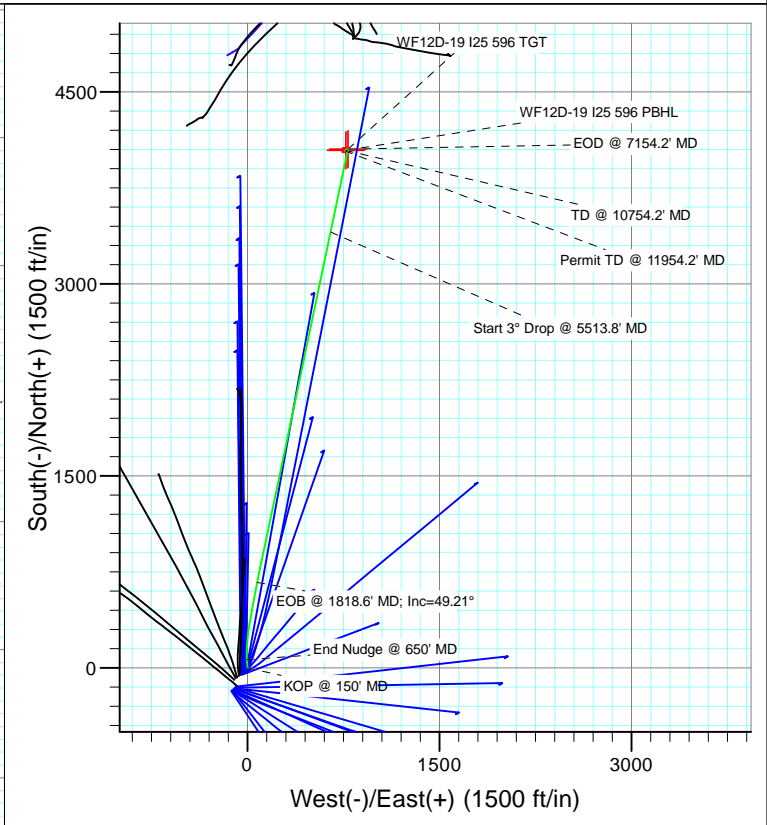


SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	150.0	0.00	0.00	150.0	0.0	0.0	0.00	0.00	0.0	
3	650.0	15.00	355.00	644.3	64.8	-5.7	3.00	355.00	62.7	
4	1818.6	49.21	11.84	1621.1	667.4	74.4	3.00	22.45	669.6	
5	5513.8	49.21	11.84	4035.0	3405.6	648.4	0.00	0.00	3466.7	
6	7154.2	0.00	0.00	5481.0	4053.7	784.3	3.00	180.00	4128.8	WF12D-19 I25 596 TGT
7	7285.9	0.33	239.66	5612.8	4053.5	784.0	0.25	239.66	4128.6	
8	10654.2	0.33	239.66	8981.0	4043.7	767.3	0.00	0.00	4115.9	WF12D-19 I25 596 PBHL
9	10754.2	0.33	239.66	9081.0	4043.4	766.8	0.00	0.00	4115.5	
10	11954.2	0.33	239.66	10281.0	4039.9	760.8	0.00	0.00	4111.0	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3403.0	4546.3	Washch G
5481.0	7154.2	Williams Fork
8981.0	10654.2	Rollins

Azimuths to True North
Magnetic North: 10.29°

Magnetic Field
Strength: 52183.7nT
Dip Angle: 65.76°
Date: 6/15/2012
Model: IGRF2010

Type	Target	Azimuth	Origin	Type	N/S	E/W	From
TD	No Target (Freehand)	10.67	Slot	Slot	0.0	0.0	TVD
Name	TVD	+N/-S	+E/-W	Latitude	Longitude		
WF12D-19 I25 596 TGT	5481.0	4053.7	784.3	39° 35' 45.509 N	108° 6' 23.998 W		
WF12D-19 I25 596 PBHL	8981.0	4043.7	767.3	39° 35' 45.411 N	108° 6' 24.215 W		

Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well WF12D-19 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: WF12D-19 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 WF12D-19 I25 596					
Well Position	+N/-S 0.0 ft	Northing: 1,648,473.67 ft	Latitude: 39.5848460		
	+E/-W 0.0 ft	Easting: 2,264,647.41 ft	Longitude: -108.1094492		
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
	IGRF2010	6/15/2012	(°) 10.29	(°) 65.76	(nT) 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	10.67

