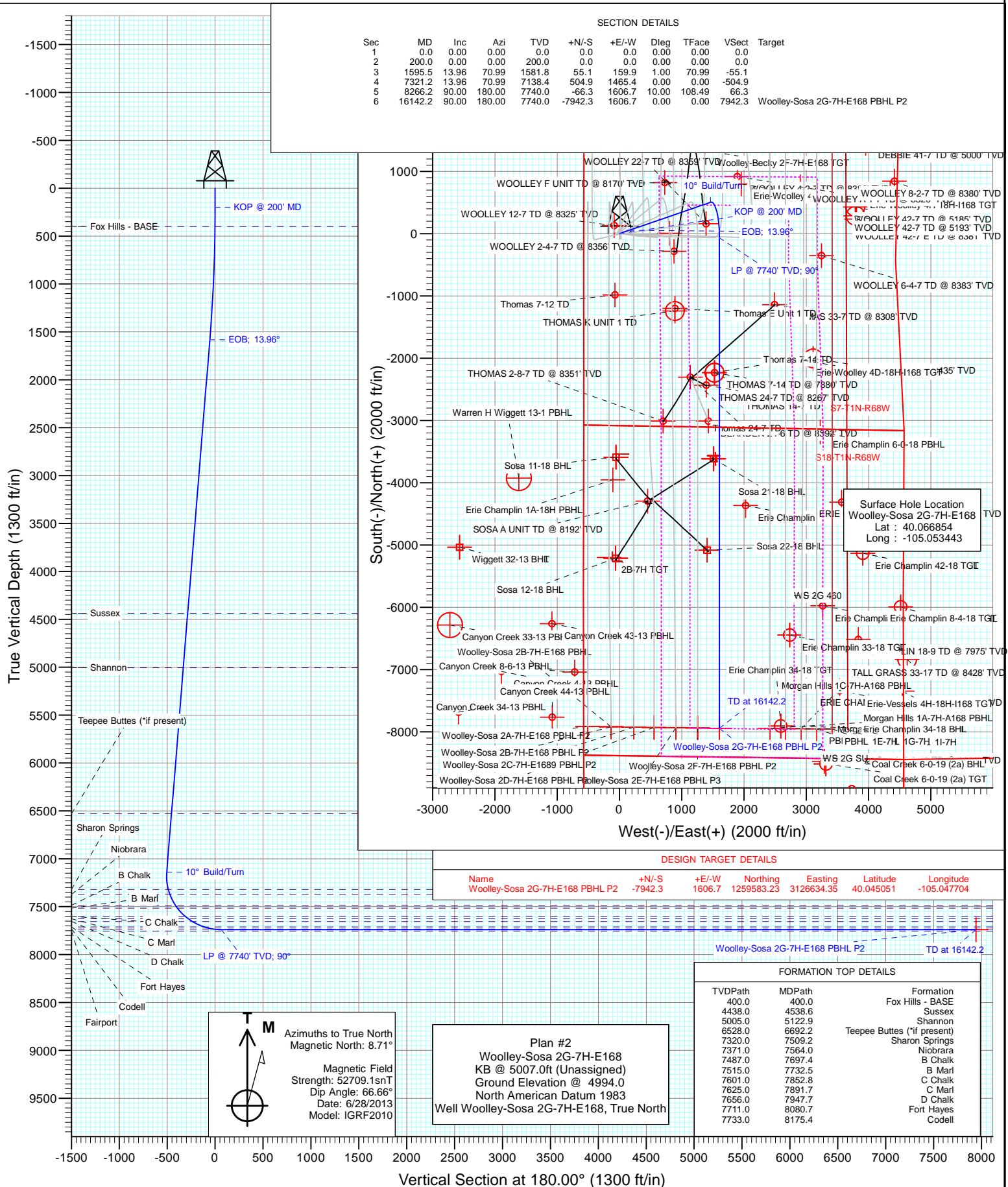




Project: DJ Wattenberg
Site: S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)
Well: Woolley-Sosa 2G-7H-E168
Wellbore: HZ
Design: Plan #2



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 5007.0ft (Unassigned)
Project:	DJ Wattenberg	MD Reference:	KB @ 5007.0ft (Unassigned)
Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	North Reference:	True
Well:	Woolley-Sosa 2G-7H-E168	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

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		S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)			
Site Position:		Northing:	1,265,219.42 ft	Latitude:	40.060530
From:	Lat/Long	Easting:	3,126,139.27 ft	Longitude:	-105.049370
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.29 °

Well	Woolley-Sosa 2G-7H-E168					
Well Position	+N/-S	0.0 ft	Northing:	1,267,517.31 ft	Latitude:	40.066854
	+E/-W	0.0 ft	Easting:	3,124,987.63 ft	Longitude:	-105.053443
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,994.0 ft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	6/28/2013	8.71	66.66	52,709

Design	Plan #2				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	180.00	

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	(°)	
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	
1,595.5	13.96	70.99	1,581.8	55.1	159.9	1.00	1.00	0.00	70.99	
7,321.2	13.96	70.99	7,138.4	504.9	1,465.4	0.00	0.00	0.00	0.00	
8,266.2	90.00	180.00	7,740.0	-66.3	1,606.7	10.00	8.05	11.53	108.49	
16,142.2	90.00	180.00	7,740.0	-7,942.3	1,606.7	0.00	0.00	0.00	0.00	Woolley-Sosa 2G-7H-

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 5007.0ft (Unassigned)
Project:	DJ Wattenberg	MD Reference:	KB @ 5007.0ft (Unassigned)
Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	North Reference:	True
Well:	Woolley-Sosa 2G-7H-E168	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

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' MD
300.0	1.00	70.99	300.0	0.3	0.8	-0.3	1.00	1.00	
400.0	2.00	70.99	400.0	1.1	3.3	-1.1	1.00	1.00	Fox Hills - BASE
500.0	3.00	70.99	499.9	2.6	7.4	-2.6	1.00	1.00	
600.0	4.00	70.99	599.7	4.5	13.2	-4.5	1.00	1.00	
700.0	5.00	70.99	699.4	7.1	20.6	-7.1	1.00	1.00	
800.0	6.00	70.99	798.9	10.2	29.7	-10.2	1.00	1.00	
900.0	7.00	70.99	898.3	13.9	40.4	-13.9	1.00	1.00	
1,000.0	8.00	70.99	997.4	18.2	52.7	-18.2	1.00	1.00	
1,100.0	9.00	70.99	1,096.3	23.0	66.7	-23.0	1.00	1.00	
1,200.0	10.00	70.99	1,194.9	28.4	82.3	-28.4	1.00	1.00	
1,300.0	11.00	70.99	1,293.3	34.3	99.5	-34.3	1.00	1.00	
1,400.0	12.00	70.99	1,391.2	40.8	118.4	-40.8	1.00	1.00	
1,500.0	13.00	70.99	1,488.9	47.8	138.8	-47.8	1.00	1.00	
1,595.5	13.96	70.99	1,581.8	55.1	159.9	-55.1	1.00	1.00	EOB; 13.96°
1,600.0	13.96	70.99	1,586.1	55.4	160.9	-55.4	0.00	0.00	
1,700.0	13.96	70.99	1,683.2	63.3	183.7	-63.3	0.00	0.00	
1,800.0	13.96	70.99	1,780.2	71.2	206.5	-71.2	0.00	0.00	
1,900.0	13.96	70.99	1,877.3	79.0	229.3	-79.0	0.00	0.00	
2,000.0	13.96	70.99	1,974.3	86.9	252.1	-86.9	0.00	0.00	
2,100.0	13.96	70.99	2,071.4	94.7	274.9	-94.7	0.00	0.00	
2,200.0	13.96	70.99	2,168.4	102.6	297.7	-102.6	0.00	0.00	
2,300.0	13.96	70.99	2,265.4	110.4	320.5	-110.4	0.00	0.00	
2,400.0	13.96	70.99	2,362.5	118.3	343.3	-118.3	0.00	0.00	
2,500.0	13.96	70.99	2,459.5	126.1	366.1	-126.1	0.00	0.00	
2,600.0	13.96	70.99	2,556.6	134.0	388.9	-134.0	0.00	0.00	
2,700.0	13.96	70.99	2,653.6	141.9	411.7	-141.9	0.00	0.00	
2,800.0	13.96	70.99	2,750.7	149.7	434.5	-149.7	0.00	0.00	
2,900.0	13.96	70.99	2,847.7	157.6	457.3	-157.6	0.00	0.00	
3,000.0	13.96	70.99	2,944.8	165.4	480.1	-165.4	0.00	0.00	
3,100.0	13.96	70.99	3,041.8	173.3	502.9	-173.3	0.00	0.00	
3,200.0	13.96	70.99	3,138.9	181.1	525.7	-181.1	0.00	0.00	
3,300.0	13.96	70.99	3,235.9	189.0	548.5	-189.0	0.00	0.00	
3,400.0	13.96	70.99	3,333.0	196.9	571.3	-196.9	0.00	0.00	
3,500.0	13.96	70.99	3,430.0	204.7	594.1	-204.7	0.00	0.00	
3,600.0	13.96	70.99	3,527.1	212.6	616.9	-212.6	0.00	0.00	
3,700.0	13.96	70.99	3,624.1	220.4	639.7	-220.4	0.00	0.00	
3,800.0	13.96	70.99	3,721.2	228.3	662.5	-228.3	0.00	0.00	
3,900.0	13.96	70.99	3,818.2	236.1	685.3	-236.1	0.00	0.00	
4,000.0	13.96	70.99	3,915.3	244.0	708.1	-244.0	0.00	0.00	
4,100.0	13.96	70.99	4,012.3	251.8	730.9	-251.8	0.00	0.00	
4,200.0	13.96	70.99	4,109.4	259.7	753.7	-259.7	0.00	0.00	
4,300.0	13.96	70.99	4,206.4	267.6	776.5	-267.6	0.00	0.00	
4,400.0	13.96	70.99	4,303.5	275.4	799.3	-275.4	0.00	0.00	
4,500.0	13.96	70.99	4,400.5	283.3	822.1	-283.3	0.00	0.00	
4,538.6	13.96	70.99	4,438.0	286.3	830.9	-286.3	0.00	0.00	Sussex
4,600.0	13.96	70.99	4,497.6	291.1	844.9	-291.1	0.00	0.00	
4,700.0	13.96	70.99	4,594.6	299.0	867.7	-299.0	0.00	0.00	
4,800.0	13.96	70.99	4,691.7	306.8	890.5	-306.8	0.00	0.00	
4,900.0	13.96	70.99	4,788.7	314.7	913.3	-314.7	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 5007.0ft (Unassigned)
Project:	DJ Wattenberg	MD Reference:	KB @ 5007.0ft (Unassigned)
Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	North Reference:	True
Well:	Woolley-Sosa 2G-7H-E168	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

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
5,000.0	13.96	70.99	4,885.8	322.6	936.1	-322.6	0.00	0.00	
5,100.0	13.96	70.99	4,982.8	330.4	958.9	-330.4	0.00	0.00	
5,122.9	13.96	70.99	5,005.0	332.2	964.2	-332.2	0.00	0.00	Shannon
5,200.0	13.96	70.99	5,079.9	338.3	981.8	-338.3	0.00	0.00	
5,300.0	13.96	70.99	5,176.9	346.1	1,004.6	-346.1	0.00	0.00	
5,400.0	13.96	70.99	5,273.9	354.0	1,027.4	-354.0	0.00	0.00	
5,500.0	13.96	70.99	5,371.0	361.8	1,050.2	-361.8	0.00	0.00	
5,600.0	13.96	70.99	5,468.0	369.7	1,073.0	-369.7	0.00	0.00	
5,700.0	13.96	70.99	5,565.1	377.5	1,095.8	-377.5	0.00	0.00	
5,800.0	13.96	70.99	5,662.1	385.4	1,118.6	-385.4	0.00	0.00	
5,900.0	13.96	70.99	5,759.2	393.3	1,141.4	-393.3	0.00	0.00	
6,000.0	13.96	70.99	5,856.2	401.1	1,164.2	-401.1	0.00	0.00	
6,100.0	13.96	70.99	5,953.3	409.0	1,187.0	-409.0	0.00	0.00	
6,200.0	13.96	70.99	6,050.3	416.8	1,209.8	-416.8	0.00	0.00	
6,300.0	13.96	70.99	6,147.4	424.7	1,232.6	-424.7	0.00	0.00	
6,400.0	13.96	70.99	6,244.4	432.5	1,255.4	-432.5	0.00	0.00	
6,500.0	13.96	70.99	6,341.5	440.4	1,278.2	-440.4	0.00	0.00	
6,600.0	13.96	70.99	6,438.5	448.3	1,301.0	-448.3	0.00	0.00	
6,692.2	13.96	70.99	6,528.0	455.5	1,322.0	-455.5	0.00	0.00	Teepee Buttes (*if present)
6,700.0	13.96	70.99	6,535.6	456.1	1,323.8	-456.1	0.00	0.00	
6,800.0	13.96	70.99	6,632.6	464.0	1,346.6	-464.0	0.00	0.00	
6,900.0	13.96	70.99	6,729.7	471.8	1,369.4	-471.8	0.00	0.00	
7,000.0	13.96	70.99	6,826.7	479.7	1,392.2	-479.7	0.00	0.00	
7,100.0	13.96	70.99	6,923.8	487.5	1,415.0	-487.5	0.00	0.00	
7,200.0	13.96	70.99	7,020.8	495.4	1,437.8	-495.4	0.00	0.00	
7,300.0	13.96	70.99	7,117.9	503.2	1,460.6	-503.2	0.00	0.00	
7,321.2	13.96	70.99	7,138.4	504.9	1,465.4	-504.9	0.00	0.00	10° Build/Turn
7,350.0	13.32	82.94	7,166.4	506.5	1,472.0	-506.5	10.00	-2.21	
7,400.0	13.64	104.47	7,215.1	505.7	1,483.4	-505.7	10.00	0.64	
7,450.0	15.61	122.78	7,263.5	500.6	1,494.8	-500.6	10.00	3.95	
7,500.0	18.72	136.12	7,311.3	491.1	1,506.0	-491.1	10.00	6.22	
7,509.2	19.38	138.10	7,320.0	488.9	1,508.1	-488.9	10.00	7.13	Sharon Springs
7,550.0	22.51	145.45	7,358.1	477.5	1,517.0	-477.5	10.00	7.66	
7,564.0	23.65	147.55	7,371.0	472.9	1,520.0	-472.9	10.00	8.12	Niobrara
7,600.0	26.67	152.12	7,403.5	459.7	1,527.7	-459.7	10.00	8.42	
7,650.0	31.07	157.05	7,447.3	437.8	1,538.0	-437.8	10.00	8.80	
7,697.4	35.38	160.68	7,487.0	413.6	1,547.3	-413.6	10.00	9.08	B Chalk
7,700.0	35.62	160.85	7,489.1	412.2	1,547.8	-412.2	10.00	9.19	
7,732.5	38.62	162.90	7,515.0	393.5	1,553.9	-393.5	10.00	9.25	B Marl
7,750.0	40.26	163.89	7,528.5	382.9	1,557.1	-382.9	10.00	9.33	
7,800.0	44.96	166.39	7,565.3	350.2	1,565.7	-350.2	10.00	9.41	
7,850.0	49.71	168.51	7,599.2	314.3	1,573.7	-314.3	10.00	9.50	
7,852.8	49.98	168.62	7,601.0	312.2	1,574.1	-312.2	10.00	9.54	C Chalk
7,891.7	53.70	170.06	7,625.0	282.2	1,579.7	-282.2	10.00	9.57	C Marl
7,900.0	54.50	170.35	7,629.9	275.5	1,580.9	-275.5	10.00	9.59	
7,947.7	59.09	171.91	7,656.0	236.1	1,587.0	-236.1	10.00	9.62	D Chalk
7,950.0	59.31	171.98	7,657.2	234.1	1,587.3	-234.1	10.00	9.64	
8,000.0	64.14	173.46	7,680.9	190.5	1,592.8	-190.5	10.00	9.66	
8,050.0	68.98	174.82	7,700.8	144.9	1,597.5	-144.9	10.00	9.68	
8,080.7	71.95	175.61	7,711.0	116.1	1,599.9	-116.1	10.00	9.70	Fort Hayes
8,100.0	73.83	176.09	7,716.7	97.6	1,601.3	-97.6	10.00	9.71	
8,150.0	78.69	177.31	7,728.6	49.2	1,604.1	-49.2	10.00	9.72	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 5007.0ft (Unassigned)
Project:	DJ Wattenberg	MD Reference:	KB @ 5007.0ft (Unassigned)
Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	North Reference:	True
Well:	Woolley-Sosa 2G-7H-E168	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

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
8,175.4	81.16	177.90	7,733.0	24.2	1,605.1	-24.2	10.00	9.73	Codell
8,200.0	83.55	178.48	7,736.3	-0.2	1,605.9	0.2	10.00	9.73	
8,250.0	88.42	179.63	7,739.8	-50.0	1,606.7	50.0	10.00	9.73	
8,266.2	90.00	180.00	7,740.0	-66.3	1,606.7	66.3	10.00	9.73	LP @ 7740' TVD; 90°
8,300.0	90.00	180.00	7,740.0	-100.0	1,606.7	100.0	0.00	0.00	
8,400.0	90.00	180.00	7,740.0	-200.0	1,606.7	200.0	0.00	0.00	
8,500.0	90.00	180.00	7,740.0	-300.0	1,606.7	300.0	0.00	0.00	
8,600.0	90.00	180.00	7,740.0	-400.0	1,606.7	400.0	0.00	0.00	
8,700.0	90.00	180.00	7,740.0	-500.0	1,606.7	500.0	0.00	0.00	
8,800.0	90.00	180.00	7,740.0	-600.0	1,606.7	600.0	0.00	0.00	
8,900.0	90.00	180.00	7,740.0	-700.0	1,606.7	700.0	0.00	0.00	
9,000.0	90.00	180.00	7,740.0	-800.0	1,606.7	800.0	0.00	0.00	
9,100.0	90.00	180.00	7,740.0	-900.0	1,606.7	900.0	0.00	0.00	
9,200.0	90.00	180.00	7,740.0	-1,000.0	1,606.7	1,000.0	0.00	0.00	
9,300.0	90.00	180.00	7,740.0	-1,100.0	1,606.7	1,100.0	0.00	0.00	
9,400.0	90.00	180.00	7,740.0	-1,200.0	1,606.7	1,200.0	0.00	0.00	
9,500.0	90.00	180.00	7,740.0	-1,300.0	1,606.7	1,300.0	0.00	0.00	
9,600.0	90.00	180.00	7,740.0	-1,400.0	1,606.7	1,400.0	0.00	0.00	
9,700.0	90.00	180.00	7,740.0	-1,500.0	1,606.7	1,500.0	0.00	0.00	
9,800.0	90.00	180.00	7,740.0	-1,600.0	1,606.7	1,600.0	0.00	0.00	
9,900.0	90.00	180.00	7,740.0	-1,700.0	1,606.7	1,700.0	0.00	0.00	
10,000.0	90.00	180.00	7,740.0	-1,800.0	1,606.7	1,800.0	0.00	0.00	
10,100.0	90.00	180.00	7,740.0	-1,900.0	1,606.7	1,900.0	0.00	0.00	
10,200.0	90.00	180.00	7,740.0	-2,000.0	1,606.7	2,000.0	0.00	0.00	
10,300.0	90.00	180.00	7,740.0	-2,100.0	1,606.7	2,100.0	0.00	0.00	
10,400.0	90.00	180.00	7,740.0	-2,200.0	1,606.7	2,200.0	0.00	0.00	
10,500.0	90.00	180.00	7,740.0	-2,300.0	1,606.7	2,300.0	0.00	0.00	
10,600.0	90.00	180.00	7,740.0	-2,400.0	1,606.7	2,400.0	0.00	0.00	
10,700.0	90.00	180.00	7,740.0	-2,500.0	1,606.7	2,500.0	0.00	0.00	
10,800.0	90.00	180.00	7,740.0	-2,600.0	1,606.7	2,600.0	0.00	0.00	
10,900.0	90.00	180.00	7,740.0	-2,700.0	1,606.7	2,700.0	0.00	0.00	
11,000.0	90.00	180.00	7,740.0	-2,800.0	1,606.7	2,800.0	0.00	0.00	
11,100.0	90.00	180.00	7,740.0	-2,900.0	1,606.7	2,900.0	0.00	0.00	
11,200.0	90.00	180.00	7,740.0	-3,000.0	1,606.7	3,000.0	0.00	0.00	
11,300.0	90.00	180.00	7,740.0	-3,100.0	1,606.7	3,100.0	0.00	0.00	
11,400.0	90.00	180.00	7,740.0	-3,200.0	1,606.7	3,200.0	0.00	0.00	
11,500.0	90.00	180.00	7,740.0	-3,300.0	1,606.7	3,300.0	0.00	0.00	
11,600.0	90.00	180.00	7,740.0	-3,400.0	1,606.7	3,400.0	0.00	0.00	
11,700.0	90.00	180.00	7,740.0	-3,500.0	1,606.7	3,500.0	0.00	0.00	
11,800.0	90.00	180.00	7,740.0	-3,600.0	1,606.7	3,600.0	0.00	0.00	
11,900.0	90.00	180.00	7,740.0	-3,700.0	1,606.7	3,700.0	0.00	0.00	
12,000.0	90.00	180.00	7,740.0	-3,800.0	1,606.7	3,800.0	0.00	0.00	
12,100.0	90.00	180.00	7,740.0	-3,900.0	1,606.7	3,900.0	0.00	0.00	
12,200.0	90.00	180.00	7,740.0	-4,000.0	1,606.7	4,000.0	0.00	0.00	
12,300.0	90.00	180.00	7,740.0	-4,100.0	1,606.7	4,100.0	0.00	0.00	
12,400.0	90.00	180.00	7,740.0	-4,200.0	1,606.7	4,200.0	0.00	0.00	
12,500.0	90.00	180.00	7,740.0	-4,300.0	1,606.7	4,300.0	0.00	0.00	
12,600.0	90.00	180.00	7,740.0	-4,400.0	1,606.7	4,400.0	0.00	0.00	
12,700.0	90.00	180.00	7,740.0	-4,500.0	1,606.7	4,500.0	0.00	0.00	
12,800.0	90.00	180.00	7,740.0	-4,600.0	1,606.7	4,600.0	0.00	0.00	
12,900.0	90.00	180.00	7,740.0	-4,700.0	1,606.7	4,700.0	0.00	0.00	
13,000.0	90.00	180.00	7,740.0	-4,800.0	1,606.7	4,800.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 5007.0ft (Unassigned)
Project:	DJ Wattenberg	MD Reference:	KB @ 5007.0ft (Unassigned)
Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	North Reference:	True
Well:	Woolley-Sosa 2G-7H-E168	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

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
13,100.0	90.00	180.00	7,740.0	-4,900.0	1,606.7	4,900.0	0.00	0.00	
13,200.0	90.00	180.00	7,740.0	-5,000.0	1,606.7	5,000.0	0.00	0.00	
13,300.0	90.00	180.00	7,740.0	-5,100.0	1,606.7	5,100.0	0.00	0.00	
13,400.0	90.00	180.00	7,740.0	-5,200.0	1,606.7	5,200.0	0.00	0.00	
13,500.0	90.00	180.00	7,740.0	-5,300.0	1,606.7	5,300.0	0.00	0.00	
13,600.0	90.00	180.00	7,740.0	-5,400.0	1,606.7	5,400.0	0.00	0.00	
13,700.0	90.00	180.00	7,740.0	-5,500.0	1,606.7	5,500.0	0.00	0.00	
13,800.0	90.00	180.00	7,740.0	-5,600.0	1,606.7	5,600.0	0.00	0.00	
13,900.0	90.00	180.00	7,740.0	-5,700.0	1,606.7	5,700.0	0.00	0.00	
14,000.0	90.00	180.00	7,740.0	-5,800.0	1,606.7	5,800.0	0.00	0.00	
14,100.0	90.00	180.00	7,740.0	-5,900.0	1,606.7	5,900.0	0.00	0.00	
14,200.0	90.00	180.00	7,740.0	-6,000.0	1,606.7	6,000.0	0.00	0.00	
14,300.0	90.00	180.00	7,740.0	-6,100.0	1,606.7	6,100.0	0.00	0.00	
14,400.0	90.00	180.00	7,740.0	-6,200.0	1,606.7	6,200.0	0.00	0.00	
14,500.0	90.00	180.00	7,740.0	-6,300.0	1,606.7	6,300.0	0.00	0.00	
14,600.0	90.00	180.00	7,740.0	-6,400.0	1,606.7	6,400.0	0.00	0.00	
14,700.0	90.00	180.00	7,740.0	-6,500.0	1,606.7	6,500.0	0.00	0.00	
14,800.0	90.00	180.00	7,740.0	-6,600.0	1,606.7	6,600.0	0.00	0.00	
14,900.0	90.00	180.00	7,740.0	-6,700.0	1,606.7	6,700.0	0.00	0.00	
15,000.0	90.00	180.00	7,740.0	-6,800.0	1,606.7	6,800.0	0.00	0.00	
15,100.0	90.00	180.00	7,740.0	-6,900.0	1,606.7	6,900.0	0.00	0.00	
15,200.0	90.00	180.00	7,740.0	-7,000.0	1,606.7	7,000.0	0.00	0.00	
15,300.0	90.00	180.00	7,740.0	-7,100.0	1,606.7	7,100.0	0.00	0.00	
15,400.0	90.00	180.00	7,740.0	-7,200.0	1,606.7	7,200.0	0.00	0.00	
15,500.0	90.00	180.00	7,740.0	-7,300.0	1,606.7	7,300.0	0.00	0.00	
15,600.0	90.00	180.00	7,740.0	-7,400.0	1,606.7	7,400.0	0.00	0.00	
15,700.0	90.00	180.00	7,740.0	-7,500.0	1,606.7	7,500.0	0.00	0.00	
15,800.0	90.00	180.00	7,740.0	-7,600.0	1,606.7	7,600.0	0.00	0.00	
15,900.0	90.00	180.00	7,740.0	-7,700.0	1,606.7	7,700.0	0.00	0.00	
16,000.0	90.00	180.00	7,740.0	-7,800.0	1,606.7	7,800.0	0.00	0.00	
16,100.0	90.00	180.00	7,740.0	-7,900.0	1,606.7	7,900.0	0.00	0.00	
16,142.2	90.00	180.00	7,740.0	-7,942.3	1,606.7	7,942.3	0.00	0.00	TD at 16142.2

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									
Woolley-Sosa 2G-7H-E1	0.00	0.00	7,747.0	-7,942.6	1,607.9	1,259,582.87	3,126,635.47	40.045050	-105.047700
- plan misses target center by 7.1ft at 16142.2ft MD (7740.0 TVD, -7942.3 N, 1606.7 E)									
- Point									
Woolley-Sosa 2G-7H-E1	0.00	0.00	7,740.0	-7,942.3	1,606.7	1,259,583.23	3,126,634.35	40.045051	-105.047704
- plan hits target center									
- Point									

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 5007.0ft (Unassigned)
Project:	DJ Wattenberg	MD Reference:	KB @ 5007.0ft (Unassigned)
Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	North Reference:	True
Well:	Woolley-Sosa 2G-7H-E168	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
400.0	400.0	Fox Hills - BASE				
4,538.6	4,438.0	Sussex				
5,122.9	5,005.0	Shannon				
6,692.2	6,528.0	Teepee Buttes (*if present)				
7,509.2	7,320.0	Sharon Springs				
7,564.0	7,371.0	Niobrara				
7,697.4	7,487.0	B Chalk				
7,732.5	7,515.0	B Marl				
7,852.8	7,601.0	C Chalk				
7,891.7	7,625.0	C Marl				
7,947.7	7,656.0	D Chalk				
8,080.7	7,711.0	Fort Hayes				
8,175.4	7,733.0	Codell				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.0	200.0	0.0	0.0	KOP @ 200' MD	
1,595.5	1,581.8	55.1	159.9	EOB; 13.96°	
7,321.2	7,138.4	504.9	1,465.4	10° Build/Turn	
8,266.2	7,740.0	-66.3	1,606.7	LP @ 7740' TVD; 90°	
16,142.2	7,740.0	-7,942.3	1,606.7	TD at 16142.2	

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)

Woolley-Sosa 2G-7H-E168

HZ

Plan #2

Anticollision Report

10 December, 2014

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 5,280.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	12/9/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	16,142.2	Plan #2 (HZ)	Geolink MWD	Geolink MWD

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured	Offset Measured	Distance		Separation Factor	Warning
	Depth (ft)	Depth (ft)	Between Centres (ft)	Between Ellipses (ft)		
S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)						
BEARDEN 24-6 (EXISTING) - ENCANA WELL - PLAN O	11,209.6	7,798.0	177.7	102.9	2.377	CC, ES, SF
ERIE CHAMPLIN B UNIT 2 - ENCANA WELL - NO SURV	15,537.7	7,798.0	1,930.0	1,785.1	13.321	CC
ERIE CHAMPLIN B UNIT 2 - ENCANA WELL - NO SURV	15,600.0	7,798.0	1,931.0	1,785.1	13.229	ES
ERIE CHAMPLIN B UNIT 2 - ENCANA WELL - NO SURV	16,000.0	7,798.0	1,984.6	1,831.7	12.976	SF
Morgan Hills 1A-7H-A168 - HZ - Plan #2	8,031.6	9,484.4	844.6	796.9	17.700	CC
Morgan Hills 1A-7H-A168 - HZ - Plan #2	16,142.2	17,588.6	847.2	543.4	2.789	ES, SF
Morgan Hills 1B-7H-A168 - HZ - Plan #2	8,265.8	9,894.7	1,061.5	1,008.8	20.163	CC
Morgan Hills 1B-7H-A168 - HZ - Plan #2	16,142.2	17,771.1	1,062.8	746.5	3.361	ES, SF
Morgan Hills 1C-7H-A168 - HZ - Plan #2	16,142.2	17,488.8	1,334.2	1,022.8	4.285	CC, ES, SF
Morgan Hills 1D-7H-A168 - HZ - Plan #2	8,265.8	9,813.5	1,561.5	1,508.9	29.688	CC
Morgan Hills 1D-7H-A168 - HZ - Plan #2	16,142.2	17,689.9	1,562.8	1,246.6	4.942	ES, SF
Morgan Hills 1E-7H-A168 - HZ - Plan #2	8,265.3	9,548.2	1,827.1	1,774.8	34.985	CC
Morgan Hills 1E-7H-A168 - HZ - Plan #2	16,142.2	17,425.1	1,828.4	1,514.8	5.831	ES, SF
Morgan Hills 1F-7H-A168 - HZ - Plan #2	8,257.1	9,753.6	2,033.9	1,981.6	38.911	CC
Morgan Hills 1F-7H-A168 - HZ - Plan #2	16,142.2	17,638.6	2,062.7	1,746.6	6.526	ES, SF
Sosa 11-18 - DD - DD	11,803.7	7,833.4	1,658.3	1,573.8	19.617	CC, ES
Sosa 11-18 - DD - DD	12,400.0	7,836.2	1,762.3	1,667.5	18.591	SF
Sosa 12-18 - DD - DD	13,438.0	7,894.4	1,655.3	1,538.7	14.194	CC, ES
Sosa 12-18 - DD - DD	13,800.0	7,894.5	1,694.4	1,571.5	13.787	SF
Sosa 21-18 - DD (MWD) - DD	11,806.7	7,904.0	105.4	20.8	1.246	Level 2, CC, ES, SF
Sosa 22-18 - DD - DD	13,300.1	7,900.9	180.5	68.1	1.605	CC, ES, SF
SOSA A UNIT 1 (EXISTING) - EXISTING - EXISTING	12,498.1	7,778.5	1,158.3	1,066.2	12.585	CC
SOSA A UNIT 1 (EXISTING) - EXISTING - EXISTING	12,500.0	7,778.5	1,158.3	1,066.2	12.581	ES
SOSA A UNIT 1 (EXISTING) - EXISTING - EXISTING	12,800.0	7,779.1	1,197.0	1,099.7	12.309	SF
THOMAS 24-7 (EXISTING) - ENCANA WELL - SURVEY	10,633.4	7,764.8	212.8	152.4	3.525	CC, ES, SF
THOMAS 24-7 (Existing) - Existing - NO SURVEYS	10,504.3	7,735.0	467.5	409.5	8.059	CC, ES
THOMAS 24-7 (Existing) - Existing - NO SURVEYS	10,600.0	7,735.0	477.2	417.6	8.006	SF
THOMAS 2-8-7 (EXISTING) - ENCANA WELL - SURVEY	11,208.3	7,817.1	907.8	833.5	12.211	CC, ES
THOMAS 2-8-7 (EXISTING) - ENCANA WELL - SURVEY	11,400.0	7,816.6	927.8	850.2	11.956	SF
THOMAS 33-7 (EXISTING) - ENCANA WELL - SURVEY	9,340.0	8,018.4	883.2	832.1	17.271	CC, ES
THOMAS 33-7 (EXISTING) - ENCANA WELL - SURVEY	9,600.0	8,018.1	920.7	865.6	16.719	SF
THOMAS E UNIT 1 (EXISTING) - Existing - NO SURVEY	9,398.8	7,734.0	715.3	675.0	17.738	CC
THOMAS E UNIT 1 (EXISTING) - Existing - NO SURVEY	9,400.0	7,734.0	715.3	674.9	17.730	ES
THOMAS E UNIT 1 (EXISTING) - Existing - NO SURVEY	9,600.0	7,734.0	743.0	699.7	17.126	SF
WOOLLEY 12-7 (EXISTING) - ENCANA WELL - NO SUR	200.0	288.0	155.7	154.9	187.784	CC
WOOLLEY 12-7 (EXISTING) - ENCANA WELL - NO SUR	300.0	388.0	155.9	154.7	132.231	ES
WOOLLEY 12-7 (EXISTING) - ENCANA WELL - NO SUR	1,400.0	1,479.2	221.2	215.7	40.292	SF
WOOLLEY 21-7 (EXISTING) - ENCANA WELL - GYRO	6,931.6	6,773.6	1,120.2	1,079.7	27.626	CC
WOOLLEY 21-7 (EXISTING) - ENCANA WELL - GYRO	7,100.0	6,936.0	1,121.1	1,079.4	26.881	ES
WOOLLEY 21-7 (EXISTING) - ENCANA WELL - GYRO	7,350.0	7,161.7	1,126.8	1,083.5	26.031	SF
WOOLLEY 22-7 (EXISTING) - ENCANA WELL - SURVE	8,015.5	7,961.1	202.4	159.5	4.727	CC, ES, SF
WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SURVE	4,136.8	4,356.0	260.7	223.0	6.917	CC, ES
WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SURVE	4,200.0	4,408.3	262.9	224.7	6.878	SF
WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL - GY	5,034.0	4,957.4	544.7	516.0	18.963	CC
WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL - GY	5,100.0	5,020.4	545.0	515.8	18.707	ES
WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL - GY	5,600.0	5,502.0	567.6	535.9	17.892	SF
Woolley-Becky 2A-7H-E168 - Hz - Plan #2	430.0	430.0	4.2	2.7	2.835	CC, ES, SF
Woolley-Becky 2B-7H-E168 - Hz - Plan #2	564.5	564.2	10.0	8.0	5.059	CC, ES, SF
Woolley-Becky 2C-7H-E168 - Hz - Plan #4	776.7	775.6	11.2	8.4	4.015	CC, ES
Woolley-Becky 2C-7H-E168 - Hz - Plan #4	800.0	798.8	11.4	8.5	3.929	SF
Woolley-Becky 2D-7H-E168 - Hz - Plan #4	880.4	878.1	20.4	17.2	6.369	CC
Woolley-Becky 2D-7H-E168 - Hz - Plan #4	900.0	897.5	20.4	17.1	6.203	ES
Woolley-Becky 2D-7H-E168 - Hz - Plan #4	1,000.0	997.1	22.4	18.6	5.878	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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)						
Woolley-Becky 2E-7H-E168 - Hz - Plan #2	946.4	942.2	34.7	31.3	10.138	CC
Woolley-Becky 2E-7H-E168 - Hz - Plan #2	1,000.0	995.4	34.9	31.2	9.474	ES
Woolley-Becky 2E-7H-E168 - Hz - Plan #2	1,400.0	1,393.6	47.0	40.9	7.622	SF
Woolley-Becky 2F-7H-E168 - Hz - Plan #3	1,124.0	1,116.4	50.6	46.5	12.282	CC
Woolley-Becky 2F-7H-E168 - Hz - Plan #3	1,300.0	1,290.9	51.3	46.2	10.109	ES
Woolley-Becky 2F-7H-E168 - Hz - Plan #3	2,300.0	2,288.2	74.3	60.5	5.380	SF
Woolley-Becky 2G-7H-E168 - Hz - Plan #2	7,975.1	7,930.9	50.6	21.8	1.758	CC, ES, SF
Woolley-Becky 2H-7H-E168 - Hz - Plan #3	200.0	200.0	80.0	79.4	122.629	CC
Woolley-Becky 2H-7H-E168 - Hz - Plan #3	500.0	495.8	80.4	78.7	47.458	ES
Woolley-Becky 2H-7H-E168 - Hz - Plan #3	2,000.0	1,969.8	141.5	131.2	13.734	SF
Woolley-Sosa 2A-7H-E168 - Hz - Plan #2	200.0	200.0	508.0	507.3	778.213	CC, ES
Woolley-Sosa 2A-7H-E168 - Hz - Plan #2	16,142.2	15,936.0	2,115.1	1,832.0	7.471	SF
Woolley-Sosa 2B-7H-E168 - HZ - Plan #2	200.0	200.0	49.8	49.2	76.323	CC, ES
Woolley-Sosa 2B-7H-E168 - HZ - Plan #2	16,142.2	15,706.0	1,756.6	1,476.1	6.262	SF
Woolley-Sosa 2C-7H-E168 - HZ - Plan #2	200.0	200.0	40.0	39.4	61.316	CC, ES
Woolley-Sosa 2C-7H-E168 - HZ - Plan #2	16,142.2	15,952.8	1,376.4	1,093.2	4.859	SF
Woolley-Sosa 2D-7H-E168 - HZ - Plan #2	200.0	200.0	29.9	29.3	45.881	CC, ES
Woolley-Sosa 2D-7H-E168 - HZ - Plan #2	16,142.2	15,805.8	1,077.1	800.7	3.898	SF
Woolley-Sosa 2E-7H-E168 - HZ - Plan #3	200.0	200.0	19.9	19.2	30.442	CC, ES
Woolley-Sosa 2E-7H-E168 - HZ - Plan #3	16,142.2	16,083.8	700.0	416.5	2.469	SF
Woolley-Sosa 2F-7H-E168 - HZ - Plan #2	200.0	200.0	9.8	9.1	15.007	CC, ES
Woolley-Sosa 2F-7H-E168 - HZ - Plan #2	16,142.2	15,839.3	424.4	188.9	1.802	SF

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 24-6 (EXISTING) - ENCANA WELL - PL										Offset Site Error:		0.0 ft	
Survey Program: O-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
0.0	0.0	0.0	0.0	0.0	0.0	153.67	-2,303.7	1,140.1	2,570.4				
100.0	100.0	85.0	85.0	0.2	0.1	153.67	-2,303.7	1,140.1	2,570.3	2,570.0	0.28	9,296.766	
200.0	200.0	185.0	185.0	0.3	0.3	153.67	-2,303.7	1,140.1	2,570.3	2,569.7	0.62	4,136.644	
300.0	300.0	285.0	285.0	0.5	0.5	82.70	-2,303.7	1,140.1	2,570.2	2,569.2	0.97	2,646.100	
400.0	400.0	385.0	385.0	0.7	0.6	82.76	-2,303.7	1,140.1	2,569.9	2,568.6	1.33	1,938.848	
500.0	499.9	484.9	484.9	0.9	0.8	82.86	-2,303.7	1,140.1	2,569.3	2,567.6	1.69	1,522.619	
600.0	599.7	584.7	584.7	1.1	1.0	83.01	-2,303.7	1,140.1	2,568.6	2,566.5	2.06	1,246.424	
700.0	699.4	684.4	684.4	1.3	1.2	83.19	-2,303.7	1,140.1	2,567.6	2,565.2	2.45	1,048.590	
800.0	798.9	783.9	783.9	1.5	1.3	83.41	-2,303.7	1,140.1	2,566.5	2,563.7	2.85	899.262	
900.0	898.3	883.3	883.3	1.8	1.5	83.67	-2,303.7	1,140.1	2,565.2	2,562.0	3.28	782.233	
1,000.0	997.4	982.4	982.4	2.0	1.7	83.98	-2,303.7	1,140.1	2,563.8	2,560.1	3.73	687.932	
1,100.0	1,096.3	1,081.3	1,081.3	2.3	1.9	84.32	-2,303.7	1,140.1	2,562.3	2,558.1	4.20	610.323	
1,200.0	1,194.9	1,179.9	1,179.9	2.7	2.0	84.69	-2,303.7	1,140.1	2,560.7	2,556.0	4.70	545.398	
1,300.0	1,293.3	1,278.3	1,278.3	3.0	2.2	85.11	-2,303.7	1,140.1	2,559.0	2,553.8	5.22	490.374	
1,400.0	1,391.2	1,376.3	1,376.3	3.4	2.4	85.56	-2,303.7	1,140.1	2,557.4	2,551.6	5.77	443.247	
1,500.0	1,488.9	1,473.9	1,473.9	3.8	2.5	86.05	-2,303.7	1,140.1	2,555.8	2,549.4	6.35	402.533	
1,595.5	1,581.8	1,535.3	1,535.3	4.2	2.7	86.38	-2,303.9	1,140.1	2,554.7	2,547.8	6.87	371.636	
1,600.0	1,586.1	1,537.6	1,537.6	4.2	2.7	86.39	-2,303.9	1,140.1	2,554.7	2,547.8	6.90	370.362	
1,610.7	1,596.5	1,543.1	1,543.1	4.3	2.7	86.42	-2,304.0	1,140.2	2,554.7	2,547.7	6.95	367.319	
1,700.0	1,683.2	1,600.0	1,600.0	4.7	2.8	86.73	-2,305.3	1,140.7	2,555.5	2,548.1	7.45	343.032	
1,800.0	1,780.2	1,640.2	1,640.1	5.1	2.8	86.95	-2,306.8	1,141.4	2,558.2	2,550.2	7.97	321.102	
1,900.0	1,877.3	1,700.0	1,699.8	5.6	2.9	87.27	-2,310.1	1,142.7	2,562.9	2,554.4	8.52	300.753	
2,000.0	1,974.3	1,742.5	1,742.2	6.0	3.0	87.50	-2,313.1	1,143.9	2,569.5	2,560.5	9.05	283.967	
2,100.0	2,071.4	1,800.0	1,799.5	6.5	3.1	87.80	-2,318.2	1,146.0	2,578.2	2,568.6	9.60	268.454	
2,200.0	2,168.4	1,844.3	1,843.5	6.9	3.2	88.04	-2,322.8	1,147.9	2,588.7	2,578.5	10.14	255.353	
2,300.0	2,265.4	1,900.0	1,898.7	7.4	3.3	88.33	-2,329.5	1,150.6	2,601.1	2,590.4	10.69	243.277	
2,400.0	2,362.5	1,945.3	1,943.5	7.9	3.5	88.57	-2,335.6	1,153.1	2,615.5	2,604.2	11.23	232.897	
2,500.0	2,459.5	2,000.0	1,997.5	8.3	3.6	88.85	-2,343.9	1,156.5	2,631.7	2,619.9	11.78	223.322	
2,600.0	2,556.6	2,045.4	2,042.1	8.8	3.7	89.08	-2,351.6	1,159.7	2,649.8	2,637.5	12.32	215.014	
2,700.0	2,653.6	2,113.4	2,108.8	9.2	3.9	89.42	-2,364.0	1,164.7	2,669.6	2,656.7	12.90	206.896	
2,800.0	2,750.7	2,208.8	2,202.3	9.7	4.2	89.89	-2,381.6	1,171.9	2,689.9	2,676.4	13.53	198.803	
2,900.0	2,847.7	2,304.2	2,295.7	10.2	4.5	90.36	-2,399.2	1,179.2	2,710.4	2,696.3	14.16	191.437	
3,000.0	2,944.8	2,399.5	2,389.2	10.6	4.8	90.81	-2,416.8	1,186.4	2,731.1	2,716.3	14.79	184.708	
3,100.0	3,041.8	2,494.9	2,482.6	11.1	5.1	91.27	-2,434.4	1,193.6	2,751.9	2,736.5	15.41	178.535	
3,200.0	3,138.9	2,590.3	2,576.1	11.5	5.4	91.71	-2,452.0	1,200.8	2,772.9	2,756.9	16.04	172.856	
3,300.0	3,235.9	2,685.7	2,669.5	12.0	5.7	92.15	-2,469.6	1,208.0	2,794.1	2,777.4	16.67	167.613	
3,400.0	3,333.0	2,781.0	2,763.0	12.5	6.0	92.58	-2,487.1	1,215.2	2,815.4	2,798.1	17.30	162.760	
3,500.0	3,430.0	2,876.4	2,856.5	12.9	6.4	93.01	-2,504.7	1,222.4	2,836.9	2,818.9	17.93	158.255	
3,600.0	3,527.1	2,971.8	2,949.9	13.4	6.7	93.43	-2,522.3	1,229.6	2,858.5	2,840.0	18.55	154.062	
3,700.0	3,624.1	3,067.1	3,043.4	13.9	7.1	93.84	-2,539.9	1,236.8	2,880.3	2,861.1	19.18	150.151	
3,800.0	3,721.2	3,162.5	3,136.8	14.3	7.4	94.25	-2,557.5	1,244.0	2,902.2	2,882.4	19.81	146.494	
3,900.0	3,818.2	3,257.9	3,230.3	14.8	7.8	94.65	-2,575.1	1,251.2	2,924.3	2,903.9	20.44	143.068	
4,000.0	3,915.3	3,353.3	3,323.8	15.3	8.1	95.05	-2,592.7	1,258.4	2,946.6	2,925.5	21.07	139.851	
4,100.0	4,012.3	3,448.6	3,417.2	15.7	8.5	95.44	-2,610.3	1,265.6	2,968.9	2,947.2	21.70	136.826	
4,200.0	4,109.4	3,544.0	3,510.7	16.2	8.8	95.83	-2,627.9	1,272.8	2,991.4	2,969.1	22.33	133.976	
4,300.0	4,206.4	3,639.4	3,604.1	16.6	9.2	96.21	-2,645.5	1,280.0	3,014.0	2,991.1	22.96	131.286	
4,400.0	4,303.5	3,734.8	3,697.6	17.1	9.5	96.58	-2,663.1	1,287.2	3,036.8	3,013.2	23.59	128.744	
4,500.0	4,400.5	3,830.1	3,791.0	17.6	9.9	96.95	-2,680.7	1,294.4	3,059.7	3,035.5	24.22	126.338	
4,600.0	4,497.6	3,925.5	3,884.5	18.0	10.2	97.31	-2,698.3	1,301.6	3,082.7	3,057.8	24.85	124.057	
4,700.0	4,594.6	4,020.9	3,978.0	18.5	10.6	97.67	-2,715.9	1,308.8	3,105.8	3,080.3	25.48	121.892	
4,800.0	4,691.7	4,116.2	4,071.4	19.0	11.0	98.03	-2,733.5	1,316.0	3,129.1	3,103.0	26.11	119.835	
4,900.0	4,788.7	4,211.6	4,164.9	19.4	11.3	98.37	-2,751.1	1,323.2	3,152.4	3,125.7	26.74	117.878	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 24-6 (EXISTING) - ENCANA WELL - PL											Offset Site Error: 0.0 ft			
Survey Program: O-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)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,000.0	4,885.8	4,307.0	4,258.3	19.9	11.7	98.72	-2,768.7	1,330.4	3,175.9	3,148.5	27.38	116.014		
5,100.0	4,982.8	4,402.4	4,351.8	20.4	12.0	99.06	-2,786.3	1,337.6	3,199.5	3,171.5	28.01	114.236		
5,200.0	5,079.9	4,497.7	4,445.2	20.8	12.4	99.39	-2,803.9	1,344.8	3,223.2	3,194.5	28.64	112.539		
5,300.0	5,176.9	4,593.1	4,538.7	21.3	12.8	99.72	-2,821.5	1,352.0	3,247.0	3,217.7	29.27	110.917		
5,400.0	5,273.9	4,688.5	4,632.2	21.8	13.1	100.04	-2,839.1	1,359.2	3,270.9	3,241.0	29.91	109.366		
5,500.0	5,371.0	4,783.9	4,725.6	22.2	13.5	100.36	-2,856.7	1,366.4	3,294.9	3,264.3	30.54	107.882		
5,600.0	5,468.0	4,879.2	4,819.1	22.7	13.9	100.68	-2,874.3	1,373.6	3,319.0	3,287.8	31.18	106.460		
5,700.0	5,565.1	4,974.6	4,912.5	23.1	14.2	100.99	-2,891.9	1,380.9	3,343.2	3,311.4	31.81	105.096		
5,800.0	5,662.1	5,070.0	5,006.0	23.6	14.6	101.30	-2,909.5	1,388.1	3,367.5	3,335.0	32.45	103.787		
5,900.0	5,759.2	5,165.3	5,099.5	24.1	15.0	101.60	-2,927.1	1,395.3	3,391.9	3,358.8	33.08	102.530		
6,000.0	5,856.2	5,260.7	5,192.9	24.5	15.3	101.90	-2,944.7	1,402.5	3,416.3	3,382.6	33.72	101.322		
6,100.0	5,953.3	6,011.2	5,938.3	25.0	17.0	104.54	-3,009.7	1,429.1	3,427.2	3,391.7	35.46	96.649		
6,200.0	6,050.3	6,108.3	6,035.3	25.5	17.1	104.92	-3,009.7	1,429.1	3,433.5	3,397.4	36.06	95.207		
6,300.0	6,147.4	6,205.3	6,132.4	25.9	17.2	105.29	-3,009.7	1,429.1	3,440.0	3,403.3	36.66	93.823		
6,400.0	6,244.4	6,302.4	6,229.4	26.4	17.3	105.67	-3,009.7	1,429.1	3,446.6	3,409.3	37.26	92.492		
6,500.0	6,341.5	6,399.4	6,326.5	26.9	17.4	106.05	-3,009.7	1,429.1	3,453.4	3,415.5	37.86	91.214		
6,600.0	6,438.5	6,496.5	6,423.5	27.3	17.5	106.42	-3,009.7	1,429.1	3,460.3	3,421.8	38.45	89.985		
6,700.0	6,535.6	6,593.5	6,520.6	27.8	17.6	106.79	-3,009.7	1,429.1	3,467.4	3,428.3	39.05	88.802		
6,800.0	6,632.6	6,690.6	6,617.6	28.3	17.7	107.16	-3,009.7	1,429.1	3,474.6	3,435.0	39.64	87.664		
6,900.0	6,729.7	6,787.6	6,714.7	28.7	17.8	107.53	-3,009.7	1,429.1	3,482.0	3,441.8	40.22	86.568		
7,000.0	6,826.7	6,884.7	6,811.7	29.2	17.9	107.90	-3,009.7	1,429.1	3,489.5	3,448.7	40.81	85.513		
7,100.0	6,923.8	6,981.7	6,908.8	29.7	18.1	108.26	-3,009.7	1,429.1	3,497.2	3,455.8	41.39	84.496		
7,200.0	7,020.8	7,078.8	7,005.8	30.1	18.2	108.63	-3,009.7	1,429.1	3,505.1	3,463.1	41.97	83.516		
7,300.0	7,117.9	7,175.8	7,102.9	30.6	18.3	108.99	-3,009.7	1,429.1	3,513.1	3,470.5	42.55	82.571		
7,321.2	7,138.4	7,196.4	7,123.4	30.7	18.3	109.07	-3,009.7	1,429.1	3,514.8	3,472.1	42.67	82.375		
7,350.0	7,166.4	7,224.4	7,151.4	30.8	18.3	97.55	-3,009.7	1,429.1	3,516.4	3,473.5	42.92	81.933		
7,400.0	7,215.1	7,273.0	7,200.1	31.0	18.4	76.79	-3,009.7	1,429.1	3,515.8	3,472.6	43.13	81.509		
7,450.0	7,263.5	7,321.4	7,248.5	31.2	18.5	59.25	-3,009.7	1,429.1	3,510.8	3,467.8	43.07	81.512		
7,500.0	7,311.3	7,369.2	7,296.3	31.3	18.5	46.70	-3,009.7	1,429.1	3,501.6	3,458.9	42.73	81.945		
7,550.0	7,358.1	7,416.0	7,343.1	31.5	18.6	38.17	-3,009.7	1,429.1	3,488.2	3,446.1	42.12	82.821		
7,600.0	7,403.5	7,461.5	7,388.6	31.6	18.6	32.35	-3,009.7	1,429.1	3,470.7	3,429.5	41.24	84.165		
7,650.0	7,447.3	7,505.3	7,432.3	31.7	18.7	28.30	-3,009.7	1,429.1	3,449.2	3,409.1	40.10	86.013		
7,700.0	7,489.1	7,547.0	7,474.1	31.7	18.7	25.43	-3,009.7	1,429.1	3,423.9	3,385.2	38.72	88.417		
7,750.0	7,528.5	7,586.5	7,513.5	31.8	18.8	23.39	-3,009.7	1,429.1	3,395.0	3,357.8	37.13	91.441		
7,800.0	7,565.3	7,623.3	7,550.3	31.8	18.8	21.98	-3,009.7	1,429.1	3,362.6	3,327.3	35.34	95.163		
7,850.0	7,599.2	7,657.1	7,584.2	31.9	18.9	21.06	-3,009.7	1,429.1	3,327.1	3,293.7	33.38	99.670		
7,900.0	7,629.9	7,687.8	7,614.9	31.9	18.9	20.57	-3,009.7	1,429.1	3,288.7	3,257.4	31.31	105.046		
7,950.0	7,657.2	7,715.1	7,642.2	31.9	18.9	20.51	-3,009.7	1,429.1	3,247.7	3,218.5	29.17	111.335		
8,000.0	7,680.9	7,738.8	7,665.9	32.0	19.0	20.93	-3,009.7	1,429.1	3,204.3	3,177.3	27.05	118.461		
8,050.0	7,700.8	7,758.7	7,685.8	32.0	19.0	21.98	-3,009.7	1,429.1	3,159.0	3,133.9	25.07	126.021		
8,100.0	7,716.7	7,774.6	7,701.7	32.0	19.0	24.03	-3,009.7	1,429.1	3,112.1	3,088.6	23.43	132.824		
8,150.0	7,728.6	7,786.5	7,713.6	32.1	19.0	28.06	-3,009.7	1,429.1	3,063.8	3,041.3	22.56	135.815		
8,200.0	7,736.3	7,794.2	7,721.3	32.1	19.0	37.27	-3,009.7	1,429.1	3,014.7	2,991.1	23.60	127.763		
8,250.0	7,739.8	7,797.7	7,724.8	32.2	19.0	67.49	-3,009.7	1,429.1	2,964.9	2,934.7	30.24	98.037		
8,266.2	7,740.0	7,798.0	7,725.0	32.2	19.0	90.00	-3,009.7	1,429.1	2,948.7	2,916.0	32.75	90.046		
8,300.0	7,740.0	7,798.0	7,725.0	32.3	19.0	90.00	-3,009.7	1,429.1	2,915.0	2,882.2	32.88	88.654		
8,400.0	7,740.0	7,798.0	7,725.0	32.5	19.0	90.00	-3,009.7	1,429.1	2,815.2	2,781.8	33.41	84.269		
8,500.0	7,740.0	7,798.0	7,725.0	32.8	19.0	90.00	-3,009.7	1,429.1	2,715.4	2,681.3	34.11	79.602		
8,600.0	7,740.0	7,798.0	7,725.0	33.2	19.0	90.00	-3,009.7	1,429.1	2,615.7	2,580.7	34.97	74.789		
8,700.0	7,740.0	7,798.0	7,725.0	33.7	19.0	90.00	-3,009.7	1,429.1	2,515.9	2,479.9	35.97	69.948		
8,800.0	7,740.0	7,798.0	7,725.0	34.3	19.0	90.00	-3,009.7	1,429.1	2,416.2	2,379.1	37.07	65.171		
8,900.0	7,740.0	7,798.0	7,725.0	34.9	19.0	90.00	-3,009.7	1,429.1	2,316.4	2,278.2	38.27	60.523		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 24-6 (EXISTING) - ENCANA WELL - PL												Offset Site Error:	0.0 ft
Survey Program: 0-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
9,000.0	7,740.0	7,798.0	7,725.0	35.6	19.0	90.00	-3,009.7	1,429.1	2,216.7	2,177.2	39.55	56.049	
9,100.0	7,740.0	7,798.0	7,725.0	36.4	19.0	90.00	-3,009.7	1,429.1	2,117.1	2,076.2	40.89	51.773	
9,200.0	7,740.0	7,798.0	7,725.0	37.3	19.0	90.00	-3,009.7	1,429.1	2,017.5	1,975.2	42.29	47.710	
9,300.0	7,740.0	7,798.0	7,725.0	38.2	19.0	90.00	-3,009.7	1,429.1	1,917.9	1,874.1	43.73	43.862	
9,400.0	7,740.0	7,798.0	7,725.0	39.2	19.0	90.00	-3,009.7	1,429.1	1,818.3	1,773.1	45.20	40.226	
9,500.0	7,740.0	7,798.0	7,725.0	40.2	19.0	90.00	-3,009.7	1,429.1	1,718.8	1,672.1	46.71	36.797	
9,600.0	7,740.0	7,798.0	7,725.0	41.3	19.0	90.00	-3,009.7	1,429.1	1,619.4	1,571.1	48.25	33.566	
9,700.0	7,740.0	7,798.0	7,725.0	42.4	19.0	90.00	-3,009.7	1,429.1	1,520.0	1,470.2	49.80	30.521	
9,800.0	7,740.0	7,798.0	7,725.0	43.6	19.0	90.00	-3,009.7	1,429.1	1,420.8	1,369.4	51.38	27.651	
9,900.0	7,740.0	7,798.0	7,725.0	44.8	19.0	90.00	-3,009.7	1,429.1	1,321.6	1,268.6	52.98	24.947	
10,000.0	7,740.0	7,798.0	7,725.0	46.0	19.0	90.00	-3,009.7	1,429.1	1,222.6	1,168.0	54.59	22.398	
10,100.0	7,740.0	7,798.0	7,725.0	47.3	19.0	90.00	-3,009.7	1,429.1	1,123.7	1,067.5	56.21	19.993	
10,200.0	7,740.0	7,798.0	7,725.0	48.6	19.0	90.00	-3,009.7	1,429.1	1,025.1	967.3	57.84	17.723	
10,300.0	7,740.0	7,798.0	7,725.0	50.0	19.0	90.00	-3,009.7	1,429.1	926.8	867.3	59.48	15.581	
10,400.0	7,740.0	7,798.0	7,725.0	51.3	19.0	90.00	-3,009.7	1,429.1	828.9	767.7	61.14	13.558	
10,500.0	7,740.0	7,798.0	7,725.0	52.7	19.0	90.00	-3,009.7	1,429.1	731.5	668.7	62.80	11.649	
10,600.0	7,740.0	7,798.0	7,725.0	54.1	19.0	90.00	-3,009.7	1,429.1	635.0	570.5	64.46	9.850	
10,700.0	7,740.0	7,798.0	7,725.0	55.6	19.0	90.00	-3,009.7	1,429.1	539.7	473.6	66.14	8.160	
10,800.0	7,740.0	7,798.0	7,725.0	57.0	19.0	90.00	-3,009.7	1,429.1	446.5	378.7	67.82	6.584	
10,900.0	7,740.0	7,798.0	7,725.0	58.5	19.0	90.00	-3,009.7	1,429.1	357.0	287.5	69.50	5.136	
11,000.0	7,740.0	7,798.0	7,725.0	59.9	19.0	90.00	-3,009.7	1,429.1	274.8	203.6	71.19	3.860	
11,100.0	7,740.0	7,798.0	7,725.0	61.4	19.0	90.00	-3,009.7	1,429.1	208.8	135.9	72.88	2.864	
11,200.0	7,740.0	7,798.0	7,725.0	62.9	19.0	90.00	-3,009.7	1,429.1	177.9	103.4	74.58	2.386	
11,209.6	7,740.0	7,798.0	7,725.0	63.1	19.0	90.00	-3,009.7	1,429.1	177.7	102.9	74.74	2.377	CC, ES, SF
11,300.0	7,740.0	7,798.0	7,725.0	64.5	19.0	90.00	-3,009.7	1,429.1	199.3	123.1	76.28	2.613	
11,400.0	7,740.0	7,798.0	7,725.0	66.0	19.0	90.00	-3,009.7	1,429.1	260.4	182.4	77.98	3.339	
11,500.0	7,740.0	7,798.0	7,725.0	67.5	19.0	90.00	-3,009.7	1,429.1	340.4	260.7	79.69	4.272	
11,600.0	7,740.0	7,798.0	7,725.0	69.1	19.0	90.00	-3,009.7	1,429.1	428.9	347.5	81.39	5.270	
11,700.0	7,740.0	7,798.0	7,725.0	70.7	19.0	90.00	-3,009.7	1,429.1	521.6	438.5	83.11	6.276	
11,800.0	7,740.0	7,798.0	7,725.0	72.2	19.0	90.00	-3,009.7	1,429.1	616.5	531.7	84.82	7.269	
11,900.0	7,740.0	7,798.0	7,725.0	73.8	19.0	90.00	-3,009.7	1,429.1	712.9	626.3	86.53	8.238	
12,000.0	7,740.0	7,798.0	7,725.0	75.4	19.0	90.00	-3,009.7	1,429.1	810.1	721.9	88.25	9.180	
12,100.0	7,740.0	7,798.0	7,725.0	77.0	19.0	90.00	-3,009.7	1,429.1	907.9	818.0	89.97	10.092	
12,200.0	7,740.0	7,798.0	7,725.0	78.6	19.0	90.00	-3,009.7	1,429.1	1,006.2	914.5	91.69	10.974	
12,300.0	7,740.0	7,798.0	7,725.0	80.2	19.0	90.00	-3,009.7	1,429.1	1,104.8	1,011.4	93.41	11.827	
12,400.0	7,740.0	7,798.0	7,725.0	81.8	19.0	90.00	-3,009.7	1,429.1	1,203.6	1,108.4	95.14	12.651	
12,500.0	7,740.0	7,798.0	7,725.0	83.4	19.0	90.00	-3,009.7	1,429.1	1,302.6	1,205.7	96.86	13.448	
12,600.0	7,740.0	7,798.0	7,725.0	85.1	19.0	90.00	-3,009.7	1,429.1	1,401.7	1,303.1	98.59	14.218	
12,700.0	7,740.0	7,798.0	7,725.0	86.7	19.0	90.00	-3,009.7	1,429.1	1,500.9	1,400.6	100.31	14.962	
12,800.0	7,740.0	7,798.0	7,725.0	88.3	19.0	90.00	-3,009.7	1,429.1	1,600.3	1,498.2	102.04	15.682	
12,900.0	7,740.0	7,798.0	7,725.0	90.0	19.0	90.00	-3,009.7	1,429.1	1,699.7	1,595.9	103.77	16.379	
13,000.0	7,740.0	7,798.0	7,725.0	91.6	19.0	90.00	-3,009.7	1,429.1	1,799.2	1,693.7	105.50	17.053	
13,100.0	7,740.0	7,798.0	7,725.0	93.3	19.0	90.00	-3,009.7	1,429.1	1,898.7	1,791.5	107.23	17.706	
13,200.0	7,740.0	7,798.0	7,725.0	94.9	19.0	90.00	-3,009.7	1,429.1	1,998.3	1,889.3	108.97	18.339	
13,300.0	7,740.0	7,798.0	7,725.0	96.6	19.0	90.00	-3,009.7	1,429.1	2,097.9	1,987.2	110.70	18.951	
13,400.0	7,740.0	7,798.0	7,725.0	98.2	19.0	90.00	-3,009.7	1,429.1	2,197.6	2,085.1	112.43	19.546	
13,500.0	7,740.0	7,798.0	7,725.0	99.9	19.0	90.00	-3,009.7	1,429.1	2,297.3	2,183.1	114.17	20.122	
13,600.0	7,740.0	7,798.0	7,725.0	101.6	19.0	90.00	-3,009.7	1,429.1	2,397.0	2,281.1	115.90	20.681	
13,700.0	7,740.0	7,798.0	7,725.0	103.2	19.0	90.00	-3,009.7	1,429.1	2,496.7	2,379.1	117.64	21.223	
13,800.0	7,740.0	7,798.0	7,725.0	104.9	19.0	90.00	-3,009.7	1,429.1	2,596.5	2,477.1	119.38	21.750	
13,900.0	7,740.0	7,798.0	7,725.0	106.6	19.0	90.00	-3,009.7	1,429.1	2,696.2	2,575.1	121.11	22.262	
14,000.0	7,740.0	7,798.0	7,725.0	108.2	19.0	90.00	-3,009.7	1,429.1	2,796.0	2,673.2	122.85	22.759	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 24-6 (EXISTING) - ENCANA WELL - PL													Offset Site Error:	0.0 ft
Survey Program: 0-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		
14,100.0	7,740.0	7,798.0	7,725.0	109.9	19.0	90.00	-3,009.7	1,429.1	2,895.8	2,771.3	124.59	23.243		
14,200.0	7,740.0	7,798.0	7,725.0	111.6	19.0	90.00	-3,009.7	1,429.1	2,995.7	2,869.3	126.33	23.713		
14,300.0	7,740.0	7,798.0	7,725.0	113.3	19.0	90.00	-3,009.7	1,429.1	3,095.5	2,967.4	128.07	24.171		
14,400.0	7,740.0	7,798.0	7,725.0	115.0	19.0	90.00	-3,009.7	1,429.1	3,195.3	3,065.5	129.81	24.616		
14,500.0	7,740.0	7,798.0	7,725.0	116.7	19.0	90.00	-3,009.7	1,429.1	3,295.2	3,163.6	131.55	25.049		
14,600.0	7,740.0	7,798.0	7,725.0	118.3	19.0	90.00	-3,009.7	1,429.1	3,395.0	3,261.8	133.29	25.471		
14,700.0	7,740.0	7,798.0	7,725.0	120.0	19.0	90.00	-3,009.7	1,429.1	3,494.9	3,359.9	135.03	25.883		
14,800.0	7,740.0	7,798.0	7,725.0	121.7	19.0	90.00	-3,009.7	1,429.1	3,594.8	3,458.0	136.77	26.283		
14,900.0	7,740.0	7,798.0	7,725.0	123.4	19.0	90.00	-3,009.7	1,429.1	3,694.7	3,556.1	138.51	26.674		
15,000.0	7,740.0	7,798.0	7,725.0	125.1	19.0	90.00	-3,009.7	1,429.1	3,794.5	3,654.3	140.25	27.055		
15,100.0	7,740.0	7,798.0	7,725.0	126.8	19.0	90.00	-3,009.7	1,429.1	3,894.4	3,752.4	142.00	27.426		
15,200.0	7,740.0	7,798.0	7,725.0	128.5	19.0	90.00	-3,009.7	1,429.1	3,994.3	3,850.6	143.74	27.789		
15,300.0	7,740.0	7,798.0	7,725.0	130.2	19.0	90.00	-3,009.7	1,429.1	4,094.2	3,948.8	145.48	28.142		
15,400.0	7,740.0	7,798.0	7,725.0	131.9	19.0	90.00	-3,009.7	1,429.1	4,194.2	4,046.9	147.23	28.488		
15,500.0	7,740.0	7,798.0	7,725.0	133.6	19.0	90.00	-3,009.7	1,429.1	4,294.1	4,145.1	148.97	28.825		
15,600.0	7,740.0	7,798.0	7,725.0	135.3	19.0	90.00	-3,009.7	1,429.1	4,394.0	4,243.3	150.71	29.154		
15,700.0	7,740.0	7,798.0	7,725.0	137.0	19.0	90.00	-3,009.7	1,429.1	4,493.9	4,341.4	152.46	29.476		
15,800.0	7,740.0	7,798.0	7,725.0	138.7	19.0	90.00	-3,009.7	1,429.1	4,593.8	4,439.6	154.20	29.791		
15,900.0	7,740.0	7,798.0	7,725.0	140.5	19.0	90.00	-3,009.7	1,429.1	4,693.8	4,537.8	155.95	30.098		
16,000.0	7,740.0	7,798.0	7,725.0	142.2	19.0	90.00	-3,009.7	1,429.1	4,793.7	4,636.0	157.69	30.399		
16,100.0	7,740.0	7,798.0	7,725.0	143.9	19.0	90.00	-3,009.7	1,429.1	4,893.6	4,734.2	159.44	30.693		
16,142.2	7,740.0	7,798.0	7,725.0	144.6	19.0	90.00	-3,009.7	1,429.1	4,935.8	4,775.6	160.17	30.815		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - ERIE CHAMPLIN B UNIT 2 - ENCANA WELL - NO											Offset Site Error: 0.0 ft		
Survey Program: 8413-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	
10,700.0	7,740.0	7,798.0	7,798.0	55.6	13.6	-90.00	-7,337.7	3,536.8	5,208.5	5,147.1	61.39	84.842	
10,800.0	7,740.0	7,798.0	7,798.0	57.0	13.6	-90.00	-7,337.7	3,536.8	5,115.7	5,052.7	63.07	81.113	
10,900.0	7,740.0	7,798.0	7,798.0	58.5	13.6	-90.00	-7,337.7	3,536.8	5,023.3	4,958.5	64.75	77.576	
11,000.0	7,740.0	7,798.0	7,798.0	59.9	13.6	-90.00	-7,337.7	3,536.8	4,931.1	4,864.7	66.44	74.217	
11,100.0	7,740.0	7,798.0	7,798.0	61.4	13.6	-90.00	-7,337.7	3,536.8	4,839.2	4,771.1	68.13	71.025	
11,200.0	7,740.0	7,798.0	7,798.0	62.9	13.6	-90.00	-7,337.7	3,536.8	4,747.7	4,677.9	69.83	67.989	
11,300.0	7,740.0	7,798.0	7,798.0	64.5	13.6	-90.00	-7,337.7	3,536.8	4,656.5	4,585.0	71.53	65.099	
11,400.0	7,740.0	7,798.0	7,798.0	66.0	13.6	-90.00	-7,337.7	3,536.8	4,565.7	4,492.5	73.23	62.345	
11,500.0	7,740.0	7,798.0	7,798.0	67.5	13.6	-90.00	-7,337.7	3,536.8	4,475.3	4,400.3	74.94	59.719	
11,600.0	7,740.0	7,798.0	7,798.0	69.1	13.6	-90.00	-7,337.7	3,536.8	4,385.3	4,308.6	76.65	57.213	
11,700.0	7,740.0	7,798.0	7,798.0	70.7	13.6	-90.00	-7,337.7	3,536.8	4,295.7	4,217.3	78.36	54.821	
11,800.0	7,740.0	7,798.0	7,798.0	72.2	13.6	-90.00	-7,337.7	3,536.8	4,206.6	4,126.5	80.07	52.535	
11,900.0	7,740.0	7,798.0	7,798.0	73.8	13.6	-90.00	-7,337.7	3,536.8	4,118.0	4,036.2	81.79	50.350	
12,000.0	7,740.0	7,798.0	7,798.0	75.4	13.6	-90.00	-7,337.7	3,536.8	4,029.9	3,946.4	83.50	48.260	
12,100.0	7,740.0	7,798.0	7,798.0	77.0	13.6	-90.00	-7,337.7	3,536.8	3,942.4	3,857.2	85.22	46.260	
12,200.0	7,740.0	7,798.0	7,798.0	78.6	13.6	-90.00	-7,337.7	3,536.8	3,855.5	3,768.6	86.94	44.345	
12,300.0	7,740.0	7,798.0	7,798.0	80.2	13.6	-90.00	-7,337.7	3,536.8	3,769.3	3,680.6	88.67	42.512	
12,400.0	7,740.0	7,798.0	7,798.0	81.8	13.6	-90.00	-7,337.7	3,536.8	3,683.8	3,593.4	90.39	40.755	
12,500.0	7,740.0	7,798.0	7,798.0	83.4	13.6	-90.00	-7,337.7	3,536.8	3,599.0	3,506.9	92.11	39.071	
12,600.0	7,740.0	7,798.0	7,798.0	85.1	13.6	-90.00	-7,337.7	3,536.8	3,515.0	3,421.1	93.84	37.457	
12,700.0	7,740.0	7,798.0	7,798.0	86.7	13.6	-90.00	-7,337.7	3,536.8	3,431.8	3,336.3	95.57	35.910	
12,800.0	7,740.0	7,798.0	7,798.0	88.3	13.6	-90.00	-7,337.7	3,536.8	3,349.6	3,252.3	97.30	34.427	
12,900.0	7,740.0	7,798.0	7,798.0	90.0	13.6	-90.00	-7,337.7	3,536.8	3,268.4	3,169.4	99.03	33.006	
13,000.0	7,740.0	7,798.0	7,798.0	91.6	13.6	-90.00	-7,337.7	3,536.8	3,188.2	3,087.5	100.76	31.643	
13,100.0	7,740.0	7,798.0	7,798.0	93.3	13.6	-90.00	-7,337.7	3,536.8	3,109.2	3,006.7	102.49	30.338	
13,200.0	7,740.0	7,798.0	7,798.0	94.9	13.6	-90.00	-7,337.7	3,536.8	3,031.5	2,927.2	104.22	29.087	
13,300.0	7,740.0	7,798.0	7,798.0	96.6	13.6	-90.00	-7,337.7	3,536.8	2,955.0	2,849.1	105.95	27.890	
13,400.0	7,740.0	7,798.0	7,798.0	98.2	13.6	-90.00	-7,337.7	3,536.8	2,880.1	2,772.4	107.69	26.745	
13,500.0	7,740.0	7,798.0	7,798.0	99.9	13.6	-90.00	-7,337.7	3,536.8	2,806.6	2,697.2	109.42	25.650	
13,600.0	7,740.0	7,798.0	7,798.0	101.6	13.6	-90.00	-7,337.7	3,536.8	2,734.9	2,623.7	111.16	24.604	
13,700.0	7,740.0	7,798.0	7,798.0	103.2	13.6	-90.00	-7,337.7	3,536.8	2,665.0	2,552.1	112.89	23.606	
13,800.0	7,740.0	7,798.0	7,798.0	104.9	13.6	-90.00	-7,337.7	3,536.8	2,597.0	2,482.4	114.63	22.656	
13,900.0	7,740.0	7,798.0	7,798.0	106.6	13.6	-90.00	-7,337.7	3,536.8	2,531.2	2,414.8	116.37	21.752	
14,000.0	7,740.0	7,798.0	7,798.0	108.2	13.6	-90.00	-7,337.7	3,536.8	2,467.7	2,349.6	118.10	20.894	
14,100.0	7,740.0	7,798.0	7,798.0	109.9	13.6	-90.00	-7,337.7	3,536.8	2,406.6	2,286.8	119.84	20.082	
14,200.0	7,740.0	7,798.0	7,798.0	111.6	13.6	-90.00	-7,337.7	3,536.8	2,348.3	2,226.7	121.58	19.314	
14,300.0	7,740.0	7,798.0	7,798.0	113.3	13.6	-90.00	-7,337.7	3,536.8	2,292.8	2,169.5	123.32	18.592	
14,400.0	7,740.0	7,798.0	7,798.0	115.0	13.6	-90.00	-7,337.7	3,536.8	2,240.4	2,115.3	125.06	17.914	
14,500.0	7,740.0	7,798.0	7,798.0	116.7	13.6	-90.00	-7,337.7	3,536.8	2,191.3	2,064.5	126.80	17.281	
14,600.0	7,740.0	7,798.0	7,798.0	118.3	13.6	-90.00	-7,337.7	3,536.8	2,145.8	2,017.2	128.54	16.693	
14,700.0	7,740.0	7,798.0	7,798.0	120.0	13.6	-90.00	-7,337.7	3,536.8	2,104.0	1,973.7	130.28	16.149	
14,800.0	7,740.0	7,798.0	7,798.0	121.7	13.6	-90.00	-7,337.7	3,536.8	2,066.2	1,934.2	132.02	15.650	
14,900.0	7,740.0	7,798.0	7,798.0	123.4	13.6	-90.00	-7,337.7	3,536.8	2,032.6	1,898.9	133.77	15.196	
15,000.0	7,740.0	7,798.0	7,798.0	125.1	13.6	-90.00	-7,337.7	3,536.8	2,003.5	1,868.0	135.51	14.785	
15,100.0	7,740.0	7,798.0	7,798.0	126.8	13.6	-90.00	-7,337.7	3,536.8	1,979.0	1,841.8	137.25	14.419	
15,200.0	7,740.0	7,798.0	7,798.0	128.5	13.6	-90.00	-7,337.7	3,536.8	1,959.3	1,820.3	138.99	14.097	
15,300.0	7,740.0	7,798.0	7,798.0	130.2	13.6	-90.00	-7,337.7	3,536.8	1,944.6	1,803.9	140.74	13.817	
15,400.0	7,740.0	7,798.0	7,798.0	131.9	13.6	-90.00	-7,337.7	3,536.8	1,934.9	1,792.4	142.48	13.580	
15,500.0	7,740.0	7,798.0	7,798.0	133.6	13.6	-90.00	-7,337.7	3,536.8	1,930.4	1,786.2	144.22	13.385	
15,537.7	7,740.0	7,798.0	7,798.0	134.3	13.6	-90.00	-7,337.7	3,536.8	1,930.0	1,785.1	144.88	13.321 CC	
15,600.0	7,740.0	7,798.0	7,798.0	135.3	13.6	-90.00	-7,337.7	3,536.8	1,931.0	1,785.1	145.97	13.229 ES	
15,700.0	7,740.0	7,798.0	7,798.0	137.0	13.6	-90.00	-7,337.7	3,536.8	1,936.8	1,789.1	147.71	13.112	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design										S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - ERIE CHAMPLIN B UNIT 2 - ENCANA WELL - NO				Offset Site Error:		0.0 ft	
Survey Program: 8413-Geolink MWD														Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance										
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation Factor	Warning				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis						
15,800.0	7,740.0	7,798.0	7,798.0	138.7	13.6	-90.00	-7,337.7	3,536.8	1,947.8	1,798.3	149.46	13.032					
15,900.0	7,740.0	7,798.0	7,798.0	140.5	13.6	-90.00	-7,337.7	3,536.8	1,963.7	1,812.5	151.20	12.988					
16,000.0	7,740.0	7,798.0	7,798.0	142.2	13.6	-90.00	-7,337.7	3,536.8	1,984.6	1,831.7	152.95	12.976 SF					
16,100.0	7,740.0	7,798.0	7,798.0	143.9	13.6	-90.00	-7,337.7	3,536.8	2,010.3	1,855.6	154.69	12.995					
16,142.2	7,740.0	7,798.0	7,798.0	144.6	13.6	-90.00	-7,337.7	3,536.8	2,022.5	1,867.1	155.43	13.012					

