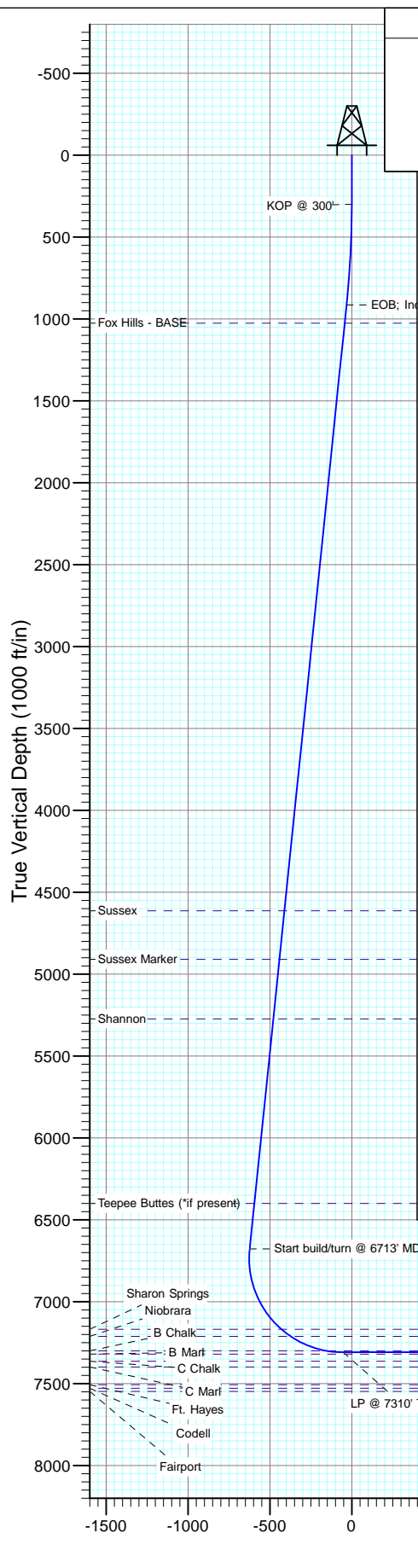
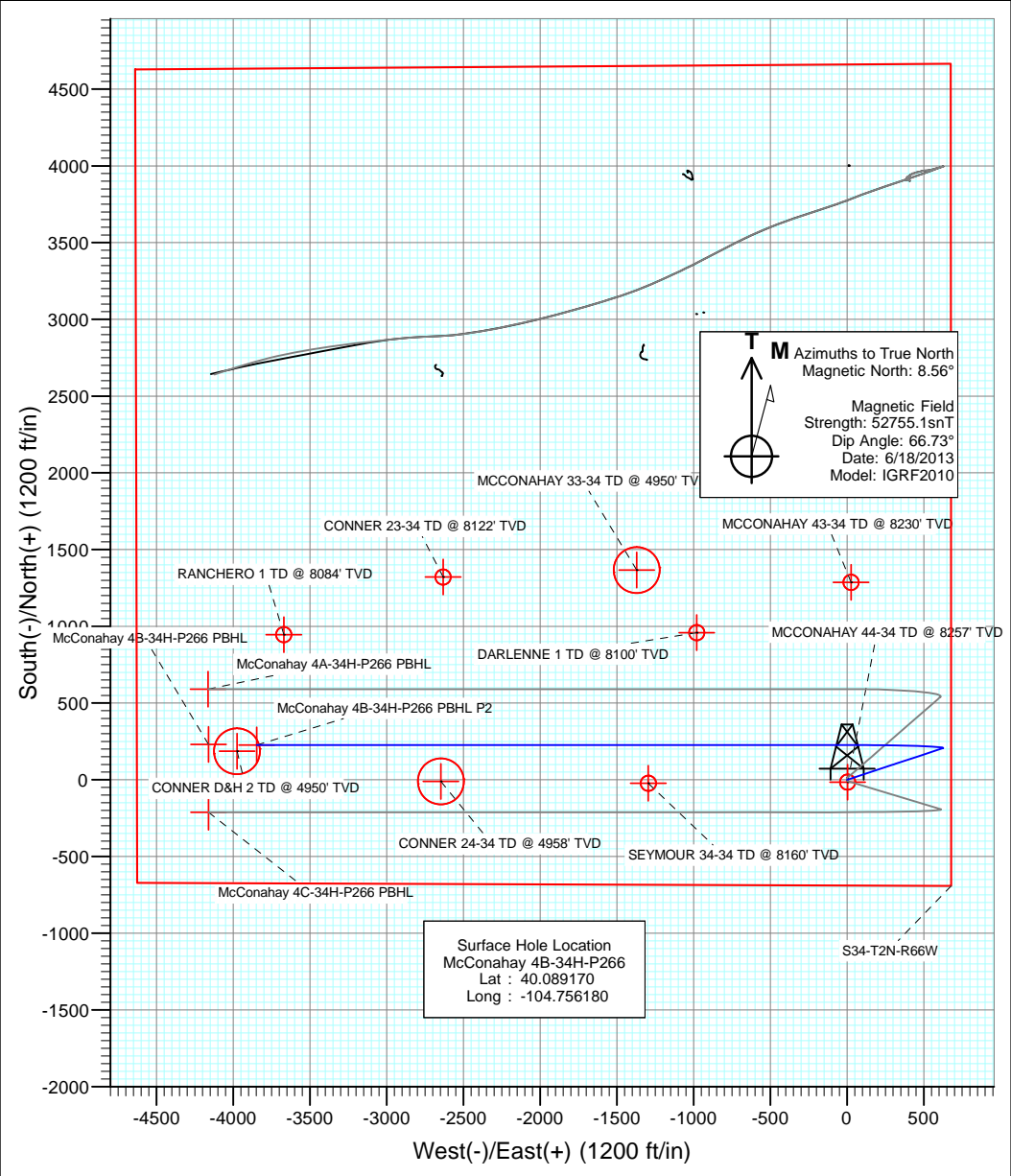




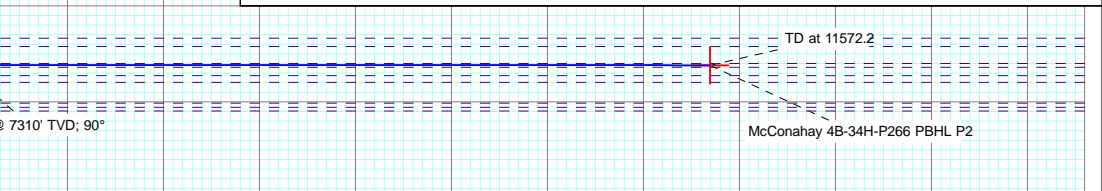
Project: DJ Wattenberg
 Site: S34-T2N-R66W (McConahay)
 Well: McConahay 4B-34H-P266
 Wellbore: Hz
 Design: Plan #3



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	916.5	6.17	71.79	915.4	10.4	31.5	1.00	71.79	-31.5	
4	6713.7	6.17	71.79	6678.9	204.9	622.9	0.00	0.00	-622.9	
5	7672.2	270.00	90.00	7310.0	226.2	53.0	10.00	-161.70	-53.0	
6	11572.2	270.00	90.00	7310.0	226.2	-3847.0	0.00	0.00	3847.0	McConahay 4B-34H-P266 PBHL P2



DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
McConahay 4B-34H-P266 PBHL P2	226.2	-3847.0	1276398.54	3204266.54	40.089790	-104.769930



Plan #3
 McConahay 4B-34H-P266
 13xxx; LR
 WELL @ 5101.0ft (Original Well Elev)
 Ground Elevation @ 5076.0
 North American Datum 1983
 Well McConahay 4B-34H-P266, True North

Cathedral Energy Services

Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well McConahay 4B-34H-P266
Company: EnCana Oil & Gas (USA) Inc	TVD Reference: WELL @ 5101.0ft (Original Well Elev)
Project: DJ Wattenberg	MD Reference: WELL @ 5101.0ft (Original Well Elev)
Site: S34-T2N-R66W (McConahay)	North Reference: True
Well: McConahay 4B-34H-P266	Survey Calculation Method: Minimum Curvature
Wellbore: Hz	
Design: Plan #3	

Project DJ Wattenberg		
Map System: US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum: North American Datum 1983		
Map Zone: Colorado Northern Zone		

Site S34-T2N-R66W (McConahay)					
Site Position:		Northing:	1,280,109.37 ft	Latitude:	40.099880
From:	Lat/Long	Easting:	3,208,491.04 ft	Longitude:	-104.754720
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.48 °

Well McConahay 4B-34H-P266						
Well Position	+N/-S	0.0 ft	Northing:	1,276,204.65 ft	Latitude:	40.089170
	+E/-W	0.0 ft	Easting:	3,208,115.35 ft	Longitude:	-104.756180
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,076.0 ft

Wellbore Hz					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/18/2013	8.56	66.73	52,755

Design Plan #3					
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	270.00	

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	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
916.5	6.17	71.79	915.4	10.4	31.5	1.00	1.00	0.00	71.79	
6,713.7	6.17	71.79	6,678.9	204.9	622.9	0.00	0.00	0.00	0.00	
7,672.2	270.00	90.00	7,310.0	226.2	53.0	10.00	27.52	1.90	-161.70	
11,572.2	270.00	90.00	7,310.0	226.2	-3,847.0	0.00	0.00	0.00	0.00	McConahay 4B-34H-F

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well McConahay 4B-34H-P266
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site:	S34-T2N-R66W (McConahay)	North Reference:	True
Well:	McConahay 4B-34H-P266	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #3		

