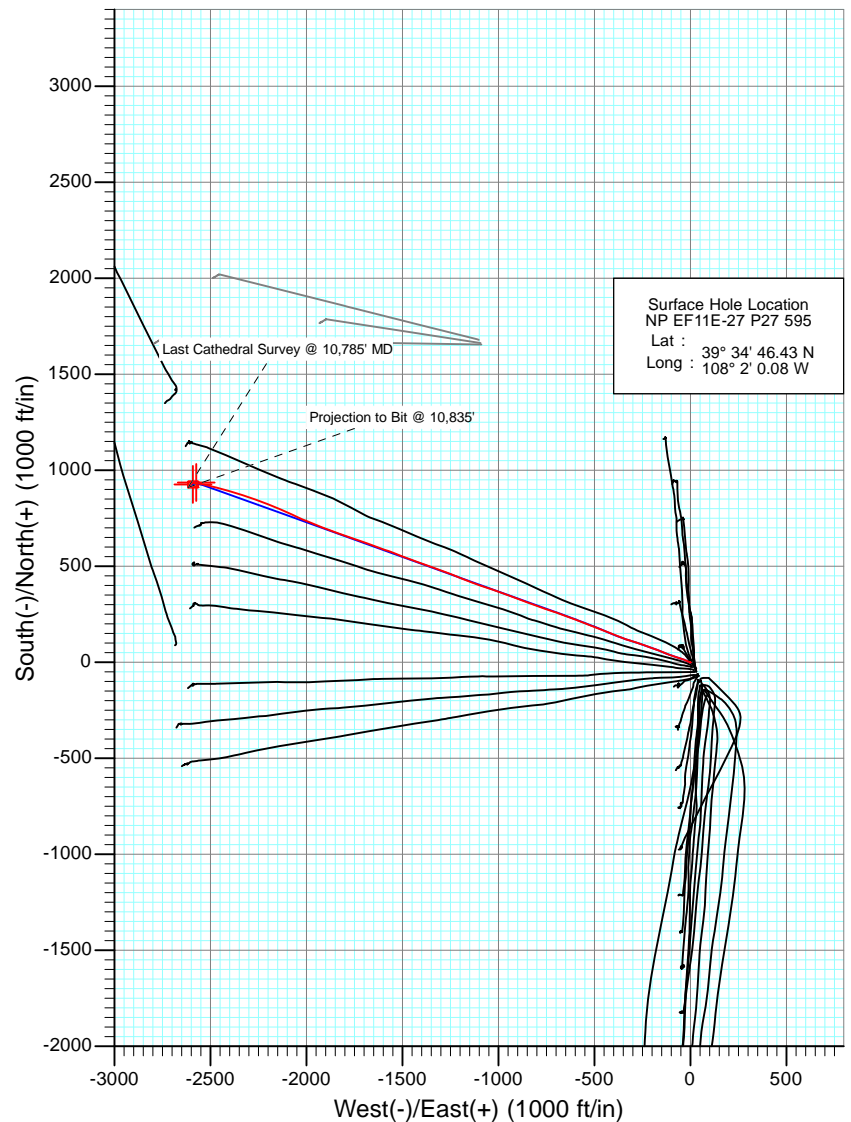