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1A-7H-A168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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)				
0.0	0.0	29.0	29.0	0.0	0.0	65.44	1,870.5	4,092.4	4,499.6					
100.0	100.0	129.0	129.0	0.2	0.2	65.44	1,870.5	4,092.4	4,499.6	4,499.2	0.35	N/A		
200.0	200.0	277.0	277.0	0.3	0.5	65.43	1,870.6	4,091.9	4,499.4	4,498.7	0.79	5,711.919		
300.0	300.0	541.8	541.6	0.5	1.0	-5.64	1,872.8	4,082.4	4,495.7	4,494.2	1.43	3,133.413		
400.0	400.0	804.6	803.5	0.7	1.5	-5.83	1,877.7	4,061.3	4,486.5	4,484.4	2.11	2,124.669		
500.0	499.9	1,063.6	1,060.3	0.9	2.2	-6.12	1,885.0	4,029.1	4,472.1	4,469.3	2.84	1,574.808		
600.0	599.7	1,317.2	1,310.1	1.1	3.1	-6.52	1,894.8	3,986.5	4,452.5	4,448.9	3.63	1,225.831		
700.0	699.4	1,564.1	1,551.2	1.3	4.1	-7.02	1,906.6	3,934.8	4,427.9	4,423.4	4.50	983.571		
800.0	798.9	1,716.7	1,699.1	1.5	4.8	-7.40	1,915.1	3,898.1	4,399.1	4,394.0	5.15	854.361		
900.0	898.3	1,810.4	1,789.8	1.8	5.2	-7.67	1,920.4	3,875.1	4,368.5	4,362.8	5.62	777.370		
1,000.0	997.4	1,903.6	1,880.0	2.0	5.7	-7.94	1,925.6	3,852.2	4,336.2	4,330.1	6.09	711.778		
1,100.0	1,096.3	1,996.1	1,969.5	2.3	6.1	-8.23	1,930.8	3,829.5	4,302.4	4,295.9	6.57	655.222		
1,200.0	1,194.9	2,088.0	2,058.5	2.7	6.5	-8.53	1,936.0	3,806.9	4,267.1	4,260.0	7.04	605.939		
1,300.0	1,293.3	2,179.3	2,146.8	3.0	7.0	-8.84	1,941.1	3,784.5	4,230.2	4,222.7	7.52	562.586		
1,400.0	1,391.2	2,269.8	2,234.4	3.4	7.4	-9.17	1,946.2	3,762.2	4,191.8	4,183.8	8.00	524.120		
1,500.0	1,488.9	2,359.7	2,321.3	3.8	7.8	-9.51	1,951.3	3,740.1	4,151.9	4,143.4	8.48	489.721		
1,595.5	1,581.8	2,444.8	2,403.7	4.2	8.2	-9.84	1,956.1	3,719.2	4,112.3	4,103.4	8.94	460.055		
1,600.0	1,586.1	2,448.8	2,407.6	4.2	8.2	-9.86	1,956.3	3,718.3	4,110.5	4,101.5	8.96	458.694		
1,700.0	1,683.2	2,537.5	2,493.5	4.7	8.7	-10.14	1,961.3	3,696.4	4,068.4	4,059.0	9.47	429.731		
1,800.0	1,780.2	2,626.3	2,579.4	5.1	9.1	-10.43	1,966.3	3,674.6	4,026.5	4,016.5	9.98	403.494		
1,900.0	1,877.3	2,715.1	2,665.2	5.6	9.5	-10.73	1,971.3	3,652.8	3,984.6	3,974.1	10.50	379.621		
2,000.0	1,974.3	2,803.8	2,751.1	6.0	9.9	-11.03	1,976.3	3,631.0	3,942.9	3,931.9	11.02	357.813		
2,100.0	2,071.4	2,892.6	2,837.0	6.5	10.4	-11.34	1,981.3	3,609.2	3,901.2	3,889.7	11.55	337.816		
2,200.0	2,168.4	2,981.3	2,922.9	6.9	10.8	-11.65	1,986.3	3,587.4	3,859.7	3,847.6	12.08	319.419		
2,300.0	2,265.4	3,070.1	3,008.8	7.4	11.2	-11.98	1,991.3	3,565.6	3,818.2	3,805.6	12.62	302.441		
2,400.0	2,362.5	3,158.8	3,094.7	7.9	11.7	-12.30	1,996.3	3,543.8	3,776.8	3,763.7	13.17	286.726		
2,500.0	2,459.5	3,247.6	3,180.6	8.3	12.1	-12.64	2,001.3	3,522.0	3,735.6	3,721.9	13.73	272.143		
2,600.0	2,556.6	3,336.3	3,266.5	8.8	12.5	-12.98	2,006.3	3,500.2	3,694.5	3,680.2	14.29	258.576		
2,700.0	2,653.6	3,425.1	3,352.4	9.2	12.9	-13.33	2,011.3	3,478.4	3,653.5	3,638.6	14.86	245.924		
2,800.0	2,750.7	3,513.9	3,438.3	9.7	13.4	-13.69	2,016.3	3,456.6	3,612.6	3,597.2	15.43	234.102		
2,900.0	2,847.7	3,602.6	3,524.1	10.2	13.8	-14.05	2,021.3	3,434.8	3,571.8	3,555.8	16.01	223.031		
3,000.0	2,944.8	3,691.4	3,610.0	10.6	14.2	-14.42	2,026.3	3,413.0	3,531.2	3,514.6	16.61	212.646		
3,100.0	3,041.8	3,780.1	3,695.9	11.1	14.7	-14.80	2,031.3	3,391.2	3,490.7	3,473.5	17.21	202.887		
3,200.0	3,138.9	3,868.9	3,781.8	11.5	15.1	-15.19	2,036.3	3,369.4	3,450.3	3,432.5	17.81	193.701		
3,300.0	3,235.9	3,957.6	3,867.7	12.0	15.5	-15.59	2,041.3	3,347.6	3,410.1	3,391.7	18.43	185.042		
3,400.0	3,333.0	4,046.4	3,953.6	12.5	15.9	-16.00	2,046.3	3,325.8	3,370.1	3,351.0	19.05	176.867		
3,500.0	3,430.0	4,135.2	4,039.5	12.9	16.4	-16.41	2,051.3	3,304.0	3,330.2	3,310.5	19.69	169.139		
3,600.0	3,527.1	4,223.9	4,125.4	13.4	16.8	-16.84	2,056.3	3,282.1	3,290.4	3,270.1	20.33	161.825		
3,700.0	3,624.1	4,312.7	4,211.3	13.9	17.2	-17.27	2,061.3	3,260.3	3,250.8	3,229.9	20.99	154.895		
3,800.0	3,721.2	4,401.4	4,297.2	14.3	17.7	-17.72	2,066.3	3,238.5	3,211.4	3,189.8	21.65	148.321		
3,900.0	3,818.2	4,490.2	4,383.1	14.8	18.1	-18.17	2,071.3	3,216.7	3,172.2	3,149.9	22.33	142.078		
4,000.0	3,915.3	4,578.9	4,468.9	15.3	18.5	-18.64	2,076.3	3,194.9	3,133.2	3,110.2	23.01	136.145		
4,100.0	4,012.3	4,667.7	4,554.8	15.7	18.9	-19.11	2,081.3	3,173.1	3,094.3	3,070.6	23.71	130.501		
4,200.0	4,109.4	4,756.4	4,640.7	16.2	19.4	-19.60	2,086.3	3,151.3	3,055.7	3,031.3	24.42	125.128		
4,300.0	4,206.4	4,845.2	4,726.6	16.6	19.8	-20.10	2,091.3	3,129.5	3,017.2	2,992.1	25.14	120.008		
4,400.0	4,303.5	4,934.0	4,812.5	17.1	20.2	-20.61	2,096.3	3,107.7	2,979.0	2,953.1	25.88	115.127		
4,500.0	4,400.5	5,022.7	4,898.4	17.6	20.7	-21.13	2,101.3	3,085.9	2,941.0	2,914.4	26.62	110.470		
4,600.0	4,497.6	5,111.5	4,984.3	18.0	21.1	-21.67	2,106.3	3,064.1	2,903.3	2,875.9	27.38	106.025		
4,700.0	4,594.6	5,200.2	5,070.2	18.5	21.5	-22.22	2,111.3	3,042.3	2,865.8	2,837.6	28.16	101.779		
4,800.0	4,691.7	5,289.0	5,156.1	19.0	22.0	-22.78	2,116.3	3,020.5	2,828.5	2,799.5	28.94	97.722		
4,900.0	4,788.7	5,377.7	5,242.0	19.4	22.4	-23.36	2,121.3	2,998.7	2,791.5	2,761.7	29.75	93.843		
5,000.0	4,885.8	5,466.5	5,327.8	19.9	22.8	-23.95	2,126.3	2,976.9	2,754.8	2,724.2	30.56	90.133		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1A-7H-A168 - HZ - Plan #2												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	
5,100.0	4,982.8	5,555.2	5,413.7	20.4	23.2	-24.55	2,131.3	2,955.1	2,718.3	2,686.9	31.40	86.584	
5,200.0	5,079.9	5,644.0	5,499.6	20.8	23.7	-25.17	2,136.3	2,933.3	2,682.2	2,649.9	32.24	83.187	
5,300.0	5,176.9	5,732.8	5,585.5	21.3	24.1	-25.80	2,141.3	2,911.5	2,646.3	2,613.2	33.11	79.935	
5,400.0	5,273.9	5,821.5	5,671.4	21.8	24.5	-26.45	2,146.3	2,889.7	2,610.8	2,576.8	33.99	76.822	
5,500.0	5,371.0	9,284.4	7,530.0	22.2	43.2	30.99	362.1	2,418.1	2,531.5	2,481.8	49.63	51.006	
5,600.0	5,468.0	9,276.5	7,530.0	22.7	43.1	30.48	369.9	2,418.1	2,437.7	2,388.2	49.48	49.264	
5,700.0	5,565.1	9,268.7	7,530.0	23.1	43.0	29.97	377.8	2,418.1	2,344.4	2,295.1	49.33	47.529	
5,800.0	5,662.1	9,260.8	7,530.0	23.6	42.9	29.46	385.6	2,418.1	2,251.7	2,202.6	49.16	45.801	
5,900.0	5,759.2	9,253.0	7,530.0	24.1	42.8	28.95	393.5	2,418.1	2,159.6	2,110.6	48.99	44.082	
6,000.0	5,856.2	9,245.1	7,530.0	24.5	42.7	28.44	401.3	2,418.1	2,068.2	2,019.4	48.81	42.372	
6,100.0	5,953.3	9,237.3	7,530.0	25.0	42.6	27.92	409.2	2,418.1	1,977.7	1,929.0	48.62	40.672	
6,200.0	6,050.3	9,229.4	7,530.0	25.5	42.5	27.40	417.0	2,418.1	1,888.0	1,839.6	48.43	38.984	
6,300.0	6,147.4	9,221.6	7,530.0	25.9	42.5	26.88	424.9	2,418.1	1,799.4	1,751.2	48.23	37.310	
6,400.0	6,244.4	9,213.7	7,530.0	26.4	42.4	26.36	432.7	2,418.1	1,712.0	1,664.0	48.02	35.653	
6,500.0	6,341.5	9,205.8	7,530.0	26.9	42.3	25.84	440.6	2,418.1	1,626.0	1,578.2	47.80	34.015	
6,600.0	6,438.5	9,198.0	7,530.0	27.3	42.2	25.32	448.4	2,418.1	1,541.7	1,494.1	47.58	32.402	
6,700.0	6,535.6	9,190.1	7,530.0	27.8	42.1	24.79	456.3	2,418.1	1,459.3	1,412.0	47.35	30.819	
6,800.0	6,632.6	9,182.3	7,530.0	28.3	42.0	24.27	464.1	2,418.1	1,379.2	1,332.1	47.12	29.272	
6,900.0	6,729.7	9,174.4	7,530.0	28.7	41.9	23.74	472.0	2,418.1	1,301.8	1,255.0	46.88	27.771	
7,000.0	6,826.7	9,166.6	7,530.0	29.2	41.9	23.22	479.9	2,418.1	1,227.7	1,181.0	46.63	26.327	
7,100.0	6,923.8	9,158.7	7,530.0	29.7	41.8	22.69	487.7	2,418.1	1,157.4	1,111.0	46.38	24.954	
7,200.0	7,020.8	9,150.9	7,530.0	30.1	41.7	22.16	495.6	2,418.1	1,091.6	1,045.5	46.12	23.667	
7,300.0	7,117.9	9,143.0	7,530.0	30.6	41.6	21.63	503.4	2,418.1	1,031.3	985.5	45.86	22.487	
7,321.2	7,138.4	9,141.4	7,530.0	30.7	41.6	21.52	505.1	2,418.1	1,019.4	973.6	45.81	22.254	
7,350.0	7,166.4	9,139.8	7,530.0	30.8	41.6	7.90	506.6	2,418.1	1,003.5	959.1	44.40	22.600	
7,400.0	7,215.1	9,140.6	7,530.0	31.0	41.6	-16.05	505.8	2,418.1	977.4	935.0	42.38	23.061	
7,450.0	7,263.5	9,145.7	7,530.0	31.2	41.6	-36.18	500.7	2,418.1	953.4	912.4	40.95	23.281	
7,500.0	7,311.3	9,155.1	7,530.0	31.3	41.7	-50.72	491.3	2,418.1	931.6	891.5	40.09	23.239	
7,550.0	7,358.1	9,168.8	7,530.0	31.5	41.9	-60.66	477.6	2,418.1	912.4	872.6	39.74	22.959	
7,600.0	7,403.5	9,186.6	7,530.0	31.6	42.1	-67.36	459.8	2,418.1	895.7	855.9	39.83	22.491	
7,650.0	7,447.3	9,208.5	7,530.0	31.7	42.3	-71.82	438.0	2,418.1	881.8	841.5	40.28	21.893	
7,700.0	7,489.1	9,234.1	7,530.0	31.7	42.6	-74.70	412.3	2,418.1	870.4	829.4	41.01	21.224	
7,750.0	7,528.5	9,263.4	7,530.0	31.8	42.9	-76.41	383.0	2,418.1	861.5	819.6	41.95	20.535	
7,800.0	7,565.3	9,296.1	7,530.0	31.8	43.3	-77.27	350.3	2,418.1	854.8	811.8	43.02	19.870	
7,850.0	7,599.2	9,332.0	7,530.0	31.9	43.7	-77.49	314.4	2,418.1	850.2	806.0	44.15	19.258	
7,900.0	7,629.9	9,370.8	7,530.0	31.9	44.2	-77.28	275.7	2,418.1	847.1	801.9	45.25	18.722	
7,950.0	7,657.2	9,412.2	7,530.0	31.9	44.6	-76.77	234.3	2,418.1	845.4	799.1	46.27	18.270	
8,000.0	7,680.9	9,455.8	7,530.0	32.0	45.2	-76.11	190.6	2,418.2	844.7	797.5	47.19	17.899	
8,031.6	7,693.9	9,484.4	7,530.0	32.0	45.5	-75.66	162.0	2,418.2	844.6	796.9	47.71	17.700 CC	
8,050.0	7,700.8	9,501.4	7,530.0	32.0	45.7	-75.39	145.0	2,418.2	844.6	796.6	47.99	17.598	
8,100.0	7,716.7	9,548.7	7,530.0	32.0	46.3	-74.72	97.8	2,418.2	844.9	796.2	48.71	17.346	
8,150.0	7,728.6	9,597.1	7,530.0	32.1	46.9	-74.17	49.3	2,418.2	845.3	795.9	49.38	17.120	
8,200.0	7,736.3	9,646.5	7,530.0	32.1	47.5	-73.78	-0.1	2,418.2	845.7	795.6	50.06	16.893	
8,250.0	7,739.8	9,696.4	7,530.0	32.2	48.1	-73.60	-49.9	2,418.2	845.9	795.1	50.82	16.647	
8,266.2	7,740.0	9,712.6	7,530.0	32.2	48.4	-73.59	-66.1	2,418.2	845.9	794.8	51.08	16.559	
8,300.0	7,740.0	9,746.4	7,530.0	32.3	48.8	-73.59	-99.9	2,418.2	845.9	794.2	51.75	16.347	
8,400.0	7,740.0	9,846.4	7,530.0	32.5	50.1	-73.59	-199.9	2,418.2	845.9	792.1	53.83	15.714	
8,500.0	7,740.0	9,946.4	7,530.0	32.8	51.4	-73.59	-299.9	2,418.2	846.0	789.9	56.09	15.081	
8,600.0	7,740.0	10,046.4	7,530.0	33.2	52.8	-73.59	-399.9	2,418.2	846.0	787.5	58.50	14.460	
8,700.0	7,740.0	10,146.4	7,530.0	33.7	54.2	-73.59	-499.9	2,418.3	846.0	784.9	61.04	13.859	
8,800.0	7,740.0	10,246.4	7,530.0	34.3	55.6	-73.59	-599.9	2,418.3	846.0	782.3	63.70	13.282	
8,900.0	7,740.0	10,346.4	7,530.0	34.9	57.0	-73.59	-699.9	2,418.3	846.0	779.6	66.44	12.733	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1A-7H-A168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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			
9,000.0	7,740.0	10,446.4	7,530.0	35.6	58.4	-73.59	-799.9	2,418.3	846.0	776.8	69.27	12.214		
9,100.0	7,740.0	10,546.4	7,530.0	36.4	59.9	-73.59	-899.9	2,418.3	846.0	773.9	72.16	11.724		
9,200.0	7,740.0	10,646.4	7,530.0	37.3	61.4	-73.59	-999.9	2,418.3	846.1	771.0	75.11	11.264		
9,300.0	7,740.0	10,746.4	7,530.0	38.2	62.9	-73.59	-1,099.9	2,418.4	846.1	768.0	78.11	10.832		
9,400.0	7,740.0	10,846.4	7,530.0	39.2	64.4	-73.59	-1,199.9	2,418.4	846.1	765.0	81.14	10.427		
9,500.0	7,740.0	10,946.4	7,530.0	40.2	65.9	-73.59	-1,299.9	2,418.4	846.1	761.9	84.21	10.047		
9,600.0	7,740.0	11,046.4	7,530.0	41.3	67.4	-73.59	-1,399.9	2,418.4	846.1	758.8	87.31	9.691		
9,700.0	7,740.0	11,146.4	7,530.0	42.4	69.0	-73.59	-1,499.9	2,418.4	846.1	755.7	90.44	9.356		
9,800.0	7,740.0	11,246.4	7,530.0	43.6	70.5	-73.59	-1,599.9	2,418.4	846.2	752.6	93.59	9.041		
9,900.0	7,740.0	11,346.4	7,530.0	44.8	72.1	-73.59	-1,699.9	2,418.5	846.2	749.4	96.76	8.745		
10,000.0	7,740.0	11,446.4	7,530.0	46.0	73.6	-73.59	-1,799.9	2,418.5	846.2	746.2	99.94	8.467		
10,100.0	7,740.0	11,546.4	7,530.0	47.3	75.2	-73.59	-1,899.9	2,418.5	846.2	743.1	103.14	8.204		
10,200.0	7,740.0	11,646.4	7,530.0	48.6	76.8	-73.59	-1,999.9	2,418.5	846.2	739.9	106.35	7.957		
10,300.0	7,740.0	11,746.4	7,530.0	50.0	78.4	-73.59	-2,099.9	2,418.5	846.2	736.7	109.58	7.723		
10,400.0	7,740.0	11,846.4	7,530.0	51.3	80.0	-73.60	-2,199.9	2,418.5	846.3	733.4	112.81	7.502		
10,500.0	7,740.0	11,946.4	7,530.0	52.7	81.6	-73.60	-2,299.9	2,418.6	846.3	730.2	116.05	7.292		
10,600.0	7,740.0	12,046.4	7,530.0	54.1	83.2	-73.60	-2,399.9	2,418.6	846.3	727.0	119.31	7.093		
10,700.0	7,740.0	12,146.4	7,530.0	55.6	84.8	-73.60	-2,499.9	2,418.6	846.3	723.7	122.57	6.905		
10,800.0	7,740.0	12,246.4	7,530.0	57.0	86.4	-73.60	-2,599.9	2,418.6	846.3	720.5	125.83	6.726		
10,900.0	7,740.0	12,346.4	7,530.0	58.5	88.1	-73.60	-2,699.9	2,418.6	846.3	717.2	129.10	6.555		
11,000.0	7,740.0	12,446.4	7,530.0	59.9	89.7	-73.60	-2,799.9	2,418.6	846.3	714.0	132.38	6.393		
11,100.0	7,740.0	12,546.4	7,530.0	61.4	91.3	-73.60	-2,899.9	2,418.7	846.4	710.7	135.67	6.239		
11,200.0	7,740.0	12,646.4	7,530.0	62.9	93.0	-73.60	-2,999.9	2,418.7	846.4	707.4	138.95	6.091		
11,300.0	7,740.0	12,746.4	7,530.0	64.5	94.6	-73.60	-3,099.9	2,418.7	846.4	704.2	142.25	5.950		
11,400.0	7,740.0	12,846.4	7,530.0	66.0	96.3	-73.60	-3,199.9	2,418.7	846.4	700.9	145.54	5.816		
11,500.0	7,740.0	12,946.4	7,530.0	67.5	97.9	-73.60	-3,299.9	2,418.7	846.4	697.6	148.84	5.687		
11,600.0	7,740.0	13,046.4	7,530.0	69.1	99.6	-73.60	-3,399.9	2,418.7	846.4	694.3	152.15	5.563		
11,700.0	7,740.0	13,146.4	7,530.0	70.7	101.3	-73.60	-3,499.9	2,418.8	846.5	691.0	155.45	5.445		
11,800.0	7,740.0	13,246.4	7,530.0	72.2	102.9	-73.60	-3,599.9	2,418.8	846.5	687.7	158.76	5.332		
11,900.0	7,740.0	13,346.4	7,530.0	73.8	104.6	-73.60	-3,699.9	2,418.8	846.5	684.4	162.07	5.223		
12,000.0	7,740.0	13,446.4	7,530.0	75.4	106.2	-73.60	-3,799.9	2,418.8	846.5	681.1	165.39	5.118		
12,100.0	7,740.0	13,546.4	7,530.0	77.0	107.9	-73.60	-3,899.9	2,418.8	846.5	677.8	168.71	5.018		
12,200.0	7,740.0	13,646.4	7,530.0	78.6	109.6	-73.60	-3,999.9	2,418.8	846.5	674.5	172.02	4.921		
12,300.0	7,740.0	13,746.4	7,530.0	80.2	111.3	-73.60	-4,099.9	2,418.9	846.6	671.2	175.35	4.828		
12,400.0	7,740.0	13,846.4	7,530.0	81.8	113.0	-73.60	-4,199.9	2,418.9	846.6	667.9	178.67	4.738		
12,500.0	7,740.0	13,946.4	7,530.0	83.4	114.6	-73.60	-4,299.9	2,418.9	846.6	664.6	181.99	4.652		
12,600.0	7,740.0	14,046.4	7,530.0	85.1	116.3	-73.60	-4,399.9	2,418.9	846.6	661.3	185.32	4.568		
12,700.0	7,740.0	14,146.4	7,530.0	86.7	118.0	-73.60	-4,499.9	2,418.9	846.6	658.0	188.65	4.488		
12,800.0	7,740.0	14,246.4	7,530.0	88.3	119.7	-73.60	-4,599.9	2,418.9	846.6	654.7	191.98	4.410		
12,900.0	7,740.0	14,346.4	7,530.0	90.0	121.4	-73.60	-4,699.9	2,419.0	846.6	651.3	195.31	4.335		
13,000.0	7,740.0	14,446.4	7,530.0	91.6	123.1	-73.60	-4,799.9	2,419.0	846.7	648.0	198.64	4.262		
13,100.0	7,740.0	14,546.4	7,530.0	93.3	124.8	-73.60	-4,899.9	2,419.0	846.7	644.7	201.98	4.192		
13,200.0	7,740.0	14,646.4	7,530.0	94.9	126.5	-73.60	-4,999.9	2,419.0	846.7	641.4	205.31	4.124		
13,300.0	7,740.0	14,746.4	7,530.0	96.6	128.2	-73.60	-5,099.9	2,419.0	846.7	638.1	208.65	4.058		
13,400.0	7,740.0	14,846.4	7,530.0	98.2	129.9	-73.60	-5,199.9	2,419.0	846.7	634.7	211.99	3.994		
13,500.0	7,740.0	14,946.4	7,530.0	99.9	131.5	-73.61	-5,299.9	2,419.1	846.7	631.4	215.32	3.932		
13,600.0	7,740.0	15,046.4	7,530.0	101.6	133.3	-73.61	-5,399.9	2,419.1	846.8	628.1	218.66	3.872		
13,700.0	7,740.0	15,146.4	7,530.0	103.2	135.0	-73.61	-5,499.9	2,419.1	846.8	624.8	222.00	3.814		
13,800.0	7,740.0	15,246.4	7,530.0	104.9	136.7	-73.61	-5,599.9	2,419.1	846.8	621.4	225.34	3.758		
13,900.0	7,740.0	15,346.4	7,530.0	106.6	138.4	-73.61	-5,699.9	2,419.1	846.8	618.1	228.69	3.703		
14,000.0	7,740.0	15,446.4	7,530.0	108.2	140.1	-73.61	-5,799.9	2,419.1	846.8	614.8	232.03	3.650		
14,100.0	7,740.0	15,546.4	7,530.0	109.9	141.8	-73.61	-5,899.9	2,419.2	846.8	611.5	235.37	3.598		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1A-7H-A168 - HZ - Plan #2												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)			
14,200.0	7,740.0	15,646.4	7,530.0	111.6	143.5	-73.61	-5,999.9	2,419.2	846.9	608.1	238.72	3.548	
14,300.0	7,740.0	15,746.4	7,530.0	113.3	145.2	-73.61	-6,099.9	2,419.2	846.9	604.8	242.06	3.499	
14,400.0	7,740.0	15,846.4	7,530.0	115.0	146.9	-73.61	-6,199.9	2,419.2	846.9	601.5	245.41	3.451	
14,500.0	7,740.0	15,946.4	7,530.0	116.7	148.6	-73.61	-6,299.9	2,419.2	846.9	598.1	248.75	3.405	
14,600.0	7,740.0	16,046.4	7,530.0	118.3	150.3	-73.61	-6,399.9	2,419.2	846.9	594.8	252.10	3.359	
14,700.0	7,740.0	16,146.4	7,530.0	120.0	152.0	-73.61	-6,499.9	2,419.3	846.9	591.5	255.45	3.315	
14,800.0	7,740.0	16,246.4	7,530.0	121.7	153.8	-73.61	-6,599.9	2,419.3	846.9	588.2	258.80	3.273	
14,900.0	7,740.0	16,346.4	7,530.0	123.4	155.5	-73.61	-6,699.9	2,419.3	847.0	584.8	262.14	3.231	
15,000.0	7,740.0	16,446.4	7,530.0	125.1	157.2	-73.61	-6,799.9	2,419.3	847.0	581.5	265.49	3.190	
15,100.0	7,740.0	16,546.4	7,530.0	126.8	158.9	-73.61	-6,899.9	2,419.3	847.0	578.2	268.84	3.151	
15,200.0	7,740.0	16,646.4	7,530.0	128.5	160.6	-73.61	-6,999.9	2,419.3	847.0	574.8	272.19	3.112	
15,300.0	7,740.0	16,746.4	7,530.0	130.2	162.3	-73.61	-7,099.9	2,419.4	847.0	571.5	275.54	3.074	
15,400.0	7,740.0	16,846.4	7,530.0	131.9	164.1	-73.61	-7,199.9	2,419.4	847.0	568.1	278.89	3.037	
15,500.0	7,740.0	16,946.4	7,530.0	133.6	165.8	-73.61	-7,299.9	2,419.4	847.1	564.8	282.25	3.001	
15,600.0	7,740.0	17,046.4	7,530.0	135.3	167.5	-73.61	-7,399.9	2,419.4	847.1	561.5	285.60	2.966	
15,700.0	7,740.0	17,146.4	7,530.0	137.0	169.2	-73.61	-7,499.9	2,419.4	847.1	558.1	288.95	2.932	
15,800.0	7,740.0	17,246.4	7,530.0	138.7	170.9	-73.61	-7,599.9	2,419.4	847.1	554.8	292.30	2.898	
15,900.0	7,740.0	17,346.4	7,530.0	140.5	172.7	-73.61	-7,699.9	2,419.5	847.1	551.5	295.66	2.865	
16,000.0	7,740.0	17,446.4	7,530.0	142.2	174.4	-73.61	-7,799.9	2,419.5	847.1	548.1	299.01	2.833	
16,100.0	7,740.0	17,546.4	7,530.0	143.9	176.1	-73.61	-7,899.9	2,419.5	847.2	544.8	302.36	2.802	
16,142.2	7,740.0	17,588.6	7,530.0	144.6	176.8	-73.61	-7,942.1	2,419.5	847.2	543.4	303.78	2.789 ES, SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1B-7H-A168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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		
0.0	0.0	29.0	29.0	0.0	0.0	65.49	1,870.5	4,102.4	4,508.8					
100.0	100.0	129.0	129.0	0.2	0.2	65.49	1,870.5	4,102.4	4,508.8	4,508.4	0.35	N/A		
200.0	200.0	229.0	229.0	0.3	0.4	65.49	1,870.5	4,102.4	4,508.8	4,508.1	0.70	6,410.248		
300.0	300.0	451.0	451.0	0.5	0.8	-5.53	1,871.4	4,099.0	4,506.8	4,505.6	1.27	3,555.367		
400.0	400.0	704.2	703.7	0.7	1.3	-5.66	1,875.2	4,085.1	4,499.8	4,497.9	1.90	2,362.190		
500.0	499.9	954.5	952.8	0.9	1.9	-5.90	1,881.7	4,060.7	4,487.7	4,485.1	2.58	1,738.844		
600.0	599.7	1,200.6	1,196.2	1.1	2.6	-6.23	1,890.9	4,026.4	4,470.6	4,467.3	3.31	1,350.695		
700.0	699.4	1,441.1	1,432.5	1.3	3.4	-6.67	1,902.4	3,983.3	4,448.7	4,444.6	4.11	1,083.075		
800.0	798.9	1,549.6	1,538.6	1.5	3.8	-6.91	1,908.3	3,961.3	4,423.3	4,418.7	4.58	965.481		
900.0	898.3	1,644.8	1,631.7	1.8	4.2	-7.14	1,913.5	3,942.0	4,396.2	4,391.2	5.02	875.456		
1,000.0	997.4	1,739.4	1,724.2	2.0	4.6	-7.38	1,918.6	3,922.8	4,367.6	4,362.1	5.46	799.431		
1,100.0	1,096.3	1,833.5	1,816.2	2.3	5.0	-7.63	1,923.7	3,903.7	4,337.3	4,331.4	5.91	734.386		
1,200.0	1,194.9	1,927.1	1,907.7	2.7	5.3	-7.88	1,928.8	3,884.7	4,305.5	4,299.1	6.35	678.087		
1,300.0	1,293.3	2,020.0	1,998.6	3.0	5.7	-8.15	1,933.8	3,865.8	4,272.1	4,265.3	6.79	628.858		
1,400.0	1,391.2	2,112.4	2,088.8	3.4	6.1	-8.43	1,938.8	3,847.1	4,237.1	4,229.8	7.24	585.412		
1,500.0	1,488.9	2,204.0	2,178.5	3.8	6.5	-8.72	1,943.8	3,828.5	4,200.5	4,192.9	7.68	546.750		
1,595.5	1,581.8	2,291.0	2,263.5	4.2	6.8	-9.01	1,948.5	3,810.8	4,164.2	4,156.1	8.11	513.552		
1,600.0	1,586.1	2,295.0	2,267.4	4.2	6.8	-9.02	1,948.8	3,810.0	4,162.5	4,154.3	8.13	512.029		
1,700.0	1,683.2	2,385.7	2,356.1	4.7	7.2	-9.26	1,953.7	3,791.6	4,123.7	4,115.1	8.60	479.662		
1,800.0	1,780.2	2,476.4	2,444.8	5.1	7.6	-9.51	1,958.6	3,773.2	4,085.1	4,076.0	9.07	450.441		
1,900.0	1,877.3	2,567.1	2,533.4	5.6	7.9	-9.77	1,963.5	3,754.8	4,046.5	4,036.9	9.54	423.935		
2,000.0	1,974.3	2,657.8	2,622.1	6.0	8.3	-10.02	1,968.5	3,736.4	4,007.9	3,997.9	10.03	399.787		
2,100.0	2,071.4	2,748.5	2,710.7	6.5	8.7	-10.29	1,973.4	3,718.0	3,969.5	3,959.0	10.51	377.699		
2,200.0	2,168.4	2,839.1	2,799.4	6.9	9.0	-10.56	1,978.3	3,699.6	3,931.1	3,920.1	11.00	357.422		
2,300.0	2,265.4	2,929.8	2,888.0	7.4	9.4	-10.83	1,983.2	3,681.2	3,892.8	3,881.3	11.49	338.745		
2,400.0	2,362.5	3,020.5	2,976.7	7.9	9.8	-11.11	1,988.1	3,662.8	3,854.6	3,842.6	11.99	321.488		
2,500.0	2,459.5	3,111.2	3,065.4	8.3	10.2	-11.39	1,993.1	3,644.4	3,816.4	3,803.9	12.49	305.497		
2,600.0	2,556.6	3,201.9	3,154.0	8.8	10.5	-11.69	1,998.0	3,626.0	3,778.4	3,765.4	13.00	290.639		
2,700.0	2,653.6	3,292.5	3,242.7	9.2	10.9	-11.98	2,002.9	3,607.6	3,740.4	3,726.9	13.51	276.801		
2,800.0	2,750.7	3,383.2	3,331.3	9.7	11.3	-12.28	2,007.8	3,589.2	3,702.5	3,688.5	14.03	263.882		
2,900.0	2,847.7	3,473.9	3,420.0	10.2	11.6	-12.59	2,012.8	3,570.8	3,664.7	3,650.2	14.55	251.795		
3,000.0	2,944.8	3,564.6	3,508.7	10.6	12.0	-12.90	2,017.7	3,552.4	3,627.1	3,612.0	15.08	240.465		
3,100.0	3,041.8	3,655.3	3,597.3	11.1	12.4	-13.22	2,022.6	3,534.0	3,589.5	3,573.9	15.62	229.823		
3,200.0	3,138.9	3,746.0	3,686.0	11.5	12.8	-13.55	2,027.5	3,515.6	3,552.0	3,535.8	16.16	219.810		
3,300.0	3,235.9	3,836.6	3,774.6	12.0	13.1	-13.88	2,032.5	3,497.2	3,514.6	3,497.9	16.71	210.374		
3,400.0	3,333.0	3,927.3	3,863.3	12.5	13.5	-14.22	2,037.4	3,478.8	3,477.3	3,460.1	17.26	201.468		
3,500.0	3,430.0	4,018.0	3,951.9	12.9	13.9	-14.57	2,042.3	3,460.3	3,440.2	3,422.4	17.82	193.049		
3,600.0	3,527.1	4,108.7	4,040.6	13.4	14.2	-14.92	2,047.2	3,441.9	3,403.2	3,384.8	18.39	185.081		
3,700.0	3,624.1	4,199.4	4,129.3	13.9	14.6	-15.29	2,052.1	3,423.5	3,366.2	3,347.3	18.96	177.528		
3,800.0	3,721.2	4,290.0	4,217.9	14.3	15.0	-15.65	2,057.1	3,405.1	3,329.4	3,309.9	19.54	170.362		
3,900.0	3,818.2	4,380.7	4,306.6	14.8	15.4	-16.03	2,062.0	3,386.7	3,292.8	3,272.6	20.13	163.554		
4,000.0	3,915.3	4,471.4	4,395.2	15.3	15.7	-16.42	2,066.9	3,368.3	3,256.2	3,235.5	20.73	157.079		
4,100.0	4,012.3	4,562.1	4,483.9	15.7	16.1	-16.81	2,071.8	3,349.9	3,219.8	3,198.5	21.34	150.916		
4,200.0	4,109.4	4,652.8	4,572.6	16.2	16.5	-17.21	2,076.8	3,331.5	3,183.6	3,161.6	21.95	145.043		
4,300.0	4,206.4	4,743.5	4,661.2	16.6	16.9	-17.62	2,081.7	3,313.1	3,147.5	3,124.9	22.57	139.442		
4,400.0	4,303.5	4,834.1	4,749.9	17.1	17.2	-18.04	2,086.6	3,294.7	3,111.5	3,088.3	23.20	134.097		
4,500.0	4,400.5	4,924.8	4,838.5	17.6	17.6	-18.47	2,091.5	3,276.3	3,075.7	3,051.9	23.84	128.990		
4,600.0	4,497.6	5,015.5	4,927.2	18.0	18.0	-18.91	2,096.5	3,257.9	3,040.1	3,015.6	24.50	124.109		
4,700.0	4,594.6	5,106.2	5,015.8	18.5	18.4	-19.36	2,101.4	3,239.5	3,004.6	2,979.5	25.16	119.440		
4,800.0	4,691.7	5,196.9	5,104.5	19.0	18.7	-19.81	2,106.3	3,221.1	2,969.3	2,943.5	25.83	114.970		
4,900.0	4,788.7	5,287.6	5,193.2	19.4	19.1	-20.28	2,111.2	3,202.7	2,934.2	2,907.7	26.51	110.690		
5,000.0	4,885.8	5,378.2	5,281.8	19.9	19.5	-20.76	2,116.1	3,184.3	2,899.3	2,872.1	27.20	106.588		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1B-7H-A168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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)				
5,100.0	4,982.8	5,468.9	5,370.5	20.4	19.8	-21.25	2,121.1	3,165.9	2,864.6	2,836.7	27.90	102.656		
5,200.0	5,079.9	5,559.6	5,459.1	20.8	20.2	-21.75	2,126.0	3,147.5	2,830.0	2,801.4	28.62	98.884		
5,300.0	5,176.9	5,650.3	5,547.8	21.3	20.6	-22.26	2,130.9	3,129.1	2,795.7	2,766.4	29.35	95.265		
5,400.0	5,273.9	5,741.0	5,636.5	21.8	21.0	-22.79	2,135.8	3,110.7	2,761.6	2,731.5	30.09	91.790		
5,500.0	5,371.0	5,831.6	5,725.1	22.2	21.3	-23.33	2,140.8	3,092.3	2,727.7	2,696.9	30.84	88.453		
5,600.0	5,468.0	5,922.3	5,813.8	22.7	21.7	-23.87	2,145.7	3,073.9	2,694.1	2,662.5	31.60	85.248		
5,700.0	5,565.1	6,013.0	5,902.4	23.1	22.1	-24.44	2,150.6	3,055.5	2,660.7	2,628.3	32.38	82.169		
5,800.0	5,662.1	6,103.7	5,991.9	23.6	22.6	-25.00	2,155.5	3,037.1	2,658.8	2,626.4	33.16	79.090		
5,900.0	5,759.2	6,194.4	6,083.0	24.1	23.1	-25.57	2,160.4	3,018.7	2,656.9	2,624.5	33.94	76.011		
6,000.0	5,856.2	6,284.7	6,171.5	24.5	23.5	-26.13	2,165.3	3,000.3	2,655.0	2,622.6	34.72	72.932		
6,100.0	5,953.3	6,375.0	6,268.6	25.0	24.0	-26.70	2,170.2	2,981.9	2,653.1	2,620.7	35.50	69.853		
6,200.0	6,050.3	6,465.3	6,359.5	25.5	24.5	-27.26	2,175.1	2,963.5	2,651.2	2,618.8	36.28	66.774		
6,300.0	6,147.4	6,555.6	6,456.6	25.9	24.9	-27.83	2,180.0	2,945.1	2,649.3	2,616.9	37.06	63.695		
6,400.0	6,244.4	6,645.9	6,553.6	26.4	25.4	-28.39	2,184.9	2,926.7	2,647.4	2,615.0	37.84	60.616		
6,500.0	6,341.5	6,736.2	6,650.7	26.9	25.9	-28.96	2,189.8	2,908.3	2,645.5	2,613.1	38.62	57.537		
6,600.0	6,438.5	6,826.5	6,747.7	27.3	26.3	-29.52	2,194.7	2,889.9	2,643.6	2,611.2	39.40	54.458		
6,700.0	6,535.6	6,916.8	6,844.8	27.8	26.8	-30.09	2,199.6	2,871.5	2,641.7	2,609.3	40.18	51.379		
6,800.0	6,632.6	7,007.1	6,941.8	28.3	27.3	-30.65	2,204.5	2,853.1	2,639.8	2,607.4	40.96	48.300		
6,900.0	6,729.7	7,097.4	7,031.9	28.7	27.7	-31.22	2,209.4	2,834.7	2,637.9	2,605.5	41.74	45.221		
7,000.0	6,826.7	7,187.7	7,121.9	29.2	28.2	-31.78	2,214.3	2,816.3	2,636.0	2,603.6	42.52	42.142		
7,100.0	6,923.8	7,278.0	7,216.0	29.7	28.7	-32.35	2,219.2	2,797.9	2,634.1	2,601.7	43.30	39.063		
7,200.0	7,020.8	7,368.3	7,309.1	30.1	29.1	-32.91	2,224.1	2,779.5	2,632.2	2,600.0	44.08	35.984		
7,300.0	7,117.9	7,458.6	7,399.4	30.6	29.6	-33.48	2,229.0	2,761.1	2,630.3	2,598.1	44.86	32.905		
7,321.2	7,138.4	7,479.1	7,419.9	30.7	29.7	-33.63	2,230.5	2,756.6	2,630.0	2,598.0	45.00	32.400		
7,350.0	7,166.4	7,499.6	7,447.9	30.8	29.8	-33.78	2,232.0	2,752.1	2,630.0	2,598.0	45.14	31.895		
7,400.0	7,215.1	7,548.3	7,496.6	31.0	30.0	-34.00	2,236.9	2,733.7	2,628.1	2,596.1	45.92	28.816		
7,450.0	7,263.5	7,597.0	7,545.0	31.2	30.2	-34.22	2,241.8	2,715.3	2,626.2	2,594.2	46.70	25.737		
7,500.0	7,311.3	7,646.3	7,593.3	31.3	30.3	-34.37	2,246.7	2,696.9	2,624.3	2,592.3	47.48	22.658		
7,550.0	7,358.1	7,695.6	7,640.6	31.5	30.5	-34.59	2,251.6	2,678.5	2,622.4	2,590.4	48.26	19.579		
7,600.0	7,403.5	7,744.9	7,685.9	31.6	30.6	-34.74	2,256.5	2,660.1	2,620.5	2,588.5	49.04	16.500		
7,650.0	7,447.3	7,794.2	7,730.2	31.7	30.7	-34.89	2,261.4	2,641.7	2,618.6	2,586.6	49.82	13.421		
7,700.0	7,489.1	7,843.5	7,771.0	31.7	30.8	-34.99	2,266.3	2,623.3	2,616.7	2,584.7	50.60	10.342		
7,750.0	7,528.5	7,892.8	7,810.3	31.8	30.9	-35.10	2,271.2	2,604.9	2,614.8	2,582.8	51.38	7.263		
7,800.0	7,565.3	7,942.1	7,847.1	31.8	30.9	-35.20	2,276.1	2,586.5	2,612.9	2,580.9	52.16	4.184		
7,850.0	7,599.2	7,991.4	7,881.4	31.9	31.0	-35.31	2,281.0	2,568.1	2,611.0	2,579.0	52.94	1.105		
7,900.0	7,629.9	8,040.7	7,911.1	31.9	31.0	-35.41	2,285.9	2,549.7	2,609.1	2,577.1	53.72	-1.974		
7,950.0	7,657.2	8,089.4	7,938.4	31.9	31.0	-35.51	2,290.8	2,531.3	2,607.2	2,575.2	54.50	-5.055		
8,000.0	7,680.9	8,138.7	7,961.1	32.0	31.1	-35.61	2,295.7	2,512.9	2,605.3	2,573.3	55.28	-8.136		
8,050.0	7,700.8	8,188.0	7,983.8	32.0	31.1	-35.71	2,300.6	2,494.5	2,603.4	2,571.4	56.06	-11.217		
8,100.0	7,716.7	8,237.3	8,006.5	32.0	31.1	-35.81	2,305.5	2,476.1	2,601.5	2,569.5	56.84	-14.298		
8,150.0	7,728.6	8,286.6	8,029.2	32.1	31.2	-35.91	2,310.4	2,457.7	2,600.0	2,567.6	57.62	-17.379		
8,200.0	7,736.3	8,335.9	8,051.9	32.1	31.2	-36.01	2,315.3	2,439.3	2,598.1	2,565.7	58.40	-20.460		
8,250.0	7,739.8	8,385.2	8,074.6	32.2	31.3	-36.11	2,320.2	2,420.9	2,596.2	2,563.8	59.18	-23.541		
8,265.8	7,740.0	8,390.7	8,075.1	32.2	31.3	-36.13	2,321.7	2,418.4	2,596.2	2,563.8	59.25	-23.800		
8,266.2	7,740.0	8,390.7	8,075.1	32.2	31.3	-36.13	2,321.7	2,418.4	2,596.2	2,563.8	59.25	-23.800		
8,300.0	7,740.0	8,430.0	8,114.4	32.3	31.4	-36.21	2,326.6	2,399.9	2,594.3	2,561.9	60.03	-26.881		
8,400.0	7,740.0	8,519.3	8,193.7	32.5	31.6	-36.37	2,341.5	2,356.1	2,580.5	2,558.1	61.61	-33.962		
8,500.0	7,740.0	8,608.6	8,273.0	32.8	31.9	-36.53	2,356.4	2,312.3	2,566.7	2,554.3	63.19	-41.043		
8,600.0	7,740.0	8,697.9	8,352.3	33.2	32.3	-36.69	2,371.3	2,268.5	2,552.9	2,550.5	64.77	-48.124		
8,700.0	7,740.0	8,787.2	8,431.6	33.7	32.8	-36.85	2,386.2	2,224.7	2,539.1	2,546.7	66.35	-55.205		
8,800.0	7,740.0	8,876.5	8,510.9	34.3	33.4	-37.01	2,401.1	2,180.9	2,525.3	2,542.9	67.93	-62.286		
8,900.0	7,740.0	8,965.8	8,590.2	34.9	34.0	-37.17	2,416.0	2,137.1	2,511.5	2,539.1	69.51	-69.367		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1B-7H-A168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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		
9,000.0	7,740.0	10,628.9	7,770.0	35.6	56.5	-90.05	-799.9	2,668.3	1,061.6	989.9	71.69	14.808		
9,100.0	7,740.0	10,728.9	7,770.0	36.4	58.0	-90.05	-899.9	2,668.3	1,061.6	986.9	74.72	14.207		
9,200.0	7,740.0	10,828.9	7,770.0	37.3	59.5	-90.05	-999.9	2,668.4	1,061.6	983.8	77.81	13.643		
9,300.0	7,740.0	10,928.9	7,770.0	38.2	61.1	-90.05	-1,099.9	2,668.4	1,061.6	980.7	80.95	13.115		
9,400.0	7,740.0	11,028.9	7,770.0	39.2	62.6	-90.05	-1,199.9	2,668.4	1,061.6	977.5	84.13	12.619		
9,500.0	7,740.0	11,128.9	7,770.0	40.2	64.2	-90.05	-1,299.9	2,668.4	1,061.7	974.3	87.34	12.155		
9,600.0	7,740.0	11,228.9	7,770.0	41.3	65.8	-90.05	-1,399.9	2,668.4	1,061.7	971.1	90.59	11.720		
9,700.0	7,740.0	11,328.9	7,770.0	42.4	67.3	-90.05	-1,499.9	2,668.4	1,061.7	967.8	93.85	11.312		
9,800.0	7,740.0	11,428.9	7,770.0	43.6	68.9	-90.05	-1,599.9	2,668.5	1,061.7	964.6	97.14	10.929		
9,900.0	7,740.0	11,528.9	7,770.0	44.8	70.5	-90.05	-1,699.9	2,668.5	1,061.7	961.3	100.45	10.569		
10,000.0	7,740.0	11,628.9	7,770.0	46.0	72.1	-90.05	-1,799.9	2,668.5	1,061.7	958.0	103.78	10.231		
10,100.0	7,740.0	11,728.9	7,770.0	47.3	73.7	-90.05	-1,899.9	2,668.5	1,061.8	954.6	107.12	9.912		
10,200.0	7,740.0	11,828.9	7,770.0	48.6	75.4	-90.05	-1,999.9	2,668.5	1,061.8	951.3	110.47	9.611		
10,300.0	7,740.0	11,928.9	7,770.0	50.0	77.0	-90.05	-2,099.9	2,668.5	1,061.8	948.0	113.84	9.327		
10,400.0	7,740.0	12,028.9	7,770.0	51.3	78.6	-90.05	-2,199.9	2,668.6	1,061.8	944.6	117.22	9.059		
10,500.0	7,740.0	12,128.9	7,770.0	52.7	80.2	-90.05	-2,299.9	2,668.6	1,061.8	941.2	120.60	8.804		
10,600.0	7,740.0	12,228.9	7,770.0	54.1	81.9	-90.05	-2,399.9	2,668.6	1,061.8	937.9	123.99	8.564		
10,700.0	7,740.0	12,328.9	7,770.0	55.6	83.5	-90.05	-2,499.9	2,668.6	1,061.9	934.5	127.40	8.335		
10,800.0	7,740.0	12,428.9	7,770.0	57.0	85.2	-90.05	-2,599.9	2,668.6	1,061.9	931.1	130.80	8.118		
10,900.0	7,740.0	12,528.9	7,770.0	58.5	86.8	-90.05	-2,699.9	2,668.6	1,061.9	927.7	134.22	7.912		
11,000.0	7,740.0	12,628.9	7,770.0	59.9	88.5	-90.05	-2,799.9	2,668.7	1,061.9	924.3	137.64	7.715		
11,100.0	7,740.0	12,728.9	7,770.0	61.4	90.1	-90.05	-2,899.9	2,668.7	1,061.9	920.9	141.06	7.528		
11,200.0	7,740.0	12,828.9	7,770.0	62.9	91.8	-90.05	-2,999.9	2,668.7	1,061.9	917.5	144.49	7.350		
11,300.0	7,740.0	12,928.9	7,770.0	64.5	93.5	-90.05	-3,099.9	2,668.7	1,062.0	914.0	147.92	7.179		
11,400.0	7,740.0	13,028.9	7,770.0	66.0	95.1	-90.05	-3,199.9	2,668.7	1,062.0	910.6	151.36	7.016		
11,500.0	7,740.0	13,128.9	7,770.0	67.5	96.8	-90.05	-3,299.9	2,668.7	1,062.0	907.2	154.80	6.860		
11,600.0	7,740.0	13,228.9	7,770.0	69.1	98.5	-90.05	-3,399.9	2,668.8	1,062.0	903.8	158.24	6.711		
11,700.0	7,740.0	13,328.9	7,770.0	70.7	100.2	-90.05	-3,499.9	2,668.8	1,062.0	900.3	161.69	6.568		
11,800.0	7,740.0	13,428.9	7,770.0	72.2	101.9	-90.05	-3,599.9	2,668.8	1,062.0	896.9	165.14	6.431		
11,900.0	7,740.0	13,528.9	7,770.0	73.8	103.5	-90.05	-3,699.9	2,668.8	1,062.1	893.5	168.59	6.300		
12,000.0	7,740.0	13,628.9	7,770.0	75.4	105.2	-90.05	-3,799.9	2,668.8	1,062.1	890.0	172.05	6.173		
12,100.0	7,740.0	13,728.9	7,770.0	77.0	106.9	-90.05	-3,899.9	2,668.8	1,062.1	886.6	175.51	6.052		
12,200.0	7,740.0	13,828.9	7,770.0	78.6	108.6	-90.05	-3,999.9	2,668.9	1,062.1	883.1	178.97	5.935		
12,300.0	7,740.0	13,928.9	7,770.0	80.2	110.3	-90.05	-4,099.9	2,668.9	1,062.1	879.7	182.43	5.822		
12,400.0	7,740.0	14,028.9	7,770.0	81.8	112.0	-90.05	-4,199.9	2,668.9	1,062.1	876.3	185.89	5.714		
12,500.0	7,740.0	14,128.9	7,770.0	83.4	113.7	-90.05	-4,299.9	2,668.9	1,062.2	872.8	189.36	5.609		
12,600.0	7,740.0	14,228.9	7,770.0	85.1	115.4	-90.05	-4,399.9	2,668.9	1,062.2	869.4	192.82	5.509		
12,700.0	7,740.0	14,328.9	7,770.0	86.7	117.1	-90.05	-4,499.9	2,668.9	1,062.2	865.9	196.29	5.411		
12,800.0	7,740.0	14,428.9	7,770.0	88.3	118.8	-90.05	-4,599.9	2,669.0	1,062.2	862.4	199.76	5.317		
12,900.0	7,740.0	14,528.9	7,770.0	90.0	120.5	-90.05	-4,699.9	2,669.0	1,062.2	859.0	203.23	5.227		
13,000.0	7,740.0	14,628.9	7,770.0	91.6	122.2	-90.05	-4,799.9	2,669.0	1,062.2	855.5	206.71	5.139		
13,100.0	7,740.0	14,728.9	7,770.0	93.3	123.9	-90.05	-4,899.9	2,669.0	1,062.3	852.1	210.18	5.054		
13,200.0	7,740.0	14,828.9	7,770.0	94.9	125.6	-90.05	-4,999.9	2,669.0	1,062.3	848.6	213.66	4.972		
13,300.0	7,740.0	14,928.9	7,770.0	96.6	127.3	-90.05	-5,099.9	2,669.0	1,062.3	845.2	217.13	4.892		
13,400.0	7,740.0	15,028.9	7,770.0	98.2	129.0	-90.05	-5,199.9	2,669.1	1,062.3	841.7	220.61	4.815		
13,500.0	7,740.0	15,128.9	7,770.0	99.9	130.7	-90.05	-5,299.9	2,669.1	1,062.3	838.2	224.09	4.741		
13,600.0	7,740.0	15,228.9	7,770.0	101.6	132.4	-90.05	-5,399.9	2,669.1	1,062.3	834.8	227.57	4.668		
13,700.0	7,740.0	15,328.9	7,770.0	103.2	134.2	-90.05	-5,499.9	2,669.1	1,062.4	831.3	231.05	4.598		
13,800.0	7,740.0	15,428.9	7,770.0	104.9	135.9	-90.05	-5,599.9	2,669.1	1,062.4	827.8	234.53	4.530		
13,900.0	7,740.0	15,528.9	7,770.0	106.6	137.6	-90.05	-5,699.9	2,669.1	1,062.4	824.4	238.01	4.464		
14,000.0	7,740.0	15,628.9	7,770.0	108.2	139.3	-90.05	-5,799.9	2,669.2	1,062.4	820.9	241.49	4.399		
14,100.0	7,740.0	15,728.9	7,770.0	109.9	141.0	-90.05	-5,899.9	2,669.2	1,062.4	817.4	244.98	4.337		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1B-7H-A168 - HZ - Plan #2												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	
14,200.0	7,740.0	15,828.9	7,770.0	111.6	142.7	-90.05	-5,999.9	2,669.2	1,062.4	814.0	248.46	4.276	
14,300.0	7,740.0	15,928.9	7,770.0	113.3	144.5	-90.05	-6,099.9	2,669.2	1,062.5	810.5	251.95	4.217	
14,400.0	7,740.0	16,028.9	7,770.0	115.0	146.2	-90.05	-6,199.9	2,669.2	1,062.5	807.0	255.43	4.159	
14,500.0	7,740.0	16,128.9	7,770.0	116.7	147.9	-90.05	-6,299.9	2,669.2	1,062.5	803.6	258.92	4.104	
14,600.0	7,740.0	16,228.9	7,770.0	118.3	149.6	-90.05	-6,399.9	2,669.2	1,062.5	800.1	262.41	4.049	
14,700.0	7,740.0	16,328.9	7,770.0	120.0	151.3	-90.05	-6,499.9	2,669.3	1,062.5	796.6	265.89	3.996	
14,800.0	7,740.0	16,428.9	7,770.0	121.7	153.1	-90.05	-6,599.9	2,669.3	1,062.5	793.2	269.38	3.944	
14,900.0	7,740.0	16,528.9	7,770.0	123.4	154.8	-90.05	-6,699.9	2,669.3	1,062.6	789.7	272.87	3.894	
15,000.0	7,740.0	16,628.9	7,770.0	125.1	156.5	-90.05	-6,799.9	2,669.3	1,062.6	786.2	276.36	3.845	
15,100.0	7,740.0	16,728.9	7,770.0	126.8	158.2	-90.05	-6,899.9	2,669.3	1,062.6	782.7	279.85	3.797	
15,200.0	7,740.0	16,828.9	7,770.0	128.5	160.0	-90.05	-6,999.9	2,669.3	1,062.6	779.3	283.34	3.750	
15,300.0	7,740.0	16,928.9	7,770.0	130.2	161.7	-90.05	-7,099.9	2,669.4	1,062.6	775.8	286.83	3.705	
15,400.0	7,740.0	17,028.9	7,770.0	131.9	163.4	-90.05	-7,199.9	2,669.4	1,062.6	772.3	290.32	3.660	
15,500.0	7,740.0	17,128.9	7,770.0	133.6	165.1	-90.05	-7,299.9	2,669.4	1,062.7	768.8	293.81	3.617	
15,600.0	7,740.0	17,228.9	7,770.0	135.3	166.9	-90.05	-7,399.9	2,669.4	1,062.7	765.4	297.31	3.574	
15,700.0	7,740.0	17,328.9	7,770.0	137.0	168.6	-90.05	-7,499.9	2,669.4	1,062.7	761.9	300.80	3.533	
15,800.0	7,740.0	17,428.9	7,770.0	138.7	170.3	-90.05	-7,599.9	2,669.4	1,062.7	758.4	304.29	3.492	
15,900.0	7,740.0	17,528.9	7,770.0	140.5	172.1	-90.05	-7,699.9	2,669.5	1,062.7	754.9	307.78	3.453	
16,000.0	7,740.0	17,628.9	7,770.0	142.2	173.8	-90.05	-7,799.9	2,669.5	1,062.7	751.5	311.28	3.414	
16,100.0	7,740.0	17,728.9	7,770.0	143.9	175.5	-90.05	-7,899.9	2,669.5	1,062.8	748.0	314.77	3.376	
16,142.2	7,740.0	17,771.1	7,770.0	144.6	176.2	-90.05	-7,942.1	2,669.5	1,062.8	746.5	316.25	3.361 ES, SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1C-7H-A168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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)				
0.0	0.0	28.0	28.0	0.0	0.0	65.55	1,870.2	4,112.5	4,517.8					
100.0	100.0	128.0	128.0	0.2	0.2	65.55	1,870.2	4,112.5	4,517.8	4,517.4	0.35	N/A		
200.0	200.0	228.0	228.0	0.3	0.4	65.55	1,870.2	4,112.5	4,517.8	4,517.1	0.70	6,439.049		
300.0	300.0	366.0	366.0	0.5	0.6	-5.45	1,870.3	4,112.2	4,516.8	4,515.7	1.12	4,043.368		
400.0	400.0	601.1	601.0	0.7	1.0	-5.53	1,872.7	4,105.0	4,511.9	4,510.1	1.71	2,640.190		
500.0	499.9	834.4	833.6	0.9	1.5	-5.70	1,878.1	4,088.9	4,502.2	4,499.9	2.33	1,936.379		
600.0	599.7	1,064.6	1,062.4	1.1	2.1	-5.96	1,886.4	4,064.2	4,487.9	4,484.9	2.98	1,504.890		
700.0	699.4	1,290.7	1,285.7	1.3	2.8	-6.32	1,897.5	4,031.6	4,469.1	4,465.4	3.69	1,209.727		
800.0	798.9	1,401.6	1,395.0	1.5	3.1	-6.54	1,903.7	4,013.1	4,446.9	4,442.8	4.15	1,071.632		
900.0	898.3	1,497.8	1,489.7	1.8	3.5	-6.74	1,909.1	3,997.0	4,423.1	4,418.5	4.57	967.629		
1,000.0	997.4	1,593.6	1,583.9	2.0	3.8	-6.95	1,914.5	3,981.0	4,397.6	4,392.7	4.99	880.617		
1,100.0	1,096.3	1,688.9	1,677.7	2.3	4.1	-7.17	1,919.9	3,965.1	4,370.5	4,365.1	5.42	806.779		
1,200.0	1,194.9	1,783.7	1,771.0	2.7	4.4	-7.39	1,925.2	3,949.2	4,341.8	4,336.0	5.84	743.331		
1,300.0	1,293.3	1,877.9	1,863.8	3.0	4.8	-7.63	1,930.5	3,933.5	4,311.5	4,305.2	6.26	688.204		
1,400.0	1,391.2	1,971.6	1,956.0	3.4	5.1	-7.87	1,935.8	3,917.8	4,279.6	4,272.9	6.69	639.832		
1,500.0	1,488.9	2,064.7	2,047.6	3.8	5.4	-8.13	1,941.0	3,902.2	4,246.1	4,239.0	7.11	597.010		
1,595.5	1,581.8	2,153.0	2,134.6	4.2	5.7	-8.38	1,946.0	3,887.5	4,212.6	4,205.1	7.52	560.413		
1,600.0	1,586.1	2,157.1	2,138.6	4.2	5.7	-8.39	1,946.2	3,886.8	4,211.0	4,203.5	7.54	558.735		
1,700.0	1,683.2	2,249.3	2,229.3	4.7	6.1	-8.61	1,951.4	3,871.4	4,175.2	4,167.2	7.98	523.172		
1,800.0	1,780.2	2,341.4	2,320.0	5.1	6.4	-8.83	1,956.6	3,856.0	4,139.5	4,131.1	8.43	491.182		
1,900.0	1,877.3	2,433.6	2,410.7	5.6	6.7	-9.06	1,961.8	3,840.6	4,103.9	4,095.0	8.88	462.257		
2,000.0	1,974.3	2,525.7	2,501.5	6.0	7.0	-9.29	1,967.0	3,825.2	4,068.3	4,058.9	9.33	435.982		
2,100.0	2,071.4	2,617.9	2,592.2	6.5	7.4	-9.52	1,972.2	3,809.8	4,032.7	4,023.0	9.79	412.011		
2,200.0	2,168.4	2,710.1	2,682.9	6.9	7.7	-9.76	1,977.4	3,794.4	3,997.3	3,987.0	10.25	390.058		
2,300.0	2,265.4	2,802.2	2,773.6	7.4	8.0	-10.00	1,982.6	3,779.0	3,961.9	3,951.1	10.71	369.880		
2,400.0	2,362.5	2,894.4	2,864.3	7.9	8.3	-10.24	1,987.8	3,763.6	3,926.5	3,915.3	11.18	351.272		
2,500.0	2,459.5	2,986.5	2,955.0	8.3	8.7	-10.49	1,993.0	3,748.2	3,891.2	3,879.6	11.65	334.059		
2,600.0	2,556.6	3,078.7	3,045.7	8.8	9.0	-10.75	1,998.2	3,732.7	3,856.0	3,843.9	12.12	318.092		
2,700.0	2,653.6	3,170.8	3,136.4	9.2	9.3	-11.01	2,003.4	3,717.3	3,820.9	3,808.3	12.60	303.242		
2,800.0	2,750.7	3,263.0	3,227.2	9.7	9.7	-11.27	2,008.5	3,701.9	3,785.8	3,772.7	13.08	289.396		
2,900.0	2,847.7	3,355.2	3,317.9	10.2	10.0	-11.54	2,013.7	3,686.5	3,750.8	3,737.3	13.57	276.458		
3,000.0	2,944.8	3,447.3	3,408.6	10.6	10.3	-11.81	2,018.9	3,671.1	3,715.9	3,701.8	14.06	264.341		
3,100.0	3,041.8	3,539.5	3,499.3	11.1	10.6	-12.09	2,024.1	3,655.7	3,681.1	3,666.5	14.55	252.971		
3,200.0	3,138.9	3,631.6	3,590.0	11.5	11.0	-12.37	2,029.3	3,640.3	3,646.3	3,631.2	15.05	242.282		
3,300.0	3,235.9	3,723.8	3,680.7	12.0	11.3	-12.66	2,034.5	3,624.9	3,611.6	3,596.1	15.55	232.216		
3,400.0	3,333.0	3,815.9	3,771.4	12.5	11.6	-12.96	2,039.7	3,609.5	3,577.0	3,561.0	16.06	222.720		
3,500.0	3,430.0	3,908.1	3,862.1	12.9	11.9	-13.26	2,044.9	3,594.1	3,542.5	3,525.9	16.57	213.748		
3,600.0	3,527.1	4,000.3	3,952.9	13.4	12.3	-13.56	2,050.1	3,578.7	3,508.1	3,491.0	17.09	205.259		
3,700.0	3,624.1	4,092.4	4,043.6	13.9	12.6	-13.87	2,055.3	3,563.3	3,473.8	3,456.2	17.61	197.216		
3,800.0	3,721.2	4,184.6	4,134.3	14.3	12.9	-14.19	2,060.5	3,547.9	3,439.6	3,421.4	18.14	189.586		
3,900.0	3,818.2	4,276.7	4,225.0	14.8	13.3	-14.51	2,065.7	3,532.5	3,405.4	3,386.7	18.68	182.338		
4,000.0	3,915.3	4,368.9	4,315.7	15.3	13.6	-14.84	2,070.8	3,517.1	3,371.4	3,352.2	19.22	175.446		
4,100.0	4,012.3	4,461.1	4,406.4	15.7	13.9	-15.18	2,076.0	3,501.7	3,337.5	3,317.7	19.76	168.884		
4,200.0	4,109.4	4,553.2	4,497.1	16.2	14.2	-15.52	2,081.2	3,486.3	3,303.7	3,283.3	20.31	162.630		
4,300.0	4,206.4	4,645.4	4,587.9	16.6	14.6	-15.87	2,086.4	3,470.9	3,270.0	3,249.1	20.87	156.665		
4,400.0	4,303.5	4,737.5	4,678.6	17.1	14.9	-16.22	2,091.6	3,455.5	3,236.4	3,214.9	21.44	150.969		
4,500.0	4,400.5	4,829.7	4,769.3	17.6	15.2	-16.59	2,096.8	3,440.1	3,202.9	3,180.9	22.01	145.526		
4,600.0	4,497.6	4,921.8	4,860.0	18.0	15.6	-16.96	2,102.0	3,424.7	3,169.5	3,147.0	22.59	140.320		
4,700.0	4,594.6	5,014.0	4,950.7	18.5	15.9	-17.34	2,107.2	3,409.3	3,136.3	3,113.2	23.17	135.337		
4,800.0	4,691.7	5,106.2	5,041.4	19.0	16.2	-17.72	2,112.4	3,393.9	3,103.2	3,079.5	23.77	130.563		
4,900.0	4,788.7	5,198.3	5,132.1	19.4	16.5	-18.11	2,117.6	3,378.4	3,070.3	3,045.9	24.37	125.988		
5,000.0	4,885.8	5,290.5	5,222.8	19.9	16.9	-18.52	2,122.8	3,363.0	3,037.5	3,012.5	24.98	121.600		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1C-7H-A168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		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)	Uncertainty Axis	Separation Factor		
5,100.0	4,982.8	5,382.6	5,313.6	20.4	17.2	-18.93	2,128.0	3,347.6	3,004.8	2,979.2	25.60	117.388		
5,200.0	5,079.9	5,474.8	5,404.3	20.8	17.5	-19.34	2,133.1	3,332.2	2,972.2	2,946.0	26.22	113.344		
5,300.0	5,176.9	5,567.0	5,495.0	21.3	17.9	-19.77	2,138.3	3,316.8	2,939.9	2,913.0	26.86	109.458		
5,400.0	5,273.9	5,659.1	5,585.7	21.8	18.2	-20.21	2,143.5	3,301.4	2,907.6	2,880.1	27.50	105.722		
5,500.0	5,371.0	5,751.2	5,677.8	22.2	18.6	-20.64	2,148.7	3,286.1	2,892.4	2,865.6	28.14	102.086		
5,600.0	5,468.0	5,843.3	5,770.0	22.7	19.0	-21.07	2,153.9	3,270.8	2,883.2	2,856.8	28.78	98.450		
5,700.0	5,565.1	5,935.4	5,861.7	23.1	19.4	-21.50	2,159.1	3,255.5	2,870.0	2,843.2	29.42	94.814		
5,800.0	5,662.1	6,027.5	5,953.0	23.6	19.8	-21.93	2,164.3	3,240.2	2,855.8	2,829.6	30.06	91.178		
5,900.0	5,759.2	6,119.6	6,044.5	24.1	20.2	-22.36	2,169.5	3,224.9	2,841.6	2,815.4	30.70	87.542		
6,000.0	5,856.2	6,211.7	6,136.6	24.5	20.6	-22.79	2,174.7	3,209.6	2,827.4	2,799.2	31.34	83.906		
6,100.0	5,953.3	6,303.8	6,231.7	25.0	21.0	-23.22	2,179.9	3,194.3	2,813.2	2,785.0	31.98	80.270		
6,200.0	6,050.3	6,395.9	6,321.8	25.5	21.4	-23.65	2,185.1	3,179.0	2,799.0	2,770.8	32.62	76.634		
6,300.0	6,147.4	6,488.0	6,407.9	25.9	21.8	-24.08	2,190.3	3,163.7	2,784.8	2,756.6	33.26	72.998		
6,400.0	6,244.4	6,580.1	6,500.0	26.4	22.2	-24.51	2,195.5	3,148.4	2,770.6	2,742.4	33.90	69.362		
6,500.0	6,341.5	6,672.2	6,592.1	26.9	22.6	-24.94	2,200.7	3,133.1	2,756.4	2,728.2	34.54	65.726		
6,600.0	6,438.5	6,764.3	6,684.2	27.3	23.0	-25.37	2,205.9	3,117.8	2,742.2	2,714.0	35.18	62.090		
6,700.0	6,535.6	6,856.4	6,780.3	27.8	23.4	-25.80	2,211.1	3,102.5	2,728.0	2,699.8	35.82	58.454		
6,800.0	6,632.6	6,948.5	6,872.4	28.3	23.8	-26.23	2,216.3	3,087.2	2,713.8	2,685.6	36.46	54.818		
6,900.0	6,729.7	7,040.6	6,964.5	28.7	24.2	-26.66	2,221.5	3,071.9	2,699.6	2,671.4	37.10	51.182		
7,000.0	6,826.7	7,132.7	7,056.6	29.2	24.6	-27.09	2,226.7	3,056.6	2,685.4	2,657.2	37.74	47.546		
7,100.0	6,923.8	7,224.8	7,152.7	29.7	25.0	-27.52	2,231.9	3,041.3	2,671.2	2,643.0	38.38	43.910		
7,200.0	7,020.8	7,316.9	7,242.8	30.1	25.4	-27.95	2,237.1	3,026.0	2,657.0	2,628.8	39.02	40.274		
7,300.0	7,117.9	7,409.0	7,338.9	30.6	25.8	-28.38	2,242.3	3,010.7	2,642.8	2,614.6	39.66	36.638		
7,321.2	7,138.4	7,424.4	7,359.4	30.7	25.9	-28.48	2,243.5	3,008.5	2,640.5	2,612.3	39.78	35.942		
7,350.0	7,166.4	7,449.9	7,387.9	30.8	26.0	-28.58	2,244.7	3,006.3	2,638.3	2,610.1	39.90	35.246		
7,400.0	7,215.1	7,498.6	7,436.6	31.0	26.2	-28.70	2,247.9	3,002.1	2,634.1	2,605.9	40.22	34.254		
7,450.0	7,263.5	7,547.0	7,485.0	31.2	26.4	-28.82	2,250.1	3,000.0	2,632.0	2,603.8	40.44	33.558		
7,500.0	7,311.3	7,595.4	7,533.4	31.3	26.5	-28.92	2,251.3	2,997.8	2,629.8	2,601.6	40.66	32.862		
7,550.0	7,358.1	7,643.8	7,580.2	31.5	26.6	-29.02	2,252.5	2,995.6	2,627.6	2,599.4	40.88	32.166		
7,600.0	7,403.5	7,692.2	7,625.6	31.6	26.7	-29.12	2,253.7	2,993.4	2,625.4	2,597.2	41.10	31.470		
7,650.0	7,447.3	7,740.6	7,669.0	31.7	26.8	-29.22	2,254.9	2,991.2	2,623.2	2,595.0	41.32	30.774		
7,700.0	7,489.1	7,789.0	7,711.1	31.7	26.8	-29.22	2,255.1	2,989.0	2,621.0	2,592.8	41.54	30.078		
7,750.0	7,528.5	7,837.4	7,750.5	31.8	26.9	-29.32	2,255.3	2,986.8	2,618.8	2,590.6	41.76	29.382		
7,800.0	7,565.3	7,885.8	7,787.3	31.8	27.0	-29.42	2,255.5	2,984.6	2,616.6	2,588.4	41.98	28.686		
7,850.0	7,599.2	7,934.2	7,821.7	31.9	27.1	-29.52	2,255.7	2,982.4	2,614.4	2,586.2	42.20	27.990		
7,900.0	7,629.9	7,982.6	7,852.4	31.9	27.2	-29.62	2,255.9	2,980.2	2,612.2	2,584.0	42.42	27.294		
7,950.0	7,657.2	8,031.0	7,880.7	31.9	27.3	-29.72	2,256.1	2,978.0	2,610.0	2,581.8	42.64	26.598		
8,000.0	7,680.9	8,079.4	7,904.4	32.0	27.4	-29.82	2,256.3	2,975.8	2,607.8	2,579.6	42.86	25.902		
8,050.0	7,700.8	8,127.8	7,924.3	32.0	27.5	-29.92	2,256.5	2,973.6	2,605.6	2,577.4	43.08	25.206		
8,100.0	7,716.7	8,176.2	7,939.2	32.0	27.6	-30.02	2,256.7	2,971.4	2,603.4	2,575.2	43.30	24.510		
8,150.0	7,728.6	8,224.6	7,951.1	32.1	27.7	-30.12	2,256.9	2,969.2	2,601.2	2,573.0	43.52	23.814		
8,200.0	7,736.3	8,273.0	7,959.0	32.1	27.8	-30.22	2,257.1	2,967.0	2,599.0	2,570.8	43.74	23.118		
8,250.0	7,739.8	8,287.4	7,962.5	32.2	27.9	-30.32	2,257.3	2,964.8	2,596.8	2,568.6	43.96	22.422		
8,266.2	7,740.0	8,291.8	7,962.7	32.2	27.9	-30.32	2,257.3	2,964.8	2,596.8	2,568.6	43.96	22.422		
8,300.0	7,740.0	8,291.8	7,962.7	32.3	28.0	-30.42	2,257.5	2,962.6	2,594.6	2,566.4	44.18	21.726		
8,400.0	7,740.0	8,291.8	7,962.7	32.5	28.2	-30.62	2,257.7	2,958.2	2,590.2	2,562.0	44.62	20.978		
8,500.0	7,740.0	8,291.8	7,962.7	32.8	28.5	-30.92	2,257.9	2,953.8	2,585.8	2,557.6	45.06	20.230		
8,600.0	7,740.0	8,291.8	7,962.7	33.2	28.8	-31.22	2,258.1	2,949.4	2,581.4	2,553.2	45.50	19.482		
8,700.0	7,740.0	8,291.8	7,962.7	33.7	29.1	-31.52	2,258.3	2,945.0	2,577.0	2,548.8	45.94	18.734		
8,800.0	7,740.0	8,291.8	7,962.7	34.3	29.4	-31.82	2,258.5	2,940.6	2,572.6	2,544.4	46.38	17.986		
8,900.0	7,740.0	8,291.8	7,962.7	34.9	29.7	-32.12	2,258.7	2,936.2	2,568.2	2,540.0	46.82	17.238		
9,000.0	7,740.0	8,291.8	7,962.7	35.6	30.0	-32.42	2,258.9	2,931.8	2,563.8	2,535.6	47.26	16.490		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1C-7H-A168 - HZ - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-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)			
9,100.0	7,740.0	10,446.7	7,530.0	36.4	56.0	-79.99	-906.9	2,955.2	1,369.3	1,295.5	73.83	18.548	
9,200.0	7,740.0	10,546.7	7,530.0	37.3	57.6	-79.99	-1,006.9	2,954.7	1,368.8	1,292.0	76.86	17.809	
9,300.0	7,740.0	10,646.7	7,530.0	38.2	59.2	-79.98	-1,106.9	2,954.2	1,368.3	1,288.4	79.94	17.116	
9,400.0	7,740.0	10,746.7	7,530.0	39.2	60.8	-79.98	-1,206.9	2,953.7	1,367.8	1,284.8	83.07	16.467	
9,500.0	7,740.0	10,846.7	7,530.0	40.2	62.4	-79.98	-1,306.9	2,953.2	1,367.3	1,281.1	86.23	15.858	
9,600.0	7,740.0	10,946.7	7,530.0	41.3	64.0	-79.97	-1,406.9	2,952.7	1,366.8	1,277.4	89.41	15.287	
9,700.0	7,740.0	11,046.7	7,530.0	42.4	65.6	-79.97	-1,506.9	2,952.2	1,366.4	1,273.7	92.63	14.751	
9,800.0	7,740.0	11,146.7	7,530.0	43.6	67.3	-79.96	-1,606.9	2,951.7	1,365.9	1,270.0	95.86	14.248	
9,900.0	7,740.0	11,246.7	7,530.0	44.8	68.9	-79.96	-1,706.9	2,951.2	1,365.4	1,266.2	99.12	13.775	
10,000.0	7,740.0	11,346.7	7,530.0	46.0	70.6	-79.96	-1,806.9	2,950.7	1,364.9	1,262.5	102.39	13.330	
10,100.0	7,740.0	11,446.7	7,530.0	47.3	72.2	-79.95	-1,906.9	2,950.2	1,364.4	1,258.7	105.67	12.911	
10,200.0	7,740.0	11,546.7	7,530.0	48.6	73.9	-79.95	-2,006.9	2,949.7	1,363.9	1,254.9	108.97	12.516	
10,300.0	7,740.0	11,646.7	7,530.0	50.0	75.5	-79.95	-2,106.9	2,949.1	1,363.4	1,251.1	112.28	12.142	
10,400.0	7,740.0	11,746.7	7,530.0	51.3	77.2	-79.94	-2,206.9	2,948.6	1,362.9	1,247.3	115.60	11.789	
10,500.0	7,740.0	11,846.7	7,530.0	52.7	78.9	-79.94	-2,306.8	2,948.1	1,362.4	1,243.4	118.94	11.455	
10,600.0	7,740.0	11,946.7	7,530.0	54.1	80.5	-79.94	-2,406.8	2,947.6	1,361.9	1,239.6	122.27	11.138	
10,700.0	7,740.0	12,046.6	7,530.0	55.6	82.2	-79.93	-2,506.8	2,947.1	1,361.4	1,235.7	125.62	10.837	
10,800.0	7,740.0	12,146.6	7,530.0	57.0	83.9	-79.93	-2,606.8	2,946.6	1,360.9	1,231.9	128.97	10.552	
10,900.0	7,740.0	12,246.6	7,530.0	58.5	85.6	-79.92	-2,706.8	2,946.1	1,360.4	1,228.0	132.33	10.280	
11,000.0	7,740.0	12,346.6	7,530.0	59.9	87.2	-79.92	-2,806.8	2,945.6	1,359.9	1,224.2	135.70	10.021	
11,100.0	7,740.0	12,446.6	7,530.0	61.4	88.9	-79.92	-2,906.8	2,945.1	1,359.4	1,220.3	139.06	9.775	
11,200.0	7,740.0	12,546.6	7,530.0	62.9	90.6	-79.91	-3,006.8	2,944.6	1,358.9	1,216.4	142.44	9.540	
11,300.0	7,740.0	12,646.6	7,530.0	64.5	92.3	-79.91	-3,106.8	2,944.1	1,358.4	1,212.5	145.82	9.316	
11,400.0	7,740.0	12,746.6	7,530.0	66.0	94.0	-79.91	-3,206.8	2,943.6	1,357.9	1,208.7	149.20	9.101	
11,500.0	7,740.0	12,846.6	7,530.0	67.5	95.7	-79.90	-3,306.8	2,943.1	1,357.4	1,204.8	152.58	8.896	
11,600.0	7,740.0	12,946.6	7,530.0	69.1	97.4	-79.90	-3,406.8	2,942.6	1,356.9	1,200.9	155.97	8.699	
11,700.0	7,740.0	13,046.6	7,530.0	70.7	99.1	-79.89	-3,506.8	2,942.0	1,356.4	1,197.0	159.36	8.511	
11,800.0	7,740.0	13,146.6	7,530.0	72.2	100.8	-79.89	-3,606.8	2,941.5	1,355.9	1,193.1	162.76	8.330	
11,900.0	7,740.0	13,246.6	7,530.0	73.8	102.5	-79.89	-3,706.8	2,941.0	1,355.4	1,189.2	166.16	8.157	
12,000.0	7,740.0	13,346.6	7,530.0	75.4	104.2	-79.88	-3,806.8	2,940.5	1,354.9	1,185.3	169.56	7.991	
12,100.0	7,740.0	13,446.6	7,530.0	77.0	105.9	-79.88	-3,906.8	2,940.0	1,354.4	1,181.4	172.96	7.831	
12,200.0	7,740.0	13,546.6	7,530.0	78.6	107.6	-79.88	-4,006.8	2,939.5	1,353.9	1,177.5	176.36	7.677	
12,300.0	7,740.0	13,646.6	7,530.0	80.2	109.3	-79.87	-4,106.8	2,939.0	1,353.4	1,173.6	179.77	7.528	
12,400.0	7,740.0	13,746.6	7,530.0	81.8	111.1	-79.87	-4,206.8	2,938.5	1,352.9	1,169.7	183.18	7.386	
12,500.0	7,740.0	13,846.6	7,530.0	83.4	112.8	-79.86	-4,306.8	2,938.0	1,352.4	1,165.8	186.59	7.248	
12,600.0	7,740.0	13,946.6	7,530.0	85.1	114.5	-79.86	-4,406.8	2,937.5	1,351.9	1,161.9	190.00	7.115	
12,700.0	7,740.0	14,046.6	7,530.0	86.7	116.2	-79.86	-4,506.8	2,937.0	1,351.4	1,158.0	193.41	6.987	
12,800.0	7,740.0	14,146.6	7,530.0	88.3	117.9	-79.85	-4,606.8	2,936.5	1,350.9	1,154.1	196.82	6.863	
12,900.0	7,740.0	14,246.6	7,530.0	90.0	119.6	-79.85	-4,706.8	2,936.0	1,350.4	1,150.1	200.24	6.744	
13,000.0	7,740.0	14,346.6	7,530.0	91.6	121.4	-79.84	-4,806.8	2,935.5	1,349.9	1,146.2	203.66	6.628	
13,100.0	7,740.0	14,446.6	7,530.0	93.3	123.1	-79.84	-4,906.8	2,934.9	1,349.4	1,142.3	207.07	6.516	
13,200.0	7,740.0	14,546.6	7,530.0	94.9	124.8	-79.84	-5,006.8	2,934.4	1,348.9	1,138.4	210.49	6.408	
13,300.0	7,740.0	14,646.6	7,530.0	96.6	126.5	-79.83	-5,106.8	2,933.9	1,348.4	1,134.5	213.91	6.303	
13,400.0	7,740.0	14,746.6	7,530.0	98.2	128.2	-79.83	-5,206.8	2,933.4	1,347.9	1,130.5	217.33	6.202	
13,500.0	7,740.0	14,846.6	7,530.0	99.9	130.0	-79.83	-5,306.8	2,932.9	1,347.4	1,126.6	220.76	6.104	
13,600.0	7,740.0	14,946.6	7,530.0	101.6	131.7	-79.82	-5,406.8	2,932.4	1,346.9	1,122.7	224.18	6.008	
13,700.0	7,740.0	15,046.6	7,530.0	103.2	133.4	-79.82	-5,506.8	2,931.9	1,346.4	1,118.8	227.60	5.916	
13,800.0	7,740.0	15,146.6	7,530.0	104.9	135.1	-79.81	-5,606.8	2,931.4	1,345.9	1,114.9	231.03	5.826	
13,900.0	7,740.0	15,246.6	7,530.0	106.6	136.9	-79.81	-5,706.8	2,930.9	1,345.4	1,110.9	234.45	5.738	
14,000.0	7,740.0	15,346.6	7,530.0	108.2	138.6	-79.81	-5,806.8	2,930.4	1,344.9	1,107.0	237.88	5.654	
14,100.0	7,740.0	15,446.6	7,530.0	109.9	140.3	-79.80	-5,906.8	2,929.9	1,344.4	1,103.1	241.30	5.571	
14,200.0	7,740.0	15,546.6	7,530.0	111.6	142.0	-79.80	-6,006.8	2,929.4	1,343.9	1,099.2	244.73	5.491	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1C-7H-A168 - HZ - Plan #2											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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)			
14,300.0	7,740.0	15,646.6	7,530.0	113.3	143.8	-79.80	-6,106.8	2,928.9	1,343.4	1,095.2	248.16	5.413	
14,400.0	7,740.0	15,746.6	7,530.0	115.0	145.5	-79.79	-6,206.7	2,928.4	1,342.9	1,091.3	251.59	5.338	
14,500.0	7,740.0	15,846.6	7,530.0	116.7	147.2	-79.79	-6,306.7	2,927.9	1,342.4	1,087.4	255.02	5.264	
14,600.0	7,740.0	15,946.6	7,530.0	118.3	149.0	-79.78	-6,406.7	2,927.3	1,341.9	1,083.4	258.44	5.192	
14,700.0	7,740.0	16,046.6	7,530.0	120.0	150.7	-79.78	-6,506.7	2,926.8	1,341.4	1,079.5	261.87	5.122	
14,800.0	7,740.0	16,146.6	7,530.0	121.7	152.4	-79.78	-6,606.7	2,926.3	1,340.9	1,075.6	265.31	5.054	
14,900.0	7,740.0	16,246.6	7,530.0	123.4	154.2	-79.77	-6,706.7	2,925.8	1,340.4	1,071.7	268.74	4.988	
15,000.0	7,740.0	16,346.6	7,530.0	125.1	155.9	-79.77	-6,806.7	2,925.3	1,339.9	1,067.7	272.17	4.923	
15,100.0	7,740.0	16,446.6	7,530.0	126.8	157.6	-79.76	-6,906.7	2,924.8	1,339.4	1,063.8	275.60	4.860	
15,200.0	7,740.0	16,546.6	7,530.0	128.5	159.4	-79.76	-7,006.7	2,924.3	1,338.9	1,059.9	279.03	4.798	
15,300.0	7,740.0	16,646.6	7,530.0	130.2	161.1	-79.76	-7,106.7	2,923.8	1,338.4	1,055.9	282.46	4.738	
15,400.0	7,740.0	16,746.6	7,530.0	131.9	162.8	-79.75	-7,206.7	2,923.3	1,337.9	1,052.0	285.90	4.680	
15,500.0	7,740.0	16,846.6	7,530.0	133.6	164.6	-79.75	-7,306.7	2,922.8	1,337.4	1,048.1	289.33	4.622	
15,600.0	7,740.0	16,946.6	7,530.0	135.3	166.3	-79.75	-7,406.7	2,922.3	1,336.9	1,044.1	292.76	4.567	
15,700.0	7,740.0	17,046.6	7,530.0	137.0	168.0	-79.74	-7,506.7	2,921.8	1,336.4	1,040.2	296.20	4.512	
15,800.0	7,740.0	17,146.6	7,530.0	138.7	169.8	-79.74	-7,606.7	2,921.3	1,335.9	1,036.3	299.63	4.459	
15,900.0	7,740.0	17,246.6	7,530.0	140.5	171.5	-79.73	-7,706.7	2,920.8	1,335.4	1,032.3	303.06	4.406	
16,000.0	7,740.0	17,346.6	7,530.0	142.2	173.2	-79.73	-7,806.7	2,920.2	1,334.9	1,028.4	306.50	4.355	
16,100.0	7,740.0	17,446.6	7,530.0	143.9	175.0	-79.73	-7,906.7	2,919.7	1,334.4	1,024.5	309.93	4.305	
16,142.2	7,740.0	17,488.8	7,530.0	144.6	175.7	-79.72	-7,948.9	2,919.5	1,334.2	1,022.8	311.38	4.285 CC, ES, SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1D-7H-A168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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		
0.0	0.0	28.0	28.0	0.0	0.0	65.60	1,870.2	4,122.3	4,526.7					
100.0	100.0	128.0	128.0	0.2	0.2	65.60	1,870.2	4,122.3	4,526.7	4,526.3	0.35	N/A		
200.0	200.0	228.0	228.0	0.3	0.4	65.60	1,870.2	4,122.3	4,526.7	4,526.0	0.70	6,451.760		
300.0	300.0	328.0	328.0	0.5	0.5	-5.39	1,870.2	4,122.3	4,525.8	4,524.8	1.05	4,307.882		
400.0	400.0	521.7	521.6	0.7	0.9	-5.43	1,871.1	4,119.9	4,522.4	4,520.9	1.56	2,891.139		
500.0	499.9	740.7	740.4	0.9	1.3	-5.54	1,875.1	4,110.0	4,514.7	4,512.6	2.14	2,113.794		
600.0	599.7	957.5	956.3	1.1	1.8	-5.75	1,882.1	4,092.4	4,502.6	4,499.9	2.74	1,645.779		
700.0	699.4	1,171.1	1,168.3	1.3	2.3	-6.04	1,892.0	4,067.8	4,486.3	4,482.9	3.38	1,327.942		
800.0	798.9	1,276.3	1,272.4	1.5	2.6	-6.22	1,897.7	4,053.6	4,466.9	4,463.1	3.80	1,176.631		
900.0	898.3	1,373.3	1,368.4	1.8	2.9	-6.39	1,902.9	4,040.5	4,445.8	4,441.6	4.20	1,058.933		
1,000.0	997.4	1,470.0	1,464.0	2.0	3.2	-6.57	1,908.2	4,027.5	4,423.0	4,418.4	4.60	961.195		
1,100.0	1,096.3	1,566.2	1,559.2	2.3	3.5	-6.76	1,913.4	4,014.5	4,398.6	4,393.6	5.01	878.783		
1,200.0	1,194.9	1,662.0	1,654.0	2.7	3.8	-6.96	1,918.5	4,001.6	4,372.6	4,367.2	5.41	808.360		
1,300.0	1,293.3	1,757.3	1,748.2	3.0	4.0	-7.16	1,923.7	3,988.7	4,344.9	4,339.1	5.81	747.472		
1,400.0	1,391.2	1,852.0	1,842.0	3.4	4.3	-7.38	1,928.8	3,976.0	4,315.6	4,309.4	6.22	694.280		
1,500.0	1,488.9	1,946.2	1,935.2	3.8	4.6	-7.60	1,933.9	3,963.3	4,284.7	4,278.1	6.62	647.377		
1,595.5	1,581.8	2,035.7	2,023.7	4.2	4.9	-7.82	1,938.7	3,951.2	4,253.6	4,246.6	7.00	607.435		
1,600.0	1,586.1	2,039.9	2,027.9	4.2	4.9	-7.83	1,939.0	3,950.6	4,252.2	4,245.1	7.02	605.606		
1,700.0	1,683.2	2,133.3	2,120.2	4.7	5.2	-8.02	1,944.0	3,938.0	4,218.9	4,211.5	7.44	566.919		
1,800.0	1,780.2	2,226.6	2,212.6	5.1	5.5	-8.21	1,949.1	3,925.4	4,185.8	4,177.9	7.86	532.215		
1,900.0	1,877.3	2,320.0	2,305.0	5.6	5.7	-8.41	1,954.1	3,912.9	4,152.6	4,144.3	8.29	500.916		
2,000.0	1,974.3	2,413.4	2,397.4	6.0	6.0	-8.61	1,959.1	3,900.3	4,119.5	4,110.8	8.72	472.548		
2,100.0	2,071.4	2,506.7	2,489.7	6.5	6.3	-8.81	1,964.2	3,887.7	4,086.5	4,077.3	9.15	446.720		
2,200.0	2,168.4	2,600.1	2,582.1	6.9	6.6	-9.01	1,969.2	3,875.1	4,053.5	4,043.9	9.58	423.110		
2,300.0	2,265.4	2,693.5	2,674.5	7.4	6.9	-9.22	1,974.3	3,862.5	4,020.5	4,010.5	10.02	401.444		
2,400.0	2,362.5	2,786.8	2,766.9	7.9	7.2	-9.43	1,979.3	3,849.9	3,987.6	3,977.2	10.45	381.494		
2,500.0	2,459.5	2,880.2	2,859.3	8.3	7.5	-9.65	1,984.4	3,837.3	3,954.8	3,943.9	10.89	363.065		
2,600.0	2,556.6	2,973.6	2,951.6	8.8	7.7	-9.87	1,989.4	3,824.7	3,922.0	3,910.6	11.34	345.991		
2,700.0	2,653.6	3,066.9	3,044.0	9.2	8.0	-10.09	1,994.5	3,812.1	3,889.2	3,877.4	11.78	330.128		
2,800.0	2,750.7	3,160.3	3,136.4	9.7	8.3	-10.32	1,999.5	3,799.5	3,856.5	3,844.3	12.23	315.354		
2,900.0	2,847.7	3,253.7	3,228.8	10.2	8.6	-10.55	2,004.6	3,786.9	3,823.9	3,811.2	12.68	301.559		
3,000.0	2,944.8	3,347.0	3,321.1	10.6	8.9	-10.78	2,009.6	3,774.3	3,791.3	3,778.2	13.13	288.651		
3,100.0	3,041.8	3,440.4	3,413.5	11.1	9.2	-11.02	2,014.7	3,761.7	3,758.8	3,745.2	13.59	276.548		
3,200.0	3,138.9	3,533.8	3,505.9	11.5	9.5	-11.26	2,019.7	3,749.1	3,726.3	3,712.3	14.05	265.177		
3,300.0	3,235.9	3,627.1	3,598.3	12.0	9.8	-11.50	2,024.7	3,736.5	3,693.9	3,679.4	14.52	254.473		
3,400.0	3,333.0	3,720.5	3,690.6	12.5	10.0	-11.75	2,029.8	3,724.0	3,661.6	3,646.6	14.98	244.381		
3,500.0	3,430.0	3,813.9	3,783.0	12.9	10.3	-12.01	2,034.8	3,711.4	3,629.3	3,613.9	15.45	234.851		
3,600.0	3,527.1	3,907.2	3,875.4	13.4	10.6	-12.27	2,039.9	3,698.8	3,597.1	3,581.2	15.93	225.836		
3,700.0	3,624.1	4,000.6	3,967.8	13.9	10.9	-12.53	2,044.9	3,686.2	3,565.0	3,548.6	16.41	217.297		
3,800.0	3,721.2	4,094.0	4,060.1	14.3	11.2	-12.80	2,050.0	3,673.6	3,532.9	3,516.1	16.89	209.197		
3,900.0	3,818.2	4,187.3	4,152.5	14.8	11.5	-13.07	2,055.0	3,661.0	3,501.0	3,483.6	17.37	201.505		
4,000.0	3,915.3	4,280.7	4,244.9	15.3	11.8	-13.35	2,060.1	3,648.4	3,469.0	3,451.2	17.86	194.190		
4,100.0	4,012.3	4,374.1	4,337.3	15.7	12.1	-13.63	2,065.1	3,635.8	3,437.2	3,418.8	18.36	187.226		
4,200.0	4,109.4	4,467.4	4,429.7	16.2	12.3	-13.92	2,070.2	3,623.2	3,405.4	3,386.6	18.86	180.589		
4,300.0	4,206.4	4,560.8	4,522.0	16.6	12.6	-14.21	2,075.2	3,610.6	3,373.8	3,354.4	19.36	174.256		
4,400.0	4,303.5	4,654.2	4,614.4	17.1	12.9	-14.51	2,080.2	3,598.0	3,342.2	3,322.3	19.87	168.209		
4,500.0	4,400.5	4,747.5	4,706.8	17.6	13.2	-14.82	2,085.3	3,585.4	3,310.7	3,290.3	20.38	162.428		
4,600.0	4,497.6	4,840.9	4,799.2	18.0	13.5	-15.12	2,090.3	3,572.8	3,279.2	3,258.3	20.90	156.897		
4,700.0	4,594.6	4,934.3	4,891.5	18.5	13.8	-15.44	2,095.4	3,560.2	3,247.9	3,226.5	21.42	151.601		
4,800.0	4,691.7	5,027.7	4,983.9	19.0	14.1	-15.76	2,100.4	3,547.6	3,216.7	3,194.7	21.95	146.525		
4,900.0	4,788.7	5,121.0	5,076.3	19.4	14.4	-16.09	2,105.5	3,535.1	3,185.5	3,163.0	22.49	141.657		
5,000.0	4,885.8	5,214.4	5,168.7	19.9	14.6	-16.42	2,110.5	3,522.5	3,154.5	3,131.5	23.03	136.985		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1D-7H-A168 - HZ - Plan #2												Offset Site Error: 0.0 ft	
Survey Program: O-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	
5,100.0	4,982.8	5,307.8	5,261.0	20.4	14.9	-16.76	2,115.6	3,509.9	3,123.6	3,100.0	23.57	132.498	
5,200.0	5,079.9	5,401.1	5,353.4	20.8	15.2	-17.11	2,120.6	3,497.3	3,092.7	3,068.6	24.13	128.186	
5,300.0	5,176.9	5,494.5	5,445.8	21.3	15.5	-17.46	2,125.7	3,484.7	3,062.0	3,037.3	24.69	124.039	
5,400.0	5,273.9	5,587.9	5,538.2	21.8	15.8	-17.82	2,130.7	3,472.1	3,031.4	3,006.1	25.25	120.048	
5,500.0	5,371.0	5,681.2	5,630.6	22.2	16.1	-18.19	2,135.8	3,459.5	3,000.9	2,975.1	25.82	116.206	
5,600.0	5,468.0	5,774.6	5,722.9	22.7	16.4	-18.56	2,140.8	3,446.9	2,970.5	2,944.1	26.40	112.506	
5,700.0	5,565.1	5,868.0	5,815.3	23.1	16.7	-18.94	2,145.8	3,434.3	2,940.2	2,913.3	26.99	108.939	
5,800.0	5,662.1	5,961.3	5,907.7	23.6	17.0	-19.33	2,150.9	3,421.7	2,910.1	2,882.5	27.58	105.501	
5,900.0	5,759.2	6,054.3	6,000.0	24.1	35.1	25.53	393.6	3,168.1	2,835.4	2,789.7	45.63	62.132	
6,000.0	5,856.2	6,146.5	6,100.0	24.5	35.0	25.24	401.5	3,168.1	2,751.7	2,706.1	45.64	60.297	
6,100.0	5,953.3	6,238.6	6,200.0	25.0	34.9	24.95	409.3	3,168.1	2,669.2	2,623.6	45.63	58.490	
6,200.0	6,050.3	6,330.8	6,300.0	25.5	34.8	24.66	417.2	3,168.1	2,587.9	2,542.2	45.63	56.714	
6,300.0	6,147.4	6,422.9	6,400.0	25.9	34.7	24.37	425.0	3,168.1	2,507.8	2,462.2	45.62	54.970	
6,400.0	6,244.4	6,515.1	6,500.0	26.4	34.6	24.07	432.9	3,168.1	2,429.3	2,383.7	45.61	53.261	
6,500.0	6,341.5	6,607.2	6,600.0	26.9	34.5	23.78	440.7	3,168.1	2,352.3	2,306.7	45.60	51.590	
6,600.0	6,438.5	6,699.4	6,700.0	27.3	34.3	23.49	448.6	3,168.1	2,277.1	2,231.6	45.58	49.960	
6,700.0	6,535.6	6,791.5	6,800.0	27.8	34.2	23.20	456.4	3,168.1	2,203.9	2,158.3	45.56	48.373	
6,800.0	6,632.6	6,883.7	6,900.0	28.3	34.1	22.90	464.3	3,168.1	2,132.8	2,087.3	45.54	46.835	
6,900.0	6,729.7	6,975.8	7,000.0	28.7	34.0	22.61	472.1	3,168.1	2,064.1	2,018.5	45.51	45.351	
7,000.0	6,826.7	7,067.9	7,100.0	29.2	33.9	22.32	480.0	3,168.1	1,997.9	1,952.5	45.49	43.925	
7,100.0	6,923.8	7,160.1	7,200.0	29.7	33.8	22.02	487.8	3,168.1	1,934.7	1,889.2	45.45	42.563	
7,200.0	7,020.8	7,252.2	7,300.0	30.1	33.7	21.73	495.7	3,168.1	1,874.6	1,829.2	45.42	41.272	
7,300.0	7,117.9	7,344.4	7,321.2	30.6	33.6	21.43	503.5	3,168.1	1,818.0	1,772.7	45.38	40.058	
7,350.0	7,166.4	7,391.2	7,400.0	30.7	33.6	21.37	505.2	3,168.1	1,806.5	1,761.2	45.38	39.812	
7,400.0	7,215.1	7,420.0	7,450.0	30.8	33.6	7.87	506.7	3,168.1	1,791.1	1,746.7	44.42	40.323	
7,400.0	7,215.1	7,420.0	7,500.0	31.0	33.6	-16.08	506.0	3,168.1	1,765.2	1,722.2	42.96	41.085	
7,450.0	7,263.5	7,470.0	7,500.0	31.2	33.6	-36.46	500.8	3,168.1	1,740.4	1,698.6	41.83	41.604	
7,500.0	7,311.3	7,480.0	7,550.0	31.3	33.8	-51.51	491.4	3,168.1	1,717.0	1,676.0	41.05	41.825	
7,550.0	7,358.1	7,470.0	7,600.0	31.5	33.9	-62.18	477.7	3,168.1	1,695.2	1,654.6	40.61	41.741	
7,600.0	7,403.5	7,460.0	7,650.0	31.6	34.2	-69.80	459.9	3,168.1	1,675.0	1,634.5	40.48	41.380	
7,650.0	7,447.3	7,490.0	7,700.0	31.7	34.5	-75.36	438.1	3,168.1	1,656.6	1,616.0	40.61	40.788	
7,700.0	7,489.1	7,520.0	7,750.0	31.7	34.8	-79.47	412.5	3,168.1	1,640.0	1,599.0	40.98	40.019	
7,750.0	7,528.5	7,550.0	7,800.0	31.8	35.2	-82.53	383.2	3,168.1	1,625.2	1,583.6	41.53	39.130	
7,800.0	7,565.3	7,580.0	7,850.0	31.8	35.7	-84.80	350.4	3,168.2	1,612.2	1,569.9	42.24	38.166	
7,850.0	7,599.2	7,610.0	7,900.0	31.9	36.2	-86.48	314.6	3,168.2	1,600.9	1,557.8	43.09	37.156	
7,900.0	7,629.9	7,640.0	7,950.0	31.9	36.7	-87.69	275.8	3,168.2	1,591.2	1,547.2	44.03	36.137	
7,950.0	7,657.2	7,670.0	8,000.0	31.9	37.3	-88.56	234.4	3,168.2	1,583.2	1,538.1	45.07	35.129	
8,000.0	7,680.9	7,690.0	8,050.0	32.0	38.0	-89.15	190.7	3,168.2	1,576.5	1,530.3	46.17	34.146	
8,050.0	7,700.8	7,710.0	8,100.0	32.0	38.6	-89.55	145.1	3,168.2	1,571.2	1,523.9	47.32	33.205	
8,100.0	7,716.7	7,720.0	8,150.0	32.0	39.3	-89.80	97.9	3,168.2	1,567.1	1,518.6	48.51	32.306	
8,150.0	7,728.6	7,730.0	8,200.0	32.1	40.0	-89.96	49.4	3,168.2	1,564.2	1,514.5	49.72	31.458	
8,200.0	7,736.3	7,740.0	8,250.0	32.1	40.8	-90.04	0.1	3,168.2	1,562.4	1,511.4	50.96	30.659	
8,250.0	7,739.8	7,740.0	8,265.8	32.2	41.5	-90.07	-49.8	3,168.2	1,561.5	1,509.3	52.20	29.913	
8,265.8	7,740.0	7,740.0	8,266.2	32.2	41.7	-90.07	-65.6	3,168.2	1,561.5	1,508.9	52.60	29.688 CC	
8,266.2	7,740.0	7,740.0	8,300.0	32.2	41.7	-90.07	-66.0	3,168.2	1,561.5	1,508.9	52.61	29.682	
8,300.0	7,740.0	7,740.0	8,400.0	32.3	42.3	-90.07	-99.8	3,168.2	1,561.5	1,508.2	53.30	29.298	
8,400.0	7,740.0	7,740.0	8,500.0	32.5	43.8	-90.07	-199.8	3,168.2	1,561.5	1,506.0	55.47	28.150	
8,500.0	7,740.0	7,740.0	8,600.0	32.8	45.3	-90.07	-299.8	3,168.3	1,561.5	1,503.7	57.83	27.001	
8,600.0	7,740.0	7,740.0	8,700.0	33.2	46.9	-90.07	-399.8	3,168.3	1,561.5	1,501.2	60.36	25.872	
8,700.0	7,740.0	7,740.0	8,800.0	33.7	48.4	-90.07	-499.8	3,168.3	1,561.6	1,498.5	63.02	24.778	
8,800.0	7,740.0	7,740.0	8,900.0	34.3	50.0	-90.07	-599.8	3,168.3	1,561.6	1,495.8	65.80	23.730	
8,900.0	7,740.0	7,740.0		34.9	51.6	-90.07	-699.8	3,168.3	1,561.6	1,492.9	68.69	22.735	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1D-7H-A168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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			
9,000.0	7,740.0	10,547.7	7,770.0	35.6	53.2	-90.07	-799.8	3,168.3	1,561.6	1,490.0	71.65	21.795		
9,100.0	7,740.0	10,647.7	7,770.0	36.4	54.8	-90.07	-899.8	3,168.4	1,561.6	1,486.9	74.68	20.910		
9,200.0	7,740.0	10,747.7	7,770.0	37.3	56.4	-90.07	-999.8	3,168.4	1,561.6	1,483.9	77.77	20.079		
9,300.0	7,740.0	10,847.7	7,770.0	38.2	58.0	-90.07	-1,099.8	3,168.4	1,561.7	1,480.7	80.91	19.301		
9,400.0	7,740.0	10,947.7	7,770.0	39.2	59.7	-90.07	-1,199.8	3,168.4	1,561.7	1,477.6	84.09	18.571		
9,500.0	7,740.0	11,047.7	7,770.0	40.2	61.3	-90.07	-1,299.8	3,168.4	1,561.7	1,474.4	87.30	17.888		
9,600.0	7,740.0	11,147.7	7,770.0	41.3	62.9	-90.07	-1,399.8	3,168.4	1,561.7	1,471.2	90.55	17.247		
9,700.0	7,740.0	11,247.7	7,770.0	42.4	64.6	-90.07	-1,499.8	3,168.5	1,561.7	1,467.9	93.82	16.647		
9,800.0	7,740.0	11,347.7	7,770.0	43.6	66.2	-90.07	-1,599.8	3,168.5	1,561.7	1,464.6	97.11	16.083		
9,900.0	7,740.0	11,447.7	7,770.0	44.8	67.9	-90.07	-1,699.8	3,168.5	1,561.8	1,461.3	100.42	15.553		
10,000.0	7,740.0	11,547.7	7,770.0	46.0	69.6	-90.07	-1,799.8	3,168.5	1,561.8	1,458.0	103.74	15.054		
10,100.0	7,740.0	11,647.7	7,770.0	47.3	71.2	-90.07	-1,899.8	3,168.5	1,561.8	1,454.7	107.09	14.584		
10,200.0	7,740.0	11,747.7	7,770.0	48.6	72.9	-90.07	-1,999.8	3,168.5	1,561.8	1,451.4	110.44	14.142		
10,300.0	7,740.0	11,847.7	7,770.0	50.0	74.6	-90.07	-2,099.8	3,168.6	1,561.8	1,448.0	113.81	13.724		
10,400.0	7,740.0	11,947.7	7,770.0	51.3	76.3	-90.07	-2,199.8	3,168.6	1,561.8	1,444.7	117.18	13.328		
10,500.0	7,740.0	12,047.7	7,770.0	52.7	78.0	-90.07	-2,299.8	3,168.6	1,561.9	1,441.3	120.57	12.954		
10,600.0	7,740.0	12,147.7	7,770.0	54.1	79.6	-90.07	-2,399.8	3,168.6	1,561.9	1,437.9	123.96	12.600		
10,700.0	7,740.0	12,247.7	7,770.0	55.6	81.3	-90.07	-2,499.8	3,168.6	1,561.9	1,434.5	127.36	12.263		
10,800.0	7,740.0	12,347.7	7,770.0	57.0	83.0	-90.07	-2,599.8	3,168.6	1,561.9	1,431.1	130.77	11.944		
10,900.0	7,740.0	12,447.7	7,770.0	58.5	84.7	-90.07	-2,699.8	3,168.7	1,561.9	1,427.7	134.18	11.640		
11,000.0	7,740.0	12,547.7	7,770.0	59.9	86.4	-90.07	-2,799.8	3,168.7	1,561.9	1,424.3	137.60	11.351		
11,100.0	7,740.0	12,647.7	7,770.0	61.4	88.1	-90.07	-2,899.8	3,168.7	1,562.0	1,420.9	141.03	11.076		
11,200.0	7,740.0	12,747.7	7,770.0	62.9	89.8	-90.07	-2,999.8	3,168.7	1,562.0	1,417.5	144.46	10.813		
11,300.0	7,740.0	12,847.7	7,770.0	64.5	91.5	-90.07	-3,099.8	3,168.7	1,562.0	1,414.1	147.89	10.562		
11,400.0	7,740.0	12,947.7	7,770.0	66.0	93.2	-90.07	-3,199.8	3,168.7	1,562.0	1,410.7	151.33	10.322		
11,500.0	7,740.0	13,047.7	7,770.0	67.5	94.9	-90.07	-3,299.8	3,168.8	1,562.0	1,407.2	154.77	10.093		
11,600.0	7,740.0	13,147.7	7,770.0	69.1	96.6	-90.07	-3,399.8	3,168.8	1,562.0	1,403.8	158.21	9.873		
11,700.0	7,740.0	13,247.7	7,770.0	70.7	98.4	-90.07	-3,499.8	3,168.8	1,562.1	1,400.4	161.66	9.663		
11,800.0	7,740.0	13,347.7	7,770.0	72.2	100.1	-90.07	-3,599.8	3,168.8	1,562.1	1,397.0	165.11	9.461		
11,900.0	7,740.0	13,447.7	7,770.0	73.8	101.8	-90.07	-3,699.8	3,168.8	1,562.1	1,393.5	168.56	9.267		
12,000.0	7,740.0	13,547.7	7,770.0	75.4	103.5	-90.07	-3,799.8	3,168.8	1,562.1	1,390.1	172.02	9.081		
12,100.0	7,740.0	13,647.7	7,770.0	77.0	105.2	-90.07	-3,899.8	3,168.9	1,562.1	1,386.6	175.48	8.902		
12,200.0	7,740.0	13,747.7	7,770.0	78.6	106.9	-90.07	-3,999.8	3,168.9	1,562.1	1,383.2	178.94	8.730		
12,300.0	7,740.0	13,847.7	7,770.0	80.2	108.6	-90.07	-4,099.8	3,168.9	1,562.2	1,379.8	182.40	8.565		
12,400.0	7,740.0	13,947.7	7,770.0	81.8	110.4	-90.07	-4,199.8	3,168.9	1,562.2	1,376.3	185.86	8.405		
12,500.0	7,740.0	14,047.7	7,770.0	83.4	112.1	-90.07	-4,299.8	3,168.9	1,562.2	1,372.9	189.33	8.251		
12,600.0	7,740.0	14,147.7	7,770.0	85.1	113.8	-90.07	-4,399.8	3,168.9	1,562.2	1,369.4	192.79	8.103		
12,700.0	7,740.0	14,247.7	7,770.0	86.7	115.5	-90.07	-4,499.8	3,169.0	1,562.2	1,366.0	196.26	7.960		
12,800.0	7,740.0	14,347.7	7,770.0	88.3	117.3	-90.07	-4,599.8	3,169.0	1,562.2	1,362.5	199.73	7.822		
12,900.0	7,740.0	14,447.7	7,770.0	90.0	119.0	-90.07	-4,699.8	3,169.0	1,562.2	1,359.0	203.20	7.688		
13,000.0	7,740.0	14,547.7	7,770.0	91.6	120.7	-90.07	-4,799.8	3,169.0	1,562.3	1,355.6	206.68	7.559		
13,100.0	7,740.0	14,647.7	7,770.0	93.3	122.4	-90.07	-4,899.8	3,169.0	1,562.3	1,352.1	210.15	7.434		
13,200.0	7,740.0	14,747.7	7,770.0	94.9	124.2	-90.07	-4,999.8	3,169.0	1,562.3	1,348.7	213.63	7.313		
13,300.0	7,740.0	14,847.7	7,770.0	96.6	125.9	-90.07	-5,099.8	3,169.1	1,562.3	1,345.2	217.10	7.196		
13,400.0	7,740.0	14,947.7	7,770.0	98.2	127.6	-90.07	-5,199.8	3,169.1	1,562.3	1,341.8	220.58	7.083		
13,500.0	7,740.0	15,047.7	7,770.0	99.9	129.3	-90.07	-5,299.8	3,169.1	1,562.3	1,338.3	224.06	6.973		
13,600.0	7,740.0	15,147.7	7,770.0	101.6	131.1	-90.07	-5,399.8	3,169.1	1,562.4	1,334.8	227.54	6.866		
13,700.0	7,740.0	15,247.7	7,770.0	103.2	132.8	-90.07	-5,499.8	3,169.1	1,562.4	1,331.4	231.02	6.763		
13,800.0	7,740.0	15,347.7	7,770.0	104.9	134.5	-90.07	-5,599.8	3,169.1	1,562.4	1,327.9	234.50	6.663		
13,900.0	7,740.0	15,447.7	7,770.0	106.6	136.3	-90.07	-5,699.8	3,169.2	1,562.4	1,324.4	237.98	6.565		
14,000.0	7,740.0	15,547.7	7,770.0	108.2	138.0	-90.07	-5,799.8	3,169.2	1,562.4	1,321.0	241.47	6.471		
14,100.0	7,740.0	15,647.7	7,770.0	109.9	139.7	-90.07	-5,899.8	3,169.2	1,562.4	1,317.5	244.95	6.379		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1D-7H-A168 - HZ - Plan #2												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)			
14,200.0	7,740.0	15,747.7	7,770.0	111.6	141.5	-90.07	-5,999.8	3,169.2	1,562.5	1,314.0	248.44	6.289	
14,300.0	7,740.0	15,847.7	7,770.0	113.3	143.2	-90.07	-6,099.8	3,169.2	1,562.5	1,310.6	251.92	6.202	
14,400.0	7,740.0	15,947.7	7,770.0	115.0	144.9	-90.07	-6,199.8	3,169.2	1,562.5	1,307.1	255.41	6.118	
14,500.0	7,740.0	16,047.7	7,770.0	116.7	146.7	-90.07	-6,299.8	3,169.3	1,562.5	1,303.6	258.89	6.035	
14,600.0	7,740.0	16,147.7	7,770.0	118.3	148.4	-90.07	-6,399.8	3,169.3	1,562.5	1,300.2	262.38	5.955	
14,700.0	7,740.0	16,247.7	7,770.0	120.0	150.1	-90.07	-6,499.8	3,169.3	1,562.5	1,296.7	265.87	5.877	
14,800.0	7,740.0	16,347.7	7,770.0	121.7	151.9	-90.07	-6,599.8	3,169.3	1,562.6	1,293.2	269.36	5.801	
14,900.0	7,740.0	16,447.7	7,770.0	123.4	153.6	-90.07	-6,699.8	3,169.3	1,562.6	1,289.7	272.85	5.727	
15,000.0	7,740.0	16,547.7	7,770.0	125.1	155.3	-90.07	-6,799.8	3,169.3	1,562.6	1,286.3	276.33	5.655	
15,100.0	7,740.0	16,647.7	7,770.0	126.8	157.1	-90.07	-6,899.8	3,169.4	1,562.6	1,282.8	279.82	5.584	
15,200.0	7,740.0	16,747.7	7,770.0	128.5	158.8	-90.07	-6,999.8	3,169.4	1,562.6	1,279.3	283.31	5.516	
15,300.0	7,740.0	16,847.7	7,770.0	130.2	160.6	-90.07	-7,099.8	3,169.4	1,562.6	1,275.8	286.81	5.448	
15,400.0	7,740.0	16,947.7	7,770.0	131.9	162.3	-90.07	-7,199.8	3,169.4	1,562.7	1,272.4	290.30	5.383	
15,500.0	7,740.0	17,047.7	7,770.0	133.6	164.0	-90.07	-7,299.8	3,169.4	1,562.7	1,268.9	293.79	5.319	
15,600.0	7,740.0	17,147.7	7,770.0	135.3	165.8	-90.07	-7,399.8	3,169.4	1,562.7	1,265.4	297.28	5.257	
15,700.0	7,740.0	17,247.7	7,770.0	137.0	167.5	-90.07	-7,499.8	3,169.5	1,562.7	1,261.9	300.77	5.196	
15,800.0	7,740.0	17,347.7	7,770.0	138.7	169.3	-90.07	-7,599.8	3,169.5	1,562.7	1,258.5	304.26	5.136	
15,900.0	7,740.0	17,447.7	7,770.0	140.5	171.0	-90.07	-7,699.8	3,169.5	1,562.7	1,255.0	307.76	5.078	
16,000.0	7,740.0	17,547.7	7,770.0	142.2	172.7	-90.07	-7,799.8	3,169.5	1,562.8	1,251.5	311.25	5.021	
16,100.0	7,740.0	17,647.7	7,770.0	143.9	174.5	-90.07	-7,899.8	3,169.5	1,562.8	1,248.0	314.75	4.965	
16,142.2	7,740.0	17,689.9	7,770.0	144.6	175.2	-90.07	-7,942.0	3,169.5	1,562.8	1,246.6	316.22	4.942 ES, SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1E-7H-A168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					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)	Total Uncertainty Axis			
0.0	0.0	28.0	28.0	0.0	0.0	65.65	1,870.2	4,132.4	4,535.9					
100.0	100.0	128.0	128.0	0.2	0.2	65.65	1,870.2	4,132.4	4,535.9	4,535.5	0.35	N/A		
200.0	200.0	228.0	228.0	0.3	0.4	65.65	1,870.2	4,132.4	4,535.9	4,535.2	0.70	6,464.841		
300.0	300.0	328.0	328.0	0.5	0.5	-5.34	1,870.2	4,132.4	4,535.0	4,534.0	1.05	4,316.619		
400.0	400.0	453.7	453.7	0.7	0.8	-5.35	1,870.3	4,132.2	4,532.3	4,530.9	1.44	3,138.025		
500.0	499.9	645.2	645.1	0.9	1.1	-5.41	1,872.7	4,127.8	4,526.4	4,524.4	1.96	2,312.746		
600.0	599.7	835.4	834.9	1.1	1.5	-5.55	1,878.0	4,117.8	4,516.7	4,514.3	2.48	1,817.657		
700.0	699.4	1,023.6	1,022.4	1.3	1.9	-5.76	1,886.3	4,102.6	4,503.4	4,500.4	3.04	1,481.194		
800.0	798.9	1,149.4	1,147.3	1.5	2.2	-5.95	1,893.2	4,089.7	4,486.9	4,483.4	3.49	1,286.561		
900.0	898.3	1,247.1	1,244.3	1.8	2.4	-6.10	1,898.7	4,079.5	4,468.5	4,464.7	3.88	1,152.558		
1,000.0	997.4	1,344.5	1,341.0	2.0	2.7	-6.26	1,904.2	4,069.3	4,448.6	4,444.3	4.27	1,042.282		
1,100.0	1,096.3	1,441.5	1,437.4	2.3	2.9	-6.43	1,909.7	4,059.1	4,426.9	4,422.2	4.66	950.028		
1,200.0	1,194.9	1,538.1	1,533.3	2.7	3.2	-6.61	1,915.2	4,049.0	4,403.6	4,398.5	5.05	871.739		
1,300.0	1,293.3	1,634.3	1,628.8	3.0	3.4	-6.79	1,920.6	4,039.0	4,378.6	4,373.1	5.44	804.463		
1,400.0	1,391.2	1,730.0	1,723.8	3.4	3.7	-6.98	1,926.0	4,029.0	4,352.0	4,346.1	5.83	746.009		
1,500.0	1,488.9	1,825.2	1,818.3	3.8	3.9	-7.18	1,931.3	4,019.0	4,323.7	4,317.5	6.22	694.718		
1,595.5	1,581.8	1,915.6	1,908.1	4.2	4.2	-7.37	1,936.4	4,009.6	4,295.2	4,288.6	6.60	651.229		
1,600.0	1,586.1	1,919.8	1,912.3	4.2	4.2	-7.38	1,936.7	4,009.1	4,293.8	4,287.2	6.61	649.244		
1,700.0	1,683.2	2,014.3	2,006.1	4.7	4.4	-7.55	1,942.0	3,999.3	4,263.2	4,256.2	7.02	607.330		
1,800.0	1,780.2	2,108.7	2,099.8	5.1	4.7	-7.72	1,947.3	3,989.4	4,232.7	4,225.2	7.43	569.861		
1,900.0	1,877.3	2,203.1	2,193.6	5.6	5.0	-7.90	1,952.7	3,979.5	4,202.1	4,194.3	7.84	536.173		
2,000.0	1,974.3	2,297.5	2,287.3	6.0	5.2	-8.07	1,958.0	3,969.7	4,171.6	4,163.4	8.25	505.725		
2,100.0	2,071.4	2,392.0	2,381.1	6.5	5.5	-8.25	1,963.3	3,959.8	4,141.2	4,132.5	8.66	478.074		
2,200.0	2,168.4	2,486.4	2,474.8	6.9	5.7	-8.44	1,968.6	3,949.9	4,110.8	4,101.7	9.08	452.855		
2,300.0	2,265.4	2,580.8	2,568.6	7.4	6.0	-8.62	1,974.0	3,940.1	4,080.4	4,070.9	9.49	429.762		
2,400.0	2,362.5	2,675.2	2,662.3	7.9	6.2	-8.81	1,979.3	3,930.2	4,050.1	4,040.1	9.91	408.539		
2,500.0	2,459.5	2,769.6	2,756.1	8.3	6.5	-9.00	1,984.6	3,920.3	4,019.8	4,009.4	10.33	388.968		
2,600.0	2,556.6	2,864.1	2,849.8	8.8	6.7	-9.19	1,989.9	3,910.5	3,989.5	3,978.7	10.76	370.865		
2,700.0	2,653.6	2,958.5	2,943.6	9.2	7.0	-9.39	1,995.3	3,900.6	3,959.3	3,948.1	11.18	354.071		
2,800.0	2,750.7	3,052.9	3,037.3	9.7	7.2	-9.59	2,000.6	3,890.7	3,929.1	3,917.5	11.61	338.450		
2,900.0	2,847.7	3,147.3	3,131.1	10.2	7.5	-9.79	2,005.9	3,880.9	3,899.0	3,887.0	12.04	323.883		
3,000.0	2,944.8	3,241.7	3,224.9	10.6	7.7	-10.00	2,011.2	3,871.0	3,868.9	3,856.5	12.47	310.269		
3,100.0	3,041.8	3,336.2	3,318.6	11.1	8.0	-10.20	2,016.6	3,861.1	3,838.9	3,826.0	12.90	297.516		
3,200.0	3,138.9	3,430.6	3,412.4	11.5	8.3	-10.42	2,021.9	3,851.3	3,808.9	3,795.6	13.34	285.546		
3,300.0	3,235.9	3,525.0	3,506.1	12.0	8.5	-10.63	2,027.2	3,841.4	3,779.0	3,765.2	13.78	274.289		
3,400.0	3,333.0	3,619.4	3,599.9	12.5	8.8	-10.85	2,032.5	3,831.5	3,749.1	3,734.9	14.22	263.685		
3,500.0	3,430.0	3,713.9	3,693.6	12.9	9.0	-11.07	2,037.9	3,821.7	3,719.3	3,704.6	14.66	253.677		
3,600.0	3,527.1	3,808.3	3,787.4	13.4	9.3	-11.30	2,043.2	3,811.8	3,689.5	3,674.4	15.11	244.217		
3,700.0	3,624.1	3,902.7	3,881.1	13.9	9.5	-11.53	2,048.5	3,801.9	3,659.8	3,644.2	15.56	235.262		
3,800.0	3,721.2	3,997.1	3,974.9	14.3	9.8	-11.76	2,053.8	3,792.0	3,630.1	3,614.1	16.01	226.772		
3,900.0	3,818.2	4,091.5	4,068.6	14.8	10.0	-11.99	2,059.2	3,782.2	3,600.5	3,584.0	16.46	218.713		
4,000.0	3,915.3	4,186.0	4,162.4	15.3	10.3	-12.23	2,064.5	3,772.3	3,570.9	3,554.0	16.92	211.053		
4,100.0	4,012.3	4,280.4	4,256.1	15.7	10.6	-12.48	2,069.8	3,762.4	3,541.4	3,524.0	17.38	203.763		
4,200.0	4,109.4	4,374.8	4,349.9	16.2	10.8	-12.73	2,075.1	3,752.6	3,512.0	3,494.1	17.84	196.818		
4,300.0	4,206.4	4,469.2	4,443.6	16.6	11.1	-12.98	2,080.5	3,742.7	3,482.6	3,464.3	18.31	190.193		
4,400.0	4,303.5	4,563.6	4,537.4	17.1	11.3	-13.24	2,085.8	3,732.8	3,453.3	3,434.5	18.78	183.867		
4,500.0	4,400.5	4,658.1	4,631.2	17.6	11.6	-13.50	2,091.1	3,723.0	3,424.1	3,404.8	19.26	177.821		
4,600.0	4,497.6	4,752.5	4,724.9	18.0	11.8	-13.76	2,096.5	3,713.1	3,394.9	3,375.2	19.73	172.038		
4,700.0	4,594.6	4,846.9	4,818.7	18.5	12.1	-14.03	2,101.8	3,703.2	3,365.8	3,345.6	20.21	166.500		
4,800.0	4,691.7	4,941.3	4,912.4	19.0	12.3	-14.30	2,107.1	3,693.4	3,336.7	3,316.0	20.70	161.192		
4,900.0	4,788.7	5,035.8	5,006.2	19.4	12.6	-14.58	2,112.4	3,683.5	3,307.8	3,286.6	21.19	156.101		
5,000.0	4,885.8	5,130.2	5,099.9	19.9	12.9	-14.87	2,117.8	3,673.6	3,278.9	3,257.2	21.68	151.215		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1E-7H-A168 - HZ - Plan #2													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		
5,100.0	4,982.8	5,224.6	5,193.7	20.4	13.1	-15.16	2,123.1	3,663.8	3,250.1	3,227.9	22.18	146.521		
5,200.0	5,079.9	5,319.0	5,287.4	20.8	13.4	-15.45	2,128.4	3,653.9	3,221.4	3,198.7	22.68	142.009		
5,300.0	5,176.9	5,413.4	5,381.2	21.3	13.6	-15.75	2,133.7	3,644.0	3,192.7	3,169.5	23.19	137.668		
5,400.0	5,273.9	5,507.9	5,474.9	21.8	13.9	-16.05	2,139.1	3,634.2	3,164.1	3,140.4	23.70	133.490		
5,500.0	5,371.0	5,602.3	5,568.7	22.2	14.1	-16.36	2,144.4	3,624.3	3,135.7	3,111.4	24.22	129.466		
5,600.0	5,468.0	9,113.1	7,530.0	22.7	33.4	24.68	370.1	3,418.2	3,104.3	3,060.1	44.28	70.112		
5,700.0	5,565.1	9,105.2	7,530.0	23.1	33.3	24.44	377.9	3,418.2	3,024.1	2,979.8	44.31	68.244		
5,800.0	5,662.1	9,097.4	7,530.0	23.6	33.2	24.20	385.8	3,418.2	2,945.0	2,900.7	44.35	66.409		
5,900.0	5,759.2	9,089.5	7,530.0	24.1	33.1	23.95	393.6	3,418.2	2,867.3	2,822.9	44.38	64.609		
6,000.0	5,856.2	9,081.7	7,530.0	24.5	32.9	23.71	401.5	3,418.2	2,790.9	2,746.5	44.41	62.846		
6,100.0	5,953.3	9,073.8	7,530.0	25.0	32.8	23.46	409.3	3,418.2	2,716.0	2,671.6	44.44	61.123		
6,200.0	6,050.3	9,066.0	7,530.0	25.5	32.7	23.22	417.2	3,418.1	2,642.8	2,598.3	44.46	59.443		
6,300.0	6,147.4	9,058.1	7,530.0	25.9	32.6	22.97	425.1	3,418.1	2,571.3	2,526.9	44.48	57.807		
6,400.0	6,244.4	9,050.3	7,530.0	26.4	32.5	22.73	432.9	3,418.1	2,501.8	2,457.3	44.50	56.220		
6,500.0	6,341.5	9,042.4	7,530.0	26.9	32.4	22.48	440.8	3,418.1	2,434.4	2,389.9	44.52	54.684		
6,600.0	6,438.5	9,034.6	7,530.0	27.3	32.3	22.24	448.6	3,418.1	2,369.3	2,324.7	44.53	53.204		
6,700.0	6,535.6	9,026.7	7,530.0	27.8	32.1	21.99	456.5	3,418.1	2,306.6	2,262.1	44.54	51.783		
6,800.0	6,632.6	9,018.9	7,530.0	28.3	32.0	21.74	464.3	3,418.1	2,246.6	2,202.1	44.55	50.425		
6,900.0	6,729.7	9,011.0	7,530.0	28.7	31.9	21.50	472.2	3,418.1	2,189.5	2,144.9	44.56	49.136		
7,000.0	6,826.7	9,003.2	7,530.0	29.2	31.8	21.25	480.0	3,418.1	2,135.5	2,091.0	44.57	47.919		
7,100.0	6,923.8	8,995.3	7,530.0	29.7	31.7	21.01	487.9	3,418.1	2,085.0	2,040.4	44.57	46.781		
7,200.0	7,020.8	8,987.5	7,530.0	30.1	31.6	20.76	495.7	3,418.1	2,038.0	1,993.4	44.57	45.725		
7,300.0	7,117.9	8,979.6	7,530.0	30.6	31.5	20.51	503.6	3,418.1	1,994.9	1,950.3	44.57	44.758		
7,321.2	7,138.4	8,977.9	7,530.0	30.7	31.4	20.46	505.2	3,418.1	1,986.3	1,941.7	44.57	44.566		
7,350.0	7,166.4	8,976.4	7,530.0	30.8	31.4	7.55	506.8	3,418.1	1,974.9	1,930.9	44.00	44.883		
7,400.0	7,215.1	8,977.2	7,530.0	31.0	31.4	-15.43	506.0	3,418.1	1,955.9	1,912.7	43.16	45.322		
7,450.0	7,263.5	8,982.3	7,530.0	31.2	31.5	-34.90	500.9	3,418.1	1,938.1	1,895.5	42.53	45.569		
7,500.0	7,311.3	8,991.7	7,530.0	31.3	31.6	-49.10	491.5	3,418.1	1,921.6	1,879.5	42.14	45.603		
7,550.0	7,358.1	9,005.4	7,530.0	31.5	31.8	-59.01	477.8	3,418.1	1,906.6	1,864.6	41.97	45.426		
7,600.0	7,403.5	9,023.2	7,530.0	31.6	32.1	-65.96	460.0	3,418.1	1,893.0	1,851.0	42.01	45.057		
7,650.0	7,447.3	9,045.0	7,530.0	31.7	32.4	-70.90	438.1	3,418.1	1,881.0	1,838.7	42.24	44.529		
7,700.0	7,489.1	9,070.7	7,530.0	31.7	32.8	-74.47	412.5	3,418.2	1,870.4	1,827.8	42.63	43.877		
7,750.0	7,528.5	9,100.0	7,530.0	31.8	33.2	-77.06	383.2	3,418.2	1,861.3	1,818.1	43.15	43.139		
7,800.0	7,565.3	9,132.7	7,530.0	31.8	33.7	-78.91	350.5	3,418.2	1,853.5	1,809.8	43.78	42.338		
7,850.0	7,599.2	9,168.6	7,530.0	31.9	34.2	-80.22	314.6	3,418.2	1,847.1	1,802.6	44.50	41.509		
7,900.0	7,629.9	9,207.3	7,530.0	31.9	34.8	-81.13	275.8	3,418.2	1,841.7	1,796.5	45.28	40.673		
7,950.0	7,657.2	9,248.7	7,530.0	31.9	35.4	-81.73	234.4	3,418.2	1,837.5	1,791.3	46.12	39.839		
8,000.0	7,680.9	9,292.4	7,530.0	32.0	36.1	-82.10	190.8	3,418.2	1,834.1	1,787.1	47.00	39.022		
8,050.0	7,700.8	9,338.0	7,530.0	32.0	36.8	-82.32	145.2	3,418.2	1,831.5	1,783.6	47.92	38.222		
8,100.0	7,716.7	9,385.2	7,530.0	32.0	37.5	-82.44	97.9	3,418.2	1,829.6	1,780.7	48.86	37.443		
8,150.0	7,728.6	9,433.7	7,530.0	32.1	38.2	-82.49	49.5	3,418.2	1,828.2	1,778.4	49.84	36.681		
8,200.0	7,736.3	9,483.1	7,530.0	32.1	39.0	-82.51	0.1	3,418.2	1,827.4	1,776.6	50.85	35.936		
8,250.0	7,739.8	9,532.9	7,530.0	32.2	39.8	-82.52	-49.7	3,418.2	1,827.1	1,775.2	51.90	35.205		
8,265.3	7,740.0	9,548.2	7,530.0	32.2	40.0	-82.52	-65.0	3,418.2	1,827.1	1,774.8	52.22	34.985 CC		
8,266.2	7,740.0	9,549.1	7,530.0	32.2	40.0	-82.52	-66.0	3,418.2	1,827.1	1,774.8	52.24	34.971		
8,300.0	7,740.0	9,582.9	7,530.0	32.3	40.6	-82.52	-99.7	3,418.2	1,827.1	1,774.1	52.93	34.520		
8,400.0	7,740.0	9,682.9	7,530.0	32.5	42.1	-82.52	-199.7	3,418.3	1,827.1	1,772.0	55.08	33.169		
8,500.0	7,740.0	9,782.9	7,530.0	32.8	43.7	-82.52	-299.7	3,418.3	1,827.1	1,769.7	57.42	31.817		
8,600.0	7,740.0	9,882.9	7,530.0	33.2	45.3	-82.52	-399.7	3,418.3	1,827.1	1,767.2	59.92	30.491		
8,700.0	7,740.0	9,982.9	7,530.0	33.7	46.9	-82.52	-499.7	3,418.3	1,827.1	1,764.6	62.56	29.206		
8,800.0	7,740.0	10,082.9	7,530.0	34.3	48.6	-82.52	-599.7	3,418.3	1,827.1	1,761.8	65.31	27.975		
8,900.0	7,740.0	10,182.9	7,530.0	34.9	50.2	-82.52	-699.7	3,418.3	1,827.2	1,759.0	68.17	26.805		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1E-7H-A168 - HZ - Plan #2												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	
9,000.0	7,740.0	10,282.9	7,530.0	35.6	51.8	-82.52	-799.7	3,418.4	1,827.2	1,756.1	71.10	25.699	
9,100.0	7,740.0	10,382.9	7,530.0	36.4	53.5	-82.52	-899.7	3,418.4	1,827.2	1,753.1	74.10	24.659	
9,200.0	7,740.0	10,482.9	7,530.0	37.3	55.1	-82.52	-999.7	3,418.4	1,827.2	1,750.1	77.16	23.681	
9,300.0	7,740.0	10,582.9	7,530.0	38.2	56.8	-82.52	-1,099.7	3,418.4	1,827.2	1,747.0	80.26	22.765	
9,400.0	7,740.0	10,682.9	7,530.0	39.2	58.5	-82.52	-1,199.7	3,418.4	1,827.2	1,743.8	83.41	21.906	
9,500.0	7,740.0	10,782.9	7,530.0	40.2	60.1	-82.52	-1,299.7	3,418.4	1,827.3	1,740.7	86.60	21.101	
9,600.0	7,740.0	10,882.9	7,530.0	41.3	61.8	-82.52	-1,399.7	3,418.5	1,827.3	1,737.5	89.81	20.346	
9,700.0	7,740.0	10,982.9	7,530.0	42.4	63.5	-82.52	-1,499.7	3,418.5	1,827.3	1,734.2	93.05	19.639	
9,800.0	7,740.0	11,082.9	7,530.0	43.6	65.2	-82.52	-1,599.7	3,418.5	1,827.3	1,731.0	96.31	18.974	
9,900.0	7,740.0	11,182.9	7,530.0	44.8	66.9	-82.52	-1,699.7	3,418.5	1,827.3	1,727.7	99.59	18.349	
10,000.0	7,740.0	11,282.9	7,530.0	46.0	68.5	-82.52	-1,799.7	3,418.5	1,827.3	1,724.5	102.88	17.761	
10,100.0	7,740.0	11,382.9	7,530.0	47.3	70.2	-82.52	-1,899.7	3,418.5	1,827.4	1,721.2	106.19	17.208	
10,200.0	7,740.0	11,482.9	7,530.0	48.6	71.9	-82.52	-1,999.7	3,418.6	1,827.4	1,717.9	109.52	16.686	
10,300.0	7,740.0	11,582.9	7,530.0	50.0	73.6	-82.52	-2,099.7	3,418.6	1,827.4	1,714.5	112.85	16.193	
10,400.0	7,740.0	11,682.9	7,530.0	51.3	75.3	-82.52	-2,199.7	3,418.6	1,827.4	1,711.2	116.20	15.726	
10,500.0	7,740.0	11,782.9	7,530.0	52.7	77.0	-82.52	-2,299.7	3,418.6	1,827.4	1,707.9	119.56	15.285	
10,600.0	7,740.0	11,882.9	7,530.0	54.1	78.7	-82.52	-2,399.7	3,418.6	1,827.4	1,704.5	122.92	14.867	
10,700.0	7,740.0	11,982.9	7,530.0	55.6	80.4	-82.52	-2,499.7	3,418.6	1,827.5	1,701.2	126.29	14.470	
10,800.0	7,740.0	12,082.9	7,530.0	57.0	82.2	-82.52	-2,599.7	3,418.7	1,827.5	1,697.8	129.67	14.093	
10,900.0	7,740.0	12,182.9	7,530.0	58.5	83.9	-82.52	-2,699.7	3,418.7	1,827.5	1,694.4	133.05	13.735	
11,000.0	7,740.0	12,282.9	7,530.0	59.9	85.6	-82.52	-2,799.7	3,418.7	1,827.5	1,691.1	136.44	13.394	
11,100.0	7,740.0	12,382.9	7,530.0	61.4	87.3	-82.52	-2,899.7	3,418.7	1,827.5	1,687.7	139.84	13.069	
11,200.0	7,740.0	12,482.9	7,530.0	62.9	89.0	-82.52	-2,999.7	3,418.7	1,827.5	1,684.3	143.24	12.759	
11,300.0	7,740.0	12,582.9	7,530.0	64.5	90.7	-82.52	-3,099.7	3,418.7	1,827.6	1,680.9	146.64	12.463	
11,400.0	7,740.0	12,682.9	7,530.0	66.0	92.4	-82.52	-3,199.7	3,418.8	1,827.6	1,677.5	150.05	12.180	
11,500.0	7,740.0	12,782.9	7,530.0	67.5	94.2	-82.52	-3,299.7	3,418.8	1,827.6	1,674.1	153.46	11.909	
11,600.0	7,740.0	12,882.9	7,530.0	69.1	95.9	-82.52	-3,399.7	3,418.8	1,827.6	1,670.7	156.88	11.650	
11,700.0	7,740.0	12,982.9	7,530.0	70.7	97.6	-82.52	-3,499.7	3,418.8	1,827.6	1,667.3	160.29	11.402	
11,800.0	7,740.0	13,082.9	7,530.0	72.2	99.3	-82.52	-3,599.7	3,418.8	1,827.6	1,663.9	163.72	11.164	
11,900.0	7,740.0	13,182.9	7,530.0	73.8	101.1	-82.52	-3,699.7	3,418.8	1,827.7	1,660.5	167.14	10.935	
12,000.0	7,740.0	13,282.9	7,530.0	75.4	102.8	-82.52	-3,799.7	3,418.9	1,827.7	1,657.1	170.56	10.715	
12,100.0	7,740.0	13,382.9	7,530.0	77.0	104.5	-82.52	-3,899.7	3,418.9	1,827.7	1,653.7	173.99	10.504	
12,200.0	7,740.0	13,482.9	7,530.0	78.6	106.2	-82.52	-3,999.7	3,418.9	1,827.7	1,650.3	177.42	10.301	
12,300.0	7,740.0	13,582.9	7,530.0	80.2	108.0	-82.52	-4,099.7	3,418.9	1,827.7	1,646.9	180.86	10.106	
12,400.0	7,740.0	13,682.9	7,530.0	81.8	109.7	-82.52	-4,199.7	3,418.9	1,827.7	1,643.4	184.29	9.918	
12,500.0	7,740.0	13,782.9	7,530.0	83.4	111.4	-82.52	-4,299.7	3,418.9	1,827.8	1,640.0	187.73	9.736	
12,600.0	7,740.0	13,882.9	7,530.0	85.1	113.2	-82.52	-4,399.7	3,419.0	1,827.8	1,636.6	191.16	9.561	
12,700.0	7,740.0	13,982.9	7,530.0	86.7	114.9	-82.52	-4,499.7	3,419.0	1,827.8	1,633.2	194.60	9.392	
12,800.0	7,740.0	14,082.9	7,530.0	88.3	116.6	-82.52	-4,599.7	3,419.0	1,827.8	1,629.8	198.05	9.229	
12,900.0	7,740.0	14,182.9	7,530.0	90.0	118.4	-82.52	-4,699.7	3,419.0	1,827.8	1,626.3	201.49	9.072	
13,000.0	7,740.0	14,282.9	7,530.0	91.6	120.1	-82.52	-4,799.7	3,419.0	1,827.8	1,622.9	204.93	8.919	
13,100.0	7,740.0	14,382.9	7,530.0	93.3	121.8	-82.52	-4,899.7	3,419.0	1,827.9	1,619.5	208.38	8.772	
13,200.0	7,740.0	14,482.9	7,530.0	94.9	123.6	-82.52	-4,999.7	3,419.1	1,827.9	1,616.0	211.82	8.629	
13,300.0	7,740.0	14,582.9	7,530.0	96.6	125.3	-82.52	-5,099.7	3,419.1	1,827.9	1,612.6	215.27	8.491	
13,400.0	7,740.0	14,682.9	7,530.0	98.2	127.0	-82.52	-5,199.7	3,419.1	1,827.9	1,609.2	218.72	8.357	
13,500.0	7,740.0	14,782.9	7,530.0	99.9	128.8	-82.52	-5,299.7	3,419.1	1,827.9	1,605.8	222.17	8.228	
13,600.0	7,740.0	14,882.9	7,530.0	101.6	130.5	-82.52	-5,399.7	3,419.1	1,827.9	1,602.3	225.62	8.102	
13,700.0	7,740.0	14,982.9	7,530.0	103.2	132.2	-82.52	-5,499.7	3,419.1	1,828.0	1,598.9	229.07	7.980	
13,800.0	7,740.0	15,082.9	7,530.0	104.9	134.0	-82.52	-5,599.7	3,419.2	1,828.0	1,595.4	232.52	7.861	
13,900.0	7,740.0	15,182.9	7,530.0	106.6	135.7	-82.52	-5,699.7	3,419.2	1,828.0	1,592.0	235.98	7.747	
14,000.0	7,740.0	15,282.9	7,530.0	108.2	137.5	-82.52	-5,799.7	3,419.2	1,828.0	1,588.6	239.43	7.635	
14,100.0	7,740.0	15,382.9	7,530.0	109.9	139.2	-82.52	-5,899.7	3,419.2	1,828.0	1,585.1	242.88	7.526	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1E-7H-A168 - HZ - Plan #2													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		
14,200.0	7,740.0	15,482.9	7,530.0	111.6	140.9	-82.52	-5,999.7	3,419.2	1,828.0	1,581.7	246.34	7.421		
14,300.0	7,740.0	15,582.9	7,530.0	113.3	142.7	-82.52	-6,099.7	3,419.2	1,828.1	1,578.3	249.79	7.318		
14,400.0	7,740.0	15,682.9	7,530.0	115.0	144.4	-82.52	-6,199.7	3,419.3	1,828.1	1,574.8	253.25	7.218		
14,500.0	7,740.0	15,782.9	7,530.0	116.7	146.2	-82.52	-6,299.7	3,419.3	1,828.1	1,571.4	256.71	7.121		
14,600.0	7,740.0	15,882.9	7,530.0	118.3	147.9	-82.52	-6,399.7	3,419.3	1,828.1	1,567.9	260.17	7.027		
14,700.0	7,740.0	15,982.9	7,530.0	120.0	149.6	-82.52	-6,499.7	3,419.3	1,828.1	1,564.5	263.63	6.935		
14,800.0	7,740.0	16,082.9	7,530.0	121.7	151.4	-82.52	-6,599.7	3,419.3	1,828.1	1,561.1	267.08	6.845		
14,900.0	7,740.0	16,182.9	7,530.0	123.4	153.1	-82.52	-6,699.7	3,419.3	1,828.2	1,557.6	270.54	6.757		
15,000.0	7,740.0	16,282.9	7,530.0	125.1	154.9	-82.52	-6,799.7	3,419.4	1,828.2	1,554.2	274.00	6.672		
15,100.0	7,740.0	16,382.9	7,530.0	126.8	156.6	-82.52	-6,899.7	3,419.4	1,828.2	1,550.7	277.46	6.589		
15,200.0	7,740.0	16,482.9	7,530.0	128.5	158.3	-82.52	-6,999.7	3,419.4	1,828.2	1,547.3	280.93	6.508		
15,300.0	7,740.0	16,582.9	7,530.0	130.2	160.1	-82.52	-7,099.7	3,419.4	1,828.2	1,543.8	284.39	6.429		
15,400.0	7,740.0	16,682.9	7,530.0	131.9	161.8	-82.52	-7,199.7	3,419.4	1,828.2	1,540.4	287.85	6.351		
15,500.0	7,740.0	16,782.9	7,530.0	133.6	163.6	-82.52	-7,299.7	3,419.4	1,828.2	1,536.9	291.31	6.276		
15,600.0	7,740.0	16,882.9	7,530.0	135.3	165.3	-82.52	-7,399.7	3,419.5	1,828.3	1,533.5	294.77	6.202		
15,700.0	7,740.0	16,982.9	7,530.0	137.0	167.1	-82.52	-7,499.7	3,419.5	1,828.3	1,530.0	298.24	6.130		
15,800.0	7,740.0	17,082.9	7,530.0	138.7	168.8	-82.52	-7,599.7	3,419.5	1,828.3	1,526.6	301.70	6.060		
15,900.0	7,740.0	17,182.9	7,530.0	140.5	170.5	-82.52	-7,699.7	3,419.5	1,828.3	1,523.2	305.16	5.991		
16,000.0	7,740.0	17,282.9	7,530.0	142.2	172.3	-82.52	-7,799.7	3,419.5	1,828.3	1,519.7	308.63	5.924		
16,100.0	7,740.0	17,382.9	7,530.0	143.9	174.0	-82.52	-7,899.7	3,419.5	1,828.3	1,516.3	312.09	5.858		
16,142.2	7,740.0	17,425.1	7,530.0	144.6	174.8	-82.52	-7,942.0	3,419.5	1,828.4	1,514.8	313.56	5.831 ES, SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1F-7H-A168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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	28.0	28.0	0.0	0.0	65.70	1,870.2	4,142.5	4,545.1					
100.0	100.0	128.0	128.0	0.2	0.2	65.70	1,870.2	4,142.5	4,545.1	4,544.7	0.35	N/A		
200.0	200.0	228.0	228.0	0.3	0.4	65.70	1,870.2	4,142.5	4,545.1	4,544.4	0.70	6,477.927		
300.0	300.0	328.0	328.0	0.5	0.5	-5.29	1,870.2	4,142.5	4,544.2	4,543.1	1.05	4,325.358		
400.0	400.0	428.0	428.0	0.7	0.7	-5.29	1,870.2	4,142.5	4,541.6	4,540.2	1.40	3,245.650		
500.0	499.9	575.7	575.7	0.9	1.0	-5.32	1,871.0	4,141.4	4,536.8	4,535.0	1.83	2,476.743		
600.0	599.7	736.5	736.3	1.1	1.3	-5.40	1,874.5	4,136.7	4,529.0	4,526.7	2.29	1,974.771		
700.0	699.4	896.1	895.6	1.3	1.6	-5.54	1,880.6	4,128.6	4,518.2	4,515.4	2.77	1,631.797		
800.0	798.9	1,021.4	1,020.5	1.5	1.8	-5.69	1,887.1	4,119.9	4,504.5	4,501.3	3.19	1,410.329		
900.0	898.3	1,119.8	1,118.4	1.8	2.1	-5.82	1,892.5	4,112.8	4,489.0	4,485.4	3.57	1,257.927		
1,000.0	997.4	1,217.9	1,216.1	2.0	2.3	-5.96	1,897.8	4,105.8	4,471.8	4,467.8	3.94	1,133.638		
1,100.0	1,096.3	1,315.6	1,313.5	2.3	2.5	-6.10	1,903.1	4,098.7	4,452.9	4,448.5	4.32	1,030.451		
1,200.0	1,194.9	1,413.0	1,410.5	2.7	2.7	-6.25	1,908.3	4,091.7	4,432.3	4,427.6	4.70	943.453		
1,300.0	1,293.3	1,510.0	1,507.1	3.0	2.9	-6.40	1,913.6	4,084.8	4,410.0	4,405.0	5.07	869.113		
1,400.0	1,391.2	1,606.6	1,603.3	3.4	3.2	-6.56	1,918.8	4,077.8	4,386.1	4,380.7	5.45	804.839		
1,500.0	1,488.9	1,702.7	1,699.0	3.8	3.4	-6.73	1,924.0	4,070.9	4,360.5	4,354.7	5.82	748.688		
1,595.5	1,581.8	1,794.1	1,790.1	4.2	3.6	-6.90	1,929.0	4,064.3	4,334.6	4,328.4	6.18	701.259		
1,600.0	1,586.1	1,798.4	1,794.3	4.2	3.6	-6.90	1,929.2	4,064.0	4,333.3	4,327.1	6.20	699.103		
1,700.0	1,683.2	1,893.8	1,889.4	4.7	3.8	-7.05	1,934.4	4,057.1	4,305.3	4,298.8	6.59	653.625		
1,800.0	1,780.2	1,989.3	1,984.4	5.1	4.0	-7.19	1,939.5	4,050.3	4,277.4	4,270.4	6.98	613.098		
1,900.0	1,877.3	2,084.7	2,079.5	5.6	4.3	-7.34	1,944.7	4,043.4	4,249.5	4,242.1	7.37	576.762		
2,000.0	1,974.3	2,180.2	2,174.5	6.0	4.5	-7.49	1,949.8	4,036.5	4,221.6	4,213.9	7.76	544.002		
2,100.0	2,071.4	2,275.6	2,269.6	6.5	4.7	-7.64	1,955.0	4,029.7	4,193.8	4,185.6	8.15	514.320		
2,200.0	2,168.4	2,371.0	2,364.6	6.9	4.9	-7.80	1,960.2	4,022.8	4,166.0	4,157.4	8.55	487.302		
2,300.0	2,265.4	2,466.5	2,459.7	7.4	5.1	-7.95	1,965.3	4,015.9	4,138.2	4,129.2	8.95	462.608		
2,400.0	2,362.5	2,561.9	2,554.7	7.9	5.4	-8.11	1,970.5	4,009.1	4,110.4	4,101.0	9.34	439.950		
2,500.0	2,459.5	2,657.3	2,649.8	8.3	5.6	-8.27	1,975.7	4,002.2	4,082.7	4,072.9	9.74	419.089		
2,600.0	2,556.6	2,752.8	2,744.8	8.8	5.8	-8.43	1,980.8	3,995.3	4,054.9	4,044.8	10.14	399.819		
2,700.0	2,653.6	2,848.2	2,839.9	9.2	6.0	-8.60	1,986.0	3,988.5	4,027.3	4,016.7	10.54	381.965		
2,800.0	2,750.7	2,943.7	2,934.9	9.7	6.3	-8.76	1,991.2	3,981.6	3,999.6	3,988.7	10.95	365.378		
2,900.0	2,847.7	3,039.1	3,030.0	10.2	6.5	-8.93	1,996.3	3,974.7	3,972.0	3,960.7	11.35	349.928		
3,000.0	2,944.8	3,134.5	3,125.0	10.6	6.7	-9.10	2,001.5	3,967.8	3,944.4	3,932.7	11.76	335.501		
3,100.0	3,041.8	3,230.0	3,220.1	11.1	6.9	-9.27	2,006.7	3,961.0	3,916.9	3,904.7	12.16	322.000		
3,200.0	3,138.9	3,325.4	3,315.1	11.5	7.1	-9.45	2,011.8	3,954.1	3,889.4	3,876.8	12.57	309.338		
3,300.0	3,235.9	3,420.9	3,410.2	12.0	7.4	-9.63	2,017.0	3,947.2	3,861.9	3,848.9	12.98	297.440		
3,400.0	3,333.0	3,516.3	3,505.2	12.5	7.6	-9.81	2,022.2	3,940.4	3,834.5	3,821.1	13.40	286.239		
3,500.0	3,430.0	3,611.7	3,600.3	12.9	7.8	-9.99	2,027.3	3,933.5	3,807.0	3,793.2	13.81	275.675		
3,600.0	3,527.1	3,707.2	3,695.3	13.4	8.0	-10.18	2,032.5	3,926.6	3,779.7	3,765.5	14.23	265.695		
3,700.0	3,624.1	3,802.6	3,790.4	13.9	8.3	-10.37	2,037.7	3,919.8	3,752.3	3,737.7	14.64	256.254		
3,800.0	3,721.2	3,898.0	3,885.4	14.3	8.5	-10.56	2,042.8	3,912.9	3,725.1	3,710.0	15.06	247.307		
3,900.0	3,818.2	3,993.5	3,980.5	14.8	8.7	-10.75	2,048.0	3,906.0	3,697.8	3,682.3	15.48	238.818		
4,000.0	3,915.3	4,088.9	4,075.5	15.3	8.9	-10.95	2,053.2	3,899.2	3,670.6	3,654.7	15.91	230.752		
4,100.0	4,012.3	4,184.4	4,170.6	15.7	9.2	-11.15	2,058.3	3,892.3	3,643.4	3,627.1	16.33	223.079		
4,200.0	4,109.4	4,279.8	4,265.6	16.2	9.4	-11.35	2,063.5	3,885.4	3,616.3	3,599.5	16.76	215.770		
4,300.0	4,206.4	4,375.2	4,360.7	16.6	9.6	-11.56	2,068.7	3,878.6	3,589.2	3,572.0	17.19	208.801		
4,400.0	4,303.5	4,470.7	4,455.7	17.1	9.8	-11.77	2,073.8	3,871.7	3,562.2	3,544.5	17.62	202.148		
4,500.0	4,400.5	4,566.1	4,550.8	17.6	10.0	-11.98	2,079.0	3,864.8	3,535.2	3,517.1	18.06	195.790		
4,600.0	4,497.6	4,661.6	4,645.8	18.0	10.3	-12.19	2,084.2	3,858.0	3,508.2	3,489.7	18.49	189.709		
4,700.0	4,594.6	4,757.0	4,740.9	18.5	10.5	-12.41	2,089.3	3,851.1	3,481.3	3,462.4	18.93	183.887		
4,800.0	4,691.7	4,852.4	4,835.9	19.0	10.7	-12.64	2,094.5	3,844.2	3,454.5	3,435.1	19.37	178.307		
4,900.0	4,788.7	4,947.9	4,931.0	19.4	10.9	-12.86	2,099.6	3,837.3	3,427.7	3,407.8	19.82	172.955		
5,000.0	4,885.8	5,043.3	5,026.0	19.9	11.2	-13.09	2,104.8	3,830.5	3,400.9	3,380.6	20.27	167.817		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1F-7H-A168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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)				
5,100.0	4,982.8	5,138.7	5,121.1	20.4	11.4	-13.32	2,110.0	3,823.6	3,374.2	3,353.5	20.72	162.882		
5,200.0	5,079.9	5,234.2	5,216.1	20.8	11.6	-13.56	2,115.1	3,816.7	3,347.6	3,326.4	21.17	158.137		
5,300.0	5,176.9	5,329.6	5,311.2	21.3	11.8	-13.80	2,120.3	3,809.9	3,321.0	3,299.3	21.62	153.572		
5,400.0	5,273.9	5,425.1	5,406.2	21.8	12.1	-14.04	2,125.5	3,803.0	3,294.4	3,272.4	22.08	149.176		
5,500.0	5,371.0	5,520.5	5,501.3	22.2	12.3	-14.29	2,130.6	3,796.1	3,268.0	3,245.4	22.55	144.941		
5,600.0	5,468.0	5,615.9	5,596.3	22.7	12.5	-14.54	2,135.8	3,789.3	3,241.5	3,218.5	23.01	140.859		
5,700.0	5,565.1	5,711.4	5,691.4	23.1	12.7	-14.79	2,141.0	3,782.4	3,215.2	3,191.7	23.48	136.921		
5,800.0	5,662.1	5,806.8	5,786.4	23.6	13.0	-15.05	2,146.1	3,775.5	3,188.9	3,164.9	23.95	133.120		
5,900.0	5,759.2	5,902.3	5,881.5	24.1	13.2	-15.32	2,151.3	3,768.7	3,162.6	3,138.2	24.43	129.450		
6,000.0	5,856.2	5,993.7	5,973.0	24.5	13.4	-15.58	2,156.4	3,761.8	3,135.3	3,111.4	24.90	125.783		
6,100.0	5,953.3	6,085.9	6,065.0	25.0	13.7	-15.84	2,161.5	3,754.9	3,105.1	3,085.8	25.37	122.198		
6,200.0	6,050.3	6,178.1	6,157.0	25.5	14.0	-16.10	2,166.6	3,748.0	3,078.8	3,060.5	25.84	118.693		
6,300.0	6,147.4	6,270.3	6,249.0	25.9	14.4	-16.36	2,171.7	3,741.1	3,051.6	3,032.2	26.31	115.268		
6,400.0	6,244.4	6,362.6	6,341.0	26.4	14.7	-16.62	2,176.8	3,734.2	3,024.5	3,003.9	26.78	111.923		
6,500.0	6,341.5	6,454.8	6,433.0	26.9	15.0	-16.88	2,181.9	3,727.3	3,000.0	2,979.0	27.25	108.658		
6,600.0	6,438.5	6,547.0	6,525.0	27.3	15.4	-17.14	2,187.0	3,720.4	2,976.6	2,954.6	27.72	105.473		
6,700.0	6,535.6	6,639.3	6,617.0	27.8	15.7	-17.40	2,192.1	3,713.5	2,953.1	2,930.1	28.19	102.368		
6,800.0	6,632.6	6,731.5	6,709.0	28.3	16.0	-17.66	2,197.2	3,706.6	2,931.6	2,906.6	28.66	99.343		
6,900.0	6,729.7	6,823.7	6,801.0	28.7	16.4	-17.92	2,202.3	3,699.7	2,913.1	2,883.1	29.13	96.398		
7,000.0	6,826.7	6,915.9	6,893.0	29.2	16.7	-18.18	2,207.4	3,692.8	2,894.6	2,864.6	29.60	93.533		
7,100.0	6,923.8	7,008.2	7,000.0	29.7	17.0	-18.44	2,212.5	3,685.9	2,876.1	2,846.1	30.07	90.748		
7,200.0	7,020.8	7,100.4	7,092.0	30.1	17.4	-18.70	2,217.6	3,679.0	2,857.6	2,827.6	30.54	88.043		
7,300.0	7,117.9	7,192.6	7,184.0	30.6	17.7	-18.96	2,222.7	3,672.1	2,839.1	2,808.1	31.01	85.418		
7,321.2	7,138.4	7,191.0	7,182.0	30.7	17.8	-19.04	2,224.1	3,670.7	2,835.7	2,804.7	31.13	84.843		
7,350.0	7,166.4	7,189.5	7,180.0	30.8	17.9	-19.12	2,225.5	3,669.3	2,832.3	2,801.3	31.25	84.318		
7,400.0	7,215.1	7,190.3	7,180.0	31.0	18.0	-19.20	2,226.9	3,667.9	2,828.9	2,797.9	31.37	83.843		
7,450.0	7,263.5	7,195.4	7,185.0	31.2	18.1	-19.28	2,228.3	3,666.5	2,825.5	2,794.5	31.49	83.418		
7,500.0	7,311.3	7,204.9	7,194.0	31.3	18.2	-19.36	2,229.7	3,665.1	2,822.1	2,791.1	31.61	83.043		
7,550.0	7,358.1	7,218.6	7,208.0	31.5	18.3	-19.44	2,231.1	3,663.7	2,818.7	2,787.7	31.73	82.718		
7,600.0	7,403.5	7,236.5	7,226.0	31.6	18.4	-19.52	2,232.5	3,662.3	2,815.3	2,784.3	31.85	82.443		
7,650.0	7,447.3	7,258.3	7,248.0	31.7	18.5	-19.60	2,233.9	3,660.9	2,812.9	2,781.9	31.97	82.218		
7,700.0	7,489.1	7,284.0	7,274.0	31.7	18.6	-19.68	2,235.3	3,659.5	2,810.5	2,779.5	32.09	82.043		
7,750.0	7,528.5	7,313.3	7,303.0	31.8	18.7	-19.76	2,236.7	3,658.1	2,808.1	2,777.1	32.21	81.918		
7,800.0	7,565.3	7,346.1	7,336.0	31.8	18.8	-19.84	2,238.1	3,656.7	2,805.7	2,774.7	32.33	81.843		
7,850.0	7,599.2	7,382.0	7,372.0	31.9	18.9	-19.92	2,239.5	3,655.3	2,803.3	2,772.3	32.45	81.818		
7,900.0	7,629.9	7,420.8	7,410.0	31.9	19.0	-20.00	2,240.9	3,653.9	2,800.9	2,769.9	32.57	81.843		
7,950.0	7,657.2	7,462.2	7,452.0	31.9	19.1	-20.08	2,242.3	3,652.5	2,798.5	2,767.5	32.69	81.918		
8,000.0	7,680.9	7,505.9	7,495.0	32.0	19.2	-20.16	2,243.7	3,651.1	2,796.1	2,765.1	32.81	82.043		
8,050.0	7,700.8	7,551.5	7,541.0	32.0	19.3	-20.24	2,245.1	3,649.7	2,793.7	2,762.7	32.93	82.218		
8,100.0	7,716.7	7,598.8	7,588.0	32.0	19.4	-20.32	2,246.5	3,648.3	2,791.3	2,760.3	33.05	82.443		
8,150.0	7,728.6	7,647.2	7,637.0	32.1	19.5	-20.40	2,247.9	3,646.9	2,788.9	2,757.9	33.17	82.718		
8,200.0	7,736.3	7,696.6	7,686.0	32.1	19.6	-20.48	2,249.3	3,645.5	2,786.5	2,755.5	33.29	83.043		
8,250.0	7,739.8	7,746.5	7,736.0	32.2	19.7	-20.56	2,250.7	3,644.1	2,784.1	2,753.1	33.41	83.418		
8,257.1	7,739.9	7,753.6	7,743.0	32.2	19.7	-20.56	2,250.7	3,644.1	2,784.1	2,753.1	33.41	83.418		
8,266.2	7,740.0	7,762.7	7,750.0	32.2	19.7	-20.56	2,250.7	3,644.1	2,784.1	2,753.1	33.41	83.418		
8,300.0	7,740.0	7,796.4	7,780.0	32.3	19.8	-20.64	2,252.1	3,642.7	2,781.7	2,750.7	33.53	83.843		
8,400.0	7,740.0	7,896.4	7,880.0	32.5	20.0	-20.80	2,256.9	3,640.1	2,776.1	2,745.1	33.85	84.843		
8,500.0	7,740.0	7,996.4	7,980.0	32.8	20.2	-21.04	2,261.7	3,637.5	2,771.5	2,740.5	34.17	86.043		
8,600.0	7,740.0	8,096.4	8,080.0	33.2	20.4	-21.28	2,266.5	3,634.9	2,766.5	2,735.5	34.49	87.418		
8,700.0	7,740.0	8,196.4	8,180.0	33.7	20.6	-21.52	2,271.3	3,632.3	2,761.3	2,730.3	34.81	88.943		
8,800.0	7,740.0	8,296.4	8,280.0	34.3	20.8	-21.76	2,276.1	3,629.7	2,756.1	2,725.1	35.13	90.618		
8,900.0	7,740.0	8,396.4	8,380.0	34.9	21.0	-22.00	2,280.9	3,627.1	2,750.9	2,719.9	35.45	92.443		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1F-7H-A168 - HZ - Plan #2													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		
9,000.0	7,740.0	10,496.4	7,770.0	35.6	51.1	-90.06	-792.6	3,643.3	2,036.6	1,965.1	71.51	28.479		
9,100.0	7,740.0	10,596.4	7,770.0	36.4	52.7	-90.06	-892.6	3,643.7	2,037.0	1,962.4	74.55	27.325		
9,200.0	7,740.0	10,696.4	7,770.0	37.3	54.4	-90.06	-992.6	3,644.1	2,037.3	1,959.7	77.64	26.242		
9,300.0	7,740.0	10,796.4	7,770.0	38.2	56.1	-90.06	-1,092.6	3,644.4	2,037.7	1,956.9	80.78	25.227		
9,400.0	7,740.0	10,896.4	7,770.0	39.2	57.8	-90.06	-1,192.6	3,644.8	2,038.1	1,954.1	83.95	24.276		
9,500.0	7,740.0	10,996.4	7,770.0	40.2	59.5	-90.06	-1,292.6	3,645.2	2,038.4	1,951.3	87.17	23.385		
9,600.0	7,740.0	11,096.4	7,770.0	41.3	61.2	-90.06	-1,392.6	3,645.5	2,038.8	1,948.4	90.41	22.550		
9,700.0	7,740.0	11,196.4	7,770.0	42.4	62.8	-90.06	-1,492.6	3,645.9	2,039.2	1,945.5	93.68	21.767		
9,800.0	7,740.0	11,296.4	7,770.0	43.6	64.5	-90.06	-1,592.6	3,646.3	2,039.5	1,942.6	96.97	21.032		
9,900.0	7,740.0	11,396.4	7,770.0	44.8	66.2	-90.06	-1,692.6	3,646.6	2,039.9	1,939.6	100.28	20.342		
10,000.0	7,740.0	11,496.4	7,770.0	46.0	67.9	-90.06	-1,792.6	3,647.0	2,040.3	1,936.7	103.61	19.692		
10,100.0	7,740.0	11,596.4	7,770.0	47.3	69.6	-90.06	-1,892.6	3,647.4	2,040.6	1,933.7	106.95	19.080		
10,200.0	7,740.0	11,696.4	7,770.0	48.6	71.4	-90.06	-1,992.6	3,647.7	2,041.0	1,930.7	110.31	18.503		
10,300.0	7,740.0	11,796.4	7,770.0	50.0	73.1	-90.06	-2,092.6	3,648.1	2,041.4	1,927.7	113.67	17.959		
10,400.0	7,740.0	11,896.4	7,770.0	51.3	74.8	-90.06	-2,192.6	3,648.5	2,041.7	1,924.7	117.05	17.444		
10,500.0	7,740.0	11,996.4	7,770.0	52.7	76.5	-90.06	-2,292.6	3,648.8	2,042.1	1,921.7	120.43	16.956		
10,600.0	7,740.0	12,096.4	7,770.0	54.1	78.2	-90.06	-2,392.6	3,649.2	2,042.5	1,918.6	123.83	16.495		
10,700.0	7,740.0	12,196.4	7,770.0	55.6	79.9	-90.06	-2,492.6	3,649.6	2,042.8	1,915.6	127.23	16.057		
10,800.0	7,740.0	12,296.4	7,770.0	57.0	81.6	-90.06	-2,592.6	3,649.9	2,043.2	1,912.6	130.64	15.640		
10,900.0	7,740.0	12,396.4	7,770.0	58.5	83.4	-90.06	-2,692.6	3,650.3	2,043.6	1,909.5	134.05	15.245		
11,000.0	7,740.0	12,496.4	7,770.0	59.9	85.1	-90.06	-2,792.6	3,650.7	2,043.9	1,906.5	137.47	14.868		
11,100.0	7,740.0	12,596.4	7,770.0	61.4	86.8	-90.06	-2,892.6	3,651.0	2,044.3	1,903.4	140.89	14.510		
11,200.0	7,740.0	12,696.4	7,770.0	62.9	88.5	-90.06	-2,992.6	3,651.4	2,044.7	1,900.3	144.32	14.167		
11,300.0	7,740.0	12,796.4	7,770.0	64.5	90.3	-90.06	-3,092.6	3,651.8	2,045.0	1,897.3	147.76	13.841		
11,400.0	7,740.0	12,896.4	7,770.0	66.0	92.0	-90.06	-3,192.6	3,652.1	2,045.4	1,894.2	151.19	13.528		
11,500.0	7,740.0	12,996.4	7,770.0	67.5	93.7	-90.06	-3,292.6	3,652.5	2,045.8	1,891.1	154.63	13.230		
11,600.0	7,740.0	13,096.4	7,770.0	69.1	95.4	-90.06	-3,392.6	3,652.9	2,046.1	1,888.0	158.08	12.944		
11,700.0	7,740.0	13,196.4	7,770.0	70.7	97.2	-90.06	-3,492.6	3,653.2	2,046.5	1,885.0	161.53	12.670		
11,800.0	7,740.0	13,296.4	7,770.0	72.2	98.9	-90.06	-3,592.6	3,653.6	2,046.9	1,881.9	164.98	12.407		
11,900.0	7,740.0	13,396.4	7,770.0	73.8	100.6	-90.06	-3,692.6	3,653.9	2,047.2	1,878.8	168.43	12.155		
12,000.0	7,740.0	13,496.4	7,770.0	75.4	102.4	-90.06	-3,792.6	3,654.3	2,047.6	1,875.7	171.88	11.913		
12,100.0	7,740.0	13,596.4	7,770.0	77.0	104.1	-90.06	-3,892.6	3,654.7	2,048.0	1,872.6	175.34	11.680		
12,200.0	7,740.0	13,696.4	7,770.0	78.6	105.8	-90.06	-3,992.6	3,655.0	2,048.3	1,869.5	178.80	11.456		
12,300.0	7,740.0	13,796.4	7,770.0	80.2	107.6	-90.06	-4,092.6	3,655.4	2,048.7	1,866.4	182.26	11.240		
12,400.0	7,740.0	13,896.4	7,770.0	81.8	109.3	-90.06	-4,192.6	3,655.8	2,049.0	1,863.3	185.73	11.033		
12,500.0	7,740.0	13,996.4	7,770.0	83.4	111.0	-90.06	-4,292.6	3,656.1	2,049.4	1,860.2	189.19	10.832		
12,600.0	7,740.0	14,096.4	7,770.0	85.1	112.8	-90.06	-4,392.6	3,656.5	2,049.8	1,857.1	192.66	10.639		
12,700.0	7,740.0	14,196.4	7,770.0	86.7	114.5	-90.06	-4,492.5	3,656.9	2,050.1	1,854.0	196.13	10.453		
12,800.0	7,740.0	14,296.4	7,770.0	88.3	116.2	-90.06	-4,592.5	3,657.2	2,050.5	1,850.9	199.60	10.273		
12,900.0	7,740.0	14,396.4	7,770.0	90.0	118.0	-90.06	-4,692.5	3,657.6	2,050.9	1,847.8	203.07	10.099		
13,000.0	7,740.0	14,496.4	7,770.0	91.6	119.7	-90.06	-4,792.5	3,658.0	2,051.2	1,844.7	206.54	9.931		
13,100.0	7,740.0	14,596.4	7,770.0	93.3	121.4	-90.06	-4,892.5	3,658.3	2,051.6	1,841.6	210.02	9.769		
13,200.0	7,740.0	14,696.4	7,770.0	94.9	123.2	-90.06	-4,992.5	3,658.7	2,052.0	1,838.5	213.49	9.611		
13,300.0	7,740.0	14,796.4	7,770.0	96.6	124.9	-90.06	-5,092.5	3,659.1	2,052.3	1,835.4	216.97	9.459		
13,400.0	7,740.0	14,896.4	7,770.0	98.2	126.7	-90.06	-5,192.5	3,659.4	2,052.7	1,832.3	220.45	9.311		
13,500.0	7,740.0	14,996.4	7,770.0	99.9	128.4	-90.06	-5,292.5	3,659.8	2,053.1	1,829.1	223.93	9.168		
13,600.0	7,740.0	15,096.4	7,770.0	101.6	130.1	-90.06	-5,392.5	3,660.2	2,053.4	1,826.0	227.41	9.030		
13,700.0	7,740.0	15,196.4	7,770.0	103.2	131.9	-90.06	-5,492.5	3,660.5	2,053.8	1,822.9	230.89	8.895		
13,800.0	7,740.0	15,296.4	7,770.0	104.9	133.6	-90.06	-5,592.5	3,660.9	2,054.2	1,819.8	234.37	8.765		
13,900.0	7,740.0	15,396.4	7,770.0	106.6	135.4	-90.06	-5,692.5	3,661.3	2,054.5	1,816.7	237.85	8.638		
14,000.0	7,740.0	15,496.4	7,770.0	108.2	137.1	-90.06	-5,792.5	3,661.6	2,054.9	1,813.6	241.33	8.515		
14,100.0	7,740.0	15,596.4	7,770.0	109.9	138.8	-90.06	-5,892.5	3,662.0	2,055.3	1,810.4	244.82	8.395		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Morgan Hills 1F-7H-A168 - HZ - Plan #2													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		
14,200.0	7,740.0	15,696.4	7,770.0	111.6	140.6	-90.06	-5,992.5	3,662.4	2,055.6	1,807.3	248.30	8.279		
14,300.0	7,740.0	15,796.4	7,770.0	113.3	142.3	-90.06	-6,092.5	3,662.7	2,056.0	1,804.2	251.79	8.166		
14,400.0	7,740.0	15,896.4	7,770.0	115.0	144.1	-90.06	-6,192.5	3,663.1	2,056.4	1,801.1	255.27	8.056		
14,500.0	7,740.0	15,996.4	7,770.0	116.7	145.8	-90.06	-6,292.5	3,663.5	2,056.7	1,798.0	258.76	7.948		
14,600.0	7,740.0	16,096.4	7,770.0	118.3	147.6	-90.06	-6,392.5	3,663.8	2,057.1	1,794.8	262.25	7.844		
14,700.0	7,740.0	16,196.4	7,770.0	120.0	149.3	-90.06	-6,492.5	3,664.2	2,057.5	1,791.7	265.74	7.743		
14,800.0	7,740.0	16,296.4	7,770.0	121.7	151.0	-90.06	-6,592.5	3,664.6	2,057.8	1,788.6	269.22	7.644		
14,900.0	7,740.0	16,396.4	7,770.0	123.4	152.8	-90.06	-6,692.5	3,664.9	2,058.2	1,785.5	272.71	7.547		
15,000.0	7,740.0	16,496.4	7,770.0	125.1	154.5	-90.06	-6,792.5	3,665.3	2,058.6	1,782.4	276.20	7.453		
15,100.0	7,740.0	16,596.4	7,770.0	126.8	156.3	-90.06	-6,892.5	3,665.7	2,058.9	1,779.2	279.69	7.361		
15,200.0	7,740.0	16,696.4	7,770.0	128.5	158.0	-90.06	-6,992.5	3,666.0	2,059.3	1,776.1	283.18	7.272		
15,300.0	7,740.0	16,796.4	7,770.0	130.2	159.8	-90.06	-7,092.5	3,666.4	2,059.7	1,773.0	286.67	7.185		
15,400.0	7,740.0	16,896.4	7,770.0	131.9	161.5	-90.06	-7,192.5	3,666.7	2,060.0	1,769.9	290.16	7.100		
15,500.0	7,740.0	16,996.4	7,770.0	133.6	163.3	-90.06	-7,292.5	3,667.1	2,060.4	1,766.7	293.66	7.016		
15,600.0	7,740.0	17,096.4	7,770.0	135.3	165.0	-90.06	-7,392.5	3,667.5	2,060.8	1,763.6	297.15	6.935		
15,700.0	7,740.0	17,196.4	7,770.0	137.0	166.7	-90.06	-7,492.5	3,667.8	2,061.1	1,760.5	300.64	6.856		
15,800.0	7,740.0	17,296.4	7,770.0	138.7	168.5	-90.06	-7,592.5	3,668.2	2,061.5	1,757.4	304.13	6.778		
15,900.0	7,740.0	17,396.4	7,770.0	140.5	170.2	-90.06	-7,692.5	3,668.6	2,061.9	1,754.2	307.63	6.702		
16,000.0	7,740.0	17,496.4	7,770.0	142.2	172.0	-90.06	-7,792.5	3,668.9	2,062.2	1,751.1	311.12	6.628		
16,100.0	7,740.0	17,596.4	7,770.0	143.9	173.7	-90.06	-7,892.5	3,669.3	2,062.6	1,748.0	314.61	6.556		
16,142.2	7,740.0	17,638.6	7,770.0	144.6	174.5	-90.06	-7,934.7	3,669.5	2,062.7	1,746.6	316.09	6.526 ES, SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 11-18 - DD - DD													Offset Site Error: 0.0 ft			
Survey Program: 811-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				
0.0	0.0	27.2	27.2	0.0	0.0	173.55	-4,267.2	482.3	4,294.3							
100.0	100.0	140.4	140.4	0.2	0.2	173.55	-4,266.9	482.2	4,294.1	4,293.7	0.40	N/A				
200.0	200.0	253.6	253.6	0.3	0.4	173.55	-4,266.3	482.0	4,293.6	4,292.8	0.77	5,586.693				
300.0	300.0	366.7	366.7	0.5	0.6	102.59	-4,265.4	481.7	4,292.9	4,291.8	1.13	3,795.517				
400.0	400.0	479.9	479.9	0.7	0.8	102.64	-4,264.1	481.2	4,292.3	4,290.8	1.50	2,852.712				
500.0	499.9	592.9	592.9	0.9	1.0	102.71	-4,262.6	480.6	4,291.8	4,289.9	1.89	2,275.916				
600.0	599.7	705.9	705.8	1.1	1.2	102.81	-4,260.6	479.9	4,291.4	4,289.1	2.28	1,884.080				
700.0	699.4	843.8	843.7	1.3	1.5	102.97	-4,257.8	478.7	4,291.1	4,288.4	2.73	1,572.837				
800.0	798.9	1,370.0	1,366.7	1.5	2.7	104.09	-4,217.2	443.4	4,282.3	4,278.3	3.98	1,076.387				
900.0	898.3	1,595.0	1,588.0	1.8	3.5	104.86	-4,186.6	416.7	4,269.6	4,264.8	4.75	898.505				
1,000.0	997.4	1,639.2	1,631.4	2.0	3.6	105.12	-4,180.5	410.9	4,257.8	4,252.7	5.13	830.106				
1,100.0	1,096.3	1,709.7	1,700.9	2.3	3.8	105.46	-4,171.7	402.3	4,247.9	4,242.3	5.59	759.384				
1,200.0	1,194.9	1,904.5	1,892.1	2.7	4.5	106.26	-4,143.4	379.2	4,236.1	4,229.7	6.40	662.312				
1,300.0	1,293.3	1,982.1	1,968.3	3.0	4.8	106.67	-4,132.0	369.5	4,225.4	4,218.5	6.94	609.040				
1,400.0	1,391.2	2,091.9	2,076.1	3.4	5.2	107.22	-4,115.9	356.2	4,215.6	4,208.1	7.59	555.609				
1,500.0	1,488.9	2,182.5	2,165.0	3.8	5.5	107.70	-4,102.4	345.3	4,206.2	4,198.0	8.22	511.601				
1,595.5	1,581.8	2,239.2	2,220.6	4.2	5.7	108.04	-4,094.1	338.2	4,198.3	4,189.5	8.77	478.512				
1,600.0	1,586.1	2,241.2	2,222.7	4.2	5.7	108.05	-4,093.8	337.9	4,198.0	4,189.2	8.80	477.151				
1,700.0	1,683.2	2,308.1	2,288.4	4.7	6.0	108.36	-4,084.9	329.7	4,191.2	4,181.8	9.40	445.907				
1,800.0	1,780.2	2,485.5	2,462.9	5.1	6.6	109.18	-4,059.5	309.8	4,184.1	4,173.8	10.29	406.539				
1,900.0	1,877.3	2,537.2	2,513.7	5.6	6.8	109.42	-4,051.7	303.9	4,176.6	4,165.7	10.86	384.736				
2,000.0	1,974.3	2,636.7	2,611.5	6.0	7.2	109.88	-4,037.7	292.7	4,170.1	4,158.6	11.56	360.890				
2,100.0	2,071.4	2,745.5	2,718.2	6.5	7.6	110.39	-4,021.4	279.5	4,163.0	4,150.7	12.29	338.770				
2,200.0	2,168.4	2,802.6	2,774.4	6.9	7.8	110.66	-4,013.2	272.9	4,156.8	4,144.0	12.87	322.867				
2,300.0	2,265.4	2,921.4	2,891.2	7.4	8.2	111.22	-3,996.4	259.1	4,151.1	4,137.5	13.63	304.466				
2,400.0	2,362.5	3,012.3	2,980.5	7.9	8.5	111.65	-3,983.3	248.5	4,145.5	4,131.1	14.32	289.498				
2,500.0	2,459.5	3,100.0	3,066.7	8.3	8.8	112.07	-3,970.6	238.2	4,140.1	4,125.1	15.00	276.080				
2,600.0	2,556.6	3,197.9	3,162.8	8.8	9.2	112.53	-3,956.7	226.8	4,135.1	4,119.4	15.70	263.354				
2,700.0	2,653.6	3,290.0	3,253.4	9.2	9.5	112.97	-3,943.4	216.0	4,130.3	4,113.9	16.39	251.957				
2,800.0	2,750.7	3,351.7	3,314.1	9.7	9.8	113.26	-3,934.8	208.9	4,126.1	4,109.1	16.99	242.803				
2,900.0	2,847.7	3,482.0	3,442.2	10.2	10.2	113.88	-3,916.8	193.8	4,122.6	4,104.8	17.80	231.663				
3,000.0	2,944.8	3,563.4	3,522.2	10.6	10.5	114.27	-3,905.1	184.2	4,118.6	4,100.1	18.45	223.182				
3,100.0	3,041.8	3,655.6	3,612.8	11.1	10.9	114.71	-3,892.0	173.6	4,115.2	4,096.0	19.14	214.970				
3,200.0	3,138.9	3,747.0	3,702.7	11.5	11.2	115.14	-3,879.1	163.3	4,112.0	4,092.2	19.83	207.410				
3,300.0	3,235.9	3,853.2	3,807.1	12.0	11.6	115.65	-3,864.0	151.1	4,109.1	4,088.5	20.56	199.852				
3,400.0	3,333.0	3,975.6	3,927.3	12.5	12.0	116.24	-3,845.9	136.9	4,105.8	4,084.5	21.33	192.481				
3,500.0	3,430.0	4,054.0	4,004.4	12.9	12.3	116.61	-3,834.3	128.4	4,102.8	4,080.9	21.97	186.734				
3,600.0	3,527.1	4,141.5	4,090.5	13.4	12.6	117.02	-3,821.6	119.2	4,100.4	4,077.7	22.63	181.154				
3,700.0	3,624.1	4,216.9	4,164.7	13.9	12.9	117.38	-3,810.8	110.8	4,098.4	4,075.2	23.28	176.070				
3,800.0	3,721.2	4,283.8	4,230.4	14.3	13.1	117.70	-3,801.5	102.8	4,097.3	4,073.4	23.89	171.503				
3,873.2	3,792.3	4,339.0	4,284.8	14.7	13.3	117.97	-3,794.3	96.3	4,097.1	4,072.8	24.35	168.226				
3,900.0	3,818.2	4,355.5	4,301.1	14.8	13.4	118.05	-3,792.1	94.5	4,097.1	4,072.6	24.51	167.144				
3,967.0	3,883.3	4,433.0	4,377.4	15.1	13.7	118.41	-3,782.0	85.8	4,097.1	4,072.1	25.01	163.831				
4,000.0	3,915.3	4,456.8	4,400.8	15.3	13.7	118.52	-3,778.9	83.3	4,097.2	4,072.0	25.21	162.518				
4,100.0	4,012.3	4,529.0	4,472.1	15.7	14.0	118.86	-3,769.8	75.5	4,098.0	4,072.2	25.82	158.694				
4,200.0	4,109.4	4,645.4	4,586.8	16.2	14.4	119.41	-3,755.0	62.7	4,098.9	4,072.3	26.57	154.283				
4,300.0	4,206.4	4,718.6	4,658.9	16.6	14.6	119.75	-3,745.8	54.7	4,100.2	4,073.0	27.18	150.860				
4,400.0	4,303.5	4,814.0	4,753.1	17.1	14.9	120.19	-3,733.8	44.9	4,101.8	4,073.9	27.84	147.321				
4,500.0	4,400.5	4,878.0	4,816.3	17.6	15.1	120.48	-3,726.1	38.8	4,104.0	4,075.5	28.41	144.436				
4,600.0	4,497.6	4,977.5	4,914.8	18.0	15.4	120.91	-3,714.9	30.0	4,107.0	4,077.9	29.06	141.306				
4,700.0	4,594.6	5,070.3	5,006.6	18.5	15.7	121.31	-3,704.0	22.3	4,109.6	4,079.9	29.69	138.412				
4,800.0	4,691.7	5,124.6	5,060.5	19.0	15.9	121.55	-3,698.2	17.9	4,113.4	4,083.2	30.23	136.085				