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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300'
400.0	1.00	71.79	400.0	0.3	0.8	-0.8	1.00	1.00	
500.0	2.00	71.79	500.0	1.1	3.3	-3.3	1.00	1.00	
600.0	3.00	71.79	599.9	2.5	7.5	-7.5	1.00	1.00	
700.0	4.00	71.79	699.7	4.4	13.3	-13.3	1.00	1.00	
800.0	5.00	71.79	799.4	6.8	20.7	-20.7	1.00	1.00	
900.0	6.00	71.79	898.9	9.8	29.8	-29.8	1.00	1.00	
916.5	6.17	71.79	915.4	10.4	31.5	-31.5	1.00	1.00	EOB; Inc=6.17°
1,000.0	6.17	71.79	998.3	13.2	40.0	-40.0	0.00	0.00	
1,027.8	6.17	71.79	1,026.0	14.1	42.8	-42.8	0.00	0.00	Fox Hills - BASE
1,100.0	6.17	71.79	1,097.7	16.5	50.2	-50.2	0.00	0.00	
1,200.0	6.17	71.79	1,197.2	19.9	60.4	-60.4	0.00	0.00	
1,300.0	6.17	71.79	1,296.6	23.2	70.6	-70.6	0.00	0.00	
1,400.0	6.17	71.79	1,396.0	26.6	80.8	-80.8	0.00	0.00	
1,500.0	6.17	71.79	1,495.4	29.9	91.0	-91.0	0.00	0.00	
1,600.0	6.17	71.79	1,594.9	33.3	101.2	-101.2	0.00	0.00	
1,700.0	6.17	71.79	1,694.3	36.6	111.4	-111.4	0.00	0.00	
1,800.0	6.17	71.79	1,793.7	40.0	121.6	-121.6	0.00	0.00	
1,900.0	6.17	71.79	1,893.1	43.4	131.8	-131.8	0.00	0.00	
2,000.0	6.17	71.79	1,992.5	46.7	142.0	-142.0	0.00	0.00	
2,100.0	6.17	71.79	2,092.0	50.1	152.2	-152.2	0.00	0.00	
2,200.0	6.17	71.79	2,191.4	53.4	162.4	-162.4	0.00	0.00	
2,300.0	6.17	71.79	2,290.8	56.8	172.6	-172.6	0.00	0.00	
2,400.0	6.17	71.79	2,390.2	60.1	182.8	-182.8	0.00	0.00	
2,500.0	6.17	71.79	2,489.7	63.5	193.0	-193.0	0.00	0.00	
2,600.0	6.17	71.79	2,589.1	66.8	203.2	-203.2	0.00	0.00	
2,700.0	6.17	71.79	2,688.5	70.2	213.4	-213.4	0.00	0.00	
2,800.0	6.17	71.79	2,787.9	73.6	223.6	-223.6	0.00	0.00	
2,900.0	6.17	71.79	2,887.3	76.9	233.8	-233.8	0.00	0.00	
3,000.0	6.17	71.79	2,986.8	80.3	244.0	-244.0	0.00	0.00	
3,100.0	6.17	71.79	3,086.2	83.6	254.2	-254.2	0.00	0.00	
3,200.0	6.17	71.79	3,185.6	87.0	264.4	-264.4	0.00	0.00	
3,300.0	6.17	71.79	3,285.0	90.3	274.6	-274.6	0.00	0.00	
3,400.0	6.17	71.79	3,384.4	93.7	284.9	-284.9	0.00	0.00	
3,500.0	6.17	71.79	3,483.9	97.0	295.1	-295.1	0.00	0.00	
3,600.0	6.17	71.79	3,583.3	100.4	305.3	-305.3	0.00	0.00	
3,700.0	6.17	71.79	3,682.7	103.7	315.5	-315.5	0.00	0.00	
3,800.0	6.17	71.79	3,782.1	107.1	325.7	-325.7	0.00	0.00	
3,900.0	6.17	71.79	3,881.6	110.5	335.9	-335.9	0.00	0.00	
4,000.0	6.17	71.79	3,981.0	113.8	346.1	-346.1	0.00	0.00	
4,100.0	6.17	71.79	4,080.4	117.2	356.3	-356.3	0.00	0.00	
4,200.0	6.17	71.79	4,179.8	120.5	366.5	-366.5	0.00	0.00	
4,300.0	6.17	71.79	4,279.2	123.9	376.7	-376.7	0.00	0.00	
4,400.0	6.17	71.79	4,378.7	127.2	386.9	-386.9	0.00	0.00	
4,500.0	6.17	71.79	4,478.1	130.6	397.1	-397.1	0.00	0.00	
4,600.0	6.17	71.79	4,577.5	133.9	407.3	-407.3	0.00	0.00	
4,636.7	6.17	71.79	4,614.0	135.2	411.0	-411.0	0.00	0.00	Sussex
4,700.0	6.17	71.79	4,676.9	137.3	417.5	-417.5	0.00	0.00	
4,800.0	6.17	71.79	4,776.3	140.7	427.7	-427.7	0.00	0.00	

Cathedral Energy Services

Planning Report

Database: USA EDM 5000 Multi Users DB
Company: EnCana Oil & Gas (USA) Inc
Project: DJ Wattenberg
Site: S34-T2N-R66W (McConahay)
Well: McConahay 4B-34H-P266
Wellbore: Hz
Design: Plan #3

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well McConahay 4B-34H-P266
 WELL @ 5101.0ft (Original Well Elev)
 WELL @ 5101.0ft (Original Well Elev)
 True
 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
4,900.0	6.17	71.79	4,875.8	144.0	437.9	-437.9	0.00	0.00	
4,934.4	6.17	71.79	4,910.0	145.2	441.4	-441.4	0.00	0.00	Sussex Marker
5,000.0	6.17	71.79	4,975.2	147.4	448.1	-448.1	0.00	0.00	
5,100.0	6.17	71.79	5,074.6	150.7	458.3	-458.3	0.00	0.00	
5,200.0	6.17	71.79	5,174.0	154.1	468.5	-468.5	0.00	0.00	
5,300.0	6.17	71.79	5,273.5	157.4	478.7	-478.7	0.00	0.00	
5,300.5	6.17	71.79	5,274.0	157.5	478.7	-478.7	0.00	0.00	Shannon
5,400.0	6.17	71.79	5,372.9	160.8	488.9	-488.9	0.00	0.00	
5,500.0	6.17	71.79	5,472.3	164.1	499.1	-499.1	0.00	0.00	
5,600.0	6.17	71.79	5,571.7	167.5	509.3	-509.3	0.00	0.00	
5,700.0	6.17	71.79	5,671.1	170.9	519.5	-519.5	0.00	0.00	
5,800.0	6.17	71.79	5,770.6	174.2	529.7	-529.7	0.00	0.00	
5,900.0	6.17	71.79	5,870.0	177.6	539.9	-539.9	0.00	0.00	
6,000.0	6.17	71.79	5,969.4	180.9	550.1	-550.1	0.00	0.00	
6,100.0	6.17	71.79	6,068.8	184.3	560.3	-560.3	0.00	0.00	
6,200.0	6.17	71.79	6,168.3	187.6	570.5	-570.5	0.00	0.00	
6,300.0	6.17	71.79	6,267.7	191.0	580.7	-580.7	0.00	0.00	
6,400.0	6.17	71.79	6,367.1	194.3	590.9	-590.9	0.00	0.00	
6,433.1	6.17	71.79	6,400.0	195.5	594.3	-594.3	0.00	0.00	Teepee Buttes (*if present)
6,500.0	6.17	71.79	6,466.5	197.7	601.1	-601.1	0.00	0.00	
6,600.0	6.17	71.79	6,565.9	201.1	611.3	-611.3	0.00	0.00	
6,700.0	6.17	71.79	6,665.4	204.4	621.5	-621.5	0.00	0.00	
6,713.7	6.17	71.79	6,678.9	204.9	622.9	-622.9	0.00	0.00	Start build/turn @ 6713' MD
6,800.0	3.38	304.81	6,765.1	207.8	625.2	-625.2	10.00	-3.22	
6,900.0	12.92	278.46	6,864.0	211.1	611.7	-611.7	10.00	9.54	
7,000.0	22.86	274.59	6,959.1	214.3	581.2	-581.2	10.00	9.93	
7,100.0	32.83	273.00	7,047.4	217.3	534.7	-534.7	10.00	9.97	
7,200.0	42.81	272.09	7,126.3	220.0	473.5	-473.5	10.00	9.98	
7,261.4	48.95	271.68	7,169.0	221.4	429.5	-429.5	10.00	9.99	Sharon Springs
7,300.0	52.80	271.47	7,193.4	222.2	399.5	-399.5	10.00	9.99	
7,332.0	56.00	271.30	7,212.0	222.9	373.5	-373.5	10.00	9.99	Niobrara
7,400.0	62.79	270.99	7,246.6	224.0	315.0	-315.0	10.00	9.99	
7,500.0	72.79	270.60	7,284.3	225.3	222.6	-222.6	10.00	9.99	
7,565.0	79.28	270.37	7,300.0	225.8	159.6	-159.6	10.00	9.99	B Chalk
7,600.0	82.78	270.24	7,305.5	226.0	125.0	-125.0	10.00	9.99	
7,672.2	270.00	90.00	7,310.0	226.2	53.0	-53.0	10.00	259.22	LP @ 7310' TVD; 90°
7,700.0	270.00	90.00	7,310.0	226.2	25.2	-25.2	0.00	0.00	
7,800.0	270.00	90.00	7,310.0	226.2	-74.8	74.8	0.00	0.00	
7,900.0	270.00	90.00	7,310.0	226.2	-174.8	174.8	0.00	0.00	
8,000.0	270.00	90.00	7,310.0	226.2	-274.8	274.8	0.00	0.00	
8,100.0	270.00	90.00	7,310.0	226.2	-374.8	374.8	0.00	0.00	
8,200.0	270.00	90.00	7,310.0	226.2	-474.8	474.8	0.00	0.00	
8,300.0	270.00	90.00	7,310.0	226.2	-574.8	574.8	0.00	0.00	
8,400.0	270.00	90.00	7,310.0	226.2	-674.8	674.8	0.00	0.00	
8,500.0	270.00	90.00	7,310.0	226.2	-774.8	774.8	0.00	0.00	
8,600.0	270.00	90.00	7,310.0	226.2	-874.8	874.8	0.00	0.00	
8,700.0	270.00	90.00	7,310.0	226.2	-974.8	974.8	0.00	0.00	
8,800.0	270.00	90.00	7,310.0	226.2	-1,074.8	1,074.8	0.00	0.00	
8,900.0	270.00	90.00	7,310.0	226.2	-1,174.8	1,174.8	0.00	0.00	
9,000.0	270.00	90.00	7,310.0	226.2	-1,274.8	1,274.8	0.00	0.00	
9,100.0	270.00	90.00	7,310.0	226.2	-1,374.8	1,374.8	0.00	0.00	
9,200.0	270.00	90.00	7,310.0	226.2	-1,474.8	1,474.8	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well McConahay 4B-34H-P266
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site:	S34-T2N-R66W (McConahay)	North Reference:	True
Well:	McConahay 4B-34H-P266	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #3		