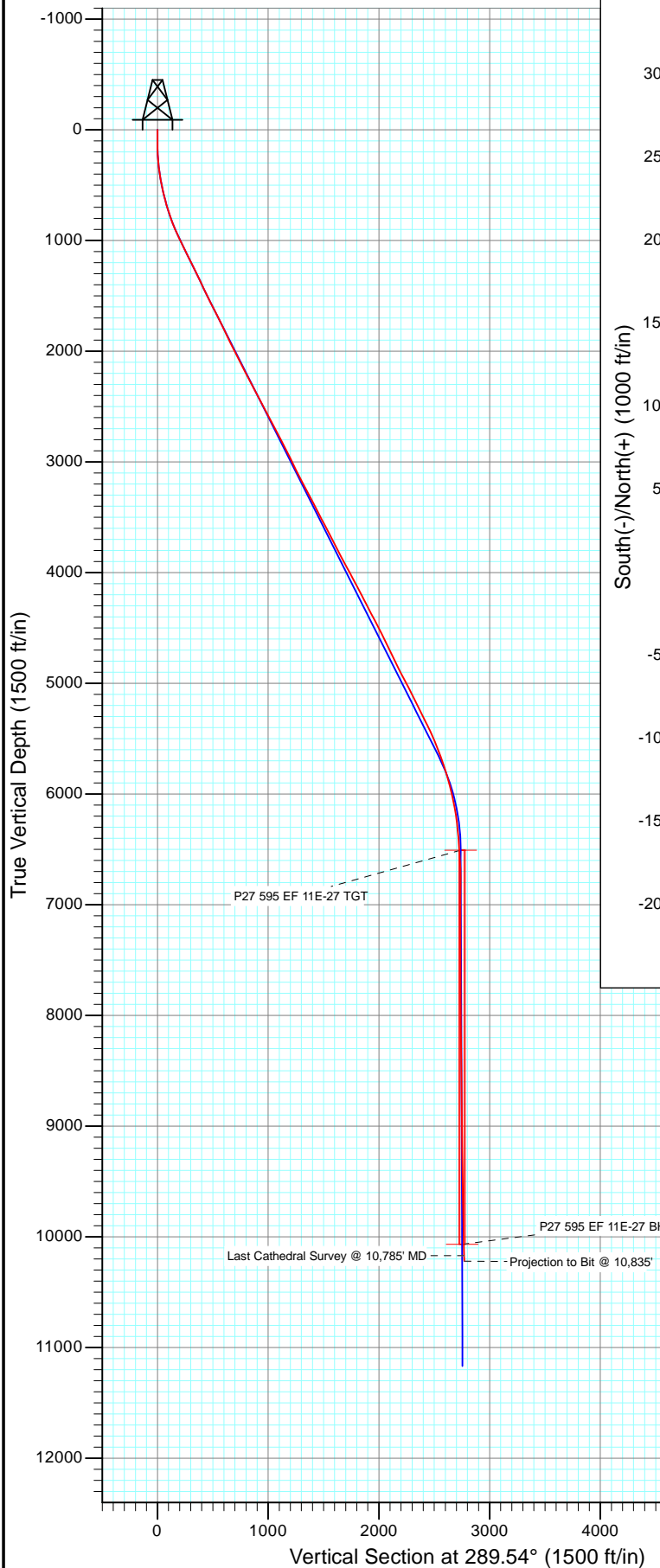




