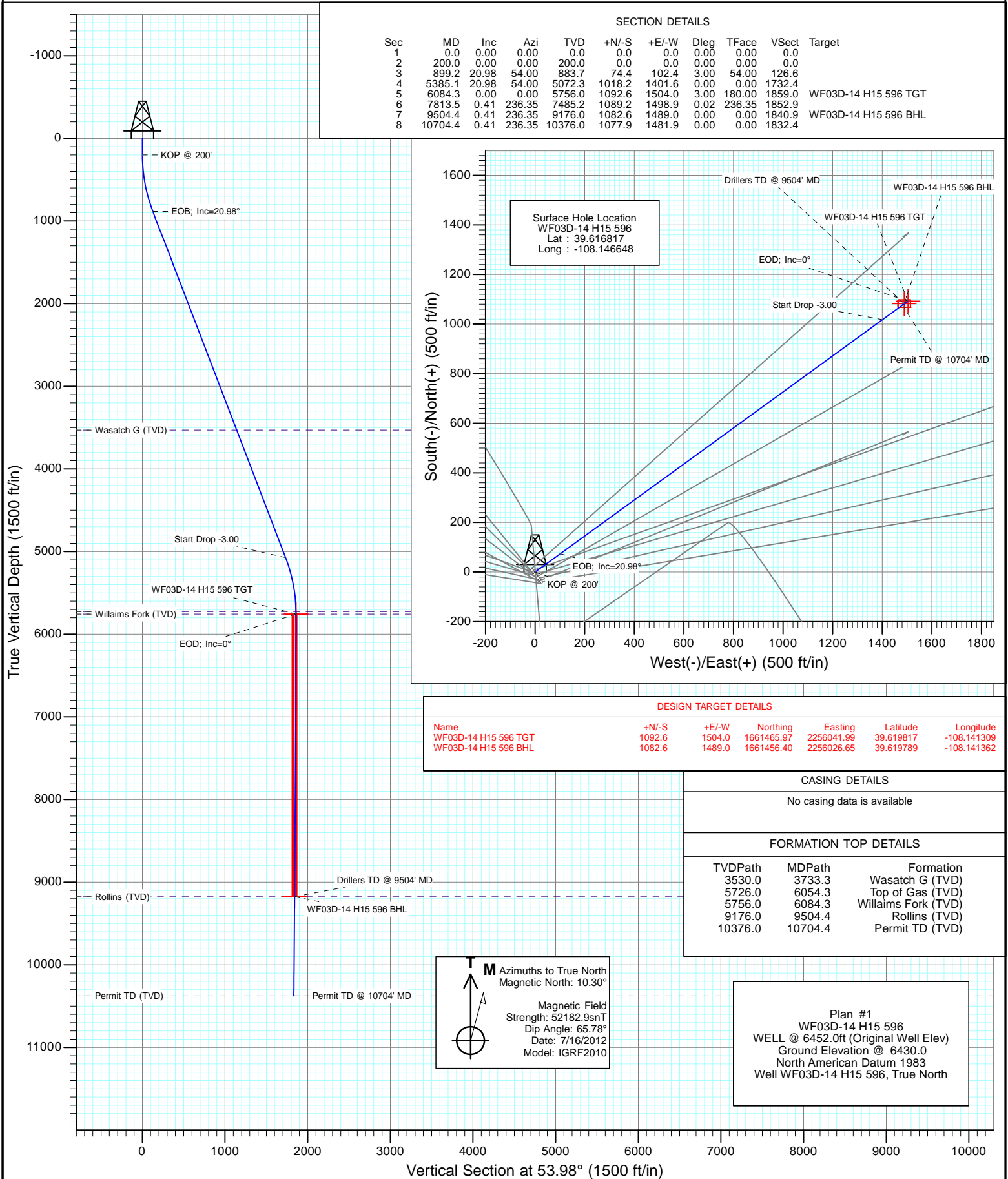
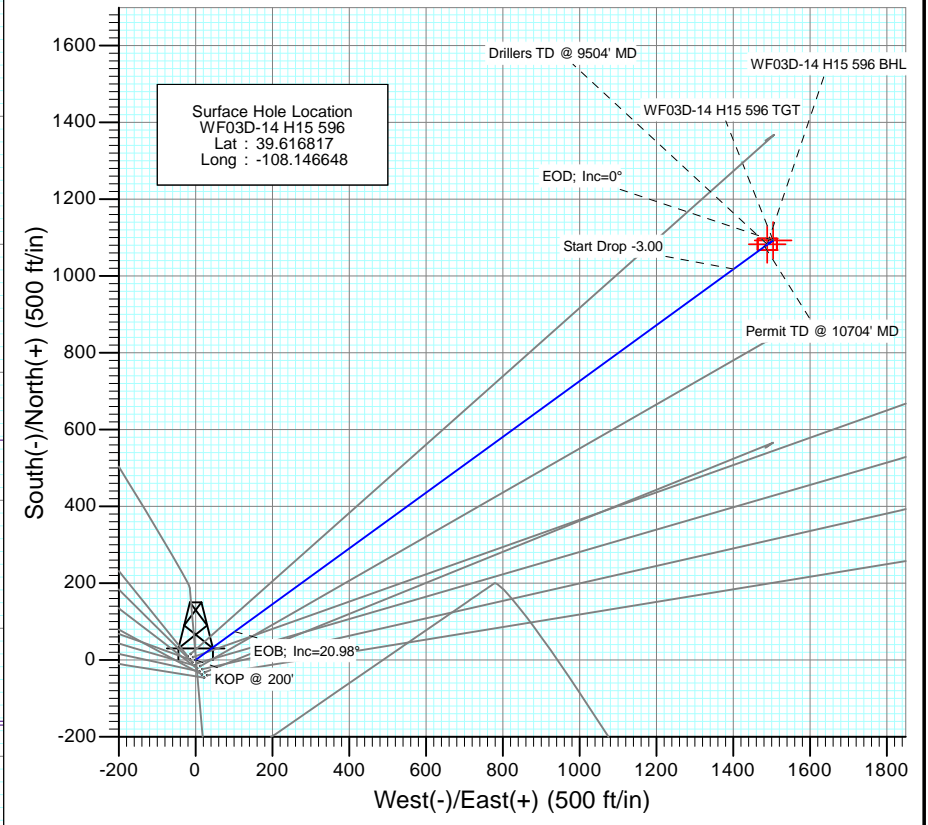




