0	100.0	0.1	0.1	-142.25	-16.2	-12.5	20.5	20.2	0.27	75.193	
200.0	200.0	200.0	200.0	0.3	0.3	-142.25	-16.2	-12.5	20.5	19.9	0.62	32.950 CC, ES	
300.0	300.0	299.3	299.3	0.5	0.5	81.53	-18.7	-11.9	21.7	20.7	0.98	22.050	
400.0	399.6	398.5	398.2	0.7	0.7	85.02	-26.2	-10.2	25.3	23.9	1.41	17.986	
500.0	498.8	497.5	496.3	1.0	1.0	88.97	-38.7	-7.3	31.6	29.6	1.95	16.184	
600.0	597.1	596.2	593.4	1.4	1.3	92.37	-56.1	-3.3	40.4	37.8	2.64	15.298	
700.0	694.3	694.6	689.1	1.8	1.8	94.95	-78.2	1.9	51.9	48.4	3.50	14.837	
800.0	790.2	792.4	783.0	2.4	2.3	96.78	-105.0	8.1	66.0	61.4	4.52	14.590	
900.0	884.4	889.7	874.8	3.0	2.9	98.05	-136.2	15.3	82.5	76.8	5.71	14.459 SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty	Separation Factor				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis				
0.0	0.0	0.0	0.0	0.0	0.0	38.13	71.8	56.4	91.3						
100.0	100.0	100.0	100.0	0.1	0.1	38.13	71.8	56.4	91.3	91.1	0.27	335.437			
200.0	200.0	200.0	200.0	0.3	0.3	38.13	71.8	56.4	91.3	90.7	0.62	146.989 CC, ES			
300.0	300.0	295.5	295.4	0.5	0.5	-100.55	73.3	58.3	94.2	93.2	0.97	96.954 SF			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design O04 696 (3rd) - NP MF11D-3 O04 696 (was 14B-3) - DD - Plan #2													Offset Site Error: 0.0 ft
Survey Program: 0-MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	38.17	65.8	51.7	83.7				
100.0	100.0	100.0	100.0	0.1	0.1	38.17	65.8	51.7	83.7	83.4	0.27	307.241	
200.0	200.0	200.0	200.0	0.3	0.3	38.17	65.8	51.7	83.7	83.0	0.62	134.634 CC, ES	
300.0	300.0	296.0	296.0	0.5	0.5	-100.45	67.0	53.8	86.4	85.5	0.97	88.828	
400.0	399.6	391.4	391.1	0.7	0.7	-102.97	70.5	60.0	94.9	93.5	1.37	69.451 SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design O04 696 (3rd) - NP MF11E-3 O04 696 (was 13A-3) - DD - Plan #2													Offset Site Error: 0.0 ft
Survey Program: 0-MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis		
0.0	0.0	0.0	0.0	0.0	0.0	31.05	54.6	32.9	63.8				
100.0	100.0	100.0	100.0	0.1	0.1	31.05	54.6	32.9	63.8	63.5	0.27	234.239	
200.0	200.0	200.0	200.0	0.3	0.3	31.05	54.6	32.9	63.8	63.2	0.62	102.644 CC, ES	
300.0	300.0	297.2	297.2	0.5	0.5	-107.43	55.7	35.1	66.6	65.7	0.98	68.277	
400.0	399.6	393.9	393.6	0.7	0.7	-109.49	58.8	41.8	75.3	73.9	1.38	54.698	
500.0	498.8	489.5	488.4	1.0	1.0	-111.98	63.8	52.8	89.8	88.0	1.86	48.401 SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design		O04 696 (3rd) - NP MF11G-3 O04 696 (was 14C-3) - DD - Plan #2											Offset Site Error:		0.0 ft
Survey Program:		0-MWD											Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance								
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)					
0.0	0.0	0.0	0.0	0.0	0.0	30.14	48.6	28.2	56.2						
100.0	100.0	100.0	100.0	0.1	0.1	30.14	48.6	28.2	56.2	55.9	0.27	206.260			
200.0	200.0	200.0	200.0	0.3	0.3	30.14	48.6	28.2	56.2	55.5	0.62	90.384	CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-110.00	48.6	28.2	57.0	56.0	0.98	58.297			
400.0	399.6	397.8	397.8	0.7	0.7	-114.86	49.2	30.6	61.6	60.3	1.36	45.173			
500.0	498.8	495.2	494.9	1.0	0.9	-119.07	51.0	37.9	71.9	70.1	1.82	39.622			
600.0	597.1	591.8	590.7	1.4	1.1	-122.00	54.0	49.8	87.8	85.4	2.36	37.190	SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design O04 696 (3rd) - NP MF14A-3 O04 696 (was 13B-3) - DD - Plan #2													Offset Site Error: 0.0 ft
Survey Program: 0-MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	38.31	49.6	39.2	63.2				
100.0	100.0	100.0	100.0	0.1	0.1	38.31	49.6	39.2	63.2	62.9	0.27	232.050	
200.0	200.0	200.0	200.0	0.3	0.3	38.31	49.6	39.2	63.2	62.6	0.62	101.685 CC, ES	
300.0	300.0	297.5	297.5	0.5	0.5	-100.03	50.0	41.6	65.5	64.5	0.98	66.967	
400.0	399.6	394.7	394.4	0.7	0.7	-101.78	51.3	48.9	72.5	71.1	1.39	52.230	
500.0	498.8	491.2	490.1	1.0	1.0	-104.00	53.3	61.0	84.3	82.4	1.89	44.558 SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design		O04 696 (3rd) - NP MF14C-3 O04 696 (was 14D-3) - DD - Plan #2											Offset Site Error:		0.0 ft			
Survey Program:		0-MWD													Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance											
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)		+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning				
0.0	0.0	0.0	0.0	0.0	0.0	38.38	43.5		34.5	55.5								
100.0	100.0	100.0	100.0	0.1	0.1	38.38	43.5		34.5	55.5	55.2	0.27	203.855					
200.0	200.0	200.0	200.0	0.3	0.3	38.38	43.5		34.5	55.5	54.9	0.62	89.330	CC, ES				
300.0	300.0	298.1	298.1	0.5	0.5	-99.80	43.6		37.0	57.6	56.6	0.98	58.703					
400.0	399.6	396.0	395.7	0.7	0.7	-101.15	43.7		44.5	63.7	62.3	1.40	45.570					
500.0	498.8	493.4	492.2	1.0	1.0	-102.87	43.9		57.0	74.1	72.2	1.92	38.604					
600.0	597.1	590.0	587.3	1.4	1.3	-104.53	44.2		74.1	88.6	86.0	2.57	34.468	SF				