Project: North Piceance  
 Site: P27 595 (S27-T5S-R95W)  
 Well: NP EF11E-27 P27 595  
 Wellbore: DD  
 Design: FINAL

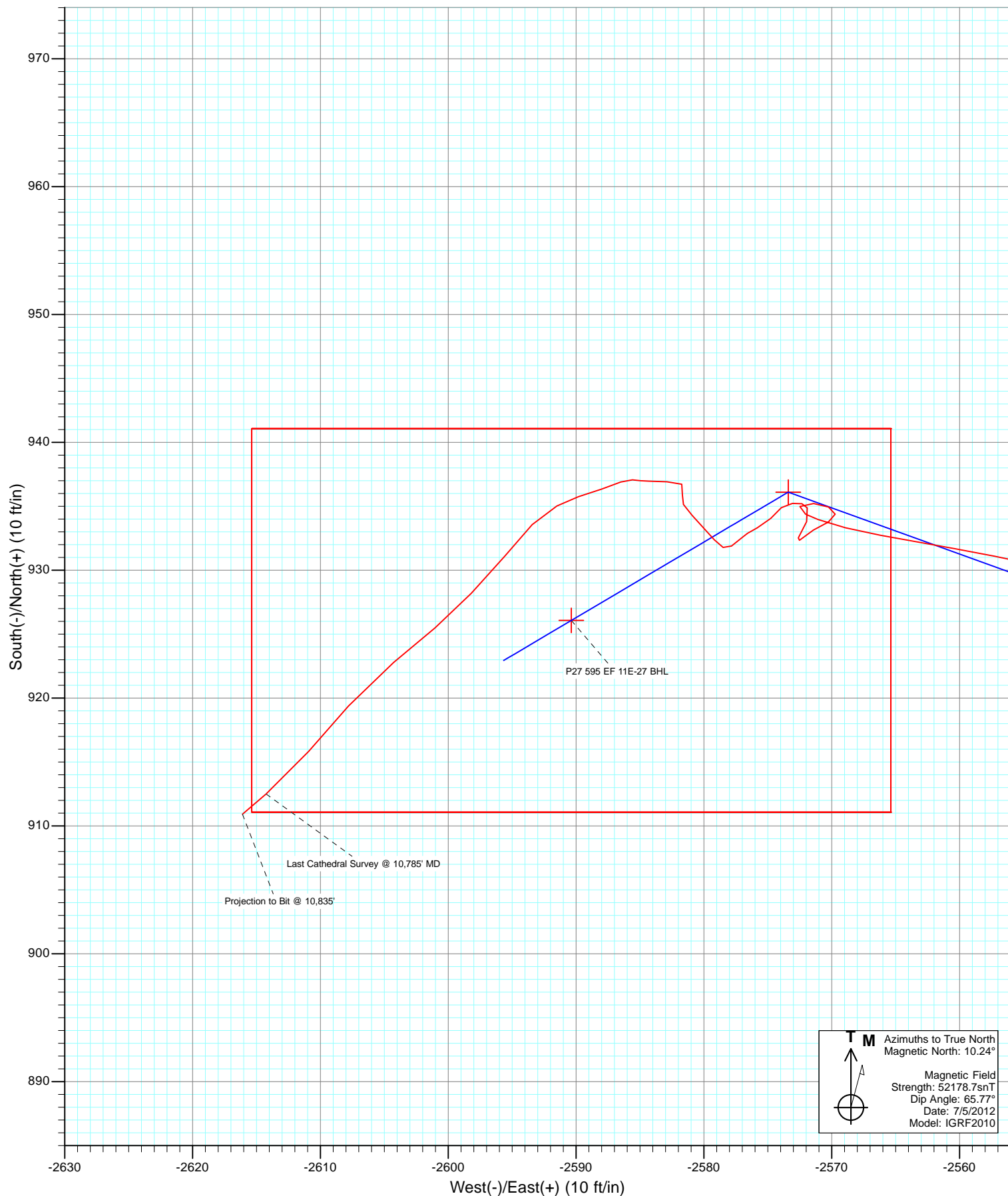


Azimuths to True North  
 Magnetic North: 10.24°

Magnetic Field  
 Strength: 52178.7snT  
 Dip Angle: 65.77°  
 Date: 7/5/2012  
 Model: IGRF2010

DD  
 NP EF11E-27 P27 595  
 125303/161455 (SH), 169355 125369; LR  
 WELL @ 6671.0ft (Patterson 303)  
 North American Datum 1983  
 Well NP EF11E-27 P27 595, True North

Type User	Target No Target (Freehand)	Azimuth	Origin Type	N/S	E/W	From	TVD
		289.54	Slot	0.0	0.0		0.0
Name		TVD	+N/-S	+E/-W	Latitude	Longitude	
P27 595 EF 11E-27 TGT		6507.0	936.1	-2573.4	39° 34' 55.68 N	108° 2' 32.95 W	
P27 595 EF 11E-27 BHL		10067.0	926.1	-2590.4	39° 34' 55.58 N	108° 2' 33.17 W	



## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well NP EF11E-27 P27 595
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 6671.0ft (Patterson 303)
<b>Site:</b>	P27 595 (S27-T5S-R95W)	<b>MD Reference:</b>	WELL @ 6671.0ft (Patterson 303)
<b>Well:</b>	NP EF11E-27 P27 595	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB

<b>Project</b>	North Piceance		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

Site		P27 595 (S27-T5S-R95W)			
Site Position:		Northing:	1,645,842.89 ft	Latitude:	39° 34' 45.45 N
From:	Lat/Long	Easting:	2,286,079.88 ft	Longitude:	108° 1' 59.43 W
Position Uncertainty:	0.0 ft	Slot Radius:	0.000 in	Grid Convergence:	-1.60 °

Well	NP EF11E-27 P27 595					
Well Position	+N/-S	0.0 ft	Northing:	1,645,943.13 ft	Latitude:	39° 34' 46.43 N
	+E/-W	0.0 ft	Easting:	2,286,031.73 ft	Longitude:	108° 2' 0.08 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,649.0 ft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	7/5/2012	10.24	65.77	52,179