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
9,300.0	270.00	90.00	7,310.0	226.2	-1,574.8	1,574.8	0.00	0.00	
9,400.0	270.00	90.00	7,310.0	226.2	-1,674.8	1,674.8	0.00	0.00	
9,500.0	270.00	90.00	7,310.0	226.2	-1,774.8	1,774.8	0.00	0.00	
9,600.0	270.00	90.00	7,310.0	226.2	-1,874.8	1,874.8	0.00	0.00	
9,700.0	270.00	90.00	7,310.0	226.2	-1,974.8	1,974.8	0.00	0.00	
9,800.0	270.00	90.00	7,310.0	226.2	-2,074.8	2,074.8	0.00	0.00	
9,900.0	270.00	90.00	7,310.0	226.2	-2,174.8	2,174.8	0.00	0.00	
10,000.0	270.00	90.00	7,310.0	226.2	-2,274.8	2,274.8	0.00	0.00	
10,100.0	270.00	90.00	7,310.0	226.2	-2,374.8	2,374.8	0.00	0.00	
10,200.0	270.00	90.00	7,310.0	226.2	-2,474.8	2,474.8	0.00	0.00	
10,300.0	270.00	90.00	7,310.0	226.2	-2,574.8	2,574.8	0.00	0.00	
10,400.0	270.00	90.00	7,310.0	226.2	-2,674.8	2,674.8	0.00	0.00	
10,500.0	270.00	90.00	7,310.0	226.2	-2,774.8	2,774.8	0.00	0.00	
10,600.0	270.00	90.00	7,310.0	226.2	-2,874.8	2,874.8	0.00	0.00	
10,700.0	270.00	90.00	7,310.0	226.2	-2,974.8	2,974.8	0.00	0.00	
10,800.0	270.00	90.00	7,310.0	226.2	-3,074.8	3,074.8	0.00	0.00	
10,900.0	270.00	90.00	7,310.0	226.2	-3,174.8	3,174.8	0.00	0.00	
11,000.0	270.00	90.00	7,310.0	226.2	-3,274.8	3,274.8	0.00	0.00	
11,100.0	270.00	90.00	7,310.0	226.2	-3,374.8	3,374.8	0.00	0.00	
11,200.0	270.00	90.00	7,310.0	226.2	-3,474.8	3,474.8	0.00	0.00	
11,300.0	270.00	90.00	7,310.0	226.2	-3,574.8	3,574.8	0.00	0.00	
11,400.0	270.00	90.00	7,310.0	226.2	-3,674.8	3,674.8	0.00	0.00	
11,500.0	270.00	90.00	7,310.0	226.2	-3,774.8	3,774.8	0.00	0.00	
11,572.2	270.00	90.00	7,310.0	226.2	-3,847.0	3,847.0	0.00	0.00	TD at 11572.2

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
McConahay 4B-34H-P266 - hit/miss target - Shape - Point	0.00	0.00	7,310.0	226.2	-3,847.0	1,276,398.54	3,204,266.54	40.089790	-104.769930
McConahay 4B-34H-P266 - plan misses target center by 313.4ft at 11572.2ft MD (7310.0 TVD, 226.2 N, -3847.0 E) - Point	0.00	0.00	7,310.0	229.9	-4,160.4	1,276,399.61	3,203,953.16	40.089800	-104.771050

Cathedral Energy Services

Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well McConahay 4B-34H-P266
Company: EnCana Oil & Gas (USA) Inc	TVD Reference: WELL @ 5101.0ft (Original Well Elev)
Project: DJ Wattenberg	MD Reference: WELL @ 5101.0ft (Original Well Elev)
Site: S34-T2N-R66W (McConahay)	North Reference: True
Well: McConahay 4B-34H-P266	Survey Calculation Method: Minimum Curvature
Wellbore: Hz	
Design: Plan #3	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,027.8	1,026.0	Fox Hills - BASE				
4,636.7	4,614.0	Sussex				
4,934.4	4,910.0	Sussex Marker				
5,300.5	5,274.0	Shannon				
6,433.1	6,400.0	Teepee Buttes (*if present)				
7,261.4	7,169.0	Sharon Springs				
7,332.0	7,212.0	Niobrara				
7,565.0	7,300.0	B Chalk				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
300.0	300.0	0.0	0.0	KOP @ 300'	
916.5	915.4	10.4	31.5	EOB; Inc=6.17°	
6,713.7	6,678.9	204.9	622.9	Start build/turn @ 6713' MD	
7,672.2	7,310.0	226.2	53.0	LP @ 7310' TVD; 90°	
11,572.2	7,310.0	226.2	-3,847.0	TD at 11572.2	

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S34-T2N-R66W (McConahay)

McConahay 4B-34H-P266

Hz

Plan #3

Anticollision Report

11 July, 2013

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well McConahay 4B-34H-P266
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Reference Site:	S34-T2N-R66W (McConahay)	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	McConahay 4B-34H-P266	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Reference	Plan #3		
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 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	7/11/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,572.2	Plan #3 (Hz)	Geolink MWD	Geolink MWD