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	
650.0	15.00	355.00	644.3	64.8	-5.7	3.00	3.00	0.00	355.00	
1,818.6	49.21	11.84	1,621.1	667.4	74.4	3.00	2.93	1.44	22.45	
5,513.8	49.21	11.84	4,035.0	3,405.6	648.4	0.00	0.00	0.00	0.00	
7,154.2	0.00	0.00	5,481.0	4,053.7	784.3	3.00	-3.00	0.00	180.00	WF12D-19 I25 596 TC
7,285.9	0.33	239.66	5,612.8	4,053.5	784.0	0.25	0.25	-91.32	239.66	
10,654.2	0.33	239.66	8,981.0	4,043.7	767.3	0.00	0.00	0.00	0.00	WF12D-19 I25 596 PI
10,754.2	0.33	239.66	9,081.0	4,043.4	766.8	0.00	0.00	0.00	0.00	
11,954.2	0.33	239.66	10,281.0	4,039.9	760.8	0.00	0.00	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WF12D-19 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:	WF12D-19 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	355.00	200.0	0.7	-0.1	0.6	3.00	3.00	
300.0	4.50	355.00	299.8	5.9	-0.5	5.7	3.00	3.00	
400.0	7.50	355.00	399.3	16.3	-1.4	15.7	3.00	3.00	
500.0	10.50	355.00	498.0	31.9	-2.8	30.8	3.00	3.00	
600.0	13.50	355.00	595.8	52.6	-4.6	50.8	3.00	3.00	
650.0	15.00	355.00	644.3	64.8	-5.7	62.7	3.00	3.00	End Nudge @ 650' MD
700.0	16.40	357.03	692.4	78.3	-6.6	75.7	3.00	2.79	
800.0	19.23	0.22	787.6	108.9	-7.3	105.7	3.00	2.84	
900.0	22.11	2.61	881.2	144.2	-6.4	140.5	3.00	2.88	
1,000.0	25.02	4.47	972.8	184.1	-3.8	180.2	3.00	2.91	
1,100.0	27.95	5.97	1,062.3	228.5	0.2	224.6	3.00	2.93	
1,200.0	30.88	7.20	1,149.4	277.2	5.9	273.5	3.00	2.94	
1,300.0	33.83	8.23	1,233.9	330.3	13.1	327.0	3.00	2.95	
1,400.0	36.79	9.12	1,315.5	387.4	21.8	384.8	3.00	2.96	
1,500.0	39.75	9.90	1,394.0	448.5	32.1	446.7	3.00	2.96	
1,600.0	42.72	10.58	1,469.2	513.3	43.8	512.6	3.00	2.97	
1,700.0	45.69	11.19	1,540.9	581.8	57.0	582.3	3.00	2.97	
1,800.0	48.66	11.74	1,608.9	653.6	71.6	655.6	3.00	2.97	
1,818.6	49.21	11.84	1,621.1	667.4	74.4	669.6	3.00	2.97	EOB @ 1818.6' MD; Inc=49.21°
1,900.0	49.21	11.84	1,674.2	727.7	87.1	731.2	0.00	0.00	
2,000.0	49.21	11.84	1,739.6	801.8	102.6	806.9	0.00	0.00	
2,100.0	49.21	11.84	1,804.9	875.9	118.1	882.6	0.00	0.00	
2,200.0	49.21	11.84	1,870.2	950.0	133.7	958.3	0.00	0.00	
2,300.0	49.21	11.84	1,935.6	1,024.1	149.2	1,034.0	0.00	0.00	
2,400.0	49.21	11.84	2,000.9	1,098.2	164.7	1,109.7	0.00	0.00	
2,500.0	49.21	11.84	2,066.2	1,172.3	180.3	1,185.4	0.00	0.00	
2,600.0	49.21	11.84	2,131.5	1,246.4	195.8	1,261.1	0.00	0.00	
2,700.0	49.21	11.84	2,196.9	1,320.5	211.3	1,336.8	0.00	0.00	
2,800.0	49.21	11.84	2,262.2	1,394.6	226.9	1,412.5	0.00	0.00	
2,900.0	49.21	11.84	2,327.5	1,468.7	242.4	1,488.2	0.00	0.00	
3,000.0	49.21	11.84	2,392.8	1,542.8	257.9	1,563.9	0.00	0.00	
3,100.0	49.21	11.84	2,458.2	1,616.9	273.5	1,639.6	0.00	0.00	
3,200.0	49.21	11.84	2,523.5	1,691.0	289.0	1,715.3	0.00	0.00	
3,300.0	49.21	11.84	2,588.8	1,765.1	304.5	1,791.0	0.00	0.00	
3,400.0	49.21	11.84	2,654.1	1,839.2	320.1	1,866.7	0.00	0.00	
3,500.0	49.21	11.84	2,719.5	1,913.3	335.6	1,942.4	0.00	0.00	
3,600.0	49.21	11.84	2,784.8	1,987.4	351.1	2,018.1	0.00	0.00	
3,700.0	49.21	11.84	2,850.1	2,061.5	366.7	2,093.8	0.00	0.00	