<b>Design</b>	DD				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	289.54	

<b>Survey Program</b>	<b>Date</b>	4/2/2013			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
50.0	139.0	Survey #1 (DD)	Gyro	Gyro	
169.0	10,835.0	Survey #2 (DD)	MWD	Geolink MWD	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Formations / Comments</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00		
50.0	0.48	189.41	50.0	-0.2	0.0	0.0	0.96	0.96		
100.0	0.34	133.72	100.0	-0.5	0.0	-0.2	0.81	-0.28		
139.0	0.18	111.69	139.0	-0.6	0.2	-0.4	0.48	-0.41		
169.0	1.00	301.60	169.0	-0.5	0.0	-0.2	3.93	2.73		
200.0	1.70	298.20	200.0	-0.1	-0.6	0.6	2.27	2.26		
231.0	3.40	284.90	231.0	0.3	-1.9	1.9	5.77	5.48		
261.0	4.70	288.40	260.9	0.9	-4.0	4.0	4.41	4.33		
292.0	5.40	292.90	291.8	1.9	-6.5	6.8	2.59	2.26		
323.0	6.50	293.80	322.6	3.2	-9.5	10.0	3.56	3.55		
353.0	7.30	294.50	352.4	4.7	-12.7	13.6	2.68	2.67		
384.0	7.90	294.60	383.1	6.4	-16.5	17.6	1.94	1.94		

