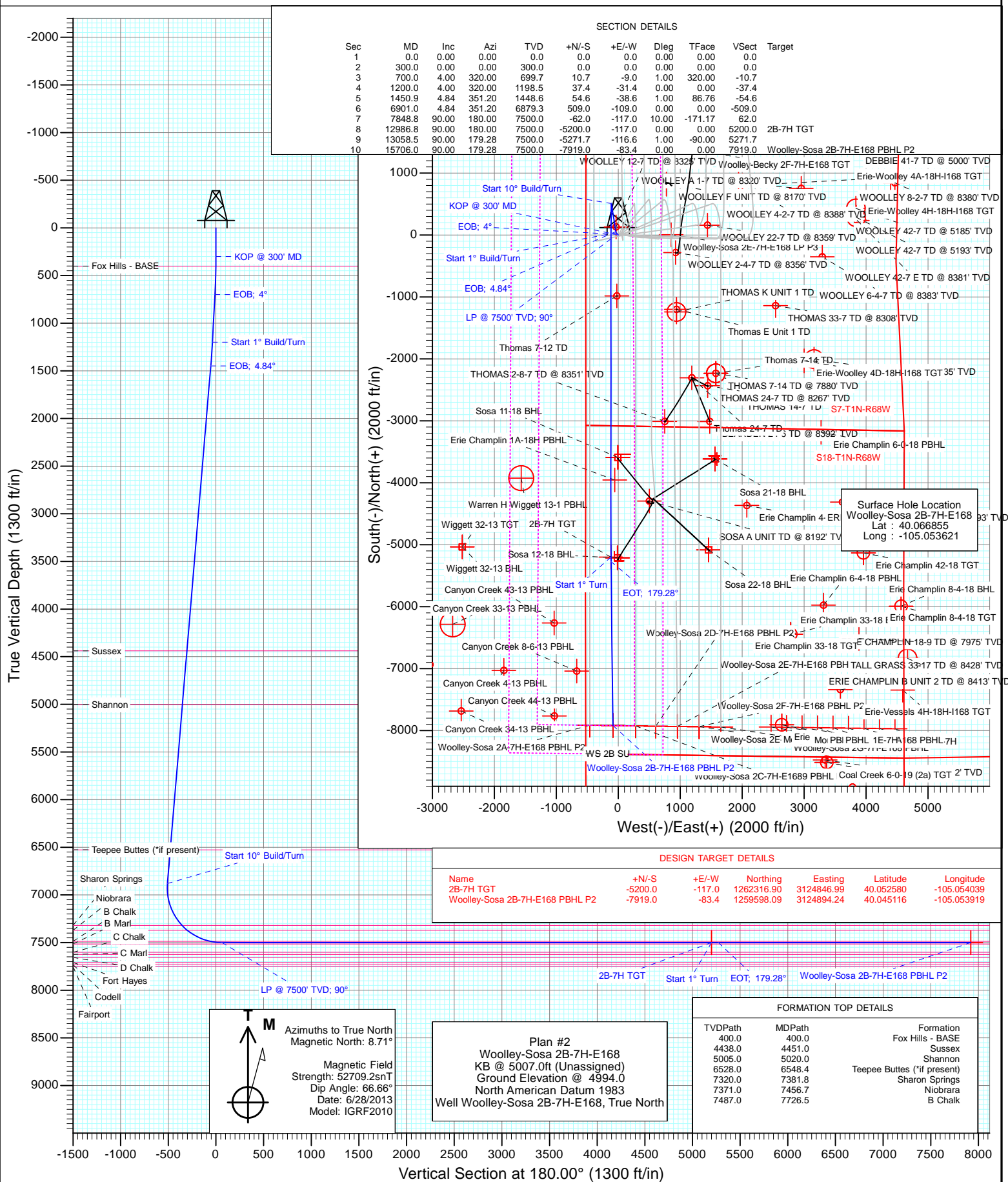




Project: DJ Wattenberg
Site: S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)
Well: Woolley-Sosa 2B-7H-E168
Wellbore: HZ
Design: Plan #2



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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 2B-7H-E168					
Well Position	+N/-S	0.0 ft	Northing:	1,267,517.42 ft	Latitude:	40.066855
	+E/-W	0.0 ft	Easting:	3,124,937.81 ft	Longitude:	-105.053621
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	8.72	66.66	52,709

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

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
700.0	4.00	320.00	699.7	10.7	-9.0	1.00	1.00	0.00	320.00	
1,200.0	4.00	320.00	1,198.5	37.4	-31.4	0.00	0.00	0.00	0.00	
1,450.9	4.84	351.20	1,448.6	54.6	-38.6	1.00	0.33	12.44	86.76	
6,901.0	4.84	351.20	6,879.3	509.0	-109.0	0.00	0.00	0.00	0.00	
7,848.8	90.00	180.00	7,500.0	-62.0	-117.0	10.00	8.98	-18.06	-171.17	
12,986.8	90.00	180.00	7,500.0	-5,200.0	-117.0	0.00	0.00	0.00	0.00	2B-7H TGT
13,058.5	90.00	179.28	7,500.0	-5,271.7	-116.6	1.00	0.00	-1.00	-90.00	
15,706.0	90.00	179.28	7,500.0	-7,919.0	-83.4	0.00	0.00	0.00	0.00	Woolley-Sosa 2B-7H-

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300' MD
400.0	1.00	320.00	400.0	0.7	-0.6	-0.7	1.00	1.00	Fox Hills - BASE
500.0	2.00	320.00	500.0	2.7	-2.2	-2.7	1.00	1.00	
600.0	3.00	320.00	599.9	6.0	-5.0	-6.0	1.00	1.00	
700.0	4.00	320.00	699.7	10.7	-9.0	-10.7	1.00	1.00	EOB; 4°
800.0	4.00	320.00	799.4	16.0	-13.5	-16.0	0.00	0.00	
900.0	4.00	320.00	899.2	21.4	-17.9	-21.4	0.00	0.00	
1,000.0	4.00	320.00	998.9	26.7	-22.4	-26.7	0.00	0.00	
1,100.0	4.00	320.00	1,098.7	32.1	-26.9	-32.1	0.00	0.00	
1,200.0	4.00	320.00	1,198.5	37.4	-31.4	-37.4	0.00	0.00	Start 1° Build/Turn
1,300.0	4.18	333.84	1,298.2	43.4	-35.2	-43.4	1.00	0.18	
1,400.0	4.57	345.92	1,397.9	50.5	-37.8	-50.5	1.00	0.39	
1,450.9	4.84	351.20	1,448.6	54.6	-38.6	-54.6	1.00	0.53	EOB; 4.84°
1,500.0	4.84	351.20	1,497.6	58.7	-39.3	-58.7	0.00	0.00	
1,600.0	4.84	351.20	1,597.2	67.0	-40.6	-67.0	0.00	0.00	
1,700.0	4.84	351.20	1,696.9	75.3	-41.8	-75.3	0.00	0.00	
1,800.0	4.84	351.20	1,796.5	83.7	-43.1	-83.7	0.00	0.00	
1,900.0	4.84	351.20	1,896.1	92.0	-44.4	-92.0	0.00	0.00	
2,000.0	4.84	351.20	1,995.8	100.4	-45.7	-100.4	0.00	0.00	
2,100.0	4.84	351.20	2,095.4	108.7	-47.0	-108.7	0.00	0.00	
2,200.0	4.84	351.20	2,195.1	117.0	-48.3	-117.0	0.00	0.00	
2,300.0	4.84	351.20	2,294.7	125.4	-49.6	-125.4	0.00	0.00	
2,400.0	4.84	351.20	2,394.4	133.7	-50.9	-133.7	0.00	0.00	
2,500.0	4.84	351.20	2,494.0	142.0	-52.2	-142.0	0.00	0.00	
2,600.0	4.84	351.20	2,593.7	150.4	-53.5	-150.4	0.00	0.00	
2,700.0	4.84	351.20	2,693.3	158.7	-54.8	-158.7	0.00	0.00	
2,800.0	4.84	351.20	2,792.9	167.1	-56.0	-167.1	0.00	0.00	
2,900.0	4.84	351.20	2,892.6	175.4	-57.3	-175.4	0.00	0.00	
3,000.0	4.84	351.20	2,992.2	183.7	-58.6	-183.7	0.00	0.00	
3,100.0	4.84	351.20	3,091.9	192.1	-59.9	-192.1	0.00	0.00	
3,200.0	4.84	351.20	3,191.5	200.4	-61.2	-200.4	0.00	0.00	
3,300.0	4.84	351.20	3,291.2	208.7	-62.5	-208.7	0.00	0.00	
3,400.0	4.84	351.20	3,390.8	217.1	-63.8	-217.1	0.00	0.00	
3,500.0	4.84	351.20	3,490.4	225.4	-65.1	-225.4	0.00	0.00	
3,600.0	4.84	351.20	3,590.1	233.8	-66.4	-233.8	0.00	0.00	
3,700.0	4.84	351.20	3,689.7	242.1	-67.7	-242.1	0.00	0.00	
3,800.0	4.84	351.20	3,789.4	250.4	-68.9	-250.4	0.00	0.00	
3,900.0	4.84	351.20	3,889.0	258.8	-70.2	-258.8	0.00	0.00	
4,000.0	4.84	351.20	3,988.7	267.1	-71.5	-267.1	0.00	0.00	
4,100.0	4.84	351.20	4,088.3	275.4	-72.8	-275.4	0.00	0.00	
4,200.0	4.84	351.20	4,188.0	283.8	-74.1	-283.8	0.00	0.00	
4,300.0	4.84	351.20	4,287.6	292.1	-75.4	-292.1	0.00	0.00	
4,400.0	4.84	351.20	4,387.2	300.4	-76.7	-300.4	0.00	0.00	
4,451.0	4.84	351.20	4,438.0	304.7	-77.3	-304.7	0.00	0.00	Sussex
4,500.0	4.84	351.20	4,486.9	308.8	-78.0	-308.8	0.00	0.00	
4,600.0	4.84	351.20	4,586.5	317.1	-79.3	-317.1	0.00	0.00	
4,700.0	4.84	351.20	4,686.2	325.5	-80.6	-325.5	0.00	0.00	
4,800.0	4.84	351.20	4,785.8	333.8	-81.9	-333.8	0.00	0.00	
4,900.0	4.84	351.20	4,885.5	342.1	-83.1	-342.1	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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	4.84	351.20	4,985.1	350.5	-84.4	-350.5	0.00	0.00	
5,020.0	4.84	351.20	5,005.0	352.1	-84.7	-352.1	0.00	0.00	Shannon
5,100.0	4.84	351.20	5,084.7	358.8	-85.7	-358.8	0.00	0.00	
5,200.0	4.84	351.20	5,184.4	367.1	-87.0	-367.1	0.00	0.00	
5,300.0	4.84	351.20	5,284.0	375.5	-88.3	-375.5	0.00	0.00	
5,400.0	4.84	351.20	5,383.7	383.8	-89.6	-383.8	0.00	0.00	
5,500.0	4.84	351.20	5,483.3	392.2	-90.9	-392.2	0.00	0.00	
5,600.0	4.84	351.20	5,583.0	400.5	-92.2	-400.5	0.00	0.00	
5,700.0	4.84	351.20	5,682.6	408.8	-93.5	-408.8	0.00	0.00	
5,800.0	4.84	351.20	5,782.3	417.2	-94.8	-417.2	0.00	0.00	
5,900.0	4.84	351.20	5,881.9	425.5	-96.0	-425.5	0.00	0.00	
6,000.0	4.84	351.20	5,981.5	433.8	-97.3	-433.8	0.00	0.00	
6,100.0	4.84	351.20	6,081.2	442.2	-98.6	-442.2	0.00	0.00	
6,200.0	4.84	351.20	6,180.8	450.5	-99.9	-450.5	0.00	0.00	
6,300.0	4.84	351.20	6,280.5	458.9	-101.2	-458.9	0.00	0.00	
6,400.0	4.84	351.20	6,380.1	467.2	-102.5	-467.2	0.00	0.00	
6,500.0	4.84	351.20	6,479.8	475.5	-103.8	-475.5	0.00	0.00	
6,548.4	4.84	351.20	6,528.0	479.6	-104.4	-479.6	0.00	0.00	Teepee Buttes (*if present)
6,600.0	4.84	351.20	6,579.4	483.9	-105.1	-483.9	0.00	0.00	
6,700.0	4.84	351.20	6,679.0	492.2	-106.4	-492.2	0.00	0.00	
6,800.0	4.84	351.20	6,778.7	500.5	-107.7	-500.5	0.00	0.00	
6,900.0	4.84	351.20	6,878.3	508.9	-108.9	-508.9	0.00	0.00	
6,901.0	4.84	351.20	6,879.3	509.0	-109.0	-509.0	0.00	0.00	Start 10° Build/Turn
7,000.0	5.17	188.23	6,978.2	508.7	-110.2	-508.7	10.00	0.33	
7,100.0	15.13	182.74	7,076.5	491.1	-111.5	-491.1	10.00	9.96	
7,200.0	25.13	181.58	7,170.3	456.8	-112.7	-456.8	10.00	9.99	
7,300.0	35.12	181.05	7,256.7	406.7	-113.8	-406.7	10.00	10.00	
7,381.8	43.30	180.79	7,320.0	355.0	-114.7	-355.0	10.00	10.00	Sharon Springs
7,400.0	45.12	180.74	7,333.0	342.3	-114.8	-342.3	9.99	9.99	
7,456.7	50.79	180.61	7,371.0	300.2	-115.3	-300.2	10.00	10.00	Niobrara
7,500.0	55.12	180.52	7,397.1	265.7	-115.7	-265.7	10.00	10.00	
7,600.0	65.12	180.34	7,446.8	179.1	-116.3	-179.1	10.00	10.00	
7,700.0	75.12	180.20	7,480.8	85.2	-116.8	-85.2	10.00	10.00	
7,726.5	77.77	180.16	7,487.0	59.4	-116.8	-59.4	10.01	10.00	B Chalk
7,800.0	85.12	180.06	7,497.9	-13.2	-117.0	13.2	10.00	10.00	
7,848.8	90.00	180.00	7,500.0	-62.0	-117.0	62.0	10.00	10.00	LP @ 7500' TVD; 90°
7,900.0	90.00	180.00	7,500.0	-113.2	-117.0	113.2	0.00	0.00	
8,000.0	90.00	180.00	7,500.0	-213.2	-117.0	213.2	0.00	0.00	
8,100.0	90.00	180.00	7,500.0	-313.2	-117.0	313.2	0.00	0.00	
8,200.0	90.00	180.00	7,500.0	-413.2	-117.0	413.2	0.00	0.00	
8,300.0	90.00	180.00	7,500.0	-513.2	-117.0	513.2	0.00	0.00	
8,400.0	90.00	180.00	7,500.0	-613.2	-117.0	613.2	0.00	0.00	
8,500.0	90.00	180.00	7,500.0	-713.2	-117.0	713.2	0.00	0.00	
8,600.0	90.00	180.00	7,500.0	-813.2	-117.0	813.2	0.00	0.00	
8,700.0	90.00	180.00	7,500.0	-913.2	-117.0	913.2	0.00	0.00	
8,800.0	90.00	180.00	7,500.0	-1,013.2	-117.0	1,013.2	0.00	0.00	
8,900.0	90.00	180.00	7,500.0	-1,113.2	-117.0	1,113.2	0.00	0.00	
9,000.0	90.00	180.00	7,500.0	-1,213.2	-117.0	1,213.2	0.00	0.00	
9,100.0	90.00	180.00	7,500.0	-1,313.2	-117.0	1,313.2	0.00	0.00	
9,200.0	90.00	180.00	7,500.0	-1,413.2	-117.0	1,413.2	0.00	0.00	
9,300.0	90.00	180.00	7,500.0	-1,513.2	-117.0	1,513.2	0.00	0.00	
9,400.0	90.00	180.00	7,500.0	-1,613.2	-117.0	1,613.2	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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
9,500.0	90.00	180.00	7,500.0	-1,713.2	-117.0	1,713.2	0.00	0.00	
9,600.0	90.00	180.00	7,500.0	-1,813.2	-117.0	1,813.2	0.00	0.00	
9,700.0	90.00	180.00	7,500.0	-1,913.2	-117.0	1,913.2	0.00	0.00	
9,800.0	90.00	180.00	7,500.0	-2,013.2	-117.0	2,013.2	0.00	0.00	
9,900.0	90.00	180.00	7,500.0	-2,113.2	-117.0	2,113.2	0.00	0.00	
10,000.0	90.00	180.00	7,500.0	-2,213.2	-117.0	2,213.2	0.00	0.00	
10,100.0	90.00	180.00	7,500.0	-2,313.2	-117.0	2,313.2	0.00	0.00	
10,200.0	90.00	180.00	7,500.0	-2,413.2	-117.0	2,413.2	0.00	0.00	
10,300.0	90.00	180.00	7,500.0	-2,513.2	-117.0	2,513.2	0.00	0.00	
10,400.0	90.00	180.00	7,500.0	-2,613.2	-117.0	2,613.2	0.00	0.00	
10,500.0	90.00	180.00	7,500.0	-2,713.2	-117.0	2,713.2	0.00	0.00	
10,600.0	90.00	180.00	7,500.0	-2,813.2	-117.0	2,813.2	0.00	0.00	
10,700.0	90.00	180.00	7,500.0	-2,913.2	-117.0	2,913.2	0.00	0.00	
10,800.0	90.00	180.00	7,500.0	-3,013.2	-117.0	3,013.2	0.00	0.00	
10,900.0	90.00	180.00	7,500.0	-3,113.2	-117.0	3,113.2	0.00	0.00	
11,000.0	90.00	180.00	7,500.0	-3,213.2	-117.0	3,213.2	0.00	0.00	
11,100.0	90.00	180.00	7,500.0	-3,313.2	-117.0	3,313.2	0.00	0.00	
11,200.0	90.00	180.00	7,500.0	-3,413.2	-117.0	3,413.2	0.00	0.00	
11,300.0	90.00	180.00	7,500.0	-3,513.2	-117.0	3,513.2	0.00	0.00	
11,400.0	90.00	180.00	7,500.0	-3,613.2	-117.0	3,613.2	0.00	0.00	
11,500.0	90.00	180.00	7,500.0	-3,713.2	-117.0	3,713.2	0.00	0.00	
11,600.0	90.00	180.00	7,500.0	-3,813.2	-117.0	3,813.2	0.00	0.00	
11,700.0	90.00	180.00	7,500.0	-3,913.2	-117.0	3,913.2	0.00	0.00	
11,800.0	90.00	180.00	7,500.0	-4,013.2	-117.0	4,013.2	0.00	0.00	
11,900.0	90.00	180.00	7,500.0	-4,113.2	-117.0	4,113.2	0.00	0.00	
12,000.0	90.00	180.00	7,500.0	-4,213.2	-117.0	4,213.2	0.00	0.00	
12,100.0	90.00	180.00	7,500.0	-4,313.2	-117.0	4,313.2	0.00	0.00	
12,200.0	90.00	180.00	7,500.0	-4,413.2	-117.0	4,413.2	0.00	0.00	
12,300.0	90.00	180.00	7,500.0	-4,513.2	-117.0	4,513.2	0.00	0.00	
12,400.0	90.00	180.00	7,500.0	-4,613.2	-117.0	4,613.2	0.00	0.00	
12,500.0	90.00	180.00	7,500.0	-4,713.2	-117.0	4,713.2	0.00	0.00	
12,600.0	90.00	180.00	7,500.0	-4,813.2	-117.0	4,813.2	0.00	0.00	
12,700.0	90.00	180.00	7,500.0	-4,913.2	-117.0	4,913.2	0.00	0.00	
12,800.0	90.00	180.00	7,500.0	-5,013.2	-117.0	5,013.2	0.00	0.00	
12,900.0	90.00	180.00	7,500.0	-5,113.2	-117.0	5,113.2	0.00	0.00	
12,986.8	90.00	180.00	7,500.0	-5,200.0	-117.0	5,200.0	0.00	0.00	Start 1° Turn
13,000.0	90.00	179.87	7,500.0	-5,213.2	-117.0	5,213.2	1.00	0.00	
13,058.5	90.00	179.28	7,500.0	-5,271.7	-116.6	5,271.7	1.00	0.00	EOT; 179.28°
13,100.0	90.00	179.28	7,500.0	-5,313.2	-116.0	5,313.2	0.00	0.00	
13,200.0	90.00	179.28	7,500.0	-5,413.2	-114.8	5,413.2	0.00	0.00	
13,300.0	90.00	179.28	7,500.0	-5,513.2	-113.5	5,513.2	0.00	0.00	
13,400.0	90.00	179.28	7,500.0	-5,613.2	-112.3	5,613.2	0.00	0.00	
13,500.0	90.00	179.28	7,500.0	-5,713.2	-111.0	5,713.2	0.00	0.00	
13,600.0	90.00	179.28	7,500.0	-5,813.1	-109.8	5,813.1	0.00	0.00	
13,700.0	90.00	179.28	7,500.0	-5,913.1	-108.5	5,913.1	0.00	0.00	
13,800.0	90.00	179.28	7,500.0	-6,013.1	-107.3	6,013.1	0.00	0.00	
13,900.0	90.00	179.28	7,500.0	-6,113.1	-106.0	6,113.1	0.00	0.00	
14,000.0	90.00	179.28	7,500.0	-6,213.1	-104.8	6,213.1	0.00	0.00	
14,100.0	90.00	179.28	7,500.0	-6,313.1	-103.5	6,313.1	0.00	0.00	
14,200.0	90.00	179.28	7,500.0	-6,413.1	-102.3	6,413.1	0.00	0.00	
14,300.0	90.00	179.28	7,500.0	-6,513.1	-101.0	6,513.1	0.00	0.00	
14,400.0	90.00	179.28	7,500.0	-6,613.1	-99.8	6,613.1	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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
14,500.0	90.00	179.28	7,500.0	-6,713.1	-98.5	6,713.1	0.00	0.00	
14,600.0	90.00	179.28	7,500.0	-6,813.1	-97.3	6,813.1	0.00	0.00	
14,700.0	90.00	179.28	7,500.0	-6,913.1	-96.0	6,913.1	0.00	0.00	
14,800.0	90.00	179.28	7,500.0	-7,013.1	-94.8	7,013.1	0.00	0.00	
14,900.0	90.00	179.28	7,500.0	-7,113.0	-93.5	7,113.0	0.00	0.00	
15,000.0	90.00	179.28	7,500.0	-7,213.0	-92.3	7,213.0	0.00	0.00	
15,100.0	90.00	179.28	7,500.0	-7,313.0	-91.0	7,313.0	0.00	0.00	
15,200.0	90.00	179.28	7,500.0	-7,413.0	-89.8	7,413.0	0.00	0.00	
15,300.0	90.00	179.28	7,500.0	-7,513.0	-88.5	7,513.0	0.00	0.00	
15,400.0	90.00	179.28	7,500.0	-7,613.0	-87.3	7,613.0	0.00	0.00	
15,500.0	90.00	179.28	7,500.0	-7,713.0	-86.0	7,713.0	0.00	0.00	
15,600.0	90.00	179.28	7,500.0	-7,813.0	-84.8	7,813.0	0.00	0.00	
15,700.0	90.00	179.28	7,500.0	-7,913.0	-83.5	7,913.0	0.00	0.00	
15,706.0	90.00	179.28	7,500.0	-7,919.0	-83.4	7,919.0	0.00	0.00	TD at 15706.0

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 2B-7H-E1 - plan hits target center - Point	0.00	0.00	7,500.0	-7,919.0	-83.4	1,259,598.09	3,124,894.24	40.045116	-105.053919
Woolle-Sosa 2B-7H-E16 - plan misses target center by 247.0ft at 15704.6ft MD (7500.0 TVD, -7917.5 N, -83.4 E) - Point	0.00	0.00	7,747.0	-7,917.5	-83.7	1,259,599.55	3,124,893.96	40.045120	-105.053920
2B-7H TGT - plan hits target center - Point	0.00	0.00	7,500.0	-5,200.0	-117.0	1,262,316.90	3,124,846.99	40.052580	-105.054039
Woolley-Sosa 2B-7H-E1 - plan misses target center by 247.0ft at 15706.0ft MD (7500.0 TVD, -7919.0 N, -83.4 E) - Point	0.00	0.00	7,747.0	-7,919.0	-83.4	1,259,598.09	3,124,894.24	40.045116	-105.053919

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
400.0	400.0	Fox Hills - BASE				
4,451.0	4,438.0	Sussex				
5,020.0	5,005.0	Shannon				
6,548.4	6,528.0	Teepee Buttes (*if present)				
7,381.8	7,320.0	Sharon Springs				
7,456.7	7,371.0	Niobrara				
7,726.5	7,487.0	B Chalk				

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-7H-E168	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.0	300.0	0.0	0.0	KOP @ 300' MD
700.0	699.7	10.7	-9.0	EOB; 4°
1,200.0	1,198.5	37.4	-31.4	Start 1° Build/Turn
1,450.9	1,448.6	54.6	-38.6	EOB; 4.84°
6,901.0	6,879.3	509.0	-109.0	Start 10° Build/Turn
7,848.8	7,500.0	-62.0	-117.0	LP @ 7500' TVD; 90°
12,986.8	7,500.0	-5,200.0	-117.0	Start 1° Turn
13,058.5	7,500.0	-5,271.7	-116.6	EOT; 179.28°
15,706.0	7,500.0	-7,919.0	-83.4	TD at 15706.0

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

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

Woolley-Sosa 2B-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 2B-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 2B-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	15,705.5	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 2B-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 2B-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 Depth (ft)	Offset Measured Depth (ft)	Distance		Separation Factor	Warning
			Between Centres (ft)	Between Ellipses (ft)		
S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)						
BEARDEN 24-6 (EXISTING) - ENCANA WELL - PLAN O	10,796.9	7,558.0	1,595.9	1,521.7	21.500	CC
BEARDEN 24-6 (EXISTING) - ENCANA WELL - PLAN O	10,800.0	7,558.0	1,595.9	1,521.6	21.485	ES
BEARDEN 24-6 (EXISTING) - ENCANA WELL - PLAN O	11,400.0	7,558.0	1,706.1	1,621.5	20.179	SF
Sosa 11-18 - DD - DD	11,389.6	7,594.7	115.2	31.1	1.371	Level 3, CC, ES, SF
Sosa 12-18 - DD - DD	13,026.2	7,642.3	116.6	0.5	1.004	Level 2, CC, ES, SF
Sosa 21-18 - DD (MWD) - DD	11,397.7	7,698.9	1,672.8	1,588.6	19.871	CC
Sosa 21-18 - DD (MWD) - DD	11,400.0	7,698.8	1,672.8	1,588.6	19.861	ES
Sosa 21-18 - DD (MWD) - DD	12,000.0	7,686.7	1,777.9	1,683.3	18.803	SF
Sosa 22-18 - DD - DD	12,886.7	7,644.2	1,590.5	1,478.6	14.204	CC
Sosa 22-18 - DD - DD	12,900.0	7,644.2	1,590.6	1,478.4	14.175	ES
Sosa 22-18 - DD - DD	13,300.0	7,646.1	1,640.0	1,520.7	13.750	SF
Sosa 22-18 - DD - Plan #2	12,870.3	7,646.1	1,575.8	1,464.3	14.133	CC
Sosa 22-18 - DD - Plan #2	12,900.0	7,646.1	1,576.0	1,464.0	14.071	ES
Sosa 22-18 - DD - Plan #2	13,300.0	7,646.1	1,629.9	1,510.9	13.689	SF
SOSA A UNIT 1 (EXISTING) - EXISTING - EXISTING	12,083.9	7,471.6	604.8	513.7	6.633	CC
SOSA A UNIT 1 (EXISTING) - EXISTING - EXISTING	12,100.0	7,471.6	605.1	513.6	6.615	ES
SOSA A UNIT 1 (EXISTING) - EXISTING - EXISTING	12,200.0	7,471.7	615.9	522.7	6.609	SF
THOMAS 24-7 (EXISTING) - ENCANA WELL - SURVEY	10,222.0	7,520.0	1,559.3	1,499.6	26.107	CC, ES
THOMAS 24-7 (EXISTING) - ENCANA WELL - SURVEY	10,900.0	7,516.1	1,700.3	1,629.1	23.879	SF
THOMAS 2-8-7 (EXISTING) - ENCANA WELL - SURVEY	10,796.1	7,583.6	866.4	792.6	11.733	CC
THOMAS 2-8-7 (EXISTING) - ENCANA WELL - SURVEY	10,800.0	7,583.6	866.5	792.5	11.723	ES
THOMAS 2-8-7 (EXISTING) - ENCANA WELL - SURVEY	11,000.0	7,583.2	890.1	812.8	11.512	SF
Thomas 7-12 (Existing) - Existing - NO SURVEYS	8,770.0	7,488.0	96.0	59.7	2.641	CC, ES, SF
THOMAS E UNIT 1 (EXISTING) - Existing - NO SURVEY	8,986.0	7,494.0	1,058.3	1,018.7	26.765	CC
THOMAS E UNIT 1 (EXISTING) - Existing - NO SURVEY	9,000.0	7,494.0	1,058.4	1,018.6	26.627	ES
THOMAS E UNIT 1 (EXISTING) - Existing - NO SURVEY	9,400.0	7,494.0	1,136.4	1,090.4	24.705	SF
WOOLLEY 11-7 (EXISTING) - ENCANA WELL - SURVE	6,933.3	7,094.5	1,121.6	1,083.7	29.621	CC, ES
WOOLLEY 11-7 (EXISTING) - ENCANA WELL - SURVE	6,950.0	7,111.1	1,121.8	1,083.9	29.595	SF
WOOLLEY 12-7 (EXISTING) - ENCANA WELL - NO SUR	2,338.6	2,421.1	16.7	7.7	1.865	CC, ES, SF
WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SURVE	8,077.3	7,948.1	1,047.0	996.3	20.651	CC, ES
WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SURVE	8,300.0	7,946.4	1,070.4	1,017.6	20.270	SF
WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL - GY	6,962.9	7,000.0	951.5	924.1	34.721	CC, ES
WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL - GY	7,000.0	7,034.8	952.0	924.5	34.654	SF
Woolley-Becky 2A-7H-E168 - Hz - Plan #2	637.5	640.4	54.3	52.1	24.465	CC, ES
Woolley-Becky 2A-7H-E168 - Hz - Plan #2	7,788.9	7,514.2	257.8	231.1	9.662	SF
Woolley-Becky 2B-7H-E168 - Hz - Plan #2	300.0	300.0	70.0	69.0	69.844	CC
Woolley-Becky 2B-7H-E168 - Hz - Plan #2	500.0	501.4	70.2	68.5	41.093	ES
Woolley-Becky 2B-7H-E168 - Hz - Plan #2	7,550.0	7,547.0	189.0	161.6	6.887	SF
Woolley-Becky 2C-7H-E168 - Hz - Plan #4	300.0	300.0	80.0	79.0	79.901	CC, ES
Woolley-Becky 2C-7H-E168 - Hz - Plan #4	7,733.7	7,494.8	542.8	516.2	20.413	SF
Woolley-Becky 2D-7H-E168 - Hz - Plan #4	300.0	300.0	89.8	88.8	89.679	CC, ES
Woolley-Becky 2D-7H-E168 - Hz - Plan #4	7,400.0	7,576.6	831.1	803.1	29.599	SF
Woolley-Becky 2E-7H-E168 - Hz - Plan #2	300.0	300.0	99.9	98.9	99.736	CC, ES
Woolley-Becky 2E-7H-E168 - Hz - Plan #2	8,200.0	7,350.0	1,080.3	1,051.5	37.556	SF
Woolley-Becky 2F-7H-E168 - Hz - Plan #3	300.0	300.0	110.0	109.0	109.795	CC, ES
Woolley-Becky 2F-7H-E168 - Hz - Plan #3	7,000.0	6,829.5	1,435.9	1,406.9	49.535	SF
Woolley-Becky 2G-7H-E168 - Hz - Plan #2	233.3	233.3	119.8	119.0	155.752	CC
Woolley-Becky 2G-7H-E168 - Hz - Plan #2	300.0	299.0	120.0	119.0	119.993	ES
Woolley-Becky 2G-7H-E168 - Hz - Plan #2	10,400.0	7,283.8	3,079.7	3,018.6	50.367	SF
Woolley-Becky 2H-7H-E168 - Hz - Plan #3	200.0	200.0	129.9	129.2	198.951	CC, ES
Woolley-Becky 2H-7H-E168 - Hz - Plan #3	12,600.0	7,134.3	5,250.4	5,154.2	54.598	SF
Woolley-Sosa 2A-7H-E168 - Hz - Plan #2	7,100.9	7,095.2	346.9	316.7	11.501	CC
Woolley-Sosa 2A-7H-E168 - Hz - Plan #2	15,706.0	15,936.0	445.2	205.5	1.858	ES, SF

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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-Sosa 2C-7H-E168 - HZ - Plan #2	300.0	300.0	9.8	8.8	9.778	CC, ES
Woolley-Sosa 2C-7H-E168 - HZ - Plan #2	15,706.0	15,946.9	435.7	198.0	1.833	SF
Woolley-Sosa 2D-7H-E168 - HZ - Plan #2	300.0	300.0	19.9	18.9	19.835	CC, ES
Woolley-Sosa 2D-7H-E168 - HZ - Plan #2	15,706.0	15,796.2	690.1	407.4	2.441	SF
Woolley-Sosa 2E-7H-E168 - HZ - Plan #3	300.0	300.0	29.9	28.9	29.895	CC, ES
Woolley-Sosa 2E-7H-E168 - HZ - Plan #3	15,706.0	16,058.4	1,067.2	791.6	3.872	SF
Woolley-Sosa 2F-7H-E168 - HZ - Plan #2	300.0	300.0	40.0	39.0	39.952	CC, ES
Woolley-Sosa 2F-7H-E168 - HZ - Plan #2	15,706.0	15,820.4	1,390.0	1,107.2	4.915	SF
Woolley-Sosa 2G-7H-E168 - HZ - Plan #2	200.0	200.0	49.8	49.2	76.323	CC, ES
Woolley-Sosa 2G-7H-E168 - HZ - Plan #2	15,706.0	16,118.6	1,756.5	1,476.1	6.264	SF

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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
0.0	0.0	0.0	0.0	0.0	0.0	152.69	-2,304.0	1,189.9	2,593.2				
100.0	100.0	85.0	85.0	0.2	0.1	152.69	-2,304.0	1,189.9	2,593.1	2,592.8	0.28	9,379.237	
200.0	200.0	185.0	185.0	0.3	0.3	152.69	-2,304.0	1,189.9	2,593.1	2,592.5	0.62	4,173.340	
300.0	300.0	285.0	285.0	0.5	0.5	152.69	-2,304.0	1,189.9	2,593.1	2,592.2	0.97	2,672.166	
400.0	400.0	385.0	385.0	0.7	0.6	-167.32	-2,304.0	1,189.9	2,594.0	2,592.7	1.32	1,966.037	
500.0	500.0	485.0	485.0	0.9	0.8	-167.32	-2,304.0	1,189.9	2,596.5	2,594.9	1.67	1,556.507	
600.0	599.9	584.9	584.9	1.0	1.0	-167.33	-2,304.0	1,189.9	2,600.8	2,598.8	2.02	1,289.572	
700.0	699.7	684.7	684.7	1.2	1.2	-167.35	-2,304.0	1,189.9	2,606.7	2,604.4	2.37	1,102.114	
800.0	799.4	784.4	784.4	1.4	1.3	-167.38	-2,304.0	1,189.9	2,613.6	2,610.8	2.72	962.603	
900.0	899.2	884.2	884.2	1.6	1.5	-167.42	-2,304.0	1,189.9	2,620.4	2,617.3	3.07	854.908	
1,000.0	998.9	984.0	984.0	1.8	1.7	-167.45	-2,304.0	1,189.9	2,627.2	2,623.8	3.42	769.270	
1,100.0	1,098.7	1,083.7	1,083.7	2.1	1.9	-167.48	-2,304.0	1,189.9	2,634.0	2,630.2	3.77	699.546	
1,200.0	1,198.5	1,183.5	1,183.5	2.3	2.0	-167.52	-2,304.0	1,189.9	2,640.8	2,636.7	4.12	641.681	
1,300.0	1,298.2	1,283.2	1,283.2	2.5	2.2	178.60	-2,304.0	1,189.9	2,647.8	2,643.4	4.46	593.404	
1,400.0	1,397.9	1,382.9	1,382.9	2.7	2.4	166.50	-2,304.0	1,189.9	2,655.4	2,650.5	4.81	552.428	
1,450.9	1,448.6	1,433.7	1,433.7	2.8	2.5	161.22	-2,304.0	1,189.9	2,659.4	2,654.4	4.98	533.803	
1,500.0	1,497.6	1,482.6	1,482.6	2.9	2.6	161.25	-2,304.0	1,189.9	2,663.3	2,658.1	5.15	516.970	
1,600.0	1,597.2	1,542.6	1,542.6	3.1	2.7	161.29	-2,304.3	1,190.0	2,671.9	2,666.5	5.43	492.114	
1,700.0	1,696.9	1,600.0	1,600.0	3.3	2.8	161.32	-2,305.6	1,190.5	2,682.3	2,676.6	5.70	470.309	
1,800.0	1,796.5	1,645.4	1,645.3	3.6	2.8	161.35	-2,307.4	1,191.3	2,694.4	2,688.4	5.96	452.302	
1,900.0	1,896.1	1,700.0	1,699.8	3.8	2.9	161.39	-2,310.5	1,192.5	2,708.3	2,702.1	6.23	434.920	
2,000.0	1,995.8	1,747.2	1,746.9	4.0	3.0	161.42	-2,313.9	1,193.9	2,724.0	2,717.5	6.49	420.019	
2,100.0	2,095.4	1,800.0	1,799.5	4.2	3.1	161.46	-2,318.5	1,195.8	2,741.4	2,734.6	6.75	405.950	
2,200.0	2,195.1	1,847.8	1,846.9	4.4	3.2	161.50	-2,323.5	1,197.9	2,760.5	2,753.5	7.01	393.620	
2,300.0	2,294.7	1,900.0	1,898.7	4.7	3.3	161.54	-2,329.8	1,200.4	2,781.3	2,774.0	7.28	382.046	
2,400.0	2,394.4	1,946.9	1,945.1	4.9	3.5	161.58	-2,336.2	1,203.1	2,803.8	2,796.3	7.54	371.891	
2,500.0	2,494.0	2,000.0	1,997.5	5.1	3.6	161.63	-2,344.3	1,206.4	2,828.0	2,820.2	7.81	362.193	
2,600.0	2,593.6	2,044.4	2,041.2	5.3	3.7	161.66	-2,351.7	1,209.4	2,853.8	2,845.8	8.06	353.937	
2,700.0	2,693.3	2,110.1	2,105.5	5.6	3.9	161.72	-2,363.7	1,214.3	2,881.2	2,872.8	8.35	344.879	
2,800.0	2,792.9	2,206.1	2,199.6	5.8	4.2	161.81	-2,381.4	1,221.6	2,908.9	2,900.2	8.70	334.440	
2,900.0	2,892.6	2,302.1	2,293.7	6.0	4.4	161.89	-2,399.1	1,228.8	2,936.6	2,927.5	9.04	324.792	
3,000.0	2,992.2	2,398.1	2,387.8	6.2	4.8	161.97	-2,416.9	1,236.1	2,964.2	2,954.9	9.39	315.847	
3,100.0	3,091.9	2,494.1	2,481.9	6.5	5.1	162.05	-2,434.6	1,243.3	2,991.9	2,982.2	9.73	307.532	
3,200.0	3,191.5	2,590.1	2,575.9	6.7	5.4	162.12	-2,452.3	1,250.6	3,019.6	3,009.6	10.07	299.785	
3,300.0	3,291.2	2,686.1	2,670.0	6.9	5.7	162.20	-2,470.0	1,257.8	3,047.3	3,036.9	10.42	292.552	
3,400.0	3,390.8	2,782.2	2,764.1	7.1	6.0	162.28	-2,487.7	1,265.1	3,075.1	3,064.3	10.76	285.782	
3,500.0	3,490.4	2,878.2	2,858.2	7.4	6.4	162.35	-2,505.4	1,272.3	3,102.8	3,091.7	11.10	279.433	
3,600.0	3,590.1	2,974.2	2,952.3	7.6	6.7	162.42	-2,523.1	1,279.6	3,130.5	3,119.0	11.45	273.466	
3,700.0	3,689.7	3,070.2	3,046.3	7.8	7.1	162.49	-2,540.9	1,286.8	3,158.2	3,146.4	11.79	267.850	
3,800.0	3,789.4	3,166.2	3,140.4	8.1	7.4	162.56	-2,558.6	1,294.1	3,185.9	3,173.8	12.13	262.553	
3,900.0	3,889.0	3,262.2	3,234.5	8.3	7.8	162.63	-2,576.3	1,301.3	3,213.7	3,201.2	12.48	257.549	
4,000.0	3,988.7	3,358.2	3,328.6	8.5	8.1	162.70	-2,594.0	1,308.6	3,241.4	3,228.6	12.82	252.815	
4,100.0	4,088.3	3,454.2	3,422.7	8.7	8.5	162.76	-2,611.7	1,315.8	3,269.1	3,256.0	13.16	248.330	
4,200.0	4,187.9	3,550.2	3,516.7	9.0	8.8	162.83	-2,629.4	1,323.1	3,296.9	3,283.4	13.51	244.074	
4,300.0	4,287.6	3,646.2	3,610.8	9.2	9.2	162.89	-2,647.1	1,330.3	3,324.6	3,310.8	13.85	240.030	
4,400.0	4,387.2	3,742.2	3,704.9	9.4	9.5	162.95	-2,664.9	1,337.6	3,352.4	3,338.2	14.19	236.184	
4,500.0	4,486.9	3,838.2	3,799.0	9.6	9.9	163.02	-2,682.6	1,344.8	3,380.2	3,365.6	14.54	232.520	
4,600.0	4,586.5	3,934.2	3,893.1	9.9	10.3	163.08	-2,700.3	1,352.1	3,407.9	3,393.0	14.88	229.027	
4,700.0	4,686.2	4,030.2	3,987.1	10.1	10.6	163.14	-2,718.0	1,359.3	3,435.7	3,420.5	15.22	225.692	
4,800.0	4,785.8	4,126.3	4,081.2	10.3	11.0	163.20	-2,735.7	1,366.6	3,463.4	3,447.9	15.57	222.506	
4,900.0	4,885.4	4,222.3	4,175.3	10.6	11.4	163.25	-2,753.4	1,373.9	3,491.2	3,475.3	15.91	219.458	
5,000.0	4,985.1	4,318.3	4,269.4	10.8	11.7	163.31	-2,771.1	1,381.1	3,519.0	3,502.7	16.25	216.539	

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 2B-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 2B-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							
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	5,084.7	4,414.3	4,363.5	11.0	12.1	163.37	-2,788.9	1,388.4	3,546.8	3,530.2	16.59	213.742		
5,200.0	5,184.4	4,510.3	4,457.5	11.2	12.5	163.42	-2,806.6	1,395.6	3,574.5	3,557.6	16.94	211.060		
5,300.0	5,284.0	4,606.3	4,551.6	11.5	12.8	163.48	-2,824.3	1,402.9	3,602.3	3,585.0	17.28	208.484		
5,400.0	5,383.7	4,702.3	4,645.7	11.7	13.2	163.53	-2,842.0	1,410.1	3,630.1	3,612.5	17.62	206.010		
5,500.0	5,483.3	4,798.3	4,739.8	11.9	13.6	163.58	-2,859.7	1,417.4	3,657.9	3,639.9	17.96	203.631		
5,600.0	5,583.0	4,894.3	4,833.9	12.1	13.9	163.63	-2,877.4	1,424.6	3,685.7	3,667.4	18.31	201.341		
5,700.0	5,682.6	4,990.3	4,927.9	12.4	14.3	163.69	-2,895.1	1,431.9	3,713.5	3,694.8	18.65	199.136		
5,800.0	5,782.2	5,086.3	5,022.0	12.6	14.7	163.74	-2,912.8	1,439.1	3,741.3	3,722.3	18.99	197.012		
5,900.0	5,881.9	5,182.3	5,116.1	12.8	15.0	163.79	-2,930.6	1,446.4	3,769.1	3,749.7	19.33	194.963		
6,000.0	5,981.5	5,278.3	5,212.5	13.1	15.4	163.84	-2,948.3	1,453.6	3,796.9	3,776.5	19.67	192.814		
6,100.0	6,081.2	5,374.3	5,307.9	13.3	15.7	163.89	-2,966.0	1,460.8	3,824.7	3,803.7	20.01	190.665		
6,200.0	6,180.8	5,470.3	5,402.9	13.5	16.0	163.94	-2,983.7	1,468.0	3,852.5	3,829.9	20.35	188.516		
6,300.0	6,280.5	5,566.3	5,497.5	13.7	16.3	164.00	-2,999.9	1,475.2	3,880.3	3,856.7	20.69	186.367		
6,400.0	6,380.1	5,662.3	5,593.5	14.0	16.7	164.05	-3,016.1	1,482.4	3,908.1	3,883.5	21.03	184.218		
6,500.0	6,479.7	5,758.3	5,689.5	14.2	17.0	164.11	-3,032.3	1,489.6	3,935.9	3,910.3	21.37	182.069		
6,600.0	6,579.4	5,854.3	5,785.5	14.4	17.3	164.16	-3,048.5	1,496.8	3,963.7	3,936.5	21.71	179.920		
6,700.0	6,679.0	5,950.3	5,880.5	14.7	17.6	164.22	-3,064.7	1,504.0	3,991.5	3,962.3	22.05	177.771		
6,800.0	6,778.7	6,046.3	5,975.5	14.9	17.9	164.27	-3,080.9	1,511.2	4,019.3	3,988.1	22.39	175.622		
6,901.0	6,879.3	6,142.3	6,070.5	15.1	18.2	164.33	-3,097.1	1,518.4	4,047.1	4,014.3	22.73	173.473		
6,950.0	6,928.3	6,238.3	6,166.5	15.2	18.5	164.38	-3,113.3	1,525.6	4,074.9	4,040.5	23.07	171.324		
7,000.0	6,978.2	6,334.3	6,262.5	15.2	18.1	-105.36	-3,010.0	1,478.9	3,862.7	3,838.3	24.39	158.388		
7,050.0	7,027.7	7,085.7	7,012.7	15.2	18.2	-28.89	-3,010.0	1,478.9	3,855.1	3,830.5	24.60	156.737		
7,100.0	7,076.5	7,134.4	7,061.5	15.1	18.2	-28.00	-3,010.0	1,478.9	3,845.4	3,820.9	24.56	156.546		
7,150.0	7,124.1	7,182.1	7,109.1	15.0	18.3	-28.03	-3,010.0	1,478.9	3,831.9	3,807.5	24.46	156.684		
7,200.0	7,170.3	7,228.2	7,155.3	14.9	18.3	-28.57	-3,010.0	1,478.9	3,814.7	3,790.4	24.29	157.038		
7,250.0	7,214.6	7,272.5	7,199.6	14.8	18.4	-29.52	-3,010.0	1,478.9	3,793.9	3,769.8	24.10	157.439		
7,300.0	7,256.7	7,314.6	7,241.7	14.6	18.5	-30.86	-3,010.0	1,478.9	3,769.7	3,745.8	23.91	157.654		
7,350.0	7,296.2	7,354.2	7,281.3	14.4	18.5	-32.62	-3,010.0	1,478.9	3,742.3	3,718.5	23.78	157.374		
7,400.0	7,333.0	7,391.0	7,318.0	14.2	18.5	-34.85	-3,010.0	1,478.9	3,711.9	3,688.1	23.76	156.220		
7,450.0	7,366.7	7,424.7	7,351.7	14.1	18.6	-37.63	-3,010.0	1,478.9	3,678.8	3,654.8	23.92	153.790		
7,500.0	7,397.1	7,455.0	7,382.1	13.9	18.6	-41.05	-3,010.0	1,478.9	3,643.2	3,618.9	24.33	149.755		
7,550.0	7,423.8	7,481.8	7,408.8	13.8	18.7	-45.25	-3,010.0	1,478.9	3,605.4	3,580.4	25.04	144.002		
7,600.0	7,446.8	7,504.8	7,431.8	13.7	18.7	-50.35	-3,010.0	1,478.9	3,565.8	3,539.7	26.07	136.762		
7,650.0	7,465.8	7,523.8	7,450.9	13.6	18.7	-56.49	-3,010.0	1,478.9	3,524.7	3,497.3	27.40	128.658		
7,700.0	7,480.8	7,538.7	7,465.8	13.6	18.7	-63.71	-3,010.0	1,478.9	3,482.3	3,453.4	28.87	120.601		
7,750.0	7,491.5	7,549.4	7,476.5	13.7	18.7	-71.95	-3,010.0	1,478.9	3,439.0	3,408.7	30.28	113.570		
7,800.0	7,497.9	7,555.9	7,482.9	13.8	18.7	-80.94	-3,010.0	1,478.9	3,395.2	3,363.9	31.33	108.357		
7,848.8	7,500.0	7,558.0	7,485.0	13.9	18.7	-90.00	-3,010.0	1,478.9	3,352.3	3,320.5	31.80	105.401		
7,900.0	7,500.0	7,558.0	7,485.0	14.1	18.7	-90.00	-3,010.0	1,478.9	3,307.4	3,275.3	32.02	103.300		
8,000.0	7,500.0	7,558.0	7,485.0	14.7	18.7	-90.00	-3,010.0	1,478.9	3,220.1	3,187.6	32.58	98.826		
8,100.0	7,500.0	7,558.0	7,485.0	15.4	18.7	-90.00	-3,010.0	1,478.9	3,133.7	3,100.3	33.33	94.013		
8,200.0	7,500.0	7,558.0	7,485.0	16.3	18.7	-90.00	-3,010.0	1,478.9	3,048.0	3,013.8	34.24	89.029		
8,300.0	7,500.0	7,558.0	7,485.0	17.3	18.7	-90.00	-3,010.0	1,478.9	2,963.3	2,928.0	35.27	84.011		
8,400.0	7,500.0	7,558.0	7,485.0	18.5	18.7	-90.00	-3,010.0	1,478.9	2,879.5	2,843.1	36.42	79.069		
8,500.0	7,500.0	7,558.0	7,485.0	19.7	18.7	-90.00	-3,010.0	1,478.9	2,796.9	2,759.2	37.65	74.278		
8,600.0	7,500.0	7,558.0	7,485.0	21.0	18.7	-90.00	-3,010.0	1,478.9	2,715.3	2,676.4	38.96	69.689		
8,700.0	7,500.0	7,558.0	7,485.0	22.4	18.7	-90.00	-3,010.0	1,478.9	2,635.1	2,594.7	40.33	65.330		
8,800.0	7,500.0	7,558.0	7,485.0	23.8	18.7	-90.00	-3,010.0	1,478.9	2,556.2	2,514.5	41.76	61.218		
8,900.0	7,500.0	7,558.0	7,485.0	25.3	18.7	-90.00	-3,010.0	1,478.9	2,478.9	2,435.7	43.22	57.355		
9,000.0	7,500.0	7,558.0	7,485.0	26.7	18.7	-90.00	-3,010.0	1,478.9	2,403.2	2,358.5	44.72	53.741		
9,100.0	7,500.0	7,558.0	7,485.0	28.3	18.7	-90.00	-3,010.0	1,478.9	2,329.4	2,283.2	46.25	50.369		
9,200.0	7,500.0	7,558.0	7,485.0	29.8	18.7	-90.00	-3,010.0	1,478.9	2,257.6	2,209.8	47.80	47.231		

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 2B-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 2B-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	
9,300.0	7,500.0	7,558.0	7,485.0	31.4	18.7	-90.00	-3,010.0	1,478.9	2,188.0	2,138.6	49.37	44.315	
9,400.0	7,500.0	7,558.0	7,485.0	33.0	18.7	-90.00	-3,010.0	1,478.9	2,120.9	2,069.9	50.97	41.613	
9,500.0	7,500.0	7,558.0	7,485.0	34.6	18.7	-90.00	-3,010.0	1,478.9	2,056.4	2,003.8	52.57	39.114	
9,600.0	7,500.0	7,558.0	7,485.0	36.2	18.7	-90.00	-3,010.0	1,478.9	1,994.8	1,940.6	54.20	36.807	
9,700.0	7,500.0	7,558.0	7,485.0	37.8	18.7	-90.00	-3,010.0	1,478.9	1,936.5	1,880.7	55.83	34.685	
9,800.0	7,500.0	7,558.0	7,485.0	39.5	18.7	-90.00	-3,010.0	1,478.9	1,881.6	1,824.2	57.47	32.739	
9,900.0	7,500.0	7,558.0	7,485.0	41.1	18.7	-90.00	-3,010.0	1,478.9	1,830.6	1,771.5	59.13	30.961	
10,000.0	7,500.0	7,558.0	7,485.0	42.8	18.7	-90.00	-3,010.0	1,478.9	1,783.8	1,723.0	60.79	29.344	
10,100.0	7,500.0	7,558.0	7,485.0	44.5	18.7	-90.00	-3,010.0	1,478.9	1,741.4	1,678.9	62.46	27.882	
10,200.0	7,500.0	7,558.0	7,485.0	46.1	18.7	-90.00	-3,010.0	1,478.9	1,703.9	1,639.7	64.13	26.568	
10,300.0	7,500.0	7,558.0	7,485.0	47.8	18.7	-90.00	-3,010.0	1,478.9	1,671.4	1,605.6	65.81	25.398	
10,400.0	7,500.0	7,558.0	7,485.0	49.5	18.7	-90.00	-3,010.0	1,478.9	1,644.5	1,577.0	67.50	24.364	
10,500.0	7,500.0	7,558.0	7,485.0	51.2	18.7	-90.00	-3,010.0	1,478.9	1,623.3	1,554.1	69.19	23.462	
10,600.0	7,500.0	7,558.0	7,485.0	52.9	18.7	-90.00	-3,010.0	1,478.9	1,608.0	1,537.1	70.88	22.686	
10,700.0	7,500.0	7,558.0	7,485.0	54.6	18.7	-90.00	-3,010.0	1,478.9	1,598.8	1,526.3	72.58	22.029	
10,796.9	7,500.0	7,558.0	7,485.0	56.2	18.7	-90.00	-3,010.0	1,478.9	1,595.9	1,521.7	74.23	21.500 CC	
10,800.0	7,500.0	7,558.0	7,485.0	56.3	18.7	-90.00	-3,010.0	1,478.9	1,595.9	1,521.6	74.28	21.485 ES	
10,900.0	7,500.0	7,558.0	7,485.0	58.0	18.7	-90.00	-3,010.0	1,478.9	1,599.2	1,523.2	75.98	21.047	
11,000.0	7,500.0	7,558.0	7,485.0	59.7	18.7	-90.00	-3,010.0	1,478.9	1,608.8	1,531.1	77.69	20.707	
11,100.0	7,500.0	7,558.0	7,485.0	61.4	18.7	-90.00	-3,010.0	1,478.9	1,624.4	1,545.0	79.40	20.458	
11,200.0	7,500.0	7,558.0	7,485.0	63.1	18.7	-90.00	-3,010.0	1,478.9	1,646.0	1,564.9	81.11	20.293	
11,300.0	7,500.0	7,558.0	7,485.0	64.8	18.7	-90.00	-3,010.0	1,478.9	1,673.3	1,590.5	82.83	20.202	
11,400.0	7,500.0	7,558.0	7,485.0	66.5	18.7	-90.00	-3,010.0	1,478.9	1,706.1	1,621.5	84.55	20.179 SF	
11,500.0	7,500.0	7,558.0	7,485.0	68.2	18.7	-90.00	-3,010.0	1,478.9	1,743.9	1,657.7	86.26	20.216	
11,600.0	7,500.0	7,558.0	7,485.0	70.0	18.7	-90.00	-3,010.0	1,478.9	1,786.6	1,698.6	87.98	20.306	
11,700.0	7,500.0	7,558.0	7,485.0	71.7	18.7	-90.00	-3,010.0	1,478.9	1,833.7	1,744.0	89.71	20.441	
11,800.0	7,500.0	7,558.0	7,485.0	73.4	18.7	-90.00	-3,010.0	1,478.9	1,885.0	1,793.6	91.43	20.617	
11,900.0	7,500.0	7,558.0	7,485.0	75.1	18.7	-90.00	-3,010.0	1,478.9	1,940.1	1,846.9	93.16	20.826	
12,000.0	7,500.0	7,558.0	7,485.0	76.9	18.7	-90.00	-3,010.0	1,478.9	1,998.6	1,903.7	94.88	21.064	
12,100.0	7,500.0	7,558.0	7,485.0	78.6	18.7	-90.00	-3,010.0	1,478.9	2,060.4	1,963.7	96.61	21.327	
12,200.0	7,500.0	7,558.0	7,485.0	80.3	18.7	-90.00	-3,010.0	1,478.9	2,125.0	2,026.7	98.34	21.609	
12,300.0	7,500.0	7,558.0	7,485.0	82.0	18.7	-90.00	-3,010.0	1,478.9	2,192.3	2,092.3	100.07	21.909	
12,400.0	7,500.0	7,558.0	7,485.0	83.8	18.7	-90.00	-3,010.0	1,478.9	2,262.1	2,160.3	101.80	22.221	
12,500.0	7,500.0	7,558.0	7,485.0	85.5	18.7	-90.00	-3,010.0	1,478.9	2,334.0	2,230.5	103.53	22.544	
12,600.0	7,500.0	7,558.0	7,485.0	87.2	18.7	-90.00	-3,010.0	1,478.9	2,407.9	2,302.7	105.26	22.876	
12,700.0	7,500.0	7,558.0	7,485.0	89.0	18.7	-90.00	-3,010.0	1,478.9	2,483.7	2,376.7	107.00	23.213	
12,800.0	7,500.0	7,558.0	7,485.0	90.7	18.7	-90.00	-3,010.0	1,478.9	2,561.1	2,452.4	108.73	23.555	
12,900.0	7,500.0	7,558.0	7,485.0	92.4	18.7	-90.00	-3,010.0	1,478.9	2,640.1	2,529.6	110.47	23.900	
12,986.8	7,500.0	7,558.0	7,485.0	93.9	18.7	-90.00	-3,010.0	1,478.9	2,709.8	2,597.8	111.97	24.200	
13,000.0	7,500.0	7,558.0	7,485.0	94.2	18.7	-90.00	-3,010.0	1,478.9	2,720.4	2,608.2	112.20	24.245	
13,058.5	7,500.0	7,558.0	7,485.0	95.2	18.7	-90.00	-3,010.0	1,478.9	2,767.8	2,654.5	113.23	24.444	
13,100.0	7,500.0	7,558.0	7,485.0	95.9	18.7	-90.00	-3,010.0	1,478.9	2,801.5	2,687.5	113.95	24.586	
13,200.0	7,500.0	7,558.0	7,485.0	97.6	18.7	-90.00	-3,010.0	1,478.9	2,883.5	2,767.9	115.69	24.926	
13,300.0	7,500.0	7,558.0	7,485.0	99.4	18.7	-90.00	-3,010.0	1,478.9	2,966.7	2,849.3	117.42	25.265	
13,400.0	7,500.0	7,558.0	7,485.0	101.1	18.7	-90.00	-3,010.0	1,478.9	3,050.9	2,931.8	119.16	25.603	
13,500.0	7,500.0	7,558.0	7,485.0	102.9	18.7	-90.00	-3,010.0	1,478.9	3,136.0	3,015.1	120.90	25.939	
13,600.0	7,500.0	7,558.0	7,485.0	104.6	18.7	-90.00	-3,010.0	1,478.9	3,222.0	3,099.4	122.64	26.272	
13,700.0	7,500.0	7,558.0	7,485.0	106.3	18.7	-90.00	-3,010.0	1,478.9	3,308.8	3,184.4	124.38	26.602	
13,800.0	7,500.0	7,558.0	7,485.0	108.1	18.7	-90.00	-3,010.0	1,478.9	3,396.2	3,270.1	126.12	26.929	
13,900.0	7,500.0	7,558.0	7,485.0	109.8	18.7	-90.00	-3,010.0	1,478.9	3,484.4	3,356.5	127.86	27.252	
14,000.0	7,500.0	7,558.0	7,485.0	111.6	18.7	-90.00	-3,010.0	1,478.9	3,573.2	3,443.6	129.60	27.571	
14,100.0	7,500.0	7,558.0	7,485.0	113.3	18.7	-90.00	-3,010.0	1,478.9	3,662.6	3,531.2	131.34	27.886	

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 2B-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 2B-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		
14,200.0	7,500.0	7,558.0	7,485.0	115.0	18.7	-90.00	-3,010.0	1,478.9	3,752.4	3,619.4	133.08	28.196	
14,300.0	7,500.0	7,558.0	7,485.0	116.8	18.7	-90.00	-3,010.0	1,478.9	3,842.8	3,708.0	134.83	28.502	
14,400.0	7,500.0	7,558.0	7,485.0	118.5	18.7	-90.00	-3,010.0	1,478.9	3,933.7	3,797.1	136.57	28.804	
14,500.0	7,500.0	7,558.0	7,485.0	120.3	18.7	-90.00	-3,010.0	1,478.9	4,025.0	3,886.7	138.31	29.101	
14,600.0	7,500.0	7,558.0	7,485.0	122.0	18.7	-90.00	-3,010.0	1,478.9	4,116.7	3,976.7	140.05	29.394	
14,700.0	7,500.0	7,558.0	7,485.0	123.7	18.7	-90.00	-3,010.0	1,478.9	4,208.8	4,067.0	141.80	29.682	
14,800.0	7,500.0	7,558.0	7,485.0	125.5	18.7	-90.00	-3,010.0	1,478.9	4,301.2	4,157.7	143.54	29.965	
14,900.0	7,500.0	7,558.0	7,485.0	127.2	18.7	-90.00	-3,010.0	1,478.9	4,394.0	4,248.7	145.29	30.244	
15,000.0	7,500.0	7,558.0	7,485.0	129.0	18.7	-90.00	-3,010.0	1,478.9	4,487.1	4,340.0	147.03	30.518	
15,100.0	7,500.0	7,558.0	7,485.0	130.7	18.7	-90.00	-3,010.0	1,478.9	4,580.4	4,431.7	148.77	30.788	
15,200.0	7,500.0	7,558.0	7,485.0	132.5	18.7	-90.00	-3,010.0	1,478.9	4,674.1	4,523.5	150.52	31.053	
15,300.0	7,500.0	7,558.0	7,485.0	134.2	18.7	-90.00	-3,010.0	1,478.9	4,768.0	4,615.7	152.26	31.314	
15,400.0	7,500.0	7,558.0	7,485.0	136.0	18.7	-90.00	-3,010.0	1,478.9	4,862.1	4,708.1	154.01	31.570	
15,500.0	7,500.0	7,558.0	7,485.0	137.7	18.7	-90.00	-3,010.0	1,478.9	4,956.5	4,800.7	155.76	31.822	
15,600.0	7,500.0	7,558.0	7,485.0	139.4	18.7	-90.00	-3,010.0	1,478.9	5,051.1	4,893.6	157.50	32.070	
15,706.0	7,500.0	7,558.0	7,485.0	141.3	18.7	-90.00	-3,010.0	1,478.9	5,151.6	4,992.2	159.35	32.328	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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				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	27.2	27.2	0.0	0.0	172.89	-4,267.5	532.1	4,300.6					
100.0	100.0	140.4	140.4	0.2	0.2	172.89	-4,267.3	532.0	4,300.3	4,299.9	0.40	N/A		
200.0	200.0	253.7	253.7	0.3	0.4	172.89	-4,266.7	531.8	4,299.8	4,299.0	0.77	5,597.601		
300.0	300.0	366.9	366.9	0.5	0.6	172.90	-4,265.8	531.5	4,299.0	4,297.8	1.14	3,771.397		
386.3	386.3	464.7	464.7	0.7	0.8	-147.11	-4,264.7	531.1	4,298.5	4,297.1	1.45	2,967.005		
400.0	400.0	480.2	480.2	0.7	0.8	-147.11	-4,264.5	531.0	4,298.5	4,297.0	1.50	2,867.016		
500.0	500.0	593.4	593.4	0.9	1.0	-147.12	-4,262.9	530.4	4,299.3	4,297.4	1.87	2,300.458		
600.0	599.9	706.6	706.6	1.0	1.2	-147.14	-4,261.0	529.7	4,301.2	4,298.9	2.24	1,920.069		
700.0	699.7	986.1	985.9	1.2	1.8	-147.20	-4,252.3	524.3	4,304.2	4,301.3	2.91	1,478.691		
800.0	799.4	1,501.6	1,496.4	1.4	3.1	-146.93	-4,200.4	478.3	4,298.0	4,293.9	4.14	1,038.014		
900.0	899.2	1,607.0	1,599.8	1.6	3.5	-146.83	-4,185.3	464.9	4,288.0	4,283.4	4.57	937.817		
1,000.0	998.9	1,646.1	1,638.2	1.8	3.6	-146.79	-4,179.9	459.9	4,278.7	4,273.8	4.85	882.524		
1,100.0	1,098.7	1,848.7	1,837.4	2.1	4.3	-146.62	-4,152.2	435.8	4,270.0	4,264.5	5.51	775.370		
1,200.0	1,198.5	1,924.0	1,911.3	2.3	4.6	-146.55	-4,140.8	426.6	4,259.3	4,253.5	5.88	724.897		
1,300.0	1,298.2	2,006.5	1,992.3	2.5	4.9	-160.19	-4,128.8	416.3	4,249.7	4,243.4	6.26	679.029		
1,400.0	1,397.9	2,129.4	2,112.9	2.7	5.3	-172.03	-4,110.7	401.6	4,241.0	4,234.2	6.73	630.004		
1,450.9	1,448.6	2,173.5	2,156.2	2.8	5.5	-177.20	-4,104.1	396.3	4,236.8	4,229.9	6.93	611.279		
1,500.0	1,497.6	2,212.0	2,194.0	2.9	5.6	-177.15	-4,098.4	391.5	4,233.1	4,225.9	7.11	595.092		
1,600.0	1,597.2	2,275.0	2,255.9	3.1	5.9	-177.06	-4,089.6	383.6	4,226.1	4,218.7	7.45	567.613		
1,700.0	1,696.9	2,383.8	2,362.9	3.3	6.2	-176.91	-4,074.9	370.9	4,219.8	4,211.9	7.88	535.284		
1,800.0	1,796.5	2,517.6	2,494.3	3.6	6.7	-176.74	-4,055.0	356.0	4,212.1	4,203.7	8.38	502.433		
1,900.0	1,896.1	2,571.8	2,547.7	3.8	6.9	-176.68	-4,047.3	350.0	4,205.1	4,196.4	8.69	483.935		
2,000.0	1,995.8	2,719.0	2,692.2	4.0	7.5	-176.48	-4,025.8	332.5	4,197.6	4,188.4	9.24	454.289		
2,100.0	2,095.4	2,782.0	2,754.1	4.2	7.7	-176.39	-4,016.5	325.1	4,190.3	4,180.7	9.57	437.771		
2,200.0	2,195.1	2,901.9	2,872.0	4.4	8.1	-176.23	-3,999.6	311.3	4,183.6	4,173.5	10.05	416.270		
2,300.0	2,294.7	2,994.0	2,962.5	4.7	8.5	-176.11	-3,986.3	300.5	4,176.5	4,166.0	10.46	399.269		
2,400.0	2,394.4	3,085.2	3,052.1	4.9	8.8	-175.98	-3,973.1	289.7	4,169.3	4,158.5	10.87	383.561		
2,500.0	2,494.0	3,194.6	3,159.7	5.1	9.2	-175.83	-3,957.5	277.0	4,162.5	4,151.2	11.33	367.488		
2,600.0	2,593.6	3,290.0	3,253.4	5.3	9.5	-175.70	-3,943.8	265.8	4,155.5	4,143.7	11.75	353.669		
2,700.0	2,693.3	3,356.0	3,318.2	5.6	9.8	-175.61	-3,934.5	258.2	4,149.0	4,136.9	12.09	343.064		
2,800.0	2,792.9	3,497.3	3,457.2	5.8	10.3	-175.42	-3,914.9	241.8	4,142.6	4,130.0	12.64	327.724		
2,900.0	2,892.6	3,578.6	3,537.1	6.0	10.6	-175.31	-3,903.3	232.3	4,135.8	4,122.7	13.03	317.456		
3,000.0	2,992.2	3,678.2	3,635.1	6.2	10.9	-175.17	-3,889.2	220.8	4,129.1	4,115.7	13.46	306.689		
3,100.0	3,091.9	3,773.3	3,728.6	6.5	11.3	-175.05	-3,875.8	210.2	4,122.6	4,108.7	13.88	296.916		
3,200.0	3,191.5	3,902.6	3,855.7	6.7	11.8	-174.86	-3,857.2	195.0	4,115.8	4,101.3	14.41	285.691		
3,300.0	3,291.2	4,003.9	3,955.2	6.9	12.1	-174.73	-3,842.0	183.7	4,108.4	4,093.5	14.84	276.796		
3,400.0	3,390.8	4,088.1	4,038.0	7.1	12.4	-174.62	-3,829.7	174.6	4,101.4	4,086.2	15.23	269.245		
3,500.0	3,490.4	4,179.8	4,128.2	7.4	12.8	-174.51	-3,816.4	164.9	4,094.6	4,079.0	15.65	261.670		
3,600.0	3,590.1	4,260.7	4,207.7	7.6	13.1	-174.39	-3,805.0	155.4	4,088.2	4,072.1	16.05	254.780		
3,700.0	3,689.7	4,339.0	4,284.8	7.8	13.3	-174.28	-3,794.6	146.2	4,082.5	4,066.1	16.43	248.432		
3,800.0	3,789.4	4,433.0	4,377.4	8.1	13.7	-174.15	-3,782.3	135.7	4,077.1	4,060.3	16.86	241.883		
3,900.0	3,889.0	4,498.0	4,441.4	8.3	13.9	-174.07	-3,774.0	128.7	4,072.1	4,054.9	17.20	236.737		
4,000.0	3,988.7	4,624.0	4,565.7	8.5	14.3	-173.90	-3,758.2	114.9	4,067.4	4,049.6	17.71	229.609		
4,100.0	4,088.3	4,698.4	4,639.0	8.7	14.6	-173.80	-3,748.6	106.7	4,062.4	4,044.3	18.09	224.610		
4,200.0	4,187.9	4,799.8	4,739.0	9.0	14.9	-173.67	-3,736.0	96.1	4,057.7	4,039.2	18.52	219.098		
4,300.0	4,287.6	4,878.0	4,816.3	9.2	15.1	-173.58	-3,726.5	88.6	4,053.5	4,034.6	18.89	214.592		
4,400.0	4,387.2	4,941.0	4,878.7	9.4	15.3	-173.52	-3,719.4	82.9	4,050.0	4,030.8	19.22	210.761		
4,500.0	4,486.9	5,057.8	4,994.2	9.6	15.7	-173.40	-3,705.8	73.1	4,046.4	4,026.7	19.66	205.789		
4,600.0	4,586.5	5,111.0	5,046.9	9.9	15.8	-173.35	-3,699.9	68.9	4,043.4	4,023.5	19.96	202.552		
4,700.0	4,686.2	5,230.7	5,165.5	10.1	16.2	-173.22	-3,687.5	58.2	4,041.1	4,020.7	20.43	197.785		
4,800.0	4,785.8	5,323.0	5,256.9	10.3	16.5	-173.12	-3,677.3	50.0	4,038.1	4,017.3	20.83	193.831		
4,900.0	4,885.4	5,397.5	5,330.7	10.6	16.7	-173.05	-3,669.6	43.4	4,035.8	4,014.6	21.19	190.459		

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 2B-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 2B-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				
5,000.0	4,985.1	5,499.4	5,431.7	10.8	17.0	-172.94	-3,659.1	34.7	4,033.5	4,011.9	21.61	186.675				
5,100.0	5,084.7	5,583.0	5,514.6	11.0	17.2	-172.86	-3,651.0	28.0	4,031.9	4,009.9	21.98	183.449				
5,200.0	5,184.4	5,678.8	5,609.7	11.2	17.5	-172.77	-3,641.5	20.5	4,030.1	4,007.7	22.37	180.144				
5,300.0	5,284.0	5,750.4	5,680.7	11.5	17.7	-172.71	-3,634.7	15.3	4,028.8	4,006.1	22.70	177.442				
5,386.2	5,370.0	5,801.0	5,731.0	11.7	17.8	-172.67	-3,630.3	11.9	4,028.3	4,005.4	22.97	175.398				
5,400.0	5,383.7	5,801.0	5,731.0	11.7	17.8	-172.67	-3,630.3	11.9	4,028.4	4,005.4	22.99	175.215				
5,500.0	5,483.3	5,863.7	5,793.4	11.9	17.9	-172.63	-3,625.5	7.7	4,029.0	4,005.7	23.30	172.923				
5,600.0	5,583.0	5,924.1	5,853.6	12.1	18.1	-172.58	-3,621.6	4.0	4,030.8	4,007.2	23.60	170.811				
5,700.0	5,682.6	5,990.7	5,920.0	12.4	18.2	-172.55	-3,617.9	0.8	4,033.4	4,009.5	23.90	168.772				
5,800.0	5,782.2	6,050.7	5,979.9	12.6	18.3	-172.53	-3,615.1	-1.5	4,037.0	4,012.9	24.17	167.004				
5,900.0	5,881.9	6,120.0	6,049.1	12.8	18.4	-172.52	-3,612.4	-2.8	4,041.5	4,017.1	24.45	165.310				
6,000.0	5,981.5	6,172.0	6,101.1	13.1	18.5	-172.52	-3,610.9	-3.3	4,047.0	4,022.3	24.70	163.862				
6,100.0	6,081.2	6,234.5	6,163.6	13.3	18.6	-172.52	-3,609.8	-3.9	4,053.5	4,028.6	24.96	162.381				
6,200.0	6,180.8	6,342.0	6,271.1	13.5	18.7	-172.53	-3,608.2	-5.0	4,060.4	4,035.1	25.29	160.537				
6,300.0	6,280.5	6,420.0	6,349.1	13.7	18.8	-172.54	-3,607.0	-4.9	4,067.3	4,041.7	25.56	159.105				
6,400.0	6,380.1	6,490.6	6,419.7	14.0	18.8	-172.56	-3,606.4	-3.9	4,074.9	4,049.0	25.82	157.798				
6,500.0	6,479.7	6,566.0	6,495.1	14.2	18.9	-172.58	-3,606.6	-3.8	4,083.3	4,057.2	26.11	156.407				
6,600.0	6,579.4	6,674.9	6,603.9	14.4	19.0	-172.59	-3,607.0	-4.4	4,092.1	4,065.7	26.43	154.818				
6,700.0	6,679.0	6,778.2	6,707.3	14.7	19.2	-172.60	-3,606.9	-4.4	4,100.4	4,073.6	26.75	153.307				
6,800.0	6,778.7	6,907.5	6,836.5	14.9	19.3	-172.62	-3,606.2	-4.3	4,108.1	4,081.0	27.09	151.626				
6,901.0	6,879.3	7,004.5	6,933.5	15.1	19.4	-172.64	-3,605.4	-3.9	4,115.8	4,088.4	27.40	150.220				
6,950.0	6,928.3	7,048.8	6,977.8	15.2	19.5	-82.56	-3,605.1	-3.7	4,117.5	4,090.0	27.50	149.714				
7,000.0	6,978.2	7,091.3	7,020.3	15.2	19.5	-9.76	-3,604.8	-3.5	4,114.9	4,087.5	27.45	149.910				
7,050.0	7,027.7	7,140.9	7,069.9	15.2	19.6	-5.74	-3,604.7	-3.3	4,108.2	4,080.9	27.25	150.753				
7,100.0	7,076.5	7,207.0	7,136.0	15.1	19.6	-4.42	-3,604.2	-3.0	4,096.9	4,070.0	26.92	152.179				
7,150.0	7,124.1	7,253.0	7,182.1	15.0	19.7	-3.80	-3,603.8	-2.8	4,081.4	4,055.0	26.42	154.464				
7,200.0	7,170.3	7,295.1	7,224.1	14.9	19.7	-3.47	-3,603.5	-2.7	4,061.9	4,036.1	25.78	157.537				
7,250.0	7,214.6	7,335.5	7,264.5	14.8	19.8	-3.31	-3,603.2	-2.5	4,038.4	4,013.4	25.02	161.420				
7,300.0	7,256.7	7,372.2	7,301.2	14.6	19.8	-3.25	-3,603.0	-2.4	4,011.2	3,987.1	24.14	166.168				
7,350.0	7,296.2	7,406.5	7,335.5	14.4	19.9	-3.27	-3,602.8	-2.3	3,980.6	3,957.4	23.17	171.812				
7,400.0	7,333.0	7,438.4	7,367.4	14.2	19.9	-3.37	-3,602.7	-2.2	3,946.6	3,924.5	22.13	178.371				
7,450.0	7,366.7	7,467.7	7,396.7	14.1	19.9	-3.56	-3,602.6	-2.2	3,909.7	3,888.6	21.04	185.814				
7,500.0	7,397.1	7,494.1	7,423.1	13.9	20.0	-3.84	-3,602.6	-2.1	3,870.0	3,850.0	19.95	194.022				
7,550.0	7,423.8	7,517.5	7,446.5	13.8	20.0	-4.27	-3,602.6	-2.0	3,827.8	3,808.9	18.88	202.710				
7,600.0	7,446.8	7,537.6	7,466.6	13.7	20.0	-4.91	-3,602.6	-2.0	3,783.4	3,765.5	17.90	211.323				
7,650.0	7,465.8	7,554.3	7,483.3	13.6	20.0	-5.91	-3,602.6	-1.9	3,737.3	3,720.2	17.08	218.861				
7,700.0	7,480.8	7,567.5	7,496.5	13.6	20.0	-7.61	-3,602.7	-1.9	3,689.6	3,673.1	16.50	223.557				
7,750.0	7,491.5	7,577.0	7,506.0	13.7	20.1	-11.00	-3,602.7	-1.9	3,640.9	3,624.4	16.43	221.657				
7,800.0	7,497.9	7,582.8	7,511.8	13.8	20.1	-20.67	-3,602.7	-1.9	3,591.3	3,573.3	18.06	198.890				
7,848.8	7,500.0	7,584.7	7,513.7	13.9	20.1	-84.90	-3,602.7	-1.9	3,542.6	3,511.3	31.31	113.150				
7,900.0	7,500.0	7,584.8	7,513.9	14.1	20.1	-84.97	-3,602.7	-1.9	3,491.5	3,459.9	31.52	110.756				
8,000.0	7,500.0	7,585.1	7,514.1	14.7	20.1	-85.09	-3,602.7	-1.9	3,391.5	3,359.4	32.10	105.669				
8,100.0	7,500.0	7,585.3	7,514.4	15.4	20.1	-85.21	-3,602.7	-1.9	3,291.6	3,258.7	32.85	100.207				
8,200.0	7,500.0	7,585.6	7,514.6	16.3	20.1	-85.34	-3,602.7	-1.9	3,191.6	3,157.9	33.76	94.551				
8,300.0	7,500.0	7,585.9	7,514.9	17.3	20.1	-85.47	-3,602.7	-1.9	3,091.7	3,056.9	34.79	88.855				
8,400.0	7,500.0	7,586.1	7,515.1	18.5	20.1	-85.59	-3,602.7	-1.9	2,991.8	2,955.8	35.94	83.236				
8,500.0	7,500.0	7,586.4	7,515.4	19.7	20.1	-85.72	-3,602.7	-1.9	2,891.9	2,854.7	37.18	77.776				
8,600.0	7,500.0	7,586.6	7,515.7	21.0	20.1	-85.85	-3,602.7	-1.9	2,791.9	2,753.4	38.50	72.527				
8,700.0	7,500.0	7,586.9	7,515.9	22.4	20.1	-85.98	-3,602.7	-1.9	2,692.0	2,652.2	39.87	67.521				
8,800.0	7,500.0	7,587.2	7,516.2	23.8	20.1	-86.11	-3,602.7	-1.9	2,592.1	2,550.8	41.29	62.772				
8,900.0	7,500.0	7,587.4	7,516.4	25.3	20.1	-86.24	-3,602.7	-1.9	2,492.2	2,449.5	42.76	58.282				
9,000.0	7,500.0	7,587.7	7,516.7	26.7	20.1	-86.38	-3,602.7	-1.9	2,392.3	2,348.1	44.26	54.047				