Summary	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Site Name						
Offset Well - Wellbore - Design						
S34-T2N-R66W (McConahay)						
CONNER 22-34 (EXISTING) - DD - DD						Out of range
CONNER 23-34 (EXISTING) - ENCANA WELL - NO SUR						Out of range
CONNER 24-34 (EXISTING) - FOUNDATION WELL - NO						Out of range
CONNER D&H 2 (EXISTING) - MARINER WELL - NO SU						Out of range
DARLENNE 1 (EXISTING) - ENCANA WELL - NO SURV						Out of range
MCCONAHAY #1 (EXISTING) - DD - DD						Out of range
McConahay 1A-34H - Hz - Hz						Out of range
McConahay 1A-34H - Hz - Plan #7						Out of range
MCCONAHAY 31-34 (EXISTING) - DD - GYROS						Out of range
MCCONAHAY 33-34 (EXISTING) - FOUNDATION WELL						Out of range
MCCONAHAY 41-34 (EXISTING) - DD - DD						Out of range
MCCONAHAY 41-34A (EXISTING) - VH - VH						Out of range
MCCONAHAY 43-34 (EXISTING) - ENCANA WELL - NO						Out of range
MCCONAHAY 44-34 (EXISTING) - ENCANA WELL - NO	300.0	276.0	15.7	14.7	16.276	CC
MCCONAHAY 44-34 (EXISTING) - ENCANA WELL - NO	400.0	376.0	15.8	14.5	12.022	ES
MCCONAHAY 44-34 (EXISTING) - ENCANA WELL - NO	7,721.8	7,286.0	241.5	214.2	8.849	SF
McConahay 4A-34H-P266 - Hz - Plan #2	200.0	200.0	10.9	10.3	17.890	CC, ES
McConahay 4A-34H-P266 - Hz - Plan #2	11,572.2	11,802.0	430.3	262.8	2.569	SF
McConahay 4C-34H-P266 - Hz - Plan #2	300.0	300.0	7.3	6.3	7.585	CC
McConahay 4C-34H-P266 - Hz - Plan #2	400.0	400.0	7.6	6.3	5.803	ES
McConahay 4C-34H-P266 - Hz - Plan #2	11,572.2	11,785.0	493.4	318.4	2.820	SF
MCCONAHAY 6-4-34 (EXISTING) - DD - DD						Out of range
RANCHERO 1 (EXISTING) - ENCANA WELL - NO SURV						Out of range
RANCHERO 32-34 (EXISTING) - DD - GYROS						Out of range
SEYMOUR 34-34 (EXISTING) - ENCANA WELL - NO SU	9,020.0	7,254.0	249.1	203.7	5.495	CC, ES, SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well McConahay 4B-34H-P266
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Reference Site:	S34-T2N-R66W (McConahay)	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	McConahay 4B-34H-P266	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
S34-T2N-R66W (McConahay) - MCCONAHAY 44-34 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Well Error:	0.0 ft
Survey Program: 8257-Geolink MWD														
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	167.62	-15.3	3.4	28.7					
100.0	100.0	76.0	76.0	0.1	0.1	167.62	-15.3	3.4	15.7	15.4	0.26	59.359		
200.0	200.0	176.0	176.0	0.3	0.3	167.62	-15.3	3.4	15.7	15.0	0.61	25.547		
300.0	300.0	276.0	276.0	0.5	0.5	167.62	-15.3	3.4	15.7	14.7	0.96	16.276 CC		
400.0	400.0	376.0	376.0	0.7	0.7	98.98	-15.3	3.4	15.8	14.5	1.31	12.022 ES		
500.0	500.0	476.0	476.0	0.8	0.8	108.05	-15.3	3.4	16.4	14.7	1.66	9.842		
600.0	599.9	575.9	575.9	1.0	1.0	121.19	-15.3	3.4	18.2	16.2	2.02	9.014		
700.0	699.7	675.7	675.7	1.2	1.2	134.88	-15.3	3.4	22.0	19.6	2.38	9.262		
800.0	799.4	775.4	775.4	1.4	1.4	146.24	-15.3	3.4	28.1	25.4	2.73	10.308		
900.0	898.9	874.9	874.9	1.7	1.5	154.60	-15.3	3.4	36.5	33.4	3.07	11.869		
1,000.0	998.3	974.3	974.3	1.9	1.7	160.27	-15.3	3.4	46.4	43.0	3.42	13.572		
1,100.0	1,097.7	1,073.7	1,073.7	2.1	1.9	163.94	-15.3	3.4	56.6	52.9	3.76	15.044		
1,200.0	1,197.2	1,173.2	1,173.2	2.4	2.0	166.48	-15.3	3.4	67.0	62.9	4.11	16.307		
1,300.0	1,296.6	1,272.6	1,272.6	2.6	2.2	168.34	-15.3	3.4	77.5	73.0	4.46	17.394		
1,400.0	1,396.0	1,372.0	1,372.0	2.9	2.4	169.75	-15.3	3.4	88.0	83.2	4.80	18.336		
1,500.0	1,495.4	1,471.4	1,471.4	3.1	2.6	170.86	-15.3	3.4	98.6	93.5	5.15	19.158		
1,600.0	1,594.9	1,570.9	1,570.9	3.4	2.7	171.76	-15.3	3.4	109.2	103.8	5.49	19.882		
1,700.0	1,694.3	1,670.3	1,670.3	3.6	2.9	172.49	-15.3	3.4	119.9	114.0	5.84	20.523		
1,800.0	1,793.7	1,769.7	1,769.7	3.9	3.1	173.11	-15.3	3.4	130.5	124.4	6.19	21.095		
1,900.0	1,893.1	1,869.1	1,869.1	4.1	3.3	173.63	-15.3	3.4	141.2	134.7	6.54	21.607		
2,000.0	1,992.5	1,968.5	1,968.5	4.4	3.4	174.08	-15.3	3.4	151.9	145.0	6.88	22.069		
2,100.0	2,092.0	2,068.0	2,068.0	4.6	3.6	174.47	-15.3	3.4	162.6	155.3	7.23	22.488		
2,200.0	2,191.4	2,167.4	2,167.4	4.9	3.8	174.81	-15.3	3.4	173.3	165.7	7.58	22.869		
2,300.0	2,290.8	2,266.8	2,266.8	5.1	4.0	175.12	-15.3	3.4	184.0	176.0	7.92	23.217		
2,400.0	2,390.2	2,366.2	2,366.2	5.4	4.1	175.38	-15.3	3.4	194.7	186.4	8.27	23.537		
2,500.0	2,489.7	2,465.7	2,465.7	5.7	4.3	175.63	-15.3	3.4	205.4	196.8	8.62	23.831		
2,600.0	2,589.1	2,565.1	2,565.1	5.9	4.5	175.84	-15.3	3.4	216.1	207.1	8.97	24.102		
2,700.0	2,688.5	2,664.5	2,664.5	6.2	4.7	176.04	-15.3	3.4	226.8	217.5	9.31	24.354		
2,800.0	2,787.9	2,763.9	2,763.9	6.4	4.8	176.22	-15.3	3.4	237.5	227.9	9.66	24.587		
2,900.0	2,887.3	2,863.3	2,863.3	6.7	5.0	176.38	-15.3	3.4	248.2	238.2	10.01	24.805		
3,000.0	2,986.8	2,962.8	2,962.8	6.9	5.2	176.53	-15.3	3.4	259.0	248.6	10.36	25.008		
3,100.0	3,086.2	3,062.2	3,062.2	7.2	5.3	176.67	-15.3	3.4	269.7	259.0	10.70	25.198		
3,200.0	3,185.6	3,161.6	3,161.6	7.4	5.5	176.80	-15.3	3.4	280.4	269.4	11.05	25.376		
3,300.0	3,285.0	3,261.0	3,261.0	7.7	5.7	176.92	-15.3	3.4	291.1	279.7	11.40	25.543		
3,400.0	3,384.4	3,360.4	3,360.4	8.0	5.9	177.03	-15.3	3.4	301.9	290.1	11.74	25.701		
3,500.0	3,483.9	3,459.9	3,459.9	8.2	6.0	177.13	-15.3	3.4	312.6	300.5	12.09	25.849		
3,600.0	3,583.3	3,559.3	3,559.3	8.5	6.2	177.22	-15.3	3.4	323.3	310.9	12.44	25.990		
3,700.0	3,682.7	3,658.7	3,658.7	8.7	6.4	177.31	-15.3	3.4	334.0	321.2	12.79	26.122		
3,800.0	3,782.1	3,758.1	3,758.1	9.0	6.6	177.40	-15.3	3.4	344.8	331.6	13.13	26.248		
3,900.0	3,881.6	3,857.6	3,857.6	9.2	6.7	177.47	-15.3	3.4	355.5	342.0	13.48	26.367		
4,000.0	3,981.0	3,957.0	3,957.0	9.5	6.9	177.55	-15.3	3.4	366.2	352.4	13.83	26.481		
4,100.0	4,080.4	4,056.4	4,056.4	9.8	7.1	177.62	-15.3	3.4	376.9	362.8	14.18	26.589		
4,200.0	4,179.8	4,155.8	4,155.8	10.0	7.3	177.68	-15.3	3.4	387.7	373.2	14.52	26.691		
4,300.0	4,279.2	4,255.2	4,255.2	10.3	7.4	177.75	-15.3	3.4	398.4	383.5	14.87	26.789		
4,400.0	4,378.7	4,354.7	4,354.7	10.5	7.6	177.81	-15.3	3.4	409.1	393.9	15.22	26.883		
4,500.0	4,478.1	4,454.1	4,454.1	10.8	7.8	177.86	-15.3	3.4	419.9	404.3	15.57	26.972		
4,600.0	4,577.5	4,553.5	4,553.5	11.0	7.9	177.92	-15.3	3.4	430.6	414.7	15.91	27.057		
4,700.0	4,676.9	4,652.9	4,652.9	11.3	8.1	177.97	-15.3	3.4	441.3	425.1	16.26	27.139		
4,800.0	4,776.3	4,752.3	4,752.3	11.5	8.3	178.01	-15.3	3.4	452.1	435.5	16.61	27.217		
4,900.0	4,875.8	4,851.8	4,851.8	11.8	8.5	178.06	-15.3	3.4	462.8	445.9	16.96	27.293		
5,000.0	4,975.2	4,951.2	4,951.2	12.1	8.6	178.10	-15.3	3.4	473.5	456.2	17.30	27.365		
5,100.0	5,074.6	5,050.6	5,050.6	12.3	8.8	178.15	-15.3	3.4	484.3	466.6	17.65	27.434		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well McConahay 4B-34H-P266
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Reference Site:	S34-T2N-R66W (McConahay)	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	McConahay 4B-34H-P266	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 8257-Geolink MWD													Offset Well Error:		0.0 ft
Reference: S34-T2N-R66W (McConahay) - MCCONAHAY 44-34 (EXISTING) - ENCANA WELL - NO SURVEYS															
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		
5,200.0	5,174.0	5,150.0	5,150.0	12.6	9.0	178.19	-15.3	3.4	495.0	477.0	18.00	27.501			
7,300.0	7,193.4	7,169.4	7,169.4	14.9	12.5	-46.40	-15.3	3.4	461.9	439.1	22.78	20.280			
7,400.0	7,246.6	7,222.6	7,222.6	14.5	12.6	-60.12	-15.3	3.4	393.0	368.6	24.37	16.128			
7,500.0	7,284.3	7,260.3	7,260.3	14.4	12.7	-75.21	-15.3	3.4	325.5	299.4	26.14	12.450			
7,600.0	7,305.5	7,281.5	7,281.5	14.6	12.7	-86.41	-15.3	3.4	270.2	243.0	27.25	9.915			
7,700.0	7,310.0	7,286.0	7,286.0	14.7	12.7	90.00	-15.3	3.4	242.4	215.1	27.36	8.860			
7,721.8	7,310.0	7,286.0	7,286.0	14.6	12.7	90.00	-15.3	3.4	241.5	214.2	27.29	8.849 SF			
7,800.0	7,310.0	7,286.0	7,286.0	14.5	12.7	90.00	-15.3	3.4	253.8	226.8	27.01	9.395			
7,900.0	7,310.0	7,286.0	7,286.0	14.9	12.7	90.00	-15.3	3.4	300.1	273.0	27.09	11.078			
8,000.0	7,310.0	7,286.0	7,286.0	15.4	12.7	90.00	-15.3	3.4	368.4	340.8	27.58	13.356			
8,100.0	7,310.0	7,286.0	7,286.0	16.2	12.7	90.00	-15.3	3.4	448.7	420.2	28.45	15.771			