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well NP EF11E-27 P27 595
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 6671.0ft (Patterson 303)
<b>Site:</b>	P27 595 (S27-T5S-R95W)	<b>MVD Reference:</b>	WELL @ 6671.0ft (Patterson 303)
<b>Well:</b>	NP EF11E-27 P27 595	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
414.0	8.90	292.40	412.8	8.1	-20.5	22.0	3.50	3.33	
445.0	9.70	292.00	443.4	10.0	-25.1	27.0	2.59	2.58	
476.0	10.40	293.20	473.9	12.1	-30.1	32.4	2.36	2.26	
509.0	11.40	290.60	506.3	14.4	-35.9	38.7	3.38	3.03	
555.0	13.10	289.90	551.3	17.8	-45.1	48.4	3.71	3.70	
600.0	14.10	286.50	595.0	21.1	-55.1	59.0	2.84	2.22	
646.0	15.20	288.10	639.5	24.5	-66.2	70.6	2.55	2.39	
692.0	16.30	289.90	683.8	28.6	-78.0	83.1	2.62	2.39	
738.0	17.60	288.50	727.8	33.0	-90.7	96.5	2.96	2.83	
783.0	18.50	288.70	770.6	37.4	-103.9	110.4	2.00	2.00	
829.0	20.00	291.40	814.0	42.7	-118.1	125.6	3.79	3.26	
875.0	21.40	292.60	857.0	48.8	-133.2	141.9	3.18	3.04	
921.0	23.00	292.00	899.6	55.3	-149.3	159.2	3.51	3.48	
966.0	24.30	291.30	940.8	62.0	-166.1	177.3	2.96	2.89	
1,058.0	26.60	289.80	1,023.9	75.9	-203.1	216.8	2.60	2.50	
1,150.0	26.40	289.20	1,106.2	89.6	-241.8	257.8	0.36	-0.22	
1,241.0	26.20	287.80	1,187.8	102.4	-280.0	298.1	0.72	-0.22	
1,333.0	26.10	287.40	1,270.4	114.6	-318.7	338.7	0.22	-0.11	
1,424.0	25.30	289.70	1,352.4	127.2	-356.1	378.1	1.40	-0.88	
1,516.0	25.70	292.00	1,435.4	141.3	-393.1	417.7	1.16	0.43	
1,607.0	26.10	292.80	1,517.3	156.4	-429.8	457.4	0.58	0.44	
1,699.0	27.10	293.00	1,599.5	172.4	-467.8	498.5	1.09	1.09	
1,790.0	26.90	291.30	1,680.6	188.0	-506.0	539.8	0.88	-0.22	
1,889.0	26.10	288.20	1,769.2	202.9	-547.6	583.9	1.61	-0.81	
1,980.0	25.40	291.60	1,851.2	216.4	-584.8	623.5	1.80	-0.77	
2,072.0	25.70	290.40	1,934.2	230.6	-621.8	663.1	0.65	0.33	
2,163.0	26.10	290.60	2,016.1	244.5	-659.0	702.9	0.45	0.44	
2,255.0	28.90	289.50	2,097.7	259.1	-698.9	745.3	3.09	3.04	
2,346.0	26.50	287.40	2,178.2	272.5	-739.1	787.6	2.85	-2.64	
2,438.0	27.00	290.20	2,260.4	285.8	-778.2	829.0	1.47	0.54	
2,529.0	28.50	291.40	2,340.9	300.9	-817.8	871.4	1.76	1.65	
2,621.0	27.60	290.50	2,422.1	316.4	-858.2	914.6	1.08	-0.98	
2,713.0	27.80	289.40	2,503.6	330.9	-898.4	957.4	0.60	0.22	
2,804.0	28.30	290.20	2,583.9	345.4	-938.7	1,000.2	0.69	0.55	
2,896.0	28.30	289.90	2,664.9	360.4	-979.7	1,043.8	0.15	0.00	
2,987.0	26.60	288.10	2,745.6	374.1	-1,019.3	1,085.7	2.08	-1.87	
3,079.0	27.00	289.00	2,827.8	387.3	-1,058.7	1,127.2	0.62	0.43	
3,170.0	27.80	290.70	2,908.5	401.5	-1,098.0	1,169.1	1.23	0.88	
3,262.0	25.50	290.10	2,990.8	415.9	-1,136.7	1,210.3	2.52	-2.50	
3,353.0	26.00	290.70	3,072.7	429.7	-1,173.8	1,249.9	0.62	0.55	
3,445.0	28.60	292.50	3,154.5	445.2	-1,213.0	1,292.0	2.96	2.83	
3,536.0	27.60	291.70	3,234.7	461.4	-1,252.7	1,334.8	1.17	-1.10	
3,627.0	28.00	290.60	3,315.2	476.7	-1,292.3	1,377.3	0.71	0.44	
3,719.0	27.10	289.10	3,396.8	491.1	-1,332.3	1,419.8	1.24	-0.98	
3,810.0	27.30	288.20	3,477.7	504.4	-1,371.7	1,461.4	0.50	0.22	
3,902.0	28.60	290.40	3,559.0	518.7	-1,412.4	1,504.5	1.80	1.41	
3,993.0	26.30	291.80	3,639.8	533.8	-1,451.5	1,546.4	2.62	-2.53	
4,085.0	27.40	290.50	3,721.8	548.8	-1,490.3	1,588.0	1.36	1.20	
4,177.0	27.80	291.50	3,803.4	564.0	-1,530.1	1,630.6	0.67	0.43	
4,268.0	27.60	288.20	3,884.0	578.4	-1,569.8	1,672.9	1.70	-0.22	
4,360.0	28.80	290.00	3,965.0	592.6	-1,610.9	1,716.3	1.60	1.30	
4,451.0	27.70	290.50	4,045.2	607.5	-1,651.3	1,759.4	1.24	-1.21	
4,543.0	28.60	289.60	4,126.3	622.4	-1,692.1	1,802.8	1.08	0.98	