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 2B-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 2B-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				
9,100.0	7,500.0	7,588.0	7,517.0	28.3	20.1	-86.51	-3,602.7	-1.9	2,292.5	2,246.7	45.80	50.058				
9,200.0	7,500.0	7,588.2	7,517.3	29.8	20.1	-86.64	-3,602.7	-1.9	2,192.6	2,145.2	47.35	46.303				
9,300.0	7,500.0	7,588.5	7,517.5	31.4	20.1	-86.78	-3,602.7	-1.9	2,092.7	2,043.8	48.93	42.768				
9,400.0	7,500.0	7,588.8	7,517.8	33.0	20.1	-86.92	-3,602.7	-1.8	1,992.9	1,942.4	50.53	39.440				
9,500.0	7,500.0	7,589.1	7,518.1	34.6	20.1	-87.05	-3,602.7	-1.8	1,893.1	1,840.9	52.14	36.306				
9,600.0	7,500.0	7,589.3	7,518.4	36.2	20.1	-87.19	-3,602.7	-1.8	1,793.3	1,739.5	53.77	33.351				
9,700.0	7,500.0	7,589.6	7,518.6	37.8	20.1	-87.33	-3,602.7	-1.8	1,693.5	1,638.1	55.41	30.564				
9,800.0	7,500.0	7,589.9	7,518.9	39.5	20.1	-87.47	-3,602.7	-1.8	1,593.7	1,536.7	57.06	27.932				
9,900.0	7,500.0	7,590.2	7,519.2	41.1	20.1	-87.62	-3,602.7	-1.8	1,494.0	1,435.3	58.72	25.445				
10,000.0	7,500.0	7,590.5	7,519.5	42.8	20.1	-87.76	-3,602.7	-1.8	1,394.3	1,334.0	60.38	23.092				
10,100.0	7,500.0	7,590.8	7,519.8	44.5	20.1	-87.90	-3,602.7	-1.8	1,294.7	1,232.7	62.06	20.864				
10,200.0	7,500.0	7,591.1	7,520.1	46.1	20.1	-88.05	-3,602.7	-1.8	1,195.1	1,131.4	63.74	18.751				
10,300.0	7,500.0	7,591.4	7,520.4	47.8	20.1	-88.19	-3,602.7	-1.8	1,095.6	1,030.2	65.42	16.747				
10,400.0	7,500.0	7,591.7	7,520.7	49.5	20.1	-88.34	-3,602.7	-1.8	996.3	929.1	67.11	14.844				
10,500.0	7,500.0	7,592.0	7,521.0	51.2	20.1	-88.49	-3,602.7	-1.8	897.0	828.2	68.81	13.036				
10,600.0	7,500.0	7,592.3	7,521.3	52.9	20.1	-88.64	-3,602.7	-1.8	797.9	727.4	70.51	11.317				
10,700.0	7,500.0	7,592.6	7,521.6	54.6	20.1	-88.79	-3,602.7	-1.8	699.1	626.9	72.21	9.682				
10,800.0	7,500.0	7,592.9	7,521.9	56.3	20.1	-88.94	-3,602.7	-1.8	600.7	526.8	73.92	8.127				
10,900.0	7,500.0	7,593.2	7,522.2	58.0	20.1	-89.09	-3,602.7	-1.8	502.9	427.3	75.63	6.650				
11,000.0	7,500.0	7,593.5	7,522.5	59.7	20.1	-89.25	-3,602.7	-1.8	406.2	328.9	77.34	5.253				
11,100.0	7,500.0	7,593.8	7,522.8	61.4	20.1	-89.40	-3,602.7	-1.8	311.6	232.6	79.05	3.942				
11,200.0	7,500.0	7,594.1	7,523.1	63.1	20.1	-89.56	-3,602.7	-1.8	221.8	141.1	80.77	2.746				
11,300.0	7,500.0	7,594.4	7,523.4	64.8	20.1	-89.72	-3,602.7	-1.8	145.9	63.4	82.49	1.769				
11,389.6	7,500.0	7,594.7	7,523.7	66.3	20.1	-89.86	-3,602.7	-1.8	115.2	31.1	84.03	1.371	Level 3, CC, ES, SF			
11,400.0	7,500.0	7,594.7	7,523.8	66.5	20.1	-89.87	-3,602.7	-1.8	115.6	31.4	84.20	1.373	Level 3			
11,500.0	7,500.0	7,595.1	7,524.1	68.2	20.1	-90.03	-3,602.7	-1.8	159.5	73.6	85.92	1.857				
11,600.0	7,500.0	7,595.4	7,524.4	70.0	20.1	-90.20	-3,602.7	-1.8	239.9	152.2	87.65	2.737				
11,700.0	7,500.0	7,595.7	7,524.7	71.7	20.1	-90.36	-3,602.7	-1.8	331.1	241.7	89.37	3.705				
11,800.0	7,500.0	7,596.0	7,525.1	73.4	20.1	-90.52	-3,602.7	-1.8	426.3	335.2	91.09	4.679				
11,900.0	7,500.0	7,596.4	7,525.4	75.1	20.1	-90.69	-3,602.8	-1.8	523.2	430.4	92.82	5.637				
12,000.0	7,500.0	7,596.7	7,525.7	76.9	20.1	-90.85	-3,602.8	-1.8	621.2	526.6	94.54	6.570				
12,100.0	7,500.0	7,597.0	7,526.1	78.6	20.1	-91.02	-3,602.8	-1.8	719.7	623.4	96.27	7.476				
12,200.0	7,500.0	7,597.4	7,526.4	80.3	20.1	-91.19	-3,602.8	-1.8	818.6	720.6	97.99	8.353				
12,300.0	7,500.0	7,597.7	7,526.7	82.0	20.1	-91.36	-3,602.8	-1.8	917.7	818.0	99.72	9.203				
12,400.0	7,500.0	7,598.1	7,527.1	83.8	20.1	-91.53	-3,602.8	-1.8	1,017.0	915.5	101.44	10.025				
12,500.0	7,500.0	7,598.4	7,527.4	85.5	20.1	-91.70	-3,602.8	-1.8	1,116.4	1,013.2	103.17	10.821				
12,600.0	7,500.0	7,598.8	7,527.8	87.2	20.1	-91.87	-3,602.8	-1.8	1,215.9	1,111.0	104.89	11.592				
12,700.0	7,500.0	7,599.1	7,528.1	89.0	20.1	-92.05	-3,602.8	-1.8	1,315.5	1,208.8	106.62	12.338				
12,800.0	7,500.0	7,599.5	7,528.5	90.7	20.1	-92.23	-3,602.8	-1.8	1,415.1	1,306.8	108.34	13.062				
12,900.0	7,500.0	7,599.8	7,528.8	92.4	20.1	-92.40	-3,602.8	-1.8	1,514.8	1,404.7	110.06	13.763				
12,986.8	7,500.0	7,600.1	7,529.2	93.9	20.1	-92.56	-3,602.8	-1.8	1,601.4	1,489.8	111.56	14.355				
13,000.0	7,500.0	7,600.2	7,529.2	94.2	20.1	-92.50	-3,602.8	-1.8	1,614.5	1,502.7	111.80	14.441				
13,058.5	7,500.0	7,600.4	7,529.4	95.2	20.1	-92.28	-3,602.8	-1.8	1,672.9	1,560.0	112.87	14.822				
13,100.0	7,500.0	7,600.6	7,529.6	95.9	20.1	-92.35	-3,602.8	-1.8	1,714.2	1,600.6	113.58	15.092				
13,200.0	7,500.0	7,600.9	7,529.9	97.6	20.1	-92.51	-3,602.8	-1.8	1,813.9	1,698.6	115.31	15.731				
13,300.0	7,500.0	7,601.3	7,530.3	99.4	20.1	-92.66	-3,602.8	-1.8	1,913.7	1,796.6	117.03	16.352				
13,400.0	7,500.0	7,601.7	7,530.7	101.1	20.1	-92.82	-3,602.8	-1.8	2,013.4	1,894.7	118.75	16.954				
13,500.0	7,500.0	7,602.1	7,531.1	102.9	20.1	-92.98	-3,602.8	-1.8	2,113.2	1,992.7	120.48	17.540				
13,600.0	7,500.0	7,602.4	7,531.5	104.6	20.1	-93.14	-3,602.8	-1.8	2,213.0	2,090.8	122.20	18.110				
13,700.0	7,500.0	7,602.8	7,531.8	106.3	20.1	-93.30	-3,602.8	-1.8	2,312.8	2,188.9	123.92	18.664				
13,800.0	7,500.0	7,603.2	7,532.2	108.1	20.1	-93.47	-3,602.8	-1.8	2,412.7	2,287.0	125.64	19.203				
13,900.0	7,500.0	7,603.6	7,532.6	109.8	20.1	-93.63	-3,602.8	-1.8	2,512.5	2,385.1	127.36	19.728				

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 2B-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 2B-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	
14,000.0	7,500.0	7,604.0	7,533.0	111.6	20.1	-93.80	-3,602.8	-1.8	2,612.4	2,483.3	129.07	20.240	
14,100.0	7,500.0	7,604.4	7,533.4	113.3	20.1	-93.97	-3,602.8	-1.8	2,712.2	2,581.4	130.79	20.738	
14,200.0	7,500.0	7,604.8	7,533.8	115.0	20.1	-94.14	-3,602.8	-1.8	2,812.1	2,679.6	132.50	21.223	
14,300.0	7,500.0	7,605.2	7,534.2	116.8	20.1	-94.31	-3,602.8	-1.8	2,912.0	2,777.8	134.21	21.697	
14,400.0	7,500.0	7,605.6	7,534.6	118.5	20.1	-94.48	-3,602.8	-1.8	3,011.9	2,876.0	135.92	22.159	
14,500.0	7,500.0	7,606.0	7,535.0	120.3	20.1	-94.65	-3,602.8	-1.8	3,111.8	2,974.2	137.63	22.610	
14,600.0	7,500.0	7,606.4	7,535.5	122.0	20.1	-94.83	-3,602.8	-1.8	3,211.7	3,072.4	139.34	23.050	
14,700.0	7,500.0	7,606.9	7,535.9	123.7	20.1	-95.00	-3,602.8	-1.8	3,311.6	3,170.6	141.04	23.480	
14,800.0	7,500.0	7,607.3	7,536.3	125.5	20.1	-95.18	-3,602.8	-1.8	3,411.5	3,268.8	142.74	23.900	
14,900.0	7,500.0	7,607.7	7,536.7	127.2	20.1	-95.36	-3,602.8	-1.8	3,511.4	3,367.0	144.44	24.310	
15,000.0	7,500.0	7,608.1	7,537.2	129.0	20.1	-95.54	-3,602.8	-1.8	3,611.4	3,465.2	146.14	24.712	
15,100.0	7,500.0	7,608.6	7,537.6	130.7	20.1	-95.72	-3,602.8	-1.8	3,711.3	3,563.5	147.84	25.104	
15,200.0	7,500.0	7,609.0	7,538.0	132.5	20.1	-95.90	-3,602.8	-1.8	3,811.2	3,661.7	149.53	25.488	
15,300.0	7,500.0	7,609.5	7,538.5	134.2	20.1	-96.09	-3,602.8	-1.8	3,911.2	3,760.0	151.22	25.865	
15,400.0	7,500.0	7,609.9	7,538.9	136.0	20.1	-96.27	-3,602.8	-1.8	4,011.1	3,858.2	152.90	26.233	
15,500.0	7,500.0	7,610.4	7,539.4	137.7	20.1	-96.46	-3,602.8	-1.8	4,111.1	3,956.5	154.59	26.594	
15,600.0	7,500.0	7,610.8	7,539.8	139.4	20.1	-96.65	-3,602.8	-1.8	4,211.0	4,054.7	156.27	26.947	
15,706.0	7,500.0	7,611.3	7,540.3	141.3	20.1	-96.85	-3,602.8	-1.8	4,317.0	4,159.0	158.05	27.315	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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		
0.0	0.0	17.3	17.3	0.0	0.0	172.49	-4,267.5	562.9	4,304.5					
100.0	100.0	99.3	99.2	0.2	0.1	172.50	-4,268.0	562.0	4,304.9	4,304.6	0.30	N/A		
200.0	200.0	196.2	196.2	0.3	0.3	172.52	-4,268.7	560.7	4,305.4	4,304.8	0.64	6,690.695		
300.0	300.0	268.0	268.0	0.5	0.4	172.53	-4,269.5	560.0	4,306.4	4,305.5	0.94	4,566.414		
400.0	400.0	339.4	339.4	0.7	0.6	-147.46	-4,270.6	559.6	4,308.7	4,307.5	1.25	3,458.713		
500.0	500.0	396.4	396.3	0.9	0.7	-147.43	-4,272.1	559.1	4,313.4	4,311.9	1.52	2,835.248		
600.0	599.9	450.0	449.9	1.0	0.8	-147.40	-4,274.1	558.5	4,320.6	4,318.8	1.79	2,409.359		
700.0	699.7	490.4	490.3	1.2	0.9	-147.35	-4,276.1	558.0	4,330.4	4,328.4	2.04	2,117.755		
800.0	799.4	547.4	547.2	1.4	1.0	-147.37	-4,279.7	557.4	4,342.2	4,339.9	2.33	1,864.468		
900.0	899.2	606.0	605.6	1.6	1.1	-147.38	-4,283.7	556.4	4,354.8	4,352.2	2.62	1,663.820		
1,000.0	998.9	668.0	667.4	1.8	1.2	-147.38	-4,288.5	555.2	4,368.2	4,365.3	2.91	1,499.452		
1,100.0	1,098.7	768.4	767.4	2.1	1.4	-147.39	-4,297.1	552.9	4,382.2	4,379.0	3.28	1,335.929		
1,200.0	1,198.5	860.9	859.5	2.3	1.6	-147.39	-4,304.8	550.6	4,396.0	4,392.4	3.63	1,209.661		
1,300.0	1,298.2	921.0	919.4	2.5	1.8	-161.31	-4,310.2	549.0	4,411.1	4,407.1	3.92	1,124.549		
1,400.0	1,397.9	970.9	969.0	2.7	1.9	-173.49	-4,315.3	547.6	4,428.1	4,423.9	4.19	1,057.562		
1,450.9	1,448.6	1,004.0	1,001.9	2.8	2.0	-178.81	-4,319.0	546.6	4,437.6	4,433.2	4.33	1,023.666		
1,500.0	1,497.6	1,004.0	1,001.9	2.9	2.0	-178.81	-4,319.0	546.6	4,447.1	4,442.7	4.42	1,006.321		
1,600.0	1,597.2	1,068.0	1,065.3	3.1	2.2	-178.77	-4,327.0	544.6	4,467.5	4,462.8	4.71	948.155		
1,700.0	1,696.9	1,098.9	1,095.9	3.3	2.3	-178.75	-4,331.3	543.6	4,489.1	4,484.2	4.94	908.214		
1,800.0	1,796.5	1,133.0	1,129.6	3.6	2.4	-178.73	-4,336.4	542.5	4,511.9	4,506.8	5.18	871.004		
1,900.0	1,896.1	1,197.0	1,192.7	3.8	2.6	-178.68	-4,346.8	540.0	4,535.9	4,530.4	5.48	827.883		
2,000.0	1,995.8	1,241.1	1,236.1	4.0	2.7	-178.64	-4,354.5	537.7	4,560.8	4,555.0	5.74	793.995		
2,100.0	2,095.4	1,316.9	1,310.3	4.2	3.0	-178.55	-4,368.6	532.1	4,586.5	4,580.5	6.09	753.482		
2,200.0	2,195.1	1,420.0	1,411.0	4.4	3.4	-178.37	-4,387.9	520.9	4,612.1	4,605.6	6.52	707.242		
2,300.0	2,294.7	1,479.7	1,469.1	4.7	3.6	-178.26	-4,399.3	513.5	4,638.1	4,631.2	6.85	677.006		
2,400.0	2,394.4	1,551.2	1,538.6	4.9	3.9	-178.13	-4,413.8	504.9	4,665.1	4,657.9	7.21	646.770		
2,500.0	2,494.0	1,642.0	1,626.9	5.1	4.3	-177.97	-4,432.1	494.1	4,692.0	4,684.4	7.63	615.140		
2,600.0	2,593.6	1,689.2	1,672.7	5.3	4.5	-177.89	-4,441.8	488.5	4,719.7	4,711.7	7.93	594.982		
2,700.0	2,693.3	1,738.0	1,720.0	5.6	4.8	-177.80	-4,452.6	482.6	4,748.4	4,740.2	8.24	576.141		
2,800.0	2,792.9	1,825.4	1,804.3	5.8	5.2	-177.64	-4,472.4	471.5	4,777.9	4,769.2	8.67	551.328		
2,900.0	2,892.6	1,984.4	1,958.3	6.0	5.9	-177.36	-4,506.9	452.1	4,806.4	4,797.1	9.28	518.064		
3,000.0	2,992.2	2,100.7	2,071.2	6.2	6.4	-177.16	-4,531.2	438.1	4,834.3	4,824.5	9.78	494.258		
3,100.0	3,091.9	2,184.0	2,152.0	6.5	6.8	-177.01	-4,548.6	427.5	4,862.2	4,852.0	10.19	476.934		
3,200.0	3,191.5	2,310.1	2,274.5	6.7	7.3	-176.80	-4,574.6	412.4	4,889.9	4,879.2	10.71	456.509		
3,300.0	3,291.2	2,473.7	2,433.5	6.9	8.0	-176.54	-4,607.2	392.6	4,917.1	4,905.8	11.36	432.869		
3,400.0	3,390.8	2,617.0	2,572.8	7.1	8.7	-176.27	-4,634.0	372.4	4,942.9	4,931.0	11.96	413.451		
3,500.0	3,490.4	2,675.6	2,630.0	7.4	8.9	-176.18	-4,644.7	365.2	4,968.5	4,956.2	12.29	404.303		
3,600.0	3,590.1	2,724.0	2,677.2	7.6	9.1	-176.11	-4,654.0	359.6	4,995.0	4,982.4	12.59	396.622		
3,700.0	3,689.7	2,780.8	2,732.4	7.8	9.4	-176.02	-4,665.4	352.9	5,022.3	5,009.4	12.93	388.348		
3,800.0	3,789.4	2,841.8	2,791.5	8.1	9.7	-175.92	-4,678.2	345.1	5,050.4	5,037.1	13.28	380.225		
3,900.0	3,889.0	2,927.4	2,874.5	8.3	10.1	-175.78	-4,696.4	334.1	5,079.0	5,065.3	13.70	370.689		
4,000.0	3,988.7	3,067.9	3,010.6	8.5	10.7	-175.55	-4,725.9	316.0	5,107.3	5,093.0	14.28	357.724		
4,100.0	4,088.3	3,181.6	3,121.0	8.7	11.2	-175.37	-4,749.0	301.2	5,135.0	5,120.2	14.77	347.554		
4,200.0	4,187.9	3,275.5	3,212.2	9.0	11.6	-175.22	-4,767.9	289.3	5,162.5	5,147.3	15.21	339.372		
4,300.0	4,287.6	3,385.9	3,319.5	9.2	12.1	-175.06	-4,789.8	275.9	5,189.8	5,174.1	15.69	330.843		
4,400.0	4,387.2	3,456.8	3,388.5	9.4	12.4	-174.95	-4,804.0	267.3	5,217.2	5,201.2	16.06	324.922		
4,500.0	4,486.9	3,585.7	3,513.7	9.6	13.0	-174.76	-4,830.0	251.0	5,245.0	5,228.4	16.59	316.171		
4,600.0	4,586.5	3,655.8	3,581.8	9.9	13.3	-174.66	-4,843.8	242.2	5,272.3	5,255.3	16.96	310.893		
7,750.0	7,491.5	7,650.6	7,531.8	13.7	23.8	-8.23	-5,238.5	-0.2	5,276.1	5,258.3	17.86	295.343		
7,800.0	7,497.9	7,655.9	7,537.1	13.8	23.8	-15.92	-5,238.5	-0.2	5,226.6	5,207.7	18.83	277.623		
7,848.8	7,500.0	7,657.5	7,538.7	13.9	23.8	-97.18	-5,238.5	-0.2	5,177.8	5,142.6	35.23	146.976		
7,900.0	7,500.0	7,657.4	7,538.6	14.1	23.8	-97.12	-5,238.5	-0.2	5,126.7	5,091.2	35.44	144.644		

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 2B-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 2B-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							
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
8,000.0	7,500.0	7,657.2	7,538.3	14.7	23.8	-97.00	-5,238.5	-0.2	5,026.7	4,990.7	36.01	139.584	
8,100.0	7,500.0	7,656.9	7,538.1	15.4	23.8	-96.87	-5,238.5	-0.2	4,926.7	4,889.9	36.76	134.022	
8,200.0	7,500.0	7,656.6	7,537.8	16.3	23.8	-96.75	-5,238.5	-0.2	4,826.7	4,789.1	37.66	128.153	
8,300.0	7,500.0	7,656.4	7,537.6	17.3	23.8	-96.62	-5,238.5	-0.2	4,726.8	4,688.1	38.70	122.145	
8,400.0	7,500.0	7,656.1	7,537.3	18.5	23.8	-96.50	-5,238.5	-0.2	4,626.8	4,587.0	39.84	116.131	
8,500.0	7,500.0	7,655.9	7,537.1	19.7	23.8	-96.37	-5,238.5	-0.2	4,526.8	4,485.8	41.07	110.210	
8,600.0	7,500.0	7,655.6	7,536.8	21.0	23.8	-96.25	-5,238.5	-0.2	4,426.9	4,384.5	42.38	104.451	
8,700.0	7,500.0	7,655.3	7,536.5	22.4	23.8	-96.12	-5,238.5	-0.2	4,326.9	4,283.2	43.75	98.898	
8,800.0	7,500.0	7,655.1	7,536.3	23.8	23.8	-95.99	-5,238.5	-0.2	4,226.9	4,181.8	45.17	93.576	
8,900.0	7,500.0	7,654.8	7,536.0	25.3	23.8	-95.86	-5,238.5	-0.2	4,127.0	4,080.3	46.63	88.498	
9,000.0	7,500.0	7,654.6	7,535.7	26.7	23.8	-95.73	-5,238.5	-0.2	4,027.0	3,978.9	48.13	83.667	
9,100.0	7,500.0	7,654.3	7,535.5	28.3	23.8	-95.60	-5,238.5	-0.2	3,927.1	3,877.4	49.66	79.080	
9,200.0	7,500.0	7,654.0	7,535.2	29.8	23.8	-95.47	-5,238.5	-0.2	3,827.1	3,775.9	51.21	74.730	
9,300.0	7,500.0	7,653.7	7,534.9	31.4	23.8	-95.34	-5,238.5	-0.2	3,727.2	3,674.4	52.79	70.606	
9,400.0	7,500.0	7,653.5	7,534.6	33.0	23.8	-95.20	-5,238.5	-0.2	3,627.2	3,572.8	54.38	66.699	
9,500.0	7,500.0	7,653.2	7,534.4	34.6	23.8	-95.07	-5,238.5	-0.2	3,527.3	3,471.3	55.99	62.997	
9,600.0	7,500.0	7,652.9	7,534.1	36.2	23.8	-94.94	-5,238.5	-0.2	3,427.3	3,369.7	57.62	59.486	
9,700.0	7,500.0	7,652.6	7,533.8	37.8	23.8	-94.80	-5,238.5	-0.2	3,327.4	3,268.1	59.25	56.157	
9,800.0	7,500.0	7,652.4	7,533.5	39.5	23.8	-94.66	-5,238.5	-0.2	3,227.4	3,166.5	60.90	52.997	
9,900.0	7,500.0	7,652.1	7,533.3	41.1	23.8	-94.53	-5,238.5	-0.2	3,127.5	3,065.0	62.55	49.996	
10,000.0	7,500.0	7,651.8	7,533.0	42.8	23.8	-94.39	-5,238.5	-0.2	3,027.6	2,963.4	64.22	47.144	
10,100.0	7,500.0	7,651.5	7,532.7	44.5	23.8	-94.25	-5,238.5	-0.2	2,927.7	2,861.8	65.89	44.431	
10,200.0	7,500.0	7,651.2	7,532.4	46.1	23.8	-94.11	-5,238.5	-0.2	2,827.7	2,760.2	67.57	41.848	
10,300.0	7,500.0	7,650.9	7,532.1	47.8	23.8	-93.97	-5,238.5	-0.2	2,727.8	2,658.6	69.26	39.387	
10,400.0	7,500.0	7,650.6	7,531.8	49.5	23.8	-93.82	-5,238.5	-0.2	2,627.9	2,557.0	70.95	37.041	
10,500.0	7,500.0	7,650.3	7,531.5	51.2	23.8	-93.68	-5,238.5	-0.2	2,528.0	2,455.4	72.64	34.801	
10,600.0	7,500.0	7,650.0	7,531.2	52.9	23.8	-93.54	-5,238.5	-0.2	2,428.1	2,353.8	74.34	32.662	
10,700.0	7,500.0	7,649.7	7,530.9	54.6	23.8	-93.39	-5,238.5	-0.2	2,328.3	2,252.2	76.05	30.616	
10,800.0	7,500.0	7,649.5	7,530.6	56.3	23.8	-93.25	-5,238.5	-0.2	2,228.4	2,150.6	77.75	28.660	
10,900.0	7,500.0	7,649.2	7,530.3	58.0	23.8	-93.10	-5,238.5	-0.2	2,128.5	2,049.1	79.46	26.786	
11,000.0	7,500.0	7,648.8	7,530.0	59.7	23.8	-92.95	-5,238.5	-0.3	2,028.7	1,947.5	81.18	24.991	
11,100.0	7,500.0	7,648.5	7,529.7	61.4	23.8	-92.80	-5,238.5	-0.3	1,928.9	1,846.0	82.89	23.269	
11,200.0	7,500.0	7,648.2	7,529.4	63.1	23.8	-92.65	-5,238.5	-0.3	1,829.1	1,744.5	84.61	21.617	
11,300.0	7,500.0	7,647.9	7,529.1	64.8	23.8	-92.50	-5,238.5	-0.3	1,729.3	1,643.0	86.33	20.030	
11,400.0	7,500.0	7,647.6	7,528.8	66.5	23.8	-92.35	-5,238.5	-0.3	1,629.5	1,541.5	88.06	18.506	
11,500.0	7,500.0	7,647.3	7,528.5	68.2	23.8	-92.20	-5,238.5	-0.3	1,529.8	1,440.0	89.78	17.039	
11,600.0	7,500.0	7,647.0	7,528.2	70.0	23.8	-92.05	-5,238.5	-0.3	1,430.1	1,338.6	91.51	15.629	
11,700.0	7,500.0	7,646.7	7,527.9	71.7	23.8	-91.89	-5,238.5	-0.3	1,330.5	1,237.2	93.23	14.270	
11,800.0	7,500.0	7,646.4	7,527.5	73.4	23.8	-91.74	-5,238.5	-0.3	1,230.9	1,135.9	94.96	12.962	
11,900.0	7,500.0	7,646.0	7,527.2	75.1	23.8	-91.58	-5,238.5	-0.3	1,131.4	1,034.7	96.69	11.701	
12,000.0	7,500.0	7,645.7	7,526.9	76.9	23.8	-91.42	-5,238.5	-0.3	1,032.0	933.5	98.42	10.485	
12,100.0	7,500.0	7,645.4	7,526.6	78.6	23.8	-91.26	-5,238.5	-0.3	932.7	832.5	100.15	9.312	
12,200.0	7,500.0	7,645.1	7,526.3	80.3	23.8	-91.10	-5,238.5	-0.3	833.6	731.7	101.89	8.181	
12,300.0	7,500.0	7,644.7	7,525.9	82.0	23.8	-90.94	-5,238.5	-0.3	734.7	631.1	103.62	7.090	
12,400.0	7,500.0	7,644.4	7,525.6	83.8	23.8	-90.78	-5,238.5	-0.3	636.1	530.8	105.35	6.038	
12,500.0	7,500.0	7,644.1	7,525.3	85.5	23.8	-90.62	-5,238.5	-0.3	538.2	431.1	107.08	5.026	
12,600.0	7,500.0	7,643.7	7,524.9	87.2	23.8	-90.45	-5,238.5	-0.3	441.1	332.3	108.82	4.053	
12,700.0	7,500.0	7,643.4	7,524.6	89.0	23.8	-90.29	-5,238.5	-0.3	345.7	235.1	110.55	3.127	
12,800.0	7,500.0	7,643.1	7,524.3	90.7	23.8	-90.12	-5,238.5	-0.3	253.8	141.5	112.29	2.260	
12,900.0	7,500.0	7,642.7	7,523.9	92.4	23.8	-89.95	-5,238.5	-0.3	171.3	57.3	114.02	1.502	
12,986.8	7,500.0	7,642.4	7,523.6	93.9	23.8	-89.81	-5,238.5	-0.3	122.9	7.4	115.52	1.064	Level 2
13,000.0	7,500.0	7,642.4	7,523.6	94.2	23.8	-89.78	-5,238.5	-0.3	119.4	3.7	115.73	1.032	Level 2

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 2B-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 2B-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		
13,026.2	7,500.0	7,642.3	7,523.5	94.6	23.8	-89.74	-5,238.5	-0.3	116.6	0.5	116.14	1.004	Level 2, CC, ES, SF	
13,058.5	7,500.0	7,642.2	7,523.4	95.2	23.8	-89.69	-5,238.5	-0.3	120.9	4.3	116.64	1.037	Level 2	
13,100.0	7,500.0	7,642.0	7,523.2	95.9	23.8	-89.62	-5,238.5	-0.3	137.7	20.4	117.35	1.174	Level 2	
13,200.0	7,500.0	7,641.7	7,522.9	97.6	23.8	-89.45	-5,238.5	-0.3	208.8	89.7	119.09	1.754		
13,300.0	7,500.0	7,641.4	7,522.5	99.4	23.8	-89.28	-5,238.5	-0.3	297.1	176.2	120.82	2.459		
13,400.0	7,500.0	7,641.0	7,522.2	101.1	23.8	-89.11	-5,238.5	-0.3	391.0	268.5	122.55	3.191		
13,500.0	7,500.0	7,640.7	7,521.8	102.9	23.8	-88.94	-5,238.5	-0.3	487.4	363.1	124.28	3.921		
13,600.0	7,500.0	7,640.3	7,521.5	104.6	23.8	-88.77	-5,238.5	-0.3	584.9	458.9	126.01	4.642		
13,700.0	7,500.0	7,640.0	7,521.1	106.3	23.8	-88.59	-5,238.5	-0.3	683.2	555.5	127.74	5.349		
13,800.0	7,500.0	7,639.6	7,520.8	108.1	23.8	-88.42	-5,238.5	-0.3	781.9	652.5	129.47	6.040		
13,900.0	7,500.0	7,639.2	7,520.4	109.8	23.8	-88.24	-5,238.5	-0.3	880.9	749.7	131.20	6.715		
14,000.0	7,500.0	7,638.9	7,520.1	111.6	23.8	-88.06	-5,238.5	-0.3	980.2	847.2	132.92	7.374		
14,100.0	7,500.0	7,638.5	7,519.7	113.3	23.8	-87.88	-5,238.5	-0.3	1,079.5	944.9	134.65	8.017		
14,200.0	7,500.0	7,638.2	7,519.3	115.0	23.8	-87.71	-5,238.5	-0.3	1,179.0	1,042.6	136.37	8.645		
14,300.0	7,500.0	7,637.8	7,519.0	116.8	23.8	-87.52	-5,238.5	-0.3	1,278.5	1,140.4	138.09	9.258		
14,400.0	7,500.0	7,637.4	7,518.6	118.5	23.8	-87.34	-5,238.5	-0.3	1,378.1	1,238.3	139.81	9.857		
14,500.0	7,500.0	7,637.0	7,518.2	120.3	23.8	-87.16	-5,238.5	-0.3	1,477.8	1,336.3	141.53	10.442		
14,600.0	7,500.0	7,636.7	7,517.8	122.0	23.8	-86.97	-5,238.5	-0.3	1,577.5	1,434.3	143.25	11.012		
14,700.0	7,500.0	7,636.3	7,517.5	123.7	23.8	-86.79	-5,238.5	-0.3	1,677.2	1,532.3	144.96	11.570		
14,800.0	7,500.0	7,635.9	7,517.1	125.5	23.8	-86.60	-5,238.5	-0.3	1,777.0	1,630.3	146.68	12.115		
14,900.0	7,500.0	7,635.5	7,516.7	127.2	23.8	-86.41	-5,238.5	-0.3	1,876.8	1,728.4	148.39	12.648		
15,000.0	7,500.0	7,635.1	7,516.3	129.0	23.8	-86.22	-5,238.5	-0.3	1,976.6	1,826.5	150.10	13.169		
15,100.0	7,500.0	7,634.7	7,515.9	130.7	23.8	-86.03	-5,238.5	-0.3	2,076.5	1,924.7	151.80	13.679		
15,200.0	7,500.0	7,634.3	7,515.5	132.5	23.8	-85.84	-5,238.5	-0.3	2,176.3	2,022.8	153.51	14.177		
15,300.0	7,500.0	7,633.9	7,515.1	134.2	23.8	-85.65	-5,238.5	-0.3	2,276.2	2,121.0	155.21	14.665		
15,400.0	7,500.0	7,633.5	7,514.7	136.0	23.8	-85.45	-5,238.5	-0.3	2,376.0	2,219.1	156.91	15.143		
15,500.0	7,500.0	7,633.1	7,514.3	137.7	23.8	-85.25	-5,238.5	-0.3	2,475.9	2,317.3	158.60	15.611		
15,600.0	7,500.0	7,632.7	7,513.9	139.4	23.8	-85.06	-5,238.6	-0.3	2,575.8	2,415.5	160.30	16.069		
15,706.0	7,500.0	7,632.3	7,513.5	141.3	23.8	-84.85	-5,238.6	-0.3	2,681.8	2,519.7	162.09	16.545		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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				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	23.2	23.2	0.0	0.0	172.71	-4,267.5	546.1	4,302.3					
100.0	100.0	123.9	123.9	0.2	0.2	172.71	-4,267.5	546.1	4,302.3	4,302.0	0.36	N/A		
200.0	200.0	224.7	224.7	0.3	0.4	172.71	-4,267.5	546.2	4,302.3	4,301.6	0.71	6,048.237		
300.0	300.0	325.5	325.5	0.5	0.6	172.71	-4,267.4	546.2	4,302.2	4,301.2	1.06	4,064.550		
303.9	303.9	329.4	329.4	0.5	0.6	-147.29	-4,267.4	546.2	4,302.2	4,301.2	1.07	4,012.736		
400.0	400.0	426.2	426.2	0.7	0.7	-147.30	-4,267.4	546.2	4,302.9	4,301.5	1.41	3,060.917		
500.0	500.0	526.9	526.9	0.9	0.9	-147.31	-4,267.3	546.3	4,305.0	4,303.3	1.75	2,454.758		
600.0	599.9	627.6	627.6	1.0	1.1	-147.32	-4,267.2	546.3	4,308.6	4,306.5	2.10	2,048.406		
700.0	699.7	728.2	728.2	1.2	1.2	-147.34	-4,267.0	546.4	4,313.6	4,311.2	2.46	1,756.618		
800.0	799.4	828.3	828.3	1.4	1.4	-147.39	-4,266.9	546.5	4,319.4	4,316.6	2.81	1,537.080		
900.0	899.2	999.0	998.8	1.6	1.7	-147.55	-4,264.9	552.0	4,324.7	4,321.4	3.30	1,311.593		
1,000.0	998.9	1,262.8	1,260.9	1.8	2.3	-148.03	-4,250.1	576.9	4,325.2	4,321.2	4.04	1,069.534		
1,100.0	1,098.7	1,523.7	1,517.1	2.1	3.1	-148.76	-4,224.8	619.5	4,323.8	4,318.8	4.99	865.860		
1,200.0	1,198.5	1,662.7	1,652.1	2.3	3.7	-149.23	-4,207.6	647.3	4,320.5	4,314.8	5.70	758.013		
1,300.0	1,298.2	1,862.7	1,844.7	2.5	4.6	-163.72	-4,177.7	692.4	4,315.2	4,308.5	6.71	642.637		
1,400.0	1,397.9	1,929.0	1,908.5	2.7	4.9	-175.97	-4,167.6	707.4	4,311.0	4,303.9	7.18	600.696		
1,450.9	1,448.6	1,954.2	1,932.7	2.8	5.0	178.70	-4,163.9	713.2	4,309.7	4,302.3	7.37	584.555		
1,500.0	1,497.6	1,994.4	1,971.5	2.9	5.2	178.57	-4,158.1	722.3	4,308.6	4,301.0	7.63	564.432		
1,600.0	1,597.2	2,120.0	2,092.5	3.1	5.8	178.16	-4,139.8	750.2	4,306.4	4,298.1	8.36	515.144		
1,700.0	1,696.9	2,194.2	2,164.0	3.3	6.2	177.92	-4,128.8	766.8	4,304.1	4,295.3	8.88	484.857		
1,800.0	1,796.5	2,300.4	2,266.3	3.6	6.7	177.57	-4,113.3	791.0	4,302.3	4,292.8	9.53	451.288		
1,900.0	1,896.1	2,374.2	2,337.4	3.8	7.0	177.33	-4,102.7	807.2	4,300.7	4,290.6	10.04	428.253		
2,000.0	1,995.8	2,456.6	2,417.0	4.0	7.4	177.07	-4,091.3	825.4	4,299.7	4,289.1	10.59	406.021		
2,100.0	2,095.4	2,533.0	2,490.9	4.2	7.8	176.83	-4,080.8	842.0	4,299.0	4,287.8	11.11	386.957		
2,171.7	2,166.8	2,593.2	2,549.1	4.4	8.1	176.64	-4,072.8	855.1	4,298.8	4,287.3	11.51	373.472		
2,200.0	2,195.1	2,612.1	2,567.3	4.4	8.2	176.58	-4,070.4	859.2	4,298.8	4,287.2	11.65	369.118		
2,300.0	2,294.7	2,770.5	2,720.3	4.7	8.9	176.07	-4,048.9	894.3	4,298.5	4,286.0	12.56	342.171		
2,400.0	2,394.4	2,850.0	2,797.1	4.9	9.3	175.82	-4,037.7	911.8	4,297.8	4,284.7	13.11	327.816		
2,500.0	2,494.0	2,943.1	2,886.9	5.1	9.8	175.52	-4,024.8	932.5	4,297.6	4,283.8	13.73	312.994		
2,600.0	2,593.6	3,088.8	3,027.5	5.3	10.5	175.05	-4,003.8	964.8	4,296.9	4,282.3	14.61	294.129		
2,700.0	2,693.3	3,177.4	3,112.6	5.6	11.0	174.75	-3,990.3	985.1	4,295.7	4,280.5	15.22	282.227		
2,788.5	2,781.5	3,232.0	3,165.2	5.8	11.2	174.57	-3,982.4	997.4	4,295.3	4,279.7	15.64	274.637		
2,800.0	2,792.9	3,240.5	3,173.4	5.8	11.3	174.54	-3,981.2	999.3	4,295.3	4,279.6	15.70	273.540		
2,900.0	2,892.6	3,325.4	3,255.2	6.0	11.7	174.26	-3,969.3	1,018.8	4,295.6	4,279.3	16.30	263.545		
3,000.0	2,992.2	3,401.7	3,328.8	6.2	12.1	174.01	-3,959.0	1,035.9	4,296.4	4,279.5	16.84	255.091		
3,100.0	3,091.9	3,533.6	3,456.3	6.5	12.7	173.60	-3,940.9	1,064.7	4,296.8	4,279.2	17.65	243.398		
3,200.0	3,191.5	3,614.0	3,533.8	6.7	13.1	173.33	-3,929.7	1,082.9	4,297.6	4,279.3	18.23	235.726		
3,300.0	3,291.2	3,711.7	3,627.8	6.9	13.6	173.00	-3,916.1	1,105.7	4,298.6	4,279.7	18.91	227.322		
3,400.0	3,390.8	3,804.0	3,716.8	7.1	14.1	172.70	-3,903.5	1,126.6	4,299.8	4,280.3	19.53	220.181		
3,500.0	3,490.4	3,878.9	3,789.3	7.4	14.4	172.47	-3,893.7	1,142.8	4,301.4	4,281.4	20.06	214.449		
3,600.0	3,590.1	3,962.9	3,870.7	7.6	14.8	172.21	-3,883.2	1,160.8	4,303.7	4,283.0	20.63	208.579		
3,700.0	3,689.7	4,133.7	4,035.8	7.8	15.7	171.68	-3,860.9	1,198.1	4,305.9	4,284.3	21.64	198.939		
3,800.0	3,789.4	4,255.0	4,152.8	8.1	16.3	171.29	-3,843.1	1,224.6	4,306.5	4,284.1	22.43	192.042		
3,900.0	3,889.0	4,343.6	4,238.3	8.3	16.7	171.00	-3,830.0	1,244.0	4,307.1	4,284.1	23.04	186.936		
4,000.0	3,988.7	4,413.6	4,305.9	8.5	17.0	170.78	-3,819.9	1,259.2	4,308.2	4,284.6	23.56	182.867		
4,100.0	4,088.3	4,470.3	4,360.8	8.7	17.3	170.61	-3,812.2	1,271.3	4,310.2	4,286.2	24.01	179.543		
4,200.0	4,187.9	4,549.8	4,437.8	9.0	17.7	170.37	-3,802.4	1,288.0	4,313.2	4,288.6	24.56	175.613		
4,300.0	4,287.6	4,685.0	4,568.8	9.2	18.3	169.96	-3,784.9	1,316.6	4,315.8	4,290.4	25.38	170.017		
4,400.0	4,387.2	4,772.1	4,653.3	9.4	18.7	169.71	-3,773.5	1,334.3	4,318.3	4,292.3	25.96	166.353		
4,500.0	4,486.9	4,857.2	4,736.2	9.6	19.1	169.47	-3,763.1	1,350.6	4,321.1	4,294.7	26.49	163.098		
4,600.0	4,586.5	4,949.8	4,826.7	9.9	19.4	169.24	-3,752.4	1,367.1	4,324.3	4,297.3	27.06	159.834		
4,700.0	4,686.2	5,042.8	4,917.7	10.1	19.8	169.01	-3,741.8	1,383.2	4,327.7	4,300.1	27.61	156.740		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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
4,800.0	4,785.8	5,133.2	5,006.3	10.3	20.2	168.80	-3,731.9	1,398.5	4,331.3	4,303.2	28.14	153.896	
4,900.0	4,885.4	5,220.0	5,091.3	10.6	20.5	168.59	-3,722.7	1,412.7	4,335.2	4,306.5	28.67	151.217	
5,000.0	4,985.1	5,327.0	5,196.2	10.8	20.9	168.34	-3,711.2	1,430.9	4,339.2	4,309.9	29.27	148.251	
5,100.0	5,084.7	5,418.2	5,285.8	11.0	21.3	168.14	-3,701.7	1,445.3	4,343.2	4,313.4	29.79	145.806	
5,200.0	5,184.4	5,488.0	5,354.4	11.2	21.5	167.99	-3,694.9	1,455.8	4,347.7	4,317.4	30.22	143.870	
5,300.0	5,284.0	5,573.4	5,438.4	11.5	21.8	167.82	-3,687.2	1,468.9	4,352.9	4,322.2	30.71	141.727	
5,400.0	5,383.7	5,710.0	5,572.7	11.7	22.3	167.52	-3,673.7	1,490.0	4,357.3	4,325.9	31.40	138.749	
5,500.0	5,483.3	5,774.0	5,635.8	11.9	22.5	167.40	-3,667.8	1,499.3	4,362.2	4,330.4	31.80	137.176	
5,600.0	5,583.0	5,853.6	5,714.3	12.1	22.8	167.25	-3,661.2	1,510.1	4,367.7	4,335.4	32.24	135.454	
5,700.0	5,682.6	5,940.3	5,799.9	12.4	23.1	167.09	-3,654.5	1,522.1	4,373.7	4,341.0	32.71	133.708	
5,800.0	5,782.2	6,027.0	5,885.7	12.6	23.3	166.95	-3,648.3	1,533.0	4,379.9	4,346.8	33.15	132.121	
5,900.0	5,881.9	6,167.4	6,025.2	12.8	23.7	166.78	-3,639.2	1,546.1	4,385.5	4,351.9	33.68	130.230	
6,000.0	5,981.5	6,241.8	6,099.3	13.1	23.8	166.72	-3,635.0	1,551.6	4,391.3	4,357.3	34.01	129.108	
6,100.0	6,081.2	6,314.9	6,172.2	13.3	24.0	166.66	-3,631.6	1,556.3	4,397.6	4,363.3	34.32	128.124	
6,200.0	6,180.8	6,398.6	6,255.8	13.5	24.1	166.63	-3,629.1	1,559.9	4,404.7	4,370.1	34.61	127.251	
6,300.0	6,280.5	6,530.6	6,387.7	13.7	24.2	166.63	-3,625.8	1,560.6	4,410.6	4,375.7	34.90	126.390	
6,400.0	6,380.1	6,571.0	6,428.1	14.0	24.2	166.65	-3,625.5	1,560.1	4,417.6	4,382.5	35.10	125.869	
6,500.0	6,479.7	6,643.2	6,500.3	14.2	24.3	166.68	-3,625.7	1,559.5	4,425.7	4,390.4	35.33	125.252	
6,600.0	6,579.4	6,749.3	6,606.4	14.4	24.4	166.70	-3,625.7	1,559.8	4,434.0	4,398.3	35.61	124.510	
6,700.0	6,679.0	6,867.3	6,724.3	14.7	24.5	166.72	-3,625.0	1,560.4	4,441.9	4,406.0	35.90	123.735	
6,800.0	6,778.7	6,977.3	6,834.3	14.9	24.6	166.74	-3,624.2	1,560.8	4,449.5	4,413.3	36.18	122.983	
6,901.0	6,879.3	7,104.9	6,962.0	15.1	24.7	166.76	-3,622.7	1,561.0	4,456.8	4,420.3	36.48	122.174	
6,950.0	6,928.3	7,168.9	7,025.9	15.2	24.8	-103.10	-3,621.7	1,560.8	4,458.1	4,421.5	36.66	121.599	
7,000.0	6,978.2	7,234.5	7,091.5	15.2	24.8	-30.41	-3,620.5	1,560.6	4,455.3	4,418.6	36.68	121.475	
7,050.0	7,027.7	7,279.5	7,136.6	15.2	24.9	-26.67	-3,619.6	1,560.4	4,448.4	4,411.9	36.50	121.877	
7,100.0	7,076.5	7,332.2	7,189.2	15.1	24.9	-25.80	-3,618.6	1,560.3	4,437.6	4,401.5	36.17	122.700	
7,150.0	7,124.1	7,395.8	7,252.8	15.0	25.0	-25.84	-3,617.2	1,560.0	4,422.8	4,387.1	35.70	123.902	
7,200.0	7,170.3	7,445.9	7,302.9	14.9	25.1	-26.38	-3,616.0	1,559.7	4,404.1	4,369.0	35.07	125.567	
7,250.0	7,214.6	7,493.0	7,350.0	14.8	25.1	-27.32	-3,614.9	1,559.1	4,381.8	4,347.5	34.34	127.588	
7,300.0	7,256.7	7,532.3	7,389.2	14.6	25.1	-28.62	-3,614.1	1,558.5	4,356.1	4,322.5	33.53	129.921	
7,350.0	7,296.2	7,568.9	7,425.8	14.4	25.2	-30.34	-3,613.4	1,557.9	4,327.1	4,294.4	32.68	132.414	
7,400.0	7,333.0	7,605.9	7,462.8	14.2	25.2	-32.55	-3,612.6	1,557.2	4,295.2	4,263.4	31.85	134.856	
7,450.0	7,366.7	7,640.5	7,497.4	14.1	25.2	-35.34	-3,612.0	1,556.6	4,260.6	4,229.5	31.10	136.985	
7,500.0	7,397.1	7,671.5	7,528.4	13.9	25.2	-38.84	-3,611.4	1,556.0	4,223.5	4,193.0	30.50	138.453	
7,550.0	7,423.8	7,698.7	7,555.6	13.8	25.3	-43.21	-3,610.8	1,555.5	4,184.2	4,154.1	30.13	138.869	
7,600.0	7,446.8	7,718.9	7,575.8	13.7	25.3	-48.59	-3,610.4	1,555.1	4,143.1	4,113.1	30.03	137.972	
7,650.0	7,465.8	7,734.8	7,591.6	13.6	25.3	-55.20	-3,610.1	1,554.7	4,100.5	4,070.2	30.22	135.666	
7,700.0	7,480.8	7,747.1	7,604.0	13.6	25.3	-63.20	-3,609.9	1,554.5	4,056.7	4,026.0	30.66	132.309	
7,750.0	7,491.5	7,755.7	7,612.6	13.7	25.3	-72.53	-3,609.8	1,554.3	4,012.1	3,980.9	31.17	128.724	
7,800.0	7,497.9	7,760.6	7,617.5	13.8	25.3	-82.86	-3,609.7	1,554.2	3,966.9	3,935.4	31.51	125.890	
7,848.8	7,500.0	7,761.7	7,618.6	13.9	25.3	-93.27	-3,609.7	1,554.2	3,922.7	3,891.2	31.53	124.425	
7,900.0	7,500.0	7,760.9	7,617.8	14.1	25.3	-93.25	-3,609.7	1,554.2	3,876.5	3,844.8	31.74	122.138	
8,000.0	7,500.0	7,759.4	7,616.3	14.7	25.3	-93.19	-3,609.7	1,554.2	3,786.6	3,754.3	32.30	117.216	
8,100.0	7,500.0	7,757.9	7,614.7	15.4	25.3	-93.14	-3,609.7	1,554.3	3,697.1	3,664.1	33.05	111.862	
8,200.0	7,500.0	7,756.3	7,613.2	16.3	25.3	-93.09	-3,609.7	1,554.3	3,608.3	3,574.3	33.95	106.272	
8,300.0	7,500.0	7,754.7	7,611.6	17.3	25.3	-93.03	-3,609.8	1,554.3	3,520.0	3,485.0	34.99	100.608	
8,400.0	7,500.0	7,753.1	7,610.0	18.5	25.3	-92.98	-3,609.8	1,554.4	3,432.3	3,396.2	36.13	94.999	
8,500.0	7,500.0	7,751.5	7,608.4	19.7	25.3	-92.92	-3,609.8	1,554.4	3,345.4	3,308.0	37.36	89.536	
8,600.0	7,500.0	7,749.9	7,606.8	21.0	25.3	-92.87	-3,609.9	1,554.4	3,259.2	3,220.5	38.67	84.279	
8,700.0	7,500.0	7,748.3	7,605.2	22.4	25.3	-92.81	-3,609.9	1,554.5	3,173.8	3,133.7	40.04	79.265	
8,800.0	7,500.0	7,746.7	7,603.5	23.8	25.3	-92.76	-3,609.9	1,554.5	3,089.3	3,047.8	41.46	74.513	
8,900.0	7,500.0	7,745.0	7,601.9	25.3	25.3	-92.70	-3,609.9	1,554.5	3,005.7	2,962.8	42.92	70.028	

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 2B-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 2B-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
9,000.0	7,500.0	7,743.3	7,600.2	26.7	25.3	-92.64	-3,610.0	1,554.6	2,923.2	2,878.7	44.42	65.810	
9,100.0	7,500.0	7,741.7	7,598.5	28.3	25.3	-92.59	-3,610.0	1,554.6	2,841.7	2,795.8	45.94	61.852	
9,200.0	7,500.0	7,740.0	7,596.8	29.8	25.3	-92.53	-3,610.0	1,554.6	2,761.5	2,714.0	47.50	58.143	
9,300.0	7,500.0	7,738.3	7,595.1	31.4	25.3	-92.47	-3,610.1	1,554.7	2,682.7	2,633.6	49.07	54.672	
9,400.0	7,500.0	7,736.5	7,593.4	33.0	25.3	-92.41	-3,610.1	1,554.7	2,605.2	2,554.6	50.66	51.427	
9,500.0	7,500.0	7,734.8	7,591.7	34.6	25.3	-92.35	-3,610.1	1,554.7	2,529.4	2,477.1	52.27	48.395	
9,600.0	7,500.0	7,733.0	7,589.9	36.2	25.3	-92.29	-3,610.2	1,554.8	2,455.3	2,401.4	53.89	45.565	
9,700.0	7,500.0	7,731.3	7,588.1	37.8	25.3	-92.23	-3,610.2	1,554.8	2,383.1	2,327.6	55.52	42.924	
9,800.0	7,500.0	7,729.5	7,586.4	39.5	25.3	-92.17	-3,610.2	1,554.8	2,312.9	2,255.8	57.16	40.464	
9,900.0	7,500.0	7,727.7	7,584.6	41.1	25.3	-92.11	-3,610.3	1,554.9	2,245.1	2,186.2	58.81	38.173	
10,000.0	7,500.0	7,725.9	7,582.8	42.8	25.3	-92.05	-3,610.3	1,554.9	2,179.7	2,119.2	60.47	36.043	
10,100.0	7,500.0	7,724.1	7,580.9	44.5	25.3	-91.98	-3,610.3	1,555.0	2,116.9	2,054.8	62.14	34.067	
10,200.0	7,500.0	7,722.2	7,579.1	46.1	25.3	-91.92	-3,610.4	1,555.0	2,057.2	1,993.4	63.81	32.237	
10,300.0	7,500.0	7,720.4	7,577.2	47.8	25.3	-91.86	-3,610.4	1,555.0	2,000.6	1,935.1	65.49	30.547	
10,400.0	7,500.0	7,718.5	7,575.4	49.5	25.3	-91.79	-3,610.4	1,555.1	1,947.6	1,880.4	67.18	28.991	
10,500.0	7,500.0	7,716.6	7,573.5	51.2	25.3	-91.73	-3,610.5	1,555.1	1,898.3	1,829.5	68.87	27.565	
10,600.0	7,500.0	7,714.7	7,571.6	52.9	25.3	-91.66	-3,610.5	1,555.1	1,853.2	1,782.6	70.56	26.263	
10,700.0	7,500.0	7,712.8	7,569.6	54.6	25.3	-91.60	-3,610.6	1,555.2	1,812.4	1,740.1	72.26	25.082	
10,800.0	7,500.0	7,710.8	7,567.7	56.3	25.3	-91.53	-3,610.6	1,555.2	1,776.3	1,702.3	73.96	24.017	
10,900.0	7,500.0	7,708.9	7,565.8	58.0	25.3	-91.46	-3,610.6	1,555.3	1,745.2	1,669.5	75.66	23.065	
11,000.0	7,500.0	7,706.9	7,563.8	59.7	25.3	-91.40	-3,610.7	1,555.3	1,719.4	1,642.0	77.37	22.222	
11,100.0	7,500.0	7,704.9	7,561.8	61.4	25.3	-91.33	-3,610.7	1,555.3	1,699.0	1,620.0	79.08	21.485	
11,200.0	7,500.0	7,702.9	7,559.8	63.1	25.3	-91.26	-3,610.7	1,555.4	1,684.4	1,603.6	80.79	20.849	
11,300.0	7,500.0	7,700.9	7,557.7	64.8	25.3	-91.19	-3,610.8	1,555.4	1,675.6	1,593.1	82.51	20.309	
11,397.7	7,500.0	7,698.9	7,555.8	66.5	25.3	-91.12	-3,610.8	1,555.5	1,672.8	1,588.6	84.18	19.871 CC	
11,400.0	7,500.0	7,698.8	7,555.7	66.5	25.3	-91.12	-3,610.8	1,555.5	1,672.8	1,588.6	84.22	19.861 ES	
11,500.0	7,500.0	7,696.8	7,553.7	68.2	25.3	-91.05	-3,610.9	1,555.5	1,675.9	1,590.0	85.94	19.501	
11,600.0	7,500.0	7,694.8	7,551.7	70.0	25.3	-90.98	-3,610.9	1,555.5	1,685.0	1,597.3	87.66	19.221	
11,700.0	7,500.0	7,692.8	7,549.6	71.7	25.3	-90.91	-3,610.9	1,555.6	1,699.9	1,610.5	89.38	19.018	
11,800.0	7,500.0	7,690.7	7,547.6	73.4	25.3	-90.84	-3,611.0	1,555.6	1,720.5	1,629.4	91.10	18.884	
11,900.0	7,500.0	7,688.7	7,545.6	75.1	25.3	-90.77	-3,611.0	1,555.7	1,746.5	1,653.7	92.83	18.815	
12,000.0	7,500.0	7,686.7	7,543.6	76.9	25.3	-90.71	-3,611.1	1,555.7	1,777.9	1,683.3	94.55	18.803 SF	
12,100.0	7,500.0	7,684.7	7,541.6	78.6	25.3	-90.64	-3,611.1	1,555.7	1,814.2	1,717.9	96.28	18.843	
12,200.0	7,500.0	7,682.7	7,539.6	80.3	25.3	-90.57	-3,611.1	1,555.8	1,855.2	1,757.2	98.01	18.929	
12,300.0	7,500.0	7,680.7	7,537.6	82.0	25.3	-90.50	-3,611.2	1,555.8	1,900.5	1,800.8	99.74	19.056	
12,400.0	7,500.0	7,678.7	7,535.6	83.8	25.3	-90.43	-3,611.2	1,555.8	1,950.0	1,848.5	101.47	19.218	
12,500.0	7,500.0	7,676.7	7,533.6	85.5	25.2	-90.36	-3,611.3	1,555.9	2,003.2	1,900.0	103.20	19.412	
12,600.0	7,500.0	7,674.7	7,531.6	87.2	25.2	-90.29	-3,611.3	1,555.9	2,059.9	1,955.0	104.93	19.632	
12,700.0	7,500.0	7,672.7	7,529.6	89.0	25.2	-90.23	-3,611.3	1,556.0	2,119.8	2,013.1	106.66	19.874	
12,800.0	7,500.0	7,670.7	7,527.6	90.7	25.2	-90.16	-3,611.4	1,556.0	2,182.6	2,074.3	108.39	20.137	
12,900.0	7,500.0	7,668.7	7,525.6	92.4	25.2	-90.09	-3,611.4	1,556.0	2,248.2	2,138.0	110.13	20.415	
12,986.8	7,500.0	7,667.0	7,523.9	93.9	25.2	-90.03	-3,611.5	1,556.1	2,307.1	2,195.5	111.63	20.667	
13,000.0	7,500.0	7,666.7	7,523.6	94.2	25.2	-90.02	-3,611.5	1,556.1	2,316.2	2,204.3	111.83	20.712	
13,058.5	7,500.0	7,665.6	7,522.5	95.2	25.2	-89.98	-3,611.5	1,556.1	2,356.7	2,244.0	112.69	20.912	
13,100.0	7,500.0	7,664.7	7,521.6	95.9	25.2	-89.95	-3,611.5	1,556.1	2,385.7	2,272.3	113.41	21.036	
13,200.0	7,500.0	7,662.7	7,519.6	97.6	25.2	-89.89	-3,611.5	1,556.2	2,457.2	2,342.1	115.15	21.340	
13,300.0	7,500.0	7,660.7	7,517.6	99.4	25.2	-89.82	-3,611.6	1,556.2	2,530.6	2,413.7	116.88	21.651	
13,400.0	7,500.0	7,658.7	7,515.6	101.1	25.2	-89.75	-3,611.6	1,556.2	2,605.8	2,487.2	118.62	21.968	
13,500.0	7,500.0	7,656.7	7,513.6	102.9	25.2	-89.68	-3,611.7	1,556.3	2,682.6	2,562.2	120.35	22.289	
13,600.0	7,500.0	7,654.7	7,511.6	104.6	25.2	-89.61	-3,611.7	1,556.3	2,760.8	2,638.7	122.09	22.613	
13,700.0	7,500.0	7,652.7	7,509.6	106.3	25.2	-89.55	-3,611.7	1,556.3	2,840.5	2,716.6	123.83	22.939	
13,800.0	7,500.0	7,650.7	7,507.6	108.1	25.2	-89.48	-3,611.8	1,556.4	2,921.4	2,795.8	125.56	23.266	

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 2B-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 2B-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		
13,900.0	7,500.0	7,648.8	7,505.7	109.8	25.2	-89.41	-3,611.8	1,556.4	3,003.4	2,876.1	127.30	23.593			
14,000.0	7,500.0	7,646.8	7,503.7	111.6	25.2	-89.35	-3,611.9	1,556.5	3,086.5	2,957.5	129.04	23.919			
14,100.0	7,500.0	7,644.8	7,501.7	113.3	25.2	-89.28	-3,611.9	1,556.5	3,170.6	3,039.8	130.78	24.244			
14,200.0	7,500.0	7,642.8	7,499.7	115.0	25.2	-89.21	-3,611.9	1,556.5	3,255.5	3,123.0	132.51	24.568			
14,300.0	7,500.0	7,640.8	7,497.7	116.8	25.2	-89.15	-3,612.0	1,556.6	3,341.3	3,207.1	134.25	24.889			
14,400.0	7,500.0	7,638.9	7,495.8	118.5	25.2	-89.08	-3,612.0	1,556.6	3,427.9	3,291.9	135.99	25.207			
14,500.0	7,500.0	7,636.9	7,493.8	120.3	25.2	-89.01	-3,612.0	1,556.6	3,515.2	3,377.5	137.73	25.523			
14,600.0	7,500.0	7,634.9	7,491.8	122.0	25.2	-88.95	-3,612.1	1,556.7	3,603.1	3,463.7	139.47	25.835			
14,700.0	7,500.0	7,632.9	7,489.9	123.7	25.2	-88.88	-3,612.1	1,556.7	3,691.7	3,550.5	141.20	26.144			
14,800.0	7,500.0	7,631.0	7,487.9	125.5	25.2	-88.81	-3,612.2	1,556.8	3,780.8	3,637.9	142.94	26.450			
14,900.0	7,500.0	7,629.0	7,485.9	127.2	25.2	-88.75	-3,612.2	1,556.8	3,870.5	3,725.8	144.68	26.752			
15,000.0	7,500.0	7,627.1	7,484.0	129.0	25.2	-88.68	-3,612.2	1,556.8	3,960.6	3,814.2	146.42	27.050			
15,100.0	7,500.0	7,625.1	7,482.0	130.7	25.2	-88.61	-3,612.3	1,556.9	4,051.2	3,903.1	148.16	27.344			
15,200.0	7,500.0	7,623.1	7,480.1	132.5	25.2	-88.55	-3,612.3	1,556.9	4,142.3	3,992.4	149.90	27.634			
15,300.0	7,500.0	7,621.2	7,478.1	134.2	25.2	-88.48	-3,612.3	1,556.9	4,233.7	4,082.1	151.63	27.921			
15,400.0	7,500.0	7,619.2	7,476.2	136.0	25.2	-88.42	-3,612.4	1,557.0	4,325.6	4,172.2	153.37	28.203			
15,500.0	7,500.0	7,617.3	7,474.2	137.7	25.2	-88.35	-3,612.4	1,557.0	4,417.7	4,262.6	155.11	28.481			
15,600.0	7,500.0	7,615.4	7,472.3	139.4	25.2	-88.28	-3,612.5	1,557.0	4,510.2	4,353.4	156.85	28.755			
15,706.0	7,500.0	7,613.3	7,470.2	141.3	25.2	-88.22	-3,612.5	1,557.1	4,608.7	4,450.0	158.69	29.042			

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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	33.6	33.6	0.0	0.0	172.30	-4,267.5	576.9	4,306.3							
100.0	100.0	118.0	118.0	0.2	0.2	172.30	-4,267.4	577.1	4,306.2	4,305.9	0.33	N/A				
200.0	200.0	178.0	178.0	0.3	0.3	172.29	-4,267.9	577.8	4,307.0	4,306.4	0.61	7,033.405				
300.0	300.0	207.6	207.6	0.5	0.3	172.28	-4,268.5	578.4	4,309.0	4,308.2	0.84	5,113.058				
400.0	400.0	270.0	269.9	0.7	0.5	-147.73	-4,270.4	580.6	4,313.1	4,312.0	1.13	3,823.641				
500.0	500.0	298.0	297.9	0.9	0.5	-147.71	-4,271.6	581.9	4,319.8	4,318.5	1.36	3,180.903				
600.0	599.9	362.0	361.6	1.0	0.7	-147.72	-4,275.0	585.7	4,329.5	4,327.8	1.66	2,609.403				
700.0	699.7	362.0	361.6	1.2	0.7	-147.66	-4,275.0	585.7	4,341.8	4,340.0	1.84	2,360.402				
800.0	799.4	424.2	423.5	1.4	0.8	-147.74	-4,279.4	590.4	4,356.0	4,353.9	2.15	2,024.552				
900.0	899.2	454.0	453.1	1.6	0.9	-147.79	-4,282.0	593.0	4,371.7	4,369.4	2.40	1,824.043				
1,000.0	998.9	508.3	506.9	1.8	1.1	-147.87	-4,287.2	598.3	4,388.7	4,386.0	2.70	1,623.570				
1,100.0	1,098.7	546.0	544.1	2.1	1.2	-147.94	-4,291.3	602.3	4,406.9	4,403.9	2.97	1,482.950				
1,200.0	1,198.5	594.1	591.6	2.3	1.4	-148.02	-4,297.0	608.0	4,426.4	4,423.1	3.28	1,349.713				
1,300.0	1,298.2	642.0	638.6	2.5	1.5	-162.10	-4,303.2	614.5	4,447.6	4,444.0	3.58	1,243.418				
1,400.0	1,397.9	689.8	685.4	2.7	1.7	-174.43	-4,309.8	621.6	4,470.8	4,466.9	3.88	1,152.863				
1,450.9	1,448.6	725.0	719.8	2.8	1.9	-179.86	-4,314.9	627.2	4,483.4	4,479.3	4.06	1,104.599				
1,500.0	1,497.6	813.0	805.9	2.9	2.2	179.98	-4,327.3	640.7	4,495.6	4,491.2	4.37	1,027.557				
1,600.0	1,597.2	891.2	882.5	3.1	2.5	179.86	-4,338.1	652.0	4,519.8	4,515.1	4.75	950.925				
1,700.0	1,696.9	940.0	930.2	3.3	2.7	179.78	-4,345.1	659.4	4,544.9	4,539.8	5.06	898.305				
1,800.0	1,796.5	1,004.0	992.6	3.6	3.0	179.67	-4,355.0	669.9	4,571.0	4,565.6	5.42	843.940				
1,900.0	1,896.1	1,033.7	1,021.4	3.8	3.1	179.61	-4,359.9	675.0	4,598.2	4,592.5	5.68	809.852				
2,000.0	1,995.8	1,092.3	1,078.2	4.0	3.4	179.50	-4,369.9	685.5	4,626.4	4,620.3	6.03	767.501				
2,100.0	2,095.4	1,174.4	1,157.5	4.2	3.8	179.33	-4,384.3	700.8	4,655.0	4,648.6	6.45	721.366				
2,200.0	2,195.1	1,261.1	1,241.4	4.4	4.2	179.16	-4,399.6	717.0	4,684.0	4,677.1	6.89	679.835				
2,300.0	2,294.7	1,448.6	1,423.1	4.7	5.1	178.81	-4,430.4	751.2	4,711.3	4,703.7	7.63	617.407				
2,400.0	2,394.4	1,529.0	1,501.1	4.9	5.4	178.66	-4,443.3	765.7	4,738.7	4,730.7	8.04	589.122				
2,500.0	2,494.0	1,609.8	1,579.5	5.1	5.8	178.51	-4,456.5	780.0	4,766.4	4,757.9	8.46	563.731				
2,600.0	2,593.6	1,686.1	1,653.5	5.3	6.2	178.37	-4,469.3	793.7	4,794.5	4,785.6	8.86	541.229				
2,700.0	2,693.3	1,767.7	1,732.4	5.6	6.5	178.22	-4,483.1	808.9	4,822.9	4,813.6	9.28	519.700				
2,800.0	2,792.9	1,869.5	1,831.0	5.8	7.0	178.03	-4,500.6	828.0	4,851.6	4,841.9	9.77	496.828				
2,900.0	2,892.6	1,982.0	1,939.8	6.0	7.6	177.82	-4,519.0	849.4	4,879.7	4,869.4	10.28	474.607				
3,000.0	2,992.2	2,074.0	2,028.9	6.2	8.0	177.65	-4,534.3	866.6	4,908.0	4,897.3	10.73	457.452				
3,100.0	3,091.9	2,153.0	2,105.5	6.5	8.4	177.52	-4,547.5	881.1	4,936.4	4,925.2	11.14	443.301				
3,200.0	3,191.5	2,213.0	2,163.5	6.7	8.7	177.41	-4,557.9	892.1	4,965.3	4,953.9	11.48	432.354				
3,300.0	3,291.2	2,403.0	2,347.8	6.9	9.5	177.10	-4,589.5	925.9	4,993.4	4,981.2	12.20	409.207				
3,400.0	3,390.8	2,456.6	2,399.7	7.1	9.8	177.01	-4,598.1	935.9	5,021.3	5,008.8	12.54	400.482				
3,500.0	3,490.4	2,525.9	2,466.8	7.4	10.1	176.89	-4,609.8	949.1	5,050.1	5,037.2	12.92	391.019				
3,600.0	3,590.1	2,660.9	2,597.7	7.6	10.8	176.67	-4,632.5	973.1	5,078.5	5,065.1	13.46	377.215				
3,700.0	3,689.7	2,751.1	2,685.2	7.8	11.2	176.54	-4,647.5	988.5	5,106.8	5,092.9	13.88	367.836				
3,800.0	3,789.4	2,880.0	2,810.3	8.1	11.8	176.34	-4,668.5	1,011.4	5,134.8	5,120.4	14.43	355.933				
3,900.0	3,889.0	2,929.8	2,858.6	8.3	12.0	176.26	-4,676.5	1,020.6	5,162.9	5,148.2	14.74	350.246				
4,000.0	3,988.7	2,975.0	2,902.4	8.5	12.2	176.18	-4,684.2	1,028.9	5,192.0	5,176.9	15.04	345.160				
4,100.0	4,088.3	3,035.4	2,960.8	8.7	12.5	176.09	-4,695.0	1,039.9	5,221.8	5,206.4	15.38	339.477				
4,200.0	4,187.9	3,135.0	3,057.0	9.0	13.0	175.94	-4,713.3	1,057.8	5,252.0	5,236.2	15.83	331.839				
7,900.0	7,500.0	7,618.3	7,482.5	14.1	25.4	-88.54	-5,099.8	1,473.2	5,234.2	5,200.4	33.74	155.141				
8,000.0	7,500.0	7,618.9	7,483.1	14.7	25.4	-88.56	-5,099.8	1,473.2	5,139.0	5,104.7	34.31	149.801				
8,100.0	7,500.0	7,619.5	7,483.7	15.4	25.4	-88.58	-5,099.8	1,473.2	5,044.0	5,009.0	35.05	143.891				
8,200.0	7,500.0	7,620.0	7,484.2	16.3	25.4	-88.60	-5,099.8	1,473.2	4,949.2	4,913.3	35.96	137.633				
8,300.0	7,500.0	7,620.6	7,484.8	17.3	25.4	-88.62	-5,099.8	1,473.3	4,854.6	4,817.6	37.00	131.220				
8,400.0	7,500.0	7,621.2	7,485.3	18.5	25.4	-88.64	-5,099.8	1,473.3	4,760.3	4,722.1	38.14	124.804				
8,500.0	7,500.0	7,621.7	7,485.9	19.7	25.4	-88.66	-5,099.8	1,473.3	4,666.1	4,626.7	39.38	118.495				
8,600.0	7,500.0	7,622.3	7,486.5	21.0	25.4	-88.68	-5,099.8	1,473.3	4,572.2	4,531.6	40.69	112.372				

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 2B-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 2B-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		
8,700.0	7,500.0	7,622.8	7,487.0	22.4	25.4	-88.70	-5,099.8	1,473.3	4,478.6	4,436.6	42.06	106.482		
8,800.0	7,500.0	7,623.4	7,487.6	23.8	25.4	-88.72	-5,099.8	1,473.3	4,385.3	4,341.8	43.48	100.853		
8,900.0	7,500.0	7,623.9	7,488.1	25.3	25.4	-88.74	-5,099.8	1,473.3	4,292.3	4,247.3	44.95	95.498		
9,000.0	7,500.0	7,624.5	7,488.6	26.7	25.4	-88.76	-5,099.8	1,473.3	4,199.5	4,153.1	46.44	90.420		
9,100.0	7,500.0	7,625.0	7,489.2	28.3	25.4	-88.78	-5,099.8	1,473.3	4,107.2	4,059.2	47.97	85.613		
9,200.0	7,500.0	7,625.6	7,489.7	29.8	25.4	-88.80	-5,099.8	1,473.3	4,015.2	3,965.6	49.53	81.070		
9,300.0	7,500.0	7,626.1	7,490.3	31.4	25.4	-88.82	-5,099.8	1,473.3	3,923.5	3,872.4	51.10	76.779		
9,400.0	7,500.0	7,626.6	7,490.8	33.0	25.4	-88.84	-5,099.8	1,473.3	3,832.3	3,779.6	52.69	72.727		
9,500.0	7,500.0	7,627.2	7,491.3	34.6	25.4	-88.86	-5,099.8	1,473.3	3,741.6	3,687.3	54.30	68.902		
9,600.0	7,500.0	7,627.7	7,491.9	36.2	25.4	-88.88	-5,099.8	1,473.3	3,651.3	3,595.4	55.93	65.289		
9,700.0	7,500.0	7,628.2	7,492.4	37.8	25.4	-88.90	-5,099.8	1,473.3	3,561.6	3,504.0	57.56	61.877		
9,800.0	7,500.0	7,628.8	7,492.9	39.5	25.4	-88.92	-5,099.8	1,473.3	3,472.4	3,413.2	59.20	58.652		
9,900.0	7,500.0	7,629.3	7,493.5	41.1	25.4	-88.94	-5,099.8	1,473.3	3,383.8	3,322.9	60.86	55.603		
10,000.0	7,500.0	7,629.8	7,494.0	42.8	25.4	-88.95	-5,099.8	1,473.3	3,295.9	3,233.4	62.52	52.719		
10,100.0	7,500.0	7,630.3	7,494.5	44.5	25.4	-88.97	-5,099.8	1,473.3	3,208.7	3,144.5	64.19	49.989		
10,200.0	7,500.0	7,630.9	7,495.0	46.1	25.4	-88.99	-5,099.8	1,473.3	3,122.2	3,056.3	65.86	47.405		
10,300.0	7,500.0	7,631.4	7,495.6	47.8	25.4	-89.01	-5,099.8	1,473.4	3,036.6	2,969.0	67.54	44.958		
10,400.0	7,500.0	7,631.9	7,496.1	49.5	25.4	-89.03	-5,099.8	1,473.4	2,951.9	2,882.6	69.23	42.639		
10,500.0	7,500.0	7,632.4	7,496.6	51.2	25.4	-89.05	-5,099.8	1,473.4	2,868.1	2,797.2	70.92	40.442		
10,600.0	7,500.0	7,632.9	7,497.1	52.9	25.4	-89.07	-5,099.8	1,473.4	2,785.5	2,712.8	72.61	38.360		
10,700.0	7,500.0	7,633.4	7,497.6	54.6	25.4	-89.09	-5,099.8	1,473.4	2,704.0	2,629.7	74.31	36.387		
10,800.0	7,500.0	7,634.0	7,498.1	56.3	25.4	-89.10	-5,099.8	1,473.4	2,623.8	2,547.7	76.01	34.517		
10,900.0	7,500.0	7,634.5	7,498.6	58.0	25.4	-89.12	-5,099.8	1,473.4	2,545.0	2,467.2	77.72	32.745		
11,000.0	7,500.0	7,635.0	7,499.1	59.7	25.4	-89.14	-5,099.8	1,473.4	2,467.7	2,388.3	79.43	31.068		
11,100.0	7,500.0	7,635.5	7,499.6	61.4	25.4	-89.16	-5,099.9	1,473.4	2,392.1	2,311.0	81.14	29.482		
11,200.0	7,500.0	7,636.0	7,500.2	63.1	25.4	-89.18	-5,099.9	1,473.4	2,318.4	2,235.5	82.85	27.982		
11,300.0	7,500.0	7,636.5	7,500.7	64.8	25.4	-89.19	-5,099.9	1,473.4	2,246.7	2,162.1	84.57	26.567		
11,400.0	7,500.0	7,637.0	7,501.2	66.5	25.4	-89.21	-5,099.9	1,473.4	2,177.2	2,090.9	86.28	25.233		
11,500.0	7,500.0	7,637.5	7,501.6	68.2	25.4	-89.23	-5,099.9	1,473.4	2,110.2	2,022.2	88.00	23.978		
11,600.0	7,500.0	7,638.0	7,502.1	70.0	25.4	-89.25	-5,099.9	1,473.4	2,045.8	1,956.1	89.72	22.802		
11,700.0	7,500.0	7,638.5	7,502.6	71.7	25.4	-89.27	-5,099.9	1,473.4	1,984.5	1,893.0	91.45	21.701		
11,800.0	7,500.0	7,639.0	7,503.1	73.4	25.4	-89.28	-5,099.9	1,473.4	1,926.3	1,833.2	93.17	20.675		
11,900.0	7,500.0	7,639.4	7,503.6	75.1	25.4	-89.30	-5,099.9	1,473.4	1,871.7	1,776.8	94.90	19.724		
12,000.0	7,500.0	7,639.9	7,504.1	76.9	25.4	-89.32	-5,099.9	1,473.4	1,821.0	1,724.4	96.62	18.847		
12,100.0	7,500.0	7,640.4	7,504.6	78.6	25.4	-89.34	-5,099.9	1,473.4	1,774.5	1,676.1	98.35	18.042		
12,200.0	7,500.0	7,640.9	7,505.1	80.3	25.4	-89.35	-5,099.9	1,473.4	1,732.5	1,632.4	100.08	17.311		
12,300.0	7,500.0	7,641.4	7,505.6	82.0	25.4	-89.37	-5,099.9	1,473.4	1,695.3	1,593.5	101.81	16.652		
12,400.0	7,500.0	7,641.9	7,506.0	83.8	25.4	-89.39	-5,099.9	1,473.4	1,663.3	1,559.8	103.54	16.065		
12,500.0	7,500.0	7,642.3	7,506.5	85.5	25.4	-89.41	-5,099.9	1,473.5	1,636.9	1,531.6	105.27	15.549		
12,600.0	7,500.0	7,642.8	7,507.0	87.2	25.4	-89.42	-5,099.9	1,473.5	1,616.2	1,509.2	107.01	15.103		
12,700.0	7,500.0	7,643.3	7,507.5	89.0	25.4	-89.44	-5,099.9	1,473.5	1,601.5	1,492.7	108.74	14.727		
12,800.0	7,500.0	7,643.8	7,507.9	90.7	25.4	-89.46	-5,099.9	1,473.5	1,592.9	1,482.4	110.48	14.419		
12,886.7	7,500.0	7,644.2	7,508.4	92.2	25.4	-89.47	-5,099.9	1,473.5	1,590.5	1,478.6	111.98	14.204 CC		
12,900.0	7,500.0	7,644.2	7,508.4	92.4	25.4	-89.47	-5,099.9	1,473.5	1,590.6	1,478.4	112.21	14.175 ES		
12,986.8	7,500.0	7,644.7	7,508.8	93.9	25.4	-89.49	-5,099.9	1,473.5	1,593.7	1,480.0	113.72	14.014		
13,000.0	7,500.0	7,644.7	7,508.9	94.2	25.4	-89.49	-5,099.9	1,473.5	1,594.5	1,480.6	113.97	13.991		
13,058.5	7,500.0	7,645.0	7,509.2	95.2	25.4	-89.50	-5,099.9	1,473.5	1,599.3	1,484.3	115.08	13.898		
13,100.0	7,500.0	7,645.2	7,509.4	95.9	25.4	-89.51	-5,099.9	1,473.5	1,603.8	1,488.0	115.80	13.850		
13,200.0	7,500.0	7,645.7	7,509.8	97.6	25.4	-89.53	-5,099.9	1,473.5	1,618.9	1,501.4	117.54	13.774		
13,300.0	7,500.0	7,646.1	7,510.3	99.4	25.4	-89.54	-5,099.9	1,473.5	1,640.0	1,520.7	119.27	13.750 SF		
13,400.0	7,500.0	7,646.6	7,510.8	101.1	25.4	-89.56	-5,099.9	1,473.5	1,666.8	1,545.8	121.01	13.774		
13,500.0	7,500.0	7,647.1	7,511.3	102.9	25.4	-89.58	-5,099.9	1,473.5	1,699.1	1,576.3	122.75	13.842		