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													O04 696 (3rd) - NP MF14D-3 O04 696 (was 19A-3) - DD - Plan #2		Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft		
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor					
0.0	0.0	0.0	0.0	0.0	0.0	25.14	33.4	15.7	36.9								
100.0	100.0	100.0	100.0	0.1	0.1	25.14	33.4	15.7	36.9	36.6	0.27	135.459					
200.0	200.0	200.0	200.0	0.3	0.3	25.14	33.4	15.7	36.9	36.3	0.62	59.358	CC, ES				
300.0	300.0	300.0	300.0	0.5	0.5	-116.14	33.4	15.7	38.0	37.0	0.98	38.852					
400.0	399.6	399.3	399.2	0.7	0.7	-122.17	33.2	18.2	42.4	41.0	1.36	31.121					
500.0	498.8	498.5	498.1	1.0	0.9	-125.79	32.5	25.9	50.9	49.1	1.82	28.039					
600.0	597.1	597.4	596.2	1.4	1.1	-127.27	31.5	38.7	63.2	60.8	2.38	26.606					
700.0	694.3	695.9	693.0	1.8	1.5	-127.36	30.0	56.4	79.1	76.0	3.07	25.745					
800.0	790.2	793.6	788.1	2.4	1.9	-126.67	28.1	78.9	98.5	94.6	3.93	25.097	SF				

