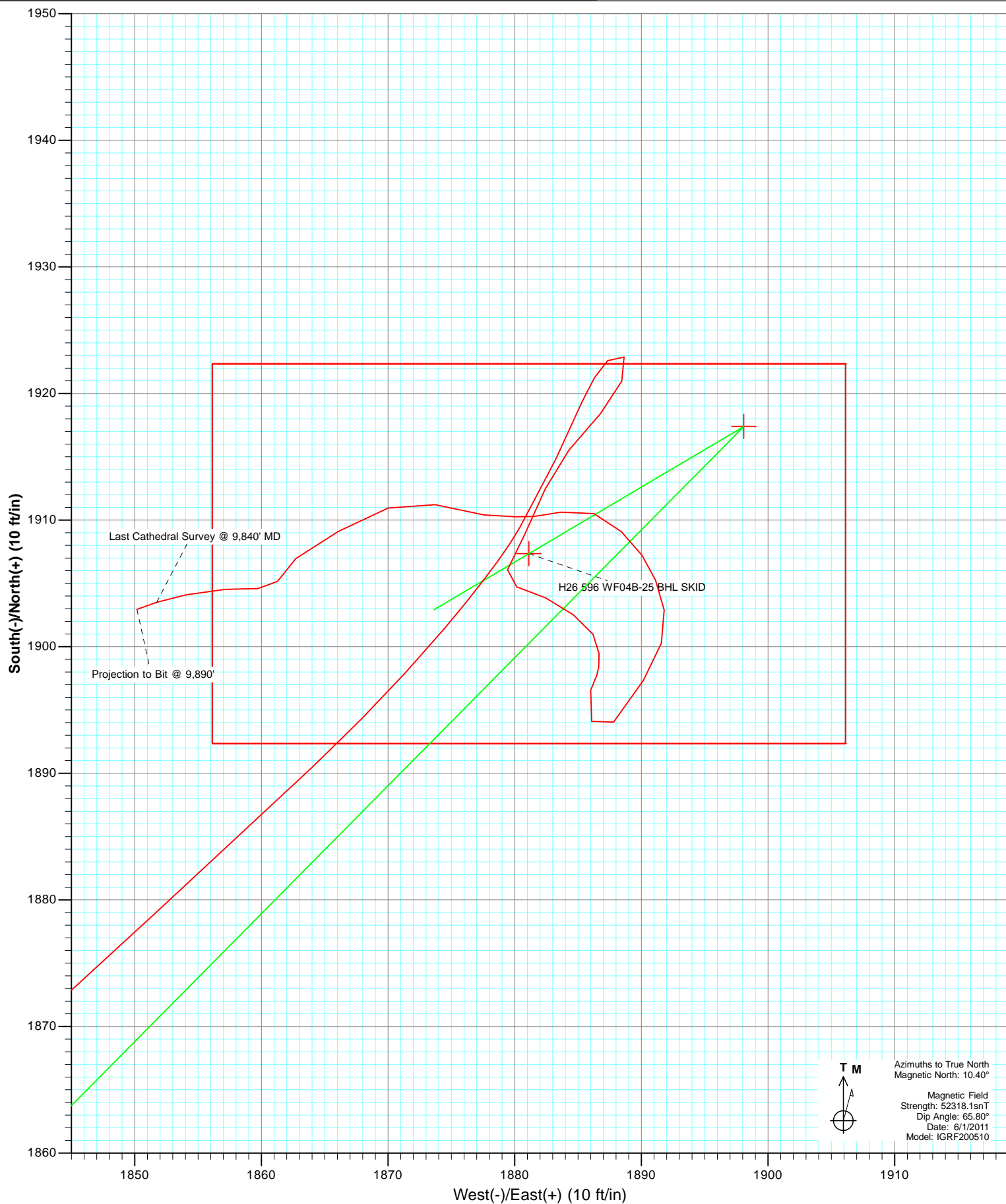




DD							
WF04B-25 H26 596							
115227 (SH); LR 115040108755 (M+H); SC							
WELL @ 6114.00 (Original Well Elev)							
GL @ 6092.0							
North American Datum 1983							
Well WF04B-25 H26 596, True North							
Type	Target	Target	Azimuth	Origin	N/S	E/W	From TVD
Target	H26 596	WF04B-25 BHL SKID	44.60	Original	0.0	0.0	0.0
		TVD		N/S		Latitude	Longitude
H26 596 WF04B-25 TGT	444.0	1917.4	1996.1		39° 35'	30.84 N	108° 7' 22.53 W
H26 596 WF04B-25 BHL SKID	900.4	1907.4	1881.1		39° 35'	30.74 N	108° 7' 22.75 W