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 2B-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 2B-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		
13,600.0	7,500.0	7,647.6	7,511.7	104.6	25.4	-89.59	-5,099.9	1,473.5	1,736.5	1,612.0	124.49	13.949		
13,700.0	7,500.0	7,648.0	7,512.2	106.3	25.4	-89.61	-5,099.9	1,473.5	1,778.8	1,652.6	126.23	14.092		
13,800.0	7,500.0	7,648.5	7,512.7	108.1	25.4	-89.63	-5,099.9	1,473.5	1,825.6	1,697.6	127.97	14.266		
13,900.0	7,500.0	7,649.0	7,513.1	109.8	25.4	-89.64	-5,099.9	1,473.5	1,876.6	1,746.9	129.71	14.467		
14,000.0	7,500.0	7,649.4	7,513.6	111.6	25.4	-89.66	-5,099.9	1,473.5	1,931.4	1,799.9	131.46	14.692		
14,100.0	7,500.0	7,649.9	7,514.1	113.3	25.4	-89.68	-5,099.9	1,473.5	1,989.7	1,856.5	133.20	14.938		
14,200.0	7,500.0	7,650.4	7,514.5	115.0	25.4	-89.69	-5,099.9	1,473.5	2,051.2	1,916.3	134.94	15.201		
14,300.0	7,500.0	7,650.8	7,515.0	116.8	25.4	-89.71	-5,099.9	1,473.5	2,115.7	1,979.0	136.68	15.479		
14,400.0	7,500.0	7,651.3	7,515.5	118.5	25.4	-89.73	-5,099.9	1,473.5	2,182.9	2,044.4	138.43	15.769		
14,500.0	7,500.0	7,651.7	7,515.9	120.3	25.4	-89.74	-5,099.9	1,473.5	2,252.5	2,112.3	140.17	16.070		
14,600.0	7,500.0	7,652.2	7,516.4	122.0	25.4	-89.76	-5,099.9	1,473.5	2,324.3	2,182.4	141.91	16.378		
14,700.0	7,500.0	7,652.6	7,516.8	123.7	25.4	-89.78	-5,099.9	1,473.5	2,398.1	2,254.4	143.66	16.693		
14,800.0	7,500.0	7,653.1	7,517.3	125.5	25.4	-89.79	-5,099.9	1,473.5	2,473.8	2,328.4	145.40	17.013		
14,900.0	7,500.0	7,653.5	7,517.7	127.2	25.4	-89.81	-5,099.9	1,473.6	2,551.1	2,404.0	147.15	17.337		
15,000.0	7,500.0	7,654.0	7,518.2	129.0	25.4	-89.83	-5,099.9	1,473.6	2,630.0	2,481.1	148.89	17.664		
15,100.0	7,500.0	7,654.4	7,518.6	130.7	25.4	-89.84	-5,099.9	1,473.6	2,710.3	2,559.6	150.64	17.992		
15,200.0	7,500.0	7,654.9	7,519.1	132.5	25.4	-89.86	-5,099.9	1,473.6	2,791.8	2,639.4	152.38	18.321		
15,300.0	7,500.0	7,655.3	7,519.5	134.2	25.4	-89.87	-5,099.9	1,473.6	2,874.5	2,720.4	154.13	18.650		
15,400.0	7,500.0	7,655.8	7,520.0	136.0	25.4	-89.89	-5,099.9	1,473.6	2,958.3	2,802.4	155.87	18.979		
15,500.0	7,500.0	7,656.2	7,520.4	137.7	25.4	-89.91	-5,099.9	1,473.6	3,043.1	2,885.4	157.62	19.307		
15,600.0	7,500.0	7,656.7	7,520.8	139.4	25.4	-89.92	-5,100.0	1,473.6	3,128.7	2,969.4	159.36	19.632		
15,706.0	7,500.0	7,657.1	7,521.3	141.3	25.4	-89.94	-5,100.0	1,473.6	3,220.5	3,059.2	161.22	19.976		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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 - Plan #2													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		
0.0	0.0	23.0	23.0	0.0	0.0	172.30	-4,267.5	576.9	4,306.4					
100.0	100.0	123.0	123.0	0.2	0.2	172.30	-4,267.5	576.9	4,306.4	4,306.0	0.34	N/A		
156.7	156.7	179.7	179.7	0.3	0.3	172.30	-4,267.5	576.9	4,306.4	4,305.8	0.54	8,000.016		
200.0	200.0	200.0	200.0	0.3	0.3	172.30	-4,267.5	576.9	4,306.4	4,305.8	0.65	6,632.769		
300.0	300.0	257.0	257.0	0.5	0.4	172.30	-4,267.9	577.3	4,307.3	4,306.4	0.92	4,656.852		
400.0	400.0	300.0	300.0	0.7	0.5	-147.70	-4,268.7	578.2	4,310.2	4,309.0	1.17	3,669.857		
500.0	500.0	349.3	349.3	0.9	0.6	-147.70	-4,270.2	579.8	4,315.8	4,314.4	1.44	2,996.232		
600.0	599.9	400.0	399.8	1.0	0.7	-147.70	-4,272.3	582.1	4,324.1	4,322.4	1.71	2,528.592		
700.0	699.7	440.9	440.6	1.2	0.8	-147.68	-4,274.4	584.4	4,335.2	4,333.2	1.97	2,200.017		
800.0	799.4	500.0	499.5	1.4	0.9	-147.76	-4,278.2	588.4	4,348.2	4,345.9	2.27	1,917.267		
900.0	899.2	531.4	530.7	1.6	1.0	-147.80	-4,280.5	591.0	4,362.4	4,359.9	2.52	1,732.113		
1,000.0	998.9	600.0	598.7	1.8	1.2	-147.91	-4,286.5	597.4	4,378.0	4,375.2	2.85	1,537.244		
1,100.0	1,098.7	600.0	598.7	2.1	1.2	-147.91	-4,286.5	597.4	4,394.7	4,391.6	3.03	1,449.284		
1,200.0	1,198.5	665.2	663.2	2.3	1.4	-148.02	-4,293.1	604.6	4,412.5	4,409.1	3.37	1,309.229		
1,300.0	1,298.2	700.0	697.5	2.5	1.5	-162.05	-4,297.1	608.9	4,432.1	4,428.5	3.63	1,221.706		
1,400.0	1,397.9	752.8	749.4	2.7	1.7	-174.38	-4,303.6	616.0	4,453.9	4,449.9	3.94	1,131.661		
1,450.9	1,448.6	774.9	771.0	2.8	1.8	-179.78	-4,306.6	619.1	4,465.8	4,461.7	4.08	1,095.176		
1,500.0	1,497.6	806.3	801.8	2.9	1.9	-179.83	-4,310.9	623.9	4,477.7	4,473.5	4.24	1,055.347		
1,600.0	1,597.2	879.4	873.3	3.1	2.2	-179.95	-4,321.4	635.1	4,502.5	4,497.9	4.61	976.927		
1,700.0	1,696.9	975.5	967.2	3.3	2.6	179.88	-4,335.1	649.9	4,527.4	4,522.3	5.04	898.568		
1,800.0	1,796.5	1,071.5	1,061.1	3.6	2.9	179.72	-4,348.8	664.7	4,552.3	4,546.8	5.47	832.164		
1,900.0	1,896.1	1,167.5	1,155.0	3.8	3.3	179.56	-4,362.5	679.5	4,577.2	4,571.3	5.90	775.306		
2,000.0	1,995.8	1,263.6	1,248.8	4.0	3.7	179.40	-4,376.2	694.4	4,602.2	4,595.8	6.34	726.152		
2,100.0	2,095.4	1,359.6	1,342.7	4.2	4.1	179.24	-4,389.9	709.2	4,627.2	4,620.4	6.77	683.279		
2,200.0	2,195.1	1,455.6	1,436.6	4.4	4.5	179.09	-4,403.6	724.0	4,652.2	4,645.0	7.21	645.584		
2,300.0	2,294.7	1,551.7	1,530.5	4.7	4.9	178.93	-4,417.3	738.8	4,677.3	4,669.6	7.64	612.200		
2,400.0	2,394.4	1,647.7	1,624.4	4.9	5.3	178.78	-4,431.0	753.6	4,702.4	4,694.3	8.07	582.439		
2,500.0	2,494.0	1,743.7	1,718.3	5.1	5.7	178.63	-4,444.7	768.4	4,727.5	4,719.0	8.51	555.750		
2,600.0	2,593.6	1,839.8	1,812.2	5.3	6.0	178.48	-4,458.4	783.2	4,752.7	4,743.7	8.94	531.685		
2,700.0	2,693.3	1,935.8	1,906.1	5.6	6.4	178.33	-4,472.1	798.0	4,777.9	4,768.5	9.37	509.881		
2,800.0	2,792.9	2,031.8	2,000.0	5.8	6.8	178.19	-4,485.8	812.8	4,803.1	4,793.3	9.80	490.036		
2,900.0	2,892.6	2,127.8	2,093.8	6.0	7.2	178.04	-4,499.5	827.6	4,828.3	4,818.1	10.23	471.900		
3,000.0	2,992.2	2,223.9	2,187.7	6.2	7.6	177.90	-4,513.2	842.4	4,853.6	4,843.0	10.66	455.262		
3,100.0	3,091.9	2,319.9	2,281.6	6.5	8.0	177.76	-4,526.9	857.2	4,878.9	4,867.8	11.09	439.947		
3,200.0	3,191.5	2,415.9	2,375.5	6.7	8.4	177.62	-4,540.6	872.0	4,904.3	4,892.8	11.52	425.803		
3,300.0	3,291.2	2,512.0	2,469.4	6.9	8.8	177.48	-4,554.3	886.8	4,929.6	4,917.7	11.94	412.702		
3,400.0	3,390.8	2,608.0	2,563.3	7.1	9.2	177.34	-4,568.0	901.7	4,955.0	4,942.7	12.37	400.534		
3,500.0	3,490.4	2,704.0	2,657.2	7.4	9.6	177.21	-4,581.7	916.5	4,980.4	4,967.7	12.80	389.202		
3,600.0	3,590.1	2,800.1	2,751.1	7.6	10.0	177.07	-4,595.4	931.3	5,005.9	4,992.7	13.22	378.625		
3,700.0	3,689.7	2,896.1	2,845.0	7.8	10.4	176.94	-4,609.1	946.1	5,031.4	5,017.7	13.65	368.729		
3,800.0	3,789.4	2,992.1	2,938.8	8.1	10.8	176.81	-4,622.8	960.9	5,056.9	5,042.8	14.07	359.452		
3,900.0	3,889.0	3,088.2	3,032.7	8.3	11.1	176.68	-4,636.5	975.7	5,082.4	5,067.9	14.49	350.737		
4,000.0	3,988.7	3,184.2	3,126.6	8.5	11.5	176.55	-4,650.2	990.5	5,107.9	5,093.0	14.91	342.535		
4,100.0	4,088.3	3,280.2	3,220.5	8.7	11.9	176.42	-4,663.9	1,005.3	5,133.5	5,118.2	15.33	334.802		
4,200.0	4,187.9	3,376.3	3,314.4	9.0	12.3	176.29	-4,677.6	1,020.1	5,159.1	5,143.3	15.75	327.500		
4,300.0	4,287.6	3,472.3	3,408.3	9.2	12.7	176.17	-4,691.3	1,034.9	5,184.7	5,168.5	16.17	320.593		
4,400.0	4,387.2	3,568.3	3,502.2	9.4	13.1	176.04	-4,705.0	1,049.7	5,210.4	5,193.8	16.59	314.051		
4,500.0	4,486.9	3,664.4	3,596.1	9.6	13.5	175.92	-4,718.7	1,064.5	5,236.0	5,219.0	17.01	307.846		
4,600.0	4,586.5	3,760.4	3,690.0	9.9	13.9	175.80	-4,732.4	1,079.3	5,261.7	5,244.3	17.43	301.952		
7,848.8	7,500.0	7,646.1	7,523.0	13.9	25.0	-90.00	-5,083.5	1,458.8	5,262.9	5,229.5	33.35	157.815		
7,900.0	7,500.0	7,646.1	7,523.0	14.1	25.0	-90.00	-5,083.5	1,458.8	5,214.1	5,180.5	33.56	155.362		
8,000.0	7,500.0	7,646.1	7,523.0	14.7	25.0	-90.00	-5,083.5	1,458.8	5,118.9	5,084.7	34.13	149.991		

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 2B-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 2B-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 - Plan #2													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		
8,100.0	7,500.0	7,646.1	7,523.0	15.4	25.0	-90.00	-5,083.5	1,458.8	5,023.8	4,988.9	34.88	144.048		
8,200.0	7,500.0	7,646.1	7,523.0	16.3	25.0	-90.00	-5,083.5	1,458.8	4,929.0	4,893.2	35.78	137.756		
8,300.0	7,500.0	7,646.1	7,523.0	17.3	25.0	-90.00	-5,083.5	1,458.8	4,834.3	4,797.5	36.82	131.308		
8,400.0	7,500.0	7,646.1	7,523.0	18.5	25.0	-90.00	-5,083.5	1,458.8	4,739.9	4,701.9	37.96	124.859		
8,500.0	7,500.0	7,646.1	7,523.0	19.7	25.0	-90.00	-5,083.5	1,458.8	4,645.7	4,606.5	39.20	118.520		
8,600.0	7,500.0	7,646.1	7,523.0	21.0	25.0	-90.00	-5,083.5	1,458.8	4,551.7	4,511.2	40.51	112.368		
8,700.0	7,500.0	7,646.1	7,523.0	22.4	25.0	-90.00	-5,083.5	1,458.8	4,458.1	4,416.2	41.88	106.452		
8,800.0	7,500.0	7,646.1	7,523.0	23.8	25.0	-90.00	-5,083.5	1,458.8	4,364.7	4,321.4	43.30	100.800		
8,900.0	7,500.0	7,646.1	7,523.0	25.3	25.0	-90.00	-5,083.5	1,458.8	4,271.6	4,226.8	44.76	95.424		
9,000.0	7,500.0	7,646.1	7,523.0	26.7	25.0	-90.00	-5,083.5	1,458.8	4,178.8	4,132.5	46.26	90.328		
9,100.0	7,500.0	7,646.1	7,523.0	28.3	25.0	-90.00	-5,083.5	1,458.8	4,086.3	4,038.5	47.79	85.505		
9,200.0	7,500.0	7,646.1	7,523.0	29.8	25.0	-90.00	-5,083.5	1,458.8	3,994.3	3,944.9	49.34	80.948		
9,300.0	7,500.0	7,646.1	7,523.0	31.4	25.0	-90.00	-5,083.5	1,458.8	3,902.6	3,851.6	50.92	76.644		
9,400.0	7,500.0	7,646.1	7,523.0	33.0	25.0	-90.00	-5,083.5	1,458.8	3,811.3	3,758.8	52.51	72.582		
9,500.0	7,500.0	7,646.1	7,523.0	34.6	25.0	-90.00	-5,083.5	1,458.8	3,720.5	3,666.3	54.12	68.747		
9,600.0	7,500.0	7,646.1	7,523.0	36.2	25.0	-90.00	-5,083.5	1,458.8	3,630.1	3,574.4	55.74	65.126		
9,700.0	7,500.0	7,646.1	7,523.0	37.8	25.0	-90.00	-5,083.5	1,458.8	3,540.3	3,482.9	57.37	61.706		
9,800.0	7,500.0	7,646.1	7,523.0	39.5	25.0	-90.00	-5,083.5	1,458.8	3,451.0	3,392.0	59.02	58.475		
9,900.0	7,500.0	7,646.1	7,523.0	41.1	25.0	-90.00	-5,083.5	1,458.8	3,362.4	3,301.7	60.67	55.420		
10,000.0	7,500.0	7,646.1	7,523.0	42.8	25.0	-90.00	-5,083.5	1,458.8	3,274.4	3,212.1	62.33	52.532		
10,100.0	7,500.0	7,646.1	7,523.0	44.5	25.0	-90.00	-5,083.5	1,458.8	3,187.1	3,123.1	64.00	49.798		
10,200.0	7,500.0	7,646.1	7,523.0	46.1	25.0	-90.00	-5,083.5	1,458.8	3,100.6	3,034.9	65.67	47.211		
10,300.0	7,500.0	7,646.1	7,523.0	47.8	25.0	-90.00	-5,083.5	1,458.8	3,014.9	2,947.5	67.35	44.761		
10,400.0	7,500.0	7,646.1	7,523.0	49.5	25.0	-90.00	-5,083.5	1,458.8	2,930.1	2,861.0	69.04	42.440		
10,500.0	7,500.0	7,646.1	7,523.0	51.2	25.0	-90.00	-5,083.5	1,458.8	2,846.3	2,775.5	70.73	40.241		
10,600.0	7,500.0	7,646.1	7,523.0	52.9	25.0	-90.00	-5,083.5	1,458.8	2,763.6	2,691.1	72.42	38.158		
10,700.0	7,500.0	7,646.1	7,523.0	54.6	25.0	-90.00	-5,083.5	1,458.8	2,682.0	2,607.9	74.12	36.184		
10,800.0	7,500.0	7,646.1	7,523.0	56.3	25.0	-90.00	-5,083.5	1,458.8	2,601.8	2,525.9	75.82	34.313		
10,900.0	7,500.0	7,646.1	7,523.0	58.0	25.0	-90.00	-5,083.5	1,458.8	2,522.9	2,445.4	77.53	32.542		
11,000.0	7,500.0	7,646.1	7,523.0	59.7	25.0	-90.00	-5,083.5	1,458.8	2,445.6	2,366.4	79.24	30.865		
11,100.0	7,500.0	7,646.1	7,523.0	61.4	25.0	-90.00	-5,083.5	1,458.8	2,370.0	2,289.1	80.95	29.279		
11,200.0	7,500.0	7,646.1	7,523.0	63.1	25.0	-90.00	-5,083.5	1,458.8	2,296.3	2,213.6	82.66	27.780		
11,300.0	7,500.0	7,646.1	7,523.0	64.8	25.0	-90.00	-5,083.5	1,458.8	2,224.6	2,140.2	84.37	26.366		
11,400.0	7,500.0	7,646.1	7,523.0	66.5	25.0	-90.00	-5,083.5	1,458.8	2,155.2	2,069.1	86.09	25.034		
11,500.0	7,500.0	7,646.1	7,523.0	68.2	25.0	-90.00	-5,083.5	1,458.8	2,088.2	2,000.4	87.81	23.782		
11,600.0	7,500.0	7,646.1	7,523.0	70.0	25.0	-90.00	-5,083.5	1,458.8	2,024.0	1,934.5	89.53	22.607		
11,700.0	7,500.0	7,646.1	7,523.0	71.7	25.0	-90.00	-5,083.5	1,458.8	1,962.8	1,871.5	91.25	21.510		
11,800.0	7,500.0	7,646.1	7,523.0	73.4	25.0	-90.00	-5,083.5	1,458.8	1,904.9	1,811.9	92.97	20.488		
11,900.0	7,500.0	7,646.1	7,523.0	75.1	25.0	-90.00	-5,083.5	1,458.8	1,850.5	1,755.8	94.70	19.541		
12,000.0	7,500.0	7,646.1	7,523.0	76.9	25.0	-90.00	-5,083.5	1,458.8	1,800.1	1,703.7	96.43	18.668		
12,100.0	7,500.0	7,646.1	7,523.0	78.6	25.0	-90.00	-5,083.5	1,458.8	1,754.0	1,655.8	98.15	17.870		
12,200.0	7,500.0	7,646.1	7,523.0	80.3	25.0	-90.00	-5,083.5	1,458.8	1,712.4	1,612.5	99.88	17.144		
12,300.0	7,500.0	7,646.1	7,523.0	82.0	25.0	-90.00	-5,083.5	1,458.8	1,675.8	1,574.2	101.61	16.492		
12,400.0	7,500.0	7,646.1	7,523.0	83.8	25.0	-90.00	-5,083.5	1,458.8	1,644.4	1,541.1	103.34	15.913		
12,500.0	7,500.0	7,646.1	7,523.0	85.5	25.0	-90.00	-5,083.5	1,458.8	1,618.7	1,513.6	105.07	15.405		
12,600.0	7,500.0	7,646.1	7,523.0	87.2	25.0	-90.00	-5,083.5	1,458.8	1,598.8	1,492.0	106.81	14.969		
12,700.0	7,500.0	7,646.1	7,523.0	89.0	25.0	-90.00	-5,083.5	1,458.8	1,584.9	1,476.4	108.54	14.602		
12,800.0	7,500.0	7,646.1	7,523.0	90.7	25.0	-90.00	-5,083.5	1,458.8	1,577.3	1,467.0	110.27	14.304		
12,870.3	7,500.0	7,646.1	7,523.0	91.9	25.0	-90.00	-5,083.5	1,458.8	1,575.8	1,464.3	111.49	14.133 CC		
12,900.0	7,500.0	7,646.1	7,523.0	92.4	25.0	-90.00	-5,083.5	1,458.8	1,576.0	1,464.0	112.01	14.071 ES		
12,986.8	7,500.0	7,646.1	7,523.0	93.9	25.0	-90.00	-5,083.5	1,458.8	1,580.1	1,466.5	113.52	13.919		
13,000.0	7,500.0	7,646.1	7,523.0	94.2	25.0	-90.00	-5,083.5	1,458.8	1,581.1	1,467.3	113.77	13.897		

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 2B-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 2B-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 - Plan #2													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		
13,058.5	7,500.0	7,646.1	7,523.0	95.2	25.0	-90.00	-5,083.5	1,458.8	1,586.5	1,471.6	114.87	13.811		
13,100.0	7,500.0	7,646.1	7,523.0	95.9	25.0	-90.00	-5,083.5	1,458.8	1,591.4	1,475.9	115.59	13.768		
13,200.0	7,500.0	7,646.1	7,523.0	97.6	25.0	-90.00	-5,083.5	1,458.8	1,607.7	1,490.4	117.33	13.702		
13,300.0	7,500.0	7,646.1	7,523.0	99.4	25.0	-90.00	-5,083.5	1,458.8	1,629.9	1,510.9	119.07	13.689 SF		
13,400.0	7,500.0	7,646.1	7,523.0	101.1	25.0	-90.00	-5,083.5	1,458.8	1,657.9	1,537.1	120.81	13.724		
13,500.0	7,500.0	7,646.1	7,523.0	102.9	25.0	-90.00	-5,083.5	1,458.8	1,691.4	1,568.8	122.54	13.802		
13,600.0	7,500.0	7,646.1	7,523.0	104.6	25.0	-90.00	-5,083.5	1,458.8	1,729.9	1,605.7	124.28	13.919		
13,700.0	7,500.0	7,646.1	7,523.0	106.3	25.0	-90.00	-5,083.5	1,458.8	1,773.3	1,647.3	126.02	14.071		
13,800.0	7,500.0	7,646.1	7,523.0	108.1	25.0	-90.00	-5,083.5	1,458.8	1,821.2	1,693.4	127.76	14.254		
13,900.0	7,500.0	7,646.1	7,523.0	109.8	25.0	-90.00	-5,083.5	1,458.8	1,873.1	1,743.6	129.50	14.464		
14,000.0	7,500.0	7,646.1	7,523.0	111.6	25.0	-90.00	-5,083.5	1,458.8	1,928.9	1,797.7	131.24	14.697		
14,100.0	7,500.0	7,646.1	7,523.0	113.3	25.0	-90.00	-5,083.5	1,458.8	1,988.1	1,855.1	132.99	14.950		
14,200.0	7,500.0	7,646.1	7,523.0	115.0	25.0	-90.00	-5,083.5	1,458.8	2,050.5	1,915.8	134.73	15.220		
14,300.0	7,500.0	7,646.1	7,523.0	116.8	25.0	-90.00	-5,083.5	1,458.8	2,115.8	1,979.3	136.47	15.504		
14,400.0	7,500.0	7,646.1	7,523.0	118.5	25.0	-90.00	-5,083.5	1,458.8	2,183.7	2,045.5	138.21	15.800		
14,500.0	7,500.0	7,646.1	7,523.0	120.3	25.0	-90.00	-5,083.5	1,458.8	2,254.0	2,114.1	139.96	16.105		
14,600.0	7,500.0	7,646.1	7,523.0	122.0	25.0	-90.00	-5,083.5	1,458.8	2,326.5	2,184.8	141.70	16.419		
14,700.0	7,500.0	7,646.1	7,523.0	123.7	25.0	-90.00	-5,083.5	1,458.8	2,401.0	2,257.5	143.44	16.738		
14,800.0	7,500.0	7,646.1	7,523.0	125.5	25.0	-90.00	-5,083.5	1,458.8	2,477.2	2,332.0	145.19	17.062		
14,900.0	7,500.0	7,646.1	7,523.0	127.2	25.0	-90.00	-5,083.5	1,458.8	2,555.1	2,408.2	146.93	17.390		
15,000.0	7,500.0	7,646.1	7,523.0	129.0	25.0	-90.00	-5,083.5	1,458.8	2,634.5	2,485.8	148.67	17.720		
15,100.0	7,500.0	7,646.1	7,523.0	130.7	25.0	-90.00	-5,083.5	1,458.8	2,715.3	2,564.8	150.42	18.051		
15,200.0	7,500.0	7,646.1	7,523.0	132.5	25.0	-90.00	-5,083.5	1,458.8	2,797.3	2,645.1	152.16	18.383		
15,300.0	7,500.0	7,646.1	7,523.0	134.2	25.0	-90.00	-5,083.5	1,458.8	2,880.4	2,726.5	153.91	18.715		
15,400.0	7,500.0	7,646.1	7,523.0	136.0	25.0	-90.00	-5,083.5	1,458.8	2,964.6	2,808.9	155.65	19.046		
15,500.0	7,500.0	7,646.1	7,523.0	137.7	25.0	-90.00	-5,083.5	1,458.8	3,049.7	2,892.3	157.40	19.375		
15,600.0	7,500.0	7,646.1	7,523.0	139.4	25.0	-90.00	-5,083.5	1,458.8	3,135.7	2,976.6	159.15	19.703		
15,706.0	7,500.0	7,646.1	7,523.0	141.3	25.0	-90.00	-5,083.5	1,458.8	3,227.8	3,066.8	161.00	20.049		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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		
0.0	0.0	0.0	0.0	0.0	0.0	172.51	-4,325.8	568.5	4,363.0					
100.0	100.0	83.1	83.1	0.2	0.1	172.51	-4,326.0	568.7	4,363.2	4,362.9	0.30	N/A		
200.0	200.0	163.6	163.6	0.3	0.3	172.51	-4,326.5	569.1	4,364.0	4,363.4	0.61	7,122.719		
300.0	300.0	270.7	270.7	0.5	0.5	172.51	-4,327.6	569.0	4,365.0	4,364.0	0.97	4,481.722		
400.0	400.0	368.9	368.8	0.7	0.6	-147.48	-4,328.4	568.6	4,366.4	4,365.1	1.32	3,309.666		
500.0	500.0	475.4	475.4	0.9	0.8	-147.48	-4,329.2	568.6	4,369.5	4,367.8	1.68	2,599.887		
600.0	599.9	599.7	599.7	1.0	1.0	-147.49	-4,329.9	567.9	4,373.6	4,371.5	2.07	2,107.746		
700.0	699.7	690.7	690.7	1.2	1.2	-147.49	-4,330.1	567.5	4,378.9	4,376.5	2.41	1,814.248		
800.0	799.4	800.0	800.0	1.4	1.4	-147.54	-4,330.5	566.7	4,385.0	4,382.3	2.79	1,573.169		
900.0	899.2	898.1	898.0	1.6	1.6	-147.57	-4,330.7	565.6	4,391.1	4,387.9	3.14	1,397.475		
1,000.0	998.9	989.3	989.3	1.8	1.7	-147.60	-4,331.1	564.6	4,397.2	4,393.7	3.49	1,261.291		
1,100.0	1,098.7	1,105.5	1,105.4	2.1	1.9	-147.63	-4,331.5	562.8	4,403.2	4,399.4	3.87	1,136.377		
1,200.0	1,198.5	1,206.9	1,206.8	2.3	2.1	-147.66	-4,331.7	561.1	4,409.1	4,404.8	4.24	1,040.372		
1,300.0	1,298.2	1,305.4	1,305.4	2.5	2.3	-161.53	-4,331.9	559.1	4,415.4	4,410.8	4.59	961.950		
1,400.0	1,397.9	1,417.8	1,417.7	2.7	2.5	-173.63	-4,332.0	556.4	4,422.6	4,417.6	4.96	891.482		
1,450.9	1,448.6	1,462.1	1,462.0	2.8	2.6	-178.91	-4,332.0	555.4	4,426.6	4,421.5	5.12	863.755		
1,500.0	1,497.6	1,507.9	1,507.8	2.9	2.6	-178.90	-4,332.1	554.6	4,430.7	4,425.4	5.29	837.603		
1,600.0	1,597.2	1,628.6	1,628.4	3.1	2.9	-178.87	-4,331.8	552.3	4,438.6	4,433.0	5.68	782.104		
1,700.0	1,696.9	1,719.5	1,719.3	3.3	3.0	-178.85	-4,331.7	550.4	4,446.7	4,440.7	6.01	740.066		
1,800.0	1,796.5	1,843.0	1,842.8	3.6	3.2	-178.82	-4,331.1	547.3	4,454.3	4,447.9	6.40	695.818		
1,900.0	1,896.1	1,931.6	1,931.3	3.8	3.4	-178.79	-4,330.7	544.9	4,461.9	4,455.2	6.73	662.742		
2,000.0	1,995.8	2,021.6	2,021.4	4.0	3.6	-178.76	-4,330.6	542.5	4,469.8	4,462.8	7.07	632.541		
2,100.0	2,095.4	2,128.8	2,128.4	4.2	3.8	-178.73	-4,330.2	539.7	4,477.6	4,470.2	7.43	602.555		
2,200.0	2,195.1	2,201.6	2,201.2	4.4	3.9	-178.71	-4,330.2	537.8	4,485.7	4,478.0	7.73	579.965		
2,300.0	2,294.7	2,330.5	2,330.1	4.7	4.1	-178.66	-4,330.1	533.9	4,493.7	4,485.5	8.14	551.969		
2,400.0	2,394.4	2,445.5	2,445.1	4.9	4.3	-178.61	-4,329.8	530.0	4,501.4	4,492.9	8.52	528.138		
2,500.0	2,494.0	2,564.2	2,563.7	5.1	4.5	-178.57	-4,328.7	525.9	4,508.4	4,499.5	8.91	505.879		
2,600.0	2,593.6	2,648.7	2,648.1	5.3	4.7	-178.54	-4,327.9	523.3	4,515.6	4,506.3	9.24	488.845		
2,700.0	2,693.3	2,733.3	2,732.6	5.6	4.8	-178.52	-4,327.4	521.4	4,523.1	4,513.6	9.56	473.056		
2,800.0	2,792.9	2,831.7	2,831.0	5.8	5.0	-178.49	-4,327.0	519.2	4,530.8	4,520.9	9.91	457.204		
2,900.0	2,892.6	2,938.6	2,937.9	6.0	5.2	-178.47	-4,326.3	517.5	4,538.5	4,528.2	10.27	441.844		
3,000.0	2,992.2	3,038.1	3,037.5	6.2	5.4	-178.46	-4,325.6	516.0	4,546.0	4,535.4	10.62	428.002		
3,100.0	3,091.9	3,130.7	3,130.0	6.5	5.5	-178.44	-4,325.1	514.3	4,553.6	4,542.7	10.96	415.504		
3,200.0	3,191.5	3,222.5	3,221.8	6.7	5.7	-178.42	-4,324.6	512.7	4,561.4	4,550.1	11.30	403.836		
3,300.0	3,291.2	3,300.0	3,299.3	6.9	5.8	-178.41	-4,324.6	511.6	4,569.5	4,557.9	11.60	393.759		
3,400.0	3,390.8	3,400.0	3,399.3	7.1	6.0	-178.41	-4,324.6	510.7	4,577.9	4,565.9	11.95	383.003		
3,500.0	3,490.4	3,490.8	3,490.1	7.4	6.2	-178.40	-4,324.7	510.0	4,586.3	4,574.0	12.29	373.319		
3,600.0	3,590.1	3,591.1	3,590.3	7.6	6.4	-178.39	-4,324.9	509.1	4,594.9	4,582.2	12.63	363.679		
3,700.0	3,689.7	3,700.0	3,699.3	7.8	6.5	-178.38	-4,325.0	508.2	4,603.3	4,590.3	13.00	354.159		
3,800.0	3,789.4	3,794.3	3,793.5	8.1	6.7	-178.38	-4,325.1	507.7	4,611.7	4,598.3	13.34	345.821		
3,900.0	3,889.0	3,898.8	3,898.1	8.3	6.9	-178.37	-4,325.1	506.8	4,620.1	4,606.4	13.69	337.400		
4,000.0	3,988.7	3,994.0	3,993.3	8.5	7.1	-178.36	-4,325.3	505.4	4,628.5	4,614.4	14.04	329.765		
4,100.0	4,088.3	4,104.7	4,104.0	8.7	7.3	-178.33	-4,325.4	503.3	4,636.8	4,622.4	14.41	321.848		
4,200.0	4,187.9	4,222.3	4,221.5	9.0	7.5	-178.31	-4,325.2	501.0	4,644.8	4,630.0	14.79	314.050		
4,300.0	4,287.6	4,326.4	4,325.6	9.2	7.7	-178.28	-4,324.8	498.3	4,652.5	4,637.4	15.15	307.067		
4,400.0	4,387.2	4,419.1	4,418.2	9.4	7.8	-178.25	-4,324.5	495.8	4,660.3	4,644.8	15.49	300.822		
4,500.0	4,486.9	4,506.9	4,506.0	9.6	8.0	-178.23	-4,324.4	493.9	4,668.3	4,652.5	15.82	295.058		
4,600.0	4,586.5	4,600.0	4,599.1	9.9	8.1	-178.21	-4,324.4	492.2	4,676.6	4,660.4	16.16	289.365		
4,700.0	4,686.2	4,730.2	4,729.2	10.1	8.4	-178.19	-4,323.8	489.8	4,684.3	4,667.7	16.57	282.763		
4,800.0	4,785.8	4,813.8	4,812.8	10.3	8.5	-178.17	-4,323.6	488.1	4,692.2	4,675.3	16.89	277.813		
4,900.0	4,885.4	4,937.0	4,936.0	10.6	8.7	-178.15	-4,323.0	485.5	4,699.9	4,682.6	17.28	271.949		
5,000.0	4,985.1	5,045.2	5,044.3	10.8	8.9	-178.13	-4,321.9	484.1	4,707.2	4,689.5	17.65	266.757		

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 2B-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 2B-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	
5,100.0	5,084.7	5,154.2	5,153.3	11.0	9.1	-178.12	-4,320.8	482.8	4,714.4	4,696.4	18.01	261.752	
5,200.0	5,184.4	5,274.4	5,273.3	11.2	9.3	-178.12	-4,319.0	481.5	4,721.3	4,702.9	18.39	256.666	
5,300.0	5,284.0	5,368.1	5,367.1	11.5	9.5	-178.11	-4,317.5	480.8	4,728.0	4,709.2	18.73	252.400	
5,400.0	5,383.7	5,456.6	5,455.5	11.7	9.7	-178.11	-4,316.2	480.0	4,734.9	4,715.8	19.06	248.409	
5,500.0	5,483.3	5,562.6	5,561.5	11.9	9.8	-178.10	-4,314.8	479.0	4,741.9	4,722.5	19.42	244.181	
5,600.0	5,583.0	5,653.8	5,652.7	12.1	10.0	-178.10	-4,313.4	478.4	4,748.8	4,729.0	19.75	240.417	
5,700.0	5,682.6	5,747.8	5,746.7	12.4	10.2	-178.10	-4,312.4	477.9	4,756.0	4,735.9	20.09	236.738	
5,800.0	5,782.2	5,868.4	5,867.3	12.6	10.4	-178.10	-4,310.7	477.2	4,763.0	4,742.5	20.47	232.653	
5,900.0	5,881.9	5,953.2	5,952.1	12.8	10.5	-178.10	-4,309.3	477.1	4,769.8	4,749.0	20.79	229.391	
6,000.0	5,981.5	6,027.3	6,026.2	13.1	10.6	-178.10	-4,308.5	476.9	4,777.2	4,756.1	21.10	226.449	
6,100.0	6,081.2	6,100.0	6,098.9	13.3	10.8	-178.10	-4,308.1	476.6	4,785.0	4,763.6	21.40	223.631	
6,200.0	6,180.8	6,177.5	6,176.4	13.5	10.9	-178.10	-4,308.1	476.0	4,793.3	4,771.6	21.71	220.813	
6,300.0	6,280.5	6,273.0	6,271.9	13.7	11.1	-178.09	-4,308.5	475.0	4,802.1	4,780.0	22.05	217.795	
6,400.0	6,380.1	6,422.2	6,421.1	14.0	11.3	-178.08	-4,308.3	474.2	4,810.3	4,787.8	22.48	213.962	
6,500.0	6,479.7	6,524.1	6,523.0	14.2	11.5	-178.08	-4,307.5	473.5	4,817.9	4,795.1	22.83	210.997	
6,600.0	6,579.4	6,621.3	6,620.2	14.4	11.7	-178.07	-4,306.9	472.8	4,825.6	4,802.5	23.18	208.199	
6,700.0	6,679.0	6,742.3	6,741.2	14.7	11.9	-178.07	-4,305.9	471.9	4,833.2	4,809.6	23.56	205.116	
6,800.0	6,778.7	6,861.6	6,860.4	14.9	12.1	-178.07	-4,304.3	471.0	4,840.1	4,816.2	23.95	202.134	
6,901.0	6,879.3	6,956.4	6,955.2	15.1	12.3	-178.06	-4,302.8	470.5	4,847.1	4,822.8	24.29	199.588	
6,950.0	6,928.3	7,000.0	6,998.8	15.2	12.3	-87.96	-4,302.2	470.5	4,848.4	4,824.0	24.45	198.302	
7,000.0	6,978.2	7,041.2	7,040.0	15.2	12.4	-15.19	-4,301.7	470.6	4,845.6	4,821.1	24.49	197.874	
7,050.0	7,027.7	7,082.6	7,081.4	15.2	12.5	-11.25	-4,301.2	470.7	4,838.6	4,814.2	24.40	198.269	
7,100.0	7,076.5	7,127.8	7,126.6	15.1	12.6	-10.04	-4,300.7	471.0	4,827.4	4,803.2	24.20	199.437	
7,150.0	7,124.1	7,175.1	7,173.9	15.0	12.6	-9.60	-4,300.2	471.7	4,812.0	4,788.1	23.89	201.390	
7,200.0	7,170.3	7,222.3	7,221.1	14.9	12.7	-9.53	-4,299.6	472.8	4,792.5	4,769.1	23.47	204.157	
7,250.0	7,214.6	7,269.3	7,268.1	14.8	12.8	-9.70	-4,298.9	474.6	4,769.2	4,746.2	22.96	207.726	
7,300.0	7,256.7	7,300.0	7,298.7	14.6	12.8	-10.05	-4,298.4	476.2	4,742.1	4,719.8	22.34	212.272	
7,350.0	7,296.2	7,332.2	7,330.9	14.4	12.9	-10.60	-4,297.9	478.0	4,711.6	4,689.9	21.66	217.490	
7,400.0	7,333.0	7,354.8	7,353.4	14.2	12.9	-11.35	-4,297.6	479.4	4,677.9	4,656.9	20.94	223.402	
7,450.0	7,366.7	7,375.5	7,374.1	14.1	13.0	-12.37	-4,297.4	480.7	4,641.3	4,621.0	20.21	229.639	
7,500.0	7,397.1	7,400.0	7,398.5	13.9	13.0	-13.76	-4,297.3	482.3	4,602.0	4,582.4	19.53	235.624	
7,550.0	7,423.8	7,413.2	7,411.7	13.8	13.0	-15.61	-4,297.2	483.2	4,560.2	4,541.3	18.93	240.837	
7,600.0	7,446.8	7,430.7	7,429.1	13.7	13.1	-18.26	-4,297.1	484.3	4,516.4	4,497.8	18.54	243.640	
7,650.0	7,465.8	7,445.2	7,443.6	13.6	13.1	-22.13	-4,297.1	485.3	4,470.7	4,452.2	18.47	242.044	
7,700.0	7,480.8	7,456.7	7,455.1	13.6	13.1	-28.15	-4,297.0	486.0	4,423.6	4,404.6	19.00	232.868	
7,750.0	7,491.5	7,464.9	7,463.3	13.7	13.1	-38.30	-4,297.0	486.4	4,375.3	4,354.7	20.60	212.431	
7,800.0	7,497.9	7,469.9	7,468.3	13.8	13.1	-56.74	-4,297.0	486.7	4,326.3	4,302.5	23.82	181.603	
7,848.8	7,500.0	7,471.5	7,469.9	13.9	13.1	-86.67	-4,297.0	486.8	4,278.0	4,251.2	26.76	159.853	
7,900.0	7,500.0	7,471.5	7,469.9	14.1	13.1	-86.67	-4,297.0	486.8	4,227.4	4,200.4	26.97	156.717	
8,000.0	7,500.0	7,471.5	7,469.9	14.7	13.1	-86.67	-4,297.0	486.8	4,128.4	4,100.9	27.54	149.902	
8,100.0	7,500.0	7,471.5	7,469.9	15.4	13.1	-86.67	-4,297.0	486.8	4,029.5	4,001.2	28.29	142.445	
8,200.0	7,500.0	7,471.5	7,469.9	16.3	13.1	-86.67	-4,297.0	486.8	3,930.7	3,901.5	29.19	134.652	
8,300.0	7,500.0	7,471.5	7,469.9	17.3	13.1	-86.67	-4,297.0	486.8	3,831.9	3,801.7	30.23	126.774	
8,400.0	7,500.0	7,471.5	7,469.9	18.5	13.1	-86.67	-4,297.0	486.8	3,733.2	3,701.8	31.37	119.005	
8,500.0	7,500.0	7,471.5	7,469.9	19.7	13.1	-86.67	-4,297.0	486.8	3,634.6	3,601.9	32.60	111.476	
8,600.0	7,500.0	7,471.5	7,469.9	21.0	13.1	-86.67	-4,297.0	486.8	3,536.0	3,502.1	33.91	104.270	
8,700.0	7,500.0	7,471.5	7,469.9	22.4	13.1	-86.67	-4,297.0	486.8	3,437.5	3,402.2	35.28	97.433	
8,800.0	7,500.0	7,471.5	7,469.9	23.8	13.1	-86.67	-4,297.0	486.8	3,339.1	3,302.4	36.70	90.984	
8,900.0	7,500.0	7,471.5	7,469.9	25.3	13.1	-86.67	-4,297.0	486.8	3,240.8	3,202.7	38.16	84.924	
9,000.0	7,500.0	7,471.5	7,469.9	26.7	13.1	-86.67	-4,297.0	486.8	3,142.6	3,103.0	39.66	79.244	
9,100.0	7,500.0	7,471.5	7,469.9	28.3	13.1	-86.67	-4,297.0	486.8	3,044.6	3,003.4	41.18	73.927	
9,200.0	7,500.0	7,471.5	7,469.9	29.8	13.1	-86.67	-4,297.0	486.8	2,946.6	2,903.9	42.73	68.953	

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 2B-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 2B-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							
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
9,300.0	7,500.0	7,471.5	7,469.9	31.4	13.1	-86.67	-4,297.0	486.8	2,848.8	2,804.5	44.31	64.299	
9,400.0	7,500.0	7,471.6	7,469.9	33.0	13.1	-86.68	-4,297.0	486.8	2,751.2	2,705.3	45.90	59.945	
9,500.0	7,500.0	7,471.6	7,469.9	34.6	13.1	-86.68	-4,297.0	486.8	2,653.7	2,606.2	47.50	55.867	
9,600.0	7,500.0	7,471.6	7,469.9	36.2	13.1	-86.68	-4,297.0	486.8	2,556.5	2,507.3	49.12	52.045	
9,700.0	7,500.0	7,471.6	7,469.9	37.8	13.1	-86.68	-4,297.0	486.8	2,459.4	2,408.7	50.75	48.460	
9,800.0	7,500.0	7,471.6	7,469.9	39.5	13.1	-86.68	-4,297.0	486.8	2,362.6	2,310.2	52.39	45.095	
9,900.0	7,500.0	7,471.6	7,469.9	41.1	13.1	-86.68	-4,297.0	486.8	2,266.1	2,212.0	54.04	41.932	
10,000.0	7,500.0	7,471.6	7,469.9	42.8	13.1	-86.68	-4,297.0	486.8	2,169.9	2,114.2	55.70	38.956	
10,100.0	7,500.0	7,471.6	7,469.9	44.5	13.1	-86.68	-4,297.0	486.8	2,074.0	2,016.7	57.37	36.154	
10,200.0	7,500.0	7,471.6	7,469.9	46.1	13.1	-86.68	-4,297.0	486.8	1,978.6	1,919.5	59.04	33.514	
10,300.0	7,500.0	7,471.6	7,469.9	47.8	13.1	-86.68	-4,297.0	486.8	1,883.6	1,822.9	60.72	31.024	
10,400.0	7,500.0	7,471.6	7,470.0	49.5	13.1	-86.68	-4,297.0	486.8	1,789.2	1,726.8	62.40	28.674	
10,500.0	7,500.0	7,471.6	7,470.0	51.2	13.1	-86.68	-4,297.0	486.8	1,695.4	1,631.3	64.09	26.456	
10,600.0	7,500.0	7,471.6	7,470.0	52.9	13.1	-86.68	-4,297.0	486.8	1,602.4	1,536.6	65.78	24.361	
10,700.0	7,500.0	7,471.6	7,470.0	54.6	13.1	-86.68	-4,297.0	486.8	1,510.3	1,442.8	67.47	22.384	
10,800.0	7,500.0	7,471.6	7,470.0	56.3	13.1	-86.68	-4,297.0	486.8	1,419.2	1,350.0	69.17	20.518	
10,900.0	7,500.0	7,471.6	7,470.0	58.0	13.1	-86.68	-4,297.0	486.8	1,329.4	1,258.6	70.87	18.758	
11,000.0	7,500.0	7,471.6	7,470.0	59.7	13.1	-86.68	-4,297.0	486.8	1,241.2	1,168.6	72.58	17.102	
11,100.0	7,500.0	7,471.6	7,470.0	61.4	13.1	-86.68	-4,297.0	486.8	1,154.9	1,080.6	74.28	15.547	
11,200.0	7,500.0	7,471.6	7,470.0	63.1	13.1	-86.68	-4,297.0	486.8	1,071.0	995.0	75.99	14.093	
11,300.0	7,500.0	7,471.6	7,470.0	64.8	13.1	-86.68	-4,297.0	486.8	990.1	912.4	77.71	12.742	
11,400.0	7,500.0	7,471.6	7,470.0	66.5	13.1	-86.68	-4,297.0	486.8	913.0	833.6	79.42	11.496	
11,500.0	7,500.0	7,471.6	7,470.0	68.2	13.1	-86.68	-4,297.0	486.8	840.7	759.5	81.14	10.361	
11,600.0	7,500.0	7,471.6	7,470.0	70.0	13.1	-86.68	-4,297.0	486.8	774.6	691.7	82.85	9.349	
11,700.0	7,500.0	7,471.6	7,470.0	71.7	13.1	-86.68	-4,297.0	486.8	716.4	631.8	84.57	8.471	
11,800.0	7,500.0	7,471.6	7,470.0	73.4	13.1	-86.68	-4,297.0	486.8	668.1	581.9	86.29	7.743	
11,900.0	7,500.0	7,471.6	7,470.0	75.1	13.1	-86.68	-4,297.0	486.8	632.2	544.2	88.02	7.183	
12,000.0	7,500.0	7,471.6	7,470.0	76.9	13.1	-86.68	-4,297.0	486.8	610.6	520.9	89.74	6.805	
12,083.9	7,500.0	7,471.6	7,470.0	78.3	13.1	-86.68	-4,297.0	486.8	604.8	513.7	91.19	6.633 CC	
12,100.0	7,500.0	7,471.6	7,470.0	78.6	13.1	-86.68	-4,297.0	486.8	605.1	513.6	91.46	6.615 ES	
12,200.0	7,500.0	7,471.7	7,470.0	80.3	13.1	-86.68	-4,297.0	486.8	615.9	522.7	93.19	6.609 SF	
12,300.0	7,500.0	7,471.7	7,470.0	82.0	13.1	-86.69	-4,297.0	486.8	642.3	547.4	94.92	6.767	
12,400.0	7,500.0	7,471.7	7,470.0	83.8	13.1	-86.69	-4,297.0	486.8	682.5	585.8	96.64	7.062	
12,500.0	7,500.0	7,471.7	7,470.0	85.5	13.1	-86.69	-4,297.0	486.8	734.2	635.8	98.37	7.463	
12,600.0	7,500.0	7,471.7	7,470.0	87.2	13.1	-86.69	-4,297.0	486.8	795.1	695.0	100.10	7.943	
12,700.0	7,500.0	7,471.7	7,470.0	89.0	13.1	-86.69	-4,297.0	486.8	863.4	761.6	101.83	8.479	
12,800.0	7,500.0	7,471.7	7,470.1	90.7	13.1	-86.69	-4,297.0	486.8	937.4	833.8	103.56	9.051	
12,900.0	7,500.0	7,471.7	7,470.1	92.4	13.1	-86.69	-4,297.0	486.8	1,015.8	910.5	105.30	9.647	
12,986.8	7,500.0	7,471.7	7,470.1	93.9	13.1	-86.69	-4,297.0	486.8	1,086.8	980.0	106.80	10.176	
13,000.0	7,500.0	7,471.7	7,470.1	94.2	13.1	-86.70	-4,297.0	486.8	1,097.8	990.8	107.03	10.257	
13,058.5	7,500.0	7,471.7	7,470.1	95.2	13.1	-86.75	-4,297.0	486.8	1,146.8	1,038.8	108.02	10.617	
13,100.0	7,500.0	7,471.8	7,470.1	95.9	13.1	-86.76	-4,297.0	486.8	1,182.0	1,073.3	108.74	10.870	
13,200.0	7,500.0	7,471.9	7,470.2	97.6	13.1	-86.77	-4,297.0	486.8	1,268.4	1,157.9	110.47	11.482	
13,300.0	7,500.0	7,472.0	7,470.3	99.4	13.1	-86.78	-4,297.0	486.9	1,356.7	1,244.5	112.21	12.091	
13,400.0	7,500.0	7,472.1	7,470.4	101.1	13.1	-86.79	-4,297.0	486.9	1,446.5	1,332.5	113.95	12.694	
13,500.0	7,500.0	7,472.2	7,470.5	102.9	13.1	-86.79	-4,297.0	486.9	1,537.5	1,421.8	115.68	13.291	
13,600.0	7,500.0	7,472.3	7,470.6	104.6	13.1	-86.80	-4,297.0	486.9	1,629.6	1,512.2	117.42	13.878	
13,700.0	7,500.0	7,472.4	7,470.7	106.3	13.1	-86.81	-4,297.0	486.9	1,722.6	1,603.5	119.16	14.456	
13,800.0	7,500.0	7,472.5	7,470.8	108.1	13.1	-86.82	-4,297.0	486.9	1,816.3	1,695.4	120.90	15.024	
13,900.0	7,500.0	7,472.6	7,471.0	109.8	13.1	-86.83	-4,297.0	486.9	1,910.7	1,788.1	122.64	15.580	
14,000.0	7,500.0	7,472.7	7,471.1	111.6	13.1	-86.84	-4,297.0	486.9	2,005.6	1,881.2	124.38	16.125	
14,100.0	7,500.0	7,472.8	7,471.2	113.3	13.1	-86.86	-4,297.0	486.9	2,101.0	1,974.9	126.12	16.659	

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 2B-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 2B-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	7,500.0	7,472.9	7,471.3	115.0	13.1	-86.87	-4,297.0	486.9	2,196.8	2,068.9	127.86	17.181	
14,300.0	7,500.0	7,473.1	7,471.4	116.8	13.1	-86.88	-4,297.0	486.9	2,292.9	2,163.3	129.60	17.693	
14,400.0	7,500.0	7,473.2	7,471.5	118.5	13.1	-86.89	-4,297.0	486.9	2,389.4	2,258.1	131.34	18.192	
14,500.0	7,500.0	7,473.3	7,471.7	120.3	13.1	-86.90	-4,297.0	486.9	2,486.2	2,353.1	133.08	18.681	
14,600.0	7,500.0	7,473.4	7,471.8	122.0	13.1	-86.91	-4,297.0	486.9	2,583.2	2,448.3	134.83	19.159	
14,700.0	7,500.0	7,473.6	7,471.9	123.7	13.1	-86.93	-4,297.0	486.9	2,680.4	2,543.8	136.57	19.627	
14,800.0	7,500.0	7,473.7	7,472.1	125.5	13.1	-86.94	-4,297.0	487.0	2,777.8	2,639.5	138.31	20.084	
14,900.0	7,500.0	7,473.8	7,472.2	127.2	13.1	-86.95	-4,297.0	487.0	2,875.4	2,735.3	140.06	20.530	
15,000.0	7,500.0	7,474.0	7,472.4	129.0	13.1	-86.96	-4,297.0	487.0	2,973.1	2,831.3	141.80	20.967	
15,100.0	7,500.0	7,474.1	7,472.5	130.7	13.1	-86.98	-4,297.0	487.0	3,071.0	2,927.5	143.54	21.394	
15,200.0	7,500.0	7,474.3	7,472.6	132.5	13.1	-86.99	-4,297.0	487.0	3,169.1	3,023.8	145.29	21.812	
15,300.0	7,500.0	7,474.4	7,472.8	134.2	13.1	-87.01	-4,297.0	487.0	3,267.2	3,120.2	147.03	22.221	
15,400.0	7,500.0	7,474.6	7,473.0	136.0	13.1	-87.02	-4,297.0	487.0	3,365.5	3,216.7	148.78	22.621	
15,500.0	7,500.0	7,474.8	7,473.1	137.7	13.1	-87.04	-4,297.0	487.0	3,463.8	3,313.3	150.52	23.012	
15,600.0	7,500.0	7,474.9	7,473.3	139.4	13.1	-87.05	-4,297.0	487.0	3,562.3	3,410.0	152.27	23.395	
15,706.0	7,500.0	7,475.1	7,473.5	141.3	13.1	-87.07	-4,297.0	487.0	3,666.8	3,512.6	154.12	23.791	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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	152.69	-2,304.0	1,189.9	2,593.1					
100.0	100.0	114.1	114.1	0.2	0.2	152.69	-2,304.0	1,189.9	2,593.1	2,592.7	0.35	7,451.787		
200.0	200.0	216.9	216.9	0.3	0.4	152.68	-2,303.8	1,189.9	2,592.9	2,592.2	0.70	3,708.403		
300.0	300.0	319.7	319.7	0.5	0.6	152.68	-2,303.4	1,189.9	2,592.6	2,591.6	1.05	2,468.195		
321.1	321.1	341.4	341.4	0.5	0.6	-167.32	-2,303.3	1,189.9	2,592.6	2,591.5	1.13	2,303.969		
400.0	400.0	422.5	422.5	0.7	0.7	-167.33	-2,303.0	1,189.9	2,593.1	2,591.7	1.40	1,848.946		
500.0	500.0	525.3	525.3	0.9	0.9	-167.34	-2,302.4	1,189.9	2,595.1	2,593.4	1.75	1,479.922		
600.0	599.9	628.0	628.0	1.0	1.1	-167.36	-2,301.7	1,189.9	2,598.8	2,596.7	2.10	1,234.893		
700.0	699.7	730.7	730.7	1.2	1.3	-167.39	-2,300.8	1,189.9	2,604.0	2,601.6	2.46	1,060.628		
800.0	799.4	833.3	833.3	1.4	1.4	-167.44	-2,299.9	1,189.9	2,610.0	2,607.2	2.81	929.668		
900.0	899.2	935.9	935.9	1.6	1.6	-167.48	-2,298.8	1,190.0	2,615.9	2,612.7	3.16	827.841		
1,000.0	998.9	1,034.1	1,034.1	1.8	1.8	-167.53	-2,297.7	1,190.0	2,621.7	2,618.2	3.51	747.960		
1,100.0	1,098.7	1,104.7	1,104.7	2.1	1.9	-167.56	-2,297.2	1,190.3	2,628.1	2,624.3	3.80	690.742		
1,200.0	1,198.5	1,183.0	1,183.0	2.3	2.0	-167.60	-2,297.5	1,191.2	2,635.8	2,631.6	4.12	640.031		
1,300.0	1,298.2	1,243.2	1,243.2	2.5	2.2	178.49	-2,298.3	1,192.4	2,644.7	2,640.3	4.40	601.596		
1,400.0	1,397.9	1,321.8	1,321.7	2.7	2.3	166.34	-2,300.0	1,194.0	2,655.2	2,650.5	4.70	564.451		
1,450.9	1,448.6	1,365.6	1,365.5	2.8	2.4	161.04	-2,301.2	1,195.0	2,660.9	2,656.1	4.87	546.688		
1,500.0	1,497.6	1,406.8	1,406.7	2.9	2.4	161.06	-2,302.4	1,196.0	2,666.6	2,661.6	5.02	530.772		
1,600.0	1,597.2	1,488.7	1,488.4	3.1	2.6	161.08	-2,304.8	1,198.6	2,678.7	2,673.4	5.34	501.552		
1,700.0	1,696.9	1,564.0	1,563.7	3.3	2.7	161.09	-2,307.3	1,201.9	2,691.6	2,685.9	5.65	476.528		
1,800.0	1,796.5	1,637.6	1,637.1	3.6	2.9	161.08	-2,309.9	1,206.1	2,705.3	2,699.4	5.96	454.175		
1,900.0	1,896.1	1,718.3	1,717.5	3.8	3.0	161.04	-2,312.9	1,211.9	2,719.9	2,713.7	6.28	433.225		
2,000.0	1,995.8	1,812.5	1,811.4	4.0	3.2	161.00	-2,316.7	1,219.1	2,735.0	2,728.4	6.63	412.745		
2,100.0	2,095.4	1,909.3	1,907.9	4.2	3.4	160.96	-2,320.7	1,226.4	2,750.1	2,743.1	6.98	393.924		
2,200.0	2,195.1	2,016.0	2,014.1	4.4	3.6	160.91	-2,325.0	1,234.6	2,765.2	2,757.8	7.35	375.965		
2,300.0	2,294.7	2,097.4	2,095.2	4.7	3.8	160.88	-2,328.4	1,240.7	2,780.3	2,772.6	7.68	361.861		
2,400.0	2,394.4	2,179.1	2,176.6	4.9	3.9	160.84	-2,332.3	1,247.2	2,796.2	2,788.1	8.01	348.949		
2,500.0	2,494.0	2,264.9	2,261.9	5.1	4.1	160.81	-2,336.7	1,254.2	2,812.4	2,804.1	8.35	336.757		
2,600.0	2,593.6	2,364.5	2,361.0	5.3	4.4	160.76	-2,342.1	1,262.9	2,829.3	2,820.5	8.72	324.628		
2,700.0	2,693.3	2,516.5	2,512.5	5.6	4.7	160.72	-2,349.5	1,273.6	2,844.8	2,835.6	9.17	310.136		
2,800.0	2,792.9	2,618.2	2,613.9	5.8	4.9	160.69	-2,353.3	1,280.7	2,859.2	2,849.7	9.54	299.639		
2,900.0	2,892.6	2,699.7	2,695.1	6.0	5.1	160.65	-2,356.4	1,286.8	2,874.1	2,864.2	9.87	291.088		
3,000.0	2,992.2	2,795.6	2,790.6	6.2	5.3	160.62	-2,360.8	1,293.8	2,889.4	2,879.2	10.23	282.410		
3,100.0	3,091.9	2,916.4	2,911.0	6.5	5.5	160.59	-2,365.8	1,302.2	2,904.3	2,893.7	10.63	273.099		
3,200.0	3,191.5	3,015.8	3,010.1	6.7	5.8	160.56	-2,369.6	1,309.0	2,918.8	2,907.8	11.00	265.336		
3,300.0	3,291.2	3,106.4	3,100.4	6.9	6.0	160.54	-2,373.1	1,315.3	2,933.4	2,922.1	11.35	258.487		
3,400.0	3,390.8	3,195.2	3,188.9	7.1	6.2	160.51	-2,376.8	1,321.7	2,948.4	2,936.7	11.70	252.093		
3,500.0	3,490.4	3,309.0	3,302.3	7.4	6.4	160.47	-2,381.3	1,330.0	2,963.2	2,951.1	12.09	245.118		
3,600.0	3,590.1	3,404.0	3,397.0	7.6	6.6	160.43	-2,384.7	1,337.1	2,977.9	2,965.4	12.45	239.138		
3,700.0	3,689.7	3,496.1	3,488.7	7.8	6.8	160.39	-2,388.2	1,344.3	2,992.9	2,980.1	12.81	233.715		
3,800.0	3,789.4	3,591.0	3,583.3	8.1	7.0	160.36	-2,392.2	1,351.2	3,007.9	2,994.8	13.16	228.507		
3,900.0	3,889.0	3,695.0	3,686.9	8.3	7.3	160.32	-2,396.3	1,359.3	3,023.0	3,009.4	13.55	223.173		
4,000.0	3,988.7	3,799.9	3,791.4	8.5	7.5	160.27	-2,399.9	1,367.8	3,037.8	3,023.8	13.93	218.106		
4,100.0	4,088.3	3,880.0	3,871.2	8.7	7.7	160.23	-2,403.0	1,374.0	3,052.8	3,038.5	14.26	214.087		
4,200.0	4,187.9	3,975.0	3,965.8	9.0	7.9	160.20	-2,407.0	1,381.5	3,068.2	3,053.5	14.62	209.806		
4,300.0	4,287.6	4,074.3	4,064.7	9.2	8.1	160.15	-2,411.1	1,389.8	3,083.7	3,068.7	15.00	205.635		
4,400.0	4,387.2	4,166.0	4,156.0	9.4	8.3	160.11	-2,415.1	1,397.4	3,099.3	3,083.9	15.35	201.867		
4,500.0	4,486.9	4,246.4	4,236.0	9.6	8.5	160.07	-2,418.8	1,404.3	3,115.3	3,099.6	15.69	198.555		
4,600.0	4,586.5	4,369.1	4,358.1	9.9	8.8	160.02	-2,424.5	1,414.5	3,131.3	3,115.2	16.10	194.446		
4,700.0	4,686.2	4,487.5	4,476.1	10.1	9.1	159.98	-2,429.4	1,423.7	3,146.6	3,130.1	16.51	190.556		
4,800.0	4,785.8	4,618.1	4,606.2	10.3	9.4	159.93	-2,433.8	1,433.6	3,161.1	3,144.1	16.94	186.566		
4,900.0	4,885.4	4,736.3	4,724.1	10.6	9.6	159.90	-2,437.2	1,441.3	3,174.6	3,157.3	17.35	183.019		

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 2B-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 2B-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	4,985.1	4,896.8	4,884.4	10.8	9.9	159.90	-2,441.7	1,448.7	3,187.3	3,169.5	17.81	178.998	
5,100.0	5,084.7	5,091.8	5,079.4	11.0	10.2	160.01	-2,444.6	1,450.1	3,196.6	3,178.3	18.31	174.610	
5,200.0	5,184.4	5,195.3	5,182.9	11.2	10.4	160.07	-2,445.3	1,450.1	3,205.1	3,186.4	18.66	171.783	
5,300.0	5,284.0	5,321.5	5,309.0	11.5	10.6	160.14	-2,445.6	1,449.6	3,213.0	3,194.0	19.05	168.701	
5,400.0	5,383.7	5,420.2	5,407.8	11.7	10.7	160.20	-2,445.4	1,449.0	3,220.5	3,201.1	19.39	166.101	
5,500.0	5,483.3	5,525.4	5,512.9	11.9	10.9	160.27	-2,445.2	1,448.2	3,228.0	3,208.2	19.74	163.508	
5,600.0	5,583.0	5,628.1	5,615.7	12.1	11.0	160.33	-2,445.0	1,447.3	3,235.3	3,215.2	20.09	161.024	
5,700.0	5,682.6	5,721.5	5,709.1	12.4	11.2	160.39	-2,444.7	1,446.6	3,242.7	3,222.2	20.43	158.744	
5,800.0	5,782.2	5,830.9	5,818.5	12.6	11.3	160.45	-2,444.4	1,445.8	3,250.0	3,229.2	20.79	156.335	
5,900.0	5,881.9	5,942.2	5,929.7	12.8	11.5	160.52	-2,443.7	1,444.8	3,257.0	3,235.8	21.15	153.969	
6,000.0	5,981.5	6,045.9	6,033.5	13.1	11.7	160.58	-2,443.0	1,443.5	3,263.7	3,242.2	21.50	151.768	
6,100.0	6,081.2	6,129.7	6,117.3	13.3	11.8	160.63	-2,442.4	1,442.7	3,270.6	3,248.8	21.83	149.842	
6,200.0	6,180.8	6,223.2	6,210.7	13.5	11.9	160.67	-2,441.8	1,442.7	3,278.0	3,255.9	22.17	147.880	
6,300.0	6,280.5	6,328.7	6,316.2	13.7	12.1	160.72	-2,441.0	1,442.7	3,285.3	3,262.8	22.53	145.842	
6,400.0	6,380.1	6,425.1	6,412.6	14.0	12.2	160.76	-2,440.2	1,442.7	3,292.6	3,269.7	22.87	143.959	
6,500.0	6,479.7	6,525.5	6,513.0	14.2	12.4	160.80	-2,439.5	1,442.6	3,299.9	3,276.7	23.22	142.101	
6,600.0	6,579.4	6,621.4	6,608.9	14.4	12.6	160.84	-2,438.9	1,442.4	3,307.2	3,283.7	23.56	140.347	
6,700.0	6,679.0	6,711.2	6,698.7	14.7	12.7	160.89	-2,438.6	1,442.2	3,314.8	3,290.9	23.90	138.711	
6,800.0	6,778.7	6,808.9	6,796.4	14.9	12.9	160.94	-2,438.5	1,442.0	3,322.6	3,298.3	24.24	137.060	
6,901.0	6,879.3	6,904.5	6,892.0	15.1	13.0	160.99	-2,438.4	1,441.8	3,330.5	3,305.9	24.59	135.466	
6,950.0	6,928.3	6,952.0	6,939.5	15.2	13.1	-108.82	-2,438.4	1,441.8	3,332.5	3,307.7	24.78	134.501	
7,000.0	6,978.2	7,002.4	6,989.9	15.2	13.2	-36.11	-2,438.5	1,441.7	3,330.8	3,305.9	24.87	133.904	
7,050.0	7,027.7	7,052.4	7,039.9	15.2	13.2	-32.39	-2,438.5	1,441.7	3,325.2	3,300.3	24.87	133.692	
7,100.0	7,076.5	7,101.6	7,089.1	15.1	13.3	-31.57	-2,438.5	1,441.7	3,315.8	3,291.1	24.78	133.832	
7,150.0	7,124.1	7,157.8	7,145.2	15.0	13.4	-31.71	-2,438.3	1,441.7	3,302.7	3,278.1	24.61	134.189	
7,200.0	7,170.3	7,215.5	7,203.0	14.9	13.5	-32.43	-2,437.9	1,441.8	3,285.8	3,261.4	24.39	134.725	
7,250.0	7,214.6	7,267.6	7,255.1	14.8	13.6	-33.59	-2,437.4	1,441.9	3,265.4	3,241.2	24.12	135.392	
7,300.0	7,256.7	7,308.0	7,295.5	14.6	13.7	-35.12	-2,436.9	1,442.0	3,241.5	3,217.7	23.82	136.104	
7,350.0	7,296.2	7,346.1	7,333.6	14.4	13.7	-37.10	-2,436.5	1,442.1	3,214.7	3,191.1	23.54	136.554	
7,400.0	7,333.0	7,375.9	7,363.4	14.2	13.8	-39.50	-2,436.2	1,442.2	3,185.1	3,161.8	23.32	136.565	
7,450.0	7,366.7	7,406.8	7,394.3	14.1	13.8	-42.47	-2,436.0	1,442.2	3,153.0	3,129.7	23.23	135.713	
7,500.0	7,397.1	7,438.0	7,425.5	13.9	13.9	-46.10	-2,435.7	1,442.3	3,118.5	3,095.2	23.32	133.721	
7,550.0	7,423.8	7,465.4	7,452.9	13.8	13.9	-50.45	-2,435.6	1,442.3	3,082.0	3,058.4	23.61	130.516	
7,600.0	7,446.8	7,487.0	7,474.5	13.7	13.9	-55.52	-2,435.4	1,442.3	3,043.9	3,019.7	24.11	126.243	
7,650.0	7,465.8	7,504.4	7,491.9	13.6	14.0	-61.39	-2,435.3	1,442.3	3,004.3	2,979.5	24.78	121.237	
7,700.0	7,480.8	7,516.9	7,504.3	13.6	14.0	-67.99	-2,435.2	1,442.3	2,963.6	2,938.1	25.53	116.085	
7,750.0	7,491.5	7,525.7	7,513.2	13.7	14.0	-75.21	-2,435.2	1,442.3	2,922.3	2,896.0	26.24	111.368	
7,800.0	7,497.9	7,530.9	7,518.4	13.8	14.0	-82.83	-2,435.1	1,442.3	2,880.5	2,853.7	26.78	107.572	
7,848.8	7,500.0	7,532.5	7,519.9	13.9	14.0	-90.33	-2,435.1	1,442.3	2,839.6	2,812.5	27.05	104.967	
7,900.0	7,500.0	7,532.2	7,519.7	14.1	14.0	-90.32	-2,435.1	1,442.3	2,797.0	2,769.7	27.26	102.587	
8,000.0	7,500.0	7,531.7	7,519.2	14.7	14.0	-90.30	-2,435.1	1,442.3	2,714.5	2,686.7	27.83	97.539	
8,100.0	7,500.0	7,531.2	7,518.7	15.4	14.0	-90.28	-2,435.1	1,442.3	2,633.3	2,604.7	28.58	92.145	
8,200.0	7,500.0	7,530.7	7,518.2	16.3	14.0	-90.26	-2,435.1	1,442.3	2,553.4	2,523.9	29.48	86.611	
8,300.0	7,500.0	7,530.2	7,517.7	17.3	14.0	-90.24	-2,435.1	1,442.3	2,475.0	2,444.5	30.52	81.103	
8,400.0	7,500.0	7,529.7	7,517.1	18.5	14.0	-90.23	-2,435.1	1,442.3	2,398.2	2,366.5	31.66	75.744	
8,500.0	7,500.0	7,529.2	7,516.6	19.7	14.0	-90.21	-2,435.1	1,442.3	2,323.1	2,290.2	32.90	70.619	
8,600.0	7,500.0	7,528.6	7,516.1	21.0	14.0	-90.19	-2,435.1	1,442.3	2,250.0	2,215.8	34.21	65.778	
8,700.0	7,500.0	7,528.1	7,515.6	22.4	14.0	-90.17	-2,435.1	1,442.3	2,179.0	2,143.4	35.58	61.249	
8,800.0	7,500.0	7,527.6	7,515.1	23.8	14.0	-90.15	-2,435.1	1,442.3	2,110.3	2,073.3	37.00	57.042	
8,900.0	7,500.0	7,527.1	7,514.6	25.3	14.0	-90.13	-2,435.1	1,442.3	2,044.3	2,005.8	38.46	53.155	
9,000.0	7,500.0	7,526.6	7,514.0	26.7	14.0	-90.11	-2,435.1	1,442.3	1,981.1	1,941.1	39.96	49.581	
9,100.0	7,500.0	7,526.0	7,513.5	28.3	14.0	-90.09	-2,435.2	1,442.3	1,921.0	1,879.5	41.48	46.308	

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 2B-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 2B-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
9,200.0	7,500.0	7,525.5	7,513.0	29.8	14.0	-90.07	-2,435.2	1,442.3	1,864.4	1,821.4	43.04	43.321	
9,300.0	7,500.0	7,525.0	7,512.4	31.4	14.0	-90.05	-2,435.2	1,442.3	1,811.5	1,766.9	44.61	40.608	
9,400.0	7,500.0	7,524.4	7,511.9	33.0	14.0	-90.03	-2,435.2	1,442.3	1,762.7	1,716.5	46.20	38.153	
9,500.0	7,500.0	7,523.9	7,511.4	34.6	14.0	-90.01	-2,435.2	1,442.3	1,718.4	1,670.6	47.81	35.942	
9,600.0	7,500.0	7,523.4	7,510.8	36.2	14.0	-89.99	-2,435.2	1,442.3	1,678.8	1,629.4	49.43	33.963	
9,700.0	7,500.0	7,522.8	7,510.3	37.8	14.0	-89.97	-2,435.2	1,442.3	1,644.4	1,593.3	51.06	32.203	
9,800.0	7,500.0	7,522.3	7,509.8	39.5	14.0	-89.95	-2,435.2	1,442.3	1,615.4	1,562.7	52.71	30.650	
9,900.0	7,500.0	7,521.7	7,509.2	41.1	14.0	-89.93	-2,435.2	1,442.3	1,592.2	1,537.9	54.36	29.292	
10,000.0	7,500.0	7,521.2	7,508.7	42.8	14.0	-89.91	-2,435.2	1,442.3	1,575.0	1,519.0	56.02	28.117	
10,100.0	7,500.0	7,520.6	7,508.1	44.5	14.0	-89.89	-2,435.2	1,442.3	1,564.1	1,506.4	57.69	27.114	
10,200.0	7,500.0	7,520.1	7,507.6	46.1	14.0	-89.87	-2,435.2	1,442.3	1,559.5	1,500.1	59.36	26.272	
10,222.0	7,500.0	7,520.0	7,507.4	46.5	14.0	-89.87	-2,435.2	1,442.3	1,559.3	1,499.6	59.73	26.107 CC, ES	
10,300.0	7,500.0	7,519.5	7,507.0	47.8	14.0	-89.85	-2,435.2	1,442.3	1,561.3	1,500.2	61.04	25.579	
10,400.0	7,500.0	7,519.0	7,506.4	49.5	14.0	-89.83	-2,435.2	1,442.3	1,569.4	1,506.7	62.72	25.022	
10,500.0	7,500.0	7,518.4	7,505.9	51.2	14.0	-89.81	-2,435.2	1,442.3	1,583.9	1,519.5	64.41	24.590	
10,600.0	7,500.0	7,517.8	7,505.3	52.9	14.0	-89.79	-2,435.2	1,442.3	1,604.5	1,538.4	66.10	24.272	
10,700.0	7,500.0	7,517.3	7,504.8	54.6	14.0	-89.77	-2,435.2	1,442.3	1,630.9	1,563.1	67.80	24.054	
10,800.0	7,500.0	7,516.7	7,504.2	56.3	14.0	-89.75	-2,435.2	1,442.3	1,663.0	1,593.5	69.50	23.927	
10,900.0	7,500.0	7,516.1	7,503.6	58.0	14.0	-89.73	-2,435.2	1,442.3	1,700.3	1,629.1	71.21	23.879 SF	
11,000.0	7,500.0	7,515.6	7,503.1	59.7	14.0	-89.71	-2,435.2	1,442.3	1,742.6	1,669.7	72.91	23.900	
11,100.0	7,500.0	7,515.0	7,502.5	61.4	14.0	-89.69	-2,435.2	1,442.3	1,789.5	1,714.9	74.62	23.981	
11,200.0	7,500.0	7,514.4	7,501.9	63.1	14.0	-89.67	-2,435.2	1,442.3	1,840.6	1,764.3	76.33	24.113	
11,300.0	7,500.0	7,513.8	7,501.3	64.8	14.0	-89.64	-2,435.2	1,442.3	1,895.6	1,817.6	78.05	24.289	
11,400.0	7,500.0	7,513.3	7,500.7	66.5	14.0	-89.62	-2,435.2	1,442.3	1,954.2	1,874.5	79.76	24.501	
11,500.0	7,500.0	7,512.7	7,500.2	68.2	14.0	-89.60	-2,435.2	1,442.3	2,016.1	1,934.6	81.48	24.744	
11,600.0	7,500.0	7,512.1	7,499.6	70.0	14.0	-89.58	-2,435.2	1,442.3	2,080.9	1,997.7	83.20	25.011	
11,700.0	7,500.0	7,511.5	7,499.0	71.7	14.0	-89.56	-2,435.2	1,442.3	2,148.4	2,063.5	84.92	25.300	
11,800.0	7,500.0	7,510.9	7,498.4	73.4	14.0	-89.54	-2,435.2	1,442.3	2,218.4	2,131.8	86.64	25.604	
11,900.0	7,500.0	7,510.3	7,497.8	75.1	14.0	-89.51	-2,435.2	1,442.3	2,290.6	2,202.3	88.37	25.922	
12,000.0	7,500.0	7,509.7	7,497.2	76.9	14.0	-89.49	-2,435.3	1,442.3	2,364.9	2,274.8	90.09	26.250	
12,100.0	7,500.0	7,509.1	7,496.6	78.6	14.0	-89.47	-2,435.3	1,442.3	2,440.9	2,349.1	91.82	26.585	
12,200.0	7,500.0	7,508.5	7,496.0	80.3	14.0	-89.45	-2,435.3	1,442.3	2,518.7	2,425.1	93.54	26.925	
12,300.0	7,500.0	7,507.9	7,495.4	82.0	14.0	-89.43	-2,435.3	1,442.3	2,597.9	2,502.7	95.27	27.268	
12,400.0	7,500.0	7,507.3	7,494.8	83.8	14.0	-89.40	-2,435.3	1,442.3	2,678.6	2,581.6	97.00	27.614	
12,500.0	7,500.0	7,506.7	7,494.2	85.5	14.0	-89.38	-2,435.3	1,442.3	2,760.5	2,661.8	98.73	27.960	
12,600.0	7,500.0	7,506.1	7,493.5	87.2	14.0	-89.36	-2,435.3	1,442.3	2,843.6	2,743.1	100.46	28.305	
12,700.0	7,500.0	7,505.4	7,492.9	89.0	14.0	-89.34	-2,435.3	1,442.3	2,927.7	2,825.5	102.20	28.648	
12,800.0	7,500.0	7,504.8	7,492.3	90.7	14.0	-89.31	-2,435.3	1,442.3	3,012.8	2,908.9	103.93	28.990	
12,900.0	7,500.0	7,504.2	7,491.7	92.4	14.0	-89.29	-2,435.3	1,442.3	3,098.8	2,993.2	105.66	29.328	
12,986.8	7,500.0	7,503.7	7,491.1	93.9	14.0	-89.27	-2,435.3	1,442.3	3,174.2	3,067.0	107.17	29.619	
13,000.0	7,500.0	7,503.6	7,491.1	94.2	14.0	-89.27	-2,435.3	1,442.3	3,185.6	3,078.2	107.39	29.663	
13,058.5	7,500.0	7,503.2	7,490.7	95.2	14.0	-89.27	-2,435.3	1,442.3	3,236.6	3,128.2	108.39	29.861	
13,100.0	7,500.0	7,502.9	7,490.4	95.9	14.0	-89.26	-2,435.3	1,442.3	3,272.7	3,163.6	109.11	29.995	
13,200.0	7,500.0	7,502.3	7,489.8	97.6	14.0	-89.24	-2,435.3	1,442.3	3,360.4	3,249.6	110.84	30.317	
13,300.0	7,500.0	7,501.7	7,489.2	99.4	14.0	-89.21	-2,435.3	1,442.3	3,448.8	3,336.2	112.58	30.634	
13,400.0	7,500.0	7,501.0	7,488.5	101.1	14.0	-89.19	-2,435.3	1,442.3	3,537.8	3,423.4	114.32	30.947	
13,500.0	7,500.0	7,500.4	7,487.9	102.9	14.0	-89.17	-2,435.3	1,442.3	3,627.3	3,511.3	116.05	31.256	
13,600.0	7,500.0	7,499.8	7,487.2	104.6	14.0	-89.15	-2,435.3	1,442.3	3,717.4	3,599.6	117.79	31.560	
13,700.0	7,500.0	7,499.1	7,486.6	106.3	14.0	-89.12	-2,435.3	1,442.3	3,808.0	3,688.4	119.53	31.858	
13,800.0	7,500.0	7,498.5	7,485.9	108.1	14.0	-89.10	-2,435.3	1,442.3	3,899.0	3,777.7	121.27	32.153	
13,900.0	7,500.0	7,497.8	7,485.3	109.8	14.0	-89.08	-2,435.3	1,442.3	3,990.5	3,867.5	123.00	32.442	
14,000.0	7,500.0	7,497.1	7,484.6	111.6	14.0	-89.05	-2,435.3	1,442.3	4,082.3	3,957.6	124.74	32.726	