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 11-18 - DD - DD													Offset Site Error: 0.0 ft	
Survey Program: 811-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		
4,900.0	4,788.7	5,243.3	5,178.0	19.4	16.2	122.06	-3,685.8	7.3	4,118.0	4,087.1	30.92	133.169		
5,000.0	4,885.8	5,323.0	5,256.9	19.9	16.5	122.41	-3,677.0	0.1	4,122.2	4,090.7	31.52	130.781		
5,100.0	4,982.8	5,396.9	5,330.1	20.4	16.7	122.73	-3,669.3	-6.4	4,127.3	4,095.2	32.10	128.583		
5,200.0	5,079.9	5,499.9	5,432.2	20.8	17.0	123.17	-3,658.7	-15.2	4,132.5	4,099.7	32.74	126.234		
5,300.0	5,176.9	5,581.2	5,512.8	21.3	17.2	123.51	-3,650.8	-21.7	4,138.3	4,105.0	33.32	124.204		
5,400.0	5,273.9	5,679.7	5,610.5	21.8	17.5	123.91	-3,641.0	-29.4	4,144.2	4,110.3	33.93	122.139		
5,500.0	5,371.0	5,751.7	5,682.0	22.2	17.7	124.20	-3,634.2	-34.6	4,150.6	4,116.1	34.48	120.392		
5,600.0	5,468.0	5,801.0	5,731.0	22.7	17.8	124.40	-3,629.9	-38.0	4,157.9	4,122.9	34.97	118.894		
5,700.0	5,565.1	5,864.4	5,794.1	23.1	17.9	124.65	-3,625.0	-42.1	4,166.2	4,130.8	35.48	117.410		
5,800.0	5,662.1	5,931.7	5,861.2	23.6	18.1	124.90	-3,620.8	-46.2	4,175.8	4,139.8	36.00	116.004		
5,900.0	5,759.2	6,003.6	5,932.9	24.1	18.2	125.15	-3,616.8	-49.6	4,185.9	4,149.4	36.50	114.675		
6,000.0	5,856.2	6,080.7	6,009.9	24.5	18.4	125.41	-3,613.5	-52.1	4,196.8	4,159.8	36.99	113.465		
6,100.0	5,953.3	6,149.2	6,078.3	25.0	18.4	125.61	-3,611.2	-52.9	4,208.2	4,170.8	37.45	112.360		
6,200.0	6,050.3	6,215.0	6,144.1	25.5	18.5	125.80	-3,609.8	-53.5	4,220.7	4,182.8	37.91	111.327		
6,300.0	6,147.4	6,278.1	6,207.1	25.9	18.6	125.98	-3,608.9	-54.2	4,234.0	4,195.6	38.37	110.349		
6,400.0	6,244.4	6,399.0	6,328.1	26.4	18.8	126.32	-3,606.9	-54.8	4,247.0	4,208.2	38.87	109.262		
6,500.0	6,341.5	6,470.0	6,399.1	26.9	18.8	126.50	-3,606.2	-54.0	4,260.4	4,221.1	39.31	108.382		
6,600.0	6,438.5	6,528.0	6,457.1	27.3	18.9	126.64	-3,606.0	-53.5	4,274.5	4,234.8	39.75	107.530		
6,700.0	6,535.6	6,598.3	6,527.3	27.8	19.0	126.83	-3,606.4	-53.9	4,289.9	4,249.7	40.20	106.708		
6,800.0	6,632.6	6,732.6	6,661.6	28.3	19.1	127.19	-3,606.6	-54.3	4,304.9	4,264.2	40.70	105.766		
6,900.0	6,729.7	6,857.2	6,786.2	28.7	19.2	127.51	-3,606.2	-54.2	4,319.5	4,278.3	41.19	104.865		
7,000.0	6,826.7	6,958.5	6,887.6	29.2	19.4	127.77	-3,605.4	-53.9	4,333.6	4,292.0	41.66	104.034		
7,100.0	6,923.8	7,051.1	6,980.1	29.7	19.5	128.00	-3,604.7	-53.6	4,347.9	4,305.8	42.11	103.246		
7,200.0	7,020.8	7,140.7	7,069.7	30.1	19.6	128.22	-3,604.3	-53.2	4,362.4	4,319.9	42.56	102.491		
7,300.0	7,117.9	7,253.8	7,182.8	30.6	19.7	128.50	-3,603.4	-52.7	4,376.8	4,333.8	43.04	101.703		
7,321.2	7,138.4	7,272.2	7,201.2	30.7	19.7	128.55	-3,603.3	-52.6	4,379.8	4,336.7	43.13	101.550		
7,350.0	7,166.4	7,297.2	7,226.3	30.8	19.7	116.88	-3,603.1	-52.5	4,383.3	4,340.0	43.38	101.037		
7,400.0	7,215.1	7,342.0	7,271.0	31.0	19.8	95.96	-3,602.8	-52.3	4,386.2	4,342.6	43.61	100.583		
7,450.0	7,263.5	7,382.6	7,311.6	31.2	19.8	78.40	-3,602.6	-52.2	4,385.1	4,341.6	43.55	100.689		
7,500.0	7,311.3	7,423.9	7,352.9	31.3	19.9	65.97	-3,602.4	-52.1	4,380.1	4,336.8	43.22	101.337		
7,550.0	7,358.1	7,464.4	7,393.4	31.5	19.9	57.72	-3,602.3	-52.0	4,371.1	4,328.4	42.63	102.526		
7,600.0	7,403.5	7,503.7	7,432.7	31.6	20.0	52.32	-3,602.3	-51.9	4,358.2	4,316.4	41.80	104.265		
7,650.0	7,447.3	7,541.6	7,470.6	31.7	20.0	48.85	-3,602.3	-51.8	4,341.6	4,300.9	40.74	106.561		
7,700.0	7,489.1	7,577.8	7,506.8	31.7	20.1	46.75	-3,602.3	-51.7	4,321.4	4,281.9	39.49	109.417		
7,750.0	7,528.5	7,612.1	7,541.1	31.8	20.1	45.68	-3,602.4	-51.6	4,297.8	4,259.7	38.09	112.820		
7,800.0	7,565.3	7,644.2	7,573.2	31.8	20.1	45.48	-3,602.6	-51.5	4,270.8	4,234.3	36.59	116.715		
7,850.0	7,599.2	7,673.8	7,602.8	31.9	20.2	46.04	-3,602.7	-51.5	4,240.8	4,205.8	35.06	120.975		
7,900.0	7,629.9	7,700.7	7,629.7	31.9	20.2	47.35	-3,602.9	-51.5	4,208.0	4,174.4	33.57	125.348		
7,950.0	7,657.2	7,726.0	7,655.0	31.9	20.2	49.46	-3,603.1	-51.5	4,172.6	4,140.3	32.25	129.389		
8,000.0	7,680.9	7,750.1	7,679.1	32.0	20.2	52.49	-3,603.2	-51.5	4,134.8	4,103.6	31.23	132.419		
8,050.0	7,700.8	7,771.7	7,700.7	32.0	20.3	56.56	-3,603.4	-51.5	4,095.0	4,064.4	30.64	133.669		
8,100.0	7,716.7	7,789.0	7,718.1	32.0	20.3	61.82	-3,603.5	-51.5	4,053.4	4,022.9	30.56	132.627		
8,150.0	7,728.6	7,802.0	7,731.1	32.1	20.3	68.43	-3,603.5	-51.5	4,010.5	3,979.5	30.97	129.497		
8,200.0	7,736.3	7,810.6	7,739.6	32.1	20.3	76.52	-3,603.6	-51.5	3,966.4	3,934.7	31.64	125.347		
8,250.0	7,739.8	7,814.6	7,743.6	32.2	20.3	85.99	-3,603.6	-51.6	3,921.5	3,889.2	32.24	121.641		
8,266.2	7,740.0	7,814.9	7,743.9	32.2	20.3	89.31	-3,603.6	-51.6	3,906.8	3,874.4	32.36	120.740		
8,300.0	7,740.0	7,815.1	7,744.1	32.3	20.3	89.31	-3,603.6	-51.6	3,876.3	3,843.8	32.49	119.300		
8,400.0	7,740.0	7,815.6	7,744.7	32.5	20.3	89.33	-3,603.6	-51.6	3,786.1	3,753.1	33.02	114.661		
8,500.0	7,740.0	7,816.2	7,745.2	32.8	20.3	89.35	-3,603.6	-51.6	3,696.5	3,662.7	33.73	109.599		
8,600.0	7,740.0	7,816.8	7,745.8	33.2	20.3	89.37	-3,603.6	-51.6	3,607.4	3,572.8	34.59	104.289		
8,700.0	7,740.0	7,817.3	7,746.3	33.7	20.3	89.39	-3,603.6	-51.6	3,518.9	3,483.3	35.59	98.882		
8,800.0	7,740.0	7,817.9	7,746.9	34.3	20.3	89.41	-3,603.6	-51.6	3,431.0	3,394.3	36.69	93.501		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 11-18 - DD - DD													Offset Site Error: 0.0 ft			
Survey Program: 811-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				
8,900.0	7,740.0	7,818.4	7,747.4	34.9	20.3	89.43	-3,603.6	-51.6	3,343.8	3,305.9	37.90	88.236				
9,000.0	7,740.0	7,819.0	7,748.0	35.6	20.3	89.45	-3,603.6	-51.6	3,257.4	3,218.2	39.17	83.150				
9,100.0	7,740.0	7,819.5	7,748.5	36.4	20.3	89.46	-3,603.6	-51.6	3,171.7	3,131.2	40.52	78.280				
9,200.0	7,740.0	7,820.0	7,749.1	37.3	20.3	89.48	-3,603.6	-51.6	3,086.9	3,045.0	41.91	73.649				
9,300.0	7,740.0	7,820.6	7,749.6	38.2	20.3	89.50	-3,603.6	-51.6	3,003.0	2,959.7	43.35	69.267				
9,400.0	7,740.0	7,821.1	7,750.1	39.2	20.3	89.52	-3,603.6	-51.6	2,920.2	2,875.3	44.83	65.136				
9,500.0	7,740.0	7,821.6	7,750.7	40.2	20.3	89.54	-3,603.7	-51.6	2,838.4	2,792.1	46.34	61.250				
9,600.0	7,740.0	7,822.2	7,751.2	41.3	20.3	89.56	-3,603.7	-51.6	2,757.9	2,710.0	47.88	57.602				
9,700.0	7,740.0	7,822.7	7,751.7	42.4	20.3	89.58	-3,603.7	-51.6	2,678.7	2,629.2	49.44	54.183				
9,800.0	7,740.0	7,823.2	7,752.2	43.6	20.3	89.59	-3,603.7	-51.6	2,600.9	2,549.9	51.02	50.981				
9,900.0	7,740.0	7,823.8	7,752.8	44.8	20.3	89.61	-3,603.7	-51.6	2,524.6	2,472.0	52.61	47.986				
10,000.0	7,740.0	7,824.3	7,753.3	46.0	20.3	89.63	-3,603.7	-51.6	2,450.1	2,395.9	54.22	45.186				
10,100.0	7,740.0	7,824.8	7,753.8	47.3	20.3	89.65	-3,603.7	-51.6	2,377.5	2,321.6	55.85	42.572				
10,200.0	7,740.0	7,825.3	7,754.3	48.6	20.3	89.67	-3,603.7	-51.6	2,306.9	2,249.4	57.48	40.133				
10,300.0	7,740.0	7,825.8	7,754.9	50.0	20.3	89.68	-3,603.7	-51.6	2,238.5	2,179.4	59.12	37.861				
10,400.0	7,740.0	7,826.4	7,755.4	51.3	20.3	89.70	-3,603.7	-51.6	2,172.6	2,111.8	60.78	35.747				
10,500.0	7,740.0	7,826.9	7,755.9	52.7	20.3	89.72	-3,603.7	-51.6	2,109.4	2,046.9	62.44	33.783				
10,600.0	7,740.0	7,827.4	7,756.4	54.1	20.3	89.74	-3,603.7	-51.6	2,049.1	1,985.0	64.11	31.964				
10,700.0	7,740.0	7,827.9	7,756.9	55.6	20.3	89.75	-3,603.7	-51.6	1,992.0	1,926.2	65.78	30.282				
10,800.0	7,740.0	7,828.4	7,757.4	57.0	20.3	89.77	-3,603.7	-51.6	1,938.4	1,870.9	67.46	28.733				
10,900.0	7,740.0	7,828.9	7,757.9	58.5	20.3	89.79	-3,603.7	-51.6	1,888.5	1,819.4	69.15	27.313				
11,000.0	7,740.0	7,829.4	7,758.4	59.9	20.3	89.81	-3,603.7	-51.6	1,842.8	1,772.0	70.83	26.015				
11,100.0	7,740.0	7,829.9	7,758.9	61.4	20.3	89.82	-3,603.7	-51.6	1,801.4	1,728.9	72.53	24.838				
11,200.0	7,740.0	7,830.4	7,759.4	62.9	20.3	89.84	-3,603.7	-51.6	1,764.8	1,690.5	74.23	23.776				
11,300.0	7,740.0	7,830.9	7,759.9	64.5	20.3	89.86	-3,603.7	-51.6	1,733.1	1,657.2	75.93	22.826				
11,400.0	7,740.0	7,831.4	7,760.4	66.0	20.3	89.88	-3,603.7	-51.6	1,706.7	1,629.1	77.63	21.986				
11,500.0	7,740.0	7,831.9	7,760.9	67.5	20.3	89.89	-3,603.7	-51.6	1,685.9	1,606.5	79.34	21.250				
11,600.0	7,740.0	7,832.4	7,761.4	69.1	20.3	89.91	-3,603.7	-51.6	1,670.8	1,589.7	81.05	20.615				
11,700.0	7,740.0	7,832.9	7,761.9	70.7	20.3	89.93	-3,603.7	-51.6	1,661.5	1,578.8	82.76	20.078				
11,800.0	7,740.0	7,833.4	7,762.4	72.2	20.3	89.94	-3,603.7	-51.6	1,658.3	1,573.8	84.47	19.632				
11,803.7	7,740.0	7,833.4	7,762.4	72.3	20.3	89.94	-3,603.7	-51.6	1,658.3	1,573.8	84.53	19.617	CC, ES			
11,900.0	7,740.0	7,833.8	7,762.9	73.8	20.3	89.96	-3,603.7	-51.6	1,661.1	1,574.9	86.19	19.273				
12,000.0	7,740.0	7,834.3	7,763.3	75.4	20.3	89.98	-3,603.7	-51.6	1,669.9	1,582.0	87.90	18.997				
12,100.0	7,740.0	7,834.8	7,763.8	77.0	20.3	89.99	-3,603.7	-51.6	1,684.6	1,595.0	89.62	18.796				
12,200.0	7,740.0	7,835.3	7,764.3	78.6	20.3	90.01	-3,603.7	-51.6	1,705.0	1,613.7	91.34	18.666				
12,300.0	7,740.0	7,835.8	7,764.8	80.2	20.3	90.03	-3,603.7	-51.6	1,731.0	1,637.9	93.07	18.599				
12,400.0	7,740.0	7,836.2	7,765.3	81.8	20.3	90.04	-3,603.7	-51.6	1,762.3	1,667.5	94.79	18.591	SF			
12,500.0	7,740.0	7,836.7	7,765.7	83.4	20.3	90.06	-3,603.7	-51.6	1,798.6	1,702.1	96.52	18.635				
12,600.0	7,740.0	7,837.2	7,766.2	85.1	20.3	90.08	-3,603.7	-51.6	1,839.6	1,741.4	98.24	18.725				
12,700.0	7,740.0	7,837.7	7,766.7	86.7	20.3	90.09	-3,603.7	-51.6	1,885.0	1,785.1	99.97	18.856				
12,800.0	7,740.0	7,838.1	7,767.2	88.3	20.3	90.11	-3,603.7	-51.6	1,934.6	1,832.9	101.70	19.022				
12,900.0	7,740.0	7,838.6	7,767.6	90.0	20.3	90.12	-3,603.7	-51.6	1,987.9	1,884.5	103.43	19.220				
13,000.0	7,740.0	7,839.1	7,768.1	91.6	20.3	90.14	-3,603.7	-51.6	2,044.8	1,939.6	105.16	19.444				
13,100.0	7,740.0	7,839.5	7,768.6	93.3	20.3	90.16	-3,603.7	-51.6	2,104.9	1,998.0	106.89	19.691				
13,200.0	7,740.0	7,840.0	7,769.0	94.9	20.3	90.17	-3,603.7	-51.6	2,167.9	2,059.3	108.63	19.957				
13,300.0	7,740.0	7,840.5	7,769.5	96.6	20.3	90.19	-3,603.7	-51.6	2,233.6	2,123.2	110.36	20.239				
13,400.0	7,740.0	7,840.9	7,769.9	98.2	20.3	90.20	-3,603.7	-51.6	2,301.8	2,189.7	112.09	20.534				
13,500.0	7,740.0	7,841.4	7,770.4	99.9	20.3	90.22	-3,603.7	-51.6	2,372.2	2,258.4	113.83	20.840				
13,600.0	7,740.0	7,841.8	7,770.9	101.6	20.3	90.24	-3,603.8	-51.6	2,444.7	2,329.2	115.57	21.155				
13,700.0	7,740.0	7,842.3	7,771.3	103.2	20.3	90.25	-3,603.8	-51.6	2,519.1	2,401.8	117.30	21.476				
13,800.0	7,740.0	7,842.7	7,771.8	104.9	20.3	90.27	-3,603.8	-51.6	2,595.2	2,476.2	119.04	21.802				
13,900.0	7,740.0	7,843.2	7,772.2	106.6	20.3	90.28	-3,603.8	-51.6	2,672.9	2,552.1	120.78	22.131				

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 11-18 - DD - DD												Offset Site Error:	0.0 ft
Survey Program: 811-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
14,000.0	7,740.0	7,843.6	7,772.7	108.2	20.3	90.30	-3,603.8	-51.6	2,752.1	2,629.5	122.51	22.463	
14,100.0	7,740.0	7,844.1	7,773.1	109.9	20.3	90.31	-3,603.8	-51.6	2,832.5	2,708.2	124.25	22.796	
14,200.0	7,740.0	7,844.5	7,773.6	111.6	20.3	90.33	-3,603.8	-51.6	2,914.2	2,788.2	125.99	23.130	
14,300.0	7,740.0	7,845.0	7,774.0	113.3	20.3	90.35	-3,603.8	-51.6	2,996.9	2,869.2	127.73	23.463	
14,400.0	7,740.0	7,845.4	7,774.4	115.0	20.3	90.36	-3,603.8	-51.6	3,080.7	2,951.2	129.47	23.795	
14,500.0	7,740.0	7,845.9	7,774.9	116.7	20.4	90.38	-3,603.8	-51.6	3,165.4	3,034.2	131.21	24.125	
14,600.0	7,740.0	7,846.3	7,775.3	118.3	20.4	90.39	-3,603.8	-51.6	3,251.0	3,118.1	132.95	24.453	
14,700.0	7,740.0	7,846.7	7,775.8	120.0	20.4	90.41	-3,603.8	-51.6	3,337.5	3,202.8	134.69	24.778	
14,800.0	7,740.0	7,847.2	7,776.2	121.7	20.4	90.42	-3,603.8	-51.6	3,424.6	3,288.2	136.44	25.100	
14,900.0	7,740.0	7,847.6	7,776.6	123.4	20.4	90.44	-3,603.8	-51.6	3,512.4	3,374.2	138.18	25.420	
15,000.0	7,740.0	7,848.1	7,777.1	125.1	20.4	90.45	-3,603.8	-51.6	3,600.9	3,461.0	139.92	25.735	
15,100.0	7,740.0	7,848.5	7,777.5	126.8	20.4	90.47	-3,603.8	-51.6	3,689.9	3,548.3	141.66	26.047	
15,200.0	7,740.0	7,848.9	7,777.9	128.5	20.4	90.48	-3,603.8	-51.6	3,779.5	3,636.1	143.41	26.356	
15,300.0	7,740.0	7,849.3	7,778.4	130.2	20.4	90.50	-3,603.8	-51.6	3,869.6	3,724.5	145.15	26.660	
15,400.0	7,740.0	7,849.8	7,778.8	131.9	20.4	90.51	-3,603.8	-51.6	3,960.2	3,813.3	146.89	26.960	
15,500.0	7,740.0	7,850.2	7,779.2	133.6	20.4	90.53	-3,603.8	-51.6	4,051.2	3,902.6	148.64	27.256	
15,600.0	7,740.0	7,850.6	7,779.6	135.3	20.4	90.54	-3,603.8	-51.6	4,142.7	3,992.3	150.38	27.548	
15,700.0	7,740.0	7,851.0	7,780.1	137.0	20.4	90.55	-3,603.8	-51.6	4,234.5	4,082.4	152.12	27.836	
15,800.0	7,740.0	7,851.5	7,780.5	138.7	20.4	90.57	-3,603.8	-51.6	4,326.7	4,172.8	153.87	28.119	
15,900.0	7,740.0	7,851.9	7,780.9	140.5	20.4	90.58	-3,603.8	-51.6	4,419.2	4,263.6	155.61	28.399	
16,000.0	7,740.0	7,852.3	7,781.3	142.2	20.4	90.60	-3,603.8	-51.6	4,512.1	4,354.7	157.36	28.674	
16,100.0	7,740.0	7,852.7	7,781.7	143.9	20.4	90.61	-3,603.8	-51.6	4,605.2	4,446.1	159.10	28.945	
16,142.2	7,740.0	7,852.9	7,781.9	144.6	20.4	90.62	-3,603.8	-51.6	4,644.6	4,484.8	159.84	29.058	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 12-18 - DD - DD													Offset Site Error: 0.0 ft			
Survey Program: 56-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)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor				
0.0	0.0	17.2	17.2	0.0	0.0	173.14	-4,267.2	513.1	4,297.9							
100.0	100.0	98.6	98.6	0.2	0.1	173.16	-4,267.7	512.2	4,298.4	4,298.1	0.30	N/A				
200.0	200.0	195.9	195.9	0.3	0.3	173.17	-4,268.3	510.9	4,298.9	4,298.2	0.64	6,680.466				
300.0	300.0	267.6	267.6	0.5	0.4	102.19	-4,269.1	510.2	4,300.1	4,299.1	0.95	4,544.365				
400.0	400.0	339.2	339.2	0.7	0.6	102.20	-4,270.3	509.8	4,302.2	4,300.9	1.25	3,438.815				
500.0	499.9	396.0	395.9	0.9	0.7	102.21	-4,271.8	509.2	4,305.6	4,304.0	1.54	2,799.265				
600.0	599.7	450.0	449.9	1.1	0.8	102.22	-4,273.7	508.7	4,310.4	4,308.6	1.83	2,353.083				
700.0	699.4	490.0	489.8	1.3	0.9	102.21	-4,275.7	508.2	4,316.8	4,314.7	2.12	2,040.840				
800.0	798.9	546.5	546.2	1.5	1.0	102.21	-4,279.2	507.6	4,324.9	4,322.4	2.45	1,768.353				
900.0	898.3	606.0	605.6	1.8	1.1	102.23	-4,283.4	506.6	4,334.1	4,331.3	2.80	1,546.873				
1,000.0	997.4	668.0	667.4	2.0	1.2	102.25	-4,288.1	505.4	4,344.5	4,341.3	3.18	1,364.215				
1,100.0	1,096.3	758.3	757.4	2.3	1.4	102.35	-4,295.9	503.3	4,356.0	4,352.4	3.64	1,195.745				
1,200.0	1,194.9	856.6	855.3	2.7	1.6	102.48	-4,304.0	500.9	4,367.7	4,363.6	4.14	1,054.840				
1,300.0	1,293.3	915.5	913.9	3.0	1.8	102.52	-4,309.4	499.4	4,380.6	4,376.0	4.59	953.573				
1,400.0	1,391.2	965.5	963.6	3.4	1.9	102.53	-4,314.3	497.9	4,394.9	4,389.8	5.06	868.778				
1,500.0	1,488.9	1,004.0	1,001.9	3.8	2.0	102.50	-4,318.6	496.8	4,410.8	4,405.3	5.53	797.467				
1,595.5	1,581.8	1,047.8	1,045.3	4.2	2.1	102.49	-4,324.0	495.4	4,427.5	4,421.5	6.02	735.208				
1,600.0	1,586.1	1,049.6	1,047.1	4.2	2.1	102.50	-4,324.2	495.3	4,428.3	4,422.3	6.04	732.605				
1,700.0	1,683.2	1,090.0	1,087.1	4.7	2.2	102.65	-4,329.7	494.0	4,447.4	4,440.8	6.55	678.764				
1,800.0	1,780.2	1,133.0	1,129.6	5.1	2.4	102.80	-4,336.1	492.6	4,467.7	4,460.7	7.07	632.096				
1,900.0	1,877.3	1,176.1	1,172.2	5.6	2.5	102.96	-4,343.0	491.1	4,489.3	4,481.7	7.59	591.534				
2,000.0	1,974.3	1,222.0	1,217.3	6.0	2.7	103.14	-4,350.8	489.0	4,512.1	4,504.0	8.12	555.675				
2,100.0	2,071.4	1,272.1	1,266.5	6.5	2.8	103.34	-4,359.9	485.9	4,536.0	4,527.3	8.66	523.505				
2,200.0	2,168.4	1,359.8	1,352.2	6.9	3.2	103.72	-4,376.3	478.1	4,560.6	4,551.3	9.30	490.138				
2,300.0	2,265.4	1,420.0	1,411.0	7.4	3.4	103.99	-4,387.5	471.1	4,585.4	4,575.5	9.89	463.587				
2,400.0	2,362.5	1,486.2	1,475.5	7.9	3.7	104.30	-4,400.3	462.9	4,611.0	4,600.5	10.49	439.370				
2,500.0	2,459.5	1,566.1	1,553.1	8.3	4.0	104.67	-4,416.5	453.3	4,637.8	4,626.6	11.13	416.669				
2,600.0	2,556.6	1,642.0	1,626.9	8.8	4.3	105.01	-4,431.7	444.3	4,664.6	4,652.8	11.76	396.781				
2,700.0	2,653.6	1,688.4	1,672.0	9.2	4.5	105.22	-4,441.3	438.8	4,692.3	4,680.0	12.32	380.989				
2,800.0	2,750.7	1,738.0	1,720.0	9.7	4.8	105.45	-4,452.2	432.8	4,721.3	4,708.4	12.88	366.489				
2,900.0	2,847.7	1,805.6	1,785.2	10.2	5.1	105.75	-4,467.6	424.2	4,751.2	4,737.7	13.50	352.029				
3,000.0	2,944.8	1,966.6	1,941.1	10.6	5.8	106.47	-4,502.8	404.3	4,780.6	4,766.3	14.32	333.823				
3,100.0	3,041.8	2,074.5	2,045.8	11.1	6.3	106.94	-4,525.4	391.5	4,809.4	4,794.4	15.02	320.215				
3,200.0	3,138.9	2,152.5	2,121.4	11.5	6.6	107.28	-4,541.6	381.7	4,838.4	4,822.8	15.65	309.195				
3,300.0	3,235.9	2,280.1	2,245.3	12.0	7.2	107.82	-4,568.2	366.0	4,867.6	4,851.2	16.38	297.203				
3,400.0	3,333.0	2,373.5	2,336.2	12.5	7.6	108.20	-4,587.1	355.6	4,896.5	4,879.4	17.02	287.707				
3,500.0	3,430.0	2,520.2	2,478.7	12.9	8.2	108.83	-4,615.7	336.1	4,924.9	4,907.1	17.82	276.432				
3,600.0	3,527.1	2,630.0	2,585.5	13.4	8.7	109.30	-4,636.0	321.0	4,952.6	4,934.1	18.50	267.661				
3,700.0	3,624.1	2,698.0	2,651.8	13.9	9.0	109.57	-4,648.6	312.8	4,980.7	4,961.6	19.08	261.012				
3,800.0	3,721.2	2,746.8	2,699.4	14.3	9.2	109.77	-4,658.2	307.2	5,009.7	4,990.1	19.62	255.277				
3,900.0	3,818.2	2,795.6	2,746.7	14.8	9.4	109.96	-4,668.1	301.2	5,039.8	5,019.6	20.17	249.868				
4,000.0	3,915.3	2,854.2	2,803.6	15.3	9.7	110.20	-4,680.4	293.7	5,070.7	5,049.9	20.73	244.565				
4,100.0	4,012.3	2,941.2	2,887.8	15.7	10.1	110.55	-4,699.0	282.5	5,102.1	5,080.7	21.35	238.961				
4,200.0	4,109.4	3,072.3	3,014.9	16.2	10.7	111.06	-4,726.4	265.6	5,133.3	5,111.2	22.06	232.730				
4,300.0	4,206.4	3,183.7	3,123.0	16.6	11.2	111.50	-4,749.1	251.2	5,164.2	5,141.5	22.72	227.348				
4,400.0	4,303.5	3,272.0	3,208.8	17.1	11.6	111.84	-4,766.8	239.9	5,195.1	5,171.7	23.32	222.763				
4,500.0	4,400.5	3,383.9	3,317.6	17.6	12.1	112.26	-4,789.1	226.3	5,225.8	5,201.9	23.96	218.097				
4,600.0	4,497.6	3,450.4	3,382.3	18.0	12.4	112.50	-4,802.3	218.3	5,256.8	5,232.3	24.52	214.413				
8,500.0	7,740.0	7,891.9	7,773.1	32.8	24.0	90.31	-5,238.0	-48.5	5,208.1	5,170.4	37.64	138.360				
8,600.0	7,740.0	7,891.9	7,773.1	33.2	24.0	90.32	-5,238.0	-48.5	5,113.3	5,074.8	38.50	132.807				
8,700.0	7,740.0	7,892.0	7,773.2	33.7	24.0	90.32	-5,238.0	-48.5	5,018.8	4,979.3	39.50	127.072				
8,800.0	7,740.0	7,892.0	7,773.2	34.3	24.0	90.32	-5,238.0	-48.5	4,924.5	4,883.9	40.60	121.289				

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 12-18 - DD - DD													Offset Site Error: 0.0 ft			
Survey Program: 56-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				
8,900.0	7,740.0	7,892.1	7,773.3	34.9	24.0	90.32	-5,238.0	-48.5	4,830.5	4,788.7	41.80	115.560				
9,000.0	7,740.0	7,892.1	7,773.3	35.6	24.0	90.32	-5,238.0	-48.5	4,736.6	4,693.6	43.08	109.958				
9,100.0	7,740.0	7,892.2	7,773.4	36.4	24.0	90.32	-5,238.0	-48.5	4,643.1	4,598.7	44.42	104.532				
9,200.0	7,740.0	7,892.2	7,773.4	37.3	24.0	90.33	-5,238.0	-48.5	4,549.8	4,504.0	45.81	99.314				
9,300.0	7,740.0	7,892.3	7,773.5	38.2	24.0	90.33	-5,238.0	-48.5	4,456.8	4,409.5	47.25	94.322				
9,400.0	7,740.0	7,892.3	7,773.5	39.2	24.0	90.33	-5,238.0	-48.5	4,364.1	4,315.4	48.73	89.562				
9,500.0	7,740.0	7,892.4	7,773.6	40.2	24.0	90.33	-5,238.0	-48.5	4,271.7	4,221.5	50.24	85.034				
9,600.0	7,740.0	7,892.4	7,773.6	41.3	24.0	90.33	-5,238.0	-48.5	4,179.7	4,128.0	51.77	80.736				
9,700.0	7,740.0	7,892.5	7,773.7	42.4	24.0	90.33	-5,238.0	-48.5	4,088.1	4,034.8	53.33	76.659				
9,800.0	7,740.0	7,892.5	7,773.7	43.6	24.0	90.34	-5,238.0	-48.5	3,996.9	3,942.0	54.91	72.795				
9,900.0	7,740.0	7,892.6	7,773.8	44.8	24.0	90.34	-5,238.0	-48.5	3,906.1	3,849.6	56.50	69.134				
10,000.0	7,740.0	7,892.6	7,773.8	46.0	24.0	90.34	-5,238.0	-48.5	3,815.7	3,757.6	58.11	65.665				
10,100.0	7,740.0	7,892.7	7,773.9	47.3	24.0	90.34	-5,238.0	-48.5	3,725.9	3,666.2	59.73	62.377				
10,200.0	7,740.0	7,892.7	7,773.9	48.6	24.0	90.34	-5,238.0	-48.5	3,636.6	3,575.2	61.37	59.261				
10,300.0	7,740.0	7,892.8	7,774.0	50.0	24.0	90.34	-5,238.0	-48.5	3,547.8	3,484.8	63.01	56.307				
10,400.0	7,740.0	7,892.8	7,774.0	51.3	24.0	90.35	-5,238.0	-48.5	3,459.7	3,395.0	64.66	53.505				
10,500.0	7,740.0	7,892.9	7,774.1	52.7	24.0	90.35	-5,238.0	-48.5	3,372.2	3,305.9	66.32	50.847				
10,600.0	7,740.0	7,892.9	7,774.1	54.1	24.0	90.35	-5,238.0	-48.5	3,285.5	3,217.5	67.99	48.325				
10,700.0	7,740.0	7,893.0	7,774.2	55.6	24.0	90.35	-5,238.0	-48.5	3,199.5	3,129.8	69.66	45.929				
10,800.0	7,740.0	7,893.0	7,774.2	57.0	24.0	90.35	-5,238.0	-48.5	3,114.3	3,043.0	71.34	43.655				
10,900.0	7,740.0	7,893.1	7,774.3	58.5	24.0	90.36	-5,238.0	-48.5	3,030.1	2,957.1	73.02	41.495				
11,000.0	7,740.0	7,893.1	7,774.3	59.9	24.0	90.36	-5,238.0	-48.5	2,946.8	2,872.1	74.71	39.443				
11,100.0	7,740.0	7,893.2	7,774.4	61.4	24.0	90.36	-5,238.0	-48.5	2,864.6	2,788.2	76.40	37.493				
11,200.0	7,740.0	7,893.2	7,774.4	62.9	24.0	90.36	-5,238.0	-48.5	2,783.6	2,705.5	78.10	35.642				
11,300.0	7,740.0	7,893.3	7,774.5	64.5	24.0	90.36	-5,238.0	-48.5	2,703.9	2,624.1	79.80	33.883				
11,400.0	7,740.0	7,893.3	7,774.5	66.0	24.0	90.36	-5,238.0	-48.5	2,625.5	2,544.0	81.50	32.214				
11,500.0	7,740.0	7,893.4	7,774.6	67.5	24.0	90.37	-5,238.0	-48.5	2,548.7	2,465.5	83.21	30.630				
11,600.0	7,740.0	7,893.4	7,774.6	69.1	24.0	90.37	-5,238.0	-48.5	2,473.5	2,388.6	84.92	29.128				
11,700.0	7,740.0	7,893.5	7,774.7	70.7	24.0	90.37	-5,238.0	-48.5	2,400.1	2,313.5	86.63	27.706				
11,800.0	7,740.0	7,893.5	7,774.7	72.2	24.0	90.37	-5,238.0	-48.5	2,328.7	2,240.4	88.34	26.361				
11,900.0	7,740.0	7,893.6	7,774.8	73.8	24.0	90.37	-5,238.0	-48.5	2,259.5	2,169.5	90.06	25.090				
12,000.0	7,740.0	7,893.6	7,774.8	75.4	24.0	90.37	-5,238.0	-48.5	2,192.7	2,100.9	91.77	23.892				
12,100.0	7,740.0	7,893.7	7,774.9	77.0	24.0	90.38	-5,238.0	-48.5	2,128.4	2,034.9	93.49	22.766				
12,200.0	7,740.0	7,893.7	7,774.9	78.6	24.0	90.38	-5,238.0	-48.5	2,067.0	1,971.8	95.21	21.710				
12,300.0	7,740.0	7,893.8	7,775.0	80.2	24.0	90.38	-5,238.0	-48.5	2,008.7	1,911.8	96.93	20.723				
12,400.0	7,740.0	7,893.8	7,775.0	81.8	24.0	90.38	-5,238.0	-48.5	1,953.8	1,855.2	98.66	19.804				
12,500.0	7,740.0	7,893.9	7,775.1	83.4	24.0	90.38	-5,238.0	-48.5	1,902.6	1,802.2	100.38	18.953				
12,600.0	7,740.0	7,893.9	7,775.1	85.1	24.0	90.38	-5,238.0	-48.5	1,855.3	1,753.2	102.11	18.170				
12,700.0	7,740.0	7,894.0	7,775.2	86.7	24.0	90.39	-5,238.0	-48.5	1,812.3	1,708.5	103.84	17.454				
12,800.0	7,740.0	7,894.0	7,775.2	88.3	24.0	90.39	-5,238.0	-48.5	1,774.0	1,668.4	105.57	16.805				
12,900.0	7,740.0	7,894.1	7,775.3	90.0	24.0	90.39	-5,238.0	-48.5	1,740.5	1,633.2	107.29	16.222				
13,000.0	7,740.0	7,894.1	7,775.3	91.6	24.0	90.39	-5,238.0	-48.5	1,712.3	1,603.2	109.02	15.705				
13,100.0	7,740.0	7,894.2	7,775.4	93.3	24.0	90.39	-5,238.0	-48.5	1,689.4	1,578.7	110.76	15.254				
13,200.0	7,740.0	7,894.2	7,775.4	94.9	24.0	90.39	-5,238.0	-48.5	1,672.3	1,559.8	112.49	14.866				
13,300.0	7,740.0	7,894.3	7,775.5	96.6	24.0	90.40	-5,238.0	-48.5	1,661.0	1,546.8	114.22	14.542				
13,400.0	7,740.0	7,894.3	7,775.5	98.2	24.0	90.40	-5,238.0	-48.5	1,655.7	1,539.8	115.96	14.279				
13,438.0	7,740.0	7,894.4	7,775.5	98.9	24.0	90.40	-5,238.0	-48.5	1,655.3	1,538.7	116.61	14.194 CC, ES				
13,500.0	7,740.0	7,894.4	7,775.6	99.9	24.0	90.40	-5,238.0	-48.5	1,656.4	1,538.8	117.69	14.075				
13,600.0	7,740.0	7,894.4	7,775.6	101.6	24.0	90.40	-5,238.0	-48.5	1,663.2	1,543.8	119.43	13.927				
13,700.0	7,740.0	7,894.5	7,775.7	103.2	24.0	90.40	-5,238.0	-48.5	1,675.9	1,554.7	121.16	13.832				
13,800.0	7,740.0	7,894.5	7,775.7	104.9	24.0	90.41	-5,238.0	-48.5	1,694.4	1,571.5	122.90	13.787 SF				
13,900.0	7,740.0	7,894.6	7,775.8	106.6	24.0	90.41	-5,238.0	-48.5	1,718.5	1,593.9	124.64	13.789				

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 12-18 - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 56-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		
14,000.0	7,740.0	7,894.6	7,775.8	108.2	24.0	90.41	-5,238.0	-48.5	1,748.1	1,621.7	126.37	13.833		
14,100.0	7,740.0	7,894.7	7,775.9	109.9	24.0	90.41	-5,238.0	-48.5	1,782.8	1,654.6	128.11	13.916		
14,200.0	7,740.0	7,894.7	7,775.9	111.6	24.0	90.41	-5,238.0	-48.5	1,822.3	1,692.4	129.85	14.034		
14,300.0	7,740.0	7,894.8	7,776.0	113.3	24.0	90.41	-5,238.0	-48.5	1,866.3	1,734.7	131.59	14.183		
14,400.0	7,740.0	7,894.8	7,776.0	115.0	24.0	90.42	-5,238.0	-48.5	1,914.5	1,781.2	133.33	14.359		
14,500.0	7,740.0	7,894.9	7,776.1	116.7	24.0	90.42	-5,238.0	-48.5	1,966.7	1,831.6	135.07	14.561		
14,600.0	7,740.0	7,894.9	7,776.1	118.3	24.0	90.42	-5,238.0	-48.5	2,022.4	1,885.6	136.81	14.783		
14,700.0	7,740.0	7,895.0	7,776.2	120.0	24.0	90.42	-5,238.0	-48.5	2,081.5	1,942.9	138.55	15.023		
14,800.0	7,740.0	7,895.0	7,776.2	121.7	24.0	90.42	-5,238.0	-48.5	2,143.6	2,003.3	140.29	15.280		
14,900.0	7,740.0	7,895.1	7,776.3	123.4	24.0	90.42	-5,238.0	-48.5	2,208.5	2,066.5	142.03	15.549		
15,000.0	7,740.0	7,895.1	7,776.3	125.1	24.0	90.43	-5,238.0	-48.5	2,275.9	2,132.1	143.78	15.830		
15,100.0	7,740.0	7,895.2	7,776.4	126.8	24.0	90.43	-5,238.0	-48.5	2,345.7	2,200.2	145.52	16.120		
15,200.0	7,740.0	7,895.2	7,776.4	128.5	24.0	90.43	-5,238.0	-48.5	2,417.6	2,270.3	147.26	16.417		
15,300.0	7,740.0	7,895.3	7,776.5	130.2	24.0	90.43	-5,238.0	-48.5	2,491.4	2,342.4	149.00	16.720		
15,400.0	7,740.0	7,895.3	7,776.5	131.9	24.0	90.43	-5,238.0	-48.5	2,567.0	2,416.2	150.75	17.028		
15,500.0	7,740.0	7,895.4	7,776.6	133.6	24.0	90.43	-5,238.0	-48.5	2,644.2	2,491.7	152.49	17.340		
15,600.0	7,740.0	7,895.4	7,776.6	135.3	24.0	90.44	-5,238.0	-48.5	2,722.9	2,568.7	154.23	17.654		
15,700.0	7,740.0	7,895.5	7,776.7	137.0	24.0	90.44	-5,238.0	-48.5	2,803.0	2,647.0	155.98	17.970		
15,800.0	7,740.0	7,895.5	7,776.7	138.7	24.0	90.44	-5,238.0	-48.5	2,884.3	2,726.5	157.72	18.287		
15,900.0	7,740.0	7,895.6	7,776.8	140.5	24.0	90.44	-5,238.0	-48.5	2,966.7	2,807.2	159.47	18.604		
16,000.0	7,740.0	7,895.6	7,776.8	142.2	24.0	90.44	-5,238.0	-48.5	3,050.2	2,889.0	161.21	18.920		
16,100.0	7,740.0	7,895.7	7,776.9	143.9	24.0	90.44	-5,238.0	-48.5	3,134.7	2,971.7	162.96	19.236		
16,142.2	7,740.0	7,895.7	7,776.9	144.6	24.0	90.45	-5,238.0	-48.5	3,170.6	3,006.9	163.69	19.369		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 21-18 - DD (MWD) - DD													Offset Site Error: 0.0 ft			
Survey Program: 814-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	23.2	23.2	0.0	0.0	173.37	-4,267.2	496.3	4,295.9							
100.0	100.0	123.9	123.9	0.2	0.2	173.37	-4,267.2	496.3	4,295.9	4,295.6	0.36	N/A				
200.0	200.0	224.7	224.7	0.3	0.4	173.37	-4,267.1	496.3	4,295.9	4,295.2	0.71	6,038.624				
211.1	211.1	235.9	235.9	0.3	0.4	102.38	-4,267.1	496.3	4,295.9	4,295.1	0.75	5,727.175				
300.0	300.0	325.5	325.5	0.5	0.6	102.39	-4,267.1	496.4	4,296.0	4,295.0	1.06	4,055.141				
400.0	400.0	426.2	426.2	0.7	0.7	102.42	-4,267.0	496.4	4,296.5	4,295.1	1.41	3,043.979				
500.0	499.9	526.9	526.9	0.9	0.9	102.46	-4,266.9	496.5	4,297.4	4,295.6	1.77	2,426.351				
600.0	599.7	627.5	627.5	1.1	1.1	102.53	-4,266.8	496.5	4,298.6	4,296.5	2.14	2,007.085				
700.0	699.4	727.9	727.9	1.3	1.2	102.62	-4,266.7	496.6	4,300.2	4,297.7	2.53	1,702.157				
800.0	798.9	828.3	828.3	1.5	1.4	102.72	-4,266.5	496.7	4,302.2	4,299.2	2.93	1,469.178				
900.0	898.3	1,165.8	1,164.9	1.8	2.1	102.95	-4,256.6	515.7	4,303.8	4,300.0	3.81	1,128.871				
1,000.0	997.4	1,278.8	1,276.8	2.0	2.3	102.98	-4,248.6	529.2	4,300.9	4,296.6	4.35	988.455				
1,100.0	1,096.3	1,551.1	1,543.8	2.3	3.2	102.91	-4,221.2	574.9	4,295.5	4,290.0	5.46	786.916				
1,200.0	1,194.9	1,788.7	1,773.5	2.7	4.2	102.76	-4,188.9	626.1	4,288.3	4,281.6	6.70	639.713				
1,300.0	1,293.3	1,883.8	1,865.0	3.0	4.7	102.77	-4,174.0	647.3	4,279.2	4,271.7	7.44	574.809				
1,400.0	1,391.2	1,945.7	1,924.5	3.4	5.0	102.81	-4,164.8	661.4	4,271.1	4,263.0	8.08	528.608				
1,500.0	1,488.9	2,034.3	2,009.9	3.8	5.4	102.84	-4,152.0	681.4	4,263.9	4,255.1	8.86	481.471				
1,595.5	1,581.8	2,152.7	2,124.1	4.2	6.0	102.89	-4,134.5	707.6	4,257.0	4,247.3	9.77	435.569				
1,600.0	1,586.1	2,156.0	2,127.3	4.2	6.0	102.89	-4,134.0	708.3	4,256.7	4,246.9	9.81	434.030				
1,700.0	1,683.2	2,238.7	2,206.8	4.7	6.4	102.88	-4,121.9	727.3	4,250.0	4,239.4	10.61	400.666				
1,800.0	1,780.2	2,339.4	2,303.9	5.1	6.9	102.87	-4,107.3	749.7	4,243.2	4,231.7	11.48	369.590				
1,900.0	1,877.3	2,412.4	2,374.3	5.6	7.2	102.87	-4,097.0	765.8	4,236.9	4,224.7	12.24	346.192				
2,000.0	1,974.3	2,507.6	2,466.3	6.0	7.7	102.88	-4,083.9	786.7	4,231.0	4,217.9	13.09	323.185				
2,100.0	2,071.4	2,583.8	2,540.0	6.5	8.0	102.88	-4,073.7	803.2	4,225.3	4,211.4	13.87	304.700				
2,200.0	2,168.4	2,718.0	2,669.7	6.9	8.7	102.88	-4,056.0	832.9	4,220.0	4,205.1	14.91	283.108				
2,300.0	2,265.4	2,820.6	2,768.6	7.4	9.2	102.88	-4,041.4	855.5	4,213.6	4,197.8	15.81	266.572				
2,400.0	2,362.5	2,913.1	2,857.9	7.9	9.6	102.88	-4,028.6	875.9	4,207.6	4,190.9	16.67	252.416				
2,500.0	2,459.5	3,043.2	2,983.5	8.3	10.3	102.88	-4,010.2	904.8	4,201.3	4,183.6	17.70	237.394				
2,600.0	2,556.6	3,163.6	3,099.3	8.8	10.9	102.87	-3,992.0	932.1	4,194.0	4,175.3	18.71	224.215				
2,700.0	2,653.6	3,232.0	3,165.2	9.2	11.2	102.86	-3,982.1	947.6	4,187.2	4,167.7	19.46	215.118				
2,800.0	2,750.7	3,312.5	3,242.7	9.7	11.6	102.85	-3,970.8	966.0	4,181.0	4,160.7	20.29	206.063				
2,900.0	2,847.7	3,388.8	3,316.3	10.2	12.0	102.84	-3,960.4	983.2	4,175.2	4,154.1	21.09	198.017				
3,000.0	2,944.8	3,522.4	3,445.5	10.6	12.7	102.85	-3,942.1	1,012.4	4,169.3	4,147.2	22.13	188.401				
3,100.0	3,041.8	3,607.3	3,527.3	11.1	13.1	102.84	-3,930.3	1,031.5	4,163.3	4,140.3	22.97	181.211				
3,200.0	3,138.9	3,709.0	3,625.2	11.5	13.6	102.83	-3,916.2	1,055.3	4,157.3	4,133.4	23.91	173.854				
3,300.0	3,235.9	3,794.7	3,707.8	12.0	14.0	102.82	-3,904.4	1,074.8	4,151.4	4,126.7	24.74	167.775				
3,400.0	3,333.0	3,872.1	3,782.7	12.5	14.4	102.82	-3,894.3	1,091.5	4,146.1	4,120.5	25.53	162.374				
3,500.0	3,430.0	3,956.5	3,864.4	12.9	14.8	102.83	-3,883.7	1,109.5	4,141.2	4,114.9	26.36	157.130				
3,600.0	3,527.1	4,132.3	4,034.4	13.4	15.6	102.84	-3,860.8	1,147.9	4,136.2	4,108.7	27.59	149.901				
3,700.0	3,624.1	4,257.2	4,154.9	13.9	16.3	102.84	-3,842.4	1,175.3	4,129.3	4,100.7	28.61	144.337				
3,800.0	3,721.2	4,347.4	4,242.0	14.3	16.7	102.84	-3,829.1	1,195.0	4,122.3	4,092.8	29.47	139.900				
3,900.0	3,818.2	4,416.0	4,308.2	14.8	17.1	102.85	-3,819.2	1,209.9	4,115.7	4,085.4	30.22	136.179				
4,000.0	3,915.3	4,472.7	4,363.0	15.3	17.3	102.85	-3,811.6	1,221.9	4,110.0	4,079.1	30.92	132.919				
4,100.0	4,012.3	4,557.2	4,445.0	15.7	17.7	102.87	-3,801.1	1,239.8	4,105.3	4,073.5	31.74	129.344				
4,200.0	4,109.4	4,690.4	4,574.0	16.2	18.3	102.89	-3,783.8	1,267.9	4,099.9	4,067.1	32.76	125.132				
4,300.0	4,206.4	4,757.0	4,638.7	16.6	18.7	102.91	-3,775.1	1,281.5	4,094.6	4,061.1	33.49	122.247				
4,400.0	4,303.5	4,847.4	4,726.6	17.1	19.0	102.94	-3,763.9	1,299.0	4,089.7	4,055.4	34.29	119.285				
4,500.0	4,400.5	4,932.2	4,809.4	17.6	19.4	103.00	-3,754.0	1,314.2	4,085.5	4,050.4	35.05	116.566				
4,600.0	4,497.6	5,023.6	4,898.8	18.0	19.7	103.06	-3,743.6	1,330.1	4,081.4	4,045.6	35.83	113.918				
4,700.0	4,594.6	5,110.8	4,984.2	18.5	20.1	103.13	-3,734.0	1,344.9	4,077.6	4,041.0	36.58	111.465				
4,800.0	4,691.7	5,200.4	5,072.2	19.0	20.4	103.21	-3,724.4	1,359.6	4,074.2	4,036.8	37.34	109.106				
4,900.0	4,788.7	5,304.6	5,174.2	19.4	20.8	103.29	-3,713.2	1,377.4	4,070.7	4,032.6	38.16	106.683				

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 21-18 - DD (MWD) - DD												Offset Site Error:	0.0 ft
Survey Program: 814-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
5,000.0	4,885.8	5,393.0	5,260.9	19.9	21.2	103.37	-3,703.9	1,391.6	4,067.4	4,028.5	38.89	104.577	
5,100.0	4,982.8	5,463.6	5,330.4	20.4	21.4	103.44	-3,696.8	1,402.3	4,064.6	4,025.0	39.57	102.729	
5,200.0	5,079.9	5,534.5	5,400.1	20.8	21.7	103.52	-3,690.3	1,413.1	4,062.5	4,022.2	40.24	100.955	
5,300.0	5,176.9	5,682.4	5,545.5	21.3	22.2	103.67	-3,676.1	1,436.0	4,060.0	4,018.9	41.16	98.633	
5,400.0	5,273.9	5,746.0	5,608.2	21.8	22.4	103.74	-3,669.9	1,445.5	4,057.5	4,015.7	41.80	97.060	
5,500.0	5,371.0	5,813.9	5,675.1	22.2	22.7	103.83	-3,664.1	1,454.9	4,056.0	4,013.5	42.45	95.555	
5,600.0	5,468.0	5,891.9	5,752.1	22.7	22.9	103.93	-3,657.8	1,465.6	4,055.0	4,011.9	43.12	94.044	
5,700.0	5,565.1	5,977.8	5,837.0	23.1	23.2	104.04	-3,651.3	1,477.2	4,054.5	4,010.7	43.80	92.573	
5,727.8	5,592.0	5,994.4	5,853.4	23.3	23.2	104.07	-3,650.1	1,479.2	4,054.5	4,010.5	43.96	92.224	
5,800.0	5,662.1	6,051.2	5,909.7	23.6	23.4	104.16	-3,646.4	1,485.8	4,054.7	4,010.3	44.41	91.292	
5,900.0	5,759.2	6,155.0	6,012.9	24.1	23.6	104.36	-3,639.6	1,495.3	4,054.9	4,009.9	45.05	90.005	
6,000.0	5,856.2	6,219.0	6,076.6	24.5	23.8	104.50	-3,635.9	1,500.2	4,055.7	4,010.1	45.60	88.941	
6,100.0	5,953.3	6,283.0	6,140.3	25.0	23.9	104.65	-3,632.7	1,504.5	4,057.4	4,011.3	46.14	87.937	
6,200.0	6,050.3	6,338.2	6,195.4	25.5	24.0	104.79	-3,630.4	1,507.7	4,060.0	4,013.4	46.64	87.052	
6,300.0	6,147.4	6,406.9	6,264.1	25.9	24.1	104.97	-3,628.6	1,510.3	4,063.8	4,016.7	47.13	86.233	
6,400.0	6,244.4	6,506.0	6,363.1	26.4	24.2	105.29	-3,626.0	1,511.1	4,067.7	4,020.1	47.58	85.495	
6,500.0	6,341.5	6,545.2	6,402.3	26.9	24.2	105.42	-3,625.2	1,510.6	4,072.4	4,024.4	48.02	84.804	
6,600.0	6,438.5	6,592.8	6,449.9	27.3	24.2	105.59	-3,625.3	1,510.0	4,078.9	4,030.4	48.47	84.155	
6,700.0	6,535.6	6,706.6	6,563.6	27.8	24.3	105.96	-3,625.4	1,509.7	4,085.8	4,036.8	48.93	83.497	
6,800.0	6,632.6	6,820.8	6,677.9	28.3	24.4	106.32	-3,624.9	1,510.4	4,092.3	4,042.9	49.40	82.835	
6,900.0	6,729.7	6,926.4	6,783.4	28.7	24.5	106.66	-3,624.2	1,510.8	4,098.6	4,048.8	49.87	82.193	
7,000.0	6,826.7	7,040.6	6,897.7	29.2	24.7	107.02	-3,623.2	1,511.1	4,104.9	4,054.5	50.33	81.562	
7,100.0	6,923.8	7,156.1	7,013.1	29.7	24.8	107.40	-3,621.6	1,511.0	4,110.8	4,060.0	50.78	80.952	
7,200.0	7,020.8	7,268.8	7,125.8	30.1	24.9	107.76	-3,619.5	1,510.6	4,116.3	4,065.1	51.23	80.352	
7,300.0	7,117.9	7,378.6	7,235.6	30.6	25.0	108.12	-3,617.2	1,510.3	4,121.8	4,070.2	51.67	79.765	
7,321.2	7,138.4	7,402.9	7,259.9	30.7	25.0	108.20	-3,616.6	1,510.1	4,123.0	4,071.2	51.77	79.643	
7,350.0	7,166.4	7,428.9	7,285.9	30.8	25.0	96.67	-3,616.0	1,510.0	4,123.8	4,072.0	51.78	79.638	
7,400.0	7,215.1	7,473.8	7,330.7	31.0	25.1	75.86	-3,615.0	1,509.5	4,121.8	4,070.3	51.52	80.002	
7,450.0	7,263.5	7,516.8	7,373.8	31.2	25.1	58.28	-3,614.0	1,508.9	4,115.6	4,064.7	50.90	80.851	
7,500.0	7,311.3	7,558.2	7,415.1	31.3	25.1	45.68	-3,613.2	1,508.2	4,105.1	4,055.2	49.93	82.210	
7,550.0	7,358.1	7,602.6	7,459.5	31.5	25.2	37.10	-3,612.3	1,507.4	4,090.6	4,042.0	48.62	84.125	
7,600.0	7,403.5	7,648.7	7,505.6	31.6	25.2	31.23	-3,611.5	1,506.6	4,071.9	4,024.9	46.99	86.658	
7,650.0	7,447.3	7,692.9	7,549.8	31.7	25.3	27.11	-3,610.6	1,505.7	4,049.3	4,004.3	45.04	89.897	
7,700.0	7,489.1	7,729.7	7,586.5	31.7	25.3	24.14	-3,609.9	1,505.0	4,023.0	3,980.2	42.82	93.958	
7,750.0	7,528.5	7,762.5	7,619.4	31.8	25.3	21.96	-3,609.3	1,504.4	3,993.1	3,952.8	40.33	99.000	
7,800.0	7,565.3	7,799.0	7,655.9	31.8	25.3	20.42	-3,608.7	1,503.6	3,959.9	3,922.3	37.63	105.236	
7,850.0	7,599.2	7,832.5	7,689.4	31.9	25.4	19.33	-3,608.1	1,502.9	3,923.6	3,888.9	34.75	112.918	
7,900.0	7,629.9	7,870.6	7,727.4	31.9	25.4	18.68	-3,607.4	1,502.1	3,884.5	3,852.7	31.74	122.364	
7,950.0	7,657.2	7,901.1	7,757.9	31.9	25.4	18.38	-3,606.8	1,501.4	3,842.7	3,814.0	28.70	133.872	
8,000.0	7,680.9	7,922.9	7,779.7	32.0	25.5	18.42	-3,606.4	1,501.0	3,798.7	3,773.0	25.74	147.607	
8,050.0	7,700.8	7,941.1	7,797.9	32.0	25.5	18.95	-3,606.0	1,500.6	3,752.8	3,729.8	23.00	163.188	
8,100.0	7,716.7	7,955.5	7,812.3	32.0	25.5	20.24	-3,605.7	1,500.4	3,705.4	3,684.7	20.74	178.636	
8,150.0	7,728.6	7,966.0	7,822.8	32.1	25.5	23.12	-3,605.5	1,500.2	3,656.8	3,637.4	19.42	188.311	
8,200.0	7,736.3	7,972.4	7,829.2	32.1	25.5	31.04	-3,605.4	1,500.1	3,607.4	3,587.1	20.26	178.096	
8,250.0	7,739.8	7,974.9	7,831.6	32.2	25.5	77.33	-3,605.3	1,500.0	3,557.5	3,526.3	31.25	113.858	
8,266.2	7,740.0	7,974.8	7,831.5	32.2	25.5	122.71	-3,605.3	1,500.0	3,541.3	3,510.9	30.38	116.575	
8,300.0	7,740.0	7,974.1	7,830.9	32.3	25.5	122.46	-3,605.3	1,500.0	3,507.6	3,477.0	30.54	114.863	
8,400.0	7,740.0	7,972.2	7,829.0	32.5	25.5	121.73	-3,605.4	1,500.1	3,407.6	3,376.5	31.11	109.548	
8,500.0	7,740.0	7,970.3	7,827.0	32.8	25.5	120.98	-3,605.4	1,500.1	3,307.7	3,275.9	31.82	103.961	
8,600.0	7,740.0	7,968.3	7,825.1	33.2	25.5	120.22	-3,605.4	1,500.1	3,207.8	3,175.1	32.66	98.221	
8,700.0	7,740.0	7,966.4	7,823.2	33.7	25.5	119.44	-3,605.5	1,500.2	3,107.8	3,074.2	33.62	92.441	
8,800.0	7,740.0	7,964.4	7,821.2	34.3	25.5	118.65	-3,605.5	1,500.2	3,007.9	2,973.2	34.69	86.712	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 21-18 - DD (MWD) - DD												Offset Site Error:	0.0 ft
Survey Program: 814-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
8,900.0	7,740.0	7,962.5	7,819.3	34.9	25.5	117.85	-3,605.6	1,500.2	2,908.0	2,872.1	35.85	81.108	
9,000.0	7,740.0	7,960.5	7,817.3	35.6	25.5	117.03	-3,605.6	1,500.3	2,808.1	2,771.0	37.10	75.682	
9,100.0	7,740.0	7,958.6	7,815.4	36.4	25.5	116.20	-3,605.6	1,500.3	2,708.2	2,669.7	38.43	70.471	
9,200.0	7,740.0	7,956.6	7,813.4	37.3	25.5	115.35	-3,605.7	1,500.4	2,608.3	2,568.5	39.82	65.497	
9,300.0	7,740.0	7,954.7	7,811.4	38.2	25.5	114.49	-3,605.7	1,500.4	2,508.4	2,467.1	41.28	60.772	
9,400.0	7,740.0	7,952.7	7,809.5	39.2	25.5	113.61	-3,605.7	1,500.4	2,408.5	2,365.7	42.78	56.299	
9,500.0	7,740.0	7,950.7	7,807.5	40.2	25.5	112.72	-3,605.8	1,500.5	2,308.6	2,264.3	44.33	52.074	
9,600.0	7,740.0	7,948.7	7,805.5	41.3	25.5	111.81	-3,605.8	1,500.5	2,208.7	2,162.8	45.93	48.091	
9,700.0	7,740.0	7,946.8	7,803.5	42.4	25.5	110.89	-3,605.9	1,500.5	2,108.9	2,061.3	47.56	44.341	
9,800.0	7,740.0	7,944.8	7,801.6	43.6	25.5	109.96	-3,605.9	1,500.6	2,009.0	1,959.8	49.23	40.813	
9,900.0	7,740.0	7,942.8	7,799.6	44.8	25.5	109.01	-3,605.9	1,500.6	1,909.2	1,858.3	50.92	37.494	
10,000.0	7,740.0	7,940.8	7,797.6	46.0	25.5	108.05	-3,606.0	1,500.7	1,809.4	1,756.7	52.64	34.373	
10,100.0	7,740.0	7,938.8	7,795.6	47.3	25.5	107.08	-3,606.0	1,500.7	1,709.6	1,655.2	54.38	31.436	
10,200.0	7,740.0	7,936.8	7,793.6	48.6	25.5	106.09	-3,606.1	1,500.7	1,609.8	1,553.7	56.14	28.673	
10,300.0	7,740.0	7,934.8	7,791.6	50.0	25.5	105.09	-3,606.1	1,500.8	1,510.1	1,452.1	57.92	26.071	
10,400.0	7,740.0	7,932.8	7,789.6	51.3	25.5	104.08	-3,606.1	1,500.8	1,410.3	1,350.6	59.71	23.620	
10,500.0	7,740.0	7,930.8	7,787.6	52.7	25.5	103.05	-3,606.2	1,500.8	1,310.7	1,249.1	61.51	21.308	
10,600.0	7,740.0	7,928.7	7,785.5	54.1	25.5	102.01	-3,606.2	1,500.9	1,211.0	1,147.7	63.32	19.127	
10,700.0	7,740.0	7,926.7	7,783.5	55.6	25.5	100.97	-3,606.3	1,500.9	1,111.5	1,046.3	65.13	17.066	
10,800.0	7,740.0	7,924.7	7,781.5	57.0	25.5	99.91	-3,606.3	1,501.0	1,012.0	945.0	66.94	15.118	
10,900.0	7,740.0	7,922.7	7,779.5	58.5	25.5	98.84	-3,606.4	1,501.0	912.6	843.9	68.75	13.275	
11,000.0	7,740.0	7,920.6	7,777.4	59.9	25.5	97.76	-3,606.4	1,501.0	813.4	742.8	70.55	11.529	
11,100.0	7,740.0	7,918.6	7,775.4	61.4	25.5	96.68	-3,606.4	1,501.1	714.4	642.0	72.35	9.874	
11,200.0	7,740.0	7,916.5	7,773.3	62.9	25.4	95.58	-3,606.5	1,501.1	615.6	541.5	74.14	8.304	
11,300.0	7,740.0	7,914.5	7,771.3	64.5	25.4	94.48	-3,606.5	1,501.2	517.4	441.5	75.91	6.816	
11,400.0	7,740.0	7,912.4	7,769.2	66.0	25.4	93.37	-3,606.6	1,501.2	420.0	342.4	77.67	5.408	
11,500.0	7,740.0	7,910.4	7,767.2	67.5	25.4	92.26	-3,606.6	1,501.3	324.2	244.8	79.41	4.083	
11,600.0	7,740.0	7,908.3	7,765.1	69.1	25.4	91.14	-3,606.7	1,501.3	232.0	150.8	81.13	2.859	
11,700.0	7,740.0	7,906.2	7,763.0	70.7	25.4	90.02	-3,606.7	1,501.3	149.9	67.1	82.82	1.810	
11,800.0	7,740.0	7,904.2	7,761.0	72.2	25.4	88.89	-3,606.7	1,501.4	105.6	21.1	84.49	1.250 Level 2	
11,806.7	7,740.0	7,904.0	7,760.8	72.3	25.4	88.82	-3,606.7	1,501.4	105.4	20.8	84.60	1.246 Level 2, CC, ES, SF	
11,900.0	7,740.0	7,902.1	7,758.9	73.8	25.4	87.76	-3,606.8	1,501.4	140.7	54.6	86.13	1.634	
12,000.0	7,740.0	7,900.0	7,756.8	75.4	25.4	86.63	-3,606.8	1,501.5	220.1	132.4	87.74	2.509	
12,100.0	7,740.0	7,897.9	7,754.7	77.0	25.4	85.50	-3,606.9	1,501.5	311.6	222.3	89.32	3.489	
12,200.0	7,740.0	7,895.8	7,752.6	78.6	25.4	84.37	-3,606.9	1,501.6	407.1	316.2	90.86	4.480	
12,300.0	7,740.0	7,893.7	7,750.5	80.2	25.4	83.24	-3,607.0	1,501.6	504.3	412.0	92.37	5.460	
12,400.0	7,740.0	7,892.0	7,748.8	81.8	25.4	82.32	-3,607.0	1,501.6	602.5	508.6	93.88	6.417	
12,500.0	7,740.0	7,889.6	7,746.5	83.4	25.4	81.05	-3,607.0	1,501.7	701.1	605.8	95.28	7.359	
12,600.0	7,740.0	7,887.7	7,744.5	85.1	25.4	79.99	-3,607.1	1,501.7	800.1	703.4	96.69	8.275	
12,700.0	7,740.0	7,885.7	7,742.5	86.7	25.4	78.96	-3,607.1	1,501.8	899.3	801.2	98.06	9.171	
12,800.0	7,740.0	7,883.8	7,740.6	88.3	25.4	77.94	-3,607.2	1,501.8	998.7	899.3	99.40	10.047	
12,900.0	7,740.0	7,881.9	7,738.7	90.0	25.4	76.94	-3,607.2	1,501.9	1,098.1	997.4	100.71	10.904	
13,000.0	7,740.0	7,880.0	7,736.8	91.6	25.4	75.95	-3,607.2	1,501.9	1,197.7	1,095.7	101.99	11.744	
13,100.0	7,740.0	7,878.1	7,734.9	93.3	25.4	74.99	-3,607.3	1,501.9	1,297.3	1,194.1	103.23	12.568	
13,200.0	7,740.0	7,876.2	7,733.0	94.9	25.4	74.04	-3,607.3	1,502.0	1,397.0	1,292.6	104.44	13.376	
13,300.0	7,740.0	7,874.4	7,731.2	96.6	25.4	73.11	-3,607.3	1,502.0	1,496.7	1,391.1	105.62	14.171	
13,400.0	7,740.0	7,872.6	7,729.4	98.2	25.4	72.19	-3,607.4	1,502.0	1,596.5	1,489.7	106.77	14.953	
13,500.0	7,740.0	7,870.8	7,727.6	99.9	25.4	71.30	-3,607.4	1,502.1	1,696.2	1,588.3	107.89	15.722	
13,600.0	7,740.0	7,869.0	7,725.8	101.6	25.4	70.42	-3,607.5	1,502.1	1,796.0	1,687.1	108.98	16.481	
13,700.0	7,740.0	7,867.2	7,724.0	103.2	25.4	69.56	-3,607.5	1,502.2	1,895.8	1,785.8	110.04	17.229	
13,800.0	7,740.0	7,865.5	7,722.3	104.9	25.4	68.72	-3,607.5	1,502.2	1,995.7	1,884.6	111.07	17.968	
13,900.0	7,740.0	7,863.7	7,720.6	106.6	25.4	67.89	-3,607.6	1,502.2	2,095.5	1,983.5	112.08	18.697	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 21-18 - DD (MWD) - DD												Offset Site Error:	0.0 ft
Survey Program: 814-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)			
14,000.0	7,740.0	7,862.0	7,718.8	108.2	25.4	67.08	-3,607.6	1,502.3	2,195.4	2,082.3	113.06	19.418	
14,100.0	7,740.0	7,860.3	7,717.1	109.9	25.4	66.29	-3,607.6	1,502.3	2,295.3	2,181.2	114.02	20.131	
14,200.0	7,740.0	7,858.6	7,715.5	111.6	25.4	65.51	-3,607.7	1,502.3	2,395.1	2,280.2	114.95	20.836	
14,300.0	7,740.0	7,857.0	7,713.8	113.3	25.4	64.76	-3,607.7	1,502.4	2,495.0	2,379.2	115.86	21.535	
14,400.0	7,740.0	7,855.3	7,712.2	115.0	25.4	64.01	-3,607.7	1,502.4	2,594.9	2,478.2	116.75	22.227	
14,500.0	7,740.0	7,853.7	7,710.5	116.7	25.4	63.29	-3,607.7	1,502.4	2,694.8	2,577.2	117.62	22.912	
14,600.0	7,740.0	7,852.1	7,708.9	118.3	25.4	62.57	-3,607.8	1,502.5	2,794.7	2,676.3	118.46	23.592	
14,700.0	7,740.0	7,850.5	7,707.3	120.0	25.4	61.88	-3,607.8	1,502.5	2,894.7	2,775.4	119.29	24.266	
14,800.0	7,740.0	7,848.9	7,705.7	121.7	25.4	61.20	-3,607.8	1,502.5	2,994.6	2,874.5	120.09	24.935	
14,900.0	7,740.0	7,847.3	7,704.1	123.4	25.4	60.53	-3,607.9	1,502.6	3,094.5	2,973.6	120.88	25.599	
15,000.0	7,740.0	7,845.8	7,702.6	125.1	25.4	59.88	-3,607.9	1,502.6	3,194.4	3,072.8	121.65	26.258	
15,100.0	7,740.0	7,844.2	7,701.1	126.8	25.4	59.24	-3,607.9	1,502.6	3,294.4	3,171.9	122.41	26.913	
15,200.0	7,740.0	7,842.7	7,699.5	128.5	25.4	58.61	-3,607.9	1,502.7	3,394.3	3,271.1	123.15	27.563	
15,300.0	7,740.0	7,841.2	7,698.0	130.2	25.4	58.00	-3,608.0	1,502.7	3,494.2	3,370.4	123.87	28.208	
15,400.0	7,740.0	7,839.7	7,696.5	131.9	25.4	57.41	-3,608.0	1,502.7	3,594.2	3,469.6	124.58	28.850	
15,500.0	7,740.0	7,838.2	7,695.0	133.6	25.4	56.82	-3,608.0	1,502.8	3,694.1	3,568.8	125.28	29.488	
15,600.0	7,740.0	7,836.7	7,693.6	135.3	25.4	56.25	-3,608.1	1,502.8	3,794.1	3,668.1	125.96	30.121	
15,700.0	7,740.0	7,835.3	7,692.1	137.0	25.4	55.69	-3,608.1	1,502.8	3,894.0	3,767.4	126.63	30.751	
15,800.0	7,740.0	7,833.8	7,690.7	138.7	25.4	55.14	-3,608.1	1,502.9	3,993.9	3,866.7	127.29	31.378	
15,900.0	7,740.0	7,832.4	7,689.2	140.5	25.4	54.61	-3,608.1	1,502.9	4,093.9	3,966.0	127.93	32.001	
16,000.0	7,740.0	7,831.0	7,687.8	142.2	25.4	54.08	-3,608.2	1,502.9	4,193.9	4,065.3	128.57	32.620	
16,100.0	7,740.0	7,829.6	7,686.4	143.9	25.4	53.57	-3,608.2	1,503.0	4,293.8	4,164.6	129.19	33.236	
16,142.2	7,740.0	7,829.0	7,685.8	144.6	25.4	53.35	-3,608.2	1,503.0	4,336.0	4,206.6	129.45	33.495	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 22-18 - DD - DD													Offset Site Error: 0.0 ft			
Survey Program: 41-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				
0.0	0.0	33.7	33.7	0.0	0.0	172.96	-4,267.1	527.1	4,299.6							
100.0	100.0	118.0	118.0	0.2	0.2	172.96	-4,267.0	527.3	4,299.5	4,299.1	0.33	N/A				
200.0	200.0	178.0	178.0	0.3	0.3	172.95	-4,267.5	528.0	4,300.3	4,299.7	0.61	7,037.144				
300.0	300.0	208.2	208.2	0.5	0.3	101.93	-4,268.1	528.6	4,302.4	4,301.6	0.84	5,108.291				
400.0	400.0	270.0	269.9	0.7	0.5	101.89	-4,270.0	530.8	4,306.3	4,305.2	1.13	3,797.575				
500.0	499.9	299.3	299.2	0.9	0.5	101.84	-4,271.3	532.1	4,311.7	4,310.4	1.38	3,127.929				
600.0	599.7	362.0	361.6	1.1	0.7	101.78	-4,274.7	535.9	4,318.9	4,317.2	1.70	2,542.715				
700.0	699.4	362.0	361.6	1.3	0.7	101.70	-4,274.7	535.9	4,327.7	4,325.8	1.91	2,264.326				
800.0	798.9	454.0	453.1	1.5	0.9	101.62	-4,281.6	543.2	4,338.2	4,335.8	2.33	1,858.773				
900.0	898.3	454.0	453.1	1.8	0.9	101.51	-4,281.6	543.2	4,350.1	4,347.5	2.58	1,683.871				
1,000.0	997.4	513.8	512.3	2.0	1.1	101.40	-4,287.4	549.0	4,363.8	4,360.8	2.99	1,459.263				
1,100.0	1,096.3	546.0	544.1	2.3	1.2	101.27	-4,290.9	552.4	4,379.1	4,375.8	3.36	1,304.137				
1,200.0	1,194.9	602.5	599.8	2.7	1.4	101.15	-4,297.7	559.2	4,395.9	4,392.1	3.82	1,149.778				
1,300.0	1,293.3	642.0	638.6	3.0	1.5	100.99	-4,302.9	564.7	4,414.3	4,410.1	4.27	1,033.699				
1,400.0	1,391.2	705.4	700.7	3.4	1.8	100.85	-4,311.7	574.2	4,434.1	4,429.3	4.82	919.831				
1,500.0	1,488.9	839.3	831.6	3.8	2.3	100.78	-4,330.5	594.7	4,454.3	4,448.7	5.58	797.814				
1,595.5	1,581.8	905.3	896.3	4.2	2.6	100.68	-4,339.7	604.3	4,473.7	4,467.5	6.17	724.766				
1,600.0	1,586.1	907.9	898.8	4.2	2.6	100.68	-4,340.1	604.7	4,474.6	4,468.4	6.20	721.787				
1,700.0	1,683.2	960.1	949.8	4.7	2.8	100.75	-4,347.7	612.8	4,495.9	4,489.2	6.79	662.547				
1,800.0	1,780.2	1,004.0	992.6	5.1	3.0	100.80	-4,354.6	620.1	4,518.4	4,511.0	7.36	614.199				
1,900.0	1,877.3	1,068.0	1,054.6	5.6	3.3	100.87	-4,365.4	631.3	4,541.9	4,533.9	8.00	567.883				
2,000.0	1,974.3	1,132.3	1,116.8	6.0	3.6	100.94	-4,376.5	643.1	4,566.2	4,557.6	8.65	527.878				
2,100.0	2,071.4	1,218.0	1,199.7	6.5	4.0	101.02	-4,391.6	659.1	4,590.8	4,581.4	9.37	489.798				
2,200.0	2,168.4	1,401.3	1,377.2	6.9	4.8	101.19	-4,422.6	692.7	4,614.7	4,604.3	10.41	443.274				
2,300.0	2,265.4	1,489.5	1,462.7	7.4	5.2	101.27	-4,436.6	708.8	4,637.7	4,626.5	11.15	416.101				
2,400.0	2,362.5	1,577.0	1,547.7	7.9	5.6	101.36	-4,450.8	724.4	4,660.9	4,649.0	11.88	392.474				
2,500.0	2,459.5	1,648.8	1,617.3	8.3	6.0	101.43	-4,462.7	737.2	4,684.4	4,671.9	12.56	373.017				
2,600.0	2,556.6	1,736.0	1,701.8	8.8	6.4	101.51	-4,477.4	753.1	4,708.3	4,695.0	13.30	353.980				
2,700.0	2,653.6	1,817.6	1,780.7	9.2	6.8	101.58	-4,491.3	768.4	4,732.5	4,718.4	14.03	337.404				
2,800.0	2,750.7	1,958.1	1,916.7	9.7	7.5	101.69	-4,514.7	795.1	4,756.2	4,741.2	14.96	317.979				
2,900.0	2,847.7	2,038.4	1,994.4	10.2	7.8	101.76	-4,528.0	810.2	4,779.9	4,764.2	15.68	304.849				
3,000.0	2,944.8	2,117.0	2,070.6	10.6	8.2	101.83	-4,541.1	824.7	4,803.6	4,787.2	16.39	292.998				
3,100.0	3,041.8	2,213.0	2,163.5	11.1	8.7	101.91	-4,557.5	842.3	4,827.8	4,810.7	17.17	281.216				
3,200.0	3,138.9	2,364.5	2,310.3	11.5	9.4	102.05	-4,583.0	869.1	4,851.8	4,833.7	18.11	267.840				
3,300.0	3,235.9	2,445.0	2,388.5	12.0	9.7	102.12	-4,595.8	883.9	4,874.9	4,856.1	18.84	258.686				
3,400.0	3,333.0	2,504.0	2,445.5	12.5	10.0	102.17	-4,605.7	895.1	4,898.8	4,879.3	19.50	251.182				
3,500.0	3,430.0	2,634.8	2,572.3	12.9	10.6	102.28	-4,627.8	918.7	4,922.8	4,902.4	20.38	241.501				
3,600.0	3,527.1	2,725.9	2,660.7	13.4	11.1	102.37	-4,642.9	934.4	4,946.4	4,925.3	21.13	234.086				
3,700.0	3,624.1	2,860.0	2,790.9	13.9	11.7	102.49	-4,665.0	957.9	4,970.0	4,948.0	22.03	225.563				
3,800.0	3,721.2	2,923.3	2,852.3	14.3	12.0	102.54	-4,675.0	969.5	4,993.2	4,970.5	22.70	219.939				
3,900.0	3,818.2	2,975.0	2,902.4	14.8	12.2	102.58	-4,683.8	979.0	5,017.3	4,994.0	23.33	215.044				
4,000.0	3,915.3	3,029.2	2,954.7	15.3	12.5	102.63	-4,693.5	988.9	5,042.3	5,018.4	23.97	210.394				
4,100.0	4,012.3	3,135.0	3,057.0	15.7	13.0	102.71	-4,712.9	1,008.0	5,067.8	5,043.1	24.77	204.586				
4,200.0	4,109.4	3,206.5	3,126.1	16.2	13.4	102.77	-4,725.9	1,020.9	5,093.2	5,067.7	25.47	199.993				
4,300.0	4,206.4	3,383.6	3,297.3	16.6	14.2	102.91	-4,757.2	1,053.6	5,118.0	5,091.4	26.53	192.898				
4,400.0	4,303.5	3,521.3	3,430.7	17.1	14.9	103.00	-4,779.5	1,080.0	5,141.3	5,113.9	27.48	187.113				
4,500.0	4,400.5	3,599.4	3,506.2	17.6	15.2	103.05	-4,792.3	1,095.0	5,165.0	5,136.8	28.21	183.095				
4,600.0	4,497.6	3,692.8	3,596.6	18.0	15.7	103.11	-4,807.7	1,112.7	5,188.8	5,159.8	28.99	178.991				
4,700.0	4,594.6	3,790.0	3,690.8	18.5	16.1	103.19	-4,823.8	1,130.3	5,212.6	5,182.8	29.77	175.085				
4,800.0	4,691.7	3,893.8	3,791.5	19.0	16.6	103.27	-4,841.1	1,148.7	5,236.4	5,205.9	30.57	171.286				
4,900.0	4,788.7	4,020.9	3,915.0	19.4	17.2	103.38	-4,861.5	1,171.0	5,259.7	5,228.2	31.46	167.198				
8,050.0	7,700.8	7,856.8	7,720.9	32.0	25.6	19.01	-5,100.1	1,425.8	5,247.8	5,220.2	27.61	190.059				