Project: North Piceance
Site: H26 596
Well: WF04B-25 H26 596
Wellbore: DD
Plan: FINAL



Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well WF04B-25 H26 596
Project:	North Piceance	TVD Reference:	WELL @ 6114.0ft (Original Well Elev)
Site:	H26 596	MD Reference:	WELL @ 6114.0ft (Original Well Elev)
Well:	WF04B-25 H26 596	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	USA EDM 5000 Multi Users DB

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		H26 596			
Site Position:		Northing:	1,649,294.53 ft	Latitude:	39° 35' 11.93 N
From:	Map	Easting:	2,258,943.98 ft	Longitude:	108° 7' 47.14 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.66 °

Well	WF04B-25 H26 596					
Well Position	+N/-S	0.0 ft	Northing:	1,649,289.65 ft	Latitude:	39° 35' 11.89 N
	+E/-W	0.0 ft	Easting:	2,258,972.03 ft	Longitude:	108° 7' 46.78 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,092.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	6/1/2011	10.40	65.80	52,318

Design	DD				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	44.60	

Survey Program	Date	10/4/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
230.0	1,706.0	Survey #1 (DD)	MWD	Geolink MWD	
1,802.0	9,890.0	Survey #2 (DD)	MWD	Geolink MWD	

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	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00		
230.0	0.80	115.80	230.0	-0.7	1.4	0.5	0.35	0.35		
261.0	0.20	93.50	261.0	-0.8	1.7	0.6	2.00	-1.94		
291.0	0.50	63.90	291.0	-0.7	1.9	0.8	1.14	1.00		
322.0	1.30	73.80	322.0	-0.6	2.3	1.2	2.62	2.58		
352.0	1.30	49.40	352.0	-0.3	2.9	1.9	1.83	0.00		
382.0	2.00	40.20	382.0	0.4	3.5	2.7	2.49	2.33		
412.0	2.60	45.30	411.9	1.2	4.3	3.9	2.11	2.00		
443.0	3.00	46.10	442.9	2.3	5.4	5.4	1.30	1.29		
474.0	3.60	40.80	473.9	3.6	6.6	7.2	2.17	1.94		
504.0	4.40	47.60	503.8	5.1	8.1	9.3	3.10	2.67		
553.0	5.20	43.80	552.6	7.9	11.0	13.4	1.76	1.63		