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 2B-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 2B-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	7,500.0	7,496.5	7,484.0	113.3	14.0	-89.03	-2,435.3	1,442.3	4,174.6	4,048.1	126.48	33.005		
14,200.0	7,500.0	7,495.8	7,483.3	115.0	14.0	-89.00	-2,435.3	1,442.3	4,267.2	4,138.9	128.22	33.279		
14,300.0	7,500.0	7,495.2	7,482.6	116.8	14.0	-88.98	-2,435.3	1,442.3	4,360.1	4,230.1	129.96	33.549		
14,400.0	7,500.0	7,494.5	7,482.0	118.5	14.0	-88.96	-2,435.4	1,442.3	4,453.3	4,321.6	131.70	33.813		
14,500.0	7,500.0	7,493.8	7,481.3	120.3	14.0	-88.93	-2,435.4	1,442.3	4,546.8	4,413.4	133.44	34.073		
14,600.0	7,500.0	7,493.1	7,480.6	122.0	14.0	-88.91	-2,435.4	1,442.3	4,640.6	4,505.4	135.18	34.328		
14,700.0	7,500.0	7,492.5	7,479.9	123.7	14.0	-88.88	-2,435.4	1,442.3	4,734.6	4,597.7	136.93	34.578		
14,800.0	7,500.0	7,491.8	7,479.3	125.5	14.0	-88.86	-2,435.4	1,442.3	4,828.9	4,690.2	138.67	34.824		
14,900.0	7,500.0	7,491.1	7,478.6	127.2	14.0	-88.83	-2,435.4	1,442.3	4,923.4	4,783.0	140.41	35.065		
15,000.0	7,500.0	7,490.4	7,477.9	129.0	13.9	-88.81	-2,435.4	1,442.3	5,018.1	4,876.0	142.15	35.302		
15,100.0	7,500.0	7,489.7	7,477.2	130.7	13.9	-88.78	-2,435.4	1,442.3	5,113.0	4,969.2	143.89	35.534		
15,200.0	7,500.0	7,489.0	7,476.5	132.5	13.9	-88.76	-2,435.4	1,442.3	5,208.2	5,062.5	145.63	35.762		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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	
0.0	0.0	11.7	11.7	0.0	0.0	152.98	-2,333.2	1,189.9	2,619.1					
100.0	100.0	118.3	118.3	0.2	0.2	152.98	-2,333.1	1,189.7	2,618.9	2,618.5	0.36	7,270.081		
200.0	200.0	224.8	224.8	0.3	0.4	152.99	-2,332.8	1,189.2	2,618.5	2,617.8	0.72	3,624.332		
300.0	300.0	331.4	331.4	0.5	0.6	153.00	-2,332.5	1,188.4	2,617.9	2,616.8	1.08	2,413.387		
353.6	353.6	388.5	388.5	0.6	0.7	-166.99	-2,332.2	1,187.9	2,617.6	2,616.4	1.27	2,065.315		
400.0	400.0	437.9	437.9	0.7	0.8	-166.99	-2,331.9	1,187.4	2,617.8	2,616.4	1.43	1,825.735		
500.0	500.0	544.5	544.4	0.9	1.0	-166.98	-2,331.2	1,186.0	2,619.2	2,617.4	1.79	1,461.162		
600.0	599.9	651.0	650.9	1.0	1.1	-166.97	-2,330.4	1,184.4	2,622.0	2,619.9	2.15	1,218.940		
700.0	699.7	757.4	757.4	1.2	1.3	-166.97	-2,329.4	1,182.4	2,626.3	2,623.8	2.51	1,046.559		
800.0	799.4	854.8	854.7	1.4	1.5	-166.97	-2,328.4	1,180.4	2,631.3	2,628.4	2.85	921.795		
900.0	899.2	908.7	908.6	1.6	1.6	-166.98	-2,328.2	1,179.8	2,637.3	2,634.1	3.12	844.059		
1,000.0	998.9	985.6	985.5	1.8	1.7	-166.99	-2,328.9	1,179.3	2,644.5	2,641.1	3.44	769.525		
1,100.0	1,098.7	1,060.0	1,059.9	2.1	1.9	-166.97	-2,330.9	1,178.0	2,652.9	2,649.1	3.75	707.859		
1,200.0	1,198.5	1,114.4	1,114.2	2.3	2.0	-166.94	-2,333.4	1,176.6	2,662.5	2,658.5	4.03	660.757		
1,300.0	1,298.2	1,182.6	1,182.2	2.5	2.1	179.22	-2,337.8	1,174.4	2,673.8	2,669.5	4.33	617.443		
1,400.0	1,397.9	1,273.3	1,272.6	2.7	2.3	167.21	-2,344.8	1,170.8	2,686.4	2,681.7	4.68	573.870		
1,450.9	1,448.6	1,336.4	1,335.4	2.8	2.4	162.01	-2,349.4	1,168.2	2,692.8	2,687.9	4.89	550.222		
1,500.0	1,497.6	1,376.2	1,375.1	2.9	2.5	162.10	-2,352.4	1,166.4	2,699.1	2,694.0	5.06	533.408		
1,600.0	1,597.2	1,474.0	1,472.5	3.1	2.7	162.31	-2,360.3	1,161.8	2,712.2	2,706.7	5.43	499.157		
1,700.0	1,696.9	1,563.5	1,561.6	3.3	2.9	162.51	-2,367.5	1,157.7	2,725.4	2,719.6	5.79	470.510		
1,800.0	1,796.5	1,641.9	1,639.5	3.6	3.0	162.69	-2,374.3	1,153.8	2,739.1	2,733.0	6.14	446.394		
1,900.0	1,896.1	1,716.9	1,714.1	3.8	3.2	162.87	-2,381.8	1,149.7	2,753.7	2,747.2	6.48	425.134		
2,000.0	1,995.8	1,802.1	1,798.6	4.0	3.4	163.09	-2,391.1	1,144.9	2,769.1	2,762.3	6.85	404.323		
2,100.0	2,095.4	1,886.6	1,882.4	4.2	3.7	163.34	-2,400.9	1,139.0	2,784.8	2,777.5	7.23	385.252		
2,200.0	2,195.1	1,952.0	1,947.0	4.4	3.8	163.53	-2,409.4	1,134.2	2,801.5	2,793.9	7.57	370.265		
2,300.0	2,294.7	2,039.0	2,032.9	4.7	4.1	163.81	-2,421.6	1,127.3	2,819.0	2,811.0	7.97	353.707		
2,400.0	2,394.4	2,108.4	2,101.3	4.9	4.3	164.05	-2,432.1	1,121.3	2,837.2	2,828.9	8.34	340.358		
2,500.0	2,494.0	2,208.1	2,199.3	5.1	4.6	164.39	-2,447.9	1,112.5	2,856.2	2,847.4	8.78	325.224		
2,600.0	2,593.6	2,311.0	2,300.6	5.3	4.9	164.73	-2,463.7	1,103.9	2,874.9	2,865.7	9.24	311.282		
2,700.0	2,693.3	2,423.8	2,411.7	5.6	5.3	165.10	-2,480.5	1,094.1	2,893.3	2,883.6	9.72	297.633		
2,800.0	2,792.9	2,525.9	2,512.3	5.8	5.6	165.44	-2,495.7	1,084.7	2,911.5	2,901.3	10.19	285.837		
2,900.0	2,892.6	2,622.6	2,607.3	6.0	6.0	165.77	-2,510.2	1,074.9	2,929.6	2,918.9	10.64	275.342		
3,000.0	2,992.2	2,706.3	2,689.6	6.2	6.2	166.05	-2,522.9	1,066.9	2,948.0	2,937.0	11.05	266.809		
3,100.0	3,091.9	2,788.2	2,770.3	6.5	6.5	166.30	-2,535.5	1,059.7	2,967.1	2,955.7	11.45	259.133		
3,200.0	3,191.5	2,902.8	2,883.1	6.7	6.9	166.65	-2,552.7	1,050.0	2,986.1	2,974.1	11.94	250.152		
3,300.0	3,291.2	2,999.9	2,978.8	6.9	7.2	166.94	-2,567.2	1,041.8	3,005.0	2,992.6	12.38	242.787		
3,400.0	3,390.8	3,102.8	3,080.2	7.1	7.6	167.25	-2,582.3	1,032.8	3,023.7	3,010.9	12.83	235.603		
3,500.0	3,490.4	3,200.9	3,176.9	7.4	7.9	167.54	-2,597.0	1,024.4	3,042.7	3,029.4	13.28	229.195		
3,600.0	3,590.1	3,312.6	3,287.0	7.6	8.3	167.85	-2,612.8	1,014.8	3,061.1	3,047.4	13.75	222.695		
3,700.0	3,689.7	3,399.0	3,372.2	7.8	8.5	168.09	-2,625.0	1,007.9	3,079.7	3,065.6	14.15	217.617		
3,800.0	3,789.4	3,482.1	3,454.1	8.1	8.8	168.32	-2,637.3	1,000.6	3,098.8	3,084.2	14.56	212.848		
3,900.0	3,889.0	3,572.8	3,543.3	8.3	9.2	168.60	-2,651.4	991.9	3,118.4	3,103.4	14.99	208.061		
4,000.0	3,988.7	3,693.2	3,661.8	8.5	9.6	168.94	-2,669.4	980.9	3,137.7	3,122.2	15.49	202.584		
4,100.0	4,088.3	3,797.2	3,764.4	8.7	9.9	169.22	-2,684.3	971.9	3,156.5	3,140.6	15.93	198.123		
4,200.0	4,187.9	3,912.3	3,877.9	9.0	10.3	169.51	-2,700.2	962.5	3,175.2	3,158.7	16.41	193.483		
4,300.0	4,287.6	3,999.5	3,964.0	9.2	10.6	169.75	-2,712.3	954.6	3,193.6	3,176.8	16.82	189.906		
4,400.0	4,387.2	4,088.2	4,051.4	9.4	10.9	169.99	-2,725.0	946.4	3,212.5	3,195.3	17.24	186.333		
4,500.0	4,486.9	4,163.3	4,125.2	9.6	11.2	170.21	-2,736.2	938.7	3,231.8	3,214.2	17.62	183.370		
4,600.0	4,586.5	4,252.1	4,212.5	9.9	11.5	170.45	-2,749.9	930.3	3,251.8	3,233.8	18.04	180.264		
4,700.0	4,686.2	4,325.1	4,283.0	10.1	12.0	170.90	-2,774.5	914.4	3,270.8	3,252.2	18.67	175.217		
4,800.0	4,785.8	4,503.2	4,460.2	10.3	12.3	171.09	-2,784.7	907.3	3,288.9	3,269.9	19.05	172.668		
4,900.0	4,885.4	4,595.0	4,550.7	10.6	12.6	171.32	-2,797.6	898.9	3,307.8	3,288.4	19.46	169.966		

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 2B-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 2B-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	4,985.1	4,687.0	4,641.4	10.8	12.9	171.54	-2,810.0	890.8	3,326.5	3,306.6	19.87	167.385			
5,100.0	5,084.7	4,745.8	4,699.3	11.0	13.1	171.69	-2,818.6	885.4	3,346.1	3,325.9	20.21	165.563			
5,200.0	5,184.4	4,899.8	4,851.0	11.2	13.7	172.08	-2,841.2	870.7	3,365.9	3,345.1	20.78	161.940			
5,300.0	5,284.0	4,999.3	4,949.2	11.5	14.0	172.31	-2,854.4	861.7	3,384.4	3,363.2	21.21	159.538			
5,400.0	5,383.7	5,095.3	5,043.9	11.7	14.3	172.54	-2,867.1	852.8	3,402.9	3,381.3	21.63	157.301			
5,500.0	5,483.3	5,181.9	5,129.5	11.9	14.6	172.73	-2,878.6	845.3	3,421.7	3,399.6	22.02	155.402			
5,600.0	5,583.0	5,262.4	5,209.0	12.1	14.8	172.90	-2,889.5	839.2	3,440.9	3,418.5	22.38	153.737			
5,700.0	5,682.6	5,417.6	5,362.4	12.4	15.3	173.21	-2,909.3	827.2	3,459.4	3,436.4	22.93	150.877			
5,800.0	5,782.2	5,499.5	5,443.4	12.6	15.6	173.38	-2,919.4	820.1	3,477.3	3,454.0	23.30	149.223			
5,900.0	5,881.9	5,577.1	5,520.1	12.8	15.8	173.55	-2,929.5	813.5	3,496.1	3,472.4	23.67	147.702			
6,000.0	5,981.5	5,681.1	5,622.7	13.1	16.2	173.77	-2,943.4	804.2	3,515.1	3,491.0	24.10	145.851			
6,100.0	6,081.2	5,831.2	5,771.1	13.3	16.6	174.07	-2,962.0	791.9	3,533.4	3,508.7	24.62	143.491			
6,200.0	6,180.8	5,924.4	5,863.5	13.5	16.9	174.25	-2,972.5	784.5	3,550.7	3,525.6	25.02	141.939			
6,300.0	6,280.5	6,019.4	5,957.5	13.7	17.2	174.42	-2,983.6	777.2	3,568.4	3,543.0	25.40	140.483			
6,400.0	6,380.1	6,195.9	6,132.8	14.0	17.6	174.68	-3,001.5	766.6	3,585.3	3,559.3	25.93	138.253			
6,500.0	6,479.7	6,519.2	6,455.4	14.2	18.2	174.91	-3,015.5	757.7	3,595.9	3,569.3	26.59	135.216			
6,600.0	6,579.4	6,668.4	6,604.7	14.4	18.3	174.94	-3,016.0	757.2	3,604.5	3,577.6	26.96	133.703			
6,700.0	6,679.0	6,778.9	6,715.1	14.7	18.4	174.96	-3,015.4	756.9	3,612.3	3,585.0	27.28	132.428			
6,800.0	6,778.7	6,893.8	6,830.1	14.9	18.6	174.97	-3,014.4	756.7	3,619.9	3,592.3	27.60	131.145			
6,901.0	6,879.3	6,998.0	6,934.3	15.1	18.7	174.98	-3,013.2	756.3	3,627.2	3,599.3	27.92	129.927			
6,950.0	6,928.3	7,046.1	6,982.3	15.2	18.7	-94.89	-3,012.7	756.1	3,628.7	3,600.5	28.13	128.990			
7,000.0	6,978.2	7,094.8	7,031.1	15.2	18.8	-22.15	-3,012.2	755.8	3,626.0	3,597.8	28.23	128.467			
7,050.0	7,027.7	7,136.0	7,072.3	15.2	18.8	-18.30	-3,011.8	755.5	3,619.2	3,591.0	28.18	128.420			
7,100.0	7,076.5	7,184.3	7,120.6	15.1	18.9	-17.25	-3,011.3	755.1	3,608.2	3,580.2	28.03	128.727			
7,150.0	7,124.1	7,231.0	7,167.2	15.0	18.9	-17.02	-3,011.1	754.6	3,593.3	3,565.6	27.76	129.442			
7,200.0	7,170.3	7,283.7	7,220.0	14.9	19.0	-17.24	-3,010.8	753.9	3,574.4	3,547.0	27.40	130.459			
7,250.0	7,214.6	7,336.1	7,272.3	14.8	19.0	-17.79	-3,010.3	753.0	3,551.5	3,524.6	26.95	131.787			
7,300.0	7,256.7	7,370.3	7,306.5	14.6	19.1	-18.61	-3,010.0	752.4	3,525.0	3,498.6	26.40	133.511			
7,350.0	7,296.2	7,402.5	7,338.7	14.4	19.1	-19.74	-3,009.8	751.9	3,495.2	3,469.4	25.82	135.385			
7,400.0	7,333.0	7,434.0	7,370.2	14.2	19.2	-21.25	-3,009.7	751.4	3,462.2	3,437.0	25.23	137.205			
7,450.0	7,366.7	7,465.9	7,402.1	14.1	19.2	-23.24	-3,009.6	750.9	3,426.4	3,401.6	24.71	138.646			
7,500.0	7,397.1	7,494.7	7,430.9	13.9	19.2	-25.84	-3,009.5	750.5	3,387.8	3,363.5	24.32	139.293			
7,550.0	7,423.8	7,519.0	7,455.2	13.8	19.3	-29.25	-3,009.4	750.2	3,347.0	3,322.8	24.16	138.545			
7,600.0	7,446.8	7,540.9	7,477.1	13.7	19.3	-33.81	-3,009.3	749.9	3,304.1	3,279.7	24.36	135.620			
7,650.0	7,465.8	7,558.2	7,494.4	13.6	19.3	-39.98	-3,009.3	749.7	3,259.4	3,234.3	25.09	129.918			
7,700.0	7,480.8	7,571.8	7,508.0	13.6	19.3	-48.41	-3,009.3	749.5	3,213.4	3,187.0	26.47	121.382			
7,750.0	7,491.5	7,581.5	7,517.8	13.7	19.4	-59.84	-3,009.2	749.4	3,166.4	3,138.0	28.46	111.267			
7,800.0	7,497.9	7,587.3	7,523.6	13.8	19.4	-74.55	-3,009.2	749.4	3,118.8	3,088.3	30.47	102.352			
7,848.8	7,500.0	7,589.2	7,525.4	13.9	19.4	-90.95	-3,009.2	749.3	3,072.0	3,040.5	31.45	97.687			
7,900.0	7,500.0	7,589.1	7,525.3	14.1	19.4	-90.94	-3,009.2	749.3	3,022.9	2,991.2	31.66	95.483			
8,000.0	7,500.0	7,588.9	7,525.1	14.7	19.4	-90.93	-3,009.2	749.3	2,927.2	2,895.0	32.23	90.836			
8,100.0	7,500.0	7,588.7	7,524.9	15.4	19.4	-90.92	-3,009.2	749.3	2,831.9	2,798.9	32.97	85.883			
8,200.0	7,500.0	7,588.5	7,524.7	16.3	19.4	-90.91	-3,009.2	749.3	2,736.8	2,703.0	33.88	80.787			
8,300.0	7,500.0	7,588.4	7,524.6	17.3	19.4	-90.90	-3,009.2	749.3	2,642.2	2,607.3	34.91	75.679			
8,400.0	7,500.0	7,588.2	7,524.4	18.5	19.4	-90.88	-3,009.2	749.4	2,547.9	2,511.9	36.06	70.662			
8,500.0	7,500.0	7,588.0	7,524.2	19.7	19.4	-90.87	-3,009.2	749.4	2,454.1	2,416.8	37.29	65.806			
8,600.0	7,500.0	7,587.8	7,524.0	21.0	19.4	-90.86	-3,009.2	749.4	2,360.8	2,322.2	38.60	61.157			
8,700.0	7,500.0	7,587.6	7,523.8	22.4	19.4	-90.85	-3,009.2	749.4	2,268.1	2,228.1	39.97	56.740			
8,800.0	7,500.0	7,587.4	7,523.6	23.8	19.4	-90.84	-3,009.2	749.4	2,176.0	2,134.6	41.39	52.568			
8,900.0	7,500.0	7,587.3	7,523.5	25.3	19.4	-90.82	-3,009.2	749.4	2,084.7	2,041.8	42.86	48.642			
9,000.0	7,500.0	7,587.1	7,523.3	26.7	19.4	-90.81	-3,009.2	749.4	1,994.1	1,949.8	44.36	44.958			
9,100.0	7,500.0	7,586.9	7,523.1	28.3	19.4	-90.80	-3,009.2	749.4	1,904.6	1,858.7	45.88	41.509			

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 2B-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 2B-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		
9,200.0	7,500.0	7,586.7	7,522.9	29.8	19.4	-90.79	-3,009.2	749.4	1,816.1	1,768.7	47.44	38.285		
9,300.0	7,500.0	7,586.5	7,522.7	31.4	19.4	-90.77	-3,009.2	749.4	1,728.9	1,679.9	49.01	35.276		
9,400.0	7,500.0	7,586.3	7,522.5	33.0	19.4	-90.76	-3,009.2	749.4	1,643.1	1,592.5	50.60	32.471		
9,500.0	7,500.0	7,586.1	7,522.3	34.6	19.4	-90.75	-3,009.2	749.4	1,559.0	1,506.8	52.21	29.861		
9,600.0	7,500.0	7,585.9	7,522.1	36.2	19.4	-90.74	-3,009.2	749.4	1,476.9	1,423.1	53.83	27.436		
9,700.0	7,500.0	7,585.8	7,522.0	37.8	19.4	-90.72	-3,009.2	749.4	1,397.2	1,341.7	55.46	25.191		
9,800.0	7,500.0	7,585.6	7,521.8	39.5	19.4	-90.71	-3,009.2	749.4	1,320.2	1,263.1	57.11	23.117		
9,900.0	7,500.0	7,585.4	7,521.6	41.1	19.4	-90.70	-3,009.2	749.4	1,246.5	1,187.7	58.76	21.213		
10,000.0	7,500.0	7,585.2	7,521.4	42.8	19.4	-90.69	-3,009.2	749.4	1,176.6	1,116.2	60.42	19.474		
10,100.0	7,500.0	7,585.0	7,521.2	44.5	19.4	-90.67	-3,009.2	749.4	1,111.4	1,049.3	62.09	17.900		
10,200.0	7,500.0	7,584.8	7,521.0	46.1	19.4	-90.66	-3,009.2	749.4	1,051.7	987.9	63.76	16.494		
10,300.0	7,500.0	7,584.6	7,520.8	47.8	19.4	-90.65	-3,009.2	749.4	998.4	933.0	65.44	15.256		
10,400.0	7,500.0	7,584.4	7,520.6	49.5	19.4	-90.64	-3,009.2	749.4	952.7	885.6	67.13	14.192		
10,500.0	7,500.0	7,584.2	7,520.4	51.2	19.4	-90.62	-3,009.2	749.4	915.6	846.8	68.82	13.305		
10,600.0	7,500.0	7,584.0	7,520.2	52.9	19.4	-90.61	-3,009.2	749.4	888.4	817.8	70.51	12.599		
10,700.0	7,500.0	7,583.8	7,520.0	54.6	19.4	-90.60	-3,009.2	749.4	871.8	799.5	72.21	12.073		
10,796.1	7,500.0	7,583.6	7,519.9	56.2	19.4	-90.58	-3,009.2	749.4	866.4	792.6	73.84	11.733 CC		
10,800.0	7,500.0	7,583.6	7,519.8	56.3	19.4	-90.58	-3,009.2	749.4	866.5	792.5	73.91	11.723 ES		
10,900.0	7,500.0	7,583.4	7,519.6	58.0	19.4	-90.57	-3,009.2	749.4	872.7	797.0	75.61	11.541		
11,000.0	7,500.0	7,583.2	7,519.5	59.7	19.4	-90.56	-3,009.2	749.4	890.1	812.8	77.32	11.512 SF		
11,100.0	7,500.0	7,583.1	7,519.3	61.4	19.4	-90.55	-3,009.2	749.4	918.2	839.2	79.03	11.618		
11,200.0	7,500.0	7,582.9	7,519.1	63.1	19.4	-90.53	-3,009.2	749.4	956.0	875.2	80.74	11.839		
11,300.0	7,500.0	7,582.7	7,518.9	64.8	19.4	-90.52	-3,009.2	749.4	1,002.3	919.9	82.46	12.156		
11,400.0	7,500.0	7,582.5	7,518.7	66.5	19.4	-90.51	-3,009.2	749.4	1,056.1	972.0	84.17	12.547		
11,500.0	7,500.0	7,582.3	7,518.5	68.2	19.4	-90.49	-3,009.2	749.4	1,116.3	1,030.4	85.89	12.997		
11,600.0	7,500.0	7,582.1	7,518.3	70.0	19.4	-90.48	-3,009.2	749.4	1,181.9	1,094.3	87.61	13.491		
11,700.0	7,500.0	7,581.9	7,518.1	71.7	19.4	-90.47	-3,009.2	749.4	1,252.1	1,162.8	89.34	14.016		
11,800.0	7,500.0	7,581.7	7,517.9	73.4	19.4	-90.45	-3,009.2	749.4	1,326.1	1,235.1	91.06	14.563		
11,900.0	7,500.0	7,581.5	7,517.7	75.1	19.4	-90.44	-3,009.2	749.4	1,403.3	1,310.6	92.78	15.125		
12,000.0	7,500.0	7,581.3	7,517.5	76.9	19.4	-90.43	-3,009.2	749.4	1,483.3	1,388.8	94.51	15.695		
12,100.0	7,500.0	7,581.1	7,517.3	78.6	19.4	-90.41	-3,009.3	749.4	1,565.5	1,469.3	96.24	16.268		
12,200.0	7,500.0	7,580.9	7,517.1	80.3	19.4	-90.40	-3,009.3	749.4	1,649.8	1,551.8	97.96	16.840		
12,300.0	7,500.0	7,580.7	7,516.9	82.0	19.4	-90.39	-3,009.3	749.4	1,735.7	1,636.0	99.69	17.410		
12,400.0	7,500.0	7,580.4	7,516.7	83.8	19.4	-90.37	-3,009.3	749.4	1,823.0	1,721.6	101.42	17.974		
12,500.0	7,500.0	7,580.2	7,516.4	85.5	19.4	-90.36	-3,009.3	749.4	1,911.6	1,808.4	103.16	18.531		
12,600.0	7,500.0	7,580.0	7,516.2	87.2	19.4	-90.35	-3,009.3	749.4	2,001.2	1,896.3	104.89	19.079		
12,700.0	7,500.0	7,579.8	7,516.0	89.0	19.4	-90.33	-3,009.3	749.4	2,091.8	1,985.2	106.62	19.619		
12,800.0	7,500.0	7,579.6	7,515.8	90.7	19.4	-90.32	-3,009.3	749.4	2,183.2	2,074.9	108.36	20.149		
12,900.0	7,500.0	7,579.4	7,515.6	92.4	19.4	-90.31	-3,009.3	749.4	2,275.3	2,165.3	110.09	20.668		
12,986.8	7,500.0	7,579.2	7,515.4	93.9	19.4	-90.29	-3,009.3	749.4	2,355.9	2,244.3	111.60	21.110		
13,000.0	7,500.0	7,579.2	7,515.4	94.2	19.4	-90.29	-3,009.3	749.4	2,368.1	2,256.3	111.81	21.180		
13,058.5	7,500.0	7,579.1	7,515.3	95.2	19.3	-90.27	-3,009.3	749.4	2,422.5	2,309.8	112.74	21.487		
13,100.0	7,500.0	7,579.0	7,515.2	95.9	19.3	-90.27	-3,009.3	749.4	2,461.1	2,347.6	113.46	21.691		
13,200.0	7,500.0	7,578.8	7,515.0	97.6	19.3	-90.25	-3,009.3	749.4	2,554.5	2,439.3	115.20	22.175		
13,300.0	7,500.0	7,578.6	7,514.8	99.4	19.3	-90.24	-3,009.3	749.4	2,648.4	2,531.5	116.94	22.648		
13,400.0	7,500.0	7,578.3	7,514.5	101.1	19.3	-90.23	-3,009.3	749.5	2,742.8	2,624.1	118.68	23.111		
13,500.0	7,500.0	7,578.1	7,514.3	102.9	19.3	-90.21	-3,009.3	749.5	2,837.5	2,717.1	120.41	23.564		
13,600.0	7,500.0	7,577.9	7,514.1	104.6	19.3	-90.20	-3,009.3	749.5	2,932.6	2,810.4	122.15	24.007		
13,700.0	7,500.0	7,577.7	7,513.9	106.3	19.3	-90.18	-3,009.3	749.5	3,028.0	2,904.1	123.89	24.440		
13,800.0	7,500.0	7,577.4	7,513.6	108.1	19.3	-90.17	-3,009.3	749.5	3,123.6	2,998.0	125.63	24.863		
13,900.0	7,500.0	7,577.2	7,513.4	109.8	19.3	-90.15	-3,009.3	749.5	3,219.6	3,092.2	127.37	25.277		
14,000.0	7,500.0	7,577.0	7,513.2	111.6	19.3	-90.14	-3,009.3	749.5	3,315.8	3,186.6	129.11	25.681		

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 2B-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 2B-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
14,100.0	7,500.0	7,576.8	7,513.0	113.3	19.3	-90.12	-3,009.3	749.5	3,412.2	3,281.3	130.85	26.076	
14,200.0	7,500.0	7,576.5	7,512.7	115.0	19.3	-90.11	-3,009.3	749.5	3,508.8	3,376.2	132.60	26.462	
14,300.0	7,500.0	7,576.3	7,512.5	116.8	19.3	-90.10	-3,009.3	749.5	3,605.6	3,471.2	134.34	26.839	
14,400.0	7,500.0	7,576.1	7,512.3	118.5	19.3	-90.08	-3,009.3	749.5	3,702.5	3,566.4	136.08	27.208	
14,500.0	7,500.0	7,575.8	7,512.0	120.3	19.3	-90.07	-3,009.3	749.5	3,799.6	3,661.8	137.82	27.569	
14,600.0	7,500.0	7,575.6	7,511.8	122.0	19.3	-90.05	-3,009.3	749.5	3,896.9	3,757.3	139.57	27.922	
14,700.0	7,500.0	7,575.4	7,511.6	123.7	19.3	-90.04	-3,009.3	749.5	3,994.3	3,853.0	141.31	28.266	
14,800.0	7,500.0	7,575.1	7,511.3	125.5	19.3	-90.02	-3,009.3	749.5	4,091.8	3,948.8	143.05	28.604	
14,900.0	7,500.0	7,574.9	7,511.1	127.2	19.3	-90.01	-3,009.3	749.5	4,189.4	4,044.7	144.80	28.934	
15,000.0	7,500.0	7,574.7	7,510.9	129.0	19.3	-89.99	-3,009.3	749.5	4,287.2	4,140.7	146.54	29.256	
15,100.0	7,500.0	7,574.4	7,510.6	130.7	19.3	-89.98	-3,009.3	749.5	4,385.0	4,236.8	148.28	29.572	
15,200.0	7,500.0	7,574.2	7,510.4	132.5	19.3	-89.96	-3,009.3	749.5	4,483.0	4,333.0	150.03	29.881	
15,300.0	7,500.0	7,574.0	7,510.2	134.2	19.3	-89.95	-3,009.3	749.5	4,581.0	4,429.3	151.77	30.183	
15,400.0	7,500.0	7,573.7	7,509.9	136.0	19.3	-89.93	-3,009.3	749.5	4,679.1	4,525.6	153.52	30.480	
15,500.0	7,500.0	7,573.5	7,509.7	137.7	19.3	-89.92	-3,009.3	749.5	4,777.3	4,622.1	155.26	30.769	
15,600.0	7,500.0	7,573.3	7,509.5	139.4	19.3	-89.90	-3,009.3	749.5	4,875.6	4,718.6	157.01	31.053	
15,706.0	7,500.0	7,573.0	7,509.2	141.3	19.3	-89.88	-3,009.3	749.5	4,979.9	4,821.0	158.86	31.348	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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 7-12 (Existing) - Existing - NO SURVEYS														Offset Site Error:	0.0 ft
Survey Program: 7894-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	-178.78	-983.2	-21.0	983.5						
100.0	100.0	88.0	88.0	0.2	0.2	-178.78	-983.2	-21.0	983.4	983.1	0.31	3,217.637			
200.0	200.0	188.0	188.0	0.3	0.3	-178.78	-983.2	-21.0	983.4	982.8	0.65	1,502.088			
300.0	300.0	288.0	288.0	0.5	0.5	-178.78	-983.2	-21.0	983.4	982.4	1.00	979.727			
400.0	400.0	388.0	388.0	0.7	0.7	-138.81	-983.2	-21.0	984.1	982.7	1.35	727.300			
500.0	500.0	488.0	488.0	0.9	0.9	-138.89	-983.2	-21.0	986.0	984.3	1.70	578.794			
600.0	599.9	587.9	587.9	1.0	1.0	-139.04	-983.2	-21.0	989.3	987.3	2.06	480.992			
700.0	699.7	687.7	687.7	1.2	1.2	-139.24	-983.2	-21.0	993.9	991.5	2.41	411.718			
800.0	799.4	787.4	787.4	1.4	1.4	-139.50	-983.2	-21.0	999.2	996.5	2.77	360.220			
900.0	899.2	887.2	887.2	1.6	1.5	-139.76	-983.2	-21.0	1,004.6	1,001.4	3.13	320.444			
1,000.0	998.9	986.9	986.9	1.8	1.7	-140.01	-983.2	-21.0	1,009.9	1,006.4	3.50	288.835			
1,100.0	1,098.7	1,086.7	1,086.7	2.1	1.9	-140.27	-983.2	-21.0	1,015.3	1,011.4	3.86	263.131			
1,200.0	1,198.5	1,186.5	1,186.5	2.3	2.1	-140.52	-983.2	-21.0	1,020.6	1,016.4	4.22	241.830			
1,300.0	1,298.2	1,286.2	1,286.2	2.5	2.2	-154.58	-983.2	-21.0	1,026.6	1,022.1	4.57	224.404			
1,400.0	1,397.9	1,385.9	1,385.9	2.7	2.4	-166.81	-983.2	-21.0	1,033.8	1,028.9	4.92	210.009			
1,450.9	1,448.6	1,436.6	1,436.6	2.8	2.5	-172.15	-983.2	-21.0	1,037.9	1,032.8	5.10	203.593			
1,500.0	1,497.6	1,485.6	1,485.6	2.9	2.6	-172.18	-983.2	-21.0	1,042.0	1,036.7	5.27	197.783			
1,600.0	1,597.2	1,585.2	1,585.2	3.1	2.8	-172.24	-983.2	-21.0	1,050.4	1,044.8	5.62	187.036			
1,700.0	1,696.9	1,684.9	1,684.9	3.3	2.9	-172.30	-983.2	-21.0	1,058.7	1,052.8	5.96	177.538			
1,800.0	1,796.5	1,784.5	1,784.5	3.6	3.1	-172.36	-983.2	-21.0	1,067.1	1,060.8	6.31	169.083			
1,900.0	1,896.1	1,884.1	1,884.1	3.8	3.3	-172.42	-983.2	-21.0	1,075.5	1,068.8	6.66	161.509			
2,000.0	1,995.8	1,983.8	1,983.8	4.0	3.5	-172.48	-983.2	-21.0	1,083.8	1,076.8	7.01	154.685			
2,100.0	2,095.4	2,083.4	2,083.4	4.2	3.6	-172.54	-983.2	-21.0	1,092.2	1,084.8	7.35	148.506			
2,200.0	2,195.1	2,183.1	2,183.1	4.4	3.8	-172.60	-983.2	-21.0	1,100.6	1,092.8	7.70	142.884			
2,300.0	2,294.7	2,282.7	2,282.7	4.7	4.0	-172.65	-983.2	-21.0	1,108.9	1,100.9	8.05	137.747			
2,400.0	2,394.4	2,382.4	2,382.4	4.9	4.2	-172.71	-983.2	-21.0	1,117.3	1,108.9	8.40	133.036			
2,500.0	2,494.0	2,482.0	2,482.0	5.1	4.3	-172.76	-983.2	-21.0	1,125.7	1,116.9	8.75	128.699			
2,600.0	2,593.6	2,581.6	2,581.6	5.3	4.5	-172.82	-983.2	-21.0	1,134.0	1,124.9	9.09	124.694			
2,700.0	2,693.3	2,681.3	2,681.3	5.6	4.7	-172.87	-983.2	-21.0	1,142.4	1,133.0	9.44	120.984			
2,800.0	2,792.9	2,780.9	2,780.9	5.8	4.9	-172.92	-983.2	-21.0	1,150.8	1,141.0	9.79	117.538			
2,900.0	2,892.6	2,880.6	2,880.6	6.0	5.0	-172.97	-983.2	-21.0	1,159.1	1,149.0	10.14	114.328			
3,000.0	2,992.2	2,980.2	2,980.2	6.2	5.2	-173.02	-983.2	-21.0	1,167.5	1,157.0	10.49	111.332			
3,100.0	3,091.9	3,079.9	3,079.9	6.5	5.4	-173.07	-983.2	-21.0	1,175.9	1,165.1	10.83	108.528			
3,200.0	3,191.5	3,179.5	3,179.5	6.7	5.5	-173.12	-983.2	-21.0	1,184.3	1,173.1	11.18	105.898			
3,300.0	3,291.2	3,279.2	3,279.2	6.9	5.7	-173.17	-983.2	-21.0	1,192.6	1,181.1	11.53	103.427			
3,400.0	3,390.8	3,378.8	3,378.8	7.1	5.9	-173.22	-983.2	-21.0	1,201.0	1,189.1	11.88	101.102			
3,500.0	3,490.4	3,478.4	3,478.4	7.4	6.1	-173.27	-983.2	-21.0	1,209.4	1,197.2	12.23	98.908			
3,600.0	3,590.1	3,578.1	3,578.1	7.6	6.2	-173.31	-983.2	-21.0	1,217.8	1,205.2	12.58	96.836			
3,700.0	3,689.7	3,677.7	3,677.7	7.8	6.4	-173.36	-983.2	-21.0	1,226.2	1,213.2	12.92	94.876			
3,800.0	3,789.4	3,777.4	3,777.4	8.1	6.6	-173.40	-983.2	-21.0	1,234.5	1,221.3	13.27	93.019			
3,900.0	3,889.0	3,877.0	3,877.0	8.3	6.8	-173.45	-983.2	-21.0	1,242.9	1,229.3	13.62	91.257			
4,000.0	3,988.7	3,976.7	3,976.7	8.5	6.9	-173.49	-983.2	-21.0	1,251.3	1,237.3	13.97	89.582			
4,100.0	4,088.3	4,076.3	4,076.3	8.7	7.1	-173.54	-983.2	-21.0	1,259.7	1,245.4	14.32	87.989			
4,200.0	4,187.9	4,175.9	4,175.9	9.0	7.3	-173.58	-983.2	-21.0	1,268.1	1,253.4	14.66	86.472			
4,300.0	4,287.6	4,275.6	4,275.6	9.2	7.5	-173.62	-983.2	-21.0	1,276.5	1,261.4	15.01	85.025			
4,400.0	4,387.2	4,375.2	4,375.2	9.4	7.6	-173.66	-983.2	-21.0	1,284.8	1,269.5	15.36	83.644			
4,500.0	4,486.9	4,474.9	4,474.9	9.6	7.8	-173.71	-983.2	-21.0	1,293.2	1,277.5	15.71	82.324			
4,600.0	4,586.5	4,574.5	4,574.5	9.9	8.0	-173.75	-983.2	-21.0	1,301.6	1,285.6	16.06	81.062			
4,700.0	4,686.2	4,674.2	4,674.2	10.1	8.2	-173.79	-983.2	-21.0	1,310.0	1,293.6	16.41	79.853			
4,800.0	4,785.8	4,773.8	4,773.8	10.3	8.3	-173.83	-983.2	-21.0	1,318.4	1,301.6	16.75	78.694			
4,900.0	4,885.4	4,873.4	4,873.4	10.6	8.5	-173.87	-983.2	-21.0	1,326.8	1,309.7	17.10	77.583			
5,000.0	4,985.1	4,973.1	4,973.1	10.8	8.7	-173.90	-983.2	-21.0	1,335.2	1,317.7	17.45	76.515			

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 2B-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 2B-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 7-12 (Existing) - Existing - NO SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 7894-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	5,084.7	5,072.7	5,072.7	11.0	8.9	-173.94	-983.2	-21.0	1,343.6	1,325.8	17.80	75.490		
5,200.0	5,184.4	5,172.4	5,172.4	11.2	9.0	-173.98	-983.2	-21.0	1,351.9	1,333.8	18.15	74.504		
5,300.0	5,284.0	5,272.0	5,272.0	11.5	9.2	-174.02	-983.2	-21.0	1,360.3	1,341.8	18.49	73.556		
5,400.0	5,383.7	5,371.7	5,371.7	11.7	9.4	-174.05	-983.2	-21.0	1,368.7	1,349.9	18.84	72.642		
5,500.0	5,483.3	5,471.3	5,471.3	11.9	9.5	-174.09	-983.2	-21.0	1,377.1	1,357.9	19.19	71.761		
5,600.0	5,583.0	5,571.0	5,571.0	12.1	9.7	-174.13	-983.2	-21.0	1,385.5	1,366.0	19.54	70.912		
5,700.0	5,682.6	5,670.6	5,670.6	12.4	9.9	-174.16	-983.2	-21.0	1,393.9	1,374.0	19.89	70.093		
5,800.0	5,782.2	5,770.2	5,770.2	12.6	10.1	-174.20	-983.2	-21.0	1,402.3	1,382.1	20.23	69.302		
5,900.0	5,881.9	5,869.9	5,869.9	12.8	10.2	-174.23	-983.2	-21.0	1,410.7	1,390.1	20.58	68.538		
6,000.0	5,981.5	5,969.5	5,969.5	13.1	10.4	-174.27	-983.2	-21.0	1,419.1	1,398.2	20.93	67.799		
6,100.0	6,081.2	6,069.2	6,069.2	13.3	10.6	-174.30	-983.2	-21.0	1,427.5	1,406.2	21.28	67.084		
6,200.0	6,180.8	6,168.8	6,168.8	13.5	10.8	-174.33	-983.2	-21.0	1,435.9	1,414.2	21.63	66.393		
6,300.0	6,280.5	6,268.5	6,268.5	13.7	10.9	-174.37	-983.2	-21.0	1,444.3	1,422.3	21.98	65.723		
6,400.0	6,380.1	6,368.1	6,368.1	14.0	11.1	-174.40	-983.2	-21.0	1,452.7	1,430.3	22.32	65.075		
6,500.0	6,479.7	6,467.7	6,467.7	14.2	11.3	-174.43	-983.2	-21.0	1,461.1	1,438.4	22.67	64.446		
6,600.0	6,579.4	6,567.4	6,567.4	14.4	11.5	-174.46	-983.2	-21.0	1,469.5	1,446.4	23.02	63.836		
6,700.0	6,679.0	6,667.0	6,667.0	14.7	11.6	-174.49	-983.2	-21.0	1,477.9	1,454.5	23.37	63.244		
6,800.0	6,778.7	6,766.7	6,766.7	14.9	11.8	-174.53	-983.2	-21.0	1,486.3	1,462.5	23.72	62.670		
6,901.0	6,879.3	6,867.3	6,867.3	15.1	12.0	-174.56	-983.2	-21.0	1,494.7	1,470.7	24.07	62.107		
6,950.0	6,928.3	6,916.3	6,916.3	15.2	12.1	-84.47	-983.2	-21.0	1,496.8	1,472.5	24.24	61.738		
7,000.0	6,978.2	6,966.2	6,966.2	15.2	12.2	-11.70	-983.2	-21.0	1,494.5	1,470.2	24.30	61.500		
7,050.0	7,027.7	7,015.7	7,015.7	15.2	12.2	-7.73	-983.2	-21.0	1,488.0	1,463.7	24.23	61.398		
7,100.0	7,076.5	7,064.5	7,064.5	15.1	12.3	-6.48	-983.2	-21.0	1,477.1	1,453.0	24.05	61.429		
7,150.0	7,124.1	7,112.1	7,112.1	15.0	12.4	-5.96	-983.2	-21.0	1,462.0	1,438.3	23.74	61.589		
7,200.0	7,170.3	7,158.3	7,158.3	14.9	12.5	-5.77	-983.2	-21.0	1,442.9	1,419.6	23.32	61.872		
7,250.0	7,214.6	7,202.6	7,202.6	14.8	12.6	-5.78	-983.2	-21.0	1,419.8	1,397.0	22.80	62.270		
7,300.0	7,256.7	7,244.7	7,244.7	14.6	12.6	-5.96	-983.2	-21.0	1,393.0	1,370.8	22.19	62.767		
7,350.0	7,296.2	7,284.2	7,284.2	14.4	12.7	-6.28	-983.2	-21.0	1,362.5	1,341.0	21.51	63.339		
7,400.0	7,333.0	7,321.0	7,321.0	14.2	12.8	-6.77	-983.2	-21.0	1,328.8	1,308.0	20.78	63.946		
7,450.0	7,366.7	7,354.7	7,354.7	14.1	12.8	-7.47	-983.2	-21.0	1,292.0	1,272.0	20.02	64.522		
7,500.0	7,397.1	7,385.1	7,385.1	13.9	12.9	-8.44	-983.2	-21.0	1,252.4	1,233.2	19.28	64.963		
7,550.0	7,423.8	7,411.8	7,411.8	13.8	12.9	-9.82	-983.2	-21.0	1,210.4	1,191.8	18.59	65.105		
7,600.0	7,446.8	7,434.8	7,434.8	13.7	13.0	-11.82	-983.2	-21.0	1,166.2	1,148.1	18.03	64.684		
7,650.0	7,465.8	7,453.8	7,453.8	13.6	13.0	-14.88	-983.2	-21.0	1,120.1	1,102.4	17.71	63.262		
7,700.0	7,480.8	7,468.8	7,468.8	13.6	13.0	-19.93	-983.2	-21.0	1,072.6	1,054.8	17.86	60.065		
7,750.0	7,491.5	7,479.5	7,479.5	13.7	13.1	-29.31	-983.2	-21.0	1,024.0	1,005.0	19.07	53.697		
7,800.0	7,497.9	7,485.9	7,485.9	13.8	13.1	-49.61	-983.2	-21.0	974.7	952.0	22.72	42.895		
7,848.8	7,500.0	7,488.0	7,488.0	13.9	13.1	-90.00	-983.2	-21.0	926.2	899.3	26.82	34.527		
7,900.0	7,500.0	7,488.0	7,488.0	14.1	13.1	-90.00	-983.2	-21.0	875.3	848.3	27.04	32.375		
8,000.0	7,500.0	7,488.0	7,488.0	14.7	13.1	-90.00	-983.2	-21.0	776.0	748.4	27.60	28.112		
8,100.0	7,500.0	7,488.0	7,488.0	15.4	13.1	-90.00	-983.2	-21.0	676.9	648.5	28.35	23.874		
8,200.0	7,500.0	7,488.0	7,488.0	16.3	13.1	-90.00	-983.2	-21.0	578.0	548.8	29.26	19.758		
8,300.0	7,500.0	7,488.0	7,488.0	17.3	13.1	-90.00	-983.2	-21.0	479.7	449.4	30.29	15.837		
8,400.0	7,500.0	7,488.0	7,488.0	18.5	13.1	-90.00	-983.2	-21.0	382.3	350.8	31.44	12.160		
8,500.0	7,500.0	7,488.0	7,488.0	19.7	13.1	-90.00	-983.2	-21.0	286.6	253.9	32.67	8.771		
8,600.0	7,500.0	7,488.0	7,488.0	21.0	13.1	-90.00	-983.2	-21.0	195.3	161.3	33.98	5.746		
8,700.0	7,500.0	7,488.0	7,488.0	22.4	13.1	-90.00	-983.2	-21.0	118.8	83.5	35.35	3.361		
8,770.0	7,500.0	7,488.0	7,488.0	23.4	13.1	-90.00	-983.2	-21.0	96.0	59.7	36.35	2.641	CC, ES, SF	
8,800.0	7,500.0	7,488.0	7,488.0	23.8	13.1	-90.00	-983.2	-21.0	100.6	63.8	36.78	2.735		
8,900.0	7,500.0	7,488.0	7,488.0	25.3	13.1	-90.00	-983.2	-21.0	161.6	123.4	38.24	4.226		
9,000.0	7,500.0	7,488.0	7,488.0	26.7	13.1	-90.00	-983.2	-21.0	249.2	209.5	39.74	6.271		
9,100.0	7,500.0	7,488.0	7,488.0	28.3	13.1	-90.00	-983.2	-21.0	343.7	302.4	41.27	8.328		

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 2B-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 2B-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 7-12 (Existing) - Existing - NO SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 7894-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		
9,200.0	7,500.0	7,488.0	7,488.0	29.8	13.1	-90.00	-983.2	-21.0	440.6	397.7	42.82	10.289		
9,300.0	7,500.0	7,488.0	7,488.0	31.4	13.1	-90.00	-983.2	-21.0	538.6	494.2	44.39	12.133		
9,400.0	7,500.0	7,488.0	7,488.0	33.0	13.1	-90.00	-983.2	-21.0	637.3	591.3	45.99	13.858		
9,500.0	7,500.0	7,488.0	7,488.0	34.6	13.1	-90.00	-983.2	-21.0	736.3	688.7	47.59	15.470		
9,600.0	7,500.0	7,488.0	7,488.0	36.2	13.1	-90.00	-983.2	-21.0	835.5	786.3	49.22	16.977		
9,700.0	7,500.0	7,488.0	7,488.0	37.8	13.1	-90.00	-983.2	-21.0	934.9	884.1	50.85	18.386		
9,800.0	7,500.0	7,488.0	7,488.0	39.5	13.1	-90.00	-983.2	-21.0	1,034.4	982.0	52.49	19.706		
9,900.0	7,500.0	7,488.0	7,488.0	41.1	13.1	-90.00	-983.2	-21.0	1,134.1	1,079.9	54.15	20.944		
10,000.0	7,500.0	7,488.0	7,488.0	42.8	13.1	-90.00	-983.2	-21.0	1,233.7	1,177.9	55.81	22.107		
10,100.0	7,500.0	7,488.0	7,488.0	44.5	13.1	-90.00	-983.2	-21.0	1,333.4	1,276.0	57.48	23.200		
10,200.0	7,500.0	7,488.0	7,488.0	46.1	13.1	-90.00	-983.2	-21.0	1,433.2	1,374.0	59.15	24.230		
10,300.0	7,500.0	7,488.0	7,488.0	47.8	13.1	-90.00	-983.2	-21.0	1,533.0	1,472.2	60.83	25.201		
10,400.0	7,500.0	7,488.0	7,488.0	49.5	13.1	-90.00	-983.2	-21.0	1,632.8	1,570.3	62.52	26.118		
10,500.0	7,500.0	7,488.0	7,488.0	51.2	13.1	-90.00	-983.2	-21.0	1,732.6	1,668.4	64.21	26.986		
10,600.0	7,500.0	7,488.0	7,488.0	52.9	13.1	-90.00	-983.2	-21.0	1,832.5	1,766.6	65.90	27.807		
10,700.0	7,500.0	7,488.0	7,488.0	54.6	13.1	-90.00	-983.2	-21.0	1,932.4	1,864.8	67.60	28.586		
10,800.0	7,500.0	7,488.0	7,488.0	56.3	13.1	-90.00	-983.2	-21.0	2,032.2	1,963.0	69.30	29.326		
10,900.0	7,500.0	7,488.0	7,488.0	58.0	13.1	-90.00	-983.2	-21.0	2,132.1	2,061.1	71.00	30.028		
11,000.0	7,500.0	7,488.0	7,488.0	59.7	13.1	-90.00	-983.2	-21.0	2,232.0	2,159.3	72.71	30.697		
11,100.0	7,500.0	7,488.0	7,488.0	61.4	13.1	-90.00	-983.2	-21.0	2,332.0	2,257.5	74.42	31.334		
11,200.0	7,500.0	7,488.0	7,488.0	63.1	13.1	-90.00	-983.2	-21.0	2,431.9	2,355.7	76.13	31.942		
11,300.0	7,500.0	7,488.0	7,488.0	64.8	13.1	-90.00	-983.2	-21.0	2,531.8	2,454.0	77.85	32.522		
11,400.0	7,500.0	7,488.0	7,488.0	66.5	13.1	-90.00	-983.2	-21.0	2,631.7	2,552.2	79.57	33.076		
11,500.0	7,500.0	7,488.0	7,488.0	68.2	13.1	-90.00	-983.2	-21.0	2,731.7	2,650.4	81.28	33.606		
11,600.0	7,500.0	7,488.0	7,488.0	70.0	13.1	-90.00	-983.2	-21.0	2,831.6	2,748.6	83.00	34.114		
11,700.0	7,500.0	7,488.0	7,488.0	71.7	13.1	-90.00	-983.2	-21.0	2,931.6	2,846.8	84.73	34.600		
11,800.0	7,500.0	7,488.0	7,488.0	73.4	13.1	-90.00	-983.2	-21.0	3,031.5	2,945.1	86.45	35.067		
11,900.0	7,500.0	7,488.0	7,488.0	75.1	13.1	-90.00	-983.2	-21.0	3,131.5	3,043.3	88.18	35.514		
12,000.0	7,500.0	7,488.0	7,488.0	76.9	13.1	-90.00	-983.2	-21.0	3,231.4	3,141.5	89.90	35.944		
12,100.0	7,500.0	7,488.0	7,488.0	78.6	13.1	-90.00	-983.2	-21.0	3,331.4	3,239.7	91.63	36.357		
12,200.0	7,500.0	7,488.0	7,488.0	80.3	13.1	-90.00	-983.2	-21.0	3,431.3	3,338.0	93.36	36.755		
12,300.0	7,500.0	7,488.0	7,488.0	82.0	13.1	-90.00	-983.2	-21.0	3,531.3	3,436.2	95.09	37.137		
12,400.0	7,500.0	7,488.0	7,488.0	83.8	13.1	-90.00	-983.2	-21.0	3,631.2	3,534.4	96.82	37.506		
12,500.0	7,500.0	7,488.0	7,488.0	85.5	13.1	-90.00	-983.2	-21.0	3,731.2	3,632.7	98.55	37.861		
12,600.0	7,500.0	7,488.0	7,488.0	87.2	13.1	-90.00	-983.2	-21.0	3,831.2	3,730.9	100.28	38.204		
12,700.0	7,500.0	7,488.0	7,488.0	89.0	13.1	-90.00	-983.2	-21.0	3,931.2	3,829.1	102.02	38.535		
12,800.0	7,500.0	7,488.0	7,488.0	90.7	13.1	-90.00	-983.2	-21.0	4,031.1	3,927.4	103.75	38.854		
12,900.0	7,500.0	7,488.0	7,488.0	92.4	13.1	-90.00	-983.2	-21.0	4,131.1	4,025.6	105.48	39.163		
12,986.8	7,500.0	7,488.0	7,488.0	93.9	13.1	-90.00	-983.2	-21.0	4,217.9	4,110.9	106.99	39.423		
13,000.0	7,500.0	7,488.0	7,488.0	94.2	13.1	-90.00	-983.2	-21.0	4,231.1	4,123.9	107.22	39.463		
13,058.5	7,500.0	7,488.0	7,488.0	95.2	13.1	-90.00	-983.2	-21.0	4,289.6	4,181.4	108.20	39.643		
13,100.0	7,500.0	7,488.0	7,488.0	95.9	13.1	-90.00	-983.2	-21.0	4,331.0	4,222.1	108.92	39.762		
13,200.0	7,500.0	7,488.0	7,488.0	97.6	13.1	-90.00	-983.2	-21.0	4,431.0	4,320.3	110.66	40.041		
13,300.0	7,500.0	7,488.0	7,488.0	99.4	13.1	-90.00	-983.2	-21.0	4,530.9	4,418.5	112.40	40.311		
13,400.0	7,500.0	7,488.0	7,488.0	101.1	13.1	-90.00	-983.2	-21.0	4,630.9	4,516.7	114.14	40.573		
13,500.0	7,500.0	7,488.0	7,488.0	102.9	13.1	-90.00	-983.2	-21.0	4,730.8	4,614.9	115.88	40.826		
13,600.0	7,500.0	7,488.0	7,488.0	104.6	13.1	-90.00	-983.2	-21.0	4,830.8	4,713.1	117.62	41.072		
13,700.0	7,500.0	7,488.0	7,488.0	106.3	13.1	-90.00	-983.2	-21.0	4,930.7	4,811.4	119.35	41.311		
13,800.0	7,500.0	7,488.0	7,488.0	108.1	13.1	-90.00	-983.2	-21.0	5,030.7	4,909.6	121.10	41.543		
13,900.0	7,500.0	7,488.0	7,488.0	109.8	13.1	-90.00	-983.2	-21.0	5,130.6	5,007.8	122.84	41.768		
14,000.0	7,500.0	7,488.0	7,488.0	111.6	13.1	-90.00	-983.2	-21.0	5,230.6	5,106.0	124.58	41.987		

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 2B-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 2B-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	
0.0	0.0	0.0	0.0	0.0	0.0	141.87	-1,199.2	941.3	1,524.5				
100.0	100.0	94.0	94.0	0.2	0.2	141.87	-1,199.2	941.3	1,524.5	1,524.2	0.32	4,822.758	
200.0	200.0	194.0	194.0	0.3	0.3	141.87	-1,199.2	941.3	1,524.5	1,523.8	0.67	2,291.888	
300.0	300.0	294.0	294.0	0.5	0.5	141.87	-1,199.2	941.3	1,524.5	1,523.5	1.01	1,503.098	
400.0	400.0	394.0	394.0	0.7	0.7	-178.13	-1,199.2	941.3	1,525.4	1,524.0	1.36	1,118.989	
500.0	500.0	494.0	494.0	0.9	0.9	-178.13	-1,199.2	941.3	1,528.0	1,526.3	1.71	892.662	
600.0	599.9	593.9	593.9	1.0	1.0	-178.14	-1,199.2	941.3	1,532.3	1,530.3	2.06	743.957	
700.0	699.7	693.7	693.7	1.2	1.2	-178.14	-1,199.2	941.3	1,538.4	1,536.0	2.41	639.152	
800.0	799.4	793.4	793.4	1.4	1.4	-178.15	-1,199.2	941.3	1,545.4	1,542.7	2.76	560.827	
900.0	899.2	893.2	893.2	1.6	1.6	-178.16	-1,199.2	941.3	1,552.4	1,549.3	3.10	500.098	
1,000.0	998.9	992.9	992.9	1.8	1.7	-178.17	-1,199.2	941.3	1,559.4	1,555.9	3.45	451.632	
1,100.0	1,098.7	1,092.7	1,092.7	2.1	1.9	-178.18	-1,199.2	941.3	1,566.3	1,562.5	3.80	412.055	
1,200.0	1,198.5	1,192.5	1,192.5	2.3	2.1	-178.18	-1,199.2	941.3	1,573.3	1,569.1	4.15	379.127	
1,300.0	1,298.2	1,292.2	1,292.2	2.5	2.3	167.97	-1,199.2	941.3	1,580.3	1,575.8	4.50	351.356	
1,400.0	1,397.9	1,391.9	1,391.9	2.7	2.4	155.93	-1,199.2	941.3	1,587.5	1,582.7	4.85	327.557	
1,450.9	1,448.6	1,442.6	1,442.6	2.8	2.5	150.70	-1,199.2	941.3	1,591.3	1,586.2	5.02	316.684	
1,500.0	1,497.6	1,491.6	1,491.6	2.9	2.6	150.77	-1,199.2	941.3	1,594.9	1,589.7	5.20	306.878	
1,600.0	1,597.2	1,591.2	1,591.2	3.1	2.8	150.92	-1,199.2	941.3	1,602.3	1,596.7	5.55	288.742	
1,700.0	1,696.9	1,690.9	1,690.9	3.3	3.0	151.07	-1,199.2	941.3	1,609.6	1,603.7	5.90	272.722	
1,800.0	1,796.5	1,790.5	1,790.5	3.6	3.1	151.21	-1,199.2	941.3	1,617.0	1,610.8	6.26	258.477	
1,900.0	1,896.1	1,890.1	1,890.1	3.8	3.3	151.35	-1,199.2	941.3	1,624.4	1,617.8	6.61	245.733	
2,000.0	1,995.8	1,989.8	1,989.8	4.0	3.5	151.50	-1,199.2	941.3	1,631.9	1,624.9	6.97	234.271	
2,100.0	2,095.4	2,089.4	2,089.4	4.2	3.6	151.64	-1,199.2	941.3	1,639.3	1,632.0	7.32	223.908	
2,200.0	2,195.1	2,189.1	2,189.1	4.4	3.8	151.78	-1,199.2	941.3	1,646.7	1,639.0	7.68	214.498	
2,300.0	2,294.7	2,288.7	2,288.7	4.7	4.0	151.91	-1,199.2	941.3	1,654.2	1,646.1	8.03	205.916	
2,400.0	2,394.4	2,388.4	2,388.4	4.9	4.2	152.05	-1,199.2	941.3	1,661.6	1,653.2	8.39	198.058	
2,500.0	2,494.0	2,488.0	2,488.0	5.1	4.3	152.19	-1,199.2	941.3	1,669.1	1,660.3	8.75	190.839	
2,600.0	2,593.6	2,587.6	2,587.6	5.3	4.5	152.32	-1,199.2	941.3	1,676.6	1,667.5	9.10	184.184	
2,700.0	2,693.3	2,687.3	2,687.3	5.6	4.7	152.45	-1,199.2	941.3	1,684.0	1,674.6	9.46	178.030	
2,800.0	2,792.9	2,786.9	2,786.9	5.8	4.9	152.59	-1,199.2	941.3	1,691.5	1,681.7	9.82	172.323	
2,900.0	2,892.6	2,886.6	2,886.6	6.0	5.0	152.72	-1,199.2	941.3	1,699.0	1,688.9	10.17	167.017	
3,000.0	2,992.2	2,986.2	2,986.2	6.2	5.2	152.85	-1,199.2	941.3	1,706.5	1,696.0	10.53	162.071	
3,100.0	3,091.9	3,085.9	3,085.9	6.5	5.4	152.98	-1,199.2	941.3	1,714.1	1,703.2	10.89	157.451	
3,200.0	3,191.5	3,185.5	3,185.5	6.7	5.6	153.10	-1,199.2	941.3	1,721.6	1,710.3	11.24	153.124	
3,300.0	3,291.2	3,285.2	3,285.2	6.9	5.7	153.23	-1,199.2	941.3	1,729.1	1,717.5	11.60	149.065	
3,400.0	3,390.8	3,384.8	3,384.8	7.1	5.9	153.35	-1,199.2	941.3	1,736.7	1,724.7	11.96	145.250	
3,500.0	3,490.4	3,484.4	3,484.4	7.4	6.1	153.48	-1,199.2	941.3	1,744.2	1,731.9	12.31	141.656	
3,600.0	3,590.1	3,584.1	3,584.1	7.6	6.3	153.60	-1,199.2	941.3	1,751.8	1,739.1	12.67	138.267	
3,700.0	3,689.7	3,683.7	3,683.7	7.8	6.4	153.72	-1,199.2	941.3	1,759.3	1,746.3	13.03	135.064	
3,800.0	3,789.4	3,783.4	3,783.4	8.1	6.6	153.84	-1,199.2	941.3	1,766.9	1,753.5	13.38	132.033	
3,900.0	3,889.0	3,883.0	3,883.0	8.3	6.8	153.96	-1,199.2	941.3	1,774.5	1,760.7	13.74	129.161	
4,000.0	3,988.7	3,982.7	3,982.7	8.5	7.0	154.08	-1,199.2	941.3	1,782.1	1,768.0	14.09	126.435	
4,100.0	4,088.3	4,082.3	4,082.3	8.7	7.1	154.20	-1,199.2	941.3	1,789.7	1,775.2	14.45	123.845	
4,200.0	4,187.9	4,181.9	4,181.9	9.0	7.3	154.32	-1,199.2	941.3	1,797.3	1,782.5	14.81	121.381	
4,300.0	4,287.6	4,281.6	4,281.6	9.2	7.5	154.43	-1,199.2	941.3	1,804.9	1,789.7	15.16	119.033	
4,400.0	4,387.2	4,381.2	4,381.2	9.4	7.6	154.55	-1,199.2	941.3	1,812.5	1,797.0	15.52	116.795	
4,500.0	4,486.9	4,480.9	4,480.9	9.6	7.8	154.66	-1,199.2	941.3	1,820.1	1,804.3	15.87	114.658	
4,600.0	4,586.5	4,580.5	4,580.5	9.9	8.0	154.78	-1,199.2	941.3	1,827.8	1,811.5	16.23	112.616	
4,700.0	4,686.2	4,680.2	4,680.2	10.1	8.2	154.89	-1,199.2	941.3	1,835.4	1,818.8	16.59	110.662	
4,800.0	4,785.8	4,779.8	4,779.8	10.3	8.3	155.00	-1,199.2	941.3	1,843.1	1,826.1	16.94	108.792	
4,900.0	4,885.4	4,879.4	4,879.4	10.6	8.5	155.11	-1,199.2	941.3	1,850.7	1,833.4	17.30	106.999	
5,000.0	4,985.1	4,979.1	4,979.1	10.8	8.7	155.22	-1,199.2	941.3	1,858.4	1,840.7	17.65	105.280	

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 2B-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 2B-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
5,100.0	5,084.7	5,078.7	5,078.7	11.0	8.9	155.33	-1,199.2	941.3	1,866.0	1,848.0	18.01	103.629	
5,200.0	5,184.4	5,178.4	5,178.4	11.2	9.0	155.44	-1,199.2	941.3	1,873.7	1,855.3	18.36	102.043	
5,300.0	5,284.0	5,278.0	5,278.0	11.5	9.2	155.54	-1,199.2	941.3	1,881.4	1,862.7	18.72	100.518	
5,400.0	5,383.7	5,377.7	5,377.7	11.7	9.4	155.65	-1,199.2	941.3	1,889.1	1,870.0	19.07	99.051	
5,500.0	5,483.3	5,477.3	5,477.3	11.9	9.6	155.75	-1,199.2	941.3	1,896.8	1,877.3	19.43	97.638	
5,600.0	5,583.0	5,577.0	5,577.0	12.1	9.7	155.86	-1,199.2	941.3	1,904.5	1,884.7	19.78	96.277	
5,700.0	5,682.6	5,676.6	5,676.6	12.4	9.9	155.96	-1,199.2	941.3	1,912.2	1,892.0	20.14	94.964	
5,800.0	5,782.2	5,776.2	5,776.2	12.6	10.1	156.06	-1,199.2	941.3	1,919.9	1,899.4	20.49	93.698	
5,900.0	5,881.9	5,875.9	5,875.9	12.8	10.3	156.17	-1,199.2	941.3	1,927.6	1,906.8	20.84	92.475	
6,000.0	5,981.5	5,975.5	5,975.5	13.1	10.4	156.27	-1,199.2	941.3	1,935.3	1,914.1	21.20	91.294	
6,100.0	6,081.2	6,075.2	6,075.2	13.3	10.6	156.37	-1,199.2	941.3	1,943.1	1,921.5	21.55	90.152	
6,200.0	6,180.8	6,174.8	6,174.8	13.5	10.8	156.47	-1,199.2	941.3	1,950.8	1,928.9	21.91	89.048	
6,300.0	6,280.5	6,274.5	6,274.5	13.7	11.0	156.56	-1,199.2	941.3	1,958.5	1,936.3	22.26	87.980	
6,400.0	6,380.1	6,374.1	6,374.1	14.0	11.1	156.66	-1,199.2	941.3	1,966.3	1,943.7	22.62	86.946	
6,500.0	6,479.7	6,473.7	6,473.7	14.2	11.3	156.76	-1,199.2	941.3	1,974.0	1,951.1	22.97	85.944	
6,600.0	6,579.4	6,573.4	6,573.4	14.4	11.5	156.85	-1,199.2	941.3	1,981.8	1,958.5	23.32	84.973	
6,700.0	6,679.0	6,673.0	6,673.0	14.7	11.6	156.95	-1,199.2	941.3	1,989.6	1,965.9	23.68	84.032	
6,800.0	6,778.7	6,772.7	6,772.7	14.9	11.8	157.04	-1,199.2	941.3	1,997.3	1,973.3	24.03	83.119	
6,901.0	6,879.3	6,873.3	6,873.3	15.1	12.0	157.14	-1,199.2	941.3	2,005.2	1,980.8	24.39	82.224	
6,950.0	6,928.3	6,922.3	6,922.3	15.2	12.1	-112.65	-1,199.2	941.3	2,007.2	1,982.7	24.56	81.740	
7,000.0	6,978.2	6,972.2	6,972.2	15.2	12.2	-39.96	-1,199.2	941.3	2,005.6	1,981.0	24.64	81.381	
7,050.0	7,027.7	7,021.7	7,021.7	15.2	12.3	-36.32	-1,199.2	941.3	2,000.3	1,975.7	24.65	81.146	
7,100.0	7,076.5	7,070.5	7,070.5	15.1	12.3	-35.61	-1,199.2	941.3	1,991.4	1,966.8	24.58	81.014	
7,150.0	7,124.1	7,118.1	7,118.1	15.0	12.4	-35.88	-1,199.2	941.3	1,978.9	1,954.4	24.45	80.948	
7,200.0	7,170.3	7,164.3	7,164.3	14.9	12.5	-36.75	-1,199.2	941.3	1,963.0	1,938.7	24.27	80.896	
7,250.0	7,214.6	7,208.6	7,208.6	14.8	12.6	-38.09	-1,199.2	941.3	1,943.8	1,919.7	24.06	80.784	
7,300.0	7,256.7	7,250.7	7,250.7	14.6	12.7	-39.89	-1,199.2	941.3	1,921.5	1,897.6	23.86	80.517	
7,350.0	7,296.2	7,290.2	7,290.2	14.4	12.7	-42.17	-1,199.2	941.3	1,896.3	1,872.6	23.71	79.984	
7,400.0	7,333.0	7,327.0	7,327.0	14.2	12.8	-44.94	-1,199.2	941.3	1,868.6	1,845.0	23.63	79.065	
7,450.0	7,366.7	7,360.7	7,360.7	14.1	12.8	-48.26	-1,199.2	941.3	1,838.5	1,814.8	23.67	77.658	
7,500.0	7,397.1	7,391.1	7,391.1	13.9	12.9	-52.13	-1,199.2	941.3	1,806.4	1,782.5	23.86	75.717	
7,550.0	7,423.8	7,417.8	7,417.8	13.8	12.9	-56.57	-1,199.2	941.3	1,772.5	1,748.3	24.19	73.278	
7,600.0	7,446.8	7,440.8	7,440.8	13.7	13.0	-61.56	-1,199.2	941.3	1,737.3	1,712.6	24.65	70.479	
7,650.0	7,465.8	7,459.8	7,459.8	13.6	13.0	-67.02	-1,199.2	941.3	1,701.0	1,675.8	25.19	67.529	
7,700.0	7,480.8	7,474.8	7,474.8	13.6	13.0	-72.80	-1,199.2	941.3	1,664.0	1,638.3	25.74	64.657	
7,750.0	7,491.5	7,485.5	7,485.5	13.7	13.1	-78.72	-1,199.2	941.3	1,626.7	1,600.5	26.22	62.042	
7,800.0	7,497.9	7,491.9	7,491.9	13.8	13.1	-84.56	-1,199.2	941.3	1,589.5	1,562.9	26.59	59.773	
7,848.8	7,500.0	7,494.0	7,494.0	13.9	13.1	-90.00	-1,199.2	941.3	1,553.4	1,526.6	26.83	57.889	
7,900.0	7,500.0	7,494.0	7,494.0	14.1	13.1	-90.00	-1,199.2	941.3	1,516.4	1,489.3	27.05	56.064	
8,000.0	7,500.0	7,494.0	7,494.0	14.7	13.1	-90.00	-1,199.2	941.3	1,446.4	1,418.8	27.61	52.381	
8,100.0	7,500.0	7,494.0	7,494.0	15.4	13.1	-90.00	-1,199.2	941.3	1,380.2	1,351.9	28.36	48.664	
8,200.0	7,500.0	7,494.0	7,494.0	16.3	13.1	-90.00	-1,199.2	941.3	1,318.3	1,289.0	29.27	45.043	
8,300.0	7,500.0	7,494.0	7,494.0	17.3	13.1	-90.00	-1,199.2	941.3	1,261.2	1,230.9	30.30	41.619	
8,400.0	7,500.0	7,494.0	7,494.0	18.5	13.1	-90.00	-1,199.2	941.3	1,209.7	1,178.3	31.45	38.466	
8,500.0	7,500.0	7,494.0	7,494.0	19.7	13.1	-90.00	-1,199.2	941.3	1,164.5	1,131.9	32.68	35.631	
8,600.0	7,500.0	7,494.0	7,494.0	21.0	13.1	-90.00	-1,199.2	941.3	1,126.5	1,092.5	33.99	33.138	
8,700.0	7,500.0	7,494.0	7,494.0	22.4	13.1	-90.00	-1,199.2	941.3	1,096.3	1,060.9	35.36	30.998	
8,800.0	7,500.0	7,494.0	7,494.0	23.8	13.1	-90.00	-1,199.2	941.3	1,074.5	1,037.7	36.79	29.209	
8,900.0	7,500.0	7,494.0	7,494.0	25.3	13.1	-90.00	-1,199.2	941.3	1,061.8	1,023.5	38.25	27.759	
8,986.0	7,500.0	7,494.0	7,494.0	26.5	13.1	-90.00	-1,199.2	941.3	1,058.3	1,018.7	39.54	26.765 CC	
9,000.0	7,500.0	7,494.0	7,494.0	26.7	13.1	-90.00	-1,199.2	941.3	1,058.4	1,018.6	39.75	26.627 ES	
9,100.0	7,500.0	7,494.0	7,494.0	28.3	13.1	-90.00	-1,199.2	941.3	1,064.4	1,023.1	41.28	25.787	