3,800.0	49.21	11.84	2,915.5	2,135.6	382.2	2,169.5	0.00	0.00	
3,900.0	49.21	11.84	2,980.8	2,209.7	397.8	2,245.2	0.00	0.00	
4,000.0	49.21	11.84	3,046.1	2,283.8	413.3	2,320.9	0.00	0.00	
4,100.0	49.21	11.84	3,111.4	2,357.9	428.8	2,396.6	0.00	0.00	
4,200.0	49.21	11.84	3,176.8	2,432.0	444.4	2,472.3	0.00	0.00	
4,300.0	49.21	11.84	3,242.1	2,506.1	459.9	2,548.0	0.00	0.00	
4,400.0	49.21	11.84	3,307.4	2,580.3	475.4	2,623.7	0.00	0.00	
4,500.0	49.21	11.84	3,372.7	2,654.4	491.0	2,699.4	0.00	0.00	
4,546.3	49.21	11.84	3,403.0	2,688.7	498.2	2,734.4	0.00	0.00	Wastch G
4,600.0	49.21	11.84	3,438.1	2,728.5	506.5	2,775.1	0.00	0.00	
4,700.0	49.21	11.84	3,503.4	2,802.6	522.0	2,850.8	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WF12D-19 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:	WF12D-19 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
4,800.0	49.21	11.84	3,568.7	2,876.7	537.6	2,926.5	0.00	0.00	
4,900.0	49.21	11.84	3,634.0	2,950.8	553.1	3,002.1	0.00	0.00	
5,000.0	49.21	11.84	3,699.4	3,024.9	568.6	3,077.8	0.00	0.00	
5,100.0	49.21	11.84	3,764.7	3,099.0	584.2	3,153.5	0.00	0.00	
5,200.0	49.21	11.84	3,830.0	3,173.1	599.7	3,229.2	0.00	0.00	
5,300.0	49.21	11.84	3,895.3	3,247.2	615.2	3,304.9	0.00	0.00	
5,400.0	49.21	11.84	3,960.7	3,321.3	630.8	3,380.6	0.00	0.00	
5,500.0	49.21	11.84	4,026.0	3,395.4	646.3	3,456.3	0.00	0.00	
5,513.8	49.21	11.84	4,035.0	3,405.6	648.4	3,466.7	0.00	0.00	Start 3° Drop @ 5513.8' MD
5,600.0	46.62	11.84	4,092.8	3,468.2	661.6	3,530.7	3.00	-3.00	
5,700.0	43.62	11.84	4,163.3	3,537.6	676.1	3,601.6	3.00	-3.00	
5,800.0	40.62	11.84	4,237.5	3,603.2	689.9	3,668.6	3.00	-3.00	
5,900.0	37.62	11.84	4,315.1	3,665.0	702.8	3,731.7	3.00	-3.00	
6,000.0	34.62	11.84	4,395.8	3,722.6	714.9	3,790.6	3.00	-3.00	
6,100.0	31.62	11.84	4,479.6	3,776.1	726.1	3,845.3	3.00	-3.00	
6,200.0	28.62	11.84	4,566.0	3,825.2	736.4	3,895.4	3.00	-3.00	
6,300.0	25.62	11.84	4,655.0	3,869.9	745.8	3,941.0	3.00	-3.00	
6,400.0	22.62	11.84	4,746.3	3,909.9	754.1	3,981.9	3.00	-3.00	
6,500.0	19.62	11.84	4,839.6	3,945.1	761.5	4,017.9	3.00	-3.00	
6,600.0	16.62	11.84	4,934.6	3,975.6	767.9	4,049.0	3.00	-3.00	
6,700.0	13.62	11.84	5,031.1	4,001.1	773.3	4,075.1	3.00	-3.00	
6,800.0	10.62	11.84	5,128.9	4,021.7	777.6	4,096.1	3.00	-3.00	
6,900.0	7.62	11.84	5,227.6	4,037.2	780.8	4,111.9	3.00	-3.00	
7,000.0	4.62	11.84	5,327.0	4,047.6	783.0	4,122.6	3.00	-3.00	
7,100.0	1.62	11.84	5,426.9	4,052.9	784.1	4,128.1	3.00	-3.00	
7,154.2	0.00	0.00	5,481.0	4,053.7	784.3	4,128.8	3.00	-3.00	EOD @ 7154.2' MD - Williams Fork
7,200.0	0.11	239.66	5,526.8	4,053.7	784.3	4,128.8	0.25	0.25	
7,285.9	0.33	239.66	5,612.8	4,053.5	784.0	4,128.6	0.25	0.25	
7,300.0	0.33	239.66	5,626.8	4,053.5	783.9	4,128.5	0.00	0.00	
7,400.0	0.33	239.66	5,726.8	4,053.2	783.4	4,128.1	0.00	0.00	
7,500.0	0.33	239.66	5,826.8	4,052.9	782.9	4,127.8	0.00	0.00	
7,600.0	0.33	239.66	5,926.8	4,052.6	782.4	4,127.4	0.00	0.00	
7,700.0	0.33	239.66	6,026.8	4,052.3	781.9	4,127.0	0.00	0.00	
7,800.0	0.33	239.66	6,126.8	4,052.0	781.4	4,126.6	0.00	0.00	