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 22-18 - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 41-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			
8,100.0	7,716.7	7,874.5	7,738.6	32.0	25.6	20.15	-5,100.2	1,426.0	5,200.7	5,175.6	25.15	206.796		
8,150.0	7,728.6	7,887.7	7,751.8	32.1	25.7	22.63	-5,100.2	1,426.1	5,152.4	5,129.1	23.25	221.587		
8,200.0	7,736.3	7,896.2	7,760.4	32.1	25.7	28.89	-5,100.2	1,426.2	5,103.1	5,080.3	22.83	223.544		
8,250.0	7,739.8	7,900.1	7,764.3	32.2	25.7	57.14	-5,100.2	1,426.2	5,053.3	5,023.9	29.44	171.649		
8,266.2	7,740.0	7,900.4	7,764.5	32.2	25.7	90.48	-5,100.2	1,426.2	5,037.1	5,002.6	34.49	146.040		
8,300.0	7,740.0	7,900.4	7,764.5	32.3	25.7	90.48	-5,100.2	1,426.2	5,003.4	4,968.7	34.63	144.501		
8,400.0	7,740.0	7,900.4	7,764.5	32.5	25.7	90.48	-5,100.2	1,426.2	4,903.4	4,868.3	35.15	139.495		
8,500.0	7,740.0	7,900.4	7,764.5	32.8	25.7	90.49	-5,100.2	1,426.2	4,803.5	4,767.6	35.86	133.966		
8,600.0	7,740.0	7,900.4	7,764.6	33.2	25.7	90.49	-5,100.2	1,426.2	4,703.6	4,666.9	36.72	128.105		
8,700.0	7,740.0	7,900.4	7,764.6	33.7	25.7	90.49	-5,100.2	1,426.2	4,603.7	4,565.9	37.71	122.080		
8,800.0	7,740.0	7,900.4	7,764.6	34.3	25.7	90.50	-5,100.2	1,426.2	4,503.7	4,464.9	38.82	116.028		
8,900.0	7,740.0	7,900.4	7,764.6	34.9	25.7	90.50	-5,100.2	1,426.2	4,403.8	4,363.8	40.01	110.055		
9,000.0	7,740.0	7,900.4	7,764.6	35.6	25.7	90.50	-5,100.2	1,426.2	4,303.9	4,262.6	41.29	104.234		
9,100.0	7,740.0	7,900.4	7,764.6	36.4	25.7	90.51	-5,100.2	1,426.2	4,204.0	4,161.4	42.63	98.613		
9,200.0	7,740.0	7,900.5	7,764.6	37.3	25.7	90.51	-5,100.2	1,426.2	4,104.1	4,060.1	44.03	93.221		
9,300.0	7,740.0	7,900.5	7,764.6	38.2	25.7	90.51	-5,100.2	1,426.2	4,004.2	3,958.7	45.46	88.074		
9,400.0	7,740.0	7,900.5	7,764.6	39.2	25.7	90.52	-5,100.2	1,426.2	3,904.3	3,857.3	46.94	83.176		
9,500.0	7,740.0	7,900.5	7,764.6	40.2	25.7	90.52	-5,100.2	1,426.2	3,804.4	3,755.9	48.45	78.525		
9,600.0	7,740.0	7,900.5	7,764.7	41.3	25.7	90.52	-5,100.2	1,426.2	3,704.5	3,654.5	49.98	74.116		
9,700.0	7,740.0	7,900.5	7,764.7	42.4	25.7	90.53	-5,100.2	1,426.2	3,604.6	3,553.1	51.54	69.938		
9,800.0	7,740.0	7,900.5	7,764.7	43.6	25.7	90.53	-5,100.2	1,426.2	3,504.8	3,451.6	53.12	65.981		
9,900.0	7,740.0	7,900.5	7,764.7	44.8	25.7	90.53	-5,100.2	1,426.2	3,404.9	3,350.2	54.71	62.233		
10,000.0	7,740.0	7,900.5	7,764.7	46.0	25.7	90.54	-5,100.2	1,426.2	3,305.0	3,248.7	56.32	58.682		
10,100.0	7,740.0	7,900.6	7,764.7	47.3	25.7	90.54	-5,100.2	1,426.2	3,205.2	3,147.3	57.94	55.316		
10,200.0	7,740.0	7,900.6	7,764.7	48.6	25.7	90.54	-5,100.2	1,426.2	3,105.4	3,045.8	59.58	52.124		
10,300.0	7,740.0	7,900.6	7,764.7	50.0	25.7	90.55	-5,100.2	1,426.2	3,005.5	2,944.3	61.22	49.094		
10,400.0	7,740.0	7,900.6	7,764.7	51.3	25.7	90.55	-5,100.2	1,426.2	2,905.7	2,842.9	62.87	46.217		
10,500.0	7,740.0	7,900.6	7,764.7	52.7	25.7	90.55	-5,100.2	1,426.2	2,805.9	2,741.4	64.53	43.481		
10,600.0	7,740.0	7,900.6	7,764.8	54.1	25.7	90.56	-5,100.2	1,426.2	2,706.1	2,639.9	66.20	40.879		
10,700.0	7,740.0	7,900.6	7,764.8	55.6	25.7	90.56	-5,100.2	1,426.2	2,606.4	2,538.5	67.87	38.402		
10,800.0	7,740.0	7,900.6	7,764.8	57.0	25.7	90.56	-5,100.2	1,426.2	2,506.6	2,437.1	69.55	36.040		
10,900.0	7,740.0	7,900.6	7,764.8	58.5	25.7	90.56	-5,100.2	1,426.2	2,406.9	2,335.7	71.23	33.789		
11,000.0	7,740.0	7,900.6	7,764.8	59.9	25.7	90.57	-5,100.2	1,426.2	2,307.2	2,234.3	72.92	31.639		
11,100.0	7,740.0	7,900.7	7,764.8	61.4	25.7	90.57	-5,100.2	1,426.2	2,207.5	2,132.9	74.61	29.585		
11,200.0	7,740.0	7,900.7	7,764.8	62.9	25.7	90.57	-5,100.2	1,426.2	2,107.9	2,031.5	76.31	27.622		
11,300.0	7,740.0	7,900.7	7,764.8	64.5	25.7	90.58	-5,100.2	1,426.2	2,008.2	1,930.2	78.01	25.743		
11,400.0	7,740.0	7,900.7	7,764.8	66.0	25.7	90.58	-5,100.2	1,426.2	1,908.7	1,829.0	79.71	23.944		
11,500.0	7,740.0	7,900.7	7,764.8	67.5	25.7	90.58	-5,100.2	1,426.2	1,809.1	1,727.7	81.42	22.220		
11,600.0	7,740.0	7,900.7	7,764.9	69.1	25.7	90.59	-5,100.2	1,426.2	1,709.7	1,626.5	83.13	20.567		
11,700.0	7,740.0	7,900.7	7,764.9	70.7	25.7	90.59	-5,100.2	1,426.2	1,610.3	1,525.4	84.84	18.980		
11,800.0	7,740.0	7,900.7	7,764.9	72.2	25.7	90.59	-5,100.2	1,426.2	1,510.9	1,424.4	86.55	17.457		
11,900.0	7,740.0	7,900.7	7,764.9	73.8	25.7	90.60	-5,100.2	1,426.2	1,411.7	1,323.4	88.27	15.994		
12,000.0	7,740.0	7,900.7	7,764.9	75.4	25.7	90.60	-5,100.2	1,426.2	1,312.6	1,222.6	89.98	14.587		
12,100.0	7,740.0	7,900.7	7,764.9	77.0	25.7	90.60	-5,100.2	1,426.2	1,213.6	1,121.9	91.70	13.234		
12,200.0	7,740.0	7,900.8	7,764.9	78.6	25.7	90.60	-5,100.2	1,426.2	1,114.8	1,021.4	93.42	11.933		
12,300.0	7,740.0	7,900.8	7,764.9	80.2	25.7	90.61	-5,100.2	1,426.2	1,016.3	921.1	95.14	10.681		
12,400.0	7,740.0	7,900.8	7,764.9	81.8	25.7	90.61	-5,100.2	1,426.2	918.0	821.2	96.87	9.477		
12,500.0	7,740.0	7,900.8	7,764.9	83.4	25.7	90.61	-5,100.2	1,426.2	820.2	721.6	98.59	8.319		
12,600.0	7,740.0	7,900.8	7,765.0	85.1	25.7	90.62	-5,100.2	1,426.2	723.0	622.7	100.32	7.207		
12,700.0	7,740.0	7,900.8	7,765.0	86.7	25.7	90.62	-5,100.2	1,426.2	626.7	524.6	102.05	6.141		
12,800.0	7,740.0	7,900.8	7,765.0	88.3	25.7	90.62	-5,100.2	1,426.2	531.7	427.9	103.77	5.124		
12,900.0	7,740.0	7,900.8	7,765.0	90.0	25.7	90.63	-5,100.2	1,426.2	438.9	333.4	105.50	4.160		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Sosa 22-18 - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 41-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		
13,000.0	7,740.0	7,900.8	7,765.0	91.6	25.7	90.63	-5,100.2	1,426.2	350.2	243.0	107.23	3.266		
13,100.0	7,740.0	7,900.8	7,765.0	93.3	25.7	90.63	-5,100.2	1,426.2	269.5	160.5	108.96	2.473		
13,200.0	7,740.0	7,900.9	7,765.0	94.9	25.7	90.63	-5,100.2	1,426.2	206.4	95.7	110.70	1.865		
13,300.0	7,740.0	7,900.9	7,765.0	96.6	25.7	90.64	-5,100.2	1,426.2	180.5	68.1	112.43	1.605		
13,300.1	7,740.0	7,900.9	7,765.0	96.6	25.7	90.64	-5,100.2	1,426.2	180.5	68.1	112.43	1.605 CC, ES, SF		
13,400.0	7,740.0	7,900.9	7,765.0	98.2	25.7	90.64	-5,100.2	1,426.2	206.3	92.1	114.16	1.807		
13,500.0	7,740.0	7,900.9	7,765.0	99.9	25.7	90.64	-5,100.2	1,426.2	269.3	153.4	115.90	2.324		
13,600.0	7,740.0	7,900.9	7,765.0	101.6	25.7	90.65	-5,100.2	1,426.2	350.0	232.4	117.63	2.976		
13,700.0	7,740.0	7,900.9	7,765.1	103.2	25.7	90.65	-5,100.2	1,426.2	438.7	319.4	119.37	3.675		
13,800.0	7,740.0	7,900.9	7,765.1	104.9	25.7	90.65	-5,100.2	1,426.2	531.5	410.4	121.11	4.389		
13,900.0	7,740.0	7,900.9	7,765.1	106.6	25.7	90.65	-5,100.2	1,426.2	626.5	503.6	122.84	5.100		
14,000.0	7,740.0	7,900.9	7,765.1	108.2	25.7	90.66	-5,100.2	1,426.2	722.8	598.2	124.58	5.802		
14,100.0	7,740.0	7,900.9	7,765.1	109.9	25.7	90.66	-5,100.2	1,426.2	820.0	693.7	126.32	6.492		
14,200.0	7,740.0	7,900.9	7,765.1	111.6	25.7	90.66	-5,100.2	1,426.2	917.8	789.8	128.06	7.167		
14,300.0	7,740.0	7,900.9	7,765.1	113.3	25.7	90.67	-5,100.2	1,426.2	1,016.0	886.3	129.80	7.828		
14,400.0	7,740.0	7,901.0	7,765.1	115.0	25.7	90.67	-5,100.2	1,426.2	1,114.6	983.1	131.54	8.474		
14,500.0	7,740.0	7,901.0	7,765.1	116.7	25.7	90.67	-5,100.2	1,426.2	1,213.4	1,080.1	133.28	9.104		
14,600.0	7,740.0	7,901.0	7,765.1	118.3	25.7	90.67	-5,100.2	1,426.2	1,312.4	1,177.3	135.02	9.720		
14,700.0	7,740.0	7,901.0	7,765.1	120.0	25.7	90.68	-5,100.2	1,426.2	1,411.5	1,274.7	136.76	10.321		
14,800.0	7,740.0	7,901.0	7,765.2	121.7	25.7	90.68	-5,100.2	1,426.3	1,510.7	1,372.2	138.50	10.908		
14,900.0	7,740.0	7,901.0	7,765.2	123.4	25.7	90.68	-5,100.2	1,426.3	1,610.0	1,469.8	140.24	11.481		
15,000.0	7,740.0	7,901.0	7,765.2	125.1	25.7	90.68	-5,100.2	1,426.3	1,709.4	1,567.5	141.98	12.040		
15,100.0	7,740.0	7,901.0	7,765.2	126.8	25.7	90.69	-5,100.2	1,426.3	1,808.9	1,665.2	143.72	12.586		
15,200.0	7,740.0	7,901.0	7,765.2	128.5	25.7	90.69	-5,100.2	1,426.3	1,908.4	1,763.0	145.47	13.119		
15,300.0	7,740.0	7,901.0	7,765.2	130.2	25.7	90.69	-5,100.2	1,426.3	2,008.0	1,860.8	147.21	13.641		
15,400.0	7,740.0	7,901.0	7,765.2	131.9	25.7	90.70	-5,100.2	1,426.3	2,107.6	1,958.7	148.95	14.150		
15,500.0	7,740.0	7,901.1	7,765.2	133.6	25.7	90.70	-5,100.2	1,426.3	2,207.3	2,056.6	150.70	14.647		
15,600.0	7,740.0	7,901.1	7,765.2	135.3	25.7	90.70	-5,100.2	1,426.3	2,307.0	2,154.5	152.44	15.134		
15,700.0	7,740.0	7,901.1	7,765.2	137.0	25.7	90.70	-5,100.2	1,426.3	2,406.7	2,252.5	154.18	15.609		
15,800.0	7,740.0	7,901.1	7,765.2	138.7	25.7	90.71	-5,100.2	1,426.3	2,506.4	2,350.5	155.93	16.074		
15,900.0	7,740.0	7,901.1	7,765.2	140.5	25.7	90.71	-5,100.2	1,426.3	2,606.1	2,448.5	157.67	16.529		
16,000.0	7,740.0	7,901.1	7,765.3	142.2	25.7	90.71	-5,100.2	1,426.3	2,705.9	2,546.5	159.42	16.974		
16,100.0	7,740.0	7,901.1	7,765.3	143.9	25.7	90.71	-5,100.2	1,426.3	2,805.7	2,644.5	161.16	17.409		
16,142.2	7,740.0	7,901.1	7,765.3	144.6	25.7	90.72	-5,100.2	1,426.3	2,847.8	2,685.9	161.90	17.590		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - SOSAA UNIT 1 (EXISTING) - EXISTING - EXISTIN											Offset Site Error: 0.0 ft		
Survey Program: 100-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
0.0	0.0	0.0	0.0	0.0	0.0	173.16	-4,325.4	518.7	4,356.4				
100.0	100.0	83.3	83.3	0.2	0.1	173.16	-4,325.6	518.9	4,356.7	4,356.4	0.30	N/A	
200.0	200.0	163.7	163.7	0.3	0.3	173.16	-4,326.2	519.2	4,357.4	4,356.8	0.61	7,110.695	
300.0	300.0	270.4	270.4	0.5	0.5	102.17	-4,327.2	519.2	4,358.6	4,357.6	0.97	4,475.603	
400.0	400.0	368.8	368.8	0.7	0.6	102.20	-4,328.0	518.8	4,359.9	4,358.6	1.32	3,290.634	
500.0	499.9	475.1	475.1	0.9	0.8	102.24	-4,328.9	518.8	4,361.6	4,359.9	1.70	2,569.138	
600.0	599.7	598.9	598.9	1.1	1.0	102.33	-4,329.5	518.1	4,363.4	4,361.2	2.11	2,065.697	
700.0	699.4	690.2	690.2	1.3	1.2	102.41	-4,329.8	517.7	4,365.3	4,362.8	2.48	1,757.132	
800.0	798.9	798.8	798.8	1.5	1.4	102.53	-4,330.1	516.9	4,367.6	4,364.7	2.90	1,503.945	
900.0	898.3	896.3	896.3	1.8	1.6	102.66	-4,330.4	515.8	4,370.2	4,366.9	3.32	1,314.905	
1,000.0	997.4	986.3	986.3	2.0	1.7	102.80	-4,330.7	514.8	4,373.4	4,369.6	3.75	1,165.609	
1,100.0	1,096.3	1,100.6	1,100.6	2.3	1.9	103.00	-4,331.1	513.0	4,376.9	4,372.7	4.25	1,030.758	
1,200.0	1,194.9	1,200.0	1,199.9	2.7	2.1	103.19	-4,331.3	511.4	4,380.7	4,376.0	4.74	924.425	
1,300.0	1,293.3	1,295.4	1,295.3	3.0	2.3	103.40	-4,331.5	509.5	4,385.0	4,379.8	5.25	835.065	
1,400.0	1,391.2	1,407.5	1,407.4	3.4	2.5	103.67	-4,331.6	506.8	4,389.7	4,383.8	5.82	754.348	
1,500.0	1,488.9	1,494.2	1,494.1	3.8	2.6	103.88	-4,331.7	505.0	4,394.8	4,388.4	6.37	690.119	
1,595.5	1,581.8	1,611.4	1,611.2	4.2	2.8	104.20	-4,331.5	502.8	4,400.0	4,393.1	6.98	630.512	
1,600.0	1,586.1	1,614.9	1,614.8	4.2	2.8	104.22	-4,331.5	502.8	4,400.3	4,393.3	7.00	628.273	
1,700.0	1,683.2	1,700.0	1,699.8	4.7	3.0	104.50	-4,331.3	501.0	4,406.1	4,398.5	7.58	581.169	
1,800.0	1,780.2	1,820.1	1,819.9	5.1	3.2	104.90	-4,330.9	498.1	4,411.8	4,403.6	8.22	536.447	
1,900.0	1,877.3	1,908.9	1,908.6	5.6	3.4	105.20	-4,330.4	495.7	4,417.5	4,408.7	8.81	501.180	
2,000.0	1,974.3	1,988.3	1,988.0	6.0	3.5	105.46	-4,330.2	493.5	4,423.7	4,414.3	9.39	471.126	
2,100.0	2,071.4	2,100.0	2,099.7	6.5	3.7	105.84	-4,330.0	490.6	4,430.0	4,420.0	10.02	442.066	
2,200.0	2,168.4	2,174.3	2,174.0	6.9	3.8	106.08	-4,329.8	488.7	4,436.5	4,425.9	10.59	418.986	
2,300.0	2,265.4	2,284.4	2,284.0	7.4	4.0	106.45	-4,329.9	485.6	4,443.4	4,432.2	11.22	396.061	
2,400.0	2,362.5	2,380.6	2,380.2	7.9	4.2	106.78	-4,329.7	482.4	4,450.2	4,438.3	11.83	376.325	
2,500.0	2,459.5	2,516.5	2,516.0	8.3	4.5	107.24	-4,328.9	477.7	4,456.7	4,444.2	12.50	356.547	
2,600.0	2,556.6	2,600.0	2,599.4	8.8	4.6	107.52	-4,328.0	474.9	4,463.0	4,449.9	13.08	341.132	
2,700.0	2,653.6	2,687.0	2,686.3	9.2	4.8	107.81	-4,327.3	472.5	4,469.7	4,456.0	13.67	327.000	
2,800.0	2,750.7	2,776.5	2,775.8	9.7	4.9	108.10	-4,326.9	470.6	4,476.8	4,462.5	14.26	313.973	
2,900.0	2,847.7	2,881.0	2,880.3	10.2	5.1	108.43	-4,326.4	468.5	4,484.0	4,469.2	14.87	301.547	
3,000.0	2,944.8	2,984.8	2,984.2	10.6	5.3	108.75	-4,325.6	467.0	4,491.2	4,475.7	15.48	290.140	
3,100.0	3,041.8	3,072.6	3,071.9	11.1	5.4	109.03	-4,325.0	465.5	4,498.5	4,482.5	16.06	280.065	
3,200.0	3,138.9	3,166.2	3,165.5	11.5	5.6	109.32	-4,324.6	463.8	4,506.2	4,489.5	16.65	270.586	
3,300.0	3,235.9	3,249.1	3,248.4	12.0	5.8	109.58	-4,324.2	462.5	4,514.0	4,496.8	17.23	262.062	
3,400.0	3,333.0	3,334.3	3,333.6	12.5	5.9	109.84	-4,324.2	461.4	4,522.4	4,504.6	17.80	254.090	
3,500.0	3,430.0	3,432.6	3,431.8	12.9	6.1	110.13	-4,324.2	460.7	4,530.9	4,512.5	18.39	246.367	
3,600.0	3,527.1	3,520.1	3,519.3	13.4	6.2	110.39	-4,324.4	459.9	4,539.7	4,520.7	18.97	239.365	
3,700.0	3,624.1	3,620.7	3,619.9	13.9	6.4	110.69	-4,324.6	459.0	4,548.7	4,529.1	19.56	232.558	
3,800.0	3,721.2	3,725.9	3,725.1	14.3	6.6	111.00	-4,324.7	458.2	4,557.5	4,537.4	20.16	226.094	
3,900.0	3,818.2	3,818.6	3,817.8	14.8	6.8	111.27	-4,324.7	457.7	4,566.5	4,545.8	20.74	220.223	
4,000.0	3,915.3	3,913.2	3,912.4	15.3	6.9	111.55	-4,324.8	456.8	4,575.7	4,554.4	21.32	214.650	
4,100.0	4,012.3	4,003.7	4,002.9	15.7	7.1	111.82	-4,324.9	455.4	4,585.1	4,563.2	21.89	209.454	
4,200.0	4,109.4	4,107.9	4,107.1	16.2	7.3	112.13	-4,325.1	453.4	4,594.6	4,572.1	22.48	204.346	
4,300.0	4,206.4	4,222.0	4,221.2	16.6	7.5	112.48	-4,324.8	451.1	4,603.9	4,580.8	23.09	199.380	
4,400.0	4,303.5	4,316.7	4,315.9	17.1	7.6	112.77	-4,324.5	448.7	4,613.3	4,589.6	23.67	194.912	
4,500.0	4,400.5	4,408.7	4,407.9	17.6	7.8	113.06	-4,324.2	446.2	4,622.8	4,598.5	24.24	190.716	
4,600.0	4,497.6	4,500.0	4,499.1	18.0	8.0	113.33	-4,324.0	444.2	4,632.5	4,607.7	24.81	186.755	
4,700.0	4,594.6	4,588.6	4,587.7	18.5	8.1	113.60	-4,324.0	442.6	4,642.5	4,617.2	25.37	183.017	
4,800.0	4,691.7	4,719.6	4,718.7	19.0	8.4	113.98	-4,323.6	440.2	4,652.3	4,626.3	25.99	179.018	
4,900.0	4,788.7	4,800.0	4,799.1	19.4	8.5	114.22	-4,323.2	438.6	4,662.2	4,635.6	26.53	175.703	
5,000.0	4,885.8	4,910.4	4,909.4	19.9	8.7	114.55	-4,322.8	436.2	4,672.2	4,645.1	27.12	172.268	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - SOSAA UNIT 1 (EXISTING) - EXISTING - EXISTIN													Offset Site Error: 0.0 ft	
Survey Program: 100-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		
5,100.0	4,982.8	5,031.3	5,030.4	20.4	8.9	114.90	-4,321.7	434.4	4,681.8	4,654.1	27.72	168.893		
5,200.0	5,079.9	5,129.7	5,128.8	20.8	9.1	115.18	-4,320.7	433.2	4,691.4	4,663.1	28.29	165.856		
5,300.0	5,176.9	5,253.0	5,252.0	21.3	9.3	115.53	-4,319.0	431.9	4,700.7	4,671.8	28.88	162.747		
5,400.0	5,273.9	5,351.2	5,350.2	21.8	9.5	115.80	-4,317.4	431.1	4,709.8	4,680.3	29.44	159.956		
5,500.0	5,371.0	5,435.7	5,434.6	22.2	9.6	116.03	-4,316.1	430.4	4,719.2	4,689.2	29.99	157.384		
5,600.0	5,468.0	5,528.8	5,527.7	22.7	9.8	116.29	-4,314.9	429.5	4,728.9	4,698.4	30.54	154.865		
5,700.0	5,565.1	5,634.1	5,633.0	23.1	10.0	116.58	-4,313.4	428.7	4,738.5	4,707.4	31.10	152.361		
5,800.0	5,662.1	5,714.9	5,713.8	23.6	10.1	116.80	-4,312.4	428.2	4,748.5	4,716.8	31.63	150.121		
5,900.0	5,759.2	5,832.2	5,831.1	24.1	10.3	117.11	-4,310.9	427.6	4,758.5	4,726.3	32.21	147.742		
6,000.0	5,856.2	5,932.9	5,931.8	24.5	10.5	117.38	-4,309.2	427.3	4,768.2	4,735.4	32.76	145.544		
6,100.0	5,953.3	6,000.0	5,998.9	25.0	10.6	117.56	-4,308.4	427.2	4,778.3	4,745.1	33.27	143.629		
6,200.0	6,050.3	6,076.1	6,075.0	25.5	10.7	117.76	-4,307.8	426.9	4,789.1	4,755.3	33.79	141.744		
6,300.0	6,147.4	6,144.4	6,143.3	25.9	10.8	117.94	-4,307.7	426.5	4,800.5	4,766.2	34.29	139.979		
6,400.0	6,244.4	6,217.8	6,216.7	26.4	11.0	118.13	-4,307.9	425.7	4,812.6	4,777.8	34.81	138.267		
6,500.0	6,341.5	6,354.6	6,353.5	26.9	11.2	118.49	-4,308.3	424.7	4,824.8	4,789.4	35.40	136.305		
6,600.0	6,438.5	6,472.8	6,471.7	27.3	11.4	118.80	-4,307.6	424.1	4,836.1	4,800.1	35.96	134.476		
6,700.0	6,535.6	6,565.4	6,564.2	27.8	11.6	119.04	-4,306.9	423.4	4,847.4	4,810.9	36.49	132.831		
6,800.0	6,632.6	6,670.2	6,669.1	28.3	11.8	119.32	-4,306.2	422.6	4,858.9	4,821.9	37.04	131.190		
6,900.0	6,729.7	6,794.9	6,793.7	28.7	12.0	119.64	-4,304.9	421.7	4,870.2	4,832.6	37.60	129.510		
7,000.0	6,826.7	6,901.2	6,900.0	29.2	12.2	119.91	-4,303.3	420.9	4,881.1	4,842.9	38.15	127.957		
7,100.0	6,923.8	6,996.3	6,995.1	29.7	12.3	120.15	-4,301.9	420.6	4,892.0	4,853.3	38.67	126.500		
7,200.0	7,020.8	7,083.4	7,082.2	30.1	12.5	120.37	-4,300.8	420.9	4,903.2	4,864.0	39.19	125.123		
7,300.0	7,117.9	7,215.1	7,213.9	30.6	12.7	120.67	-4,299.4	422.8	4,914.3	4,874.6	39.75	123.628		
7,321.2	7,138.4	7,266.4	7,265.2	30.7	12.8	120.78	-4,298.6	424.7	4,916.5	4,876.6	39.90	123.231		
7,350.0	7,166.4	7,300.0	7,298.7	30.8	12.8	109.18	-4,298.1	426.3	4,918.6	4,878.6	40.08	122.722		
7,400.0	7,215.1	7,345.4	7,344.1	31.0	12.9	88.31	-4,297.4	429.0	4,919.0	4,878.9	40.17	122.449		
7,450.0	7,263.5	7,380.2	7,378.8	31.2	13.0	70.74	-4,297.0	431.2	4,915.3	4,875.3	39.99	122.928		
7,500.0	7,311.3	7,400.0	7,398.5	31.3	13.0	58.20	-4,296.9	432.5	4,907.6	4,868.1	39.52	124.178		
7,550.0	7,358.1	7,443.3	7,441.7	31.5	13.1	49.84	-4,296.7	435.3	4,895.8	4,857.0	38.83	126.088		
7,600.0	7,403.5	7,472.6	7,471.0	31.6	13.1	44.25	-4,296.7	437.1	4,880.2	4,842.3	37.88	128.830		
7,650.0	7,447.3	7,500.0	7,498.3	31.7	13.2	40.53	-4,296.7	438.6	4,860.7	4,824.0	36.71	132.416		
7,700.0	7,489.1	7,533.4	7,531.7	31.7	13.2	38.14	-4,296.8	440.3	4,837.6	4,802.3	35.34	136.879		
7,750.0	7,528.5	7,564.0	7,562.2	31.8	13.3	36.73	-4,296.9	441.7	4,811.0	4,777.2	33.80	142.318		
7,800.0	7,565.3	7,600.0	7,598.2	31.8	13.3	36.15	-4,297.1	443.2	4,781.0	4,748.9	32.14	148.746		
7,850.0	7,599.2	7,620.6	7,618.8	31.9	13.4	36.22	-4,297.2	444.0	4,747.9	4,717.5	30.39	156.226		
7,900.0	7,629.9	7,646.7	7,644.9	31.9	13.4	37.04	-4,297.4	444.9	4,711.9	4,683.2	28.64	164.511		
7,950.0	7,657.2	7,670.0	7,668.1	31.9	13.5	38.65	-4,297.5	445.7	4,673.3	4,646.3	26.99	173.169		
8,000.0	7,680.9	7,690.2	7,688.4	32.0	13.5	41.19	-4,297.7	446.4	4,632.3	4,606.7	25.57	181.188		
8,050.0	7,700.8	7,711.9	7,710.1	32.0	13.5	45.02	-4,297.8	447.0	4,589.3	4,564.7	24.59	186.657		
8,100.0	7,716.7	7,734.3	7,732.4	32.0	13.6	50.65	-4,298.0	447.7	4,544.5	4,520.2	24.30	186.992		
8,150.0	7,728.6	7,750.9	7,749.1	32.1	13.6	58.71	-4,298.0	448.1	4,498.3	4,473.4	24.90	180.628		
8,200.0	7,736.3	7,761.7	7,759.8	32.1	13.6	70.09	-4,298.1	448.4	4,451.1	4,424.8	26.29	169.314		
8,250.0	7,739.8	7,766.7	7,764.8	32.2	13.6	85.33	-4,298.1	448.6	4,403.1	4,375.4	27.72	158.859		
8,266.2	7,740.0	7,767.0	7,765.2	32.2	13.6	91.00	-4,298.1	448.6	4,387.5	4,359.5	27.98	156.797		
8,300.0	7,740.0	7,767.2	7,765.3	32.3	13.6	91.00	-4,298.1	448.6	4,354.9	4,326.8	28.12	154.891		
8,400.0	7,740.0	7,767.5	7,765.7	32.5	13.6	91.02	-4,298.1	448.6	4,258.6	4,230.0	28.64	148.681		
8,500.0	7,740.0	7,767.9	7,766.0	32.8	13.6	91.04	-4,298.1	448.6	4,162.5	4,133.1	29.35	141.835		
8,600.0	7,740.0	7,768.3	7,766.4	33.2	13.6	91.06	-4,298.1	448.6	4,066.5	4,036.3	30.21	134.618		
8,700.0	7,740.0	7,768.6	7,766.7	33.7	13.6	91.08	-4,298.1	448.6	3,970.8	3,939.6	31.20	127.263		
8,800.0	7,740.0	7,769.0	7,767.1	34.3	13.6	91.09	-4,298.1	448.6	3,875.2	3,842.9	32.31	119.952		
8,900.0	7,740.0	7,769.3	7,767.4	34.9	13.6	91.11	-4,298.1	448.6	3,779.9	3,746.4	33.51	112.816		
9,000.0	7,740.0	7,769.6	7,767.8	35.6	13.6	91.13	-4,298.1	448.7	3,684.8	3,650.1	34.78	105.945		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - SOSA A UNIT 1 (EXISTING) - EXISTING - EXISTIN													Offset Site Error: 0.0 ft	
Survey Program: 100-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		
9,100.0	7,740.0	7,770.0	7,768.1	36.4	13.6	91.14	-4,298.1	448.7	3,590.1	3,553.9	36.12	99.390		
9,200.0	7,740.0	7,770.3	7,768.4	37.3	13.6	91.16	-4,298.1	448.7	3,495.6	3,458.0	37.51	93.178		
9,300.0	7,740.0	7,770.6	7,768.7	38.2	13.6	91.17	-4,298.1	448.7	3,401.4	3,362.4	38.95	87.319		
9,400.0	7,740.0	7,770.9	7,769.0	39.2	13.6	91.19	-4,298.1	448.7	3,307.5	3,267.1	40.43	81.811		
9,500.0	7,740.0	7,771.2	7,769.3	40.2	13.6	91.20	-4,298.1	448.7	3,214.0	3,172.1	41.94	76.641		
9,600.0	7,740.0	7,771.5	7,769.6	41.3	13.6	91.22	-4,298.1	448.7	3,121.0	3,077.5	43.47	71.794		
9,700.0	7,740.0	7,771.8	7,769.9	42.4	13.6	91.23	-4,298.1	448.7	3,028.3	2,983.3	45.03	67.254		
9,800.0	7,740.0	7,772.1	7,770.2	43.6	13.6	91.25	-4,298.1	448.7	2,936.2	2,889.6	46.61	63.001		
9,900.0	7,740.0	7,772.4	7,770.5	44.8	13.6	91.26	-4,298.1	448.7	2,844.6	2,796.4	48.20	59.017		
10,000.0	7,740.0	7,772.7	7,770.8	46.0	13.6	91.28	-4,298.1	448.7	2,753.5	2,703.7	49.81	55.283		
10,100.0	7,740.0	7,773.0	7,771.1	47.3	13.6	91.29	-4,298.1	448.7	2,663.2	2,611.7	51.43	51.783		
10,200.0	7,740.0	7,773.2	7,771.4	48.6	13.6	91.30	-4,298.1	448.8	2,573.5	2,520.4	53.06	48.499		
10,300.0	7,740.0	7,773.5	7,771.6	50.0	13.6	91.32	-4,298.1	448.8	2,484.6	2,429.9	54.71	45.418		
10,400.0	7,740.0	7,773.8	7,771.9	51.3	13.6	91.33	-4,298.1	448.8	2,396.6	2,340.2	56.36	42.525		
10,500.0	7,740.0	7,774.0	7,772.1	52.7	13.6	91.34	-4,298.1	448.8	2,309.5	2,251.5	58.02	39.808		
10,600.0	7,740.0	7,774.3	7,772.4	54.1	13.6	91.36	-4,298.1	448.8	2,223.6	2,163.9	59.68	37.257		
10,700.0	7,740.0	7,774.5	7,772.7	55.6	13.6	91.37	-4,298.1	448.8	2,138.9	2,077.5	61.36	34.860		
10,800.0	7,740.0	7,774.8	7,772.9	57.0	13.6	91.38	-4,298.1	448.8	2,055.5	1,992.5	63.03	32.610		
10,900.0	7,740.0	7,775.0	7,773.1	58.5	13.6	91.39	-4,298.1	448.8	1,973.7	1,909.0	64.72	30.497		
11,000.0	7,740.0	7,775.3	7,773.4	59.9	13.6	91.40	-4,298.1	448.8	1,893.6	1,827.2	66.40	28.517		
11,100.0	7,740.0	7,775.5	7,773.6	61.4	13.6	91.42	-4,298.1	448.8	1,815.6	1,747.5	68.10	26.662		
11,200.0	7,740.0	7,775.7	7,773.9	62.9	13.6	91.43	-4,298.1	448.8	1,739.7	1,669.9	69.79	24.927		
11,300.0	7,740.0	7,776.0	7,774.1	64.5	13.6	91.44	-4,298.1	448.8	1,666.4	1,594.9	71.49	23.310		
11,400.0	7,740.0	7,776.2	7,774.3	66.0	13.6	91.45	-4,298.1	448.8	1,596.1	1,522.9	73.19	21.806		
11,500.0	7,740.0	7,776.4	7,774.5	67.5	13.6	91.46	-4,298.1	448.8	1,529.0	1,454.1	74.90	20.414		
11,600.0	7,740.0	7,776.6	7,774.8	69.1	13.6	91.47	-4,298.1	448.8	1,465.7	1,389.1	76.61	19.132		
11,700.0	7,740.0	7,776.9	7,775.0	70.7	13.6	91.48	-4,298.1	448.9	1,406.6	1,328.3	78.32	17.961		
11,800.0	7,740.0	7,777.1	7,775.2	72.2	13.6	91.49	-4,298.1	448.9	1,352.4	1,272.3	80.03	16.899		
11,900.0	7,740.0	7,777.3	7,775.4	73.8	13.6	91.50	-4,298.1	448.9	1,303.6	1,221.8	81.74	15.947		
12,000.0	7,740.0	7,777.5	7,775.6	75.4	13.6	91.51	-4,298.1	448.9	1,260.8	1,177.4	83.46	15.107		
12,100.0	7,740.0	7,777.7	7,775.8	77.0	13.6	91.52	-4,298.1	448.9	1,224.8	1,139.6	85.18	14.379		
12,200.0	7,740.0	7,777.9	7,776.0	78.6	13.6	91.53	-4,298.1	448.9	1,196.0	1,109.1	86.90	13.764		
12,300.0	7,740.0	7,778.1	7,776.2	80.2	13.6	91.54	-4,298.1	448.9	1,175.1	1,086.5	88.62	13.260		
12,400.0	7,740.0	7,778.3	7,776.4	81.8	13.6	91.55	-4,298.1	448.9	1,162.4	1,072.1	90.34	12.867		
12,498.1	7,740.0	7,778.5	7,776.6	83.4	13.6	91.56	-4,298.1	448.9	1,158.3	1,066.2	92.03	12.585 CC		
12,500.0	7,740.0	7,778.5	7,776.6	83.4	13.6	91.56	-4,298.1	448.9	1,158.3	1,066.2	92.07	12.581 ES		
12,600.0	7,740.0	7,778.7	7,776.8	85.1	13.6	91.57	-4,298.1	448.9	1,162.8	1,069.0	93.79	12.397		
12,700.0	7,740.0	7,778.9	7,777.0	86.7	13.6	91.58	-4,298.1	448.9	1,175.7	1,080.2	95.52	12.309		
12,800.0	7,740.0	7,779.1	7,777.2	88.3	13.6	91.59	-4,298.1	448.9	1,197.0	1,099.7	97.25	12.309 SF		
12,900.0	7,740.0	7,779.3	7,777.4	90.0	13.6	91.60	-4,298.1	448.9	1,226.0	1,127.1	98.97	12.387		
13,000.0	7,740.0	7,779.4	7,777.6	91.6	13.6	91.61	-4,298.1	448.9	1,262.3	1,161.6	100.70	12.535		
13,100.0	7,740.0	7,779.6	7,777.7	93.3	13.6	91.62	-4,298.1	448.9	1,305.3	1,202.9	102.43	12.743		
13,200.0	7,740.0	7,779.8	7,777.9	94.9	13.6	91.63	-4,298.1	448.9	1,354.4	1,250.2	104.17	13.002		
13,300.0	7,740.0	7,780.0	7,778.1	96.6	13.6	91.64	-4,298.1	448.9	1,408.8	1,302.9	105.90	13.303		
13,400.0	7,740.0	7,780.1	7,778.3	98.2	13.6	91.65	-4,298.1	448.9	1,468.0	1,360.4	107.63	13.639		
13,500.0	7,740.0	7,780.3	7,778.4	99.9	13.6	91.65	-4,298.1	448.9	1,531.5	1,422.1	109.36	14.003		
13,600.0	7,740.0	7,780.5	7,778.6	101.6	13.6	91.66	-4,298.1	449.0	1,598.7	1,487.6	111.10	14.390		
13,700.0	7,740.0	7,780.6	7,778.8	103.2	13.6	91.67	-4,298.1	449.0	1,669.2	1,556.4	112.83	14.793		
13,800.0	7,740.0	7,780.8	7,778.9	104.9	13.6	91.68	-4,298.1	449.0	1,742.6	1,628.0	114.57	15.210		
13,900.0	7,740.0	7,781.0	7,779.1	106.6	13.6	91.69	-4,298.1	449.0	1,818.5	1,702.2	116.31	15.636		
14,000.0	7,740.0	7,781.1	7,779.3	108.2	13.6	91.69	-4,298.1	449.0	1,896.7	1,778.6	118.04	16.068		
14,100.0	7,740.0	7,781.3	7,779.4	109.9	13.6	91.70	-4,298.1	449.0	1,976.8	1,857.0	119.78	16.504		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - SOSAA UNIT 1 (EXISTING) - EXISTING - EXISTIN													Offset Site Error:	0.0 ft
Survey Program: 100-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		
14,200.0	7,740.0	7,781.5	7,779.6	111.6	13.6	91.71	-4,298.1	449.0	2,058.7	1,937.2	121.52	16.941		
14,300.0	7,740.0	7,781.6	7,779.7	113.3	13.6	91.72	-4,298.1	449.0	2,142.1	2,018.8	123.26	17.379		
14,400.0	7,740.0	7,781.8	7,779.9	115.0	13.6	91.73	-4,298.1	449.0	2,226.9	2,101.9	124.99	17.816		
14,500.0	7,740.0	7,781.9	7,780.0	116.7	13.6	91.73	-4,298.1	449.0	2,312.8	2,186.1	126.73	18.250		
14,600.0	7,740.0	7,782.1	7,780.2	118.3	13.6	91.74	-4,298.1	449.0	2,399.9	2,271.5	128.47	18.680		
14,700.0	7,740.0	7,782.2	7,780.3	120.0	13.6	91.75	-4,298.1	449.0	2,488.0	2,357.8	130.21	19.107		
14,800.0	7,740.0	7,782.4	7,780.5	121.7	13.6	91.76	-4,298.1	449.0	2,576.9	2,444.9	131.95	19.529		
14,900.0	7,740.0	7,782.5	7,780.6	123.4	13.6	91.76	-4,298.1	449.0	2,666.6	2,532.9	133.69	19.946		
15,000.0	7,740.0	7,782.6	7,780.8	125.1	13.6	91.77	-4,298.1	449.0	2,757.0	2,621.6	135.44	20.357		
15,100.0	7,740.0	7,782.8	7,780.9	126.8	13.6	91.78	-4,298.1	449.0	2,848.1	2,710.9	137.18	20.762		
15,200.0	7,740.0	7,782.9	7,781.0	128.5	13.6	91.78	-4,298.1	449.0	2,939.7	2,800.8	138.92	21.162		
15,300.0	7,740.0	7,783.1	7,781.2	130.2	13.6	91.79	-4,298.1	449.0	3,031.9	2,891.2	140.66	21.555		
15,400.0	7,740.0	7,783.2	7,781.3	131.9	13.6	91.80	-4,298.1	449.0	3,124.5	2,982.1	142.40	21.942		
15,500.0	7,740.0	7,783.3	7,781.5	133.6	13.6	91.80	-4,298.1	449.0	3,217.6	3,073.5	144.14	22.322		
15,600.0	7,740.0	7,783.5	7,781.6	135.3	13.6	91.81	-4,298.1	449.0	3,311.1	3,165.2	145.89	22.696		
15,700.0	7,740.0	7,783.6	7,781.7	137.0	13.6	91.82	-4,298.1	449.0	3,405.0	3,257.3	147.63	23.064		
15,800.0	7,740.0	7,783.7	7,781.9	138.7	13.6	91.82	-4,298.1	449.0	3,499.2	3,349.8	149.37	23.426		
15,900.0	7,740.0	7,783.9	7,782.0	140.5	13.6	91.83	-4,298.1	449.0	3,593.7	3,442.6	151.12	23.781		
16,000.0	7,740.0	7,784.0	7,782.1	142.2	13.6	91.84	-4,298.1	449.0	3,688.5	3,535.6	152.86	24.130		
16,100.0	7,740.0	7,784.1	7,782.2	143.9	13.6	91.84	-4,298.1	449.1	3,783.6	3,629.0	154.60	24.472		
16,142.2	7,740.0	7,784.2	7,782.3	144.6	13.6	91.85	-4,298.1	449.1	3,823.8	3,668.4	155.34	24.615		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 24-7 (EXISTING) - ENCANA WELL - SUR													Offset Site Error: 0.0 ft	
Survey Program: 1024-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		
0.0	0.0	11.3	11.3	0.0	0.0	153.67	-2,303.7	1,140.1	2,570.3					
100.0	100.0	114.1	114.1	0.2	0.2	153.67	-2,303.6	1,140.1	2,570.3	2,569.9	0.35	7,357.503		
200.0	200.0	216.9	216.9	0.3	0.4	153.67	-2,303.4	1,140.1	2,570.1	2,569.4	0.70	3,662.247		
300.0	300.0	319.7	319.7	0.5	0.6	82.70	-2,303.1	1,140.1	2,569.7	2,568.6	1.05	2,442.678		
400.0	400.0	422.5	422.5	0.7	0.7	82.76	-2,302.6	1,140.1	2,569.0	2,567.6	1.41	1,823.876		
500.0	499.9	525.2	525.2	0.9	0.9	82.86	-2,302.0	1,140.1	2,567.9	2,566.2	1.77	1,448.448		
600.0	599.7	627.8	627.8	1.1	1.1	83.01	-2,301.3	1,140.1	2,566.6	2,564.4	2.15	1,194.538		
700.0	699.4	730.3	730.3	1.3	1.3	83.20	-2,300.5	1,140.1	2,564.9	2,562.4	2.54	1,010.252		
800.0	798.9	832.7	832.7	1.5	1.4	83.42	-2,299.5	1,140.1	2,562.9	2,560.0	2.95	869.788		
900.0	898.3	934.9	934.9	1.8	1.6	83.69	-2,298.5	1,140.1	2,560.7	2,557.3	3.37	758.870		
1,000.0	997.4	1,033.0	1,033.0	2.0	1.8	83.99	-2,297.3	1,140.2	2,558.2	2,554.4	3.82	670.068		
1,100.0	1,096.3	1,103.8	1,103.8	2.3	1.9	84.23	-2,296.8	1,140.4	2,556.3	2,552.0	4.24	602.847		
1,200.0	1,194.9	1,183.0	1,183.0	2.7	2.0	84.52	-2,297.1	1,141.4	2,555.4	2,550.7	4.70	543.270		
1,234.9	1,229.2	1,196.6	1,196.6	2.8	2.1	84.57	-2,297.2	1,141.7	2,555.3	2,550.5	4.85	526.892		
1,300.0	1,293.3	1,242.4	1,242.4	3.0	2.1	84.75	-2,297.9	1,142.5	2,555.5	2,550.4	5.16	495.332		
1,400.0	1,391.2	1,320.2	1,320.1	3.4	2.3	85.06	-2,299.6	1,144.2	2,556.7	2,551.0	5.68	450.506		
1,500.0	1,488.9	1,404.9	1,404.8	3.8	2.4	85.44	-2,302.0	1,146.2	2,558.4	2,552.2	6.23	410.474		
1,595.5	1,581.8	1,484.0	1,483.8	4.2	2.6	85.80	-2,304.3	1,148.6	2,560.5	2,553.8	6.79	377.099		
1,600.0	1,586.1	1,487.5	1,487.3	4.2	2.6	85.81	-2,304.4	1,148.8	2,560.7	2,553.8	6.82	375.683		
1,700.0	1,683.2	1,564.0	1,563.7	4.7	2.7	86.18	-2,306.9	1,152.0	2,563.7	2,556.3	7.40	346.652		
1,800.0	1,780.2	1,640.7	1,640.2	5.1	2.9	86.53	-2,309.6	1,156.5	2,567.7	2,559.8	7.98	321.632		
1,900.0	1,877.3	1,723.5	1,722.7	5.6	3.0	86.88	-2,312.8	1,162.5	2,572.7	2,564.1	8.59	299.613		
2,000.0	1,974.3	1,818.1	1,816.9	6.0	3.2	87.27	-2,316.6	1,169.7	2,578.2	2,569.0	9.22	279.743		
2,100.0	2,071.4	1,914.6	1,913.1	6.5	3.4	87.67	-2,320.6	1,177.0	2,583.8	2,574.0	9.85	262.217		
2,200.0	2,168.4	2,019.5	2,017.6	6.9	3.6	88.10	-2,324.8	1,185.1	2,589.5	2,579.0	10.51	246.407		
2,300.0	2,265.4	2,100.4	2,098.2	7.4	3.8	88.43	-2,328.2	1,191.1	2,595.5	2,584.3	11.12	233.359		
2,400.0	2,362.5	2,183.7	2,181.1	7.9	4.0	88.77	-2,332.2	1,197.8	2,602.3	2,590.5	11.74	221.627		
2,500.0	2,459.5	2,270.0	2,267.0	8.3	4.1	89.12	-2,336.6	1,204.8	2,609.6	2,597.2	12.37	210.960		
2,600.0	2,556.6	2,371.2	2,367.7	8.8	4.4	89.52	-2,342.1	1,213.6	2,617.5	2,604.5	13.03	200.926		
2,700.0	2,653.6	2,510.1	2,506.1	9.2	4.7	90.10	-2,348.9	1,223.4	2,624.5	2,610.7	13.75	190.811		
2,800.0	2,750.7	2,616.5	2,612.2	9.7	4.9	90.54	-2,352.9	1,230.7	2,630.5	2,616.1	14.42	182.363		
2,900.0	2,847.7	2,698.2	2,693.6	10.2	5.1	90.86	-2,356.0	1,236.8	2,636.9	2,621.8	15.05	175.251		
3,000.0	2,944.8	2,791.8	2,786.8	10.6	5.3	91.24	-2,360.3	1,243.7	2,644.0	2,628.3	15.69	168.495		
3,100.0	3,041.8	2,906.8	2,901.5	11.1	5.5	91.71	-2,365.1	1,251.7	2,650.9	2,634.5	16.38	161.853		
3,200.0	3,138.9	3,009.1	3,003.4	11.5	5.7	92.13	-2,369.0	1,258.7	2,657.4	2,640.4	17.04	155.935		
3,300.0	3,235.9	3,098.6	3,092.6	12.0	5.9	92.48	-2,372.4	1,265.0	2,664.2	2,646.5	17.68	150.694		
3,400.0	3,333.0	3,190.1	3,183.8	12.5	6.1	92.85	-2,376.3	1,271.5	2,671.5	2,653.1	18.32	145.786		
3,500.0	3,430.0	3,309.0	3,302.3	12.9	6.4	93.31	-2,380.9	1,280.1	2,678.7	2,659.6	19.02	140.819		
3,600.0	3,527.1	3,395.5	3,388.5	13.4	6.6	93.65	-2,384.0	1,286.6	2,685.7	2,666.0	19.66	136.592		
3,700.0	3,624.1	3,487.5	3,480.2	13.9	6.8	93.99	-2,387.5	1,293.9	2,693.2	2,672.9	20.31	132.614		
3,800.0	3,721.2	3,580.5	3,572.8	14.3	7.0	94.35	-2,391.4	1,300.6	2,701.0	2,680.0	20.96	128.894		
3,900.0	3,818.2	3,692.3	3,684.2	14.8	7.3	94.77	-2,395.9	1,309.2	2,708.8	2,687.2	21.65	125.132		
4,000.0	3,915.3	3,794.6	3,786.1	15.3	7.5	95.14	-2,399.4	1,317.6	2,716.3	2,694.0	22.32	121.700		
4,100.0	4,012.3	3,880.0	3,871.2	15.7	7.7	95.46	-2,402.7	1,324.2	2,724.2	2,701.3	22.95	118.689		
4,200.0	4,109.4	3,968.9	3,959.7	16.2	7.9	95.78	-2,406.4	1,331.2	2,732.7	2,709.1	23.60	115.797		
4,300.0	4,206.4	4,069.4	4,059.8	16.6	8.1	96.14	-2,410.6	1,339.6	2,741.2	2,717.0	24.27	112.956		
4,400.0	4,303.5	4,160.2	4,150.2	17.1	8.3	96.46	-2,414.5	1,347.1	2,750.0	2,725.1	24.92	110.366		
4,500.0	4,400.5	4,245.2	4,234.9	17.6	8.5	96.76	-2,418.3	1,354.3	2,759.2	2,733.6	25.56	107.965		
4,600.0	4,497.6	4,353.1	4,342.2	18.0	8.8	97.13	-2,423.4	1,363.4	2,768.6	2,742.4	26.24	105.521		
4,700.0	4,594.6	4,475.1	4,463.7	18.5	9.1	97.57	-2,428.6	1,372.8	2,777.6	2,750.6	26.95	103.076		
4,800.0	4,691.7	4,591.1	4,579.3	19.0	9.3	97.98	-2,432.6	1,381.8	2,785.9	2,758.2	27.64	100.783		
4,900.0	4,788.7	4,702.8	4,690.7	19.4	9.6	98.39	-2,435.9	1,389.4	2,793.6	2,765.3	28.32	98.643		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 24-7 (EXISTING) - ENCANA WELL - SUR											Offset Site Error: 0.0 ft		
Survey Program: 1024-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
5,000.0	4,885.8	4,808.5	4,796.2	19.9	9.8	98.80	-2,438.9	1,395.5	2,801.2	2,772.2	28.97	96.683	
5,100.0	4,982.8	4,936.5	4,924.1	20.4	10.0	99.35	-2,442.3	1,399.7	2,808.4	2,778.7	29.64	94.764	
5,200.0	5,079.9	5,087.1	5,074.7	20.8	10.2	100.08	-2,444.2	1,400.3	2,813.8	2,783.5	30.31	92.832	
5,300.0	5,176.9	5,184.7	5,172.2	21.3	10.4	100.55	-2,444.8	1,400.3	2,818.9	2,788.0	30.91	91.209	
5,400.0	5,273.9	5,300.0	5,287.5	21.8	10.6	101.11	-2,445.2	1,399.9	2,823.9	2,792.4	31.52	89.586	
5,500.0	5,371.0	5,401.0	5,388.5	22.2	10.7	101.61	-2,445.0	1,399.3	2,828.5	2,796.4	32.11	88.077	
5,600.0	5,468.0	5,498.4	5,486.0	22.7	10.8	102.09	-2,444.9	1,398.6	2,833.4	2,800.7	32.70	86.654	
5,700.0	5,565.1	5,599.5	5,587.0	23.1	11.0	102.59	-2,444.7	1,397.7	2,838.4	2,805.1	33.28	85.278	
5,800.0	5,662.1	5,693.8	5,681.4	23.6	11.1	103.05	-2,444.4	1,397.0	2,843.5	2,809.6	33.86	83.979	
5,900.0	5,759.2	5,794.3	5,781.9	24.1	11.3	103.54	-2,444.2	1,396.3	2,848.9	2,814.4	34.44	82.719	
6,000.0	5,856.2	5,901.3	5,888.8	24.5	11.4	104.06	-2,443.6	1,395.4	2,854.2	2,819.2	35.03	81.490	
6,100.0	5,953.3	5,999.7	5,987.2	25.0	11.6	104.54	-2,442.9	1,394.3	2,859.5	2,823.9	35.60	80.335	
6,200.0	6,050.3	6,095.5	6,083.0	25.5	11.7	105.01	-2,442.3	1,393.1	2,865.0	2,828.9	36.16	79.231	
6,300.0	6,147.4	6,189.6	6,177.2	25.9	11.9	105.45	-2,441.6	1,392.9	2,870.9	2,834.1	36.73	78.163	
6,400.0	6,244.4	6,289.5	6,277.0	26.4	12.0	105.92	-2,440.9	1,392.9	2,876.8	2,839.5	37.30	77.125	
6,500.0	6,341.5	6,388.4	6,375.9	26.9	12.2	106.37	-2,440.1	1,392.8	2,882.9	2,845.0	37.87	76.128	
6,600.0	6,438.5	6,481.8	6,469.3	27.3	12.3	106.80	-2,439.4	1,392.8	2,889.2	2,850.8	38.43	75.186	
6,700.0	6,535.6	6,576.4	6,563.9	27.8	12.5	107.24	-2,438.8	1,392.7	2,895.8	2,856.8	38.98	74.283	
6,800.0	6,632.6	6,666.9	6,654.4	28.3	12.6	107.65	-2,438.4	1,392.4	2,902.7	2,863.2	39.53	73.428	
6,900.0	6,729.7	6,756.6	6,744.1	28.7	12.8	108.06	-2,438.2	1,392.3	2,910.1	2,870.0	40.08	72.613	
7,000.0	6,826.7	6,851.6	6,839.1	29.2	12.9	108.50	-2,438.1	1,392.0	2,917.8	2,877.2	40.62	71.824	
7,100.0	6,923.8	6,946.9	6,934.4	29.7	13.1	108.93	-2,438.1	1,391.9	2,925.7	2,884.5	41.17	71.063	
7,200.0	7,020.8	7,043.8	7,031.3	30.1	13.2	109.36	-2,438.1	1,391.8	2,933.9	2,892.2	41.72	70.330	
7,300.0	7,117.9	7,153.1	7,140.6	30.6	13.4	109.85	-2,438.0	1,391.9	2,942.1	2,899.8	42.27	69.597	
7,321.2	7,138.4	7,179.6	7,167.1	30.7	13.4	109.96	-2,437.9	1,391.9	2,943.7	2,901.3	42.39	69.438	
7,350.0	7,166.4	7,215.5	7,203.0	30.8	13.5	98.50	-2,437.6	1,392.0	2,945.2	2,902.7	42.57	69.187	
7,400.0	7,215.1	7,273.7	7,261.2	31.0	13.6	77.81	-2,437.0	1,392.1	2,944.3	2,901.7	42.65	69.032	
7,450.0	7,263.5	7,323.7	7,311.2	31.2	13.7	60.33	-2,436.4	1,392.3	2,938.9	2,896.5	42.45	69.239	
7,500.0	7,311.3	7,361.9	7,349.4	31.3	13.7	47.79	-2,435.9	1,392.3	2,929.4	2,887.5	41.95	69.825	
7,550.0	7,358.1	7,401.6	7,389.1	31.5	13.8	39.30	-2,435.6	1,392.4	2,915.8	2,874.6	41.19	70.785	
7,600.0	7,403.5	7,447.1	7,434.6	31.6	13.9	33.56	-2,435.3	1,392.4	2,898.2	2,858.0	40.18	72.136	
7,650.0	7,447.3	7,490.7	7,478.2	31.7	13.9	29.61	-2,435.0	1,392.5	2,876.6	2,837.7	38.91	73.925	
7,700.0	7,489.1	7,530.0	7,517.5	31.7	14.0	26.84	-2,434.8	1,392.5	2,851.2	2,813.8	37.42	76.205	
7,750.0	7,528.5	7,568.2	7,555.7	31.8	14.1	24.94	-2,434.6	1,392.7	2,822.3	2,786.6	35.71	79.033	
7,800.0	7,565.3	7,604.7	7,592.2	31.8	14.1	23.70	-2,434.4	1,392.8	2,789.9	2,756.1	33.82	82.483	
7,850.0	7,599.2	7,641.6	7,629.1	31.9	14.2	23.03	-2,434.1	1,393.0	2,754.4	2,722.6	31.80	86.627	
7,900.0	7,629.9	7,676.2	7,663.7	31.9	14.3	22.88	-2,433.9	1,393.3	2,716.0	2,686.3	29.67	91.538	
7,950.0	7,657.2	7,699.0	7,686.4	31.9	14.3	23.15	-2,433.7	1,393.5	2,675.0	2,647.5	27.50	97.270	
8,000.0	7,680.9	7,718.6	7,706.1	32.0	14.3	24.02	-2,433.6	1,393.7	2,631.7	2,606.3	25.38	103.689	
8,050.0	7,700.8	7,740.0	7,727.5	32.0	14.4	25.83	-2,433.5	1,393.8	2,586.5	2,563.0	23.46	110.260	
8,100.0	7,716.7	7,750.0	7,737.5	32.0	14.4	28.81	-2,433.5	1,393.9	2,539.6	2,517.7	21.93	115.802	
8,150.0	7,728.6	7,761.8	7,749.3	32.1	14.4	34.51	-2,433.5	1,393.9	2,491.5	2,470.2	21.29	117.032	
8,200.0	7,736.3	7,769.4	7,756.9	32.1	14.4	46.43	-2,433.4	1,394.0	2,442.5	2,419.9	22.54	108.357	
8,250.0	7,739.8	7,772.8	7,760.2	32.2	14.4	76.16	-2,433.4	1,394.0	2,392.9	2,365.8	27.06	88.418	
8,266.2	7,740.0	7,772.9	7,760.4	32.2	14.4	92.53	-2,433.4	1,394.0	2,376.7	2,348.5	28.18	84.354	
8,300.0	7,740.0	7,772.8	7,760.3	32.3	14.4	92.50	-2,433.4	1,394.0	2,343.1	2,314.8	28.31	82.772	
8,400.0	7,740.0	7,772.5	7,760.0	32.5	14.4	92.41	-2,433.4	1,394.0	2,243.5	2,214.7	28.83	77.822	
8,500.0	7,740.0	7,772.1	7,759.6	32.8	14.4	92.31	-2,433.4	1,394.0	2,144.0	2,114.5	29.53	72.609	
8,600.0	7,740.0	7,771.8	7,759.3	33.2	14.4	92.22	-2,433.4	1,394.0	2,044.5	2,014.1	30.38	67.292	
8,700.0	7,740.0	7,771.4	7,758.9	33.7	14.4	92.13	-2,433.4	1,394.0	1,945.1	1,913.7	31.37	62.003	
8,800.0	7,740.0	7,771.1	7,758.6	34.3	14.4	92.04	-2,433.4	1,394.0	1,845.7	1,813.2	32.47	56.842	
8,900.0	7,740.0	7,770.8	7,758.2	34.9	14.4	91.94	-2,433.4	1,394.0	1,746.4	1,712.7	33.66	51.877	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 24-7 (EXISTING) - ENCANA WELL - SUR												Offset Site Error:	0.0 ft
Survey Program: 1024-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
9,000.0	7,740.0	7,770.4	7,757.9	35.6	14.4	91.85	-2,433.4	1,394.0	1,647.2	1,612.3	34.94	47.149	
9,100.0	7,740.0	7,770.1	7,757.5	36.4	14.4	91.76	-2,433.4	1,394.0	1,548.1	1,511.8	36.27	42.680	
9,200.0	7,740.0	7,769.7	7,757.2	37.3	14.4	91.67	-2,433.4	1,394.0	1,449.1	1,411.4	37.66	38.476	
9,300.0	7,740.0	7,769.4	7,756.9	38.2	14.4	91.58	-2,433.4	1,394.0	1,350.3	1,311.2	39.10	34.536	
9,400.0	7,740.0	7,769.0	7,756.5	39.2	14.4	91.48	-2,433.4	1,394.0	1,251.6	1,211.1	40.57	30.850	
9,500.0	7,740.0	7,768.7	7,756.2	40.2	14.4	91.39	-2,433.4	1,394.0	1,153.2	1,111.1	42.08	27.407	
9,600.0	7,740.0	7,768.4	7,755.8	41.3	14.4	91.30	-2,433.4	1,394.0	1,055.1	1,011.5	43.61	24.194	
9,700.0	7,740.0	7,768.0	7,755.5	42.4	14.4	91.21	-2,433.4	1,394.0	957.4	912.2	45.16	21.197	
9,800.0	7,740.0	7,767.7	7,755.2	43.6	14.4	91.11	-2,433.4	1,394.0	860.1	813.4	46.74	18.403	
9,900.0	7,740.0	7,767.3	7,754.8	44.8	14.4	91.02	-2,433.4	1,394.0	763.7	715.3	48.33	15.800	
10,000.0	7,740.0	7,767.0	7,754.5	46.0	14.4	90.93	-2,433.4	1,394.0	668.2	618.3	49.94	13.380	
10,100.0	7,740.0	7,766.7	7,754.1	47.3	14.4	90.84	-2,433.5	1,394.0	574.3	522.7	51.56	11.138	
10,200.0	7,740.0	7,766.3	7,753.8	48.6	14.4	90.75	-2,433.5	1,394.0	482.8	429.6	53.19	9.077	
10,300.0	7,740.0	7,766.0	7,753.4	50.0	14.4	90.66	-2,433.5	1,394.0	395.5	340.7	54.83	7.213	
10,400.0	7,740.0	7,765.6	7,753.1	51.3	14.4	90.56	-2,433.5	1,394.0	315.9	259.4	56.48	5.592	
10,500.0	7,740.0	7,765.3	7,752.8	52.7	14.4	90.47	-2,433.5	1,394.0	251.2	193.0	58.14	4.320	
10,600.0	7,740.0	7,764.9	7,752.4	54.1	14.4	90.38	-2,433.5	1,393.9	215.4	155.6	59.81	3.602	
10,633.4	7,740.0	7,764.8	7,752.3	54.6	14.4	90.35	-2,433.5	1,393.9	212.8	152.4	60.37	3.525 CC, ES, SF	
10,700.0	7,740.0	7,764.6	7,752.1	55.6	14.4	90.29	-2,433.5	1,393.9	223.0	161.5	61.48	3.627	
10,800.0	7,740.0	7,764.3	7,751.7	57.0	14.4	90.20	-2,433.5	1,393.9	270.3	207.1	63.16	4.279	
10,900.0	7,740.0	7,763.9	7,751.4	58.5	14.4	90.10	-2,433.5	1,393.9	341.1	276.3	64.84	5.261	
11,000.0	7,740.0	7,763.6	7,751.1	59.9	14.4	90.01	-2,433.5	1,393.9	423.9	357.4	66.52	6.372	
11,100.0	7,740.0	7,763.2	7,750.7	61.4	14.4	89.92	-2,433.5	1,393.9	512.8	444.6	68.22	7.518	
11,200.0	7,740.0	7,762.9	7,750.4	62.9	14.4	89.83	-2,433.5	1,393.9	605.2	535.3	69.91	8.657	
11,300.0	7,740.0	7,762.6	7,750.0	64.5	14.4	89.74	-2,433.5	1,393.9	699.7	628.1	71.61	9.772	
11,400.0	7,740.0	7,762.2	7,749.7	66.0	14.4	89.65	-2,433.5	1,393.9	795.6	722.3	73.31	10.853	
11,500.0	7,740.0	7,761.9	7,749.4	67.5	14.4	89.56	-2,433.5	1,393.9	892.3	817.3	75.01	11.896	
11,600.0	7,740.0	7,761.5	7,749.0	69.1	14.4	89.46	-2,433.5	1,393.9	989.7	913.0	76.72	12.901	
11,700.0	7,740.0	7,761.2	7,748.7	70.7	14.4	89.37	-2,433.5	1,393.9	1,087.6	1,009.2	78.42	13.868	
11,800.0	7,740.0	7,760.9	7,748.3	72.2	14.4	89.28	-2,433.5	1,393.9	1,185.8	1,105.7	80.13	14.798	
11,900.0	7,740.0	7,760.5	7,748.0	73.8	14.4	89.19	-2,433.5	1,393.9	1,284.3	1,202.5	81.85	15.692	
12,000.0	7,740.0	7,760.2	7,747.7	75.4	14.4	89.10	-2,433.5	1,393.9	1,383.1	1,299.5	83.56	16.552	
12,100.0	7,740.0	7,759.9	7,747.3	77.0	14.4	89.01	-2,433.5	1,393.9	1,481.9	1,396.7	85.28	17.378	
12,200.0	7,740.0	7,759.5	7,747.0	78.6	14.4	88.92	-2,433.5	1,393.9	1,581.0	1,494.0	86.99	18.174	
12,300.0	7,740.0	7,759.2	7,746.7	80.2	14.4	88.83	-2,433.5	1,393.9	1,680.1	1,591.4	88.71	18.939	
12,400.0	7,740.0	7,758.8	7,746.3	81.8	14.4	88.74	-2,433.5	1,393.9	1,779.4	1,688.9	90.43	19.677	
12,500.0	7,740.0	7,758.5	7,746.0	83.4	14.4	88.64	-2,433.5	1,393.9	1,878.7	1,786.5	92.15	20.387	
12,600.0	7,740.0	7,758.2	7,745.6	85.1	14.4	88.55	-2,433.5	1,393.9	1,978.1	1,884.2	93.87	21.072	
12,700.0	7,740.0	7,757.8	7,745.3	86.7	14.4	88.46	-2,433.5	1,393.9	2,077.5	1,981.9	95.59	21.733	
12,800.0	7,740.0	7,757.5	7,745.0	88.3	14.4	88.37	-2,433.5	1,393.9	2,177.0	2,079.7	97.31	22.371	
12,900.0	7,740.0	7,757.2	7,744.6	90.0	14.4	88.28	-2,433.5	1,393.9	2,276.5	2,177.5	99.04	22.987	
13,000.0	7,740.0	7,756.8	7,744.3	91.6	14.4	88.19	-2,433.5	1,393.9	2,376.1	2,275.4	100.76	23.582	
13,100.0	7,740.0	7,756.5	7,743.9	93.3	14.4	88.10	-2,433.5	1,393.9	2,475.7	2,373.3	102.49	24.157	
13,200.0	7,740.0	7,756.1	7,743.6	94.9	14.4	88.01	-2,433.5	1,393.9	2,575.4	2,471.2	104.21	24.713	
13,300.0	7,740.0	7,755.8	7,743.3	96.6	14.4	87.92	-2,433.5	1,393.9	2,675.1	2,569.1	105.94	25.252	
13,400.0	7,740.0	7,755.5	7,742.9	98.2	14.4	87.83	-2,433.5	1,393.9	2,774.7	2,667.1	107.66	25.773	
13,500.0	7,740.0	7,755.1	7,742.6	99.9	14.4	87.74	-2,433.5	1,393.9	2,874.5	2,765.1	109.39	26.278	
13,600.0	7,740.0	7,754.8	7,742.3	101.6	14.4	87.65	-2,433.5	1,393.9	2,974.2	2,863.1	111.11	26.767	
13,700.0	7,740.0	7,754.5	7,741.9	103.2	14.4	87.56	-2,433.5	1,393.9	3,073.9	2,961.1	112.84	27.242	
13,800.0	7,740.0	7,754.1	7,741.6	104.9	14.4	87.47	-2,433.5	1,393.9	3,173.7	3,059.1	114.57	27.702	
13,900.0	7,740.0	7,753.8	7,741.3	106.6	14.4	87.38	-2,433.5	1,393.9	3,273.5	3,157.2	116.29	28.149	
14,000.0	7,740.0	7,753.5	7,740.9	108.2	14.4	87.29	-2,433.5	1,393.9	3,373.3	3,255.3	118.02	28.583	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 24-7 (EXISTING) - ENCANA WELL - SUR													Offset Site Error: 0.0 ft
Survey Program: 1024-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	
14,100.0	7,740.0	7,753.1	7,740.6	109.9	14.4	87.20	-2,433.5	1,393.9	3,473.1	3,353.4	119.75	29.004	
14,200.0	7,740.0	7,752.8	7,740.3	111.6	14.4	87.11	-2,433.5	1,393.9	3,572.9	3,451.4	121.47	29.413	
14,300.0	7,740.0	7,752.4	7,739.9	113.3	14.4	87.02	-2,433.5	1,393.9	3,672.7	3,549.5	123.20	29.811	
14,400.0	7,740.0	7,752.1	7,739.6	115.0	14.4	86.93	-2,433.5	1,393.9	3,772.6	3,647.6	124.93	30.199	
14,500.0	7,740.0	7,751.8	7,739.2	116.7	14.4	86.84	-2,433.5	1,393.9	3,872.4	3,745.8	126.65	30.575	
14,600.0	7,740.0	7,751.4	7,738.9	118.3	14.4	86.75	-2,433.5	1,393.9	3,972.3	3,843.9	128.38	30.942	
14,700.0	7,740.0	7,751.1	7,738.6	120.0	14.4	86.66	-2,433.5	1,393.9	4,072.1	3,942.0	130.10	31.299	
14,800.0	7,740.0	7,750.8	7,738.2	121.7	14.4	86.57	-2,433.5	1,393.9	4,172.0	4,040.2	131.83	31.647	
14,900.0	7,740.0	7,750.4	7,737.9	123.4	14.4	86.48	-2,433.5	1,393.9	4,271.9	4,138.3	133.56	31.986	
15,000.0	7,740.0	7,750.1	7,737.6	125.1	14.4	86.39	-2,433.5	1,393.9	4,371.7	4,236.5	135.28	32.316	
15,100.0	7,740.0	7,749.8	7,737.2	126.8	14.4	86.30	-2,433.5	1,393.9	4,471.6	4,334.6	137.01	32.638	
15,200.0	7,740.0	7,749.4	7,736.9	128.5	14.4	86.21	-2,433.5	1,393.9	4,571.5	4,432.8	138.73	32.953	
15,300.0	7,740.0	7,749.1	7,736.6	130.2	14.4	86.12	-2,433.5	1,393.9	4,671.4	4,531.0	140.45	33.259	
15,400.0	7,740.0	7,748.8	7,736.2	131.9	14.4	86.03	-2,433.5	1,393.8	4,771.3	4,629.1	142.18	33.559	
15,500.0	7,740.0	7,748.4	7,735.9	133.6	14.4	85.94	-2,433.5	1,393.8	4,871.2	4,727.3	143.90	33.851	
15,600.0	7,740.0	7,748.1	7,735.6	135.3	14.4	85.85	-2,433.5	1,393.8	4,971.1	4,825.5	145.63	34.136	
15,700.0	7,740.0	7,747.8	7,735.2	137.0	14.4	85.76	-2,433.5	1,393.8	5,071.0	4,923.7	147.35	34.415	
15,800.0	7,740.0	7,747.4	7,734.9	138.7	14.4	85.67	-2,433.5	1,393.8	5,170.9	5,021.9	149.07	34.688	
15,900.0	7,740.0	7,747.1	7,734.6	140.5	14.4	85.58	-2,433.5	1,393.8	5,270.9	5,120.1	150.79	34.954	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 24-7 (Existing) - Existing - NO SURVEYS													Offset Site Error: 0.0 ft			
Survey Program: 8365-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)	Centre +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	153.69	-2,304.4	1,139.2	2,570.6							
100.0	100.0	95.0	95.0	0.2	0.2	153.69	-2,304.4	1,139.2	2,570.6	2,570.3	0.32	8,087.556				
200.0	200.0	195.0	195.0	0.3	0.3	153.69	-2,304.4	1,139.2	2,570.6	2,569.9	0.67	3,854.504				
300.0	300.0	295.0	295.0	0.5	0.5	82.73	-2,304.4	1,139.2	2,570.5	2,569.5	1.02	2,527.844				
400.0	400.0	395.0	395.0	0.7	0.7	82.79	-2,304.4	1,139.2	2,570.2	2,568.8	1.37	1,874.641				
500.0	499.9	494.9	494.9	0.9	0.9	82.89	-2,304.4	1,139.2	2,569.6	2,567.9	1.73	1,482.766				
600.0	599.7	594.7	594.7	1.1	1.0	83.03	-2,304.4	1,139.2	2,568.9	2,566.8	2.11	1,219.609				
700.0	699.4	694.4	694.4	1.3	1.2	83.21	-2,304.4	1,139.2	2,567.9	2,565.4	2.49	1,029.559				
800.0	798.9	793.9	793.9	1.5	1.4	83.44	-2,304.4	1,139.2	2,566.8	2,563.9	2.90	885.239				
900.0	898.3	893.3	893.3	1.8	1.6	83.70	-2,304.4	1,139.2	2,565.5	2,562.2	3.32	771.608				
1,000.0	997.4	992.4	992.4	2.0	1.7	84.00	-2,304.4	1,139.2	2,564.1	2,560.4	3.77	679.706				
1,100.0	1,096.3	1,091.3	1,091.3	2.3	1.9	84.34	-2,304.4	1,139.2	2,562.6	2,558.4	4.24	603.845				
1,200.0	1,194.9	1,189.9	1,189.9	2.7	2.1	84.72	-2,304.4	1,139.2	2,561.0	2,556.3	4.74	540.224				
1,300.0	1,293.3	1,288.3	1,288.3	3.0	2.2	85.13	-2,304.4	1,139.2	2,559.4	2,554.1	5.26	486.191				
1,400.0	1,391.2	1,386.2	1,386.2	3.4	2.4	85.59	-2,304.4	1,139.2	2,557.7	2,551.9	5.82	439.831				
1,500.0	1,488.9	1,483.9	1,483.9	3.8	2.6	86.08	-2,304.4	1,139.2	2,556.1	2,549.7	6.39	399.718				
1,595.5	1,581.8	1,576.8	1,576.8	4.2	2.8	86.57	-2,304.4	1,139.2	2,554.7	2,547.7	6.98	366.250				
1,600.0	1,586.1	1,581.1	1,581.1	4.2	2.8	86.60	-2,304.4	1,139.2	2,554.6	2,547.6	7.00	364.817				
1,700.0	1,683.2	1,678.2	1,678.2	4.7	2.9	87.12	-2,304.4	1,139.2	2,553.2	2,545.6	7.62	335.274				
1,800.0	1,780.2	1,775.2	1,775.2	5.1	3.1	87.65	-2,304.4	1,139.2	2,552.1	2,543.9	8.23	310.003				
1,900.0	1,877.3	1,872.3	1,872.3	5.6	3.3	88.17	-2,304.4	1,139.2	2,551.2	2,542.3	8.85	288.182				
2,000.0	1,974.3	1,969.3	1,969.3	6.0	3.4	88.70	-2,304.4	1,139.2	2,550.5	2,541.0	9.48	269.177				
2,100.0	2,071.4	2,066.4	2,066.4	6.5	3.6	89.22	-2,304.4	1,139.2	2,550.1	2,540.0	10.10	252.494				
2,200.0	2,168.4	2,163.4	2,163.4	6.9	3.8	89.75	-2,304.4	1,139.2	2,549.8	2,539.1	10.72	237.748				
2,247.7	2,214.7	2,209.7	2,209.7	7.2	3.9	90.00	-2,304.4	1,139.2	2,549.8	2,538.8	11.02	231.304				
2,300.0	2,265.4	2,260.4	2,260.4	7.4	3.9	90.28	-2,304.4	1,139.2	2,549.8	2,538.5	11.35	224.631				
2,400.0	2,362.5	2,357.5	2,357.5	7.9	4.1	90.80	-2,304.4	1,139.2	2,550.1	2,538.1	11.98	212.895				
2,500.0	2,459.5	2,454.5	2,454.5	8.3	4.3	91.33	-2,304.4	1,139.2	2,550.5	2,537.9	12.61	202.340				
2,600.0	2,556.6	2,551.6	2,551.6	8.8	4.5	91.85	-2,304.4	1,139.2	2,551.2	2,538.0	13.23	192.802				
2,700.0	2,653.6	2,648.6	2,648.6	9.2	4.6	92.38	-2,304.4	1,139.2	2,552.1	2,538.3	13.86	184.147				
2,800.0	2,750.7	2,745.7	2,745.7	9.7	4.8	92.90	-2,304.4	1,139.2	2,553.3	2,538.8	14.49	176.260				
2,900.0	2,847.7	2,842.7	2,842.7	10.2	5.0	93.43	-2,304.4	1,139.2	2,554.7	2,539.5	15.11	169.049				
3,000.0	2,944.8	2,939.8	2,939.8	10.6	5.1	93.95	-2,304.4	1,139.2	2,556.3	2,540.5	15.74	162.434				
3,100.0	3,041.8	3,036.8	3,036.8	11.1	5.3	94.47	-2,304.4	1,139.2	2,558.1	2,541.7	16.36	156.345				
3,200.0	3,138.9	3,133.9	3,133.9	11.5	5.5	95.00	-2,304.4	1,139.2	2,560.1	2,543.1	16.99	150.727				
3,300.0	3,235.9	3,230.9	3,230.9	12.0	5.6	95.52	-2,304.4	1,139.2	2,562.4	2,544.8	17.61	145.528				
3,400.0	3,333.0	3,328.0	3,328.0	12.5	5.8	96.04	-2,304.4	1,139.2	2,564.9	2,546.7	18.23	140.707				
3,500.0	3,430.0	3,425.0	3,425.0	12.9	6.0	96.56	-2,304.4	1,139.2	2,567.6	2,548.8	18.85	136.224				
3,600.0	3,527.1	3,522.1	3,522.1	13.4	6.1	97.08	-2,304.4	1,139.2	2,570.6	2,551.1	19.47	132.049				
3,700.0	3,624.1	3,619.1	3,619.1	13.9	6.3	97.59	-2,304.4	1,139.2	2,573.8	2,553.7	20.08	128.151				
3,800.0	3,721.2	3,716.2	3,716.2	14.3	6.5	98.11	-2,304.4	1,139.2	2,577.1	2,556.4	20.70	124.507				
3,900.0	3,818.2	3,813.2	3,813.2	14.8	6.7	98.62	-2,304.4	1,139.2	2,580.8	2,559.4	21.31	121.093				
4,000.0	3,915.3	3,910.3	3,910.3	15.3	6.8	99.14	-2,304.4	1,139.2	2,584.6	2,562.7	21.92	117.891				
4,100.0	4,012.3	4,007.3	4,007.3	15.7	7.0	99.65	-2,304.4	1,139.2	2,588.6	2,566.1	22.53	114.882				
4,200.0	4,109.4	4,104.4	4,104.4	16.2	7.2	100.16	-2,304.4	1,139.2	2,592.9	2,569.8	23.14	112.050				
4,300.0	4,206.4	4,201.4	4,201.4	16.6	7.3	100.67	-2,304.4	1,139.2	2,597.4	2,573.7	23.75	109.383				
4,400.0	4,303.5	4,298.5	4,298.5	17.1	7.5	101.18	-2,304.4	1,139.2	2,602.1	2,577.8	24.35	106.866				
4,500.0	4,400.5	4,395.5	4,395.5	17.6	7.7	101.68	-2,304.4	1,139.2	2,607.0	2,582.1	24.95	104.490				
4,600.0	4,497.6	4,492.6	4,492.6	18.0	7.8	102.18	-2,304.4	1,139.2	2,612.2	2,586.6	25.55	102.243				
4,700.0	4,594.6	4,589.6	4,589.6	18.5	8.0	102.69	-2,304.4	1,139.2	2,617.5	2,591.4	26.14	100.116				
4,800.0	4,691.7	4,686.7	4,686.7	19.0	8.2	103.19	-2,304.4	1,139.2	2,623.1	2,596.3	26.74	98.101				
4,900.0	4,788.7	4,783.7	4,783.7	19.4	8.3	103.68	-2,304.4	1,139.2	2,628.8	2,601.5	27.33	96.190				

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 24-7 (Existing) - Existing - NO SURVEYS												Offset Site Error: 0.0 ft	
Survey Program: 8365-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	
5,000.0	4,885.8	4,880.8	4,880.8	19.9	8.5	104.18	-2,304.4	1,139.2	2,634.8	2,606.9	27.92	94.376	
5,100.0	4,982.8	4,977.8	4,977.8	20.4	8.7	104.67	-2,304.4	1,139.2	2,641.0	2,612.5	28.50	92.653	
5,200.0	5,079.9	5,074.9	5,074.9	20.8	8.9	105.16	-2,304.4	1,139.2	2,647.3	2,618.3	29.09	91.015	
5,300.0	5,176.9	5,171.9	5,171.9	21.3	9.0	105.65	-2,304.4	1,139.2	2,653.9	2,624.3	29.67	89.457	
5,400.0	5,273.9	5,268.9	5,268.9	21.8	9.2	106.14	-2,304.4	1,139.2	2,660.7	2,630.5	30.24	87.973	
5,500.0	5,371.0	5,366.0	5,366.0	22.2	9.4	106.62	-2,304.4	1,139.2	2,667.7	2,636.9	30.82	86.560	
5,600.0	5,468.0	5,463.0	5,463.0	22.7	9.5	107.10	-2,304.4	1,139.2	2,674.9	2,643.5	31.39	85.212	
5,700.0	5,565.1	5,560.1	5,560.1	23.1	9.7	107.58	-2,304.4	1,139.2	2,682.3	2,650.3	31.96	83.927	
5,800.0	5,662.1	5,657.1	5,657.1	23.6	9.9	108.06	-2,304.4	1,139.2	2,689.9	2,657.4	32.53	82.700	
5,900.0	5,759.2	5,754.2	5,754.2	24.1	10.0	108.53	-2,304.4	1,139.2	2,697.7	2,664.6	33.09	81.528	
6,000.0	5,856.2	5,851.2	5,851.2	24.5	10.2	109.01	-2,304.4	1,139.2	2,705.6	2,672.0	33.65	80.409	
6,100.0	5,953.3	5,948.3	5,948.3	25.0	10.4	109.47	-2,304.4	1,139.2	2,713.8	2,679.6	34.21	79.339	
6,200.0	6,050.3	6,045.3	6,045.3	25.5	10.6	109.94	-2,304.4	1,139.2	2,722.1	2,687.4	34.76	78.315	
6,300.0	6,147.4	6,142.4	6,142.4	25.9	10.7	110.40	-2,304.4	1,139.2	2,730.7	2,695.4	35.31	77.336	
6,400.0	6,244.4	6,239.4	6,239.4	26.4	10.9	110.86	-2,304.4	1,139.2	2,739.4	2,703.5	35.86	76.399	
6,500.0	6,341.5	6,336.5	6,336.5	26.9	11.1	111.32	-2,304.4	1,139.2	2,748.3	2,711.9	36.40	75.502	
6,600.0	6,438.5	6,433.5	6,433.5	27.3	11.2	111.78	-2,304.4	1,139.2	2,757.4	2,720.5	36.94	74.642	
6,700.0	6,535.6	6,530.6	6,530.6	27.8	11.4	112.23	-2,304.4	1,139.2	2,766.7	2,729.2	37.48	73.818	
6,800.0	6,632.6	6,627.6	6,627.6	28.3	11.6	112.68	-2,304.4	1,139.2	2,776.1	2,738.1	38.01	73.028	
6,900.0	6,729.7	6,724.7	6,724.7	28.7	11.7	113.12	-2,304.4	1,139.2	2,785.7	2,747.2	38.55	72.271	
7,000.0	6,826.7	6,821.7	6,821.7	29.2	11.9	113.57	-2,304.4	1,139.2	2,795.5	2,756.5	39.07	71.545	
7,100.0	6,923.8	6,918.8	6,918.8	29.7	12.1	114.01	-2,304.4	1,139.2	2,805.5	2,765.9	39.60	70.848	
7,200.0	7,020.8	7,015.8	7,015.8	30.1	12.2	114.45	-2,304.4	1,139.2	2,815.7	2,775.5	40.12	70.180	
7,300.0	7,117.9	7,112.9	7,112.9	30.6	12.4	114.88	-2,304.4	1,139.2	2,826.0	2,785.3	40.64	69.538	
7,321.2	7,138.4	7,133.4	7,133.4	30.7	12.5	114.97	-2,304.4	1,139.2	2,828.2	2,787.4	40.75	69.405	
7,350.0	7,166.4	7,161.4	7,161.4	30.8	12.5	103.45	-2,304.4	1,139.2	2,830.5	2,789.6	40.90	69.197	
7,400.0	7,215.1	7,210.1	7,210.1	31.0	12.6	82.72	-2,304.4	1,139.2	2,831.1	2,790.1	40.96	69.111	
7,450.0	7,263.5	7,258.5	7,258.5	31.2	12.7	65.28	-2,304.4	1,139.2	2,827.4	2,786.7	40.76	69.375	
7,500.0	7,311.3	7,306.3	7,306.3	31.3	12.8	52.87	-2,304.4	1,139.2	2,819.5	2,779.2	40.28	69.995	
7,550.0	7,358.1	7,353.1	7,353.1	31.5	12.8	44.54	-2,304.4	1,139.2	2,807.4	2,767.8	39.55	70.985	
7,600.0	7,403.5	7,398.5	7,398.5	31.6	12.9	38.99	-2,304.4	1,139.2	2,791.2	2,752.6	38.57	72.368	
7,650.0	7,447.3	7,442.3	7,442.3	31.7	13.0	35.29	-2,304.4	1,139.2	2,771.1	2,733.7	37.36	74.178	
7,700.0	7,489.1	7,484.1	7,484.1	31.7	13.1	32.85	-2,304.4	1,139.2	2,747.1	2,711.2	35.93	76.452	
7,750.0	7,528.5	7,523.5	7,523.5	31.8	13.1	31.36	-2,304.4	1,139.2	2,719.6	2,685.3	34.32	79.234	
7,800.0	7,565.3	7,560.3	7,560.3	31.8	13.2	30.63	-2,304.4	1,139.2	2,688.6	2,656.1	32.56	82.564	
7,850.0	7,599.2	7,594.2	7,594.2	31.9	13.3	30.57	-2,304.4	1,139.2	2,654.5	2,623.8	30.70	86.461	
7,900.0	7,629.9	7,624.9	7,624.9	31.9	13.3	31.18	-2,304.4	1,139.2	2,617.4	2,588.6	28.80	90.885	
7,950.0	7,657.2	7,652.2	7,652.2	31.9	13.4	32.52	-2,304.4	1,139.2	2,577.8	2,550.8	26.95	95.661	
8,000.0	7,680.9	7,675.9	7,675.9	32.0	13.4	34.76	-2,304.4	1,139.2	2,535.8	2,510.5	25.27	100.328	
8,050.0	7,700.8	7,695.8	7,695.8	32.0	13.4	38.23	-2,304.4	1,139.2	2,491.8	2,467.8	23.98	103.909	
8,100.0	7,716.7	7,711.7	7,711.7	32.0	13.5	43.48	-2,304.4	1,139.2	2,446.1	2,422.7	23.35	104.734	
8,150.0	7,728.6	7,723.6	7,723.6	32.1	13.5	51.53	-2,304.4	1,139.2	2,399.0	2,375.3	23.76	100.951	
8,200.0	7,736.3	7,731.3	7,731.3	32.1	13.5	64.01	-2,304.4	1,139.2	2,351.0	2,325.6	25.40	92.574	
8,250.0	7,739.8	7,734.8	7,734.8	32.2	13.5	82.66	-2,304.4	1,139.2	2,302.3	2,274.8	27.48	83.783	
8,266.2	7,740.0	7,735.0	7,735.0	32.2	13.5	90.00	-2,304.4	1,139.2	2,286.4	2,258.5	27.89	81.980	
8,300.0	7,740.0	7,735.0	7,735.0	32.3	13.5	90.00	-2,304.4	1,139.2	2,253.4	2,225.4	28.02	80.409	
8,400.0	7,740.0	7,735.0	7,735.0	32.5	13.5	90.00	-2,304.4	1,139.2	2,155.7	2,127.1	28.55	75.503	
8,500.0	7,740.0	7,735.0	7,735.0	32.8	13.5	90.00	-2,304.4	1,139.2	2,058.2	2,028.9	29.26	70.350	
8,600.0	7,740.0	7,735.0	7,735.0	33.2	13.5	90.00	-2,304.4	1,139.2	1,960.9	1,930.8	30.12	65.110	
8,700.0	7,740.0	7,735.0	7,735.0	33.7	13.5	90.00	-2,304.4	1,139.2	1,863.9	1,832.8	31.11	59.912	
8,800.0	7,740.0	7,735.0	7,735.0	34.3	13.5	90.00	-2,304.4	1,139.2	1,767.3	1,735.1	32.22	54.856	
8,900.0	7,740.0	7,735.0	7,735.0	34.9	13.5	90.00	-2,304.4	1,139.2	1,671.1	1,637.7	33.42	50.008	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 24-7 (Existing) - Existing - NO SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 8365-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		
9,000.0	7,740.0	7,735.0	7,735.0	35.6	13.5	90.00	-2,304.4	1,139.2	1,575.3	1,540.6	34.69	45.407		
9,100.0	7,740.0	7,735.0	7,735.0	36.4	13.5	90.00	-2,304.4	1,139.2	1,480.1	1,444.1	36.03	41.075		
9,200.0	7,740.0	7,735.0	7,735.0	37.3	13.5	90.00	-2,304.4	1,139.2	1,385.6	1,348.2	37.43	37.019		
9,300.0	7,740.0	7,735.0	7,735.0	38.2	13.5	90.00	-2,304.4	1,139.2	1,291.9	1,253.0	38.87	33.238		
9,400.0	7,740.0	7,735.0	7,735.0	39.2	13.5	90.00	-2,304.4	1,139.2	1,199.2	1,158.9	40.35	29.724		
9,500.0	7,740.0	7,735.0	7,735.0	40.2	13.5	90.00	-2,304.4	1,139.2	1,107.8	1,066.0	41.85	26.469		
9,600.0	7,740.0	7,735.0	7,735.0	41.3	13.5	90.00	-2,304.4	1,139.2	1,018.1	974.7	43.39	23.464		
9,700.0	7,740.0	7,735.0	7,735.0	42.4	13.5	90.00	-2,304.4	1,139.2	930.4	885.4	44.95	20.699		
9,800.0	7,740.0	7,735.0	7,735.0	43.6	13.5	90.00	-2,304.4	1,139.2	845.4	798.9	46.52	18.171		
9,900.0	7,740.0	7,735.0	7,735.0	44.8	13.5	90.00	-2,304.4	1,139.2	764.1	716.0	48.12	15.879		
10,000.0	7,740.0	7,735.0	7,735.0	46.0	13.5	90.00	-2,304.4	1,139.2	687.7	638.0	49.73	13.829		
10,100.0	7,740.0	7,735.0	7,735.0	47.3	13.5	90.00	-2,304.4	1,139.2	618.1	566.8	51.35	12.037		
10,200.0	7,740.0	7,735.0	7,735.0	48.6	13.5	90.00	-2,304.4	1,139.2	557.9	504.9	52.98	10.529		
10,300.0	7,740.0	7,735.0	7,735.0	50.0	13.5	90.00	-2,304.4	1,139.2	510.2	455.6	54.63	9.340		
10,400.0	7,740.0	7,735.0	7,735.0	51.3	13.5	90.00	-2,304.4	1,139.2	479.0	422.8	56.28	8.512		
10,500.0	7,740.0	7,735.0	7,735.0	52.7	13.5	90.00	-2,304.4	1,139.2	467.5	409.6	57.94	8.070		
10,504.3	7,740.0	7,735.0	7,735.0	52.8	13.5	90.00	-2,304.4	1,139.2	467.5	409.5	58.01	8.059 CC, ES		
10,600.0	7,740.0	7,735.0	7,735.0	54.1	13.5	90.00	-2,304.4	1,139.2	477.2	417.6	59.61	8.006 SF		
10,700.0	7,740.0	7,735.0	7,735.0	55.6	13.5	90.00	-2,304.4	1,139.2	506.8	445.5	61.28	8.270		
10,800.0	7,740.0	7,735.0	7,735.0	57.0	13.5	90.00	-2,304.4	1,139.2	553.2	490.2	62.96	8.786		
10,900.0	7,740.0	7,735.0	7,735.0	58.5	13.5	90.00	-2,304.4	1,139.2	612.5	547.8	64.64	9.475		
11,000.0	7,740.0	7,735.0	7,735.0	59.9	13.5	90.00	-2,304.4	1,139.2	681.4	615.0	66.33	10.272		
11,100.0	7,740.0	7,735.0	7,735.0	61.4	13.5	90.00	-2,304.4	1,139.2	757.2	689.2	68.02	11.132		
11,200.0	7,740.0	7,735.0	7,735.0	62.9	13.5	90.00	-2,304.4	1,139.2	838.2	768.4	69.72	12.022		
11,300.0	7,740.0	7,735.0	7,735.0	64.5	13.5	90.00	-2,304.4	1,139.2	922.8	851.4	71.42	12.921		
11,400.0	7,740.0	7,735.0	7,735.0	66.0	13.5	90.00	-2,304.4	1,139.2	1,010.3	937.2	73.12	13.817		
11,500.0	7,740.0	7,735.0	7,735.0	67.5	13.5	90.00	-2,304.4	1,139.2	1,100.0	1,025.1	74.83	14.700		
11,600.0	7,740.0	7,735.0	7,735.0	69.1	13.5	90.00	-2,304.4	1,139.2	1,191.2	1,114.7	76.54	15.564		
11,700.0	7,740.0	7,735.0	7,735.0	70.7	13.5	90.00	-2,304.4	1,139.2	1,283.8	1,205.6	78.25	16.407		
11,800.0	7,740.0	7,735.0	7,735.0	72.2	13.5	90.00	-2,304.4	1,139.2	1,377.4	1,297.5	79.96	17.226		
11,900.0	7,740.0	7,735.0	7,735.0	73.8	13.5	90.00	-2,304.4	1,139.2	1,471.9	1,390.2	81.68	18.021		
12,000.0	7,740.0	7,735.0	7,735.0	75.4	13.5	90.00	-2,304.4	1,139.2	1,567.0	1,483.6	83.39	18.791		
12,100.0	7,740.0	7,735.0	7,735.0	77.0	13.5	90.00	-2,304.4	1,139.2	1,662.7	1,577.6	85.11	19.536		
12,200.0	7,740.0	7,735.0	7,735.0	78.6	13.5	90.00	-2,304.4	1,139.2	1,758.9	1,672.1	86.83	20.256		
12,300.0	7,740.0	7,735.0	7,735.0	80.2	13.5	90.00	-2,304.4	1,139.2	1,855.5	1,767.0	88.56	20.953		
12,400.0	7,740.0	7,735.0	7,735.0	81.8	13.5	90.00	-2,304.4	1,139.2	1,952.5	1,862.2	90.28	21.627		
12,500.0	7,740.0	7,735.0	7,735.0	83.4	13.5	90.00	-2,304.4	1,139.2	2,049.7	1,957.7	92.00	22.278		
12,600.0	7,740.0	7,735.0	7,735.0	85.1	13.5	90.00	-2,304.4	1,139.2	2,147.2	2,053.4	93.73	22.908		
12,700.0	7,740.0	7,735.0	7,735.0	86.7	13.5	90.00	-2,304.4	1,139.2	2,244.9	2,149.4	95.46	23.517		
12,800.0	7,740.0	7,735.0	7,735.0	88.3	13.5	90.00	-2,304.4	1,139.2	2,342.8	2,245.6	97.19	24.106		
12,900.0	7,740.0	7,735.0	7,735.0	90.0	13.5	90.00	-2,304.4	1,139.2	2,440.8	2,341.9	98.92	24.676		
13,000.0	7,740.0	7,735.0	7,735.0	91.6	13.5	90.00	-2,304.4	1,139.2	2,539.1	2,438.4	100.65	25.228		
13,100.0	7,740.0	7,735.0	7,735.0	93.3	13.5	90.00	-2,304.4	1,139.2	2,637.4	2,535.0	102.38	25.762		
13,200.0	7,740.0	7,735.0	7,735.0	94.9	13.5	90.00	-2,304.4	1,139.2	2,735.9	2,631.8	104.11	26.279		
13,300.0	7,740.0	7,735.0	7,735.0	96.6	13.5	90.00	-2,304.4	1,139.2	2,834.5	2,728.6	105.84	26.780		
13,400.0	7,740.0	7,735.0	7,735.0	98.2	13.5	90.00	-2,304.4	1,139.2	2,933.2	2,825.6	107.58	27.266		
13,500.0	7,740.0	7,735.0	7,735.0	99.9	13.5	90.00	-2,304.4	1,139.2	3,031.9	2,922.6	109.31	27.736		
13,600.0	7,740.0	7,735.0	7,735.0	101.6	13.5	90.00	-2,304.4	1,139.2	3,130.8	3,019.7	111.05	28.193		
13,700.0	7,740.0	7,735.0	7,735.0	103.2	13.5	90.00	-2,304.4	1,139.2	3,229.7	3,116.9	112.78	28.636		
13,800.0	7,740.0	7,735.0	7,735.0	104.9	13.5	90.00	-2,304.4	1,139.2	3,328.6	3,214.1	114.52	29.066		
13,900.0	7,740.0	7,735.0	7,735.0	106.6	13.5	90.00	-2,304.4	1,139.2	3,427.7	3,311.4	116.26	29.484		
14,000.0	7,740.0	7,735.0	7,735.0	108.2	13.5	90.00	-2,304.4	1,139.2	3,526.8	3,408.8	117.99	29.889		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 24-7 (Existing) - Existing - NO SURVEYS													Offset Site Error: 0.0 ft
Survey Program: 8365-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	
14,100.0	7,740.0	7,735.0	7,735.0	109.9	13.5	90.00	-2,304.4	1,139.2	3,625.9	3,506.2	119.73	30.283	
14,200.0	7,740.0	7,735.0	7,735.0	111.6	13.5	90.00	-2,304.4	1,139.2	3,725.1	3,603.6	121.47	30.666	
14,300.0	7,740.0	7,735.0	7,735.0	113.3	13.5	90.00	-2,304.4	1,139.2	3,824.3	3,701.1	123.21	31.039	
14,400.0	7,740.0	7,735.0	7,735.0	115.0	13.5	90.00	-2,304.4	1,139.2	3,923.6	3,798.7	124.95	31.401	
14,500.0	7,740.0	7,735.0	7,735.0	116.7	13.5	90.00	-2,304.4	1,139.2	4,022.9	3,896.2	126.69	31.754	
14,600.0	7,740.0	7,735.0	7,735.0	118.3	13.5	90.00	-2,304.4	1,139.2	4,122.3	3,993.8	128.43	32.097	
14,700.0	7,740.0	7,735.0	7,735.0	120.0	13.5	90.00	-2,304.4	1,139.2	4,221.6	4,091.4	130.17	32.431	
14,800.0	7,740.0	7,735.0	7,735.0	121.7	13.5	90.00	-2,304.4	1,139.2	4,321.0	4,189.1	131.91	32.756	
14,900.0	7,740.0	7,735.0	7,735.0	123.4	13.5	90.00	-2,304.4	1,139.2	4,420.4	4,286.8	133.66	33.073	
15,000.0	7,740.0	7,735.0	7,735.0	125.1	13.5	90.00	-2,304.4	1,139.2	4,519.9	4,384.5	135.40	33.382	
15,100.0	7,740.0	7,735.0	7,735.0	126.8	13.5	90.00	-2,304.4	1,139.2	4,619.4	4,482.2	137.14	33.684	
15,200.0	7,740.0	7,735.0	7,735.0	128.5	13.5	90.00	-2,304.4	1,139.2	4,718.9	4,580.0	138.88	33.977	
15,300.0	7,740.0	7,735.0	7,735.0	130.2	13.5	90.00	-2,304.4	1,139.2	4,818.4	4,677.8	140.63	34.264	
15,400.0	7,740.0	7,735.0	7,735.0	131.9	13.5	90.00	-2,304.4	1,139.2	4,917.9	4,775.6	142.37	34.543	
15,500.0	7,740.0	7,735.0	7,735.0	133.6	13.5	90.00	-2,304.4	1,139.2	5,017.5	4,873.4	144.11	34.816	
15,600.0	7,740.0	7,735.0	7,735.0	135.3	13.5	90.00	-2,304.4	1,139.2	5,117.1	4,971.2	145.86	35.083	
15,700.0	7,740.0	7,735.0	7,735.0	137.0	13.5	90.00	-2,304.4	1,139.2	5,216.6	5,069.0	147.60	35.343	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 2-8-7 (EXISTING) - ENCANA WELL - SUR													Offset Site Error: 0.0 ft			
Survey Program: 838-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				
0.0	0.0	11.7	11.7	0.0	0.0	153.96	-2,332.8	1,140.1	2,596.5							
100.0	100.0	118.1	118.1	0.2	0.2	153.96	-2,332.7	1,139.9	2,596.3	2,596.0	0.36	7,289.429				
200.0	200.0	224.5	224.5	0.3	0.4	153.96	-2,332.5	1,139.4	2,595.9	2,595.2	0.71	3,631.830				
300.0	300.0	330.9	330.9	0.5	0.6	83.02	-2,332.1	1,138.6	2,595.2	2,594.1	1.08	2,413.453				
400.0	400.0	437.2	437.2	0.7	0.8	83.10	-2,331.6	1,137.6	2,594.0	2,592.5	1.44	1,802.254				
500.0	499.9	543.4	543.4	0.9	1.0	83.24	-2,330.9	1,136.2	2,592.3	2,590.5	1.81	1,431.351				
600.0	599.7	649.5	649.5	1.1	1.1	83.43	-2,330.1	1,134.6	2,590.2	2,588.0	2.19	1,180.476				
700.0	699.4	755.4	755.3	1.3	1.3	83.67	-2,329.1	1,132.6	2,587.7	2,585.1	2.59	998.388				
800.0	798.9	853.1	853.0	1.5	1.5	83.93	-2,328.1	1,130.6	2,584.9	2,581.9	2.99	863.418				
900.0	898.3	907.9	907.8	1.8	1.6	84.10	-2,327.9	1,130.0	2,582.8	2,579.5	3.34	773.042				
1,000.0	997.4	983.3	983.2	2.0	1.7	84.34	-2,328.5	1,129.5	2,582.0	2,578.3	3.75	688.683				
1,036.7	1,033.8	1,008.4	1,008.3	2.2	1.8	84.43	-2,329.0	1,129.2	2,581.9	2,578.0	3.90	661.341				
1,100.0	1,096.3	1,048.1	1,048.0	2.3	1.8	84.59	-2,330.1	1,128.4	2,582.2	2,578.0	4.17	619.888				
1,200.0	1,194.9	1,109.6	1,109.4	2.7	2.0	84.85	-2,332.8	1,127.0	2,583.7	2,579.1	4.61	560.668				
1,300.0	1,293.3	1,174.1	1,173.7	3.0	2.1	85.15	-2,336.8	1,124.9	2,586.6	2,581.5	5.08	509.110				
1,400.0	1,391.2	1,251.0	1,250.4	3.4	2.2	85.56	-2,342.7	1,121.9	2,590.6	2,585.0	5.61	461.494				
1,500.0	1,488.9	1,361.3	1,360.3	3.8	2.4	86.21	-2,350.9	1,117.2	2,594.4	2,588.2	6.24	415.541				
1,595.5	1,581.8	1,445.0	1,443.6	4.2	2.6	86.73	-2,357.7	1,113.3	2,598.6	2,591.7	6.83	380.345				
1,600.0	1,586.1	1,449.9	1,448.4	4.2	2.6	86.77	-2,358.0	1,113.1	2,598.8	2,591.9	6.86	378.738				
1,700.0	1,683.2	1,540.8	1,538.9	4.7	2.8	87.39	-2,365.3	1,108.9	2,603.5	2,596.0	7.49	347.549				
1,800.0	1,780.2	1,618.2	1,616.0	5.1	3.0	87.92	-2,371.8	1,105.2	2,608.9	2,600.8	8.10	322.050				
1,900.0	1,877.3	1,690.4	1,687.7	5.6	3.2	88.43	-2,378.7	1,101.4	2,615.5	2,606.8	8.71	300.412				
2,000.0	1,974.3	1,761.0	1,757.9	6.0	3.3	88.93	-2,386.1	1,097.5	2,623.4	2,614.1	9.31	281.692				
2,100.0	2,071.4	1,852.8	1,848.9	6.5	3.6	89.61	-2,396.5	1,091.6	2,632.1	2,622.1	9.98	263.775				
2,200.0	2,168.4	1,915.8	1,911.3	6.9	3.7	90.08	-2,404.2	1,087.0	2,641.8	2,631.2	10.58	249.634				
2,300.0	2,265.4	1,985.2	1,979.8	7.4	3.9	90.61	-2,413.6	1,081.9	2,653.0	2,641.8	11.21	236.738				
2,400.0	2,362.5	2,048.0	2,041.8	7.9	4.1	91.09	-2,422.6	1,076.8	2,665.3	2,653.5	11.82	225.521				
2,500.0	2,459.5	2,124.7	2,117.3	8.3	4.4	91.69	-2,434.3	1,070.0	2,678.8	2,666.4	12.47	214.790				
2,600.0	2,556.6	2,230.9	2,221.8	8.8	4.7	92.52	-2,451.1	1,060.8	2,693.3	2,680.1	13.19	204.158				
2,700.0	2,653.6	2,331.1	2,320.4	9.2	5.0	93.29	-2,466.4	1,052.4	2,707.7	2,693.8	13.89	194.882				
2,800.0	2,750.7	2,433.8	2,421.5	9.7	5.3	94.07	-2,481.6	1,043.4	2,722.2	2,707.6	14.60	186.416				
2,900.0	2,847.7	2,526.6	2,512.9	10.2	5.6	94.78	-2,495.4	1,034.8	2,737.1	2,721.8	15.29	178.994				
3,000.0	2,944.8	2,616.6	2,601.5	10.6	5.9	95.48	-2,509.0	1,025.7	2,752.4	2,736.4	15.97	172.318				
3,100.0	3,041.8	2,701.9	2,685.3	11.1	6.2	96.12	-2,521.9	1,017.5	2,768.3	2,751.7	16.63	166.450				
3,200.0	3,138.9	2,780.7	2,762.9	11.5	6.5	96.70	-2,534.0	1,010.5	2,785.1	2,767.8	17.27	161.281				
3,300.0	3,235.9	2,893.3	2,873.8	12.0	6.9	97.51	-2,551.0	1,001.0	2,802.0	2,784.1	17.97	155.892				
3,400.0	3,333.0	2,981.7	2,960.9	12.5	7.2	98.14	-2,564.2	993.6	2,819.3	2,800.6	18.62	151.391				
3,500.0	3,430.0	3,084.7	3,062.4	12.9	7.5	98.87	-2,579.3	984.6	2,836.7	2,817.4	19.30	146.983				
3,600.0	3,527.1	3,163.0	3,139.5	13.4	7.8	99.42	-2,591.0	977.8	2,854.6	2,834.7	19.92	143.318				
3,700.0	3,624.1	3,287.1	3,261.8	13.9	8.2	100.27	-2,608.9	967.1	2,872.5	2,851.9	20.62	139.298				
3,800.0	3,721.2	3,373.2	3,346.8	14.3	8.5	100.85	-2,620.9	960.2	2,890.5	2,869.3	21.24	136.080				
3,900.0	3,818.2	3,448.0	3,420.5	14.8	8.7	101.35	-2,631.8	953.8	2,909.3	2,887.5	21.84	133.194				
4,000.0	3,915.3	3,520.4	3,491.8	15.3	9.0	101.84	-2,642.8	947.1	2,929.1	2,906.7	22.44	130.520				
4,100.0	4,012.3	3,631.1	3,600.6	15.7	9.4	102.59	-2,659.9	936.7	2,949.5	2,926.4	23.10	127.673				
4,200.0	4,109.4	3,743.1	3,711.0	16.2	9.7	103.33	-2,676.3	926.7	2,969.4	2,945.6	23.75	125.010				
4,300.0	4,206.4	3,847.7	3,814.2	16.6	10.1	103.99	-2,690.9	918.2	2,989.2	2,964.8	24.38	122.626				
4,400.0	4,303.5	3,942.7	3,907.9	17.1	10.4	104.59	-2,704.0	909.9	3,009.1	2,984.1	24.99	120.415				
4,500.0	4,400.5	4,019.0	3,983.2	17.6	10.6	105.07	-2,714.7	903.1	3,029.5	3,003.9	25.56	118.507				
4,600.0	4,497.6	4,098.2	4,061.2	18.0	10.9	105.57	-2,726.1	895.5	3,050.6	3,024.5	26.15	116.654				
4,700.0	4,594.6	4,170.7	4,132.5	18.5	11.2	106.04	-2,737.0	888.1	3,072.7	3,046.0	26.72	115.010				
4,800.0	4,691.7	4,263.2	4,223.5	19.0	11.5	106.61	-2,751.3	879.4	3,095.5	3,068.2	27.31	113.364				
4,900.0	4,788.7	4,434.4	4,392.2	19.4	12.1	107.65	-2,775.4	863.7	3,117.2	3,089.2	28.00	111.328				

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 2-8-7 (EXISTING) - ENCANA WELL - SUR													Offset Site Error:	0.0 ft
Survey Program: 838-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		
5,000.0	4,885.8	4,504.8	4,461.7	19.9	12.3	108.06	-2,784.6	857.4	3,138.4	3,109.9	28.54	109.949		
5,100.0	4,982.8	4,594.5	4,550.1	20.4	12.6	108.59	-2,797.2	849.1	3,160.8	3,131.7	29.11	108.581		
5,200.0	5,079.9	4,687.0	4,641.4	20.8	12.9	109.12	-2,809.7	841.0	3,183.0	3,153.3	29.67	107.267		
5,300.0	5,176.9	4,735.9	4,689.6	21.3	13.1	109.40	-2,816.8	836.5	3,206.3	3,176.1	30.18	106.233		
5,400.0	5,273.9	4,883.4	4,834.8	21.8	13.6	110.25	-2,838.7	822.4	3,230.7	3,199.9	30.81	104.871		
5,500.0	5,371.0	4,979.6	4,929.8	22.2	13.9	110.78	-2,851.4	813.6	3,253.5	3,222.2	31.36	103.751		
5,600.0	5,468.0	5,069.0	5,018.0	22.7	14.2	111.28	-2,863.3	805.4	3,276.6	3,244.7	31.90	102.708		
5,700.0	5,565.1	5,163.0	5,110.8	23.1	14.5	111.78	-2,875.8	797.0	3,300.0	3,267.5	32.44	101.735		
5,800.0	5,662.1	5,250.3	5,197.0	23.6	14.8	112.23	-2,887.5	790.2	3,323.6	3,290.7	32.95	100.854		
5,900.0	5,759.2	5,384.6	5,329.8	24.1	15.2	112.91	-2,904.9	780.1	3,347.0	3,313.4	33.52	99.846		
6,000.0	5,856.2	5,472.9	5,417.1	24.5	15.5	113.36	-2,915.7	772.6	3,370.0	3,336.0	34.04	99.000		
6,100.0	5,953.3	5,543.0	5,486.4	25.0	15.7	113.71	-2,924.6	766.6	3,393.8	3,359.3	34.54	98.267		
6,200.0	6,050.3	5,621.1	5,563.5	25.5	16.0	114.11	-2,935.1	759.8	3,418.4	3,383.4	35.04	97.549		
6,300.0	6,147.4	5,750.5	5,691.3	25.9	16.4	114.75	-2,952.0	748.6	3,443.0	3,407.5	35.58	96.763		
6,400.0	6,244.4	5,888.8	5,828.2	26.4	16.8	115.41	-2,968.1	737.5	3,466.3	3,430.2	36.12	95.959		
6,500.0	6,341.5	5,961.7	5,900.4	26.9	17.0	115.75	-2,976.5	731.7	3,489.8	3,453.2	36.61	95.333		
6,600.0	6,438.5	6,161.5	6,098.5	27.3	17.6	116.64	-2,998.1	718.5	3,512.8	3,475.6	37.16	94.523		
6,700.0	6,535.6	6,603.5	6,539.8	27.8	18.2	118.33	-3,015.8	707.4	3,526.2	3,488.4	37.82	93.234		
6,800.0	6,632.6	6,728.6	6,664.9	28.3	18.4	118.77	-3,015.3	707.2	3,537.6	3,499.3	38.31	92.350		
6,900.0	6,729.7	6,827.9	6,764.2	28.7	18.5	119.12	-3,014.7	707.0	3,548.9	3,510.2	38.78	91.522		
7,000.0	6,826.7	6,940.1	6,876.4	29.2	18.6	119.51	-3,013.5	706.7	3,560.1	3,520.8	39.25	90.691		
7,100.0	6,923.8	7,033.7	6,970.0	29.7	18.7	119.83	-3,012.5	706.3	3,571.2	3,531.5	39.72	89.907		
7,200.0	7,020.8	7,125.3	7,061.6	30.1	18.8	120.15	-3,011.5	705.8	3,582.6	3,542.4	40.19	89.151		
7,300.0	7,117.9	7,205.8	7,142.0	30.6	18.9	120.43	-3,010.8	705.1	3,594.4	3,553.8	40.64	88.437		
7,321.2	7,138.4	7,231.0	7,167.2	30.7	18.9	120.52	-3,010.7	704.8	3,597.0	3,556.3	40.75	88.281		
7,350.0	7,166.4	7,251.0	7,187.2	30.8	18.9	108.92	-3,010.6	704.5	3,599.8	3,558.9	40.90	88.019		
7,400.0	7,215.1	7,306.4	7,242.7	31.0	19.0	88.15	-3,010.2	703.7	3,601.4	3,560.4	40.95	87.943		
7,450.0	7,263.5	7,352.5	7,288.7	31.2	19.1	70.68	-3,009.8	702.9	3,598.6	3,557.9	40.71	88.388		
7,500.0	7,311.3	7,393.1	7,329.4	31.3	19.1	58.26	-3,009.5	702.2	3,591.8	3,551.6	40.20	89.349		
7,550.0	7,358.1	7,434.4	7,370.6	31.5	19.2	49.96	-3,009.3	701.6	3,580.9	3,541.5	39.42	90.833		
7,600.0	7,403.5	7,478.4	7,414.7	31.6	19.2	44.50	-3,009.2	700.9	3,566.0	3,527.6	38.40	92.856		
7,650.0	7,447.3	7,520.9	7,457.1	31.7	19.3	40.93	-3,009.0	700.3	3,547.2	3,510.0	37.16	95.447		
7,700.0	7,489.1	7,562.3	7,498.5	31.7	19.3	38.68	-3,008.9	699.8	3,524.6	3,488.9	35.74	98.625		
7,750.0	7,528.5	7,601.4	7,537.6	31.8	19.4	37.43	-3,008.9	699.4	3,498.5	3,464.3	34.17	102.389		
7,800.0	7,565.3	7,638.0	7,574.2	31.8	19.4	36.99	-3,008.8	699.1	3,469.0	3,436.5	32.51	106.693		
7,850.0	7,599.2	7,676.1	7,612.3	31.9	19.5	37.34	-3,008.7	698.9	3,436.3	3,405.4	30.85	111.380		
7,900.0	7,629.9	7,712.0	7,648.2	31.9	19.5	38.45	-3,008.7	698.8	3,400.6	3,371.3	29.28	116.129		
7,950.0	7,657.2	7,743.5	7,679.7	31.9	19.5	40.39	-3,008.6	698.8	3,362.3	3,334.3	27.94	120.340		
8,000.0	7,680.9	7,766.5	7,702.7	32.0	19.6	43.23	-3,008.5	698.8	3,321.6	3,294.6	26.98	123.101		
8,050.0	7,700.8	7,785.9	7,722.1	32.0	19.6	47.32	-3,008.5	698.9	3,278.9	3,252.3	26.63	123.143		
8,100.0	7,716.7	7,801.4	7,737.6	32.0	19.6	53.05	-3,008.4	698.9	3,234.5	3,207.4	27.08	119.422		
8,150.0	7,728.6	7,812.9	7,749.1	32.1	19.6	60.98	-3,008.4	698.9	3,188.7	3,160.3	28.45	112.094		
8,200.0	7,736.3	7,820.3	7,756.5	32.1	19.6	71.73	-3,008.4	698.9	3,141.9	3,111.5	30.42	103.270		
8,250.0	7,739.8	7,823.6	7,759.8	32.2	19.6	85.54	-3,008.4	699.0	3,094.5	3,062.3	32.12	96.355		
8,266.2	7,740.0	7,823.8	7,760.0	32.2	19.6	90.57	-3,008.4	699.0	3,079.0	3,046.6	32.39	95.053		
8,300.0	7,740.0	7,823.8	7,760.0	32.3	19.6	90.56	-3,008.4	699.0	3,046.7	3,014.2	32.53	93.672		
8,400.0	7,740.0	7,823.5	7,759.7	32.5	19.6	90.55	-3,008.4	699.0	2,951.4	2,918.4	33.05	89.299		
8,500.0	7,740.0	7,823.3	7,759.5	32.8	19.6	90.54	-3,008.4	699.0	2,856.4	2,822.7	33.75	84.623		
8,600.0	7,740.0	7,823.1	7,759.3	33.2	19.6	90.52	-3,008.4	699.0	2,761.8	2,727.2	34.61	79.787		
8,700.0	7,740.0	7,822.9	7,759.1	33.7	19.6	90.51	-3,008.4	698.9	2,667.5	2,631.9	35.61	74.915		
8,800.0	7,740.0	7,822.6	7,758.8	34.3	19.6	90.49	-3,008.4	698.9	2,573.7	2,537.0	36.71	70.106		
8,900.0	7,740.0	7,822.4	7,758.6	34.9	19.6	90.48	-3,008.4	698.9	2,480.4	2,442.5	37.91	65.428		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 2-8-7 (EXISTING) - ENCANA WELL - SUR												Offset Site Error:	0.0 ft
Survey Program: 838-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
9,000.0	7,740.0	7,822.2	7,758.4	35.6	19.6	90.47	-3,008.4	698.9	2,387.6	2,348.5	39.19	60.931	
9,100.0	7,740.0	7,822.0	7,758.2	36.4	19.6	90.45	-3,008.4	698.9	2,295.5	2,254.9	40.53	56.641	
9,200.0	7,740.0	7,821.7	7,757.9	37.3	19.6	90.44	-3,008.4	698.9	2,204.0	2,162.1	41.92	52.576	
9,300.0	7,740.0	7,821.5	7,757.7	38.2	19.6	90.42	-3,008.4	698.9	2,113.2	2,069.9	43.36	48.739	
9,400.0	7,740.0	7,821.3	7,757.5	39.2	19.6	90.41	-3,008.4	698.9	2,023.4	1,978.6	44.83	45.131	
9,500.0	7,740.0	7,821.1	7,757.3	40.2	19.6	90.39	-3,008.4	698.9	1,934.6	1,888.2	46.34	41.746	
9,600.0	7,740.0	7,820.8	7,757.0	41.3	19.6	90.38	-3,008.4	698.9	1,846.8	1,799.0	47.88	38.576	
9,700.0	7,740.0	7,820.6	7,756.8	42.4	19.6	90.37	-3,008.4	698.9	1,760.4	1,711.0	49.43	35.613	
9,800.0	7,740.0	7,820.4	7,756.6	43.6	19.6	90.35	-3,008.4	698.9	1,675.6	1,624.5	51.01	32.847	
9,900.0	7,740.0	7,820.1	7,756.3	44.8	19.6	90.34	-3,008.4	698.9	1,592.4	1,539.8	52.60	30.272	
10,000.0	7,740.0	7,819.9	7,756.1	46.0	19.6	90.32	-3,008.4	698.9	1,511.3	1,457.1	54.21	27.878	
10,100.0	7,740.0	7,819.7	7,755.9	47.3	19.6	90.31	-3,008.4	698.9	1,432.7	1,376.8	55.84	25.659	
10,200.0	7,740.0	7,819.4	7,755.6	48.6	19.6	90.29	-3,008.4	698.9	1,356.8	1,299.3	57.47	23.609	
10,300.0	7,740.0	7,819.2	7,755.4	50.0	19.6	90.28	-3,008.4	698.9	1,284.2	1,225.1	59.11	21.725	
10,400.0	7,740.0	7,819.0	7,755.2	51.3	19.6	90.26	-3,008.4	698.9	1,215.5	1,154.8	60.76	20.004	
10,500.0	7,740.0	7,818.8	7,755.0	52.7	19.6	90.25	-3,008.4	698.9	1,151.5	1,089.0	62.42	18.446	
10,600.0	7,740.0	7,818.5	7,754.7	54.1	19.6	90.23	-3,008.4	698.9	1,092.8	1,028.7	64.09	17.051	
10,700.0	7,740.0	7,818.3	7,754.5	55.6	19.6	90.22	-3,008.4	698.9	1,040.4	974.7	65.76	15.821	
10,800.0	7,740.0	7,818.1	7,754.3	57.0	19.6	90.20	-3,008.4	698.9	995.4	928.0	67.44	14.760	
10,900.0	7,740.0	7,817.8	7,754.0	58.5	19.6	90.19	-3,008.4	698.9	958.7	889.6	69.12	13.870	
11,000.0	7,740.0	7,817.6	7,753.8	59.9	19.6	90.17	-3,008.4	698.9	931.4	860.6	70.81	13.153	
11,100.0	7,740.0	7,817.3	7,753.5	61.4	19.6	90.16	-3,008.4	698.9	914.3	841.7	72.50	12.610	
11,200.0	7,740.0	7,817.1	7,753.3	62.9	19.6	90.15	-3,008.4	698.9	907.8	833.6	74.20	12.235	
11,208.3	7,740.0	7,817.1	7,753.3	63.1	19.6	90.14	-3,008.4	698.9	907.8	833.5	74.34	12.211	CC, ES
11,300.0	7,740.0	7,816.9	7,753.1	64.5	19.6	90.13	-3,008.4	698.9	912.4	836.5	75.90	12.021	
11,400.0	7,740.0	7,816.6	7,752.8	66.0	19.6	90.12	-3,008.4	698.9	927.8	850.2	77.60	11.956	SF
11,500.0	7,740.0	7,816.4	7,752.6	67.5	19.6	90.10	-3,008.4	698.9	953.5	874.2	79.31	12.023	
11,600.0	7,740.0	7,816.2	7,752.4	69.1	19.6	90.09	-3,008.4	698.9	988.7	907.7	81.02	12.204	
11,700.0	7,740.0	7,815.9	7,752.1	70.7	19.6	90.07	-3,008.4	698.9	1,032.4	949.7	82.73	12.480	
11,800.0	7,740.0	7,815.7	7,751.9	72.2	19.6	90.06	-3,008.4	698.9	1,083.6	999.2	84.44	12.833	
11,900.0	7,740.0	7,815.4	7,751.6	73.8	19.6	90.04	-3,008.4	698.9	1,141.3	1,055.1	86.15	13.247	
12,000.0	7,740.0	7,815.2	7,751.4	75.4	19.6	90.02	-3,008.4	698.9	1,204.5	1,116.6	87.87	13.708	
12,100.0	7,740.0	7,815.0	7,751.2	77.0	19.6	90.01	-3,008.4	698.9	1,272.5	1,182.9	89.59	14.203	
12,200.0	7,740.0	7,814.7	7,750.9	78.6	19.6	89.99	-3,008.4	698.9	1,344.4	1,253.1	91.31	14.724	
12,300.0	7,740.0	7,814.5	7,750.7	80.2	19.6	89.98	-3,008.4	698.9	1,419.8	1,326.8	93.03	15.262	
12,400.0	7,740.0	7,814.2	7,750.4	81.8	19.6	89.96	-3,008.4	698.9	1,498.1	1,403.3	94.76	15.810	
12,500.0	7,740.0	7,814.0	7,750.2	83.4	19.6	89.95	-3,008.4	698.9	1,578.8	1,482.3	96.48	16.364	
12,600.0	7,740.0	7,813.8	7,750.0	85.1	19.6	89.93	-3,008.4	698.9	1,661.6	1,563.4	98.21	16.919	
12,700.0	7,740.0	7,813.5	7,749.7	86.7	19.6	89.92	-3,008.4	698.9	1,746.2	1,646.3	99.93	17.474	
12,800.0	7,740.0	7,813.3	7,749.5	88.3	19.6	89.90	-3,008.4	698.9	1,832.4	1,730.7	101.66	18.024	
12,900.0	7,740.0	7,813.0	7,749.2	90.0	19.6	89.89	-3,008.4	698.9	1,919.9	1,816.5	103.39	18.569	
13,000.0	7,740.0	7,812.8	7,749.0	91.6	19.6	89.87	-3,008.4	698.9	2,008.5	1,903.4	105.12	19.107	
13,100.0	7,740.0	7,812.5	7,748.7	93.3	19.6	89.86	-3,008.4	698.9	2,098.2	1,991.4	106.85	19.637	
13,200.0	7,740.0	7,812.3	7,748.5	94.9	19.6	89.84	-3,008.4	698.9	2,188.8	2,080.2	108.58	20.158	
13,300.0	7,740.0	7,812.0	7,748.2	96.6	19.6	89.82	-3,008.4	698.9	2,280.2	2,169.9	110.32	20.669	
13,400.0	7,740.0	7,811.8	7,748.0	98.2	19.6	89.81	-3,008.4	698.9	2,372.2	2,260.2	112.05	21.171	
13,500.0	7,740.0	7,811.5	7,747.7	99.9	19.6	89.79	-3,008.4	698.9	2,464.9	2,351.1	113.78	21.663	
13,600.0	7,740.0	7,811.3	7,747.5	101.6	19.6	89.78	-3,008.4	698.9	2,558.2	2,442.6	115.52	22.145	
13,700.0	7,740.0	7,811.0	7,747.2	103.2	19.6	89.76	-3,008.4	698.9	2,651.9	2,534.6	117.25	22.617	
13,800.0	7,740.0	7,810.8	7,747.0	104.9	19.6	89.75	-3,008.4	698.9	2,746.1	2,627.1	118.99	23.078	
13,900.0	7,740.0	7,810.5	7,746.7	106.6	19.6	89.73	-3,008.4	698.9	2,840.6	2,719.9	120.73	23.529	
14,000.0	7,740.0	7,810.3	7,746.5	108.2	19.6	89.71	-3,008.4	698.9	2,935.6	2,813.1	122.46	23.971	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 2-8-7 (EXISTING) - ENCANA WELL - SUR													Offset Site Error:	0.0 ft
Survey Program: 838-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
14,100.0	7,740.0	7,810.0	7,746.2	109.9	19.6	89.70	-3,008.4	698.9	3,030.8	2,906.6	124.20	24.402		
14,200.0	7,740.0	7,809.8	7,746.0	111.6	19.6	89.68	-3,008.4	698.9	3,126.4	3,000.4	125.94	24.824		
14,300.0	7,740.0	7,809.5	7,745.7	113.3	19.6	89.67	-3,008.4	698.9	3,222.2	3,094.5	127.68	25.237		
14,400.0	7,740.0	7,809.3	7,745.5	115.0	19.6	89.65	-3,008.4	698.9	3,318.3	3,188.8	129.42	25.640		
14,500.0	7,740.0	7,809.0	7,745.2	116.7	19.6	89.64	-3,008.4	698.9	3,414.6	3,283.4	131.16	26.034		
14,600.0	7,740.0	7,808.8	7,745.0	118.3	19.6	89.62	-3,008.4	698.9	3,511.1	3,378.2	132.90	26.419		
14,700.0	7,740.0	7,808.5	7,744.7	120.0	19.6	89.60	-3,008.4	698.9	3,607.7	3,473.1	134.64	26.796		
14,800.0	7,740.0	7,808.3	7,744.5	121.7	19.6	89.59	-3,008.4	698.9	3,704.6	3,568.2	136.38	27.164		
14,900.0	7,740.0	7,808.0	7,744.2	123.4	19.6	89.57	-3,008.4	698.9	3,801.6	3,663.5	138.12	27.524		
15,000.0	7,740.0	7,807.8	7,744.0	125.1	19.6	89.55	-3,008.4	698.9	3,898.8	3,759.0	139.86	27.876		
15,100.0	7,740.0	7,807.5	7,743.7	126.8	19.6	89.54	-3,008.4	698.9	3,996.1	3,854.5	141.60	28.221		
15,200.0	7,740.0	7,807.2	7,743.4	128.5	19.6	89.52	-3,008.4	698.9	4,093.6	3,950.2	143.35	28.557		
15,300.0	7,740.0	7,807.0	7,743.2	130.2	19.6	89.51	-3,008.4	698.9	4,191.2	4,046.1	145.09	28.887		
15,400.0	7,740.0	7,806.7	7,742.9	131.9	19.6	89.49	-3,008.4	698.9	4,288.8	4,142.0	146.83	29.209		
15,500.0	7,740.0	7,806.5	7,742.7	133.6	19.6	89.47	-3,008.4	698.9	4,386.6	4,238.0	148.57	29.525		
15,600.0	7,740.0	7,806.2	7,742.4	135.3	19.6	89.46	-3,008.4	698.9	4,484.5	4,334.2	150.32	29.834		
15,700.0	7,740.0	7,805.9	7,742.1	137.0	19.6	89.44	-3,008.4	698.9	4,582.5	4,430.4	152.06	30.136		
15,800.0	7,740.0	7,805.7	7,741.9	138.7	19.6	89.42	-3,008.4	698.9	4,680.5	4,526.7	153.80	30.432		
15,900.0	7,740.0	7,805.4	7,741.6	140.5	19.6	89.41	-3,008.4	698.9	4,778.7	4,623.1	155.55	30.721		
16,000.0	7,740.0	7,805.2	7,741.4	142.2	19.6	89.39	-3,008.4	698.9	4,876.9	4,719.6	157.29	31.005		
16,100.0	7,740.0	7,804.9	7,741.1	143.9	19.6	89.37	-3,008.4	698.9	4,975.2	4,816.1	159.04	31.283		
16,142.2	7,740.0	7,804.8	7,741.0	144.6	19.6	89.37	-3,008.4	698.9	5,016.7	4,856.9	159.77	31.399		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 33-7 (EXISTING) - ENCANA WELL - SUR											Offset Site Error: 0.0 ft		
Survey Program: 59-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	
0.0	0.0	0.0	0.0	0.0	0.0	153.81	-2,318.2	1,140.1	2,583.4				
100.0	100.0	74.5	74.5	0.2	0.1	153.80	-2,318.5	1,140.7	2,584.2	2,583.9	0.26	N/A	
200.0	200.0	177.2	177.2	0.3	0.3	153.75	-2,318.9	1,143.5	2,585.7	2,585.1	0.61	4,237.906	
300.0	300.0	334.8	334.5	0.5	0.6	82.57	-2,314.8	1,152.5	2,585.9	2,584.8	1.11	2,327.340	
400.0	400.0	467.3	466.1	0.7	0.9	82.35	-2,306.5	1,164.2	2,583.8	2,582.2	1.62	1,596.700	
500.0	499.9	584.4	581.8	0.9	1.3	82.09	-2,295.6	1,179.2	2,580.7	2,578.5	2.17	1,189.999	
600.0	599.7	711.5	706.1	1.1	1.8	81.72	-2,280.1	1,200.3	2,576.4	2,573.6	2.85	902.675	
700.0	699.4	824.4	815.5	1.3	2.3	81.35	-2,263.3	1,222.5	2,571.1	2,567.5	3.57	721.168	
800.0	798.9	940.1	927.6	1.5	2.8	81.02	-2,246.0	1,245.1	2,565.5	2,561.2	4.33	593.163	
900.0	898.3	1,135.9	1,114.9	1.8	3.9	80.34	-2,207.5	1,287.5	2,555.9	2,550.2	5.62	454.451	
1,000.0	997.4	1,242.9	1,215.9	2.0	4.5	79.97	-2,183.3	1,313.1	2,545.3	2,538.7	6.53	390.028	
1,100.0	1,096.3	1,325.2	1,293.7	2.3	5.0	79.74	-2,164.9	1,332.7	2,534.7	2,527.4	7.29	347.715	
1,200.0	1,194.9	1,400.1	1,364.9	2.7	5.5	79.59	-2,149.2	1,349.9	2,524.7	2,516.7	8.04	314.109	
1,300.0	1,293.3	1,476.6	1,437.3	3.0	5.9	79.44	-2,133.4	1,368.7	2,515.5	2,506.6	8.84	284.481	
1,400.0	1,391.2	1,598.6	1,552.6	3.4	6.7	79.17	-2,107.9	1,399.1	2,506.0	2,496.1	9.95	251.915	
1,500.0	1,488.9	1,714.8	1,662.3	3.8	7.4	78.96	-2,082.4	1,428.1	2,495.3	2,484.3	11.05	225.865	
1,595.5	1,581.8	1,801.9	1,744.5	4.2	7.9	78.87	-2,063.4	1,449.5	2,484.9	2,472.9	11.97	207.509	
1,600.0	1,586.1	1,806.7	1,749.1	4.2	7.9	78.86	-2,062.4	1,450.7	2,484.4	2,472.3	12.02	206.639	
1,700.0	1,683.2	1,913.1	1,849.7	4.7	8.6	78.65	-2,039.2	1,476.4	2,473.1	2,460.0	13.09	188.883	
1,800.0	1,780.2	2,005.1	1,936.7	5.1	9.1	78.46	-2,019.2	1,498.6	2,461.8	2,447.7	14.07	174.987	
1,900.0	1,877.3	2,088.9	2,016.3	5.6	9.6	78.32	-2,001.8	1,518.2	2,451.0	2,436.0	14.99	163.515	
2,000.0	1,974.3	2,190.3	2,112.5	6.0	10.2	78.13	-1,980.9	1,542.2	2,440.6	2,424.6	16.04	152.187	
2,100.0	2,071.4	2,288.1	2,205.1	6.5	10.8	77.93	-1,960.2	1,566.2	2,430.1	2,413.0	17.07	142.391	
2,200.0	2,168.4	2,383.5	2,295.3	6.9	11.4	77.74	-1,940.2	1,589.6	2,419.8	2,401.7	18.08	133.831	
2,300.0	2,265.4	2,490.3	2,396.6	7.4	12.0	77.52	-1,917.9	1,615.4	2,409.5	2,390.4	19.15	125.841	
2,400.0	2,362.5	2,577.9	2,479.8	7.9	12.5	77.37	-1,900.0	1,635.9	2,399.1	2,379.0	20.11	119.329	
2,500.0	2,459.5	2,705.0	2,600.5	8.3	13.3	77.13	-1,873.8	1,666.1	2,388.9	2,367.6	21.29	112.219	
2,600.0	2,556.6	2,778.3	2,670.1	8.8	13.7	76.98	-1,858.4	1,683.4	2,378.3	2,356.1	22.18	107.237	
2,700.0	2,653.6	2,896.0	2,781.3	9.2	14.4	76.72	-1,833.2	1,712.5	2,367.9	2,344.5	23.34	101.439	
2,800.0	2,750.7	2,991.0	2,871.1	9.7	15.0	76.51	-1,812.7	1,735.7	2,357.2	2,332.8	24.35	96.789	
2,900.0	2,847.7	3,097.1	2,971.5	10.2	15.7	76.28	-1,790.2	1,761.4	2,346.8	2,321.3	25.44	92.239	
3,000.0	2,944.8	3,201.8	3,070.3	10.6	16.3	76.03	-1,766.8	1,787.2	2,335.7	2,309.1	26.54	88.016	
3,100.0	3,041.8	3,284.3	3,148.1	11.1	16.8	75.82	-1,748.6	1,807.9	2,325.0	2,297.5	27.49	84.567	
3,200.0	3,138.9	3,380.8	3,239.3	11.5	17.4	75.60	-1,728.0	1,831.4	2,314.7	2,286.2	28.51	81.199	
3,300.0	3,235.9	3,467.0	3,321.2	12.0	17.9	75.43	-1,710.5	1,851.8	2,304.9	2,275.4	29.45	78.267	
3,400.0	3,333.0	3,589.8	3,437.9	12.5	18.6	75.18	-1,685.1	1,880.6	2,294.6	2,264.0	30.61	74.955	
3,500.0	3,430.0	3,682.8	3,526.3	12.9	19.2	75.00	-1,665.8	1,902.3	2,284.2	2,252.6	31.60	72.291	
3,600.0	3,527.1	3,779.3	3,617.8	13.4	19.7	74.79	-1,645.6	1,925.0	2,273.9	2,241.2	32.62	69.717	
3,700.0	3,624.1	3,864.3	3,698.2	13.9	20.3	74.59	-1,627.8	1,946.0	2,264.2	2,230.6	33.58	67.429	
3,800.0	3,721.2	3,982.6	3,809.9	14.3	21.0	74.29	-1,602.2	1,975.7	2,254.2	2,219.4	34.75	64.868	
3,900.0	3,818.2	4,082.9	3,904.5	14.8	21.6	74.03	-1,580.2	2,000.5	2,243.8	2,208.0	35.81	62.661	
4,000.0	3,915.3	4,175.7	3,992.0	15.3	22.2	73.79	-1,560.0	2,023.6	2,233.7	2,196.9	36.81	60.676	
4,100.0	4,012.3	4,274.3	4,085.5	15.7	22.8	73.55	-1,539.1	2,047.6	2,223.8	2,185.9	37.84	58.766	
4,200.0	4,109.4	4,375.3	4,181.2	16.2	23.4	73.32	-1,518.0	2,071.5	2,213.8	2,174.9	38.87	56.952	
4,300.0	4,206.4	4,472.3	4,273.5	16.6	23.9	73.12	-1,498.2	2,094.1	2,203.9	2,164.0	39.87	55.281	
4,400.0	4,303.5	4,579.5	4,375.7	17.1	24.5	72.91	-1,476.6	2,118.4	2,193.9	2,153.0	40.91	53.630	
4,500.0	4,400.5	4,673.6	4,465.2	17.6	25.1	72.72	-1,457.3	2,139.9	2,183.8	2,141.9	41.90	52.115	
4,600.0	4,497.6	4,767.0	4,553.9	18.0	25.6	72.50	-1,438.0	2,162.0	2,174.1	2,131.2	42.87	50.710	
4,700.0	4,594.6	4,877.4	4,658.6	18.5	26.3	72.25	-1,414.9	2,187.9	2,164.1	2,120.1	43.97	49.211	
4,800.0	4,691.7	4,967.3	4,743.9	19.0	26.8	72.04	-1,396.3	2,209.2	2,154.4	2,109.5	44.93	47.949	
4,900.0	4,788.7	5,078.1	4,849.3	19.4	27.5	71.79	-1,373.4	2,234.9	2,144.4	2,098.4	45.99	46.625	
5,000.0	4,885.8	5,191.7	4,957.5	19.9	28.1	71.55	-1,349.9	2,260.2	2,134.0	2,086.9	47.07	45.335	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 33-7 (EXISTING) - ENCANA WELL - SUR												Offset Site Error:	0.0 ft
Survey Program: 59-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
5,100.0	4,982.8	5,280.8	5,042.2	20.4	28.7	71.36	-1,331.0	2,280.3	2,123.4	2,075.3	48.01	44.224	
5,200.0	5,079.9	5,387.6	5,144.0	20.8	29.2	71.14	-1,309.0	2,303.9	2,112.9	2,063.9	49.03	43.094	
5,300.0	5,176.9	5,474.4	5,227.4	21.3	29.7	71.01	-1,292.5	2,321.5	2,102.7	2,052.8	49.91	42.129	
5,400.0	5,273.9	5,543.4	5,293.8	21.8	30.1	70.93	-1,280.0	2,335.7	2,093.2	2,042.5	50.71	41.280	
5,500.0	5,371.0	5,614.3	5,361.9	22.2	30.4	70.82	-1,267.9	2,351.3	2,085.5	2,034.0	51.51	40.486	
5,600.0	5,468.0	5,758.8	5,501.0	22.7	31.2	70.65	-1,243.5	2,381.8	2,077.5	2,024.8	52.68	39.437	
5,700.0	5,565.1	5,851.3	5,590.3	23.1	31.6	70.57	-1,228.0	2,399.8	2,068.5	2,014.9	53.54	38.635	
5,800.0	5,662.1	5,957.1	5,693.3	23.6	32.1	70.55	-1,211.7	2,418.4	2,059.3	2,004.9	54.43	37.831	
5,900.0	5,759.2	6,068.9	5,802.6	24.1	32.5	70.61	-1,195.9	2,435.8	2,049.9	1,994.5	55.32	37.052	
6,000.0	5,856.2	6,170.9	5,902.6	24.5	32.9	70.72	-1,182.1	2,449.5	2,039.6	1,983.4	56.13	36.334	
6,100.0	5,953.3	6,261.7	5,992.3	25.0	33.1	70.91	-1,172.2	2,459.6	2,029.9	1,973.1	56.86	35.698	
6,200.0	6,050.3	6,359.0	6,088.8	25.5	33.4	71.19	-1,163.3	2,468.5	2,020.4	1,962.8	57.58	35.090	
6,300.0	6,147.4	6,456.3	6,185.6	25.9	33.6	71.54	-1,155.9	2,475.6	2,011.1	1,952.8	58.27	34.515	
6,400.0	6,244.4	6,546.5	6,275.5	26.4	33.7	71.92	-1,150.5	2,480.8	2,002.0	1,943.1	58.88	34.002	
6,500.0	6,341.5	6,639.0	6,367.8	26.9	33.9	72.39	-1,146.7	2,484.4	1,993.5	1,934.0	59.50	33.507	
6,600.0	6,438.5	6,729.3	6,458.0	27.3	34.0	72.88	-1,143.7	2,487.2	1,985.4	1,925.3	60.08	33.043	
6,700.0	6,535.6	6,813.1	6,541.8	27.8	34.0	73.38	-1,142.5	2,488.7	1,978.1	1,917.5	60.64	32.620	
6,800.0	6,632.6	6,925.0	6,653.7	28.3	34.1	74.09	-1,141.5	2,489.7	1,970.9	1,909.7	61.22	32.195	
6,900.0	6,729.7	7,020.0	6,748.7	28.7	34.2	74.74	-1,141.1	2,489.4	1,963.7	1,901.9	61.76	31.795	
7,000.0	6,826.7	7,107.9	6,836.6	29.2	34.2	75.34	-1,141.1	2,489.3	1,957.2	1,894.9	62.30	31.416	
7,100.0	6,923.8	7,205.1	6,933.7	29.7	34.3	76.01	-1,141.0	2,489.3	1,951.0	1,888.2	62.84	31.048	
7,200.0	7,020.8	7,315.0	7,043.7	30.1	34.4	76.76	-1,140.7	2,489.2	1,944.8	1,881.5	63.39	30.680	
7,300.0	7,117.9	7,407.5	7,136.2	30.6	34.4	77.40	-1,140.1	2,489.2	1,938.7	1,874.8	63.93	30.327	
7,321.2	7,138.4	7,426.7	7,155.4	30.7	34.5	77.53	-1,140.0	2,489.3	1,937.5	1,873.5	64.04	30.255	
7,350.0	7,166.4	7,452.8	7,181.5	30.8	34.5	65.97	-1,139.8	2,489.3	1,935.3	1,871.3	63.99	30.242	
7,400.0	7,215.1	7,498.2	7,226.9	31.0	34.5	44.92	-1,139.7	2,489.4	1,928.5	1,864.9	63.60	30.321	
7,450.0	7,263.5	7,544.5	7,273.2	31.2	34.5	26.84	-1,139.6	2,489.6	1,918.2	1,855.4	62.84	30.524	
7,500.0	7,311.3	7,592.5	7,321.2	31.3	34.6	13.47	-1,139.5	2,489.7	1,904.4	1,842.6	61.72	30.854	
7,550.0	7,358.1	7,638.5	7,367.2	31.5	34.6	3.81	-1,139.5	2,489.7	1,887.0	1,826.7	60.26	31.315	
7,600.0	7,403.5	7,681.6	7,410.3	31.6	34.6	-3.51	-1,139.6	2,489.7	1,866.3	1,807.8	58.47	31.916	
7,650.0	7,447.3	7,723.7	7,452.4	31.7	34.6	-9.48	-1,139.7	2,489.7	1,842.4	1,786.0	56.41	32.663	
7,700.0	7,489.1	7,767.6	7,496.3	31.7	34.7	-14.77	-1,139.8	2,489.6	1,815.4	1,761.3	54.10	33.557	
7,750.0	7,528.5	7,809.1	7,537.8	31.8	34.7	-19.81	-1,139.9	2,489.6	1,785.6	1,734.0	51.61	34.597	
7,800.0	7,565.3	7,844.9	7,573.6	31.8	34.7	-24.89	-1,139.9	2,489.6	1,753.3	1,704.2	49.02	35.764	
7,850.0	7,599.2	7,877.7	7,606.3	31.9	34.8	-30.27	-1,140.0	2,489.6	1,718.7	1,672.2	46.44	37.009	
7,900.0	7,629.9	7,907.3	7,636.0	31.9	34.8	-36.14	-1,140.0	2,489.7	1,682.1	1,638.1	44.00	38.228	
7,950.0	7,657.2	7,935.2	7,663.9	31.9	34.8	-42.67	-1,140.0	2,489.8	1,644.0	1,602.1	41.89	39.242	
8,000.0	7,680.9	7,959.5	7,688.2	32.0	34.8	-49.86	-1,140.0	2,489.8	1,604.6	1,564.3	40.30	39.817	
8,050.0	7,700.8	7,979.9	7,708.6	32.0	34.8	-57.62	-1,140.0	2,489.9	1,564.3	1,525.0	39.34	39.762	
8,100.0	7,716.7	7,996.2	7,724.9	32.0	34.8	-65.69	-1,140.0	2,489.9	1,523.6	1,484.6	38.99	39.080	
8,150.0	7,728.6	8,008.3	7,737.0	32.1	34.8	-73.68	-1,140.0	2,489.9	1,482.9	1,443.8	39.03	37.989	
8,200.0	7,736.3	8,016.0	7,744.7	32.1	34.9	-81.20	-1,140.0	2,490.0	1,442.5	1,403.2	39.25	36.755	
8,250.0	7,739.8	8,019.5	7,748.2	32.2	34.9	-87.92	-1,140.0	2,490.0	1,402.9	1,363.4	39.49	35.526	
8,266.2	7,740.0	8,019.7	7,748.4	32.2	34.9	-89.90	-1,140.0	2,490.0	1,390.3	1,350.7	39.57	35.135	
8,300.0	7,740.0	8,019.7	7,748.4	32.3	34.9	-89.89	-1,140.0	2,490.0	1,364.4	1,324.7	39.70	34.364	
8,400.0	7,740.0	8,019.6	7,748.3	32.5	34.9	-89.89	-1,140.0	2,490.0	1,289.8	1,249.6	40.23	32.060	
8,500.0	7,740.0	8,019.4	7,748.1	32.8	34.9	-89.88	-1,140.0	2,490.0	1,218.9	1,177.9	40.94	29.775	
8,600.0	7,740.0	8,019.3	7,748.0	33.2	34.9	-89.87	-1,140.0	2,490.0	1,152.2	1,110.4	41.80	27.567	
8,700.0	7,740.0	8,019.2	7,747.9	33.7	34.9	-89.86	-1,140.0	2,490.0	1,090.7	1,047.9	42.79	25.489	
8,800.0	7,740.0	8,019.1	7,747.8	34.3	34.9	-89.85	-1,140.0	2,490.0	1,035.2	991.3	43.90	23.582	
8,900.0	7,740.0	8,018.9	7,747.6	34.9	34.9	-89.85	-1,140.0	2,490.0	986.7	941.6	45.10	21.880	
9,000.0	7,740.0	8,018.8	7,747.5	35.6	34.9	-89.84	-1,140.0	2,490.0	946.4	900.0	46.37	20.408	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 33-7 (EXISTING) - ENCANA WELL - SUR												Offset Site Error:	0.0 ft
Survey Program: 59-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
9,100.0	7,740.0	8,018.7	7,747.4	36.4	34.9	-89.83	-1,140.0	2,490.0	915.2	867.5	47.71	19.182	
9,200.0	7,740.0	8,018.6	7,747.3	37.3	34.9	-89.82	-1,140.0	2,490.0	894.2	845.1	49.11	18.209	
9,300.0	7,740.0	8,018.5	7,747.2	38.2	34.9	-89.82	-1,140.0	2,490.0	884.1	833.6	50.55	17.491	
9,340.0	7,740.0	8,018.4	7,747.1	38.6	34.9	-89.81	-1,140.0	2,490.0	883.2	832.1	51.14	17.271	CC, ES
9,400.0	7,740.0	8,018.4	7,747.1	39.2	34.9	-89.81	-1,140.0	2,490.0	885.3	833.2	52.02	17.016	
9,500.0	7,740.0	8,018.3	7,747.0	40.2	34.9	-89.80	-1,140.0	2,490.0	897.6	844.1	53.53	16.767	
9,600.0	7,740.0	8,018.1	7,746.8	41.3	34.9	-89.79	-1,140.0	2,490.0	920.7	865.6	55.07	16.719	SF
9,700.0	7,740.0	8,018.0	7,746.7	42.4	34.9	-89.79	-1,140.0	2,490.0	953.8	897.2	56.63	16.844	
9,800.0	7,740.0	8,017.9	7,746.6	43.6	34.9	-89.78	-1,140.0	2,490.0	995.9	937.7	58.20	17.110	
9,900.0	7,740.0	8,017.8	7,746.5	44.8	34.9	-89.77	-1,140.0	2,490.0	1,045.8	986.0	59.80	17.489	
10,000.0	7,740.0	8,017.7	7,746.4	46.0	34.9	-89.77	-1,140.0	2,490.0	1,102.6	1,041.2	61.41	17.956	
10,100.0	7,740.0	8,017.6	7,746.3	47.3	34.9	-89.76	-1,140.0	2,490.0	1,165.2	1,102.2	63.03	18.487	
10,200.0	7,740.0	8,017.5	7,746.2	48.6	34.9	-89.75	-1,140.0	2,490.0	1,232.8	1,168.1	64.66	19.065	
10,300.0	7,740.0	8,017.4	7,746.1	50.0	34.9	-89.75	-1,140.0	2,490.0	1,304.5	1,238.2	66.31	19.674	
10,400.0	7,740.0	8,017.3	7,746.0	51.3	34.9	-89.74	-1,140.0	2,490.0	1,379.8	1,311.8	67.96	20.303	
10,500.0	7,740.0	8,017.2	7,745.9	52.7	34.9	-89.73	-1,140.0	2,490.0	1,458.0	1,388.4	69.62	20.943	
10,600.0	7,740.0	8,017.1	7,745.8	54.1	34.9	-89.73	-1,140.0	2,490.0	1,538.8	1,467.5	71.29	21.586	
10,700.0	7,740.0	8,017.0	7,745.7	55.6	34.9	-89.72	-1,140.0	2,490.0	1,621.7	1,548.7	72.96	22.227	
10,800.0	7,740.0	8,016.9	7,745.6	57.0	34.9	-89.71	-1,140.0	2,490.0	1,706.4	1,631.8	74.64	22.862	
10,900.0	7,740.0	8,016.8	7,745.5	58.5	34.9	-89.71	-1,140.0	2,490.0	1,792.7	1,716.4	76.32	23.489	
11,000.0	7,740.0	8,016.7	7,745.4	59.9	34.9	-89.70	-1,140.0	2,490.0	1,880.4	1,802.4	78.01	24.104	
11,100.0	7,740.0	8,016.6	7,745.3	61.4	34.9	-89.70	-1,140.0	2,490.0	1,969.2	1,889.5	79.70	24.707	
11,200.0	7,740.0	8,016.5	7,745.2	62.9	34.9	-89.69	-1,140.0	2,490.0	2,059.1	1,977.7	81.40	25.296	
11,300.0	7,740.0	8,016.4	7,745.1	64.5	34.9	-89.68	-1,140.0	2,490.0	2,149.9	2,066.8	83.10	25.871	
11,400.0	7,740.0	8,016.3	7,745.0	66.0	34.9	-89.68	-1,140.0	2,490.0	2,241.4	2,156.6	84.80	26.431	
11,500.0	7,740.0	8,016.2	7,744.9	67.5	34.9	-89.67	-1,140.0	2,490.0	2,333.6	2,247.1	86.51	26.976	
11,600.0	7,740.0	8,016.2	7,744.8	69.1	34.9	-89.67	-1,140.0	2,490.0	2,426.5	2,338.3	88.22	27.506	
11,700.0	7,740.0	8,016.1	7,744.8	70.7	34.9	-89.66	-1,140.0	2,490.0	2,519.9	2,430.0	89.93	28.022	
11,800.0	7,740.0	8,016.0	7,744.7	72.2	34.9	-89.65	-1,140.0	2,490.0	2,613.8	2,522.2	91.64	28.523	
11,900.0	7,740.0	8,015.9	7,744.6	73.8	34.9	-89.65	-1,140.0	2,490.0	2,708.1	2,614.8	93.35	29.009	
12,000.0	7,740.0	8,015.8	7,744.5	75.4	34.9	-89.64	-1,140.0	2,490.0	2,802.8	2,707.8	95.07	29.481	
12,100.0	7,740.0	8,015.7	7,744.4	77.0	34.9	-89.64	-1,140.0	2,490.0	2,897.9	2,801.1	96.79	29.940	
12,200.0	7,740.0	8,015.6	7,744.3	78.6	34.9	-89.63	-1,140.0	2,490.0	2,993.3	2,894.8	98.51	30.386	
12,300.0	7,740.0	8,015.5	7,744.2	80.2	34.9	-89.63	-1,140.0	2,490.0	3,089.0	2,988.8	100.23	30.818	
12,400.0	7,740.0	8,015.5	7,744.2	81.8	34.9	-89.62	-1,140.0	2,490.0	3,185.0	3,083.0	101.96	31.238	
12,500.0	7,740.0	8,015.4	7,744.1	83.4	34.9	-89.61	-1,140.0	2,490.0	3,281.2	3,177.5	103.68	31.647	
12,600.0	7,740.0	8,015.3	7,744.0	85.1	34.9	-89.61	-1,140.0	2,490.0	3,377.6	3,272.2	105.41	32.043	
12,700.0	7,740.0	8,015.2	7,743.9	86.7	34.9	-89.60	-1,140.0	2,490.0	3,474.2	3,367.1	107.13	32.428	
12,800.0	7,740.0	8,015.1	7,743.8	88.3	34.9	-89.60	-1,140.0	2,490.0	3,571.0	3,462.1	108.86	32.803	
12,900.0	7,740.0	8,015.1	7,743.7	90.0	34.9	-89.59	-1,140.0	2,490.0	3,668.0	3,557.4	110.59	33.167	
13,000.0	7,740.0	8,015.0	7,743.7	91.6	34.9	-89.59	-1,140.0	2,490.0	3,765.1	3,652.8	112.32	33.520	
13,100.0	7,740.0	8,014.9	7,743.6	93.3	34.9	-89.58	-1,140.0	2,490.0	3,862.4	3,748.3	114.05	33.865	
13,200.0	7,740.0	8,014.8	7,743.5	94.9	34.9	-89.58	-1,140.0	2,490.0	3,959.8	3,844.0	115.79	34.199	
13,300.0	7,740.0	8,014.7	7,743.4	96.6	34.9	-89.57	-1,140.0	2,490.0	4,057.3	3,939.8	117.52	34.525	
13,400.0	7,740.0	8,014.7	7,743.4	98.2	34.9	-89.57	-1,140.0	2,490.0	4,155.0	4,035.7	119.25	34.842	
13,500.0	7,740.0	8,014.6	7,743.3	99.9	34.9	-89.56	-1,140.0	2,490.0	4,252.8	4,131.8	120.99	35.150	
13,600.0	7,740.0	8,014.5	7,743.2	101.6	34.9	-89.56	-1,140.0	2,490.0	4,350.6	4,227.9	122.72	35.451	
13,700.0	7,740.0	8,014.4	7,743.1	103.2	34.9	-89.55	-1,140.0	2,490.0	4,448.6	4,324.1	124.46	35.744	
13,800.0	7,740.0	8,014.4	7,743.1	104.9	34.9	-89.55	-1,140.0	2,490.0	4,546.7	4,420.5	126.19	36.029	
13,900.0	7,740.0	8,014.3	7,743.0	106.6	34.9	-89.54	-1,140.0	2,490.0	4,644.8	4,516.9	127.93	36.307	
14,000.0	7,740.0	8,014.2	7,742.9	108.2	34.9	-89.54	-1,140.0	2,490.0	4,743.0	4,613.3	129.67	36.578	
14,100.0	7,740.0	8,014.1	7,742.8	109.9	34.9	-89.53	-1,140.0	2,490.0	4,841.3	4,709.9	131.41	36.842	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS 33-7 (EXISTING) - ENCANA WELL - SUR		Offset Site Error:		0.0 ft	
Survey Program: 59-MWD														Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor						
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
14,200.0	7,740.0	8,014.1	7,742.8	111.6	34.9	-89.53	-1,140.0	2,490.0	4,939.6	4,806.5	133.15	37.099					
14,300.0	7,740.0	8,014.0	7,742.7	113.3	34.9	-89.53	-1,140.0	2,490.0	5,038.1	4,903.2	134.89	37.351					
14,400.0	7,740.0	8,013.9	7,742.6	115.0	34.9	-89.52	-1,140.0	2,490.0	5,136.5	4,999.9	136.63	37.596					
14,500.0	7,740.0	8,013.9	7,742.6	116.7	34.9	-89.52	-1,140.0	2,490.0	5,235.1	5,096.7	138.37	37.835					