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 2B-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 2B-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		
9,200.0	7,500.0	7,494.0	7,494.0	29.8	13.1	-90.00	-1,199.2	941.3	1,079.7	1,036.9	42.83	25.209		
9,300.0	7,500.0	7,494.0	7,494.0	31.4	13.1	-90.00	-1,199.2	941.3	1,103.9	1,059.5	44.40	24.860		
9,400.0	7,500.0	7,494.0	7,494.0	33.0	13.1	-90.00	-1,199.2	941.3	1,136.4	1,090.4	46.00	24.705 SF		
9,500.0	7,500.0	7,494.0	7,494.0	34.6	13.1	-90.00	-1,199.2	941.3	1,176.5	1,128.9	47.60	24.714		
9,600.0	7,500.0	7,494.0	7,494.0	36.2	13.1	-90.00	-1,199.2	941.3	1,223.5	1,174.3	49.23	24.854		
9,700.0	7,500.0	7,494.0	7,494.0	37.8	13.1	-90.00	-1,199.2	941.3	1,276.6	1,225.7	50.86	25.100		
9,800.0	7,500.0	7,494.0	7,494.0	39.5	13.1	-90.00	-1,199.2	941.3	1,335.1	1,282.6	52.50	25.429		
9,900.0	7,500.0	7,494.0	7,494.0	41.1	13.1	-90.00	-1,199.2	941.3	1,398.3	1,344.2	54.16	25.820		
10,000.0	7,500.0	7,494.0	7,494.0	42.8	13.1	-90.00	-1,199.2	941.3	1,465.6	1,409.8	55.82	26.258		
10,100.0	7,500.0	7,494.0	7,494.0	44.5	13.1	-90.00	-1,199.2	941.3	1,536.5	1,479.0	57.49	26.729		
10,200.0	7,500.0	7,494.0	7,494.0	46.1	13.1	-90.00	-1,199.2	941.3	1,610.5	1,551.3	59.16	27.222		
10,300.0	7,500.0	7,494.0	7,494.0	47.8	13.1	-90.00	-1,199.2	941.3	1,687.2	1,626.3	60.84	27.731		
10,400.0	7,500.0	7,494.0	7,494.0	49.5	13.1	-90.00	-1,199.2	941.3	1,766.2	1,703.6	62.53	28.247		
10,500.0	7,500.0	7,494.0	7,494.0	51.2	13.1	-90.00	-1,199.2	941.3	1,847.2	1,783.0	64.22	28.765		
10,600.0	7,500.0	7,494.0	7,494.0	52.9	13.1	-90.00	-1,199.2	941.3	1,930.0	1,864.1	65.91	29.282		
10,700.0	7,500.0	7,494.0	7,494.0	54.6	13.1	-90.00	-1,199.2	941.3	2,014.4	1,946.8	67.61	29.795		
10,800.0	7,500.0	7,494.0	7,494.0	56.3	13.1	-90.00	-1,199.2	941.3	2,100.1	2,030.8	69.31	30.300		
10,900.0	7,500.0	7,494.0	7,494.0	58.0	13.1	-90.00	-1,199.2	941.3	2,187.1	2,116.1	71.01	30.797		
11,000.0	7,500.0	7,494.0	7,494.0	59.7	13.1	-90.00	-1,199.2	941.3	2,275.1	2,202.4	72.72	31.285		
11,100.0	7,500.0	7,494.0	7,494.0	61.4	13.1	-90.00	-1,199.2	941.3	2,364.1	2,289.6	74.43	31.762		
11,200.0	7,500.0	7,494.0	7,494.0	63.1	13.1	-90.00	-1,199.2	941.3	2,453.9	2,377.8	76.14	32.227		
11,300.0	7,500.0	7,494.0	7,494.0	64.8	13.1	-90.00	-1,199.2	941.3	2,544.5	2,466.6	77.86	32.681		
11,400.0	7,500.0	7,494.0	7,494.0	66.5	13.1	-90.00	-1,199.2	941.3	2,635.8	2,556.2	79.58	33.123		
11,500.0	7,500.0	7,494.0	7,494.0	68.2	13.1	-90.00	-1,199.2	941.3	2,727.6	2,646.3	81.29	33.553		
11,600.0	7,500.0	7,494.0	7,494.0	70.0	13.1	-90.00	-1,199.2	941.3	2,820.1	2,737.1	83.01	33.971		
11,700.0	7,500.0	7,494.0	7,494.0	71.7	13.1	-90.00	-1,199.2	941.3	2,913.0	2,828.3	84.74	34.377		
11,800.0	7,500.0	7,494.0	7,494.0	73.4	13.1	-90.00	-1,199.2	941.3	3,006.4	2,919.9	86.46	34.772		
11,900.0	7,500.0	7,494.0	7,494.0	75.1	13.1	-90.00	-1,199.2	941.3	3,100.2	3,012.0	88.19	35.155		
12,000.0	7,500.0	7,494.0	7,494.0	76.9	13.1	-90.00	-1,199.2	941.3	3,194.4	3,104.5	89.91	35.528		
12,100.0	7,500.0	7,494.0	7,494.0	78.6	13.1	-90.00	-1,199.2	941.3	3,288.9	3,197.3	91.64	35.890		
12,200.0	7,500.0	7,494.0	7,494.0	80.3	13.1	-90.00	-1,199.2	941.3	3,383.7	3,290.4	93.37	36.241		
12,300.0	7,500.0	7,494.0	7,494.0	82.0	13.1	-90.00	-1,199.2	941.3	3,478.9	3,383.8	95.10	36.582		
12,400.0	7,500.0	7,494.0	7,494.0	83.8	13.1	-90.00	-1,199.2	941.3	3,574.2	3,477.4	96.83	36.913		
12,500.0	7,500.0	7,494.0	7,494.0	85.5	13.1	-90.00	-1,199.2	941.3	3,669.9	3,571.3	98.56	37.235		
12,600.0	7,500.0	7,494.0	7,494.0	87.2	13.1	-90.00	-1,199.2	941.3	3,765.7	3,665.4	100.29	37.547		
12,700.0	7,500.0	7,494.0	7,494.0	89.0	13.1	-90.00	-1,199.2	941.3	3,861.8	3,759.8	102.03	37.851		
12,800.0	7,500.0	7,494.0	7,494.0	90.7	13.1	-90.00	-1,199.2	941.3	3,958.1	3,854.3	103.76	38.146		
12,900.0	7,500.0	7,494.0	7,494.0	92.4	13.1	-90.00	-1,199.2	941.3	4,054.5	3,949.0	105.50	38.433		
12,986.8	7,500.0	7,494.0	7,494.0	93.9	13.1	-90.00	-1,199.2	941.3	4,138.4	4,031.4	107.00	38.676		
13,000.0	7,500.0	7,494.0	7,494.0	94.2	13.1	-90.00	-1,199.2	941.3	4,151.1	4,043.9	107.23	38.714		
13,058.5	7,500.0	7,494.0	7,494.0	95.2	13.1	-90.00	-1,199.2	941.3	4,207.6	4,099.4	108.21	38.882		
13,100.0	7,500.0	7,494.0	7,494.0	95.9	13.1	-90.00	-1,199.2	941.3	4,247.7	4,138.7	108.94	38.993		
13,200.0	7,500.0	7,494.0	7,494.0	97.6	13.1	-90.00	-1,199.2	941.3	4,344.3	4,233.6	110.67	39.254		
13,300.0	7,500.0	7,494.0	7,494.0	99.4	13.1	-90.00	-1,199.2	941.3	4,441.0	4,328.6	112.41	39.508		
13,400.0	7,500.0	7,494.0	7,494.0	101.1	13.1	-90.00	-1,199.2	941.3	4,537.9	4,423.8	114.15	39.755		
13,500.0	7,500.0	7,494.0	7,494.0	102.9	13.1	-90.00	-1,199.2	941.3	4,635.0	4,519.1	115.89	39.996		
13,600.0	7,500.0	7,494.0	7,494.0	104.6	13.1	-90.00	-1,199.2	941.3	4,732.1	4,614.5	117.63	40.230		
13,700.0	7,500.0	7,494.0	7,494.0	106.3	13.1	-90.00	-1,199.2	941.3	4,829.4	4,710.0	119.37	40.459		
13,800.0	7,500.0	7,494.0	7,494.0	108.1	13.1	-90.00	-1,199.2	941.3	4,926.8	4,805.7	121.11	40.682		
13,900.0	7,500.0	7,494.0	7,494.0	109.8	13.1	-90.00	-1,199.2	941.3	5,024.3	4,901.4	122.85	40.899		
14,000.0	7,500.0	7,494.0	7,494.0	111.6	13.1	-90.00	-1,199.2	941.3	5,121.9	4,997.3	124.59	41.111		
14,100.0	7,500.0	7,494.0	7,494.0	113.3	13.1	-90.00	-1,199.2	941.3	5,219.5	5,093.2	126.33	41.317		

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 2B-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 2B-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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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 11-7 (EXISTING) - ENCANA WELL - SU										Offset Site Error:		0.0 ft	
Survey Program: 132-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 Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	65.4	65.4	0.0	0.1	37.46	1,606.8	1,231.4	2,024.4				
100.0	100.0	192.5	192.5	0.2	0.3	37.42	1,606.5	1,229.1	2,023.1	2,022.6	0.49	4,147.077	
200.0	200.0	330.2	330.1	0.3	0.6	37.34	1,605.0	1,224.4	2,020.2	2,019.3	0.90	2,237.884	
300.0	300.0	438.5	438.2	0.5	0.8	37.21	1,603.9	1,218.0	2,015.8	2,014.5	1.27	1,591.054	
400.0	400.0	535.2	534.5	0.7	1.0	77.08	1,605.3	1,210.2	2,011.9	2,010.2	1.68	1,195.021	
500.0	500.0	807.8	803.1	0.9	2.0	76.21	1,610.9	1,164.4	2,002.7	2,000.0	2.67	749.559	
600.0	599.9	923.3	915.8	1.0	2.4	75.91	1,610.2	1,139.4	1,988.2	1,985.0	3.24	613.778	
700.0	699.7	1,059.2	1,048.4	1.2	3.0	75.63	1,608.3	1,109.8	1,972.9	1,969.0	3.90	506.309	
800.0	799.4	1,207.0	1,191.6	1.4	3.7	75.09	1,605.0	1,073.3	1,954.9	1,950.3	4.67	418.936	
900.0	899.2	1,300.5	1,281.6	1.6	4.2	74.68	1,603.2	1,047.9	1,935.8	1,930.6	5.27	367.514	
1,000.0	998.9	1,421.1	1,397.4	1.8	4.8	74.14	1,600.2	1,014.9	1,916.2	1,910.2	5.98	320.601	
1,100.0	1,098.7	1,510.6	1,483.4	2.1	5.3	73.72	1,597.8	989.8	1,896.3	1,889.7	6.58	288.293	
1,200.0	1,198.5	1,590.4	1,559.9	2.3	5.7	73.32	1,596.5	967.4	1,877.3	1,870.1	7.14	262.877	
1,300.0	1,298.2	1,684.3	1,650.3	2.5	6.2	59.01	1,595.3	941.9	1,858.3	1,850.6	7.76	239.619	
1,400.0	1,397.9	1,789.7	1,751.6	2.7	6.7	46.36	1,593.5	912.9	1,837.3	1,828.9	8.44	217.623	
1,450.9	1,448.6	1,842.3	1,801.9	2.8	7.0	40.75	1,593.0	897.7	1,826.0	1,817.2	8.80	207.491	
1,500.0	1,497.6	1,899.5	1,856.5	2.9	7.3	40.39	1,592.4	880.7	1,814.7	1,805.5	9.19	197.556	
1,600.0	1,597.2	1,993.0	1,945.8	3.1	7.9	39.79	1,591.4	852.8	1,791.6	1,781.7	9.86	181.713	
1,700.0	1,696.9	2,099.0	2,047.3	3.3	8.4	39.15	1,588.7	822.4	1,768.1	1,757.6	10.55	167.562	
1,800.0	1,796.5	2,168.0	2,113.7	3.6	8.8	38.75	1,587.2	803.7	1,745.8	1,734.7	11.07	157.665	
1,900.0	1,896.1	2,308.5	2,248.0	3.8	9.6	37.81	1,584.9	762.5	1,723.3	1,711.3	12.01	143.429	
2,000.0	1,995.8	2,390.8	2,326.3	4.0	10.1	37.22	1,582.8	737.1	1,699.4	1,686.7	12.66	134.206	
2,100.0	2,095.4	2,456.0	2,388.4	4.2	10.5	36.72	1,582.4	717.1	1,677.4	1,664.2	13.22	126.844	
2,200.0	2,195.1	2,527.6	2,456.7	4.4	10.8	36.17	1,583.0	695.7	1,657.2	1,643.4	13.82	119.922	
2,300.0	2,294.7	2,621.8	2,546.8	4.7	11.4	35.45	1,584.0	668.4	1,638.0	1,623.5	14.53	112.717	
2,400.0	2,394.4	2,712.0	2,633.2	4.9	11.9	34.74	1,585.2	642.4	1,619.4	1,604.1	15.23	106.314	
2,500.0	2,494.0	2,823.5	2,739.8	5.1	12.5	33.85	1,586.3	610.0	1,600.6	1,584.6	16.05	99.737	
2,600.0	2,593.6	2,935.1	2,846.9	5.3	13.1	32.99	1,585.9	578.4	1,581.2	1,564.4	16.83	93.939	
2,700.0	2,693.3	3,025.3	2,933.7	5.6	13.5	32.32	1,584.5	554.0	1,561.7	1,544.2	17.49	89.284	
2,800.0	2,792.9	3,153.5	3,057.0	5.8	14.2	31.36	1,581.3	518.9	1,541.3	1,523.0	18.35	83.977	
2,900.0	2,892.6	3,229.2	3,129.6	6.0	14.6	30.75	1,579.8	497.5	1,521.4	1,502.4	18.97	80.218	
3,000.0	2,992.2	3,325.5	3,221.8	6.2	15.2	29.93	1,578.3	470.0	1,501.9	1,482.2	19.69	76.260	
3,100.0	3,091.9	3,404.1	3,297.2	6.5	15.6	29.25	1,577.8	447.7	1,483.7	1,463.4	20.32	73.001	
3,200.0	3,191.5	3,501.9	3,391.3	6.7	16.1	28.43	1,576.8	421.0	1,465.9	1,444.9	21.03	69.692	
3,300.0	3,291.2	3,576.8	3,463.6	6.9	16.5	27.81	1,576.5	401.5	1,449.3	1,427.7	21.62	67.032	
3,400.0	3,390.8	3,652.0	3,536.0	7.1	16.9	27.13	1,577.6	381.1	1,434.5	1,412.2	22.25	64.476	
3,500.0	3,490.4	3,755.9	3,635.5	7.4	17.4	26.11	1,580.5	351.7	1,420.7	1,397.7	23.05	61.637	
3,600.0	3,590.1	3,888.1	3,762.6	7.6	18.1	24.86	1,580.6	315.0	1,404.9	1,381.0	23.98	58.585	
3,700.0	3,689.7	3,977.6	3,848.5	7.8	18.6	23.98	1,580.1	289.8	1,389.1	1,364.4	24.68	56.272	
3,800.0	3,789.4	4,085.2	3,951.5	8.1	19.2	22.86	1,580.0	258.6	1,373.7	1,348.2	25.52	53.828	
3,900.0	3,889.0	4,203.9	4,064.8	8.3	19.9	21.58	1,578.2	223.4	1,357.4	1,331.0	26.40	51.410	
4,000.0	3,988.7	4,294.1	4,151.1	8.5	20.4	20.63	1,575.6	197.5	1,340.4	1,313.3	27.11	49.443	
4,100.0	4,088.3	4,357.7	4,212.0	8.7	20.7	19.93	1,575.1	179.1	1,325.8	1,298.1	27.67	47.917	
4,200.0	4,187.9	4,438.0	4,289.2	9.0	21.1	19.06	1,575.3	157.0	1,313.0	1,284.7	28.29	46.415	
4,300.0	4,287.6	4,525.0	4,373.6	9.2	21.5	18.24	1,576.0	135.9	1,301.6	1,272.7	28.87	45.077	
4,400.0	4,387.2	4,612.0	4,458.7	9.4	21.8	17.55	1,577.2	118.0	1,291.7	1,262.3	29.41	43.926	
4,500.0	4,486.9	4,701.0	4,546.3	9.6	22.1	16.94	1,578.8	102.3	1,282.7	1,252.8	29.90	42.895	
4,600.0	4,586.5	4,796.1	4,640.2	9.9	22.4	16.38	1,580.4	87.7	1,274.3	1,243.9	30.39	41.937	
4,700.0	4,686.2	4,890.5	4,733.8	10.1	22.7	15.89	1,582.2	74.7	1,266.3	1,235.4	30.84	41.059	
4,800.0	4,785.8	4,984.4	4,826.9	10.3	22.9	15.46	1,584.2	63.4	1,258.8	1,227.6	31.26	40.265	
4,900.0	4,885.4	5,089.2	4,931.1	10.6	23.1	15.06	1,586.2	52.3	1,251.4	1,219.7	31.69	39.487	
5,000.0	4,985.1	5,189.9	5,031.3	10.8	23.3	14.71	1,587.6	42.8	1,243.6	1,211.6	32.09	38.757	

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 2B-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 2B-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 11-7 (EXISTING) - ENCANA WELL - SU											Offset Site Error: 0.0 ft		
Survey Program: 132-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	5,084.7	5,280.0	5,121.2	11.0	23.5	14.47	1,589.0	35.6	1,236.2	1,203.8	32.43	38.116	
5,200.0	5,184.4	5,375.3	5,216.3	11.2	23.7	14.28	1,591.1	29.8	1,229.6	1,196.9	32.77	37.526	
5,300.0	5,284.0	5,478.5	5,319.3	11.5	23.8	14.14	1,593.1	24.8	1,223.0	1,189.9	33.09	36.960	
5,400.0	5,383.7	5,578.9	5,419.7	11.7	23.9	14.05	1,594.8	21.1	1,216.1	1,182.7	33.39	36.418	
5,500.0	5,483.3	5,677.4	5,518.1	11.9	24.0	13.98	1,596.4	17.7	1,209.2	1,175.6	33.69	35.889	
5,600.0	5,583.0	5,768.9	5,609.5	12.1	24.1	13.93	1,598.3	15.0	1,202.8	1,168.8	33.98	35.399	
5,700.0	5,682.6	5,863.6	5,704.2	12.4	24.2	13.89	1,600.8	12.4	1,197.1	1,162.8	34.27	34.934	
5,800.0	5,782.2	5,966.3	5,806.8	12.6	24.4	13.86	1,603.5	9.9	1,191.3	1,156.7	34.56	34.470	
5,900.0	5,881.9	6,069.1	5,909.5	12.8	24.5	13.85	1,606.0	7.8	1,185.3	1,150.4	34.84	34.021	
6,000.0	5,981.5	6,171.9	6,012.2	13.1	24.5	13.88	1,608.1	6.5	1,179.0	1,143.9	35.11	33.584	
6,100.0	6,081.2	6,272.9	6,113.3	13.3	24.6	13.93	1,609.9	5.8	1,172.5	1,137.2	35.38	33.137	
6,200.0	6,180.8	6,373.2	6,213.6	13.5	24.7	13.96	1,611.7	4.5	1,166.0	1,130.3	35.67	32.691	
6,300.0	6,280.5	6,470.6	6,310.9	13.7	24.8	13.98	1,613.5	2.9	1,159.6	1,123.6	35.95	32.251	
6,400.0	6,380.1	6,569.8	6,410.1	14.0	25.0	13.97	1,615.6	0.9	1,153.3	1,117.1	36.25	31.817	
6,500.0	6,479.7	6,672.2	6,512.5	14.2	25.1	13.95	1,617.7	-1.4	1,146.9	1,110.3	36.55	31.378	
6,600.0	6,579.4	6,770.3	6,610.5	14.4	25.2	13.92	1,619.6	-3.8	1,140.4	1,103.6	36.84	30.952	
6,700.0	6,679.0	6,866.2	6,706.3	14.7	25.3	13.90	1,621.7	-5.9	1,134.2	1,097.1	37.13	30.545	
6,800.0	6,778.7	6,963.7	6,803.8	14.9	25.4	13.90	1,624.1	-7.8	1,128.3	1,090.9	37.42	30.153	
6,901.0	6,879.3	7,062.6	6,902.7	15.1	25.5	13.90	1,626.7	-9.5	1,122.5	1,084.8	37.71	29.768	
6,933.3	6,911.6	7,094.5	6,934.6	15.2	25.5	30.60	1,627.6	-10.0	1,121.6	1,083.7	37.87	29.621 CC, ES	
6,950.0	6,928.3	7,111.1	6,951.1	15.2	25.6	103.98	1,628.0	-10.2	1,121.8	1,083.9	37.91	29.595 SF	
7,000.0	6,978.2	7,160.4	7,000.4	15.2	25.6	176.82	1,629.4	-10.9	1,125.5	1,087.6	37.87	29.721	
7,050.0	7,027.7	7,209.2	7,049.1	15.2	25.7	-179.10	1,630.7	-11.4	1,133.5	1,095.9	37.59	30.153	
7,100.0	7,076.5	7,258.2	7,098.2	15.1	25.7	-177.66	1,632.1	-11.9	1,145.7	1,108.6	37.08	30.900	
7,150.0	7,124.1	7,307.0	7,146.9	15.0	25.8	-176.88	1,633.4	-12.3	1,162.1	1,125.7	36.34	31.980	
7,200.0	7,170.3	7,354.1	7,194.0	14.9	25.8	-176.35	1,634.6	-12.7	1,182.4	1,147.0	35.38	33.422	
7,250.0	7,214.6	7,399.3	7,239.2	14.8	25.8	-175.92	1,635.7	-13.1	1,206.5	1,172.3	34.21	35.265	
7,300.0	7,256.7	7,439.7	7,279.6	14.6	25.9	-175.51	1,636.6	-13.3	1,234.4	1,201.5	32.86	37.568	
7,350.0	7,296.2	7,477.1	7,316.9	14.4	25.9	-175.08	1,637.6	-13.5	1,265.8	1,234.5	31.34	40.393	
7,400.0	7,333.0	7,511.6	7,351.5	14.2	25.9	-174.58	1,638.4	-13.6	1,300.5	1,270.8	29.68	43.816	
7,450.0	7,366.7	7,543.0	7,382.9	14.1	26.0	-173.99	1,639.3	-13.6	1,338.2	1,310.3	27.92	47.924	
7,500.0	7,397.1	7,571.1	7,410.9	13.9	26.0	-173.23	1,640.0	-13.6	1,378.7	1,352.6	26.11	52.806	
7,550.0	7,423.8	7,595.9	7,435.7	13.8	26.0	-172.20	1,640.7	-13.5	1,421.5	1,397.2	24.29	58.516	
7,600.0	7,446.8	7,617.0	7,456.8	13.7	26.0	-170.74	1,641.3	-13.4	1,466.4	1,443.9	22.56	65.000	
7,650.0	7,465.8	7,634.2	7,474.0	13.6	26.1	-168.49	1,641.8	-13.4	1,513.1	1,492.1	21.04	71.905	
7,700.0	7,480.8	7,647.3	7,487.2	13.6	26.1	-164.60	1,642.2	-13.3	1,561.1	1,541.1	20.00	78.068	
7,750.0	7,491.5	7,656.4	7,496.2	13.7	26.1	-156.43	1,642.4	-13.3	1,610.1	1,590.0	20.10	80.100	
7,800.0	7,497.9	7,661.2	7,501.0	13.8	26.1	-132.15	1,642.6	-13.3	1,659.8	1,636.0	23.81	69.695	
7,848.8	7,500.0	7,661.8	7,501.6	13.9	26.1	-64.08	1,642.6	-13.3	1,708.5	1,683.8	24.70	69.157	
7,900.0	7,500.0	7,660.4	7,500.2	14.1	26.1	-63.44	1,642.6	-13.3	1,759.6	1,734.7	24.81	70.928	
8,000.0	7,500.0	7,657.5	7,497.3	14.7	26.1	-62.20	1,642.5	-13.3	1,859.3	1,834.2	25.13	73.979	
8,100.0	7,500.0	7,654.7	7,494.5	15.4	26.1	-60.99	1,642.4	-13.3	1,959.2	1,933.6	25.60	76.527	
8,200.0	7,500.0	7,651.9	7,491.7	16.3	26.1	-59.82	1,642.3	-13.3	2,059.0	2,032.8	26.18	78.637	
8,300.0	7,500.0	7,649.1	7,488.9	17.3	26.1	-58.67	1,642.2	-13.3	2,158.8	2,132.0	26.86	80.385	
8,400.0	7,500.0	7,646.3	7,486.1	18.5	26.1	-57.56	1,642.2	-13.3	2,258.7	2,231.1	27.60	81.845	
8,500.0	7,500.0	7,643.5	7,483.3	19.7	26.1	-56.48	1,642.1	-13.4	2,358.5	2,330.1	28.39	83.082	
8,600.0	7,500.0	7,640.8	7,480.6	21.0	26.1	-55.43	1,642.0	-13.4	2,458.4	2,429.2	29.21	84.150	
8,700.0	7,500.0	7,638.0	7,477.8	22.4	26.1	-54.40	1,641.9	-13.4	2,558.3	2,528.2	30.06	85.092	
8,800.0	7,500.0	7,635.3	7,475.1	23.8	26.1	-53.41	1,641.8	-13.4	2,658.1	2,627.2	30.93	85.942	
8,900.0	7,500.0	7,632.5	7,472.3	25.3	26.0	-52.44	1,641.8	-13.4	2,758.0	2,726.2	31.80	86.727	
9,000.0	7,500.0	7,629.8	7,469.6	26.7	26.0	-51.51	1,641.7	-13.4	2,857.9	2,825.2	32.67	87.465	
9,100.0	7,500.0	7,627.1	7,466.9	28.3	26.0	-50.60	1,641.6	-13.4	2,957.8	2,924.3	33.55	88.174	

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 2B-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 2B-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 11-7 (EXISTING) - ENCANA WELL - SU													Offset Site Error:	0.0 ft
Survey Program: 132-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		
9,200.0	7,500.0	7,624.4	7,464.2	29.8	26.0	-49.71	1,641.5	-13.4	3,057.7	3,023.3	34.41	88.862		
9,300.0	7,500.0	7,621.7	7,461.5	31.4	26.0	-48.85	1,641.4	-13.4	3,157.6	3,122.3	35.26	89.540		
9,400.0	7,500.0	7,619.0	7,458.8	33.0	26.0	-48.02	1,641.4	-13.4	3,257.5	3,221.4	36.11	90.212		
9,500.0	7,500.0	7,616.3	7,456.1	34.6	26.0	-47.21	1,641.3	-13.4	3,357.4	3,320.5	36.94	90.885		
9,600.0	7,500.0	7,613.6	7,453.5	36.2	26.0	-46.42	1,641.2	-13.4	3,457.3	3,419.6	37.76	91.560		
9,700.0	7,500.0	7,611.0	7,450.8	37.8	26.0	-45.65	1,641.1	-13.5	3,557.3	3,518.7	38.57	92.240		
9,800.0	7,500.0	7,608.3	7,448.1	39.5	26.0	-44.91	1,641.1	-13.5	3,657.2	3,617.8	39.36	92.927		
9,900.0	7,500.0	7,605.7	7,445.5	41.1	26.0	-44.19	1,641.0	-13.5	3,757.1	3,717.0	40.13	93.623		
10,000.0	7,500.0	7,603.0	7,442.9	42.8	26.0	-43.49	1,640.9	-13.5	3,857.0	3,816.1	40.89	94.326		
10,100.0	7,500.0	7,600.4	7,440.2	44.5	26.0	-42.81	1,640.8	-13.5	3,956.9	3,915.3	41.63	95.039		
10,200.0	7,500.0	7,597.8	7,437.6	46.1	26.0	-42.15	1,640.8	-13.5	4,056.9	4,014.5	42.36	95.761		
10,300.0	7,500.0	7,595.2	7,435.0	47.8	26.0	-41.50	1,640.7	-13.5	4,156.8	4,113.7	43.08	96.492		
10,400.0	7,500.0	7,592.6	7,432.4	49.5	26.0	-40.88	1,640.6	-13.5	4,256.7	4,212.9	43.78	97.232		
10,500.0	7,500.0	7,590.0	7,429.9	51.2	26.0	-40.27	1,640.6	-13.5	4,356.7	4,312.2	44.46	97.980		
10,600.0	7,500.0	7,587.4	7,427.3	52.9	26.0	-39.68	1,640.5	-13.5	4,456.6	4,411.5	45.14	98.736		
10,700.0	7,500.0	7,580.0	7,419.8	54.6	26.0	-38.05	1,640.3	-13.5	4,556.5	4,511.5	45.01	101.230		
10,800.0	7,500.0	7,580.0	7,419.8	56.3	26.0	-38.05	1,640.3	-13.5	4,656.5	4,610.4	46.06	101.098		
10,900.0	7,500.0	7,580.0	7,419.8	58.0	26.0	-38.05	1,640.3	-13.5	4,756.4	4,709.3	47.11	100.966		
11,000.0	7,500.0	7,580.0	7,419.8	59.7	26.0	-38.05	1,640.3	-13.5	4,856.3	4,808.2	48.16	100.835		
11,100.0	7,500.0	7,580.0	7,419.8	61.4	26.0	-38.05	1,640.3	-13.5	4,956.3	4,907.1	49.22	100.706		
11,200.0	7,500.0	7,580.0	7,419.8	63.1	26.0	-38.05	1,640.3	-13.5	5,056.2	5,006.0	50.27	100.577		
11,300.0	7,500.0	7,580.0	7,419.8	64.8	26.0	-38.05	1,640.3	-13.5	5,156.2	5,104.8	51.33	100.451		
11,400.0	7,500.0	7,567.6	7,407.5	66.5	26.0	-35.59	1,639.9	-13.6	5,256.1	5,206.0	50.13	104.857		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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		
0.0	0.0	88.0	88.0	0.0	0.2	-14.37	131.1	-33.6	135.4					
100.0	100.0	188.0	188.0	0.2	0.3	-14.37	131.1	-33.6	135.4	134.9	0.48	281.922		
200.0	200.0	288.0	288.0	0.3	0.5	-14.37	131.1	-33.6	135.4	134.5	0.83	163.247		
300.0	300.0	388.0	388.0	0.5	0.7	-14.37	131.1	-33.6	135.4	134.2	1.18	114.885		
400.0	400.0	488.0	488.0	0.7	0.9	25.80	131.1	-33.6	134.6	133.1	1.53	88.114		
500.0	500.0	588.0	588.0	0.9	1.0	26.30	131.1	-33.6	132.2	130.4	1.88	70.456		
600.0	599.9	687.9	687.9	1.0	1.2	27.18	131.1	-33.6	128.3	126.1	2.23	57.618		
700.0	699.7	787.7	787.7	1.2	1.4	28.51	131.1	-33.6	122.9	120.4	2.58	47.644		
800.0	799.4	887.4	887.4	1.4	1.5	30.14	131.1	-33.6	116.8	113.9	2.94	39.788		
900.0	899.2	987.2	987.2	1.6	1.7	31.95	131.1	-33.6	110.9	107.6	3.30	33.639		
1,000.0	998.9	1,086.9	1,086.9	1.8	1.9	33.96	131.1	-33.6	105.0	101.4	3.66	28.709		
1,100.0	1,098.7	1,186.7	1,186.7	2.1	2.1	36.21	131.1	-33.6	99.3	95.3	4.02	24.682		
1,200.0	1,198.5	1,286.5	1,286.5	2.3	2.2	38.73	131.1	-33.6	93.8	89.4	4.39	21.344		
1,300.0	1,298.2	1,386.2	1,386.2	2.5	2.4	27.30	131.1	-33.6	87.8	83.0	4.76	18.458		
1,400.0	1,397.9	1,485.9	1,485.9	2.7	2.6	17.13	131.1	-33.6	80.8	75.6	5.11	15.790		
1,450.9	1,448.6	1,536.6	1,536.6	2.8	2.7	12.62	131.1	-33.6	76.7	71.4	5.29	14.491		
1,500.0	1,497.6	1,585.6	1,585.6	2.9	2.8	13.33	131.1	-33.6	72.7	67.2	5.47	13.287		
1,600.0	1,597.2	1,685.2	1,685.2	3.1	2.9	15.06	131.1	-33.6	64.5	58.7	5.83	11.062		
1,700.0	1,696.9	1,784.9	1,784.9	3.3	3.1	17.28	131.1	-33.6	56.4	50.2	6.20	9.100		
1,800.0	1,796.5	1,884.5	1,884.5	3.6	3.3	20.25	131.1	-33.6	48.4	41.8	6.57	7.364		
1,900.0	1,896.1	1,984.1	1,984.1	3.8	3.5	24.37	131.1	-33.6	40.6	33.6	6.96	5.829		
2,000.0	1,995.8	2,083.8	2,083.8	4.0	3.6	30.40	131.1	-33.6	33.1	25.7	7.38	4.484		
2,100.0	2,095.4	2,183.4	2,183.4	4.2	3.8	39.79	131.1	-33.6	26.2	18.3	7.84	3.337		
2,200.0	2,195.1	2,283.1	2,283.1	4.4	4.0	55.11	131.1	-33.6	20.4	12.0	8.35	2.442		
2,300.0	2,294.7	2,382.7	2,382.7	4.7	4.2	79.02	131.1	-33.6	17.0	8.2	8.83	1.927		
2,338.6	2,333.1	2,421.1	2,421.1	4.8	4.2	90.00	131.1	-33.6	16.7	7.7	8.95	1.865 CC, ES, SF		
2,400.0	2,394.4	2,482.4	2,482.4	4.9	4.3	107.19	131.1	-33.6	17.5	8.4	9.07	1.929		
2,500.0	2,494.0	2,582.0	2,582.0	5.1	4.5	129.10	131.1	-33.6	21.6	12.4	9.18	2.348		
2,600.0	2,593.6	2,681.6	2,681.6	5.3	4.7	142.77	131.1	-33.6	27.7	18.3	9.37	2.953		
2,700.0	2,693.3	2,781.3	2,781.3	5.6	4.9	151.20	131.1	-33.6	34.8	25.1	9.64	3.608		
2,800.0	2,792.9	2,880.9	2,880.9	5.8	5.0	156.71	131.1	-33.6	42.4	32.4	9.94	4.261		
2,900.0	2,892.6	2,980.6	2,980.6	6.0	5.2	160.51	131.1	-33.6	50.2	40.0	10.27	4.892		
3,000.0	2,992.2	3,080.2	3,080.2	6.2	5.4	163.28	131.1	-33.6	58.2	47.6	10.60	5.494		
3,100.0	3,091.9	3,179.9	3,179.9	6.5	5.6	165.38	131.1	-33.6	66.4	55.4	10.94	6.066		
3,200.0	3,191.5	3,279.5	3,279.5	6.7	5.7	167.01	131.1	-33.6	74.6	63.3	11.29	6.608		
3,300.0	3,291.2	3,379.2	3,379.2	6.9	5.9	168.33	131.1	-33.6	82.8	71.2	11.63	7.121		
3,400.0	3,390.8	3,478.8	3,478.8	7.1	6.1	169.40	131.1	-33.6	91.1	79.1	11.98	7.606		
3,500.0	3,490.4	3,578.4	3,578.4	7.4	6.2	170.29	131.1	-33.6	99.4	87.1	12.32	8.066		
3,600.0	3,590.1	3,678.1	3,678.1	7.6	6.4	171.05	131.1	-33.6	107.7	95.1	12.67	8.502		
3,700.0	3,689.7	3,777.7	3,777.7	7.8	6.6	171.70	131.1	-33.6	116.1	103.0	13.02	8.916		
3,800.0	3,789.4	3,877.4	3,877.4	8.1	6.8	172.26	131.1	-33.6	124.4	111.1	13.37	9.309		
3,900.0	3,889.0	3,977.0	3,977.0	8.3	6.9	172.75	131.1	-33.6	132.8	119.1	13.71	9.683		
4,000.0	3,988.7	4,076.7	4,076.7	8.5	7.1	173.18	131.1	-33.6	141.2	127.1	14.06	10.039		
4,100.0	4,088.3	4,176.3	4,176.3	8.7	7.3	173.56	131.1	-33.6	149.5	135.1	14.41	10.378		
4,200.0	4,187.9	4,275.9	4,275.9	9.0	7.5	173.91	131.1	-33.6	157.9	143.2	14.76	10.702		
4,300.0	4,287.6	4,375.6	4,375.6	9.2	7.6	174.22	131.1	-33.6	166.3	151.2	15.11	11.010		
4,400.0	4,387.2	4,475.2	4,475.2	9.4	7.8	174.50	131.1	-33.6	174.7	159.3	15.45	11.306		
4,500.0	4,486.9	4,574.9	4,574.9	9.6	8.0	174.75	131.1	-33.6	183.1	167.3	15.80	11.588		
4,600.0	4,586.5	4,674.5	4,674.5	9.9	8.2	174.98	131.1	-33.6	191.5	175.4	16.15	11.859		
4,700.0	4,686.2	4,774.2	4,774.2	10.1	8.3	175.19	131.1	-33.6	199.9	183.4	16.50	12.118		
4,800.0	4,785.8	4,873.8	4,873.8	10.3	8.5	175.39	131.1	-33.6	208.3	191.5	16.85	12.367		
4,900.0	4,885.4	4,973.4	4,973.4	10.6	8.7	175.56	131.1	-33.6	216.7	199.5	17.19	12.605		

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 2B-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 2B-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							
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	4,985.1	5,073.1	5,073.1	10.8	8.9	175.73	131.1	-33.6	225.2	207.6	17.54	12.835	
5,100.0	5,084.7	5,172.7	5,172.7	11.0	9.0	175.89	131.1	-33.6	233.6	215.7	17.89	13.055	
5,200.0	5,184.4	5,272.4	5,272.4	11.2	9.2	176.03	131.1	-33.6	242.0	223.7	18.24	13.267	
5,300.0	5,284.0	5,372.0	5,372.0	11.5	9.4	176.16	131.1	-33.6	250.4	231.8	18.59	13.471	
5,400.0	5,383.7	5,471.7	5,471.7	11.7	9.5	176.29	131.1	-33.6	258.8	239.9	18.94	13.668	
5,500.0	5,483.3	5,571.3	5,571.3	11.9	9.7	176.40	131.1	-33.6	267.2	248.0	19.28	13.858	
5,600.0	5,583.0	5,671.0	5,671.0	12.1	9.9	176.51	131.1	-33.6	275.7	256.0	19.63	14.041	
5,700.0	5,682.6	5,770.6	5,770.6	12.4	10.1	176.62	131.1	-33.6	284.1	264.1	19.98	14.218	
5,800.0	5,782.2	5,870.2	5,870.2	12.6	10.2	176.72	131.1	-33.6	292.5	272.2	20.33	14.389	
5,900.0	5,881.9	5,969.9	5,969.9	12.8	10.4	176.81	131.1	-33.6	300.9	280.2	20.68	14.554	
6,000.0	5,981.5	6,069.5	6,069.5	13.1	10.6	176.89	131.1	-33.6	309.3	288.3	21.02	14.713	
6,100.0	6,081.2	6,169.2	6,169.2	13.3	10.8	176.98	131.1	-33.6	317.8	296.4	21.37	14.868	
6,200.0	6,180.8	6,268.8	6,268.8	13.5	10.9	177.05	131.1	-33.6	326.2	304.5	21.72	15.017	
6,300.0	6,280.5	6,368.5	6,368.5	13.7	11.1	177.13	131.1	-33.6	334.6	312.6	22.07	15.162	
6,400.0	6,380.1	6,468.1	6,468.1	14.0	11.3	177.20	131.1	-33.6	343.0	320.6	22.42	15.303	
6,500.0	6,479.7	6,567.7	6,567.7	14.2	11.5	177.27	131.1	-33.6	351.5	328.7	22.77	15.439	
6,600.0	6,579.4	6,667.4	6,667.4	14.4	11.6	177.33	131.1	-33.6	359.9	336.8	23.11	15.571	
6,700.0	6,679.0	6,767.0	6,767.0	14.7	11.8	177.39	131.1	-33.6	368.3	344.9	23.46	15.699	
6,800.0	6,778.7	6,866.7	6,866.7	14.9	12.0	177.45	131.1	-33.6	376.8	352.9	23.81	15.823	
6,901.0	6,879.3	6,967.3	6,967.3	15.1	12.2	177.51	131.1	-33.6	385.3	361.1	24.16	15.945	
6,950.0	6,928.3	7,016.3	7,016.3	15.2	12.2	-92.40	131.1	-33.6	387.4	363.0	24.34	15.914	
7,000.0	6,978.2	7,066.2	7,066.2	15.2	12.3	-19.78	131.1	-33.6	385.2	360.8	24.40	15.787	
7,050.0	7,027.7	7,115.7	7,115.7	15.2	12.4	-16.16	131.1	-33.6	378.9	354.5	24.35	15.561	
7,100.0	7,076.5	7,164.5	7,164.5	15.1	12.5	-15.47	131.1	-33.6	368.3	344.2	24.18	15.233	
7,150.0	7,124.1	7,212.1	7,212.1	15.0	12.6	-15.78	131.1	-33.6	353.7	329.8	23.91	14.794	
7,200.0	7,170.3	7,258.3	7,258.3	14.9	12.7	-16.75	131.1	-33.6	335.1	311.6	23.55	14.230	
7,250.0	7,214.6	7,302.6	7,302.6	14.8	12.7	-18.39	131.1	-33.6	312.8	289.7	23.13	13.521	
7,300.0	7,256.7	7,344.7	7,344.7	14.6	12.8	-20.84	131.1	-33.6	287.0	264.3	22.71	12.638	
7,350.0	7,296.2	7,384.2	7,384.2	14.4	12.9	-24.39	131.1	-33.6	258.0	235.6	22.35	11.542	
7,400.0	7,333.0	7,421.0	7,421.0	14.2	13.0	-29.53	131.1	-33.6	226.3	204.1	22.21	10.190	
7,450.0	7,366.7	7,454.7	7,454.7	14.1	13.0	-36.94	131.1	-33.6	192.5	170.0	22.48	8.561	
7,500.0	7,397.1	7,485.1	7,485.1	13.9	13.1	-47.43	131.1	-33.6	157.6	134.2	23.41	6.733	
7,550.0	7,423.8	7,511.8	7,511.8	13.8	13.1	-61.20	131.1	-33.6	123.8	98.9	24.89	4.972	
7,600.0	7,446.8	7,534.8	7,534.8	13.7	13.2	-76.48	131.1	-33.6	95.6	69.4	26.20	3.650	
7,650.0	7,465.8	7,553.8	7,553.8	13.6	13.2	-89.68	131.1	-33.6	83.0	56.3	26.65	3.114	
7,651.4	7,466.3	7,554.3	7,554.3	13.6	13.2	-90.00	131.1	-33.6	83.0	56.3	26.65	3.113	
7,700.0	7,480.8	7,568.8	7,568.8	13.6	13.2	-98.14	131.1	-33.6	95.0	68.5	26.53	3.582	
7,750.0	7,491.5	7,579.5	7,579.5	13.7	13.2	-101.10	131.1	-33.6	126.2	99.7	26.45	4.772	
7,800.0	7,497.9	7,585.9	7,585.9	13.8	13.2	-98.40	131.1	-33.6	166.7	140.0	26.68	6.249	
7,848.8	7,500.0	7,588.0	7,588.0	13.9	13.2	-90.00	131.1	-33.6	210.4	183.4	27.00	7.792	
7,900.0	7,500.0	7,588.0	7,588.0	14.1	13.2	-90.00	131.1	-33.6	258.1	230.9	27.21	9.487	
8,000.0	7,500.0	7,588.0	7,588.0	14.7	13.2	-90.00	131.1	-33.6	354.3	326.5	27.78	12.753	
8,100.0	7,500.0	7,588.0	7,588.0	15.4	13.2	-90.00	131.1	-33.6	452.1	423.5	28.53	15.847	
8,200.0	7,500.0	7,588.0	7,588.0	16.3	13.2	-90.00	131.1	-33.6	550.7	521.2	29.43	18.710	
8,300.0	7,500.0	7,588.0	7,588.0	17.3	13.2	-90.00	131.1	-33.6	649.7	619.2	30.47	21.324	
8,400.0	7,500.0	7,588.0	7,588.0	18.5	13.2	-90.00	131.1	-33.6	749.0	717.3	31.61	23.692	
8,500.0	7,500.0	7,588.0	7,588.0	19.7	13.2	-90.00	131.1	-33.6	848.4	815.6	32.85	25.828	
8,600.0	7,500.0	7,588.0	7,588.0	21.0	13.2	-90.00	131.1	-33.6	948.0	913.8	34.16	27.753	
8,700.0	7,500.0	7,588.0	7,588.0	22.4	13.2	-90.00	131.1	-33.6	1,047.6	1,012.1	35.53	29.487	
8,800.0	7,500.0	7,588.0	7,588.0	23.8	13.2	-90.00	131.1	-33.6	1,147.3	1,110.4	36.95	31.051	
8,900.0	7,500.0	7,588.0	7,588.0	25.3	13.2	-90.00	131.1	-33.6	1,247.1	1,208.7	38.41	32.464	
9,000.0	7,500.0	7,588.0	7,588.0	26.7	13.2	-90.00	131.1	-33.6	1,346.9	1,307.0	39.91	33.746	

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 2B-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 2B-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	7,500.0	7,588.0	7,588.0	28.3	13.2	-90.00	131.1	-33.6	1,446.7	1,405.3	41.44	34.910		
9,200.0	7,500.0	7,588.0	7,588.0	29.8	13.2	-90.00	131.1	-33.6	1,546.6	1,503.6	42.99	35.971		
9,300.0	7,500.0	7,588.0	7,588.0	31.4	13.2	-90.00	131.1	-33.6	1,646.4	1,601.8	44.57	36.941		
9,400.0	7,500.0	7,588.0	7,588.0	33.0	13.2	-90.00	131.1	-33.6	1,746.3	1,700.1	46.16	37.831		
9,500.0	7,500.0	7,588.0	7,588.0	34.6	13.2	-90.00	131.1	-33.6	1,846.2	1,798.4	47.77	38.648		
9,600.0	7,500.0	7,588.0	7,588.0	36.2	13.2	-90.00	131.1	-33.6	1,946.1	1,896.7	49.39	39.402		
9,700.0	7,500.0	7,588.0	7,588.0	37.8	13.2	-90.00	131.1	-33.6	2,046.0	1,995.0	51.02	40.099		
9,800.0	7,500.0	7,588.0	7,588.0	39.5	13.2	-90.00	131.1	-33.6	2,145.9	2,093.3	52.67	40.744		
9,900.0	7,500.0	7,588.0	7,588.0	41.1	13.2	-90.00	131.1	-33.6	2,245.8	2,191.5	54.32	41.344		
10,000.0	7,500.0	7,588.0	7,588.0	42.8	13.2	-90.00	131.1	-33.6	2,345.8	2,289.8	55.98	41.903		
10,100.0	7,500.0	7,588.0	7,588.0	44.5	13.2	-90.00	131.1	-33.6	2,445.7	2,388.1	57.65	42.424		
10,200.0	7,500.0	7,588.0	7,588.0	46.1	13.2	-90.00	131.1	-33.6	2,545.7	2,486.3	59.32	42.911		
10,300.0	7,500.0	7,588.0	7,588.0	47.8	13.2	-90.00	131.1	-33.6	2,645.6	2,584.6	61.00	43.367		
10,400.0	7,500.0	7,588.0	7,588.0	49.5	13.2	-90.00	131.1	-33.6	2,745.6	2,682.9	62.69	43.796		
10,500.0	7,500.0	7,588.0	7,588.0	51.2	13.2	-90.00	131.1	-33.6	2,845.5	2,781.1	64.38	44.199		
10,600.0	7,500.0	7,588.0	7,588.0	52.9	13.2	-90.00	131.1	-33.6	2,945.5	2,879.4	66.07	44.578		
10,700.0	7,500.0	7,588.0	7,588.0	54.6	13.2	-90.00	131.1	-33.6	3,045.4	2,977.7	67.77	44.936		
10,800.0	7,500.0	7,588.0	7,588.0	56.3	13.2	-90.00	131.1	-33.6	3,145.4	3,075.9	69.47	45.275		
10,900.0	7,500.0	7,588.0	7,588.0	58.0	13.2	-90.00	131.1	-33.6	3,245.4	3,174.2	71.18	45.595		
11,000.0	7,500.0	7,588.0	7,588.0	59.7	13.2	-90.00	131.1	-33.6	3,345.3	3,272.5	72.89	45.898		
11,100.0	7,500.0	7,588.0	7,588.0	61.4	13.2	-90.00	131.1	-33.6	3,445.3	3,370.7	74.60	46.186		
11,200.0	7,500.0	7,588.0	7,588.0	63.1	13.2	-90.00	131.1	-33.6	3,545.3	3,469.0	76.31	46.460		
11,300.0	7,500.0	7,588.0	7,588.0	64.8	13.2	-90.00	131.1	-33.6	3,645.3	3,567.2	78.02	46.720		
11,400.0	7,500.0	7,588.0	7,588.0	66.5	13.2	-90.00	131.1	-33.6	3,745.2	3,665.5	79.74	46.968		
11,500.0	7,500.0	7,588.0	7,588.0	68.2	13.2	-90.00	131.1	-33.6	3,845.2	3,763.7	81.46	47.204		
11,600.0	7,500.0	7,588.0	7,588.0	70.0	13.2	-90.00	131.1	-33.6	3,945.2	3,862.0	83.18	47.430		
11,700.0	7,500.0	7,588.0	7,588.0	71.7	13.2	-90.00	131.1	-33.6	4,045.2	3,960.3	84.90	47.646		
11,800.0	7,500.0	7,588.0	7,588.0	73.4	13.2	-90.00	131.1	-33.6	4,145.1	4,058.5	86.62	47.852		
11,900.0	7,500.0	7,588.0	7,588.0	75.1	13.2	-90.00	131.1	-33.6	4,245.1	4,156.8	88.35	48.049		
12,000.0	7,500.0	7,588.0	7,588.0	76.9	13.2	-90.00	131.1	-33.6	4,345.1	4,255.0	90.08	48.238		
12,100.0	7,500.0	7,588.0	7,588.0	78.6	13.2	-90.00	131.1	-33.6	4,445.1	4,353.3	91.80	48.420		
12,200.0	7,500.0	7,588.0	7,588.0	80.3	13.2	-90.00	131.1	-33.6	4,545.1	4,451.5	93.53	48.594		
12,300.0	7,500.0	7,588.0	7,588.0	82.0	13.2	-90.00	131.1	-33.6	4,645.0	4,549.8	95.26	48.761		
12,400.0	7,500.0	7,588.0	7,588.0	83.8	13.2	-90.00	131.1	-33.6	4,745.0	4,648.0	96.99	48.922		
12,500.0	7,500.0	7,588.0	7,588.0	85.5	13.2	-90.00	131.1	-33.6	4,845.0	4,746.3	98.72	49.076		
12,600.0	7,500.0	7,588.0	7,588.0	87.2	13.2	-90.00	131.1	-33.6	4,945.0	4,844.5	100.46	49.225		
12,700.0	7,500.0	7,588.0	7,588.0	89.0	13.2	-90.00	131.1	-33.6	5,045.0	4,942.8	102.19	49.369		
12,800.0	7,500.0	7,588.0	7,588.0	90.7	13.2	-90.00	131.1	-33.6	5,145.0	5,041.1	103.92	49.507		
12,900.0	7,500.0	7,588.0	7,588.0	92.4	13.2	-90.00	131.1	-33.6	5,245.0	5,139.3	105.66	49.640		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	106.5	106.5	0.0	0.2	37.81	1,583.8	1,228.8	2,005.3				
100.0	100.0	307.9	307.6	0.2	0.6	37.87	1,574.1	1,224.1	2,000.1	1,999.3	0.73	2,731.177	
200.0	200.0	503.9	502.4	0.3	1.1	38.10	1,553.3	1,218.2	1,989.8	1,988.4	1.39	1,430.964	
300.0	300.0	618.1	615.3	0.5	1.5	38.34	1,537.0	1,215.6	1,977.2	1,975.3	1.90	1,040.328	
400.0	400.0	755.6	750.7	0.7	1.9	78.90	1,513.2	1,213.1	1,962.2	1,960.0	2.14	915.134	
500.0	500.0	868.3	861.3	0.9	2.4	79.51	1,491.6	1,211.7	1,945.8	1,943.2	2.61	746.080	
600.0	599.9	939.9	931.7	1.0	2.6	80.01	1,478.3	1,211.2	1,930.1	1,927.1	2.98	647.416	
700.0	699.7	1,081.5	1,070.7	1.2	3.2	80.93	1,451.2	1,210.3	1,914.0	1,910.4	3.57	536.338	
800.0	799.4	1,307.0	1,289.5	1.4	4.2	82.38	1,397.4	1,204.9	1,893.2	1,888.8	4.48	422.864	
900.0	899.2	1,443.2	1,419.9	1.6	4.9	83.38	1,358.2	1,199.7	1,868.0	1,862.8	5.17	361.321	
1,000.0	998.9	1,565.9	1,536.4	1.8	5.6	84.37	1,320.2	1,194.9	1,841.4	1,835.5	5.86	314.006	
1,100.0	1,098.7	1,692.6	1,656.0	2.1	6.4	85.47	1,278.6	1,189.8	1,813.7	1,807.1	6.62	273.896	
1,200.0	1,198.5	1,883.9	1,833.4	2.3	7.7	87.39	1,207.7	1,180.4	1,782.6	1,774.8	7.80	228.453	
1,300.0	1,298.2	1,981.7	1,922.6	2.5	8.4	74.72	1,167.9	1,175.8	1,748.9	1,740.4	8.59	203.706	
1,400.0	1,397.9	2,088.5	2,019.5	2.7	9.2	63.99	1,123.5	1,170.1	1,713.1	1,703.7	9.46	181.170	
1,450.9	1,448.6	2,138.3	2,064.6	2.8	9.6	59.38	1,102.2	1,167.6	1,694.3	1,684.4	9.89	171.237	
1,500.0	1,497.6	2,194.2	2,114.8	2.9	10.0	60.15	1,077.8	1,165.1	1,675.9	1,665.5	10.39	161.224	
1,600.0	1,597.2	2,323.7	2,229.6	3.1	11.1	62.08	1,018.4	1,158.7	1,637.1	1,625.5	11.58	141.335	
1,700.0	1,696.9	2,405.3	2,301.8	3.3	11.8	63.34	980.7	1,153.7	1,598.3	1,585.9	12.43	128.611	
1,800.0	1,796.5	2,473.0	2,361.9	3.6	12.3	64.41	949.9	1,149.4	1,560.8	1,547.6	13.18	118.422	
1,900.0	1,896.1	2,544.9	2,426.1	3.8	12.9	65.57	917.7	1,145.4	1,525.0	1,511.1	13.98	109.105	
2,000.0	1,995.8	2,634.9	2,507.0	4.0	13.6	67.05	878.4	1,140.2	1,490.8	1,475.9	14.92	99.938	
2,100.0	2,095.4	2,721.3	2,584.7	4.2	14.3	68.49	841.1	1,134.5	1,457.2	1,441.4	15.86	91.868	
2,200.0	2,195.1	2,784.2	2,641.2	4.4	14.7	69.60	813.7	1,131.1	1,425.3	1,408.7	16.63	85.717	
2,300.0	2,294.7	2,909.2	2,753.8	4.7	15.7	71.89	759.8	1,124.8	1,395.4	1,377.5	17.96	77.678	
2,400.0	2,394.4	2,990.2	2,826.2	4.9	16.4	73.42	724.1	1,119.1	1,364.4	1,345.5	18.93	72.077	
2,500.0	2,494.0	3,090.5	2,916.1	5.1	17.2	75.38	680.3	1,111.3	1,334.3	1,314.3	20.07	66.468	
2,600.0	2,593.6	3,172.0	2,989.4	5.3	17.8	76.99	645.3	1,104.5	1,305.4	1,284.4	21.05	62.002	
2,700.0	2,693.3	3,259.0	3,067.5	5.6	18.5	78.79	607.6	1,097.1	1,277.5	1,255.4	22.12	57.750	
2,800.0	2,792.9	3,333.3	3,133.9	5.8	19.1	80.40	574.8	1,091.2	1,251.4	1,228.3	23.09	54.200	
2,900.0	2,892.6	3,433.0	3,223.0	6.0	19.9	82.64	530.8	1,083.7	1,227.1	1,202.8	24.32	50.460	
3,000.0	2,992.2	3,508.3	3,290.3	6.2	20.5	84.40	497.3	1,077.7	1,204.2	1,178.9	25.32	47.566	
3,100.0	3,091.9	3,584.3	3,358.1	6.5	21.1	86.22	463.6	1,072.7	1,184.3	1,158.0	26.33	44.981	
3,200.0	3,191.5	3,684.5	3,447.7	6.7	21.9	88.69	419.1	1,066.1	1,166.3	1,138.7	27.58	42.292	
3,300.0	3,291.2	3,781.0	3,534.1	6.9	22.6	91.07	377.1	1,058.1	1,149.1	1,120.4	28.75	39.965	
3,400.0	3,390.8	3,870.0	3,614.6	7.1	23.3	93.23	340.0	1,049.8	1,133.4	1,103.6	29.80	38.040	
3,500.0	3,490.4	3,950.9	3,688.3	7.4	23.9	95.18	307.4	1,042.2	1,119.8	1,089.1	30.74	36.423	
3,600.0	3,590.1	4,022.7	3,753.7	7.6	24.4	96.94	278.5	1,036.2	1,109.1	1,077.5	31.61	35.091	
3,700.0	3,689.7	4,106.8	3,830.2	7.8	25.1	99.05	244.0	1,030.1	1,101.3	1,068.8	32.57	33.815	
3,800.0	3,789.4	4,174.5	3,891.5	8.1	25.6	100.80	215.7	1,025.6	1,096.2	1,062.9	33.38	32.842	
3,871.5	3,860.6	4,219.0	3,931.7	8.2	25.9	101.96	196.7	1,023.6	1,095.2	1,061.3	33.91	32.295	
3,900.0	3,889.0	4,241.4	3,951.9	8.3	26.1	102.55	187.2	1,022.8	1,095.4	1,061.2	34.16	32.065	
4,000.0	3,988.7	4,330.3	4,032.3	8.5	26.8	104.88	149.3	1,019.3	1,097.2	1,062.1	35.09	31.272	
4,100.0	4,088.3	4,415.0	4,109.1	8.7	27.4	107.06	113.6	1,016.2	1,101.4	1,065.5	35.94	30.648	
4,200.0	4,187.9	4,506.3	4,190.4	9.0	28.2	109.54	72.5	1,012.2	1,107.8	1,070.9	36.84	30.066	
4,300.0	4,287.6	4,599.6	4,272.6	9.2	29.0	112.15	28.5	1,006.8	1,115.9	1,078.2	37.71	29.590	
4,400.0	4,387.2	4,682.9	4,346.1	9.4	29.7	114.43	-10.3	1,001.9	1,126.3	1,087.9	38.43	29.311	
4,500.0	4,486.9	4,769.0	4,423.5	9.6	30.3	116.62	-47.9	997.9	1,139.4	1,100.3	39.06	29.167	
4,600.0	4,586.5	4,873.8	4,519.7	9.9	31.0	119.01	-89.2	993.8	1,153.6	1,113.9	39.68	29.072	
4,700.0	4,686.2	5,002.3	4,640.0	10.1	31.8	121.62	-134.1	988.3	1,167.6	1,127.3	40.28	28.989	
4,800.0	4,785.8	5,095.7	4,728.5	10.3	32.4	123.35	-163.6	983.6	1,180.9	1,140.2	40.71	29.011	
4,900.0	4,885.4	5,209.2	4,837.3	10.6	32.9	125.22	-195.5	978.9	1,194.6	1,153.5	41.09	29.070	

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 2B-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 2B-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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
5,000.0	4,985.1	5,326.2	4,951.0	10.8	33.4	126.85	-222.9	974.6	1,207.3	1,165.9	41.42	29.151	
5,100.0	5,084.7	5,438.6	5,061.3	11.0	33.8	128.13	-243.5	971.5	1,219.1	1,177.4	41.70	29.236	
5,200.0	5,184.4	5,557.2	5,178.4	11.2	34.1	129.33	-262.1	968.2	1,230.0	1,188.1	41.95	29.320	
5,300.0	5,284.0	5,687.1	5,307.4	11.5	34.4	130.38	-276.4	964.6	1,238.7	1,196.5	42.18	29.370	
5,400.0	5,383.7	5,803.4	5,423.4	11.7	34.6	131.14	-285.1	961.3	1,245.8	1,203.4	42.37	29.403	
5,500.0	5,483.3	5,910.5	5,530.4	11.9	34.7	131.67	-289.7	959.4	1,252.3	1,209.7	42.55	29.428	
5,600.0	5,583.0	6,032.7	5,652.5	12.1	34.8	132.16	-291.8	957.3	1,257.4	1,214.6	42.73	29.426	
5,700.0	5,682.6	6,134.1	5,754.0	12.4	34.8	132.49	-291.7	955.4	1,261.5	1,218.5	42.91	29.394	
5,800.0	5,782.2	6,232.6	5,852.4	12.6	34.9	132.81	-291.6	953.7	1,265.7	1,222.6	43.11	29.362	
5,900.0	5,881.9	6,331.1	5,950.9	12.8	35.0	133.13	-291.7	952.0	1,270.1	1,226.8	43.30	29.335	
6,000.0	5,981.5	6,429.8	6,049.5	13.1	35.0	133.45	-291.9	950.3	1,274.6	1,231.1	43.48	29.311	
6,100.0	6,081.2	6,527.7	6,147.5	13.3	35.1	133.76	-292.0	948.8	1,279.2	1,235.5	43.67	29.294	
6,200.0	6,180.8	6,624.8	6,244.5	13.5	35.1	134.04	-291.7	947.8	1,284.0	1,240.2	43.85	29.285	
6,300.0	6,280.5	6,722.6	6,342.3	13.7	35.2	134.30	-291.1	947.2	1,289.1	1,245.1	44.04	29.273	
6,400.0	6,380.1	6,820.9	6,440.6	14.0	35.2	134.56	-290.7	946.6	1,294.3	1,250.1	44.23	29.264	
6,500.0	6,479.7	6,920.4	6,540.1	14.2	35.3	134.84	-290.6	945.9	1,299.6	1,255.2	44.42	29.256	
6,600.0	6,579.4	7,020.3	6,640.0	14.4	35.4	135.13	-290.7	945.1	1,304.9	1,260.3	44.62	29.248	
6,700.0	6,679.0	7,122.0	6,741.7	14.7	35.4	135.43	-290.8	944.1	1,310.2	1,265.4	44.81	29.237	
6,800.0	6,778.7	7,223.3	6,843.0	14.9	35.5	135.73	-291.1	942.7	1,315.3	1,270.3	45.01	29.224	
6,901.0	6,879.3	7,324.9	6,944.7	15.1	35.6	136.04	-291.4	941.2	1,320.5	1,275.3	45.21	29.210	
6,950.0	6,928.3	7,374.7	6,994.4	15.2	35.6	-133.69	-291.5	940.5	1,321.7	1,276.4	45.32	29.164	
7,000.0	6,978.2	7,426.4	7,046.2	15.2	35.6	-61.06	-291.7	939.6	1,320.3	1,274.8	45.48	29.031	
7,050.0	7,027.7	7,477.8	7,097.5	15.2	35.7	-57.58	-291.8	938.8	1,316.1	1,270.5	45.67	28.816	
7,100.0	7,076.5	7,528.4	7,148.0	15.1	35.7	-57.14	-291.8	937.8	1,309.4	1,263.5	45.91	28.521	
7,150.0	7,124.1	7,576.6	7,196.3	15.0	35.7	-57.74	-291.8	936.9	1,300.2	1,254.0	46.18	28.157	
7,200.0	7,170.3	7,623.1	7,242.8	14.9	35.8	-58.99	-291.8	936.0	1,288.7	1,242.2	46.47	27.728	
7,250.0	7,214.6	7,667.7	7,287.4	14.8	35.8	-60.73	-291.8	935.1	1,275.1	1,228.3	46.80	27.245	
7,300.0	7,256.7	7,710.1	7,329.7	14.6	35.8	-62.88	-291.7	934.3	1,259.7	1,212.6	47.15	26.717	
7,350.0	7,296.2	7,750.6	7,370.3	14.4	35.9	-65.41	-291.6	933.6	1,242.8	1,195.3	47.51	26.159	
7,400.0	7,333.0	7,788.2	7,407.8	14.2	35.9	-68.24	-291.5	932.8	1,224.7	1,176.8	47.86	25.588	
7,450.0	7,366.7	7,822.5	7,442.2	14.1	35.9	-71.27	-291.4	932.2	1,205.7	1,157.5	48.19	25.023	
7,500.0	7,397.1	7,853.3	7,473.0	13.9	35.9	-74.42	-291.2	931.6	1,186.3	1,137.9	48.46	24.479	
7,550.0	7,423.8	7,880.4	7,500.0	13.8	35.9	-77.58	-291.0	931.0	1,166.9	1,118.2	48.68	23.970	
7,600.0	7,446.8	7,902.0	7,521.7	13.7	35.9	-80.57	-290.8	930.6	1,147.8	1,099.0	48.83	23.505	
7,650.0	7,465.8	7,919.5	7,539.1	13.6	36.0	-83.34	-290.7	930.3	1,129.5	1,080.6	48.94	23.082	
7,700.0	7,480.8	7,933.1	7,552.7	13.6	36.0	-85.83	-290.6	930.1	1,112.4	1,063.4	49.01	22.696	
7,750.0	7,491.5	7,942.7	7,562.3	13.7	36.0	-87.97	-290.5	929.9	1,096.8	1,047.7	49.09	22.342	
7,800.0	7,497.9	7,948.3	7,567.9	13.8	36.0	-89.70	-290.5	929.8	1,083.1	1,033.9	49.20	22.015	
7,848.8	7,500.0	7,949.9	7,569.5	13.9	36.0	-90.96	-290.5	929.8	1,071.6	1,022.3	49.34	21.719	
7,900.0	7,500.0	7,949.5	7,569.1	14.1	36.0	-90.93	-290.5	929.8	1,061.9	1,012.3	49.55	21.429	
8,000.0	7,500.0	7,948.7	7,568.3	14.7	36.0	-90.89	-290.5	929.8	1,049.8	999.7	50.12	20.946	
8,077.3	7,500.0	7,948.1	7,567.7	15.2	36.0	-90.86	-290.5	929.8	1,047.0	996.3	50.70	20.651 CC, ES	
8,100.0	7,500.0	7,947.9	7,567.5	15.4	36.0	-90.85	-290.5	929.8	1,047.2	996.3	50.87	20.587	
8,200.0	7,500.0	7,947.2	7,566.8	16.3	36.0	-90.81	-290.5	929.9	1,054.1	1,002.4	51.77	20.361	
8,300.0	7,500.0	7,946.4	7,566.0	17.3	36.0	-90.77	-290.5	929.9	1,070.4	1,017.6	52.81	20.270 SF	
8,400.0	7,500.0	7,945.6	7,565.2	18.5	36.0	-90.73	-290.5	929.9	1,095.6	1,041.6	53.95	20.306	
8,500.0	7,500.0	7,944.9	7,564.5	19.7	36.0	-90.68	-290.5	929.9	1,129.1	1,073.9	55.19	20.459	
8,600.0	7,500.0	7,944.1	7,563.7	21.0	36.0	-90.64	-290.5	929.9	1,170.2	1,113.7	56.50	20.712	
8,700.0	7,500.0	7,943.4	7,563.0	22.4	36.0	-90.60	-290.5	929.9	1,218.1	1,160.3	57.87	21.050	
8,800.0	7,500.0	7,942.6	7,562.2	23.8	36.0	-90.56	-290.5	929.9	1,272.2	1,212.9	59.29	21.457	
8,900.0	7,500.0	7,941.9	7,561.5	25.3	36.0	-90.52	-290.5	929.9	1,331.5	1,270.7	60.75	21.917	
9,000.0	7,500.0	7,941.1	7,560.7	26.7	36.0	-90.48	-290.5	930.0	1,395.5	1,333.3	62.25	22.417	

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 2B-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 2B-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		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		
9,100.0	7,500.0	7,940.4	7,560.0	28.3	36.0	-90.44	-290.5	930.0	1,463.5	1,399.8	63.78	22.947		
9,200.0	7,500.0	7,939.6	7,559.2	29.8	36.0	-90.40	-290.6	930.0	1,535.1	1,469.7	65.33	23.497		
9,300.0	7,500.0	7,938.9	7,558.5	31.4	36.0	-90.36	-290.6	930.0	1,609.7	1,542.8	66.91	24.059		
9,400.0	7,500.0	7,938.1	7,557.8	33.0	36.0	-90.32	-290.6	930.0	1,686.9	1,618.4	68.50	24.627		
9,500.0	7,500.0	7,937.4	7,557.0	34.6	36.0	-90.28	-290.6	930.0	1,766.4	1,696.3	70.11	25.196		
9,600.0	7,500.0	7,936.7	7,556.3	36.2	36.0	-90.23	-290.6	930.0	1,847.9	1,776.1	71.73	25.762		
9,700.0	7,500.0	7,935.9	7,555.6	37.8	36.0	-90.20	-290.6	930.0	1,931.1	1,857.7	73.36	26.323		
9,800.0	7,500.0	7,935.2	7,554.8	39.5	36.0	-90.16	-290.6	930.0	2,015.8	1,940.8	75.00	26.877		
9,900.0	7,500.0	7,934.5	7,554.1	41.1	36.0	-90.12	-290.6	930.1	2,101.9	2,025.3	76.66	27.420		
10,000.0	7,500.0	7,933.8	7,553.4	42.8	36.0	-90.08	-290.6	930.1	2,189.2	2,110.9	78.32	27.953		
10,100.0	7,500.0	7,933.0	7,552.7	44.5	36.0	-90.04	-290.6	930.1	2,277.5	2,197.5	79.98	28.475		
10,200.0	7,500.0	7,932.3	7,551.9	46.1	36.0	-90.00	-290.6	930.1	2,366.8	2,285.1	81.66	28.984		
10,300.0	7,500.0	7,931.6	7,551.2	47.8	36.0	-89.96	-290.6	930.1	2,456.9	2,373.5	83.34	29.481		
10,400.0	7,500.0	7,930.9	7,550.5	49.5	36.0	-89.92	-290.6	930.1	2,547.7	2,462.7	85.02	29.965		
10,500.0	7,500.0	7,930.2	7,549.8	51.2	36.0	-89.88	-290.6	930.1	2,639.2	2,552.4	86.71	30.436		
10,600.0	7,500.0	7,929.5	7,549.1	52.9	36.0	-89.84	-290.6	930.1	2,731.2	2,642.8	88.41	30.894		
10,700.0	7,500.0	7,928.8	7,548.4	54.6	36.0	-89.80	-290.6	930.2	2,823.9	2,733.8	90.10	31.340		
10,800.0	7,500.0	7,928.1	7,547.7	56.3	36.0	-89.76	-290.6	930.2	2,917.0	2,825.2	91.80	31.774		
10,900.0	7,500.0	7,927.4	7,547.0	58.0	36.0	-89.72	-290.7	930.2	3,010.5	2,917.0	93.51	32.195		
11,000.0	7,500.0	7,926.7	7,546.3	59.7	36.0	-89.69	-290.7	930.2	3,104.5	3,009.2	95.21	32.605		
11,100.0	7,500.0	7,926.0	7,545.6	61.4	36.0	-89.65	-290.7	930.2	3,198.8	3,101.9	96.92	33.003		
11,200.0	7,500.0	7,925.3	7,544.9	63.1	36.0	-89.61	-290.7	930.2	3,293.4	3,194.8	98.64	33.390		
11,300.0	7,500.0	7,924.6	7,544.2	64.8	36.0	-89.57	-290.7	930.2	3,388.4	3,288.0	100.35	33.766		
11,400.0	7,500.0	7,923.9	7,543.5	66.5	36.0	-89.53	-290.7	930.2	3,483.6	3,381.6	102.06	34.132		
11,500.0	7,500.0	7,923.2	7,542.8	68.2	36.0	-89.50	-290.7	930.2	3,579.1	3,475.3	103.78	34.487		
11,600.0	7,500.0	7,922.5	7,542.1	70.0	36.0	-89.46	-290.7	930.3	3,674.9	3,569.4	105.50	34.832		
11,700.0	7,500.0	7,921.8	7,541.4	71.7	36.0	-89.42	-290.7	930.3	3,770.8	3,663.6	107.22	35.168		
11,800.0	7,500.0	7,921.1	7,540.7	73.4	36.0	-89.38	-290.7	930.3	3,867.0	3,758.1	108.94	35.495		
11,900.0	7,500.0	7,920.4	7,540.1	75.1	36.0	-89.35	-290.7	930.3	3,963.4	3,852.7	110.67	35.813		
12,000.0	7,500.0	7,919.8	7,539.4	76.9	36.0	-89.31	-290.7	930.3	4,059.9	3,947.5	112.39	36.122		
12,100.0	7,500.0	7,919.1	7,538.7	78.6	36.0	-89.27	-290.7	930.3	4,156.6	4,042.5	114.12	36.423		
12,200.0	7,500.0	7,918.4	7,538.0	80.3	36.0	-89.24	-290.7	930.3	4,253.4	4,137.6	115.85	36.716		
12,300.0	7,500.0	7,917.7	7,537.4	82.0	36.0	-89.20	-290.7	930.3	4,350.4	4,232.8	117.57	37.001		
12,400.0	7,500.0	7,917.1	7,536.7	83.8	36.0	-89.16	-290.7	930.3	4,447.5	4,328.2	119.30	37.279		
12,500.0	7,500.0	7,916.4	7,536.0	85.5	36.0	-89.13	-290.7	930.4	4,544.8	4,423.8	121.03	37.550		
12,600.0	7,500.0	7,915.7	7,535.3	87.2	36.0	-89.09	-290.7	930.4	4,642.2	4,519.4	122.76	37.813		
12,700.0	7,500.0	7,915.1	7,534.7	89.0	36.0	-89.05	-290.7	930.4	4,739.6	4,615.1	124.50	38.070		
12,800.0	7,500.0	7,914.4	7,534.0	90.7	36.0	-89.02	-290.8	930.4	4,837.2	4,711.0	126.23	38.321		
12,900.0	7,500.0	7,913.7	7,533.4	92.4	36.0	-88.98	-290.8	930.4	4,934.9	4,806.9	127.96	38.565		
12,986.8	7,500.0	7,913.2	7,532.8	93.9	36.0	-88.95	-290.8	930.4	5,019.8	4,890.3	129.47	38.773		
13,000.0	7,500.0	7,913.1	7,532.7	94.2	36.0	-88.96	-290.8	930.4	5,032.6	4,903.0	129.68	38.808		
13,058.5	7,500.0	7,912.7	7,532.3	95.2	36.0	-88.98	-290.8	930.4	5,089.8	4,959.2	130.62	38.967		
13,100.0	7,500.0	7,912.4	7,532.0	95.9	36.0	-88.97	-290.8	930.4	5,130.3	4,999.0	131.34	39.062		
13,200.0	7,500.0	7,911.7	7,531.3	97.6	36.0	-88.93	-290.8	930.4	5,228.0	5,094.9	133.07	39.287		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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	32.9	32.9	0.0	0.1	47.09	801.1	861.8	1,176.6					
100.0	100.0	121.3	121.3	0.2	0.2	47.12	801.3	862.8	1,177.6	1,177.2	0.36	3,237.902		
200.0	200.0	219.3	219.2	0.3	0.4	47.17	801.5	864.7	1,179.2	1,178.5	0.71	1,662.971		
300.0	300.0	332.5	332.5	0.5	0.6	47.21	801.7	866.1	1,180.2	1,179.1	1.08	1,091.409		
400.0	400.0	436.3	436.2	0.7	0.8	87.25	801.8	866.2	1,180.3	1,178.9	1.44	820.404		
500.0	500.0	535.9	535.9	0.9	0.9	87.36	802.3	866.2	1,180.5	1,178.7	1.79	659.164		
600.0	599.9	639.6	639.6	1.0	1.1	87.58	802.3	866.1	1,180.2	1,178.1	2.16	547.041		
700.0	699.7	744.7	744.7	1.2	1.3	87.88	802.3	865.8	1,179.8	1,177.2	2.54	464.994		
800.0	799.4	849.0	849.0	1.4	1.5	88.20	802.2	864.5	1,178.6	1,175.6	2.92	403.606		
900.0	899.2	948.9	948.9	1.6	1.7	88.49	802.3	863.2	1,177.5	1,174.2	3.30	356.964		
1,000.0	998.9	1,050.5	1,050.4	1.8	1.8	88.81	802.0	861.9	1,176.2	1,172.5	3.68	319.443		
1,100.0	1,098.7	1,152.2	1,152.1	2.1	2.0	89.13	801.6	860.7	1,174.9	1,170.8	4.07	288.882		
1,200.0	1,198.5	1,254.4	1,254.3	2.3	2.2	89.43	801.3	859.0	1,173.3	1,168.9	4.45	263.420		
1,300.0	1,298.2	1,350.6	1,350.5	2.5	2.4	75.91	801.2	857.2	1,170.9	1,166.1	4.83	242.346		
1,400.0	1,397.9	1,445.9	1,445.7	2.7	2.5	64.13	801.6	855.7	1,167.3	1,162.1	5.21	224.132		
1,450.9	1,448.6	1,495.9	1,495.8	2.8	2.6	59.02	801.8	855.0	1,164.9	1,159.5	5.40	215.616		
1,500.0	1,497.6	1,546.8	1,546.6	2.9	2.7	59.16	802.1	854.2	1,162.4	1,156.8	5.60	207.701		
1,600.0	1,597.2	1,645.1	1,644.9	3.1	2.9	59.45	802.5	852.6	1,157.0	1,151.0	5.98	193.418		
1,700.0	1,696.9	1,740.0	1,739.9	3.3	3.0	59.73	803.2	851.3	1,152.2	1,145.8	6.36	181.083		
1,800.0	1,796.5	1,839.8	1,839.6	3.6	3.2	60.01	804.1	850.0	1,147.5	1,140.7	6.75	169.934		
1,900.0	1,896.1	1,938.6	1,938.4	3.8	3.4	60.29	805.2	848.5	1,142.8	1,135.7	7.14	160.016		
2,000.0	1,995.8	2,032.6	2,032.4	4.0	3.6	60.54	806.6	847.2	1,138.5	1,131.0	7.52	151.323		
2,100.0	2,095.4	2,124.8	2,124.6	4.2	3.7	60.79	808.3	846.4	1,134.8	1,126.9	7.90	143.602		
2,200.0	2,195.1	2,220.5	2,220.3	4.4	3.9	61.04	810.5	845.9	1,131.7	1,123.4	8.29	136.535		
2,300.0	2,294.7	2,319.3	2,319.0	4.7	4.1	61.31	812.8	845.6	1,128.8	1,120.1	8.68	130.044		
2,400.0	2,394.4	2,423.8	2,423.5	4.9	4.2	61.62	814.9	845.4	1,125.8	1,116.7	9.08	123.953		
2,500.0	2,494.0	2,526.8	2,526.4	5.1	4.4	61.95	816.2	845.2	1,122.4	1,112.9	9.48	118.381		
2,600.0	2,593.6	2,628.8	2,628.5	5.3	4.6	62.28	817.2	844.9	1,118.8	1,109.0	9.88	113.252		
2,700.0	2,693.3	2,730.2	2,729.9	5.6	4.8	62.62	818.1	844.5	1,115.1	1,104.8	10.28	108.506		
2,800.0	2,792.9	2,829.4	2,829.1	5.8	5.0	62.96	818.9	844.1	1,111.4	1,100.8	10.67	104.158		
2,900.0	2,892.6	2,933.6	2,933.2	6.0	5.1	63.32	819.7	843.5	1,107.6	1,096.5	11.07	100.012		
3,000.0	2,992.2	3,035.7	3,035.4	6.2	5.3	63.64	820.7	842.3	1,103.4	1,091.9	11.47	96.155		
3,100.0	3,091.9	3,136.8	3,136.4	6.5	5.5	63.96	821.6	841.1	1,099.2	1,087.3	11.87	92.568		
3,200.0	3,191.5	3,239.2	3,238.8	6.7	5.7	64.29	822.3	839.6	1,094.7	1,082.4	12.28	89.171		
3,300.0	3,291.2	3,337.0	3,336.6	6.9	5.9	64.60	823.2	838.0	1,090.2	1,077.6	12.67	86.041		
3,400.0	3,390.8	3,431.5	3,431.1	7.1	6.0	64.89	824.4	836.7	1,086.1	1,073.1	13.06	83.165		
3,500.0	3,490.4	3,524.6	3,524.2	7.4	6.2	65.19	825.7	835.9	1,082.7	1,069.2	13.45	80.513		
3,600.0	3,590.1	3,616.5	3,616.0	7.6	6.3	65.47	827.4	835.6	1,079.9	1,066.0	13.83	78.069		
3,700.0	3,689.7	3,710.1	3,709.6	7.8	6.5	65.75	829.8	835.7	1,077.9	1,063.6	14.22	75.789		
3,800.0	3,789.4	3,820.8	3,820.3	8.1	6.7	66.07	832.7	835.3	1,075.5	1,060.9	14.64	73.453		
3,900.0	3,889.0	3,926.3	3,925.8	8.3	6.9	66.41	834.3	834.8	1,072.5	1,057.5	15.05	71.252		
4,000.0	3,988.7	4,035.9	4,035.4	8.5	7.1	66.80	835.3	833.8	1,068.9	1,053.4	15.47	69.092		
4,100.0	4,088.3	4,144.4	4,143.9	8.7	7.3	67.18	835.5	831.9	1,064.2	1,048.3	15.89	66.981		
4,200.0	4,187.9	4,242.5	4,241.9	9.0	7.5	67.52	835.9	829.8	1,059.3	1,043.0	16.29	65.046		
4,300.0	4,287.6	4,339.3	4,338.7	9.2	7.6	67.88	836.0	828.2	1,054.7	1,038.0	16.68	63.229		
4,400.0	4,387.2	4,441.0	4,440.4	9.4	7.8	68.27	836.0	826.7	1,050.3	1,033.2	17.09	61.471		
4,500.0	4,486.9	4,542.5	4,541.9	9.6	8.0	68.61	836.7	824.2	1,045.5	1,028.0	17.49	59.763		
4,600.0	4,586.5	4,637.4	4,636.7	9.9	8.2	68.88	838.3	821.9	1,041.1	1,023.2	17.89	58.199		
4,700.0	4,686.2	4,738.3	4,737.6	10.1	8.3	69.21	839.4	819.9	1,036.9	1,018.6	18.29	56.679		
4,800.0	4,785.8	4,838.1	4,837.3	10.3	8.5	69.56	840.1	817.9	1,032.5	1,013.8	18.70	55.223		
4,900.0	4,885.4	4,935.5	4,934.8	10.6	8.7	69.96	840.0	816.7	1,028.4	1,009.4	19.09	53.862		
5,000.0	4,985.1	5,037.5	5,036.7	10.8	8.9	70.40	839.6	815.4	1,024.3	1,004.8	19.50	52.523		