Project: North Piceance
 Site: H15 596 (S15-T5S-R96W)
 Well: WF03D-14 H15 596
 Wellbore: DD
 Design: Plan #1



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	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	899.2	20.98	54.00	883.7	74.4	102.4	3.00	54.00	126.6	
4	5385.1	20.98	54.00	5072.3	1018.2	1401.6	0.00	0.00	1732.4	WF03D-14 H15 596 TGT
5	6084.3	0.00	0.00	5756.0	1092.6	1504.0	3.00	180.00	1859.0	
6	7813.5	0.41	236.35	7485.2	1089.2	1498.9	0.02	236.35	1852.9	WF03D-14 H15 596 BHL
7	9504.4	0.41	236.35	9176.0	1082.6	1489.0	0.00	0.00	1840.9	
8	10704.4	0.41	236.35	10376.0	1077.9	1481.9	0.00	0.00	1832.4	



DESIGN TARGET DETAILS					
Name	+N/-S	+E/-W	Northing	Easting	Latitude
WF03D-14 H15 596 TGT	1092.6	1504.0	1661465.97	2256041.99	39.619817
WF03D-14 H15 596 BHL	1082.6	1489.0	1661456.40	2256026.65	39.619789
					-108.141362

CASING DETAILS		
No casing data is available		
FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3530.0	3733.3	Wasatch G (TVD)
5726.0	6054.3	Top of Gas (TVD)
5756.0	6084.3	Willaims Fork (TVD)
9176.0	9504.4	Rollins (TVD)
10376.0	10704.4	Permit TD (TVD)