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well WF04B-25 H26 596
Project:	North Piceance	TVD Reference:	WELL @ 6114.0ft (Original Well Elev)
Site:	H26 596	MD Reference:	WELL @ 6114.0ft (Original Well Elev)
Well:	WF04B-25 H26 596	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	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
599.0	6.70	44.80	598.4	11.4	14.4	18.2	3.27	3.26	
645.0	7.60	43.30	644.0	15.5	18.3	23.9	2.00	1.96	
690.0	8.80	40.00	688.5	20.3	22.6	30.3	2.86	2.67	
736.0	9.70	42.80	733.9	25.8	27.5	37.7	2.19	1.96	
782.0	11.10	42.40	779.2	31.9	33.1	46.0	3.05	3.04	
828.0	12.90	46.50	824.2	38.7	39.8	55.5	4.33	3.91	
874.0	14.20	46.80	868.9	46.1	47.6	66.3	2.83	2.83	
919.0	16.20	47.70	912.3	54.1	56.3	78.1	4.48	4.44	
965.0	17.70	50.00	956.3	62.9	66.4	91.5	3.57	3.26	
1,011.0	20.00	51.00	999.9	72.4	77.9	106.2	5.05	5.00	
1,057.0	21.80	47.70	1,042.8	83.1	90.3	122.6	4.67	3.91	
1,103.0	23.30	48.90	1,085.3	94.8	103.5	140.2	3.41	3.26	
1,148.0	24.90	47.60	1,126.4	107.1	117.2	158.5	3.75	3.56	
1,194.0	26.80	47.30	1,167.8	120.6	132.0	178.6	4.14	4.13	
1,240.0	29.20	45.00	1,208.4	135.6	147.5	200.1	5.72	5.22	
1,285.0	30.50	44.50	1,247.4	151.5	163.3	222.5	2.94	2.89	
1,331.0	31.60	42.00	1,286.8	168.8	179.5	246.3	3.68	2.39	
1,377.0	32.70	41.30	1,325.8	187.1	195.8	270.7	2.52	2.39	
1,423.0	33.50	41.50	1,364.3	205.9	212.4	295.8	1.76	1.74	
1,469.0	33.70	44.10	1,402.6	224.6	229.7	321.2	3.16	0.43	
1,514.0	34.60	42.90	1,439.9	242.9	247.1	346.5	2.50	2.00	
1,560.0	35.00	43.40	1,477.6	262.1	265.1	372.7	1.07	0.87	
1,606.0	34.80	44.00	1,515.4	281.1	283.2	399.0	0.86	-0.43	
1,652.0	34.20	44.40	1,553.3	299.8	301.4	425.1	1.39	-1.30	
1,706.0	33.50	43.50	1,598.1	321.4	322.3	455.2	1.59	-1.30	Last Survey @ 1,706' MD
1,802.0	33.20	42.20	1,678.3	360.1	358.2	507.9	0.81	-0.31	
1,893.0	34.00	41.80	1,754.1	397.5	391.9	558.2	0.91	0.88	
1,985.0	34.40	40.70	1,830.2	436.4	426.0	609.8	0.80	0.43	
2,077.0	34.30	45.00	1,906.2	474.5	461.2	661.7	2.64	-0.11	
2,168.0	34.80	44.20	1,981.1	511.2	497.5	713.3	0.74	0.55	
2,260.0	34.10	46.80	2,057.0	547.7	534.6	765.3	1.77	-0.76	
2,351.0	34.20	46.20	2,132.3	582.9	571.6	816.4	0.39	0.11	
2,443.0	33.00	46.10	2,208.9	618.1	608.4	867.3	1.31	-1.30	
2,534.0	34.30	47.10	2,284.7	652.8	645.0	917.7	1.55	1.43	
2,626.0	33.60	46.90	2,361.0	687.8	682.6	969.0	0.77	-0.76	
2,718.0	34.80	46.20	2,437.1	723.4	720.1	1,020.7	1.37	1.30	
2,809.0	33.30	46.80	2,512.5	758.4	757.1	1,071.6	1.69	-1.65	
2,901.0	34.10	46.70	2,589.0	793.4	794.2	1,122.6	0.87	0.87	
2,992.0	35.00	45.90	2,664.0	829.1	831.5	1,174.2	1.11	0.99	
3,084.0	33.50	46.20	2,740.0	865.0	868.8	1,226.0	1.64	-1.63	
3,176.0	35.40	44.50	2,815.9	901.6	905.8	1,278.0	2.31	2.07	
3,267.0	34.70	44.40	2,890.4	938.9	942.4	1,330.2	0.77	-0.77	
3,359.0	34.20	44.10	2,966.2	976.2	978.7	1,382.3	0.57	-0.54	
3,450.0	34.00	44.50	3,041.6	1,012.7	1,014.4	1,433.3	0.33	-0.22	
3,542.0	34.50	43.70	3,117.6	1,049.9	1,050.4	1,485.1	0.73	0.54	
3,633.0	33.10	41.90	3,193.3	1,087.0	1,084.8	1,535.7	1.89	-1.54	