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well McConahay 4B-34H-P266
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Reference Site:	S34-T2N-R66W (McConahay)	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	McConahay 4B-34H-P266	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-Geolink 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	0.00	10.9	0.0	10.9						
100.0	100.0	100.0	100.0	0.1	0.1	0.00	10.9	0.0	10.9	10.7	0.26	41.743			
200.0	200.0	200.0	200.0	0.3	0.3	0.00	10.9	0.0	10.9	10.3	0.61	17.890 CC, ES			
300.0	300.0	299.9	299.9	0.5	0.5	3.27	11.5	0.7	11.5	10.6	0.96	11.993			
400.0	400.0	399.7	399.7	0.7	0.7	-63.86	13.2	2.6	13.1	11.8	1.31	9.961			
500.0	500.0	499.5	499.3	0.8	0.8	-61.92	16.1	5.9	15.2	13.5	1.67	9.110			
600.0	599.9	599.2	598.9	1.0	1.0	-61.90	20.0	10.5	17.9	15.8	2.04	8.779			
700.0	699.7	698.9	698.3	1.2	1.3	-63.07	25.2	16.4	21.1	18.7	2.42	8.708			
800.0	799.4	798.5	797.4	1.4	1.5	-64.88	31.4	23.6	24.8	22.0	2.83	8.776			
900.0	898.9	898.1	896.4	1.7	1.7	-66.99	38.8	32.1	29.2	25.9	3.27	8.917			
1,000.0	998.3	997.9	995.4	1.9	2.0	-68.88	47.0	41.5	34.0	30.3	3.73	9.102			
1,100.0	1,097.7	1,097.8	1,094.5	2.1	2.3	-70.28	55.2	51.0	38.8	34.6	4.21	9.234			
1,200.0	1,197.2	1,197.6	1,193.5	2.4	2.5	-71.37	63.4	60.4	43.7	39.0	4.69	9.329			
1,300.0	1,296.6	1,297.5	1,292.6	2.6	2.8	-72.24	71.7	69.9	48.6	43.4	5.17	9.399			
1,400.0	1,396.0	1,397.4	1,391.7	2.9	3.1	-72.95	79.9	79.4	53.5	47.9	5.66	9.451			
1,500.0	1,495.4	1,497.3	1,490.8	3.1	3.4	-73.54	88.1	88.8	58.4	52.3	6.16	9.492			
1,600.0	1,594.9	1,597.2	1,589.9	3.4	3.6	-74.04	96.4	98.3	63.3	56.7	6.65	9.523			
1,700.0	1,694.3	1,697.0	1,689.0	3.6	3.9	-74.47	104.6	107.8	68.3	61.1	7.15	9.549			
1,800.0	1,793.7	1,796.9	1,788.1	3.9	4.2	-74.84	112.8	117.3	73.2	65.5	7.65	9.569			
1,900.0	1,893.1	1,896.8	1,887.2	4.1	4.5	-75.16	121.1	126.7	78.1	69.9	8.15	9.586			
2,000.0	1,992.5	1,996.7	1,986.2	4.4	4.7	-75.45	129.3	136.2	83.0	74.4	8.65	9.600			
2,100.0	2,092.0	2,096.5	2,085.3	4.6	5.0	-75.70	137.5	145.7	87.9	78.8	9.15	9.612			
2,200.0	2,191.4	2,196.4	2,184.4	4.9	5.3	-75.93	145.7	155.1	92.9	83.2	9.65	9.622			
2,300.0	2,290.8	2,296.3	2,283.5	5.1	5.6	-76.13	154.0	164.6	97.8	87.6	10.15	9.631			
2,400.0	2,390.2	2,396.2	2,382.6	5.4	5.9	-76.31	162.2	174.1	102.7	92.1	10.66	9.638			
2,500.0	2,489.7	2,496.1	2,481.7	5.7	6.1	-76.48	170.4	183.6	107.7	96.5	11.16	9.645			
2,600.0	2,589.1	2,595.9	2,580.8	5.9	6.4	-76.63	178.7	193.0	112.6	100.9	11.67	9.650			
2,700.0	2,688.5	2,695.8	2,679.8	6.2	6.7	-76.77	186.9	202.5	117.5	105.4	12.17	9.655			
2,800.0	2,787.9	2,795.7	2,778.9	6.4	7.0	-76.90	195.1	212.0	122.5	109.8	12.68	9.659			
2,900.0	2,887.3	2,895.6	2,878.0	6.7	7.3	-77.02	203.4	221.4	127.4	114.2	13.18	9.663			
3,000.0	2,986.8	2,995.4	2,977.1	6.9	7.5	-77.13	211.6	230.9	132.3	118.6	13.69	9.667			
3,100.0	3,086.2	3,095.3	3,076.2	7.2	7.8	-77.23	219.8	240.4	137.3	123.1	14.20	9.670			
3,200.0	3,185.6	3,195.2	3,175.3	7.4	8.1	-77.33	228.0	249.9	142.2	127.5	14.70	9.672			
3,300.0	3,285.0	3,295.1	3,274.4	7.7	8.4	-77.42	236.3	259.3	147.1	131.9	15.21	9.675			
3,400.0	3,384.4	3,395.0	3,373.5	8.0	8.7	-77.50	244.5	268.8	152.1	136.4	15.71	9.677			
3,500.0	3,483.9	3,494.8	3,472.5	8.2	8.9	-77.58	252.7	278.3	157.0	140.8	16.22	9.679			
3,600.0	3,583.3	3,594.7	3,571.6	8.5	9.2	-77.65	261.0	287.8	161.9	145.2	16.73	9.681			
3,700.0	3,682.7	3,694.6	3,670.7	8.7	9.5	-77.72	269.2	297.2	166.9	149.6	17.24	9.683			
3,800.0	3,782.1	3,794.5	3,769.8	9.0	9.8	-77.78	277.4	306.7	171.8	154.1	17.74	9.684			
3,900.0	3,881.6	3,894.3	3,868.9	9.2	10.1	-77.84	285.7	316.2	176.8	158.5	18.25	9.685			
4,000.0	3,981.0	3,994.2	3,968.0	9.5	10.3	-77.90	293.9	325.6	181.7	162.9	18.76	9.687			
4,100.0	4,080.4	4,094.1	4,067.1	9.8	10.6	-77.96	302.1	335.1	186.6	167.4	19.26	9.688			
4,200.0	4,179.8	4,194.0	4,166.1	10.0	10.9	-78.01	310.3	344.6	191.6	171.8	19.77	9.689			
4,300.0	4,279.2	4,293.9	4,265.2	10.3	11.2	-78.06	318.6	354.1	196.5	176.2	20.28	9.690			
4,400.0	4,378.7	4,393.7	4,364.3	10.5	11.5	-78.10	326.8	363.5	201.4	180.7	20.79	9.691			
4,500.0	4,478.1	4,493.6	4,463.4	10.8	11.7	-78.15	335.0	373.0	206.4	185.1	21.29	9.692			
4,600.0	4,577.5	4,593.5	4,562.5	11.0	12.0	-78.19	343.3	382.5	211.3	189.5	21.80	9.693			
4,700.0	4,676.9	4,693.4	4,661.6	11.3	12.3	-78.23	351.5	391.9	216.3	193.9	22.31	9.693			
4,800.0	4,776.3	4,793.2	4,760.7	11.5	12.6	-78.27	359.7	401.4	221.2	198.4	22.82	9.694			
4,900.0	4,875.8	4,893.1	4,859.8	11.8	12.9	-78.31	368.0	410.9	226.1	202.8	23.32	9.695			
5,000.0	4,975.2	4,993.0	4,958.8	12.1	13.1	-78.34	376.2	420.4	231.1	207.2	23.83	9.695			
5,100.0	5,074.6	5,092.9	5,057.9	12.3	13.4	-78.38	384.4	429.8	236.0	211.7	24.34	9.696			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well McConahay 4B-34H-P266
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Reference Site:	S34-T2N-R66W (McConahay)	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	McConahay 4B-34H-P266	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error:		0.0 ft
Reference: S34-T2N-R66W (McConahay) - McConahay 4A-34H-P266 - Hz - Plan #2															
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			
5,200.0	5,174.0	5,192.8	5,157.0	12.6	13.7	-78.41	392.6	439.3	240.9	216.1	24.85	9.697			
5,300.0	5,273.5	5,292.6	5,256.1	12.8	14.0	-78.44	400.9	448.8	245.9	220.5	25.36	9.697			
5,400.0	5,372.9	5,392.5	5,355.2	13.1	14.3	-78.47	409.1	458.2	250.8	225.0	25.86	9.698			
5,500.0	5,472.3	5,492.4	5,454.3	13.3	14.5	-78.50	417.3	467.7	255.8	229.4	26.37	9.698			
5,600.0	5,571.7	5,592.3	5,553.4	13.6	14.8	-78.53	425.6	477.2	260.7	233.8	26.88	9.699			
5,700.0	5,671.1	5,692.1	5,652.4	13.9	15.1	-78.55	433.8	486.7	265.6	238.3	27.39	9.699			
5,800.0	5,770.6	5,792.0	5,751.5	14.1	15.4	-78.58	442.0	496.1	270.6	242.7	27.90	9.699			
5,900.0	5,870.0	5,891.9	5,850.6	14.4	15.7	-78.60	450.3	505.6	275.5	247.1	28.41	9.700			
6,000.0	5,969.4	5,991.8	5,949.7	14.6	15.9	-78.63	458.5	515.1	280.5	251.5	28.91	9.700			
6,100.0	6,068.8	6,091.7	6,048.8	14.9	16.2	-78.65	466.7	524.5	285.4	256.0	29.42	9.700			
6,200.0	6,168.3	6,191.5	6,147.9	15.1	16.5	-78.67	474.9	534.0	290.3	260.4	29.93	9.701			
6,300.0	6,267.7	6,291.4	6,247.0	15.4	16.8	-78.69	483.2	543.5	295.3	264.8	30.44	9.701			
6,400.0	6,367.1	6,391.3	6,346.0	15.6	17.1	-78.71	491.4	553.0	300.2	269.3	30.95	9.701			
6,500.0	6,466.5	6,491.2	6,445.1	15.9	17.3	-78.74	499.6	562.4	305.2	273.7	31.45	9.701			
6,600.0	6,565.9	6,591.0	6,544.2	16.2	17.6	-78.75	507.9	571.9	310.1	278.1	31.96	9.702			
6,700.0	6,665.4	6,690.9	6,643.3	16.4	17.9	-78.77	516.1	581.4	315.0	282.6	32.47	9.702			
6,800.0	6,765.1	6,790.5	6,742.1	16.6	18.2	48.85	524.3	590.8	319.2	286.5	32.76	9.744			
6,900.0	6,864.0	6,887.6	6,838.5	16.5	18.5	78.72	532.3	600.0	322.4	290.0	32.42	9.946			
7,000.0	6,959.1	6,980.1	6,930.2	16.2	18.7	88.22	539.9	608.6	328.0	296.5	31.53	10.403			
7,100.0	7,047.4	7,077.8	7,027.5	15.8	18.8	96.00	548.0	606.7	339.0	308.8	30.27	11.202			
7,200.0	7,126.3	7,185.0	7,132.1	15.4	18.8	102.76	556.7	585.7	355.0	326.1	28.84	12.307			
7,300.0	7,193.4	7,304.4	7,241.6	14.9	18.5	108.76	565.8	539.7	374.2	346.8	27.42	13.648			
7,400.0	7,246.6	7,438.9	7,350.7	14.5	18.1	113.96	574.9	462.1	394.4	368.2	26.20	15.054			
7,500.0	7,284.3	7,590.7	7,448.3	14.4	17.5	118.17	583.0	346.7	412.6	387.0	25.52	16.165			
7,600.0	7,305.5	7,759.4	7,517.2	14.6	17.1	121.05	588.7	193.5	425.5	399.7	25.85	16.459			
7,700.0	7,310.0	7,929.7	7,539.0	14.7	17.2	-57.85	590.5	25.2	430.3	403.5	26.84	16.036			
7,800.0	7,310.0	8,029.7	7,539.0	14.5	17.9	-57.85	590.5	-74.8	430.3	402.7	27.60	15.594			
7,900.0	7,310.0	8,129.7	7,539.0	14.9	19.2	-57.85	590.5	-174.8	430.3	401.4	28.90	14.891			
8,000.0	7,310.0	8,229.7	7,539.0	15.4	20.8	-57.85	590.5	-274.8	430.3	399.6	30.70	14.015			
8,100.0	7,310.0	8,329.7	7,539.0	16.2	22.6	-57.85	590.5	-374.8	430.3	397.4	32.95	13.061			
8,200.0	7,310.0	8,429.7	7,539.0	17.3	24.4	-57.85	590.5	-474.8	430.3	394.8	35.55	12.103			
8,300.0	7,310.0	8,529.7	7,539.0	18.7	26.4	-57.85	590.5	-574.8	430.3	391.9	38.45	11.191			
8,400.0	7,310.0	8,629.7	7,539.0	20.3	28.4	-57.85	590.5	-674.8	430.3	388.7	41.58	10.349			
8,500.0	7,310.0	8,729.7	7,539.0	22.1	30.5	-57.85	590.5	-774.8	430.3	385.4	44.89	9.585			
8,600.0	7,310.0	8,829.7	7,539.0	24.0	32.7	-57.85	590.5	-874.8	430.3	382.0	48.35	8.900			
8,700.0	7,310.0	8,929.7	7,539.0	26.0	34.9	-57.85	590.5	-974.8	430.3	378.4	51.92	8.288			
8,800.0	7,310.0	9,029.7	7,539.0	28.0	37.1	-57.85	590.5	-1,074.8	430.3	374.7	55.58	7.742			
8,900.0	7,310.0	9,129.7	7,539.0	30.2	39.4	-57.85	590.5	-1,174.8	430.3	371.0	59.32	7.255			
9,000.0	7,310.0	9,229.7	7,539.0	32.4	41.6	-57.85	590.5	-1,274.8	430.3	367.2	63.11	6.818			
9,100.0	7,310.0	9,329.7	7,539.0	34.6	43.9	-57.85	590.5	-1,374.8	430.3	363.4	66.96	6.427			
9,200.0	7,310.0	9,429.7	7,539.0	36.8	46.3	-57.85	590.5	-1,474.8	430.3	359.5	70.84	6.074			
9,300.0	7,310.0	9,529.7	7,539.0	39.1	48.6	-57.85	590.5	-1,574.8	430.3	355.6	74.76	5.756			
9,400.0	7,310.0	9,629.7	7,539.0	41.4	50.9	-57.85	590.5	-1,674.8	430.3	351.6	78.71	5.467			
9,500.0	7,310.0	9,729.7	7,539.0	43.7	53.3	-57.85	590.5	-1,774.8	430.3	347.6	82.69	5.204			
9,600.0	7,310.0	9,829.7	7,539.0	46.1	55.7	-57.85	590.5	-1,874.8	430.3	343.6	86.68	4.964			
9,700.0	7,310.0	9,929.7	7,539.0	48.4	58.0	-57.85	590.5	-1,974.8	430.3	339.6	90.70	4.745			
9,800.0	7,310.0	10,029.7	7,539.0	50.8	60.4	-57.85	590.5	-2,074.8	430.3	335.6	94.73	4.543			
9,900.0	7,310.0	10,129.7	7,539.0	53.2	62.8	-57.85	590.5	-2,174.8	430.3	331.5	98.77	4.357			
10,000.0	7,310.0	10,229.7	7,539.0	55.6	65.2	-57.85	590.5	-2,274.8	430.3	327.5	102.83	4.185			
10,100.0	7,310.0	10,329.7	7,539.0	58.0	67.6	-57.85	590.5	-2,374.8	430.3	323.4	106.90	4.026			
10,200.0	7,310.0	10,429.7	7,539.0	60.4	70.0	-57.85	590.5	-2,474.8	430.3	319.3	110.97	3.878			
10,300.0	7,310.0	10,529.7	7,539.0	62.8	72.4	-57.85	590.5	-2,574.8	430.3	315.3	115.06	3.740			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well McConahay 4B-34H-P266
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Reference Site:	S34-T2N-R66W (McConahay)	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	McConahay 4B-34H-P266	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-Geolink 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			
10,400.0	7,310.0	10,629.7	7,539.0	65.2	74.8	-57.85	590.5	-2,674.8	430.3	311.2	119.15	3.611			
10,500.0	7,310.0	10,729.7	7,539.0	67.6	77.3	-57.85	590.5	-2,774.8	430.3	307.1	123.25	3.491			
10,600.0	7,310.0	10,829.7	7,539.0	70.0	79.7	-57.85	590.5	-2,874.8	430.3	303.0	127.36	3.379			
10,700.0	7,310.0	10,929.7	7,539.0	72.4	82.1	-57.85	590.5	-2,974.8	430.3	298.8	131.47	3.273			
10,800.0	7,310.0	11,029.7	7,539.0	74.8	84.5	-57.85	590.5	-3,074.8	430.3	294.7	135.59	3.174			
10,900.0	7,310.0	11,129.7	7,539.0	77.3	87.0	-57.85	590.5	-3,174.8	430.3	290.6	139.71	3.080			
11,000.0	7,310.0	11,229.7	7,539.0	79.7	89.4	-57.85	590.5	-3,274.8	430.3	286.5	143.84	2.992			
11,100.0	7,310.0	11,329.7	7,539.0	82.1	91.8	-57.85	590.5	-3,374.8	430.3	282.4	147.97	2.908			
11,200.0	7,310.0	11,429.7	7,539.0	84.6	94.3	-57.85	590.5	-3,474.8	430.3	278.2	152.10	2.829			
11,300.0	7,310.0	11,529.7	7,539.0	87.0	96.7	-57.85	590.5	-3,574.8	430.3	274.1	156.24	2.754			
11,400.0	7,310.0	11,629.7	7,539.0	89.5	99.1	-57.85	590.5	-3,674.8	430.3	269.9	160.38	2.683			
11,500.0	7,310.0	11,729.7	7,539.0	91.9	101.6	-57.85	590.5	-3,774.8	430.3	265.8	164.52	2.616			
11,572.2	7,310.0	11,802.0	7,539.0	93.7	103.3	-57.85	590.5	-3,847.0	430.3	262.8	167.52	2.569 SF			