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS E UNIT 1 (EXISTING) - Existing - NO SUR														Offset Site Error:	0.0 ft
Survey Program: 8332-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	143.37	-1,198.8	891.5	1,494.0						
100.0	100.0	94.0	94.0	0.2	0.2	143.37	-1,198.8	891.5	1,494.0	1,493.6	0.32	4,726.160			
200.0	200.0	194.0	194.0	0.3	0.3	143.37	-1,198.8	891.5	1,494.0	1,493.3	0.67	2,245.982			
300.0	300.0	294.0	294.0	0.5	0.5	72.41	-1,198.8	891.5	1,493.7	1,492.7	1.02	1,471.536			
400.0	400.0	394.0	394.0	0.7	0.7	72.51	-1,198.8	891.5	1,492.9	1,491.5	1.37	1,090.673			
500.0	499.9	493.9	493.9	0.9	0.9	72.69	-1,198.8	891.5	1,491.6	1,489.9	1.73	862.314			
600.0	599.7	593.7	593.7	1.1	1.0	72.93	-1,198.8	891.5	1,489.8	1,487.7	2.10	708.988			
700.0	699.4	693.4	693.4	1.3	1.2	73.24	-1,198.8	891.5	1,487.5	1,485.0	2.49	598.225			
800.0	798.9	792.9	792.9	1.5	1.4	73.62	-1,198.8	891.5	1,484.7	1,481.9	2.89	514.048			
900.0	898.3	892.3	892.3	1.8	1.6	74.06	-1,198.8	891.5	1,481.6	1,478.3	3.31	447.688			
1,000.0	997.4	991.4	991.4	2.0	1.7	74.58	-1,198.8	891.5	1,478.0	1,474.3	3.75	393.926			
1,100.0	1,096.3	1,090.3	1,090.3	2.3	1.9	75.17	-1,198.8	891.5	1,474.1	1,469.9	4.22	349.458			
1,200.0	1,194.9	1,188.9	1,188.9	2.7	2.1	75.82	-1,198.8	891.5	1,469.9	1,465.2	4.71	312.083			
1,300.0	1,293.3	1,287.3	1,287.3	3.0	2.2	76.54	-1,198.8	891.5	1,465.5	1,460.3	5.23	280.272			
1,400.0	1,391.2	1,385.2	1,385.2	3.4	2.4	77.34	-1,198.8	891.5	1,460.9	1,455.1	5.78	252.923			
1,500.0	1,488.9	1,482.9	1,482.9	3.8	2.6	78.19	-1,198.8	891.5	1,456.2	1,449.9	6.35	229.222			
1,595.5	1,581.8	1,575.8	1,575.8	4.2	2.8	79.08	-1,198.8	891.5	1,451.7	1,444.8	6.93	209.424			
1,600.0	1,586.1	1,580.1	1,580.1	4.2	2.8	79.12	-1,198.8	891.5	1,451.5	1,444.6	6.96	208.576			
1,700.0	1,683.2	1,677.2	1,677.2	4.7	2.9	80.03	-1,198.8	891.5	1,447.0	1,439.4	7.57	191.087			
1,800.0	1,780.2	1,774.2	1,774.2	5.1	3.1	80.94	-1,198.8	891.5	1,442.9	1,434.7	8.19	176.147			
1,900.0	1,877.3	1,871.3	1,871.3	5.6	3.3	81.86	-1,198.8	891.5	1,439.2	1,430.4	8.81	163.270			
2,000.0	1,974.3	1,968.3	1,968.3	6.0	3.4	82.79	-1,198.8	891.5	1,435.9	1,426.4	9.44	152.083			
2,100.0	2,071.4	2,065.4	2,065.4	6.5	3.6	83.72	-1,198.8	891.5	1,433.0	1,422.9	10.07	142.293			
2,200.0	2,168.4	2,162.4	2,162.4	6.9	3.8	84.65	-1,198.8	891.5	1,430.5	1,419.8	10.70	133.669			
2,300.0	2,265.4	2,259.4	2,259.4	7.4	3.9	85.58	-1,198.8	891.5	1,428.3	1,417.0	11.33	126.028			
2,400.0	2,362.5	2,356.5	2,356.5	7.9	4.1	86.52	-1,198.8	891.5	1,426.6	1,414.7	11.97	119.221			
2,500.0	2,459.5	2,453.5	2,453.5	8.3	4.3	87.46	-1,198.8	891.5	1,425.3	1,412.7	12.60	113.130			
2,600.0	2,556.6	2,550.6	2,550.6	8.8	4.5	88.40	-1,198.8	891.5	1,424.4	1,411.2	13.23	107.654			
2,700.0	2,653.6	2,647.6	2,647.6	9.2	4.6	89.34	-1,198.8	891.5	1,423.9	1,410.1	13.86	102.714			
2,769.8	2,721.3	2,715.3	2,715.3	9.6	4.7	90.00	-1,198.8	891.5	1,423.8	1,409.5	14.30	99.547			
2,800.0	2,750.7	2,744.7	2,744.7	9.7	4.8	90.28	-1,198.8	891.5	1,423.9	1,409.4	14.49	98.241			
2,900.0	2,847.7	2,841.7	2,841.7	10.2	5.0	91.23	-1,198.8	891.5	1,424.2	1,409.1	15.12	94.177			
3,000.0	2,944.8	2,938.8	2,938.8	10.6	5.1	92.17	-1,198.8	891.5	1,424.9	1,409.2	15.75	90.476			
3,100.0	3,041.8	3,035.8	3,035.8	11.1	5.3	93.11	-1,198.8	891.5	1,426.1	1,409.7	16.37	87.095			
3,200.0	3,138.9	3,132.9	3,132.9	11.5	5.5	94.05	-1,198.8	891.5	1,427.6	1,410.6	17.00	84.000			
3,300.0	3,235.9	3,229.9	3,229.9	12.0	5.6	94.98	-1,198.8	891.5	1,429.6	1,412.0	17.61	81.161			
3,400.0	3,333.0	3,327.0	3,327.0	12.5	5.8	95.91	-1,198.8	891.5	1,431.9	1,413.7	18.23	78.551			
3,500.0	3,430.0	3,424.0	3,424.0	12.9	6.0	96.84	-1,198.8	891.5	1,434.7	1,415.8	18.84	76.148			
3,600.0	3,527.1	3,521.1	3,521.1	13.4	6.1	97.77	-1,198.8	891.5	1,437.8	1,418.4	19.45	73.931			
3,700.0	3,624.1	3,618.1	3,618.1	13.9	6.3	98.69	-1,198.8	891.5	1,441.4	1,421.4	20.05	71.884			
3,800.0	3,721.2	3,715.2	3,715.2	14.3	6.5	99.61	-1,198.8	891.5	1,445.4	1,424.7	20.65	69.991			
3,900.0	3,818.2	3,812.2	3,812.2	14.8	6.7	100.52	-1,198.8	891.5	1,449.7	1,428.4	21.24	68.237			
4,000.0	3,915.3	3,909.3	3,909.3	15.3	6.8	101.43	-1,198.8	891.5	1,454.4	1,432.6	21.83	66.613			
4,100.0	4,012.3	4,006.3	4,006.3	15.7	7.0	102.33	-1,198.8	891.5	1,459.5	1,437.1	22.42	65.105			
4,200.0	4,109.4	4,103.4	4,103.4	16.2	7.2	103.23	-1,198.8	891.5	1,465.0	1,442.0	23.00	63.705			
4,300.0	4,206.4	4,200.4	4,200.4	16.6	7.3	104.12	-1,198.8	891.5	1,470.9	1,447.3	23.57	62.405			
4,400.0	4,303.5	4,297.5	4,297.5	17.1	7.5	105.00	-1,198.8	891.5	1,477.1	1,453.0	24.14	61.195			
4,500.0	4,400.5	4,394.5	4,394.5	17.6	7.7	105.88	-1,198.8	891.5	1,483.7	1,459.0	24.70	60.071			
4,600.0	4,497.6	4,491.6	4,491.6	18.0	7.8	106.74	-1,198.8	891.5	1,490.7	1,465.4	25.26	59.024			
4,700.0	4,594.6	4,588.6	4,588.6	18.5	8.0	107.60	-1,198.8	891.5	1,498.0	1,472.2	25.81	58.050			
4,800.0	4,691.7	4,685.7	4,685.7	19.0	8.2	108.46	-1,198.8	891.5	1,505.7	1,479.3	26.35	57.142			
4,900.0	4,788.7	4,782.7	4,782.7	19.4	8.3	109.30	-1,198.8	891.5	1,513.7	1,486.8	26.89	56.297			

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS E UNIT 1 (EXISTING) - Existing - NO SUR											Offset Site Error: 0.0 ft		
Survey Program: 8332-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	
5,000.0	4,885.8	4,879.8	4,879.8	19.9	8.5	110.13	-1,198.8	891.5	1,522.0	1,494.6	27.42	55.510	
5,100.0	4,982.8	4,976.8	4,976.8	20.4	8.7	110.96	-1,198.8	891.5	1,530.7	1,502.8	27.94	54.777	
5,200.0	5,079.9	5,073.9	5,073.9	20.8	8.9	111.78	-1,198.8	891.5	1,539.7	1,511.3	28.46	54.095	
5,300.0	5,176.9	5,170.9	5,170.9	21.3	9.0	112.58	-1,198.8	891.5	1,549.1	1,520.1	28.98	53.459	
5,400.0	5,273.9	5,267.9	5,267.9	21.8	9.2	113.38	-1,198.8	891.5	1,558.7	1,529.3	29.48	52.868	
5,500.0	5,371.0	5,365.0	5,365.0	22.2	9.4	114.17	-1,198.8	891.5	1,568.7	1,538.7	29.98	52.317	
5,600.0	5,468.0	5,462.0	5,462.0	22.7	9.5	114.95	-1,198.8	891.5	1,579.0	1,548.5	30.48	51.806	
5,700.0	5,565.1	5,559.1	5,559.1	23.1	9.7	115.72	-1,198.8	891.5	1,589.6	1,558.6	30.97	51.330	
5,800.0	5,662.1	5,656.1	5,656.1	23.6	9.9	116.48	-1,198.8	891.5	1,600.4	1,569.0	31.45	50.888	
5,900.0	5,759.2	5,753.2	5,753.2	24.1	10.0	117.23	-1,198.8	891.5	1,611.6	1,579.7	31.93	50.478	
6,000.0	5,856.2	5,850.2	5,850.2	24.5	10.2	117.97	-1,198.8	891.5	1,623.0	1,590.6	32.40	50.098	
6,100.0	5,953.3	5,947.3	5,947.3	25.0	10.4	118.70	-1,198.8	891.5	1,634.7	1,601.9	32.86	49.746	
6,200.0	6,050.3	6,044.3	6,044.3	25.5	10.5	119.42	-1,198.8	891.5	1,646.7	1,613.4	33.32	49.420	
6,300.0	6,147.4	6,141.4	6,141.4	25.9	10.7	120.13	-1,198.8	891.5	1,659.0	1,625.2	33.77	49.119	
6,400.0	6,244.4	6,238.4	6,238.4	26.4	10.9	120.83	-1,198.8	891.5	1,671.5	1,637.2	34.22	48.842	
6,500.0	6,341.5	6,335.5	6,335.5	26.9	11.1	121.52	-1,198.8	891.5	1,684.2	1,649.6	34.66	48.587	
6,600.0	6,438.5	6,432.5	6,432.5	27.3	11.2	122.19	-1,198.8	891.5	1,697.2	1,662.1	35.10	48.352	
6,700.0	6,535.6	6,529.6	6,529.6	27.8	11.4	122.86	-1,198.8	891.5	1,710.5	1,674.9	35.53	48.137	
6,800.0	6,632.6	6,626.6	6,626.6	28.3	11.6	123.52	-1,198.8	891.5	1,724.0	1,688.0	35.96	47.941	
6,900.0	6,729.7	6,723.7	6,723.7	28.7	11.7	124.17	-1,198.8	891.5	1,737.7	1,701.3	36.38	47.762	
7,000.0	6,826.7	6,820.7	6,820.7	29.2	11.9	124.81	-1,198.8	891.5	1,751.6	1,714.8	36.80	47.599	
7,100.0	6,923.8	6,917.8	6,917.8	29.7	12.1	125.44	-1,198.8	891.5	1,765.8	1,728.5	37.21	47.452	
7,200.0	7,020.8	7,014.8	7,014.8	30.1	12.2	126.06	-1,198.8	891.5	1,780.1	1,742.5	37.62	47.320	
7,300.0	7,117.9	7,111.9	7,111.9	30.6	12.4	126.67	-1,198.8	891.5	1,794.7	1,756.7	38.02	47.202	
7,321.2	7,138.4	7,132.4	7,132.4	30.7	12.4	126.80	-1,198.8	891.5	1,797.8	1,759.7	38.11	47.179	
7,350.0	7,166.4	7,160.4	7,160.4	30.8	12.5	115.25	-1,198.8	891.5	1,801.4	1,763.1	38.28	47.064	
7,400.0	7,215.1	7,209.1	7,209.1	31.0	12.6	94.55	-1,198.8	891.5	1,804.4	1,766.0	38.36	47.040	
7,450.0	7,263.5	7,257.5	7,257.5	31.2	12.7	77.24	-1,198.8	891.5	1,803.3	1,765.1	38.17	47.239	
7,500.0	7,311.3	7,305.3	7,305.3	31.3	12.8	65.08	-1,198.8	891.5	1,798.2	1,760.5	37.73	47.661	
7,550.0	7,358.1	7,352.1	7,352.1	31.5	12.8	57.11	-1,198.8	891.5	1,789.2	1,752.2	37.04	48.309	
7,600.0	7,403.5	7,397.5	7,397.5	31.6	12.9	52.04	-1,198.8	891.5	1,776.3	1,740.2	36.11	49.189	
7,650.0	7,447.3	7,441.3	7,441.3	31.7	13.0	48.93	-1,198.8	891.5	1,759.7	1,724.7	34.98	50.303	
7,700.0	7,489.1	7,483.1	7,483.1	31.7	13.1	47.23	-1,198.8	891.5	1,739.6	1,705.9	33.68	51.650	
7,750.0	7,528.5	7,522.5	7,522.5	31.8	13.1	46.63	-1,198.8	891.5	1,716.1	1,683.8	32.25	53.208	
7,800.0	7,565.3	7,559.3	7,559.3	31.8	13.2	46.94	-1,198.8	891.5	1,689.4	1,658.6	30.76	54.925	
7,850.0	7,599.2	7,593.2	7,593.2	31.9	13.3	48.08	-1,198.8	891.5	1,659.8	1,630.5	29.28	56.690	
7,900.0	7,629.9	7,623.9	7,623.9	31.9	13.3	50.02	-1,198.8	891.5	1,627.6	1,599.7	27.92	58.303	
7,950.0	7,657.2	7,651.2	7,651.2	31.9	13.4	52.80	-1,198.8	891.5	1,593.0	1,566.2	26.79	59.456	
8,000.0	7,680.9	7,674.9	7,674.9	32.0	13.4	56.44	-1,198.8	891.5	1,556.3	1,530.3	26.04	59.767	
8,050.0	7,700.8	7,694.8	7,694.8	32.0	13.4	60.99	-1,198.8	891.5	1,517.9	1,492.1	25.76	58.932	
8,100.0	7,716.7	7,710.7	7,710.7	32.0	13.5	66.47	-1,198.8	891.5	1,478.0	1,452.1	25.95	56.951	
8,150.0	7,728.6	7,722.6	7,722.6	32.1	13.5	72.84	-1,198.8	891.5	1,437.1	1,410.6	26.51	54.220	
8,200.0	7,736.3	7,730.3	7,730.3	32.1	13.5	79.94	-1,198.8	891.5	1,395.4	1,368.2	27.18	51.331	
8,250.0	7,739.8	7,733.8	7,733.8	32.2	13.5	87.50	-1,198.8	891.5	1,353.2	1,325.5	27.75	48.759	
8,266.2	7,740.0	7,734.0	7,734.0	32.2	13.5	90.00	-1,198.8	891.5	1,339.5	1,311.6	27.89	48.031	
8,300.0	7,740.0	7,734.0	7,734.0	32.3	13.5	90.00	-1,198.8	891.5	1,311.1	1,283.1	28.02	46.787	
8,400.0	7,740.0	7,734.0	7,734.0	32.5	13.5	90.00	-1,198.8	891.5	1,228.5	1,199.9	28.55	43.031	
8,500.0	7,740.0	7,734.0	7,734.0	32.8	13.5	90.00	-1,198.8	891.5	1,148.7	1,119.4	29.25	39.265	
8,600.0	7,740.0	7,734.0	7,734.0	33.2	13.5	90.00	-1,198.8	891.5	1,072.2	1,042.1	30.12	35.604	
8,700.0	7,740.0	7,734.0	7,734.0	33.7	13.5	90.00	-1,198.8	891.5	1,000.0	968.9	31.11	32.143	
8,800.0	7,740.0	7,734.0	7,734.0	34.3	13.5	90.00	-1,198.8	891.5	932.8	900.6	32.22	28.956	
8,900.0	7,740.0	7,734.0	7,734.0	34.9	13.5	90.00	-1,198.8	891.5	872.0	838.6	33.41	26.097	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS E UNIT 1 (EXISTING) - Existing - NO SUR												Offset Site Error: 0.0 ft	
Survey Program: 8332-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	
9,000.0	7,740.0	7,734.0	7,734.0	35.6	13.5	90.00	-1,198.8	891.5	818.9	784.2	34.69	23.606	
9,100.0	7,740.0	7,734.0	7,734.0	36.4	13.5	90.00	-1,198.8	891.5	775.2	739.1	36.03	21.513	
9,200.0	7,740.0	7,734.0	7,734.0	37.3	13.5	90.00	-1,198.8	891.5	742.4	705.0	37.43	19.836	
9,300.0	7,740.0	7,734.0	7,734.0	38.2	13.5	90.00	-1,198.8	891.5	722.1	683.2	38.87	18.578	
9,398.8	7,740.0	7,734.0	7,734.0	39.2	13.5	90.00	-1,198.8	891.5	715.3	675.0	40.33	17.738 CC	
9,400.0	7,740.0	7,734.0	7,734.0	39.2	13.5	90.00	-1,198.8	891.5	715.3	674.9	40.34	17.730 ES	
9,500.0	7,740.0	7,734.0	7,734.0	40.2	13.5	90.00	-1,198.8	891.5	722.4	680.6	41.85	17.261	
9,600.0	7,740.0	7,734.0	7,734.0	41.3	13.5	90.00	-1,198.8	891.5	743.0	699.7	43.39	17.126 SF	
9,700.0	7,740.0	7,734.0	7,734.0	42.4	13.5	90.00	-1,198.8	891.5	776.1	731.2	44.94	17.268	
9,800.0	7,740.0	7,734.0	7,734.0	43.6	13.5	90.00	-1,198.8	891.5	820.1	773.6	46.52	17.629	
9,900.0	7,740.0	7,734.0	7,734.0	44.8	13.5	90.00	-1,198.8	891.5	873.4	825.3	48.12	18.152	
10,000.0	7,740.0	7,734.0	7,734.0	46.0	13.5	90.00	-1,198.8	891.5	934.4	884.7	49.73	18.791	
10,100.0	7,740.0	7,734.0	7,734.0	47.3	13.5	90.00	-1,198.8	891.5	1,001.7	950.3	51.35	19.507	
10,200.0	7,740.0	7,734.0	7,734.0	48.6	13.5	90.00	-1,198.8	891.5	1,074.0	1,021.1	52.98	20.272	
10,300.0	7,740.0	7,734.0	7,734.0	50.0	13.5	90.00	-1,198.8	891.5	1,150.6	1,096.0	54.63	21.063	
10,400.0	7,740.0	7,734.0	7,734.0	51.3	13.5	90.00	-1,198.8	891.5	1,230.5	1,174.2	56.28	21.864	
10,500.0	7,740.0	7,734.0	7,734.0	52.7	13.5	90.00	-1,198.8	891.5	1,313.1	1,255.2	57.94	22.664	
10,600.0	7,740.0	7,734.0	7,734.0	54.1	13.5	90.00	-1,198.8	891.5	1,398.1	1,338.4	59.61	23.455	
10,700.0	7,740.0	7,734.0	7,734.0	55.6	13.5	90.00	-1,198.8	891.5	1,484.9	1,423.6	61.28	24.231	
10,800.0	7,740.0	7,734.0	7,734.0	57.0	13.5	90.00	-1,198.8	891.5	1,573.2	1,510.3	62.96	24.989	
10,900.0	7,740.0	7,734.0	7,734.0	58.5	13.5	90.00	-1,198.8	891.5	1,662.9	1,598.3	64.64	25.725	
11,000.0	7,740.0	7,734.0	7,734.0	59.9	13.5	90.00	-1,198.8	891.5	1,753.7	1,687.4	66.33	26.439	
11,100.0	7,740.0	7,734.0	7,734.0	61.4	13.5	90.00	-1,198.8	891.5	1,845.5	1,777.5	68.02	27.130	
11,200.0	7,740.0	7,734.0	7,734.0	62.9	13.5	90.00	-1,198.8	891.5	1,938.0	1,868.3	69.72	27.798	
11,300.0	7,740.0	7,734.0	7,734.0	64.5	13.5	90.00	-1,198.8	891.5	2,031.3	1,959.9	71.42	28.443	
11,400.0	7,740.0	7,734.0	7,734.0	66.0	13.5	90.00	-1,198.8	891.5	2,125.2	2,052.1	73.12	29.064	
11,500.0	7,740.0	7,734.0	7,734.0	67.5	13.5	90.00	-1,198.8	891.5	2,219.6	2,144.8	74.83	29.663	
11,600.0	7,740.0	7,734.0	7,734.0	69.1	13.5	90.00	-1,198.8	891.5	2,314.5	2,238.0	76.54	30.241	
11,700.0	7,740.0	7,734.0	7,734.0	70.7	13.5	90.00	-1,198.8	891.5	2,409.8	2,331.6	78.25	30.798	
11,800.0	7,740.0	7,734.0	7,734.0	72.2	13.5	90.00	-1,198.8	891.5	2,505.5	2,425.5	79.96	31.334	
11,900.0	7,740.0	7,734.0	7,734.0	73.8	13.5	90.00	-1,198.8	891.5	2,601.5	2,519.8	81.67	31.852	
12,000.0	7,740.0	7,734.0	7,734.0	75.4	13.5	90.00	-1,198.8	891.5	2,697.8	2,614.4	83.39	32.350	
12,100.0	7,740.0	7,734.0	7,734.0	77.0	13.5	90.00	-1,198.8	891.5	2,794.3	2,709.2	85.11	32.831	
12,200.0	7,740.0	7,734.0	7,734.0	78.6	13.5	90.00	-1,198.8	891.5	2,891.1	2,804.3	86.83	33.295	
12,300.0	7,740.0	7,734.0	7,734.0	80.2	13.5	90.00	-1,198.8	891.5	2,988.1	2,899.5	88.55	33.743	
12,400.0	7,740.0	7,734.0	7,734.0	81.8	13.5	90.00	-1,198.8	891.5	3,085.3	2,995.0	90.28	34.176	
12,500.0	7,740.0	7,734.0	7,734.0	83.4	13.5	90.00	-1,198.8	891.5	3,182.6	3,090.6	92.00	34.593	
12,600.0	7,740.0	7,734.0	7,734.0	85.1	13.5	90.00	-1,198.8	891.5	3,280.2	3,186.4	93.73	34.996	
12,700.0	7,740.0	7,734.0	7,734.0	86.7	13.5	90.00	-1,198.8	891.5	3,377.8	3,282.4	95.46	35.386	
12,800.0	7,740.0	7,734.0	7,734.0	88.3	13.5	90.00	-1,198.8	891.5	3,475.6	3,378.4	97.18	35.763	
12,900.0	7,740.0	7,734.0	7,734.0	90.0	13.5	90.00	-1,198.8	891.5	3,573.5	3,474.6	98.91	36.128	
13,000.0	7,740.0	7,734.0	7,734.0	91.6	13.5	90.00	-1,198.8	891.5	3,671.6	3,570.9	100.64	36.481	
13,100.0	7,740.0	7,734.0	7,734.0	93.3	13.5	90.00	-1,198.8	891.5	3,769.7	3,667.3	102.38	36.822	
13,200.0	7,740.0	7,734.0	7,734.0	94.9	13.5	90.00	-1,198.8	891.5	3,867.9	3,763.8	104.11	37.153	
13,300.0	7,740.0	7,734.0	7,734.0	96.6	13.5	90.00	-1,198.8	891.5	3,966.3	3,860.4	105.84	37.474	
13,400.0	7,740.0	7,734.0	7,734.0	98.2	13.5	90.00	-1,198.8	891.5	4,064.7	3,957.1	107.58	37.784	
13,500.0	7,740.0	7,734.0	7,734.0	99.9	13.5	90.00	-1,198.8	891.5	4,163.1	4,053.8	109.31	38.086	
13,600.0	7,740.0	7,734.0	7,734.0	101.6	13.5	90.00	-1,198.8	891.5	4,261.7	4,150.6	111.05	38.378	
13,700.0	7,740.0	7,734.0	7,734.0	103.2	13.5	90.00	-1,198.8	891.5	4,360.3	4,247.5	112.78	38.661	
13,800.0	7,740.0	7,734.0	7,734.0	104.9	13.5	90.00	-1,198.8	891.5	4,459.0	4,344.4	114.52	38.937	
13,900.0	7,740.0	7,734.0	7,734.0	106.6	13.5	90.00	-1,198.8	891.5	4,557.7	4,441.4	116.26	39.204	
14,000.0	7,740.0	7,734.0	7,734.0	108.2	13.5	90.00	-1,198.8	891.5	4,656.5	4,538.5	117.99	39.464	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design										S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - THOMAS E UNIT 1 (EXISTING) - Existing - NO SUR				Offset Site Error:		0.0 ft	
Survey Program:										8332-Geolink MWD				Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty	Separation Factor						
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis						
14,100.0	7,740.0	7,734.0	7,734.0	109.9	13.5	90.00	-1,198.8	891.5	4,755.3	4,635.6	119.73	39.717					
14,200.0	7,740.0	7,734.0	7,734.0	111.6	13.5	90.00	-1,198.8	891.5	4,854.2	4,732.7	121.47	39.962					
14,300.0	7,740.0	7,734.0	7,734.0	113.3	13.5	90.00	-1,198.8	891.5	4,953.1	4,829.9	123.21	40.201					
14,400.0	7,740.0	7,734.0	7,734.0	115.0	13.5	90.00	-1,198.8	891.5	5,052.1	4,927.2	124.95	40.433					
14,500.0	7,740.0	7,734.0	7,734.0	116.7	13.5	90.00	-1,198.8	891.5	5,151.1	5,024.4	126.69	40.660					
14,600.0	7,740.0	7,734.0	7,734.0	118.3	13.5	90.00	-1,198.8	891.5	5,250.2	5,121.7	128.43	40.880					

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 12-7 (EXISTING) - ENCANA WELL - NO													Offset Site Error:	0.0 ft
Survey Program: 8325-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		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)	Uncertainty Axis			
0.0	0.0	88.0	88.0	0.0	0.2	-32.39	131.5	-83.4	155.7					
100.0	100.0	188.0	188.0	0.2	0.3	-32.39	131.5	-83.4	155.7	155.2	0.48	324.298		
200.0	200.0	288.0	288.0	0.3	0.5	-32.39	131.5	-83.4	155.7	154.9	0.83	187.784 CC		
300.0	300.0	388.0	388.0	0.5	0.7	-103.68	131.5	-83.4	155.9	154.7	1.18	132.231 ES		
400.0	400.0	488.0	488.0	0.7	0.9	-104.61	131.5	-83.4	156.6	155.0	1.53	102.125		
500.0	499.9	587.9	587.9	0.9	1.0	-106.13	131.5	-83.4	157.7	155.8	1.89	83.270		
600.0	599.7	687.7	687.7	1.1	1.2	-108.22	131.5	-83.4	159.5	157.3	2.26	70.436		
700.0	699.4	787.4	787.4	1.3	1.4	-110.82	131.5	-83.4	162.2	159.5	2.65	61.263		
800.0	798.9	886.9	886.9	1.5	1.5	-113.87	131.5	-83.4	165.8	162.8	3.04	54.539		
900.0	898.3	986.3	986.3	1.8	1.7	-117.28	131.5	-83.4	170.7	167.3	3.44	49.578		
1,000.0	997.4	1,085.4	1,085.4	2.0	1.9	-120.96	131.5	-83.4	177.1	173.3	3.85	45.956		
1,100.0	1,096.3	1,184.3	1,184.3	2.3	2.1	-124.79	131.5	-83.4	185.2	180.9	4.27	43.394		
1,200.0	1,194.9	1,282.9	1,282.9	2.7	2.2	-128.66	131.5	-83.4	195.2	190.5	4.68	41.693		
1,300.0	1,293.3	1,381.3	1,381.3	3.0	2.4	-132.47	131.5	-83.4	207.2	202.1	5.09	40.699		
1,400.0	1,391.2	1,479.2	1,479.2	3.4	2.6	-136.15	131.5	-83.4	221.2	215.7	5.49	40.292 SF		
1,500.0	1,488.9	1,576.9	1,576.9	3.8	2.8	-139.63	131.5	-83.4	237.5	231.6	5.88	40.372		
1,595.5	1,581.8	1,669.8	1,669.8	4.2	2.9	-142.73	131.5	-83.4	255.0	248.8	6.25	40.831		
1,600.0	1,586.1	1,674.1	1,674.1	4.2	2.9	-142.87	131.5	-83.4	255.9	249.6	6.26	40.861		
1,700.0	1,683.2	1,771.2	1,771.2	4.7	3.1	-145.87	131.5	-83.4	275.7	269.1	6.63	41.581		
1,800.0	1,780.2	1,868.2	1,868.2	5.1	3.3	-148.47	131.5	-83.4	296.1	289.1	6.99	42.377		
1,900.0	1,877.3	1,965.3	1,965.3	5.6	3.4	-150.73	131.5	-83.4	317.1	309.8	7.34	43.212		
2,000.0	1,974.3	2,062.3	2,062.3	6.0	3.6	-152.72	131.5	-83.4	338.5	330.8	7.68	44.057		
2,100.0	2,071.4	2,159.4	2,159.4	6.5	3.8	-154.47	131.5	-83.4	360.2	352.2	8.02	44.898		
2,200.0	2,168.4	2,256.4	2,256.4	6.9	3.9	-156.02	131.5	-83.4	382.2	373.9	8.36	45.721		
2,300.0	2,265.4	2,353.4	2,353.4	7.4	4.1	-157.40	131.5	-83.4	404.5	395.8	8.69	46.521		
2,400.0	2,362.5	2,450.5	2,450.5	7.9	4.3	-158.64	131.5	-83.4	426.9	417.9	9.03	47.293		
2,500.0	2,459.5	2,547.5	2,547.5	8.3	4.4	-159.76	131.5	-83.4	449.6	440.2	9.36	48.034		
2,600.0	2,556.6	2,644.6	2,644.6	8.8	4.6	-160.76	131.5	-83.4	472.3	462.6	9.69	48.743		
2,700.0	2,653.6	2,741.6	2,741.6	9.2	4.8	-161.68	131.5	-83.4	495.2	485.2	10.02	49.421		
2,800.0	2,750.7	2,838.7	2,838.7	9.7	5.0	-162.52	131.5	-83.4	518.2	507.9	10.35	50.068		
2,900.0	2,847.7	2,935.7	2,935.7	10.2	5.1	-163.28	131.5	-83.4	541.4	530.7	10.68	50.685		
3,000.0	2,944.8	3,032.8	3,032.8	10.6	5.3	-163.98	131.5	-83.4	564.5	553.5	11.01	51.272		
3,100.0	3,041.8	3,129.8	3,129.8	11.1	5.5	-164.63	131.5	-83.4	587.8	576.5	11.34	51.831		
3,200.0	3,138.9	3,226.9	3,226.9	11.5	5.6	-165.23	131.5	-83.4	611.1	599.5	11.67	52.364		
3,300.0	3,235.9	3,323.9	3,323.9	12.0	5.8	-165.78	131.5	-83.4	634.5	622.5	12.00	52.871		
3,400.0	3,333.0	3,421.0	3,421.0	12.5	6.0	-166.30	131.5	-83.4	658.0	645.7	12.33	53.355		
3,500.0	3,430.0	3,518.0	3,518.0	12.9	6.1	-166.78	131.5	-83.4	681.5	668.8	12.66	53.816		
3,600.0	3,527.1	3,615.1	3,615.1	13.4	6.3	-167.23	131.5	-83.4	705.0	692.0	12.99	54.255		
3,700.0	3,624.1	3,712.1	3,712.1	13.9	6.5	-167.65	131.5	-83.4	728.6	715.3	13.33	54.675		
3,800.0	3,721.2	3,809.2	3,809.2	14.3	6.6	-168.04	131.5	-83.4	752.2	738.5	13.66	55.075		
3,900.0	3,818.2	3,906.2	3,906.2	14.8	6.8	-168.41	131.5	-83.4	775.8	761.8	13.99	55.458		
4,000.0	3,915.3	4,003.3	4,003.3	15.3	7.0	-168.75	131.5	-83.4	799.5	785.2	14.32	55.823		
4,100.0	4,012.3	4,100.3	4,100.3	15.7	7.2	-169.08	131.5	-83.4	823.2	808.5	14.65	56.173		
4,200.0	4,109.4	4,197.4	4,197.4	16.2	7.3	-169.39	131.5	-83.4	846.9	831.9	14.99	56.508		
4,300.0	4,206.4	4,294.4	4,294.4	16.6	7.5	-169.68	131.5	-83.4	870.6	855.3	15.32	56.829		
4,400.0	4,303.5	4,391.5	4,391.5	17.1	7.7	-169.96	131.5	-83.4	894.4	878.7	15.65	57.136		
4,500.0	4,400.5	4,488.5	4,488.5	17.6	7.8	-170.22	131.5	-83.4	918.2	902.2	15.99	57.431		
4,600.0	4,497.6	4,585.6	4,585.6	18.0	8.0	-170.47	131.5	-83.4	942.0	925.7	16.32	57.714		
4,700.0	4,594.6	4,682.6	4,682.6	18.5	8.2	-170.71	131.5	-83.4	965.8	949.1	16.66	57.985		
4,800.0	4,691.7	4,779.7	4,779.7	19.0	8.3	-170.93	131.5	-83.4	989.6	972.6	16.99	58.246		
4,900.0	4,788.7	4,876.7	4,876.7	19.4	8.5	-171.15	131.5	-83.4	1,013.4	996.1	17.32	58.497		
5,000.0	4,885.8	4,973.8	4,973.8	19.9	8.7	-171.35	131.5	-83.4	1,037.3	1,019.6	17.66	58.739		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 12-7 (EXISTING) - ENCANA WELL - NO												Offset Site Error:	0.0 ft
Survey Program: 8325-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)			
5,100.0	4,982.8	5,070.8	5,070.8	20.4	8.9	-171.55	131.5	-83.4	1,061.2	1,043.2	17.99	58.971	
5,200.0	5,079.9	5,167.9	5,167.9	20.8	9.0	-171.73	131.5	-83.4	1,085.0	1,066.7	18.33	59.195	
5,300.0	5,176.9	5,264.9	5,264.9	21.3	9.2	-171.91	131.5	-83.4	1,108.9	1,090.3	18.67	59.411	
5,400.0	5,273.9	5,361.9	5,361.9	21.8	9.4	-172.08	131.5	-83.4	1,132.8	1,113.8	19.00	59.619	
5,500.0	5,371.0	5,459.0	5,459.0	22.2	9.5	-172.25	131.5	-83.4	1,156.7	1,137.4	19.34	59.820	
5,600.0	5,468.0	5,556.0	5,556.0	22.7	9.7	-172.41	131.5	-83.4	1,180.6	1,161.0	19.67	60.014	
5,700.0	5,565.1	5,653.1	5,653.1	23.1	9.9	-172.56	131.5	-83.4	1,204.6	1,184.5	20.01	60.201	
5,800.0	5,662.1	5,750.1	5,750.1	23.6	10.0	-172.70	131.5	-83.4	1,228.5	1,208.1	20.35	60.382	
5,900.0	5,759.2	5,847.2	5,847.2	24.1	10.2	-172.84	131.5	-83.4	1,252.4	1,231.7	20.68	60.557	
6,000.0	5,856.2	5,944.2	5,944.2	24.5	10.4	-172.98	131.5	-83.4	1,276.4	1,255.3	21.02	60.726	
6,100.0	5,953.3	6,041.3	6,041.3	25.0	10.5	-173.11	131.5	-83.4	1,300.3	1,279.0	21.36	60.890	
6,200.0	6,050.3	6,138.3	6,138.3	25.5	10.7	-173.23	131.5	-83.4	1,324.3	1,302.6	21.69	61.049	
6,300.0	6,147.4	6,235.4	6,235.4	25.9	10.9	-173.35	131.5	-83.4	1,348.2	1,326.2	22.03	61.202	
6,400.0	6,244.4	6,332.4	6,332.4	26.4	11.1	-173.47	131.5	-83.4	1,372.2	1,349.8	22.37	61.351	
6,500.0	6,341.5	6,429.5	6,429.5	26.9	11.2	-173.58	131.5	-83.4	1,396.2	1,373.5	22.70	61.496	
6,600.0	6,438.5	6,526.5	6,526.5	27.3	11.4	-173.69	131.5	-83.4	1,420.1	1,397.1	23.04	61.636	
6,700.0	6,535.6	6,623.6	6,623.6	27.8	11.6	-173.80	131.5	-83.4	1,444.1	1,420.7	23.38	61.772	
6,800.0	6,632.6	6,720.6	6,720.6	28.3	11.7	-173.90	131.5	-83.4	1,468.1	1,444.4	23.72	61.903	
6,900.0	6,729.7	6,817.7	6,817.7	28.7	11.9	-174.00	131.5	-83.4	1,492.1	1,468.1	24.05	62.032	
7,000.0	6,826.7	6,914.7	6,914.7	29.2	12.1	-174.09	131.5	-83.4	1,516.1	1,491.7	24.39	62.156	
7,100.0	6,923.8	7,011.8	7,011.8	29.7	12.2	-174.18	131.5	-83.4	1,540.1	1,515.4	24.73	62.277	
7,200.0	7,020.8	7,108.8	7,108.8	30.1	12.4	-174.27	131.5	-83.4	1,564.1	1,539.0	25.07	62.395	
7,300.0	7,117.9	7,205.9	7,205.9	30.6	12.6	-174.36	131.5	-83.4	1,588.1	1,562.7	25.41	62.509	
7,321.2	7,138.4	7,226.4	7,226.4	30.7	12.6	-174.38	131.5	-83.4	1,593.2	1,567.7	25.48	62.533	
7,350.0	7,166.4	7,254.4	7,254.4	30.8	12.7	173.33	131.5	-83.4	1,599.9	1,574.4	25.54	62.657	
7,400.0	7,215.1	7,303.1	7,303.1	31.0	12.7	151.42	131.5	-83.4	1,610.9	1,585.2	25.66	62.770	
7,450.0	7,263.5	7,351.5	7,351.5	31.2	12.8	132.99	131.5	-83.4	1,620.8	1,595.0	25.82	62.778	
7,500.0	7,311.3	7,399.3	7,399.3	31.3	12.9	119.77	131.5	-83.4	1,629.6	1,603.6	25.98	62.715	
7,550.0	7,358.1	7,446.1	7,446.1	31.5	13.0	110.80	131.5	-83.4	1,637.4	1,611.2	26.15	62.609	
7,600.0	7,403.5	7,491.5	7,491.5	31.6	13.1	104.71	131.5	-83.4	1,644.2	1,617.9	26.32	62.475	
7,650.0	7,447.3	7,535.3	7,535.3	31.7	13.2	100.53	131.5	-83.4	1,650.1	1,623.6	26.48	62.322	
7,700.0	7,489.1	7,577.1	7,577.1	31.7	13.2	97.65	131.5	-83.4	1,655.2	1,628.5	26.63	62.155	
7,750.0	7,528.5	7,616.5	7,616.5	31.8	13.3	95.66	131.5	-83.4	1,659.6	1,632.8	26.78	61.979	
7,800.0	7,565.3	7,653.3	7,653.3	31.8	13.4	94.29	131.5	-83.4	1,663.5	1,636.6	26.92	61.798	
7,850.0	7,599.2	7,687.2	7,687.2	31.9	13.4	93.36	131.5	-83.4	1,667.1	1,640.1	27.06	61.618	
7,900.0	7,629.9	7,717.9	7,717.9	31.9	13.5	92.73	131.5	-83.4	1,670.5	1,643.3	27.19	61.445	
7,950.0	7,657.2	7,745.2	7,745.2	31.9	13.5	92.30	131.5	-83.4	1,673.8	1,646.5	27.31	61.285	
8,000.0	7,680.9	7,768.9	7,768.9	32.0	13.6	91.98	131.5	-83.4	1,677.3	1,649.9	27.43	61.141	
8,050.0	7,700.8	7,788.8	7,788.8	32.0	13.6	91.70	131.5	-83.4	1,681.0	1,653.4	27.55	61.013	
8,100.0	7,716.7	7,804.7	7,804.7	32.0	13.6	91.41	131.5	-83.4	1,685.0	1,657.3	27.67	60.900	
8,150.0	7,728.6	7,816.6	7,816.6	32.1	13.6	91.08	131.5	-83.4	1,689.5	1,661.7	27.79	60.804	
8,200.0	7,736.3	7,824.3	7,824.3	32.1	13.7	90.67	131.5	-83.4	1,694.4	1,666.5	27.90	60.726	
8,250.0	7,739.8	7,827.8	7,827.8	32.2	13.7	90.18	131.5	-83.4	1,699.8	1,671.8	28.02	60.671	
8,266.2	7,740.0	7,828.0	7,828.0	32.2	13.7	90.00	131.5	-83.4	1,701.7	1,673.6	28.05	60.660	
8,300.0	7,740.0	7,828.0	7,828.0	32.3	13.7	90.00	131.5	-83.4	1,705.9	1,677.7	28.19	60.523	
8,400.0	7,740.0	7,828.0	7,828.0	32.5	13.7	90.00	131.5	-83.4	1,722.4	1,693.6	28.71	59.986	
8,500.0	7,740.0	7,828.0	7,828.0	32.8	13.7	90.00	131.5	-83.4	1,744.4	1,715.0	29.42	59.296	
8,600.0	7,740.0	7,828.0	7,828.0	33.2	13.7	90.00	131.5	-83.4	1,771.8	1,741.5	30.28	58.514	
8,700.0	7,740.0	7,828.0	7,828.0	33.7	13.7	90.00	131.5	-83.4	1,804.3	1,773.0	31.27	57.694	
8,800.0	7,740.0	7,828.0	7,828.0	34.3	13.7	90.00	131.5	-83.4	1,841.7	1,809.3	32.38	56.878	
8,900.0	7,740.0	7,828.0	7,828.0	34.9	13.7	90.00	131.5	-83.4	1,883.6	1,850.1	33.58	56.096	
9,000.0	7,740.0	7,828.0	7,828.0	35.6	13.7	90.00	131.5	-83.4	1,929.9	1,895.0	34.86	55.367	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 12-7 (EXISTING) - ENCANA WELL - NO													Offset Site Error:	0.0 ft
Survey Program: 8325-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		
9,100.0	7,740.0	7,828.0	7,828.0	36.4	13.7	90.00	131.5	-83.4	1,980.1	1,943.9	36.20	54.703		
9,200.0	7,740.0	7,828.0	7,828.0	37.3	13.7	90.00	131.5	-83.4	2,034.0	1,996.4	37.59	54.107		
9,300.0	7,740.0	7,828.0	7,828.0	38.2	13.7	90.00	131.5	-83.4	2,091.2	2,052.2	39.03	53.579		
9,400.0	7,740.0	7,828.0	7,828.0	39.2	13.7	90.00	131.5	-83.4	2,151.7	2,111.1	40.51	53.118		
9,500.0	7,740.0	7,828.0	7,828.0	40.2	13.7	90.00	131.5	-83.4	2,214.9	2,172.9	42.02	52.717		
9,600.0	7,740.0	7,828.0	7,828.0	41.3	13.7	90.00	131.5	-83.4	2,280.8	2,237.3	43.55	52.372		
9,700.0	7,740.0	7,828.0	7,828.0	42.4	13.7	90.00	131.5	-83.4	2,349.2	2,304.0	45.11	52.077		
9,800.0	7,740.0	7,828.0	7,828.0	43.6	13.7	90.00	131.5	-83.4	2,419.7	2,373.0	46.69	51.828		
9,900.0	7,740.0	7,828.0	7,828.0	44.8	13.7	90.00	131.5	-83.4	2,492.2	2,443.9	48.28	51.619		
10,000.0	7,740.0	7,828.0	7,828.0	46.0	13.7	90.00	131.5	-83.4	2,566.6	2,516.7	49.89	51.445		
10,100.0	7,740.0	7,828.0	7,828.0	47.3	13.7	90.00	131.5	-83.4	2,642.7	2,591.2	51.51	51.301		
10,200.0	7,740.0	7,828.0	7,828.0	48.6	13.7	90.00	131.5	-83.4	2,720.3	2,667.2	53.15	51.185		
10,300.0	7,740.0	7,828.0	7,828.0	50.0	13.7	90.00	131.5	-83.4	2,799.4	2,744.6	54.79	51.092		
10,400.0	7,740.0	7,828.0	7,828.0	51.3	13.7	90.00	131.5	-83.4	2,879.7	2,823.3	56.44	51.020		
10,500.0	7,740.0	7,828.0	7,828.0	52.7	13.7	90.00	131.5	-83.4	2,961.2	2,903.1	58.10	50.966		
10,600.0	7,740.0	7,828.0	7,828.0	54.1	13.7	90.00	131.5	-83.4	3,043.9	2,984.1	59.77	50.927		
10,700.0	7,740.0	7,828.0	7,828.0	55.6	13.7	90.00	131.5	-83.4	3,127.6	3,066.1	61.44	50.902		
10,800.0	7,740.0	7,828.0	7,828.0	57.0	13.7	90.00	131.5	-83.4	3,212.2	3,149.0	63.12	50.888		
10,900.0	7,740.0	7,828.0	7,828.0	58.5	13.7	90.00	131.5	-83.4	3,297.6	3,232.8	64.81	50.885		
11,000.0	7,740.0	7,828.0	7,828.0	59.9	13.7	90.00	131.5	-83.4	3,383.9	3,317.4	66.49	50.890		
11,100.0	7,740.0	7,828.0	7,828.0	61.4	13.7	90.00	131.5	-83.4	3,470.9	3,402.7	68.19	50.903		
11,200.0	7,740.0	7,828.0	7,828.0	62.9	13.7	90.00	131.5	-83.4	3,558.5	3,488.7	69.88	50.922		
11,300.0	7,740.0	7,828.0	7,828.0	64.5	13.7	90.00	131.5	-83.4	3,646.8	3,575.3	71.58	50.946		
11,400.0	7,740.0	7,828.0	7,828.0	66.0	13.7	90.00	131.5	-83.4	3,735.7	3,662.5	73.29	50.975		
11,500.0	7,740.0	7,828.0	7,828.0	67.5	13.7	90.00	131.5	-83.4	3,825.2	3,750.2	74.99	51.008		
11,600.0	7,740.0	7,828.0	7,828.0	69.1	13.7	90.00	131.5	-83.4	3,915.1	3,838.4	76.70	51.045		
11,700.0	7,740.0	7,828.0	7,828.0	70.7	13.7	90.00	131.5	-83.4	4,005.6	3,927.2	78.41	51.085		
11,800.0	7,740.0	7,828.0	7,828.0	72.2	13.7	90.00	131.5	-83.4	4,096.5	4,016.3	80.12	51.127		
11,900.0	7,740.0	7,828.0	7,828.0	73.8	13.7	90.00	131.5	-83.4	4,187.8	4,105.9	81.84	51.171		
12,000.0	7,740.0	7,828.0	7,828.0	75.4	13.7	90.00	131.5	-83.4	4,279.4	4,195.9	83.56	51.216		
12,100.0	7,740.0	7,828.0	7,828.0	77.0	13.7	90.00	131.5	-83.4	4,371.5	4,286.2	85.28	51.263		
12,200.0	7,740.0	7,828.0	7,828.0	78.6	13.7	90.00	131.5	-83.4	4,463.9	4,376.9	87.00	51.312		
12,300.0	7,740.0	7,828.0	7,828.0	80.2	13.7	90.00	131.5	-83.4	4,556.6	4,467.9	88.72	51.361		
12,400.0	7,740.0	7,828.0	7,828.0	81.8	13.7	90.00	131.5	-83.4	4,649.6	4,559.2	90.44	51.410		
12,500.0	7,740.0	7,828.0	7,828.0	83.4	13.7	90.00	131.5	-83.4	4,742.9	4,650.7	92.17	51.460		
12,600.0	7,740.0	7,828.0	7,828.0	85.1	13.7	90.00	131.5	-83.4	4,836.5	4,742.6	93.89	51.511		
12,700.0	7,740.0	7,828.0	7,828.0	86.7	13.7	90.00	131.5	-83.4	4,930.3	4,834.7	95.62	51.561		
12,800.0	7,740.0	7,828.0	7,828.0	88.3	13.7	90.00	131.5	-83.4	5,024.4	4,927.0	97.35	51.612		
12,900.0	7,740.0	7,828.0	7,828.0	90.0	13.7	90.00	131.5	-83.4	5,118.6	5,019.6	99.08	51.663		
13,000.0	7,740.0	7,828.0	7,828.0	91.6	13.7	90.00	131.5	-83.4	5,213.1	5,112.3	100.81	51.713		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 21-7 (EXISTING) - ENCANA WELL - GY													Offset Site Error:	0.0 ft
Survey Program: 100-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		
0.0	0.0	44.4	44.4	0.0	0.1	38.11	1,576.6	1,236.5	2,003.7					
100.0	100.0	142.0	142.0	0.2	0.2	38.14	1,576.3	1,237.6	2,004.1	2,003.7	0.40	5,002.500		
200.0	200.0	247.4	247.4	0.3	0.4	38.19	1,575.3	1,239.1	2,004.2	2,003.5	0.76	2,639.777		
300.0	300.0	349.4	349.4	0.5	0.6	-32.79	1,574.7	1,239.9	2,003.5	2,002.4	1.12	1,796.328		
400.0	400.0	454.4	454.3	0.7	0.8	-32.83	1,574.4	1,240.2	2,001.2	1,999.8	1.47	1,357.989		
500.0	499.9	556.5	556.5	0.9	1.0	-32.92	1,574.1	1,239.9	1,997.2	1,995.4	1.83	1,092.004		
600.0	599.7	666.2	666.1	1.1	1.2	-33.07	1,573.8	1,239.3	1,991.6	1,989.4	2.20	904.966		
700.0	699.4	777.4	777.4	1.3	1.4	-33.26	1,572.9	1,238.3	1,983.8	1,981.2	2.58	768.847		
800.0	798.9	880.8	880.7	1.5	1.5	-33.46	1,571.4	1,237.6	1,974.2	1,971.2	2.95	668.727		
900.0	898.3	983.1	983.0	1.8	1.7	-33.69	1,569.6	1,237.0	1,963.0	1,959.6	3.33	589.709		
1,000.0	997.4	1,084.1	1,084.0	2.0	1.9	-33.97	1,568.0	1,236.0	1,950.2	1,946.5	3.71	525.492		
1,100.0	1,096.3	1,189.8	1,189.6	2.3	2.1	-34.33	1,566.4	1,234.4	1,935.9	1,931.8	4.11	470.872		
1,200.0	1,194.9	1,287.5	1,287.4	2.7	2.3	-34.72	1,565.2	1,232.2	1,919.9	1,915.4	4.51	425.781		
1,300.0	1,293.3	1,386.4	1,386.2	3.0	2.4	-35.18	1,564.2	1,229.8	1,902.7	1,897.7	4.92	386.501		
1,400.0	1,391.2	1,480.2	1,480.0	3.4	2.6	-35.67	1,563.6	1,227.1	1,884.1	1,878.8	5.34	352.600		
1,500.0	1,488.9	1,572.9	1,572.7	3.8	2.8	-36.22	1,563.3	1,224.4	1,864.5	1,858.7	5.78	322.576		
1,595.5	1,581.8	1,667.6	1,667.4	4.2	2.9	-36.81	1,562.8	1,222.0	1,844.6	1,838.4	6.23	296.249		
1,600.0	1,586.1	1,672.2	1,671.9	4.2	2.9	-36.83	1,562.8	1,221.9	1,843.7	1,837.4	6.25	295.076		
1,700.0	1,683.2	1,763.7	1,763.4	4.7	3.1	-37.32	1,562.5	1,219.2	1,822.3	1,815.6	6.72	271.326		
1,800.0	1,780.2	1,857.3	1,856.9	5.1	3.3	-37.84	1,562.6	1,216.5	1,801.4	1,794.2	7.20	250.305		
1,900.0	1,877.3	1,948.3	1,947.9	5.6	3.4	-38.34	1,562.4	1,214.3	1,780.8	1,773.1	7.68	231.889		
2,000.0	1,974.3	2,035.5	2,035.1	6.0	3.6	-38.82	1,562.6	1,212.6	1,760.8	1,752.7	8.16	215.746		
2,100.0	2,071.4	2,128.1	2,127.6	6.5	3.7	-39.34	1,563.0	1,211.1	1,741.4	1,732.7	8.66	201.063		
2,200.0	2,168.4	2,227.3	2,226.9	6.9	3.9	-39.90	1,563.2	1,209.8	1,722.1	1,712.9	9.18	187.597		
2,300.0	2,265.4	2,323.7	2,323.2	7.4	4.1	-40.43	1,563.2	1,209.0	1,702.9	1,693.2	9.70	175.592		
2,400.0	2,362.5	2,419.9	2,419.4	7.9	4.3	-40.98	1,563.1	1,208.1	1,683.8	1,673.6	10.22	164.699		
2,500.0	2,459.5	2,500.0	2,499.5	8.3	4.4	-41.46	1,563.5	1,207.2	1,665.4	1,654.6	10.72	155.304		
2,600.0	2,556.6	2,591.1	2,590.7	8.8	4.6	-42.03	1,564.8	1,205.9	1,647.7	1,636.4	11.26	146.389		
2,700.0	2,653.6	2,692.3	2,691.8	9.2	4.7	-42.70	1,566.7	1,204.2	1,630.4	1,618.6	11.82	137.946		
2,800.0	2,750.7	2,797.5	2,796.9	9.7	4.9	-43.42	1,568.5	1,202.0	1,613.0	1,600.6	12.40	130.063		
2,900.0	2,847.7	2,893.7	2,893.2	10.2	5.1	-44.08	1,569.7	1,200.0	1,595.5	1,582.6	12.97	123.027		
3,000.0	2,944.8	2,985.5	2,984.9	10.6	5.3	-44.71	1,570.7	1,198.8	1,578.4	1,564.9	13.53	116.658		
3,100.0	3,041.8	3,077.5	3,076.9	11.1	5.4	-45.33	1,571.9	1,198.0	1,561.9	1,547.8	14.10	110.786		
3,200.0	3,138.9	3,178.3	3,177.7	11.5	5.6	-46.03	1,573.2	1,197.2	1,545.6	1,530.9	14.69	105.192		
3,300.0	3,235.9	3,292.6	3,292.0	12.0	5.8	-46.82	1,573.8	1,196.4	1,528.9	1,513.5	15.33	99.749		
3,400.0	3,333.0	3,394.6	3,393.9	12.5	6.0	-47.54	1,573.6	1,195.3	1,511.6	1,495.6	15.94	94.832		
3,500.0	3,430.0	3,503.7	3,503.1	12.9	6.2	-48.34	1,572.8	1,193.9	1,493.9	1,477.4	16.58	90.119		
3,600.0	3,527.1	3,605.8	3,605.2	13.4	6.3	-49.09	1,571.4	1,192.5	1,476.0	1,458.8	17.20	85.790		
3,700.0	3,624.1	3,716.0	3,715.3	13.9	6.5	-49.91	1,568.9	1,191.1	1,457.5	1,439.6	17.86	81.615		
3,800.0	3,721.2	3,801.3	3,800.6	14.3	6.7	-50.54	1,566.9	1,190.5	1,439.3	1,420.8	18.45	78.006		
3,900.0	3,818.2	3,903.5	3,902.8	14.8	6.9	-51.30	1,564.5	1,190.0	1,421.5	1,402.4	19.09	74.443		
4,000.0	3,915.3	4,008.0	4,007.2	15.3	7.1	-52.14	1,561.9	1,188.5	1,403.4	1,383.7	19.76	71.028		
4,100.0	4,012.3	4,106.2	4,105.3	15.7	7.2	-52.93	1,559.1	1,187.4	1,385.4	1,365.0	20.41	67.878		
4,200.0	4,109.4	4,204.3	4,203.4	16.2	7.4	-53.73	1,556.1	1,186.4	1,367.4	1,346.3	21.07	64.903		
4,300.0	4,206.4	4,295.1	4,294.2	16.6	7.6	-54.51	1,553.6	1,185.0	1,349.9	1,328.2	21.72	62.157		
4,400.0	4,303.5	4,379.5	4,378.6	17.1	7.7	-55.26	1,551.8	1,183.8	1,333.3	1,310.9	22.36	59.640		
4,500.0	4,400.5	4,466.3	4,465.3	17.6	7.9	-56.05	1,550.7	1,182.8	1,317.8	1,294.8	23.01	57.278		
4,600.0	4,497.6	4,558.1	4,557.1	18.0	8.0	-56.89	1,550.1	1,181.8	1,303.3	1,279.6	23.68	55.035		
4,700.0	4,594.6	4,656.6	4,655.6	18.5	8.2	-57.82	1,549.5	1,180.9	1,289.2	1,264.8	24.38	52.876		
4,800.0	4,691.7	4,753.6	4,752.6	19.0	8.4	-58.76	1,548.8	1,179.8	1,275.2	1,250.1	25.08	50.837		
4,900.0	4,788.7	4,848.9	4,847.9	19.4	8.5	-59.69	1,548.2	1,178.8	1,261.8	1,236.0	25.79	48.928		
5,000.0	4,885.8	4,944.8	4,943.8	19.9	8.7	-60.67	1,547.6	1,177.6	1,248.7	1,222.2	26.50	47.117		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 21-7 (EXISTING) - ENCANA WELL - GY													Offset Site Error:	0.0 ft
Survey Program: 100-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	
5,100.0	4,982.8	5,036.7	5,035.7	20.4	8.9	-61.63	1,547.3	1,176.2	1,236.2	1,209.0	27.21	45.432		
5,200.0	5,079.9	5,128.3	5,127.3	20.8	9.0	-62.60	1,547.6	1,175.1	1,224.6	1,196.7	27.92	43.861		
5,300.0	5,176.9	5,226.2	5,225.1	21.3	9.2	-63.64	1,547.7	1,174.2	1,213.5	1,184.9	28.65	42.350		
5,400.0	5,273.9	5,318.3	5,317.2	21.8	9.4	-64.64	1,548.1	1,173.1	1,203.0	1,173.6	29.38	40.951		
5,500.0	5,371.0	5,406.3	5,405.2	22.2	9.5	-65.62	1,549.0	1,172.0	1,193.5	1,163.4	30.09	39.667		
5,600.0	5,468.0	5,508.2	5,507.1	22.7	9.7	-66.77	1,550.1	1,170.8	1,184.5	1,153.7	30.85	38.400		
5,700.0	5,565.1	5,600.0	5,598.9	23.1	9.9	-67.83	1,551.2	1,169.5	1,176.1	1,144.5	31.58	37.245		
5,800.0	5,662.1	5,700.0	5,698.9	23.6	10.0	-69.00	1,552.4	1,168.1	1,168.1	1,135.8	32.34	36.124		
5,900.0	5,759.2	5,793.4	5,792.3	24.1	10.2	-70.11	1,553.5	1,166.8	1,160.6	1,127.5	33.07	35.092		
6,000.0	5,856.2	5,889.2	5,888.1	24.5	10.4	-71.25	1,554.9	1,165.5	1,153.9	1,120.1	33.82	34.121		
6,100.0	5,953.3	5,980.7	5,979.6	25.0	10.5	-72.36	1,556.4	1,164.2	1,147.9	1,113.4	34.55	33.227		
6,200.0	6,050.3	6,079.6	6,078.4	25.5	10.7	-73.55	1,558.4	1,163.2	1,142.7	1,107.4	35.30	32.374		
6,300.0	6,147.4	6,176.5	6,175.3	25.9	10.9	-74.70	1,560.1	1,162.6	1,137.8	1,101.7	36.03	31.576		
6,400.0	6,244.4	6,274.9	6,273.7	26.4	11.0	-75.89	1,561.8	1,161.8	1,133.3	1,096.6	36.77	30.821		
6,500.0	6,341.5	6,370.3	6,369.0	26.9	11.2	-77.06	1,563.5	1,160.9	1,129.4	1,091.9	37.50	30.118		
6,600.0	6,438.5	6,466.8	6,465.6	27.3	11.4	-78.25	1,565.3	1,160.1	1,126.1	1,087.8	38.22	29.460		
6,700.0	6,535.6	6,564.5	6,563.2	27.8	11.5	-79.48	1,567.0	1,158.7	1,123.3	1,084.3	38.95	28.840		
6,800.0	6,632.6	6,655.1	6,653.8	28.3	11.7	-80.62	1,568.7	1,157.7	1,121.1	1,081.5	39.65	28.278		
6,900.0	6,729.7	6,744.3	6,743.0	28.7	11.9	-81.73	1,571.2	1,156.7	1,120.3	1,080.0	40.33	27.777		
6,931.6	6,760.4	6,773.6	6,772.2	28.9	11.9	-82.09	1,572.1	1,156.5	1,120.2	1,079.7	40.55	27.626 CC		
7,000.0	6,826.7	6,838.9	6,837.5	29.2	12.0	-82.88	1,574.3	1,156.3	1,120.4	1,079.4	41.02	27.313		
7,100.0	6,923.8	6,936.0	6,934.6	29.7	12.2	-84.02	1,577.8	1,156.6	1,121.1	1,079.4	41.70	26.881 ES		
7,200.0	7,020.8	7,029.8	7,028.3	30.1	12.3	-85.07	1,581.4	1,157.8	1,122.3	1,079.9	42.37	26.489		
7,300.0	7,117.9	7,118.9	7,117.3	30.6	12.5	-86.03	1,585.6	1,159.4	1,124.5	1,081.5	43.01	26.143		
7,321.2	7,138.4	7,137.0	7,135.4	30.7	12.5	-86.23	1,586.5	1,159.7	1,125.2	1,082.0	43.15	26.076		
7,350.0	7,166.4	7,161.7	7,159.9	30.8	12.6	-98.13	1,587.9	1,160.3	1,126.8	1,083.5	43.29	26.031 SF		
7,400.0	7,215.1	7,204.7	7,202.9	31.0	12.6	-119.64	1,590.5	1,161.3	1,133.3	1,090.0	43.30	26.171		
7,450.0	7,263.5	7,250.7	7,248.8	31.2	12.7	-138.02	1,593.6	1,162.7	1,144.1	1,101.1	43.04	26.581		
7,500.0	7,311.3	7,295.9	7,293.9	31.3	12.8	-151.49	1,596.7	1,164.3	1,159.1	1,116.6	42.50	27.275		
7,550.0	7,358.1	7,352.0	7,349.8	31.5	12.9	-161.09	1,600.6	1,166.6	1,177.9	1,136.2	41.69	28.251		
7,600.0	7,403.5	7,407.8	7,405.4	31.6	13.0	-168.08	1,603.8	1,168.8	1,200.1	1,159.4	40.63	29.539		
7,650.0	7,447.3	7,462.0	7,459.5	31.7	13.1	-173.45	1,606.5	1,171.1	1,225.5	1,186.1	39.30	31.179		
7,700.0	7,489.1	7,512.8	7,510.2	31.7	13.2	-177.80	1,608.5	1,173.2	1,253.9	1,216.2	37.74	33.222		
7,750.0	7,528.5	7,557.9	7,555.3	31.8	13.2	178.43	1,610.1	1,175.1	1,285.4	1,249.5	35.97	35.734		
7,800.0	7,565.3	7,600.0	7,597.3	31.8	13.3	174.94	1,611.2	1,176.7	1,319.8	1,285.8	34.02	38.790		
7,850.0	7,599.2	7,632.4	7,629.7	31.9	13.4	171.43	1,612.0	1,177.8	1,356.9	1,324.9	31.94	42.481		
7,900.0	7,629.9	7,661.4	7,658.6	31.9	13.4	167.67	1,612.7	1,178.8	1,396.5	1,366.7	29.80	46.856		
7,950.0	7,657.2	7,687.0	7,684.2	31.9	13.5	163.36	1,613.4	1,179.6	1,438.4	1,410.7	27.73	51.876		
8,000.0	7,680.9	7,709.0	7,706.2	32.0	13.5	158.10	1,613.9	1,180.3	1,482.2	1,456.3	25.90	57.238		
8,050.0	7,700.8	7,727.4	7,724.6	32.0	13.5	151.27	1,614.4	1,180.8	1,527.7	1,503.1	24.61	62.072		
8,100.0	7,716.7	7,741.8	7,739.0	32.0	13.6	141.98	1,614.8	1,181.2	1,574.4	1,550.1	24.31	64.767		
8,150.0	7,728.6	7,752.2	7,749.4	32.1	13.6	129.09	1,615.0	1,181.5	1,622.1	1,596.8	25.33	64.033		
8,200.0	7,736.3	7,758.6	7,755.8	32.1	13.6	111.90	1,615.2	1,181.7	1,670.4	1,643.2	27.15	61.521		
8,250.0	7,739.8	7,760.8	7,758.0	32.2	13.6	92.10	1,615.2	1,181.8	1,718.9	1,691.0	27.96	61.472		
8,266.2	7,740.0	7,760.6	7,757.8	32.2	13.6	85.80	1,615.2	1,181.7	1,734.7	1,706.9	27.78	62.454		
8,300.0	7,740.0	7,759.8	7,756.9	32.3	13.6	85.69	1,615.2	1,181.7	1,767.4	1,739.5	27.90	63.343		
8,400.0	7,740.0	7,757.3	7,754.5	32.5	13.6	85.36	1,615.1	1,181.7	1,864.6	1,836.2	28.41	65.633		
8,500.0	7,740.0	7,754.9	7,752.0	32.8	13.6	85.03	1,615.1	1,181.6	1,962.1	1,933.0	29.10	67.435		
8,600.0	7,740.0	7,752.4	7,749.6	33.2	13.6	84.70	1,615.0	1,181.5	2,059.8	2,029.9	29.94	68.803		
8,700.0	7,740.0	7,749.9	7,747.1	33.7	13.6	84.37	1,615.0	1,181.5	2,157.7	2,126.8	30.91	69.803		
8,800.0	7,740.0	7,747.5	7,744.7	34.3	13.6	84.05	1,614.9	1,181.4	2,255.9	2,223.9	32.00	70.504		
8,900.0	7,740.0	7,745.0	7,742.2	34.9	13.6	83.72	1,614.8	1,181.3	2,354.1	2,320.9	33.17	70.968		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 21-7 (EXISTING) - ENCANA WELL - GY												Offset Site Error:	0.0 ft
Survey Program: 100-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
9,000.0	7,740.0	7,742.6	7,739.7	35.6	13.6	83.40	1,614.8	1,181.3	2,452.5	2,418.1	34.42	71.249	
9,100.0	7,740.0	7,740.1	7,737.3	36.4	13.6	83.07	1,614.7	1,181.2	2,551.0	2,515.3	35.73	71.391	
9,200.0	7,740.0	7,737.6	7,734.8	37.3	13.6	82.74	1,614.7	1,181.1	2,649.7	2,612.6	37.10	71.428	
9,300.0	7,740.0	7,735.2	7,732.4	38.2	13.6	82.42	1,614.6	1,181.1	2,748.4	2,709.9	38.50	71.388	
9,400.0	7,740.0	7,732.7	7,729.9	39.2	13.5	82.10	1,614.5	1,181.0	2,847.2	2,807.3	39.94	71.293	
9,500.0	7,740.0	7,730.2	7,727.4	40.2	13.5	81.77	1,614.5	1,180.9	2,946.1	2,904.7	41.40	71.158	
9,600.0	7,740.0	7,727.8	7,725.0	41.3	13.5	81.45	1,614.4	1,180.8	3,045.1	3,002.2	42.89	70.995	
9,700.0	7,740.0	7,725.3	7,722.5	42.4	13.5	81.13	1,614.3	1,180.8	3,144.1	3,099.7	44.40	70.815	
9,800.0	7,740.0	7,722.9	7,720.1	43.6	13.5	80.81	1,614.3	1,180.7	3,243.2	3,197.2	45.92	70.624	
9,900.0	7,740.0	7,720.4	7,717.6	44.8	13.5	80.49	1,614.2	1,180.6	3,342.3	3,294.8	47.46	70.427	
10,000.0	7,740.0	7,717.9	7,715.1	46.0	13.5	80.17	1,614.2	1,180.6	3,441.5	3,392.5	49.00	70.229	
10,100.0	7,740.0	7,715.5	7,712.7	47.3	13.5	79.85	1,614.1	1,180.5	3,540.7	3,490.2	50.56	70.032	
10,200.0	7,740.0	7,713.0	7,710.2	48.6	13.5	79.53	1,614.0	1,180.4	3,640.0	3,587.9	52.12	69.839	
10,300.0	7,740.0	7,710.5	7,707.7	50.0	13.5	79.21	1,614.0	1,180.3	3,739.3	3,685.6	53.69	69.651	
10,400.0	7,740.0	7,708.1	7,705.3	51.3	13.5	78.89	1,613.9	1,180.3	3,838.6	3,783.4	55.26	69.470	
10,500.0	7,740.0	7,705.6	7,702.8	52.7	13.5	78.58	1,613.8	1,180.2	3,938.0	3,881.2	56.83	69.295	
10,600.0	7,740.0	7,703.2	7,700.4	54.1	13.5	78.26	1,613.8	1,180.1	4,037.4	3,979.0	58.40	69.129	
10,700.0	7,740.0	7,700.0	7,697.2	55.6	13.5	77.86	1,613.7	1,180.0	4,136.8	4,076.9	59.96	68.992	
10,800.0	7,740.0	7,700.0	7,697.2	57.0	13.5	77.86	1,613.7	1,180.0	4,236.3	4,174.7	61.61	68.764	
10,900.0	7,740.0	7,695.9	7,693.1	58.5	13.5	77.34	1,613.6	1,179.9	4,335.8	4,272.6	63.14	68.674	
11,000.0	7,740.0	7,693.5	7,690.7	59.9	13.5	77.04	1,613.5	1,179.8	4,435.3	4,370.6	64.71	68.537	
11,100.0	7,740.0	7,691.1	7,688.4	61.4	13.5	76.74	1,613.5	1,179.7	4,534.8	4,468.5	66.29	68.409	
11,200.0	7,740.0	7,688.8	7,686.0	62.9	13.5	76.44	1,613.4	1,179.7	4,634.3	4,566.5	67.86	68.288	
11,300.0	7,740.0	7,686.4	7,683.6	64.5	13.5	76.14	1,613.4	1,179.6	4,733.9	4,664.5	69.44	68.175	
11,400.0	7,740.0	7,684.0	7,681.2	66.0	13.5	75.84	1,613.3	1,179.5	4,833.5	4,762.5	71.01	68.070	
11,500.0	7,740.0	7,681.7	7,678.9	67.5	13.5	75.55	1,613.2	1,179.4	4,933.1	4,860.5	72.57	67.972	
11,600.0	7,740.0	7,679.3	7,676.5	69.1	13.5	75.26	1,613.2	1,179.4	5,032.7	4,958.5	74.14	67.881	
11,700.0	7,740.0	7,676.9	7,674.2	70.7	13.5	74.96	1,613.1	1,179.3	5,132.3	5,056.6	75.70	67.798	
11,800.0	7,740.0	7,674.6	7,671.8	72.2	13.4	74.67	1,613.1	1,179.2	5,231.9	5,154.7	77.26	67.721	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 22-7 (EXISTING) - ENCANA WELL - SU													Offset Site Error:	0.0 ft
Survey Program: 71-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)				
0.0	0.0	52.2	52.2	0.0	0.1	36.51	1,594.4	1,180.2	1,983.7					
100.0	100.0	151.1	151.1	0.2	0.3	36.51	1,594.4	1,180.2	1,983.7	1,983.3	0.42	4,772.619		
200.0	200.0	246.3	246.3	0.3	0.4	36.50	1,594.8	1,180.0	1,983.9	1,983.1	0.76	2,623.502		
300.0	300.0	382.5	382.5	0.5	0.7	-34.55	1,595.1	1,178.8	1,982.9	1,981.7	1.17	1,695.693		
400.0	400.0	527.0	526.9	0.7	0.9	-34.52	1,589.2	1,179.5	1,977.7	1,976.1	1.60	1,234.431		
500.0	499.9	811.0	807.6	0.9	1.7	-33.82	1,549.2	1,190.8	1,964.2	1,961.7	2.45	800.496		
600.0	599.7	902.0	896.6	1.1	2.0	-33.58	1,531.1	1,195.4	1,946.3	1,943.4	2.91	669.800		
700.0	699.4	1,121.2	1,110.0	1.3	3.0	-32.85	1,482.3	1,204.8	1,925.4	1,921.6	3.80	506.243		
800.0	798.9	1,290.6	1,272.0	1.5	3.8	-32.17	1,433.1	1,210.5	1,896.4	1,891.7	4.65	407.801		
900.0	898.3	1,393.5	1,369.5	1.8	4.4	-31.78	1,400.5	1,214.3	1,864.5	1,859.2	5.28	353.440		
1,000.0	997.4	1,492.9	1,463.5	2.0	5.0	-31.39	1,368.2	1,218.7	1,831.3	1,825.4	5.91	309.654		
1,100.0	1,096.3	1,575.3	1,541.2	2.3	5.5	-31.09	1,341.1	1,222.6	1,796.7	1,790.2	6.48	277.166		
1,200.0	1,194.9	1,654.1	1,615.8	2.7	5.9	-30.84	1,315.9	1,226.6	1,761.6	1,754.5	7.05	249.958		
1,300.0	1,293.3	1,750.2	1,706.6	3.0	6.5	-30.47	1,284.9	1,232.3	1,725.6	1,717.9	7.71	223.740		
1,400.0	1,391.2	1,835.3	1,786.7	3.4	7.0	-30.16	1,256.9	1,237.6	1,688.1	1,679.8	8.34	202.407		
1,500.0	1,488.9	1,949.0	1,894.0	3.8	7.7	-29.71	1,219.8	1,244.1	1,649.2	1,640.1	9.09	181.525		
1,595.5	1,581.8	2,025.2	1,966.1	4.2	8.1	-29.53	1,195.3	1,247.1	1,610.2	1,600.5	9.64	166.960		
1,600.0	1,586.1	2,028.5	1,969.2	4.2	8.1	-29.51	1,194.3	1,247.3	1,608.3	1,598.7	9.67	166.311		
1,700.0	1,683.2	2,091.5	2,029.0	4.7	8.5	-29.18	1,174.6	1,250.5	1,568.2	1,558.0	10.22	153.416		
1,800.0	1,780.2	2,182.5	2,115.5	5.1	9.0	-28.67	1,147.0	1,256.1	1,529.4	1,518.5	10.91	140.162		
1,900.0	1,877.3	2,289.7	2,216.9	5.6	9.7	-28.00	1,112.9	1,262.6	1,489.8	1,478.0	11.70	127.282		
2,000.0	1,974.3	2,382.2	2,304.2	6.0	10.2	-27.35	1,082.8	1,268.3	1,449.7	1,437.3	12.43	116.677		
2,100.0	2,071.4	2,474.1	2,391.2	6.5	10.7	-26.73	1,053.5	1,273.2	1,409.8	1,396.7	13.12	107.427		
2,200.0	2,168.4	2,565.1	2,477.4	6.9	11.3	-26.10	1,024.9	1,277.5	1,369.9	1,356.1	13.82	99.137		
2,300.0	2,265.4	2,656.9	2,564.6	7.4	11.8	-25.44	996.2	1,281.5	1,330.1	1,315.6	14.51	91.676		
2,400.0	2,362.5	2,753.6	2,656.3	7.9	12.4	-24.70	965.9	1,286.0	1,290.5	1,275.3	15.24	84.690		
2,500.0	2,459.5	2,893.4	2,787.9	8.3	13.2	-23.49	918.9	1,290.1	1,248.5	1,232.3	16.20	77.064		
2,600.0	2,556.6	2,978.8	2,867.7	8.8	13.8	-22.64	888.6	1,292.2	1,205.2	1,188.3	16.91	71.288		
2,700.0	2,653.6	3,063.5	2,946.9	9.2	14.3	-21.73	858.6	1,294.8	1,162.6	1,145.0	17.61	66.040		
2,800.0	2,750.7	3,143.6	3,021.9	9.7	14.8	-20.81	830.6	1,297.4	1,120.8	1,102.5	18.29	61.286		
2,900.0	2,847.7	3,237.6	3,109.9	10.2	15.4	-19.64	797.7	1,301.0	1,079.7	1,060.6	19.05	56.672		
3,000.0	2,944.8	3,342.3	3,207.9	10.6	16.1	-18.28	761.0	1,303.4	1,037.8	1,018.0	19.86	52.264		
3,100.0	3,041.8	3,416.8	3,277.8	11.1	16.5	-17.27	735.2	1,304.7	996.3	975.8	20.50	48.601		
3,200.0	3,138.9	3,482.8	3,340.0	11.5	16.9	-16.32	713.2	1,306.8	956.8	935.7	21.08	45.385		
3,300.0	3,235.9	3,555.5	3,409.0	12.0	17.3	-15.27	690.5	1,310.2	920.0	898.3	21.70	42.404		
3,400.0	3,333.0	3,636.4	3,485.9	12.5	17.8	-14.03	666.0	1,314.6	884.7	862.3	22.36	39.572		
3,500.0	3,430.0	3,714.9	3,560.6	12.9	18.2	-12.74	642.7	1,319.9	851.3	828.3	23.00	37.017		
3,600.0	3,527.1	3,806.7	3,648.8	13.4	18.7	-11.29	617.7	1,325.8	819.4	795.8	23.66	34.634		
3,700.0	3,624.1	3,926.4	3,764.7	13.9	19.2	-9.60	588.2	1,329.3	786.5	762.1	24.41	32.220		
3,800.0	3,721.2	4,036.7	3,870.8	14.3	19.8	-7.75	558.0	1,329.9	750.8	725.6	25.18	29.810		
3,900.0	3,818.2	4,107.4	3,938.3	14.8	20.2	-6.29	537.0	1,331.3	715.9	690.1	25.79	27.754		
4,000.0	3,915.3	4,193.1	4,019.9	15.3	20.7	-4.25	511.1	1,335.6	683.9	657.4	26.54	25.770		
4,100.0	4,012.3	4,295.5	4,116.4	15.7	21.3	-1.33	477.3	1,341.0	652.4	625.0	27.48	23.740		
4,200.0	4,109.4	4,392.1	4,206.7	16.2	22.0	1.84	443.4	1,345.1	620.9	592.5	28.45	21.822		
4,300.0	4,206.4	4,474.6	4,283.9	16.6	22.5	4.82	414.3	1,348.7	591.2	561.8	29.37	20.129		
4,400.0	4,303.5	4,558.8	4,363.0	17.1	23.0	7.98	385.9	1,352.9	564.5	534.2	30.31	18.624		
4,500.0	4,400.5	4,644.8	4,444.8	17.6	23.5	11.19	359.5	1,357.5	540.8	509.5	31.26	17.297		
4,600.0	4,497.6	4,736.2	4,532.1	18.0	24.0	14.64	333.4	1,362.6	519.6	487.3	32.29	16.091		
4,700.0	4,594.6	4,835.3	4,627.2	18.5	24.5	18.56	305.9	1,367.4	500.1	466.7	33.40	14.972		
4,800.0	4,691.7	4,935.5	4,723.7	19.0	25.0	22.70	279.1	1,370.5	481.2	446.6	34.53	13.936		
4,900.0	4,788.7	5,025.6	4,810.9	19.4	25.4	26.50	256.5	1,373.1	464.4	428.9	35.51	13.076		
5,000.0	4,885.8	5,121.1	4,904.0	19.9	25.7	30.42	235.4	1,376.5	450.2	413.7	36.45	12.351		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 22-7 (EXISTING) - ENCANA WELL - SU											Offset Site Error: 0.0 ft		
Survey Program: 71-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	
5,100.0	4,982.8	5,222.8	5,003.9	20.4	26.1	34.41	216.4	1,379.5	436.8	399.5	37.30	11.711	
5,200.0	5,079.9	5,322.7	5,102.5	20.8	26.4	38.20	200.8	1,381.9	424.1	386.1	38.04	11.151	
5,300.0	5,176.9	5,424.1	5,202.9	21.3	26.7	42.04	186.9	1,383.9	412.2	373.5	38.68	10.656	
5,400.0	5,273.9	5,527.3	5,305.5	21.8	26.9	45.91	175.2	1,385.0	400.4	361.1	39.22	10.209	
5,500.0	5,371.0	5,630.8	5,408.6	22.2	27.1	49.71	166.4	1,385.3	388.2	348.6	39.63	9.795	
5,600.0	5,468.0	5,729.9	5,507.5	22.7	27.2	53.25	160.3	1,385.8	376.6	336.7	39.94	9.429	
5,700.0	5,565.1	5,838.7	5,616.2	23.1	27.3	56.81	157.8	1,387.0	364.8	324.6	40.16	9.084	
5,800.0	5,662.1	5,938.9	5,716.5	23.6	27.4	60.29	157.7	1,385.6	351.0	310.7	40.30	8.709	
5,900.0	5,759.2	6,031.7	5,809.2	24.1	27.5	63.65	157.4	1,385.4	339.4	299.0	40.40	8.400	
6,000.0	5,856.2	6,129.3	5,906.8	24.5	27.5	67.28	157.2	1,386.1	329.8	289.4	40.41	8.161	
6,100.0	5,953.3	6,228.2	6,005.8	25.0	27.6	71.10	157.5	1,386.7	321.1	280.8	40.33	7.961	
6,200.0	6,050.3	6,324.3	6,101.8	25.5	27.7	74.95	158.1	1,387.5	313.9	273.7	40.21	7.806	
6,300.0	6,147.4	6,420.8	6,198.3	25.9	27.7	78.92	158.5	1,388.6	308.6	268.5	40.04	7.706	
6,400.0	6,244.4	6,518.7	6,296.2	26.4	27.8	83.08	158.8	1,389.7	304.9	265.1	39.85	7.651	
6,500.0	6,341.5	6,616.1	6,393.6	26.9	27.9	87.36	159.1	1,390.3	302.8	263.1	39.67	7.633	
6,561.2	6,400.9	6,675.3	6,452.9	27.2	27.9	89.99	159.3	1,390.7	302.4	262.8	39.60	7.638	
6,600.0	6,438.5	6,712.9	6,490.4	27.3	27.9	91.66	159.4	1,390.9	302.6	263.0	39.57	7.647	
6,700.0	6,535.6	6,809.7	6,587.2	27.8	28.0	95.93	159.5	1,391.6	304.3	264.7	39.59	7.687	
6,800.0	6,632.6	6,906.4	6,683.9	28.3	28.1	100.12	159.4	1,392.4	308.0	268.2	39.76	7.745	
6,900.0	6,729.7	7,003.3	6,780.8	28.7	28.2	104.19	159.2	1,393.2	313.5	273.4	40.09	7.820	
7,000.0	6,826.7	7,100.0	6,877.5	29.2	28.2	108.09	159.0	1,394.2	320.7	280.1	40.54	7.910	
7,100.0	6,923.8	7,195.3	6,972.8	29.7	28.3	111.72	158.4	1,395.3	329.7	288.6	41.08	8.027	
7,200.0	7,020.8	7,291.0	7,068.4	30.1	28.4	115.10	157.2	1,396.8	340.7	299.1	41.65	8.181	
7,300.0	7,117.9	7,389.6	7,167.0	30.6	28.5	118.42	156.0	1,397.9	352.9	310.7	42.23	8.358	
7,321.2	7,138.4	7,410.4	7,187.9	30.7	28.5	119.11	155.8	1,398.0	355.6	313.3	42.35	8.398	
7,350.0	7,166.4	7,438.8	7,216.3	30.8	28.6	108.39	155.5	1,398.1	358.6	315.9	42.74	8.390	
7,400.0	7,215.1	7,487.5	7,265.0	31.0	28.6	89.15	155.2	1,398.2	360.7	317.4	43.24	8.341	
7,450.0	7,263.5	7,535.7	7,313.2	31.2	28.6	73.38	155.0	1,397.9	358.9	315.4	43.51	8.248	
7,500.0	7,311.3	7,583.2	7,360.6	31.3	28.7	62.93	154.8	1,397.4	353.4	309.8	43.57	8.111	
7,550.0	7,358.1	7,629.6	7,407.0	31.5	28.7	56.93	154.7	1,396.6	344.5	301.1	43.44	7.930	
7,600.0	7,403.5	7,675.3	7,452.8	31.6	28.8	54.18	154.6	1,395.9	332.3	289.2	43.16	7.700	
7,650.0	7,447.3	7,719.4	7,496.9	31.7	28.8	53.80	154.5	1,395.2	317.3	274.5	42.76	7.420	
7,700.0	7,489.1	7,761.6	7,539.0	31.7	28.8	55.35	154.4	1,394.7	299.8	257.5	42.31	7.086	
7,750.0	7,528.5	7,801.4	7,578.8	31.8	28.9	58.58	154.3	1,394.3	280.6	238.7	41.88	6.699	
7,800.0	7,565.3	7,838.5	7,616.0	31.8	28.9	63.31	154.3	1,394.0	260.5	218.9	41.60	6.261	
7,850.0	7,599.2	7,872.7	7,650.1	31.9	28.9	69.22	154.3	1,393.8	240.7	199.1	41.60	5.787	
7,900.0	7,629.9	7,903.6	7,681.0	31.9	28.9	75.81	154.4	1,393.6	223.1	181.2	41.90	5.324	
7,950.0	7,657.2	7,930.9	7,708.3	31.9	29.0	82.38	154.5	1,393.4	209.6	167.3	42.36	4.948	
8,000.0	7,680.9	7,954.6	7,732.0	32.0	29.0	88.18	154.6	1,393.3	202.8	160.1	42.73	4.746	
8,015.5	7,687.4	7,961.1	7,738.5	32.0	29.0	89.71	154.6	1,393.2	202.4	159.5	42.81	4.727 CC, ES, SF	
8,050.0	7,700.8	7,974.3	7,751.7	32.0	29.0	92.59	154.7	1,393.2	204.6	161.7	42.89	4.770	
8,100.0	7,716.7	7,990.0	7,767.5	32.0	29.0	95.22	154.7	1,393.1	215.9	172.9	42.92	5.030	
8,150.0	7,728.6	8,001.7	7,779.1	32.1	29.0	95.88	154.8	1,393.0	236.0	193.0	42.96	5.493	
8,200.0	7,736.3	8,009.1	7,786.6	32.1	29.0	94.47	154.8	1,393.0	263.3	220.3	43.08	6.113	
8,250.0	7,739.8	8,012.4	7,789.8	32.2	29.0	91.00	154.9	1,393.0	296.1	252.9	43.17	6.859	
8,266.2	7,740.0	8,012.5	7,789.9	32.2	29.0	89.44	154.9	1,393.0	307.6	264.4	43.14	7.129	
8,300.0	7,740.0	8,012.3	7,789.7	32.3	29.0	89.39	154.9	1,393.0	332.7	289.4	43.27	7.688	
8,400.0	7,740.0	8,011.8	7,789.2	32.5	29.0	89.25	154.9	1,393.0	414.3	370.5	43.79	9.461	
8,500.0	7,740.0	8,011.2	7,788.6	32.8	29.0	89.10	154.9	1,393.0	502.6	458.1	44.49	11.297	
8,600.0	7,740.0	8,010.7	7,788.1	33.2	29.0	88.96	154.9	1,393.0	594.7	549.3	45.35	13.113	
8,700.0	7,740.0	8,010.1	7,787.6	33.7	29.0	88.81	154.8	1,393.0	688.9	642.6	46.34	14.868	
8,800.0	7,740.0	8,009.6	7,787.0	34.3	29.0	88.67	154.8	1,393.0	784.6	737.1	47.44	16.539	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 22-7 (EXISTING) - ENCANA WELL - SU											Offset Site Error:		0.0 ft
Survey Program: 71-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	
8,900.0	7,740.0	8,009.1	7,786.5	34.9	29.0	88.52	154.8	1,393.0	881.2	832.6	48.63	18.120	
9,000.0	7,740.0	8,008.5	7,785.9	35.6	29.0	88.38	154.8	1,393.0	978.5	928.6	49.90	19.609	
9,100.0	7,740.0	8,008.0	7,785.4	36.4	29.0	88.23	154.8	1,393.0	1,076.3	1,025.1	51.24	21.006	
9,200.0	7,740.0	8,007.5	7,784.9	37.3	29.0	88.09	154.8	1,393.0	1,174.5	1,121.9	52.63	22.318	
9,300.0	7,740.0	8,006.9	7,784.3	38.2	29.0	87.94	154.8	1,393.0	1,273.0	1,218.9	54.06	23.547	
9,400.0	7,740.0	8,006.4	7,783.8	39.2	29.0	87.80	154.8	1,393.0	1,371.7	1,316.1	55.53	24.701	
9,500.0	7,740.0	8,005.8	7,783.3	40.2	29.0	87.66	154.8	1,393.0	1,470.5	1,413.5	57.03	25.784	
9,600.0	7,740.0	8,005.3	7,782.7	41.3	29.0	87.52	154.8	1,393.0	1,569.5	1,511.0	58.56	26.802	
9,700.0	7,740.0	8,004.8	7,782.2	42.4	29.0	87.37	154.8	1,393.0	1,668.6	1,608.5	60.11	27.760	
9,800.0	7,740.0	8,004.3	7,781.7	43.6	29.0	87.23	154.8	1,393.0	1,767.9	1,706.2	61.68	28.663	
9,900.0	7,740.0	8,003.7	7,781.1	44.8	29.0	87.09	154.8	1,393.0	1,867.2	1,803.9	63.26	29.515	
10,000.0	7,740.0	8,003.2	7,780.6	46.0	29.0	86.95	154.8	1,393.0	1,966.5	1,901.7	64.86	30.319	
10,100.0	7,740.0	8,002.7	7,780.1	47.3	29.0	86.81	154.8	1,393.0	2,066.0	1,999.5	66.47	31.080	
10,200.0	7,740.0	8,002.1	7,779.6	48.6	29.0	86.67	154.8	1,393.0	2,165.5	2,097.4	68.09	31.801	
10,300.0	7,740.0	8,001.6	7,779.0	50.0	29.0	86.53	154.8	1,393.0	2,265.0	2,195.3	69.72	32.485	
10,400.0	7,740.0	8,001.1	7,778.5	51.3	29.0	86.39	154.8	1,393.0	2,364.6	2,293.2	71.36	33.134	
10,500.0	7,740.0	8,000.6	7,778.0	52.7	29.0	86.25	154.8	1,393.1	2,464.2	2,391.2	73.01	33.752	
10,600.0	7,740.0	8,000.0	7,777.5	54.1	29.0	86.11	154.8	1,393.1	2,563.8	2,489.1	74.66	34.340	
10,700.0	7,740.0	7,999.5	7,776.9	55.6	29.0	85.97	154.8	1,393.1	2,663.5	2,587.1	76.32	34.900	
10,800.0	7,740.0	7,999.0	7,776.4	57.0	29.0	85.83	154.8	1,393.1	2,763.2	2,685.2	77.98	35.435	
10,900.0	7,740.0	7,998.5	7,775.9	58.5	29.0	85.69	154.8	1,393.1	2,862.9	2,783.2	79.64	35.946	
11,000.0	7,740.0	7,998.0	7,775.4	59.9	29.0	85.55	154.8	1,393.1	2,962.6	2,881.3	81.31	36.434	
11,100.0	7,740.0	7,997.4	7,774.9	61.4	29.0	85.41	154.8	1,393.1	3,062.3	2,979.4	82.99	36.902	
11,200.0	7,740.0	7,996.9	7,774.3	62.9	29.0	85.28	154.8	1,393.1	3,162.1	3,077.4	84.66	37.350	
11,300.0	7,740.0	7,996.4	7,773.8	64.5	29.0	85.14	154.8	1,393.1	3,261.9	3,175.5	86.34	37.780	
11,400.0	7,740.0	7,995.9	7,773.3	66.0	29.0	85.00	154.8	1,393.1	3,361.7	3,273.7	88.02	38.193	
11,500.0	7,740.0	7,995.4	7,772.8	67.5	29.0	84.87	154.8	1,393.1	3,461.5	3,371.8	89.70	38.590	
11,600.0	7,740.0	7,994.9	7,772.3	69.1	29.0	84.73	154.8	1,393.1	3,561.3	3,469.9	91.38	38.972	
11,700.0	7,740.0	7,994.4	7,771.8	70.7	29.0	84.59	154.8	1,393.1	3,661.1	3,568.0	93.06	39.339	
11,800.0	7,740.0	7,993.9	7,771.3	72.2	29.0	84.46	154.8	1,393.1	3,760.9	3,666.2	94.75	39.694	
11,900.0	7,740.0	7,993.3	7,770.8	73.8	29.0	84.32	154.8	1,393.1	3,860.8	3,764.3	96.44	40.035	
12,000.0	7,740.0	7,992.8	7,770.2	75.4	29.0	84.19	154.8	1,393.1	3,960.6	3,862.5	98.12	40.365	
12,100.0	7,740.0	7,992.3	7,769.7	77.0	29.0	84.05	154.8	1,393.1	4,060.5	3,960.7	99.81	40.683	
12,200.0	7,740.0	7,991.8	7,769.2	78.6	29.0	83.92	154.7	1,393.1	4,160.3	4,058.9	101.50	40.990	
12,300.0	7,740.0	7,991.3	7,768.7	80.2	29.0	83.78	154.7	1,393.1	4,260.2	4,157.0	103.18	41.288	
12,400.0	7,740.0	7,990.8	7,768.2	81.8	29.0	83.65	154.7	1,393.1	4,360.1	4,255.2	104.87	41.576	
12,500.0	7,740.0	7,990.3	7,767.7	83.4	29.0	83.52	154.7	1,393.1	4,460.0	4,353.4	106.56	41.855	
12,600.0	7,740.0	7,989.8	7,767.2	85.1	29.0	83.38	154.7	1,393.1	4,559.9	4,451.6	108.25	42.125	
12,700.0	7,740.0	7,989.3	7,766.7	86.7	29.0	83.25	154.7	1,393.1	4,659.8	4,549.8	109.93	42.387	
12,800.0	7,740.0	7,988.8	7,766.2	88.3	29.0	83.12	154.7	1,393.1	4,759.6	4,648.0	111.62	42.642	
12,900.0	7,740.0	7,988.3	7,765.7	90.0	29.0	82.99	154.7	1,393.1	4,859.5	4,746.2	113.31	42.889	
13,000.0	7,740.0	7,987.8	7,765.2	91.6	29.0	82.85	154.7	1,393.1	4,959.5	4,844.5	114.99	43.128	
13,100.0	7,740.0	7,987.3	7,764.7	93.3	29.0	82.72	154.7	1,393.1	5,059.4	4,942.7	116.68	43.362	
13,200.0	7,740.0	7,986.8	7,764.2	94.9	29.0	82.59	154.7	1,393.1	5,159.3	5,040.9	118.36	43.589	
13,300.0	7,740.0	7,986.3	7,763.7	96.6	29.0	82.46	154.7	1,393.1	5,259.2	5,139.1	120.05	43.809	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SU													Offset Site Error:	0.0 ft
Survey Program: 41-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	105.1	105.1	0.0	0.2	36.66	1,584.2	1,179.0	1,975.5					
100.0	100.0	305.2	304.9	0.2	0.6	36.71	1,574.7	1,174.3	1,970.3	1,969.5	0.73	2,685.111		
200.0	200.0	502.5	500.9	0.3	1.1	36.94	1,553.9	1,168.4	1,960.0	1,958.6	1.36	1,439.878		
300.0	300.0	616.0	613.2	0.5	1.5	-33.91	1,537.7	1,165.8	1,946.5	1,944.9	1.64	1,188.763		
400.0	400.0	754.7	749.9	0.7	1.9	-33.69	1,513.7	1,163.3	1,929.3	1,927.2	2.13	907.770		
500.0	499.9	867.9	860.9	0.9	2.4	-33.52	1,492.0	1,161.9	1,909.6	1,907.1	2.58	741.549		
600.0	599.7	939.7	931.5	1.1	2.6	-33.47	1,478.7	1,161.4	1,889.4	1,886.5	2.93	644.882		
700.0	699.4	1,080.8	1,070.0	1.3	3.1	-33.29	1,451.7	1,160.5	1,867.5	1,864.1	3.47	538.054		
800.0	798.9	1,302.7	1,285.3	1.5	4.2	-32.90	1,398.9	1,155.2	1,839.6	1,835.3	4.27	430.312		
900.0	898.3	1,439.3	1,416.1	1.8	4.9	-32.69	1,359.7	1,150.0	1,805.4	1,800.5	4.88	370.100		
1,000.0	997.4	1,561.4	1,532.2	2.0	5.6	-32.50	1,322.0	1,145.3	1,768.3	1,762.8	5.47	323.363		
1,100.0	1,096.3	1,683.7	1,647.6	2.3	6.3	-32.30	1,282.0	1,140.3	1,728.4	1,722.3	6.08	284.155		
1,200.0	1,194.9	1,874.7	1,824.9	2.7	7.6	-31.75	1,211.7	1,131.1	1,683.6	1,676.5	7.01	240.067		
1,300.0	1,293.3	1,969.4	1,911.4	3.0	8.3	-31.54	1,173.4	1,126.5	1,634.8	1,627.2	7.62	214.657		
1,400.0	1,391.2	2,074.8	2,007.2	3.4	9.1	-31.28	1,129.5	1,121.0	1,583.9	1,575.6	8.27	191.438		
1,500.0	1,488.9	2,176.9	2,099.2	3.8	9.9	-30.99	1,085.8	1,116.0	1,531.0	1,522.1	8.95	170.991		
1,595.5	1,581.8	2,302.3	2,210.8	4.2	10.9	-30.42	1,028.7	1,110.1	1,477.7	1,468.0	9.78	151.074		
1,600.0	1,586.1	2,305.8	2,213.8	4.2	11.0	-30.39	1,027.1	1,109.9	1,475.2	1,465.3	9.81	150.364		
1,700.0	1,683.2	2,383.6	2,282.6	4.7	11.6	-29.81	991.0	1,105.3	1,417.6	1,407.1	10.47	135.413		
1,800.0	1,780.2	2,456.6	2,347.3	5.1	12.2	-29.25	957.7	1,100.6	1,360.4	1,349.3	11.11	122.460		
1,900.0	1,877.3	2,522.8	2,406.3	5.6	12.7	-28.71	927.9	1,096.7	1,304.1	1,292.3	11.72	111.243		
2,000.0	1,974.3	2,596.8	2,472.7	6.0	13.3	-28.08	895.3	1,092.7	1,248.8	1,236.4	12.37	100.918		
2,100.0	2,071.4	2,682.3	2,549.6	6.5	14.0	-27.36	858.4	1,087.2	1,193.6	1,180.5	13.09	91.210		
2,200.0	2,168.4	2,757.7	2,617.3	6.9	14.5	-26.64	825.5	1,082.6	1,138.5	1,124.7	13.77	82.672		
2,300.0	2,265.4	2,822.0	2,675.3	7.4	15.0	-25.94	797.9	1,079.7	1,084.9	1,070.5	14.41	75.290		
2,400.0	2,362.5	2,940.4	2,781.7	7.9	16.0	-24.56	746.4	1,072.7	1,030.2	1,014.8	15.38	66.998		
2,500.0	2,459.5	3,021.7	2,854.5	8.3	16.6	-23.52	710.6	1,067.0	974.9	958.8	16.13	60.425		
2,600.0	2,556.6	3,106.9	2,930.8	8.8	17.3	-22.36	673.6	1,060.1	919.5	902.6	16.92	54.355		
2,700.0	2,653.6	3,185.6	3,001.7	9.2	17.9	-21.20	639.9	1,053.6	864.7	847.0	17.68	48.915		
2,800.0	2,750.7	3,276.5	3,083.1	9.7	18.6	-19.63	600.2	1,045.8	809.5	790.9	18.57	43.586		
2,900.0	2,847.7	3,346.0	3,145.3	10.2	19.2	-18.22	569.6	1,040.6	755.1	735.8	19.36	39.012		
3,000.0	2,944.8	3,441.2	3,230.3	10.6	19.9	-16.00	527.5	1,033.2	701.1	680.7	20.39	34.384		
3,100.0	3,041.8	3,513.5	3,294.9	11.1	20.5	-14.03	495.4	1,027.6	647.6	626.3	21.29	30.418		
3,200.0	3,138.9	3,591.4	3,364.5	11.5	21.1	-11.54	460.8	1,022.5	595.9	573.6	22.32	26.699		
3,300.0	3,235.9	3,678.6	3,442.4	12.0	21.8	-8.28	422.1	1,016.7	545.3	521.8	23.53	23.179		
3,400.0	3,333.0	3,762.9	3,517.9	12.5	22.5	-4.69	385.2	1,009.8	495.4	470.6	24.79	19.985		
3,500.0	3,430.0	3,844.0	3,591.0	12.9	23.1	-0.76	350.9	1,002.5	447.2	421.1	26.11	17.131		
3,600.0	3,527.1	3,924.5	3,664.2	13.4	23.7	3.66	318.4	994.8	401.5	374.0	27.56	14.571		
3,700.0	3,624.1	4,003.3	3,736.1	13.9	24.3	8.85	286.7	987.9	359.4	330.2	29.21	12.304		
3,800.0	3,721.2	4,084.5	3,809.9	14.3	24.9	15.33	253.6	981.9	322.5	291.3	31.19	10.338		
3,900.0	3,818.2	4,164.0	3,882.0	14.8	25.5	22.92	220.5	976.4	291.7	258.3	33.35	8.746		
4,000.0	3,915.3	4,240.9	3,951.5	15.3	26.1	31.34	187.8	973.0	271.2	235.8	35.42	7.657		
4,100.0	4,012.3	4,325.2	4,027.7	15.7	26.7	41.30	151.8	969.7	261.4	224.2	37.22	7.025		
4,136.8	4,048.0	4,356.0	4,055.5	15.9	27.0	45.00	138.8	968.5	260.7	223.0	37.69	6.917 CC, ES		
4,200.0	4,109.4	4,408.3	4,103.0	16.2	27.4	51.23	116.8	966.6	262.9	224.7	38.23	6.878 SF		
4,300.0	4,206.4	4,485.0	4,171.6	16.6	28.0	60.38	82.8	963.4	276.8	238.3	38.45	7.199		
4,400.0	4,303.5	4,564.9	4,242.1	17.1	28.7	69.43	45.3	959.1	302.2	264.3	37.90	7.974		
4,500.0	4,400.5	4,647.7	4,315.0	17.6	29.4	77.66	6.3	954.1	336.2	299.5	36.79	9.140		
4,600.0	4,497.6	4,741.1	4,398.3	18.0	30.1	85.19	-35.7	949.3	375.0	339.7	35.26	10.634		
4,700.0	4,594.6	4,845.3	4,493.3	18.5	30.8	91.69	-78.1	945.1	414.3	380.7	33.66	12.310		
4,800.0	4,691.7	4,949.7	4,590.5	19.0	31.5	96.91	-116.1	941.0	452.6	420.3	32.29	14.018		
4,900.0	4,788.7	5,052.0	4,687.0	19.4	32.1	101.28	-149.6	935.9	489.6	458.5	31.17	15.708		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SU												Offset Site Error:	0.0 ft
Survey Program: 41-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)			
5,000.0	4,885.8	5,162.9	4,792.6	19.9	32.7	105.23	-182.8	930.9	525.8	495.6	30.23	17.395	
5,100.0	4,982.8	5,278.9	4,904.8	20.4	33.2	108.70	-212.2	926.4	558.9	529.4	29.56	18.909	
5,200.0	5,079.9	5,403.5	5,026.8	20.8	33.7	111.90	-237.1	922.6	587.9	558.7	29.14	20.172	
5,300.0	5,176.9	5,509.4	5,131.2	21.3	34.0	114.31	-254.6	919.8	614.5	585.4	29.09	21.122	
5,400.0	5,273.9	5,637.8	5,258.4	21.8	34.3	117.05	-271.3	916.2	638.6	609.5	29.17	21.895	
5,500.0	5,371.0	5,752.6	5,372.7	22.2	34.5	119.38	-281.6	912.8	659.8	630.4	29.45	22.403	
5,600.0	5,468.0	5,872.0	5,492.0	22.7	34.7	121.64	-288.0	910.2	678.1	648.2	29.88	22.692	
5,700.0	5,565.1	5,984.1	5,603.9	23.1	34.8	123.65	-291.0	908.4	694.4	664.0	30.41	22.838	
5,800.0	5,662.1	6,091.3	5,711.1	23.6	34.8	125.55	-291.4	906.4	709.3	678.3	30.98	22.894	
5,900.0	5,759.2	6,187.7	5,807.5	24.1	34.9	127.20	-291.3	904.7	724.3	692.8	31.57	22.942	
6,000.0	5,856.2	6,283.3	5,903.1	24.5	34.9	128.76	-291.3	903.0	740.1	707.9	32.18	23.000	
6,100.0	5,953.3	6,379.7	5,999.5	25.0	35.0	130.27	-291.4	901.3	756.4	723.6	32.79	23.068	
6,200.0	6,050.3	6,476.7	6,096.5	25.5	35.1	131.71	-291.6	899.8	773.3	739.9	33.41	23.147	
6,300.0	6,147.4	6,578.3	6,198.0	25.9	35.1	133.15	-291.5	898.4	790.3	756.3	34.03	23.222	
6,400.0	6,244.4	6,679.5	6,299.2	26.4	35.1	134.49	-291.0	897.7	807.1	772.5	34.65	23.295	
6,500.0	6,341.5	6,773.9	6,393.7	26.9	35.2	135.69	-290.5	897.1	824.3	789.0	35.23	23.394	
6,600.0	6,438.5	6,868.7	6,488.4	27.3	35.3	136.84	-290.3	896.5	842.1	806.3	35.81	23.516	
6,700.0	6,535.6	6,964.2	6,583.9	27.8	35.3	137.95	-290.3	895.8	860.4	824.0	36.37	23.657	
6,800.0	6,632.6	7,059.3	6,679.1	28.3	35.4	139.02	-290.3	894.9	879.2	842.3	36.91	23.818	
6,900.0	6,729.7	7,153.9	6,773.7	28.7	35.4	140.04	-290.5	893.8	898.5	861.1	37.44	23.999	
7,000.0	6,826.7	7,249.5	6,869.3	29.2	35.5	141.05	-290.8	892.5	918.4	880.4	37.96	24.195	
7,100.0	6,923.8	7,345.7	6,965.4	29.7	35.6	142.02	-291.1	891.1	938.5	900.1	38.46	24.403	
7,200.0	7,020.8	7,442.3	7,062.0	30.1	35.7	142.96	-291.3	889.6	959.0	920.0	38.94	24.625	
7,300.0	7,117.9	7,538.9	7,158.6	30.6	35.7	143.89	-291.5	887.8	979.7	940.3	39.41	24.856	
7,321.2	7,138.4	7,559.5	7,179.2	30.7	35.7	144.08	-291.5	887.4	984.1	944.6	39.51	24.905	
7,350.0	7,166.4	7,587.7	7,207.3	30.8	35.8	132.42	-291.5	886.9	989.5	949.6	39.93	24.783	
7,400.0	7,215.1	7,636.5	7,256.2	31.0	35.8	111.68	-291.4	885.9	996.3	955.7	40.58	24.552	
7,450.0	7,263.5	7,685.1	7,304.7	31.2	35.8	94.48	-291.4	885.0	999.6	958.5	41.13	24.305	
7,500.0	7,311.3	7,733.4	7,353.0	31.3	35.8	82.58	-291.3	884.1	999.6	958.0	41.58	24.039	
7,550.0	7,358.1	7,781.0	7,400.7	31.5	35.9	75.01	-291.2	883.2	996.3	954.4	41.96	23.746	
7,600.0	7,403.5	7,827.3	7,446.9	31.6	35.9	70.46	-291.0	882.3	990.0	947.7	42.28	23.414	
7,650.0	7,447.3	7,871.7	7,491.3	31.7	35.9	67.98	-290.7	881.4	980.8	938.2	42.59	23.029	
7,700.0	7,489.1	7,915.2	7,534.8	31.7	36.0	67.00	-290.4	880.6	968.9	926.0	42.92	22.573	
7,750.0	7,528.5	7,956.9	7,576.5	31.8	36.0	67.16	-290.1	879.9	954.7	911.3	43.33	22.034	
7,800.0	7,565.3	7,995.7	7,615.3	31.8	36.0	68.19	-289.7	879.4	938.3	894.5	43.84	21.404	
7,850.0	7,599.2	8,031.4	7,651.0	31.9	36.0	69.89	-289.4	879.0	920.3	875.8	44.48	20.688	
7,900.0	7,629.9	8,063.5	7,683.1	31.9	36.0	72.11	-289.1	878.8	900.9	855.7	45.26	19.904	
7,950.0	7,657.2	8,090.8	7,710.4	31.9	36.0	74.64	-288.8	878.6	880.7	834.6	46.13	19.091	
8,000.0	7,680.9	8,114.4	7,734.0	32.0	36.1	77.38	-288.5	878.5	860.1	813.0	47.04	18.286	
8,050.0	7,700.8	8,134.1	7,753.7	32.0	36.1	80.19	-288.3	878.4	839.5	791.6	47.89	17.529	
8,100.0	7,716.7	8,149.8	7,769.4	32.0	36.1	82.93	-288.2	878.3	819.4	770.8	48.63	16.849	
8,150.0	7,728.6	8,161.4	7,781.0	32.1	36.1	85.45	-288.0	878.3	800.3	751.1	49.23	16.257	
8,200.0	7,736.3	8,168.7	7,788.3	32.1	36.1	87.66	-288.0	878.2	782.5	732.8	49.67	15.753	
8,250.0	7,739.8	8,171.8	7,791.4	32.2	36.1	89.46	-287.9	878.2	766.3	716.3	50.00	15.326	
8,266.2	7,740.0	8,171.8	7,791.4	32.2	36.1	89.96	-287.9	878.2	761.5	711.4	50.09	15.202	
8,300.0	7,740.0	8,171.5	7,791.1	32.3	36.1	89.93	-287.9	878.2	752.4	702.1	50.22	14.980	
8,400.0	7,740.0	8,170.5	7,790.0	32.5	36.1	89.85	-288.0	878.2	733.8	683.0	50.75	14.460	
8,487.9	7,740.0	8,169.5	7,789.1	32.8	36.1	89.77	-288.0	878.2	728.5	677.1	51.37	14.183	
8,500.0	7,740.0	8,169.4	7,789.0	32.8	36.1	89.76	-288.0	878.2	728.6	677.2	51.45	14.161	
8,600.0	7,740.0	8,168.4	7,788.0	33.2	36.1	89.68	-288.0	878.2	737.1	684.8	52.31	14.091	
8,700.0	7,740.0	8,167.3	7,786.9	33.7	36.1	89.60	-288.0	878.2	758.7	705.4	53.30	14.235	
8,800.0	7,740.0	8,166.3	7,785.9	34.3	36.1	89.52	-288.0	878.3	792.5	738.1	54.40	14.567	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SU													Offset Site Error: 0.0 ft	
Survey Program: 41-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)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
8,900.0	7,740.0	8,165.2	7,784.8	34.9	36.1	89.44	-288.0	878.3	837.0	781.4	55.60	15.053		
9,000.0	7,740.0	8,164.2	7,783.8	35.6	36.1	89.35	-288.0	878.3	890.5	833.6	56.88	15.656		
9,100.0	7,740.0	8,163.2	7,782.8	36.4	36.1	89.27	-288.0	878.3	951.5	893.3	58.21	16.344		
9,200.0	7,740.0	8,162.1	7,781.7	37.3	36.1	89.19	-288.0	878.3	1,018.7	959.1	59.61	17.090		
9,300.0	7,740.0	8,161.1	7,780.7	38.2	36.1	89.11	-288.1	878.3	1,090.9	1,029.9	61.04	17.871		
9,400.0	7,740.0	8,160.0	7,779.6	39.2	36.1	89.03	-288.1	878.3	1,167.3	1,104.8	62.52	18.671		
9,500.0	7,740.0	8,159.0	7,778.6	40.2	36.1	88.94	-288.1	878.3	1,247.0	1,182.9	64.02	19.477		
9,600.0	7,740.0	8,157.9	7,777.5	41.3	36.1	88.86	-288.1	878.3	1,329.4	1,263.9	65.56	20.279		
9,700.0	7,740.0	8,156.9	7,776.5	42.4	36.1	88.78	-288.1	878.3	1,414.1	1,347.0	67.11	21.071		
9,800.0	7,740.0	8,155.9	7,775.5	43.6	36.1	88.70	-288.1	878.3	1,500.7	1,432.0	68.69	21.849		
9,900.0	7,740.0	8,154.8	7,774.4	44.8	36.1	88.62	-288.1	878.3	1,588.9	1,518.6	70.28	22.608		
10,000.0	7,740.0	8,153.8	7,773.4	46.0	36.1	88.54	-288.1	878.3	1,678.4	1,606.5	71.88	23.348		
10,100.0	7,740.0	8,152.7	7,772.3	47.3	36.1	88.45	-288.1	878.3	1,769.0	1,695.5	73.50	24.067		
10,200.0	7,740.0	8,151.7	7,771.3	48.6	36.1	88.37	-288.1	878.3	1,860.5	1,785.4	75.13	24.764		
10,300.0	7,740.0	8,150.6	7,770.2	50.0	36.1	88.29	-288.2	878.3	1,953.0	1,876.2	76.77	25.439		
10,400.0	7,740.0	8,149.6	7,769.2	51.3	36.1	88.21	-288.2	878.3	2,046.1	1,967.7	78.42	26.091		
10,500.0	7,740.0	8,148.6	7,768.2	52.7	36.1	88.13	-288.2	878.3	2,139.8	2,059.7	80.07	26.723		
10,600.0	7,740.0	8,147.5	7,767.1	54.1	36.1	88.04	-288.2	878.3	2,234.1	2,152.4	81.74	27.333		
10,700.0	7,740.0	8,146.5	7,766.1	55.6	36.1	87.96	-288.2	878.3	2,328.8	2,245.4	83.40	27.922		
10,800.0	7,740.0	8,145.4	7,765.0	57.0	36.1	87.88	-288.2	878.3	2,424.0	2,338.9	85.08	28.492		
10,900.0	7,740.0	8,144.4	7,764.0	58.5	36.1	87.80	-288.2	878.3	2,519.6	2,432.8	86.76	29.042		
11,000.0	7,740.0	8,143.3	7,762.9	59.9	36.1	87.72	-288.2	878.4	2,615.5	2,527.0	88.44	29.574		
11,100.0	7,740.0	8,142.3	7,761.9	61.4	36.1	87.63	-288.2	878.4	2,711.6	2,621.5	90.12	30.088		
11,200.0	7,740.0	8,141.3	7,760.9	62.9	36.1	87.55	-288.3	878.4	2,808.1	2,716.3	91.81	30.585		
11,300.0	7,740.0	8,140.2	7,759.8	64.5	36.1	87.47	-288.3	878.4	2,904.8	2,811.3	93.50	31.065		
11,400.0	7,740.0	8,139.2	7,758.8	66.0	36.1	87.39	-288.3	878.4	3,001.7	2,906.5	95.20	31.530		
11,500.0	7,740.0	8,138.1	7,757.7	67.5	36.1	87.31	-288.3	878.4	3,098.8	3,001.9	96.90	31.980		
11,600.0	7,740.0	8,137.1	7,756.7	69.1	36.1	87.22	-288.3	878.4	3,196.1	3,097.5	98.60	32.415		
11,700.0	7,740.0	8,136.0	7,755.6	70.7	36.1	87.14	-288.3	878.4	3,293.5	3,193.2	100.30	32.837		
11,800.0	7,740.0	8,135.0	7,754.6	72.2	36.1	87.06	-288.3	878.4	3,391.1	3,289.1	102.00	33.245		
11,900.0	7,740.0	8,134.0	7,753.5	73.8	36.1	86.98	-288.3	878.4	3,488.8	3,385.1	103.71	33.641		
12,000.0	7,740.0	8,132.9	7,752.5	75.4	36.1	86.90	-288.3	878.4	3,586.7	3,481.2	105.41	34.024		
12,100.0	7,740.0	8,131.9	7,751.5	77.0	36.1	86.81	-288.3	878.4	3,684.6	3,577.5	107.12	34.396		
12,200.0	7,740.0	8,130.8	7,750.4	78.6	36.1	86.73	-288.4	878.4	3,782.7	3,673.9	108.83	34.757		
12,300.0	7,740.0	8,129.8	7,749.4	80.2	36.1	86.65	-288.4	878.4	3,880.9	3,770.3	110.54	35.108		
12,400.0	7,740.0	8,128.7	7,748.3	81.8	36.1	86.57	-288.4	878.4	3,979.1	3,866.9	112.25	35.448		
12,500.0	7,740.0	8,127.7	7,747.3	83.4	36.1	86.49	-288.4	878.4	4,077.5	3,963.5	113.97	35.778		
12,600.0	7,740.0	8,126.6	7,746.2	85.1	36.1	86.40	-288.4	878.4	4,175.9	4,060.2	115.68	36.099		
12,700.0	7,740.0	8,125.6	7,745.2	86.7	36.1	86.32	-288.4	878.4	4,274.4	4,157.0	117.39	36.411		
12,800.0	7,740.0	8,124.6	7,744.1	88.3	36.1	86.24	-288.4	878.4	4,373.0	4,253.9	119.11	36.715		
12,900.0	7,740.0	8,123.5	7,743.1	90.0	36.1	86.16	-288.4	878.4	4,471.6	4,350.8	120.82	37.010		
13,000.0	7,740.0	8,122.5	7,742.1	91.6	36.1	86.08	-288.4	878.5	4,570.3	4,447.7	122.54	37.298		
13,100.0	7,740.0	8,121.4	7,741.0	93.3	36.1	86.00	-288.5	878.5	4,669.0	4,544.8	124.25	37.577		
13,200.0	7,740.0	8,120.4	7,740.0	94.9	36.1	85.91	-288.5	878.5	4,767.8	4,641.9	125.97	37.850		
13,300.0	7,740.0	8,119.3	7,738.9	96.6	36.1	85.83	-288.5	878.5	4,866.7	4,739.0	127.68	38.115		
13,400.0	7,740.0	8,118.3	7,737.9	98.2	36.1	85.75	-288.5	878.5	4,965.6	4,836.2	129.40	38.374		
13,500.0	7,740.0	8,117.2	7,736.8	99.9	36.1	85.67	-288.5	878.5	5,064.5	4,933.4	131.11	38.626		
13,600.0	7,740.0	8,116.2	7,735.8	101.6	36.1	85.59	-288.5	878.5	5,163.5	5,030.6	132.83	38.872		
13,700.0	7,740.0	8,115.1	7,734.7	103.2	36.1	85.50	-288.5	878.5	5,262.5	5,127.9	134.55	39.113		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL													Offset Site Error:	0.0 ft
Survey Program: 100-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		
0.0	0.0	33.1	33.1	0.0	0.1	45.37	801.4	812.0	1,140.9					
100.0	100.0	122.1	122.1	0.2	0.2	45.40	801.6	813.0	1,141.9	1,141.5	0.37	3,105.228		
200.0	200.0	220.4	220.3	0.3	0.4	45.46	801.9	814.9	1,143.5	1,142.7	0.72	1,595.678		
300.0	300.0	332.8	332.8	0.5	0.6	-25.51	802.1	816.3	1,143.6	1,142.5	1.08	1,055.076		
400.0	400.0	436.2	436.2	0.7	0.8	-25.57	802.2	816.4	1,141.4	1,140.0	1.44	793.220		
500.0	499.9	535.7	535.7	0.9	0.9	-25.70	802.6	816.4	1,137.8	1,136.0	1.79	636.087		
600.0	599.7	639.3	639.3	1.1	1.1	-25.87	802.7	816.2	1,132.2	1,130.1	2.15	527.158		
700.0	699.4	743.7	743.7	1.3	1.3	-26.09	802.7	815.9	1,124.9	1,122.4	2.51	448.007		
800.0	798.9	847.3	847.2	1.5	1.5	-26.40	802.5	814.7	1,115.4	1,112.5	2.88	387.800		
900.0	898.3	946.5	946.4	1.8	1.7	-26.77	802.7	813.4	1,104.5	1,101.2	3.24	340.992		
1,000.0	997.4	1,047.5	1,047.5	2.0	1.8	-27.18	802.4	812.2	1,091.7	1,088.1	3.61	302.358		
1,100.0	1,096.3	1,147.6	1,147.5	2.3	2.0	-27.64	802.0	810.9	1,077.5	1,073.5	3.99	270.159		
1,200.0	1,194.9	1,247.9	1,247.9	2.7	2.2	-28.19	801.7	809.3	1,061.5	1,057.1	4.38	242.589		
1,300.0	1,293.3	1,343.0	1,342.9	3.0	2.3	-28.79	801.6	807.5	1,044.1	1,039.3	4.77	219.118		
1,400.0	1,391.2	1,436.2	1,436.0	3.4	2.5	-29.47	801.9	806.1	1,025.8	1,020.6	5.16	198.622		
1,500.0	1,488.9	1,533.9	1,533.7	3.8	2.7	-30.25	802.4	804.6	1,006.3	1,000.7	5.59	180.056		
1,595.5	1,581.8	1,627.0	1,626.9	4.2	2.8	-31.09	802.8	803.0	986.2	980.2	6.01	164.054		
1,600.0	1,586.1	1,631.0	1,630.9	4.2	2.9	-31.12	802.8	803.0	985.3	979.3	6.03	163.360		
1,700.0	1,683.2	1,722.9	1,722.7	4.7	3.0	-31.90	803.4	801.7	964.2	957.7	6.48	148.761		
1,800.0	1,780.2	1,819.1	1,818.9	5.1	3.2	-32.76	804.3	800.4	943.5	936.6	6.95	135.716		
1,900.0	1,877.3	1,915.7	1,915.5	5.6	3.4	-33.67	805.3	799.1	923.1	915.7	7.44	124.127		
2,000.0	1,974.3	2,008.6	2,008.4	6.0	3.5	-34.59	806.6	797.7	903.1	895.2	7.93	113.941		
2,100.0	2,071.4	2,100.0	2,099.8	6.5	3.7	-35.52	808.2	796.8	884.0	875.6	8.42	104.928		
2,200.0	2,168.4	2,192.4	2,192.2	6.9	3.8	-36.51	810.2	796.2	865.7	856.8	8.94	96.855		
2,300.0	2,265.4	2,288.2	2,288.0	7.4	4.0	-37.56	812.5	795.9	848.0	838.5	9.47	89.524		
2,400.0	2,362.5	2,389.1	2,388.8	7.9	4.2	-38.69	814.6	795.7	830.4	820.4	10.03	82.787		
2,500.0	2,459.5	2,490.6	2,490.3	8.3	4.4	-39.86	816.2	795.4	812.7	802.1	10.60	76.637		
2,600.0	2,556.6	2,589.0	2,588.7	8.8	4.5	-41.03	817.2	795.2	794.9	783.7	11.18	71.077		
2,700.0	2,653.6	2,688.3	2,688.0	9.2	4.7	-42.26	818.1	794.9	777.3	765.5	11.78	65.975		
2,800.0	2,750.7	2,784.6	2,784.2	9.7	4.9	-43.51	818.9	794.5	759.9	747.5	12.39	61.348		
2,900.0	2,847.7	2,883.2	2,882.9	10.2	5.1	-44.85	819.7	794.1	742.8	729.8	13.01	57.080		
3,000.0	2,944.8	2,980.3	2,980.0	10.6	5.2	-46.26	820.5	793.2	726.0	712.4	13.66	53.159		
3,100.0	3,041.8	3,078.0	3,077.6	11.1	5.4	-47.78	821.5	792.0	709.7	695.4	14.32	49.549		
3,200.0	3,138.9	3,176.4	3,176.0	11.5	5.6	-49.36	822.2	790.8	693.7	678.7	15.01	46.222		
3,300.0	3,235.9	3,272.7	3,272.3	12.0	5.7	-51.01	823.0	789.3	678.1	662.4	15.71	43.177		
3,400.0	3,333.0	3,366.9	3,366.5	12.5	5.9	-52.70	823.9	787.8	663.4	647.0	16.41	40.415		
3,500.0	3,430.0	3,461.9	3,461.5	12.9	6.1	-54.46	825.2	786.5	649.7	632.5	17.14	37.906		
3,600.0	3,527.1	3,555.4	3,555.0	13.4	6.2	-56.21	826.6	786.0	636.9	619.0	17.87	35.648		
3,700.0	3,624.1	3,647.6	3,647.2	13.9	6.4	-57.97	828.5	785.8	625.5	606.9	18.60	33.631		
3,800.0	3,721.2	3,743.8	3,743.3	14.3	6.6	-59.86	831.1	785.9	615.5	596.2	19.36	31.796		
3,900.0	3,818.2	3,846.2	3,845.7	14.8	6.8	-61.98	833.5	785.4	605.8	585.6	20.15	30.060		
4,000.0	3,915.3	3,948.1	3,947.5	15.3	6.9	-64.15	834.9	784.8	595.9	574.9	20.95	28.440		
4,100.0	4,012.3	4,049.0	4,048.5	15.7	7.1	-66.41	835.7	783.8	586.3	564.5	21.76	26.947		
4,200.0	4,109.4	4,147.1	4,146.5	16.2	7.3	-68.75	835.9	782.0	576.9	554.3	22.56	25.571		
4,300.0	4,206.4	4,243.4	4,242.8	16.6	7.5	-71.14	836.3	779.9	568.7	545.4	23.35	24.352		
4,400.0	4,303.5	4,342.0	4,341.4	17.1	7.6	-73.60	836.3	778.3	561.3	537.1	24.15	23.244		
4,500.0	4,400.5	4,436.7	4,436.1	17.6	7.8	-76.01	836.4	777.0	554.9	530.0	24.92	22.272		
4,600.0	4,497.6	4,528.5	4,527.9	18.0	8.0	-78.46	836.9	774.8	550.4	524.7	25.67	21.441		
4,700.0	4,594.6	4,621.9	4,621.3	18.5	8.1	-80.99	838.4	772.4	547.9	521.5	26.41	20.749		
4,800.0	4,691.7	4,723.4	4,722.7	19.0	8.3	-83.71	839.6	770.4	546.2	519.1	27.14	20.126		
4,900.0	4,788.7	4,821.9	4,821.2	19.4	8.5	-86.38	840.4	768.3	545.3	517.5	27.84	19.591		
5,000.0	4,885.8	4,924.5	4,923.8	19.9	8.7	-89.11	840.4	767.0	544.7	516.2	28.51	19.109		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL													Offset Site Error:	0.0 ft
Survey Program: 100-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		
5,034.0	4,918.7	4,957.4	4,956.7	20.1	8.7	-89.98	840.3	766.6	544.7	516.0	28.72	18.963	CC	
5,100.0	4,982.8	5,020.4	5,019.7	20.4	8.8	-91.67	840.0	765.8	545.0	515.8	29.13	18.707	ES	
5,200.0	5,079.9	5,113.4	5,112.6	20.8	9.0	-94.14	840.1	764.5	546.8	517.1	29.72	18.400		
5,300.0	5,176.9	5,208.0	5,207.3	21.3	9.2	-96.65	840.5	762.8	550.4	520.1	30.27	18.181		
5,400.0	5,273.9	5,305.5	5,304.7	21.8	9.3	-99.24	840.9	760.7	555.2	524.4	30.79	18.031		
5,500.0	5,371.0	5,403.3	5,402.5	22.2	9.5	-101.72	841.5	759.2	561.0	529.7	31.27	17.938		
5,600.0	5,468.0	5,502.0	5,501.2	22.7	9.7	-104.14	842.0	758.2	567.6	535.9	31.72	17.892	SF	
5,700.0	5,565.1	5,597.2	5,596.4	23.1	9.8	-106.43	842.4	757.1	575.2	543.0	32.14	17.896		
5,800.0	5,662.1	5,691.3	5,690.5	23.6	10.0	-108.66	842.9	755.7	584.1	551.5	32.52	17.959		
5,900.0	5,759.2	5,787.9	5,787.1	24.1	10.2	-110.92	843.4	753.7	594.2	561.3	32.87	18.078		
6,000.0	5,856.2	5,884.0	5,883.1	24.5	10.4	-113.10	843.8	751.6	605.3	572.1	33.18	18.239		
6,100.0	5,953.3	5,981.6	5,980.7	25.0	10.5	-115.23	844.4	749.6	617.2	583.7	33.47	18.438		
6,200.0	6,050.3	6,078.3	6,077.4	25.5	10.7	-117.27	844.7	747.7	629.9	596.1	33.74	18.667		
6,300.0	6,147.4	6,174.7	6,173.7	25.9	10.9	-119.28	844.5	745.2	643.3	609.4	33.98	18.934		
6,400.0	6,244.4	6,271.8	6,270.8	26.4	11.0	-121.22	844.4	742.9	657.6	623.4	34.19	19.231		
6,500.0	6,341.5	6,369.9	6,369.0	26.9	11.2	-123.08	844.4	740.7	672.4	638.0	34.40	19.549		
6,600.0	6,438.5	6,463.0	6,462.0	27.3	11.4	-124.74	844.7	739.0	687.9	653.3	34.60	19.879		
6,700.0	6,535.6	6,562.9	6,561.9	27.8	11.6	-126.39	845.7	737.1	704.4	669.6	34.80	20.242		
6,800.0	6,632.6	6,660.8	6,659.8	28.3	11.7	-127.93	846.4	735.9	720.6	685.6	34.99	20.595		
6,900.0	6,729.7	6,759.2	6,758.2	28.7	11.9	-129.42	847.0	734.5	737.5	702.3	35.17	20.969		
7,000.0	6,826.7	6,854.7	6,853.7	29.2	12.1	-130.83	847.2	733.3	754.5	719.2	35.35	21.346		
7,100.0	6,923.8	6,946.4	6,945.3	29.7	12.2	-132.14	847.4	731.5	772.6	737.1	35.52	21.750		
7,200.0	7,020.8	7,045.6	7,044.5	30.1	12.4	-133.50	847.8	729.2	791.5	755.8	35.68	22.184		
7,300.0	7,117.9	7,144.2	7,143.0	30.6	12.6	-134.81	847.6	727.6	809.9	774.1	35.83	22.605		
7,321.2	7,138.4	7,162.8	7,161.6	30.7	12.6	-135.05	847.5	727.3	813.9	778.0	35.86	22.695		
7,350.0	7,166.4	7,188.1	7,187.0	30.8	12.7	-147.50	847.4	726.7	819.8	784.1	35.69	22.969		
7,400.0	7,215.1	7,233.9	7,232.8	31.0	12.7	-169.88	847.2	725.4	831.6	796.4	35.27	23.578		
7,450.0	7,263.5	7,280.2	7,279.0	31.2	12.8	171.02	846.8	723.9	845.3	810.6	34.74	24.335		
7,500.0	7,311.3	7,328.4	7,327.2	31.3	12.9	156.96	846.2	722.2	860.7	826.6	34.12	25.227		
7,550.0	7,358.1	7,378.0	7,376.7	31.5	13.0	146.98	844.6	720.2	877.5	844.1	33.43	26.248		
7,600.0	7,403.5	7,474.9	7,473.4	31.6	13.2	140.42	838.4	717.4	895.0	862.0	32.95	27.162		
7,650.0	7,447.3	7,538.4	7,536.6	31.7	13.3	135.48	832.3	718.2	911.2	878.9	32.31	28.200		
7,700.0	7,489.1	7,583.0	7,581.0	31.7	13.3	131.55	829.1	719.4	928.9	897.4	31.57	29.423		
7,750.0	7,528.5	7,618.3	7,616.3	31.8	13.4	128.19	827.2	720.7	948.4	917.6	30.77	30.825		
7,800.0	7,565.3	7,647.0	7,644.9	31.8	13.4	125.06	826.0	721.6	969.9	939.9	29.93	32.402		
7,850.0	7,599.2	7,673.1	7,671.0	31.9	13.5	122.07	825.1	722.2	993.5	964.3	29.15	34.084		
7,900.0	7,629.9	7,700.0	7,697.9	31.9	13.5	119.25	824.4	722.8	1,019.1	990.6	28.48	35.786		
7,950.0	7,657.2	7,723.1	7,721.0	31.9	13.6	116.28	824.0	723.1	1,046.6	1,018.6	27.95	37.447		
8,000.0	7,680.9	7,747.4	7,745.3	32.0	13.6	113.33	823.6	723.6	1,075.7	1,048.1	27.61	38.958		
8,050.0	7,700.8	7,767.7	7,765.6	32.0	13.6	110.09	823.3	724.0	1,106.4	1,078.9	27.47	40.276		
8,100.0	7,716.7	7,784.1	7,781.9	32.0	13.7	106.49	823.1	724.3	1,138.4	1,110.9	27.51	41.380		
8,150.0	7,728.6	7,796.3	7,794.1	32.1	13.7	102.50	822.9	724.6	1,171.7	1,144.1	27.69	42.324		
8,200.0	7,736.3	7,804.1	7,802.0	32.1	13.7	98.12	822.8	724.7	1,206.0	1,178.1	27.90	43.229		
8,250.0	7,739.8	7,807.8	7,805.7	32.2	13.7	93.40	822.8	724.8	1,241.1	1,213.1	28.05	44.248		
8,266.2	7,740.0	7,808.2	7,806.0	32.2	13.7	91.82	822.8	724.8	1,252.6	1,224.5	28.07	44.627		
8,300.0	7,740.0	7,808.5	7,806.4	32.3	13.7	91.84	822.8	724.8	1,276.8	1,248.6	28.20	45.272		
8,400.0	7,740.0	7,809.4	7,807.3	32.5	13.7	91.90	822.8	724.9	1,350.8	1,322.1	28.73	47.018		
8,500.0	7,740.0	7,810.3	7,808.2	32.8	13.7	91.96	822.8	724.9	1,428.1	1,398.6	29.44	48.515		
8,600.0	7,740.0	7,811.2	7,809.1	33.2	13.7	92.02	822.8	724.9	1,507.9	1,477.7	30.30	49.775		
8,700.0	7,740.0	7,812.1	7,810.0	33.7	13.7	92.08	822.8	724.9	1,590.1	1,558.8	31.29	50.822		
8,800.0	7,740.0	7,813.0	7,810.8	34.3	13.7	92.13	822.8	724.9	1,674.2	1,641.8	32.39	51.685		
8,900.0	7,740.0	7,813.8	7,811.7	34.9	13.7	92.19	822.7	725.0	1,760.0	1,726.4	33.59	52.397		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL													Offset Site Error: 0.0 ft	
Survey Program: 100-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		
9,000.0	7,740.0	7,814.7	7,812.5	35.6	13.7	92.24	822.7	725.0	1,847.2	1,812.3	34.86	52.982		
9,100.0	7,740.0	7,815.5	7,813.4	36.4	13.7	92.30	822.7	725.0	1,935.6	1,899.4	36.20	53.466		
9,200.0	7,740.0	7,816.4	7,814.2	37.3	13.7	92.35	822.7	725.0	2,025.2	1,987.6	37.60	53.867		
9,300.0	7,740.0	7,817.2	7,815.0	38.2	13.7	92.40	822.7	725.0	2,115.6	2,076.6	39.03	54.202		
9,400.0	7,740.0	7,818.0	7,815.8	39.2	13.7	92.46	822.7	725.0	2,206.9	2,166.4	40.51	54.483		
9,500.0	7,740.0	7,818.8	7,816.6	40.2	13.7	92.51	822.7	725.1	2,298.9	2,256.9	42.01	54.720		
9,600.0	7,740.0	7,819.6	7,817.4	41.3	13.7	92.56	822.7	725.1	2,391.5	2,348.0	43.54	54.922		
9,700.0	7,740.0	7,820.3	7,818.2	42.4	13.7	92.61	822.7	725.1	2,484.8	2,439.7	45.10	55.095		
9,800.0	7,740.0	7,821.1	7,819.0	43.6	13.7	92.66	822.7	725.1	2,578.5	2,531.8	46.67	55.244		
9,900.0	7,740.0	7,821.9	7,819.7	44.8	13.7	92.71	822.7	725.1	2,672.7	2,624.4	48.27	55.374		
10,000.0	7,740.0	7,822.6	7,820.5	46.0	13.7	92.76	822.7	725.1	2,767.2	2,717.4	49.87	55.487		
10,100.0	7,740.0	7,823.4	7,821.2	47.3	13.7	92.81	822.7	725.2	2,862.2	2,810.7	51.49	55.586		
10,200.0	7,740.0	7,824.1	7,821.9	48.6	13.7	92.85	822.7	725.2	2,957.5	2,904.4	53.12	55.674		
10,300.0	7,740.0	7,824.8	7,822.7	50.0	13.7	92.90	822.6	725.2	3,053.1	2,998.3	54.76	55.753		
10,400.0	7,740.0	7,825.5	7,823.4	51.3	13.7	92.95	822.6	725.2	3,148.9	3,092.5	56.41	55.823		
10,500.0	7,740.0	7,826.2	7,824.1	52.7	13.7	92.99	822.6	725.2	3,245.0	3,187.0	58.07	55.885		
10,600.0	7,740.0	7,826.9	7,824.8	54.1	13.7	93.04	822.6	725.2	3,341.4	3,281.7	59.73	55.942		
10,700.0	7,740.0	7,827.6	7,825.5	55.6	13.7	93.08	822.6	725.2	3,437.9	3,376.5	61.40	55.994		
10,800.0	7,740.0	7,828.3	7,826.1	57.0	13.7	93.13	822.6	725.3	3,534.7	3,471.6	63.07	56.041		
10,900.0	7,740.0	7,829.0	7,826.8	58.5	13.8	93.17	822.6	725.3	3,631.6	3,566.8	64.75	56.084		
11,000.0	7,740.0	7,829.6	7,827.5	59.9	13.8	93.21	822.6	725.3	3,728.7	3,662.2	66.44	56.124		
11,100.0	7,740.0	7,830.3	7,828.1	61.4	13.8	93.26	822.6	725.3	3,825.9	3,757.8	68.12	56.160		
11,200.0	7,740.0	7,830.9	7,828.8	62.9	13.8	93.30	822.6	725.3	3,923.3	3,853.5	69.82	56.194		
11,300.0	7,740.0	7,831.6	7,829.4	64.5	13.8	93.34	822.6	725.3	4,020.8	3,949.3	71.51	56.225		
11,400.0	7,740.0	7,832.2	7,830.1	66.0	13.8	93.38	822.6	725.3	4,118.4	4,045.2	73.21	56.255		
11,500.0	7,740.0	7,832.8	7,830.7	67.5	13.8	93.42	822.6	725.4	4,216.1	4,141.2	74.91	56.282		
11,600.0	7,740.0	7,833.5	7,831.3	69.1	13.8	93.46	822.6	725.4	4,314.0	4,237.3	76.61	56.308		
11,700.0	7,740.0	7,834.1	7,831.9	70.7	13.8	93.50	822.6	725.4	4,411.9	4,333.6	78.32	56.332		
11,800.0	7,740.0	7,834.7	7,832.5	72.2	13.8	93.54	822.6	725.4	4,509.9	4,429.9	80.03	56.355		
11,900.0	7,740.0	7,835.3	7,833.1	73.8	13.8	93.58	822.6	725.4	4,608.0	4,526.3	81.74	56.377		
12,000.0	7,740.0	7,835.9	7,833.7	75.4	13.8	93.62	822.6	725.4	4,706.2	4,622.7	83.45	56.397		
12,100.0	7,740.0	7,836.5	7,834.3	77.0	13.8	93.66	822.5	725.4	4,804.5	4,719.3	85.16	56.416		
12,200.0	7,740.0	7,837.1	7,834.9	78.6	13.8	93.69	822.5	725.4	4,902.8	4,815.9	86.87	56.435		
12,300.0	7,740.0	7,837.6	7,835.5	80.2	13.8	93.73	822.5	725.5	5,001.2	4,912.6	88.59	56.453		
12,400.0	7,740.0	7,838.2	7,836.1	81.8	13.8	93.77	822.5	725.5	5,099.6	5,009.3	90.31	56.469		
12,500.0	7,740.0	7,838.8	7,836.6	83.4	13.8	93.81	822.5	725.5	5,198.2	5,106.1	92.03	56.485		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2A-7H-E168 - Hz - Plan #2														Offset Site Error:	0.0 ft
Survey Program: O-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	90.02	0.0	10.1	10.1						
100.0	100.0	100.0	100.0	0.2	0.2	90.02	0.0	10.1	10.1	9.8	0.30	33.178			
200.0	200.0	200.0	200.0	0.3	0.3	90.02	0.0	10.1	10.1	9.4	0.65	15.436			
300.0	300.0	300.1	300.1	0.5	0.5	23.91	-0.4	9.3	8.5	7.5	1.00	8.504			
400.0	400.0	400.1	400.0	0.7	0.7	56.64	-1.8	7.1	4.7	3.4	1.36	3.480			
430.0	430.0	430.0	430.0	0.7	0.7	84.85	-2.3	6.1	4.2	2.7	1.48	2.835 CC, ES, SF			
500.0	499.9	499.6	499.5	0.9	0.9	141.42	-3.9	3.3	7.7	6.0	1.71	4.498			
600.0	599.7	598.7	598.4	1.1	1.1	161.68	-6.9	-1.9	19.0	17.0	2.05	9.292			
700.0	699.4	697.9	697.3	1.3	1.3	168.65	-9.6	-8.0	33.1	30.7	2.39	13.853			
800.0	798.9	796.7	795.9	1.5	1.5	173.07	-10.9	-14.0	48.6	45.9	2.73	17.788			
900.0	898.3	895.1	894.2	1.8	1.7	175.51	-12.3	-20.0	66.0	62.9	3.07	21.455			
1,000.0	997.4	993.3	992.1	2.0	1.9	176.99	-13.6	-26.0	85.1	81.7	3.41	24.923			
1,100.0	1,096.3	1,091.1	1,089.7	2.3	2.1	177.97	-14.9	-32.0	105.9	102.2	3.75	28.243			
1,200.0	1,194.9	1,188.5	1,187.0	2.7	2.3	178.64	-16.2	-38.0	128.5	124.4	4.09	31.451			
1,300.0	1,293.3	1,285.5	1,283.8	3.0	2.5	179.12	-17.5	-43.9	152.8	148.4	4.42	34.576			
1,400.0	1,391.2	1,382.0	1,380.1	3.4	2.7	179.48	-18.8	-49.8	178.8	174.1	4.75	37.637			
1,500.0	1,488.9	1,478.1	1,476.0	3.8	2.8	179.74	-20.1	-55.7	206.5	201.4	5.08	40.652			
1,595.5	1,581.8	1,569.4	1,567.2	4.2	3.0	179.94	-21.4	-61.3	234.5	229.1	5.39	43.500			
1,600.0	1,586.1	1,573.7	1,571.4	4.2	3.0	179.95	-21.4	-61.6	235.8	230.4	5.41	43.627			
1,700.0	1,683.2	1,669.0	1,666.6	4.7	3.2	-179.89	-22.7	-67.4	265.9	260.2	5.74	46.302			
1,800.0	1,780.2	1,764.4	1,761.8	5.1	3.4	-179.76	-24.0	-73.2	296.1	290.0	6.08	48.680			
1,900.0	1,877.3	1,859.8	1,856.9	5.6	3.6	-179.66	-25.3	-79.1	326.2	319.8	6.42	50.809			
2,000.0	1,974.3	1,955.1	1,952.1	6.0	3.8	-179.57	-26.6	-84.9	356.3	349.5	6.76	52.725			
2,100.0	2,071.4	2,050.5	2,047.3	6.5	4.0	-179.50	-27.8	-90.8	386.4	379.3	7.10	54.458			
2,200.0	2,168.4	2,145.8	2,142.4	6.9	4.2	-179.43	-29.1	-96.6	416.5	409.1	7.43	56.035			
2,300.0	2,265.4	2,241.2	2,237.6	7.4	4.4	-179.38	-30.4	-102.4	446.7	438.9	7.77	57.474			
2,400.0	2,362.5	2,336.5	2,332.8	7.9	4.6	-179.33	-31.7	-108.3	476.8	468.7	8.11	58.793			
2,500.0	2,459.5	2,431.9	2,427.9	8.3	4.8	-179.29	-33.0	-114.1	506.9	498.4	8.45	60.008			
2,600.0	2,556.6	2,527.2	2,523.1	8.8	5.0	-179.25	-34.3	-119.9	537.0	528.2	8.78	61.128			
2,700.0	2,653.6	2,622.6	2,618.3	9.2	5.2	-179.22	-35.6	-125.8	567.1	558.0	9.12	62.166			
2,800.0	2,750.7	2,718.0	2,713.4	9.7	5.4	-179.19	-36.8	-131.6	597.2	587.8	9.46	63.130			
2,900.0	2,847.7	2,813.3	2,808.6	10.2	5.6	-179.16	-38.1	-137.5	627.4	617.6	9.80	64.028			
3,000.0	2,944.8	2,908.7	2,903.8	10.6	5.8	-179.14	-39.4	-143.3	657.5	647.3	10.14	64.865			
3,100.0	3,041.8	3,004.0	2,999.0	11.1	6.0	-179.12	-40.7	-149.1	687.6	677.1	10.47	65.649			
3,200.0	3,138.9	3,099.4	3,094.1	11.5	6.2	-179.10	-42.0	-155.0	717.7	706.9	10.81	66.384			
3,300.0	3,235.9	3,194.7	3,189.3	12.0	6.4	-179.08	-43.3	-160.8	747.8	736.7	11.15	67.074			
3,400.0	3,333.0	3,290.1	3,284.5	12.5	6.6	-179.06	-44.6	-166.6	778.0	766.5	11.49	67.724			
3,500.0	3,430.0	3,385.5	3,379.6	12.9	6.8	-179.05	-45.8	-172.5	808.1	796.3	11.83	68.336			
3,600.0	3,527.1	3,480.8	3,474.8	13.4	7.0	-179.03	-47.1	-178.3	838.2	826.0	12.16	68.915			
3,700.0	3,624.1	3,576.2	3,570.0	13.9	7.2	-179.02	-48.4	-184.1	868.3	855.8	12.50	69.462			
3,800.0	3,721.2	3,671.5	3,665.1	14.3	7.4	-179.00	-49.7	-190.0	898.4	885.6	12.84	69.981			
3,900.0	3,818.2	3,766.9	3,760.3	14.8	7.6	-178.99	-51.0	-195.8	928.6	915.4	13.18	70.473			
4,000.0	3,915.3	3,862.2	3,855.5	15.3	7.8	-178.98	-52.3	-201.7	958.7	945.2	13.51	70.941			
4,100.0	4,012.3	3,957.6	3,950.6	15.7	7.9	-178.97	-53.6	-207.5	988.8	975.0	13.85	71.385			
4,200.0	4,109.4	4,052.9	4,045.8	16.2	8.1	-178.96	-54.8	-213.3	1,018.9	1,004.7	14.19	71.809			
4,300.0	4,206.4	4,148.3	4,141.0	16.6	8.3	-178.95	-56.1	-219.2	1,049.0	1,034.5	14.53	72.213			
4,400.0	4,303.5	4,243.7	4,236.1	17.1	8.5	-178.94	-57.4	-225.0	1,079.2	1,064.3	14.86	72.598			
4,500.0	4,400.5	4,339.0	4,331.3	17.6	8.7	-178.93	-58.7	-230.8	1,109.3	1,094.1	15.20	72.966			
4,600.0	4,497.6	4,434.4	4,426.5	18.0	8.9	-178.92	-60.0	-236.7	1,139.4	1,123.9	15.54	73.319			
4,700.0	4,594.6	4,529.7	4,521.6	18.5	9.1	-178.92	-61.3	-242.5	1,169.5	1,153.7	15.88	73.656			
4,800.0	4,691.7	4,625.1	4,616.8	19.0	9.3	-178.91	-62.6	-248.4	1,199.7	1,183.4	16.22	73.980			
4,900.0	4,788.7	4,720.4	4,712.0	19.4	9.5	-178.90	-63.8	-254.2	1,229.8	1,213.2	16.55	74.290			