3,725.0	31.80	41.50	3,270.9	1,123.9	1,117.6	1,585.0	1.43	-1.41	
3,816.0	28.90	41.30	3,349.4	1,158.3	1,148.1	1,630.9	3.19	-3.19	
3,908.0	28.70	42.70	3,430.0	1,191.3	1,177.7	1,675.2	0.76	-0.22	
4,000.0	28.40	45.50	3,510.9	1,222.9	1,208.3	1,719.1	1.49	-0.33	
4,091.0	30.30	46.20	3,590.2	1,253.9	1,240.3	1,763.7	2.12	2.09	
4,183.0	31.20	48.40	3,669.2	1,285.8	1,274.9	1,810.7	1.57	0.98	
4,275.0	33.10	46.50	3,747.1	1,318.9	1,310.9	1,859.6	2.34	2.07	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well WF04B-25 H26 596
Project:	North Piceance	TVD Reference:	WELL @ 6114.0ft (Original Well Elev)
Site:	H26 596	MD Reference:	WELL @ 6114.0ft (Original Well Elev)
Well:	WF04B-25 H26 596	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	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
4,366.0	33.00	46.30	3,823.4	1,353.1	1,346.9	1,909.2	0.16	-0.11	
4,458.0	32.60	44.30	3,900.7	1,388.2	1,382.3	1,959.0	1.26	-0.43	
4,549.0	31.90	44.50	3,977.7	1,422.9	1,416.3	2,007.6	0.78	-0.77	
4,641.0	31.20	44.00	4,056.1	1,457.4	1,449.8	2,055.7	0.81	-0.76	
4,732.0	30.50	42.90	4,134.2	1,491.2	1,481.9	2,102.3	0.99	-0.77	
4,824.0	31.70	44.30	4,213.0	1,525.6	1,514.7	2,149.9	1.52	1.30	
4,916.0	33.90	45.90	4,290.3	1,560.8	1,550.0	2,199.7	2.57	2.39	
5,007.0	35.00	46.30	4,365.4	1,596.5	1,587.1	2,251.1	1.23	1.21	
5,098.0	34.70	45.50	4,440.0	1,632.7	1,624.5	2,303.1	0.60	-0.33	
5,190.0	34.30	43.10	4,515.9	1,670.0	1,660.9	2,355.2	1.54	-0.43	
5,281.0	31.10	41.40	4,592.4	1,706.3	1,693.9	2,404.3	3.66	-3.52	
5,373.0	28.10	38.50	4,672.4	1,741.1	1,723.1	2,449.6	3.61	-3.26	
5,465.0	25.90	40.40	4,754.4	1,773.4	1,749.6	2,491.2	2.57	-2.39	
5,556.0	23.60	40.60	4,837.0	1,802.3	1,774.4	2,529.2	2.53	-2.53	
5,648.0	20.20	41.90	4,922.4	1,828.2	1,797.0	2,563.5	3.73	-3.70	
5,740.0	17.50	49.70	5,009.5	1,848.9	1,818.2	2,593.1	4.01	-2.93	
5,831.0	14.20	47.30	5,097.0	1,865.4	1,836.8	2,617.9	3.70	-3.63	
5,923.0	11.10	47.70	5,186.7	1,879.0	1,851.6	2,638.0	3.37	-3.37	
6,014.0	10.50	46.40	5,276.1	1,890.6	1,864.1	2,655.0	0.71	-0.66	
6,105.0	8.50	40.10	5,365.9	1,901.4	1,874.5	2,670.0	2.47	-2.20	
6,197.0	4.00	29.50	5,457.3	1,909.4	1,880.4	2,679.9	5.03	-4.89	
6,289.0	3.50	25.80	5,549.1	1,914.8	1,883.2	2,685.7	0.60	-0.54	
6,380.0	2.90	23.20	5,640.0	1,919.4	1,885.3	2,690.5	0.68	-0.66	
6,472.0	1.90	45.50	5,731.9	1,922.6	1,887.3	2,694.1	1.47	-1.09	
6,563.0	1.00	163.60	5,822.9	1,922.9	1,888.6	2,695.3	2.78	-0.99	
6,655.0	1.50	200.40	5,914.9	1,921.0	1,888.5	2,693.8	1.00	0.54	
6,746.0	2.40	220.90	6,005.8	1,918.4	1,886.8	2,690.8	1.24	0.99	
6,838.0	2.40	220.90	6,097.7	1,915.5	1,884.3	2,686.9	0.00	0.00	
6,929.0	2.20	200.60	6,188.7	1,912.4	1,882.4	2,683.4	0.92	-0.22	
7,021.0	2.60	207.40	6,280.6	1,908.9	1,880.8	2,679.8	0.53	0.43	
7,112.0	1.40	203.00	6,371.5	1,906.1	1,879.4	2,676.8	1.33	-1.32	
7,204.0	1.50	105.10	6,463.5	1,904.7	1,880.2	2,676.4	2.38	0.11	
7,295.0	1.60	116.50	6,554.5	1,903.9	1,882.5	2,677.4	0.36	0.11	
7,387.0	1.60	126.20	6,646.4	1,902.5	1,884.6	2,678.0	0.29	0.00	