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well McConahay 4B-34H-P266
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Reference Site:	S34-T2N-R66W (McConahay)	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	McConahay 4B-34H-P266	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
S34-T2N-R66W (McConahay) - McConahay 4C-34H-P266 - Hz - Plan #2													Offset Well Error:	0.0 ft
Survey Program: 0-Geolink MWD														
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	-180.00	-7.3	0.0	7.3					
100.0	100.0	100.0	100.0	0.1	0.1	-180.00	-7.3	0.0	7.3	7.0	0.26	27.813		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-7.3	0.0	7.3	6.7	0.61	11.920		
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-7.3	0.0	7.3	6.3	0.96	7.585 CC		
400.0	400.0	400.0	400.0	0.7	0.7	114.46	-7.3	0.0	7.6	6.3	1.31	5.803 ES		
500.0	500.0	500.0	500.0	0.8	0.8	124.24	-7.5	0.8	9.0	7.3	1.66	5.401		
600.0	599.9	599.9	599.9	1.0	1.0	129.15	-8.3	3.3	11.5	9.5	2.02	5.697		
700.0	699.7	699.9	699.8	1.2	1.2	130.60	-9.6	7.5	15.1	12.7	2.39	6.298		
800.0	799.4	799.8	799.5	1.4	1.4	130.23	-11.3	13.3	19.6	16.8	2.78	7.041		
900.0	898.9	899.7	899.1	1.7	1.6	129.06	-13.6	20.8	25.1	21.9	3.20	7.844		
1,000.0	998.3	999.5	998.4	1.9	1.8	126.82	-16.4	30.0	31.2	27.5	3.64	8.569		
1,100.0	1,097.7	1,099.3	1,097.7	2.1	2.0	124.36	-19.3	39.7	37.3	33.2	4.10	9.115		
1,200.0	1,197.2	1,199.1	1,197.0	2.4	2.3	122.61	-22.3	49.4	43.5	39.0	4.56	9.546		
1,300.0	1,296.6	1,298.9	1,296.3	2.6	2.5	121.29	-25.2	59.2	49.8	44.7	5.03	9.892		
1,400.0	1,396.0	1,398.7	1,395.6	2.9	2.8	120.27	-28.2	68.9	56.0	50.5	5.51	10.176		
1,500.0	1,495.4	1,498.5	1,494.8	3.1	3.0	119.45	-31.1	78.7	62.3	56.3	5.98	10.412		
1,600.0	1,594.9	1,598.3	1,594.1	3.4	3.2	118.78	-34.1	88.4	68.6	62.1	6.46	10.610		
1,700.0	1,694.3	1,698.1	1,693.4	3.6	3.5	118.22	-37.0	98.1	74.9	67.9	6.95	10.780		
1,800.0	1,793.7	1,797.9	1,792.7	3.9	3.7	117.75	-40.0	107.9	81.2	73.7	7.43	10.926		
1,900.0	1,893.1	1,897.7	1,892.0	4.1	4.0	117.35	-42.9	117.6	87.5	79.6	7.91	11.053		
2,000.0	1,992.5	1,997.5	1,991.2	4.4	4.2	117.00	-45.9	127.3	93.8	85.4	8.40	11.165		
2,100.0	2,092.0	2,097.3	2,090.5	4.6	4.5	116.70	-48.9	137.1	100.1	91.2	8.89	11.264		
2,200.0	2,191.4	2,197.1	2,189.8	4.9	4.7	116.43	-51.8	146.8	106.4	97.0	9.37	11.352		
2,300.0	2,290.8	2,296.9	2,289.1	5.1	4.9	116.19	-54.8	156.5	112.7	102.8	9.86	11.431		
2,400.0	2,390.2	2,396.7	2,388.3	5.4	5.2	115.98	-57.7	166.3	119.0	108.7	10.35	11.502		
2,500.0	2,489.7	2,496.5	2,487.6	5.7	5.4	115.79	-60.7	176.0	125.3	114.5	10.84	11.566		
2,600.0	2,589.1	2,596.3	2,586.9	5.9	5.7	115.62	-63.6	185.7	131.6	120.3	11.32	11.625		
2,700.0	2,688.5	2,696.1	2,686.2	6.2	5.9	115.46	-66.6	195.5	138.0	126.1	11.81	11.678		
2,800.0	2,787.9	2,795.9	2,785.5	6.4	6.2	115.32	-69.5	205.2	144.3	132.0	12.30	11.727		
2,900.0	2,887.3	2,895.7	2,884.7	6.7	6.4	115.18	-72.5	215.0	150.6	137.8	12.79	11.772		
3,000.0	2,986.8	2,995.5	2,984.0	6.9	6.7	115.06	-75.4	224.7	156.9	143.6	13.28	11.814		
3,100.0	3,086.2	3,095.3	3,083.3	7.2	6.9	114.95	-78.4	234.4	163.2	149.5	13.77	11.852		
3,200.0	3,185.6	3,195.1	3,182.6	7.4	7.2	114.85	-81.3	244.2	169.6	155.3	14.26	11.888		
3,300.0	3,285.0	3,294.9	3,281.9	7.7	7.4	114.75	-84.3	253.9	175.9	161.1	14.75	11.921		
3,400.0	3,384.4	3,394.7	3,381.1	8.0	7.7	114.66	-87.2	263.6	182.2	167.0	15.24	11.952		
3,500.0	3,483.9	3,494.5	3,480.4	8.2	7.9	114.58	-90.2	273.4	188.5	172.8	15.73	11.981		
3,600.0	3,583.3	3,594.3	3,579.7	8.5	8.2	114.50	-93.1	283.1	194.8	178.6	16.23	12.009		
3,700.0	3,682.7	3,694.1	3,679.0	8.7	8.4	114.43	-96.1	292.8	201.2	184.4	16.72	12.034		
3,800.0	3,782.1	3,793.9	3,778.3	9.0	8.7	114.36	-99.1	302.6	207.5	190.3	17.21	12.058		
3,900.0	3,881.6	3,893.7	3,877.5	9.2	8.9	114.30	-102.0	312.3	213.8	196.1	17.70	12.081		
4,000.0	3,981.0	3,993.5	3,976.8	9.5	9.2	114.24	-105.0	322.1	220.1	201.9	18.19	12.102		
4,100.0	4,080.4	4,093.3	4,076.1	9.8	9.4	114.18	-107.9	331.8	226.5	207.8	18.68	12.122		
4,200.0	4,179.8	4,193.1	4,175.4	10.0	9.7	114.13	-110.9	341.5	232.8	213.6	19.17	12.142		
4,300.0	4,279.2	4,292.9	4,274.7	10.3	9.9	114.07	-113.8	351.3	239.1	219.4	19.66	12.160		
4,400.0	4,378.7	4,392.7	4,373.9	10.5	10.1	114.03	-116.8	361.0	245.4	225.3	20.15	12.177		
4,500.0	4,478.1	4,492.5	4,473.2	10.8	10.4	113.98	-119.7	370.7	251.7	231.1	20.65	12.194		
4,600.0	4,577.5	4,592.3	4,572.5	11.0	10.6	113.94	-122.7	380.5	258.1	236.9	21.14	12.209		
4,700.0	4,676.9	4,692.1	4,671.8	11.3	10.9	113.89	-125.6	390.2	264.4	242.8	21.63	12.224		
4,800.0	4,776.3	4,791.9	4,771.1	11.5	11.1	113.85	-128.6	399.9	270.7	248.6	22.12	12.238		
4,900.0	4,875.8	4,891.7	4,870.3	11.8	11.4	113.82	-131.5	409.7	277.0	254.4	22.61	12.252		
5,000.0	4,975.2	4,991.5	4,969.6	12.1	11.6	113.78	-134.5	419.4	283.4	260.3	23.10	12.265		
5,100.0	5,074.6	5,091.3	5,068.9	12.3	11.9	113.74	-137.4	429.2	289.7	266.1	23.60	12.277		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well McConahay 4B-34H-P266
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Reference Site:	S34-T2N-R66W (McConahay)	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	McConahay 4B-34H-P266	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
S34-T2N-R66W (McConahay) - McConahay 4C-34H-P266 - Hz - Plan #2													Offset Well Error:	0.0 ft
Survey Program: O-Geolink MWD														
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		
5,200.0	5,174.0	5,191.1	5,168.2	12.6	12.1	113.71	-140.4	438.9	296.0	271.9	24.09	12.289		
5,300.0	5,273.5	5,290.9	5,267.5	12.8	12.4	113.68	-143.4	448.6	302.3	277.8	24.58	12.301		
5,400.0	5,372.9	5,390.7	5,366.7	13.1	12.6	113.65	-146.3	458.4	308.7	283.6	25.07	12.312		
5,500.0	5,472.3	5,490.5	5,466.0	13.3	12.9	113.62	-149.3	468.1	315.0	289.4	25.56	12.322		
5,600.0	5,571.7	5,590.3	5,565.3	13.6	13.1	113.59	-152.2	477.8	321.3	295.3	26.06	12.332		
5,700.0	5,671.1	5,690.1	5,664.6	13.9	13.4	113.56	-155.2	487.6	327.6	301.1	26.55	12.342		