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2A-7H-E168 - Hz - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-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)			
5,000.0	4,885.8	4,815.8	4,807.1	19.9	9.7	-178.90	-65.1	-260.0	1,259.9	1,243.0	16.89	74.588	
5,100.0	4,982.8	4,911.1	4,902.3	20.4	9.9	-178.89	-66.4	-265.9	1,290.0	1,272.8	17.23	74.874	
5,200.0	5,079.9	5,006.5	4,997.5	20.8	10.1	-178.88	-67.7	-271.7	1,320.1	1,302.6	17.57	75.149	
5,300.0	5,176.9	5,101.9	5,092.7	21.3	10.3	-178.88	-69.0	-277.5	1,350.3	1,332.3	17.90	75.413	
5,400.0	5,273.9	5,197.2	5,187.8	21.8	10.5	-178.87	-70.3	-283.4	1,380.4	1,362.1	18.24	75.668	
5,500.0	5,371.0	5,292.6	5,283.0	22.2	10.7	-178.87	-71.6	-289.2	1,410.5	1,391.9	18.58	75.914	
5,600.0	5,468.0	5,387.9	5,378.2	22.7	10.9	-178.86	-72.8	-295.1	1,440.6	1,421.7	18.92	76.151	
5,700.0	5,565.1	5,483.3	5,473.3	23.1	11.1	-178.86	-74.1	-300.9	1,470.7	1,451.5	19.26	76.380	
5,800.0	5,662.1	5,578.6	5,568.5	23.6	11.3	-178.85	-75.4	-306.7	1,500.9	1,481.3	19.59	76.600	
5,900.0	5,759.2	5,674.0	5,663.7	24.1	11.5	-178.85	-76.7	-312.6	1,531.0	1,511.0	19.93	76.814	
6,000.0	5,856.2	5,769.3	5,758.8	24.5	11.7	-178.85	-78.0	-318.4	1,561.1	1,540.8	20.27	77.020	
6,100.0	5,953.3	5,864.7	5,854.0	25.0	11.9	-178.84	-79.3	-324.2	1,591.2	1,570.6	20.61	77.219	
6,200.0	6,050.3	5,960.1	5,949.2	25.5	12.1	-178.84	-80.6	-330.1	1,621.3	1,600.4	20.94	77.412	
6,300.0	6,147.4	6,055.4	6,044.3	25.9	12.3	-178.83	-81.8	-335.9	1,651.5	1,630.2	21.28	77.599	
6,400.0	6,244.4	6,150.8	6,139.5	26.4	12.5	-178.83	-83.1	-341.8	1,681.6	1,660.0	21.62	77.780	
6,500.0	6,341.5	6,246.1	6,234.7	26.9	12.7	-178.83	-84.4	-347.6	1,711.7	1,689.7	21.96	77.955	
6,600.0	6,438.5	6,341.5	6,329.8	27.3	12.9	-178.82	-85.7	-353.4	1,741.8	1,719.5	22.30	78.125	
6,700.0	6,535.6	6,436.8	6,425.0	27.8	13.1	-178.82	-87.0	-359.3	1,771.9	1,749.3	22.63	78.290	
6,800.0	6,632.6	6,532.2	6,520.2	28.3	13.3	-178.82	-88.3	-365.1	1,802.1	1,779.1	22.97	78.451	
6,900.0	6,729.7	6,627.5	6,615.3	28.7	13.4	-178.81	-89.5	-370.9	1,832.2	1,808.9	23.31	78.606	
7,000.0	6,826.7	6,722.9	6,710.5	29.2	13.6	-178.81	-90.8	-376.8	1,862.3	1,838.7	23.65	78.757	
7,100.0	6,923.8	6,818.3	6,805.7	29.7	13.8	-178.81	-92.1	-382.6	1,892.4	1,868.4	23.98	78.904	
7,200.0	7,020.8	6,913.6	6,900.9	30.1	14.0	-178.80	-93.4	-388.5	1,922.5	1,898.2	24.32	79.047	
7,300.0	7,117.9	7,009.0	6,996.0	30.6	14.2	-178.80	-94.7	-394.3	1,952.7	1,928.0	24.66	79.186	
7,321.2	7,138.4	7,029.2	7,016.2	30.7	14.3	-178.80	-95.0	-395.5	1,959.0	1,934.3	24.73	79.215	
7,350.0	7,166.4	7,056.7	7,043.7	30.8	14.3	168.76	-95.3	-397.2	1,967.5	1,942.7	24.86	79.139	
7,400.0	7,215.1	7,104.6	7,091.4	31.0	14.4	146.60	-96.0	-400.1	1,981.2	1,956.1	25.11	78.893	
7,450.0	7,263.5	7,106.0	7,100.0	31.2	14.6	148.29	500.6	-439.9	1,992.5	1,960.4	32.09	62.091	
7,471.7	7,284.3	7,102.4	7,100.0	31.3	14.6	142.09	497.0	-439.9	1,992.4	1,960.4	32.02	62.225	
7,500.0	7,311.3	7,096.5	7,100.0	31.3	14.5	135.26	491.1	-439.9	1,992.6	1,960.7	31.91	62.452	
7,550.0	7,358.1	7,082.9	7,100.0	31.5	14.4	126.01	477.5	-439.9	1,993.9	1,962.2	31.62	63.054	
7,600.0	7,403.5	7,001.7	7,100.0	31.6	14.6	117.51	396.5	-439.6	1,995.9	1,965.5	30.42	65.613	
7,650.0	7,447.3	7,047.0	7,100.0	31.7	14.7	111.41	342.9	-439.0	1,998.5	1,968.8	29.67	67.350	
7,700.0	7,489.1	7,095.1	7,113.1	31.7	14.9	106.76	302.5	-438.3	2,001.7	1,972.5	29.15	68.661	
7,750.0	7,528.5	7,089.1	7,101.2	31.8	15.0	103.01	268.5	-437.5	2,005.3	1,976.6	28.76	69.725	
7,800.0	7,565.3	7,082.2	7,088.4	31.8	15.1	99.87	238.2	-436.8	2,009.4	1,980.9	28.45	70.625	
7,850.0	7,599.2	7,085.3	7,074.9	31.9	15.2	97.18	210.4	-435.9	2,013.7	1,985.5	28.21	71.390	
7,900.0	7,629.9	7,077.5	7,060.5	31.9	15.3	94.82	184.6	-435.0	2,018.2	1,990.2	28.02	72.028	
7,950.0	7,657.2	7,070.7	7,045.3	31.9	15.4	92.74	160.2	-434.1	2,022.8	1,994.9	27.86	72.594	
8,000.0	7,680.9	7,071.0	7,029.3	32.0	15.5	90.89	137.2	-433.1	2,027.3	1,999.6	27.75	73.070	
8,050.0	7,700.8	7,061.5	7,012.6	32.0	15.6	89.23	115.5	-432.1	2,031.8	2,004.1	27.64	73.503	
8,100.0	7,716.7	7,064.4	7,059.1	32.0	15.6	87.77	94.9	-431.0	2,035.9	2,008.4	27.56	73.880	
8,150.0	7,728.6	7,063.8	7,057.0	32.1	15.5	86.48	75.4	-429.9	2,039.8	2,012.3	27.49	74.212	
8,200.0	7,736.3	7,061.4	7,055.1	32.1	15.4	85.37	56.9	-428.8	2,043.2	2,015.8	27.43	74.487	
8,250.0	7,739.8	7,058.2	7,053.6	32.2	15.3	84.43	39.6	-427.6	2,046.1	2,018.8	27.39	74.691	
8,266.2	7,740.0	7,057.8	7,052.2	32.2	15.3	84.17	34.1	-427.2	2,047.0	2,019.6	27.39	74.738	
8,300.0	7,740.0	7,055.9	7,051.0	32.3	15.3	83.80	23.6	-426.4	2,048.8	2,021.4	27.46	74.607	
8,400.0	7,740.0	7,051.5	7,048.9	32.5	15.2	82.81	-1.7	-424.2	2,056.6	2,028.8	27.84	73.862	
8,500.0	7,740.0	7,048.1	7,045.9	32.8	15.1	81.97	-20.3	-422.4	2,068.2	2,039.8	28.44	72.726	
8,600.0	7,740.0	7,045.0	7,042.5	33.2	15.0	81.21	-35.2	-420.7	2,083.7	2,054.5	29.20	71.359	
8,700.0	7,740.0	7,042.8	7,040.5	33.7	15.0	80.65	-44.8	-419.5	2,103.3	2,073.2	30.12	69.820	
8,800.0	7,740.0	7,040.0	7,038.1	34.3	15.0	79.95	-55.8	-417.9	2,127.0	2,095.9	31.14	68.315	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2A-7H-E168 - Hz - Plan #2													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)				
8,900.0	7,740.0	7,400.0	7,381.0	34.9	15.0	79.95	-55.8	-417.9	2,154.8	2,122.5	32.33	66.651		
9,000.0	7,740.0	7,374.7	7,357.4	35.6	14.9	79.29	-64.7	-416.5	2,186.4	2,152.9	33.51	65.248		
9,100.0	7,740.0	7,350.0	7,334.0	36.4	14.9	78.64	-72.3	-415.0	2,222.0	2,187.3	34.75	63.952		
9,200.0	7,740.0	7,350.0	7,334.0	37.3	14.9	78.64	-72.3	-415.0	2,261.2	2,225.1	36.12	62.596		
9,300.0	7,740.0	7,350.0	7,334.0	38.2	14.9	78.64	-72.3	-415.0	2,304.0	2,266.5	37.55	61.367		
9,400.0	7,740.0	7,330.9	7,315.7	39.2	14.8	78.14	-77.6	-413.9	2,350.1	2,311.2	38.92	60.381		
9,500.0	7,740.0	7,322.9	7,307.9	40.2	14.8	77.93	-79.6	-413.4	2,399.4	2,359.1	40.37	59.436		
9,600.0	7,740.0	7,300.0	7,285.6	41.3	14.8	77.32	-84.7	-412.1	2,451.9	2,410.2	41.77	58.700		
9,700.0	7,740.0	7,300.0	7,285.6	42.4	14.8	77.32	-84.7	-412.1	2,507.0	2,463.7	43.30	57.900		
9,800.0	7,740.0	7,300.0	7,285.6	43.6	14.8	77.32	-84.7	-412.1	2,564.8	2,519.9	44.85	57.192		
9,900.0	7,740.0	7,300.0	7,285.6	44.8	14.8	77.32	-84.7	-412.1	2,625.1	2,578.7	46.41	56.567		
10,000.0	7,740.0	7,300.0	7,285.6	46.0	14.8	77.32	-84.7	-412.1	2,687.8	2,639.8	47.98	56.015		
10,100.0	7,740.0	7,300.0	7,285.6	47.3	14.8	77.32	-84.7	-412.1	2,752.7	2,703.1	49.57	55.530		
10,200.0	7,740.0	7,300.0	7,285.6	48.6	14.8	77.32	-84.7	-412.1	2,819.6	2,768.5	51.17	55.103		
10,300.0	7,740.0	7,280.0	7,266.0	50.0	14.8	76.78	-88.5	-410.9	2,888.2	2,835.5	52.66	54.849		
10,400.0	7,740.0	7,276.4	7,262.5	51.3	14.8	76.68	-89.1	-410.6	2,958.7	2,904.5	54.25	54.541		
10,500.0	7,740.0	7,273.0	7,259.2	52.7	14.8	76.59	-89.7	-410.4	3,030.8	2,975.0	55.84	54.273		
10,600.0	7,740.0	7,250.0	7,236.4	54.1	14.7	75.97	-92.9	-409.0	3,104.8	3,047.5	57.31	54.175		
10,700.0	7,740.0	7,250.0	7,236.4	55.6	14.7	75.97	-92.9	-409.0	3,179.9	3,120.9	58.94	53.952		
10,800.0	7,740.0	7,250.0	7,236.4	57.0	14.7	75.97	-92.9	-409.0	3,256.2	3,195.6	60.57	53.759		
10,900.0	7,740.0	7,250.0	7,236.4	58.5	14.7	75.97	-92.9	-409.0	3,333.8	3,271.6	62.21	53.591		
11,000.0	7,740.0	7,250.0	7,236.4	59.9	14.7	75.97	-92.9	-409.0	3,412.6	3,348.7	63.85	53.447		
11,100.0	7,740.0	7,250.0	7,236.4	61.4	14.7	75.97	-92.9	-409.0	3,492.5	3,427.0	65.50	53.324		
11,200.0	7,740.0	7,250.0	7,236.4	62.9	14.7	75.97	-92.9	-409.0	3,573.3	3,506.2	67.14	53.219		
11,300.0	7,740.0	7,250.0	7,236.4	64.5	14.7	75.97	-92.9	-409.0	3,655.2	3,586.4	68.80	53.130		
11,400.0	7,740.0	7,250.0	7,236.4	66.0	14.7	75.97	-92.9	-409.0	3,737.9	3,667.4	70.45	53.056		
11,500.0	7,740.0	7,250.0	7,236.4	67.5	14.7	75.97	-92.9	-409.0	3,821.4	3,749.3	72.11	52.995		
11,600.0	7,740.0	7,250.0	7,236.4	69.1	14.7	75.97	-92.9	-409.0	3,905.7	3,831.9	73.77	52.945		
11,700.0	7,740.0	7,250.0	7,236.4	70.7	14.7	75.97	-92.9	-409.0	3,990.7	3,915.3	75.43	52.906		
11,800.0	7,740.0	7,250.0	7,236.4	72.2	14.7	75.97	-92.9	-409.0	4,076.4	3,999.3	77.10	52.875		
11,900.0	7,740.0	7,250.0	7,236.4	73.8	14.7	75.97	-92.9	-409.0	4,162.8	4,084.0	78.76	52.853		
12,000.0	7,740.0	7,250.0	7,236.4	75.4	14.7	75.97	-92.9	-409.0	4,249.7	4,169.3	80.43	52.838		
12,100.0	7,740.0	7,250.0	7,236.4	77.0	14.7	75.97	-92.9	-409.0	4,337.2	4,255.1	82.10	52.829		
12,200.0	7,740.0	7,250.0	7,236.4	78.6	14.7	75.97	-92.9	-409.0	4,425.3	4,341.5	83.77	52.826		
12,300.0	7,740.0	7,250.0	7,236.4	80.2	14.7	75.97	-92.9	-409.0	4,513.8	4,428.4	85.44	52.828		
12,400.0	7,740.0	7,250.0	7,236.4	81.8	14.7	75.97	-92.9	-409.0	4,602.8	4,515.7	87.12	52.834		
12,500.0	7,740.0	7,250.0	7,236.4	83.4	14.7	75.97	-92.9	-409.0	4,692.3	4,603.5	88.79	52.845		
12,600.0	7,740.0	7,250.0	7,236.4	85.1	14.7	75.97	-92.9	-409.0	4,782.1	4,691.7	90.47	52.859		
12,700.0	7,740.0	7,250.0	7,236.4	86.7	14.7	75.97	-92.9	-409.0	4,872.4	4,780.2	92.15	52.876		
12,800.0	7,740.0	7,250.0	7,236.4	88.3	14.7	75.97	-92.9	-409.0	4,963.0	4,869.2	93.83	52.896		
12,900.0	7,740.0	7,250.0	7,236.4	90.0	14.7	75.97	-92.9	-409.0	5,054.0	4,958.5	95.51	52.918		
13,000.0	7,740.0	7,250.0	7,236.4	91.6	14.7	75.97	-92.9	-409.0	5,145.3	5,048.2	97.19	52.943		
13,100.0	7,740.0	7,250.0	7,236.4	93.3	14.7	75.97	-92.9	-409.0	5,237.0	5,138.1	98.87	52.969		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2B-7H-E168 - Hz - Plan #2											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	
0.0	0.0	0.0	0.0	0.0	0.0	90.01	0.0	20.2	20.2				
100.0	100.0	100.0	100.0	0.2	0.2	90.01	0.0	20.2	20.2	19.8	0.30	66.355	
200.0	200.0	200.0	200.0	0.3	0.3	90.01	0.0	20.2	20.2	19.5	0.65	30.871	
300.0	300.0	300.0	300.0	0.5	0.5	19.87	0.0	20.2	19.3	18.3	1.00	19.293	
400.0	400.0	400.1	400.1	0.7	0.7	25.38	-0.7	19.6	16.4	15.0	1.35	12.120	
500.0	499.9	500.0	500.0	0.9	0.9	45.61	-2.7	17.9	11.7	10.0	1.71	6.837	
564.5	564.3	564.2	564.1	1.0	1.0	76.99	-4.7	16.2	10.0	8.0	1.97	5.059	CC, ES, SF
600.0	599.7	599.5	599.3	1.1	1.0	98.50	-6.0	15.1	10.7	8.6	2.10	5.104	
700.0	699.4	698.9	698.7	1.3	1.2	135.04	-9.5	12.4	18.5	16.0	2.44	7.580	
800.0	798.9	798.6	798.4	1.5	1.4	148.88	-11.8	11.1	28.8	26.1	2.78	10.383	
900.0	898.3	898.3	898.0	1.8	1.6	156.05	-13.2	11.1	39.9	36.8	3.12	12.788	
1,000.0	997.4	997.4	997.1	2.0	1.7	160.69	-14.3	11.3	52.6	49.1	3.47	15.177	
1,100.0	1,096.3	1,096.3	1,096.0	2.3	1.9	163.92	-15.4	11.6	67.2	63.4	3.81	17.631	
1,200.0	1,194.9	1,194.9	1,194.6	2.7	2.1	166.28	-16.6	11.9	83.5	79.4	4.15	20.123	
1,300.0	1,293.3	1,293.2	1,292.9	3.0	2.3	168.06	-17.7	12.1	101.7	97.2	4.49	22.641	
1,400.0	1,391.2	1,391.2	1,390.9	3.4	2.4	169.45	-18.8	12.4	121.6	116.8	4.83	25.177	
1,500.0	1,488.9	1,488.8	1,488.4	3.8	2.6	170.56	-19.9	12.6	143.2	138.1	5.17	27.728	
1,595.5	1,581.8	1,581.6	1,581.3	4.2	2.8	171.42	-20.9	12.9	165.5	160.0	5.48	30.179	
1,600.0	1,586.1	1,586.0	1,585.6	4.2	2.8	171.46	-21.0	12.9	166.6	161.1	5.50	30.291	
1,700.0	1,683.2	1,683.0	1,682.6	4.7	2.9	172.19	-22.1	13.1	190.7	184.9	5.84	32.641	
1,800.0	1,780.2	1,780.0	1,779.7	5.1	3.1	172.77	-23.1	13.4	214.9	208.7	6.19	34.733	
1,900.0	1,877.3	1,877.0	1,876.7	5.6	3.3	173.22	-24.2	13.7	239.1	232.6	6.53	36.606	
2,000.0	1,974.3	1,974.0	1,973.7	6.0	3.5	173.60	-25.3	13.9	263.3	256.4	6.88	38.294	
2,100.0	2,071.4	2,071.0	2,070.7	6.5	3.6	173.91	-26.4	14.2	287.5	280.3	7.22	39.822	
2,200.0	2,168.4	2,168.1	2,167.7	6.9	3.8	174.17	-27.5	14.4	311.7	304.2	7.56	41.212	
2,300.0	2,265.4	2,265.1	2,264.7	7.4	4.0	174.39	-28.6	14.7	336.0	328.0	7.91	42.482	
2,400.0	2,362.5	2,362.1	2,361.7	7.9	4.1	174.59	-29.7	14.9	360.2	351.9	8.25	43.646	
2,500.0	2,459.5	2,459.1	2,458.7	8.3	4.3	174.76	-30.8	15.2	384.4	375.8	8.60	44.718	
2,600.0	2,556.6	2,556.1	2,555.7	8.8	4.5	174.91	-31.9	15.5	408.7	399.7	8.94	45.707	
2,700.0	2,653.6	2,653.1	2,652.7	9.2	4.6	175.04	-33.0	15.7	432.9	423.6	9.28	46.623	
2,800.0	2,750.7	2,750.1	2,749.7	9.7	4.8	175.16	-34.1	16.0	457.1	447.5	9.63	47.474	
2,900.0	2,847.7	2,847.1	2,846.7	10.2	5.0	175.27	-35.2	16.2	481.4	471.4	9.97	48.267	
3,000.0	2,944.8	2,944.2	2,943.7	10.6	5.2	175.36	-36.3	16.5	505.6	495.3	10.32	49.007	
3,100.0	3,041.8	3,041.2	3,040.7	11.1	5.3	175.45	-37.4	16.7	529.9	519.2	10.66	49.699	
3,200.0	3,138.9	3,138.2	3,137.8	11.5	5.5	175.53	-38.5	17.0	554.1	543.1	11.01	50.348	
3,300.0	3,235.9	3,235.2	3,234.8	12.0	5.7	175.60	-39.6	17.3	578.3	567.0	11.35	50.958	
3,400.0	3,333.0	3,332.2	3,331.8	12.5	5.8	175.67	-40.6	17.5	602.6	590.9	11.69	51.532	
3,500.0	3,430.0	3,429.2	3,428.8	12.9	6.0	175.73	-41.7	17.8	626.8	614.8	12.04	52.073	
3,600.0	3,527.1	3,526.2	3,525.8	13.4	6.2	175.79	-42.8	18.0	651.1	638.7	12.38	52.584	
3,700.0	3,624.1	3,623.3	3,622.8	13.9	6.3	175.84	-43.9	18.3	675.3	662.6	12.73	53.068	
3,800.0	3,721.2	3,720.3	3,719.8	14.3	6.5	175.89	-45.0	18.5	699.6	686.5	13.07	53.526	
3,900.0	3,818.2	3,817.3	3,816.8	14.8	6.7	175.94	-46.1	18.8	723.8	710.4	13.41	53.961	
4,000.0	3,915.3	3,914.3	3,913.8	15.3	6.9	175.98	-47.2	19.1	748.1	734.3	13.76	54.374	
4,100.0	4,012.3	4,011.3	4,010.8	15.7	7.0	176.02	-48.3	19.3	772.3	758.2	14.10	54.767	
4,200.0	4,109.4	4,108.3	4,107.8	16.2	7.2	176.06	-49.4	19.6	796.6	782.1	14.45	55.141	
4,300.0	4,206.4	4,205.3	4,204.8	16.6	7.4	176.10	-50.5	19.8	820.8	806.0	14.79	55.498	
4,400.0	4,303.5	4,302.4	4,301.8	17.1	7.5	176.13	-51.6	20.1	845.1	830.0	15.13	55.839	
4,500.0	4,400.5	4,399.4	4,398.8	17.6	7.7	176.16	-52.7	20.3	869.3	853.9	15.48	56.165	
4,600.0	4,497.6	4,496.4	4,495.9	18.0	7.9	176.19	-53.8	20.6	893.6	877.8	15.82	56.476	
4,700.0	4,594.6	4,593.4	4,592.9	18.5	8.1	176.22	-54.9	20.8	917.8	901.7	16.17	56.774	
4,800.0	4,691.7	4,690.4	4,689.9	19.0	8.2	176.25	-56.0	21.1	942.1	925.6	16.51	57.060	
4,900.0	4,788.7	4,787.4	4,786.9	19.4	8.4	176.28	-57.0	21.4	966.4	949.5	16.85	57.334	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2B-7H-E168 - Hz - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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		
5,000.0	4,885.8	4,884.4	4,883.9	19.9	8.6	176.30	-58.1	21.6	990.6	973.4	17.20	57.598		
5,100.0	4,982.8	4,981.4	4,980.9	20.4	8.7	176.32	-59.2	21.9	1,014.9	997.3	17.54	57.851		
5,200.0	5,079.9	5,078.5	5,077.9	20.8	8.9	176.35	-60.3	22.1	1,039.1	1,021.2	17.89	58.094		
5,300.0	5,176.9	5,175.5	5,174.9	21.3	9.1	176.37	-61.4	22.4	1,063.4	1,045.1	18.23	58.328		
5,400.0	5,273.9	5,272.5	5,271.9	21.8	9.2	176.39	-62.5	22.6	1,087.6	1,069.0	18.57	58.553		
5,500.0	5,371.0	5,369.5	5,368.9	22.2	9.4	176.41	-63.6	22.9	1,111.9	1,092.9	18.92	58.770		
5,600.0	5,468.0	5,466.5	5,465.9	22.7	9.6	176.43	-64.7	23.2	1,136.1	1,116.9	19.26	58.980		
5,700.0	5,565.1	5,563.5	5,562.9	23.1	9.8	176.44	-65.8	23.4	1,160.4	1,140.8	19.61	59.182		
5,800.0	5,662.1	5,660.5	5,659.9	23.6	9.9	176.46	-66.9	23.7	1,184.6	1,164.7	19.95	59.377		
5,900.0	5,759.2	5,757.6	5,756.9	24.1	10.1	176.48	-68.0	23.9	1,208.9	1,188.6	20.29	59.566		
6,000.0	5,856.2	5,854.6	5,854.0	24.5	10.3	176.49	-69.1	24.2	1,233.1	1,212.5	20.64	59.748		
6,100.0	5,953.3	5,951.6	5,951.0	25.0	10.4	176.51	-70.2	24.4	1,257.4	1,236.4	20.98	59.924		
6,200.0	6,050.3	6,048.6	6,048.0	25.5	10.6	176.52	-71.3	24.7	1,281.6	1,260.3	21.33	60.095		
6,300.0	6,147.4	6,145.6	6,145.0	25.9	10.8	176.54	-72.4	25.0	1,305.9	1,284.2	21.67	60.260		
6,400.0	6,244.4	6,242.6	6,242.0	26.4	10.9	176.55	-73.4	25.2	1,330.2	1,308.1	22.02	60.420		
6,500.0	6,341.5	6,339.6	6,339.0	26.9	11.1	176.56	-74.5	25.5	1,354.4	1,332.0	22.36	60.575		
6,600.0	6,438.5	6,436.7	6,436.0	27.3	11.3	176.58	-75.6	25.7	1,378.7	1,356.0	22.70	60.726		
6,700.0	6,535.6	6,533.7	6,533.0	27.8	11.5	176.59	-76.7	26.0	1,402.9	1,379.9	23.05	60.871		
6,800.0	6,632.6	6,630.7	6,630.0	28.3	11.6	176.60	-77.8	26.2	1,427.2	1,403.8	23.39	61.013		
6,900.0	6,729.7	6,727.7	6,727.0	28.7	11.8	176.61	-78.9	26.5	1,451.4	1,427.7	23.74	61.151		
7,000.0	6,826.7	6,824.7	6,824.0	29.2	12.0	176.62	-80.0	26.8	1,475.7	1,451.6	24.08	61.284		
7,100.0	6,923.8	6,920.7	6,920.0	29.7	12.2	176.64	-81.1	27.0	1,499.9	1,475.5	24.44	61.378		
7,200.0	7,020.8	7,015.1	7,014.4	30.1	12.4	176.65	-82.2	27.3	1,524.1	1,499.7	24.80	61.471		
7,300.0	7,117.9	7,112.2	7,111.5	30.6	12.6	176.66	-83.3	27.6	1,548.3	1,523.9	25.16	61.564		
7,321.2	7,138.4	7,132.7	7,132.0	30.7	12.7	176.67	-83.8	27.7	1,555.1	1,530.6	25.28	61.598		
7,339.8	7,156.6	7,150.9	7,150.2	30.8	12.8	176.68	-84.3	27.8	1,561.9	1,537.4	25.40	61.632		
7,350.0	7,166.4	7,160.7	7,160.0	30.8	12.8	176.68	-84.3	27.8	1,561.9	1,537.4	25.40	61.632		
7,400.0	7,215.1	7,209.4	7,208.7	31.0	12.9	176.69	-84.8	28.0	1,586.1	1,561.7	25.76	61.725		
7,450.0	7,263.5	7,257.8	7,257.1	31.2	13.0	176.70	-85.3	28.2	1,610.3	1,585.9	26.12	61.818		
7,500.0	7,311.3	7,305.6	7,304.9	31.3	13.1	176.71	-85.8	28.3	1,634.5	1,609.1	26.48	61.911		
7,550.0	7,358.1	7,352.4	7,351.7	31.5	13.2	176.72	-86.3	28.5	1,658.7	1,633.3	26.84	62.004		
7,600.0	7,403.5	7,397.8	7,397.1	31.6	13.3	176.73	-86.8	28.6	1,682.9	1,657.5	27.20	62.097		
7,650.0	7,447.3	7,441.6	7,440.9	31.7	13.4	176.74	-87.3	28.7	1,707.1	1,681.7	27.56	62.190		
7,700.0	7,489.1	7,483.4	7,482.7	31.7	13.4	176.74	-87.3	28.7	1,731.3	1,705.9	27.92	62.283		
7,750.0	7,528.5	7,522.8	7,522.1	31.8	13.5	176.75	-87.8	28.8	1,755.5	1,730.1	28.28	62.376		
7,800.0	7,565.3	7,559.6	7,558.9	31.8	13.5	176.75	-87.8	28.8	1,779.7	1,754.3	28.64	62.469		
7,850.0	7,599.2	7,593.5	7,592.8	31.9	13.6	176.76	-88.3	28.9	1,803.9	1,778.5	29.00	62.562		
7,900.0	7,629.9	7,624.2	7,623.5	31.9	13.6	176.76	-88.3	28.9	1,828.1	1,802.7	29.36	62.655		
7,950.0	7,657.2	7,651.5	7,650.8	31.9	13.6	176.76	-88.3	28.9	1,852.3	1,826.9	29.72	62.748		
8,000.0	7,680.9	7,675.2	7,674.5	32.0	13.7	176.77	-88.8	29.0	1,876.5	1,851.1	30.08	62.841		
8,050.0	7,700.8	7,695.1	7,694.4	32.0	13.7	176.77	-88.8	29.0	1,900.7	1,875.3	30.44	62.934		
8,100.0	7,716.7	7,711.0	7,710.3	32.0	13.8	176.78	-89.3	29.1	1,924.9	1,899.5	30.80	63.027		
8,150.0	7,728.6	7,722.9	7,722.2	32.1	13.8	176.78	-89.3	29.1	1,949.1	1,923.7	31.16	63.120		
8,200.0	7,736.3	7,730.6	7,729.9	32.1	13.8	176.78	-89.3	29.1	1,973.3	1,947.9	31.52	63.213		
8,250.0	7,739.8	7,734.1	7,733.4	32.2	13.9	176.79	-89.8	29.2	1,997.5	1,972.1	31.88	63.306		
8,266.2	7,740.0	7,734.3	7,733.6	32.2	13.9	176.79	-89.8	29.2	2,021.7	1,996.3	32.24	63.399		
8,300.0	7,740.0	7,734.3	7,733.6	32.3	13.9	176.79	-89.8	29.2	2,045.9	2,020.5	32.60	63.492		
8,400.0	7,740.0	7,734.3	7,733.6	32.5	14.0	176.80	-90.3	29.3	2,070.1	2,044.7	32.96	63.585		
8,500.0	7,740.0	7,734.3	7,733.6	32.8	14.1	176.81	-90.8	29.4	2,094.3	2,069.3	33.32	63.678		
8,600.0	7,740.0	7,734.3	7,733.6	33.2	14.2	176.82	-91.3	29.5	2,118.5	2,093.5	33.68	63.771		
8,700.0	7,740.0	7,734.3	7,733.6	33.7	14.3	176.83	-91.8	29.6	2,142.7	2,117.7	34.04	63.864		
8,800.0	7,740.0	7,734.3	7,733.6	34.3	14.4	176.84	-92.3	29.7	2,166.9	2,141.9	34.40	63.957		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2B-7H-E168 - Hz - Plan #2													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		
8,900.0	7,740.0	7,265.9	7,245.9	34.9	12.7	72.64	15.8	26.1	1,804.1	1,773.0	31.17	57.884		
9,000.0	7,740.0	7,250.0	7,232.6	35.6	12.6	72.20	7.1	26.2	1,845.8	1,813.5	32.31	57.133		
9,100.0	7,740.0	7,226.9	7,212.8	36.4	12.6	71.55	-4.8	26.4	1,891.3	1,857.8	33.46	56.523		
9,200.0	7,740.0	7,200.0	7,189.2	37.3	12.5	70.78	-17.7	26.6	1,940.5	1,905.9	34.62	56.045		
9,300.0	7,740.0	7,200.0	7,189.2	38.2	12.5	70.78	-17.7	26.6	1,993.0	1,957.0	36.00	55.365		
9,400.0	7,740.0	7,181.8	7,172.9	39.2	12.5	70.26	-25.7	26.7	2,048.7	2,011.5	37.28	54.956		
9,500.0	7,740.0	7,169.5	7,161.7	40.2	12.5	69.90	-30.9	26.7	2,107.5	2,068.9	38.62	54.569		
9,600.0	7,740.0	7,150.0	7,143.8	41.3	12.5	69.32	-38.6	26.8	2,169.2	2,129.2	39.92	54.333		
9,700.0	7,740.0	7,150.0	7,143.8	42.4	12.5	69.32	-38.6	26.8	2,233.3	2,191.9	41.39	53.955		
9,800.0	7,740.0	7,150.0	7,143.8	43.6	12.5	69.32	-38.6	26.8	2,300.0	2,257.1	42.88	53.641		
9,900.0	7,740.0	7,129.8	7,124.9	44.8	12.4	68.73	-45.9	26.9	2,368.7	2,324.4	44.20	53.584		
10,000.0	7,740.0	7,121.7	7,117.4	46.0	12.4	68.49	-48.6	26.9	2,439.5	2,393.8	45.64	53.451		
10,100.0	7,740.0	7,100.0	7,096.7	47.3	12.4	67.84	-55.4	27.0	2,512.4	2,465.4	46.95	53.512		
10,200.0	7,740.0	7,100.0	7,096.7	48.6	12.4	67.84	-55.4	27.0	2,586.7	2,538.2	48.47	53.367		
10,300.0	7,740.0	7,100.0	7,096.7	50.0	12.4	67.84	-55.4	27.0	2,662.7	2,612.7	50.00	53.255		
10,400.0	7,740.0	7,100.0	7,096.7	51.3	12.4	67.84	-55.4	27.0	2,740.2	2,688.7	51.54	53.171		
10,500.0	7,740.0	7,100.0	7,096.7	52.7	12.4	67.84	-55.4	27.0	2,819.2	2,766.1	53.08	53.113		
10,600.0	7,740.0	7,100.0	7,096.7	54.1	12.4	67.84	-55.4	27.0	2,899.4	2,844.8	54.63	53.075		
10,700.0	7,740.0	7,079.1	7,076.7	55.6	12.4	67.22	-61.3	27.0	2,980.5	2,924.5	55.94	53.279		
10,800.0	7,740.0	7,074.5	7,072.2	57.0	12.4	67.08	-62.4	27.1	3,062.8	3,005.4	57.44	53.324		
10,900.0	7,740.0	7,050.0	7,048.4	58.5	12.3	66.35	-68.1	27.1	3,146.5	3,087.8	58.68	53.618		
11,000.0	7,740.0	7,050.0	7,048.4	59.9	12.3	66.35	-68.1	27.1	3,230.6	3,170.4	60.24	53.633		
11,100.0	7,740.0	7,050.0	7,048.4	61.4	12.3	66.35	-68.1	27.1	3,315.6	3,253.8	61.79	53.659		
11,200.0	7,740.0	7,050.0	7,048.4	62.9	12.3	66.35	-68.1	27.1	3,401.4	3,338.1	63.35	53.693		
11,300.0	7,740.0	7,050.0	7,048.4	64.5	12.3	66.35	-68.1	27.1	3,488.0	3,423.1	64.91	53.735		
11,400.0	7,740.0	7,050.0	7,048.4	66.0	12.3	66.35	-68.1	27.1	3,575.3	3,508.8	66.47	53.784		
11,500.0	7,740.0	7,050.0	7,048.4	67.5	12.3	66.35	-68.1	27.1	3,663.2	3,595.1	68.04	53.837		
11,600.0	7,740.0	7,050.0	7,048.4	69.1	12.3	66.35	-68.1	27.1	3,751.7	3,682.1	69.61	53.896		
11,700.0	7,740.0	7,050.0	7,048.4	70.7	12.3	66.35	-68.1	27.1	3,840.8	3,769.6	71.18	53.958		
11,800.0	7,740.0	7,050.0	7,048.4	72.2	12.3	66.35	-68.1	27.1	3,930.4	3,857.6	72.75	54.023		
11,900.0	7,740.0	7,050.0	7,048.4	73.8	12.3	66.35	-68.1	27.1	4,020.5	3,946.2	74.33	54.090		
12,000.0	7,740.0	7,050.0	7,048.4	75.4	12.3	66.35	-68.1	27.1	4,111.1	4,035.2	75.91	54.160		
12,100.0	7,740.0	7,050.0	7,048.4	77.0	12.3	66.35	-68.1	27.1	4,202.0	4,124.6	77.48	54.231		
12,200.0	7,740.0	7,050.0	7,048.4	78.6	12.3	66.35	-68.1	27.1	4,293.4	4,214.4	79.06	54.303		
12,300.0	7,740.0	7,028.0	7,026.8	80.2	12.3	65.70	-72.4	27.1	4,384.7	4,304.5	80.25	54.639		
12,400.0	7,740.0	7,025.9	7,024.7	81.8	12.3	65.64	-72.7	27.1	4,476.8	4,395.0	81.79	54.738		
12,500.0	7,740.0	7,023.9	7,022.8	83.4	12.3	65.58	-73.1	27.1	4,569.1	4,485.8	83.32	54.837		
12,600.0	7,740.0	7,000.0	6,999.1	85.1	12.3	64.87	-76.6	27.1	4,662.2	4,577.8	84.43	55.219		
12,700.0	7,740.0	7,000.0	6,999.1	86.7	12.3	64.87	-76.6	27.1	4,755.1	4,669.1	86.00	55.293		
12,800.0	7,740.0	7,000.0	6,999.1	88.3	12.3	64.87	-76.6	27.1	4,848.3	4,760.7	87.57	55.366		
12,900.0	7,740.0	7,000.0	6,999.1	90.0	12.3	64.87	-76.6	27.1	4,941.7	4,852.6	89.14	55.440		
13,000.0	7,740.0	7,000.0	6,999.1	91.6	12.3	64.87	-76.6	27.1	5,035.4	4,944.7	90.71	55.513		
13,100.0	7,740.0	7,000.0	6,999.1	93.3	12.3	64.87	-76.6	27.1	5,129.3	5,037.0	92.28	55.586		
13,200.0	7,740.0	7,000.0	6,999.1	94.9	12.3	64.87	-76.6	27.1	5,223.5	5,129.6	93.85	55.659		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2C-7H-E168 - Hz - Plan #4												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		
0.0	0.0	0.0	0.0	0.0	0.0	90.01	0.0	30.2	30.2					
100.0	100.0	100.0	100.0	0.2	0.2	90.01	0.0	30.2	30.2	29.9	0.30	99.533		
200.0	200.0	200.0	200.0	0.3	0.3	90.01	0.0	30.2	30.2	29.6	0.65	46.307		
300.0	300.0	300.0	300.0	0.5	0.5	19.58	0.0	30.2	29.4	28.4	1.00	29.350		
400.0	400.0	400.0	400.0	0.7	0.7	21.45	0.0	30.2	27.0	25.6	1.35	19.945		
500.0	499.9	499.9	499.9	0.9	0.8	25.45	0.0	30.2	22.9	21.2	1.70	13.479		
600.0	599.7	599.7	599.7	1.1	1.0	34.04	0.0	30.2	17.6	15.6	2.06	8.554		
700.0	699.4	699.2	699.2	1.3	1.2	53.61	-0.1	31.1	12.7	10.3	2.45	5.186		
776.7	775.8	775.6	775.6	1.5	1.3	79.67	-0.3	32.9	11.2	8.4	2.79	4.015 CC, ES		
800.0	798.9	798.8	798.7	1.5	1.4	88.42	-0.4	33.7	11.4	8.5	2.89	3.929 SF		
900.0	898.3	898.4	898.3	1.8	1.6	118.17	-0.9	37.9	15.0	11.7	3.28	4.587		
1,000.0	997.4	998.1	997.8	2.0	1.7	134.92	-1.5	43.1	21.9	18.3	3.62	6.052		
1,100.0	1,096.3	1,097.5	1,097.1	2.3	1.9	145.18	-2.1	48.2	31.2	27.2	3.96	7.875		
1,200.0	1,194.9	1,196.8	1,196.2	2.7	2.1	151.78	-2.7	53.3	42.5	38.2	4.30	9.889		
1,300.0	1,293.3	1,295.8	1,295.1	3.0	2.3	156.30	-3.3	58.4	55.7	51.1	4.64	12.016		
1,400.0	1,391.2	1,394.6	1,393.8	3.4	2.5	159.56	-3.9	63.5	70.8	65.8	4.98	14.218		
1,500.0	1,488.9	1,493.1	1,492.2	3.8	2.7	162.02	-4.5	68.6	87.7	82.3	5.32	16.474		
1,595.5	1,581.8	1,586.9	1,585.9	4.2	2.9	163.86	-5.1	73.5	105.4	99.8	5.65	18.669		
1,600.0	1,586.1	1,591.3	1,590.2	4.2	2.9	163.94	-5.1	73.7	106.3	100.6	5.66	18.770		
1,700.0	1,683.2	1,689.4	1,688.2	4.7	3.1	165.41	-5.7	78.7	125.7	119.7	6.01	20.915		
1,800.0	1,780.2	1,787.4	1,786.1	5.1	3.3	166.50	-6.3	83.8	145.2	138.9	6.36	22.824		
1,900.0	1,877.3	1,885.5	1,884.0	5.6	3.4	167.32	-6.9	88.8	164.8	158.1	6.72	24.534		
2,000.0	1,974.3	1,983.5	1,981.9	6.0	3.6	167.97	-7.5	93.9	184.4	177.3	7.07	26.073		
2,100.0	2,071.4	2,081.5	2,079.8	6.5	3.8	168.49	-8.1	99.0	204.0	196.5	7.43	27.466		
2,200.0	2,168.4	2,179.6	2,177.7	6.9	4.0	168.93	-8.7	104.0	223.6	215.8	7.78	28.731		
2,300.0	2,265.4	2,277.6	2,275.6	7.4	4.2	169.29	-9.3	109.1	243.2	235.1	8.14	29.885		
2,400.0	2,362.5	2,375.7	2,373.6	7.9	4.4	169.60	-9.9	114.1	262.8	254.3	8.49	30.943		
2,500.0	2,459.5	2,473.7	2,471.5	8.3	4.6	169.86	-10.5	119.2	282.5	273.6	8.85	31.915		
2,600.0	2,556.6	2,571.8	2,569.4	8.8	4.8	170.10	-11.1	124.2	302.1	292.9	9.21	32.812		
2,700.0	2,653.6	2,669.8	2,667.3	9.2	5.0	170.30	-11.7	129.3	321.8	312.2	9.56	33.642		
2,800.0	2,750.7	2,767.9	2,765.2	9.7	5.2	170.48	-12.3	134.4	341.4	331.5	9.92	34.412		
2,900.0	2,847.7	2,865.9	2,863.1	10.2	5.4	170.64	-12.9	139.4	361.0	350.8	10.28	35.129		
3,000.0	2,944.8	2,964.0	2,961.0	10.6	5.5	170.78	-13.5	144.5	380.7	370.1	10.63	35.798		
3,100.0	3,041.8	3,062.0	3,058.9	11.1	5.7	170.91	-14.1	149.5	400.4	389.4	10.99	36.423		
3,200.0	3,138.9	3,160.0	3,156.9	11.5	5.9	171.03	-14.7	154.6	420.0	408.7	11.35	37.008		
3,300.0	3,235.9	3,258.1	3,254.8	12.0	6.1	171.14	-15.3	159.6	439.7	428.0	11.71	37.558		
3,400.0	3,333.0	3,356.1	3,352.7	12.5	6.3	171.23	-15.8	164.7	459.3	447.3	12.06	38.075		
3,500.0	3,430.0	3,454.2	3,450.6	12.9	6.5	171.32	-16.4	169.7	479.0	466.6	12.42	38.563		
3,600.0	3,527.1	3,552.2	3,548.5	13.4	6.7	171.41	-17.0	174.8	498.7	485.9	12.78	39.023		
3,700.0	3,624.1	3,650.3	3,646.4	13.9	6.9	171.48	-17.6	179.9	518.3	505.2	13.14	39.458		
3,800.0	3,721.2	3,748.3	3,744.3	14.3	7.1	171.55	-18.2	184.9	538.0	524.5	13.49	39.870		
3,900.0	3,818.2	3,846.4	3,842.3	14.8	7.3	171.62	-18.8	190.0	557.6	543.8	13.85	40.261		
4,000.0	3,915.3	3,944.4	3,940.2	15.3	7.5	171.68	-19.4	195.0	577.3	563.1	14.21	40.632		
4,100.0	4,012.3	4,042.5	4,038.1	15.7	7.7	171.74	-20.0	200.1	597.0	582.4	14.57	40.985		
4,200.0	4,109.4	4,140.5	4,136.0	16.2	7.9	171.79	-20.6	205.1	616.6	601.7	14.92	41.321		
4,300.0	4,206.4	4,238.5	4,233.9	16.6	8.0	171.84	-21.2	210.2	636.3	621.0	15.28	41.641		
4,400.0	4,303.5	4,336.6	4,331.8	17.1	8.2	171.89	-21.8	215.3	656.0	640.3	15.64	41.947		
4,500.0	4,400.5	4,434.6	4,429.7	17.6	8.4	171.93	-22.4	220.3	675.6	659.6	16.00	42.239		
4,600.0	4,497.6	4,532.7	4,527.6	18.0	8.6	171.98	-23.0	225.4	695.3	679.0	16.35	42.518		
4,700.0	4,594.6	4,630.7	4,625.6	18.5	8.8	172.02	-23.6	230.4	715.0	698.3	16.71	42.785		
4,800.0	4,691.7	4,728.8	4,723.5	19.0	9.0	172.05	-24.2	235.5	734.6	717.6	17.07	43.041		
4,900.0	4,788.7	4,826.8	4,821.4	19.4	9.2	172.09	-24.8	240.5	754.3	736.9	17.43	43.286		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2C-7H-E168 - Hz - Plan #4										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
5,000.0	4,885.8	4,924.9	4,919.3	19.9	9.4	172.12	-25.4	245.6	774.0	756.2	17.78	43.522	
5,100.0	4,982.8	5,022.9	5,017.2	20.4	9.6	172.16	-26.0	250.6	793.7	775.5	18.14	43.748	
5,200.0	5,079.9	5,121.0	5,115.1	20.8	9.8	172.19	-26.6	255.7	813.3	794.8	18.50	43.965	
5,300.0	5,176.9	5,219.0	5,213.0	21.3	10.0	172.22	-27.2	260.8	833.0	814.1	18.86	44.175	
5,400.0	5,273.9	5,317.0	5,311.0	21.8	10.2	172.24	-27.8	265.8	852.7	833.4	19.21	44.376	
5,500.0	5,371.0	5,415.1	5,408.9	22.2	10.4	172.27	-28.4	270.9	872.3	852.8	19.57	44.570	
5,600.0	5,468.0	5,513.1	5,506.8	22.7	10.5	172.29	-29.0	275.9	892.0	872.1	19.93	44.757	
5,700.0	5,565.1	5,611.2	5,604.7	23.1	10.7	172.32	-29.5	281.0	911.7	891.4	20.29	44.938	
5,800.0	5,662.1	5,709.2	5,702.6	23.6	10.9	172.34	-30.1	286.0	931.3	910.7	20.65	45.112	
5,900.0	5,759.2	5,807.3	5,800.5	24.1	11.1	172.36	-30.7	291.1	951.0	930.0	21.00	45.280	
6,000.0	5,856.2	5,905.3	5,898.4	24.5	11.3	172.39	-31.3	296.2	970.7	949.3	21.36	45.443	
6,100.0	5,953.3	6,003.4	5,996.3	25.0	11.5	172.41	-31.9	301.2	990.4	968.6	21.72	45.600	
6,200.0	6,050.3	6,101.4	6,094.3	25.5	11.7	172.43	-32.5	306.3	1,010.0	988.0	22.08	45.753	
6,300.0	6,147.4	6,199.5	6,192.2	25.9	11.9	172.45	-33.1	311.3	1,029.7	1,007.3	22.43	45.900	
6,400.0	6,244.4	6,297.5	6,290.1	26.4	12.1	172.46	-33.7	316.4	1,049.4	1,026.6	22.79	46.043	
6,500.0	6,341.5	6,395.5	6,388.0	26.9	12.3	172.48	-34.3	321.4	1,069.0	1,045.9	23.15	46.181	
6,600.0	6,438.5	6,493.6	6,485.9	27.3	12.5	172.50	-34.9	326.5	1,088.7	1,065.2	23.51	46.315	
6,700.0	6,535.6	6,591.6	6,583.8	27.8	12.7	172.51	-35.5	331.5	1,108.4	1,084.5	23.86	46.445	
6,800.0	6,632.6	6,689.7	6,681.7	28.3	12.9	172.53	-36.1	336.6	1,128.1	1,103.8	24.22	46.571	
6,900.0	6,729.7	6,787.7	6,779.7	28.7	13.1	172.55	-36.7	341.7	1,147.7	1,123.1	24.58	46.694	
7,000.0	6,826.7	6,885.8	6,877.6	29.2	13.2	172.56	-37.3	346.7	1,167.4	1,142.5	24.94	46.813	
7,100.0	6,923.8	6,983.8	6,975.5	29.7	13.4	172.57	-37.9	351.8	1,187.1	1,161.8	25.30	46.929	
7,200.0	7,020.8	7,081.9	7,073.4	30.1	13.6	172.59	-38.5	356.8	1,206.7	1,181.1	25.65	47.041	
7,300.0	7,117.9	7,258.0	7,249.0	30.6	14.0	172.88	-33.2	365.8	1,226.2	1,200.1	26.07	47.030	
7,321.2	7,138.4	7,476.5	7,454.0	30.7	14.4	175.97	38.0	375.1	1,227.3	1,201.4	25.93	47.339	
7,350.0	7,166.4	7,678.1	7,607.2	30.8	15.1	170.39	167.3	380.7	1,224.8	1,198.6	26.22	46.710	
7,400.0	7,215.1	7,832.1	7,688.8	31.0	16.0	156.51	297.4	382.7	1,216.3	1,188.4	27.89	43.604	
7,450.0	7,263.5	7,886.2	7,708.8	31.2	16.4	142.16	347.6	382.8	1,207.5	1,178.5	29.06	41.549	
7,500.0	7,311.3	7,904.1	7,714.3	31.3	16.5	131.02	364.7	382.8	1,200.0	1,170.4	29.62	40.520	
7,550.0	7,358.1	7,905.8	7,714.8	31.5	16.6	122.94	366.3	382.8	1,194.2	1,164.4	29.78	40.098	
7,600.0	7,403.5	7,898.9	7,712.8	31.6	16.5	116.95	359.7	382.8	1,190.1	1,160.4	29.71	40.063	
7,650.0	7,447.3	7,887.0	7,709.0	31.7	16.4	112.29	348.4	382.8	1,187.8	1,158.3	29.50	40.270	
7,693.5	7,483.8	7,874.1	7,704.7	31.7	16.3	108.92	336.2	382.8	1,187.2	1,157.9	29.25	40.585	
7,700.0	7,489.1	7,872.0	7,704.0	31.7	16.3	108.46	334.2	382.8	1,187.2	1,158.0	29.21	40.639	
7,750.0	7,528.5	7,854.8	7,697.7	31.8	16.2	105.16	318.2	382.8	1,188.2	1,159.3	28.91	41.106	
7,800.0	7,565.3	7,836.1	7,690.4	31.8	16.0	102.22	301.0	382.7	1,190.6	1,162.0	28.62	41.601	
7,850.0	7,599.2	7,816.3	7,682.0	31.9	15.9	99.52	283.0	382.6	1,194.4	1,166.0	28.37	42.098	
7,900.0	7,629.9	7,795.7	7,672.7	31.9	15.7	97.00	264.7	382.4	1,199.3	1,171.1	28.17	42.576	
7,950.0	7,657.2	7,774.5	7,662.4	31.9	15.6	94.62	246.2	382.2	1,205.1	1,177.1	28.02	43.010	
8,000.0	7,680.9	7,750.0	7,649.6	32.0	15.5	92.25	225.3	381.9	1,211.8	1,183.9	27.88	43.463	
8,050.0	7,700.8	7,730.7	7,639.0	32.0	15.3	90.22	209.2	381.7	1,219.1	1,191.3	27.82	43.818	
8,100.0	7,716.7	7,708.4	7,626.0	32.0	15.2	88.20	191.0	381.3	1,226.9	1,199.2	27.75	44.217	
8,150.0	7,728.6	7,685.8	7,612.1	32.1	15.1	86.30	173.2	380.9	1,234.9	1,207.3	27.68	44.619	
8,200.0	7,736.3	7,663.0	7,597.4	32.1	15.0	84.53	155.8	380.4	1,243.1	1,215.5	27.60	45.038	
8,250.0	7,739.8	7,640.1	7,581.9	32.2	14.9	82.91	138.9	379.9	1,251.2	1,223.7	27.52	45.465	
8,266.2	7,740.0	7,632.6	7,576.7	32.2	14.9	82.42	133.5	379.8	1,253.8	1,226.3	27.50	45.601	
8,300.0	7,740.0	7,617.4	7,566.0	32.3	14.8	81.93	122.8	379.4	1,259.5	1,232.0	27.53	45.751	
8,400.0	7,740.0	7,577.0	7,536.0	32.5	14.7	80.57	95.7	378.3	1,279.9	1,252.1	27.79	46.047	
8,500.0	7,740.0	7,550.0	7,515.0	32.8	14.6	79.63	78.8	377.5	1,305.8	1,277.5	28.33	46.099	
8,600.0	7,740.0	7,500.0	7,474.1	33.2	14.5	77.81	50.2	375.9	1,337.3	1,308.4	28.87	46.326	
8,700.0	7,740.0	7,500.0	7,474.1	33.7	14.5	77.81	50.2	375.9	1,374.2	1,344.3	29.86	46.027	
8,800.0	7,740.0	7,464.3	7,443.4	34.3	14.4	76.46	32.0	374.7	1,416.2	1,385.4	30.72	46.101	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2C-7H-E168 - Hz - Plan #4										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		
8,900.0	7,740.0	7,450.0	7,430.8	34.9	14.3	75.92	25.3	374.1	1,463.2	1,431.4	31.80	46.011		
9,000.0	7,740.0	7,427.3	7,410.5	35.6	14.3	75.04	15.2	373.3	1,514.8	1,482.0	32.90	46.049		
9,100.0	7,740.0	7,400.0	7,385.5	36.4	14.2	73.98	4.2	372.2	1,570.9	1,536.9	34.00	46.200		
9,200.0	7,740.0	7,400.0	7,385.5	37.3	14.2	73.98	4.2	372.2	1,630.5	1,595.1	35.36	46.116		
9,300.0	7,740.0	7,400.0	7,385.5	38.2	14.2	73.98	4.2	372.2	1,693.9	1,657.1	36.75	46.090		
9,400.0	7,740.0	7,375.1	7,362.3	39.2	14.2	73.00	-4.8	371.1	1,760.1	1,722.2	37.97	46.351		
9,500.0	7,740.0	7,350.0	7,338.5	40.2	14.1	72.01	-12.8	370.0	1,829.7	1,790.4	39.20	46.672		
9,600.0	7,740.0	7,350.0	7,338.5	41.3	14.1	72.01	-12.8	370.0	1,901.3	1,860.7	40.67	46.747		
9,700.0	7,740.0	7,350.0	7,338.5	42.4	14.1	72.01	-12.8	370.0	1,975.5	1,933.3	42.16	46.852		
9,800.0	7,740.0	7,350.0	7,338.5	43.6	14.1	72.01	-12.8	370.0	2,051.8	2,008.1	43.67	46.980		
9,900.0	7,740.0	7,350.0	7,338.5	44.8	14.1	72.01	-12.8	370.0	2,130.1	2,084.9	45.20	47.128		
10,000.0	7,740.0	7,327.0	7,316.5	46.0	14.1	71.11	-19.2	369.0	2,209.7	2,163.2	46.49	47.532		
10,100.0	7,740.0	7,321.1	7,310.8	47.3	14.1	70.88	-20.7	368.8	2,291.0	2,243.0	47.96	47.766		
10,200.0	7,740.0	7,300.0	7,290.3	48.6	14.0	70.05	-25.7	367.8	2,373.9	2,324.7	49.26	48.193		
10,300.0	7,740.0	7,300.0	7,290.3	50.0	14.0	70.05	-25.7	367.8	2,457.7	2,406.9	50.81	48.370		
10,400.0	7,740.0	7,300.0	7,290.3	51.3	14.0	70.05	-25.7	367.8	2,542.7	2,490.3	52.37	48.553		
10,500.0	7,740.0	7,300.0	7,290.3	52.7	14.0	70.05	-25.7	367.8	2,628.7	2,574.8	53.94	48.738		
10,600.0	7,740.0	7,300.0	7,290.3	54.1	14.0	70.05	-25.7	367.8	2,715.7	2,660.2	55.51	48.924		
10,700.0	7,740.0	7,300.0	7,290.3	55.6	14.0	70.05	-25.7	367.8	2,803.5	2,746.5	57.09	49.111		
10,800.0	7,740.0	7,300.0	7,290.3	57.0	14.0	70.05	-25.7	367.8	2,892.2	2,833.5	58.67	49.297		
10,900.0	7,740.0	7,300.0	7,290.3	58.5	14.0	70.05	-25.7	367.8	2,981.6	2,921.3	60.26	49.481		
11,000.0	7,740.0	7,300.0	7,290.3	59.9	14.0	70.05	-25.7	367.8	3,071.6	3,009.7	61.85	49.663		
11,100.0	7,740.0	7,300.0	7,290.3	61.4	14.0	70.05	-25.7	367.8	3,162.2	3,098.7	63.44	49.843		
11,200.0	7,740.0	7,277.3	7,268.1	62.9	14.0	69.16	-30.1	366.7	3,252.9	3,188.2	64.67	50.296		
11,300.0	7,740.0	7,274.6	7,265.4	64.5	14.0	69.06	-30.6	366.6	3,344.4	3,278.2	66.22	50.504		
11,400.0	7,740.0	7,272.0	7,262.9	66.0	14.0	68.96	-31.0	366.5	3,436.4	3,368.6	67.77	50.707		
11,500.0	7,740.0	7,250.0	7,241.1	67.5	14.0	68.10	-34.3	365.4	3,529.2	3,460.2	68.97	51.171		
11,600.0	7,740.0	7,250.0	7,241.1	69.1	14.0	68.10	-34.3	365.4	3,621.9	3,551.4	70.56	51.333		
11,700.0	7,740.0	7,250.0	7,241.1	70.7	14.0	68.10	-34.3	365.4	3,715.0	3,642.9	72.15	51.491		
11,800.0	7,740.0	7,250.0	7,241.1	72.2	14.0	68.10	-34.3	365.4	3,808.5	3,734.8	73.74	51.646		
11,900.0	7,740.0	7,250.0	7,241.1	73.8	14.0	68.10	-34.3	365.4	3,902.3	3,827.0	75.34	51.798		
12,000.0	7,740.0	7,250.0	7,241.1	75.4	14.0	68.10	-34.3	365.4	3,996.4	3,919.4	76.93	51.946		
12,100.0	7,740.0	7,250.0	7,241.1	77.0	14.0	68.10	-34.3	365.4	4,090.7	4,012.2	78.53	52.090		
12,200.0	7,740.0	7,250.0	7,241.1	78.6	14.0	68.10	-34.3	365.4	4,185.4	4,105.2	80.13	52.231		
12,300.0	7,740.0	7,250.0	7,241.1	80.2	14.0	68.10	-34.3	365.4	4,280.2	4,198.5	81.73	52.369		
12,400.0	7,740.0	7,250.0	7,241.1	81.8	14.0	68.10	-34.3	365.4	4,375.3	4,292.0	83.33	52.503		
12,500.0	7,740.0	7,250.0	7,241.1	83.4	14.0	68.10	-34.3	365.4	4,470.7	4,385.7	84.94	52.634		
12,600.0	7,740.0	7,250.0	7,241.1	85.1	14.0	68.10	-34.3	365.4	4,566.2	4,479.6	86.54	52.762		
12,700.0	7,740.0	7,250.0	7,241.1	86.7	14.0	68.10	-34.3	365.4	4,661.9	4,573.7	88.15	52.887		
12,800.0	7,740.0	7,250.0	7,241.1	88.3	14.0	68.10	-34.3	365.4	4,757.8	4,668.0	89.75	53.008		
12,900.0	7,740.0	7,250.0	7,241.1	90.0	14.0	68.10	-34.3	365.4	4,853.8	4,762.4	91.36	53.127		
13,000.0	7,740.0	7,250.0	7,241.1	91.6	14.0	68.10	-34.3	365.4	4,950.0	4,857.0	92.97	53.243		
13,100.0	7,740.0	7,250.0	7,241.1	93.3	14.0	68.10	-34.3	365.4	5,046.4	4,951.8	94.58	53.356		
13,200.0	7,740.0	7,250.0	7,241.1	94.9	14.0	68.10	-34.3	365.4	5,142.9	5,046.7	96.19	53.466		
13,300.0	7,740.0	7,250.0	7,241.1	96.6	14.0	68.10	-34.3	365.4	5,239.5	5,141.7	97.80	53.573		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2D-7H-E168 - Hz - Plan #4												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	
0.0	0.0	0.0	0.0	0.0	0.0	90.01	0.0	40.0	40.0				
100.0	100.0	100.0	100.0	0.2	0.2	90.01	0.0	40.0	40.0	39.7	0.30	131.789	
200.0	200.0	200.0	200.0	0.3	0.3	90.01	0.0	40.0	40.0	39.4	0.65	61.314	
300.0	300.0	300.0	300.0	0.5	0.5	19.44	0.0	40.0	39.2	38.2	1.00	39.127	
400.0	400.0	400.0	400.0	0.7	0.7	20.80	0.0	40.0	36.7	35.4	1.35	27.191	
500.0	499.9	499.9	499.9	0.9	0.8	23.53	0.0	40.0	32.7	31.0	1.70	19.214	
600.0	599.7	599.2	599.2	1.1	1.0	28.57	-0.1	40.9	28.1	26.0	2.06	13.653	
700.0	699.4	698.6	698.6	1.3	1.2	37.18	-0.4	43.4	24.0	21.6	2.42	9.914	
800.0	798.9	798.0	797.9	1.5	1.4	50.52	-0.9	47.7	21.2	18.4	2.83	7.494	
880.4	878.8	878.1	877.8	1.7	1.5	64.41	-1.4	52.4	20.4	17.2	3.20	6.369 CC	
900.0	898.3	897.5	897.2	1.8	1.6	68.01	-1.5	53.7	20.4	17.1	3.30	6.203 ES	
1,000.0	997.4	997.1	996.5	2.0	1.8	85.74	-2.4	61.4	22.4	18.6	3.80	5.878 SF	
1,100.0	1,096.3	1,096.7	1,095.7	2.3	2.0	100.58	-3.4	70.4	26.7	22.4	4.31	6.186	
1,200.0	1,194.9	1,196.3	1,194.8	2.7	2.2	113.49	-4.4	79.5	32.9	28.1	4.78	6.879	
1,300.0	1,293.3	1,295.7	1,293.8	3.0	2.4	124.03	-5.4	88.6	41.2	36.0	5.21	7.909	
1,400.0	1,391.2	1,395.0	1,392.7	3.4	2.6	132.31	-6.5	97.6	51.6	46.0	5.61	9.206	
1,500.0	1,488.9	1,494.0	1,491.3	3.8	2.9	138.77	-7.5	106.7	64.0	58.0	5.98	10.705	
1,595.5	1,581.8	1,588.3	1,585.2	4.2	3.1	143.64	-8.4	115.3	77.7	71.4	6.33	12.280	
1,600.0	1,586.1	1,592.7	1,589.6	4.2	3.1	143.84	-8.5	115.7	78.4	72.0	6.34	12.356	
1,700.0	1,683.2	1,691.4	1,687.8	4.7	3.3	147.65	-9.5	124.7	93.8	87.1	6.71	13.990	
1,800.0	1,780.2	1,790.0	1,786.0	5.1	3.6	150.38	-10.5	133.7	109.6	102.5	7.08	15.479	
1,900.0	1,877.3	1,888.6	1,884.3	5.6	3.8	152.42	-11.5	142.7	125.5	118.0	7.46	16.830	
2,000.0	1,974.3	1,987.3	1,982.5	6.0	4.0	154.00	-12.5	151.7	141.5	133.7	7.84	18.056	
2,100.0	2,071.4	2,085.9	2,080.7	6.5	4.2	155.26	-13.5	160.7	157.7	149.4	8.23	19.170	
2,200.0	2,168.4	2,184.6	2,178.9	6.9	4.5	156.28	-14.5	169.6	173.9	165.2	8.61	20.185	
2,300.0	2,265.4	2,283.2	2,277.1	7.4	4.7	157.13	-15.5	178.6	190.1	181.1	9.00	21.113	
2,400.0	2,362.5	2,381.8	2,375.4	7.9	4.9	157.85	-16.5	187.6	206.4	197.0	9.40	21.964	
2,500.0	2,459.5	2,480.5	2,473.6	8.3	5.2	158.46	-17.6	196.6	222.7	212.9	9.79	22.747	
2,600.0	2,556.6	2,579.1	2,571.8	8.8	5.4	158.99	-18.6	205.6	239.0	228.8	10.18	23.469	
2,700.0	2,653.6	2,677.7	2,670.0	9.2	5.6	159.45	-19.6	214.6	255.3	244.7	10.58	24.138	
2,800.0	2,750.7	2,776.4	2,768.3	9.7	5.9	159.85	-20.6	223.6	271.6	260.7	10.97	24.757	
2,900.0	2,847.7	2,875.0	2,866.5	10.2	6.1	160.21	-21.6	232.6	288.0	276.6	11.37	25.334	
3,000.0	2,944.8	2,973.7	2,964.7	10.6	6.3	160.53	-22.6	241.6	304.4	292.6	11.76	25.871	
3,100.0	3,041.8	3,072.3	3,062.9	11.1	6.5	160.82	-23.6	250.6	320.7	308.6	12.16	26.374	
3,200.0	3,138.9	3,170.9	3,161.1	11.5	6.8	161.08	-24.6	259.6	337.1	324.6	12.56	26.844	
3,300.0	3,235.9	3,269.6	3,259.4	12.0	7.0	161.32	-25.6	268.6	353.5	340.6	12.96	27.285	
3,400.0	3,333.0	3,368.2	3,357.6	12.5	7.2	161.53	-26.6	277.6	369.9	356.6	13.35	27.700	
3,500.0	3,430.0	3,466.8	3,455.8	12.9	7.5	161.73	-27.6	286.6	386.3	372.6	13.75	28.091	
3,600.0	3,527.1	3,565.5	3,554.0	13.4	7.7	161.91	-28.6	295.6	402.7	388.6	14.15	28.459	
3,700.0	3,624.1	3,664.1	3,652.3	13.9	7.9	162.07	-29.7	304.6	419.1	404.6	14.55	28.807	
3,800.0	3,721.2	3,762.8	3,750.5	14.3	8.2	162.23	-30.7	313.6	435.5	420.6	14.95	29.137	
3,900.0	3,818.2	3,861.4	3,848.7	14.8	8.4	162.37	-31.7	322.6	451.9	436.6	15.35	29.449	
4,000.0	3,915.3	3,960.0	3,946.9	15.3	8.6	162.50	-32.7	331.6	468.4	452.6	15.75	29.745	
4,100.0	4,012.3	4,058.7	4,045.1	15.7	8.9	162.63	-33.7	340.5	484.8	468.6	16.14	30.027	
4,200.0	4,109.4	4,157.3	4,143.4	16.2	9.1	162.74	-34.7	349.5	501.2	484.7	16.54	30.295	
4,300.0	4,206.4	4,255.9	4,241.6	16.6	9.3	162.85	-35.7	358.5	517.6	500.7	16.94	30.550	
4,400.0	4,303.5	4,354.6	4,339.8	17.1	9.6	162.95	-36.7	367.5	534.0	516.7	17.34	30.794	
4,500.0	4,400.5	4,453.2	4,438.0	17.6	9.8	163.05	-37.7	376.5	550.5	532.7	17.74	31.026	
4,600.0	4,497.6	4,551.9	4,536.2	18.0	10.0	163.14	-38.7	385.5	566.9	548.8	18.14	31.248	
4,700.0	4,594.6	4,650.5	4,634.5	18.5	10.3	163.22	-39.7	394.5	583.3	564.8	18.54	31.461	
4,800.0	4,691.7	4,749.1	4,732.7	19.0	10.5	163.30	-40.7	403.5	599.8	580.8	18.94	31.664	
4,900.0	4,788.7	4,847.8	4,830.9	19.4	10.7	163.38	-41.7	412.5	616.2	596.8	19.34	31.859	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2D-7H-E168 - Hz - Plan #4													Offset Site Error:	0.0 ft
Survey Program: O-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		
5,000.0	4,885.8	4,946.4	4,929.1	19.9	11.0	163.45	-42.8	421.5	632.6	612.9	19.74	32.047		
5,100.0	4,982.8	5,045.1	5,027.4	20.4	11.2	163.52	-43.8	430.5	649.0	628.9	20.14	32.226		
5,200.0	5,079.9	5,143.7	5,125.6	20.8	11.4	163.59	-44.8	439.5	665.5	644.9	20.54	32.399		
5,300.0	5,176.9	5,242.3	5,223.8	21.3	11.7	163.65	-45.8	448.5	681.9	661.0	20.94	32.565		
5,400.0	5,273.9	5,341.0	5,322.0	21.8	11.9	163.71	-46.8	457.5	698.3	677.0	21.34	32.725		
5,500.0	5,371.0	5,439.6	5,420.2	22.2	12.1	163.76	-47.8	466.5	714.8	693.0	21.74	32.878		
5,600.0	5,468.0	5,538.2	5,518.5	22.7	12.4	163.82	-48.8	475.5	731.2	709.1	22.14	33.027		
5,700.0	5,565.1	5,636.9	5,616.7	23.1	12.6	163.87	-49.8	484.5	747.7	725.1	22.54	33.170		
5,800.0	5,662.1	5,735.5	5,714.9	23.6	12.8	163.92	-50.8	493.5	764.1	741.1	22.94	33.307		
5,900.0	5,759.2	5,834.2	5,813.1	24.1	13.1	163.96	-51.8	502.4	780.5	757.2	23.34	33.441		
6,000.0	5,856.2	5,932.8	5,911.4	24.5	13.3	164.01	-52.8	511.4	797.0	773.2	23.74	33.569		
6,100.0	5,953.3	6,031.4	6,009.6	25.0	13.5	164.05	-53.8	520.4	813.4	789.3	24.14	33.694		
6,200.0	6,050.3	6,130.1	6,107.8	25.5	13.8	164.09	-54.9	529.4	829.8	805.3	24.54	33.814		
6,300.0	6,147.4	6,228.7	6,206.0	25.9	14.0	164.13	-55.9	538.4	846.3	821.3	24.94	33.931		
6,400.0	6,244.4	6,327.3	6,304.2	26.4	14.2	164.17	-56.9	547.4	862.7	837.4	25.34	34.043		
6,500.0	6,341.5	6,426.0	6,402.5	26.9	14.5	164.21	-57.9	556.4	879.2	853.4	25.74	34.153		
6,600.0	6,438.5	6,524.6	6,500.7	27.3	14.7	164.25	-58.9	565.4	895.6	869.5	26.14	34.258		
6,700.0	6,535.6	6,623.3	6,598.9	27.8	14.9	164.28	-59.9	574.4	912.0	885.5	26.54	34.361		
6,800.0	6,632.6	6,721.9	6,697.1	28.3	15.2	164.31	-60.9	583.4	928.5	901.5	26.94	34.461		
6,900.0	6,729.7	6,820.5	6,795.3	28.7	15.4	164.34	-61.9	592.4	944.9	917.6	27.34	34.557		
7,000.0	6,826.7	6,919.2	6,893.6	29.2	15.6	164.38	-62.9	601.4	961.4	933.6	27.74	34.651		
7,100.0	6,923.8	7,012.3	6,987.1	29.7	15.8	164.41	-63.9	610.4	977.9	949.7	28.14	34.745		
7,200.0	7,020.8	7,109.8	7,083.6	30.1	16.0	164.44	-64.9	619.4	994.4	966.0	28.54	34.839		
7,300.0	7,117.9	7,217.3	7,191.1	30.6	16.2	164.47	-65.9	628.4	1,010.9	982.4	28.94	34.933		
7,321.2	7,138.4	7,238.3	7,211.5	30.7	16.3	164.48	-66.0	630.0	1,015.0	986.0	29.00	34.960		
7,350.0	7,166.4	7,266.3	7,239.1	30.8	16.4	164.49	-66.1	631.6	1,019.1	989.1	29.06	34.987		
7,400.0	7,215.1	7,315.1	7,288.1	31.0	16.6	164.51	-66.3	634.6	1,025.1	995.1	29.14	35.031		
7,450.0	7,263.5	7,363.5	7,336.5	31.2	16.8	164.53	-66.5	638.1	1,032.1	1,002.1	29.22	35.075		
7,489.0	7,300.9	7,400.9	7,373.9	31.3	16.9	164.54	-66.6	640.7	1,036.7	1,006.7	29.26	35.095		
7,500.0	7,311.3	7,411.3	7,384.3	31.3	16.9	164.55	-66.6	641.6	1,037.6	1,007.6	29.27	35.100		
7,550.0	7,358.1	7,458.1	7,431.1	31.5	17.1	164.57	-66.8	645.6	1,043.6	1,013.6	29.32	35.126		
7,600.0	7,403.5	7,503.5	7,476.5	31.6	17.2	164.58	-66.9	648.6	1,047.6	1,017.6	29.36	35.146		
7,650.0	7,447.3	7,547.3	7,520.3	31.7	17.3	164.59	-67.0	651.6	1,051.6	1,021.6	29.40	35.166		
7,700.0	7,489.1	7,589.1	7,562.1	31.7	17.4	164.60	-67.1	654.6	1,055.6	1,025.6	29.44	35.186		
7,750.0	7,528.5	7,628.5	7,601.5	31.8	17.5	164.61	-67.2	657.6	1,059.6	1,029.6	29.48	35.206		
7,800.0	7,565.3	7,665.3	7,638.3	31.8	17.6	164.62	-67.3	660.6	1,063.6	1,033.6	29.52	35.226		
7,850.0	7,599.2	7,699.2	7,672.2	31.9	17.7	164.63	-67.4	663.6	1,067.6	1,037.6	29.56	35.246		
7,900.0	7,629.9	7,729.9	7,702.9	31.9	17.8	164.64	-67.5	666.6	1,071.6	1,041.6	29.60	35.266		
7,950.0	7,657.2	7,757.2	7,730.2	31.9	17.9	164.65	-67.6	669.6	1,075.6	1,045.6	29.64	35.286		
8,000.0	7,680.9	7,780.9	7,753.9	32.0	18.0	164.66	-67.7	672.6	1,079.6	1,049.6	29.68	35.306		
8,050.0	7,700.8	7,800.8	7,773.8	32.0	18.1	164.67	-67.8	675.6	1,083.6	1,053.6	29.72	35.326		
8,100.0	7,716.7	7,816.7	7,789.7	32.0	18.2	164.68	-67.9	678.6	1,087.6	1,057.6	29.76	35.346		
8,150.0	7,728.6	7,828.6	7,801.6	32.1	18.3	164.69	-68.0	681.6	1,091.6	1,061.6	29.80	35.366		
8,200.0	7,736.3	7,836.3	7,809.3	32.1	18.4	164.70	-68.1	684.6	1,095.6	1,065.6	29.84	35.386		
8,250.0	7,739.8	7,839.8	7,812.8	32.2	18.5	164.71	-68.2	687.6	1,099.6	1,069.6	29.88	35.406		
8,266.2	7,740.0	7,840.0	7,813.0	32.2	18.6	164.72	-68.3	689.6	1,101.6	1,071.6	29.90	35.418		
8,300.0	7,740.0	7,840.0	7,813.0	32.3	18.7	164.73	-68.4	692.6	1,105.6	1,075.6	29.94	35.438		
8,400.0	7,740.0	7,840.0	7,813.0	32.5	18.9	164.75	-68.6	698.6	1,111.6	1,081.6	30.00	35.462		
8,500.0	7,740.0	7,840.0	7,813.0	32.8	19.2	164.78	-68.9	706.6	1,119.6	1,089.6	30.06	35.486		
8,600.0	7,740.0	7,840.0	7,813.0	33.2	19.6	164.82	-69.3	716.6	1,129.6	1,099.6	30.12	35.510		
8,700.0	7,740.0	7,840.0	7,813.0	33.7	20.1	164.87	-69.8	728.6	1,141.6	1,111.6	30.18	35.534		
8,800.0	7,740.0	7,840.0	7,813.0	34.3	20.7	164.93	-70.4	742.6	1,155.6	1,125.6	30.24	35.558		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2D-7H-E168 - Hz - Plan #4											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	
8,900.0	7,740.0	7,323.8	7,271.7	34.9	16.6	64.22	51.0	637.3	1,312.7	1,283.1	29.64	44.283	
9,000.0	7,740.0	7,300.0	7,252.5	35.6	16.5	63.35	37.1	635.3	1,371.9	1,341.3	30.58	44.866	
9,100.0	7,740.0	7,282.5	7,238.0	36.4	16.5	62.70	27.4	633.9	1,434.8	1,403.2	31.62	45.376	
9,200.0	7,740.0	7,250.0	7,210.2	37.3	16.4	61.50	10.7	631.2	1,501.3	1,468.8	32.53	46.153	
9,300.0	7,740.0	7,250.0	7,210.2	38.2	16.4	61.50	10.7	631.2	1,570.4	1,536.5	33.81	46.446	
9,400.0	7,740.0	7,250.0	7,210.2	39.2	16.4	61.50	10.7	631.2	1,642.6	1,607.5	35.12	46.767	
9,500.0	7,740.0	7,220.9	7,184.7	40.2	16.3	60.41	-3.0	628.7	1,716.8	1,680.7	36.11	47.542	
9,600.0	7,740.0	7,200.0	7,165.9	41.3	16.3	59.63	-12.0	626.9	1,793.4	1,756.3	37.19	48.223	
9,700.0	7,740.0	7,200.0	7,165.9	42.4	16.3	59.63	-12.0	626.9	1,871.9	1,833.4	38.55	48.563	
9,800.0	7,740.0	7,200.0	7,165.9	43.6	16.3	59.63	-12.0	626.9	1,952.4	1,912.4	39.92	48.910	
9,900.0	7,740.0	7,177.8	7,145.6	44.8	16.2	58.81	-20.8	624.9	2,034.0	1,993.0	40.99	49.628	
10,000.0	7,740.0	7,150.0	7,119.7	46.0	16.2	57.78	-30.6	622.5	2,117.6	2,075.7	41.95	50.477	
10,100.0	7,740.0	7,150.0	7,119.7	47.3	16.2	57.78	-30.6	622.5	2,201.9	2,158.5	43.33	50.812	
10,200.0	7,740.0	7,150.0	7,119.7	48.6	16.2	57.78	-30.6	622.5	2,287.4	2,242.7	44.72	51.145	
10,300.0	7,740.0	7,150.0	7,119.7	50.0	16.2	57.78	-30.6	622.5	2,374.0	2,327.9	46.12	51.474	
10,400.0	7,740.0	7,150.0	7,119.7	51.3	16.2	57.78	-30.6	622.5	2,461.7	2,414.2	47.53	51.797	
10,500.0	7,740.0	7,150.0	7,119.7	52.7	16.2	57.78	-30.6	622.5	2,550.2	2,501.3	48.94	52.113	
10,600.0	7,740.0	7,127.8	7,098.7	54.1	16.1	56.97	-37.6	620.5	2,639.1	2,589.2	49.94	52.843	
10,700.0	7,740.0	7,122.4	7,093.6	55.6	16.1	56.77	-39.2	620.0	2,729.0	2,677.7	51.25	53.250	
10,800.0	7,740.0	7,100.0	7,072.1	57.0	16.0	55.96	-45.2	617.9	2,819.8	2,767.5	52.21	54.003	
10,900.0	7,740.0	7,100.0	7,072.1	58.5	16.0	55.96	-45.2	617.9	2,910.7	2,857.1	53.62	54.288	
11,000.0	7,740.0	7,100.0	7,072.1	59.9	16.0	55.96	-45.2	617.9	3,002.2	2,947.1	55.02	54.564	
11,100.0	7,740.0	7,100.0	7,072.1	61.4	16.0	55.96	-45.2	617.9	3,094.2	3,037.8	56.43	54.833	
11,200.0	7,740.0	7,100.0	7,072.1	62.9	16.0	55.96	-45.2	617.9	3,186.7	3,128.8	57.84	55.095	
11,300.0	7,740.0	7,100.0	7,072.1	64.5	16.0	55.96	-45.2	617.9	3,279.6	3,220.4	59.25	55.349	
11,400.0	7,740.0	7,100.0	7,072.1	66.0	16.0	55.96	-45.2	617.9	3,373.0	3,312.3	60.67	55.595	
11,500.0	7,740.0	7,100.0	7,072.1	67.5	16.0	55.96	-45.2	617.9	3,466.7	3,404.6	62.09	55.834	
11,600.0	7,740.0	7,100.0	7,072.1	69.1	16.0	55.96	-45.2	617.9	3,560.7	3,497.2	63.51	56.066	
11,700.0	7,740.0	7,100.0	7,072.1	70.7	16.0	55.96	-45.2	617.9	3,655.1	3,590.2	64.93	56.291	
11,800.0	7,740.0	7,100.0	7,072.1	72.2	16.0	55.96	-45.2	617.9	3,749.8	3,683.4	66.36	56.509	
11,900.0	7,740.0	7,076.4	7,049.3	73.8	16.0	55.12	-50.6	615.8	3,844.2	3,777.0	67.16	57.239	
12,000.0	7,740.0	7,073.7	7,046.6	75.4	16.0	55.03	-51.2	615.5	3,939.2	3,870.7	68.50	57.507	
12,100.0	7,740.0	7,050.0	7,023.4	77.0	15.9	54.19	-55.5	613.4	4,034.9	3,965.7	69.26	58.261	
12,200.0	7,740.0	7,050.0	7,023.4	78.6	15.9	54.19	-55.5	613.4	4,130.3	4,059.7	70.66	58.456	
12,300.0	7,740.0	7,050.0	7,023.4	80.2	15.9	54.19	-55.5	613.4	4,225.9	4,153.9	72.06	58.646	
12,400.0	7,740.0	7,050.0	7,023.4	81.8	15.9	54.19	-55.5	613.4	4,321.7	4,248.3	73.46	58.830	
12,500.0	7,740.0	7,050.0	7,023.4	83.4	15.9	54.19	-55.5	613.4	4,417.7	4,342.9	74.86	59.009	
12,600.0	7,740.0	7,050.0	7,023.4	85.1	15.9	54.19	-55.5	613.4	4,513.9	4,437.6	76.27	59.183	
12,700.0	7,740.0	7,050.0	7,023.4	86.7	15.9	54.19	-55.5	613.4	4,610.2	4,532.5	77.68	59.352	
12,800.0	7,740.0	7,050.0	7,023.4	88.3	15.9	54.19	-55.5	613.4	4,706.7	4,627.6	79.08	59.517	
12,900.0	7,740.0	7,050.0	7,023.4	90.0	15.9	54.19	-55.5	613.4	4,803.3	4,722.8	80.49	59.676	
13,000.0	7,740.0	7,050.0	7,023.4	91.6	15.9	54.19	-55.5	613.4	4,900.1	4,818.2	81.90	59.832	
13,100.0	7,740.0	7,050.0	7,023.4	93.3	15.9	54.19	-55.5	613.4	4,997.0	4,913.7	83.31	59.983	
13,200.0	7,740.0	7,050.0	7,023.4	94.9	15.9	54.19	-55.5	613.4	5,094.0	5,009.3	84.72	60.130	
13,300.0	7,740.0	7,050.0	7,023.4	96.6	15.9	54.19	-55.5	613.4	5,191.1	5,105.0	86.13	60.273	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2E-7H-E168 - Hz - Plan #2														Offset Site Error:	0.0 ft
Survey Program: O-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	90.00	0.0	50.1	50.1						
100.0	100.0	100.0	100.0	0.2	0.2	90.00	0.0	50.1	50.1	49.8	0.30	164.967			
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	50.1	50.1	49.4	0.65	76.749			
300.0	300.0	300.0	300.0	0.5	0.5	19.35	0.0	50.1	49.3	48.3	1.00	49.184			
400.0	400.0	400.0	400.0	0.7	0.7	20.42	0.0	50.1	46.8	45.5	1.35	34.645			
500.0	499.9	499.1	499.1	0.9	0.8	22.47	-0.1	51.0	43.6	41.9	1.70	25.651			
600.0	599.7	598.3	598.3	1.1	1.0	25.78	-0.2	53.5	40.6	38.6	2.05	19.793			
700.0	699.4	697.5	697.4	1.3	1.2	30.60	-0.5	57.8	38.0	35.6	2.41	15.750			
800.0	798.9	796.8	796.5	1.5	1.4	37.08	-1.0	63.8	36.0	33.2	2.79	12.884			
900.0	898.3	896.1	895.5	1.8	1.6	45.18	-1.5	71.5	34.9	31.6	3.21	10.857			
946.4	944.3	942.2	941.4	1.9	1.7	49.39	-1.8	75.7	34.7	31.3	3.42	10.138 CC			
1,000.0	997.4	995.4	994.3	2.0	1.8	54.48	-2.2	80.9	34.9	31.2	3.68	9.474 ES			
1,100.0	1,096.3	1,094.8	1,093.1	2.3	2.1	64.21	-2.9	92.0	36.4	32.2	4.23	8.603			
1,200.0	1,194.9	1,194.5	1,192.1	2.7	2.3	74.78	-3.8	103.8	38.7	33.9	4.85	7.986			
1,300.0	1,293.3	1,294.1	1,291.0	3.0	2.6	86.20	-4.6	115.5	42.1	36.6	5.52	7.628			
1,400.0	1,391.2	1,393.6	1,389.8	3.4	2.8	97.71	-5.4	127.2	47.0	40.9	6.17	7.622 SF			
1,500.0	1,488.9	1,492.9	1,488.4	3.8	3.1	108.46	-6.2	138.8	54.1	47.3	6.77	7.991			
1,595.5	1,581.8	1,587.6	1,582.4	4.2	3.3	117.52	-7.0	150.0	62.9	55.6	7.26	8.666			
1,600.0	1,586.1	1,592.0	1,586.8	4.2	3.3	117.91	-7.0	150.5	63.4	56.1	7.28	8.705			
1,700.0	1,683.2	1,691.0	1,685.1	4.7	3.6	125.38	-7.9	162.1	74.4	66.7	7.72	9.633			
1,800.0	1,780.2	1,790.0	1,783.4	5.1	3.8	130.87	-8.7	173.7	86.4	78.2	8.14	10.605			
1,900.0	1,877.3	1,888.9	1,881.7	5.6	4.1	135.00	-9.5	185.4	98.9	90.4	8.55	11.562			
2,000.0	1,974.3	1,987.9	1,980.0	6.0	4.4	138.19	-10.3	197.0	111.9	102.9	8.97	12.476			
2,100.0	2,071.4	2,086.9	2,078.3	6.5	4.6	140.71	-11.1	208.7	125.1	115.7	9.38	13.335			
2,200.0	2,168.4	2,185.9	2,176.6	6.9	4.9	142.75	-11.9	220.3	138.5	128.7	9.80	14.138			
2,300.0	2,265.4	2,284.9	2,274.9	7.4	5.2	144.43	-12.8	231.9	152.0	141.8	10.21	14.885			
2,400.0	2,362.5	2,383.9	2,373.2	7.9	5.4	145.83	-13.6	243.6	165.7	155.1	10.64	15.579			
2,500.0	2,459.5	2,482.9	2,471.5	8.3	5.7	147.02	-14.4	255.2	179.4	168.4	11.06	16.224			
2,600.0	2,556.6	2,581.9	2,569.8	8.8	6.0	148.04	-15.2	266.8	193.3	181.8	11.49	16.825			
2,700.0	2,653.6	2,680.9	2,668.1	9.2	6.2	148.93	-16.0	278.5	207.1	195.2	11.91	17.384			
2,800.0	2,750.7	2,779.8	2,766.4	9.7	6.5	149.70	-16.8	290.1	221.0	208.7	12.34	17.905			
2,900.0	2,847.7	2,878.8	2,864.7	10.2	6.7	150.38	-17.7	301.7	235.0	222.2	12.77	18.393			
3,000.0	2,944.8	2,977.8	2,963.0	10.6	7.0	150.99	-18.5	313.4	248.9	235.7	13.21	18.849			
3,100.0	3,041.8	3,076.8	3,061.3	11.1	7.3	151.53	-19.3	325.0	262.9	249.3	13.64	19.276			
3,200.0	3,138.9	3,175.8	3,159.6	11.5	7.5	152.01	-20.1	336.6	276.9	262.9	14.07	19.678			
3,300.0	3,235.9	3,274.8	3,257.9	12.0	7.8	152.45	-20.9	348.3	291.0	276.4	14.51	20.055			
3,400.0	3,333.0	3,373.8	3,356.2	12.5	8.1	152.85	-21.7	359.9	305.0	290.1	14.94	20.411			
3,500.0	3,430.0	3,472.8	3,454.5	12.9	8.3	153.21	-22.6	371.5	319.1	303.7	15.38	20.747			
3,600.0	3,527.1	3,571.7	3,552.8	13.4	8.6	153.55	-23.4	383.2	333.1	317.3	15.82	21.064			
3,700.0	3,624.1	3,670.7	3,651.1	13.9	8.9	153.85	-24.2	394.8	347.2	331.0	16.25	21.364			
3,800.0	3,721.2	3,769.7	3,749.4	14.3	9.1	154.13	-25.0	406.4	361.3	344.6	16.69	21.648			
3,900.0	3,818.2	3,868.7	3,847.7	14.8	9.4	154.40	-25.8	418.1	375.4	358.3	17.13	21.918			
4,000.0	3,915.3	3,967.7	3,946.0	15.3	9.7	154.64	-26.6	429.7	389.5	371.9	17.57	22.174			
4,100.0	4,012.3	4,066.7	4,044.3	15.7	9.9	154.86	-27.5	441.3	403.6	385.6	18.00	22.418			
4,200.0	4,109.4	4,165.7	4,142.6	16.2	10.2	155.07	-28.3	453.0	417.7	399.3	18.44	22.650			
4,300.0	4,206.4	4,264.7	4,240.9	16.6	10.5	155.27	-29.1	464.6	431.8	413.0	18.88	22.871			
4,400.0	4,303.5	4,363.6	4,339.2	17.1	10.7	155.45	-29.9	476.2	446.0	426.6	19.32	23.082			
4,500.0	4,400.5	4,462.6	4,437.5	17.6	11.0	155.63	-30.7	487.9	460.1	440.3	19.76	23.284			
4,600.0	4,497.6	4,561.6	4,535.8	18.0	11.3	155.79	-31.5	499.5	474.2	454.0	20.20	23.477			
4,700.0	4,594.6	4,660.6	4,634.1	18.5	11.5	155.94	-32.4	511.2	488.4	467.7	20.64	23.662			
4,800.0	4,691.7	4,759.6	4,732.4	19.0	11.8	156.08	-33.2	522.8	502.5	481.4	21.08	23.839			
4,900.0	4,788.7	4,858.6	4,830.7	19.4	12.1	156.22	-34.0	534.4	516.7	495.1	21.52	24.008			