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 2B-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 2B-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	
5,100.0	5,084.7	5,136.5	5,135.8	11.0	9.0	70.79	839.8	813.9	1,020.2	1,000.3	19.90	51.256	
5,200.0	5,184.4	5,239.7	5,238.9	11.2	9.2	71.17	840.3	811.9	1,016.0	995.7	20.31	50.013	
5,300.0	5,284.0	5,336.2	5,335.5	11.5	9.4	71.54	840.7	809.9	1,011.6	990.9	20.71	48.838	
5,400.0	5,383.7	5,428.1	5,427.3	11.7	9.5	71.90	841.3	808.8	1,008.2	987.1	21.10	47.773	
5,500.0	5,483.3	5,530.8	5,530.0	11.9	9.7	72.32	841.7	807.7	1,004.8	983.3	21.51	46.705	
5,600.0	5,583.0	5,632.1	5,631.2	12.1	9.9	72.73	842.2	806.5	1,001.4	979.5	21.92	45.680	
5,700.0	5,682.6	5,737.5	5,736.6	12.4	10.1	73.13	842.9	804.6	997.6	975.2	22.34	44.658	
5,800.0	5,782.2	5,838.8	5,838.0	12.6	10.3	73.53	843.3	802.4	993.4	970.6	22.75	43.671	
5,900.0	5,881.9	5,936.5	5,935.6	12.8	10.4	73.91	843.8	800.3	989.3	966.1	23.15	42.736	
6,000.0	5,981.5	6,038.0	6,037.1	13.1	10.6	74.32	844.3	798.4	985.4	961.9	23.56	41.830	
6,100.0	6,081.2	6,143.3	6,142.4	13.3	10.8	74.76	844.2	795.9	981.0	957.0	23.97	40.918	
6,200.0	6,180.8	6,241.8	6,240.9	13.5	11.0	75.18	844.1	793.4	976.4	952.0	24.38	40.054	
6,300.0	6,280.5	6,338.1	6,337.1	13.7	11.2	75.59	844.0	791.2	972.1	947.4	24.78	39.236	
6,400.0	6,380.1	6,434.2	6,433.2	14.0	11.3	76.01	844.1	789.4	968.4	943.2	25.18	38.462	
6,500.0	6,479.7	6,531.0	6,530.0	14.2	11.5	76.38	845.1	787.4	964.9	939.3	25.58	37.722	
6,600.0	6,579.4	6,626.6	6,625.6	14.4	11.7	76.78	845.8	786.2	961.9	936.0	25.98	37.030	
6,700.0	6,679.0	6,728.3	6,727.3	14.7	11.8	77.21	846.5	784.8	959.0	932.6	26.39	36.344	
6,800.0	6,778.7	6,829.4	6,828.4	14.9	12.0	77.67	846.8	783.5	956.1	929.3	26.80	35.682	
6,901.0	6,879.3	6,936.8	6,935.8	15.1	12.2	78.14	847.0	781.5	952.7	925.5	27.22	35.000	
6,950.0	6,928.3	6,987.0	6,985.9	15.2	12.3	168.23	847.2	780.4	951.6	924.2	27.38	34.758	
6,962.9	6,941.2	7,000.0	6,998.9	15.2	12.3	-138.49	847.3	780.1	951.5	924.1	27.41	34.721 CC, ES	
7,000.0	6,978.2	7,034.8	7,033.7	15.2	12.4	-119.06	847.4	779.3	952.0	924.5	27.47	34.654 SF	
7,050.0	7,027.7	7,081.1	7,080.0	15.2	12.5	-115.16	847.4	778.4	954.1	926.6	27.50	34.691	
7,100.0	7,076.5	7,132.6	7,131.5	15.1	12.6	-114.06	847.3	777.7	958.0	930.5	27.49	34.851	
7,150.0	7,124.1	7,187.0	7,185.8	15.0	12.7	-113.79	847.1	776.5	963.3	935.9	27.42	35.130	
7,200.0	7,170.3	7,238.6	7,237.5	14.9	12.8	-113.85	846.8	775.1	970.1	942.8	27.30	35.539	
7,250.0	7,214.6	7,288.1	7,286.9	14.8	12.8	-114.04	846.4	773.5	978.8	951.6	27.13	36.081	
7,300.0	7,256.7	7,343.1	7,341.8	14.6	12.9	-114.48	845.4	771.5	989.2	962.3	26.92	36.747	
7,350.0	7,296.2	7,398.8	7,397.5	14.4	13.0	-114.99	843.3	769.1	1,001.4	974.7	26.68	37.530	
7,400.0	7,333.0	7,430.5	7,429.1	14.2	13.1	-114.61	841.5	767.9	1,015.8	989.3	26.44	38.419	
7,450.0	7,366.7	7,460.2	7,458.7	14.1	13.1	-113.97	839.3	767.3	1,032.9	1,006.7	26.22	39.389	
7,500.0	7,397.1	7,488.3	7,486.7	13.9	13.2	-113.05	836.7	767.2	1,052.8	1,026.7	26.05	40.406	
7,550.0	7,423.8	7,500.0	7,498.4	13.8	13.2	-111.15	835.6	767.3	1,075.3	1,049.3	25.98	41.390	
7,600.0	7,446.8	7,528.3	7,526.5	13.7	13.2	-109.70	832.8	767.8	1,100.3	1,074.4	25.96	42.394	
7,650.0	7,465.8	7,542.7	7,540.9	13.6	13.3	-107.26	831.6	768.1	1,127.9	1,101.9	26.04	43.307	
7,700.0	7,480.8	7,554.3	7,552.4	13.6	13.3	-104.29	830.7	768.4	1,157.7	1,131.5	26.22	44.151	
7,750.0	7,491.5	7,563.1	7,561.2	13.7	13.3	-100.75	830.0	768.6	1,189.6	1,163.1	26.47	44.948	
7,800.0	7,497.9	7,569.0	7,567.1	13.8	13.3	-96.63	829.6	768.8	1,223.1	1,196.3	26.73	45.748	
7,848.8	7,500.0	7,572.2	7,570.3	13.9	13.3	-92.09	829.4	768.9	1,257.1	1,230.2	26.98	46.603	
7,900.0	7,500.0	7,574.2	7,572.3	14.1	13.3	-92.22	829.3	768.9	1,293.9	1,266.7	27.19	47.588	
8,000.0	7,500.0	7,578.0	7,576.0	14.7	13.3	-92.46	829.0	769.1	1,368.5	1,340.7	27.76	49.295	
8,100.0	7,500.0	7,600.0	7,598.0	15.4	13.4	-93.87	827.7	769.8	1,446.3	1,417.8	28.53	50.700	
8,200.0	7,500.0	7,600.0	7,598.0	16.3	13.4	-93.87	827.7	769.8	1,526.4	1,497.0	29.43	51.869	
8,300.0	7,500.0	7,600.0	7,598.0	17.3	13.4	-93.87	827.7	769.8	1,608.8	1,578.3	30.46	52.813	
8,400.0	7,500.0	7,600.0	7,598.0	18.5	13.4	-93.87	827.7	769.8	1,693.0	1,661.4	31.60	53.570	
8,500.0	7,500.0	7,600.0	7,598.0	19.7	13.4	-93.87	827.7	769.8	1,778.9	1,746.1	32.84	54.175	
8,600.0	7,500.0	7,600.0	7,598.0	21.0	13.4	-93.87	827.7	769.8	1,866.2	1,832.1	34.14	54.659	
8,700.0	7,500.0	7,600.0	7,598.0	22.4	13.4	-93.87	827.7	769.8	1,954.7	1,919.2	35.51	55.047	
8,800.0	7,500.0	7,600.0	7,598.0	23.8	13.4	-93.87	827.7	769.8	2,044.3	2,007.3	36.93	55.359	
8,900.0	7,500.0	7,600.0	7,598.0	25.3	13.4	-93.87	827.7	769.8	2,134.8	2,096.4	38.39	55.611	
9,000.0	7,500.0	7,600.0	7,598.0	26.7	13.4	-93.87	827.7	769.8	2,226.1	2,186.2	39.88	55.816	
9,100.0	7,500.0	7,600.0	7,598.0	28.3	13.4	-93.87	827.7	769.8	2,318.1	2,276.7	41.41	55.984	

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 2B-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 2B-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		
9,200.0	7,500.0	7,600.0	7,598.0	29.8	13.4	-93.87	827.7	769.8	2,410.8	2,367.8	42.96	56.122		
9,300.0	7,500.0	7,619.0	7,617.0	31.4	13.4	-95.09	826.8	770.5	2,503.9	2,459.4	44.50	56.262		
9,400.0	7,500.0	7,621.9	7,619.9	33.0	13.4	-95.27	826.7	770.6	2,597.6	2,551.5	46.08	56.365		
9,500.0	7,500.0	7,624.7	7,622.7	34.6	13.4	-95.45	826.5	770.7	2,691.7	2,644.0	47.68	56.454		
9,600.0	7,500.0	7,627.4	7,625.4	36.2	13.4	-95.62	826.4	770.8	2,786.3	2,737.0	49.29	56.532		
9,700.0	7,500.0	7,630.0	7,628.0	37.8	13.4	-95.79	826.3	770.9	2,881.2	2,830.3	50.90	56.599		
9,800.0	7,500.0	7,632.5	7,630.5	39.5	13.4	-95.95	826.2	771.0	2,976.4	2,923.9	52.53	56.659		
9,900.0	7,500.0	7,634.9	7,632.9	41.1	13.4	-96.10	826.1	771.0	3,072.0	3,017.8	54.17	56.712		
10,000.0	7,500.0	7,637.3	7,635.2	42.8	13.4	-96.25	826.0	771.1	3,167.8	3,112.0	55.81	56.759		
10,100.0	7,500.0	7,639.5	7,637.4	44.5	13.4	-96.39	825.9	771.2	3,263.8	3,206.4	57.46	56.802		
10,200.0	7,500.0	7,641.6	7,639.6	46.1	13.4	-96.52	825.8	771.2	3,360.1	3,301.0	59.11	56.841		
10,300.0	7,500.0	7,643.7	7,641.7	47.8	13.4	-96.66	825.7	771.3	3,456.6	3,395.8	60.77	56.877		
10,400.0	7,500.0	7,645.7	7,643.7	49.5	13.4	-96.78	825.7	771.4	3,553.3	3,490.9	62.44	56.910		
10,500.0	7,500.0	7,647.7	7,645.6	51.2	13.4	-96.91	825.6	771.4	3,650.2	3,586.1	64.10	56.941		
10,600.0	7,500.0	7,649.6	7,647.5	52.9	13.4	-97.02	825.5	771.5	3,747.2	3,681.4	65.78	56.970		
10,700.0	7,500.0	7,651.4	7,649.3	54.6	13.5	-97.14	825.5	771.5	3,844.4	3,776.9	67.45	56.997		
10,800.0	7,500.0	7,653.1	7,651.1	56.3	13.5	-97.25	825.4	771.6	3,941.7	3,872.6	69.13	57.022		
10,900.0	7,500.0	7,654.8	7,652.8	58.0	13.5	-97.36	825.3	771.6	4,039.1	3,968.3	70.80	57.046		
11,000.0	7,500.0	7,656.5	7,654.4	59.7	13.5	-97.46	825.3	771.7	4,136.7	4,064.2	72.49	57.069		
11,100.0	7,500.0	7,658.1	7,656.0	61.4	13.5	-97.56	825.2	771.7	4,234.4	4,160.2	74.17	57.091		
11,200.0	7,500.0	7,659.7	7,657.6	63.1	13.5	-97.66	825.2	771.7	4,332.2	4,256.3	75.85	57.112		
11,300.0	7,500.0	7,661.2	7,659.1	64.8	13.5	-97.76	825.1	771.8	4,430.0	4,352.5	77.54	57.132		
11,400.0	7,500.0	7,662.6	7,660.5	66.5	13.5	-97.85	825.1	771.8	4,528.0	4,448.8	79.23	57.151		
11,500.0	7,500.0	7,664.1	7,662.0	68.2	13.5	-97.94	825.0	771.8	4,626.1	4,545.2	80.92	57.170		
11,600.0	7,500.0	7,665.4	7,663.4	70.0	13.5	-98.03	825.0	771.9	4,724.2	4,641.6	82.61	57.188		
11,700.0	7,500.0	7,666.8	7,664.7	71.7	13.5	-98.11	824.9	771.9	4,822.4	4,738.1	84.30	57.205		
11,800.0	7,500.0	7,668.1	7,666.0	73.4	13.5	-98.19	824.9	771.9	4,920.7	4,834.7	85.99	57.222		
11,900.0	7,500.0	7,669.4	7,667.3	75.1	13.5	-98.27	824.9	772.0	5,019.1	4,931.4	87.69	57.238		
12,000.0	7,500.0	7,700.0	7,697.9	76.9	13.5	-100.19	824.1	772.6	5,117.7	5,028.7	89.02	57.492		
12,100.0	7,500.0	7,700.0	7,697.9	78.6	13.5	-100.19	824.1	772.6	5,216.2	5,125.4	90.72	57.500		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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	90.35	-0.4	59.9	59.9				
100.0	100.0	100.0	100.0	0.2	0.2	90.35	-0.4	59.9	59.9	59.6	0.30	197.227	
200.0	200.0	200.0	200.0	0.3	0.3	90.35	-0.4	59.9	59.9	59.2	0.65	91.758	
300.0	300.0	300.9	300.9	0.5	0.5	90.78	-0.8	59.1	59.1	58.1	1.00	58.887	
400.0	400.0	401.7	401.7	0.7	0.7	132.82	-2.1	56.8	57.5	56.1	1.36	42.380	
500.0	500.0	502.4	502.3	0.9	0.9	137.29	-4.4	53.0	55.7	54.0	1.71	32.515	
600.0	599.9	602.9	602.6	1.0	1.1	144.38	-7.4	47.6	54.4	52.4	2.08	26.157	
637.5	637.3	640.4	640.0	1.1	1.1	147.45	-8.6	45.4	54.3	52.1	2.22	24.465	CC, ES
700.0	699.7	703.0	702.4	1.2	1.3	152.32	-10.0	41.6	54.7	52.2	2.45	22.317	
800.0	799.4	802.8	802.1	1.4	1.5	159.31	-11.4	35.4	56.1	53.3	2.82	19.904	
900.0	899.2	902.6	901.6	1.6	1.7	165.82	-12.7	29.3	58.3	55.2	3.19	18.276	
1,000.0	998.9	1,002.3	1,001.2	1.8	1.9	171.79	-14.1	23.2	61.3	57.7	3.57	17.168	
1,100.0	1,098.7	1,102.1	1,100.8	2.1	2.1	177.17	-15.4	17.1	64.8	60.8	3.95	16.411	
1,200.0	1,198.5	1,201.9	1,200.3	2.3	2.3	-178.05	-16.8	11.0	68.8	64.5	4.33	15.891	
1,300.0	1,298.2	1,301.6	1,299.8	2.5	2.5	173.00	-18.1	4.9	73.4	68.7	4.72	15.568	
1,400.0	1,397.9	1,401.1	1,399.2	2.7	2.7	166.41	-19.5	-1.2	79.0	73.9	5.10	15.469	
1,450.9	1,448.6	1,451.8	1,449.7	2.8	2.8	164.07	-20.1	-4.3	82.2	76.9	5.30	15.511	
1,500.0	1,497.6	1,500.6	1,498.5	2.9	2.9	166.83	-20.8	-7.3	85.7	80.2	5.49	15.597	
1,600.0	1,597.2	1,600.0	1,597.7	3.1	3.1	171.80	-22.1	-13.4	93.2	87.3	5.88	15.850	
1,700.0	1,696.9	1,699.4	1,696.9	3.3	3.3	176.01	-23.5	-19.4	101.3	95.1	6.27	16.169	
1,800.0	1,796.5	1,798.8	1,796.1	3.6	3.5	179.58	-24.8	-25.5	109.9	103.3	6.65	16.523	
1,900.0	1,896.1	1,898.2	1,895.3	3.8	3.7	-177.38	-26.2	-31.6	118.9	111.8	7.04	16.891	
2,000.0	1,995.8	1,997.6	1,994.6	4.0	3.9	-174.77	-27.5	-37.7	128.1	120.7	7.42	17.260	
2,100.0	2,095.4	2,097.1	2,093.8	4.2	4.1	-172.51	-28.8	-43.8	137.6	129.8	7.81	17.622	
2,200.0	2,195.1	2,196.5	2,193.0	4.4	4.3	-170.55	-30.2	-49.9	147.2	139.0	8.19	17.973	
2,300.0	2,294.7	2,295.9	2,292.2	4.7	4.5	-168.82	-31.5	-56.0	157.0	148.5	8.58	18.310	
2,400.0	2,394.4	2,395.3	2,391.4	4.9	4.7	-167.31	-32.9	-62.0	167.0	158.0	8.96	18.632	
2,500.0	2,494.0	2,494.7	2,490.6	5.1	4.9	-165.96	-34.2	-68.1	177.0	167.6	9.35	18.939	
2,600.0	2,593.6	2,594.1	2,589.9	5.3	5.1	-164.76	-35.5	-74.2	187.1	177.4	9.73	19.230	
2,700.0	2,693.3	2,693.5	2,689.1	5.6	5.3	-163.68	-36.9	-80.3	197.3	187.2	10.11	19.506	
2,800.0	2,792.9	2,793.0	2,788.3	5.8	5.6	-162.70	-38.2	-86.4	207.6	197.1	10.50	19.767	
2,900.0	2,892.6	2,892.4	2,887.5	6.0	5.8	-161.82	-39.6	-92.5	217.9	207.0	10.88	20.015	
3,000.0	2,992.2	2,991.8	2,986.7	6.2	6.0	-161.02	-40.9	-98.6	228.2	216.9	11.27	20.250	
3,100.0	3,091.9	3,091.2	3,086.0	6.5	6.2	-160.29	-42.2	-104.6	238.6	227.0	11.66	20.472	
3,200.0	3,191.5	3,190.6	3,185.2	6.7	6.4	-159.62	-43.6	-110.7	249.0	237.0	12.04	20.684	
3,300.0	3,291.2	3,290.0	3,284.4	6.9	6.6	-159.00	-44.9	-116.8	259.5	247.1	12.43	20.884	
3,400.0	3,390.8	3,389.4	3,383.6	7.1	6.8	-158.43	-46.3	-122.9	270.0	257.2	12.81	21.075	
3,500.0	3,490.4	3,488.9	3,482.8	7.4	7.0	-157.91	-47.6	-129.0	280.5	267.3	13.20	21.256	
3,600.0	3,590.1	3,588.3	3,582.1	7.6	7.2	-157.42	-48.9	-135.1	291.0	277.4	13.58	21.428	
3,700.0	3,689.7	3,687.7	3,681.3	7.8	7.4	-156.96	-50.3	-141.2	301.6	287.6	13.97	21.592	
3,800.0	3,789.4	3,787.1	3,780.5	8.1	7.6	-156.54	-51.6	-147.2	312.2	297.8	14.35	21.748	
3,900.0	3,889.0	3,886.5	3,879.7	8.3	7.8	-156.14	-53.0	-153.3	322.7	308.0	14.74	21.898	
4,000.0	3,988.7	3,985.9	3,978.9	8.5	8.0	-155.77	-54.3	-159.4	333.3	318.2	15.12	22.040	
4,100.0	4,088.3	4,085.3	4,078.1	8.7	8.2	-155.43	-55.6	-165.5	344.0	328.4	15.51	22.176	
4,200.0	4,187.9	4,184.8	4,177.4	9.0	8.4	-155.10	-57.0	-171.6	354.6	338.7	15.90	22.307	
4,300.0	4,287.6	4,284.2	4,276.6	9.2	8.6	-154.79	-58.3	-177.7	365.2	348.9	16.28	22.431	
4,400.0	4,387.2	4,383.6	4,375.8	9.4	8.8	-154.50	-59.7	-183.8	375.9	359.2	16.67	22.551	
4,500.0	4,486.9	4,483.0	4,475.0	9.6	9.0	-154.23	-61.0	-189.8	386.5	369.5	17.05	22.665	
4,600.0	4,586.5	4,582.4	4,574.2	9.9	9.2	-153.97	-62.3	-195.9	397.2	379.7	17.44	22.775	
4,700.0	4,686.2	4,681.8	4,673.5	10.1	9.4	-153.72	-63.7	-202.0	407.9	390.0	17.83	22.881	
4,800.0	4,785.8	4,781.2	4,772.7	10.3	9.6	-153.49	-65.0	-208.1	418.5	400.3	18.21	22.982	
4,900.0	4,885.4	4,880.7	4,871.9	10.6	9.8	-153.26	-66.4	-214.2	429.2	410.6	18.60	23.079	

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 2B-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 2B-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						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	4,985.1	4,980.1	4,971.1	10.8	10.1	-153.05	-67.7	-220.3	439.9	420.9	18.98	23.173		
5,100.0	5,084.7	5,079.5	5,070.3	11.0	10.3	-152.85	-69.0	-226.4	450.6	431.2	19.37	23.264		
5,200.0	5,184.4	5,178.9	5,169.5	11.2	10.5	-152.66	-70.4	-232.4	461.3	441.5	19.76	23.351		
5,300.0	5,284.0	5,278.3	5,268.8	11.5	10.7	-152.48	-71.7	-238.5	472.0	451.9	20.14	23.435		
5,400.0	5,383.7	5,377.7	5,368.0	11.7	10.9	-152.30	-73.1	-244.6	482.7	462.2	20.53	23.516		
5,500.0	5,483.3	5,477.1	5,467.2	11.9	11.1	-152.14	-74.4	-250.7	493.4	472.5	20.91	23.594		
5,600.0	5,583.0	5,576.6	5,566.4	12.1	11.3	-151.97	-75.7	-256.8	504.2	482.9	21.30	23.669		
5,700.0	5,682.6	5,676.0	5,665.6	12.4	11.5	-151.82	-77.1	-262.9	514.9	493.2	21.69	23.742		
5,800.0	5,782.2	5,775.4	5,764.9	12.6	11.7	-151.67	-78.4	-269.0	525.6	503.5	22.07	23.813		
5,900.0	5,881.9	5,874.8	5,864.1	12.8	11.9	-151.53	-79.8	-275.0	536.3	513.9	22.46	23.881		
6,000.0	5,981.5	5,974.2	5,963.3	13.1	12.1	-151.40	-81.1	-281.1	547.1	524.2	22.84	23.947		
6,100.0	6,081.2	6,073.6	6,062.5	13.3	12.3	-151.27	-82.4	-287.2	557.8	534.6	23.23	24.011		
6,200.0	6,180.8	6,173.0	6,161.7	13.5	12.5	-151.14	-83.8	-293.3	568.5	544.9	23.62	24.073		
6,300.0	6,280.5	6,272.5	6,261.0	13.7	12.7	-151.02	-85.1	-299.4	579.3	555.3	24.00	24.133		
6,400.0	6,380.1	6,371.9	6,360.2	14.0	12.9	-150.90	-86.5	-305.5	590.0	565.6	24.39	24.191		
6,500.0	6,479.7	6,471.3	6,459.4	14.2	13.1	-150.79	-87.8	-311.6	600.8	576.0	24.78	24.248		
6,600.0	6,579.4	6,570.7	6,558.6	14.4	13.3	-150.68	-89.1	-317.6	611.5	586.4	25.16	24.303		
6,700.0	6,679.0	6,670.1	6,657.8	14.7	13.5	-150.58	-90.5	-323.7	622.3	596.7	25.55	24.356		
6,800.0	6,778.7	6,769.5	6,757.0	14.9	13.7	-150.48	-91.8	-329.8	633.0	607.1	25.94	24.408		
6,901.0	6,879.3	6,869.9	6,857.3	15.1	13.9	-150.38	-93.2	-336.0	643.9	617.6	26.33	24.459		
6,950.0	6,928.3	6,918.8	6,906.0	15.2	14.0	-60.29	-93.8	-339.0	647.2	620.7	26.53	24.391		
7,000.0	6,978.2	6,968.7	6,955.8	15.2	14.2	12.80	-94.5	-342.0	646.6	619.9	26.62	24.289		
7,050.0	7,027.7	7,018.3	7,005.3	15.2	14.3	17.41	-95.2	-345.0	641.9	615.3	26.58	24.152		
7,100.0	7,076.5	7,067.1	7,054.1	15.1	14.4	19.66	-95.8	-348.0	633.2	606.8	26.41	23.976		
7,150.0	7,124.1	7,114.9	7,101.7	15.0	14.5	21.56	-96.5	-351.0	620.7	594.6	26.13	23.750		
7,200.0	7,170.3	7,161.3	7,148.0	14.9	14.5	23.59	-97.1	-353.8	604.5	578.7	25.77	23.460		
7,250.0	7,214.6	7,205.4	7,192.1	14.8	14.4	25.62	-97.7	-356.6	588.3	562.8	25.40	23.169		
7,300.0	7,256.7	7,247.5	7,234.2	14.6	14.2	27.65	-98.2	-359.4	572.1	546.9	25.03	22.878		
7,350.0	7,296.2	7,287.0	7,273.7	14.4	14.0	29.68	-98.7	-362.2	555.9	531.1	24.66	22.587		
7,400.0	7,333.0	7,323.8	7,310.5	14.2	13.8	31.71	-99.2	-365.0	539.7	515.9	24.29	22.296		
7,450.0	7,366.7	7,357.5	7,344.2	14.1	13.7	33.74	-99.7	-367.8	523.5	500.7	23.92	22.005		
7,500.0	7,397.1	7,387.9	7,374.6	13.9	13.5	35.77	-100.2	-370.6	507.3	485.5	23.55	21.714		
7,550.0	7,423.8	7,414.6	7,401.3	13.8	13.4	37.80	-100.7	-373.4	491.1	470.3	23.18	21.423		
7,600.0	7,446.8	7,437.6	7,424.3	13.7	13.3	39.83	-101.2	-376.2	474.9	455.1	22.81	21.132		
7,650.0	7,465.8	7,456.6	7,443.3	13.6	13.2	41.86	-101.7	-379.0	458.7	440.0	22.44	20.841		
7,700.0	7,480.8	7,471.6	7,458.3	13.6	13.2	43.89	-102.2	-381.8	442.5	424.8	22.07	20.550		
7,750.0	7,491.5	7,482.3	7,469.0	13.7	13.2	45.92	-102.7	-384.6	426.3	409.6	21.70	20.259		
7,788.9	7,496.9	7,487.7	7,474.4	13.7	13.2	47.95	-103.2	-387.4	410.1	394.4	21.33	19.968		
7,800.0	7,497.9	7,488.7	7,475.4	13.8	13.1	49.98	-103.7	-390.2	393.9	379.2	20.96	19.677		
7,848.8	7,500.0	7,490.8	7,477.5	13.9	13.1	52.01	-104.2	-393.0	377.7	364.0	20.59	19.386		
7,900.0	7,500.0	7,490.8	7,477.5	14.1	13.1	54.04	-104.7	-395.8	361.5	348.8	20.22	19.095		
8,000.0	7,500.0	7,490.8	7,477.5	14.7	13.0	56.07	-105.2	-398.6	345.3	333.6	19.85	18.804		
8,100.0	7,500.0	7,490.8	7,477.5	15.4	12.9	58.10	-105.7	-401.4	329.1	318.4	19.48	18.513		
8,200.0	7,500.0	7,490.8	7,477.5	16.3	12.8	60.13	-106.2	-404.2	313.6	303.2	19.11	18.222		
8,300.0	7,500.0	7,490.8	7,477.5	17.3	12.7	62.16	-106.7	-407.0	298.1	288.0	18.74	17.931		
8,400.0	7,500.0	7,490.8	7,477.5	18.5	12.6	64.19	-107.2	-409.8	282.6	272.8	18.37	17.640		
8,500.0	7,500.0	7,490.8	7,477.5	19.7	12.5	66.22	-107.7	-412.6	267.1	257.6	18.00	17.349		
8,600.0	7,500.0	7,490.8	7,477.5	21.0	12.4	68.25	-108.2	-415.4	251.6	242.4	17.63	17.058		
8,700.0	7,500.0	7,490.8	7,477.5	22.4	12.3	70.28	-108.7	-418.2	236.1	227.2	17.26	16.767		
8,800.0	7,500.0	7,490.8	7,477.5	23.8	12.2	72.31	-109.2	-421.0	220.6	212.0	16.89	16.476		
8,900.0	7,500.0	7,490.8	7,477.5	25.3	12.1	74.34	-109.7	-423.8	205.1	196.8	16.52	16.185		
9,000.0	7,500.0	7,490.8	7,477.5	26.7	12.0	76.37	-110.2	-426.6	189.6	181.6	16.15	15.894		

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 2B-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 2B-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						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	7,500.0	7,281.8	7,267.8	28.3	14.8	46.44	-88.5	-361.1	1,270.1	1,237.3	32.85	38.664	
9,200.0	7,500.0	7,276.6	7,262.7	29.8	14.8	45.78	-89.4	-360.8	1,366.8	1,333.1	33.71	40.547	
9,300.0	7,500.0	7,271.9	7,258.0	31.4	14.8	45.19	-90.2	-360.5	1,463.8	1,429.2	34.58	42.326	
9,400.0	7,500.0	7,250.0	7,236.4	33.0	14.7	42.58	-93.2	-359.2	1,561.5	1,526.9	34.58	45.159	
9,500.0	7,500.0	7,250.0	7,236.4	34.6	14.7	42.58	-93.2	-359.2	1,659.0	1,623.4	35.65	46.535	
9,600.0	7,500.0	7,250.0	7,236.4	36.2	14.7	42.58	-93.2	-359.2	1,756.8	1,720.1	36.73	47.824	
9,700.0	7,500.0	7,250.0	7,236.4	37.8	14.7	42.58	-93.2	-359.2	1,854.8	1,817.0	37.83	49.034	
9,800.0	7,500.0	7,250.0	7,236.4	39.5	14.7	42.58	-93.2	-359.2	1,953.0	1,914.1	38.93	50.170	
9,900.0	7,500.0	7,250.0	7,236.4	41.1	14.7	42.58	-93.2	-359.2	2,051.4	2,011.4	40.04	51.238	
10,000.0	7,500.0	7,250.0	7,236.4	42.8	14.7	42.58	-93.2	-359.2	2,150.0	2,108.8	41.15	52.245	
10,100.0	7,500.0	7,250.0	7,236.4	44.5	14.7	42.58	-93.2	-359.2	2,248.6	2,206.3	42.27	53.194	
10,200.0	7,500.0	7,250.0	7,236.4	46.1	14.7	42.58	-93.2	-359.2	2,347.4	2,304.0	43.40	54.090	
10,300.0	7,500.0	7,250.0	7,236.4	47.8	14.7	42.58	-93.2	-359.2	2,446.3	2,401.7	44.53	54.937	
10,400.0	7,500.0	7,250.0	7,236.4	49.5	14.7	42.58	-93.2	-359.2	2,545.2	2,499.6	45.66	55.739	
10,500.0	7,500.0	7,250.0	7,236.4	51.2	14.7	42.58	-93.2	-359.2	2,644.3	2,597.5	46.80	56.499	
10,600.0	7,500.0	7,250.0	7,236.4	52.9	14.7	42.58	-93.2	-359.2	2,743.4	2,695.5	47.95	57.220	
10,700.0	7,500.0	7,250.0	7,236.4	54.6	14.7	42.58	-93.2	-359.2	2,842.6	2,793.5	49.09	57.905	
10,800.0	7,500.0	7,250.0	7,236.4	56.3	14.7	42.58	-93.2	-359.2	2,941.8	2,891.6	50.24	58.556	
10,900.0	7,500.0	7,250.0	7,236.4	58.0	14.7	42.58	-93.2	-359.2	3,041.1	2,989.7	51.39	59.176	
11,000.0	7,500.0	7,250.0	7,236.4	59.7	14.7	42.58	-93.2	-359.2	3,140.4	3,087.9	52.54	59.767	
11,100.0	7,500.0	7,250.0	7,236.4	61.4	14.7	42.58	-93.2	-359.2	3,239.8	3,186.1	53.70	60.331	
11,200.0	7,500.0	7,228.0	7,214.5	63.1	14.7	40.16	-95.4	-357.9	3,338.7	3,285.9	52.82	63.205	
11,300.0	7,500.0	7,226.8	7,213.4	64.8	14.7	40.04	-95.5	-357.8	3,438.1	3,384.3	53.82	63.879	
11,400.0	7,500.0	7,225.7	7,212.3	66.5	14.7	39.92	-95.6	-357.7	3,537.5	3,482.7	54.82	64.527	
11,500.0	7,500.0	7,224.6	7,211.2	68.2	14.7	39.81	-95.7	-357.7	3,637.0	3,581.1	55.82	65.150	
11,600.0	7,500.0	7,223.6	7,210.2	70.0	14.7	39.70	-95.8	-357.6	3,736.4	3,679.6	56.83	65.750	
11,700.0	7,500.0	7,222.7	7,209.3	71.7	14.7	39.61	-95.8	-357.6	3,835.9	3,778.1	57.83	66.328	
11,800.0	7,500.0	7,200.0	7,186.7	73.4	14.6	37.35	-97.0	-356.2	3,935.9	3,879.3	56.67	69.457	
11,900.0	7,500.0	7,200.0	7,186.7	75.1	14.6	37.35	-97.0	-356.2	4,035.4	3,977.7	57.72	69.918	
12,000.0	7,500.0	7,200.0	7,186.7	76.9	14.6	37.35	-97.0	-356.2	4,135.0	4,076.2	58.77	70.362	
12,100.0	7,500.0	7,200.0	7,186.7	78.6	14.6	37.35	-97.0	-356.2	4,234.5	4,174.7	59.82	70.790	
12,200.0	7,500.0	7,200.0	7,186.7	80.3	14.6	37.35	-97.0	-356.2	4,334.1	4,273.2	60.87	71.201	
12,300.0	7,500.0	7,200.0	7,186.7	82.0	14.6	37.35	-97.0	-356.2	4,433.7	4,371.8	61.92	71.598	
12,400.0	7,500.0	7,200.0	7,186.7	83.8	14.6	37.35	-97.0	-356.2	4,533.3	4,470.3	62.98	71.981	
12,500.0	7,500.0	7,200.0	7,186.7	85.5	14.6	37.35	-97.0	-356.2	4,632.9	4,568.9	64.03	72.351	
12,600.0	7,500.0	7,200.0	7,186.7	87.2	14.6	37.35	-97.0	-356.2	4,732.6	4,667.5	65.09	72.708	
12,700.0	7,500.0	7,200.0	7,186.7	89.0	14.6	37.35	-97.0	-356.2	4,832.2	4,766.1	66.15	73.053	
12,800.0	7,500.0	7,200.0	7,186.7	90.7	14.6	37.35	-97.0	-356.2	4,931.9	4,864.7	67.20	73.387	
12,900.0	7,500.0	7,200.0	7,186.7	92.4	14.6	37.35	-97.0	-356.2	5,031.6	4,963.3	68.26	73.709	
12,986.8	7,500.0	7,200.0	7,186.7	93.9	14.6	37.35	-97.0	-356.2	5,118.2	5,049.0	69.18	73.981	
13,000.0	7,500.0	7,200.0	7,186.7	94.2	14.6	35.97	-97.0	-356.2	5,131.3	5,063.8	67.53	75.991	
13,058.5	7,500.0	7,200.0	7,186.7	95.2	14.6	29.16	-97.0	-356.2	5,189.7	5,130.8	58.89	88.129	
13,100.0	7,500.0	7,200.0	7,186.7	95.9	14.6	29.16	-97.0	-356.2	5,231.1	5,171.8	59.24	88.299	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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	90.30	-0.4	70.0	70.0				
100.0	100.0	100.0	100.0	0.2	0.2	90.30	-0.4	70.0	70.0	69.7	0.30	230.404	
200.0	200.0	200.0	200.0	0.3	0.3	90.30	-0.4	70.0	70.0	69.3	0.65	107.193	
300.0	300.0	300.0	300.0	0.5	0.5	90.30	-0.4	70.0	70.0	69.0	1.00	69.844 CC	
321.1	321.1	321.3	321.3	0.5	0.5	130.35	-0.4	69.9	70.0	68.9	1.08	65.025	
400.0	400.0	400.8	400.8	0.7	0.7	131.41	-1.0	69.4	70.0	68.6	1.35	51.727	
500.0	500.0	501.4	501.4	0.9	0.9	134.71	-3.1	67.7	70.2	68.5	1.71	41.093 ES	
600.0	599.9	601.8	601.7	1.0	1.0	140.12	-6.5	64.9	71.0	69.0	2.07	34.308	
700.0	699.7	700.7	700.5	1.2	1.2	146.07	-9.9	62.2	74.1	71.7	2.43	30.490	
800.0	799.4	800.0	799.7	1.4	1.4	150.75	-12.2	60.9	79.6	76.8	2.79	28.557	
900.0	899.2	898.9	898.6	1.6	1.6	153.85	-13.6	60.9	86.2	83.1	3.14	27.491	
1,000.0	998.9	998.5	998.3	1.8	1.7	156.30	-14.7	61.2	93.3	89.8	3.49	26.748	
1,100.0	1,098.7	1,098.2	1,097.9	2.1	1.9	158.41	-15.8	61.4	100.5	96.6	3.84	26.185	
1,200.0	1,198.5	1,197.9	1,197.6	2.3	2.1	160.23	-16.9	61.7	107.8	103.6	4.19	25.749	
1,300.0	1,298.2	1,297.6	1,297.3	2.5	2.3	148.37	-18.1	61.9	115.0	110.4	4.54	25.333	
1,400.0	1,397.9	1,397.2	1,396.9	2.7	2.4	138.82	-19.2	62.2	121.9	117.0	4.89	24.920	
1,450.9	1,448.6	1,447.9	1,447.5	2.8	2.5	135.03	-19.8	62.3	125.4	120.3	5.07	24.725	
1,500.0	1,497.6	1,496.7	1,496.4	2.9	2.6	136.49	-20.3	62.5	128.8	123.6	5.24	24.562	
1,600.0	1,597.2	1,596.3	1,595.9	3.1	2.8	139.24	-21.4	62.7	136.0	130.4	5.59	24.307	
1,700.0	1,696.9	1,695.8	1,695.5	3.3	3.0	141.71	-22.6	63.0	143.5	137.5	5.94	24.133	
1,800.0	1,796.5	1,795.4	1,795.0	3.6	3.1	143.93	-23.7	63.3	151.2	144.9	6.29	24.019	
1,900.0	1,896.1	1,894.9	1,894.5	3.8	3.3	145.93	-24.8	63.5	159.1	152.4	6.64	23.950	
2,000.0	1,995.8	1,994.4	1,994.1	4.0	3.5	147.75	-25.9	63.8	167.2	160.2	6.99	23.914	
2,100.0	2,095.4	2,094.0	2,093.6	4.2	3.7	149.39	-27.0	64.1	175.4	168.1	7.34	23.904	
2,200.0	2,195.1	2,193.5	2,193.1	4.4	3.8	150.89	-28.2	64.3	183.8	176.1	7.69	23.912	
2,300.0	2,294.7	2,293.0	2,292.7	4.7	4.0	152.25	-29.3	64.6	192.2	184.2	8.03	23.934	
2,400.0	2,394.4	2,392.6	2,392.2	4.9	4.2	153.50	-30.4	64.8	200.8	192.4	8.38	23.967	
2,500.0	2,494.0	2,492.1	2,491.7	5.1	4.4	154.65	-31.5	65.1	209.5	200.8	8.73	24.007	
2,600.0	2,593.6	2,591.7	2,591.3	5.3	4.5	155.71	-32.7	65.4	218.2	209.2	9.07	24.053	
2,700.0	2,693.3	2,691.2	2,690.8	5.6	4.7	156.68	-33.8	65.6	227.1	217.6	9.42	24.103	
2,800.0	2,792.9	2,790.7	2,790.3	5.8	4.9	157.58	-34.9	65.9	235.9	226.2	9.77	24.156	
2,900.0	2,892.6	2,890.3	2,889.9	6.0	5.1	158.42	-36.0	66.2	244.9	234.7	10.11	24.211	
3,000.0	2,992.2	2,989.8	2,989.4	6.2	5.2	159.19	-37.1	66.4	253.8	243.4	10.46	24.266	
3,100.0	3,091.9	3,089.4	3,088.9	6.5	5.4	159.92	-38.3	66.7	262.8	252.0	10.81	24.322	
3,200.0	3,191.5	3,188.9	3,188.5	6.7	5.6	160.59	-39.4	67.0	271.9	260.8	11.15	24.378	
3,300.0	3,291.2	3,288.4	3,288.0	6.9	5.8	161.23	-40.5	67.2	281.0	269.5	11.50	24.434	
3,400.0	3,390.8	3,388.0	3,387.5	7.1	5.9	161.82	-41.6	67.5	290.1	278.3	11.85	24.488	
3,500.0	3,490.4	3,487.5	3,487.1	7.4	6.1	162.37	-42.8	67.7	299.3	287.1	12.19	24.543	
3,600.0	3,590.1	3,587.1	3,586.6	7.6	6.3	162.90	-43.9	68.0	308.5	295.9	12.54	24.596	
3,700.0	3,689.7	3,686.6	3,686.1	7.8	6.5	163.39	-45.0	68.3	317.7	304.8	12.89	24.648	
3,800.0	3,789.4	3,786.1	3,785.7	8.1	6.6	163.86	-46.1	68.5	326.9	313.7	13.23	24.699	
3,900.0	3,889.0	3,885.7	3,885.2	8.3	6.8	164.30	-47.2	68.8	336.1	322.5	13.58	24.749	
4,000.0	3,988.7	3,985.2	3,984.7	8.5	7.0	164.71	-48.4	69.1	345.4	331.5	13.93	24.798	
4,100.0	4,088.3	4,084.8	4,084.3	8.7	7.2	165.11	-49.5	69.3	354.7	340.4	14.28	24.845	
4,200.0	4,187.9	4,184.3	4,183.8	9.0	7.3	165.48	-50.6	69.6	364.0	349.4	14.62	24.891	
4,300.0	4,287.6	4,283.8	4,283.3	9.2	7.5	165.84	-51.7	69.8	373.3	358.3	14.97	24.936	
4,400.0	4,387.2	4,383.4	4,382.9	9.4	7.7	166.17	-52.9	70.1	382.6	367.3	15.32	24.980	
4,500.0	4,486.9	4,482.9	4,482.4	9.6	7.9	166.50	-54.0	70.4	391.9	376.3	15.66	25.023	
4,600.0	4,586.5	4,582.5	4,581.9	9.9	8.0	166.80	-55.1	70.6	401.3	385.3	16.01	25.064	
4,700.0	4,686.2	4,682.0	4,681.5	10.1	8.2	167.10	-56.2	70.9	410.7	394.3	16.36	25.105	
4,800.0	4,785.8	4,781.5	4,781.0	10.3	8.4	167.38	-57.3	71.2	420.0	403.3	16.70	25.144	
4,900.0	4,885.4	4,881.1	4,880.5	10.6	8.6	167.64	-58.5	71.4	429.4	412.4	17.05	25.182	

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 2B-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 2B-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							
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	4,985.1	4,980.6	4,980.1	10.8	8.7	167.90	-59.6	71.7	438.8	421.4	17.40	25.219		
5,100.0	5,084.7	5,080.2	5,079.6	11.0	8.9	168.15	-60.7	72.0	448.2	430.5	17.75	25.256		
5,200.0	5,184.4	5,179.7	5,179.1	11.2	9.1	168.38	-61.8	72.2	457.6	439.5	18.09	25.291		
5,300.0	5,284.0	5,279.2	5,278.7	11.5	9.3	168.61	-63.0	72.5	467.0	448.6	18.44	25.325		
5,400.0	5,383.7	5,378.8	5,378.2	11.7	9.4	168.83	-64.1	72.7	476.4	457.6	18.79	25.358		
5,500.0	5,483.3	5,478.3	5,477.7	11.9	9.6	169.03	-65.2	73.0	485.9	466.7	19.14	25.391		
5,600.0	5,583.0	5,577.8	5,577.3	12.1	9.8	169.23	-66.3	73.3	495.3	475.8	19.48	25.422		
5,700.0	5,682.6	5,677.4	5,676.8	12.4	10.0	169.43	-67.4	73.5	504.7	484.9	19.83	25.453		
5,800.0	5,782.2	5,776.9	5,776.3	12.6	10.1	169.61	-68.6	73.8	514.2	494.0	20.18	25.483		
5,900.0	5,881.9	5,876.5	5,875.9	12.8	10.3	169.79	-69.7	74.1	523.6	503.1	20.52	25.512		
6,000.0	5,981.5	5,976.0	5,975.4	13.1	10.5	169.97	-70.8	74.3	533.1	512.2	20.87	25.540		
6,100.0	6,081.2	6,075.5	6,074.9	13.3	10.7	170.13	-71.9	74.6	542.5	521.3	21.22	25.568		
6,200.0	6,180.8	6,175.1	6,174.4	13.5	10.8	170.30	-73.0	74.9	552.0	530.4	21.57	25.595		
6,300.0	6,280.5	6,274.6	6,274.0	13.7	11.0	170.45	-74.2	75.1	561.5	539.6	21.91	25.621		
6,400.0	6,380.1	6,374.2	6,373.5	14.0	11.2	170.60	-75.3	75.4	570.9	548.7	22.26	25.647		
6,500.0	6,479.7	6,473.7	6,473.0	14.2	11.4	170.75	-76.4	75.6	580.4	557.8	22.61	25.672		
6,600.0	6,579.4	6,573.2	6,572.6	14.4	11.5	170.89	-77.5	75.9	589.9	566.9	22.96	25.696		
6,700.0	6,679.0	6,672.8	6,672.1	14.7	11.7	171.03	-78.7	76.2	599.4	576.1	23.30	25.720		
6,800.0	6,778.7	6,772.3	6,771.6	14.9	11.9	171.16	-79.8	76.4	608.9	585.2	23.65	25.743		
6,901.0	6,879.3	6,872.9	6,872.2	15.1	12.1	171.29	-80.9	76.7	618.4	594.4	24.00	25.766		
6,950.0	6,928.3	7,850.4	7,500.0	15.2	16.6	-172.40	514.1	67.8	598.7	567.0	31.68	18.897		
7,000.0	6,978.2	7,848.1	7,500.0	15.2	16.6	-113.23	511.8	67.9	551.4	519.8	31.58	17.459		
7,050.0	7,027.7	7,841.5	7,500.0	15.2	16.5	-119.05	505.2	68.0	505.0	474.0	31.02	16.282		
7,100.0	7,076.5	7,830.6	7,500.0	15.1	16.4	-124.20	494.3	68.2	460.1	429.7	30.32	15.174		
7,150.0	7,124.1	7,792.1	7,498.9	15.0	16.0	-122.57	455.8	68.9	416.7	386.8	29.86	13.956		
7,200.0	7,170.3	7,753.9	7,495.3	14.9	15.6	-120.34	417.8	69.5	374.6	345.2	29.42	12.732		
7,250.0	7,214.6	7,720.0	7,489.9	14.8	15.2	-118.26	384.3	70.1	334.5	305.5	29.01	11.532		
7,300.0	7,256.7	7,688.6	7,483.2	14.6	14.9	-115.83	353.7	70.6	296.9	268.3	28.62	10.373		
7,350.0	7,296.2	7,658.7	7,475.3	14.4	14.7	-112.81	324.9	71.1	262.8	234.5	28.30	9.288		
7,400.0	7,333.0	7,629.9	7,466.2	14.2	14.4	-109.02	297.5	71.5	233.4	205.4	28.04	8.324		
7,450.0	7,366.7	7,601.8	7,456.0	14.1	14.2	-104.35	271.3	72.0	210.2	182.4	27.84	7.552		
7,500.0	7,397.1	7,574.2	7,444.8	13.9	14.0	-98.75	246.1	72.4	195.0	167.3	27.67	7.048		
7,550.0	7,423.8	7,547.0	7,432.6	13.8	13.8	-92.27	221.8	72.8	189.0	161.6	27.45	6.887 SF		
7,556.4	7,427.0	7,543.6	7,431.0	13.8	13.8	-91.39	218.8	72.8	188.9	161.5	27.41	6.892		
7,600.0	7,446.8	7,520.2	7,419.4	13.7	13.7	-85.10	198.4	73.2	192.4	165.3	27.10	7.101		
7,650.0	7,465.8	7,493.5	7,405.3	13.6	13.5	-77.51	175.9	73.5	204.1	177.5	26.54	7.689		
7,700.0	7,480.8	7,467.1	7,390.2	13.6	13.4	-69.90	154.1	73.9	222.0	196.3	25.77	8.617		
7,750.0	7,491.5	7,440.8	7,374.2	13.7	13.2	-62.63	133.3	74.2	244.2	219.4	24.82	9.839		
7,800.0	7,497.9	7,414.6	7,357.4	13.8	13.1	-55.97	113.2	74.5	269.1	245.2	23.82	11.294		
7,848.8	7,500.0	7,389.2	7,340.2	13.9	13.0	-50.20	94.5	74.8	294.6	271.7	22.90	12.865		
7,900.0	7,500.0	7,363.7	7,322.1	14.1	12.9	-47.20	76.5	75.1	323.3	300.8	22.49	14.376		
8,000.0	7,500.0	7,320.0	7,289.4	14.7	12.8	-42.42	47.6	75.5	386.5	364.6	21.94	17.616		
8,100.0	7,500.0	7,283.2	7,260.1	15.4	12.7	-38.79	25.3	75.8	457.4	435.8	21.68	21.098		
8,200.0	7,500.0	7,250.0	7,232.6	16.3	12.6	-35.83	6.8	76.1	534.0	512.4	21.58	24.740		
8,300.0	7,500.0	7,225.3	7,211.4	17.3	12.6	-33.81	-5.9	76.2	614.7	593.0	21.71	28.315		
8,400.0	7,500.0	7,200.0	7,189.2	18.5	12.5	-31.89	-18.0	76.4	698.7	676.9	21.85	31.972		
8,500.0	7,500.0	7,182.5	7,173.5	19.7	12.5	-30.65	-25.8	76.5	785.2	763.0	22.16	35.426		
8,600.0	7,500.0	7,165.2	7,157.8	21.0	12.5	-29.49	-33.0	76.6	873.7	851.2	22.49	38.854		
8,700.0	7,500.0	7,150.0	7,143.8	22.4	12.5	-28.53	-38.9	76.6	963.7	940.8	22.85	42.175		
8,800.0	7,500.0	7,150.0	7,143.8	23.8	12.5	-28.53	-38.9	76.6	1,055.2	1,031.7	23.51	44.885		
8,900.0	7,500.0	7,124.5	7,119.9	25.3	12.4	-27.01	-48.0	76.7	1,147.4	1,123.7	23.67	48.475		
9,000.0	7,500.0	7,100.0	7,096.7	26.7	12.4	-25.67	-55.8	76.8	1,240.9	1,217.0	23.85	52.033		

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 2B-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 2B-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		
9,100.0	7,500.0	7,100.0	7,096.7	28.3	12.4	-25.67	-55.8	76.8	1,334.6	1,310.1	24.49	54.491		
9,200.0	7,500.0	7,100.0	7,096.7	29.8	12.4	-25.67	-55.8	76.8	1,429.2	1,404.1	25.15	56.830		
9,300.0	7,500.0	7,100.0	7,096.7	31.4	12.4	-25.67	-55.8	76.8	1,524.5	1,498.7	25.82	59.053		
9,400.0	7,500.0	7,080.1	7,077.7	33.0	12.4	-24.66	-61.3	76.9	1,619.9	1,593.9	26.04	62.220		
9,500.0	7,500.0	7,073.5	7,071.3	34.6	12.4	-24.33	-63.0	76.9	1,715.9	1,689.4	26.54	64.649		
9,600.0	7,500.0	7,050.0	7,048.4	36.2	12.3	-23.24	-68.5	76.9	1,812.6	1,785.9	26.66	67.990		
9,700.0	7,500.0	7,050.0	7,048.4	37.8	12.3	-23.24	-68.5	76.9	1,909.0	1,881.7	27.30	69.937		
9,800.0	7,500.0	7,050.0	7,048.4	39.5	12.3	-23.24	-68.5	76.9	2,005.8	1,977.9	27.94	71.794		
9,900.0	7,500.0	7,050.0	7,048.4	41.1	12.3	-23.24	-68.5	76.9	2,102.9	2,074.3	28.59	73.566		
10,000.0	7,500.0	7,050.0	7,048.4	42.8	12.3	-23.24	-68.5	76.9	2,200.3	2,171.0	29.24	75.257		
10,100.0	7,500.0	7,050.0	7,048.4	44.5	12.3	-23.24	-68.5	76.9	2,297.8	2,268.0	29.89	76.871		
10,200.0	7,500.0	7,050.0	7,048.4	46.1	12.3	-23.24	-68.5	76.9	2,395.6	2,365.1	30.55	78.414		
10,300.0	7,500.0	7,050.0	7,048.4	47.8	12.3	-23.24	-68.5	76.9	2,493.6	2,462.4	31.21	79.888		
10,400.0	7,500.0	7,050.0	7,048.4	49.5	12.3	-23.24	-68.5	76.9	2,591.7	2,559.8	31.88	81.298		
10,500.0	7,500.0	7,029.1	7,027.9	51.2	12.3	-22.33	-72.5	76.9	2,689.5	2,657.6	31.90	84.319		
10,600.0	7,500.0	7,026.1	7,024.9	52.9	12.3	-22.21	-73.1	76.9	2,787.7	2,755.3	32.45	85.907		
10,700.0	7,500.0	7,023.3	7,022.1	54.6	12.3	-22.09	-73.5	76.9	2,886.1	2,853.1	33.01	87.440		
10,800.0	7,500.0	7,000.0	6,999.1	56.3	12.3	-21.17	-76.9	76.9	2,984.9	2,952.0	32.92	90.666		
10,900.0	7,500.0	7,000.0	6,999.1	58.0	12.3	-21.17	-76.9	76.9	3,083.4	3,049.8	33.55	91.916		
11,000.0	7,500.0	7,000.0	6,999.1	59.7	12.3	-21.17	-76.9	76.9	3,181.9	3,147.7	34.17	93.120		
11,100.0	7,500.0	7,000.0	6,999.1	61.4	12.3	-21.17	-76.9	76.9	3,280.5	3,245.7	34.80	94.278		
11,200.0	7,500.0	7,000.0	6,999.1	63.1	12.3	-21.17	-76.9	76.9	3,379.2	3,343.8	35.42	95.393		
11,300.0	7,500.0	7,000.0	6,999.1	64.8	12.3	-21.17	-76.9	76.9	3,477.9	3,441.9	36.05	96.468		
11,400.0	7,500.0	7,000.0	6,999.1	66.5	12.3	-21.17	-76.9	76.9	3,576.8	3,540.1	36.68	97.505		
11,500.0	7,500.0	7,000.0	6,999.1	68.2	12.3	-21.17	-76.9	76.9	3,675.7	3,638.4	37.31	98.504		
11,600.0	7,500.0	7,000.0	6,999.1	70.0	12.3	-21.17	-76.9	76.9	3,774.6	3,736.7	37.95	99.469		
11,700.0	7,500.0	7,000.0	6,999.1	71.7	12.3	-21.17	-76.9	76.9	3,873.6	3,835.1	38.58	100.401		
11,800.0	7,500.0	7,000.0	6,999.1	73.4	12.3	-21.17	-76.9	76.9	3,972.7	3,933.5	39.22	101.301		
11,900.0	7,500.0	7,000.0	6,999.1	75.1	12.3	-21.17	-76.9	76.9	4,071.8	4,032.0	39.85	102.171		
12,000.0	7,500.0	7,000.0	6,999.1	76.9	12.3	-21.17	-76.9	76.9	4,171.0	4,130.5	40.49	103.013		
12,100.0	7,500.0	7,000.0	6,999.1	78.6	12.3	-21.17	-76.9	76.9	4,270.1	4,229.0	41.13	103.827		
12,200.0	7,500.0	7,000.0	6,999.1	80.3	12.3	-21.17	-76.9	76.9	4,369.4	4,327.6	41.77	104.616		
12,300.0	7,500.0	7,000.0	6,999.1	82.0	12.3	-21.17	-76.9	76.9	4,468.6	4,426.2	42.41	105.379		
12,400.0	7,500.0	7,000.0	6,999.1	83.8	12.3	-21.17	-76.9	76.9	4,567.9	4,524.9	43.05	106.119		
12,500.0	7,500.0	7,000.0	6,999.1	85.5	12.3	-21.17	-76.9	76.9	4,667.2	4,623.5	43.69	106.836		
12,600.0	7,500.0	7,000.0	6,999.1	87.2	12.3	-21.17	-76.9	76.9	4,766.6	4,722.3	44.33	107.532		
12,700.0	7,500.0	7,000.0	6,999.1	89.0	12.3	-21.17	-76.9	76.9	4,866.0	4,821.0	44.97	108.206		
12,800.0	7,500.0	7,000.0	6,999.1	90.7	12.3	-21.17	-76.9	76.9	4,965.4	4,919.7	45.61	108.861		
12,900.0	7,500.0	7,000.0	6,999.1	92.4	12.3	-21.17	-76.9	76.9	5,064.8	5,018.5	46.26	109.497		
12,986.8	7,500.0	7,000.0	6,999.1	93.9	12.3	-21.17	-76.9	76.9	5,151.1	5,104.3	46.81	110.034		
13,000.0	7,500.0	7,000.0	6,999.1	94.2	12.3	-22.33	-76.9	76.9	5,164.2	5,115.8	48.47	106.551		
13,058.5	7,500.0	7,000.0	6,999.1	95.2	12.3	-27.29	-76.9	76.9	5,222.4	5,166.7	55.70	93.762		
13,100.0	7,500.0	7,000.0	6,999.1	95.9	12.3	-27.29	-76.9	76.9	5,263.7	5,207.6	56.03	93.938		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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	90.26	-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		
300.0	300.0	300.0	300.0	0.5	0.5	90.26	-0.4	80.0	80.0	79.0	1.00	79.901	CC, ES	
400.0	400.0	400.0	400.0	0.7	0.7	130.73	-0.4	80.0	80.6	79.3	1.35	59.660		
500.0	500.0	500.0	500.0	0.9	0.8	132.10	-0.4	80.0	82.3	80.6	1.70	48.372		
600.0	599.9	599.9	599.9	1.0	1.0	134.25	-0.4	80.0	85.3	83.3	2.06	41.496		
700.0	699.7	698.1	698.1	1.2	1.2	136.96	-0.5	80.9	90.6	88.1	2.41	37.557		
800.0	799.4	796.1	796.1	1.4	1.4	139.68	-0.8	83.4	98.3	95.6	2.77	35.553		
900.0	899.2	893.8	893.7	1.6	1.5	141.91	-1.2	87.5	108.0	104.9	3.12	34.620		
1,000.0	998.9	993.1	992.8	1.8	1.7	143.76	-1.8	92.6	118.7	115.2	3.48	34.157		
1,100.0	1,098.7	1,092.4	1,092.1	2.1	1.9	145.29	-2.5	97.8	129.5	125.7	3.83	33.809		
1,200.0	1,198.5	1,191.8	1,191.3	2.3	2.1	146.59	-3.1	102.9	140.4	136.2	4.19	33.542		
1,300.0	1,298.2	1,291.2	1,290.5	2.5	2.3	134.10	-3.7	108.0	151.0	146.4	4.55	33.187		
1,400.0	1,397.9	1,390.6	1,389.8	2.7	2.5	123.73	-4.3	113.1	160.8	155.9	4.92	32.704		
1,450.9	1,448.6	1,441.2	1,440.3	2.8	2.6	119.46	-4.6	115.8	165.5	160.4	5.10	32.430		
1,500.0	1,497.6	1,490.0	1,489.0	2.9	2.7	120.46	-4.9	118.3	170.1	164.8	5.29	32.179		
1,600.0	1,597.2	1,589.4	1,588.3	3.1	2.9	122.35	-5.5	123.4	179.5	173.8	5.65	31.742		
1,700.0	1,696.9	1,688.8	1,687.6	3.3	3.1	124.05	-6.1	128.5	189.1	183.0	6.02	31.385		
1,800.0	1,796.5	1,788.2	1,786.8	3.6	3.3	125.58	-6.7	133.6	198.8	192.4	6.39	31.090		
1,900.0	1,896.1	1,887.5	1,886.1	3.8	3.4	126.97	-7.3	138.8	208.6	201.9	6.76	30.845		
2,000.0	1,995.8	1,986.9	1,985.3	4.0	3.6	128.24	-7.9	143.9	218.6	211.5	7.13	30.641		
2,100.0	2,095.4	2,086.3	2,084.6	4.2	3.8	129.39	-8.5	149.0	228.6	221.1	7.50	30.468		
2,200.0	2,195.1	2,185.7	2,183.9	4.4	4.0	130.45	-9.1	154.1	238.8	230.9	7.88	30.322		
2,300.0	2,294.7	2,285.1	2,283.1	4.7	4.2	131.42	-9.7	159.3	249.0	240.8	8.25	30.197		
2,400.0	2,394.4	2,384.5	2,382.4	4.9	4.4	132.31	-10.3	164.4	259.3	250.7	8.62	30.090		
2,500.0	2,494.0	2,483.9	2,481.6	5.1	4.6	133.13	-10.9	169.5	269.6	260.6	8.99	29.998		
2,600.0	2,593.6	2,583.3	2,580.9	5.3	4.8	133.90	-11.5	174.7	280.0	270.7	9.36	29.918		
2,700.0	2,693.3	2,682.7	2,680.1	5.6	5.0	134.61	-12.1	179.8	290.4	280.7	9.73	29.849		
2,800.0	2,792.9	2,782.1	2,779.4	5.8	5.2	135.27	-12.7	184.9	300.9	290.8	10.10	29.789		
2,900.0	2,892.6	2,881.5	2,878.7	6.0	5.4	135.88	-13.3	190.0	311.4	301.0	10.47	29.737		
3,000.0	2,992.2	2,980.9	2,977.9	6.2	5.6	136.46	-13.9	195.2	322.0	311.1	10.84	29.691		
3,100.0	3,091.9	3,080.3	3,077.2	6.5	5.8	137.00	-14.5	200.3	332.6	321.3	11.22	29.651		
3,200.0	3,191.5	3,179.6	3,176.4	6.7	6.0	137.51	-15.1	205.4	343.2	331.6	11.59	29.615		
3,300.0	3,291.2	3,279.0	3,275.7	6.9	6.2	137.98	-15.7	210.5	353.8	341.8	11.96	29.584		
3,400.0	3,390.8	3,378.4	3,374.9	7.1	6.4	138.43	-16.3	215.7	364.4	352.1	12.33	29.556		
3,500.0	3,490.4	3,477.8	3,474.2	7.4	6.6	138.85	-16.9	220.8	375.1	362.4	12.70	29.532		
3,600.0	3,590.1	3,577.2	3,573.5	7.6	6.7	139.25	-17.5	225.9	385.8	372.7	13.07	29.510		
3,700.0	3,689.7	3,676.6	3,672.7	7.8	6.9	139.63	-18.2	231.0	396.5	383.1	13.45	29.491		
3,800.0	3,789.4	3,776.0	3,772.0	8.1	7.1	139.98	-18.8	236.2	407.2	393.4	13.82	29.474		
3,900.0	3,889.0	3,875.4	3,871.2	8.3	7.3	140.32	-19.4	241.3	418.0	403.8	14.19	29.458		
4,000.0	3,988.7	3,974.8	3,970.5	8.5	7.5	140.65	-20.0	246.4	428.7	414.2	14.56	29.445		
4,100.0	4,088.3	4,074.2	4,069.7	8.7	7.7	140.95	-20.6	251.5	439.5	424.6	14.93	29.433		
4,200.0	4,187.9	4,173.6	4,169.0	9.0	7.9	141.24	-21.2	256.7	450.3	435.0	15.30	29.422		
4,300.0	4,287.6	4,273.0	4,268.3	9.2	8.1	141.52	-21.8	261.8	461.1	445.4	15.68	29.413		
4,400.0	4,387.2	4,372.3	4,367.5	9.4	8.3	141.79	-22.4	266.9	471.9	455.8	16.05	29.404		
4,500.0	4,486.9	4,471.7	4,466.8	9.6	8.5	142.04	-23.0	272.0	482.7	466.3	16.42	29.397		
4,600.0	4,586.5	4,571.1	4,566.0	9.9	8.7	142.28	-23.6	277.2	493.5	476.7	16.79	29.390		
4,700.0	4,686.2	4,670.5	4,665.3	10.1	8.9	142.52	-24.2	282.3	504.3	487.2	17.16	29.384		
4,800.0	4,785.8	4,769.9	4,764.6	10.3	9.1	142.74	-24.8	287.4	515.2	497.6	17.54	29.379		
4,900.0	4,885.4	4,869.3	4,863.8	10.6	9.3	142.95	-25.4	292.5	526.0	508.1	17.91	29.374		
5,000.0	4,985.1	4,968.7	4,963.1	10.8	9.5	143.16	-26.0	297.7	536.9	518.6	18.28	29.370		

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 2B-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 2B-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: 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	5,084.7	5,068.1	5,062.3	11.0	9.7	143.35	-26.6	302.8	547.7	529.1	18.65	29.366		
5,200.0	5,184.4	5,167.5	5,161.6	11.2	9.9	143.54	-27.2	307.9	558.6	539.6	19.02	29.363		
5,300.0	5,284.0	5,266.9	5,260.8	11.5	10.1	143.72	-27.8	313.0	569.4	550.1	19.39	29.361		
5,400.0	5,383.7	5,366.3	5,360.1	11.7	10.3	143.90	-28.4	318.2	580.3	560.6	19.77	29.358		
5,500.0	5,483.3	5,465.7	5,459.4	11.9	10.5	144.07	-29.0	323.3	591.2	571.1	20.14	29.356		
5,600.0	5,583.0	5,565.0	5,558.6	12.1	10.6	144.23	-29.6	328.4	602.1	581.6	20.51	29.355		
5,700.0	5,682.6	5,664.4	5,657.9	12.4	10.8	144.38	-30.2	333.5	613.0	592.1	20.88	29.353		
5,800.0	5,782.2	5,763.8	5,757.1	12.6	11.0	144.54	-30.8	338.7	623.9	602.6	21.25	29.352		
5,900.0	5,881.9	5,863.2	5,856.4	12.8	11.2	144.68	-31.4	343.8	634.8	613.1	21.63	29.351		
6,000.0	5,981.5	5,962.6	5,955.6	13.1	11.4	144.82	-32.0	348.9	645.7	623.7	22.00	29.350		
6,100.0	6,081.2	6,062.0	6,054.9	13.3	11.6	144.96	-32.6	354.1	656.6	634.2	22.37	29.350		
6,200.0	6,180.8	6,161.4	6,154.2	13.5	11.8	145.09	-33.2	359.2	667.5	644.7	22.74	29.349		
6,300.0	6,280.5	6,260.8	6,253.4	13.7	12.0	145.22	-33.9	364.3	678.4	655.3	23.11	29.349		
6,400.0	6,380.1	6,360.2	6,352.7	14.0	12.2	145.34	-34.5	369.4	689.3	665.8	23.49	29.349		
6,500.0	6,479.7	6,459.6	6,451.9	14.2	12.4	145.46	-35.1	374.6	700.2	676.3	23.86	29.349		
6,600.0	6,579.4	6,559.0	6,551.2	14.4	12.6	145.58	-35.7	379.7	711.1	686.9	24.23	29.349		
6,700.0	6,679.0	6,658.4	6,650.5	14.7	12.8	145.69	-36.3	384.8	722.0	697.4	24.60	29.349		
6,800.0	6,778.7	6,757.7	6,749.7	14.9	13.0	145.80	-36.9	389.9	733.0	708.0	24.97	29.349		
6,901.0	6,879.3	6,858.1	6,850.0	15.1	13.2	145.91	-37.5	395.1	744.0	718.7	25.35	29.350		
6,950.0	6,928.3	6,907.0	6,898.7	15.2	13.3	-123.80	-37.8	397.6	747.8	722.3	25.54	29.283		
7,000.0	6,978.2	6,956.8	6,948.5	15.2	13.4	-51.22	-38.1	400.2	748.6	722.9	25.66	29.176		
7,050.0	7,027.7	7,006.3	6,997.9	15.2	13.5	-47.84	-38.4	402.7	746.2	720.5	25.71	29.026		
7,100.0	7,076.5	7,055.0	7,046.6	15.1	13.6	-47.58	-38.7	405.3	740.7	715.0	25.70	28.826		
7,150.0	7,124.1	7,102.7	7,094.2	15.0	13.7	-48.47	-39.0	407.7	732.4	706.7	25.64	28.563		
7,200.0	7,170.3	7,148.8	7,140.3	14.9	13.8	-50.09	-39.2	410.1	721.3	695.8	25.56	28.219		
7,250.0	7,214.6	7,301.2	7,291.5	14.8	14.0	-57.23	-25.8	417.7	706.3	680.3	26.02	27.148		
7,300.0	7,256.7	7,454.4	7,434.7	14.6	14.3	-69.84	27.0	424.1	682.1	655.2	26.90	25.358		
7,350.0	7,296.2	7,520.6	7,491.2	14.4	14.5	-78.72	61.2	426.4	655.5	628.2	27.27	24.037		
7,400.0	7,333.0	7,548.5	7,513.8	14.2	14.6	-84.37	77.5	427.3	629.9	602.6	27.31	23.065		
7,450.0	7,366.7	7,557.6	7,521.0	14.1	14.6	-87.86	83.1	427.6	606.6	579.4	27.20	22.302		
7,500.0	7,397.1	7,556.4	7,520.0	13.9	14.6	-89.88	82.3	427.5	586.4	559.3	27.03	21.690		
7,550.0	7,423.8	7,548.9	7,514.1	13.8	14.6	-90.81	77.7	427.3	569.7	542.9	26.87	21.205		
7,600.0	7,446.8	7,537.3	7,504.8	13.7	14.6	-90.89	70.8	427.0	557.0	530.3	26.74	20.834		
7,650.0	7,465.8	7,523.0	7,493.2	13.6	14.5	-90.28	62.5	426.5	548.3	521.6	26.64	20.580		
7,700.0	7,480.8	7,506.7	7,479.7	13.6	14.5	-89.08	53.4	426.0	543.7	517.1	26.59	20.444		
7,733.7	7,488.5	7,494.8	7,469.7	13.6	14.4	-87.98	47.1	425.6	542.8	516.2	26.59	20.413 SF		
7,750.0	7,491.5	7,488.9	7,464.7	13.7	14.4	-87.37	44.0	425.4	543.0	516.4	26.59	20.424		
7,800.0	7,497.9	7,470.1	7,448.4	13.8	14.4	-85.23	34.5	424.7	546.0	519.4	26.61	20.520		
7,848.8	7,500.0	7,450.0	7,430.8	13.9	14.3	-82.71	24.9	424.0	552.2	525.6	26.64	20.730		
7,900.0	7,500.0	7,431.7	7,414.4	14.1	14.3	-81.00	16.8	423.3	562.2	535.5	26.75	21.017		
8,000.0	7,500.0	7,400.0	7,385.5	14.7	14.2	-78.00	3.9	422.0	592.2	565.1	27.09	21.857		
8,100.0	7,500.0	7,376.1	7,363.2	15.4	14.2	-75.74	-4.8	421.0	635.0	607.4	27.63	22.979		
8,200.0	7,500.0	7,350.0	7,338.5	16.3	14.1	-73.26	-13.2	419.9	688.7	660.4	28.26	24.371		
8,300.0	7,500.0	7,350.0	7,338.5	17.3	14.1	-73.26	-13.2	419.9	751.2	722.0	29.25	25.681		
8,400.0	7,500.0	7,326.1	7,315.6	18.5	14.1	-71.01	-19.8	418.8	820.4	790.4	30.06	27.290		
8,500.0	7,500.0	7,314.4	7,304.3	19.7	14.1	-69.92	-22.7	418.3	895.3	864.2	31.07	28.810		
8,600.0	7,500.0	7,300.0	7,290.3	21.0	14.0	-68.58	-26.0	417.6	974.4	942.3	32.09	30.365		
8,700.0	7,500.0	7,300.0	7,290.3	22.4	14.0	-68.58	-26.0	417.6	1,056.8	1,023.4	33.36	31.677		
8,800.0	7,500.0	7,300.0	7,290.3	23.8	14.0	-68.58	-26.0	417.6	1,142.0	1,107.4	34.68	32.929		
8,900.0	7,500.0	7,281.5	7,272.1	25.3	14.0	-66.88	-29.7	416.7	1,229.1	1,193.4	35.70	34.425		
9,000.0	7,500.0	7,275.5	7,266.3	26.7	14.0	-66.34	-30.8	416.4	1,318.1	1,281.1	36.96	35.661		
9,100.0	7,500.0	7,270.2	7,261.0	28.3	14.0	-65.86	-31.7	416.2	1,408.4	1,370.2	38.24	36.827		