M Azimuths to True North
 Magnetic North: 10.30°

Magnetic Field
 Strength: 52182.9snT
 Dip Angle: 65.78°
 Date: 7/16/2012
 Model: IGRF2010

Plan #1
 WF03D-14 H15 596
 WELL @ 6452.0ft (Original Well Elev)
 Ground Elevation @ 6430.0
 North American Datum 1983
 Well WF03D-14 H15 596, True North

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WF03D-14 H15 596
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6452.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6452.0ft (Original Well Elev)
Site:	H15 596 (S15-T5S-R96W)	North Reference:	True
Well:	WF03D-14 H15 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
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	H15 596 (S15-T5S-R96W)				
Site Position:		Northing:	1,660,385.37 ft	Latitude:	39° 37' 0.23 N
From:	Lat/Long	Easting:	2,254,530.40 ft	Longitude:	108° 8' 47.62 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.67 °

Well	WF03D-14 H15 596					
Well Position	+N/-S	0.0 ft	Northing:	1,660,417.64 ft	Latitude:	39° 37' 0.54 N
	+E/-W	0.0 ft	Easting:	2,254,506.80 ft	Longitude:	108° 8' 47.93 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,430.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/16/2012	10.30	65.78	52,183

Design	Plan #1				
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	53.98	

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	
899.2	20.98	54.00	883.7	74.4	102.4	3.00	3.00	0.00	54.00	
5,385.1	20.98	54.00	5,072.3	1,018.2	1,401.6	0.00	0.00	0.00	0.00	
6,084.3	0.00	0.00	5,756.0	1,092.6	1,504.0	3.00	-3.00	0.00	180.00	WF03D-14 H15 596 T
7,813.5	0.41	236.35	7,485.2	1,089.2	1,498.9	0.02	0.02	-7.15	236.35	
9,504.4	0.41	236.35	9,176.0	1,082.6	1,489.0	0.00	0.00	0.00	0.00	WF03D-14 H15 596 E
10,704.4	0.41	236.35	10,376.0	1,077.9	1,481.9	0.00	0.00	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WF03D-14 H15 596
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6452.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6452.0ft (Original Well Elev)
Site:	H15 596 (S15-T5S-R96W)	North Reference:	True
Well:	WF03D-14 H15 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
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	KOP @ 200'
300.0	3.00	54.00	300.0	1.5	2.1	2.6	3.00	3.00	
400.0	6.00	54.00	399.6	6.1	8.5	10.5	3.00	3.00	
500.0	9.00	54.00	498.8	13.8	19.0	23.5	3.00	3.00	
600.0	12.00	54.00	597.1	24.5	33.8	41.7	3.00	3.00	
700.0	15.00	54.00	694.3	38.2	52.7	65.1	3.00	3.00	
800.0	18.00	54.00	790.2	54.9	75.6	93.5	3.00	3.00	
899.2	20.98	54.00	883.7	74.4	102.4	126.6	3.00	3.00	EOB; Inc=20.98°
900.0	20.98	54.00	884.4	74.6	102.6	126.9	0.00	0.00	
1,000.0	20.98	54.00	977.8	95.6	131.6	162.6	0.00	0.00	