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2E-7H-E168 - Hz - Plan #2											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
5,000.0	4,885.8	4,957.6	4,929.0	19.9	12.4	156.35	-34.8	546.1	530.8	508.8	21.96	24.171	
5,100.0	4,982.8	5,056.6	5,027.3	20.4	12.6	156.47	-35.6	557.7	544.9	522.5	22.40	24.327	
5,200.0	5,079.9	5,155.5	5,125.6	20.8	12.9	156.59	-36.4	569.3	559.1	536.3	22.84	24.478	
5,300.0	5,176.9	5,254.5	5,223.9	21.3	13.2	156.70	-37.3	581.0	573.2	550.0	23.28	24.622	
5,400.0	5,273.9	5,353.5	5,322.2	21.8	13.4	156.80	-38.1	592.6	587.4	563.7	23.72	24.761	
5,500.0	5,371.0	5,452.5	5,420.4	22.2	13.7	156.90	-38.9	604.2	601.6	577.4	24.16	24.896	
5,600.0	5,468.0	5,551.5	5,518.7	22.7	14.0	157.00	-39.7	615.9	615.7	591.1	24.60	25.025	
5,700.0	5,565.1	5,650.5	5,617.0	23.1	14.2	157.09	-40.5	627.5	629.9	604.8	25.05	25.149	
5,800.0	5,662.1	5,749.5	5,715.3	23.6	14.5	157.18	-41.3	639.1	644.0	618.6	25.49	25.270	
5,900.0	5,759.2	5,848.5	5,813.6	24.1	14.8	157.26	-42.2	650.8	658.2	632.3	25.93	25.386	
6,000.0	5,856.2	5,947.4	5,911.9	24.5	15.0	157.34	-43.0	662.4	672.4	646.0	26.37	25.498	
6,100.0	5,953.3	6,046.4	6,010.2	25.0	15.3	157.42	-43.8	674.0	686.5	659.7	26.81	25.607	
6,200.0	6,050.3	6,145.4	6,108.5	25.5	15.6	157.49	-44.6	685.7	700.7	673.4	27.25	25.712	
6,300.0	6,147.4	6,244.4	6,206.8	25.9	15.8	157.56	-45.4	697.3	714.9	687.2	27.69	25.813	
6,400.0	6,244.4	6,343.4	6,305.1	26.4	16.1	157.63	-46.2	708.9	729.0	700.9	28.14	25.912	
6,500.0	6,341.5	6,442.4	6,403.4	26.9	16.4	157.70	-47.1	720.6	743.2	714.6	28.58	26.007	
6,600.0	6,438.5	6,541.4	6,501.7	27.3	16.6	157.76	-47.9	732.2	757.4	728.4	29.02	26.100	
6,700.0	6,535.6	6,640.4	6,600.0	27.8	16.9	157.82	-48.7	743.8	771.5	742.1	29.46	26.190	
6,800.0	6,632.6	6,739.3	6,698.3	28.3	17.2	157.88	-49.5	755.5	785.7	755.8	29.90	26.277	
6,900.0	6,729.7	6,838.3	6,796.6	28.7	17.4	157.93	-50.3	767.1	799.9	769.6	30.34	26.361	
7,000.0	6,826.7	6,937.3	6,894.9	29.2	17.7	157.99	-51.1	778.7	814.1	783.3	30.79	26.443	
7,100.0	6,923.8	7,036.3	6,993.2	29.7	18.0	158.04	-51.9	790.4	828.2	797.0	31.23	26.523	
7,200.0	7,020.8	7,135.3	7,091.5	30.1	18.2	158.09	-52.8	802.0	842.4	810.7	31.67	26.600	
7,300.0	7,117.9	7,200.0	7,159.6	30.6	19.8	169.29	140.1	860.1	849.7	821.8	27.92	30.433	
7,321.2	7,138.4	7,871.8	7,689.4	30.7	20.6	178.85	283.8	869.8	840.9	814.4	26.50	31.728	
7,350.0	7,166.4	7,971.4	7,722.1	30.8	21.3	175.71	377.7	872.9	827.3	799.5	27.75	29.811	
7,400.0	7,215.1	8,024.3	7,732.8	31.0	21.7	161.54	429.5	873.7	803.5	773.5	30.05	26.743	
7,450.0	7,263.5	8,033.1	7,734.1	31.2	21.7	146.93	438.1	873.7	781.7	750.5	31.23	25.033	
7,500.0	7,311.3	8,026.8	7,733.2	31.3	21.7	135.76	431.9	873.7	762.5	730.8	31.70	24.050	
7,550.0	7,358.1	8,013.7	7,731.1	31.5	21.6	127.71	419.0	873.5	746.0	714.3	31.73	23.509	
7,600.0	7,403.5	7,996.9	7,727.9	31.6	21.5	121.72	402.5	873.3	732.6	701.1	31.47	23.281	
7,650.0	7,447.3	7,977.9	7,723.7	31.7	21.3	116.97	384.0	873.0	722.2	691.1	31.02	23.283	
7,700.0	7,489.1	7,957.6	7,718.6	31.7	21.2	112.96	364.3	872.5	714.8	684.3	30.46	23.469	
7,750.0	7,528.5	7,936.2	7,712.4	31.8	21.0	109.38	343.9	872.0	710.4	680.5	29.87	23.784	
7,800.0	7,565.3	7,914.2	7,705.3	31.8	20.9	106.04	323.1	871.3	708.9	679.5	29.31	24.185	
7,802.9	7,567.4	7,912.9	7,704.9	31.8	20.9	105.85	321.8	871.3	708.8	679.6	29.28	24.210	
7,850.0	7,599.2	7,891.7	7,697.2	31.9	20.8	102.84	302.1	870.6	710.0	681.2	28.83	24.631	
7,900.0	7,629.9	7,868.8	7,688.1	31.9	20.6	99.71	281.1	869.7	713.6	685.2	28.44	25.088	
7,950.0	7,657.2	7,845.6	7,678.1	31.9	20.5	96.63	260.2	868.7	719.4	691.2	28.16	25.549	
8,000.0	7,680.9	7,822.2	7,667.2	32.0	20.4	93.60	239.6	867.6	727.1	699.1	27.96	26.002	
8,050.0	7,700.8	7,800.0	7,656.0	32.0	20.3	90.70	220.4	866.4	736.4	708.6	27.82	26.467	
8,100.0	7,716.7	7,775.0	7,642.5	32.0	20.1	87.72	199.3	865.0	747.0	719.3	27.69	26.974	
8,150.0	7,728.6	7,750.0	7,628.2	32.1	20.0	84.85	178.9	863.5	758.5	731.0	27.54	27.539	
8,200.0	7,736.3	7,727.2	7,614.4	32.1	19.9	82.23	160.9	862.0	770.8	743.4	27.41	28.124	
8,250.0	7,739.8	7,700.0	7,596.9	32.2	19.8	79.55	140.1	860.1	783.5	756.3	27.21	28.801	
8,266.2	7,740.0	7,700.0	7,596.9	32.2	19.8	79.15	140.1	860.1	787.7	760.5	27.22	28.935	
8,300.0	7,740.0	7,679.6	7,583.2	32.3	19.7	78.16	125.0	858.6	796.8	769.6	27.17	29.326	
8,400.0	7,740.0	7,637.1	7,553.1	32.5	19.6	76.03	95.4	855.3	828.8	801.5	27.30	30.361	
8,500.0	7,740.0	7,600.0	7,525.0	32.8	19.5	74.09	71.3	852.2	868.0	840.4	27.64	31.409	
8,600.0	7,740.0	7,569.2	7,500.5	33.2	19.4	72.45	52.8	849.5	914.3	886.1	28.18	32.442	
8,700.0	7,740.0	7,550.0	7,484.8	33.7	19.3	71.41	41.9	847.7	967.0	938.0	28.95	33.400	
8,800.0	7,740.0	7,518.2	7,458.0	34.3	19.2	69.69	25.1	844.7	1,025.2	995.5	29.68	34.543	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2E-7H-E168 - Hz - Plan #2													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)				
8,900.0	7,740.0	7,500.0	7,442.2	34.9	19.2	68.70	16.1	842.9	1,088.6	1,058.0	30.62	35.555		
9,000.0	7,740.0	7,479.1	7,423.8	35.6	19.1	67.57	6.5	840.8	1,156.4	1,124.8	31.58	36.617		
9,100.0	7,740.0	7,450.0	7,397.6	36.4	19.0	66.00	-5.8	837.8	1,228.1	1,195.6	32.47	37.821		
9,200.0	7,740.0	7,450.0	7,397.6	37.3	19.0	66.00	-5.8	837.8	1,302.7	1,269.0	33.76	38.584		
9,300.0	7,740.0	7,450.0	7,397.6	38.2	19.0	66.00	-5.8	837.8	1,380.6	1,345.5	35.09	39.338		
9,400.0	7,740.0	7,423.8	7,373.5	39.2	19.0	64.59	-15.7	835.0	1,460.3	1,424.2	36.08	40.476		
9,500.0	7,740.0	7,400.0	7,351.2	40.2	18.9	63.34	-23.7	832.5	1,542.6	1,505.5	37.09	41.591		
9,600.0	7,740.0	7,400.0	7,351.2	41.3	18.9	63.34	-23.7	832.5	1,626.3	1,587.8	38.47	42.270		
9,700.0	7,740.0	7,400.0	7,351.2	42.4	18.9	63.34	-23.7	832.5	1,711.8	1,671.9	39.88	42.925		
9,800.0	7,740.0	7,400.0	7,351.2	43.6	18.9	63.34	-23.7	832.5	1,798.7	1,757.4	41.30	43.555		
9,900.0	7,740.0	7,379.7	7,332.0	44.8	18.9	62.28	-29.8	830.3	1,886.5	1,844.2	42.37	44.529		
10,000.0	7,740.0	7,373.0	7,325.6	46.0	18.9	61.93	-31.7	829.5	1,975.6	1,931.9	43.67	45.236		
10,100.0	7,740.0	7,350.0	7,303.5	47.3	18.8	60.76	-37.5	827.0	2,065.8	2,021.2	44.66	46.257		
10,200.0	7,740.0	7,350.0	7,303.5	48.6	18.8	60.76	-37.5	827.0	2,156.4	2,110.3	46.09	46.784		
10,300.0	7,740.0	7,350.0	7,303.5	50.0	18.8	60.76	-37.5	827.0	2,247.8	2,200.3	47.53	47.288		
10,400.0	7,740.0	7,350.0	7,303.5	51.3	18.8	60.76	-37.5	827.0	2,339.9	2,290.9	48.98	47.770		
10,500.0	7,740.0	7,350.0	7,303.5	52.7	18.8	60.76	-37.5	827.0	2,432.6	2,382.2	50.44	48.230		
10,600.0	7,740.0	7,350.0	7,303.5	54.1	18.8	60.76	-37.5	827.0	2,525.9	2,474.0	51.90	48.669		
10,700.0	7,740.0	7,350.0	7,303.5	55.6	18.8	60.76	-37.5	827.0	2,619.7	2,566.3	53.37	49.090		
10,800.0	7,740.0	7,350.0	7,303.5	57.0	18.8	60.76	-37.5	827.0	2,713.9	2,659.0	54.84	49.491		
10,900.0	7,740.0	7,350.0	7,303.5	58.5	18.8	60.76	-37.5	827.0	2,808.5	2,752.2	56.31	49.875		
11,000.0	7,740.0	7,326.8	7,281.0	59.9	18.7	59.60	-42.5	824.3	2,902.9	2,845.8	57.18	50.769		
11,100.0	7,740.0	7,323.6	7,277.9	61.4	18.7	59.45	-43.1	824.0	2,998.1	2,939.5	58.56	51.198		
11,200.0	7,740.0	7,300.0	7,254.8	62.9	18.7	58.29	-47.1	821.3	3,093.9	3,034.6	59.36	52.120		
11,300.0	7,740.0	7,300.0	7,254.8	64.5	18.7	58.29	-47.1	821.3	3,189.5	3,128.7	60.81	52.448		
11,400.0	7,740.0	7,300.0	7,254.8	66.0	18.7	58.29	-47.1	821.3	3,285.4	3,223.1	62.27	52.763		
11,500.0	7,740.0	7,300.0	7,254.8	67.5	18.7	58.29	-47.1	821.3	3,381.5	3,317.7	63.72	53.065		
11,600.0	7,740.0	7,300.0	7,254.8	69.1	18.7	58.29	-47.1	821.3	3,477.8	3,412.6	65.18	53.355		
11,700.0	7,740.0	7,300.0	7,254.8	70.7	18.7	58.29	-47.1	821.3	3,574.3	3,507.6	66.64	53.634		
11,800.0	7,740.0	7,300.0	7,254.8	72.2	18.7	58.29	-47.1	821.3	3,671.0	3,602.9	68.10	53.903		
11,900.0	7,740.0	7,300.0	7,254.8	73.8	18.7	58.29	-47.1	821.3	3,767.8	3,698.3	69.57	54.161		
12,000.0	7,740.0	7,300.0	7,254.8	75.4	18.7	58.29	-47.1	821.3	3,864.9	3,793.8	71.03	54.410		
12,100.0	7,740.0	7,300.0	7,254.8	77.0	18.7	58.29	-47.1	821.3	3,962.0	3,889.5	72.50	54.649		
12,200.0	7,740.0	7,300.0	7,254.8	78.6	18.7	58.29	-47.1	821.3	4,059.4	3,985.4	73.97	54.880		
12,300.0	7,740.0	7,300.0	7,254.8	80.2	18.7	58.29	-47.1	821.3	4,156.8	4,081.4	75.44	55.103		
12,400.0	7,740.0	7,300.0	7,254.8	81.8	18.7	58.29	-47.1	821.3	4,254.4	4,177.5	76.91	55.317		
12,500.0	7,740.0	7,300.0	7,254.8	83.4	18.7	58.29	-47.1	821.3	4,352.0	4,273.7	78.38	55.525		
12,600.0	7,740.0	7,300.0	7,254.8	85.1	18.7	58.29	-47.1	821.3	4,449.8	4,370.0	79.85	55.725		
12,700.0	7,740.0	7,300.0	7,254.8	86.7	18.7	58.29	-47.1	821.3	4,547.7	4,466.4	81.33	55.919		
12,800.0	7,740.0	7,300.0	7,254.8	88.3	18.7	58.29	-47.1	821.3	4,645.6	4,562.8	82.80	56.106		
12,900.0	7,740.0	7,300.0	7,254.8	90.0	18.7	58.29	-47.1	821.3	4,743.7	4,659.4	84.28	56.287		
13,000.0	7,740.0	7,300.0	7,254.8	91.6	18.7	58.29	-47.1	821.3	4,841.8	4,756.1	85.75	56.462		
13,100.0	7,740.0	7,300.0	7,254.8	93.3	18.7	58.29	-47.1	821.3	4,940.0	4,852.8	87.23	56.632		
13,200.0	7,740.0	7,300.0	7,254.8	94.9	18.7	58.29	-47.1	821.3	5,038.3	4,949.6	88.71	56.796		
13,300.0	7,740.0	7,300.0	7,254.8	96.6	18.7	58.29	-47.1	821.3	5,136.6	5,046.4	90.19	56.956		
13,400.0	7,740.0	7,300.0	7,254.8	98.2	18.7	58.29	-47.1	821.3	5,235.0	5,143.4	91.67	57.110		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2F-7H-E168 - Hz - Plan #3													Offset Site Error:	0.0 ft
Survey Program: O-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		
0.0	0.0	0.0	0.0	0.0	0.0	90.35	-0.4	60.2	60.2					
100.0	100.0	100.0	100.0	0.2	0.2	90.35	-0.4	60.2	60.2	59.9	0.30	198.148		
200.0	200.0	200.0	200.0	0.3	0.3	90.35	-0.4	60.2	60.2	59.5	0.65	92.187		
300.0	300.0	300.0	300.0	0.5	0.5	19.64	-0.4	60.2	59.4	58.4	1.00	59.244		
400.0	400.0	399.0	399.0	0.7	0.7	20.39	-0.3	61.0	57.7	56.4	1.35	42.791		
500.0	499.9	498.0	498.0	0.9	0.9	21.51	0.1	63.6	56.2	54.5	1.70	33.105		
600.0	599.7	597.0	596.9	1.1	1.0	23.03	0.7	67.8	54.8	52.8	2.05	26.738		
700.0	699.4	696.1	695.8	1.3	1.2	24.97	1.5	73.7	53.5	51.1	2.41	22.245		
800.0	798.9	795.2	794.6	1.5	1.4	27.35	2.6	81.4	52.4	49.7	2.77	18.911		
900.0	898.3	894.3	893.2	1.8	1.7	30.17	3.8	90.7	51.5	48.4	3.15	16.342		
1,000.0	997.4	993.4	991.7	2.0	1.9	33.42	5.4	101.7	50.9	47.4	3.56	14.301		
1,100.0	1,096.3	1,092.6	1,090.0	2.3	2.2	37.06	7.1	114.4	50.6	46.6	4.01	12.640		
1,124.0	1,120.0	1,116.4	1,113.6	2.4	2.2	37.99	7.6	117.7	50.6	46.5	4.12	12.282	CC	
1,200.0	1,194.9	1,191.7	1,188.1	2.7	2.5	41.04	9.1	128.8	50.8	46.3	4.51	11.262		
1,300.0	1,293.3	1,290.9	1,286.0	3.0	2.8	45.28	11.3	144.8	51.3	46.2	5.08	10.109	ES	
1,400.0	1,391.2	1,390.1	1,383.5	3.4	3.1	49.68	13.8	162.6	52.4	46.6	5.73	9.142		
1,500.0	1,488.9	1,489.8	1,481.3	3.8	3.5	54.45	16.4	181.7	53.7	47.2	6.48	8.282		
1,595.5	1,581.8	1,585.2	1,574.9	4.2	3.8	60.19	19.0	200.0	54.4	47.1	7.32	7.438		
1,600.0	1,586.1	1,589.6	1,579.3	4.2	3.8	60.49	19.1	200.9	54.5	47.1	7.36	7.400		
1,700.0	1,683.2	1,689.4	1,677.2	4.7	4.2	67.05	21.7	220.1	55.5	47.2	8.32	6.675		
1,800.0	1,780.2	1,789.2	1,775.1	5.1	4.6	73.28	24.4	239.2	57.3	48.0	9.30	6.163		
1,900.0	1,877.3	1,889.0	1,873.0	5.6	4.9	79.08	27.0	258.4	59.7	49.5	10.27	5.816		
2,000.0	1,974.3	1,988.8	1,970.9	6.0	5.3	84.37	29.7	277.6	62.7	51.5	11.21	5.592		
2,100.0	2,071.4	2,088.6	2,068.8	6.5	5.7	89.15	32.3	296.8	66.2	54.0	12.11	5.461		
2,200.0	2,168.4	2,188.4	2,166.7	6.9	6.1	93.44	35.0	316.0	70.0	57.1	12.98	5.396		
2,300.0	2,265.4	2,288.2	2,264.6	7.4	6.4	97.25	37.6	335.2	74.3	60.5	13.80	5.380	SF	
2,400.0	2,362.5	2,388.0	2,362.5	7.9	6.8	100.64	40.3	354.3	78.8	64.2	14.59	5.399		
2,500.0	2,459.5	2,487.8	2,460.3	8.3	7.2	103.66	43.0	373.5	83.5	68.2	15.35	5.443		
2,600.0	2,556.6	2,587.6	2,558.2	8.8	7.6	106.34	45.6	392.7	88.5	72.4	16.08	5.504		
2,700.0	2,653.6	2,687.4	2,656.1	9.2	8.0	108.74	48.3	411.9	93.6	76.8	16.79	5.576		
2,800.0	2,750.7	2,787.2	2,754.0	9.7	8.4	110.88	50.9	431.1	98.9	81.4	17.49	5.657		
2,900.0	2,847.7	2,886.9	2,851.9	10.2	8.7	112.80	53.6	450.3	104.3	86.2	18.17	5.743		
3,000.0	2,944.8	2,986.7	2,949.8	10.6	9.1	114.54	56.2	469.4	109.9	91.0	18.83	5.833		
3,100.0	3,041.8	3,086.5	3,047.7	11.1	9.5	116.10	58.9	488.6	115.5	96.0	19.49	5.923		
3,200.0	3,138.9	3,186.3	3,145.6	11.5	9.9	117.52	61.5	507.8	121.1	101.0	20.14	6.014		
3,300.0	3,235.9	3,286.1	3,243.5	12.0	10.3	118.81	64.2	527.0	126.9	106.1	20.79	6.104		
3,400.0	3,333.0	3,385.9	3,341.4	12.5	10.6	119.99	66.8	546.2	132.7	111.3	21.43	6.193		
3,500.0	3,430.0	3,485.7	3,439.3	12.9	11.0	121.07	69.5	565.4	138.6	116.5	22.06	6.281		
3,600.0	3,527.1	3,585.5	3,537.2	13.4	11.4	122.06	72.1	584.5	144.5	121.8	22.69	6.366		
3,700.0	3,624.1	3,685.3	3,635.1	13.9	11.8	122.98	74.8	603.7	150.4	127.1	23.32	6.450		
3,800.0	3,721.2	3,785.1	3,733.0	14.3	12.2	123.82	77.4	622.9	156.4	132.5	23.95	6.531		
3,900.0	3,818.2	3,884.9	3,830.9	14.8	12.6	124.60	80.1	642.1	162.4	137.9	24.57	6.610		
4,000.0	3,915.3	3,984.7	3,928.8	15.3	12.9	125.33	82.7	661.3	168.5	143.3	25.19	6.687		
4,100.0	4,012.3	4,084.5	4,026.7	15.7	13.3	126.00	85.4	680.5	174.5	148.7	25.81	6.761		
4,200.0	4,109.4	4,184.3	4,124.6	16.2	13.7	126.63	88.0	699.6	180.6	154.2	26.43	6.833		
4,300.0	4,206.4	4,284.1	4,222.5	16.6	14.1	127.22	90.7	718.8	186.7	159.7	27.05	6.903		
4,400.0	4,303.5	4,383.9	4,320.4	17.1	14.5	127.77	93.3	738.0	192.9	165.2	27.67	6.971		
4,500.0	4,400.5	4,483.7	4,418.3	17.6	14.9	128.29	96.0	757.2	199.0	170.7	28.29	7.036		
4,600.0	4,497.6	4,583.5	4,516.2	18.0	15.3	128.78	98.6	776.4	205.2	176.3	28.90	7.099		
4,700.0	4,594.6	4,683.3	4,614.1	18.5	15.6	129.24	101.3	795.6	211.4	181.8	29.52	7.161		
4,800.0	4,691.7	4,783.1	4,712.0	19.0	16.0	129.67	104.0	814.8	217.5	187.4	30.13	7.220		
4,900.0	4,788.7	4,882.9	4,809.9	19.4	16.4	130.08	106.6	833.9	223.7	193.0	30.74	7.277		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2F-7H-E168 - Hz - Plan #3												Offset Site Error:	0.0 ft
Survey Program: O-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
5,000.0	4,885.8	4,982.7	4,907.8	19.9	16.8	130.46	109.3	853.1	229.9	198.6	31.36	7.333	
5,100.0	4,982.8	5,082.4	5,005.7	20.4	17.2	130.83	111.9	872.3	236.2	204.2	31.97	7.387	
5,200.0	5,079.9	5,182.2	5,103.6	20.8	17.6	131.17	114.6	891.5	242.4	209.8	32.58	7.439	
5,300.0	5,176.9	5,282.0	5,201.5	21.3	17.9	131.50	117.2	910.7	248.6	215.4	33.20	7.489	
5,400.0	5,273.9	5,381.8	5,299.4	21.8	18.3	131.82	119.9	929.9	254.9	221.1	33.81	7.538	
5,500.0	5,371.0	5,481.6	5,397.3	22.2	18.7	132.12	122.5	949.0	261.1	226.7	34.42	7.586	
5,600.0	5,468.0	5,581.4	5,495.2	22.7	19.1	132.40	125.2	968.2	267.4	232.4	35.04	7.632	
5,700.0	5,565.1	5,681.2	5,593.1	23.1	19.5	132.67	127.8	987.4	273.7	238.0	35.65	7.677	
5,800.0	5,662.1	5,781.0	5,691.0	23.6	19.9	132.93	130.5	1,006.6	279.9	243.7	36.26	7.720	
5,900.0	5,759.2	5,880.8	5,788.9	24.1	20.3	133.18	133.1	1,025.8	286.2	249.3	36.87	7.762	
6,000.0	5,856.2	5,980.6	5,886.8	24.5	20.6	133.42	135.8	1,045.0	292.5	255.0	37.48	7.803	
6,100.0	5,953.3	6,080.4	5,984.7	25.0	21.0	133.64	138.4	1,064.1	298.8	260.7	38.10	7.843	
6,200.0	6,050.3	6,180.2	6,082.6	25.5	21.4	133.86	141.1	1,083.3	305.1	266.4	38.71	7.881	
6,300.0	6,147.4	6,280.0	6,180.5	25.9	21.8	134.07	143.7	1,102.5	311.4	272.0	39.32	7.919	
6,400.0	6,244.4	6,379.8	6,278.4	26.4	22.2	134.27	146.4	1,121.7	317.7	277.7	39.93	7.955	
6,500.0	6,341.5	6,479.6	6,376.3	26.9	22.6	134.46	149.0	1,140.9	324.0	283.4	40.54	7.990	
6,600.0	6,438.5	6,579.4	6,474.2	27.3	22.9	134.65	151.7	1,160.1	330.3	289.1	41.16	8.025	
6,700.0	6,535.6	6,679.2	6,572.1	27.8	23.3	134.83	154.3	1,179.2	336.6	294.8	41.77	8.058	
6,800.0	6,632.6	6,779.0	6,670.0	28.3	23.7	135.00	157.0	1,198.4	342.9	300.5	42.38	8.091	
6,900.0	6,729.7	6,878.8	6,767.9	28.7	24.1	135.17	159.6	1,217.6	349.2	306.2	42.99	8.123	
7,000.0	6,826.7	6,978.6	6,865.8	29.2	24.5	135.33	162.3	1,236.8	355.5	311.9	43.60	8.154	
7,100.0	6,923.8	7,091.7	6,976.7	29.7	24.9	135.54	165.8	1,258.5	361.7	317.4	44.23	8.178	
7,200.0	7,020.8	7,311.2	7,183.6	30.1	25.9	139.77	221.7	1,299.5	347.1	304.3	42.83	8.104	
7,300.0	7,117.9	7,481.7	7,321.0	30.6	26.8	150.13	317.6	1,327.3	305.8	268.5	37.34	8.190	
7,321.2	7,138.4	7,510.4	7,341.1	30.7	27.0	153.01	337.6	1,331.4	295.0	259.3	35.73	8.257	
7,350.0	7,166.4	7,544.9	7,364.0	30.8	27.2	147.08	363.1	1,336.1	279.4	246.7	32.69	8.548	
7,400.0	7,215.1	7,592.0	7,392.7	31.0	27.5	137.31	399.9	1,342.0	250.4	222.5	27.91	8.971	
7,450.0	7,263.5	7,625.1	7,411.0	31.2	27.7	130.64	427.3	1,345.8	222.1	195.7	26.41	8.409	
7,500.0	7,311.3	7,647.3	7,422.4	31.3	27.8	126.84	446.2	1,348.2	198.2	170.1	28.07	7.061	
7,550.0	7,358.1	7,661.0	7,429.1	31.5	27.9	123.91	458.0	1,349.6	182.9	152.7	30.17	6.061	
7,586.6	7,391.5	7,666.8	7,431.8	31.5	28.0	121.45	463.1	1,350.2	179.3	148.2	31.03	5.777	
7,600.0	7,403.5	7,668.1	7,432.4	31.6	28.0	120.41	464.3	1,350.3	179.8	148.6	31.17	5.766	
7,650.0	7,447.3	7,670.2	7,433.4	31.7	28.0	115.68	466.1	1,350.5	190.1	159.1	30.92	6.147	
7,700.0	7,489.1	7,668.3	7,432.5	31.7	28.0	109.44	464.4	1,350.4	211.9	182.1	29.80	7.112	
7,750.0	7,528.5	7,663.2	7,430.1	31.8	27.9	101.70	460.0	1,349.8	242.0	213.6	28.40	8.522	
7,800.0	7,565.3	7,650.0	7,423.7	31.8	27.8	91.13	448.5	1,348.5	277.3	250.2	27.09	10.234	
7,850.0	7,599.2	7,650.0	7,423.7	31.9	27.8	84.17	448.5	1,348.5	315.4	288.6	26.81	11.764	
7,900.0	7,629.9	7,634.6	7,416.0	31.9	27.7	73.63	435.3	1,346.9	355.0	328.5	26.51	13.392	
7,950.0	7,657.2	7,621.9	7,409.3	31.9	27.7	64.91	424.6	1,345.5	395.2	369.1	26.11	15.138	
8,000.0	7,680.9	7,600.0	7,397.2	32.0	27.5	56.30	406.5	1,342.9	435.4	410.1	25.24	17.247	
8,050.0	7,700.8	7,600.0	7,397.2	32.0	27.5	51.70	406.5	1,342.9	474.7	450.7	24.06	19.727	
8,100.0	7,716.7	7,577.6	7,384.2	32.0	27.4	45.85	388.4	1,340.2	513.1	490.5	22.54	22.763	
8,150.0	7,728.6	7,550.0	7,367.2	32.1	27.2	41.04	367.0	1,336.7	550.5	529.5	21.00	26.218	
8,200.0	7,736.3	7,550.0	7,367.2	32.1	27.2	38.61	367.0	1,336.7	586.0	565.9	20.12	29.123	
8,250.0	7,739.8	7,526.8	7,352.2	32.2	27.1	35.70	349.6	1,333.6	620.0	600.4	19.63	31.594	
8,266.2	7,740.0	7,521.1	7,348.4	32.2	27.0	34.97	345.4	1,332.9	630.7	611.1	19.65	32.094	
8,300.0	7,740.0	7,500.0	7,334.0	32.3	26.9	34.29	330.3	1,329.9	653.2	633.6	19.54	33.420	
8,400.0	7,740.0	7,476.9	7,317.6	32.5	26.8	33.56	314.4	1,326.6	722.2	702.5	19.72	36.621	
8,500.0	7,740.0	7,450.0	7,297.7	32.8	26.6	32.73	296.7	1,322.5	795.3	775.4	19.93	39.902	
8,600.0	7,740.0	7,422.5	7,276.6	33.2	26.5	31.91	279.6	1,318.2	871.8	851.6	20.21	43.141	
8,700.0	7,740.0	7,400.0	7,258.7	33.7	26.3	31.26	266.5	1,314.6	951.1	930.5	20.57	46.228	
8,800.0	7,740.0	7,379.0	7,241.6	34.3	26.2	30.67	254.8	1,311.2	1,032.8	1,011.8	20.99	49.194	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2F-7H-E168 - Hz - Plan #3											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	
8,900.0	7,740.0	7,350.0	7,217.2	34.9	26.1	29.89	239.8	1,306.3	1,116.6	1,095.3	21.37	52.259	
9,000.0	7,740.0	7,350.0	7,217.2	35.6	26.1	29.89	239.8	1,306.3	1,202.0	1,180.0	22.02	54.587	
9,100.0	7,740.0	7,328.7	7,199.0	36.4	26.0	29.34	229.6	1,302.6	1,288.9	1,266.4	22.50	57.283	
9,200.0	7,740.0	7,300.0	7,173.7	37.3	25.8	28.63	217.0	1,297.5	1,377.5	1,354.6	22.92	60.096	
9,300.0	7,740.0	7,300.0	7,173.7	38.2	25.8	28.63	217.0	1,297.5	1,466.6	1,443.0	23.61	62.106	
9,400.0	7,740.0	7,300.0	7,173.7	39.2	25.8	28.63	217.0	1,297.5	1,557.0	1,532.7	24.32	64.013	
9,500.0	7,740.0	7,280.6	7,156.3	40.2	25.8	28.18	209.2	1,294.1	1,648.1	1,623.2	24.85	66.329	
9,600.0	7,740.0	7,271.0	7,147.5	41.3	25.7	27.95	205.5	1,292.3	1,740.0	1,714.6	25.47	68.316	
9,700.0	7,740.0	7,250.0	7,128.3	42.4	25.6	27.49	198.1	1,288.5	1,832.8	1,806.8	25.98	70.559	
9,800.0	7,740.0	7,250.0	7,128.3	43.6	25.6	27.49	198.1	1,288.5	1,925.8	1,899.1	26.70	72.121	
9,900.0	7,740.0	7,250.0	7,128.3	44.8	25.6	27.49	198.1	1,288.5	2,019.5	1,992.0	27.44	73.602	
10,000.0	7,740.0	7,250.0	7,128.3	46.0	25.6	27.49	198.1	1,288.5	2,113.7	2,085.6	28.18	75.008	
10,100.0	7,740.0	7,250.0	7,128.3	47.3	25.6	27.49	198.1	1,288.5	2,208.5	2,179.6	28.93	76.342	
10,200.0	7,740.0	7,226.4	7,106.3	48.6	25.5	26.98	190.5	1,284.1	2,303.1	2,273.7	29.38	78.378	
10,300.0	7,740.0	7,220.6	7,100.9	50.0	25.5	26.86	188.9	1,283.0	2,398.4	2,368.3	30.06	79.792	
10,400.0	7,740.0	7,200.0	7,081.4	51.3	25.4	26.44	183.3	1,279.2	2,494.2	2,463.7	30.54	81.672	
10,500.0	7,740.0	7,200.0	7,081.4	52.7	25.4	26.44	183.3	1,279.2	2,589.9	2,558.7	31.28	82.794	
10,600.0	7,740.0	7,200.0	7,081.4	54.1	25.4	26.44	183.3	1,279.2	2,686.0	2,654.0	32.03	83.864	
10,700.0	7,740.0	7,200.0	7,081.4	55.6	25.4	26.44	183.3	1,279.2	2,782.3	2,749.5	32.78	84.886	
10,800.0	7,740.0	7,200.0	7,081.4	57.0	25.4	26.44	183.3	1,279.2	2,878.9	2,845.3	33.53	85.861	
10,900.0	7,740.0	7,200.0	7,081.4	58.5	25.4	26.44	183.3	1,279.2	2,975.6	2,941.4	34.28	86.793	
11,000.0	7,740.0	7,200.0	7,081.4	59.9	25.4	26.44	183.3	1,279.2	3,072.6	3,037.6	35.04	87.684	
11,100.0	7,740.0	7,200.0	7,081.4	61.4	25.4	26.44	183.3	1,279.2	3,169.8	3,134.0	35.80	88.536	
11,200.0	7,740.0	7,200.0	7,081.4	62.9	25.4	26.44	183.3	1,279.2	3,267.2	3,230.6	36.56	89.353	
11,300.0	7,740.0	7,178.5	7,060.9	64.5	25.3	26.03	178.2	1,275.1	3,364.2	3,327.2	36.97	91.002	
11,400.0	7,740.0	7,175.4	7,058.0	66.0	25.3	25.97	177.5	1,274.5	3,461.7	3,424.1	37.67	91.892	
11,500.0	7,740.0	7,172.4	7,055.1	67.5	25.3	25.91	176.9	1,274.0	3,559.4	3,521.0	38.38	92.748	
11,600.0	7,740.0	7,150.0	7,033.5	69.1	25.2	25.50	172.7	1,269.7	3,657.5	3,618.7	38.74	94.400	
11,700.0	7,740.0	7,150.0	7,033.5	70.7	25.2	25.50	172.7	1,269.7	3,755.2	3,715.7	39.49	95.091	
11,800.0	7,740.0	7,150.0	7,033.5	72.2	25.2	25.50	172.7	1,269.7	3,853.1	3,812.8	40.24	95.756	
11,900.0	7,740.0	7,150.0	7,033.5	73.8	25.2	25.50	172.7	1,269.7	3,951.1	3,910.1	40.99	96.397	
12,000.0	7,740.0	7,150.0	7,033.5	75.4	25.2	25.50	172.7	1,269.7	4,049.1	4,007.4	41.74	97.014	
12,100.0	7,740.0	7,150.0	7,033.5	77.0	25.2	25.50	172.7	1,269.7	4,147.3	4,104.8	42.49	97.609	
12,200.0	7,740.0	7,150.0	7,033.5	78.6	25.2	25.50	172.7	1,269.7	4,245.5	4,202.3	43.24	98.182	
12,300.0	7,740.0	7,150.0	7,033.5	80.2	25.2	25.50	172.7	1,269.7	4,343.8	4,299.9	43.99	98.736	
12,400.0	7,740.0	7,150.0	7,033.5	81.8	25.2	25.50	172.7	1,269.7	4,442.2	4,397.5	44.75	99.271	
12,500.0	7,740.0	7,150.0	7,033.5	83.4	25.2	25.50	172.7	1,269.7	4,540.7	4,495.2	45.50	99.788	
12,600.0	7,740.0	7,150.0	7,033.5	85.1	25.2	25.50	172.7	1,269.7	4,639.3	4,593.0	46.26	100.287	
12,700.0	7,740.0	7,150.0	7,033.5	86.7	25.2	25.50	172.7	1,269.7	4,737.8	4,690.8	47.02	100.770	
12,800.0	7,740.0	7,150.0	7,033.5	88.3	25.2	25.50	172.7	1,269.7	4,836.5	4,788.7	47.77	101.238	
12,900.0	7,740.0	7,150.0	7,033.5	90.0	25.2	25.50	172.7	1,269.7	4,935.2	4,886.7	48.53	101.690	
13,000.0	7,740.0	7,150.0	7,033.5	91.6	25.2	25.50	172.7	1,269.7	5,034.0	4,984.7	49.29	102.129	
13,100.0	7,740.0	7,150.0	7,033.5	93.3	25.2	25.50	172.7	1,269.7	5,132.8	5,082.7	50.05	102.553	
13,200.0	7,740.0	7,150.0	7,033.5	94.9	25.2	25.50	172.7	1,269.7	5,231.6	5,180.8	50.81	102.965	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2G-7H-E168 - Hz - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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		
0.0	0.0	0.0	0.0	0.0	0.0	90.31	-0.4	70.0	70.0					
100.0	100.0	100.0	100.0	0.2	0.2	90.31	-0.4	70.0	70.0	69.7	0.30	230.404		
200.0	200.0	200.0	200.0	0.3	0.3	90.31	-0.4	70.0	70.0	69.3	0.65	107.193		
300.0	300.0	299.4	299.4	0.5	0.5	19.58	-0.4	70.2	69.4	68.4	1.00	69.304		
400.0	400.0	398.2	398.2	0.7	0.7	20.54	-0.7	71.9	68.6	67.3	1.35	50.884		
500.0	499.9	497.0	497.0	0.9	0.9	22.25	-1.3	75.2	68.0	66.3	1.70	40.048		
600.0	599.7	595.8	595.6	1.1	1.0	24.70	-2.2	80.2	67.5	65.5	2.05	32.955		
689.1	688.5	683.9	683.4	1.3	1.2	27.51	-3.2	86.1	67.4	65.0	2.37	28.461		
700.0	699.4	694.6	694.1	1.3	1.2	27.89	-3.4	86.9	67.4	65.0	2.41	28.000		
800.0	798.9	793.3	792.5	1.5	1.5	31.78	-4.8	95.3	67.7	64.9	2.77	24.389		
900.0	898.3	892.0	890.7	1.8	1.7	36.28	-6.6	105.4	68.6	65.4	3.16	21.679		
1,000.0	997.4	990.6	988.6	2.0	2.0	41.27	-8.7	117.0	70.3	66.7	3.58	19.601		
1,100.0	1,096.3	1,089.2	1,086.2	2.3	2.2	46.55	-11.0	130.4	72.9	68.9	4.05	17.981		
1,200.0	1,194.9	1,187.7	1,183.5	2.7	2.5	51.92	-13.7	145.4	76.6	72.1	4.59	16.704		
1,300.0	1,293.3	1,286.0	1,280.4	3.0	2.9	57.19	-16.6	162.0	81.6	76.4	5.20	15.698		
1,400.0	1,391.2	1,384.3	1,376.9	3.4	3.2	62.19	-19.8	180.2	87.7	81.9	5.88	14.915		
1,500.0	1,488.9	1,482.5	1,473.0	3.8	3.6	66.81	-23.3	200.0	95.2	88.5	6.65	14.315		
1,595.5	1,581.8	1,576.2	1,564.4	4.2	4.0	70.82	-26.9	220.4	103.4	96.0	7.45	13.885		
1,600.0	1,586.1	1,580.6	1,568.6	4.2	4.0	70.99	-27.1	221.4	103.8	96.3	7.49	13.869		
1,700.0	1,683.2	1,678.5	1,663.8	4.7	4.4	74.35	-31.1	244.4	113.9	105.6	8.36	13.637		
1,800.0	1,780.2	1,777.2	1,759.2	5.1	4.9	76.60	-35.4	269.2	125.4	116.2	9.23	13.587		
1,900.0	1,877.3	1,878.4	1,857.0	5.6	5.4	78.05	-38.6	295.1	136.3	126.2	10.12	13.462		
2,000.0	1,974.3	1,980.0	1,955.1	6.0	5.9	78.88	-40.0	321.3	145.8	134.8	11.02	13.230		
2,100.0	2,071.4	2,081.0	2,052.9	6.5	6.3	79.70	-40.5	346.6	154.1	142.2	11.91	12.944		
2,200.0	2,168.4	2,182.0	2,151.1	6.9	6.7	80.98	-40.9	370.2	161.7	148.9	12.82	12.616		
2,300.0	2,265.4	2,281.6	2,248.2	7.4	7.2	82.39	-41.3	392.6	168.9	155.2	13.73	12.300		
2,400.0	2,362.5	2,381.3	2,345.3	7.9	7.6	83.69	-41.8	415.0	176.2	161.6	14.65	12.028		
2,500.0	2,459.5	2,480.9	2,442.4	8.3	8.0	84.89	-42.2	437.4	183.6	168.0	15.57	11.794		
2,600.0	2,556.6	2,580.6	2,539.5	8.8	8.5	85.99	-42.6	459.8	191.0	174.6	16.48	11.590		
2,700.0	2,653.6	2,680.2	2,636.6	9.2	8.9	87.01	-43.0	482.2	198.6	181.2	17.40	11.412		
2,800.0	2,750.7	2,779.9	2,733.7	9.7	9.3	87.95	-43.4	504.6	206.2	187.8	18.32	11.255		
2,900.0	2,847.7	2,879.6	2,830.8	10.2	9.8	88.83	-43.8	527.0	213.8	194.6	19.23	11.117		
3,000.0	2,944.8	2,979.2	2,927.9	10.6	10.2	89.64	-44.2	549.4	221.5	201.3	20.14	10.994		
3,100.0	3,041.8	3,078.9	3,025.0	11.1	10.6	90.40	-44.7	571.8	229.2	208.1	21.06	10.885		
3,200.0	3,138.9	3,178.5	3,122.1	11.5	11.1	91.12	-45.1	594.2	237.0	215.0	21.97	10.787		
3,300.0	3,235.9	3,278.2	3,219.2	12.0	11.5	91.78	-45.5	616.7	244.8	221.9	22.88	10.699		
3,400.0	3,333.0	3,377.8	3,316.3	12.5	11.9	92.41	-45.9	639.1	252.6	228.8	23.78	10.619		
3,500.0	3,430.0	3,477.5	3,413.4	12.9	12.4	93.00	-46.3	661.5	260.4	235.7	24.69	10.548		
3,600.0	3,527.1	3,577.2	3,510.5	13.4	12.8	93.55	-46.7	683.9	268.3	242.7	25.60	10.482		
3,700.0	3,624.1	3,676.8	3,607.6	13.9	13.2	94.07	-47.1	706.3	276.2	249.7	26.50	10.423		
3,800.0	3,721.2	3,776.5	3,704.7	14.3	13.7	94.56	-47.6	728.7	284.1	256.7	27.40	10.369		
3,900.0	3,818.2	3,876.1	3,801.8	14.8	14.1	95.03	-48.0	751.1	292.1	263.8	28.30	10.319		
4,000.0	3,915.3	3,975.8	3,898.9	15.3	14.5	95.47	-48.4	773.5	300.0	270.8	29.21	10.274		
4,100.0	4,012.3	4,075.4	3,996.0	15.7	15.0	95.89	-48.8	795.9	308.0	277.9	30.10	10.232		
4,200.0	4,109.4	4,175.1	4,093.1	16.2	15.4	96.29	-49.2	818.3	316.0	285.0	31.00	10.193		
4,300.0	4,206.4	4,274.8	4,190.2	16.6	15.8	96.66	-49.6	840.7	324.0	292.1	31.90	10.158		
4,400.0	4,303.5	4,374.4	4,287.4	17.1	16.3	97.02	-50.1	863.1	332.1	299.3	32.80	10.125		
4,500.0	4,400.5	4,474.1	4,384.5	17.6	16.7	97.37	-50.5	885.5	340.1	306.4	33.69	10.094		
4,600.0	4,497.6	4,573.7	4,481.6	18.0	17.1	97.69	-50.9	908.0	348.1	313.5	34.59	10.065		
4,700.0	4,594.6	4,673.4	4,578.7	18.5	17.6	98.01	-51.3	930.4	356.2	320.7	35.48	10.039		
4,800.0	4,691.7	4,773.0	4,675.8	19.0	18.0	98.30	-51.7	952.8	364.3	327.9	36.37	10.014		
4,900.0	4,788.7	4,872.7	4,772.9	19.4	18.5	98.59	-52.1	975.2	372.3	335.1	37.27	9.991		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2G-7H-E168 - Hz - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-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
5,000.0	4,885.8	4,972.3	4,870.0	19.9	18.9	98.86	-52.5	997.6	380.4	342.3	38.16	9.969	
5,100.0	4,982.8	5,072.0	4,967.1	20.4	19.3	99.12	-53.0	1,020.0	388.5	349.5	39.05	9.949	
5,200.0	5,079.9	5,171.7	5,064.2	20.8	19.8	99.37	-53.4	1,042.4	396.6	356.7	39.94	9.930	
5,300.0	5,176.9	5,271.3	5,161.3	21.3	20.2	99.62	-53.8	1,064.8	404.7	363.9	40.83	9.912	
5,400.0	5,273.9	5,371.0	5,258.4	21.8	20.6	99.85	-54.2	1,087.2	412.8	371.1	41.72	9.895	
5,500.0	5,371.0	5,470.6	5,355.5	22.2	21.1	100.07	-54.6	1,109.6	421.0	378.4	42.61	9.879	
5,600.0	5,468.0	5,570.3	5,452.6	22.7	21.5	100.28	-55.0	1,132.0	429.1	385.6	43.50	9.865	
5,700.0	5,565.1	5,669.9	5,549.7	23.1	21.9	100.49	-55.4	1,154.4	437.2	392.8	44.39	9.850	
5,800.0	5,662.1	5,769.6	5,646.8	23.6	22.4	100.69	-55.9	1,176.8	445.4	400.1	45.27	9.837	
5,900.0	5,759.2	5,869.3	5,743.9	24.1	22.8	100.88	-56.3	1,199.3	453.5	407.3	46.16	9.824	
6,000.0	5,856.2	5,968.9	5,841.0	24.5	23.2	101.06	-56.7	1,221.7	461.7	414.6	47.05	9.812	
6,100.0	5,953.3	6,068.6	5,938.1	25.0	23.7	101.24	-57.1	1,244.1	469.8	421.9	47.93	9.801	
6,200.0	6,050.3	6,168.2	6,035.2	25.5	24.1	101.42	-57.5	1,266.5	478.0	429.1	48.82	9.790	
6,300.0	6,147.4	6,267.9	6,132.3	25.9	24.6	101.58	-57.9	1,288.9	486.1	436.4	49.71	9.780	
6,400.0	6,244.4	6,367.5	6,229.4	26.4	25.0	101.74	-58.4	1,311.3	494.3	443.7	50.59	9.770	
6,500.0	6,341.5	6,467.2	6,326.5	26.9	25.4	101.90	-58.8	1,333.7	502.5	451.0	51.48	9.761	
6,600.0	6,438.5	6,566.9	6,423.6	27.3	25.9	102.05	-59.2	1,356.1	510.6	458.3	52.36	9.752	
6,700.0	6,535.6	6,666.5	6,520.7	27.8	26.3	102.20	-59.6	1,378.5	518.8	465.6	53.24	9.744	
6,800.0	6,632.6	6,766.2	6,617.8	28.3	26.7	102.34	-60.0	1,400.9	527.0	472.9	54.13	9.736	
6,900.0	6,729.7	6,865.8	6,714.9	28.7	27.2	102.47	-60.4	1,423.3	535.2	480.2	55.01	9.728	
7,000.0	6,826.7	6,965.5	6,812.1	29.2	27.6	102.61	-60.8	1,445.7	543.4	487.5	55.90	9.721	
7,100.0	6,923.8	7,065.1	6,909.2	29.7	28.0	102.74	-61.3	1,468.1	551.6	494.8	56.78	9.714	
7,200.0	7,020.8	7,164.8	7,006.3	30.1	28.5	102.86	-61.7	1,490.6	559.7	502.1	57.66	9.707	
7,300.0	7,117.9	7,264.4	7,103.4	30.6	28.9	102.98	-62.1	1,513.0	567.9	509.4	58.54	9.701	
7,321.2	7,138.4	7,285.5	7,123.9	30.7	29.0	103.01	-62.2	1,517.7	569.7	510.9	58.73	9.700	
7,350.0	7,166.4	7,314.3	7,152.0	30.8	29.1	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
7,400.0	7,215.1	7,363.5	7,202.6	31.0	29.3	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
7,450.0	7,263.5	7,412.9	7,250.4	31.2	29.5	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
7,500.0	7,311.3	7,461.3	7,300.0	31.3	29.6	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
7,550.0	7,358.1	7,510.1	7,347.0	31.5	29.8	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
7,600.0	7,403.5	7,555.5	7,392.0	31.6	29.9	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
7,650.0	7,447.3	7,600.1	7,435.0	31.7	30.0	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
7,700.0	7,489.1	7,642.9	7,474.0	31.7	30.1	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
7,750.0	7,528.5	7,682.9	7,514.0	31.8	30.2	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
7,800.0	7,565.3	7,719.9	7,551.0	31.8	30.3	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
7,850.0	7,599.2	7,754.9	7,586.0	31.9	30.4	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
7,900.0	7,629.9	7,785.9	7,616.0	31.9	30.5	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
7,950.0	7,657.2	7,813.9	7,644.0	31.9	30.6	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
7,975.1	7,669.5	7,826.9	7,656.0	31.9	30.7	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
8,000.0	7,680.9	7,838.9	7,667.0	32.0	30.8	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
8,050.0	7,700.8	7,858.9	7,687.0	32.0	30.9	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
8,100.0	7,716.7	7,874.9	7,703.0	32.0	31.0	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
8,150.0	7,728.6	7,886.9	7,715.0	32.1	31.1	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
8,200.0	7,736.3	7,894.9	7,723.0	32.1	31.2	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
8,250.0	7,739.8	7,898.9	7,726.0	32.2	31.3	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
8,266.2	7,740.0	7,899.9	7,727.0	32.2	31.3	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
8,300.0	7,740.0	7,900.9	7,727.0	32.3	31.4	91.43	-62.3	1,524.2	571.3	512.3	59.04	9.678	
8,400.0	7,740.0	7,900.9	7,727.0	32.5	30.8	-0.93	61.1	1,610.2	336.7	318.9	17.82	18.894	
8,500.0	7,740.0	7,900.9	7,727.0	32.8	30.7	0.35	44.6	1,605.3	416.5	398.6	17.92	23.239	
8,600.0	7,740.0	7,900.9	7,727.0	33.2	30.5	2.23	17.3	1,596.0	499.8	481.8	17.96	27.822	
8,700.0	7,740.0	7,900.9	7,727.0	33.7	30.5	2.71	9.8	1,593.1	585.5	567.3	18.18	32.206	
8,800.0	7,740.0	7,900.9	7,727.0	34.3	30.3	3.69	-6.2	1,586.2	673.8	655.5	18.34	36.732	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2G-7H-E168 - Hz - Plan #2												Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		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)	Uncertainty Axis	Factor	
8,900.0	7,740.0	7,600.0	7,422.2	34.9	30.3	3.69	-6.2	1,586.2	763.4	744.8	18.61	41.014	
9,000.0	7,740.0	7,576.2	7,401.1	35.6	30.2	4.27	-16.1	1,581.4	854.5	835.7	18.83	45.383	
9,100.0	7,740.0	7,550.0	7,377.4	36.4	30.1	4.85	-25.8	1,576.0	946.9	927.9	19.05	49.707	
9,200.0	7,740.0	7,550.0	7,377.4	37.3	30.1	4.85	-25.8	1,576.0	1,040.0	1,020.6	19.32	53.825	
9,300.0	7,740.0	7,550.0	7,377.4	38.2	30.1	4.85	-25.8	1,576.0	1,134.2	1,114.6	19.59	57.893	
9,400.0	7,740.0	7,526.0	7,355.3	39.2	30.0	5.32	-33.8	1,570.9	1,228.6	1,208.7	19.83	61.940	
9,500.0	7,740.0	7,500.0	7,331.0	40.2	29.9	5.77	-41.4	1,565.4	1,324.1	1,304.0	20.09	65.916	
9,600.0	7,740.0	7,500.0	7,331.0	41.3	29.9	5.77	-41.4	1,565.4	1,419.5	1,399.1	20.36	69.709	
9,700.0	7,740.0	7,500.0	7,331.0	42.4	29.9	5.77	-41.4	1,565.4	1,515.5	1,494.9	20.64	73.431	
9,800.0	7,740.0	7,500.0	7,331.0	43.6	29.9	5.77	-41.4	1,565.4	1,612.0	1,591.1	20.91	77.081	
9,900.0	7,740.0	7,500.0	7,331.0	44.8	29.9	5.77	-41.4	1,565.4	1,708.9	1,687.7	21.19	80.657	
10,000.0	7,740.0	7,480.8	7,313.0	46.0	29.8	6.08	-46.2	1,561.2	1,805.7	1,784.2	21.47	84.116	
10,100.0	7,740.0	7,475.4	7,307.8	47.3	29.8	6.17	-47.5	1,560.0	1,902.9	1,881.2	21.75	87.507	
10,200.0	7,740.0	7,470.3	7,303.0	48.6	29.8	6.24	-48.6	1,558.9	2,000.4	1,978.3	22.03	90.814	
10,300.0	7,740.0	7,450.0	7,283.6	50.0	29.7	6.53	-52.7	1,554.5	2,098.3	2,076.0	22.32	93.993	
10,400.0	7,740.0	7,450.0	7,283.6	51.3	29.7	6.53	-52.7	1,554.5	2,196.0	2,173.4	22.61	97.141	
10,500.0	7,740.0	7,450.0	7,283.6	52.7	29.7	6.53	-52.7	1,554.5	2,293.8	2,271.0	22.89	100.221	
10,600.0	7,740.0	7,450.0	7,283.6	54.1	29.7	6.53	-52.7	1,554.5	2,391.9	2,368.7	23.17	103.235	
10,700.0	7,740.0	7,450.0	7,283.6	55.6	29.7	6.53	-52.7	1,554.5	2,490.1	2,466.7	23.45	106.183	
10,800.0	7,740.0	7,450.0	7,283.6	57.0	29.7	6.53	-52.7	1,554.5	2,588.5	2,564.7	23.73	109.067	
10,900.0	7,740.0	7,450.0	7,283.6	58.5	29.7	6.53	-52.7	1,554.5	2,686.9	2,662.9	24.01	111.889	
11,000.0	7,740.0	7,450.0	7,283.6	59.9	29.7	6.53	-52.7	1,554.5	2,785.5	2,761.2	24.30	114.651	
11,100.0	7,740.0	7,450.0	7,283.6	61.4	29.7	6.53	-52.7	1,554.5	2,884.2	2,859.6	24.58	117.355	
11,200.0	7,740.0	7,450.0	7,283.6	62.9	29.7	6.53	-52.7	1,554.5	2,983.0	2,958.1	24.86	120.001	
11,300.0	7,740.0	7,450.0	7,283.6	64.5	29.7	6.53	-52.7	1,554.5	3,081.8	3,056.7	25.14	122.591	
11,400.0	7,740.0	7,450.0	7,283.6	66.0	29.7	6.53	-52.7	1,554.5	3,180.7	3,155.3	25.42	125.127	
11,500.0	7,740.0	7,428.0	7,262.5	67.5	29.6	6.82	-56.3	1,549.6	3,279.2	3,253.4	25.77	127.228	
11,600.0	7,740.0	7,425.9	7,260.4	69.1	29.6	6.85	-56.6	1,549.2	3,378.2	3,352.1	26.07	129.593	
11,700.0	7,740.0	7,423.9	7,258.5	70.7	29.6	6.87	-56.9	1,548.7	3,477.2	3,450.8	26.36	131.906	
11,800.0	7,740.0	7,422.0	7,256.6	72.2	29.6	6.89	-57.1	1,548.3	3,576.2	3,549.6	26.65	134.168	
11,900.0	7,740.0	7,400.0	7,235.4	73.8	29.5	7.15	-59.7	1,543.4	3,675.7	3,648.7	27.03	135.991	
12,000.0	7,740.0	7,400.0	7,235.4	75.4	29.5	7.15	-59.7	1,543.4	3,774.8	3,747.5	27.32	138.167	
12,100.0	7,740.0	7,400.0	7,235.4	77.0	29.5	7.15	-59.7	1,543.4	3,873.9	3,846.3	27.61	140.298	
12,200.0	7,740.0	7,400.0	7,235.4	78.6	29.5	7.15	-59.7	1,543.4	3,973.0	3,945.1	27.90	142.385	
12,300.0	7,740.0	7,400.0	7,235.4	80.2	29.5	7.15	-59.7	1,543.4	4,072.2	4,044.0	28.19	144.432	
12,400.0	7,740.0	7,400.0	7,235.4	81.8	29.5	7.15	-59.7	1,543.4	4,171.5	4,143.0	28.49	146.437	
12,500.0	7,740.0	7,400.0	7,235.4	83.4	29.5	7.15	-59.7	1,543.4	4,270.7	4,242.0	28.78	148.403	
12,600.0	7,740.0	7,400.0	7,235.4	85.1	29.5	7.15	-59.7	1,543.4	4,370.0	4,341.0	29.07	150.331	
12,700.0	7,740.0	7,400.0	7,235.4	86.7	29.5	7.15	-59.7	1,543.4	4,469.4	4,440.0	29.36	152.222	
12,800.0	7,740.0	7,400.0	7,235.4	88.3	29.5	7.15	-59.7	1,543.4	4,568.7	4,539.1	29.65	154.076	
12,900.0	7,740.0	7,400.0	7,235.4	90.0	29.5	7.15	-59.7	1,543.4	4,668.1	4,638.2	29.94	155.895	
13,000.0	7,740.0	7,400.0	7,235.4	91.6	29.5	7.15	-59.7	1,543.4	4,767.6	4,737.3	30.24	157.680	
13,100.0	7,740.0	7,400.0	7,235.4	93.3	29.5	7.15	-59.7	1,543.4	4,867.0	4,836.5	30.53	159.431	
13,200.0	7,740.0	7,400.0	7,235.4	94.9	29.5	7.15	-59.7	1,543.4	4,966.5	4,935.6	30.82	161.150	
13,300.0	7,740.0	7,400.0	7,235.4	96.6	29.5	7.15	-59.7	1,543.4	5,065.9	5,034.8	31.11	162.837	
13,400.0	7,740.0	7,400.0	7,235.4	98.2	29.5	7.15	-59.7	1,543.4	5,165.5	5,134.0	31.40	164.494	
13,500.0	7,740.0	7,400.0	7,235.4	99.9	29.5	7.15	-59.7	1,543.4	5,265.0	5,233.3	31.69	166.121	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2H-7H-E168 - Hz - Plan #3												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	
0.0	0.0	0.0	0.0	0.0	0.0	90.26	-0.4	80.0	80.0				
100.0	100.0	100.0	100.0	0.2	0.2	90.26	-0.4	80.0	80.0	79.7	0.30	263.581	
200.0	200.0	200.0	200.0	0.3	0.3	90.26	-0.4	80.0	80.0	79.4	0.65	122.629 CC	
300.0	300.0	298.6	298.6	0.5	0.5	19.49	-0.4	80.9	80.1	79.1	1.00	80.128	
400.0	400.0	397.2	397.2	0.7	0.7	20.15	-0.5	83.4	80.2	78.9	1.35	59.562	
500.0	499.9	495.8	495.7	0.9	0.9	21.24	-0.6	87.7	80.4	78.7	1.69	47.458 ES	
600.0	599.7	594.4	594.1	1.1	1.1	22.75	-0.8	93.6	80.8	78.7	2.04	39.503	
700.0	699.4	693.0	692.4	1.3	1.3	24.68	-1.0	101.2	81.3	78.9	2.40	33.892	
800.0	798.9	791.5	790.5	1.5	1.5	26.99	-1.3	110.5	82.1	79.4	2.76	29.731	
900.0	898.3	890.1	888.4	1.8	1.7	29.65	-1.7	121.5	83.2	80.1	3.14	26.522	
1,000.0	997.4	988.5	986.0	2.0	2.0	32.63	-2.1	134.2	84.7	81.2	3.53	23.965	
1,100.0	1,096.3	1,087.0	1,083.4	2.3	2.3	35.86	-2.5	148.5	86.7	82.7	3.96	21.867	
1,200.0	1,194.9	1,185.3	1,180.5	2.7	2.6	39.29	-3.0	164.5	89.2	84.7	4.44	20.100	
1,300.0	1,293.3	1,283.7	1,277.2	3.0	3.0	42.84	-3.6	182.2	92.3	87.3	4.97	18.581	
1,400.0	1,391.2	1,381.9	1,373.6	3.4	3.3	46.43	-4.2	201.5	96.1	90.5	5.57	17.262	
1,500.0	1,488.9	1,480.1	1,469.5	3.8	3.7	50.01	-4.8	222.4	100.6	94.4	6.25	16.110	
1,595.5	1,581.8	1,573.9	1,560.8	4.2	4.1	53.35	-5.5	243.9	105.7	98.7	6.98	15.152	
1,600.0	1,586.1	1,578.3	1,565.0	4.2	4.2	53.51	-5.5	244.9	106.0	98.9	7.01	15.111	
1,700.0	1,683.2	1,676.4	1,660.1	4.7	4.6	56.52	-6.3	269.1	112.6	104.7	7.82	14.387	
1,800.0	1,780.2	1,774.4	1,754.6	5.1	5.1	58.69	-7.1	294.9	120.8	112.1	8.65	13.962	
1,900.0	1,877.3	1,872.2	1,848.5	5.6	5.6	60.11	-8.0	322.2	130.5	121.0	9.48	13.761	
2,000.0	1,974.3	1,969.8	1,941.8	6.0	6.1	60.88	-8.9	351.1	141.5	131.2	10.30	13.734 SF	
2,100.0	2,071.4	2,068.0	2,035.2	6.5	6.7	61.17	-9.8	381.6	153.7	142.6	11.11	13.832	
2,200.0	2,168.4	2,167.3	2,129.4	6.9	7.3	61.37	-10.8	412.6	166.0	154.1	11.92	13.926	
2,300.0	2,265.4	2,266.5	2,223.7	7.4	7.9	61.54	-11.8	443.6	178.4	165.7	12.74	14.002	
2,400.0	2,362.5	2,365.7	2,317.9	7.9	8.4	61.68	-12.8	474.6	190.8	177.2	13.56	14.066	
2,500.0	2,459.5	2,465.0	2,412.2	8.3	9.0	61.81	-13.7	505.7	203.2	188.8	14.39	14.118	
2,600.0	2,556.6	2,564.2	2,506.4	8.8	9.6	61.93	-14.7	536.7	215.6	200.3	15.22	14.163	
2,700.0	2,653.6	2,663.4	2,600.7	9.2	10.2	62.03	-15.7	567.7	227.9	211.9	16.05	14.200	
2,800.0	2,750.7	2,762.6	2,694.9	9.7	10.8	62.12	-16.6	598.7	240.3	223.4	16.88	14.233	
2,900.0	2,847.7	2,861.9	2,789.2	10.2	11.3	62.20	-17.6	629.7	252.7	235.0	17.72	14.261	
3,000.0	2,944.8	2,961.1	2,883.4	10.6	11.9	62.28	-18.6	660.8	265.1	246.5	18.56	14.285	
3,100.0	3,041.8	3,060.3	2,977.7	11.1	12.5	62.34	-19.6	691.8	277.5	258.1	19.39	14.306	
3,200.0	3,138.9	3,159.6	3,071.9	11.5	13.1	62.41	-20.5	722.8	289.8	269.6	20.23	14.325	
3,300.0	3,235.9	3,258.8	3,166.2	12.0	13.7	62.46	-21.5	753.8	302.2	281.1	21.07	14.342	
3,400.0	3,333.0	3,358.0	3,260.4	12.5	14.3	62.51	-22.5	784.9	314.6	292.7	21.91	14.356	
3,500.0	3,430.0	3,457.3	3,354.7	12.9	14.9	62.56	-23.5	815.9	327.0	304.2	22.76	14.369	
3,600.0	3,527.1	3,556.5	3,448.9	13.4	15.5	62.61	-24.4	846.9	339.4	315.8	23.60	14.381	
3,700.0	3,624.1	3,655.7	3,543.2	13.9	16.0	62.65	-25.4	877.9	351.7	327.3	24.44	14.392	
3,800.0	3,721.2	3,754.9	3,637.4	14.3	16.6	62.69	-26.4	909.0	364.1	338.8	25.28	14.401	
3,900.0	3,818.2	3,854.2	3,731.7	14.8	17.2	62.73	-27.4	940.0	376.5	350.4	26.13	14.410	
4,000.0	3,915.3	3,953.4	3,825.9	15.3	17.8	62.76	-28.3	971.0	388.9	361.9	26.97	14.418	
4,100.0	4,012.3	4,052.6	3,920.2	15.7	18.4	62.79	-29.3	1,002.0	401.3	373.5	27.82	14.425	
4,200.0	4,109.4	4,151.9	4,014.4	16.2	19.0	62.82	-30.3	1,033.0	413.7	385.0	28.66	14.432	
4,300.0	4,206.4	4,251.1	4,108.7	16.6	19.6	62.85	-31.3	1,064.1	426.0	396.5	29.51	14.438	
4,400.0	4,303.5	4,350.3	4,202.9	17.1	20.2	62.88	-32.2	1,095.1	438.4	408.1	30.35	14.444	
4,500.0	4,400.5	4,449.6	4,297.2	17.6	20.8	62.90	-33.2	1,126.1	450.8	419.6	31.20	14.449	
4,600.0	4,497.6	4,548.8	4,391.4	18.0	21.4	62.93	-34.2	1,157.1	463.2	431.2	32.05	14.453	
4,700.0	4,594.6	4,648.0	4,485.7	18.5	22.0	62.95	-35.2	1,188.2	475.6	442.7	32.89	14.458	
4,800.0	4,691.7	4,747.2	4,579.9	19.0	22.5	62.97	-36.1	1,219.2	488.0	454.2	33.74	14.462	
4,900.0	4,788.7	4,846.5	4,674.2	19.4	23.1	62.99	-37.1	1,250.2	500.4	465.8	34.59	14.466	
5,000.0	4,885.8	4,945.7	4,768.4	19.9	23.7	63.01	-38.1	1,281.2	512.7	477.3	35.44	14.469	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2H-7H-E168 - Hz - Plan #3											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		
5,100.0	4,982.8	5,044.9	4,862.7	20.4	24.3	63.03	-39.0	1,312.3	525.1	488.8	36.28	14.472		
5,200.0	5,079.9	5,144.2	4,956.9	20.8	24.9	63.05	-40.0	1,343.3	537.5	500.4	37.13	14.476		
5,300.0	5,176.9	5,243.4	5,051.2	21.3	25.5	63.06	-41.0	1,374.3	549.9	511.9	37.98	14.478		
5,400.0	5,273.9	5,342.6	5,145.4	21.8	26.1	63.08	-42.0	1,405.3	562.3	523.4	38.83	14.481		
5,500.0	5,371.0	5,441.9	5,239.7	22.2	26.7	63.09	-42.9	1,436.3	574.7	535.0	39.68	14.484		
5,600.0	5,468.0	5,541.1	5,333.9	22.7	27.3	63.11	-43.9	1,467.4	587.0	546.5	40.52	14.486		
5,700.0	5,565.1	5,640.3	5,428.2	23.1	27.9	63.12	-44.9	1,498.4	599.4	558.1	41.37	14.488		
5,800.0	5,662.1	5,739.5	5,522.5	23.6	28.5	63.14	-45.9	1,529.4	611.8	569.6	42.22	14.490		
5,900.0	5,759.2	5,838.8	5,616.7	24.1	29.1	63.15	-46.8	1,560.4	624.2	581.1	43.07	14.492		
6,000.0	5,856.2	5,938.0	5,711.0	24.5	29.6	63.16	-47.8	1,591.5	636.6	592.7	43.92	14.494		
6,100.0	5,953.3	6,037.2	5,805.2	25.0	30.2	63.17	-48.8	1,622.5	649.0	604.2	44.77	14.496		
6,200.0	6,050.3	6,136.5	5,899.5	25.5	30.8	63.19	-49.8	1,653.5	661.3	615.7	45.62	14.498		
6,300.0	6,147.4	6,235.7	5,993.7	25.9	31.4	63.20	-50.7	1,684.5	673.7	627.3	46.47	14.499		
6,400.0	6,244.4	6,334.9	6,088.0	26.4	32.0	63.21	-51.7	1,715.6	686.1	638.8	47.32	14.501		
6,500.0	6,341.5	6,434.2	6,182.2	26.9	32.6	63.22	-52.7	1,746.6	698.5	650.3	48.17	14.502		
6,600.0	6,438.5	6,533.4	6,276.5	27.3	33.2	63.23	-53.7	1,777.6	710.9	661.9	49.01	14.504		
6,700.0	6,535.6	6,632.6	6,370.7	27.8	33.8	63.24	-54.6	1,808.6	723.3	673.4	49.86	14.505		
6,800.0	6,632.6	6,731.8	6,465.0	28.3	34.4	63.25	-55.6	1,839.6	735.7	684.9	50.71	14.506		
6,900.0	6,729.7	6,831.1	6,559.2	28.7	35.0	63.26	-56.6	1,870.7	748.0	696.5	51.56	14.507		
7,000.0	6,826.7	6,930.3	6,653.5	29.2	35.6	63.27	-57.5	1,901.7	760.4	708.0	52.41	14.508		
7,100.0	6,923.8	7,029.5	6,747.7	29.7	36.2	63.27	-58.5	1,932.7	772.8	719.5	53.26	14.510		
7,200.0	7,020.8	7,128.8	6,842.0	30.1	36.8	63.28	-59.5	1,963.7	785.2	731.1	54.11	14.511		
7,300.0	7,117.9	7,227.9	6,937.0	30.6	37.4	63.29	-60.5	1,994.7	797.6	742.6	54.96	14.512		
7,321.2	7,138.4	7,189.1	7,000.0	30.7	37.4	63.29	-60.7	1,999.9	799.9	744.9	55.11	14.513		
7,350.0	7,166.4	7,217.1	7,030.0	30.8	37.4	63.29	-60.9	2,005.1	802.1	747.1	55.26	14.514		
7,400.0	7,215.1	7,265.8	7,080.0	31.0	37.4	63.29	-61.2	2,015.6	807.6	752.6	55.61	14.515		
7,450.0	7,263.5	7,314.2	7,130.0	31.2	37.4	63.29	-61.5	2,026.1	813.1	758.1	55.96	14.516		
7,500.0	7,311.3	7,362.0	7,180.0	31.3	37.4	63.29	-61.7	2,036.6	818.6	763.6	56.31	14.517		
7,550.0	7,358.1	7,408.8	7,230.0	31.5	37.4	63.29	-62.0	2,047.1	824.1	769.1	56.66	14.518		
7,600.0	7,403.5	7,454.2	7,280.0	31.6	37.4	63.29	-62.3	2,057.6	829.6	774.6	57.01	14.519		
7,650.0	7,447.3	7,498.0	7,330.0	31.7	37.4	63.29	-62.6	2,068.1	835.1	780.1	57.36	14.520		
7,700.0	7,489.1	7,539.8	7,370.0	31.7	37.4	63.29	-62.7	2,073.6	837.6	782.6	57.51	14.521		
7,750.0	7,528.5	7,579.2	7,410.0	31.8	37.4	63.29	-62.8	2,079.1	840.1	785.1	57.66	14.522		
7,800.0	7,565.3	7,616.0	7,448.0	31.8	37.4	63.29	-62.9	2,084.6	842.6	787.6	57.81	14.523		
7,819.0	7,578.6	7,629.3	7,461.0	31.8	37.4	63.29	-63.0	2,087.9	844.9	789.9	57.94	14.524		
7,850.0	7,599.2	7,650.0	7,473.0	31.9	37.4	63.29	-63.1	2,093.4	847.4	792.4	58.09	14.525		
7,900.0	7,629.9	7,680.6	7,503.0	31.9	37.4	63.29	-63.2	2,098.9	849.9	794.9	58.24	14.526		
7,950.0	7,657.2	7,707.9	7,531.0	31.9	37.4	63.29	-63.3	2,104.4	852.4	797.4	58.39	14.527		
8,000.0	7,680.9	7,731.6	7,554.0	32.0	37.4	63.29	-63.4	2,109.9	854.9	799.9	58.54	14.528		
8,050.0	7,700.8	7,751.5	7,577.0	32.0	37.4	63.29	-63.5	2,115.4	857.4	802.4	58.69	14.529		
8,100.0	7,716.7	7,767.4	7,593.0	32.0	37.4	63.29	-63.7	2,120.9	859.9	804.9	58.84	14.530		
8,150.0	7,728.6	7,779.3	7,605.0	32.1	37.4	63.29	-60.66	198.5	2,122.8	630.7	602.1	28.59	22.059	
8,200.0	7,736.3	7,787.0	7,613.0	32.1	37.4	63.29	-57.73	177.3	2,120.2	645.9	618.1	27.86	23.187	
8,250.0	7,739.8	7,790.5	7,616.0	32.2	37.4	63.29	-54.86	158.0	2,117.3	661.8	634.6	27.22	24.317	
8,266.2	7,740.0	7,790.7	7,619.0	32.2	37.4	63.29	-53.75	149.2	2,115.9	667.0	640.0	27.03	24.681	
8,300.0	7,740.0	7,790.7	7,622.0	32.3	37.4	63.29	-52.82	135.8	2,113.5	678.4	651.4	26.96	25.162	
8,400.0	7,740.0	7,790.7	7,625.0	32.5	37.4	63.29	-50.21	101.7	2,106.4	716.8	689.9	26.88	26.668	
8,500.0	7,740.0	7,790.7	7,628.0	32.8	37.4	63.29	-47.90	74.8	2,099.4	762.5	735.5	26.94	28.298	
8,600.0	7,740.0	7,790.7	7,631.0	33.2	37.4	63.29	-45.93	53.8	2,093.0	814.9	787.8	27.14	30.031	
8,700.0	7,740.0	7,790.7	7,634.0	33.7	37.4	63.29	-44.12	36.2	2,086.8	873.5	846.1	27.40	31.874	
8,800.0	7,740.0	7,790.7	7,637.0	34.3	37.4	63.29	-42.97	25.7	2,082.6	937.5	909.7	27.85	33.668	
8,900.0	7,740.0	7,790.7	7,640.0	34.9	37.4	63.29	-41.27	11.1	2,076.1	1,006.1	977.9	28.17	35.716	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2H-7H-E168 - Hz - Plan #3											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	
9,000.0	7,740.0	7,500.0	7,187.1	35.6	38.8	-40.03	1.3	2,071.2	1,078.6	1,050.0	28.60	37.709	
9,100.0	7,740.0	7,484.1	7,173.4	36.4	38.7	-39.11	-5.7	2,067.3	1,154.6	1,125.4	29.13	39.635	
9,200.0	7,740.0	7,468.8	7,159.9	37.3	38.6	-38.22	-12.1	2,063.5	1,233.4	1,203.7	29.66	41.578	
9,300.0	7,740.0	7,450.0	7,143.3	38.2	38.5	-37.14	-19.3	2,058.8	1,314.7	1,284.5	30.13	43.636	
9,400.0	7,740.0	7,450.0	7,143.3	39.2	38.5	-37.14	-19.3	2,058.8	1,398.0	1,367.1	30.96	45.152	
9,500.0	7,740.0	7,431.7	7,126.9	40.2	38.4	-36.11	-25.8	2,054.0	1,483.1	1,451.7	31.42	47.201	
9,600.0	7,740.0	7,421.7	7,117.8	41.3	38.4	-35.55	-29.2	2,051.4	1,569.7	1,537.7	32.04	48.986	
9,700.0	7,740.0	7,400.0	7,098.0	42.4	38.3	-34.35	-35.8	2,045.5	1,657.9	1,625.5	32.38	51.200	
9,800.0	7,740.0	7,400.0	7,098.0	43.6	38.3	-34.35	-35.8	2,045.5	1,746.8	1,713.6	33.23	52.574	
9,900.0	7,740.0	7,400.0	7,098.0	44.8	38.3	-34.35	-35.8	2,045.5	1,836.9	1,802.8	34.08	53.894	
10,000.0	7,740.0	7,400.0	7,098.0	46.0	38.3	-34.35	-35.8	2,045.5	1,928.0	1,893.0	34.95	55.159	
10,100.0	7,740.0	7,400.0	7,098.0	47.3	38.3	-34.35	-35.8	2,045.5	2,019.9	1,984.0	35.83	56.370	
10,200.0	7,740.0	7,377.5	7,077.3	48.6	38.2	-33.13	-41.9	2,039.3	2,112.0	2,075.9	36.04	58.595	
10,300.0	7,740.0	7,372.0	7,072.2	50.0	38.1	-32.84	-43.3	2,037.7	2,205.0	2,168.3	36.74	60.016	
10,400.0	7,740.0	7,350.0	7,051.7	51.3	38.0	-31.68	-48.2	2,031.5	2,298.8	2,261.9	36.90	62.292	
10,500.0	7,740.0	7,350.0	7,051.7	52.7	38.0	-31.68	-48.2	2,031.5	2,392.7	2,354.9	37.75	63.383	
10,600.0	7,740.0	7,350.0	7,051.7	54.1	38.0	-31.68	-48.2	2,031.5	2,487.0	2,448.4	38.60	64.429	
10,700.0	7,740.0	7,350.0	7,051.7	55.6	38.0	-31.68	-48.2	2,031.5	2,581.8	2,542.3	39.46	65.432	
10,800.0	7,740.0	7,350.0	7,051.7	57.0	38.0	-31.68	-48.2	2,031.5	2,676.9	2,636.6	40.32	66.394	
10,900.0	7,740.0	7,350.0	7,051.7	58.5	38.0	-31.68	-48.2	2,031.5	2,772.4	2,731.3	41.19	67.316	
11,000.0	7,740.0	7,350.0	7,051.7	59.9	38.0	-31.68	-48.2	2,031.5	2,868.2	2,826.2	42.06	68.202	
11,100.0	7,740.0	7,350.0	7,051.7	61.4	38.0	-31.68	-48.2	2,031.5	2,964.3	2,921.4	42.93	69.052	
11,200.0	7,740.0	7,350.0	7,051.7	62.9	38.0	-31.68	-48.2	2,031.5	3,060.6	3,016.8	43.81	69.868	
11,300.0	7,740.0	7,350.0	7,051.7	64.5	38.0	-31.68	-48.2	2,031.5	3,157.2	3,112.5	44.69	70.653	
11,400.0	7,740.0	7,350.0	7,051.7	66.0	38.0	-31.68	-48.2	2,031.5	3,254.0	3,208.4	45.57	71.407	
11,500.0	7,740.0	7,328.0	7,031.0	67.5	37.9	-30.54	-52.3	2,025.1	3,350.4	3,305.0	45.45	73.712	
11,600.0	7,740.0	7,325.5	7,028.7	69.1	37.9	-30.42	-52.7	2,024.4	3,447.4	3,401.3	46.20	74.623	
11,700.0	7,740.0	7,323.2	7,026.5	70.7	37.9	-30.30	-53.1	2,023.7	3,544.6	3,497.7	46.95	75.505	
11,800.0	7,740.0	7,300.0	7,004.6	72.2	37.8	-29.14	-56.3	2,016.8	3,642.4	3,595.7	46.68	78.020	
11,900.0	7,740.0	7,300.0	7,004.6	73.8	37.8	-29.14	-56.3	2,016.8	3,739.7	3,692.2	47.52	78.706	
12,000.0	7,740.0	7,300.0	7,004.6	75.4	37.8	-29.14	-56.3	2,016.8	3,837.2	3,788.9	48.35	79.368	
12,100.0	7,740.0	7,300.0	7,004.6	77.0	37.8	-29.14	-56.3	2,016.8	3,934.8	3,885.7	49.18	80.007	
12,200.0	7,740.0	7,300.0	7,004.6	78.6	37.8	-29.14	-56.3	2,016.8	4,032.6	3,982.6	50.02	80.625	
12,300.0	7,740.0	7,300.0	7,004.6	80.2	37.8	-29.14	-56.3	2,016.8	4,130.4	4,079.6	50.85	81.222	
12,400.0	7,740.0	7,300.0	7,004.6	81.8	37.8	-29.14	-56.3	2,016.8	4,228.4	4,176.7	51.69	81.800	
12,500.0	7,740.0	7,300.0	7,004.6	83.4	37.8	-29.14	-56.3	2,016.8	4,326.4	4,273.9	52.53	82.359	
12,600.0	7,740.0	7,300.0	7,004.6	85.1	37.8	-29.14	-56.3	2,016.8	4,424.6	4,371.2	53.37	82.900	
12,700.0	7,740.0	7,300.0	7,004.6	86.7	37.8	-29.14	-56.3	2,016.8	4,522.8	4,468.6	54.21	83.423	
12,800.0	7,740.0	7,300.0	7,004.6	88.3	37.8	-29.14	-56.3	2,016.8	4,621.1	4,566.0	55.06	83.931	
12,900.0	7,740.0	7,300.0	7,004.6	90.0	37.8	-29.14	-56.3	2,016.8	4,719.4	4,663.5	55.90	84.423	
13,000.0	7,740.0	7,300.0	7,004.6	91.6	37.8	-29.14	-56.3	2,016.8	4,817.9	4,761.1	56.75	84.900	
13,100.0	7,740.0	7,300.0	7,004.6	93.3	37.8	-29.14	-56.3	2,016.8	4,916.3	4,858.8	57.59	85.363	
13,200.0	7,740.0	7,300.0	7,004.6	94.9	37.8	-29.14	-56.3	2,016.8	5,014.9	4,956.5	58.44	85.812	
13,300.0	7,740.0	7,300.0	7,004.6	96.6	37.8	-29.14	-56.3	2,016.8	5,113.5	5,054.2	59.29	86.248	
13,400.0	7,740.0	7,300.0	7,004.6	98.2	37.8	-29.14	-56.3	2,016.8	5,212.2	5,152.0	60.14	86.671	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2A-7H-E168 - Hz - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		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)	Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.96	0.4	-508.0	508.0					
100.0	100.0	100.0	100.0	0.2	0.2	-89.96	0.4	-508.0	508.0	507.7	0.30	1,672.710		
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.4	-508.0	508.0	507.3	0.65	778.213 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-160.88	1.2	-508.0	508.8	507.8	1.00	507.420		
400.0	400.0	399.9	399.9	0.7	0.7	-160.67	3.8	-508.0	511.3	509.9	1.36	376.736		
500.0	499.9	499.7	499.6	0.9	0.9	-160.34	8.2	-508.0	515.4	513.7	1.72	299.677		
600.0	599.7	599.3	599.0	1.1	1.1	-159.87	14.3	-508.0	521.3	519.2	2.10	248.809		
700.0	699.4	698.9	698.3	1.3	1.3	-159.33	21.7	-508.0	528.8	526.3	2.48	213.288		
800.0	798.9	798.4	797.5	1.5	1.5	-158.86	29.2	-508.0	538.0	535.1	2.87	187.528		
900.0	898.3	897.7	896.5	1.8	1.7	-158.46	36.7	-508.0	548.8	545.6	3.26	168.201		
1,000.0	997.4	996.9	995.4	2.0	1.9	-158.13	44.2	-508.0	561.3	557.6	3.66	153.308		
1,100.0	1,096.3	1,095.9	1,094.1	2.3	2.1	-157.87	51.6	-508.0	575.4	571.3	4.06	141.590		
1,200.0	1,194.9	1,194.6	1,192.6	2.7	2.3	-157.69	59.1	-508.0	591.1	586.6	4.47	132.219		
1,300.0	1,293.3	1,293.1	1,290.8	3.0	2.5	-157.56	66.5	-508.0	608.4	603.5	4.88	124.631		
1,400.0	1,391.2	1,391.3	1,388.7	3.4	2.8	-157.50	73.9	-508.0	627.2	621.9	5.30	118.431		
1,500.0	1,488.9	1,489.2	1,486.3	3.8	3.0	-157.49	81.3	-508.0	647.7	642.0	5.71	113.331		
1,595.5	1,581.8	1,582.4	1,579.3	4.2	3.2	-157.52	88.3	-508.0	668.7	662.6	6.12	109.293		
1,600.0	1,586.1	1,586.7	1,583.6	4.2	3.2	-157.53	88.7	-508.0	669.7	663.6	6.14	109.116		
1,700.0	1,683.2	1,684.1	1,680.7	4.7	3.4	-157.67	96.0	-508.0	692.5	685.9	6.57	105.394		
1,800.0	1,780.2	1,781.5	1,777.8	5.1	3.6	-157.80	103.3	-508.0	715.2	708.2	7.00	102.121		
1,900.0	1,877.3	1,878.8	1,874.9	5.6	3.8	-157.92	110.7	-508.0	738.0	730.5	7.44	99.221		
2,000.0	1,974.3	1,976.2	1,971.9	6.0	4.0	-158.03	118.0	-508.0	760.7	752.9	7.87	96.636		
2,100.0	2,071.4	2,073.6	2,069.0	6.5	4.2	-158.14	125.4	-508.0	783.5	775.2	8.31	94.319		
2,200.0	2,168.4	2,170.9	2,166.1	6.9	4.5	-158.25	132.7	-508.0	806.3	797.5	8.74	92.231		
2,300.0	2,265.4	2,268.3	2,263.2	7.4	4.7	-158.34	140.1	-508.0	829.0	819.9	9.18	90.340		
2,400.0	2,362.5	2,365.6	2,360.3	7.9	4.9	-158.44	147.4	-508.0	851.8	842.2	9.61	88.621		
2,500.0	2,459.5	2,463.0	2,457.4	8.3	5.1	-158.52	154.8	-508.0	874.6	864.5	10.05	87.051		
2,600.0	2,556.6	2,560.4	2,554.5	8.8	5.3	-158.61	162.1	-508.0	897.3	886.9	10.48	85.611		
2,700.0	2,653.6	2,657.7	2,651.6	9.2	5.5	-158.68	169.5	-508.0	920.1	909.2	10.92	84.287		
2,800.0	2,750.7	2,755.1	2,748.6	9.7	5.7	-158.76	176.8	-508.0	942.9	931.5	11.35	83.065		
2,900.0	2,847.7	2,852.5	2,845.7	10.2	5.9	-158.83	184.1	-508.0	965.7	953.9	11.79	81.934		
3,000.0	2,944.8	2,949.8	2,942.8	10.6	6.1	-158.90	191.5	-508.0	988.4	976.2	12.22	80.885		
3,100.0	3,041.8	3,047.2	3,039.9	11.1	6.4	-158.96	198.8	-508.0	1,011.2	998.6	12.65	79.908		
3,200.0	3,138.9	3,144.6	3,137.0	11.5	6.6	-159.02	206.2	-508.0	1,034.0	1,020.9	13.09	78.997		
3,300.0	3,235.9	3,241.9	3,234.1	12.0	6.8	-159.08	213.5	-508.0	1,056.8	1,043.3	13.52	78.145		
3,400.0	3,333.0	3,339.3	3,331.2	12.5	7.0	-159.14	220.9	-508.0	1,079.6	1,065.6	13.96	77.347		
3,500.0	3,430.0	3,436.7	3,428.3	12.9	7.2	-159.20	228.2	-508.0	1,102.4	1,088.0	14.39	76.598		
3,600.0	3,527.1	3,534.0	3,525.3	13.4	7.4	-159.25	235.6	-508.0	1,125.1	1,110.3	14.83	75.893		
3,700.0	3,624.1	3,631.4	3,622.4	13.9	7.6	-159.30	242.9	-508.0	1,147.9	1,132.7	15.26	75.229		
3,800.0	3,721.2	3,728.7	3,719.5	14.3	7.9	-159.35	250.2	-508.0	1,170.7	1,155.0	15.69	74.602		
3,900.0	3,818.2	3,826.1	3,816.6	14.8	8.1	-159.39	257.6	-508.0	1,193.5	1,177.4	16.13	74.009		
4,000.0	3,915.3	3,923.5	3,913.7	15.3	8.3	-159.44	264.9	-508.0	1,216.3	1,199.7	16.56	73.448		
4,100.0	4,012.3	4,020.8	4,010.8	15.7	8.5	-159.48	272.3	-508.0	1,239.1	1,222.1	16.99	72.916		
4,200.0	4,109.4	4,118.2	4,107.9	16.2	8.7	-159.52	279.6	-508.0	1,261.9	1,244.4	17.43	72.411		
4,300.0	4,206.4	4,215.6	4,205.0	16.6	8.9	-159.56	287.0	-508.0	1,284.7	1,266.8	17.86	71.931		
4,400.0	4,303.5	4,312.9	4,302.0	17.1	9.1	-159.60	294.3	-508.0	1,307.5	1,289.2	18.29	71.474		
4,500.0	4,400.5	4,410.3	4,399.1	17.6	9.3	-159.64	301.7	-508.0	1,330.2	1,311.5	18.73	71.038		
4,600.0	4,497.6	4,507.7	4,496.2	18.0	9.6	-159.67	309.0	-508.0	1,353.0	1,333.9	19.16	70.623		
4,700.0	4,594.6	4,605.0	4,593.3	18.5	9.8	-159.71	316.3	-508.0	1,375.8	1,356.2	19.59	70.226		
4,800.0	4,691.7	4,702.4	4,690.4	19.0	10.0	-159.74	323.7	-508.0	1,398.6	1,378.6	20.02	69.847		
4,900.0	4,788.7	4,799.8	4,787.5	19.4	10.2	-159.78	331.0	-508.0	1,421.4	1,401.0	20.46	69.484		
5,000.0	4,885.8	4,897.1	4,884.6	19.9	10.4	-159.81	338.4	-508.0	1,444.2	1,423.3	20.89	69.136		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2A-7H-E168 - Hz - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-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
5,100.0	4,982.8	4,994.5	4,981.6	20.4	10.6	-159.84	345.7	-508.0	1,467.0	1,445.7	21.32	68.802	
5,200.0	5,079.9	5,091.9	5,078.7	20.8	10.8	-159.87	353.1	-508.0	1,489.8	1,468.0	21.75	68.482	
5,300.0	5,176.9	5,189.2	5,175.8	21.3	11.0	-159.90	360.4	-508.0	1,512.6	1,490.4	22.19	68.175	
5,400.0	5,273.9	5,286.6	5,272.9	21.8	11.3	-159.92	367.8	-508.0	1,535.4	1,512.8	22.62	67.880	
5,500.0	5,371.0	5,383.9	5,370.0	22.2	11.5	-159.95	375.1	-508.0	1,558.2	1,535.1	23.05	67.596	
5,600.0	5,468.0	5,481.3	5,467.1	22.7	11.7	-159.98	382.4	-508.0	1,581.0	1,557.5	23.48	67.323	
5,700.0	5,565.1	5,578.7	5,564.2	23.1	11.9	-160.00	389.8	-508.0	1,603.8	1,579.9	23.92	67.059	
5,800.0	5,662.1	5,676.0	5,661.3	23.6	12.1	-160.03	397.1	-508.0	1,626.6	1,602.2	24.35	66.805	
5,900.0	5,759.2	5,773.4	5,758.3	24.1	12.3	-160.05	404.5	-508.0	1,649.4	1,624.6	24.78	66.561	
6,000.0	5,856.2	5,870.8	5,855.4	24.5	12.5	-160.08	411.8	-508.0	1,672.2	1,647.0	25.21	66.324	
6,100.0	5,953.3	5,968.1	5,952.5	25.0	12.7	-160.10	419.2	-508.0	1,695.0	1,669.3	25.64	66.096	
6,200.0	6,050.3	6,065.5	6,049.6	25.5	13.0	-160.12	426.5	-508.0	1,717.8	1,691.7	26.08	65.876	
6,300.0	6,147.4	6,162.9	6,146.7	25.9	13.2	-160.14	433.9	-508.0	1,740.6	1,714.1	26.51	65.662	
6,400.0	6,244.4	6,260.2	6,243.8	26.4	13.4	-160.16	441.2	-508.0	1,763.4	1,736.4	26.94	65.456	
6,500.0	6,341.5	6,357.6	6,340.9	26.9	13.6	-160.18	448.6	-508.0	1,786.2	1,758.8	27.37	65.257	
6,600.0	6,438.5	6,455.0	6,438.0	27.3	13.8	-160.20	455.9	-508.0	1,809.0	1,781.2	27.80	65.063	
6,700.0	6,535.6	6,552.3	6,535.0	27.8	14.0	-160.22	463.2	-508.0	1,831.8	1,803.5	28.23	64.876	
6,800.0	6,632.6	6,649.7	6,632.1	28.3	14.2	-160.24	470.6	-508.0	1,854.6	1,825.9	28.67	64.694	
6,900.0	6,729.7	6,747.0	6,729.2	28.7	14.4	-160.26	477.9	-508.0	1,877.4	1,848.3	29.10	64.518	
7,000.0	6,826.7	6,844.4	6,826.3	29.2	14.7	-160.28	485.3	-508.0	1,900.2	1,870.6	29.53	64.347	
7,100.0	6,923.8	6,941.8	6,923.4	29.7	14.9	-160.30	492.6	-508.0	1,923.0	1,893.0	29.96	64.182	
7,200.0	7,020.8	7,039.1	7,020.5	30.1	15.1	-160.31	500.0	-508.0	1,945.8	1,915.4	30.39	64.021	
7,300.0	7,117.9	7,136.5	7,117.6	30.6	15.3	-160.33	507.3	-508.0	1,968.5	1,937.7	30.82	63.864	
7,321.2	7,138.4	7,157.2	7,138.2	30.7	15.3	-160.34	508.7	-508.0	1,973.4	1,942.5	30.91	63.851	
7,350.0	7,166.4	7,185.4	7,166.4	30.8	15.4	-172.66	509.4	-508.0	1,980.0	1,949.2	30.80	64.286	
7,400.0	7,215.1	7,234.3	7,215.2	31.0	15.4	165.18	507.4	-508.0	1,991.4	1,960.8	30.56	65.163	
7,450.0	7,263.5	7,283.1	7,263.6	31.2	15.4	146.26	501.2	-508.0	2,002.8	1,972.5	30.28	66.148	
7,500.0	7,311.3	7,331.8	7,311.2	31.3	15.3	132.32	491.0	-508.0	2,014.0	1,984.0	29.97	67.204	
7,550.0	7,358.1	7,380.5	7,357.8	31.5	15.2	122.43	476.7	-508.0	2,025.0	1,995.3	29.65	68.295	
7,600.0	7,403.5	7,429.3	7,403.0	31.6	15.1	115.27	458.6	-508.0	2,035.7	2,006.3	29.34	69.389	
7,650.0	7,447.3	7,478.1	7,446.6	31.7	15.0	109.89	436.6	-508.0	2,046.0	2,016.9	29.04	70.454	
7,700.0	7,489.1	7,527.0	7,488.2	31.7	14.8	105.72	410.9	-508.0	2,055.8	2,027.0	28.76	71.468	
7,750.0	7,528.5	7,576.0	7,527.6	31.8	14.7	102.39	381.8	-508.0	2,065.0	2,036.5	28.52	72.408	
7,800.0	7,565.3	7,625.1	7,564.4	31.8	14.5	99.68	349.3	-508.0	2,073.7	2,045.4	28.31	73.258	
7,850.0	7,599.2	7,674.4	7,598.4	31.9	14.3	97.46	313.6	-508.0	2,081.6	2,053.5	28.13	74.002	
7,900.0	7,629.9	7,723.8	7,629.2	31.9	14.2	95.62	275.1	-508.0	2,088.8	2,060.9	27.99	74.624	
7,950.0	7,657.2	7,773.3	7,656.7	31.9	14.1	94.10	233.9	-508.0	2,095.3	2,067.4	27.90	75.109	
8,000.0	7,680.9	7,822.9	7,680.6	32.0	14.0	92.86	190.4	-508.0	2,100.8	2,073.0	27.85	75.439	
8,050.0	7,700.8	7,872.7	7,700.7	32.0	13.9	91.86	144.9	-508.0	2,105.5	2,077.6	27.85	75.596	
8,100.0	7,716.7	7,922.6	7,716.8	32.0	13.9	91.09	97.7	-508.0	2,109.2	2,081.3	27.91	75.564	
8,150.0	7,728.6	7,972.5	7,728.8	32.1	13.9	90.54	49.2	-508.0	2,112.0	2,084.0	28.04	75.331	
8,200.0	7,736.3	8,022.5	7,736.5	32.1	14.0	90.18	-0.1	-508.0	2,113.8	2,085.6	28.23	74.892	
8,250.0	7,739.8	8,072.5	7,739.8	32.2	14.1	90.01	-50.0	-508.0	2,114.7	2,086.2	28.48	74.259	
8,266.2	7,740.0	8,088.7	7,740.0	32.2	14.2	90.00	-66.2	-508.0	2,114.7	2,086.2	28.57	74.016	
8,300.0	7,740.0	8,122.5	7,740.0	32.3	14.3	90.00	-100.0	-508.0	2,114.7	2,085.9	28.86	73.283	
8,400.0	7,740.0	8,222.5	7,740.0	32.5	14.9	90.00	-200.0	-508.0	2,114.7	2,084.8	29.91	70.695	
8,500.0	7,740.0	8,322.5	7,740.0	32.8	15.6	90.00	-300.0	-508.0	2,114.7	2,083.4	31.33	67.501	
8,600.0	7,740.0	8,422.5	7,740.0	33.2	16.4	90.00	-400.0	-508.0	2,114.7	2,081.7	33.06	63.971	
8,700.0	7,740.0	8,522.5	7,740.0	33.7	17.4	90.00	-500.0	-508.0	2,114.7	2,079.7	35.05	60.329	
8,800.0	7,740.0	8,622.5	7,740.0	34.3	18.6	90.00	-600.0	-508.0	2,114.7	2,077.5	37.27	56.736	
8,900.0	7,740.0	8,722.5	7,740.0	34.9	19.8	90.00	-700.0	-508.0	2,114.7	2,075.1	39.68	53.296	
9,000.0	7,740.0	8,822.5	7,740.0	35.6	21.0	90.00	-800.0	-508.0	2,114.7	2,072.5	42.24	50.065	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2A-7H-E168 - Hz - Plan #2													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		
9,100.0	7,740.0	8,922.5	7,740.0	36.4	22.4	90.00	-900.0	-508.0	2,114.7	2,069.8	44.93	47.068		
9,200.0	7,740.0	9,022.5	7,740.0	37.3	23.8	90.00	-1,000.0	-508.0	2,114.7	2,067.0	47.73	44.311		
9,300.0	7,740.0	9,122.5	7,740.0	38.2	25.2	90.00	-1,100.0	-508.0	2,114.7	2,064.1	50.61	41.786		
9,400.0	7,740.0	9,222.5	7,740.0	39.2	26.7	90.00	-1,200.0	-508.0	2,114.7	2,061.2	53.57	39.477		
9,500.0	7,740.0	9,322.5	7,740.0	40.2	28.2	90.00	-1,300.0	-508.0	2,114.8	2,058.2	56.59	37.369		
9,600.0	7,740.0	9,422.5	7,740.0	41.3	29.8	90.00	-1,400.0	-508.0	2,114.8	2,055.1	59.67	35.443		
9,700.0	7,740.0	9,522.5	7,740.0	42.4	31.3	90.00	-1,500.0	-508.0	2,114.8	2,052.0	62.79	33.682		
9,800.0	7,740.0	9,622.5	7,740.0	43.6	32.9	90.00	-1,600.0	-508.0	2,114.8	2,048.8	65.95	32.068		
9,900.0	7,740.0	9,722.5	7,740.0	44.8	34.5	90.00	-1,700.0	-508.0	2,114.8	2,045.6	69.14	30.587		
10,000.0	7,740.0	9,822.5	7,740.0	46.0	36.1	90.00	-1,800.0	-508.0	2,114.8	2,042.4	72.36	29.225		
10,100.0	7,740.0	9,922.5	7,740.0	47.3	37.8	90.00	-1,900.0	-508.0	2,114.8	2,039.2	75.61	27.970		
10,200.0	7,740.0	10,022.5	7,740.0	48.6	39.4	90.00	-2,000.0	-508.0	2,114.8	2,035.9	78.88	26.810		
10,300.0	7,740.0	10,122.5	7,740.0	50.0	41.0	90.00	-2,100.0	-508.0	2,114.8	2,032.6	82.17	25.737		
10,400.0	7,740.0	10,222.5	7,740.0	51.3	42.7	90.00	-2,200.0	-508.0	2,114.8	2,029.3	85.48	24.741		
10,500.0	7,740.0	10,322.5	7,740.0	52.7	44.4	90.00	-2,300.0	-508.0	2,114.8	2,026.0	88.80	23.815		
10,600.0	7,740.0	10,422.5	7,740.0	54.1	46.0	90.00	-2,400.0	-508.0	2,114.8	2,022.6	92.13	22.953		
10,700.0	7,740.0	10,522.5	7,740.0	55.6	47.7	90.00	-2,500.0	-508.0	2,114.8	2,019.3	95.48	22.148		
10,800.0	7,740.0	10,622.5	7,740.0	57.0	49.4	90.00	-2,600.0	-508.0	2,114.8	2,015.9	98.84	21.395		
10,900.0	7,740.0	10,722.5	7,740.0	58.5	51.1	90.00	-2,700.0	-508.0	2,114.8	2,012.6	102.21	20.690		
11,000.0	7,740.0	10,822.5	7,740.0	59.9	52.8	90.00	-2,800.0	-508.0	2,114.8	2,009.2	105.59	20.028		
11,100.0	7,740.0	10,922.5	7,740.0	61.4	54.5	90.00	-2,900.0	-508.0	2,114.8	2,005.8	108.98	19.406		
11,200.0	7,740.0	11,022.5	7,740.0	62.9	56.2	90.00	-3,000.0	-508.0	2,114.8	2,002.4	112.37	18.819		
11,300.0	7,740.0	11,122.5	7,740.0	64.5	57.9	90.00	-3,100.0	-508.0	2,114.8	1,999.0	115.77	18.267		
11,400.0	7,740.0	11,222.5	7,740.0	66.0	59.6	90.00	-3,200.0	-508.0	2,114.8	1,995.6	119.18	17.744		
11,500.0	7,740.0	11,322.5	7,740.0	67.5	61.3	90.00	-3,300.0	-508.0	2,114.8	1,992.2	122.59	17.250		
11,600.0	7,740.0	11,422.5	7,740.0	69.1	63.0	90.00	-3,400.0	-508.1	2,114.8	1,988.8	126.01	16.782		
11,700.0	7,740.0	11,522.5	7,740.0	70.7	64.7	90.00	-3,500.0	-508.1	2,114.8	1,985.4	129.44	16.339		
11,800.0	7,740.0	11,622.5	7,740.0	72.2	66.4	90.00	-3,600.0	-508.1	2,114.8	1,981.9	132.86	15.917		
11,900.0	7,740.0	11,722.5	7,740.0	73.8	68.1	90.00	-3,700.0	-508.1	2,114.8	1,978.5	136.29	15.516		
12,000.0	7,740.0	11,822.5	7,740.0	75.4	69.8	90.00	-3,800.0	-508.1	2,114.8	1,975.1	139.73	15.135		
12,100.0	7,740.0	11,922.5	7,740.0	77.0	71.6	90.00	-3,900.0	-508.1	2,114.8	1,971.6	143.17	14.771		
12,200.0	7,740.0	12,022.5	7,740.0	78.6	73.3	90.00	-4,000.0	-508.1	2,114.8	1,968.2	146.61	14.425		
12,300.0	7,740.0	12,122.5	7,740.0	80.2	75.0	90.00	-4,100.0	-508.1	2,114.8	1,964.8	150.06	14.093		
12,400.0	7,740.0	12,222.5	7,740.0	81.8	76.7	90.00	-4,200.0	-508.1	2,114.8	1,961.3	153.50	13.777		
12,500.0	7,740.0	12,322.5	7,740.0	83.4	78.5	90.00	-4,300.0	-508.1	2,114.8	1,957.9	156.95	13.474		
12,600.0	7,740.0	12,422.5	7,740.0	85.1	80.2	90.00	-4,400.0	-508.1	2,114.8	1,954.4	160.41	13.184		
12,700.0	7,740.0	12,522.5	7,740.0	86.7	81.9	90.00	-4,500.0	-508.1	2,114.8	1,951.0	163.86	12.906		
12,800.0	7,740.0	12,622.5	7,740.0	88.3	83.6	90.00	-4,600.0	-508.1	2,114.8	1,947.5	167.32	12.639		
12,900.0	7,740.0	12,722.5	7,740.0	90.0	85.4	90.00	-4,700.0	-508.1	2,114.8	1,944.0	170.78	12.383		
13,000.0	7,740.0	12,822.5	7,740.0	91.6	87.1	90.00	-4,800.0	-508.1	2,114.8	1,940.6	174.24	12.137		
13,100.0	7,740.0	12,922.5	7,740.0	93.3	88.8	90.00	-4,900.0	-508.1	2,114.8	1,937.1	177.71	11.901		
13,200.0	7,740.0	13,022.5	7,740.0	94.9	90.6	90.00	-5,000.0	-508.1	2,114.8	1,933.7	181.17	11.673		
13,300.0	7,740.0	13,122.5	7,740.0	96.6	92.3	90.00	-5,100.0	-508.1	2,114.8	1,930.2	184.64	11.454		
13,400.0	7,740.0	13,222.5	7,740.0	98.2	94.0	90.00	-5,200.0	-508.1	2,114.8	1,926.7	188.11	11.243		
13,500.0	7,740.0	13,322.5	7,740.0	99.9	95.8	90.00	-5,300.0	-508.1	2,114.8	1,923.3	191.58	11.039		
13,600.0	7,740.0	13,422.5	7,740.0	101.6	97.5	90.00	-5,400.0	-508.1	2,114.8	1,919.8	195.05	10.843		
13,700.0	7,740.0	13,522.5	7,740.0	103.2	99.2	90.00	-5,500.0	-508.1	2,114.8	1,916.3	198.52	10.653		
13,800.0	7,740.0	13,622.5	7,740.0	104.9	101.0	90.00	-5,600.0	-508.1	2,114.8	1,912.8	201.99	10.470		
13,900.0	7,740.0	13,722.5	7,740.0	106.6	102.7	90.00	-5,700.0	-508.1	2,114.8	1,909.4	205.47	10.293		
14,000.0	7,740.0	13,822.5	7,740.0	108.2	104.5	90.00	-5,800.0	-508.1	2,114.8	1,905.9	208.94	10.122		
14,100.0	7,740.0	13,922.5	7,740.0	109.9	106.2	90.00	-5,900.0	-508.1	2,114.8	1,902.4	212.42	9.956		
14,200.0	7,740.0	14,022.5	7,740.0	111.6	107.9	90.00	-6,000.0	-508.1	2,114.8	1,898.9	215.90	9.796		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design													S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2A-7H-E168 - Hz - Plan #2		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 +N/-S (ft)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning				
14,300.0	7,740.0	14,122.5	7,740.0	113.3	109.7	90.00	-6,100.0	-508.1	2,114.8	1,895.5	219.38	9.640					
14,400.0	7,740.0	14,222.5	7,740.0	115.0	111.4	90.00	-6,200.0	-508.1	2,114.9	1,892.0	222.86	9.490					
14,500.0	7,740.0	14,322.5	7,740.0	116.7	113.1	90.00	-6,300.0	-508.1	2,114.9	1,888.5	226.34	9.344					
14,600.0	7,740.0	14,422.5	7,740.0	118.3	114.9	90.00	-6,400.0	-508.1	2,114.9	1,885.0	229.82	9.202					
14,700.0	7,740.0	14,522.5	7,740.0	120.0	116.6	90.00	-6,500.0	-508.1	2,114.9	1,881.6	233.30	9.065					
14,800.0	7,740.0	14,622.5	7,740.0	121.7	118.4	90.00	-6,600.0	-508.1	2,114.9	1,878.1	236.79	8.932					
14,900.0	7,740.0	14,722.5	7,740.0	123.4	120.1	90.00	-6,700.0	-508.1	2,114.9	1,874.6	240.27	8.802					
15,000.0	7,740.0	14,822.5	7,740.0	125.1	121.9	90.00	-6,800.0	-508.1	2,114.9	1,871.1	243.76	8.676					
15,100.0	7,740.0	14,922.5	7,740.0	126.8	123.6	90.00	-6,900.0	-508.1	2,114.9	1,867.6	247.24	8.554					
15,200.0	7,740.0	15,022.5	7,740.0	128.5	125.3	90.00	-7,000.0	-508.1	2,114.9	1,864.1	250.73	8.435					
15,300.0	7,740.0	15,122.5	7,740.0	130.2	127.1	90.00	-7,100.0	-508.1	2,114.9	1,860.7	254.21	8.319					
15,400.0	7,740.0	15,222.5	7,740.0	131.9	128.8	90.00	-7,200.0	-508.1	2,114.9	1,857.2	257.70	8.207					
15,500.0	7,740.0	15,322.5	7,740.0	133.6	130.6	90.00	-7,300.0	-508.1	2,114.9	1,853.7	261.19	8.097					
15,600.0	7,740.0	15,422.5	7,740.0	135.3	132.3	90.00	-7,400.0	-508.1	2,114.9	1,850.2	264.68	7.990					
15,700.0	7,740.0	15,522.5	7,740.0	137.0	134.1	90.00	-7,500.0	-508.1	2,114.9	1,846.7	268.16	7.886					
15,800.0	7,740.0	15,622.5	7,740.0	138.7	135.8	90.00	-7,600.0	-508.1	2,114.9	1,843.2	271.65	7.785					
15,900.0	7,740.0	15,722.5	7,740.0	140.5	137.6	90.00	-7,700.0	-508.1	2,114.9	1,839.7	275.14	7.686					
16,000.0	7,740.0	15,822.5	7,740.0	142.2	139.3	90.00	-7,800.0	-508.1	2,114.9	1,836.3	278.63	7.590					
16,100.0	7,740.0	15,922.5	7,740.0	143.9	141.0	90.00	-7,900.0	-508.1	2,114.9	1,832.8	282.12	7.496					
16,142.2	7,740.0	15,936.0	7,740.0	144.6	141.3	90.00	-7,913.5	-508.1	2,115.1	1,832.0	283.10	7.471 SF					

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2B-7H-E168 - HZ - Plan #2														Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		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)	Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-89.59	0.4	-49.8	49.8						
100.0	100.0	100.0	100.0	0.2	0.2	-89.59	0.4	-49.8	49.8	49.5	0.30	164.050			
200.0	200.0	200.0	200.0	0.3	0.3	-89.59	0.4	-49.8	49.8	49.2	0.65	76.323 CC, ES			
300.0	300.0	300.0	300.0	0.5	0.5	-160.90	0.4	-49.8	50.6	49.6	1.00	50.551			
400.0	400.0	399.4	399.4	0.7	0.7	-161.10	1.0	-50.4	53.7	52.3	1.35	39.747			
500.0	499.9	498.6	498.5	0.9	0.9	-160.52	3.0	-52.0	59.5	57.8	1.70	34.956			
600.0	599.7	597.5	597.3	1.1	1.0	-159.44	6.3	-54.8	68.0	66.0	2.06	33.082			
700.0	699.4	696.0	695.6	1.3	1.2	-158.13	10.8	-58.6	79.4	77.0	2.42	32.827			
800.0	798.9	795.0	794.4	1.5	1.4	-157.12	16.1	-63.0	93.0	90.2	2.79	33.382			
900.0	898.3	893.8	893.0	1.8	1.6	-156.72	21.4	-67.5	108.2	105.1	3.16	34.273			
1,000.0	997.4	992.4	991.3	2.0	1.8	-156.73	26.7	-71.9	125.1	121.5	3.53	35.391			
1,100.0	1,096.3	1,090.7	1,089.4	2.3	2.0	-156.98	31.9	-76.3	143.4	139.5	3.91	36.672			
1,200.0	1,194.9	1,188.6	1,187.1	2.7	2.2	-157.40	37.2	-80.7	163.4	159.1	4.29	38.076			
1,300.0	1,293.3	1,288.3	1,286.5	3.0	2.4	-157.78	43.0	-84.7	184.5	179.8	4.68	39.387			
1,400.0	1,391.2	1,388.3	1,386.2	3.4	2.7	-157.89	49.9	-87.4	206.0	200.9	5.09	40.460			
1,500.0	1,488.9	1,487.5	1,485.1	3.8	2.9	-157.84	58.0	-88.9	228.0	222.5	5.51	41.383			
1,595.5	1,581.8	1,580.4	1,577.7	4.2	3.1	-157.87	65.7	-90.1	250.3	244.4	5.91	42.343			
1,600.0	1,586.1	1,584.7	1,582.0	4.2	3.1	-157.88	66.1	-90.2	251.3	245.4	5.93	42.387			
1,700.0	1,683.2	1,681.8	1,678.7	4.7	3.3	-158.05	74.2	-91.4	275.4	269.0	6.36	43.296			
1,800.0	1,780.2	1,778.8	1,775.4	5.1	3.5	-158.19	82.3	-92.7	299.4	292.6	6.79	44.078			
1,900.0	1,877.3	1,875.9	1,872.1	5.6	3.7	-158.31	90.4	-93.9	323.5	316.3	7.23	44.756			
2,000.0	1,974.3	1,973.0	1,968.8	6.0	3.9	-158.42	98.5	-95.2	347.5	339.9	7.66	45.349			
2,100.0	2,071.4	2,070.0	2,065.6	6.5	4.2	-158.51	106.6	-96.4	371.6	363.5	8.10	45.872			
2,200.0	2,168.4	2,167.1	2,162.3	6.9	4.4	-158.58	114.6	-97.7	395.6	387.1	8.54	46.337			
2,300.0	2,265.4	2,264.1	2,259.0	7.4	4.6	-158.66	122.7	-98.9	419.7	410.7	8.98	46.753			
2,400.0	2,362.5	2,361.2	2,355.7	7.9	4.8	-158.72	130.8	-100.2	443.7	434.3	9.42	47.126			
2,500.0	2,459.5	2,458.3	2,452.4	8.3	5.0	-158.77	138.9	-101.5	467.8	457.9	9.86	47.464			
2,600.0	2,556.6	2,555.3	2,549.1	8.8	5.2	-158.82	147.0	-102.7	491.9	481.6	10.30	47.770			
2,700.0	2,653.6	2,652.4	2,645.9	9.2	5.5	-158.87	155.1	-104.0	515.9	505.2	10.74	48.049			
2,800.0	2,750.7	2,749.5	2,742.6	9.7	5.7	-158.91	163.2	-105.2	540.0	528.8	11.18	48.305			
2,900.0	2,847.7	2,846.5	2,839.3	10.2	5.9	-158.95	171.3	-106.5	564.0	552.4	11.62	48.540			
3,000.0	2,944.8	2,943.6	2,936.0	10.6	6.1	-158.99	179.4	-107.7	588.1	576.0	12.06	48.756			
3,100.0	3,041.8	3,040.6	3,032.7	11.1	6.3	-159.02	187.5	-109.0	612.1	599.6	12.50	48.956			
3,200.0	3,138.9	3,137.7	3,129.4	11.5	6.6	-159.05	195.6	-110.2	636.2	623.2	12.95	49.142			
3,300.0	3,235.9	3,234.8	3,226.2	12.0	6.8	-159.08	203.7	-111.5	660.2	646.8	13.39	49.314			
3,400.0	3,333.0	3,331.8	3,322.9	12.5	7.0	-159.10	211.8	-112.7	684.3	670.5	13.83	49.475			
3,500.0	3,430.0	3,428.9	3,419.6	12.9	7.2	-159.13	219.8	-114.0	708.3	694.1	14.27	49.625			
3,600.0	3,527.1	3,526.0	3,516.3	13.4	7.4	-159.15	227.9	-115.2	732.4	717.7	14.72	49.766			
3,700.0	3,624.1	3,623.0	3,613.0	13.9	7.7	-159.17	236.0	-116.5	756.5	741.3	15.16	49.897			
3,800.0	3,721.2	3,720.1	3,709.7	14.3	7.9	-159.19	244.1	-117.7	780.5	764.9	15.60	50.021			
3,900.0	3,818.2	3,817.2	3,806.5	14.8	8.1	-159.21	252.2	-119.0	804.6	788.5	16.05	50.138			
4,000.0	3,915.3	3,914.2	3,903.2	15.3	8.3	-159.23	260.3	-120.2	828.6	812.1	16.49	50.248			
4,100.0	4,012.3	4,011.3	3,999.9	15.7	8.5	-159.24	268.4	-121.5	852.7	835.7	16.93	50.352			
4,200.0	4,109.4	4,108.3	4,096.6	16.2	8.8	-159.26	276.5	-122.7	876.7	859.4	17.38	50.451			
4,300.0	4,206.4	4,205.4	4,193.3	16.6	9.0	-159.27	284.6	-124.0	900.8	883.0	17.82	50.544			
4,400.0	4,303.5	4,302.5	4,290.0	17.1	9.2	-159.29	292.7	-125.2	924.8	906.6	18.27	50.632			
4,500.0	4,400.5	4,399.5	4,386.8	17.6	9.4	-159.30	300.8	-126.5	948.9	930.2	18.71	50.716			
4,600.0	4,497.6	4,496.6	4,483.5	18.0	9.6	-159.31	308.9	-127.8	973.0	953.8	19.15	50.796			
4,700.0	4,594.6	4,593.7	4,580.2	18.5	9.9	-159.32	317.0	-129.0	997.0	977.4	19.60	50.873			
4,800.0	4,691.7	4,690.7	4,676.9	19.0	10.1	-159.34	325.0	-130.3	1,021.1	1,001.0	20.04	50.945			
4,900.0	4,788.7	4,787.8	4,773.6	19.4	10.3	-159.35	333.1	-131.5	1,045.1	1,024.6	20.49	51.015			
5,000.0	4,885.8	4,884.8	4,870.4	19.9	10.5	-159.36	341.2	-132.8	1,069.2	1,048.3	20.93	51.081			

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2B-7H-E168 - HZ - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-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)			
5,100.0	4,982.8	4,981.9	4,967.1	20.4	10.7	-159.37	349.3	-134.0	1,093.2	1,071.9	21.38	51.145	
5,200.0	5,079.9	5,079.0	5,063.8	20.8	11.0	-159.38	357.4	-135.3	1,117.3	1,095.5	21.82	51.205	
5,300.0	5,176.9	5,176.0	5,160.5	21.3	11.2	-159.39	365.5	-136.5	1,141.4	1,119.1	22.26	51.263	
5,400.0	5,273.9	5,273.1	5,257.2	21.8	11.4	-159.39	373.6	-137.8	1,165.4	1,142.7	22.71	51.319	
5,500.0	5,371.0	5,370.2	5,353.9	22.2	11.6	-159.40	381.7	-139.0	1,189.5	1,166.3	23.15	51.373	
5,600.0	5,468.0	5,467.2	5,450.7	22.7	11.8	-159.41	389.8	-140.3	1,213.5	1,189.9	23.60	51.424	
5,700.0	5,565.1	5,564.3	5,547.4	23.1	12.1	-159.42	397.9	-141.5	1,237.6	1,213.5	24.04	51.474	
5,800.0	5,662.1	5,661.4	5,644.1	23.6	12.3	-159.43	406.0	-142.8	1,261.6	1,237.2	24.49	51.522	
5,900.0	5,759.2	5,758.4	5,740.8	24.1	12.5	-159.43	414.1	-144.0	1,285.7	1,260.8	24.93	51.568	
6,000.0	5,856.2	5,855.5	5,837.5	24.5	12.7	-159.44	422.2	-145.3	1,309.8	1,284.4	25.38	51.612	
6,100.0	5,953.3	5,952.5	5,934.2	25.0	13.0	-159.45	430.2	-146.5	1,333.8	1,308.0	25.82	51.654	
6,200.0	6,050.3	6,049.6	6,031.0	25.5	13.2	-159.45	438.3	-147.8	1,357.9	1,331.6	26.27	51.696	
6,300.0	6,147.4	6,146.7	6,127.7	25.9	13.4	-159.46	446.4	-149.0	1,381.9	1,355.2	26.71	51.735	
6,400.0	6,244.4	6,243.7	6,224.4	26.4	13.6	-159.47	454.5	-150.3	1,406.0	1,378.8	27.16	51.774	
6,500.0	6,341.5	6,340.8	6,321.1	26.9	13.8	-159.47	462.6	-151.6	1,430.0	1,402.4	27.60	51.811	
6,600.0	6,438.5	6,437.9	6,417.8	27.3	14.1	-159.48	470.7	-152.8	1,454.1	1,426.0	28.05	51.847	
6,700.0	6,535.6	6,534.9	6,514.5	27.8	14.3	-159.48	478.8	-154.1	1,478.1	1,449.7	28.49	51.882	
6,800.0	6,632.6	6,632.0	6,611.3	28.3	14.5	-159.49	486.9	-155.3	1,502.2	1,473.3	28.94	51.915	
6,900.0	6,729.7	6,729.0	6,708.0	28.7	14.7	-159.49	495.0	-156.6	1,526.3	1,496.9	29.38	51.948	
7,000.0	6,826.7	6,826.1	6,804.7	29.2	14.9	-159.50	503.1	-157.8	1,550.3	1,520.5	29.83	51.979	
7,100.0	6,923.8	6,924.1	6,902.4	29.7	15.1	-159.52	510.8	-159.1	1,574.4	1,544.1	30.25	52.048	
7,200.0	7,020.8	7,023.5	7,001.6	30.1	15.2	-159.99	506.5	-160.4	1,598.3	1,567.9	30.42	52.549	
7,300.0	7,117.9	7,116.1	7,092.0	30.6	15.1	-160.96	487.1	-161.5	1,622.4	1,592.1	30.31	53.532	
7,321.2	7,138.4	7,134.5	7,109.5	30.7	15.1	-161.22	481.5	-161.8	1,627.6	1,597.3	30.26	53.788	
7,350.0	7,166.4	7,158.9	7,132.5	30.8	15.0	-173.91	473.2	-162.1	1,634.7	1,604.7	30.00	54.495	
7,400.0	7,215.1	7,200.0	7,170.3	31.0	14.9	163.29	457.1	-162.5	1,647.3	1,617.8	29.53	55.778	
7,450.0	7,263.5	7,241.4	7,207.1	31.2	14.8	143.74	438.2	-163.0	1,659.9	1,630.9	29.07	57.093	
7,500.0	7,311.3	7,281.5	7,241.3	31.3	14.7	129.21	417.4	-163.5	1,672.6	1,643.9	28.66	58.359	
7,550.0	7,358.1	7,320.9	7,273.5	31.5	14.5	118.75	394.7	-163.9	1,685.1	1,656.8	28.30	59.539	
7,600.0	7,403.5	7,359.7	7,303.6	31.6	14.4	111.05	370.2	-164.3	1,697.3	1,669.3	28.01	60.603	
7,650.0	7,447.3	7,400.0	7,333.0	31.7	14.2	105.15	342.7	-164.7	1,709.1	1,681.4	27.76	61.558	
7,700.0	7,489.1	7,436.1	7,357.7	31.7	14.1	100.53	316.3	-165.0	1,720.5	1,692.9	27.60	62.347	
7,750.0	7,528.5	7,473.8	7,381.6	31.8	14.0	96.77	287.2	-165.3	1,731.2	1,703.8	27.46	63.035	
7,800.0	7,565.3	7,511.1	7,403.3	31.8	13.9	93.68	256.9	-165.6	1,741.3	1,714.0	27.37	63.625	
7,850.0	7,599.2	7,550.0	7,423.8	31.9	13.8	91.09	223.8	-165.8	1,750.6	1,723.4	27.29	64.143	
7,900.0	7,629.9	7,585.2	7,440.4	31.9	13.7	88.96	192.8	-166.0	1,759.1	1,731.9	27.25	64.547	
7,950.0	7,657.2	7,621.9	7,455.7	31.9	13.7	87.17	159.4	-166.2	1,766.7	1,739.4	27.23	64.890	
8,000.0	7,680.9	7,658.5	7,468.7	32.0	13.6	85.71	125.2	-166.4	1,773.2	1,746.0	27.22	65.154	
8,050.0	7,700.8	7,700.0	7,480.8	32.0	13.6	84.51	85.5	-166.6	1,778.7	1,751.5	27.23	65.323	
8,100.0	7,716.7	7,731.5	7,488.0	32.0	13.6	83.61	54.9	-166.7	1,783.2	1,755.9	27.29	65.351	
8,150.0	7,728.6	7,767.8	7,494.3	32.1	13.7	82.94	19.1	-166.7	1,786.5	1,759.1	27.38	65.250	
8,200.0	7,736.3	7,800.0	7,497.9	32.1	13.8	82.51	-12.9	-166.8	1,788.7	1,761.2	27.50	65.042	
8,250.0	7,739.8	7,840.4	7,499.9	32.2	13.9	82.31	-53.2	-166.8	1,789.7	1,761.9	27.71	64.597	
8,266.2	7,740.0	7,853.5	7,500.0	32.2	13.9	82.29	-66.3	-166.8	1,789.7	1,761.9	27.78	64.420	
8,300.0	7,740.0	7,887.2	7,500.0	32.3	14.1	82.29	-100.0	-166.8	1,789.7	1,761.7	28.06	63.790	
8,400.0	7,740.0	7,987.2	7,500.0	32.5	14.6	82.29	-200.0	-166.8	1,789.7	1,760.6	29.13	61.439	
8,500.0	7,740.0	8,087.2	7,500.0	32.8	15.3	82.29	-300.0	-166.8	1,789.7	1,759.2	30.56	58.568	
8,600.0	7,740.0	8,187.2	7,500.0	33.2	16.2	82.29	-400.0	-166.8	1,789.7	1,757.4	32.30	55.413	
8,700.0	7,740.0	8,287.2	7,500.0	33.7	17.2	82.29	-500.0	-166.8	1,789.7	1,755.4	34.30	52.173	
8,800.0	7,740.0	8,387.2	7,500.0	34.3	18.3	82.29	-600.0	-166.8	1,789.7	1,753.2	36.53	48.993	
8,900.0	7,740.0	8,487.2	7,500.0	34.9	19.6	82.29	-700.0	-166.8	1,789.7	1,750.8	38.94	45.960	
9,000.0	7,740.0	8,587.2	7,500.0	35.6	20.8	82.29	-800.0	-166.8	1,789.7	1,748.2	41.50	43.123	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2B-7H-E168 - HZ - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-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
9,100.0	7,740.0	8,687.2	7,500.0	36.4	22.2	82.29	-900.0	-166.8	1,789.7	1,745.5	44.19	40.501	
9,200.0	7,740.0	8,787.2	7,500.0	37.3	23.6	82.29	-1,000.0	-166.8	1,789.7	1,742.7	46.98	38.095	
9,300.0	7,740.0	8,887.2	7,500.0	38.2	25.1	82.29	-1,100.0	-166.8	1,789.7	1,739.9	49.86	35.896	
9,400.0	7,740.0	8,987.2	7,500.0	39.2	26.6	82.29	-1,200.0	-166.8	1,789.7	1,736.9	52.81	33.891	
9,500.0	7,740.0	9,087.2	7,500.0	40.2	28.1	82.29	-1,300.0	-166.8	1,789.7	1,733.9	55.82	32.064	
9,600.0	7,740.0	9,187.2	7,500.0	41.3	29.6	82.29	-1,400.0	-166.8	1,789.7	1,730.8	58.88	30.396	
9,700.0	7,740.0	9,287.2	7,500.0	42.4	31.2	82.29	-1,500.0	-166.8	1,789.7	1,727.7	61.99	28.873	
9,800.0	7,740.0	9,387.2	7,500.0	43.6	32.8	82.29	-1,600.0	-166.8	1,789.7	1,724.6	65.13	27.480	
9,900.0	7,740.0	9,487.2	7,500.0	44.8	34.4	82.29	-1,700.0	-166.8	1,789.7	1,721.4	68.30	26.202	
10,000.0	7,740.0	9,587.2	7,500.0	46.0	36.0	82.29	-1,800.0	-166.8	1,789.7	1,718.2	71.51	25.029	
10,100.0	7,740.0	9,687.2	7,500.0	47.3	37.6	82.29	-1,900.0	-166.8	1,789.7	1,715.0	74.74	23.948	
10,200.0	7,740.0	9,787.2	7,500.0	48.6	39.3	82.29	-2,000.0	-166.8	1,789.7	1,711.7	77.98	22.950	
10,300.0	7,740.0	9,887.2	7,500.0	50.0	40.9	82.29	-2,100.0	-166.8	1,789.7	1,708.5	81.25	22.027	
10,400.0	7,740.0	9,987.2	7,500.0	51.3	42.6	82.29	-2,200.0	-166.8	1,789.7	1,705.2	84.54	21.171	
10,500.0	7,740.0	10,087.2	7,500.0	52.7	44.2	82.29	-2,300.0	-166.8	1,789.7	1,701.9	87.84	20.375	
10,600.0	7,740.0	10,187.2	7,500.0	54.1	45.9	82.29	-2,400.0	-166.8	1,789.7	1,698.6	91.15	19.635	
10,700.0	7,740.0	10,287.2	7,500.0	55.6	47.6	82.29	-2,500.0	-166.8	1,789.7	1,695.3	94.47	18.944	
10,800.0	7,740.0	10,387.2	7,500.0	57.0	49.3	82.29	-2,600.0	-166.8	1,789.7	1,691.9	97.81	18.298	
10,900.0	7,740.0	10,487.2	7,500.0	58.5	51.0	82.29	-2,700.0	-166.8	1,789.7	1,688.6	101.15	17.693	
11,000.0	7,740.0	10,587.2	7,500.0	59.9	52.7	82.29	-2,800.0	-166.8	1,789.7	1,685.2	104.51	17.125	
11,100.0	7,740.0	10,687.2	7,500.0	61.4	54.4	82.29	-2,900.0	-166.8	1,789.7	1,681.9	107.87	16.592	
11,200.0	7,740.0	10,787.2	7,500.0	62.9	56.1	82.29	-3,000.0	-166.8	1,789.7	1,678.5	111.24	16.089	
11,300.0	7,740.0	10,887.2	7,500.0	64.5	57.8	82.29	-3,100.0	-166.8	1,789.7	1,675.1	114.61	15.616	
11,400.0	7,740.0	10,987.2	7,500.0	66.0	59.5	82.29	-3,200.0	-166.8	1,789.7	1,671.7	117.99	15.168	
11,500.0	7,740.0	11,087.2	7,500.0	67.5	61.2	82.29	-3,300.0	-166.8	1,789.7	1,668.4	121.38	14.745	
11,600.0	7,740.0	11,187.2	7,500.0	69.1	62.9	82.29	-3,400.0	-166.8	1,789.7	1,665.0	124.77	14.344	
11,700.0	7,740.0	11,287.2	7,500.0	70.7	64.6	82.29	-3,500.0	-166.8	1,789.7	1,661.6	128.17	13.964	
11,800.0	7,740.0	11,387.2	7,500.0	72.2	66.3	82.29	-3,600.0	-166.8	1,789.7	1,658.2	131.57	13.603	
11,900.0	7,740.0	11,487.2	7,500.0	73.8	68.0	82.29	-3,700.0	-166.8	1,789.7	1,654.8	134.97	13.260	
12,000.0	7,740.0	11,587.2	7,500.0	75.4	69.7	82.29	-3,800.0	-166.8	1,789.7	1,651.4	138.38	12.934	
12,100.0	7,740.0	11,687.2	7,500.0	77.0	71.5	82.29	-3,900.0	-166.8	1,789.7	1,647.9	141.79	12.623	
12,200.0	7,740.0	11,787.2	7,500.0	78.6	73.2	82.29	-4,000.0	-166.8	1,789.7	1,644.5	145.20	12.326	
12,300.0	7,740.0	11,887.2	7,500.0	80.2	74.9	82.29	-4,100.0	-166.8	1,789.7	1,641.1	148.62	12.042	
12,400.0	7,740.0	11,987.2	7,500.0	81.8	76.6	82.29	-4,200.0	-166.8	1,789.7	1,637.7	152.04	11.772	
12,500.0	7,740.0	12,087.2	7,500.0	83.4	78.4	82.29	-4,300.0	-166.8	1,789.7	1,634.3	155.46	11.513	
12,600.0	7,740.0	12,187.2	7,500.0	85.1	80.1	82.29	-4,400.0	-166.8	1,789.7	1,630.9	158.88	11.264	
12,700.0	7,740.0	12,287.2	7,500.0	86.7	81.8	82.29	-4,500.0	-166.8	1,789.7	1,627.4	162.31	11.027	
12,800.0	7,740.0	12,387.2	7,500.0	88.3	83.6	82.29	-4,600.0	-166.8	1,789.7	1,624.0	165.74	10.798	
12,900.0	7,740.0	12,487.2	7,500.0	90.0	85.3	82.29	-4,700.0	-166.8	1,789.7	1,620.6	169.17	10.579	
13,000.0	7,740.0	12,587.2	7,500.0	91.6	87.0	82.29	-4,800.0	-166.8	1,789.7	1,617.1	172.60	10.369	
13,100.0	7,740.0	12,687.2	7,500.0	93.3	88.7	82.29	-4,900.0	-166.8	1,789.7	1,613.7	176.04	10.167	
13,200.0	7,740.0	12,787.2	7,500.0	94.9	90.5	82.29	-5,000.0	-166.8	1,789.7	1,610.3	179.47	9.972	
13,300.0	7,740.0	12,887.2	7,500.0	96.6	92.2	82.29	-5,100.0	-166.8	1,789.7	1,606.8	182.91	9.785	
13,400.0	7,740.0	12,987.4	7,500.0	98.2	94.0	82.29	-5,200.2	-166.8	1,789.7	1,603.4	186.35	9.604	
13,500.0	7,740.0	13,109.4	7,500.0	99.9	96.1	82.29	-5,322.2	-165.7	1,788.8	1,598.6	190.17	9.406	
13,600.0	7,740.0	13,209.4	7,500.0	101.6	97.8	82.28	-5,422.2	-164.5	1,787.6	1,594.0	193.61	9.233	
13,700.0	7,740.0	13,309.4	7,500.0	103.2	99.5	82.28	-5,522.2	-163.2	1,786.3	1,589.3	197.05	9.065	
13,800.0	7,740.0	13,409.4	7,500.0	104.9	101.3	82.27	-5,622.2	-162.0	1,785.1	1,584.6	200.49	8.904	
13,900.0	7,740.0	13,509.4	7,500.0	106.6	103.0	82.27	-5,722.2	-160.7	1,783.8	1,579.9	203.93	8.747	
14,000.0	7,740.0	13,609.4	7,500.0	108.2	104.8	82.26	-5,822.1	-159.5	1,782.6	1,575.2	207.38	8.596	
14,100.0	7,740.0	13,709.4	7,500.0	109.9	106.5	82.26	-5,922.1	-158.2	1,781.4	1,570.5	210.82	8.450	
14,200.0	7,740.0	13,809.4	7,500.0	111.6	108.2	82.25	-6,022.1	-157.0	1,780.1	1,565.9	214.27	8.308	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design		S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2B-7H-E168 - HZ - Plan #2										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			
14,300.0	7,740.0	13,909.4	7,500.0	113.3	110.0	82.25	-6,122.1	-155.7	1,778.9	1,561.2	217.71	8.171			
14,400.0	7,740.0	14,009.4	7,500.0	115.0	111.7	82.24	-6,222.1	-154.5	1,777.6	1,556.5	221.16	8.038			
14,500.0	7,740.0	14,109.3	7,500.0	116.7	113.5	82.23	-6,322.1	-153.2	1,776.4	1,551.8	224.61	7.909			
14,600.0	7,740.0	14,209.3	7,500.0	118.3	115.2	82.23	-6,422.0	-152.0	1,775.2	1,547.1	228.05	7.784			
14,700.0	7,740.0	14,309.3	7,500.0	120.0	116.9	82.22	-6,522.0	-150.7	1,773.9	1,542.4	231.50	7.663			
14,800.0	7,740.0	14,409.3	7,500.0	121.7	118.7	82.22	-6,622.0	-149.5	1,772.7	1,537.7	234.95	7.545			
14,900.0	7,740.0	14,509.3	7,500.0	123.4	120.4	82.21	-6,722.0	-148.2	1,771.4	1,533.0	238.40	7.431			
15,000.0	7,740.0	14,609.3	7,500.0	125.1	122.2	82.21	-6,822.0	-147.0	1,770.2	1,528.4	241.85	7.319			
15,100.0	7,740.0	14,709.3	7,500.0	126.8	123.9	82.20	-6,922.0	-145.7	1,769.0	1,523.7	245.30	7.211			
15,200.0	7,740.0	14,809.3	7,500.0	128.5	125.7	82.20	-7,022.0	-144.5	1,767.7	1,519.0	248.75	7.106			
15,300.0	7,740.0	14,909.3	7,500.0	130.2	127.4	82.19	-7,121.9	-143.2	1,766.5	1,514.3	252.21	7.004			
15,400.0	7,740.0	15,009.3	7,500.0	131.9	129.1	82.19	-7,221.9	-142.0	1,765.3	1,509.6	255.66	6.905			
15,500.0	7,740.0	15,109.3	7,500.0	133.6	130.9	82.18	-7,321.9	-140.7	1,764.0	1,504.9	259.11	6.808			
15,600.0	7,740.0	15,209.3	7,500.0	135.3	132.6	82.17	-7,421.9	-139.5	1,762.8	1,500.2	262.57	6.714			
15,700.0	7,740.0	15,309.2	7,500.0	137.0	134.4	82.17	-7,521.9	-138.2	1,761.5	1,495.5	266.02	6.622			
15,800.0	7,740.0	15,409.2	7,500.0	138.7	136.1	82.16	-7,621.9	-137.0	1,760.3	1,490.8	269.47	6.532			
15,900.0	7,740.0	15,509.2	7,500.0	140.5	137.9	82.16	-7,721.8	-135.7	1,759.1	1,486.1	272.93	6.445			
16,000.0	7,740.0	15,609.2	7,500.0	142.2	139.6	82.15	-7,821.8	-134.5	1,757.8	1,481.4	276.38	6.360			
16,100.0	7,740.0	15,706.0	7,500.0	143.9	141.3	82.15	-7,918.6	-133.3	1,756.6	1,476.8	279.78	6.278			
16,118.6	7,740.0	15,706.0	7,500.0	144.2	141.3	82.15	-7,918.6	-133.3	1,756.5	1,476.4	280.10	6.271			
16,142.2	7,740.0	15,706.0	7,500.0	144.6	141.3	82.15	-7,918.6	-133.3	1,756.6	1,476.1	280.51	6.262 SF			