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 2B-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 2B-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
9,200.0	7,500.0	7,250.0	7,241.1	29.8	14.0	-64.06	-34.6	415.2	1,500.2	1,461.0	39.20	38.271	
9,300.0	7,500.0	7,250.0	7,241.1	31.4	14.0	-64.06	-34.6	415.2	1,592.6	1,552.0	40.61	39.216	
9,400.0	7,500.0	7,250.0	7,241.1	33.0	14.0	-64.06	-34.6	415.2	1,685.9	1,643.8	42.04	40.102	
9,500.0	7,500.0	7,250.0	7,241.1	34.6	14.0	-64.06	-34.6	415.2	1,779.8	1,736.4	43.48	40.933	
9,600.0	7,500.0	7,250.0	7,241.1	36.2	14.0	-64.06	-34.6	415.2	1,874.4	1,829.5	44.94	41.713	
9,700.0	7,500.0	7,250.0	7,241.1	37.8	14.0	-64.06	-34.6	415.2	1,969.6	1,923.2	46.40	42.445	
9,800.0	7,500.0	7,250.0	7,241.1	39.5	14.0	-64.06	-34.6	415.2	2,065.2	2,017.3	47.88	43.133	
9,900.0	7,500.0	7,250.0	7,241.1	41.1	14.0	-64.06	-34.6	415.2	2,161.2	2,111.8	49.36	43.781	
10,000.0	7,500.0	7,250.0	7,241.1	42.8	14.0	-64.06	-34.6	415.2	2,257.5	2,206.7	50.85	44.391	
10,100.0	7,500.0	7,250.0	7,241.1	44.5	14.0	-64.06	-34.6	415.2	2,354.2	2,301.8	52.35	44.967	
10,200.0	7,500.0	7,250.0	7,241.1	46.1	14.0	-64.06	-34.6	415.2	2,451.1	2,397.2	53.86	45.510	
10,300.0	7,500.0	7,250.0	7,241.1	47.8	14.0	-64.06	-34.6	415.2	2,548.2	2,492.9	55.37	46.024	
10,400.0	7,500.0	7,250.0	7,241.1	49.5	14.0	-64.06	-34.6	415.2	2,645.6	2,588.7	56.88	46.510	
10,500.0	7,500.0	7,250.0	7,241.1	51.2	14.0	-64.06	-34.6	415.2	2,743.2	2,684.8	58.40	46.971	
10,600.0	7,500.0	7,228.1	7,219.4	52.9	13.9	-62.15	-37.0	414.1	2,840.4	2,781.3	59.06	48.097	
10,700.0	7,500.0	7,226.6	7,217.9	54.6	13.9	-62.02	-37.2	414.1	2,938.2	2,877.7	60.49	48.571	
10,800.0	7,500.0	7,225.2	7,216.5	56.3	13.9	-61.90	-37.3	414.0	3,036.2	2,974.2	61.93	49.023	
10,900.0	7,500.0	7,223.8	7,215.1	58.0	13.9	-61.78	-37.4	413.9	3,134.2	3,070.8	63.38	49.454	
11,000.0	7,500.0	7,222.6	7,213.8	59.7	13.9	-61.67	-37.5	413.9	3,232.4	3,167.6	64.82	49.865	
11,100.0	7,500.0	7,221.4	7,212.6	61.4	13.9	-61.57	-37.6	413.8	3,330.7	3,264.4	66.27	50.258	
11,200.0	7,500.0	7,200.0	7,191.4	63.1	13.9	-59.77	-38.9	412.7	3,429.5	3,362.8	66.74	51.388	
11,300.0	7,500.0	7,200.0	7,191.4	64.8	13.9	-59.77	-38.9	412.7	3,527.9	3,459.7	68.22	51.714	
11,400.0	7,500.0	7,200.0	7,191.4	66.5	13.9	-59.77	-38.9	412.7	3,626.5	3,556.8	69.70	52.027	
11,500.0	7,500.0	7,200.0	7,191.4	68.2	13.9	-59.77	-38.9	412.7	3,725.1	3,653.9	71.19	52.326	
11,600.0	7,500.0	7,200.0	7,191.4	70.0	13.9	-59.77	-38.9	412.7	3,823.7	3,751.1	72.68	52.613	
11,700.0	7,500.0	7,200.0	7,191.4	71.7	13.9	-59.77	-38.9	412.7	3,922.5	3,848.3	74.16	52.889	
11,800.0	7,500.0	7,200.0	7,191.4	73.4	13.9	-59.77	-38.9	412.7	4,021.3	3,945.6	75.65	53.153	
11,900.0	7,500.0	7,200.0	7,191.4	75.1	13.9	-59.77	-38.9	412.7	4,120.1	4,043.0	77.15	53.407	
12,000.0	7,500.0	7,200.0	7,191.4	76.9	13.9	-59.77	-38.9	412.7	4,219.1	4,140.4	78.64	53.651	
12,100.0	7,500.0	7,200.0	7,191.4	78.6	13.9	-59.77	-38.9	412.7	4,318.0	4,237.9	80.13	53.886	
12,200.0	7,500.0	7,200.0	7,191.4	80.3	13.9	-59.77	-38.9	412.7	4,417.0	4,335.4	81.63	54.112	
12,300.0	7,500.0	7,200.0	7,191.4	82.0	13.9	-59.77	-38.9	412.7	4,516.1	4,433.0	83.12	54.330	
12,400.0	7,500.0	7,200.0	7,191.4	83.8	13.9	-59.77	-38.9	412.7	4,615.2	4,530.6	84.62	54.540	
12,500.0	7,500.0	7,200.0	7,191.4	85.5	13.9	-59.77	-38.9	412.7	4,714.3	4,628.2	86.12	54.743	
12,600.0	7,500.0	7,200.0	7,191.4	87.2	13.9	-59.77	-38.9	412.7	4,813.5	4,725.9	87.62	54.938	
12,700.0	7,500.0	7,200.0	7,191.4	89.0	13.9	-59.77	-38.9	412.7	4,912.7	4,823.6	89.12	55.127	
12,800.0	7,500.0	7,200.0	7,191.4	90.7	13.9	-59.77	-38.9	412.7	5,011.9	4,921.3	90.62	55.310	
12,900.0	7,500.0	7,200.0	7,191.4	92.4	13.9	-59.77	-38.9	412.7	5,111.2	5,019.1	92.12	55.486	
12,986.8	7,500.0	7,200.0	7,191.4	93.9	13.9	-59.77	-38.9	412.7	5,197.4	5,104.0	93.42	55.635	
13,000.0	7,500.0	7,200.0	7,191.4	94.2	13.9	-60.32	-38.9	412.7	5,210.5	5,116.4	94.07	55.386	
13,058.5	7,500.0	7,200.0	7,191.4	95.2	13.9	-62.57	-38.9	412.7	5,268.5	5,171.8	96.76	54.448	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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	90.23	-0.4	89.8	89.8					
100.0	100.0	100.0	100.0	0.2	0.2	90.23	-0.4	89.8	89.8	89.5	0.30	295.837		
200.0	200.0	200.0	200.0	0.3	0.3	90.23	-0.4	89.8	89.8	89.2	0.65	137.636		
300.0	300.0	300.0	300.0	0.5	0.5	90.23	-0.4	89.8	89.8	88.8	1.00	89.679 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	130.65	-0.4	89.8	90.4	89.1	1.35	66.909		
500.0	500.0	500.0	500.0	0.9	0.8	131.87	-0.4	89.8	92.1	90.4	1.70	54.122		
600.0	599.9	598.2	598.2	1.0	1.0	133.79	-0.5	90.7	96.0	93.9	2.05	46.725		
700.0	699.7	696.2	696.2	1.2	1.2	136.22	-0.7	93.2	102.8	100.4	2.41	42.708		
800.0	799.4	793.8	793.7	1.4	1.4	138.64	-1.2	97.3	112.3	109.5	2.76	40.632		
900.0	899.2	891.1	890.8	1.6	1.6	140.62	-1.9	103.1	123.5	120.4	3.12	39.635		
1,000.0	998.9	988.0	987.4	1.8	1.8	142.20	-2.7	110.5	136.6	133.1	3.47	39.368		
1,100.0	1,098.7	1,085.9	1,084.9	2.1	2.0	143.45	-3.7	119.3	151.1	147.3	3.82	39.510		
1,200.0	1,198.5	1,184.8	1,183.4	2.3	2.2	144.49	-4.7	128.3	165.8	161.6	4.18	39.657		
1,300.0	1,298.2	1,283.7	1,281.9	2.5	2.4	131.66	-5.7	137.3	180.1	175.6	4.55	39.621		
1,400.0	1,397.9	1,382.7	1,380.5	2.7	2.6	120.89	-6.7	146.3	193.6	188.7	4.92	39.371		
1,450.9	1,448.6	1,433.1	1,430.6	2.8	2.7	116.38	-7.2	150.9	200.2	195.1	5.11	39.186		
1,500.0	1,497.6	1,481.7	1,479.1	2.9	2.8	117.16	-7.7	155.4	206.5	201.2	5.29	39.010		
1,600.0	1,597.2	1,580.7	1,577.7	3.1	3.1	118.61	-8.7	164.4	219.4	213.7	5.67	38.697		
1,700.0	1,696.9	1,679.8	1,676.3	3.3	3.3	119.90	-9.7	173.4	232.4	226.4	6.05	38.433		
1,800.0	1,796.5	1,778.8	1,774.9	3.6	3.5	121.05	-10.7	182.5	245.5	239.1	6.43	38.208		
1,900.0	1,896.1	1,877.8	1,873.5	3.8	3.8	122.09	-11.8	191.5	258.7	251.9	6.81	38.014		
2,000.0	1,995.8	1,976.8	1,972.1	4.0	4.0	123.02	-12.8	200.5	272.0	264.8	7.19	37.845		
2,100.0	2,095.4	2,075.8	2,070.7	4.2	4.2	123.87	-13.8	209.6	285.4	277.8	7.57	37.697		
2,200.0	2,195.1	2,174.9	2,169.3	4.4	4.4	124.64	-14.8	218.6	298.8	290.8	7.95	37.566		
2,300.0	2,294.7	2,273.9	2,267.9	4.7	4.7	125.35	-15.8	227.6	312.2	303.9	8.34	37.450		
2,400.0	2,394.4	2,372.9	2,366.5	4.9	4.9	126.00	-16.8	236.6	325.7	317.0	8.72	37.346		
2,500.0	2,494.0	2,471.9	2,465.1	5.1	5.1	126.59	-17.8	245.7	339.3	330.2	9.11	37.252		
2,600.0	2,593.6	2,570.9	2,563.7	5.3	5.4	127.14	-18.8	254.7	352.8	343.3	9.49	37.167		
2,700.0	2,693.3	2,670.0	2,662.3	5.6	5.6	127.65	-19.9	263.7	366.4	356.6	9.88	37.090		
2,800.0	2,792.9	2,769.0	2,760.9	5.8	5.8	128.12	-20.9	272.8	380.1	369.8	10.27	37.020		
2,900.0	2,892.6	2,868.0	2,859.5	6.0	6.1	128.57	-21.9	281.8	393.7	383.1	10.65	36.955		
3,000.0	2,992.2	2,967.0	2,958.1	6.2	6.3	128.98	-22.9	290.8	407.4	396.3	11.04	36.896		
3,100.0	3,091.9	3,066.0	3,056.7	6.5	6.5	129.36	-23.9	299.8	421.1	409.6	11.43	36.841		
3,200.0	3,191.5	3,165.1	3,155.3	6.7	6.8	129.72	-24.9	308.9	434.8	423.0	11.82	36.791		
3,300.0	3,291.2	3,264.1	3,253.9	6.9	7.0	130.06	-25.9	317.9	448.5	436.3	12.21	36.744		
3,400.0	3,390.8	3,363.1	3,352.5	7.1	7.2	130.38	-26.9	326.9	462.2	449.7	12.60	36.701		
3,500.0	3,490.4	3,462.1	3,451.1	7.4	7.5	130.68	-27.9	336.0	476.0	463.0	12.98	36.660		
3,600.0	3,590.1	3,561.1	3,549.7	7.6	7.7	130.96	-29.0	345.0	489.8	476.4	13.37	36.622		
3,700.0	3,689.7	3,660.2	3,648.3	7.8	7.9	131.23	-30.0	354.0	503.5	489.8	13.76	36.587		
3,800.0	3,789.4	3,759.2	3,746.9	8.1	8.2	131.48	-31.0	363.1	517.3	503.2	14.15	36.553		
3,900.0	3,889.0	3,858.2	3,845.5	8.3	8.4	131.72	-32.0	372.1	531.1	516.6	14.54	36.522		
4,000.0	3,988.7	3,957.2	3,944.1	8.5	8.6	131.95	-33.0	381.1	544.9	530.0	14.93	36.493		
4,100.0	4,088.3	4,056.3	4,042.7	8.7	8.9	132.16	-34.0	390.1	558.7	543.4	15.32	36.465		
4,200.0	4,187.9	4,155.3	4,141.3	9.0	9.1	132.37	-35.0	399.2	572.5	556.8	15.71	36.439		
4,300.0	4,287.6	4,254.3	4,239.9	9.2	9.3	132.56	-36.0	408.2	586.4	570.3	16.10	36.414		
4,400.0	4,387.2	4,353.3	4,338.5	9.4	9.6	132.75	-37.1	417.2	600.2	583.7	16.49	36.390		
4,500.0	4,486.9	4,452.3	4,437.1	9.6	9.8	132.93	-38.1	426.3	614.0	597.2	16.88	36.368		
4,600.0	4,586.5	4,551.4	4,535.7	9.9	10.0	133.10	-39.1	435.3	627.9	610.6	17.27	36.347		
4,700.0	4,686.2	4,650.4	4,634.3	10.1	10.3	133.27	-40.1	444.3	641.7	624.1	17.67	36.327		
4,800.0	4,785.8	4,749.4	4,732.9	10.3	10.5	133.42	-41.1	453.3	655.6	637.5	18.06	36.308		
4,900.0	4,885.4	4,848.4	4,831.5	10.6	10.7	133.57	-42.1	462.4	669.4	651.0	18.45	36.289		
5,000.0	4,985.1	4,947.4	4,930.2	10.8	11.0	133.72	-43.1	471.4	683.3	664.5	18.84	36.272		

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 2B-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 2B-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							
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	5,084.7	5,046.5	5,028.8	11.0	11.2	133.85	-44.1	480.4	697.2	677.9	19.23	36.255	
5,200.0	5,184.4	5,145.5	5,127.4	11.2	11.4	133.99	-45.2	489.5	711.0	691.4	19.62	36.239	
5,300.0	5,284.0	5,244.5	5,226.0	11.5	11.7	134.12	-46.2	498.5	724.9	704.9	20.01	36.224	
5,400.0	5,383.7	5,343.5	5,324.6	11.7	11.9	134.24	-47.2	507.5	738.8	718.4	20.40	36.209	
5,500.0	5,483.3	5,442.5	5,423.2	11.9	12.1	134.36	-48.2	516.6	752.7	731.9	20.79	36.195	
5,600.0	5,583.0	5,541.6	5,521.8	12.1	12.4	134.47	-49.2	525.6	766.5	745.4	21.19	36.182	
5,700.0	5,682.6	5,640.6	5,620.4	12.4	12.6	134.58	-50.2	534.6	780.4	758.9	21.58	36.169	
5,800.0	5,782.2	5,739.6	5,719.0	12.6	12.9	134.69	-51.2	543.6	794.3	772.4	21.97	36.157	
5,900.0	5,881.9	5,838.6	5,817.6	12.8	13.1	134.79	-52.2	552.7	808.2	785.9	22.36	36.145	
6,000.0	5,981.5	5,937.6	5,916.2	13.1	13.3	134.89	-53.2	561.7	822.1	799.4	22.75	36.133	
6,100.0	6,081.2	6,036.7	6,014.8	13.3	13.6	134.99	-54.3	570.7	836.0	812.9	23.14	36.122	
6,200.0	6,180.8	6,135.7	6,113.4	13.5	13.8	135.08	-55.3	579.8	849.9	826.4	23.54	36.112	
6,300.0	6,280.5	6,234.7	6,212.0	13.7	14.0	135.17	-56.3	588.8	863.8	839.9	23.93	36.101	
6,400.0	6,380.1	6,333.7	6,310.6	14.0	14.3	135.26	-57.3	597.8	877.7	853.4	24.32	36.091	
6,500.0	6,479.7	6,432.7	6,409.2	14.2	14.5	135.34	-58.3	606.9	891.6	866.9	24.71	36.082	
6,600.0	6,579.4	6,531.8	6,507.8	14.4	14.7	135.42	-59.3	615.9	905.5	880.4	25.10	36.073	
6,700.0	6,679.0	6,630.8	6,606.4	14.7	15.0	135.50	-60.3	624.9	919.4	893.9	25.49	36.064	
6,800.0	6,778.7	6,729.8	6,705.0	14.9	15.2	135.58	-61.3	633.9	933.3	907.4	25.89	36.055	
6,901.0	6,879.3	6,829.8	6,804.6	15.1	15.4	135.65	-62.4	643.1	947.4	921.1	26.28	36.047	
6,950.0	6,928.3	6,878.5	6,853.0	15.2	15.6	-133.87	-62.9	647.5	952.9	926.5	26.49	35.974	
7,000.0	6,978.2	6,928.1	6,902.5	15.2	15.7	-61.08	-63.4	652.0	956.0	929.4	26.62	35.913	
7,050.0	7,027.7	7,563.5	7,427.6	15.2	17.6	-80.51	229.6	703.2	947.1	917.6	29.49	32.116	
7,100.0	7,076.5	7,664.6	7,468.7	15.1	18.3	-88.40	321.7	708.0	924.2	894.3	29.90	30.908	
7,150.0	7,124.1	7,669.8	7,470.4	15.0	18.3	-90.43	326.6	708.2	902.8	873.1	29.69	30.405	
7,200.0	7,170.3	7,658.2	7,466.6	14.9	18.2	-91.29	315.7	707.7	883.7	854.3	29.39	30.068	
7,250.0	7,214.6	7,640.8	7,460.5	14.8	18.1	-91.61	299.4	707.0	866.8	837.8	29.06	29.829	
7,300.0	7,256.7	7,620.7	7,452.9	14.6	18.0	-91.55	280.8	706.1	852.4	823.7	28.73	29.674	
7,350.0	7,296.2	7,599.1	7,443.9	14.4	17.8	-91.18	261.2	705.1	840.5	812.1	28.39	29.605	
7,400.0	7,333.0	7,576.6	7,433.9	14.2	17.7	-90.52	241.1	703.9	831.1	803.1	28.08	29.599 SF	
7,450.0	7,366.7	7,553.6	7,422.7	14.1	17.5	-89.62	221.0	702.7	824.2	796.5	27.78	29.675	
7,500.0	7,397.1	7,530.1	7,410.6	13.9	17.4	-88.48	201.0	701.4	819.7	792.2	27.50	29.808	
7,550.0	7,423.8	7,506.4	7,397.5	13.8	17.3	-87.14	181.2	700.0	817.5	790.3	27.24	30.009	
7,576.5	7,436.5	7,493.8	7,390.2	13.7	17.2	-86.35	171.0	699.2	817.2	790.1	27.12	30.131	
7,600.0	7,446.8	7,482.5	7,383.5	13.7	17.2	-85.61	161.9	698.5	817.4	790.4	27.01	30.259	
7,650.0	7,465.8	7,458.4	7,368.6	13.6	17.1	-83.92	143.1	696.9	819.3	792.5	26.81	30.560	
7,700.0	7,480.8	7,434.3	7,352.8	13.6	17.0	-82.09	124.8	695.3	823.0	796.4	26.64	30.897	
7,750.0	7,491.5	7,410.0	7,336.3	13.7	16.9	-80.17	107.2	693.6	828.2	801.7	26.49	31.265	
7,800.0	7,497.9	7,385.7	7,318.9	13.8	16.8	-78.16	90.2	691.8	834.8	808.4	26.38	31.647	
7,848.8	7,500.0	7,361.8	7,301.2	13.9	16.7	-76.16	74.4	690.0	842.3	816.0	26.30	32.021	
7,900.0	7,500.0	7,338.1	7,283.0	14.1	16.6	-74.92	59.3	688.2	851.6	825.2	26.36	32.305	
8,000.0	7,500.0	7,300.0	7,252.5	14.7	16.5	-72.85	36.7	685.2	875.9	849.2	26.66	32.858	
8,100.0	7,500.0	7,264.6	7,222.8	15.4	16.4	-70.87	17.7	682.2	908.3	881.2	27.12	33.487	
8,200.0	7,500.0	7,236.8	7,198.7	16.3	16.4	-69.29	3.9	679.9	948.6	920.8	27.76	34.166	
8,300.0	7,500.0	7,213.2	7,177.8	17.3	16.3	-67.93	-6.8	677.9	996.0	967.5	28.53	34.909	
8,400.0	7,500.0	7,200.0	7,165.9	18.5	16.3	-67.17	-12.3	676.7	1,050.0	1,020.6	29.47	35.632	
8,500.0	7,500.0	7,175.7	7,143.6	19.7	16.2	-65.76	-21.9	674.6	1,109.7	1,079.3	30.36	36.548	
8,600.0	7,500.0	7,150.0	7,119.7	21.0	16.2	-64.27	-31.0	672.3	1,174.5	1,143.2	31.27	37.560	
8,700.0	7,500.0	7,150.0	7,119.7	22.4	16.2	-64.27	-31.0	672.3	1,243.3	1,210.8	32.50	38.257	
8,800.0	7,500.0	7,150.0	7,119.7	23.8	16.2	-64.27	-31.0	672.3	1,316.1	1,282.4	33.77	38.969	
8,900.0	7,500.0	7,125.3	7,096.3	25.3	16.1	-62.85	-38.7	670.1	1,391.7	1,356.9	34.76	40.042	
9,000.0	7,500.0	7,100.0	7,072.1	26.7	16.0	-61.40	-45.6	667.8	1,470.5	1,434.7	35.71	41.173	
9,100.0	7,500.0	7,100.0	7,072.1	28.3	16.0	-61.40	-45.6	667.8	1,551.1	1,514.0	37.05	41.864	

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 2B-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 2B-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	
9,200.0	7,500.0	7,100.0	7,072.1	29.8	16.0	-61.40	-45.6	667.8	1,633.8	1,595.4	38.41	42.539	
9,300.0	7,500.0	7,100.0	7,072.1	31.4	16.0	-61.40	-45.6	667.8	1,718.4	1,678.6	39.78	43.192	
9,400.0	7,500.0	7,100.0	7,072.1	33.0	16.0	-61.40	-45.6	667.8	1,804.5	1,763.4	41.18	43.823	
9,500.0	7,500.0	7,100.0	7,072.1	34.6	16.0	-61.40	-45.6	667.8	1,892.1	1,849.5	42.58	44.430	
9,600.0	7,500.0	7,076.1	7,049.0	36.2	16.0	-60.05	-51.0	665.6	1,980.2	1,936.6	43.53	45.485	
9,700.0	7,500.0	7,071.3	7,044.3	37.8	16.0	-59.77	-52.0	665.1	2,069.6	2,024.8	44.84	46.151	
9,800.0	7,500.0	7,050.0	7,023.4	39.5	15.9	-58.58	-55.9	663.2	2,160.3	2,114.5	45.79	47.174	
9,900.0	7,500.0	7,050.0	7,023.4	41.1	15.9	-58.58	-55.9	663.2	2,251.3	2,204.1	47.20	47.696	
10,000.0	7,500.0	7,050.0	7,023.4	42.8	15.9	-58.58	-55.9	663.2	2,343.0	2,294.4	48.62	48.195	
10,100.0	7,500.0	7,050.0	7,023.4	44.5	15.9	-58.58	-55.9	663.2	2,435.4	2,385.4	50.04	48.673	
10,200.0	7,500.0	7,050.0	7,023.4	46.1	15.9	-58.58	-55.9	663.2	2,528.4	2,476.9	51.46	49.130	
10,300.0	7,500.0	7,050.0	7,023.4	47.8	15.9	-58.58	-55.9	663.2	2,621.8	2,568.9	52.89	49.567	
10,400.0	7,500.0	7,050.0	7,023.4	49.5	15.9	-58.58	-55.9	663.2	2,715.8	2,661.5	54.33	49.986	
10,500.0	7,500.0	7,050.0	7,023.4	51.2	15.9	-58.58	-55.9	663.2	2,810.2	2,754.4	55.77	50.386	
10,600.0	7,500.0	7,050.0	7,023.4	52.9	15.9	-58.58	-55.9	663.2	2,904.9	2,847.7	57.22	50.770	
10,700.0	7,500.0	7,050.0	7,023.4	54.6	15.9	-58.58	-55.9	663.2	3,000.0	2,941.3	58.67	51.137	
10,800.0	7,500.0	7,050.0	7,023.4	56.3	15.9	-58.58	-55.9	663.2	3,095.4	3,035.3	60.12	51.490	
10,900.0	7,500.0	7,050.0	7,023.4	58.0	15.9	-58.58	-55.9	663.2	3,191.0	3,129.5	61.57	51.828	
11,000.0	7,500.0	7,050.0	7,023.4	59.7	15.9	-58.58	-55.9	663.2	3,287.0	3,224.0	63.03	52.152	
11,100.0	7,500.0	7,050.0	7,023.4	61.4	15.9	-58.58	-55.9	663.2	3,383.1	3,318.7	64.49	52.463	
11,200.0	7,500.0	7,027.8	7,001.6	63.1	15.9	-57.36	-59.1	661.2	3,479.0	3,413.9	65.18	53.374	
11,300.0	7,500.0	7,026.1	6,999.8	64.8	15.9	-57.26	-59.3	661.0	3,575.5	3,509.0	66.56	53.716	
11,400.0	7,500.0	7,024.4	6,998.2	66.5	15.9	-57.17	-59.5	660.8	3,672.2	3,604.3	67.95	54.046	
11,500.0	7,500.0	7,022.8	6,996.6	68.2	15.9	-57.08	-59.7	660.7	3,769.1	3,699.8	69.33	54.364	
11,600.0	7,500.0	7,000.0	6,974.0	70.0	15.8	-55.86	-61.9	658.6	3,866.5	3,796.6	69.90	55.318	
11,700.0	7,500.0	7,000.0	6,974.0	71.7	15.8	-55.86	-61.9	658.6	3,963.6	3,892.3	71.32	55.573	
11,800.0	7,500.0	7,000.0	6,974.0	73.4	15.8	-55.86	-61.9	658.6	4,060.9	3,988.1	72.75	55.819	
11,900.0	7,500.0	7,000.0	6,974.0	75.1	15.8	-55.86	-61.9	658.6	4,158.2	4,084.0	74.18	56.057	
12,000.0	7,500.0	7,000.0	6,974.0	76.9	15.8	-55.86	-61.9	658.6	4,255.7	4,180.1	75.61	56.286	
12,100.0	7,500.0	7,000.0	6,974.0	78.6	15.8	-55.86	-61.9	658.6	4,353.3	4,276.3	77.04	56.507	
12,200.0	7,500.0	7,000.0	6,974.0	80.3	15.8	-55.86	-61.9	658.6	4,451.0	4,372.6	78.47	56.721	
12,300.0	7,500.0	7,000.0	6,974.0	82.0	15.8	-55.86	-61.9	658.6	4,548.8	4,468.9	79.91	56.928	
12,400.0	7,500.0	7,000.0	6,974.0	83.8	15.8	-55.86	-61.9	658.6	4,646.7	4,565.4	81.34	57.128	
12,500.0	7,500.0	7,000.0	6,974.0	85.5	15.8	-55.86	-61.9	658.6	4,744.7	4,661.9	82.77	57.321	
12,600.0	7,500.0	7,000.0	6,974.0	87.2	15.8	-55.86	-61.9	658.6	4,842.8	4,758.6	84.21	57.508	
12,700.0	7,500.0	7,000.0	6,974.0	89.0	15.8	-55.86	-61.9	658.6	4,940.9	4,855.3	85.65	57.690	
12,800.0	7,500.0	7,000.0	6,974.0	90.7	15.8	-55.86	-61.9	658.6	5,039.2	4,952.1	87.08	57.865	
12,900.0	7,500.0	7,000.0	6,974.0	92.4	15.8	-55.86	-61.9	658.6	5,137.4	5,048.9	88.52	58.036	
12,986.8	7,500.0	7,000.0	6,974.0	93.9	15.8	-55.86	-61.9	658.6	5,222.9	5,133.1	89.77	58.179	
13,000.0	7,500.0	7,000.0	6,974.0	94.2	15.8	-56.26	-61.9	658.6	5,235.8	5,145.5	90.33	57.962	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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							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	90.21	-0.4	99.9	99.9					
100.0	100.0	100.0	100.0	0.2	0.2	90.21	-0.4	99.9	99.9	99.6	0.30	329.015		
200.0	200.0	200.0	200.0	0.3	0.3	90.21	-0.4	99.9	99.9	99.3	0.65	153.071		
300.0	300.0	300.0	300.0	0.5	0.5	90.21	-0.4	99.9	99.9	98.9	1.00	99.736 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	130.58	-0.4	99.9	100.5	99.1	1.35	74.365		
500.0	500.0	498.2	498.2	0.9	0.8	131.68	-0.4	100.8	103.1	101.4	1.70	60.650		
600.0	599.9	596.2	596.1	1.0	1.0	133.38	-0.6	103.3	108.6	106.5	2.05	52.962		
700.0	699.7	693.8	693.7	1.2	1.2	135.47	-0.9	107.4	117.1	114.7	2.40	48.716		
800.0	799.4	791.0	790.7	1.4	1.4	137.54	-1.3	113.2	128.2	125.4	2.76	46.448		
900.0	899.2	887.8	887.3	1.6	1.6	139.21	-1.8	120.6	141.0	137.9	3.11	45.286		
1,000.0	998.9	984.2	983.2	1.8	1.8	140.53	-2.4	129.6	155.6	152.1	3.47	44.876		
1,100.0	1,098.7	1,080.2	1,078.6	2.1	2.0	141.56	-3.2	140.1	171.9	168.1	3.82	44.991		
1,200.0	1,198.5	1,178.7	1,176.4	2.3	2.3	142.39	-4.0	151.7	189.0	184.8	4.18	45.228		
1,300.0	1,298.2	1,277.3	1,274.3	2.5	2.5	129.34	-4.8	163.3	205.7	201.2	4.55	45.239		
1,400.0	1,397.9	1,375.9	1,372.3	2.7	2.8	118.31	-5.6	174.9	221.5	216.6	4.92	44.996		
1,450.9	1,448.6	1,426.2	1,422.2	2.8	2.9	113.65	-6.0	180.8	229.2	224.1	5.12	44.800		
1,500.0	1,497.6	1,474.6	1,470.3	2.9	3.0	114.29	-6.4	186.5	236.6	231.3	5.30	44.611		
1,600.0	1,597.2	1,573.4	1,568.3	3.1	3.3	115.50	-7.3	198.1	251.6	245.9	5.68	44.264		
1,700.0	1,696.9	1,672.1	1,666.4	3.3	3.5	116.56	-8.1	209.7	266.8	260.7	6.07	43.962		
1,800.0	1,796.5	1,770.8	1,764.4	3.6	3.8	117.51	-8.9	221.3	282.0	275.6	6.45	43.695		
1,900.0	1,896.1	1,869.6	1,862.5	3.8	4.1	118.37	-9.7	232.9	297.3	290.5	6.84	43.457		
2,000.0	1,995.8	1,968.3	1,960.5	4.0	4.3	119.14	-10.5	244.5	312.7	305.5	7.23	43.244		
2,100.0	2,095.4	2,067.0	2,058.6	4.2	4.6	119.83	-11.3	256.1	328.1	320.5	7.62	43.051		
2,200.0	2,195.1	2,165.8	2,156.6	4.4	4.8	120.47	-12.1	267.7	343.6	335.6	8.01	42.877		
2,300.0	2,294.7	2,264.5	2,254.6	4.7	5.1	121.05	-13.0	279.3	359.1	350.7	8.41	42.718		
2,400.0	2,394.4	2,363.2	2,352.7	4.9	5.4	121.58	-13.8	290.9	374.6	365.8	8.80	42.572		
2,500.0	2,494.0	2,461.9	2,450.7	5.1	5.6	122.07	-14.6	302.5	390.2	381.0	9.19	42.438		
2,600.0	2,593.6	2,560.7	2,548.8	5.3	5.9	122.52	-15.4	314.2	405.8	396.2	9.59	42.314		
2,700.0	2,693.3	2,659.4	2,646.8	5.6	6.2	122.94	-16.2	325.8	421.4	411.4	9.99	42.200		
2,800.0	2,792.9	2,758.1	2,744.8	5.8	6.4	123.33	-17.0	337.4	437.0	426.6	10.38	42.094		
2,900.0	2,892.6	2,856.9	2,842.9	6.0	6.7	123.69	-17.8	349.0	452.6	441.9	10.78	41.995		
3,000.0	2,992.2	2,955.6	2,940.9	6.2	7.0	124.03	-18.7	360.6	468.3	457.1	11.18	41.902		
3,100.0	3,091.9	3,054.3	3,039.0	6.5	7.2	124.35	-19.5	372.2	484.0	472.4	11.57	41.816		
3,200.0	3,191.5	3,153.0	3,137.0	6.7	7.5	124.64	-20.3	383.8	499.7	487.7	11.97	41.735		
3,300.0	3,291.2	3,251.8	3,235.0	6.9	7.8	124.92	-21.1	395.4	515.4	503.0	12.37	41.659		
3,400.0	3,390.8	3,350.5	3,333.1	7.1	8.0	125.18	-21.9	407.0	531.1	518.3	12.77	41.587		
3,500.0	3,490.4	3,449.2	3,431.1	7.4	8.3	125.43	-22.7	418.6	546.8	533.7	13.17	41.520		
3,600.0	3,590.1	3,548.0	3,529.2	7.6	8.5	125.66	-23.5	430.2	562.6	549.0	13.57	41.456		
3,700.0	3,689.7	3,646.7	3,627.2	7.8	8.8	125.88	-24.4	441.8	578.3	564.3	13.97	41.396		
3,800.0	3,789.4	3,745.4	3,725.3	8.1	9.1	126.09	-25.2	453.4	594.1	579.7	14.37	41.339		
3,900.0	3,889.0	3,844.1	3,823.3	8.3	9.3	126.29	-26.0	465.0	609.8	595.1	14.77	41.285		
4,000.0	3,988.7	3,942.9	3,921.3	8.5	9.6	126.48	-26.8	476.6	625.6	610.4	15.17	41.233		
4,100.0	4,088.3	4,041.6	4,019.4	8.7	9.9	126.66	-27.6	488.2	641.4	625.8	15.57	41.184		
4,200.0	4,187.9	4,140.3	4,117.4	9.0	10.1	126.83	-28.4	499.8	657.1	641.2	15.97	41.138		
4,300.0	4,287.6	4,239.1	4,215.5	9.2	10.4	126.99	-29.2	511.4	672.9	656.5	16.38	41.093		
4,400.0	4,387.2	4,337.8	4,313.5	9.4	10.7	127.14	-30.1	523.0	688.7	671.9	16.78	41.051		
4,500.0	4,486.9	4,436.5	4,411.5	9.6	10.9	127.29	-30.9	534.6	704.5	687.3	17.18	41.011		
4,600.0	4,586.5	4,535.2	4,509.6	9.9	11.2	127.43	-31.7	546.2	720.3	702.7	17.58	40.972		
4,700.0	4,686.2	4,634.0	4,607.6	10.1	11.5	127.57	-32.5	557.8	736.1	718.1	17.98	40.935		
4,800.0	4,785.8	4,732.7	4,705.7	10.3	11.7	127.70	-33.3	569.4	751.9	733.5	18.38	40.899		
4,900.0	4,885.4	4,831.4	4,803.7	10.6	12.0	127.82	-34.1	581.0	767.7	748.9	18.79	40.865		
5,000.0	4,985.1	4,930.2	4,901.8	10.8	12.3	127.94	-34.9	592.7	783.5	764.3	19.19	40.832		

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 2B-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 2B-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				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	5,084.7	5,028.9	4,999.8	11.0	12.5	128.05	-35.8	604.3	799.4	779.8	19.59	40.801	
5,200.0	5,184.4	5,127.6	5,097.8	11.2	12.8	128.16	-36.6	615.9	815.2	795.2	19.99	40.771	
5,300.0	5,284.0	5,226.4	5,195.9	11.5	13.1	128.27	-37.4	627.5	831.0	810.6	20.40	40.742	
5,400.0	5,383.7	5,325.1	5,293.9	11.7	13.3	128.37	-38.2	639.1	846.8	826.0	20.80	40.714	
5,500.0	5,483.3	5,423.8	5,392.0	11.9	13.6	128.47	-39.0	650.7	862.6	841.4	21.20	40.687	
5,600.0	5,583.0	5,522.5	5,490.0	12.1	13.9	128.56	-39.8	662.3	878.5	856.9	21.60	40.661	
5,700.0	5,682.6	5,621.3	5,588.0	12.4	14.1	128.66	-40.6	673.9	894.3	872.3	22.01	40.636	
5,800.0	5,782.2	5,720.0	5,686.1	12.6	14.4	128.74	-41.5	685.5	910.1	887.7	22.41	40.612	
5,900.0	5,881.9	5,818.7	5,784.1	12.8	14.7	128.83	-42.3	697.1	926.0	903.2	22.81	40.588	
6,000.0	5,981.5	5,917.5	5,882.2	13.1	14.9	128.91	-43.1	708.7	941.8	918.6	23.22	40.566	
6,100.0	6,081.2	6,016.2	5,980.2	13.3	15.2	128.99	-43.9	720.3	957.7	934.0	23.62	40.544	
6,200.0	6,180.8	6,114.9	6,078.2	13.5	15.5	129.07	-44.7	731.9	973.5	949.5	24.02	40.523	
6,300.0	6,280.5	6,213.6	6,176.3	13.7	15.7	129.14	-45.5	743.5	989.3	964.9	24.43	40.502	
6,400.0	6,380.1	6,312.4	6,274.3	14.0	16.0	129.21	-46.3	755.1	1,005.2	980.4	24.83	40.482	
6,500.0	6,479.7	6,411.1	6,372.4	14.2	16.3	129.28	-47.2	766.7	1,021.0	995.8	25.23	40.463	
6,600.0	6,579.4	6,509.8	6,470.4	14.4	16.5	129.35	-48.0	778.3	1,036.9	1,011.2	25.64	40.445	
6,700.0	6,679.0	6,608.6	6,568.5	14.7	16.8	129.42	-48.8	789.9	1,052.7	1,026.7	26.04	40.427	
6,800.0	6,778.7	6,707.3	6,666.5	14.9	17.1	129.48	-49.6	801.5	1,068.6	1,042.1	26.44	40.409	
6,901.0	6,879.3	6,807.0	6,765.5	15.1	17.3	129.54	-50.4	813.2	1,084.6	1,057.7	26.85	40.392	
6,950.0	6,928.3	6,855.5	6,813.7	15.2	17.5	-139.85	-50.8	818.9	1,091.3	1,064.2	27.08	40.299	
7,000.0	6,978.2	6,905.0	6,862.9	15.2	17.6	-66.90	-51.2	824.8	1,095.9	1,068.7	27.22	40.257	
7,050.0	7,027.7	6,954.2	6,911.7	15.2	17.7	-63.09	-51.6	830.5	1,098.3	1,071.1	27.28	40.268	
7,100.0	7,076.5	7,002.7	6,959.8	15.1	17.9	-62.31	-52.0	836.2	1,098.6	1,071.3	27.25	40.322	
7,150.0	7,124.1	7,050.0	7,006.8	15.0	18.0	-62.57	-52.4	841.8	1,096.8	1,069.7	27.14	40.406	
7,200.0	7,170.3	7,095.9	7,052.4	14.9	18.1	-63.42	-52.8	847.2	1,093.2	1,066.2	26.99	40.499	
7,250.0	7,214.6	7,140.0	7,096.2	14.8	18.2	-64.69	-53.2	852.4	1,087.9	1,061.1	26.81	40.574	
7,300.0	7,256.7	7,182.0	7,137.9	14.6	18.4	-66.30	-53.5	857.3	1,081.2	1,054.6	26.63	40.607	
7,350.0	7,296.2	7,258.7	7,214.1	14.4	18.6	-69.51	-52.1	866.3	1,073.3	1,046.7	26.57	40.400	
7,400.0	7,333.0	7,370.2	7,322.9	14.2	18.8	-75.26	-32.8	879.0	1,062.3	1,035.6	26.73	39.745	
7,450.0	7,366.7	7,428.3	7,377.6	14.1	19.0	-79.30	-14.4	885.3	1,050.5	1,023.8	26.77	39.245	
7,500.0	7,397.1	7,457.3	7,404.2	13.9	19.1	-81.93	-3.2	888.4	1,039.5	1,012.8	26.70	38.931	
7,550.0	7,423.8	7,469.6	7,415.3	13.8	19.1	-83.55	2.0	889.7	1,029.8	1,003.2	26.61	38.696	
7,600.0	7,446.8	7,472.0	7,417.4	13.7	19.1	-84.43	3.0	889.9	1,021.9	995.4	26.53	38.525	
7,650.0	7,465.8	7,467.8	7,413.7	13.6	19.1	-84.76	1.2	889.5	1,015.9	989.5	26.46	38.392	
7,700.0	7,480.8	7,459.2	7,405.9	13.6	19.1	-84.66	-2.4	888.6	1,011.9	985.5	26.43	38.281	
7,750.0	7,491.5	7,447.5	7,395.3	13.7	19.0	-84.21	-7.1	887.4	1,009.8	983.3	26.45	38.181	
7,783.3	7,496.3	7,438.4	7,387.0	13.7	19.0	-83.75	-10.6	886.4	1,009.4	982.9	26.49	38.107	
7,800.0	7,497.9	7,433.6	7,382.5	13.8	19.0	-83.47	-12.5	885.9	1,009.5	983.0	26.51	38.083	
7,848.8	7,500.0	7,418.3	7,368.4	13.9	19.0	-82.51	-18.0	884.3	1,010.8	984.2	26.61	37.990	
7,900.0	7,500.0	7,400.0	7,351.2	14.1	18.9	-81.53	-24.1	882.3	1,014.2	987.5	26.76	37.900	
8,000.0	7,500.0	7,378.3	7,330.7	14.7	18.9	-80.36	-30.6	879.9	1,027.6	1,000.3	27.25	37.710	
8,100.0	7,500.0	7,359.4	7,312.5	15.4	18.8	-79.33	-35.6	877.8	1,049.7	1,021.8	27.91	37.603	
8,200.0	7,500.0	7,350.0	7,303.5	16.3	18.8	-78.82	-37.9	876.8	1,080.3	1,051.5	28.76	37.556 SF	
8,300.0	7,500.0	7,332.0	7,286.0	17.3	18.8	-77.83	-41.8	874.7	1,118.7	1,089.0	29.70	37.671	
8,400.0	7,500.0	7,321.8	7,276.1	18.5	18.7	-77.26	-43.8	873.6	1,164.3	1,133.5	30.76	37.846	
8,500.0	7,500.0	7,300.0	7,254.8	19.7	18.7	-76.06	-47.4	871.1	1,216.4	1,184.6	31.84	38.202	
8,600.0	7,500.0	7,300.0	7,254.8	21.0	18.7	-76.06	-47.4	871.1	1,273.9	1,240.8	33.11	38.472	
8,700.0	7,500.0	7,300.0	7,254.8	22.4	18.7	-76.06	-47.4	871.1	1,336.4	1,302.0	34.44	38.802	
8,800.0	7,500.0	7,300.0	7,254.8	23.8	18.7	-76.06	-47.4	871.1	1,403.2	1,367.4	35.82	39.175	
8,900.0	7,500.0	7,300.0	7,254.8	25.3	18.7	-76.06	-47.4	871.1	1,473.9	1,436.6	37.24	39.578	
9,000.0	7,500.0	7,300.0	7,254.8	26.7	18.7	-76.06	-47.4	871.1	1,547.7	1,509.0	38.69	40.000	
9,100.0	7,500.0	7,281.2	7,236.3	28.3	18.6	-75.02	-49.9	868.9	1,624.0	1,584.0	40.02	40.583	

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 2B-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 2B-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		
9,200.0	7,500.0	7,277.8	7,232.9	29.8	18.6	-74.83	-50.3	868.5	1,702.9	1,661.5	41.48	41.050		
9,300.0	7,500.0	7,274.7	7,229.8	31.4	18.6	-74.66	-50.6	868.2	1,784.0	1,741.0	42.97	41.514		
9,400.0	7,500.0	7,271.9	7,227.1	33.0	18.6	-74.51	-50.9	867.8	1,866.8	1,822.3	44.48	41.970		
9,500.0	7,500.0	7,269.3	7,224.5	34.6	18.6	-74.37	-51.2	867.5	1,951.3	1,905.3	46.00	42.418		
9,600.0	7,500.0	7,250.0	7,205.4	36.2	18.5	-73.31	-52.7	865.3	2,037.4	1,990.1	47.34	43.037		
9,700.0	7,500.0	7,250.0	7,205.4	37.8	18.5	-73.31	-52.7	865.3	2,124.4	2,075.5	48.90	43.440		
9,800.0	7,500.0	7,250.0	7,205.4	39.5	18.5	-73.31	-52.7	865.3	2,212.5	2,162.0	50.48	43.831		
9,900.0	7,500.0	7,250.0	7,205.4	41.1	18.5	-73.31	-52.7	865.3	2,301.6	2,249.5	52.06	44.209		
10,000.0	7,500.0	7,250.0	7,205.4	42.8	18.5	-73.31	-52.7	865.3	2,391.5	2,337.9	53.65	44.575		
10,100.0	7,500.0	7,250.0	7,205.4	44.5	18.5	-73.31	-52.7	865.3	2,482.2	2,427.0	55.25	44.928		
10,200.0	7,500.0	7,250.0	7,205.4	46.1	18.5	-73.31	-52.7	865.3	2,573.6	2,516.8	56.85	45.269		
10,300.0	7,500.0	7,250.0	7,205.4	47.8	18.5	-73.31	-52.7	865.3	2,665.7	2,607.2	58.46	45.597		
10,400.0	7,500.0	7,250.0	7,205.4	49.5	18.5	-73.31	-52.7	865.3	2,758.2	2,698.1	60.08	45.912		
10,500.0	7,500.0	7,250.0	7,205.4	51.2	18.5	-73.31	-52.7	865.3	2,851.3	2,789.6	61.69	46.217		
10,600.0	7,500.0	7,250.0	7,205.4	52.9	18.5	-73.31	-52.7	865.3	2,944.8	2,881.5	63.32	46.509		
10,700.0	7,500.0	7,250.0	7,205.4	54.6	18.5	-73.31	-52.7	865.3	3,038.8	2,973.8	64.94	46.791		
10,800.0	7,500.0	7,250.0	7,205.4	56.3	18.5	-73.31	-52.7	865.3	3,133.1	3,066.5	66.57	47.062		
10,900.0	7,500.0	7,250.0	7,205.4	58.0	18.5	-73.31	-52.7	865.3	3,227.7	3,159.5	68.21	47.324		
11,000.0	7,500.0	7,250.0	7,205.4	59.7	18.5	-73.31	-52.7	865.3	3,322.7	3,252.9	69.84	47.575		
11,100.0	7,500.0	7,250.0	7,205.4	61.4	18.5	-73.31	-52.7	865.3	3,418.0	3,346.5	71.48	47.818		
11,200.0	7,500.0	7,250.0	7,205.4	63.1	18.5	-73.31	-52.7	865.3	3,513.5	3,440.4	73.12	48.051		
11,300.0	7,500.0	7,250.0	7,205.4	64.8	18.5	-73.31	-52.7	865.3	3,609.2	3,534.5	74.76	48.276		
11,400.0	7,500.0	7,250.0	7,205.4	66.5	18.5	-73.31	-52.7	865.3	3,705.2	3,628.8	76.41	48.494		
11,500.0	7,500.0	7,250.0	7,205.4	68.2	18.5	-73.31	-52.7	865.3	3,801.4	3,723.4	78.05	48.703		
11,600.0	7,500.0	7,250.0	7,205.4	70.0	18.5	-73.31	-52.7	865.3	3,897.8	3,818.1	79.70	48.905		
11,700.0	7,500.0	7,250.0	7,205.4	71.7	18.5	-73.31	-52.7	865.3	3,994.4	3,913.0	81.35	49.101		
11,800.0	7,500.0	7,250.0	7,205.4	73.4	18.5	-73.31	-52.7	865.3	4,091.1	4,008.1	83.00	49.289		
11,900.0	7,500.0	7,250.0	7,205.4	75.1	18.5	-73.31	-52.7	865.3	4,188.0	4,103.3	84.65	49.471		
12,000.0	7,500.0	7,250.0	7,205.4	76.9	18.5	-73.31	-52.7	865.3	4,285.0	4,198.7	86.31	49.648		
12,100.0	7,500.0	7,250.0	7,205.4	78.6	18.5	-73.31	-52.7	865.3	4,382.2	4,294.2	87.96	49.818		
12,200.0	7,500.0	7,250.0	7,205.4	80.3	18.5	-73.31	-52.7	865.3	4,479.5	4,389.8	89.62	49.983		
12,300.0	7,500.0	7,250.0	7,205.4	82.0	18.5	-73.31	-52.7	865.3	4,576.9	4,485.6	91.28	50.142		
12,400.0	7,500.0	7,250.0	7,205.4	83.8	18.5	-73.31	-52.7	865.3	4,674.4	4,581.4	92.94	50.297		
12,500.0	7,500.0	7,250.0	7,205.4	85.5	18.5	-73.31	-52.7	865.3	4,772.0	4,677.4	94.59	50.447		
12,600.0	7,500.0	7,250.0	7,205.4	87.2	18.5	-73.31	-52.7	865.3	4,869.7	4,773.4	96.25	50.592		
12,700.0	7,500.0	7,250.0	7,205.4	89.0	18.5	-73.31	-52.7	865.3	4,967.5	4,869.6	97.92	50.732		
12,800.0	7,500.0	7,250.0	7,205.4	90.7	18.5	-73.31	-52.7	865.3	5,065.4	4,965.8	99.58	50.869		
12,900.0	7,500.0	7,250.0	7,205.4	92.4	18.5	-73.31	-52.7	865.3	5,163.4	5,062.1	101.24	51.001		
12,986.8	7,500.0	7,250.0	7,205.4	93.9	18.5	-73.31	-52.7	865.3	5,248.5	5,145.8	102.68	51.113		
13,000.0	7,500.0	7,250.0	7,205.4	94.2	18.5	-73.49	-52.7	865.3	5,261.4	5,158.4	102.99	51.087		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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	
0.0	0.0	0.0	0.0	0.0	0.0	90.38	-0.7	110.0	110.0				
100.0	100.0	100.0	100.0	0.2	0.2	90.38	-0.7	110.0	110.0	109.7	0.30	362.198	
200.0	200.0	200.0	200.0	0.3	0.3	90.38	-0.7	110.0	110.0	109.3	0.65	168.509	
300.0	300.0	300.0	300.0	0.5	0.5	90.38	-0.7	110.0	110.0	109.0	1.00	109.795 CC, ES	
400.0	400.0	398.1	398.1	0.7	0.7	130.64	-0.6	110.8	111.4	110.1	1.35	82.651	
500.0	500.0	496.1	496.1	0.9	0.8	131.39	-0.3	113.3	115.7	114.0	1.70	68.210	
600.0	599.9	593.8	593.7	1.0	1.0	132.52	0.3	117.5	122.8	120.7	2.05	59.997	
700.0	699.7	691.1	690.8	1.2	1.2	133.89	1.1	123.2	132.8	130.4	2.40	55.299	
800.0	799.4	788.0	787.4	1.4	1.4	135.22	2.1	130.6	145.2	142.4	2.76	52.612	
900.0	899.2	884.5	883.5	1.6	1.6	136.19	3.4	139.5	159.2	156.1	3.12	51.058	
1,000.0	998.9	980.5	978.9	1.8	1.9	136.86	4.8	150.0	174.9	171.5	3.48	50.277	
1,100.0	1,098.7	1,076.1	1,073.7	2.1	2.1	137.30	6.5	162.0	192.2	188.4	3.84	50.042	
1,200.0	1,198.5	1,171.0	1,167.7	2.3	2.4	137.54	8.3	175.5	211.1	206.9	4.21	50.206	
1,300.0	1,298.2	1,265.5	1,260.9	2.5	2.7	123.84	10.4	190.4	231.0	226.5	4.58	50.450	
1,400.0	1,397.9	1,359.6	1,353.6	2.7	3.0	112.05	12.7	206.8	251.4	246.5	4.96	50.644	
1,450.9	1,448.6	1,407.3	1,400.4	2.8	3.2	106.96	13.9	215.7	262.0	256.8	5.16	50.733	
1,500.0	1,497.6	1,454.8	1,447.0	2.9	3.3	107.23	15.1	224.8	272.3	267.0	5.36	50.809	
1,600.0	1,597.2	1,552.5	1,542.9	3.1	3.7	107.71	17.7	243.6	293.4	287.7	5.76	50.912	
1,700.0	1,696.9	1,650.2	1,638.7	3.3	4.1	108.12	20.3	262.3	314.5	308.4	6.17	50.977	
1,800.0	1,796.5	1,748.0	1,734.6	3.6	4.4	108.48	22.9	281.1	335.7	329.1	6.58	51.013	
1,900.0	1,896.1	1,845.7	1,830.5	3.8	4.8	108.80	25.5	299.9	356.8	349.8	6.99	51.028	
2,000.0	1,995.8	1,943.4	1,926.3	4.0	5.1	109.09	28.1	318.7	377.9	370.5	7.41	51.028	
2,100.0	2,095.4	2,041.1	2,022.2	4.2	5.5	109.34	30.7	337.5	399.1	391.3	7.82	51.017	
2,200.0	2,195.1	2,138.8	2,118.1	4.4	5.9	109.57	33.3	356.3	420.3	412.0	8.24	50.998	
2,300.0	2,294.7	2,236.6	2,213.9	4.7	6.3	109.78	35.9	375.1	441.4	432.8	8.66	50.973	
2,400.0	2,394.4	2,334.3	2,309.8	4.9	6.6	109.97	38.5	393.8	462.6	453.5	9.08	50.944	
2,500.0	2,494.0	2,432.0	2,405.7	5.1	7.0	110.14	41.1	412.6	483.8	474.3	9.50	50.913	
2,600.0	2,593.6	2,529.7	2,501.5	5.3	7.4	110.29	43.7	431.4	504.9	495.0	9.92	50.879	
2,700.0	2,693.3	2,627.5	2,597.4	5.6	7.7	110.44	46.3	450.2	526.1	515.8	10.35	50.844	
2,800.0	2,792.9	2,725.2	2,693.3	5.8	8.1	110.57	48.9	469.0	547.3	536.5	10.77	50.809	
2,900.0	2,892.6	2,822.9	2,789.1	6.0	8.5	110.70	51.5	487.8	568.5	557.3	11.20	50.774	
3,000.0	2,992.2	2,920.6	2,885.0	6.2	8.9	110.81	54.1	506.6	589.7	578.1	11.62	50.738	
3,100.0	3,091.9	3,018.4	2,980.8	6.5	9.2	110.92	56.7	525.3	610.9	598.8	12.05	50.703	
3,200.0	3,191.5	3,116.1	3,076.7	6.7	9.6	111.02	59.3	544.1	632.1	619.6	12.47	50.668	
3,300.0	3,291.2	3,213.8	3,172.6	6.9	10.0	111.11	61.9	562.9	653.3	640.4	12.90	50.634	
3,400.0	3,390.8	3,311.5	3,268.4	7.1	10.4	111.20	64.5	581.7	674.5	661.1	13.33	50.601	
3,500.0	3,490.4	3,409.2	3,364.3	7.4	10.7	111.28	67.1	600.5	695.7	681.9	13.76	50.568	
3,600.0	3,590.1	3,507.0	3,460.2	7.6	11.1	111.35	69.7	619.3	716.9	702.7	14.18	50.537	
3,700.0	3,689.7	3,604.7	3,556.0	7.8	11.5	111.43	72.3	638.0	738.1	723.4	14.61	50.506	
3,800.0	3,789.4	3,702.4	3,651.9	8.1	11.9	111.50	74.9	656.8	759.3	744.2	15.04	50.476	
3,900.0	3,889.0	3,800.1	3,747.8	8.3	12.2	111.56	77.5	675.6	780.5	765.0	15.47	50.446	
4,000.0	3,988.7	3,897.9	3,843.6	8.5	12.6	111.62	80.1	694.4	801.7	785.8	15.90	50.418	
4,100.0	4,088.3	3,995.6	3,939.5	8.7	13.0	111.68	82.7	713.2	822.9	806.5	16.33	50.390	
4,200.0	4,187.9	4,093.3	4,035.4	9.0	13.4	111.73	85.3	732.0	844.1	827.3	16.76	50.364	
4,300.0	4,287.6	4,191.0	4,131.2	9.2	13.7	111.79	87.9	750.8	865.3	848.1	17.19	50.338	
4,400.0	4,387.2	4,288.7	4,227.1	9.4	14.1	111.84	90.5	769.5	886.5	868.9	17.62	50.312	
4,500.0	4,486.9	4,386.5	4,323.0	9.6	14.5	111.88	93.1	788.3	907.7	889.6	18.05	50.288	
4,600.0	4,586.5	4,484.2	4,418.8	9.9	14.9	111.93	95.7	807.1	928.9	910.4	18.48	50.264	
4,700.0	4,686.2	4,581.9	4,514.7	10.1	15.2	111.97	98.2	825.9	950.1	931.2	18.91	50.241	
4,800.0	4,785.8	4,679.6	4,610.6	10.3	15.6	112.02	100.8	844.7	971.3	952.0	19.34	50.219	
4,900.0	4,885.4	4,777.4	4,706.4	10.6	16.0	112.05	103.4	863.5	992.5	972.8	19.77	50.197	
5,000.0	4,985.1	4,875.1	4,802.3	10.8	16.4	112.09	106.0	882.3	1,013.7	993.5	20.20	50.176	

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 2B-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 2B-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				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	5,084.7	4,972.8	4,898.1	11.0	16.8	112.13	108.6	901.0	1,034.9	1,014.3	20.63	50.156	
5,200.0	5,184.4	5,070.5	4,994.0	11.2	17.1	112.16	111.2	919.8	1,056.2	1,035.1	21.07	50.136	
5,300.0	5,284.0	5,168.3	5,089.9	11.5	17.5	112.20	113.8	938.6	1,077.4	1,055.9	21.50	50.116	
5,400.0	5,383.7	5,266.0	5,185.7	11.7	17.9	112.23	116.4	957.4	1,098.6	1,076.6	21.93	50.098	
5,500.0	5,483.3	5,363.7	5,281.6	11.9	18.3	112.26	119.0	976.2	1,119.8	1,097.4	22.36	50.079	
5,600.0	5,583.0	5,461.4	5,377.5	12.1	18.6	112.29	121.6	995.0	1,141.0	1,118.2	22.79	50.062	
5,700.0	5,682.6	5,559.1	5,473.3	12.4	19.0	112.32	124.2	1,013.8	1,162.2	1,139.0	23.22	50.045	
5,800.0	5,782.2	5,656.9	5,569.2	12.6	19.4	112.35	126.8	1,032.5	1,183.4	1,159.8	23.66	50.028	
5,900.0	5,881.9	5,754.6	5,665.1	12.8	19.8	112.38	129.4	1,051.3	1,204.6	1,180.5	24.09	50.012	
6,000.0	5,981.5	5,852.3	5,760.9	13.1	20.1	112.40	132.0	1,070.1	1,225.8	1,201.3	24.52	49.996	
6,100.0	6,081.2	5,950.0	5,856.8	13.3	20.5	112.43	134.6	1,088.9	1,247.1	1,222.1	24.95	49.980	
6,200.0	6,180.8	6,047.8	5,952.7	13.5	20.9	112.45	137.2	1,107.7	1,268.3	1,242.9	25.38	49.965	
6,300.0	6,280.5	6,145.5	6,048.5	13.7	21.3	112.47	139.8	1,126.5	1,289.5	1,263.7	25.82	49.951	
6,400.0	6,380.1	6,243.2	6,144.4	14.0	21.7	112.50	142.4	1,145.3	1,310.7	1,284.5	26.25	49.936	
6,500.0	6,479.7	6,340.9	6,240.3	14.2	22.0	112.52	145.0	1,164.0	1,331.9	1,305.2	26.68	49.922	
6,600.0	6,579.4	6,438.6	6,336.1	14.4	22.4	112.54	147.6	1,182.8	1,353.1	1,326.0	27.11	49.909	
6,700.0	6,679.0	6,536.4	6,432.0	14.7	22.8	112.56	150.2	1,201.6	1,374.3	1,346.8	27.54	49.896	
6,800.0	6,778.7	6,634.1	6,527.9	14.9	23.2	112.58	152.8	1,220.4	1,395.6	1,367.6	27.98	49.883	
6,901.0	6,879.3	6,732.8	6,624.7	15.1	23.5	112.60	155.4	1,239.4	1,417.0	1,388.6	28.41	49.870	
6,950.0	6,928.3	6,780.7	6,671.7	15.2	23.7	-156.40	156.7	1,248.6	1,426.9	1,398.1	28.75	49.855	
7,000.0	6,978.2	6,829.5	6,719.6	15.2	23.9	-82.94	158.0	1,258.0	1,435.9	1,406.9	28.99	49.840	SF
7,050.0	7,027.7	6,877.8	6,767.0	15.2	24.1	-78.52	159.3	1,267.3	1,443.9	1,414.7	29.12	49.825	
7,100.0	7,076.5	6,925.3	6,813.5	15.1	24.3	-77.02	160.5	1,276.4	1,450.8	1,421.6	29.15	49.768	
7,150.0	7,124.1	6,971.5	6,858.8	15.0	24.5	-76.43	161.8	1,285.3	1,456.6	1,427.6	29.08	50.087	
7,200.0	7,170.3	7,016.1	6,902.6	14.9	24.6	-76.31	162.9	1,293.8	1,461.6	1,432.7	28.93	50.520	
7,250.0	7,214.6	7,058.8	6,944.5	14.8	24.8	-76.50	164.1	1,302.0	1,465.9	1,437.2	28.72	51.047	
7,300.0	7,256.7	7,120.0	7,004.4	14.6	25.0	-77.45	168.0	1,313.8	1,469.3	1,440.8	28.48	51.594	
7,350.0	7,296.2	7,172.5	7,055.1	14.4	25.3	-78.58	176.6	1,323.8	1,471.8	1,443.6	28.24	52.112	
7,400.0	7,333.0	7,210.7	7,091.5	14.2	25.4	-79.49	185.7	1,331.0	1,474.2	1,446.2	28.02	52.622	
7,450.0	7,366.7	7,237.2	7,116.4	14.1	25.6	-80.09	193.5	1,335.9	1,476.9	1,449.1	27.80	53.132	
7,500.0	7,397.1	7,254.5	7,132.4	13.9	25.6	-80.35	199.2	1,339.1	1,480.2	1,452.6	27.59	53.656	
7,550.0	7,423.8	7,264.7	7,141.8	13.8	25.7	-80.29	202.8	1,341.0	1,484.2	1,456.8	27.39	54.185	
7,600.0	7,446.8	7,269.3	7,146.0	13.7	25.7	-79.95	204.5	1,341.8	1,489.1	1,461.9	27.21	54.727	
7,650.0	7,465.8	7,269.5	7,146.2	13.6	25.7	-79.36	204.6	1,341.9	1,494.8	1,467.7	27.04	55.279	
7,700.0	7,480.8	7,266.3	7,143.2	13.6	25.7	-78.58	203.4	1,341.3	1,501.3	1,474.4	26.89	55.834	
7,750.0	7,491.5	7,260.3	7,137.7	13.7	25.7	-77.62	201.3	1,340.2	1,508.4	1,481.7	26.75	56.383	
7,800.0	7,497.9	7,250.0	7,128.3	13.8	25.6	-76.47	197.7	1,338.3	1,516.2	1,489.6	26.63	56.938	
7,848.8	7,500.0	7,250.0	7,128.3	13.9	25.6	-75.67	197.7	1,338.3	1,524.3	1,497.7	26.60	57.302	
7,900.0	7,500.0	7,231.7	7,111.3	14.1	25.5	-75.01	191.8	1,334.9	1,533.7	1,507.0	26.71	57.409	
8,000.0	7,500.0	7,214.2	7,094.8	14.7	25.4	-74.38	186.7	1,331.7	1,556.5	1,529.3	27.17	57.281	
8,100.0	7,500.0	7,200.0	7,081.4	15.4	25.4	-73.86	182.9	1,329.0	1,585.0	1,557.2	27.82	56.979	
8,200.0	7,500.0	7,200.0	7,081.4	16.3	25.4	-73.86	182.9	1,329.0	1,619.1	1,590.4	28.69	56.437	
8,300.0	7,500.0	7,177.2	7,059.7	17.3	25.3	-73.02	177.6	1,324.7	1,658.2	1,628.6	29.55	56.106	
8,400.0	7,500.0	7,168.4	7,051.2	18.5	25.2	-72.69	175.7	1,323.0	1,702.2	1,671.6	30.60	55.636	
8,500.0	7,500.0	7,150.0	7,033.5	19.7	25.2	-72.01	172.3	1,319.5	1,750.8	1,719.2	31.66	55.308	
8,600.0	7,500.0	7,150.0	7,033.5	21.0	25.2	-72.01	172.3	1,319.5	1,803.5	1,770.6	32.90	54.817	
8,700.0	7,500.0	7,150.0	7,033.5	22.4	25.2	-72.01	172.3	1,319.5	1,860.0	1,825.8	34.20	54.384	
8,800.0	7,500.0	7,150.0	7,033.5	23.8	25.2	-72.01	172.3	1,319.5	1,920.1	1,884.5	35.55	54.009	
8,900.0	7,500.0	7,150.0	7,033.5	25.3	25.2	-72.01	172.3	1,319.5	1,983.4	1,946.4	36.94	53.691	
9,000.0	7,500.0	7,150.0	7,033.5	26.7	25.2	-72.01	172.3	1,319.5	2,049.6	2,011.2	38.36	53.425	
9,100.0	7,500.0	7,129.8	7,013.9	28.3	25.1	-71.26	169.3	1,315.7	2,118.1	2,078.5	39.65	53.418	
9,200.0	7,500.0	7,126.2	7,010.5	29.8	25.1	-71.13	168.8	1,315.0	2,189.3	2,148.2	41.09	53.279	

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 2B-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 2B-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		
9,300.0	7,500.0	7,123.0	7,007.3	31.4	25.1	-71.01	168.4	1,314.4	2,262.6	2,220.0	42.55	53.175		
9,400.0	7,500.0	7,120.1	7,004.5	33.0	25.0	-70.90	168.1	1,313.8	2,337.8	2,293.8	44.03	53.101		
9,500.0	7,500.0	7,100.0	6,984.9	34.6	25.0	-70.15	166.1	1,310.0	2,415.2	2,369.8	45.35	53.260		
9,600.0	7,500.0	7,100.0	6,984.9	36.2	25.0	-70.15	166.1	1,310.0	2,493.8	2,446.9	46.87	53.205		
9,700.0	7,500.0	7,100.0	6,984.9	37.8	25.0	-70.15	166.1	1,310.0	2,573.9	2,525.5	48.41	53.173		
9,800.0	7,500.0	7,100.0	6,984.9	39.5	25.0	-70.15	166.1	1,310.0	2,655.3	2,605.3	49.95	53.158		
9,900.0	7,500.0	7,100.0	6,984.9	41.1	25.0	-70.15	166.1	1,310.0	2,738.0	2,686.5	51.50	53.160		
10,000.0	7,500.0	7,100.0	6,984.9	42.8	25.0	-70.15	166.1	1,310.0	2,821.8	2,768.7	53.07	53.175		
10,100.0	7,500.0	7,100.0	6,984.9	44.5	25.0	-70.15	166.1	1,310.0	2,906.6	2,851.9	54.63	53.201		
10,200.0	7,500.0	7,100.0	6,984.9	46.1	25.0	-70.15	166.1	1,310.0	2,992.3	2,936.1	56.21	53.236		
10,300.0	7,500.0	7,100.0	6,984.9	47.8	25.0	-70.15	166.1	1,310.0	3,078.9	3,021.1	57.79	53.280		
10,400.0	7,500.0	7,100.0	6,984.9	49.5	25.0	-70.15	166.1	1,310.0	3,166.3	3,107.0	59.37	53.330		
10,500.0	7,500.0	7,100.0	6,984.9	51.2	25.0	-70.15	166.1	1,310.0	3,254.5	3,193.5	60.96	53.385		
10,600.0	7,500.0	7,100.0	6,984.9	52.9	25.0	-70.15	166.1	1,310.0	3,343.3	3,280.7	62.56	53.445		
10,700.0	7,500.0	7,100.0	6,984.9	54.6	25.0	-70.15	166.1	1,310.0	3,432.7	3,368.5	64.15	53.508		
10,800.0	7,500.0	7,100.0	6,984.9	56.3	25.0	-70.15	166.1	1,310.0	3,522.6	3,456.9	65.75	53.575		
10,900.0	7,500.0	7,100.0	6,984.9	58.0	25.0	-70.15	166.1	1,310.0	3,613.2	3,545.8	67.36	53.643		
11,000.0	7,500.0	7,100.0	6,984.9	59.7	25.0	-70.15	166.1	1,310.0	3,704.1	3,635.2	68.96	53.713		
11,100.0	7,500.0	7,100.0	6,984.9	61.4	25.0	-70.15	166.1	1,310.0	3,795.6	3,725.0	70.57	53.785		
11,200.0	7,500.0	7,100.0	6,984.9	63.1	25.0	-70.15	166.1	1,310.0	3,887.5	3,815.3	72.18	53.858		
11,300.0	7,500.0	7,100.0	6,984.9	64.8	25.0	-70.15	166.1	1,310.0	3,979.7	3,905.9	73.79	53.931		
11,400.0	7,500.0	7,100.0	6,984.9	66.5	25.0	-70.15	166.1	1,310.0	4,072.4	3,996.9	75.41	54.004		
11,500.0	7,500.0	7,100.0	6,984.9	68.2	25.0	-70.15	166.1	1,310.0	4,165.3	4,088.3	77.03	54.077		
11,600.0	7,500.0	7,100.0	6,984.9	70.0	25.0	-70.15	166.1	1,310.0	4,258.6	4,180.0	78.64	54.151		
11,700.0	7,500.0	7,100.0	6,984.9	71.7	25.0	-70.15	166.1	1,310.0	4,352.2	4,271.9	80.26	54.224		
11,800.0	7,500.0	7,100.0	6,984.9	73.4	25.0	-70.15	166.1	1,310.0	4,446.1	4,364.2	81.89	54.296		
11,900.0	7,500.0	7,085.6	6,970.8	75.1	24.9	-69.62	165.1	1,307.2	4,540.0	4,456.8	83.24	54.542		
12,000.0	7,500.0	7,085.0	6,970.2	76.9	24.9	-69.59	165.0	1,307.1	4,634.4	4,549.5	84.84	54.622		
12,100.0	7,500.0	7,084.3	6,969.5	78.6	24.9	-69.57	165.0	1,307.0	4,728.9	4,642.5	86.45	54.701		
12,200.0	7,500.0	7,083.7	6,968.9	80.3	24.9	-69.55	165.0	1,306.8	4,823.7	4,735.7	88.06	54.778		
12,300.0	7,500.0	7,083.2	6,968.4	82.0	24.9	-69.52	164.9	1,306.7	4,918.7	4,829.1	89.67	54.855		
12,400.0	7,500.0	7,082.6	6,967.8	83.8	24.9	-69.50	164.9	1,306.6	5,014.0	4,922.7	91.28	54.930		
12,500.0	7,500.0	7,068.1	6,953.6	85.5	24.8	-68.96	164.3	1,303.8	5,109.5	5,016.9	92.59	55.186		
12,600.0	7,500.0	7,068.1	6,953.6	87.2	24.8	-68.96	164.3	1,303.8	5,205.1	5,110.9	94.20	55.253		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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						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	-0.7	119.8	119.8				
100.0	100.0	100.0	100.0	0.2	0.2	90.35	-0.7	119.8	119.8	119.5	0.30	394.454	
200.0	200.0	200.0	200.0	0.3	0.3	90.35	-0.7	119.8	119.8	119.1	0.65	183.516	
233.3	233.3	233.3	233.3	0.4	0.4	90.35	-0.7	119.8	119.8	119.0	0.77	155.752 CC	
300.0	300.0	299.0	299.0	0.5	0.5	90.37	-0.8	120.0	120.0	119.0	1.00	119.993 ES	
400.0	400.0	396.9	396.9	0.7	0.7	130.79	-1.1	121.6	122.3	120.9	1.35	90.837	
500.0	500.0	494.7	494.6	0.9	0.9	131.86	-1.6	124.9	127.4	125.7	1.69	75.222	
600.0	599.9	592.0	591.8	1.0	1.0	133.45	-2.5	129.8	135.4	133.4	2.04	66.274	
700.0	699.7	688.9	688.5	1.2	1.2	135.35	-3.7	136.3	146.4	144.0	2.40	61.127	
800.0	799.4	785.3	784.5	1.4	1.4	137.29	-5.1	144.4	160.0	157.2	2.75	58.191	
900.0	899.2	881.2	879.9	1.6	1.7	138.94	-6.8	154.0	175.3	172.2	3.10	56.528	
1,000.0	998.9	976.6	974.6	1.8	1.9	140.31	-8.7	165.1	192.4	188.9	3.45	55.735	
1,100.0	1,098.7	1,071.4	1,068.5	2.1	2.2	141.44	-10.9	177.7	211.2	207.4	3.80	55.560	
1,200.0	1,198.5	1,165.5	1,161.6	2.3	2.5	142.37	-13.4	191.7	231.7	227.6	4.15	55.834	
1,300.0	1,298.2	1,259.1	1,253.9	2.5	2.8	129.30	-16.1	207.1	253.4	248.9	4.51	56.227	
1,400.0	1,397.9	1,352.2	1,345.4	2.7	3.1	118.11	-19.1	223.9	275.8	270.9	4.87	56.630	
1,450.9	1,448.6	1,400.0	1,392.3	2.8	3.3	113.32	-20.7	233.1	287.5	282.5	5.06	56.832	
1,500.0	1,497.6	1,444.6	1,436.0	2.9	3.4	113.85	-22.3	242.0	299.1	293.8	5.24	57.099	
1,600.0	1,597.2	1,536.4	1,525.6	3.1	3.8	114.79	-25.7	261.4	323.9	318.3	5.61	57.772	
1,700.0	1,696.9	1,627.4	1,614.2	3.3	4.2	115.57	-29.3	282.1	350.3	344.3	5.98	58.614	
1,800.0	1,796.5	1,717.7	1,701.7	3.6	4.6	116.20	-33.2	303.9	378.3	371.9	6.35	59.590	
1,900.0	1,896.1	1,812.1	1,792.9	3.8	5.1	116.70	-37.1	327.9	407.4	400.7	6.73	60.517	
2,000.0	1,995.8	1,909.5	1,887.0	4.0	5.5	116.95	-39.6	352.9	436.3	429.1	7.13	61.194	
2,100.0	2,095.4	2,008.7	1,982.9	4.2	6.0	116.96	-40.5	378.5	464.7	457.2	7.54	61.660	
2,200.0	2,195.1	2,113.3	2,084.3	4.4	6.5	116.97	-41.0	404.2	491.9	483.9	7.96	61.829	
2,300.0	2,294.7	2,215.7	2,183.9	4.7	6.9	117.04	-41.4	427.6	517.5	509.1	8.37	61.813	
2,400.0	2,394.4	2,312.4	2,278.2	4.9	7.3	117.11	-41.8	449.3	542.7	533.9	8.78	61.821	
2,500.0	2,494.0	2,409.2	2,372.5	5.1	7.7	117.17	-42.2	471.1	567.9	558.7	9.19	61.818	
2,600.0	2,593.6	2,506.0	2,466.8	5.3	8.1	117.23	-42.6	492.8	593.1	583.5	9.60	61.806	
2,700.0	2,693.3	2,602.7	2,561.0	5.6	8.6	117.28	-43.0	514.6	618.3	608.3	10.01	61.788	
2,800.0	2,792.9	2,699.5	2,655.3	5.8	9.0	117.33	-43.4	536.3	643.6	633.1	10.42	61.765	
2,900.0	2,892.6	2,796.3	2,749.6	6.0	9.4	117.38	-43.8	558.1	668.8	657.9	10.83	61.739	
3,000.0	2,992.2	2,893.0	2,843.9	6.2	9.8	117.42	-44.2	579.9	694.0	682.8	11.25	61.709	
3,100.0	3,091.9	2,989.8	2,938.2	6.5	10.2	117.46	-44.6	601.6	719.2	707.6	11.66	61.678	
3,200.0	3,191.5	3,086.5	3,032.5	6.7	10.7	117.50	-45.0	623.4	744.4	732.4	12.08	61.646	
3,300.0	3,291.2	3,183.3	3,126.8	6.9	11.1	117.53	-45.4	645.1	769.7	757.2	12.49	61.612	
3,400.0	3,390.8	3,280.1	3,221.1	7.1	11.5	117.57	-45.9	666.9	794.9	782.0	12.91	61.579	
3,500.0	3,490.4	3,376.8	3,315.3	7.4	11.9	117.60	-46.3	688.7	820.1	806.8	13.33	61.544	
3,600.0	3,590.1	3,473.6	3,409.6	7.6	12.3	117.62	-46.7	710.4	845.3	831.6	13.74	61.510	
3,700.0	3,689.7	3,570.4	3,503.9	7.8	12.8	117.65	-47.1	732.2	870.5	856.4	14.16	61.477	
3,800.0	3,789.4	3,667.1	3,598.2	8.1	13.2	117.68	-47.5	753.9	895.8	881.2	14.58	61.443	
3,900.0	3,889.0	3,763.9	3,692.5	8.3	13.6	117.70	-47.9	775.7	921.0	906.0	15.00	61.410	
4,000.0	3,988.7	3,860.7	3,786.8	8.5	14.0	117.72	-48.3	797.4	946.2	930.8	15.42	61.377	
4,100.0	4,088.3	3,957.4	3,881.1	8.7	14.5	117.75	-48.7	819.2	971.4	955.6	15.84	61.345	
4,200.0	4,187.9	4,054.2	3,975.4	9.0	14.9	117.77	-49.1	841.0	996.7	980.4	16.26	61.314	
4,300.0	4,287.6	4,151.0	4,069.6	9.2	15.3	117.79	-49.5	862.7	1,021.9	1,005.2	16.67	61.283	
4,400.0	4,387.2	4,247.7	4,163.9	9.4	15.7	117.80	-49.9	884.5	1,047.1	1,030.0	17.09	61.253	
4,500.0	4,486.9	4,344.5	4,258.2	9.6	16.1	117.82	-50.3	906.2	1,072.3	1,054.8	17.52	61.223	
4,600.0	4,586.5	4,441.3	4,352.5	9.9	16.6	117.84	-50.7	928.0	1,097.6	1,079.6	17.94	61.195	
4,700.0	4,686.2	4,538.0	4,446.8	10.1	17.0	117.85	-51.1	949.7	1,122.8	1,104.4	18.36	61.167	
4,800.0	4,785.8	4,634.8	4,541.1	10.3	17.4	117.87	-51.5	971.5	1,148.0	1,129.2	18.78	61.139	
4,900.0	4,885.4	4,731.6	4,635.4	10.6	17.8	117.88	-51.9	993.3	1,173.2	1,154.0	19.20	61.112	

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 2B-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 2B-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	
5,000.0	4,985.1	4,828.3	4,729.7	10.8	18.3	117.90	-52.3	1,015.0	1,198.4	1,178.8	19.62	61.086	
5,100.0	5,084.7	4,925.1	4,823.9	11.0	18.7	117.91	-52.7	1,036.8	1,223.7	1,203.6	20.04	61.061	
5,200.0	5,184.4	5,021.9	4,918.2	11.2	19.1	117.92	-53.1	1,058.5	1,248.9	1,228.4	20.46	61.036	
5,300.0	5,284.0	5,118.6	5,012.5	11.5	19.5	117.94	-53.5	1,080.3	1,274.1	1,253.2	20.88	61.012	
5,400.0	5,383.7	5,215.4	5,106.8	11.7	20.0	117.95	-53.9	1,102.1	1,299.3	1,278.0	21.30	60.988	
5,500.0	5,483.3	5,312.2	5,201.1	11.9	20.4	117.96	-54.3	1,123.8	1,324.6	1,302.8	21.73	60.965	
5,600.0	5,583.0	5,408.9	5,295.4	12.1	20.8	117.97	-54.7	1,145.6	1,349.8	1,327.6	22.15	60.943	
5,700.0	5,682.6	5,505.7	5,389.7	12.4	21.2	117.98	-55.1	1,167.3	1,375.0	1,352.4	22.57	60.921	
5,800.0	5,782.2	5,602.5	5,484.0	12.6	21.6	117.99	-55.5	1,189.1	1,400.2	1,377.2	22.99	60.900	
5,900.0	5,881.9	5,699.2	5,578.2	12.8	22.1	118.00	-55.9	1,210.8	1,425.5	1,402.0	23.41	60.879	
6,000.0	5,981.5	5,796.0	5,672.5	13.1	22.5	118.01	-56.3	1,232.6	1,450.7	1,426.8	23.84	60.859	
6,100.0	6,081.2	5,892.8	5,766.8	13.3	22.9	118.02	-56.7	1,254.4	1,475.9	1,451.6	24.26	60.839	
6,200.0	6,180.8	5,989.5	5,861.1	13.5	23.3	118.03	-57.1	1,276.1	1,501.1	1,476.4	24.68	60.820	
6,300.0	6,280.5	6,086.3	5,955.4	13.7	23.8	118.04	-57.5	1,297.9	1,526.4	1,501.2	25.10	60.801	
6,400.0	6,380.1	6,183.1	6,049.7	14.0	24.2	118.05	-57.9	1,319.6	1,551.6	1,526.0	25.53	60.782	
6,500.0	6,479.7	6,279.8	6,144.0	14.2	24.6	118.06	-58.3	1,341.4	1,576.8	1,550.9	25.95	60.765	
6,600.0	6,579.4	6,376.6	6,238.3	14.4	25.0	118.06	-58.7	1,363.1	1,602.0	1,575.7	26.37	60.747	
6,700.0	6,679.0	6,473.4	6,332.5	14.7	25.5	118.07	-59.1	1,384.9	1,627.2	1,600.5	26.79	60.730	
6,800.0	6,778.7	6,570.1	6,426.8	14.9	25.9	118.08	-59.6	1,406.7	1,652.5	1,625.3	27.22	60.713	
6,901.0	6,879.3	6,667.9	6,522.1	15.1	26.3	118.09	-60.0	1,428.6	1,678.0	1,650.3	27.64	60.697	
6,950.0	6,928.3	6,715.4	6,568.4	15.2	26.5	-150.76	-60.2	1,439.3	1,689.6	1,661.6	28.04	60.261	
7,000.0	6,978.2	6,763.9	6,615.7	15.2	26.7	-77.14	-60.4	1,450.2	1,700.1	1,671.8	28.32	60.023	
7,050.0	7,027.7	6,812.1	6,662.6	15.2	26.9	-72.58	-60.6	1,461.1	1,709.1	1,680.6	28.48	60.006	
7,100.0	7,076.5	6,859.5	6,708.8	15.1	27.1	-70.96	-60.8	1,471.7	1,716.5	1,688.0	28.51	60.208	
7,150.0	7,124.1	6,905.8	6,753.9	15.0	27.4	-70.27	-61.0	1,482.1	1,722.5	1,694.1	28.42	60.614	
7,200.0	7,170.3	6,950.7	6,797.7	14.9	27.5	-70.07	-61.1	1,492.2	1,727.1	1,698.9	28.22	61.198	
7,250.0	7,214.6	6,993.9	6,839.7	14.8	27.7	-70.21	-61.3	1,501.9	1,730.5	1,702.5	27.95	61.921	
7,300.0	7,256.7	7,034.9	6,879.7	14.6	27.9	-70.60	-61.5	1,511.2	1,732.6	1,705.0	27.62	62.738	
7,350.0	7,296.2	7,073.5	6,917.3	14.4	28.1	-71.16	-61.6	1,519.8	1,733.8	1,706.5	27.26	63.593	
7,400.0	7,333.0	7,109.3	6,952.2	14.2	28.2	-71.86	-61.8	1,527.9	1,734.0	1,707.1	26.91	64.429	
7,450.0	7,366.7	7,142.2	6,984.3	14.1	28.4	-72.63	-61.9	1,535.3	1,733.7	1,707.1	26.59	65.191	
7,500.0	7,397.1	7,171.9	7,013.1	13.9	28.5	-73.44	-62.1	1,542.0	1,732.8	1,706.5	26.32	65.830	
7,550.0	7,423.8	7,198.0	7,038.7	13.8	28.6	-74.24	-62.2	1,547.8	1,731.6	1,705.5	26.11	66.314	
7,600.0	7,446.8	7,220.6	7,060.6	13.7	28.7	-75.00	-62.3	1,552.9	1,730.2	1,704.3	25.97	66.622	
7,650.0	7,465.8	7,239.2	7,078.8	13.6	28.8	-75.67	-62.3	1,557.1	1,728.9	1,703.0	25.90	66.751	
7,700.0	7,480.8	7,253.9	7,093.1	13.6	28.9	-76.23	-62.4	1,560.4	1,727.7	1,701.8	25.90	66.705	
7,750.0	7,491.5	7,264.6	7,103.5	13.7	28.9	-76.65	-62.4	1,562.8	1,726.8	1,700.8	25.97	66.495	
7,800.0	7,497.9	7,271.0	7,109.7	13.8	29.0	-76.91	-62.5	1,564.3	1,726.2	1,700.1	26.10	66.138	
7,848.8	7,500.0	7,273.2	7,111.9	13.9	29.0	-77.01	-62.5	1,564.8	1,725.9	1,699.7	26.29	65.660	
7,849.3	7,500.0	7,273.2	7,111.9	13.9	29.0	-77.01	-62.5	1,564.8	1,725.9	1,699.7	26.29	65.655	
7,900.0	7,500.0	7,273.4	7,112.1	14.1	29.0	-77.01	-62.5	1,564.8	1,726.7	1,700.2	26.50	65.166	
8,000.0	7,500.0	7,273.9	7,112.5	14.7	29.0	-77.03	-62.5	1,564.9	1,732.5	1,705.5	27.05	64.037	
8,100.0	7,500.0	7,274.3	7,112.9	15.4	29.0	-77.04	-62.5	1,565.0	1,744.1	1,716.3	27.79	62.763	
8,200.0	7,500.0	7,274.7	7,113.3	16.3	29.0	-77.05	-62.5	1,565.1	1,761.2	1,732.5	28.67	61.425	
8,300.0	7,500.0	7,275.1	7,113.7	17.3	29.0	-77.07	-62.5	1,565.2	1,783.8	1,754.1	29.68	60.093	
8,400.0	7,500.0	7,275.5	7,114.2	18.5	29.0	-77.08	-62.5	1,565.3	1,811.7	1,780.9	30.80	58.816	
8,500.0	7,500.0	7,275.9	7,114.6	19.7	29.0	-77.10	-62.5	1,565.4	1,844.5	1,812.5	32.01	57.628	
8,600.0	7,500.0	7,276.4	7,115.0	21.0	29.0	-77.11	-62.5	1,565.5	1,882.1	1,848.8	33.29	56.545	
8,700.0	7,500.0	7,276.8	7,115.4	22.4	29.0	-77.12	-62.5	1,565.5	1,924.2	1,889.6	34.62	55.576	
8,800.0	7,500.0	7,277.2	7,115.8	23.8	29.0	-77.14	-62.5	1,565.6	1,970.5	1,934.4	36.01	54.720	
8,900.0	7,500.0	7,277.6	7,116.2	25.3	29.0	-77.15	-62.5	1,565.7	2,020.6	1,983.2	37.44	53.973	
9,000.0	7,500.0	7,278.0	7,116.6	26.7	29.0	-77.16	-62.5	1,565.8	2,074.4	2,035.5	38.90	53.326	