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well NP EF11E-27 P27 595
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 6671.0ft (Patterson 303)
<b>Site:</b>	P27 595 (S27-T5S-R95W)	<b>MD Reference:</b>	WELL @ 6671.0ft (Patterson 303)
<b>Well:</b>	NP EF11E-27 P27 595	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
4,634.0	26.90	289.20	4,206.8	636.5	-1,732.0	1,845.2	1.88	-1.87	
4,726.0	28.00	288.70	4,288.5	650.3	-1,772.2	1,887.6	1.22	1.20	
4,817.0	27.20	288.40	4,369.1	663.7	-1,812.1	1,929.7	0.89	-0.88	
4,909.0	28.10	291.10	4,450.6	678.1	-1,852.3	1,972.4	1.68	0.98	
5,001.0	26.10	289.80	4,532.5	692.8	-1,891.6	2,014.3	2.27	-2.17	
5,092.0	26.30	292.50	4,614.2	707.3	-1,929.0	2,054.5	1.33	0.22	
5,183.0	26.20	292.40	4,695.8	722.6	-1,966.2	2,094.7	0.12	-0.11	
5,275.0	26.10	291.60	4,778.4	737.8	-2,003.8	2,135.2	0.40	-0.11	
5,367.0	25.70	294.70	4,861.1	753.6	-2,040.7	2,175.3	1.53	-0.43	
5,458.0	27.60	294.90	4,942.5	770.7	-2,077.8	2,215.9	2.09	2.09	
5,550.0	28.30	294.20	5,023.7	788.6	-2,117.0	2,258.9	0.84	0.76	
5,641.0	27.30	291.80	5,104.2	805.2	-2,156.1	2,301.2	1.65	-1.10	
5,733.0	24.90	292.40	5,186.8	820.5	-2,193.6	2,341.7	2.62	-2.61	
5,824.0	26.60	290.50	5,268.8	834.9	-2,230.4	2,381.2	2.08	1.87	
5,916.0	26.90	290.20	5,351.0	849.3	-2,269.2	2,422.6	0.36	0.33	
6,008.0	25.00	287.40	5,433.7	862.3	-2,307.3	2,462.8	2.46	-2.07	
6,099.0	23.00	286.60	5,516.8	873.1	-2,342.7	2,499.8	2.23	-2.20	
6,191.0	21.50	287.30	5,602.0	883.3	-2,376.0	2,534.6	1.66	-1.63	
6,282.0	19.80	287.20	5,687.1	892.8	-2,406.6	2,566.6	1.87	-1.87	
6,374.0	17.90	284.00	5,774.2	900.8	-2,435.3	2,596.3	2.35	-2.07	
6,465.0	15.30	286.50	5,861.4	907.6	-2,460.3	2,622.2	2.96	-2.86	
6,557.0	14.00	284.80	5,950.4	913.9	-2,482.7	2,645.4	1.49	-1.41	
6,648.0	12.40	284.50	6,039.0	919.2	-2,502.8	2,666.1	1.76	-1.76	
6,740.0	10.70	281.50	6,129.1	923.3	-2,520.8	2,684.4	1.96	-1.85	
6,831.0	7.60	281.30	6,218.9	926.2	-2,535.0	2,698.7	3.41	-3.41	
6,923.0	5.70	283.50	6,310.3	928.5	-2,545.4	2,709.3	2.08	-2.07	
7,014.0	5.00	282.10	6,400.9	930.3	-2,553.6	2,717.7	0.78	-0.77	
7,106.0	3.60	280.20	6,492.7	931.7	-2,560.4	2,724.6	1.53	-1.52	
7,197.0	3.80	280.20	6,583.5	932.7	-2,566.2	2,730.4	0.22	0.22	
7,289.0	2.50	290.20	6,675.3	934.0	-2,571.1	2,735.4	1.53	-1.41	
7,380.0	0.70	52.80	6,766.3	935.0	-2,572.5	2,737.1	3.23	-1.98	
7,472.0	0.80	100.20	6,858.3	935.2	-2,571.4	2,736.1	0.66	0.11	
7,563.0	0.70	106.60	6,949.3	934.9	-2,570.2	2,734.9	0.14	-0.11	
7,655.0	0.50	182.70	7,041.3	934.4	-2,569.7	2,734.2	0.82	-0.22	
7,746.0	0.70	246.80	7,132.3	933.8	-2,570.3	2,734.5	0.72	0.22	
7,847.0	0.80	238.00	7,233.3	933.1	-2,571.4	2,735.4	0.15	0.10	
7,939.0	0.90	229.70	7,325.3	932.3	-2,572.5	2,736.2	0.17	0.11	
8,030.0	1.00	35.10	7,416.3	932.5	-2,572.6	2,736.3	2.07	0.11	
8,122.0	0.80	16.70	7,508.2	933.8	-2,572.0	2,736.2	0.38	-0.22	
8,214.0	0.60	344.00	7,600.2	934.9	-2,571.9	2,736.5	0.48	-0.22	
8,305.0	0.40	244.40	7,691.2	935.2	-2,572.3	2,737.0	0.85	-0.22	
8,396.0	0.60	289.60	7,782.2	935.2	-2,573.1	2,737.7	0.47	0.22	
8,488.0	0.80	220.80	7,874.2	934.9	-2,573.9	2,738.4	0.88	0.22	
8,579.0	0.70	229.00	7,965.2	934.1	-2,574.8	2,738.9	0.16	-0.11	
8,671.0	0.90	239.70	8,057.2	933.3	-2,575.8	2,739.6	0.27	0.22	
8,763.0	0.20	244.40	8,149.2	932.9	-2,576.6	2,740.2	0.76	-0.76	
8,854.0	0.40	225.80	8,240.2	932.6	-2,577.0	2,740.5	0.24	0.22	
8,946.0	1.00	234.00	8,332.2	931.9	-2,577.8	2,741.1	0.66	0.65	
9,037.0	1.50	323.40	8,423.2	932.4	-2,579.2	2,742.5	1.97	0.55	
9,129.0	1.70	312.90	8,515.1	934.3	-2,580.9	2,744.8	0.38	0.22	
9,220.0	0.90	18.30	8,606.1	935.9	-2,581.7	2,746.0	1.71	-0.88	
9,312.0	0.40	299.70	8,698.1	936.7	-2,581.7	2,746.3	0.99	-0.54	
9,404.0	1.10	271.80	8,790.1	936.9	-2,582.9	2,747.5	0.84	0.76	