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:		0.0 ft
Survey Program: 0-MWD												Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	37.75	28.3	21.9	35.8					
100.0	100.0	100.0	100.0	0.1	0.1	37.75	28.3	21.9	35.8	35.6	0.27	131.588		
200.0	200.0	200.0	200.0	0.3	0.3	37.75	28.3	21.9	35.8	35.2	0.62	57.662	CC, ES	
300.0	300.0	299.3	299.2	0.5	0.5	-100.14	27.7	24.4	37.3	36.3	0.98	37.857		
400.0	399.6	398.4	398.0	0.7	0.7	-100.73	25.6	31.9	41.6	40.2	1.42	29.382		
500.0	498.8	497.3	496.1	1.0	1.0	-101.44	22.3	44.2	48.8	46.9	1.96	24.865		
600.0	597.1	595.8	593.0	1.4	1.3	-102.10	17.6	61.4	58.9	56.3	2.66	22.165		
700.0	694.3	693.9	688.4	1.8	1.8	-102.62	11.7	83.2	71.8	68.3	3.51	20.440		
800.0	790.2	791.4	782.0	2.4	2.3	-102.96	4.5	109.6	87.5	83.0	4.54	19.286	SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design O04 696 (3rd) - NP MF15A-4 O04 696 (was 11D-3) - DD - Plan #2													Offset Site Error: 0.0 ft
Survey Program: 0-MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	32.68	70.8	45.4	84.1				
100.0	100.0	100.0	100.0	0.1	0.1	32.68	70.8	45.4	84.1	83.9	0.27	309.044	
200.0	200.0	200.0	200.0	0.3	0.3	32.68	70.8	45.4	84.1	83.5	0.62	135.424 CC, ES	
300.0	300.0	296.9	296.9	0.5	0.5	-107.76	73.2	44.7	86.6	85.6	0.98	88.644	
400.0	399.6	392.4	392.1	0.7	0.7	-115.00	80.1	42.7	95.1	93.8	1.37	69.384 SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													O04 696 (3rd) - NP MF15D-4 O04 696 (was 01B-9) - DD - Plan #2		Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft		
Reference		Offset		Semi Major Axis			Distance										
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning				
0.0	0.0	0.0	0.0	0.0	0.0	-120.63	-11.1	-18.8	21.8								
100.0	100.0	100.0	100.0	0.1	0.1	-120.63	-11.1	-18.8	21.8	21.6	0.27	80.238					
200.0	200.0	200.0	200.0	0.3	0.3	-120.63	-11.1	-18.8	21.8	21.2	0.62	35.160 CC, ES					
300.0	300.0	300.0	300.0	0.5	0.5	108.23	-11.1	-18.8	22.5	21.5	0.98	23.032					
400.0	399.6	398.8	398.7	0.7	0.7	125.75	-10.8	-20.5	27.7	26.3	1.35	20.467 SF					
500.0	498.8	496.1	495.9	1.0	0.8	142.22	-9.7	-25.3	42.0	40.3	1.72	24.415					
600.0	597.1	593.2	592.8	1.4	1.0	152.12	-8.2	-31.8	64.2	62.1	2.07	30.918					
700.0	694.3	688.9	688.3	1.8	1.2	158.02	-6.8	-38.1	91.9	89.5	2.42	37.971					

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													O04 696 (3rd) - NP MF18B-4 O04 696 (was 01A-9) - DD - Plan #2		Offset Site Error:		0.0 ft
Survey Program:													0-MWD		Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor					
0.0	0.0	0.0	0.0	0.0	0.0	-142.25	-22.3	-17.2	28.2								
100.0	100.0	100.0	100.0	0.1	0.1	-142.25	-22.3	-17.2	28.2	27.9	0.27	103.390					
200.0	200.0	200.0	200.0	0.3	0.3	-142.25	-22.3	-17.2	28.2	27.5	0.62	45.306	CC, ES				
300.0	300.0	298.8	298.7	0.5	0.5	82.03	-24.8	-17.3	29.8	28.8	0.98	30.412					
400.0	399.6	397.4	397.0	0.7	0.7	86.70	-32.4	-17.5	34.9	33.5	1.39	25.035					
500.0	498.8	496.2	495.0	1.0	1.0	92.47	-44.7	-17.8	43.5	41.6	1.91	22.810					
600.0	597.1	595.3	593.4	1.4	1.2	101.10	-57.7	-18.1	53.6	51.1	2.52	21.273					
700.0	694.3	693.9	691.1	1.8	1.5	111.04	-70.7	-18.4	66.3	63.1	3.20	20.737	SF				
800.0	790.2	791.7	788.0	2.4	1.8	120.62	-83.5	-18.7	83.0	79.1	3.88	21.404					