7,478.0	1.20	146.40	6,737.4	1,901.0	1,886.2	2,677.9	0.69	-0.44	
7,570.0	0.90	184.70	6,829.4	1,899.5	1,886.7	2,677.2	0.81	-0.33	
7,662.0	0.40	173.60	6,921.4	1,898.4	1,886.6	2,676.4	0.56	-0.54	
7,753.0	0.50	207.70	7,012.4	1,897.8	1,886.5	2,675.9	0.31	0.11	
7,844.0	1.10	200.00	7,103.4	1,896.6	1,886.0	2,674.7	0.67	0.66	
7,936.0	2.10	167.20	7,195.3	1,894.1	1,886.1	2,673.0	1.43	1.09	
8,028.0	2.60	40.50	7,287.3	1,894.0	1,887.8	2,674.1	4.57	0.54	
8,119.0	2.50	30.40	7,378.2	1,897.3	1,890.2	2,678.1	0.51	-0.11	
8,211.0	1.60	18.80	7,470.2	1,900.3	1,891.6	2,681.2	1.07	-0.98	
8,302.0	1.80	352.20	7,561.1	1,902.9	1,891.8	2,683.2	0.89	0.22	
8,394.0	1.30	332.90	7,653.1	1,905.3	1,891.1	2,684.5	0.78	-0.54	
8,486.0	1.50	330.10	7,745.1	1,907.2	1,890.1	2,685.1	0.23	0.22	
8,577.0	1.70	308.40	7,836.0	1,909.1	1,888.4	2,685.3	0.70	0.22	
8,669.0	1.50	298.00	7,928.0	1,910.5	1,886.3	2,684.8	0.38	-0.22	
8,761.0	2.00	254.00	8,019.9	1,910.6	1,883.7	2,683.0	1.51	0.54	
8,852.0	0.70	280.40	8,110.9	1,910.3	1,881.6	2,681.3	1.55	-1.43	
8,944.0	1.20	261.90	8,202.9	1,910.3	1,880.1	2,680.3	0.63	0.54	
9,035.0	2.00	280.40	8,293.9	1,910.4	1,877.6	2,678.6	1.04	0.88	
9,127.0	2.90	282.90	8,385.8	1,911.2	1,873.7	2,676.5	0.98	0.98	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well WF04B-25 H26 596
Project:	North Piceance	TVD Reference:	WELL @ 6114.0ft (Original Well Elev)
Site:	H26 596	MD Reference:	WELL @ 6114.0ft (Original Well Elev)
Well:	WF04B-25 H26 596	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	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
9,218.0	2.10	241.90	8,476.7	1,911.0	1,870.0	2,673.7	2.09	-0.88	
9,310.0	3.30	246.70	8,568.6	1,909.1	1,866.1	2,669.6	1.33	1.30	
9,402.0	1.80	220.30	8,660.5	1,907.0	1,862.7	2,665.7	2.03	-1.63	
9,493.0	1.10	216.10	8,751.5	1,905.2	1,861.3	2,663.4	0.78	-0.77	
9,585.0	1.30	278.00	8,843.5	1,904.6	1,859.7	2,661.9	1.35	0.22	
9,676.0	2.00	262.50	8,934.4	1,904.5	1,857.1	2,660.1	0.91	0.77	
9,768.0	1.90	261.20	9,026.4	1,904.1	1,854.0	2,657.6	0.12	-0.11	
9,840.0	1.90	250.10	9,098.3	1,903.5	1,851.7	2,655.5	0.51	0.00	Last Cathedral Survey @ 9,840' MD
9,890.0	1.90	250.10	9,148.3	1,902.9	1,850.2	2,654.1	0.00	0.00	Projection to Bit @ 9,890'

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
H26 596 WF04B-25 BHL - actual wellpath misses target center by 26.5ft at 9744.7ft MD (9003.1 TVD, 1904.2 N, 1854.8 E) - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	9,004.0	1,907.4	1,881.1	1,651,141.76	2,260,907.57	39° 35' 30.74 N	108° 7' 22.75 W
H26 596 WF04B-25 TGT - actual wellpath misses target center by 15.3ft at 6284.5ft MD (5544.6 TVD, 1914.5 N, 1883.1 E) - Point	0.00	0.00	5,544.0	1,917.4	1,898.1	1,651,151.31	2,260,924.83	39° 35' 30.84 N	108° 7' 22.53 W

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
1,706.0	1,598.1	321.4	322.3	Last Survey @ 1,706' MD
9,840.0	9,098.3	1,903.5	1,851.7	Last Cathedral Survey @ 9,840' MD
9,890.0	9,148.3	1,902.9	1,850.2	Projection to Bit @ 9,890'

Checked By: _____ Approved By: _____ Date: _____