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well NP EF11E-27 P27 595
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 6671.0ft (Patterson 303)
<b>Site:</b>	P27 595 (S27-T5S-R95W)	<b>MD Reference:</b>	WELL @ 6671.0ft (Patterson 303)
<b>Well:</b>	NP EF11E-27 P27 595	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
9,495.0	0.70	272.60	8,881.1	937.0	-2,584.3	2,748.9	0.44	-0.44	
9,587.0	0.10	280.20	8,973.1	937.0	-2,585.0	2,749.5	0.65	-0.65	
9,678.0	0.70	274.40	9,064.1	937.1	-2,585.6	2,750.1	0.66	0.66	
9,770.0	0.50	240.00	9,156.1	936.9	-2,586.5	2,750.9	0.44	-0.22	
9,861.0	1.50	252.80	9,247.1	936.4	-2,588.0	2,752.1	1.12	1.10	
9,953.0	0.90	250.10	9,339.1	935.8	-2,589.8	2,753.6	0.65	-0.65	
10,045.0	1.40	244.60	9,431.0	935.0	-2,591.5	2,755.0	0.56	0.54	
10,136.0	1.70	223.00	9,522.0	933.6	-2,593.4	2,756.3	0.72	0.33	
10,228.0	2.40	219.80	9,613.9	931.1	-2,595.6	2,757.5	0.77	0.76	
10,319.0	2.50	224.30	9,704.9	928.2	-2,598.2	2,759.0	0.24	0.11	
10,411.0	2.40	228.50	9,796.8	925.5	-2,601.0	2,760.8	0.22	-0.11	
10,502.0	2.90	231.40	9,887.7	922.8	-2,604.3	2,762.9	0.57	0.55	
10,593.0	3.30	221.50	9,978.5	919.4	-2,607.8	2,765.1	0.73	0.44	
10,685.0	2.60	220.70	10,070.4	915.8	-2,610.9	2,766.9	0.76	-0.76	
10,785.0	2.80	229.20	10,170.3	912.5	-2,614.2	2,768.9	0.45	0.20	Last Cathedral Survey @ 10,785' MD Projection to Bit @ 10,835'
10,835.0	2.80	229.20	10,220.3	910.9	-2,616.1	2,770.1	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
- hit/miss target									
- Shape									
P27 595 EF 11E-27 TG1	0.00	0.00	6,507.0	936.1	-2,573.4	1,646,950.62	2,283,485.43	39° 34' 55.68 N	108° 2' 32.95 W
- actual wellpath misses target center by 12.8ft at 7121.2ft MD (6507.8 TVD, 931.9 N, -2561.3 E)									
- Point									
P27 595 EF 11E-27 BHL	0.00	0.00	10,067.0	926.1	-2,590.4	1,646,941.07	2,283,468.19	39° 34' 55.58 N	108° 2' 33.17 W
- actual wellpath misses target center by 22.8ft at 10680.5ft MD (10065.9 TVD, 916.0 N, -2610.8 E)									
- Rectangle (sides W30.0 H50.0 D0.0)									

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
10,785.0	10,170.3	912.5	-2,614.2	Last Cathedral Survey @ 10,785' MD
10,835.0	10,220.3	910.9	-2,616.1	Projection to Bit @ 10,835'

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------