5,800.0	5,770.6	5,789.9	5,763.9	14.1	13.6	113.54	-158.1	497.3	334.0	306.9	27.04	12.351		
5,900.0	5,870.0	5,889.7	5,863.1	14.4	13.9	113.51	-161.1	507.0	340.3	312.8	27.53	12.360		
6,000.0	5,969.4	5,989.5	5,962.4	14.6	14.1	113.49	-164.0	516.8	346.6	318.6	28.02	12.369		
6,100.0	6,068.8	6,089.3	6,061.7	14.9	14.4	113.47	-167.0	526.5	352.9	324.4	28.52	12.377		
6,200.0	6,168.3	6,189.1	6,161.0	15.1	14.6	113.44	-169.9	536.2	359.3	330.3	29.01	12.386		
6,300.0	6,267.7	6,288.9	6,260.3	15.4	14.9	113.42	-172.9	546.0	365.6	336.1	29.50	12.393		
6,400.0	6,367.1	6,388.7	6,359.5	15.6	15.1	113.40	-175.8	555.7	371.9	341.9	29.99	12.401		
6,500.0	6,466.5	6,488.5	6,458.8	15.9	15.4	113.38	-178.8	565.5	378.3	347.8	30.48	12.408		
6,600.0	6,565.9	6,588.3	6,558.1	16.2	15.6	113.36	-181.7	575.2	384.6	353.6	30.98	12.415		
6,700.0	6,665.4	6,688.1	6,657.4	16.4	15.9	113.34	-184.7	584.9	390.9	359.4	31.47	12.422		
6,800.0	6,765.1	6,787.6	6,756.4	16.6	16.1	-120.27	-187.6	594.6	396.7	364.8	31.87	12.449		
6,900.0	6,864.0	6,884.6	6,852.8	16.5	16.4	-96.83	-190.5	604.1	401.9	369.8	32.08	12.528		
7,000.0	6,959.1	6,978.0	6,945.8	16.2	16.6	-97.52	-193.3	612.1	409.0	377.0	31.99	12.785		
7,100.0	7,047.4	7,077.6	7,045.1	15.8	16.6	-100.75	-196.2	607.0	419.8	388.4	31.44	13.355		
7,200.0	7,126.3	7,186.3	7,150.7	15.4	16.4	-104.50	-199.4	582.0	433.8	403.4	30.45	14.247		
7,300.0	7,193.4	7,306.4	7,259.5	14.9	16.0	-108.28	-202.6	531.7	449.8	420.6	29.16	15.427		
7,400.0	7,246.6	7,440.2	7,365.4	14.5	15.4	-111.81	-205.8	450.4	466.0	438.2	27.81	16.755		
7,500.0	7,284.3	7,589.1	7,457.5	14.4	14.8	-114.79	-208.5	334.1	480.2	453.3	26.90	17.853		
7,600.0	7,305.5	7,751.8	7,520.3	14.6	14.7	-116.86	-210.4	184.6	490.1	463.0	27.06	18.109		
7,700.0	7,310.0	7,912.8	7,539.0	14.7	15.7	62.35	-210.9	25.2	493.4	465.4	28.03	17.606		
7,800.0	7,310.0	8,012.8	7,539.0	14.5	16.9	62.35	-210.9	-74.8	493.4	464.7	28.78	17.145		
7,900.0	7,310.0	8,112.8	7,539.0	14.9	18.3	62.35	-210.9	-174.8	493.4	463.3	30.12	16.383		
8,000.0	7,310.0	8,212.8	7,539.0	15.4	19.9	62.35	-210.9	-274.8	493.4	461.4	31.99	15.424		
8,100.0	7,310.0	8,312.8	7,539.0	16.2	21.7	62.35	-210.9	-374.8	493.4	459.1	34.32	14.377		
8,200.0	7,310.0	8,412.8	7,539.0	17.3	23.6	62.35	-210.9	-474.8	493.4	456.4	37.04	13.324		
8,300.0	7,310.0	8,512.8	7,539.0	18.7	25.6	62.35	-210.9	-574.8	493.4	453.4	40.06	12.319		
8,400.0	7,310.0	8,612.8	7,539.0	20.3	27.7	62.35	-210.9	-674.8	493.4	450.1	43.32	11.390		
8,500.0	7,310.0	8,712.8	7,539.0	22.1	29.8	62.35	-210.9	-774.8	493.4	446.7	46.78	10.548		
8,600.0	7,310.0	8,812.8	7,539.0	24.0	32.0	62.35	-210.9	-874.8	493.4	443.0	50.39	9.792		
8,700.0	7,310.0	8,912.8	7,539.0	26.0	34.2	62.35	-210.9	-974.8	493.4	439.3	54.12	9.117		
8,800.0	7,310.0	9,012.8	7,539.0	28.0	36.5	62.35	-210.9	-1,074.8	493.4	435.5	57.95	8.515		
8,900.0	7,310.0	9,112.8	7,539.0	30.2	38.8	62.35	-210.9	-1,174.8	493.4	431.6	61.85	7.977		
9,000.0	7,310.0	9,212.8	7,539.0	32.4	41.1	62.35	-210.9	-1,274.8	493.4	427.6	65.82	7.497		
9,100.0	7,310.0	9,312.8	7,539.0	34.6	43.4	62.35	-210.9	-1,374.8	493.4	423.6	69.84	7.065		
9,200.0	7,310.0	9,412.8	7,539.0	36.8	45.7	62.35	-210.9	-1,474.8	493.4	419.5	73.91	6.677		
9,300.0	7,310.0	9,512.8	7,539.0	39.1	48.1	62.35	-210.9	-1,574.8	493.4	415.4	78.01	6.326		
9,400.0	7,310.0	9,612.8	7,539.0	41.4	50.5	62.35	-210.9	-1,674.8	493.4	411.3	82.14	6.008		
9,500.0	7,310.0	9,712.8	7,539.0	43.7	52.8	62.35	-210.9	-1,774.8	493.4	407.1	86.29	5.718		
9,600.0	7,310.0	9,812.8	7,539.0	46.1	55.2	62.35	-210.9	-1,874.8	493.4	403.0	90.47	5.454		
9,700.0	7,310.0	9,912.8	7,539.0	48.4	57.6	62.35	-210.9	-1,974.8	493.4	398.8	94.67	5.212		
9,800.0	7,310.0	10,012.8	7,539.0	50.8	60.0	62.35	-210.9	-2,074.8	493.4	394.6	98.88	4.990		
9,900.0	7,310.0	10,112.8	7,539.0	53.2	62.4	62.35	-210.9	-2,174.8	493.4	390.3	103.11	4.785		
10,000.0	7,310.0	10,212.8	7,539.0	55.6	64.8	62.35	-210.9	-2,274.8	493.4	386.1	107.35	4.596		
10,100.0	7,310.0	10,312.8	7,539.0	58.0	67.2	62.35	-210.9	-2,374.8	493.4	381.8	111.61	4.421		
10,200.0	7,310.0	10,412.8	7,539.0	60.4	69.6	62.35	-210.9	-2,474.8	493.4	377.6	115.87	4.258		
10,300.0	7,310.0	10,512.8	7,539.0	62.8	72.1	62.35	-210.9	-2,574.8	493.4	373.3	120.15	4.107		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well McConahay 4B-34H-P266
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Reference Site:	S34-T2N-R66W (McConahay)	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	McConahay 4B-34H-P266	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error:		0.0 ft
Reference				Offset			Semi Major Axis			Distance			Total Uncertainty Axis	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)					
10,400.0	7,310.0	10,612.8	7,539.0	65.2	74.5	62.35	-210.9	-2,674.8	493.4	369.0	124.43	3.966			
10,500.0	7,310.0	10,712.8	7,539.0	67.6	76.9	62.35	-210.9	-2,774.8	493.4	364.7	128.71	3.834			
10,600.0	7,310.0	10,812.8	7,539.0	70.0	79.3	62.35	-210.9	-2,874.8	493.4	360.4	133.01	3.710			
10,700.0	7,310.0	10,912.8	7,539.0	72.4	81.8	62.35	-210.9	-2,974.8	493.4	356.1	137.31	3.594			
10,800.0	7,310.0	11,012.8	7,539.0	74.8	84.2	62.35	-210.9	-3,074.8	493.4	351.8	141.62	3.484			
10,900.0	7,310.0	11,112.8	7,539.0	77.3	86.7	62.35	-210.9	-3,174.8	493.4	347.5	145.93	3.381			
11,000.0	7,310.0	11,212.8	7,539.0	79.7	89.1	62.35	-210.9	-3,274.8	493.4	343.2	150.24	3.284			
11,100.0	7,310.0	11,312.8	7,539.0	82.1	91.5	62.35	-210.9	-3,374.8	493.4	338.9	154.56	3.193			
11,200.0	7,310.0	11,412.8	7,539.0	84.6	94.0	62.35	-210.9	-3,474.8	493.4	334.6	158.89	3.106			
11,300.0	7,310.0	11,512.8	7,539.0	87.0	96.4	62.35	-210.9	-3,574.8	493.4	330.2	163.21	3.023			
11,400.0	7,310.0	11,612.8	7,539.0	89.5	98.9	62.35	-210.9	-3,674.8	493.4	325.9	167.54	2.945			
11,500.0	7,310.0	11,712.8	7,539.0	91.9	101.3	62.35	-210.9	-3,774.8	493.4	321.6	171.87	2.871			
11,572.2	7,310.0	11,785.0	7,539.0	93.7	103.1	62.35	-210.9	-3,847.0	493.4	318.4	175.01	2.820 SF			