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2C-7H-E168 - HZ - Plan #2												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	-89.48	0.4	-40.0	40.0				
100.0	100.0	100.0	100.0	0.2	0.2	-89.48	0.4	-40.0	40.0	39.7	0.30	131.795	CC, ES
200.0	200.0	200.0	200.0	0.3	0.3	-89.48	0.4	-40.0	40.0	39.4	0.65	61.316	
300.0	300.0	300.0	300.0	0.5	0.5	-160.88	0.4	-40.0	40.8	39.8	1.00	40.773	
400.0	400.0	400.0	400.0	0.7	0.7	-162.01	0.4	-40.0	43.3	42.0	1.35	32.072	
500.0	499.9	500.3	500.2	0.9	0.9	-162.69	1.1	-39.6	47.1	45.4	1.70	27.673	
600.0	599.7	600.5	600.5	1.1	1.0	-162.11	3.5	-38.5	51.7	49.6	2.06	25.153	
700.0	699.4	700.8	700.7	1.3	1.2	-160.60	7.5	-36.6	57.2	54.8	2.42	23.665	
800.0	798.9	801.0	800.7	1.5	1.4	-158.47	13.0	-33.9	63.6	60.9	2.79	22.796	
900.0	898.3	901.1	900.5	1.8	1.6	-155.96	20.1	-30.4	71.1	67.9	3.19	22.317	
1,000.0	997.4	1,000.7	999.7	2.0	1.8	-153.93	27.8	-26.7	80.0	76.4	3.60	22.248	
1,100.0	1,096.3	1,100.1	1,098.7	2.3	2.0	-152.80	35.6	-22.9	90.5	86.5	4.01	22.544	
1,200.0	1,194.9	1,199.4	1,197.6	2.7	2.3	-152.34	43.3	-19.1	102.5	98.1	4.44	23.101	
1,300.0	1,293.3	1,298.5	1,296.3	3.0	2.5	-152.38	51.1	-15.3	116.1	111.3	4.87	23.857	
1,400.0	1,391.2	1,397.3	1,394.8	3.4	2.7	-152.74	58.8	-11.6	131.3	126.0	5.30	24.772	
1,500.0	1,488.9	1,495.9	1,493.0	3.8	2.9	-153.31	66.5	-7.8	147.9	142.2	5.73	25.818	
1,595.5	1,581.8	1,589.8	1,586.6	4.2	3.1	-153.98	73.8	-4.3	165.3	159.2	6.14	26.922	
1,600.0	1,586.1	1,594.2	1,590.9	4.2	3.1	-154.02	74.2	-4.1	166.1	160.0	6.16	26.975	
1,700.0	1,683.2	1,692.4	1,688.7	4.7	3.4	-154.76	81.8	-0.4	185.1	178.5	6.59	28.075	
1,800.0	1,780.2	1,790.5	1,786.5	5.1	3.6	-155.36	89.5	3.4	204.1	197.1	7.03	29.040	
1,900.0	1,877.3	1,888.7	1,884.3	5.6	3.8	-155.86	97.2	7.1	223.1	215.6	7.46	29.895	
2,000.0	1,974.3	1,986.8	1,982.1	6.0	4.0	-156.29	104.8	10.8	242.1	234.2	7.90	30.655	
2,100.0	2,071.4	2,085.0	2,079.9	6.5	4.3	-156.65	112.5	14.5	261.1	252.8	8.33	31.337	
2,200.0	2,168.4	2,183.2	2,177.7	6.9	4.5	-156.96	120.2	18.3	280.1	271.4	8.77	31.950	
2,300.0	2,265.4	2,281.3	2,275.5	7.4	4.7	-157.23	127.8	22.0	299.2	290.0	9.20	32.506	
2,400.0	2,362.5	2,379.5	2,373.3	7.9	4.9	-157.47	135.5	25.7	318.2	308.6	9.64	33.012	
2,500.0	2,459.5	2,477.6	2,471.1	8.3	5.2	-157.68	143.1	29.5	337.3	327.2	10.08	33.474	
2,600.0	2,556.6	2,575.8	2,568.8	8.8	5.4	-157.87	150.8	33.2	356.3	345.8	10.51	33.897	
2,700.0	2,653.6	2,674.0	2,666.6	9.2	5.6	-158.04	158.5	36.9	375.4	364.4	10.95	34.287	
2,800.0	2,750.7	2,772.1	2,764.4	9.7	5.8	-158.19	166.1	40.7	394.5	383.1	11.39	34.646	
2,900.0	2,847.7	2,870.3	2,862.2	10.2	6.1	-158.33	173.8	44.4	413.5	401.7	11.82	34.980	
3,000.0	2,944.8	2,968.5	2,960.0	10.6	6.3	-158.46	181.5	48.1	432.6	420.3	12.26	35.289	
3,100.0	3,041.8	3,066.6	3,057.8	11.1	6.5	-158.58	189.1	51.8	451.6	438.9	12.69	35.577	
3,200.0	3,138.9	3,164.8	3,155.6	11.5	6.7	-158.68	196.8	55.6	470.7	457.6	13.13	35.845	
3,300.0	3,235.9	3,262.9	3,253.4	12.0	7.0	-158.78	204.5	59.3	489.8	476.2	13.57	36.097	
3,400.0	3,333.0	3,361.1	3,351.2	12.5	7.2	-158.88	212.1	63.0	508.9	494.8	14.01	36.332	
3,500.0	3,430.0	3,459.3	3,449.0	12.9	7.4	-158.96	219.8	66.8	527.9	513.5	14.44	36.554	
3,600.0	3,527.1	3,557.4	3,546.8	13.4	7.6	-159.04	227.5	70.5	547.0	532.1	14.88	36.762	
3,700.0	3,624.1	3,655.6	3,644.5	13.9	7.9	-159.11	235.1	74.2	566.1	550.8	15.32	36.958	
3,800.0	3,721.2	3,753.7	3,742.3	14.3	8.1	-159.18	242.8	78.0	585.1	569.4	15.75	37.144	
3,900.0	3,818.2	3,851.9	3,840.1	14.8	8.3	-159.25	250.5	81.7	604.2	588.0	16.19	37.319	
4,000.0	3,915.3	3,950.1	3,937.9	15.3	8.5	-159.31	258.1	85.4	623.3	606.7	16.63	37.485	
4,100.0	4,012.3	4,048.2	4,035.7	15.7	8.8	-159.36	265.8	89.1	642.4	625.3	17.07	37.643	
4,200.0	4,109.4	4,146.4	4,133.5	16.2	9.0	-159.42	273.4	92.9	661.4	643.9	17.50	37.792	
4,300.0	4,206.4	4,244.6	4,231.3	16.6	9.2	-159.47	281.1	96.6	680.5	662.6	17.94	37.934	
4,400.0	4,303.5	4,342.7	4,329.1	17.1	9.5	-159.51	288.8	100.3	699.6	681.2	18.38	38.070	
4,500.0	4,400.5	4,440.9	4,426.9	17.6	9.7	-159.56	296.4	104.1	718.7	699.9	18.81	38.199	
4,600.0	4,497.6	4,539.0	4,524.7	18.0	9.9	-159.60	304.1	107.8	737.8	718.5	19.25	38.322	
4,700.0	4,594.6	4,637.2	4,622.5	18.5	10.1	-159.64	311.8	111.5	756.8	737.2	19.69	38.440	
4,800.0	4,691.7	4,735.4	4,720.2	19.0	10.4	-159.68	319.4	115.3	775.9	755.8	20.13	38.553	
4,900.0	4,788.7	4,833.5	4,818.0	19.4	10.6	-159.72	327.1	119.0	795.0	774.4	20.56	38.661	
5,000.0	4,885.8	4,931.7	4,915.8	19.9	10.8	-159.75	334.8	122.7	814.1	793.1	21.00	38.764	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2C-7H-E168 - HZ - Plan #2											Offset Site Error: 0.0 ft		
Survey Program: O-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	
5,100.0	4,982.8	5,029.8	5,013.6	20.4	11.0	-159.79	342.4	126.4	833.2	811.7	21.44	38.863	
5,200.0	5,079.9	5,128.0	5,111.4	20.8	11.3	-159.82	350.1	130.2	852.2	830.4	21.88	38.958	
5,300.0	5,176.9	5,226.2	5,209.2	21.3	11.5	-159.85	357.8	133.9	871.3	849.0	22.31	39.050	
5,400.0	5,273.9	5,324.3	5,307.0	21.8	11.7	-159.88	365.4	137.6	890.4	867.7	22.75	39.138	
5,500.0	5,371.0	5,422.5	5,404.8	22.2	11.9	-159.91	373.1	141.4	909.5	886.3	23.19	39.222	
5,600.0	5,468.0	5,520.7	5,502.6	22.7	12.2	-159.94	380.8	145.1	928.6	904.9	23.63	39.303	
5,700.0	5,565.1	5,618.8	5,600.4	23.1	12.4	-159.96	388.4	148.8	947.7	923.6	24.06	39.382	
5,800.0	5,662.1	5,717.0	5,698.2	23.6	12.6	-159.99	396.1	152.5	966.7	942.2	24.50	39.457	
5,900.0	5,759.2	5,815.1	5,795.9	24.1	12.9	-160.01	403.7	156.3	985.8	960.9	24.94	39.530	
6,000.0	5,856.2	5,913.3	5,893.7	24.5	13.1	-160.03	411.4	160.0	1,004.9	979.5	25.38	39.601	
6,100.0	5,953.3	6,011.5	5,991.5	25.0	13.3	-160.06	419.1	163.7	1,024.0	998.2	25.81	39.669	
6,200.0	6,050.3	6,109.6	6,089.3	25.5	13.5	-160.08	426.7	167.5	1,043.1	1,016.8	26.25	39.735	
6,300.0	6,147.4	6,207.8	6,187.1	25.9	13.8	-160.10	434.4	171.2	1,062.2	1,035.5	26.69	39.798	
6,400.0	6,244.4	6,305.9	6,284.9	26.4	14.0	-160.12	442.1	174.9	1,081.2	1,054.1	27.13	39.860	
6,500.0	6,341.5	6,404.1	6,382.7	26.9	14.2	-160.14	449.7	178.7	1,100.3	1,072.8	27.56	39.919	
6,600.0	6,438.5	6,502.3	6,480.5	27.3	14.4	-160.15	457.4	182.4	1,119.4	1,091.4	28.00	39.977	
6,700.0	6,535.6	6,600.4	6,578.3	27.8	14.7	-160.17	465.1	186.1	1,138.5	1,110.0	28.44	40.033	
6,800.0	6,632.6	6,698.6	6,676.1	28.3	14.9	-160.19	472.7	189.8	1,157.6	1,128.7	28.88	40.087	
6,900.0	6,729.7	6,796.8	6,773.8	28.7	15.1	-160.21	480.4	193.6	1,176.7	1,147.3	29.31	40.140	
7,000.0	6,826.7	6,894.9	6,871.6	29.2	15.3	-160.22	488.1	197.3	1,195.7	1,166.0	29.75	40.191	
7,100.0	6,923.8	6,993.1	6,969.4	29.7	15.6	-160.24	495.7	201.0	1,214.8	1,184.6	30.19	40.240	
7,200.0	7,020.8	7,091.2	7,067.2	30.1	15.8	-160.25	503.4	204.8	1,233.9	1,203.3	30.63	40.288	
7,300.0	7,117.9	7,189.9	7,165.6	30.6	16.0	-160.34	509.5	208.5	1,253.0	1,222.0	31.01	40.412	
7,321.2	7,138.4	7,210.8	7,186.5	30.7	16.0	-160.44	509.2	209.3	1,257.0	1,226.0	31.04	40.494	
7,350.0	7,166.4	7,239.0	7,214.6	30.8	16.0	-172.76	507.5	210.4	1,262.5	1,231.6	30.88	40.882	
7,400.0	7,215.1	7,287.7	7,262.9	31.0	16.0	165.07	501.5	212.2	1,272.1	1,241.5	30.55	41.637	
7,450.0	7,263.5	7,335.9	7,310.0	31.2	16.0	146.14	491.4	214.0	1,281.6	1,251.5	30.19	42.459	
7,500.0	7,311.3	7,383.8	7,355.8	31.3	15.9	132.21	477.6	215.8	1,291.1	1,261.3	29.80	43.318	
7,550.0	7,358.1	7,431.3	7,399.9	31.5	15.8	122.33	460.1	217.5	1,300.3	1,270.9	29.43	44.187	
7,600.0	7,403.5	7,478.6	7,442.2	31.6	15.7	115.17	439.2	219.1	1,309.4	1,280.3	29.07	45.038	
7,650.0	7,447.3	7,525.6	7,482.5	31.7	15.6	109.80	415.0	220.6	1,318.0	1,289.3	28.75	45.847	
7,700.0	7,489.1	7,572.4	7,520.4	31.7	15.4	105.64	387.7	222.1	1,326.3	1,297.9	28.47	46.594	
7,750.0	7,528.5	7,619.0	7,555.9	31.8	15.3	102.32	357.5	223.4	1,334.2	1,305.9	28.23	47.264	
7,800.0	7,565.3	7,665.4	7,588.7	31.8	15.1	99.63	324.6	224.7	1,341.5	1,313.5	28.04	47.844	
7,850.0	7,599.2	7,711.7	7,618.6	31.9	15.0	97.42	289.3	225.8	1,348.2	1,320.3	27.90	48.328	
7,900.0	7,629.9	7,757.9	7,645.5	31.9	14.9	95.59	251.8	226.8	1,354.3	1,326.5	27.80	48.711	
7,950.0	7,657.2	7,804.0	7,669.3	31.9	14.8	94.08	212.3	227.7	1,359.8	1,332.0	27.76	48.988	
8,000.0	7,680.9	7,850.0	7,689.8	32.0	14.7	92.84	171.2	228.5	1,364.5	1,336.7	27.76	49.158	
8,050.0	7,700.8	7,896.0	7,706.9	32.0	14.7	91.86	128.5	229.2	1,368.5	1,340.7	27.81	49.210	
8,100.0	7,716.7	7,941.9	7,720.5	32.0	14.7	91.09	84.7	229.7	1,371.6	1,343.7	27.91	49.149	
8,150.0	7,728.6	7,987.8	7,730.6	32.1	14.7	90.54	39.9	230.1	1,374.0	1,346.0	28.06	48.974	
8,200.0	7,736.3	8,033.6	7,737.1	32.1	14.8	90.18	-5.4	230.3	1,375.6	1,347.3	28.25	48.696	
8,250.0	7,739.8	8,079.5	7,739.9	32.2	14.9	90.01	-51.2	230.4	1,376.3	1,347.8	28.49	48.304	
8,266.2	7,740.0	8,094.6	7,740.0	32.2	15.0	90.00	-66.3	230.4	1,376.3	1,347.7	28.58	48.159	
8,300.0	7,740.0	8,128.3	7,740.0	32.3	15.1	90.00	-100.0	230.4	1,376.3	1,347.4	28.87	47.678	
8,400.0	7,740.0	8,228.3	7,740.0	32.5	15.6	90.00	-200.0	230.4	1,376.3	1,346.4	29.92	45.995	
8,500.0	7,740.0	8,328.3	7,740.0	32.8	16.3	90.00	-300.0	230.4	1,376.3	1,345.0	31.34	43.918	
8,600.0	7,740.0	8,428.3	7,740.0	33.2	17.1	90.00	-400.0	230.4	1,376.3	1,343.2	33.07	41.623	
8,700.0	7,740.0	8,528.3	7,740.0	33.7	18.1	90.00	-500.0	230.4	1,376.3	1,341.3	35.06	39.255	
8,800.0	7,740.0	8,628.3	7,740.0	34.3	19.2	90.00	-600.0	230.4	1,376.3	1,339.0	37.28	36.918	
8,900.0	7,740.0	8,728.3	7,740.0	34.9	20.3	90.00	-700.0	230.4	1,376.3	1,336.6	39.69	34.680	
9,000.0	7,740.0	8,828.3	7,740.0	35.6	21.6	90.00	-800.0	230.4	1,376.3	1,334.1	42.25	32.578	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2C-7H-E168 - HZ - Plan #2													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		
9,100.0	7,740.0	8,928.3	7,740.0	36.4	22.9	90.00	-900.0	230.4	1,376.3	1,331.4	44.93	30.629		
9,200.0	7,740.0	9,028.3	7,740.0	37.3	24.3	90.00	-1,000.0	230.4	1,376.3	1,328.6	47.73	28.835		
9,300.0	7,740.0	9,128.3	7,740.0	38.2	25.7	90.00	-1,100.0	230.4	1,376.3	1,325.7	50.61	27.192		
9,400.0	7,740.0	9,228.3	7,740.0	39.2	27.1	90.00	-1,200.0	230.4	1,376.3	1,322.7	53.57	25.691		
9,500.0	7,740.0	9,328.3	7,740.0	40.2	28.6	90.00	-1,300.0	230.4	1,376.3	1,319.7	56.59	24.319		
9,600.0	7,740.0	9,428.3	7,740.0	41.3	30.2	90.00	-1,400.0	230.4	1,376.3	1,316.6	59.67	23.066		
9,700.0	7,740.0	9,528.3	7,740.0	42.4	31.7	90.00	-1,500.0	230.4	1,376.3	1,313.5	62.79	21.919		
9,800.0	7,740.0	9,628.3	7,740.0	43.6	33.3	90.00	-1,600.0	230.4	1,376.3	1,310.4	65.95	20.869		
9,900.0	7,740.0	9,728.3	7,740.0	44.8	34.8	90.00	-1,700.0	230.4	1,376.3	1,307.2	69.14	19.906		
10,000.0	7,740.0	9,828.3	7,740.0	46.0	36.4	90.00	-1,800.0	230.4	1,376.3	1,304.0	72.36	19.019		
10,100.0	7,740.0	9,928.3	7,740.0	47.3	38.1	90.00	-1,900.0	230.4	1,376.3	1,300.7	75.61	18.202		
10,200.0	7,740.0	10,028.3	7,740.0	48.6	39.7	90.00	-2,000.0	230.4	1,376.3	1,297.4	78.88	17.448		
10,300.0	7,740.0	10,128.3	7,740.0	50.0	41.3	90.00	-2,100.0	230.4	1,376.3	1,294.1	82.17	16.749		
10,400.0	7,740.0	10,228.3	7,740.0	51.3	43.0	90.00	-2,200.0	230.4	1,376.3	1,290.8	85.48	16.101		
10,500.0	7,740.0	10,328.3	7,740.0	52.7	44.6	90.00	-2,300.0	230.4	1,376.3	1,287.5	88.80	15.499		
10,600.0	7,740.0	10,428.3	7,740.0	54.1	46.3	90.00	-2,400.0	230.4	1,376.3	1,284.2	92.14	14.938		
10,700.0	7,740.0	10,528.3	7,740.0	55.6	47.9	90.00	-2,500.0	230.4	1,376.3	1,280.8	95.49	14.414		
10,800.0	7,740.0	10,628.3	7,740.0	57.0	49.6	90.00	-2,600.0	230.4	1,376.3	1,277.5	98.85	13.924		
10,900.0	7,740.0	10,728.3	7,740.0	58.5	51.3	90.00	-2,700.0	230.4	1,376.3	1,274.1	102.21	13.465		
11,000.0	7,740.0	10,828.3	7,740.0	59.9	53.0	90.00	-2,800.0	230.4	1,376.3	1,270.7	105.59	13.034		
11,100.0	7,740.0	10,928.3	7,740.0	61.4	54.7	90.00	-2,900.0	230.4	1,376.3	1,267.3	108.98	12.629		
11,200.0	7,740.0	11,028.3	7,740.0	62.9	56.4	90.00	-3,000.0	230.4	1,376.3	1,263.9	112.37	12.248		
11,300.0	7,740.0	11,128.3	7,740.0	64.5	58.1	90.00	-3,100.0	230.4	1,376.3	1,260.5	115.78	11.888		
11,400.0	7,740.0	11,228.3	7,740.0	66.0	59.7	90.00	-3,200.0	230.4	1,376.3	1,257.1	119.18	11.548		
11,500.0	7,740.0	11,328.3	7,740.0	67.5	61.5	90.00	-3,300.0	230.4	1,376.3	1,253.7	122.60	11.227		
11,600.0	7,740.0	11,428.3	7,740.0	69.1	63.2	90.00	-3,400.0	230.4	1,376.3	1,250.3	126.01	10.922		
11,700.0	7,740.0	11,528.3	7,740.0	70.7	64.9	90.00	-3,500.0	230.4	1,376.3	1,246.9	129.44	10.633		
11,800.0	7,740.0	11,628.3	7,740.0	72.2	66.6	90.00	-3,600.0	230.4	1,376.3	1,243.5	132.86	10.359		
11,900.0	7,740.0	11,728.3	7,740.0	73.8	68.3	90.00	-3,700.0	230.4	1,376.3	1,240.0	136.30	10.098		
12,000.0	7,740.0	11,828.3	7,740.0	75.4	70.0	90.00	-3,800.0	230.4	1,376.3	1,236.6	139.73	9.850		
12,100.0	7,740.0	11,928.3	7,740.0	77.0	71.7	90.00	-3,900.0	230.4	1,376.3	1,233.2	143.17	9.613		
12,200.0	7,740.0	12,028.3	7,740.0	78.6	73.4	90.00	-4,000.0	230.4	1,376.3	1,229.7	146.61	9.388		
12,300.0	7,740.0	12,128.3	7,740.0	80.2	75.2	90.00	-4,100.0	230.4	1,376.3	1,226.3	150.06	9.172		
12,400.0	7,740.0	12,228.3	7,740.0	81.8	76.9	90.00	-4,200.0	230.4	1,376.3	1,222.8	153.51	8.966		
12,500.0	7,740.0	12,328.3	7,740.0	83.4	78.6	90.00	-4,300.0	230.4	1,376.3	1,219.4	156.96	8.769		
12,600.0	7,740.0	12,428.3	7,740.0	85.1	80.3	90.00	-4,400.0	230.4	1,376.3	1,215.9	160.41	8.580		
12,700.0	7,740.0	12,528.3	7,740.0	86.7	82.0	90.00	-4,500.0	230.4	1,376.3	1,212.5	163.86	8.399		
12,800.0	7,740.0	12,628.3	7,740.0	88.3	83.8	90.00	-4,600.0	230.4	1,376.3	1,209.0	167.32	8.226		
12,900.0	7,740.0	12,728.3	7,740.0	90.0	85.5	90.00	-4,700.0	230.4	1,376.3	1,205.5	170.78	8.059		
13,000.0	7,740.0	12,828.3	7,740.0	91.6	87.2	90.00	-4,800.0	230.4	1,376.3	1,202.1	174.24	7.899		
13,100.0	7,740.0	12,928.3	7,740.0	93.3	89.0	90.00	-4,900.0	230.4	1,376.3	1,198.6	177.71	7.745		
13,200.0	7,740.0	13,028.3	7,740.0	94.9	90.7	90.00	-5,000.0	230.4	1,376.3	1,195.2	181.17	7.597		
13,300.0	7,740.0	13,128.3	7,740.0	96.6	92.4	90.00	-5,100.0	230.4	1,376.3	1,191.7	184.64	7.454		
13,400.0	7,740.0	13,228.3	7,740.0	98.2	94.2	90.00	-5,200.0	230.4	1,376.3	1,188.2	188.11	7.317		
13,500.0	7,740.0	13,328.3	7,740.0	99.9	95.9	90.00	-5,300.0	230.4	1,376.3	1,184.7	191.58	7.184		
13,600.0	7,740.0	13,428.3	7,740.0	101.6	97.6	90.00	-5,400.0	230.4	1,376.3	1,181.3	195.05	7.056		
13,700.0	7,740.0	13,528.3	7,740.0	103.2	99.4	90.00	-5,500.0	230.4	1,376.3	1,177.8	198.52	6.933		
13,800.0	7,740.0	13,628.3	7,740.0	104.9	101.1	90.00	-5,600.0	230.4	1,376.3	1,174.3	201.99	6.814		
13,900.0	7,740.0	13,728.3	7,740.0	106.6	102.8	90.00	-5,700.0	230.4	1,376.3	1,170.9	205.47	6.698		
14,000.0	7,740.0	13,828.3	7,740.0	108.2	104.6	90.00	-5,800.0	230.4	1,376.3	1,167.4	208.95	6.587		
14,100.0	7,740.0	13,928.3	7,740.0	109.9	106.3	90.00	-5,900.0	230.4	1,376.3	1,163.9	212.42	6.479		
14,200.0	7,740.0	14,028.3	7,740.0	111.6	108.0	90.00	-6,000.0	230.4	1,376.3	1,160.4	215.90	6.375		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2C-7H-E168 - HZ - Plan #2												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
14,300.0	7,740.0	14,128.3	7,740.0	113.3	109.8	90.00	-6,100.0	230.4	1,376.3	1,156.9	219.38	6.274	
14,400.0	7,740.0	14,228.3	7,740.0	115.0	111.5	90.00	-6,200.0	230.4	1,376.3	1,153.5	222.86	6.176	
14,500.0	7,740.0	14,328.3	7,740.0	116.7	113.2	90.00	-6,300.0	230.4	1,376.3	1,150.0	226.34	6.081	
14,600.0	7,740.0	14,428.3	7,740.0	118.3	115.0	90.00	-6,400.0	230.4	1,376.3	1,146.5	229.82	5.989	
14,700.0	7,740.0	14,528.3	7,740.0	120.0	116.7	90.00	-6,500.0	230.4	1,376.3	1,143.0	233.30	5.899	
14,800.0	7,740.0	14,628.3	7,740.0	121.7	118.5	90.00	-6,600.0	230.4	1,376.3	1,139.5	236.79	5.812	
14,900.0	7,740.0	14,728.3	7,740.0	123.4	120.2	90.00	-6,700.0	230.4	1,376.3	1,136.1	240.27	5.728	
15,000.0	7,740.0	14,828.3	7,740.0	125.1	122.0	90.00	-6,800.0	230.4	1,376.3	1,132.6	243.76	5.646	
15,100.0	7,740.0	14,928.3	7,740.0	126.8	123.7	90.00	-6,900.0	230.4	1,376.3	1,129.1	247.24	5.567	
15,200.0	7,740.0	15,028.3	7,740.0	128.5	125.4	90.00	-7,000.0	230.4	1,376.3	1,125.6	250.73	5.489	
15,300.0	7,740.0	15,128.3	7,740.0	130.2	127.2	90.00	-7,100.0	230.4	1,376.3	1,122.1	254.21	5.414	
15,400.0	7,740.0	15,228.3	7,740.0	131.9	128.9	90.00	-7,200.0	230.4	1,376.3	1,118.6	257.70	5.341	
15,500.0	7,740.0	15,328.3	7,740.0	133.6	130.7	90.00	-7,300.0	230.4	1,376.3	1,115.1	261.19	5.269	
15,600.0	7,740.0	15,428.3	7,740.0	135.3	132.4	90.00	-7,400.0	230.4	1,376.3	1,111.7	264.68	5.200	
15,700.0	7,740.0	15,528.3	7,740.0	137.0	134.1	90.00	-7,500.0	230.4	1,376.3	1,108.2	268.17	5.132	
15,800.0	7,740.0	15,628.3	7,740.0	138.7	135.9	90.00	-7,600.0	230.4	1,376.3	1,104.7	271.65	5.066	
15,900.0	7,740.0	15,728.3	7,740.0	140.5	137.6	90.00	-7,700.0	230.4	1,376.3	1,101.2	275.14	5.002	
16,000.0	7,740.0	15,828.3	7,740.0	142.2	139.4	90.00	-7,800.0	230.4	1,376.3	1,097.7	278.63	4.940	
16,100.0	7,740.0	15,928.3	7,740.0	143.9	141.1	90.00	-7,900.0	230.4	1,376.3	1,094.2	282.12	4.878	
16,112.3	7,740.0	15,940.7	7,740.0	144.1	141.3	90.00	-7,912.4	230.4	1,376.3	1,093.8	282.56	4.871	
16,142.2	7,740.0	15,952.8	7,740.0	144.6	141.6	90.00	-7,924.5	230.4	1,376.4	1,093.2	283.29	4.859 SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2D-7H-E168 - HZ - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-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	-89.31	0.4	-29.9	29.9				
100.0	100.0	100.0	100.0	0.2	0.2	-89.31	0.4	-29.9	29.9	29.6	0.30	98.619	
200.0	200.0	200.0	200.0	0.3	0.3	-89.31	0.4	-29.9	29.9	29.3	0.65	45.881	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	-160.84	0.4	-29.9	30.8	29.8	1.00	30.716	
400.0	400.0	400.0	400.0	0.7	0.7	-162.32	0.4	-29.9	33.3	31.9	1.35	24.616	
500.0	499.9	499.9	499.9	0.9	0.8	-164.33	0.4	-29.9	37.4	35.7	1.70	22.020	
600.0	599.7	600.2	600.2	1.1	1.0	-165.68	1.0	-29.4	42.7	40.7	2.05	20.844	
700.0	699.4	700.6	700.6	1.3	1.2	-165.74	3.1	-27.7	48.5	46.1	2.40	20.192	
800.0	798.9	801.0	800.9	1.5	1.4	-164.91	6.5	-24.9	54.8	52.0	2.76	19.843	
900.0	898.3	901.5	901.1	1.8	1.6	-163.48	11.2	-21.0	61.5	58.4	3.13	19.677	
1,000.0	997.4	1,001.9	1,001.3	2.0	1.8	-161.67	17.3	-16.0	68.8	65.3	3.51	19.621	
1,100.0	1,096.3	1,102.4	1,101.3	2.3	2.0	-159.61	24.8	-9.8	76.7	72.8	3.91	19.621	
1,200.0	1,194.9	1,202.8	1,201.1	2.7	2.2	-157.43	33.6	-2.6	85.3	80.9	4.34	19.642	
1,300.0	1,293.3	1,302.3	1,299.8	3.0	2.5	-155.65	43.0	5.1	95.0	90.2	4.79	19.837	
1,400.0	1,391.2	1,401.7	1,398.4	3.4	2.7	-154.60	52.3	12.9	106.4	101.1	5.25	20.270	
1,500.0	1,488.9	1,500.8	1,496.8	3.8	3.0	-154.11	61.7	20.6	119.4	113.6	5.71	20.891	
1,595.5	1,581.8	1,595.3	1,590.6	4.2	3.2	-154.03	70.6	27.9	133.2	127.0	6.16	21.627	
1,600.0	1,586.1	1,599.7	1,595.0	4.2	3.3	-154.04	71.0	28.2	133.9	127.7	6.18	21.664	
1,700.0	1,683.2	1,698.6	1,693.1	4.7	3.5	-154.16	80.3	35.9	149.1	142.5	6.65	22.414	
1,800.0	1,780.2	1,797.4	1,791.2	5.1	3.8	-154.26	89.6	43.6	164.3	157.2	7.13	23.054	
1,900.0	1,877.3	1,896.2	1,889.3	5.6	4.0	-154.34	98.9	51.2	179.6	172.0	7.61	23.607	
2,000.0	1,974.3	1,995.1	1,987.4	6.0	4.3	-154.41	108.3	58.9	194.8	186.7	8.09	24.088	
2,100.0	2,071.4	2,093.9	2,085.5	6.5	4.6	-154.47	117.6	66.6	210.0	201.5	8.57	24.510	
2,200.0	2,168.4	2,192.7	2,183.6	6.9	4.8	-154.52	126.9	74.3	225.3	216.2	9.05	24.884	
2,300.0	2,265.4	2,291.6	2,281.7	7.4	5.1	-154.57	136.2	81.9	240.5	231.0	9.54	25.216	
2,400.0	2,362.5	2,390.4	2,379.8	7.9	5.4	-154.61	145.5	89.6	255.7	245.7	10.02	25.514	
2,500.0	2,459.5	2,489.2	2,477.8	8.3	5.6	-154.64	154.8	97.3	271.0	260.5	10.51	25.782	
2,600.0	2,556.6	2,588.1	2,575.9	8.8	5.9	-154.68	164.1	105.0	286.2	275.2	11.00	26.024	
2,700.0	2,653.6	2,686.9	2,674.0	9.2	6.2	-154.70	173.5	112.6	301.5	290.0	11.49	26.245	
2,800.0	2,750.7	2,785.7	2,772.1	9.7	6.4	-154.73	182.8	120.3	316.7	304.7	11.97	26.446	
2,900.0	2,847.7	2,884.6	2,870.2	10.2	6.7	-154.75	192.1	128.0	331.9	319.5	12.46	26.630	
3,000.0	2,944.8	2,983.4	2,968.3	10.6	7.0	-154.77	201.4	135.6	347.2	334.2	12.95	26.799	
3,100.0	3,041.8	3,082.2	3,066.4	11.1	7.2	-154.79	210.7	143.3	362.4	348.9	13.44	26.956	
3,200.0	3,138.9	3,181.1	3,164.5	11.5	7.5	-154.81	220.0	151.0	377.6	363.7	13.93	27.100	
3,300.0	3,235.9	3,279.9	3,262.6	12.0	7.8	-154.83	229.3	158.7	392.9	378.4	14.43	27.234	
3,400.0	3,333.0	3,378.7	3,360.7	12.5	8.1	-154.84	238.7	166.3	408.1	393.2	14.92	27.359	
3,500.0	3,430.0	3,477.6	3,458.8	12.9	8.3	-154.86	248.0	174.0	423.3	407.9	15.41	27.475	
3,600.0	3,527.1	3,576.4	3,556.9	13.4	8.6	-154.87	257.3	181.7	438.6	422.7	15.90	27.584	
3,700.0	3,624.1	3,675.2	3,655.0	13.9	8.9	-154.88	266.6	189.3	453.8	437.4	16.39	27.686	
3,800.0	3,721.2	3,774.1	3,753.1	14.3	9.1	-154.89	275.9	197.0	469.0	452.2	16.88	27.781	
3,900.0	3,818.2	3,872.9	3,851.2	14.8	9.4	-154.91	285.2	204.7	484.3	466.9	17.38	27.871	
4,000.0	3,915.3	3,971.7	3,949.2	15.3	9.7	-154.92	294.5	212.4	499.5	481.6	17.87	27.956	
4,100.0	4,012.3	4,070.6	4,047.3	15.7	9.9	-154.93	303.9	220.0	514.7	496.4	18.36	28.035	
4,200.0	4,109.4	4,169.4	4,145.4	16.2	10.2	-154.93	313.2	227.7	530.0	511.1	18.85	28.111	
4,300.0	4,206.4	4,268.2	4,243.5	16.6	10.5	-154.94	322.5	235.4	545.2	525.9	19.35	28.182	
4,400.0	4,303.5	4,367.1	4,341.6	17.1	10.8	-154.95	331.8	243.0	560.4	540.6	19.84	28.250	
4,500.0	4,400.5	4,465.9	4,439.7	17.6	11.0	-154.96	341.1	250.7	575.7	555.4	20.33	28.314	
4,600.0	4,497.6	4,564.7	4,537.8	18.0	11.3	-154.97	350.4	258.4	590.9	570.1	20.83	28.375	
4,700.0	4,594.6	4,663.6	4,635.9	18.5	11.6	-154.97	359.7	266.1	606.2	584.8	21.32	28.433	
4,800.0	4,691.7	4,762.4	4,734.0	19.0	11.8	-154.98	369.1	273.7	621.4	599.6	21.81	28.489	
4,900.0	4,788.7	4,861.2	4,832.1	19.4	12.1	-154.98	378.4	281.4	636.6	614.3	22.31	28.542	
5,000.0	4,885.8	4,960.0	4,930.2	19.9	12.4	-154.99	387.7	289.1	651.9	629.1	22.80	28.592	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2D-7H-E168 - HZ - Plan #2													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		
5,100.0	4,982.8	5,058.9	5,028.3	20.4	12.7	-155.00	397.0	296.7	667.1	643.8	23.29	28.640		
5,200.0	5,079.9	5,157.7	5,126.4	20.8	12.9	-155.00	406.3	304.4	682.3	658.5	23.79	28.686		
5,300.0	5,176.9	5,256.5	5,224.5	21.3	13.2	-155.01	415.6	312.1	697.6	673.3	24.28	28.731		
5,400.0	5,273.9	5,355.4	5,322.6	21.8	13.5	-155.01	424.9	319.8	712.8	688.0	24.77	28.773		
5,500.0	5,371.0	5,454.2	5,420.6	22.2	13.8	-155.02	434.3	327.4	728.0	702.8	25.27	28.813		
5,600.0	5,468.0	5,553.0	5,518.7	22.7	14.0	-155.02	443.6	335.1	743.3	717.5	25.76	28.852		
5,700.0	5,565.1	5,651.9	5,616.8	23.1	14.3	-155.03	452.9	342.8	758.5	732.3	26.26	28.890		
5,800.0	5,662.1	5,750.7	5,714.9	23.6	14.6	-155.03	462.2	350.4	773.7	747.0	26.75	28.926		
5,900.0	5,759.2	5,849.5	5,813.0	24.1	14.8	-155.03	471.5	358.1	789.0	761.7	27.24	28.961		
6,000.0	5,856.2	5,948.4	5,911.1	24.5	15.1	-155.04	480.8	365.8	804.2	776.5	27.74	28.994		
6,100.0	5,953.3	6,047.2	6,009.2	25.0	15.4	-155.04	490.1	373.5	819.4	791.2	28.23	29.026		
6,200.0	6,050.3	6,146.0	6,107.3	25.5	15.7	-155.04	499.5	381.1	834.7	806.0	28.73	29.057		
6,300.0	6,147.4	6,244.9	6,205.4	25.9	15.9	-155.05	508.8	388.8	849.9	820.7	29.22	29.087		
6,400.0	6,244.4	6,343.7	6,303.5	26.4	16.2	-155.05	518.1	396.5	865.2	835.4	29.71	29.116		
6,500.0	6,341.5	6,442.5	6,401.6	26.9	16.5	-155.05	527.4	404.1	880.4	850.2	30.21	29.144		
6,600.0	6,438.5	6,541.4	6,499.7	27.3	16.7	-155.06	536.7	411.8	895.6	864.9	30.70	29.171		
6,700.0	6,535.6	6,640.2	6,597.8	27.8	17.0	-155.06	546.0	419.5	910.9	879.7	31.20	29.197		
6,800.0	6,632.6	6,739.0	6,695.9	28.3	17.3	-155.06	555.3	427.2	926.1	894.4	31.69	29.222		
6,900.0	6,729.7	6,837.9	6,793.9	28.7	17.6	-155.07	564.7	434.8	941.3	909.1	32.19	29.247		
7,000.0	6,826.7	6,940.1	6,895.4	29.2	17.8	-155.09	573.9	442.8	956.5	923.9	32.67	29.281		
7,100.0	6,923.8	7,056.3	7,011.0	29.7	17.9	-156.04	583.9	451.8	970.5	937.9	32.62	29.752		
7,200.0	7,020.8	7,162.7	7,114.0	30.1	17.9	-158.05	543.9	459.9	983.5	951.6	31.95	30.784		
7,300.0	7,117.9	7,254.5	7,197.8	30.6	17.7	-160.59	507.4	466.4	997.4	966.4	30.99	32.181		
7,321.2	7,138.4	7,272.0	7,213.0	30.7	17.6	-161.15	498.9	467.6	1,000.6	969.8	30.78	32.508		
7,350.0	7,166.4	7,295.0	7,232.7	30.8	17.6	-173.98	487.1	469.1	1,005.2	974.9	30.33	33.142		
7,400.0	7,215.1	7,333.8	7,264.8	31.0	17.4	162.99	465.3	471.7	1,013.8	984.2	29.56	34.294		
7,450.0	7,263.5	7,371.6	7,294.5	31.2	17.3	143.20	442.1	474.0	1,023.0	994.1	28.86	35.446		
7,500.0	7,311.3	7,408.4	7,321.9	31.3	17.2	128.43	417.6	476.1	1,032.6	1,004.3	28.25	36.547		
7,550.0	7,358.1	7,444.5	7,347.2	31.5	17.1	117.72	392.0	478.1	1,042.5	1,014.7	27.76	37.549		
7,600.0	7,403.5	7,479.8	7,370.3	31.6	17.0	109.76	365.4	479.9	1,052.5	1,025.1	27.40	38.416		
7,650.0	7,447.3	7,514.6	7,391.5	31.7	16.9	103.62	337.9	481.6	1,062.6	1,035.4	27.15	39.139		
7,700.0	7,489.1	7,550.0	7,411.3	31.7	16.7	98.69	308.6	483.1	1,072.5	1,045.5	26.99	39.733		
7,750.0	7,528.5	7,582.6	7,427.9	31.8	16.7	94.70	280.5	484.4	1,082.2	1,055.3	26.93	40.183		
7,800.0	7,565.3	7,616.0	7,443.3	31.8	16.6	91.35	250.9	485.6	1,091.5	1,064.6	26.92	40.552		
7,850.0	7,599.2	7,650.0	7,457.1	31.9	16.5	88.51	219.9	486.7	1,100.3	1,073.3	26.92	40.865		
7,900.0	7,629.9	7,682.0	7,468.4	31.9	16.5	86.12	190.0	487.6	1,108.5	1,081.5	26.96	41.114		
7,950.0	7,657.2	7,714.6	7,478.1	31.9	16.4	84.09	158.9	488.3	1,116.0	1,089.0	26.99	41.343		
8,000.0	7,680.9	7,750.0	7,486.8	32.0	16.4	82.35	124.5	489.0	1,122.7	1,095.7	27.02	41.554		
8,050.0	7,700.8	7,779.1	7,492.3	32.0	16.4	80.96	95.9	489.4	1,128.6	1,101.5	27.05	41.717		
8,100.0	7,716.7	7,811.2	7,496.6	32.0	16.4	79.82	64.2	489.8	1,133.5	1,106.5	27.09	41.848		
8,150.0	7,728.6	7,850.0	7,499.5	32.1	16.5	78.88	25.5	490.0	1,137.6	1,110.5	27.14	41.922		
8,200.0	7,736.3	7,875.7	7,500.0	32.1	16.5	78.28	-0.2	490.1	1,140.6	1,113.4	27.19	41.945		
8,250.0	7,739.8	7,925.5	7,500.0	32.2	16.6	77.89	-50.0	490.1	1,142.1	1,114.7	27.37	41.726		
8,266.2	7,740.0	7,941.8	7,500.0	32.2	16.6	77.87	-66.3	490.1	1,142.2	1,114.7	27.45	41.615		
8,300.0	7,740.0	7,975.5	7,500.0	32.3	16.8	77.87	-100.0	490.1	1,142.2	1,114.5	27.71	41.218		
8,400.0	7,740.0	8,075.5	7,500.0	32.5	17.2	77.87	-200.0	490.1	1,142.2	1,113.4	28.77	39.700		
8,500.0	7,740.0	8,175.5	7,500.0	32.8	17.8	77.87	-300.0	490.1	1,142.2	1,112.0	30.18	37.840		
8,600.0	7,740.0	8,275.5	7,500.0	33.2	18.6	77.87	-400.0	490.1	1,142.2	1,110.3	31.91	35.798		
8,700.0	7,740.0	8,375.5	7,500.0	33.7	19.5	77.87	-500.0	490.1	1,142.2	1,108.3	33.89	33.703		
8,800.0	7,740.0	8,475.5	7,500.0	34.3	20.5	77.87	-600.0	490.1	1,142.2	1,106.1	36.09	31.648		
8,900.0	7,740.0	8,575.5	7,500.0	34.9	21.6	77.87	-700.0	490.1	1,142.2	1,103.7	38.47	29.689		
9,000.0	7,740.0	8,675.5	7,500.0	35.6	22.8	77.87	-800.0	490.1	1,142.2	1,101.2	41.00	27.857		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2D-7H-E168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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)				
9,100.0	7,740.0	8,775.5	7,500.0	36.4	24.0	77.87	-900.0	490.1	1,142.2	1,098.5	43.66	26.164		
9,200.0	7,740.0	8,875.5	7,500.0	37.3	25.3	77.87	-1,000.0	490.1	1,142.2	1,095.8	46.41	24.610		
9,300.0	7,740.0	8,975.5	7,500.0	38.2	26.7	77.87	-1,100.0	490.1	1,142.2	1,092.9	49.25	23.191		
9,400.0	7,740.0	9,075.5	7,500.0	39.2	28.1	77.87	-1,200.0	490.1	1,142.2	1,090.0	52.16	21.896		
9,500.0	7,740.0	9,175.5	7,500.0	40.2	29.5	77.87	-1,300.0	490.1	1,142.2	1,087.1	55.13	20.716		
9,600.0	7,740.0	9,275.5	7,500.0	41.3	31.0	77.87	-1,400.0	490.1	1,142.2	1,084.0	58.16	19.640		
9,700.0	7,740.0	9,375.5	7,500.0	42.4	32.5	77.87	-1,500.0	490.1	1,142.2	1,081.0	61.22	18.657		
9,800.0	7,740.0	9,475.5	7,500.0	43.6	34.0	77.87	-1,600.0	490.1	1,142.2	1,077.9	64.32	17.757		
9,900.0	7,740.0	9,575.5	7,500.0	44.8	35.6	77.87	-1,700.0	490.1	1,142.2	1,074.7	67.46	16.932		
10,000.0	7,740.0	9,675.5	7,500.0	46.0	37.1	77.87	-1,800.0	490.1	1,142.2	1,071.6	70.62	16.174		
10,100.0	7,740.0	9,775.5	7,500.0	47.3	38.7	77.87	-1,900.0	490.1	1,142.2	1,068.4	73.81	15.476		
10,200.0	7,740.0	9,875.5	7,500.0	48.6	40.3	77.87	-2,000.0	490.1	1,142.2	1,065.2	77.01	14.831		
10,300.0	7,740.0	9,975.5	7,500.0	50.0	41.9	77.87	-2,100.0	490.1	1,142.2	1,062.0	80.24	14.235		
10,400.0	7,740.0	10,075.5	7,500.0	51.3	43.5	77.87	-2,200.0	490.1	1,142.2	1,058.7	83.48	13.682		
10,500.0	7,740.0	10,175.5	7,500.0	52.7	45.2	77.87	-2,300.0	490.1	1,142.2	1,055.5	86.74	13.169		
10,600.0	7,740.0	10,275.5	7,500.0	54.1	46.8	77.87	-2,400.0	490.0	1,142.2	1,052.2	90.00	12.690		
10,700.0	7,740.0	10,375.5	7,500.0	55.6	48.5	77.87	-2,500.0	490.0	1,142.2	1,048.9	93.29	12.244		
10,800.0	7,740.0	10,475.5	7,500.0	57.0	50.1	77.87	-2,600.0	490.0	1,142.2	1,045.6	96.58	11.827		
10,900.0	7,740.0	10,575.5	7,500.0	58.5	51.8	77.87	-2,700.0	490.0	1,142.2	1,042.3	99.88	11.436		
11,000.0	7,740.0	10,675.5	7,500.0	59.9	53.4	77.87	-2,800.0	490.0	1,142.2	1,039.0	103.19	11.069		
11,100.0	7,740.0	10,775.5	7,500.0	61.4	55.1	77.87	-2,900.0	490.0	1,142.2	1,035.7	106.50	10.725		
11,200.0	7,740.0	10,875.5	7,500.0	62.9	56.8	77.87	-3,000.0	490.0	1,142.2	1,032.4	109.83	10.400		
11,300.0	7,740.0	10,975.5	7,500.0	64.5	58.5	77.87	-3,100.0	490.0	1,142.2	1,029.0	113.16	10.094		
11,400.0	7,740.0	11,075.5	7,500.0	66.0	60.2	77.87	-3,200.0	490.0	1,142.2	1,025.7	116.49	9.805		
11,500.0	7,740.0	11,175.5	7,500.0	67.5	61.8	77.87	-3,300.0	490.0	1,142.2	1,022.4	119.83	9.531		
11,600.0	7,740.0	11,295.6	7,500.0	69.1	63.9	77.87	-3,420.1	490.5	1,141.9	1,018.4	123.51	9.245		
11,700.0	7,740.0	11,453.3	7,500.0	70.7	66.6	77.79	-3,577.6	497.7	1,137.4	1,009.6	127.79	8.900		
11,800.0	7,740.0	11,553.0	7,500.0	72.2	68.3	77.71	-3,677.1	504.6	1,130.6	999.5	131.10	8.623		
11,900.0	7,740.0	11,652.8	7,500.0	73.8	70.0	77.64	-3,776.6	511.6	1,123.8	989.3	134.42	8.360		
12,000.0	7,740.0	11,752.6	7,500.0	75.4	71.7	77.56	-3,876.1	518.5	1,116.9	979.2	137.73	8.110		
12,100.0	7,740.0	11,852.3	7,500.0	77.0	73.4	77.49	-3,975.7	525.5	1,110.1	969.1	141.05	7.871		
12,200.0	7,740.0	11,952.1	7,500.0	78.6	75.1	77.41	-4,075.2	532.5	1,103.3	959.0	144.36	7.643		
12,300.0	7,740.0	12,051.8	7,500.0	80.2	76.9	77.33	-4,174.7	539.4	1,096.5	948.8	147.68	7.425		
12,400.0	7,740.0	12,151.6	7,500.0	81.8	78.6	77.25	-4,274.2	546.4	1,089.7	938.7	150.99	7.217		
12,500.0	7,740.0	12,235.9	7,500.0	83.4	80.0	77.18	-4,358.4	552.0	1,083.3	929.3	154.06	7.032		
12,600.0	7,740.0	12,300.0	7,500.0	85.1	81.1	77.15	-4,422.4	554.8	1,079.2	922.4	156.80	6.883		
12,700.0	7,740.0	12,393.7	7,500.0	86.7	82.7	77.13	-4,516.0	556.3	1,077.6	917.6	160.06	6.733		
12,740.3	7,740.0	12,418.2	7,500.0	87.3	83.2	77.13	-4,540.5	556.3	1,077.5	916.3	161.15	6.686		
12,800.0	7,740.0	12,477.9	7,500.0	88.3	84.2	77.13	-4,600.2	556.3	1,077.5	914.3	163.16	6.604		
12,900.0	7,740.0	12,577.9	7,500.0	90.0	85.9	77.13	-4,700.2	556.4	1,077.5	910.9	166.54	6.470		
13,000.0	7,740.0	12,677.9	7,500.0	91.6	87.6	77.13	-4,800.2	556.4	1,077.4	907.5	169.92	6.341		
13,100.0	7,740.0	12,777.9	7,500.0	93.3	89.3	77.13	-4,900.2	556.4	1,077.4	904.1	173.30	6.217		
13,200.0	7,740.0	12,877.9	7,500.0	94.9	91.1	77.13	-5,000.2	556.4	1,077.4	900.7	176.68	6.098		
13,300.0	7,740.0	12,977.9	7,500.0	96.6	92.8	77.13	-5,100.2	556.4	1,077.4	897.3	180.06	5.984		
13,400.0	7,740.0	13,077.9	7,500.0	98.2	94.5	77.13	-5,200.2	556.4	1,077.4	893.9	183.44	5.873		
13,500.0	7,740.0	13,177.9	7,500.0	99.9	96.2	77.13	-5,300.2	556.4	1,077.4	890.5	186.83	5.767		
13,600.0	7,740.0	13,277.9	7,500.0	101.6	98.0	77.13	-5,400.2	556.5	1,077.4	887.1	190.21	5.664		
13,700.0	7,740.0	13,377.9	7,500.0	103.2	99.7	77.13	-5,500.2	556.5	1,077.3	883.7	193.60	5.565		
13,800.0	7,740.0	13,477.9	7,500.0	104.9	101.4	77.13	-5,600.2	556.5	1,077.3	880.3	196.99	5.469		
13,900.0	7,740.0	13,577.9	7,500.0	106.6	103.2	77.13	-5,700.2	556.5	1,077.3	876.9	200.38	5.376		
14,000.0	7,740.0	13,677.9	7,500.0	108.2	104.9	77.13	-5,800.2	556.5	1,077.3	873.5	203.77	5.287		
14,100.0	7,740.0	13,777.9	7,500.0	109.9	106.6	77.13	-5,900.2	556.5	1,077.3	870.1	207.16	5.200		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2D-7H-E168 - HZ - Plan #2												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)			
14,200.0	7,740.0	13,877.9	7,500.0	111.6	108.4	77.13	-6,000.2	556.6	1,077.3	866.7	210.56	5.116	
14,300.0	7,740.0	13,977.9	7,500.0	113.3	110.1	77.13	-6,100.2	556.6	1,077.2	863.3	213.95	5.035	
14,400.0	7,740.0	14,077.9	7,500.0	115.0	111.8	77.13	-6,200.2	556.6	1,077.2	859.9	217.34	4.956	
14,500.0	7,740.0	14,177.9	7,500.0	116.7	113.5	77.13	-6,300.2	556.6	1,077.2	856.5	220.74	4.880	
14,600.0	7,740.0	14,277.9	7,500.0	118.3	115.3	77.13	-6,400.2	556.6	1,077.2	853.1	224.14	4.806	
14,700.0	7,740.0	14,377.9	7,500.0	120.0	117.0	77.13	-6,500.2	556.6	1,077.2	849.7	227.53	4.734	
14,800.0	7,740.0	14,477.9	7,500.0	121.7	118.8	77.13	-6,600.2	556.6	1,077.2	846.2	230.93	4.664	
14,900.0	7,740.0	14,577.9	7,500.0	123.4	120.5	77.13	-6,700.2	556.7	1,077.2	842.8	234.33	4.597	
15,000.0	7,740.0	14,677.9	7,500.0	125.1	122.2	77.13	-6,800.2	556.7	1,077.1	839.4	237.73	4.531	
15,100.0	7,740.0	14,777.9	7,500.0	126.8	124.0	77.13	-6,900.2	556.7	1,077.1	836.0	241.13	4.467	
15,200.0	7,740.0	14,877.9	7,500.0	128.5	125.7	77.13	-7,000.2	556.7	1,077.1	832.6	244.53	4.405	
15,300.0	7,740.0	14,977.9	7,500.0	130.2	127.4	77.13	-7,100.2	556.7	1,077.1	829.2	247.93	4.344	
15,400.0	7,740.0	15,077.9	7,500.0	131.9	129.2	77.12	-7,200.2	556.7	1,077.1	825.7	251.33	4.286	
15,500.0	7,740.0	15,177.9	7,500.0	133.6	130.9	77.12	-7,300.2	556.8	1,077.1	822.3	254.73	4.228	
15,600.0	7,740.0	15,277.9	7,500.0	135.3	132.7	77.12	-7,400.2	556.8	1,077.0	818.9	258.13	4.172	
15,700.0	7,740.0	15,377.9	7,500.0	137.0	134.4	77.12	-7,500.2	556.8	1,077.0	815.5	261.54	4.118	
15,800.0	7,740.0	15,477.9	7,500.0	138.7	136.1	77.12	-7,600.2	556.8	1,077.0	812.1	264.94	4.065	
15,900.0	7,740.0	15,577.9	7,500.0	140.5	137.9	77.12	-7,700.2	556.8	1,077.0	808.7	268.34	4.014	
16,000.0	7,740.0	15,677.9	7,500.0	142.2	139.6	77.12	-7,800.2	556.8	1,077.0	805.2	271.75	3.963	
16,100.0	7,740.0	15,777.9	7,500.0	143.9	141.4	77.12	-7,900.2	556.9	1,077.0	801.8	275.15	3.914	
16,126.4	7,740.0	15,804.3	7,500.0	144.3	141.8	77.12	-7,926.7	556.9	1,077.0	800.9	276.05	3.901	
16,142.2	7,740.0	15,805.8	7,500.0	144.6	141.8	77.12	-7,928.1	556.9	1,077.1	800.7	276.34	3.898 SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2E-7H-E168 - HZ - Plan #3													Offset Site Error:	0.0 ft
Survey Program: O-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		
0.0	0.0	0.0	0.0	0.0	0.0	-90.02	0.0	-19.9	19.9					
100.0	100.0	100.0	100.0	0.2	0.2	-90.02	0.0	-19.9	19.9	19.6	0.30	65.434		
200.0	200.0	200.0	200.0	0.3	0.3	-90.02	0.0	-19.9	19.9	19.2	0.65	30.442 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-161.80	0.0	-19.9	20.7	19.7	1.00	20.661		
400.0	400.0	400.0	400.0	0.7	0.7	-163.81	0.0	-19.9	23.2	21.8	1.35	17.174		
500.0	499.9	499.9	499.9	0.9	0.8	-166.34	0.0	-19.9	27.4	25.7	1.70	16.130		
600.0	599.7	599.7	599.7	1.1	1.0	-168.80	0.0	-19.9	33.4	31.3	2.05	16.300		
700.0	699.4	699.4	699.4	1.3	1.2	-170.92	0.0	-19.9	41.1	38.7	2.40	17.162		
800.0	798.9	798.9	798.9	1.5	1.4	-172.62	0.0	-19.9	50.6	47.9	2.74	18.457		
900.0	898.3	898.3	898.3	1.8	1.5	-173.95	0.0	-19.9	61.8	58.8	3.09	20.040		
1,000.0	997.4	997.4	997.4	2.0	1.7	-174.99	0.0	-19.9	74.8	71.4	3.43	21.823		
1,100.0	1,096.3	1,097.7	1,097.7	2.3	1.9	-175.60	0.5	-19.2	88.8	85.0	3.77	23.538		
1,200.0	1,194.9	1,198.2	1,198.2	2.7	2.1	-175.70	2.1	-17.2	102.9	98.8	4.12	24.998		
1,300.0	1,293.3	1,299.0	1,298.8	3.0	2.3	-175.49	4.9	-13.8	117.2	112.8	4.46	26.258		
1,400.0	1,391.2	1,399.9	1,399.6	3.4	2.4	-175.05	8.8	-9.0	131.6	126.8	4.81	27.355		
1,500.0	1,488.9	1,501.0	1,500.4	3.8	2.6	-174.47	13.8	-2.9	146.2	141.0	5.16	28.313		
1,595.5	1,581.8	1,597.9	1,596.8	4.2	2.8	-173.80	19.6	4.4	160.2	154.7	5.50	29.116		
1,600.0	1,586.1	1,602.4	1,601.3	4.2	2.8	-173.77	19.9	4.7	160.9	155.4	5.52	29.148		
1,700.0	1,683.2	1,704.1	1,702.3	4.7	3.1	-172.97	27.2	13.7	174.8	168.9	5.90	29.653		
1,800.0	1,780.2	1,806.1	1,803.5	5.1	3.3	-172.03	35.6	24.1	187.3	181.0	6.28	29.794		
1,900.0	1,877.3	1,908.5	1,904.7	5.6	3.6	-170.95	45.2	36.0	198.2	191.5	6.69	29.621		
2,000.0	1,974.3	2,007.9	2,002.8	6.0	3.9	-169.89	55.1	48.2	208.3	201.2	7.10	29.338		
2,100.0	2,071.4	2,107.3	2,101.0	6.5	4.1	-168.93	65.0	60.4	218.6	211.1	7.52	29.056		
2,200.0	2,168.4	2,206.7	2,199.2	6.9	4.4	-168.06	74.8	72.6	228.9	220.9	7.95	28.776		
2,300.0	2,265.4	2,306.1	2,297.3	7.4	4.7	-167.27	84.7	84.8	239.2	230.8	8.39	28.502		
2,400.0	2,362.5	2,405.5	2,395.5	7.9	5.0	-166.54	94.6	97.0	249.6	240.8	8.84	28.234		
2,500.0	2,459.5	2,504.9	2,493.7	8.3	5.3	-165.86	104.4	109.2	260.1	250.8	9.30	27.973		
2,600.0	2,556.6	2,604.4	2,591.8	8.8	5.6	-165.24	114.3	121.4	270.5	260.8	9.76	27.721		
2,700.0	2,653.6	2,703.8	2,690.0	9.2	5.9	-164.67	124.2	133.6	281.0	270.8	10.23	27.478		
2,800.0	2,750.7	2,803.2	2,788.2	9.7	6.2	-164.14	134.1	145.8	291.5	280.8	10.70	27.244		
2,900.0	2,847.7	2,902.6	2,886.3	10.2	6.5	-163.64	143.9	158.0	302.1	290.9	11.18	27.021		
3,000.0	2,944.8	3,002.0	2,984.5	10.6	6.8	-163.18	153.8	170.2	312.6	301.0	11.66	26.806		
3,100.0	3,041.8	3,101.4	3,082.6	11.1	7.2	-162.75	163.7	182.4	323.2	311.1	12.15	26.601		
3,200.0	3,138.9	3,200.8	3,180.8	11.5	7.5	-162.34	173.6	194.6	333.8	321.2	12.64	26.405		
3,300.0	3,235.9	3,300.2	3,279.0	12.0	7.8	-161.96	183.4	206.8	344.4	331.3	13.14	26.218		
3,400.0	3,333.0	3,399.6	3,377.1	12.5	8.1	-161.60	193.3	219.0	355.1	341.4	13.64	26.039		
3,500.0	3,430.0	3,499.0	3,475.3	12.9	8.4	-161.27	203.2	231.2	365.7	351.6	14.14	25.868		
3,600.0	3,527.1	3,598.5	3,573.5	13.4	8.7	-160.95	213.1	243.4	376.4	361.7	14.64	25.705		
3,700.0	3,624.1	3,697.9	3,671.6	13.9	9.0	-160.65	222.9	255.6	387.0	371.9	15.15	25.549		
3,800.0	3,721.2	3,797.3	3,769.8	14.3	9.4	-160.37	232.8	267.8	397.7	382.0	15.66	25.401		
3,900.0	3,818.2	3,896.7	3,867.9	14.8	9.7	-160.10	242.7	280.0	408.4	392.2	16.17	25.258		
4,000.0	3,915.3	3,996.1	3,966.1	15.3	10.0	-159.84	252.6	292.2	419.1	402.4	16.68	25.122		
4,100.0	4,012.3	4,095.5	4,064.3	15.7	10.3	-159.60	262.4	304.5	429.8	412.6	17.20	24.992		
4,200.0	4,109.4	4,194.9	4,162.4	16.2	10.6	-159.37	272.3	316.7	440.5	422.8	17.71	24.868		
4,300.0	4,206.4	4,294.3	4,260.6	16.6	11.0	-159.15	282.2	328.9	451.2	433.0	18.23	24.749		
4,400.0	4,303.5	4,393.7	4,358.8	17.1	11.3	-158.94	292.1	341.1	461.9	443.2	18.75	24.635		
4,500.0	4,400.5	4,493.1	4,456.9	17.6	11.6	-158.74	301.9	353.3	472.6	453.4	19.27	24.525		
4,600.0	4,497.6	4,592.6	4,555.1	18.0	11.9	-158.55	311.8	365.5	483.4	463.6	19.79	24.420		
4,700.0	4,594.6	4,692.0	4,653.2	18.5	12.2	-158.37	321.7	377.7	494.1	473.8	20.32	24.320		
4,800.0	4,691.7	4,791.4	4,751.4	19.0	12.6	-158.19	331.5	389.9	504.8	484.0	20.84	24.223		
4,900.0	4,788.7	4,890.8	4,849.6	19.4	12.9	-158.02	341.4	402.1	515.6	494.2	21.37	24.130		
5,000.0	4,885.8	4,990.2	4,947.7	19.9	13.2	-157.86	351.3	414.3	526.3	504.4	21.89	24.041		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2E-7H-E168 - HZ - Plan #3													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		
5,100.0	4,982.8	5,089.6	5,045.9	20.4	13.5	-157.71	361.2	426.5	537.1	514.7	22.42	23.955		
5,200.0	5,079.9	5,189.0	5,144.1	20.8	13.9	-157.56	371.0	438.7	547.8	524.9	22.95	23.872		
5,300.0	5,176.9	5,288.4	5,242.2	21.3	14.2	-157.42	380.9	450.9	558.6	535.1	23.48	23.792		
5,400.0	5,273.9	5,387.8	5,340.4	21.8	14.5	-157.28	390.8	463.1	569.4	545.4	24.01	23.715		
5,500.0	5,371.0	5,487.2	5,438.6	22.2	14.8	-157.15	400.7	475.3	580.1	555.6	24.54	23.641		
5,600.0	5,468.0	5,586.7	5,536.7	22.7	15.1	-157.02	410.5	487.5	590.9	565.8	25.07	23.570		
5,700.0	5,565.1	5,686.1	5,634.9	23.1	15.5	-156.90	420.4	499.7	601.7	576.1	25.60	23.501		
5,800.0	5,662.1	5,785.5	5,733.0	23.6	15.8	-156.78	430.3	511.9	612.4	586.3	26.13	23.434		
5,900.0	5,759.2	5,884.9	5,831.2	24.1	16.1	-156.67	440.2	524.1	623.2	596.6	26.67	23.370		
6,000.0	5,856.2	5,984.3	5,929.4	24.5	16.4	-156.55	450.0	536.3	634.0	606.8	27.20	23.308		
6,100.0	5,953.3	6,083.7	6,027.5	25.0	16.8	-156.45	459.9	548.5	644.8	617.0	27.74	23.248		
6,200.0	6,050.3	6,183.1	6,125.7	25.5	17.1	-156.34	469.8	560.7	655.6	627.3	28.27	23.190		
6,300.0	6,147.4	6,282.5	6,223.9	25.9	17.4	-156.24	479.7	572.9	666.4	637.5	28.80	23.133		
6,400.0	6,244.4	6,381.9	6,322.0	26.4	17.7	-156.15	489.5	585.1	677.1	647.8	29.34	23.079		
6,500.0	6,341.5	6,481.3	6,420.2	26.9	18.1	-156.05	499.4	597.3	687.9	658.1	29.88	23.026		
6,600.0	6,438.5	6,580.8	6,518.3	27.3	18.4	-155.96	509.3	609.5	698.7	668.3	30.41	22.975		
6,700.0	6,535.6	6,680.2	6,616.5	27.8	18.7	-155.87	519.2	621.7	709.5	678.6	30.95	22.925		
6,800.0	6,632.6	6,779.6	6,714.7	28.3	19.0	-155.79	529.0	633.9	720.3	688.8	31.49	22.877		
6,900.0	6,729.7	6,879.0	6,812.8	28.7	19.4	-155.71	538.9	646.1	731.1	699.1	32.02	22.830		
7,000.0	6,826.7	6,978.4	6,911.0	29.2	19.7	-155.63	548.8	658.3	741.9	709.3	32.56	22.785		
7,100.0	6,923.8	7,077.8	7,009.2	29.7	20.0	-155.55	558.6	670.5	752.7	719.6	33.10	22.741		
7,200.0	7,020.8	7,177.2	7,107.3	30.1	20.3	-155.47	568.5	682.7	763.5	729.9	33.64	22.698		
7,300.0	7,117.9	7,300.3	7,229.1	30.6	20.6	-156.15	570.3	698.6	773.0	739.2	33.75	22.905		
7,321.2	7,138.4	7,326.3	7,254.8	30.7	20.6	-156.53	567.3	702.2	774.6	740.9	33.62	23.038		
7,350.0	7,166.4	7,361.3	7,288.9	30.8	20.7	-168.94	561.5	707.1	776.6	743.3	33.30	23.320		
7,400.0	7,215.1	7,420.7	7,345.7	31.0	20.7	168.74	546.8	715.5	780.0	747.3	32.66	23.885		
7,450.0	7,263.5	7,478.4	7,399.3	31.2	20.7	149.64	527.0	724.0	783.1	751.2	31.95	24.513		
7,500.0	7,311.3	7,534.6	7,449.1	31.3	20.6	135.53	502.5	732.2	786.1	754.8	31.22	25.177		
7,550.0	7,358.1	7,589.2	7,495.1	31.5	20.6	125.45	474.1	740.3	788.8	758.2	30.51	25.849		
7,600.0	7,403.5	7,642.4	7,537.0	31.6	20.5	118.08	442.3	748.0	791.2	761.4	29.86	26.499		
7,650.0	7,447.3	7,694.2	7,574.8	31.7	20.4	112.50	407.7	755.4	793.5	764.2	29.28	27.098		
7,700.0	7,489.1	7,744.7	7,608.5	31.7	20.3	108.11	370.8	762.4	795.5	766.7	28.80	27.621		
7,750.0	7,528.5	7,793.9	7,638.1	31.8	20.3	104.56	332.0	769.0	797.3	768.9	28.42	28.050		
7,800.0	7,565.3	7,842.0	7,663.7	31.8	20.2	101.63	291.7	775.1	798.8	770.6	28.15	28.374		
7,850.0	7,599.2	7,889.1	7,685.4	31.9	20.2	99.16	250.4	780.9	800.0	772.0	27.98	28.593		
7,900.0	7,629.9	7,935.2	7,703.2	31.9	20.1	97.07	208.2	786.2	800.9	773.0	27.90	28.710		
7,950.0	7,657.2	7,980.4	7,717.4	31.9	20.1	95.29	165.6	791.0	801.5	773.6	27.89	28.738		
8,000.0	7,680.9	8,024.8	7,728.1	32.0	20.2	93.77	122.8	795.4	801.7	773.7	27.95	28.688		
8,050.0	7,700.8	8,068.4	7,735.3	32.0	20.2	92.49	79.9	799.4	801.5	773.5	28.05	28.574		
8,100.0	7,716.7	8,111.3	7,739.2	32.0	20.3	91.43	37.3	802.8	801.0	772.8	28.20	28.406		
8,150.0	7,728.6	8,155.4	7,740.0	32.1	20.4	90.55	-6.6	806.0	800.1	771.7	28.37	28.202		
8,200.0	7,736.3	8,204.8	7,740.0	32.1	20.5	89.99	-55.9	809.5	798.3	769.7	28.60	27.910		
8,250.0	7,739.8	8,254.6	7,740.0	32.2	20.7	89.92	-105.6	812.9	795.7	766.8	28.91	27.525		
8,266.2	7,740.0	8,270.8	7,740.0	32.2	20.8	90.00	-121.7	814.1	794.6	765.6	29.01	27.393		
8,300.0	7,740.0	8,304.5	7,740.0	32.3	20.9	90.00	-155.3	816.4	792.2	762.9	29.29	27.044		
8,400.0	7,740.0	8,404.2	7,740.0	32.5	21.5	90.00	-254.8	823.4	785.3	754.8	30.44	25.794		
8,500.0	7,740.0	8,500.0	7,740.0	32.8	22.1	90.00	-350.4	829.8	778.6	746.7	31.90	24.404		
8,600.0	7,740.0	8,584.6	7,740.0	33.2	22.7	90.00	-434.8	834.2	773.3	739.8	33.55	23.048		
8,700.0	7,740.0	8,672.6	7,740.0	33.7	23.4	90.00	-522.9	837.5	769.6	734.1	35.46	21.705		
8,800.0	7,740.0	8,760.8	7,740.0	34.3	24.2	90.00	-611.0	839.4	767.4	729.8	37.55	20.435		
8,894.4	7,740.0	8,844.3	7,740.0	34.9	25.0	90.00	-694.5	840.0	766.7	727.1	39.68	19.324		
8,900.0	7,740.0	8,849.9	7,740.0	34.9	25.0	90.00	-700.0	840.0	766.7	726.9	39.81	19.258		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2E-7H-E168 - HZ - Plan #3												Offset Site Error:	0.0 ft
Survey Program: O-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
9,000.0	7,740.0	8,949.9	7,740.0	35.6	26.0	90.00	-800.0	840.0	766.7	724.4	42.37	18.094	
9,100.0	7,740.0	9,049.9	7,740.0	36.4	27.1	90.00	-900.0	840.0	766.7	721.7	45.06	17.017	
9,200.0	7,740.0	9,149.9	7,740.0	37.3	28.3	90.00	-1,000.0	840.0	766.7	718.9	47.84	16.026	
9,300.0	7,740.0	9,249.9	7,740.0	38.2	29.5	90.00	-1,100.0	840.0	766.7	716.0	50.72	15.117	
9,400.0	7,740.0	9,351.0	7,740.0	39.2	30.8	90.00	-1,201.2	840.0	766.7	713.0	53.69	14.281	
9,500.0	7,740.0	9,457.5	7,740.0	40.2	32.2	90.00	-1,307.7	840.9	765.9	709.1	56.81	13.483	
9,600.0	7,740.0	9,557.5	7,740.0	41.3	33.6	90.00	-1,407.7	841.9	764.9	705.0	59.88	12.774	
9,700.0	7,740.0	9,657.5	7,740.0	42.4	35.0	90.00	-1,507.7	842.9	763.9	700.9	63.00	12.126	
9,800.0	7,740.0	9,757.5	7,740.0	43.6	36.5	90.00	-1,607.6	843.9	762.9	696.8	66.15	11.533	
9,900.0	7,740.0	9,857.5	7,740.0	44.8	37.9	90.00	-1,707.6	844.9	761.9	692.6	69.34	10.988	
10,000.0	7,740.0	9,957.5	7,740.0	46.0	39.4	90.00	-1,807.6	845.8	760.9	688.4	72.56	10.486	
10,100.0	7,740.0	10,057.5	7,740.0	47.3	40.9	90.00	-1,907.6	846.8	759.9	684.1	75.81	10.024	
10,200.0	7,740.0	10,157.5	7,740.0	48.6	42.4	90.00	-2,007.6	847.8	758.9	679.9	79.08	9.598	
10,300.0	7,740.0	10,257.5	7,740.0	50.0	44.0	90.00	-2,107.6	848.8	757.9	675.6	82.36	9.202	
10,400.0	7,740.0	10,357.4	7,740.0	51.3	45.5	90.00	-2,207.6	849.8	756.9	671.3	85.67	8.836	
10,500.0	7,740.0	10,457.4	7,740.0	52.7	47.1	90.00	-2,307.6	850.8	756.0	667.0	88.99	8.495	
10,600.0	7,740.0	10,557.4	7,740.0	54.1	48.7	90.00	-2,407.6	851.8	755.0	662.6	92.32	8.177	
10,700.0	7,740.0	10,657.4	7,740.0	55.6	50.3	90.00	-2,507.6	852.8	754.0	658.3	95.67	7.881	
10,800.0	7,740.0	10,757.4	7,740.0	57.0	51.9	90.00	-2,607.5	853.8	753.0	653.9	99.03	7.603	
10,900.0	7,740.0	10,857.4	7,740.0	58.5	53.5	90.00	-2,707.5	854.8	752.0	649.6	102.40	7.344	
11,000.0	7,740.0	10,957.4	7,740.0	59.9	55.1	90.00	-2,807.5	855.8	751.0	645.2	105.77	7.100	
11,100.0	7,740.0	11,057.4	7,740.0	61.4	56.8	90.00	-2,907.5	856.8	750.0	640.8	109.16	6.870	
11,200.0	7,740.0	11,157.4	7,740.0	62.9	58.4	90.00	-3,007.5	857.8	749.0	636.4	112.55	6.655	
11,300.0	7,740.0	11,257.4	7,740.0	64.5	60.1	90.00	-3,107.5	858.8	748.0	632.0	115.95	6.451	
11,400.0	7,740.0	11,357.4	7,740.0	66.0	61.7	90.00	-3,207.5	859.8	747.0	627.6	119.36	6.258	
11,500.0	7,740.0	11,457.4	7,740.0	67.5	63.4	90.00	-3,307.5	860.8	746.0	623.2	122.77	6.076	
11,600.0	7,740.0	11,557.4	7,740.0	69.1	65.0	90.00	-3,407.5	861.8	745.0	618.8	126.19	5.904	
11,700.0	7,740.0	11,657.4	7,740.0	70.7	66.7	90.00	-3,507.5	862.8	744.0	614.4	129.61	5.740	
11,800.0	7,740.0	11,757.4	7,740.0	72.2	68.4	90.00	-3,607.4	863.8	743.0	610.0	133.04	5.585	
11,900.0	7,740.0	11,857.4	7,740.0	73.8	70.0	90.00	-3,707.4	864.8	742.0	605.6	136.47	5.437	
12,000.0	7,740.0	11,957.4	7,740.0	75.4	71.7	90.00	-3,807.4	865.8	741.0	601.1	139.90	5.297	
12,100.0	7,740.0	12,057.4	7,740.0	77.0	73.4	90.00	-3,907.4	866.8	740.0	596.7	143.34	5.163	
12,200.0	7,740.0	12,157.4	7,740.0	78.6	75.1	90.00	-4,007.4	867.7	739.0	592.3	146.78	5.035	
12,300.0	7,740.0	12,257.4	7,740.0	80.2	76.8	90.00	-4,107.4	868.7	738.0	587.8	150.23	4.913	
12,400.0	7,740.0	12,357.3	7,740.0	81.8	78.5	90.00	-4,207.4	869.7	737.0	583.4	153.67	4.796	
12,500.0	7,740.0	12,457.3	7,740.0	83.4	80.2	90.00	-4,307.4	870.7	736.0	578.9	157.12	4.685	
12,600.0	7,740.0	12,557.3	7,740.0	85.1	81.9	90.00	-4,407.4	871.7	735.1	574.5	160.58	4.578	
12,700.0	7,740.0	12,657.3	7,740.0	86.7	83.6	90.00	-4,507.4	872.7	734.1	570.0	164.03	4.475	
12,800.0	7,740.0	12,757.3	7,740.0	88.3	85.3	90.00	-4,607.3	873.7	733.1	565.6	167.49	4.377	
12,900.0	7,740.0	12,857.3	7,740.0	90.0	87.0	90.00	-4,707.3	874.7	732.1	561.1	170.95	4.282	
13,000.0	7,740.0	12,957.3	7,740.0	91.6	88.7	90.00	-4,807.3	875.7	731.1	556.7	174.41	4.192	
13,100.0	7,740.0	13,057.3	7,740.0	93.3	90.4	90.00	-4,907.3	876.7	730.1	552.2	177.87	4.105	
13,200.0	7,740.0	13,157.3	7,740.0	94.9	92.1	90.00	-5,007.3	877.7	729.1	547.7	181.33	4.021	
13,300.0	7,740.0	13,257.3	7,740.0	96.6	93.8	90.00	-5,107.3	878.7	728.1	543.3	184.80	3.940	
13,400.0	7,740.0	13,357.3	7,740.0	98.2	95.5	90.00	-5,207.3	879.7	727.1	538.8	188.27	3.862	
13,500.0	7,740.0	13,457.3	7,740.0	99.9	97.2	90.00	-5,307.3	880.7	726.1	534.4	191.74	3.787	
13,600.0	7,740.0	13,557.3	7,740.0	101.6	98.9	90.00	-5,407.3	881.7	725.1	529.9	195.21	3.714	
13,700.0	7,740.0	13,657.3	7,740.0	103.2	100.7	90.00	-5,507.3	882.7	724.1	525.4	198.68	3.645	
13,800.0	7,740.0	13,757.3	7,740.0	104.9	102.4	90.00	-5,607.2	883.7	723.1	521.0	202.15	3.577	
13,900.0	7,740.0	13,857.3	7,740.0	106.6	104.1	90.00	-5,707.2	884.7	722.1	516.5	205.63	3.512	
14,000.0	7,740.0	13,957.3	7,740.0	108.2	105.8	90.00	-5,807.2	885.7	721.1	512.0	209.10	3.449	
14,100.0	7,740.0	14,057.3	7,740.0	109.9	107.5	90.00	-5,907.2	886.7	720.1	507.5	212.58	3.388	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design										S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2E-7H-E168 - HZ - Plan #3				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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)						
14,200.0	7,740.0	14,157.3	7,740.0	111.6	109.3	90.00	-6,007.2	887.7	719.1	503.1	216.06	3.328				
14,300.0	7,740.0	14,257.3	7,740.0	113.3	111.0	90.00	-6,107.2	888.6	718.1	498.6	219.54	3.271				
14,400.0	7,740.0	14,357.3	7,740.0	115.0	112.7	90.00	-6,207.2	889.6	717.1	494.1	223.02	3.216				
14,500.0	7,740.0	14,457.2	7,740.0	116.7	114.4	90.00	-6,307.2	890.6	716.1	489.6	226.50	3.162				
14,600.0	7,740.0	14,557.2	7,740.0	118.3	116.2	90.00	-6,407.2	891.6	715.1	485.2	229.98	3.110				
14,700.0	7,740.0	14,657.2	7,740.0	120.0	117.9	90.00	-6,507.2	892.6	714.1	480.7	233.46	3.059				
14,800.0	7,740.0	14,757.2	7,740.0	121.7	119.6	90.00	-6,607.1	893.6	713.2	476.2	236.94	3.010				
14,900.0	7,740.0	14,857.2	7,740.0	123.4	121.3	90.00	-6,707.1	894.6	712.2	471.7	240.43	2.962				
15,000.0	7,740.0	14,957.2	7,740.0	125.1	123.1	90.00	-6,807.1	895.6	711.2	467.3	243.91	2.916				
15,100.0	7,740.0	15,057.2	7,740.0	126.8	124.8	90.00	-6,907.1	896.6	710.2	462.8	247.39	2.871				
15,200.0	7,740.0	15,157.2	7,740.0	128.5	126.5	90.00	-7,007.1	897.6	709.2	458.3	250.88	2.827				
15,300.0	7,740.0	15,257.2	7,740.0	130.2	128.3	90.00	-7,107.1	898.6	708.2	453.8	254.37	2.784				
15,400.0	7,740.0	15,357.2	7,740.0	131.9	130.0	90.00	-7,207.1	899.6	707.2	449.3	257.85	2.743				
15,500.0	7,740.0	15,457.2	7,740.0	133.6	131.7	90.00	-7,307.1	900.6	706.2	444.8	261.34	2.702				
15,600.0	7,740.0	15,557.2	7,740.0	135.3	133.5	90.00	-7,407.1	901.6	705.2	440.4	264.83	2.663				
15,700.0	7,740.0	15,657.2	7,740.0	137.0	135.2	90.00	-7,507.1	902.6	704.2	435.9	268.32	2.624				
15,800.0	7,740.0	15,757.2	7,740.0	138.7	136.9	90.00	-7,607.0	903.6	703.2	431.4	271.81	2.587				
15,900.0	7,740.0	15,857.2	7,740.0	140.5	138.7	90.00	-7,707.0	904.6	702.2	426.9	275.30	2.551				
16,000.0	7,740.0	15,957.2	7,740.0	142.2	140.4	90.00	-7,807.0	905.6	701.2	422.4	278.79	2.515				
16,100.0	7,740.0	16,057.2	7,740.0	143.9	142.1	90.00	-7,907.0	906.6	700.2	417.9	282.28	2.481				
16,133.6	7,740.0	16,083.8	7,740.0	144.5	142.6	90.00	-7,933.7	906.8	699.9	416.6	283.33	2.470				
16,142.2	7,740.0	16,083.8	7,740.0	144.6	142.6	90.00	-7,933.7	906.8	700.0	416.5	283.48	2.469 SF				

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2F-7H-E168 - HZ - Plan #2														Offset Site Error:	0.0 ft
Survey Program: O-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			
0.0	0.0	0.0	0.0	0.0	0.0	-90.02	0.0	-9.8	9.8						
100.0	100.0	100.0	100.0	0.2	0.2	-90.02	0.0	-9.8	9.8	9.5	0.30	32.256			
200.0	200.0	200.0	200.0	0.3	0.3	-90.02	0.0	-9.8	9.8	9.1	0.65	15.007	CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-162.54	0.0	-9.8	10.6	9.6	1.00	10.606			
400.0	400.0	400.2	400.2	0.7	0.7	-164.65	0.3	-9.0	12.3	11.0	1.35	9.118			
500.0	499.9	500.4	500.3	0.9	0.9	-165.67	1.4	-6.6	14.1	12.4	1.70	8.270			
600.0	599.7	600.6	600.5	1.1	1.0	-165.94	3.2	-2.6	15.9	13.8	2.05	7.726			
700.0	699.4	700.9	700.5	1.3	1.2	-165.69	5.7	3.0	17.7	15.3	2.41	7.350			
800.0	798.9	801.2	800.5	1.5	1.5	-165.07	8.9	10.2	19.6	16.8	2.76	7.075			
900.0	898.3	901.5	900.4	1.8	1.7	-164.18	12.8	19.1	21.5	18.3	3.13	6.864			
1,000.0	997.4	1,001.8	1,000.1	2.0	1.9	-163.08	17.4	29.5	23.4	19.9	3.50	6.693			
1,100.0	1,096.3	1,102.2	1,099.6	2.3	2.2	-161.84	22.7	41.5	25.4	21.5	3.88	6.546			
1,200.0	1,194.9	1,202.6	1,198.9	2.7	2.5	-160.49	28.7	55.1	27.5	23.2	4.29	6.414			
1,300.0	1,293.3	1,303.0	1,297.9	3.0	2.8	-159.06	35.4	70.3	29.6	24.9	4.71	6.287			
1,400.0	1,391.2	1,403.5	1,396.7	3.4	3.2	-157.58	42.8	87.1	31.8	26.7	5.17	6.160			
1,500.0	1,488.9	1,503.9	1,495.0	3.8	3.5	-156.09	50.9	105.4	34.1	28.5	5.65	6.036			
1,595.5	1,581.8	1,599.3	1,588.5	4.2	3.9	-155.50	58.9	123.3	37.4	31.2	6.11	6.109			
1,600.0	1,586.1	1,603.8	1,592.8	4.2	3.9	-155.50	59.2	124.2	37.5	31.4	6.14	6.118			
1,700.0	1,683.2	1,703.7	1,690.6	4.7	4.3	-155.47	67.5	142.9	41.7	35.1	6.61	6.305			
1,800.0	1,780.2	1,803.6	1,788.4	5.1	4.7	-155.46	75.8	161.7	45.8	38.7	7.09	6.463			
1,900.0	1,877.3	1,903.5	1,886.2	5.6	5.1	-155.44	84.1	180.4	50.0	42.4	7.57	6.599			
2,000.0	1,974.3	2,003.4	1,984.0	6.0	5.5	-155.43	92.4	199.2	54.1	46.1	8.06	6.717			
2,100.0	2,071.4	2,103.4	2,081.8	6.5	5.9	-155.42	100.7	217.9	58.2	49.7	8.54	6.819			
2,200.0	2,168.4	2,203.3	2,179.6	6.9	6.2	-155.41	109.0	236.7	62.4	53.4	9.03	6.909			
2,300.0	2,265.4	2,303.2	2,277.4	7.4	6.6	-155.40	117.3	255.4	66.5	57.0	9.52	6.989			
2,400.0	2,362.5	2,403.1	2,375.1	7.9	7.0	-155.39	125.6	274.2	70.7	60.7	10.01	7.060			
2,500.0	2,459.5	2,503.0	2,472.9	8.3	7.4	-155.38	133.9	292.9	74.8	64.3	10.50	7.124			
2,600.0	2,556.6	2,602.9	2,570.7	8.8	7.8	-155.38	142.2	311.7	79.0	68.0	11.00	7.181			
2,700.0	2,653.6	2,702.8	2,668.5	9.2	8.2	-155.37	150.4	330.4	83.1	71.6	11.49	7.233			
2,800.0	2,750.7	2,802.8	2,766.3	9.7	8.6	-155.37	158.7	349.2	87.2	75.3	11.98	7.280			
2,900.0	2,847.7	2,902.7	2,864.1	10.2	9.0	-155.36	167.0	367.9	91.4	78.9	12.48	7.324			
3,000.0	2,944.8	3,002.6	2,961.9	10.6	9.4	-155.36	175.3	386.7	95.5	82.5	12.97	7.363			
3,100.0	3,041.8	3,102.5	3,059.7	11.1	9.8	-155.35	183.6	405.4	99.7	86.2	13.47	7.399			
3,200.0	3,138.9	3,202.4	3,157.4	11.5	10.2	-155.35	191.9	424.2	103.8	89.8	13.97	7.433			
3,300.0	3,235.9	3,302.3	3,255.2	12.0	10.6	-155.35	200.2	442.9	107.9	93.5	14.46	7.464			
3,400.0	3,333.0	3,402.2	3,353.0	12.5	11.0	-155.35	208.5	461.7	112.1	97.1	14.96	7.493			
3,500.0	3,430.0	3,502.2	3,450.8	12.9	11.4	-155.34	216.8	480.4	116.2	100.8	15.46	7.520			
3,600.0	3,527.1	3,602.1	3,548.6	13.4	11.8	-155.34	225.1	499.2	120.4	104.4	15.95	7.545			
3,700.0	3,624.1	3,702.0	3,646.4	13.9	12.2	-155.34	233.4	517.9	124.5	108.1	16.45	7.568			
3,800.0	3,721.2	3,801.9	3,744.2	14.3	12.6	-155.34	241.6	536.7	128.7	111.7	16.95	7.590			
3,900.0	3,818.2	3,901.8	3,842.0	14.8	13.0	-155.33	249.9	555.4	132.8	115.3	17.45	7.610			
4,000.0	3,915.3	4,001.7	3,939.8	15.3	13.4	-155.33	258.2	574.2	136.9	119.0	17.95	7.630			
4,100.0	4,012.3	4,101.6	4,037.5	15.7	13.8	-155.33	266.5	592.9	141.1	122.6	18.45	7.648			
4,200.0	4,109.4	4,201.6	4,135.3	16.2	14.2	-155.33	274.8	611.7	145.2	126.3	18.95	7.665			
4,300.0	4,206.4	4,301.5	4,233.1	16.6	14.6	-155.33	283.1	630.4	149.4	129.9	19.45	7.681			
4,400.0	4,303.5	4,401.4	4,330.9	17.1	15.0	-155.32	291.4	649.2	153.5	133.6	19.94	7.697			
4,500.0	4,400.5	4,501.3	4,428.7	17.6	15.4	-155.32	299.7	667.9	157.6	137.2	20.44	7.711			
4,600.0	4,497.6	4,601.2	4,526.5	18.0	15.9	-155.32	308.0	686.7	161.8	140.8	20.94	7.725			
4,700.0	4,594.6	4,701.1	4,624.3	18.5	16.3	-155.32	316.3	705.4	165.9	144.5	21.44	7.738			
4,800.0	4,691.7	4,801.0	4,722.1	19.0	16.7	-155.32	324.6	724.2	170.1	148.1	21.94	7.751			
4,900.0	4,788.7	4,901.0	4,819.8	19.4	17.1	-155.32	332.9	742.9	174.2	151.8	22.44	7.762			
5,000.0	4,885.8	5,000.9	4,917.6	19.9	17.5	-155.32	341.1	761.7	178.4	155.4	22.94	7.774			

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2F-7H-E168 - HZ - Plan #2											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
5,100.0	4,982.8	5,100.8	5,015.4	20.4	17.9	-155.32	349.4	780.4	182.5	159.1	23.44	7.785	
5,200.0	5,079.9	5,200.7	5,113.2	20.8	18.3	-155.31	357.7	799.2	186.6	162.7	23.94	7.795	
5,300.0	5,176.9	5,300.6	5,211.0	21.3	18.7	-155.31	366.0	817.9	190.8	166.3	24.44	7.805	
5,400.0	5,273.9	5,400.5	5,308.8	21.8	19.1	-155.31	374.3	836.7	194.9	170.0	24.94	7.814	
5,500.0	5,371.0	5,500.4	5,406.6	22.2	19.5	-155.31	382.6	855.4	199.1	173.6	25.44	7.823	
5,600.0	5,468.0	5,600.4	5,504.4	22.7	19.9	-155.31	390.9	874.2	203.2	177.3	25.94	7.832	
5,700.0	5,565.1	5,700.3	5,602.2	23.1	20.3	-155.31	399.2	892.9	207.3	180.9	26.45	7.840	
5,800.0	5,662.1	5,800.2	5,699.9	23.6	20.7	-155.31	407.5	911.6	211.5	184.5	26.95	7.849	
5,900.0	5,759.2	5,900.1	5,797.7	24.1	21.1	-155.31	415.8	930.4	215.6	188.2	27.45	7.856	
6,000.0	5,856.2	6,000.0	5,895.5	24.5	21.5	-155.31	424.1	949.1	219.8	191.8	27.95	7.864	
6,100.0	5,953.3	6,099.9	5,993.3	25.0	21.9	-155.31	432.3	967.9	223.9	195.5	28.45	7.871	
6,200.0	6,050.3	6,199.8	6,091.1	25.5	22.3	-155.31	440.6	986.6	228.1	199.1	28.95	7.878	
6,300.0	6,147.4	6,299.8	6,188.9	25.9	22.7	-155.31	448.9	1,005.4	232.2	202.7	29.45	7.884	
6,400.0	6,244.4	6,399.7	6,286.7	26.4	23.1	-155.31	457.2	1,024.1	236.3	206.4	29.95	7.891	
6,500.0	6,341.5	6,499.6	6,384.5	26.9	23.5	-155.30	465.5	1,042.9	240.5	210.0	30.45	7.897	
6,600.0	6,438.5	6,599.5	6,482.2	27.3	23.9	-155.30	473.8	1,061.6	244.6	213.7	30.95	7.903	
6,700.0	6,535.6	6,699.4	6,580.0	27.8	24.3	-155.30	482.1	1,080.4	248.8	217.3	31.45	7.909	
6,800.0	6,632.6	6,799.3	6,677.8	28.3	24.7	-155.30	490.4	1,099.1	252.9	220.9	31.95	7.914	
6,900.0	6,729.7	6,899.2	6,775.6	28.7	25.1	-155.30	498.7	1,117.9	257.0	224.6	32.46	7.920	
7,000.0	6,826.7	6,999.2	6,873.4	29.2	25.5	-155.30	507.0	1,136.6	261.2	228.2	32.96	7.925	
7,100.0	6,923.8	7,102.6	6,974.9	29.7	25.9	-156.69	509.1	1,156.1	264.8	232.1	32.65	8.110	
7,200.0	7,020.8	7,201.7	7,070.9	30.1	26.1	-161.61	494.0	1,174.5	268.0	237.6	30.42	8.810	
7,300.0	7,117.9	7,290.8	7,153.9	30.6	26.2	-168.82	466.2	1,190.4	275.0	247.4	27.60	9.966	
7,321.2	7,138.4	7,308.1	7,169.5	30.7	26.2	-170.48	459.3	1,193.4	277.5	250.4	27.11	10.239	
7,350.0	7,166.4	7,331.1	7,189.9	30.8	26.3	175.29	449.4	1,197.3	281.5	255.0	26.49	10.627	
7,400.0	7,215.1	7,370.1	7,223.6	31.0	26.3	150.02	430.7	1,203.8	289.6	263.7	25.96	11.159	
7,450.0	7,263.5	7,408.3	7,255.2	31.2	26.3	128.24	410.2	1,209.8	299.0	273.0	26.05	11.478	
7,500.0	7,311.3	7,450.0	7,288.1	31.3	26.3	111.42	385.4	1,216.2	309.4	282.7	26.68	11.598	
7,550.0	7,358.1	7,482.2	7,312.2	31.5	26.3	99.55	364.7	1,220.8	320.3	292.9	27.41	11.684	
7,600.0	7,403.5	7,518.2	7,337.8	31.6	26.3	90.37	339.9	1,225.7	331.5	303.2	28.24	11.738	
7,650.0	7,447.3	7,550.0	7,359.2	31.7	26.3	83.42	316.6	1,229.8	342.7	313.9	28.86	11.875	
7,700.0	7,489.1	7,588.6	7,383.3	31.7	26.3	77.57	286.8	1,234.4	353.7	324.3	29.43	12.020	
7,750.0	7,528.5	7,623.2	7,403.2	31.8	26.3	72.95	258.8	1,238.2	364.4	334.7	29.65	12.291	
7,800.0	7,565.3	7,657.4	7,421.2	31.8	26.3	69.17	229.9	1,241.7	374.5	344.9	29.57	12.663	
7,850.0	7,599.2	7,691.3	7,437.3	31.9	26.3	66.03	200.3	1,244.8	383.9	354.7	29.24	13.130	
7,900.0	7,629.9	7,724.9	7,451.6	31.9	26.3	63.44	169.9	1,247.5	392.5	363.8	28.68	13.688	
7,950.0	7,657.2	7,758.4	7,464.0	31.9	26.3	61.30	139.0	1,249.9	400.2	372.3	27.92	14.333	
8,000.0	7,680.9	7,791.6	7,474.6	32.0	26.3	59.56	107.5	1,251.9	407.0	379.9	27.06	15.040	
8,050.0	7,700.8	7,824.7	7,483.4	32.0	26.3	58.17	75.7	1,253.6	412.7	386.5	26.17	15.769	
8,100.0	7,716.7	7,850.0	7,488.8	32.0	26.4	57.16	51.0	1,254.6	417.4	392.2	25.24	16.539	
8,150.0	7,728.6	7,890.6	7,495.3	32.1	26.4	56.32	11.0	1,255.9	420.8	396.2	24.55	17.141	
8,200.0	7,736.3	7,923.4	7,498.6	32.1	26.4	55.82	-21.6	1,256.5	423.1	399.1	24.01	17.623	
8,250.0	7,739.8	7,956.1	7,499.9	32.2	26.5	55.58	-54.4	1,256.8	424.2	400.5	23.74	17.869	
8,266.2	7,740.0	7,968.0	7,500.0	32.2	26.5	55.56	-66.3	1,256.8	424.3	400.6	23.72	17.888	
8,300.0	7,740.0	8,001.8	7,500.0	32.3	26.6	55.56	-100.0	1,256.8	424.3	400.4	23.98	17.692	
8,400.0	7,740.0	8,101.8	7,500.0	32.5	26.9	55.56	-200.0	1,256.8	424.3	399.4	24.97	16.994	
8,500.0	7,740.0	8,201.8	7,500.0	32.8	27.2	55.56	-300.0	1,256.8	424.3	398.1	26.24	16.171	
8,600.0	7,740.0	8,301.8	7,500.0	33.2	27.7	55.56	-400.0	1,256.8	424.3	396.6	27.76	15.287	
8,700.0	7,740.0	8,401.8	7,500.0	33.7	28.3	55.56	-500.0	1,256.8	424.3	394.9	29.49	14.392	
8,800.0	7,740.0	8,501.8	7,500.0	34.3	29.0	55.56	-600.0	1,256.8	424.3	393.0	31.38	13.521	
8,900.0	7,740.0	8,601.8	7,500.0	34.9	29.8	55.56	-700.0	1,256.8	424.3	390.9	33.43	12.694	
9,000.0	7,740.0	8,701.8	7,500.0	35.6	30.6	55.56	-800.0	1,256.8	424.3	388.8	35.59	11.923	

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2F-7H-E168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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		
9,100.0	7,740.0	8,801.8	7,500.0	36.4	31.5	55.56	-900.0	1,256.8	424.3	386.5	37.85	11.210		
9,200.0	7,740.0	8,901.8	7,500.0	37.3	32.5	55.56	-1,000.0	1,256.8	424.3	384.2	40.20	10.557		
9,300.0	7,740.0	9,001.8	7,500.0	38.2	33.6	55.56	-1,100.0	1,256.8	424.3	381.7	42.61	9.959		
9,400.0	7,740.0	9,101.8	7,500.0	39.2	34.7	55.56	-1,200.0	1,256.8	424.3	379.3	45.08	9.413		
9,500.0	7,740.0	9,201.8	7,500.0	40.2	35.9	55.56	-1,300.0	1,256.8	424.3	376.7	47.60	8.915		
9,600.0	7,740.0	9,301.8	7,500.0	41.3	37.1	55.56	-1,400.0	1,256.8	424.3	374.2	50.16	8.460		
9,700.0	7,740.0	9,401.8	7,500.0	42.4	38.4	55.56	-1,500.0	1,256.8	424.3	371.6	52.76	8.043		
9,800.0	7,740.0	9,501.8	7,500.0	43.6	39.7	55.56	-1,600.0	1,256.8	424.3	369.0	55.38	7.662		
9,900.0	7,740.0	9,601.8	7,500.0	44.8	41.0	55.56	-1,700.0	1,256.8	424.3	366.3	58.04	7.312		
10,000.0	7,740.0	9,701.8	7,500.0	46.0	42.3	55.56	-1,800.0	1,256.8	424.3	363.6	60.71	6.990		
10,100.0	7,740.0	9,801.8	7,500.0	47.3	43.7	55.56	-1,900.0	1,256.8	424.3	360.9	63.41	6.693		
10,200.0	7,740.0	9,901.8	7,500.0	48.6	45.2	55.56	-2,000.0	1,256.8	424.3	358.2	66.12	6.418		
10,300.0	7,740.0	10,001.8	7,500.0	50.0	46.6	55.56	-2,100.0	1,256.8	424.3	355.5	68.85	6.164		
10,400.0	7,740.0	10,101.8	7,500.0	51.3	48.1	55.56	-2,200.0	1,256.8	424.3	352.8	71.59	5.928		
10,500.0	7,740.0	10,201.8	7,500.0	52.7	49.5	55.56	-2,300.0	1,256.8	424.3	350.0	74.34	5.708		
10,600.0	7,740.0	10,301.8	7,500.0	54.1	51.0	55.56	-2,400.0	1,256.8	424.3	347.2	77.11	5.503		
10,700.0	7,740.0	10,401.8	7,500.0	55.6	52.5	55.56	-2,500.0	1,256.8	424.3	344.5	79.88	5.312		
10,800.0	7,740.0	10,501.8	7,500.0	57.0	54.1	55.56	-2,600.0	1,256.8	424.3	341.7	82.66	5.133		
10,900.0	7,740.0	10,601.8	7,500.0	58.5	55.6	55.56	-2,700.0	1,256.8	424.3	338.9	85.45	4.966		
11,000.0	7,740.0	10,701.8	7,500.0	59.9	57.2	55.56	-2,800.0	1,256.8	424.3	336.1	88.25	4.808		
11,100.0	7,740.0	10,801.8	7,500.0	61.4	58.7	55.56	-2,900.0	1,256.8	424.3	333.3	91.06	4.660		
11,200.0	7,740.0	10,901.8	7,500.0	62.9	60.3	55.56	-3,000.0	1,256.8	424.3	330.5	93.87	4.521		
11,300.0	7,740.0	11,001.8	7,500.0	64.5	61.9	55.56	-3,100.0	1,256.8	424.3	327.7	96.68	4.389		
11,400.0	7,740.0	11,101.8	7,500.0	66.0	63.5	55.56	-3,200.0	1,256.8	424.3	324.8	99.50	4.265		
11,500.0	7,740.0	11,201.8	7,500.0	67.5	65.1	55.56	-3,300.0	1,256.8	424.3	322.0	102.33	4.147		
11,600.0	7,740.0	11,301.8	7,500.0	69.1	66.7	55.56	-3,400.0	1,256.8	424.3	319.2	105.16	4.035		
11,700.0	7,740.0	11,401.8	7,500.0	70.7	68.3	55.56	-3,500.0	1,256.8	424.3	316.4	107.99	3.929		
11,800.0	7,740.0	11,501.8	7,500.0	72.2	69.9	55.56	-3,600.0	1,256.8	424.3	313.5	110.83	3.829		
11,900.0	7,740.0	11,601.8	7,500.0	73.8	71.6	55.56	-3,700.0	1,256.8	424.3	310.7	113.67	3.733		
12,000.0	7,740.0	11,701.8	7,500.0	75.4	73.2	55.56	-3,800.0	1,256.8	424.3	307.8	116.51	3.642		
12,100.0	7,740.0	11,801.8	7,500.0	77.0	74.9	55.56	-3,900.0	1,256.8	424.3	305.0	119.36	3.555		
12,200.0	7,740.0	11,901.8	7,500.0	78.6	76.5	55.56	-4,000.0	1,256.8	424.3	302.1	122.21	3.472		
12,300.0	7,740.0	12,001.8	7,500.0	80.2	78.2	55.56	-4,100.0	1,256.8	424.3	299.3	125.06	3.393		
12,400.0	7,740.0	12,101.8	7,500.0	81.8	79.8	55.56	-4,200.0	1,256.8	424.3	296.4	127.91	3.318		
12,500.0	7,740.0	12,201.8	7,500.0	83.4	81.5	55.56	-4,300.0	1,256.8	424.3	293.6	130.77	3.245		
12,600.0	7,740.0	12,301.8	7,500.0	85.1	83.1	55.56	-4,400.0	1,256.8	424.3	290.7	133.62	3.176		
12,700.0	7,740.0	12,401.8	7,500.0	86.7	84.8	55.56	-4,500.0	1,256.8	424.3	287.9	136.48	3.109		
12,800.0	7,740.0	12,501.8	7,500.0	88.3	86.5	55.56	-4,600.0	1,256.8	424.3	285.0	139.34	3.045		
12,900.0	7,740.0	12,601.8	7,500.0	90.0	88.1	55.56	-4,700.0	1,256.8	424.3	282.1	142.21	2.984		
13,000.0	7,740.0	12,701.8	7,500.0	91.6	89.8	55.56	-4,800.0	1,256.8	424.3	279.3	145.07	2.925		
13,100.0	7,740.0	12,801.8	7,500.0	93.3	91.5	55.56	-4,900.0	1,256.8	424.3	276.4	147.94	2.868		
13,200.0	7,740.0	12,901.8	7,500.0	94.9	93.2	55.56	-5,000.0	1,256.8	424.3	273.5	150.80	2.814		
13,300.0	7,740.0	13,001.8	7,500.0	96.6	94.9	55.56	-5,100.0	1,256.8	424.3	270.7	153.67	2.761		
13,400.0	7,740.0	13,101.8	7,500.0	98.2	96.6	55.56	-5,200.0	1,256.8	424.3	267.8	156.54	2.711		
13,500.0	7,740.0	13,201.8	7,500.0	99.9	98.2	55.56	-5,300.0	1,256.8	424.3	264.9	159.41	2.662		
13,600.0	7,740.0	13,301.8	7,500.0	101.6	99.9	55.56	-5,400.0	1,256.8	424.3	262.1	162.28	2.615		
13,700.0	7,740.0	13,401.8	7,500.0	103.2	101.6	55.56	-5,500.0	1,256.8	424.3	259.2	165.16	2.569		
13,800.0	7,740.0	13,501.8	7,500.0	104.9	103.3	55.56	-5,600.0	1,256.8	424.3	256.3	168.03	2.525		
13,900.0	7,740.0	13,601.8	7,500.0	106.6	105.0	55.56	-5,700.0	1,256.8	424.3	253.4	170.90	2.483		
14,000.0	7,740.0	13,701.8	7,500.0	108.2	106.7	55.56	-5,800.0	1,256.8	424.3	250.6	173.78	2.442		
14,100.0	7,740.0	13,801.8	7,500.0	109.9	108.4	55.56	-5,900.0	1,256.8	424.3	247.7	176.66	2.402		
14,200.0	7,740.0	13,901.8	7,500.0	111.6	110.1	55.56	-6,000.0	1,256.8	424.3	244.8	179.53	2.364		

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 Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2F-7H-E168 - HZ - Plan #2													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		
14,300.0	7,740.0	14,001.8	7,500.0	113.3	111.8	55.56	-6,100.0	1,256.8	424.3	241.9	182.41	2.326		
14,400.0	7,740.0	14,101.8	7,500.0	115.0	113.5	55.56	-6,200.0	1,256.8	424.3	239.1	185.29	2.290		
14,500.0	7,740.0	14,201.8	7,500.0	116.7	115.2	55.56	-6,300.0	1,256.8	424.3	236.2	188.17	2.255		
14,600.0	7,740.0	14,301.8	7,500.0	118.3	117.0	55.56	-6,400.0	1,256.8	424.3	233.3	191.05	2.221		
14,700.0	7,740.0	14,401.8	7,500.0	120.0	118.7	55.56	-6,500.0	1,256.8	424.3	230.4	193.93	2.188		
14,800.0	7,740.0	14,501.8	7,500.0	121.7	120.4	55.56	-6,600.0	1,256.8	424.3	227.5	196.81	2.156		
14,900.0	7,740.0	14,601.8	7,500.0	123.4	122.1	55.56	-6,700.0	1,256.8	424.3	224.7	199.69	2.125		
15,000.0	7,740.0	14,701.8	7,500.0	125.1	123.8	55.56	-6,800.0	1,256.8	424.3	221.8	202.58	2.095		
15,100.0	7,740.0	14,801.8	7,500.0	126.8	125.5	55.56	-6,900.0	1,256.8	424.3	218.9	205.46	2.065		
15,200.0	7,740.0	14,901.8	7,500.0	128.5	127.2	55.56	-7,000.0	1,256.8	424.3	216.0	208.34	2.037		
15,300.0	7,740.0	15,001.8	7,500.0	130.2	129.0	55.56	-7,100.0	1,256.8	424.3	213.1	211.23	2.009		
15,400.0	7,740.0	15,101.8	7,500.0	131.9	130.7	55.56	-7,200.0	1,256.8	424.3	210.2	214.11	1.982		
15,500.0	7,740.0	15,201.8	7,500.0	133.6	132.4	55.56	-7,300.0	1,256.8	424.4	207.4	217.00	1.956		
15,600.0	7,740.0	15,301.8	7,500.0	135.3	134.1	55.56	-7,400.0	1,256.8	424.4	204.5	219.88	1.930		
15,700.0	7,740.0	15,401.8	7,500.0	137.0	135.8	55.56	-7,500.0	1,256.8	424.4	201.6	222.77	1.905		
15,800.0	7,740.0	15,501.8	7,500.0	138.7	137.6	55.56	-7,600.0	1,256.8	424.4	198.7	225.65	1.881		
15,900.0	7,740.0	15,601.8	7,500.0	140.5	139.3	55.56	-7,700.0	1,256.8	424.4	195.8	228.54	1.857		
16,000.0	7,740.0	15,701.8	7,500.0	142.2	141.0	55.56	-7,800.0	1,256.8	424.4	192.9	231.43	1.834		
16,100.0	7,740.0	15,801.8	7,500.0	143.9	142.7	55.56	-7,900.0	1,256.8	424.4	190.0	234.32	1.811		
16,120.8	7,740.0	15,822.6	7,500.0	144.2	143.1	55.56	-7,920.9	1,256.8	424.4	189.4	234.92	1.806		
16,142.2	7,740.0	15,839.3	7,500.0	144.6	143.4	55.56	-7,937.6	1,256.8	424.4	188.9	235.47	1.802 SF		

Cathedral Energy Services

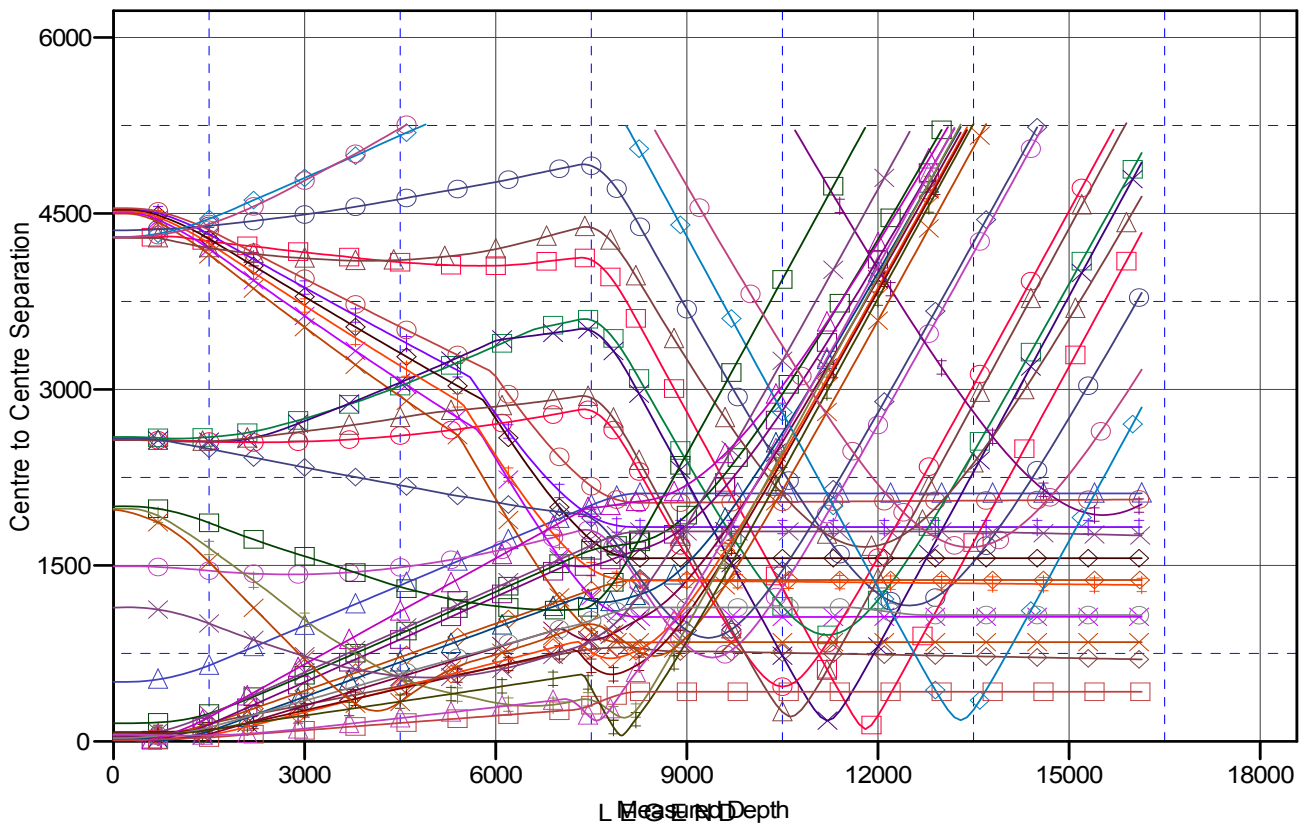
Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2G-7H-E168
Project:	DJ Wattenberg	TVD Reference:	KB @ 5007.0ft (Unassigned)
Reference Site:	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	MD Reference:	KB @ 5007.0ft (Unassigned)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Woolley-Sosa 2G-7H-E168	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 #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 5007.0ft (Unassigned)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Woolley-Sosa 2G-7H-E168
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.29°

Ladder Plot



-A168, HZ, Plan #2 V0	THOMAS 24-7 (Existing), Existing, NO SURVEYS V0	WOOLLEY 22-7 (EXISTING), ENCANA
-E168, HZ, Plan #2 V0	Woolley-Sosa 2C-7H-E168, HZ, Plan #2 V0	WOOLLEY 21-7 (EXISTING), ENCANA
-A168, HZ, Plan #2 V0	WOOLLEY 12-7 (EXISTING), ENCANA WELL, NO SURVEYS V0	Woolley-Sosa 2D-7H-E168, HZ, Plan #2
WD), DD V0	Woolley-Becky 2D-7H-E168, HZ, Plan #4 V0	THOMAS 33-7 (EXISTING), ENCANA V
-A168, HZ, Plan #2 V0	THOMAS 24-7 (EXISTING), ENCANA WELL, SURVEYS V0	WOOLLEY 2-4-7 (EXISTING), ENCANA
-E168, HZ, Plan #3 V0	Morgan Hills 1C-7H-A168, HZ, Plan #2 V0	WOOLLEY FUNIT 1 (EXISTING), ENCANA
-A168, HZ, Plan #2 V0	Woolley-Sosa 2B-7H-E168, HZ, Plan #2 V0	Woolley-Becky 2A-7H-E168, HZ, Plan #2
(EXISTING), ENCANA WELL, SURVEYS V0	Sosa 11-18, DD, DD V0	Woolley-Becky 2G-7H-E168, HZ, Plan #2
(EXISTING), EXISTING, EXISTING V0	Woolley-Becky 2C-7H-E168, HZ, Plan #4 V0	Woolley-Sosa 2F-7H-E168, HZ, Plan #2
(EXISTING), Existing, NO SURVEYS V0	Woolley-Becky 2H-7H-E168, HZ, Plan #3 V0	Woolley-Becky 2F-7H-E168, HZ, Plan #3
-A168, HZ, Plan #2 V0	Woolley-Becky 2B-7H-E168, HZ, Plan #2 V0	Sosa 12-18, DD, DD V0

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