7,900.0	0.33	239.66	6,226.8	4,051.7	780.9	4,126.3	0.00	0.00	
8,000.0	0.33	239.66	6,326.8	4,051.4	780.4	4,125.9	0.00	0.00	
8,100.0	0.33	239.66	6,426.8	4,051.1	779.9	4,125.5	0.00	0.00	
8,200.0	0.33	239.66	6,526.8	4,050.9	779.4	4,125.1	0.00	0.00	
8,300.0	0.33	239.66	6,626.8	4,050.6	778.9	4,124.7	0.00	0.00	
8,400.0	0.33	239.66	6,726.8	4,050.3	778.4	4,124.4	0.00	0.00	
8,500.0	0.33	239.66	6,826.8	4,050.0	777.9	4,124.0	0.00	0.00	
8,600.0	0.33	239.66	6,926.8	4,049.7	777.5	4,123.6	0.00	0.00	
8,700.0	0.33	239.66	7,026.8	4,049.4	777.0	4,123.2	0.00	0.00	
8,800.0	0.33	239.66	7,126.8	4,049.1	776.5	4,122.9	0.00	0.00	
8,900.0	0.33	239.66	7,226.8	4,048.8	776.0	4,122.5	0.00	0.00	
9,000.0	0.33	239.66	7,326.8	4,048.5	775.5	4,122.1	0.00	0.00	
9,100.0	0.33	239.66	7,426.8	4,048.2	775.0	4,121.7	0.00	0.00	
9,200.0	0.33	239.66	7,526.8	4,047.9	774.5	4,121.4	0.00	0.00	
9,300.0	0.33	239.66	7,626.8	4,047.7	774.0	4,121.0	0.00	0.00	
9,400.0	0.33	239.66	7,726.8	4,047.4	773.5	4,120.6	0.00	0.00	
9,500.0	0.33	239.66	7,826.8	4,047.1	773.0	4,120.2	0.00	0.00	
9,600.0	0.33	239.66	7,926.8	4,046.8	772.5	4,119.8	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WF12D-19 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:	WF12D-19 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
9,700.0	0.33	239.66	8,026.8	4,046.5	772.0	4,119.5	0.00	0.00	
9,800.0	0.33	239.66	8,126.8	4,046.2	771.5	4,119.1	0.00	0.00	
9,900.0	0.33	239.66	8,226.8	4,045.9	771.0	4,118.7	0.00	0.00	
10,000.0	0.33	239.66	8,326.8	4,045.6	770.5	4,118.3	0.00	0.00	
10,100.0	0.33	239.66	8,426.8	4,045.3	770.0	4,118.0	0.00	0.00	
10,200.0	0.33	239.66	8,526.8	4,045.0	769.5	4,117.6	0.00	0.00	
10,300.0	0.33	239.66	8,626.8	4,044.8	769.0	4,117.2	0.00	0.00	
10,400.0	0.33	239.66	8,726.8	4,044.5	768.5	4,116.8	0.00	0.00	
10,500.0	0.33	239.66	8,826.8	4,044.2	768.0	4,116.4	0.00	0.00	
10,600.0	0.33	239.66	8,926.8	4,043.9	767.5	4,116.1	0.00	0.00	
10,654.2	0.33	239.66	8,981.0	4,043.7	767.3	4,115.9	0.00	0.00	Rollins
10,700.0	0.33	239.66	9,026.8	4,043.6	767.0	4,115.7	0.00	0.00	
10,754.2	0.33	239.66	9,081.0	4,043.4	766.8	4,115.5	0.00	0.00	TD @ 10754.2' MD
10,800.0	0.33	239.66	9,126.8	4,043.3	766.5	4,115.3	0.00	0.00	
10,900.0	0.33	239.66	9,226.8	4,043.0	766.0	4,114.9	0.00	0.00	
11,000.0	0.33	239.66	9,326.8	4,042.7	765.5	4,114.6	0.00	0.00	
11,100.0	0.33	239.66	9,426.8	4,042.4	765.0	4,114.2	0.00	0.00	
11,200.0	0.33	239.66	9,526.8	4,042.1	764.5	4,113.8	0.00	0.00	
11,300.0	0.33	239.66	9,626.8	4,041.8	764.1	4,113.4	0.00	0.00	
11,400.0	0.33	239.66	9,726.8	4,041.6	763.6	4,113.1	0.00	0.00	
11,500.0	0.33	239.66	9,826.8	4,041.3	763.1	4,112.7	0.00	0.00	
11,600.0	0.33	239.66	9,926.8	4,041.0	762.6	4,112.3	0.00	0.00	
11,700.0	0.33	239.66	10,026.8	4,040.7	762.1	4,111.9	0.00	0.00	
11,800.0	0.33	239.66	10,126.8	4,040.4	761.6	4,111.5	0.00	0.00	
11,900.0	0.33	239.66	10,226.8	4,040.1	761.1	4,111.2	0.00	0.00	
11,954.2	0.33	239.66	10,281.0	4,039.9	760.8	4,111.0	0.00	0.00	Permit TD @ 11954.2' MD