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well McConahay 4B-34H-P266
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Reference Site:	S34-T2N-R66W (McConahay)	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	McConahay 4B-34H-P266	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 8160-Geolink 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			
8,600.0	7,310.0	7,254.0	7,254.0	24.0	12.7	90.00	-22.9	-1,294.9	488.3	451.9	36.42	13.409			
8,700.0	7,310.0	7,254.0	7,254.0	26.0	12.7	90.00	-22.9	-1,294.9	405.5	367.1	38.44	10.550			
8,800.0	7,310.0	7,254.0	7,254.0	28.0	12.7	90.00	-22.9	-1,294.9	332.3	291.8	40.53	8.199			
8,900.0	7,310.0	7,254.0	7,254.0	30.2	12.7	90.00	-22.9	-1,294.9	276.5	233.8	42.69	6.477			
9,000.0	7,310.0	7,254.0	7,254.0	32.4	12.7	90.00	-22.9	-1,294.9	249.9	205.0	44.88	5.567			
9,020.0	7,310.0	7,254.0	7,254.0	32.8	12.7	90.00	-22.9	-1,294.9	249.1	203.7	45.33	5.495	CC, ES, SF		
9,100.0	7,310.0	7,254.0	7,254.0	34.6	12.7	90.00	-22.9	-1,294.9	261.6	214.5	47.12	5.552			
9,200.0	7,310.0	7,254.0	7,254.0	36.8	12.7	90.00	-22.9	-1,294.9	307.3	257.9	49.39	6.222			
9,300.0	7,310.0	7,254.0	7,254.0	39.1	12.7	90.00	-22.9	-1,294.9	374.7	323.0	51.68	7.251			
9,400.0	7,310.0	7,254.0	7,254.0	41.4	12.7	90.00	-22.9	-1,294.9	454.3	400.3	53.99	8.415			

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well McConahay 4B-34H-P266
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Reference Site:	S34-T2N-R66W (McConahay)	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	McConahay 4B-34H-P266	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5101.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: McConahay 4B-34H-P266
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.48°