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													004 696 (3rd) - NP MF19A-3 004 696 (was 17B-4) - DD - Plan #2		Offset Site Error:		0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft			
Reference		Offset		Semi Major Axis			Distance											
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning					
0.0	0.0	0.0	0.0	0.0	0.0	22.63	26.3	11.0	28.5									
100.0	100.0	100.0	100.0	0.1	0.1	22.63	26.3	11.0	28.5	28.2	0.27	104.678						
200.0	200.0	200.0	200.0	0.3	0.3	22.63	26.3	11.0	28.5	27.9	0.62	45.870	CC, ES					
300.0	300.0	300.0	300.0	0.5	0.5	-118.32	26.1	11.6	29.7	28.7	0.98	30.340						
400.0	399.6	400.1	399.9	0.7	0.7	-121.15	24.0	16.4	33.1	31.7	1.38	24.017						
500.0	498.8	500.2	499.4	1.0	0.9	-122.18	19.9	26.0	38.7	36.8	1.87	20.676						
600.0	597.1	600.2	598.2	1.4	1.2	-121.90	13.9	40.5	46.4	43.9	2.50	18.568						
700.0	694.3	700.0	695.9	1.8	1.6	-120.84	5.8	59.6	56.2	52.9	3.29	17.082						
800.0	790.2	799.6	792.1	2.4	2.1	-119.42	-4.2	83.3	68.0	63.8	4.26	15.977						
900.0	884.4	899.0	886.6	3.0	2.7	-117.88	-16.2	111.6	81.9	76.5	5.41	15.139						
1,000.0	976.8	998.0	979.0	3.7	3.4	-116.35	-29.9	144.2	97.9	91.1	6.75	14.494	SF					

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:		0.0 ft
Survey Program: 0-MWD												Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	39.04	21.2	17.2	27.4					
100.0	100.0	100.0	100.0	0.1	0.1	39.04	21.2	17.2	27.4	27.1	0.27	100.478		
200.0	200.0	200.0	200.0	0.3	0.3	39.04	21.2	17.2	27.4	26.7	0.62	44.030 CC, ES		
300.0	300.0	299.8	299.7	0.5	0.5	-98.60	19.9	19.5	28.1	27.2	0.99	28.522		
400.0	399.6	399.5	399.2	0.7	0.7	-98.57	16.0	26.2	30.5	29.1	1.43	21.390		
500.0	498.8	499.2	498.0	1.0	1.0	-98.51	9.4	37.4	34.4	32.4	1.99	17.303		
600.0	597.1	598.8	595.9	1.4	1.4	-98.43	0.3	53.0	39.9	37.1	2.71	14.728		
700.0	694.3	698.2	692.6	1.8	1.8	-98.33	-11.5	73.0	46.8	43.2	3.60	13.027		
800.0	790.2	797.4	787.7	2.4	2.4	-98.20	-25.7	97.2	55.3	50.7	4.66	11.864		
900.0	884.4	896.5	881.2	3.0	3.0	-98.05	-42.3	125.6	65.3	59.4	5.91	11.043		
1,000.0	976.8	995.3	972.5	3.7	3.7	-97.88	-61.4	158.0	76.7	69.4	7.35	10.446		
1,100.0	1,067.1	1,093.9	1,061.6	4.5	4.5	-97.69	-82.7	194.4	89.6	80.6	8.96	9.997 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design												004 696 (3rd) - NP MF19D-3 004 696 (was 19C-3) - DD - Plan #2		Offset Site Error:		0.0 ft	
Survey Program: 0-MWD												Offset Well Error:		0.0 ft			
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
0.0	0.0	0.0	0.0	0.0	0.0	-8.01	11.1	-1.6	11.2								
100.0	100.0	100.0	100.0	0.1	0.1	-8.01	11.1	-1.6	11.2	11.0	0.27	41.280					
200.0	200.0	200.0	200.0	0.3	0.3	-8.01	11.1	-1.6	11.2	10.6	0.62	18.089 CC, ES					
300.0	300.0	300.0	300.0	0.5	0.5	-151.92	11.1	-1.6	13.5	12.5	0.97	13.876 SF					
400.0	399.6	400.1	400.1	0.7	0.7	-161.44	10.7	-1.1	20.1	18.8	1.32	15.230					
500.0	498.8	501.0	500.8	1.0	0.9	-165.74	7.1	2.8	27.8	26.1	1.67	16.593					
600.0	597.1	602.3	601.5	1.4	1.1	-167.44	-0.2	10.6	35.6	33.5	2.03	17.513					
700.0	694.3	703.8	701.8	1.8	1.4	-167.06	-10.5	22.8	43.7	41.3	2.41	18.134					
800.0	790.2	805.6	801.3	2.4	1.8	-165.20	-23.7	39.6	52.3	49.4	2.84	18.406					
900.0	884.4	907.7	899.9	3.0	2.3	-162.51	-39.6	60.9	61.4	58.1	3.37	18.214					
1,000.0	976.8	1,010.1	997.2	3.7	2.9	-159.37	-58.2	86.9	71.3	67.2	4.07	17.530					
1,100.0	1,067.1	1,112.7	1,092.8	4.5	3.6	-156.02	-79.6	117.3	81.9	76.9	4.97	16.469					
1,200.0	1,154.9	1,215.5	1,186.4	5.4	4.4	-152.60	-103.6	152.1	93.3	87.2	6.13	15.231					