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
WF12D-19 I25 596 PBH - hit/miss target - Shape - plan hits target center - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	8,981.0	4,043.7	767.3	1,652,493.69	2,265,530.49	39.5959475	-108.1067265
WF12D-19 I25 596 TGT - plan hits target center - Point	0.00	0.00	5,481.0	4,053.7	784.3	1,652,503.17	2,265,547.81	39.5959749	-108.1066660

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,546.3	3,403.0	Wastch G			
7,154.2	5,481.0	Williams Fork			
10,654.2	8,981.0	Rollins			

Planning Report

Database: USA EDM 5000 Multi Users DB
Company: EnCana Oil & Gas (USA) Inc
Project: North Piceance
Site: I25 596
Well: WF12D-19 I25 596
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well WF12D-19 I25 596
TVD Reference: KB=22' @ 5846.0ft (Original Well Elev)
MD Reference: KB=22' @ 5846.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

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
650.0	644.3	64.8	-5.7	End Nudge @ 650' MD
1,818.6	1,621.1	667.4	74.4	EOB @ 1818.6' MD; Inc=49.21°
5,513.8	4,035.0	3,405.6	648.4	Start 3° Drop @ 5513.8' MD
7,154.2	5,481.0	4,053.7	784.3	EOD @ 7154.2' MD
10,754.2	9,081.0	4,053.5	784.0	TD @ 10754.2' MD
11,954.2	10,281.0	4,043.7	767.3	Permit TD @ 11954.2' MD