1,100.0	20.98	54.00	1,071.2	116.6	160.6	198.4	0.00	0.00	
1,200.0	20.98	54.00	1,164.6	137.7	189.5	234.2	0.00	0.00	
1,300.0	20.98	54.00	1,257.9	158.7	218.5	270.0	0.00	0.00	
1,400.0	20.98	54.00	1,351.3	179.8	247.4	305.8	0.00	0.00	
1,500.0	20.98	54.00	1,444.7	200.8	276.4	341.6	0.00	0.00	
1,600.0	20.98	54.00	1,538.0	221.8	305.4	377.4	0.00	0.00	
1,700.0	20.98	54.00	1,631.4	242.9	334.3	413.2	0.00	0.00	
1,800.0	20.98	54.00	1,724.8	263.9	363.3	449.0	0.00	0.00	
1,900.0	20.98	54.00	1,818.2	285.0	392.2	484.8	0.00	0.00	
2,000.0	20.98	54.00	1,911.5	306.0	421.2	520.6	0.00	0.00	
2,100.0	20.98	54.00	2,004.9	327.0	450.2	556.4	0.00	0.00	
2,200.0	20.98	54.00	2,098.3	348.1	479.1	592.2	0.00	0.00	
2,300.0	20.98	54.00	2,191.7	369.1	508.1	628.0	0.00	0.00	
2,400.0	20.98	54.00	2,285.0	390.2	537.1	663.8	0.00	0.00	
2,500.0	20.98	54.00	2,378.4	411.2	566.0	699.6	0.00	0.00	
2,600.0	20.98	54.00	2,471.8	432.2	595.0	735.4	0.00	0.00	
2,700.0	20.98	54.00	2,565.1	453.3	623.9	771.2	0.00	0.00	
2,800.0	20.98	54.00	2,658.5	474.3	652.9	807.0	0.00	0.00	
2,900.0	20.98	54.00	2,751.9	495.4	681.9	842.8	0.00	0.00	
3,000.0	20.98	54.00	2,845.3	516.4	710.8	878.6	0.00	0.00	
3,100.0	20.98	54.00	2,938.6	537.4	739.8	914.4	0.00	0.00	
3,200.0	20.98	54.00	3,032.0	558.5	768.8	950.2	0.00	0.00	
3,300.0	20.98	54.00	3,125.4	579.5	797.7	986.0	0.00	0.00	
3,400.0	20.98	54.00	3,218.8	600.6	826.7	1,021.8	0.00	0.00	
3,500.0	20.98	54.00	3,312.1	621.6	855.6	1,057.6	0.00	0.00	
3,600.0	20.98	54.00	3,405.5	642.6	884.6	1,093.4	0.00	0.00	
3,700.0	20.98	54.00	3,498.9	663.7	913.6	1,129.2	0.00	0.00	
3,800.0	20.98	54.00	3,592.3	684.7	942.5	1,165.0	0.00	0.00	
3,900.0	20.98	54.00	3,685.6	705.7	971.5	1,200.8	0.00	0.00	
4,000.0	20.98	54.00	3,779.0	726.8	1,000.4	1,236.6	0.00	0.00	
4,100.0	20.98	54.00	3,872.4	747.8	1,029.4	1,272.4	0.00	0.00	
4,200.0	20.98	54.00	3,965.7	768.9	1,058.4	1,308.2	0.00	0.00	
4,300.0	20.98	54.00	4,059.1	789.9	1,087.3	1,344.0	0.00	0.00	
4,400.0	20.98	54.00	4,152.5	810.9	1,116.3	1,379.8	0.00	0.00	
4,500.0	20.98	54.00	4,245.9	832.0	1,145.3	1,415.6	0.00	0.00	
4,600.0	20.98	54.00	4,339.2	853.0	1,174.2	1,451.4	0.00	0.00	
4,700.0	20.98	54.00	4,432.6	874.1	1,203.2	1,487.2	0.00	0.00	
4,800.0	20.98	54.00	4,526.0	895.1	1,232.1	1,523.0	0.00	0.00	
4,900.0	20.98	54.00	4,619.4	916.1	1,261.1	1,558.8	0.00	0.00	
5,000.0	20.98	54.00	4,712.7	937.2	1,290.1	1,594.6	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WF03D-14 H15 596
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6452.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6452.0ft (Original Well Elev)
Site:	H15 596 (S15-T5S-R96W)	North Reference:	True