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design O04 696 (3rd) - NP MF19E-3 O04 696 (was 19D-3) - DD - Plan #2												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
0.0	0.0	0.0	0.0	0.0	0.0	37.75	6.1	4.7	7.7				
100.0	100.0	100.0	100.0	0.1	0.1	37.75	6.1	4.7	7.7	7.4	0.27	28.197	
200.0	200.0	200.0	200.0	0.3	0.3	37.75	6.1	4.7	7.7	7.1	0.62	12.356 CC, ES	
300.0	300.0	300.0	299.9	0.5	0.5	-99.62	4.5	6.8	8.2	7.2	0.99	8.256	
400.0	399.6	400.0	399.6	0.7	0.7	-98.93	-0.3	13.0	9.6	8.1	1.43	6.704	
500.0	498.8	499.9	498.7	1.0	1.0	-98.13	-8.2	23.4	11.9	9.9	1.99	5.987	
600.0	597.1	599.8	596.9	1.4	1.4	-97.41	-19.2	37.9	15.2	12.5	2.72	5.607	
700.0	694.3	699.7	694.0	1.8	1.8	-96.82	-33.3	56.4	19.5	15.9	3.62	5.385	
800.0	790.2	799.5	789.7	2.4	2.4	-96.35	-50.4	79.0	24.6	19.9	4.70	5.243	
900.0	884.4	899.2	883.7	3.0	3.0	-95.96	-70.5	105.5	30.7	24.7	5.96	5.146	
1,000.0	976.8	998.9	975.8	3.7	3.7	-95.64	-93.6	135.8	37.6	30.2	7.41	5.076	
1,100.0	1,067.1	1,098.4	1,065.6	4.5	4.6	-95.35	-119.5	169.8	45.4	36.4	9.04	5.021	
1,200.0	1,154.9	1,197.9	1,153.1	5.4	5.5	-95.09	-148.1	207.5	54.0	43.2	10.86	4.975	
1,300.0	1,240.2	1,297.2	1,237.8	6.4	6.5	-94.85	-179.5	248.8	63.5	50.6	12.87	4.936	
1,400.0	1,323.7	1,396.4	1,319.7	7.5	7.6	-93.37	-213.4	293.4	73.6	58.6	14.98	4.915 SF	
1,500.0	1,407.1	1,495.7	1,399.6	8.5	8.7	-90.05	-249.0	340.2	84.2	67.1	17.08	4.931	
1,600.0	1,490.6	1,595.0	1,479.6	9.5	9.9	-87.44	-284.6	387.1	95.0	75.9	19.14	4.965	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP MF20F-3 O04 696 (was 20D-3)
Project:	North Piceance	TVD Reference:	WELL @ 6044.0ft (Original Well Elev)
Reference Site:	O04 696 (3rd)	MD Reference:	WELL @ 6044.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	NP MF20F-3 O04 696 (was 20D-3)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 6044.0ft (Original Well Elev)

Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.00 W °

Coordinates are relative to: NP MF20F-3 O04 696 (was 20D-3)

Coordinate System is US State Plane 1983, Colorado Central Zone

Grid Convergence at Surface is: -1.64°