Well:	WF03D-14 H15 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
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
5,100.0	20.98	54.00	4,806.1	958.2	1,319.0	1,630.3	0.00	0.00	
5,200.0	20.98	54.00	4,899.5	979.3	1,348.0	1,666.1	0.00	0.00	
5,300.0	20.98	54.00	4,992.8	1,000.3	1,377.0	1,701.9	0.00	0.00	
5,385.1	20.98	54.00	5,072.3	1,018.2	1,401.6	1,732.4	0.00	0.00	Start Drop -3.00
5,400.0	20.53	54.00	5,086.2	1,021.3	1,405.9	1,737.7	3.00	-3.00	
5,500.0	17.53	54.00	5,180.8	1,040.5	1,432.2	1,770.3	3.00	-3.00	
5,600.0	14.53	54.00	5,276.9	1,056.7	1,454.6	1,797.9	3.00	-3.00	
5,700.0	11.53	54.00	5,374.3	1,070.0	1,472.8	1,820.4	3.00	-3.00	
5,800.0	8.53	54.00	5,472.7	1,080.2	1,486.9	1,837.9	3.00	-3.00	
5,900.0	5.53	54.00	5,572.0	1,087.4	1,496.8	1,850.1	3.00	-3.00	
6,000.0	2.53	54.00	5,671.7	1,091.5	1,502.5	1,857.1	3.00	-3.00	
6,084.3	0.00	0.00	5,756.0	1,092.6	1,504.0	1,859.0	3.00	-3.00	EOD; Inc=0° - WF03D-14 H15 596 TGT
6,100.0	0.00	236.35	5,771.7	1,092.6	1,504.0	1,859.0	0.02	0.02	
6,200.0	0.03	236.35	5,871.7	1,092.6	1,504.0	1,858.9	0.02	0.02	
6,300.0	0.05	236.35	5,971.7	1,092.5	1,503.9	1,858.9	0.02	0.02	
6,400.0	0.07	236.35	6,071.7	1,092.5	1,503.8	1,858.8	0.02	0.02	
6,500.0	0.10	236.35	6,171.7	1,092.4	1,503.7	1,858.6	0.02	0.02	
6,600.0	0.12	236.35	6,271.7	1,092.3	1,503.5	1,858.4	0.02	0.02	
6,700.0	0.14	236.35	6,371.7	1,092.2	1,503.4	1,858.2	0.02	0.02	
6,800.0	0.17	236.35	6,471.7	1,092.0	1,503.1	1,857.9	0.02	0.02	
6,900.0	0.19	236.35	6,571.7	1,091.8	1,502.9	1,857.6	0.02	0.02	
7,000.0	0.21	236.35	6,671.7	1,091.6	1,502.6	1,857.3	0.02	0.02	
7,100.0	0.24	236.35	6,771.7	1,091.4	1,502.2	1,856.9	0.02	0.02	
7,200.0	0.26	236.35	6,871.7	1,091.2	1,501.9	1,856.4	0.02	0.02	
7,300.0	0.28	236.35	6,971.7	1,090.9	1,501.5	1,856.0	0.02	0.02	
7,400.0	0.31	236.35	7,071.7	1,090.6	1,501.1	1,855.4	0.02	0.02	
7,500.0	0.33	236.35	7,171.7	1,090.3	1,500.6	1,854.9	0.02	0.02	
7,600.0	0.36	236.35	7,271.7	1,090.0	1,500.1	1,854.3	0.02	0.02	
7,700.0	0.38	236.35	7,371.7	1,089.6	1,499.6	1,853.6	0.02	0.02	
7,800.0	0.40	236.35	7,471.7	1,089.3	1,499.0	1,853.0	0.02	0.02	
7,813.5	0.41	236.35	7,485.2	1,089.2	1,498.9	1,852.9	0.02	0.02	
7,900.0	0.41	236.35	7,571.7	1,088.9	1,498.4	1,852.3	0.00	0.00	
8,000.0	0.41	236.35	7,671.7	1,088.5	1,497.8	1,851.5	0.00	0.00	
8,100.0	0.41	236.35	7,771.7	1,088.1	1,497.2	1,850.8	0.00	0.00	
8,200.0	0.41	236.35	7,871.7	1,087.7	1,496.6	1,850.1	0.00	0.00	
8,300.0	0.41	236.35	7,971.7	1,087.3	1,496.0	1,849.4	0.00	0.00	
8,400.0	0.41	236.35	8,071.7	1,086.9	1,495.5	1,848.7	0.00	0.00	
8,500.0	0.41	236.35	8,171.7	1,086.5	1,494.9	1,848.0	0.00	0.00	
8,600.0	0.41	236.35	8,271.7	1,086.1	1,494.3	1,847.3	0.00	0.00	
8,700.0	0.41	236.35	8,371.7	1,085.7	1,493.7	1,846.6	0.00	0.00	
8,800.0	0.41	236.35	8,471.7	1,085.3	1,493.1	1,845.9	0.00	0.00	
8,900.0	0.41	236.35	8,571.7	1,085.0	1,492.5	1,845.2	0.00	0.00	
9,000.0	0.41	236.35	8,671.6	1,084.6	1,491.9	1,844.5	0.00	0.00	
9,100.0	0.41	236.35	8,771.6	1,084.2	1,491.3	1,843.8	0.00	0.00	
9,200.0	0.41	236.35	8,871.6	1,083.8	1,490.7	1,843.1	0.00	0.00	
9,300.0	0.41	236.35	8,971.6	1,083.4	1,490.2	1,842.4	0.00	0.00	
9,400.0	0.41	236.35	9,071.6	1,083.0	1,489.6	1,841.7	0.00	0.00	
9,500.0	0.41	236.35	9,171.6	1,082.6	1,489.0	1,840.9	0.00	0.00	
9,504.4	0.41	236.35	9,176.0	1,082.6	1,489.0	1,840.9	0.00	0.00	Drillers TD @ 9504' MD - WF03D-14 H15 596 E
9,600.0	0.41	236.35	9,271.6	1,082.2	1,488.4	1,840.2	0.00	0.00	
9,700.0	0.41	236.35	9,371.6	1,081.8	1,487.8	1,839.5	0.00	0.00	
9,800.0	0.41	236.35	9,471.6	1,081.4	1,487.2	1,838.8	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WF03D-14 H15 596
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6452.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6452.0ft (Original Well Elev)
Site:	H15 596 (S15-T5S-R96W)	North Reference:	True
Well:	WF03D-14 H15 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
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
9,900.0	0.41	236.35	9,571.6	1,081.0	1,486.6	1,838.1	0.00	0.00	
10,000.0	0.41	236.35	9,671.6	1,080.6	1,486.0	1,837.4	0.00	0.00	
10,100.0	0.41	236.35	9,771.6	1,080.2	1,485.4	1,836.7	0.00	0.00	
10,200.0	0.41	236.35	9,871.6	1,079.9	1,484.9	1,836.0	0.00	0.00	
10,300.0	0.41	236.35	9,971.6	1,079.5	1,484.3	1,835.3	0.00	0.00	
10,400.0	0.41	236.35	10,071.6	1,079.1	1,483.7	1,834.6	0.00	0.00	
10,500.0	0.41	236.35	10,171.6	1,078.7	1,483.1	1,833.9	0.00	0.00	
10,600.0	0.41	236.35	10,271.6	1,078.3	1,482.5	1,833.2	0.00	0.00	
10,700.0	0.41	236.35	10,371.6	1,077.9	1,481.9	1,832.5	0.00	0.00	
10,704.4	0.41	236.35	10,376.0	1,077.9	1,481.9	1,832.4	0.00	0.00	Permit TD @ 10704' MD

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
WF03D-14 H15 596 TG` - plan hits target center - Point	0.00	0.00	5,756.0	1,092.6	1,504.0	1,661,465.97	2,256,041.99	39° 37' 11.34 N	108° 8' 28.71 W
WF03D-14 H15 596 BHI - plan hits target center - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	9,176.0	1,082.6	1,489.0	1,661,456.40	2,256,026.65	39° 37' 11.24 N	108° 8' 28.90 W

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP @ 200'
899.2	883.7	74.4	102.4	EOB; Inc=20.98°
5,385.1	5,072.3	1,018.2	1,401.6	Start Drop -3.00
6,084.3	5,756.0	1,092.6	1,504.0	EOD; Inc=0°
9,504.4	9,176.0	1,089.2	1,498.9	Drillers TD @ 9504' MD
10,704.4	10,376.0	1,082.6	1,489.0	Permit TD @ 10704' MD