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 2B-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 2B-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 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	7,500.0	7,278.4	7,117.0	28.3	29.0	-77.18	-62.5	1,565.9	2,131.5	2,091.1	40.39	52.771	
9,200.0	7,500.0	7,278.9	7,117.4	29.8	29.0	-77.19	-62.5	1,566.0	2,191.6	2,149.7	41.91	52.298	
9,300.0	7,500.0	7,279.3	7,117.8	31.4	29.0	-77.21	-62.5	1,566.1	2,254.6	2,211.2	43.44	51.899	
9,400.0	7,500.0	7,279.7	7,118.2	33.0	29.0	-77.22	-62.5	1,566.2	2,320.2	2,275.2	45.00	51.564	
9,500.0	7,500.0	7,280.1	7,118.6	34.6	29.0	-77.23	-62.5	1,566.3	2,388.2	2,341.7	46.57	51.285	
9,600.0	7,500.0	7,280.5	7,119.0	36.2	29.0	-77.25	-62.5	1,566.4	2,458.4	2,410.3	48.15	51.056	
9,700.0	7,500.0	7,280.9	7,119.4	37.8	29.0	-77.26	-62.5	1,566.5	2,530.6	2,480.8	49.75	50.870	
9,800.0	7,500.0	7,281.3	7,119.8	39.5	29.0	-77.28	-62.5	1,566.6	2,604.6	2,553.3	51.35	50.721	
9,900.0	7,500.0	7,281.8	7,120.2	41.1	29.0	-77.29	-62.5	1,566.7	2,680.3	2,627.4	52.97	50.604	
10,000.0	7,500.0	7,282.2	7,120.6	42.8	29.0	-77.30	-62.5	1,566.8	2,757.6	2,703.0	54.59	50.515	
10,100.0	7,500.0	7,282.6	7,121.0	44.5	29.0	-77.32	-62.5	1,566.9	2,836.3	2,780.0	56.22	50.450	
10,200.0	7,500.0	7,283.0	7,121.5	46.1	29.0	-77.33	-62.5	1,567.0	2,916.3	2,858.4	57.86	50.405	
10,300.0	7,500.0	7,283.4	7,121.9	47.8	29.0	-77.34	-62.5	1,567.0	2,997.4	2,937.9	59.50	50.378	
10,400.0	7,500.0	7,283.8	7,122.3	49.5	29.0	-77.36	-62.5	1,567.1	3,079.7	3,018.6	61.15	50.367 SF	
10,500.0	7,500.0	7,284.3	7,122.7	51.2	29.0	-77.37	-62.5	1,567.2	3,163.1	3,100.3	62.80	50.368	
10,600.0	7,500.0	7,284.7	7,123.1	52.9	29.0	-77.39	-62.5	1,567.3	3,247.3	3,182.9	64.45	50.381	
10,700.0	7,500.0	7,285.1	7,123.5	54.6	29.0	-77.40	-62.5	1,567.4	3,332.4	3,266.3	66.12	50.404	
10,800.0	7,500.0	7,285.5	7,123.9	56.3	29.0	-77.41	-62.5	1,567.5	3,418.4	3,350.6	67.78	50.434	
10,900.0	7,500.0	7,285.9	7,124.3	58.0	29.0	-77.43	-62.5	1,567.6	3,505.1	3,435.6	69.45	50.471	
11,000.0	7,500.0	7,286.3	7,124.7	59.7	29.0	-77.44	-62.5	1,567.7	3,592.4	3,521.3	71.12	50.515	
11,100.0	7,500.0	7,286.8	7,125.1	61.4	29.0	-77.46	-62.5	1,567.8	3,680.4	3,607.7	72.79	50.563	
11,200.0	7,500.0	7,287.2	7,125.5	63.1	29.0	-77.47	-62.5	1,567.9	3,769.1	3,694.6	74.47	50.615	
11,300.0	7,500.0	7,287.6	7,125.9	64.8	29.0	-77.48	-62.5	1,568.0	3,858.2	3,782.1	76.14	50.671	
11,400.0	7,500.0	7,288.0	7,126.3	66.5	29.0	-77.50	-62.5	1,568.1	3,947.9	3,870.1	77.82	50.729	
11,500.0	7,500.0	7,288.4	7,126.7	68.2	29.0	-77.51	-62.5	1,568.2	4,038.1	3,958.6	79.51	50.790	
11,600.0	7,500.0	7,288.8	7,127.1	70.0	29.0	-77.52	-62.5	1,568.3	4,128.7	4,047.5	81.19	50.853	
11,700.0	7,500.0	7,289.3	7,127.5	71.7	29.0	-77.54	-62.5	1,568.4	4,219.8	4,136.9	82.88	50.917	
11,800.0	7,500.0	7,289.7	7,127.9	73.4	29.0	-77.55	-62.5	1,568.5	4,311.2	4,226.6	84.56	50.982	
11,900.0	7,500.0	7,290.1	7,128.4	75.1	29.0	-77.57	-62.6	1,568.5	4,403.0	4,316.8	86.25	51.049	
12,000.0	7,500.0	7,290.5	7,128.8	76.9	29.0	-77.58	-62.6	1,568.6	4,495.2	4,407.3	87.94	51.115	
12,100.0	7,500.0	7,290.9	7,129.2	78.6	29.0	-77.59	-62.6	1,568.7	4,587.7	4,498.1	89.63	51.182	
12,200.0	7,500.0	7,291.3	7,129.6	80.3	29.0	-77.61	-62.6	1,568.8	4,680.5	4,589.2	91.33	51.250	
12,300.0	7,500.0	7,291.8	7,130.0	82.0	29.0	-77.62	-62.6	1,568.9	4,773.6	4,680.6	93.02	51.317	
12,400.0	7,500.0	7,292.2	7,130.4	83.8	29.0	-77.63	-62.6	1,569.0	4,867.0	4,772.2	94.72	51.384	
12,500.0	7,500.0	7,292.6	7,130.8	85.5	29.0	-77.65	-62.6	1,569.1	4,960.6	4,864.2	96.41	51.451	
12,600.0	7,500.0	7,293.0	7,131.2	87.2	29.0	-77.66	-62.6	1,569.2	5,054.5	4,956.3	98.11	51.517	
12,700.0	7,500.0	7,293.4	7,131.6	89.0	29.0	-77.68	-62.6	1,569.3	5,148.6	5,048.7	99.81	51.583	
12,800.0	7,500.0	7,293.8	7,132.0	90.7	29.1	-77.69	-62.6	1,569.4	5,242.9	5,141.4	101.51	51.648	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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: 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	90.32	-0.7	129.9	129.9					
100.0	100.0	100.0	100.0	0.2	0.2	90.32	-0.7	129.9	129.9	129.6	0.30	427.631		
200.0	200.0	200.0	200.0	0.3	0.3	90.32	-0.7	129.9	129.9	129.2	0.65	198.951	CC, ES	
300.0	300.0	297.8	297.8	0.5	0.5	90.33	-0.8	130.7	130.7	129.7	1.00	130.943		
400.0	400.0	395.5	395.4	0.7	0.7	130.61	-0.8	133.2	133.8	132.5	1.34	99.638		
500.0	500.0	492.9	492.8	0.9	0.9	131.40	-1.0	137.3	139.8	138.1	1.69	82.736		
600.0	599.9	590.1	589.7	1.0	1.0	132.58	-1.1	143.1	148.7	146.7	2.04	72.915		
700.0	699.7	686.7	686.1	1.2	1.3	134.01	-1.4	150.5	160.5	158.1	2.39	67.098		
800.0	799.4	782.7	781.7	1.4	1.5	135.49	-1.7	159.5	174.7	172.0	2.75	63.615		
900.0	899.2	878.3	876.8	1.6	1.7	136.69	-2.0	170.0	190.7	187.6	3.10	61.489		
1,000.0	998.9	973.4	971.1	1.8	2.0	137.67	-2.4	182.0	208.3	204.9	3.45	60.294		
1,100.0	1,098.7	1,067.9	1,064.6	2.1	2.2	138.44	-2.8	195.4	227.6	223.8	3.81	59.760		
1,200.0	1,198.5	1,161.8	1,157.3	2.3	2.5	139.04	-3.3	210.4	248.6	244.4	4.16	59.711		
1,300.0	1,298.2	1,255.1	1,249.2	2.5	2.9	125.66	-3.8	226.7	270.6	266.1	4.53	59.786		
1,400.0	1,397.9	1,347.9	1,340.3	2.7	3.2	114.16	-4.3	244.4	293.2	288.3	4.90	59.861		
1,450.9	1,448.6	1,395.0	1,386.4	2.8	3.4	109.22	-4.6	254.0	305.0	299.9	5.09	59.905		
1,500.0	1,497.6	1,440.2	1,430.6	2.9	3.6	109.61	-4.9	263.5	316.6	311.3	5.28	59.995		
1,600.0	1,597.2	1,531.9	1,519.9	3.1	4.0	110.28	-5.6	283.9	341.3	335.7	5.66	60.348		
1,700.0	1,696.9	1,622.8	1,608.2	3.3	4.4	110.82	-6.2	305.5	367.7	361.6	6.04	60.890		
1,800.0	1,796.5	1,712.9	1,695.3	3.6	4.8	111.25	-7.0	328.3	395.5	389.1	6.42	61.582		
1,900.0	1,896.1	1,800.0	1,779.3	3.8	5.2	111.57	-7.7	351.7	424.9	418.1	6.80	62.438		
2,000.0	1,995.8	1,890.6	1,866.2	4.0	5.7	111.82	-8.5	377.4	455.7	448.5	7.20	63.316		
2,100.0	2,095.4	1,978.2	1,949.8	4.2	6.2	112.00	-9.3	403.5	487.9	480.3	7.59	64.319		
2,200.0	2,195.1	2,068.7	2,035.8	4.4	6.7	112.13	-10.2	431.6	521.4	513.4	7.98	65.319		
2,300.0	2,294.7	2,162.9	2,125.2	4.7	7.3	112.25	-11.1	461.0	555.1	546.7	8.39	66.176		
2,400.0	2,394.4	2,257.0	2,214.7	4.9	7.8	112.36	-12.0	490.5	588.7	579.9	8.79	66.941		
2,500.0	2,494.0	2,351.2	2,304.1	5.1	8.3	112.45	-13.0	519.9	622.4	613.2	9.20	67.630		
2,600.0	2,593.6	2,445.3	2,393.5	5.3	8.9	112.53	-13.9	549.3	656.0	646.4	9.61	68.251		
2,700.0	2,693.3	2,539.5	2,483.0	5.6	9.4	112.61	-14.8	578.8	689.7	679.7	10.02	68.815		
2,800.0	2,792.9	2,633.6	2,572.4	5.8	10.0	112.68	-15.7	608.2	723.4	712.9	10.43	69.327		
2,900.0	2,892.6	2,727.8	2,661.8	6.0	10.6	112.74	-16.7	637.6	757.1	746.2	10.85	69.796		
3,000.0	2,992.2	2,822.0	2,751.3	6.2	11.1	112.80	-17.6	667.1	790.7	779.5	11.26	70.226		
3,100.0	3,091.9	2,916.1	2,840.7	6.5	11.7	112.85	-18.5	696.5	824.4	812.7	11.67	70.621		
3,200.0	3,191.5	3,010.3	2,930.1	6.7	12.2	112.90	-19.4	726.0	858.1	846.0	12.09	70.985		
3,300.0	3,291.2	3,104.4	3,019.6	6.9	12.8	112.94	-20.4	755.4	891.7	879.2	12.50	71.322		
3,400.0	3,390.8	3,198.6	3,109.0	7.1	13.3	112.99	-21.3	784.8	925.4	912.5	12.92	71.635		
3,500.0	3,490.4	3,292.8	3,198.4	7.4	13.9	113.03	-22.2	814.3	959.1	945.7	13.33	71.926		
3,600.0	3,590.1	3,386.9	3,287.9	7.6	14.5	113.06	-23.1	843.7	992.8	979.0	13.75	72.197		
3,700.0	3,689.7	3,481.1	3,377.3	7.8	15.0	113.09	-24.1	873.1	1,026.4	1,012.3	14.17	72.450		
3,800.0	3,789.4	3,575.2	3,466.7	8.1	15.6	113.13	-25.0	902.6	1,060.1	1,045.5	14.58	72.687		
3,900.0	3,889.0	3,669.4	3,556.2	8.3	16.1	113.16	-25.9	932.0	1,093.8	1,078.8	15.00	72.909		
4,000.0	3,988.7	3,763.5	3,645.6	8.5	16.7	113.18	-26.8	961.5	1,127.5	1,112.0	15.42	73.118		
4,100.0	4,088.3	3,857.7	3,735.0	8.7	17.2	113.21	-27.8	990.9	1,161.1	1,145.3	15.84	73.314		
4,200.0	4,187.9	3,951.9	3,824.5	9.0	17.8	113.23	-28.7	1,020.3	1,194.8	1,178.5	16.26	73.499		
4,300.0	4,287.6	4,046.0	3,913.9	9.2	18.4	113.26	-29.6	1,049.8	1,228.5	1,211.8	16.67	73.674		
4,400.0	4,387.2	4,140.2	4,003.3	9.4	18.9	113.28	-30.5	1,079.2	1,262.2	1,245.1	17.09	73.840		
4,500.0	4,486.9	4,234.3	4,092.8	9.6	19.5	113.30	-31.5	1,108.6	1,295.8	1,278.3	17.51	73.996		
4,600.0	4,586.5	4,328.5	4,182.2	9.9	20.0	113.32	-32.4	1,138.1	1,329.5	1,311.6	17.93	74.145		
4,700.0	4,686.2	4,422.7	4,271.6	10.1	20.6	113.34	-33.3	1,167.5	1,363.2	1,344.8	18.35	74.286		
4,800.0	4,785.8	4,516.8	4,361.1	10.3	21.2	113.36	-34.2	1,197.0	1,396.9	1,378.1	18.77	74.420		
4,900.0	4,885.4	4,611.0	4,450.5	10.6	21.7	113.37	-35.1	1,226.4	1,430.5	1,411.3	19.19	74.548		
5,000.0	4,985.1	4,705.1	4,539.9	10.8	22.3	113.39	-36.1	1,255.8	1,464.2	1,444.6	19.61	74.669		

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 2B-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 2B-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: 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	5,084.7	4,799.3	4,629.4	11.0	22.9	113.41	-37.0	1,285.3	1,497.9	1,477.9	20.03	74.785		
5,200.0	5,184.4	4,893.4	4,718.8	11.2	23.4	113.42	-37.9	1,314.7	1,531.6	1,511.1	20.45	74.896		
5,300.0	5,284.0	4,987.6	4,808.2	11.5	24.0	113.44	-38.8	1,344.1	1,565.2	1,544.4	20.87	75.002		
5,400.0	5,383.7	5,081.8	4,897.7	11.7	24.5	113.45	-39.8	1,373.6	1,598.9	1,577.6	21.29	75.104		
5,500.0	5,483.3	5,175.9	4,987.1	11.9	25.1	113.46	-40.7	1,403.0	1,632.6	1,610.9	21.71	75.201		
5,600.0	5,583.0	5,270.1	5,076.5	12.1	25.7	113.48	-41.6	1,432.5	1,666.3	1,644.1	22.13	75.294		
5,700.0	5,682.6	5,364.2	5,166.0	12.4	26.2	113.49	-42.5	1,461.9	1,699.9	1,677.4	22.55	75.383		
5,800.0	5,782.2	5,458.4	5,255.4	12.6	26.8	113.50	-43.5	1,491.3	1,733.6	1,710.6	22.97	75.469		
5,900.0	5,881.9	5,552.6	5,344.8	12.8	27.3	113.51	-44.4	1,520.8	1,767.3	1,743.9	23.39	75.551		
6,000.0	5,981.5	5,646.7	5,434.3	13.1	27.9	113.52	-45.3	1,550.2	1,801.0	1,777.2	23.81	75.630		
6,100.0	6,081.2	5,740.9	5,523.7	13.3	28.5	113.53	-46.2	1,579.6	1,834.6	1,810.4	24.23	75.706		
6,200.0	6,180.8	5,835.0	5,613.1	13.5	29.0	113.54	-47.2	1,609.1	1,868.3	1,843.7	24.65	75.779		
6,300.0	6,280.5	5,929.2	5,702.6	13.7	29.6	113.55	-48.1	1,638.5	1,902.0	1,876.9	25.08	75.850		
6,400.0	6,380.1	6,023.3	5,792.0	14.0	30.2	113.56	-49.0	1,668.0	1,935.7	1,910.2	25.50	75.918		
6,500.0	6,479.7	6,117.5	5,881.4	14.2	30.7	113.57	-49.9	1,697.4	1,969.4	1,943.4	25.92	75.984		
6,600.0	6,579.4	6,211.7	5,970.9	14.4	31.3	113.58	-50.9	1,726.8	2,003.0	1,976.7	26.34	76.048		
6,700.0	6,679.0	6,305.8	6,060.3	14.7	31.8	113.59	-51.8	1,756.3	2,036.7	2,009.9	26.76	76.109		
6,800.0	6,778.7	6,400.0	6,149.7	14.9	32.4	113.59	-52.7	1,785.7	2,070.4	2,043.2	27.18	76.168		
6,901.0	6,879.3	6,495.1	6,240.1	15.1	33.0	113.60	-53.6	1,815.4	2,104.4	2,076.8	27.61	76.226		
6,950.0	6,928.3	6,541.3	6,284.0	15.2	33.2	-154.73	-54.1	1,829.9	2,120.4	2,092.2	28.22	75.129		
7,000.0	6,978.2	6,588.6	6,328.9	15.2	33.5	-80.56	-54.6	1,844.7	2,135.5	2,106.8	28.74	74.307		
7,050.0	7,027.7	6,635.5	6,373.5	15.2	33.8	-75.42	-55.0	1,859.3	2,149.5	2,120.4	29.11	73.833		
7,100.0	7,076.5	6,681.7	6,417.4	15.1	34.1	-73.18	-55.5	1,873.8	2,162.1	2,132.8	29.32	73.729		
7,150.0	7,124.1	6,726.9	6,460.3	15.0	34.4	-71.85	-55.9	1,887.9	2,173.4	2,144.1	29.37	73.992		
7,200.0	7,170.3	6,770.8	6,501.9	14.9	34.6	-71.01	-56.3	1,901.6	2,183.5	2,154.2	29.27	74.604		
7,250.0	7,214.6	6,812.9	6,541.9	14.8	34.9	-70.49	-56.8	1,914.8	2,192.3	2,163.3	29.02	75.534		
7,300.0	7,256.7	6,853.0	6,580.0	14.6	35.1	-70.20	-57.1	1,927.3	2,199.9	2,171.2	28.67	76.738		
7,350.0	7,296.2	6,890.7	6,615.8	14.4	35.3	-70.09	-57.5	1,939.1	2,206.3	2,178.1	28.23	78.161		
7,400.0	7,333.0	6,925.8	6,649.2	14.2	35.5	-70.13	-57.9	1,950.1	2,211.7	2,184.0	27.74	79.731		
7,450.0	7,366.7	6,958.0	6,679.8	14.1	35.7	-70.27	-58.2	1,960.2	2,216.2	2,189.0	27.24	81.364		
7,500.0	7,397.1	6,987.1	6,707.4	13.9	35.9	-70.48	-58.5	1,969.3	2,219.8	2,193.1	26.76	82.967		
7,550.0	7,423.8	7,012.9	6,731.9	13.8	36.1	-70.72	-58.7	1,977.3	2,222.7	2,196.4	26.32	84.439		
7,600.0	7,446.8	7,035.0	6,752.9	13.7	36.2	-70.99	-58.9	1,984.3	2,225.0	2,199.0	25.97	85.687		
7,650.0	7,465.8	7,053.5	6,770.5	13.6	36.3	-71.24	-59.1	1,990.0	2,226.7	2,201.0	25.70	86.629		
7,700.0	7,480.8	7,068.1	6,784.3	13.6	36.4	-71.46	-59.3	1,994.6	2,227.9	2,202.4	25.55	87.201		
7,750.0	7,491.5	7,078.7	6,794.4	13.7	36.5	-71.63	-59.4	1,997.9	2,228.8	2,203.3	25.51	87.367		
7,800.0	7,497.9	7,085.3	6,800.6	13.8	36.5	-71.74	-59.4	2,000.0	2,229.3	2,203.7	25.59	87.116		
7,848.8	7,500.0	7,087.7	6,803.0	13.9	36.5	-71.78	-59.5	2,000.7	2,229.5	2,203.7	25.78	86.480		
7,900.0	7,500.0	7,088.2	6,803.4	14.1	36.5	-71.79	-59.5	2,000.9	2,230.1	2,204.1	25.99	85.810		
8,000.0	7,500.0	7,089.2	6,804.4	14.7	36.5	-71.82	-59.5	2,001.2	2,234.8	2,208.2	26.54	84.207		
8,100.0	7,500.0	7,090.2	6,805.3	15.4	36.5	-71.84	-59.5	2,001.5	2,243.9	2,216.6	27.26	82.320		
8,200.0	7,500.0	7,091.2	6,806.2	16.3	36.5	-71.87	-59.5	2,001.8	2,257.4	2,229.2	28.12	80.267		
8,300.0	7,500.0	7,092.1	6,807.2	17.3	36.5	-71.90	-59.5	2,002.1	2,275.2	2,246.1	29.11	78.153		
8,400.0	7,500.0	7,093.1	6,808.1	18.5	36.5	-71.92	-59.5	2,002.4	2,297.2	2,267.0	30.20	76.058		
8,500.0	7,500.0	7,094.1	6,809.0	19.7	36.6	-71.95	-59.5	2,002.7	2,323.3	2,292.0	31.38	74.038		
8,600.0	7,500.0	7,095.1	6,810.0	21.0	36.6	-71.97	-59.5	2,003.0	2,353.4	2,320.8	32.63	72.130		
8,700.0	7,500.0	7,096.1	6,810.9	22.4	36.6	-72.00	-59.5	2,003.3	2,387.3	2,353.4	33.93	70.354		
8,800.0	7,500.0	7,097.0	6,811.8	23.8	36.6	-72.02	-59.5	2,003.6	2,424.9	2,389.6	35.29	68.719		
8,900.0	7,500.0	7,098.0	6,812.8	25.3	36.6	-72.05	-59.6	2,003.9	2,465.9	2,429.2	36.68	67.225		
9,000.0	7,500.0	7,099.0	6,813.7	26.7	36.6	-72.07	-59.6	2,004.3	2,510.3	2,472.2	38.11	65.870		
9,100.0	7,500.0	7,100.0	6,814.6	28.3	36.6	-72.10	-59.6	2,004.6	2,557.8	2,518.2	39.57	64.645		
9,200.0	7,500.0	7,101.0	6,815.6	29.8	36.6	-72.12	-59.6	2,004.9	2,608.3	2,567.2	41.05	63.541		

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 2B-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 2B-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		
9,300.0	7,500.0	7,102.0	6,816.5	31.4	36.6	-72.15	-59.6	2,005.2	2,661.5	2,619.0	42.55	62.550		
9,400.0	7,500.0	7,102.9	6,817.4	33.0	36.6	-72.17	-59.6	2,005.5	2,717.4	2,673.4	44.07	61.662		
9,500.0	7,500.0	7,103.9	6,818.4	34.6	36.6	-72.20	-59.6	2,005.8	2,775.8	2,730.2	45.61	60.866		
9,600.0	7,500.0	7,104.9	6,819.3	36.2	36.6	-72.22	-59.6	2,006.1	2,836.5	2,789.4	47.15	60.154		
9,700.0	7,500.0	7,105.9	6,820.2	37.8	36.6	-72.25	-59.6	2,006.4	2,899.4	2,850.7	48.71	59.518		
9,800.0	7,500.0	7,106.9	6,821.2	39.5	36.6	-72.27	-59.6	2,006.7	2,964.3	2,914.0	50.29	58.949		
9,900.0	7,500.0	7,107.8	6,822.1	41.1	36.6	-72.30	-59.6	2,007.0	3,031.2	2,979.3	51.87	58.441		
10,000.0	7,500.0	7,108.8	6,823.0	42.8	36.6	-72.32	-59.7	2,007.3	3,099.8	3,046.3	53.46	57.988		
10,100.0	7,500.0	7,109.8	6,823.9	44.5	36.6	-72.35	-59.7	2,007.6	3,170.1	3,115.0	55.05	57.584		
10,200.0	7,500.0	7,110.8	6,824.9	46.1	36.6	-72.37	-59.7	2,007.9	3,241.9	3,185.3	56.65	57.223		
10,300.0	7,500.0	7,111.8	6,825.8	47.8	36.7	-72.40	-59.7	2,008.2	3,315.2	3,257.0	58.26	56.902		
10,400.0	7,500.0	7,112.7	6,826.7	49.5	36.7	-72.42	-59.7	2,008.5	3,389.9	3,330.0	59.88	56.615		
10,500.0	7,500.0	7,113.7	6,827.7	51.2	36.7	-72.45	-59.7	2,008.9	3,465.9	3,404.4	61.50	56.359		
10,600.0	7,500.0	7,114.7	6,828.6	52.9	36.7	-72.48	-59.7	2,009.2	3,543.0	3,479.9	63.12	56.132		
10,700.0	7,500.0	7,115.7	6,829.5	54.6	36.7	-72.50	-59.7	2,009.5	3,621.3	3,556.5	64.75	55.930		
10,800.0	7,500.0	7,116.7	6,830.5	56.3	36.7	-72.53	-59.7	2,009.8	3,700.6	3,634.2	66.38	55.750		
10,900.0	7,500.0	7,117.7	6,831.4	58.0	36.7	-72.55	-59.7	2,010.1	3,780.9	3,712.8	68.01	55.591		
11,000.0	7,500.0	7,118.6	6,832.3	59.7	36.7	-72.58	-59.8	2,010.4	3,862.1	3,792.4	69.65	55.449		
11,100.0	7,500.0	7,119.6	6,833.3	61.4	36.7	-72.60	-59.8	2,010.7	3,944.1	3,872.8	71.29	55.324		
11,200.0	7,500.0	7,120.6	6,834.2	63.1	36.7	-72.63	-59.8	2,011.0	4,027.0	3,954.1	72.94	55.214		
11,300.0	7,500.0	7,121.6	6,835.1	64.8	36.7	-72.65	-59.8	2,011.3	4,110.7	4,036.1	74.58	55.116		
11,400.0	7,500.0	7,122.6	6,836.1	66.5	36.7	-72.68	-59.8	2,011.6	4,195.0	4,118.8	76.23	55.031		
11,500.0	7,500.0	7,123.5	6,837.0	68.2	36.7	-72.70	-59.8	2,011.9	4,280.1	4,202.2	77.88	54.956		
11,600.0	7,500.0	7,124.5	6,837.9	70.0	36.7	-72.73	-59.8	2,012.2	4,365.7	4,286.2	79.54	54.891		
11,700.0	7,500.0	7,125.5	6,838.9	71.7	36.7	-72.75	-59.8	2,012.5	4,452.0	4,370.8	81.19	54.834		
11,800.0	7,500.0	7,126.5	6,839.8	73.4	36.7	-72.78	-59.8	2,012.8	4,538.8	4,456.0	82.85	54.785		
11,900.0	7,500.0	7,127.5	6,840.7	75.1	36.7	-72.80	-59.8	2,013.2	4,626.2	4,541.7	84.51	54.743		
12,000.0	7,500.0	7,128.4	6,841.7	76.9	36.8	-72.83	-59.9	2,013.5	4,714.1	4,627.9	86.17	54.708		
12,100.0	7,500.0	7,129.4	6,842.6	78.6	36.8	-72.85	-59.9	2,013.8	4,802.4	4,714.6	87.83	54.678		
12,200.0	7,500.0	7,130.4	6,843.5	80.3	36.8	-72.88	-59.9	2,014.1	4,891.2	4,801.7	89.49	54.654		
12,300.0	7,500.0	7,131.4	6,844.5	82.0	36.8	-72.90	-59.9	2,014.4	4,980.4	4,889.2	91.16	54.634		
12,400.0	7,500.0	7,132.4	6,845.4	83.8	36.8	-72.93	-59.9	2,014.7	5,070.0	4,977.2	92.83	54.618		
12,500.0	7,500.0	7,133.4	6,846.3	85.5	36.8	-72.95	-59.9	2,015.0	5,160.0	5,065.5	94.49	54.607		
12,600.0	7,500.0	7,134.3	6,847.3	87.2	36.8	-72.98	-59.9	2,015.3	5,250.4	5,154.2	96.16	54.598 SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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							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	-90.00	0.0	-458.2	458.2					
100.0	100.0	100.0	100.0	0.2	0.2	-90.00	0.0	-458.2	458.2	457.9	0.30	1,508.664		
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-458.2	458.2	457.5	0.65	701.892		
228.4	228.4	228.4	228.4	0.4	0.4	-89.99	0.1	-458.2	458.2	457.4	0.75	609.177		
300.0	300.0	300.0	300.0	0.5	0.5	-89.89	0.9	-458.2	458.2	457.2	1.00	457.092		
400.0	400.0	399.9	399.9	0.7	0.7	-49.65	3.5	-458.2	457.6	456.3	1.36	337.155		
500.0	500.0	499.8	499.7	0.9	0.9	-49.37	7.8	-458.2	455.9	454.2	1.72	264.838		
600.0	599.9	599.6	599.3	1.0	1.1	-49.04	13.9	-458.2	453.2	451.1	2.10	215.684		
700.0	699.7	699.5	698.9	1.2	1.3	-48.70	21.4	-458.2	449.3	446.8	2.49	180.153		
800.0	799.4	799.3	798.5	1.4	1.5	-48.41	28.9	-458.2	444.9	442.0	2.89	153.755		
900.0	899.2	899.2	898.0	1.6	1.7	-48.10	36.4	-458.2	440.5	437.2	3.30	133.623		
1,000.0	998.9	999.1	997.6	1.8	1.9	-47.79	44.0	-458.2	436.1	432.4	3.70	117.810		
1,100.0	1,098.7	1,099.0	1,097.2	2.1	2.1	-47.48	51.5	-458.2	431.7	427.6	4.11	105.084		
1,200.0	1,198.5	1,198.8	1,196.8	2.3	2.3	-47.16	59.0	-458.2	427.3	422.8	4.52	94.635		
1,300.0	1,298.2	1,298.8	1,296.4	2.5	2.6	-60.75	66.6	-458.2	423.6	418.6	4.93	85.879		
1,400.0	1,397.9	1,398.7	1,396.1	2.7	2.8	-72.74	74.1	-458.2	421.0	415.7	5.36	78.579		
1,450.9	1,448.6	1,449.6	1,446.9	2.8	2.9	-78.03	78.0	-458.2	420.2	414.6	5.58	75.334		
1,500.0	1,497.6	1,498.7	1,495.8	2.9	3.0	-78.08	81.7	-458.2	419.5	413.7	5.79	72.457		
1,600.0	1,597.2	1,598.7	1,595.5	3.1	3.2	-78.18	89.2	-458.2	418.2	412.0	6.22	67.188		
1,700.0	1,696.9	1,698.7	1,695.2	3.3	3.4	-78.28	96.7	-458.2	416.9	410.2	6.66	62.592		
1,800.0	1,796.5	1,798.7	1,794.9	3.6	3.6	-78.38	104.3	-458.2	415.5	408.4	7.10	58.549		
1,900.0	1,896.1	1,898.7	1,894.6	3.8	3.9	-78.48	111.8	-458.2	414.2	406.7	7.54	54.968		
2,000.0	1,995.8	1,998.7	1,994.3	4.0	4.1	-78.59	119.4	-458.2	412.9	404.9	7.97	51.774		
2,100.0	2,095.4	2,098.6	2,094.1	4.2	4.3	-78.69	126.9	-458.2	411.6	403.1	8.41	48.909		
2,200.0	2,195.1	2,198.6	2,193.8	4.4	4.5	-78.79	134.5	-458.2	410.2	401.4	8.86	46.326		
2,300.0	2,294.7	2,298.6	2,293.5	4.7	4.7	-78.89	142.0	-458.2	408.9	399.6	9.30	43.984		
2,400.0	2,394.4	2,398.6	2,393.2	4.9	4.9	-79.00	149.5	-458.2	407.6	397.8	9.74	41.853		
2,500.0	2,494.0	2,498.6	2,492.9	5.1	5.2	-79.10	157.1	-458.2	406.3	396.1	10.18	39.905		
2,600.0	2,593.6	2,598.6	2,592.6	5.3	5.4	-79.21	164.6	-458.2	404.9	394.3	10.62	38.118		
2,700.0	2,693.3	2,698.6	2,692.3	5.6	5.6	-79.32	172.2	-458.2	403.6	392.6	11.07	36.473		
2,800.0	2,792.9	2,798.6	2,792.0	5.8	5.8	-79.42	179.7	-458.2	402.3	390.8	11.51	34.954		
2,900.0	2,892.6	2,898.5	2,891.7	6.0	6.0	-79.53	187.3	-458.2	401.0	389.0	11.95	33.546		
3,000.0	2,992.2	2,998.5	2,991.4	6.2	6.3	-79.64	194.8	-458.2	399.7	387.3	12.40	32.239		
3,100.0	3,091.9	3,098.5	3,091.1	6.5	6.5	-79.75	202.3	-458.2	398.4	385.5	12.84	31.022		
3,200.0	3,191.5	3,198.5	3,190.8	6.7	6.7	-79.86	209.9	-458.2	397.1	383.8	13.29	29.885		
3,300.0	3,291.2	3,298.5	3,290.5	6.9	6.9	-79.97	217.4	-458.2	395.8	382.0	13.73	28.822		
3,400.0	3,390.8	3,398.5	3,390.2	7.1	7.1	-80.08	225.0	-458.2	394.5	380.3	14.18	27.825		
3,500.0	3,490.4	3,498.5	3,489.9	7.4	7.3	-80.20	232.5	-458.2	393.1	378.5	14.62	26.889		
3,600.0	3,590.1	3,598.5	3,589.6	7.6	7.6	-80.31	240.1	-458.2	391.8	376.8	15.07	26.008		
3,700.0	3,689.7	3,698.5	3,689.3	7.8	7.8	-80.42	247.6	-458.2	390.5	375.0	15.51	25.177		
3,800.0	3,789.4	3,798.4	3,789.0	8.1	8.0	-80.54	255.1	-458.2	389.2	373.3	15.96	24.392		
3,900.0	3,889.0	3,898.4	3,888.7	8.3	8.2	-80.65	262.7	-458.2	387.9	371.5	16.40	23.650		
4,000.0	3,988.7	3,998.4	3,988.4	8.5	8.4	-80.77	270.2	-458.2	386.6	369.8	16.85	22.947		
4,100.0	4,088.3	4,098.4	4,088.1	8.7	8.7	-80.89	277.8	-458.2	385.3	368.1	17.30	22.281		
4,200.0	4,187.9	4,198.4	4,187.8	9.0	8.9	-81.00	285.3	-458.2	384.1	366.3	17.74	21.647		
4,300.0	4,287.6	4,298.4	4,287.5	9.2	9.1	-81.12	292.9	-458.2	382.8	364.6	18.19	21.045		
4,400.0	4,387.2	4,398.4	4,387.2	9.4	9.3	-81.24	300.4	-458.2	381.5	362.8	18.63	20.472		
4,500.0	4,486.9	4,498.4	4,486.9	9.6	9.5	-81.36	307.9	-458.2	380.2	361.1	19.08	19.925		
4,600.0	4,586.5	4,598.4	4,586.6	9.9	9.7	-81.48	315.5	-458.2	378.9	359.4	19.53	19.404		
4,700.0	4,686.2	4,698.3	4,686.3	10.1	10.0	-81.60	323.0	-458.2	377.6	357.6	19.97	18.905		
4,800.0	4,785.8	4,798.3	4,786.0	10.3	10.2	-81.73	330.6	-458.2	376.3	355.9	20.42	18.429		
4,900.0	4,885.4	4,898.3	4,885.8	10.6	10.4	-81.85	338.1	-458.2	375.0	354.2	20.87	17.973		

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 2B-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 2B-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	
5,000.0	4,985.1	4,998.3	4,985.5	10.8	10.6	-81.97	345.7	-458.2	373.8	352.4	21.31	17.536	
5,100.0	5,084.7	5,098.3	5,085.2	11.0	10.8	-82.10	353.2	-458.2	372.5	350.7	21.76	17.117	
5,200.0	5,184.4	5,198.3	5,184.9	11.2	11.1	-82.23	360.7	-458.2	371.2	349.0	22.21	16.715	
5,300.0	5,284.0	5,298.3	5,284.6	11.5	11.3	-82.35	368.3	-458.2	369.9	347.3	22.65	16.329	
5,400.0	5,383.7	5,398.3	5,384.3	11.7	11.5	-82.48	375.8	-458.2	368.6	345.5	23.10	15.958	
5,500.0	5,483.3	5,498.2	5,484.0	11.9	11.7	-82.61	383.4	-458.2	367.4	343.8	23.55	15.601	
5,600.0	5,583.0	5,598.2	5,583.7	12.1	11.9	-82.74	390.9	-458.2	366.1	342.1	24.00	15.257	
5,700.0	5,682.6	5,698.2	5,683.4	12.4	12.2	-82.87	398.5	-458.2	364.8	340.4	24.44	14.926	
5,800.0	5,782.2	5,798.2	5,783.1	12.6	12.4	-83.00	406.0	-458.2	363.6	338.7	24.89	14.607	
5,900.0	5,881.9	5,898.2	5,882.8	12.8	12.6	-83.13	413.5	-458.2	362.3	337.0	25.34	14.299	
6,000.0	5,981.5	5,998.2	5,982.5	13.1	12.8	-83.26	421.1	-458.2	361.0	335.3	25.78	14.002	
6,100.0	6,081.2	6,098.2	6,082.2	13.3	13.0	-83.40	428.6	-458.2	359.8	333.6	26.23	13.715	
6,200.0	6,180.8	6,198.2	6,181.9	13.5	13.2	-83.53	436.2	-458.2	358.5	331.8	26.68	13.438	
6,300.0	6,280.5	6,298.2	6,281.6	13.7	13.5	-83.67	443.7	-458.2	357.3	330.1	27.13	13.170	
6,400.0	6,380.1	6,398.1	6,381.3	14.0	13.7	-83.81	451.2	-458.2	356.0	328.4	27.57	12.911	
6,500.0	6,479.7	6,498.1	6,481.0	14.2	13.9	-83.94	458.8	-458.2	354.8	326.7	28.02	12.660	
6,600.0	6,579.4	6,598.1	6,580.7	14.4	14.1	-84.08	466.3	-458.2	353.5	325.0	28.47	12.417	
6,700.0	6,679.0	6,698.1	6,680.4	14.7	14.3	-84.22	473.9	-458.2	352.3	323.3	28.92	12.182	
6,800.0	6,778.7	6,798.1	6,780.1	14.9	14.6	-84.36	481.4	-458.2	351.0	321.7	29.36	11.954	
6,901.0	6,879.3	6,899.1	6,880.8	15.1	14.8	-84.51	489.0	-458.2	349.8	319.9	29.82	11.731	
6,950.0	6,928.3	6,948.0	6,929.6	15.2	14.9	5.93	492.7	-458.2	349.0	319.1	29.99	11.640	
7,000.0	6,978.2	6,997.7	6,979.1	15.2	15.0	79.82	496.5	-458.2	348.1	318.0	30.10	11.564	
7,050.0	7,027.7	7,046.6	7,027.9	15.2	15.1	85.61	500.2	-458.2	347.3	317.1	30.17	11.512	
7,100.0	7,076.5	7,094.4	7,075.5	15.1	15.2	89.32	503.8	-458.2	346.9	316.7	30.16	11.500	
7,100.9	7,077.3	7,095.2	7,076.3	15.1	15.2	89.39	503.8	-458.2	346.9	316.7	30.16	11.501 CC	
7,150.0	7,124.1	7,140.7	7,121.8	15.0	15.3	92.81	507.3	-458.2	347.4	317.4	30.09	11.547	
7,200.0	7,170.3	7,189.6	7,170.6	14.9	15.4	96.38	509.0	-458.2	349.4	319.4	29.91	11.681	
7,250.0	7,214.6	7,240.6	7,221.5	14.8	15.4	99.80	506.5	-458.2	352.5	322.9	29.63	11.899	
7,300.0	7,256.7	7,293.9	7,274.2	14.6	15.4	103.08	498.9	-458.2	356.9	327.6	29.25	12.202	
7,350.0	7,296.2	7,349.7	7,328.4	14.4	15.3	106.23	485.9	-458.2	362.3	333.5	28.78	12.589	
7,400.0	7,333.0	7,408.3	7,383.8	14.2	15.2	109.25	466.5	-458.2	368.6	340.4	28.23	13.059	
7,450.0	7,366.7	7,470.0	7,439.5	14.1	15.0	112.11	440.1	-458.2	375.5	347.9	27.61	13.603	
7,500.0	7,397.1	7,535.1	7,494.9	13.9	14.8	114.79	405.9	-458.2	382.8	355.9	26.95	14.206	
7,550.0	7,423.8	7,603.9	7,548.8	13.8	14.6	117.25	363.3	-458.2	390.2	363.9	26.28	14.846	
7,600.0	7,446.8	7,676.3	7,599.6	13.7	14.3	119.47	311.8	-458.2	397.3	371.6	25.65	15.488	
7,650.0	7,465.8	7,752.4	7,645.6	13.6	14.1	121.38	251.2	-458.2	403.7	378.6	25.10	16.084	
7,700.0	7,480.8	7,831.9	7,684.5	13.6	13.9	122.95	182.0	-458.2	409.2	384.5	24.70	16.568	
7,750.0	7,491.5	7,914.3	7,714.5	13.7	13.9	124.12	105.2	-458.2	413.4	388.9	24.49	16.880	
7,800.0	7,497.9	7,999.0	7,733.4	13.8	13.9	124.86	22.9	-458.2	416.1	391.6	24.52	16.968	
7,848.8	7,500.0	8,082.8	7,740.0	13.9	14.2	125.12	-60.6	-458.2	417.1	392.3	24.82	16.808	
7,900.0	7,500.0	8,135.3	7,740.0	14.1	14.4	125.13	-113.2	-458.2	417.1	391.9	25.22	16.539	
8,000.0	7,500.0	8,235.3	7,740.0	14.7	14.9	125.13	-213.2	-458.2	417.1	390.9	26.19	15.925	
8,100.0	7,500.0	8,335.3	7,740.0	15.4	15.7	125.13	-313.2	-458.2	417.1	389.7	27.43	15.205	
8,200.0	7,500.0	8,435.3	7,740.0	16.3	16.6	125.12	-413.2	-458.2	417.1	388.2	28.91	14.429	
8,300.0	7,500.0	8,535.3	7,740.0	17.3	17.6	125.12	-513.2	-458.2	417.1	386.5	30.58	13.639	
8,400.0	7,500.0	8,635.3	7,740.0	18.5	18.7	125.12	-613.2	-458.2	417.1	384.7	32.43	12.863	
8,500.0	7,500.0	8,735.3	7,740.0	19.7	19.9	125.12	-713.2	-458.2	417.1	382.7	34.42	12.120	
8,600.0	7,500.0	8,835.3	7,740.0	21.0	21.2	125.12	-813.2	-458.2	417.1	380.6	36.52	11.422	
8,700.0	7,500.0	8,935.3	7,740.0	22.4	22.6	125.12	-913.2	-458.2	417.1	378.4	38.73	10.771	
8,800.0	7,500.0	9,035.3	7,740.0	23.8	24.0	125.12	-1,013.2	-458.2	417.1	376.1	41.02	10.170	
8,900.0	7,500.0	9,135.3	7,740.0	25.3	25.4	125.12	-1,113.2	-458.2	417.1	373.8	43.38	9.617	
9,000.0	7,500.0	9,235.3	7,740.0	26.7	26.9	125.12	-1,213.2	-458.2	417.1	371.3	45.79	9.109	

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 2B-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 2B-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
9,100.0	7,500.0	9,335.3	7,740.0	28.3	28.4	125.12	-1,313.2	-458.2	417.1	368.9	48.26	8.643	
9,200.0	7,500.0	9,435.3	7,740.0	29.8	30.0	125.12	-1,413.2	-458.2	417.1	366.4	50.78	8.215	
9,300.0	7,500.0	9,535.3	7,740.0	31.4	31.5	125.12	-1,513.2	-458.2	417.1	363.8	53.33	7.823	
9,400.0	7,500.0	9,635.3	7,740.0	33.0	33.1	125.12	-1,613.2	-458.2	417.1	361.2	55.91	7.462	
9,500.0	7,500.0	9,735.3	7,740.0	34.6	34.7	125.12	-1,713.2	-458.2	417.1	358.6	58.52	7.129	
9,600.0	7,500.0	9,835.3	7,740.0	36.2	36.3	125.12	-1,813.2	-458.2	417.2	356.0	61.15	6.822	
9,700.0	7,500.0	9,935.3	7,740.0	37.8	38.0	125.12	-1,913.2	-458.2	417.2	353.3	63.80	6.538	
9,800.0	7,500.0	10,035.3	7,740.0	39.5	39.6	125.12	-2,013.2	-458.2	417.2	350.7	66.48	6.275	
9,900.0	7,500.0	10,135.3	7,740.0	41.1	41.3	125.12	-2,113.2	-458.2	417.2	348.0	69.17	6.031	
10,000.0	7,500.0	10,235.3	7,740.0	42.8	42.9	125.12	-2,213.2	-458.2	417.2	345.3	71.87	5.804	
10,100.0	7,500.0	10,335.3	7,740.0	44.5	44.6	125.12	-2,313.2	-458.2	417.2	342.6	74.59	5.593	
10,200.0	7,500.0	10,435.3	7,740.0	46.1	46.2	125.12	-2,413.2	-458.2	417.2	339.8	77.32	5.396	
10,300.0	7,500.0	10,535.3	7,740.0	47.8	47.9	125.12	-2,513.2	-458.2	417.2	337.1	80.06	5.211	
10,400.0	7,500.0	10,635.3	7,740.0	49.5	49.6	125.12	-2,613.2	-458.2	417.2	334.4	82.80	5.038	
10,500.0	7,500.0	10,735.3	7,740.0	51.2	51.3	125.12	-2,713.2	-458.2	417.2	331.6	85.56	4.876	
10,600.0	7,500.0	10,835.3	7,740.0	52.9	53.0	125.12	-2,813.2	-458.2	417.2	328.8	88.33	4.723	
10,700.0	7,500.0	10,935.3	7,740.0	54.6	54.7	125.12	-2,913.2	-458.2	417.2	326.1	91.10	4.579	
10,800.0	7,500.0	11,035.3	7,740.0	56.3	56.4	125.12	-3,013.2	-458.2	417.2	323.3	93.88	4.444	
10,900.0	7,500.0	11,135.3	7,740.0	58.0	58.1	125.12	-3,113.2	-458.2	417.2	320.5	96.66	4.316	
11,000.0	7,500.0	11,235.3	7,740.0	59.7	59.8	125.12	-3,213.2	-458.2	417.2	317.7	99.45	4.195	
11,100.0	7,500.0	11,335.3	7,740.0	61.4	61.5	125.12	-3,313.2	-458.2	417.2	314.9	102.25	4.080	
11,200.0	7,500.0	11,435.3	7,740.0	63.1	63.2	125.12	-3,413.2	-458.2	417.2	312.1	105.04	3.971	
11,300.0	7,500.0	11,535.3	7,740.0	64.8	64.9	125.12	-3,513.2	-458.2	417.2	309.3	107.85	3.868	
11,400.0	7,500.0	11,635.3	7,740.0	66.5	66.6	125.12	-3,613.2	-458.2	417.2	306.5	110.66	3.770	
11,500.0	7,500.0	11,735.3	7,740.0	68.2	68.3	125.12	-3,713.2	-458.2	417.2	303.7	113.47	3.677	
11,600.0	7,500.0	11,835.3	7,740.0	70.0	70.1	125.12	-3,813.2	-458.2	417.2	300.9	116.28	3.588	
11,700.0	7,500.0	11,935.3	7,740.0	71.7	71.8	125.12	-3,913.2	-458.2	417.2	298.1	119.10	3.503	
11,800.0	7,500.0	12,035.3	7,740.0	73.4	73.5	125.12	-4,013.2	-458.2	417.2	295.3	121.92	3.422	
11,900.0	7,500.0	12,135.3	7,740.0	75.1	75.2	125.12	-4,113.2	-458.2	417.2	292.4	124.74	3.344	
12,000.0	7,500.0	12,235.3	7,740.0	76.9	76.9	125.12	-4,213.2	-458.2	417.2	289.6	127.57	3.270	
12,100.0	7,500.0	12,335.3	7,740.0	78.6	78.7	125.12	-4,313.2	-458.2	417.2	286.8	130.39	3.199	
12,200.0	7,500.0	12,435.3	7,740.0	80.3	80.4	125.12	-4,413.2	-458.2	417.2	284.0	133.22	3.132	
12,300.0	7,500.0	12,535.3	7,740.0	82.0	82.1	125.12	-4,513.2	-458.2	417.2	281.1	136.05	3.066	
12,400.0	7,500.0	12,635.3	7,740.0	83.8	83.9	125.12	-4,613.2	-458.2	417.2	278.3	138.89	3.004	
12,500.0	7,500.0	12,735.3	7,740.0	85.5	85.6	125.12	-4,713.2	-458.2	417.2	275.5	141.72	2.944	
12,600.0	7,500.0	12,835.3	7,740.0	87.2	87.3	125.12	-4,813.2	-458.3	417.2	272.6	144.56	2.886	
12,700.0	7,500.0	12,935.3	7,740.0	89.0	89.0	125.12	-4,913.2	-458.3	417.2	269.8	147.40	2.830	
12,800.0	7,500.0	13,035.3	7,740.0	90.7	90.8	125.12	-5,013.2	-458.3	417.2	267.0	150.24	2.777	
12,900.0	7,500.0	13,135.3	7,740.0	92.4	92.5	125.12	-5,113.2	-458.3	417.2	264.1	153.08	2.725	
12,986.8	7,500.0	13,222.1	7,740.0	93.9	94.0	125.12	-5,200.0	-458.3	417.2	261.7	155.55	2.682	
13,000.0	7,500.0	13,235.3	7,740.0	94.2	94.3	125.12	-5,213.2	-458.3	417.2	261.3	155.92	2.676	
13,058.5	7,500.0	13,293.8	7,740.0	95.2	95.3	125.08	-5,271.7	-458.3	417.6	260.0	157.61	2.649	
13,100.0	7,500.0	13,335.3	7,740.0	95.9	96.0	125.04	-5,313.2	-458.3	418.0	259.1	158.86	2.631	
13,200.0	7,500.0	13,435.3	7,740.0	97.6	97.7	124.95	-5,413.1	-458.3	419.0	257.1	161.89	2.588	
13,300.0	7,500.0	13,535.3	7,740.0	99.4	99.5	124.85	-5,513.1	-458.3	420.0	255.1	164.92	2.547	
13,400.0	7,500.0	13,635.3	7,740.0	101.1	101.2	124.75	-5,613.1	-458.3	421.1	253.1	167.97	2.507	
13,500.0	7,500.0	13,735.3	7,740.0	102.9	102.9	124.65	-5,713.1	-458.3	422.1	251.1	171.02	2.468	
13,600.0	7,500.0	13,835.3	7,740.0	104.6	104.7	124.56	-5,813.1	-458.3	423.1	249.1	174.07	2.431	
13,700.0	7,500.0	13,935.2	7,740.0	106.3	106.4	124.46	-5,913.1	-458.3	424.2	247.0	177.13	2.395	
13,800.0	7,500.0	14,035.2	7,740.0	108.1	108.1	124.37	-6,013.1	-458.3	425.2	245.0	180.20	2.360	
13,900.0	7,500.0	14,135.2	7,740.0	109.8	109.9	124.27	-6,113.1	-458.3	426.2	243.0	183.27	2.326	
14,000.0	7,500.0	14,235.2	7,740.0	111.6	111.6	124.18	-6,213.1	-458.3	427.3	240.9	186.35	2.293	

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 2B-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 2B-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		
14,100.0	7,500.0	14,335.2	7,740.0	113.3	113.4	124.08	-6,313.1	-458.3	428.3	238.9	189.43	2.261		
14,200.0	7,500.0	14,435.2	7,740.0	115.0	115.1	123.99	-6,413.1	-458.3	429.4	236.8	192.52	2.230		
14,300.0	7,500.0	14,535.2	7,740.0	116.8	116.9	123.89	-6,513.1	-458.3	430.4	234.8	195.62	2.200		
14,400.0	7,500.0	14,635.2	7,740.0	118.5	118.6	123.80	-6,613.1	-458.3	431.4	232.7	198.72	2.171		
14,500.0	7,500.0	14,735.2	7,740.0	120.3	120.3	123.71	-6,713.0	-458.3	432.5	230.6	201.83	2.143		
14,600.0	7,500.0	14,835.2	7,740.0	122.0	122.1	123.62	-6,813.0	-458.3	433.5	228.6	204.94	2.115		
14,700.0	7,500.0	14,935.2	7,740.0	123.7	123.8	123.53	-6,913.0	-458.3	434.6	226.5	208.06	2.089		
14,800.0	7,500.0	15,035.2	7,740.0	125.5	125.6	123.43	-7,013.0	-458.3	435.6	224.4	211.18	2.063		
14,900.0	7,500.0	15,135.2	7,740.0	127.2	127.3	123.34	-7,113.0	-458.3	436.7	222.3	214.31	2.038		
15,000.0	7,500.0	15,235.1	7,740.0	129.0	129.1	123.25	-7,213.0	-458.3	437.7	220.3	217.44	2.013		
15,100.0	7,500.0	15,335.1	7,740.0	130.7	130.8	123.16	-7,313.0	-458.3	438.7	218.2	220.57	1.989		
15,200.0	7,500.0	15,435.1	7,740.0	132.5	132.5	123.08	-7,413.0	-458.3	439.8	216.1	223.72	1.966		
15,300.0	7,500.0	15,535.1	7,740.0	134.2	134.3	122.99	-7,513.0	-458.3	440.8	214.0	226.86	1.943		
15,400.0	7,500.0	15,635.1	7,740.0	136.0	136.0	122.90	-7,613.0	-458.3	441.9	211.9	230.01	1.921		
15,500.0	7,500.0	15,735.1	7,740.0	137.7	137.8	122.81	-7,713.0	-458.3	443.0	209.8	233.17	1.900		
15,600.0	7,500.0	15,835.1	7,740.0	139.4	139.5	122.72	-7,813.0	-458.3	444.0	207.7	236.33	1.879		
15,706.0	7,500.0	15,936.0	7,740.0	141.3	141.3	122.63	-7,913.9	-458.3	445.2	205.5	239.60	1.858 ES, SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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		
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	9.8	9.8					
100.0	100.0	100.0	100.0	0.2	0.2	90.00	0.0	9.8	9.8	9.5	0.30	32.256		
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	9.8	9.8	9.1	0.65	15.007		
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	9.8	9.8	8.8	1.00	9.778	CC, ES	
400.0	400.0	400.0	400.0	0.7	0.7	133.69	0.0	9.8	10.4	9.0	1.35	7.681		
500.0	500.0	499.9	499.9	0.9	0.9	138.63	0.8	10.2	12.6	10.9	1.70	7.381		
600.0	599.9	599.7	599.7	1.0	1.0	139.94	3.1	11.3	16.6	14.6	2.06	8.075		
700.0	699.7	699.5	699.3	1.2	1.2	139.25	7.0	13.2	22.5	20.1	2.42	9.278		
800.0	799.4	799.1	798.8	1.4	1.4	136.76	12.5	15.9	29.6	26.7	2.80	10.539		
900.0	899.2	898.5	897.9	1.6	1.6	132.73	19.5	19.3	37.3	34.1	3.20	11.658		
1,000.0	998.9	998.2	997.2	1.8	1.8	129.12	27.3	23.1	45.5	41.9	3.60	12.648		
1,100.0	1,098.7	1,097.8	1,096.4	2.1	2.0	126.62	35.0	26.9	53.9	49.9	4.00	13.461		
1,200.0	1,198.5	1,197.4	1,195.7	2.3	2.3	124.80	42.8	30.6	62.3	57.9	4.41	14.136		
1,300.0	1,298.2	1,297.1	1,295.0	2.5	2.5	109.98	50.6	34.4	70.1	65.3	4.82	14.533		
1,400.0	1,397.9	1,396.9	1,394.4	2.7	2.7	97.90	58.4	38.2	76.5	71.3	5.25	14.580		
1,450.9	1,448.6	1,447.7	1,445.0	2.8	2.8	92.91	62.4	40.1	79.3	73.8	5.47	14.495		
1,500.0	1,497.6	1,496.8	1,493.9	2.9	2.9	93.27	66.2	42.0	81.7	76.0	5.68	14.389		
1,600.0	1,597.2	1,596.6	1,593.4	3.1	3.2	93.94	74.0	45.8	86.7	80.6	6.11	14.191		
1,700.0	1,696.9	1,696.5	1,692.9	3.3	3.4	94.53	81.8	49.6	91.8	85.2	6.55	14.016		
1,800.0	1,796.5	1,796.4	1,792.4	3.6	3.6	95.07	89.6	53.4	96.8	89.8	6.98	13.861		
1,900.0	1,896.1	1,896.2	1,891.8	3.8	3.8	95.55	97.4	57.2	101.9	94.4	7.42	13.723		
2,000.0	1,995.8	1,996.1	1,991.3	4.0	4.1	95.98	105.2	61.0	106.9	99.0	7.86	13.598		
2,100.0	2,095.4	2,096.0	2,090.8	4.2	4.3	96.38	113.0	64.8	112.0	103.7	8.30	13.485		
2,200.0	2,195.1	2,195.9	2,190.3	4.4	4.5	96.74	120.8	68.6	117.0	108.3	8.74	13.383		
2,300.0	2,294.7	2,295.7	2,289.8	4.7	4.7	97.07	128.6	72.4	122.1	112.9	9.19	13.291		
2,400.0	2,394.4	2,395.6	2,389.3	4.9	5.0	97.37	136.4	76.2	127.2	117.5	9.63	13.206		
2,500.0	2,494.0	2,495.5	2,488.8	5.1	5.2	97.65	144.2	80.0	132.3	122.2	10.07	13.128		
2,600.0	2,593.6	2,595.3	2,588.3	5.3	5.4	97.91	152.0	83.8	137.3	126.8	10.52	13.056		
2,700.0	2,693.3	2,695.2	2,687.8	5.6	5.7	98.16	159.8	87.5	142.4	131.4	10.96	12.990		
2,800.0	2,792.9	2,795.1	2,787.3	5.8	5.9	98.38	167.6	91.3	147.5	136.1	11.41	12.929		
2,900.0	2,892.6	2,894.9	2,886.8	6.0	6.1	98.59	175.4	95.1	152.6	140.7	11.85	12.872		
3,000.0	2,992.2	2,994.8	2,986.3	6.2	6.3	98.79	183.2	98.9	157.7	145.4	12.30	12.819		
3,100.0	3,091.9	3,094.7	3,085.7	6.5	6.6	98.97	191.0	102.7	162.8	150.0	12.75	12.769		
3,200.0	3,191.5	3,194.5	3,185.2	6.7	6.8	99.15	198.8	106.5	167.9	154.7	13.19	12.723		
3,300.0	3,291.2	3,294.4	3,284.7	6.9	7.0	99.31	206.6	110.3	172.9	159.3	13.64	12.680		
3,400.0	3,390.8	3,394.3	3,384.2	7.1	7.3	99.46	214.4	114.1	178.0	164.0	14.09	12.639		
3,500.0	3,490.4	3,494.1	3,483.7	7.4	7.5	99.61	222.2	117.9	183.1	168.6	14.53	12.601		
3,600.0	3,590.1	3,594.0	3,583.2	7.6	7.7	99.74	230.0	121.7	188.2	173.3	14.98	12.565		
3,700.0	3,689.7	3,693.9	3,682.7	7.8	8.0	99.87	237.8	125.5	193.3	177.9	15.43	12.531		
3,800.0	3,789.4	3,793.8	3,782.2	8.1	8.2	100.00	245.6	129.3	198.4	182.6	15.88	12.499		
3,900.0	3,889.0	3,893.6	3,881.7	8.3	8.4	100.12	253.4	133.1	203.5	187.2	16.32	12.468		
4,000.0	3,988.7	3,993.5	3,981.2	8.5	8.6	100.23	261.1	136.9	208.6	191.9	16.77	12.439		
4,100.0	4,088.3	4,093.4	4,080.7	8.7	8.9	100.33	268.9	140.7	213.7	196.5	17.22	12.412		
4,200.0	4,187.9	4,193.2	4,180.2	9.0	9.1	100.43	276.7	144.5	218.8	201.2	17.67	12.386		
4,300.0	4,287.6	4,293.1	4,279.6	9.2	9.3	100.53	284.5	148.3	223.9	205.8	18.12	12.361		
4,400.0	4,387.2	4,393.0	4,379.1	9.4	9.6	100.62	292.3	152.1	229.0	210.5	18.56	12.337		
4,500.0	4,486.9	4,492.8	4,478.6	9.6	9.8	100.71	300.1	155.9	234.1	215.1	19.01	12.315		
4,600.0	4,586.5	4,592.7	4,578.1	9.9	10.0	100.80	307.9	159.6	239.2	219.8	19.46	12.293		
4,700.0	4,686.2	4,692.6	4,677.6	10.1	10.3	100.88	315.7	163.4	244.3	224.4	19.91	12.273		
4,800.0	4,785.8	4,792.4	4,777.1	10.3	10.5	100.95	323.5	167.2	249.5	229.1	20.36	12.253		
4,900.0	4,885.4	4,892.3	4,876.6	10.6	10.7	101.03	331.3	171.0	254.6	233.8	20.81	12.234		
5,000.0	4,985.1	4,992.2	4,976.1	10.8	11.0	101.10	339.1	174.8	259.7	238.4	21.26	12.216		

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 2B-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 2B-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	5,084.7	5,092.1	5,075.6	11.0	11.2	101.17	346.9	178.6	264.8	243.1	21.70	12.199	
5,200.0	5,184.4	5,191.9	5,175.1	11.2	11.4	101.23	354.7	182.4	269.9	247.7	22.15	12.182	
5,300.0	5,284.0	5,291.8	5,274.6	11.5	11.6	101.30	362.5	186.2	275.0	252.4	22.60	12.166	
5,400.0	5,383.7	5,391.7	5,374.1	11.7	11.9	101.36	370.3	190.0	280.1	257.0	23.05	12.151	
5,500.0	5,483.3	5,491.5	5,473.6	11.9	12.1	101.42	378.1	193.8	285.2	261.7	23.50	12.136	
5,600.0	5,583.0	5,591.4	5,573.0	12.1	12.3	101.48	385.9	197.6	290.3	266.4	23.95	12.121	
5,700.0	5,682.6	5,691.3	5,672.5	12.4	12.6	101.53	393.7	201.4	295.4	271.0	24.40	12.108	
5,800.0	5,782.2	5,791.1	5,772.0	12.6	12.8	101.58	401.5	205.2	300.5	275.7	24.85	12.094	
5,900.0	5,881.9	5,891.0	5,871.5	12.8	13.0	101.64	409.3	209.0	305.6	280.3	25.30	12.082	
6,000.0	5,981.5	5,990.9	5,971.0	13.1	13.3	101.69	417.1	212.8	310.7	285.0	25.75	12.069	
6,100.0	6,081.2	6,090.7	6,070.5	13.3	13.5	101.73	424.9	216.6	315.8	289.7	26.20	12.057	
6,200.0	6,180.8	6,190.6	6,170.0	13.5	13.7	101.78	432.7	220.4	321.0	294.3	26.64	12.046	
6,300.0	6,280.5	6,290.5	6,269.5	13.7	13.9	101.83	440.5	224.2	326.1	299.0	27.09	12.035	
6,400.0	6,380.1	6,390.4	6,369.0	14.0	14.2	101.87	448.3	228.0	331.2	303.6	27.54	12.024	
6,500.0	6,479.7	6,490.2	6,468.5	14.2	14.4	101.91	456.1	231.7	336.3	308.3	27.99	12.013	
6,600.0	6,579.4	6,590.1	6,568.0	14.4	14.6	101.95	463.9	235.5	341.4	313.0	28.44	12.003	
6,700.0	6,679.0	6,690.0	6,667.5	14.7	14.9	101.99	471.7	239.3	346.5	317.6	28.89	11.993	
6,800.0	6,778.7	6,789.8	6,766.9	14.9	15.1	102.03	479.5	243.1	351.6	322.3	29.34	11.984	
6,901.0	6,879.3	6,890.7	6,867.4	15.1	15.3	102.07	487.4	247.0	356.8	327.0	29.79	11.975	
6,950.0	6,928.3	6,939.6	6,916.1	15.2	15.4	-167.92	491.2	248.8	359.2	329.2	29.97	11.983	
7,000.0	6,978.2	6,989.1	6,965.5	15.2	15.6	-95.86	495.1	250.7	361.4	331.3	30.10	12.009	
7,050.0	7,027.7	7,037.9	7,014.1	15.2	15.7	-93.21	498.9	252.6	363.7	333.6	30.16	12.059	
7,100.0	7,076.5	7,085.6	7,061.6	15.1	15.8	-93.78	502.6	254.4	366.4	336.2	30.16	12.148	
7,150.0	7,124.1	7,131.9	7,107.7	15.0	15.9	-95.43	506.2	256.1	369.9	339.8	30.09	12.293	
7,200.0	7,170.3	7,179.3	7,155.0	14.9	16.0	-97.72	509.0	257.9	374.6	344.7	29.92	12.522	
7,250.0	7,214.6	7,229.6	7,205.2	14.8	16.0	-100.19	507.9	259.8	380.6	350.9	29.65	12.835	
7,300.0	7,256.7	7,282.3	7,257.5	14.6	16.0	-102.68	502.0	261.8	387.6	358.3	29.30	13.230	
7,350.0	7,296.2	7,337.6	7,311.6	14.4	16.0	-105.15	490.7	263.9	395.5	366.7	28.86	13.707	
7,400.0	7,333.0	7,396.0	7,367.2	14.2	15.9	-107.56	473.1	266.0	404.1	375.8	28.34	14.258	
7,450.0	7,366.7	7,457.7	7,423.8	14.1	15.8	-109.90	448.5	268.2	413.3	385.5	27.78	14.878	
7,500.0	7,397.1	7,523.2	7,480.5	13.9	15.6	-112.12	415.9	270.3	422.5	395.4	27.17	15.549	
7,550.0	7,423.8	7,592.7	7,536.2	13.8	15.4	-114.20	374.5	272.5	431.7	405.1	26.57	16.247	
7,600.0	7,446.8	7,666.5	7,589.4	13.7	15.1	-116.11	323.4	274.5	440.3	414.3	26.01	16.933	
7,650.0	7,465.8	7,744.6	7,638.1	13.6	14.9	-117.78	262.5	276.4	448.2	422.6	25.52	17.560	
7,700.0	7,480.8	7,826.7	7,679.8	13.6	14.7	-119.17	191.9	278.0	454.7	429.6	25.18	18.059	
7,750.0	7,491.5	7,912.4	7,712.2	13.7	14.7	-120.22	112.6	279.2	459.8	434.7	25.03	18.372	
7,800.0	7,497.9	8,000.8	7,732.8	13.8	14.7	-120.89	26.8	280.0	463.0	437.9	25.10	18.445	
7,848.8	7,500.0	8,088.5	7,740.0	13.9	14.9	-121.14	-60.5	280.2	464.1	438.7	25.42	18.258	
7,900.0	7,500.0	8,141.1	7,740.0	14.1	15.1	-121.14	-113.2	280.2	464.1	438.3	25.83	17.965	
8,000.0	7,500.0	8,241.1	7,740.0	14.7	15.7	-121.14	-213.2	280.2	464.1	437.3	26.84	17.294	
8,100.0	7,500.0	8,341.1	7,740.0	15.4	16.4	-121.14	-313.2	280.2	464.1	436.0	28.13	16.500	
8,200.0	7,500.0	8,441.1	7,740.0	16.3	17.2	-121.14	-413.2	280.2	464.1	434.4	29.67	15.644	
8,300.0	7,500.0	8,541.1	7,740.0	17.3	18.2	-121.14	-513.2	280.2	464.1	432.7	31.42	14.771	
8,400.0	7,500.0	8,641.1	7,740.0	18.5	19.3	-121.14	-613.2	280.2	464.1	430.8	33.36	13.914	
8,500.0	7,500.0	8,741.1	7,740.0	19.7	20.5	-121.14	-713.2	280.2	464.1	428.7	35.44	13.096	
8,600.0	7,500.0	8,841.1	7,740.0	21.0	21.7	-121.14	-813.2	280.2	464.1	426.5	37.65	12.327	
8,700.0	7,500.0	8,941.1	7,740.0	22.4	23.1	-121.14	-913.2	280.2	464.1	424.2	39.96	11.614	
8,800.0	7,500.0	9,041.1	7,740.0	23.8	24.4	-121.14	-1,013.2	280.2	464.1	421.8	42.37	10.955	
8,900.0	7,500.0	9,141.1	7,740.0	25.3	25.9	-121.14	-1,113.2	280.2	464.1	419.3	44.84	10.350	
9,000.0	7,500.0	9,241.1	7,740.0	26.7	27.3	-121.14	-1,213.2	280.2	464.1	416.7	47.38	9.796	
9,100.0	7,500.0	9,341.1	7,740.0	28.3	28.8	-121.14	-1,313.2	280.2	464.1	414.1	49.97	9.288	
9,200.0	7,500.0	9,441.1	7,740.0	29.8	30.4	-121.14	-1,413.2	280.2	464.1	411.5	52.60	8.823	

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 2B-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 2B-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	
9,300.0	7,500.0	9,541.1	7,740.0	31.4	31.9	-121.14	-1,513.2	280.2	464.1	408.8	55.27	8.397	
9,400.0	7,500.0	9,641.1	7,740.0	33.0	33.5	-121.14	-1,613.2	280.2	464.1	406.1	57.98	8.005	
9,500.0	7,500.0	9,741.1	7,740.0	34.6	35.1	-121.14	-1,713.2	280.2	464.1	403.4	60.72	7.644	
9,600.0	7,500.0	9,841.1	7,740.0	36.2	36.7	-121.14	-1,813.2	280.2	464.1	400.6	63.47	7.312	
9,700.0	7,500.0	9,941.1	7,740.0	37.8	38.3	-121.14	-1,913.2	280.2	464.1	397.9	66.26	7.005	
9,800.0	7,500.0	10,041.1	7,740.0	39.5	39.9	-121.14	-2,013.2	280.2	464.1	395.1	69.06	6.721	
9,900.0	7,500.0	10,141.1	7,740.0	41.1	41.5	-121.14	-2,113.2	280.2	464.1	392.2	71.87	6.457	
10,000.0	7,500.0	10,241.1	7,740.0	42.8	43.2	-121.14	-2,213.2	280.2	464.1	389.4	74.71	6.213	
10,100.0	7,500.0	10,341.1	7,740.0	44.5	44.8	-121.14	-2,313.2	280.2	464.1	386.6	77.55	5.985	
10,200.0	7,500.0	10,441.1	7,740.0	46.1	46.5	-121.14	-2,413.2	280.2	464.1	383.7	80.41	5.772	
10,300.0	7,500.0	10,541.1	7,740.0	47.8	48.2	-121.14	-2,513.2	280.2	464.1	380.8	83.28	5.573	
10,400.0	7,500.0	10,641.1	7,740.0	49.5	49.8	-121.14	-2,613.2	280.2	464.1	378.0	86.15	5.387	
10,500.0	7,500.0	10,741.1	7,740.0	51.2	51.5	-121.14	-2,713.2	280.2	464.1	375.1	89.04	5.212	
10,600.0	7,500.0	10,841.1	7,740.0	52.9	53.2	-121.14	-2,813.2	280.2	464.1	372.2	91.93	5.048	
10,700.0	7,500.0	10,941.1	7,740.0	54.6	54.9	-121.14	-2,913.2	280.2	464.1	369.3	94.84	4.894	
10,800.0	7,500.0	11,041.1	7,740.0	56.3	56.6	-121.14	-3,013.2	280.2	464.1	366.4	97.74	4.748	
10,900.0	7,500.0	11,141.1	7,740.0	58.0	58.3	-121.14	-3,113.2	280.2	464.1	363.5	100.66	4.611	
11,000.0	7,500.0	11,241.1	7,740.0	59.7	60.0	-121.14	-3,213.2	280.2	464.1	360.5	103.58	4.481	
11,100.0	7,500.0	11,341.1	7,740.0	61.4	61.7	-121.14	-3,313.2	280.2	464.1	357.6	106.50	4.358	
11,200.0	7,500.0	11,441.1	7,740.0	63.1	63.4	-121.14	-3,413.2	280.2	464.1	354.7	109.43	4.241	
11,300.0	7,500.0	11,541.1	7,740.0	64.8	65.1	-121.14	-3,513.2	280.2	464.1	351.8	112.37	4.130	
11,400.0	7,500.0	11,641.1	7,740.0	66.5	66.8	-121.14	-3,613.2	280.2	464.1	348.8	115.30	4.025	
11,500.0	7,500.0	11,741.1	7,740.0	68.2	68.5	-121.14	-3,713.2	280.2	464.1	345.9	118.24	3.925	
11,600.0	7,500.0	11,841.1	7,740.0	70.0	70.2	-121.14	-3,813.2	280.2	464.1	342.9	121.19	3.830	
11,700.0	7,500.0	11,941.1	7,740.0	71.7	71.9	-121.14	-3,913.2	280.2	464.1	340.0	124.13	3.739	
11,800.0	7,500.0	12,041.1	7,740.0	73.4	73.7	-121.14	-4,013.2	280.2	464.1	337.0	127.09	3.652	
11,900.0	7,500.0	12,141.1	7,740.0	75.1	75.4	-121.14	-4,113.2	280.2	464.1	334.1	130.04	3.569	
12,000.0	7,500.0	12,241.1	7,740.0	76.9	77.1	-121.14	-4,213.2	280.2	464.1	331.1	132.99	3.490	
12,100.0	7,500.0	12,341.1	7,740.0	78.6	78.8	-121.14	-4,313.2	280.2	464.1	328.2	135.95	3.414	
12,200.0	7,500.0	12,441.1	7,740.0	80.3	80.5	-121.14	-4,413.2	280.2	464.1	325.2	138.91	3.341	
12,300.0	7,500.0	12,541.1	7,740.0	82.0	82.3	-121.14	-4,513.2	280.2	464.1	322.2	141.87	3.271	
12,400.0	7,500.0	12,641.1	7,740.0	83.8	84.0	-121.14	-4,613.2	280.2	464.1	319.3	144.84	3.204	
12,500.0	7,500.0	12,741.1	7,740.0	85.5	85.7	-121.14	-4,713.2	280.2	464.1	316.3	147.80	3.140	
12,600.0	7,500.0	12,841.1	7,740.0	87.2	87.4	-121.14	-4,813.2	280.2	464.1	313.3	150.77	3.078	
12,700.0	7,500.0	12,941.1	7,740.0	89.0	89.2	-121.14	-4,913.2	280.2	464.1	310.4	153.74	3.019	
12,800.0	7,500.0	13,041.1	7,740.0	90.7	90.9	-121.14	-5,013.2	280.2	464.1	307.4	156.71	2.962	
12,900.0	7,500.0	13,141.1	7,740.0	92.4	92.6	-121.14	-5,113.2	280.2	464.1	304.4	159.68	2.906	
12,986.8	7,500.0	13,227.9	7,740.0	93.9	94.1	-121.14	-5,200.0	280.2	464.1	301.9	162.27	2.860	
13,000.0	7,500.0	13,241.1	7,740.0	94.2	94.4	-121.14	-5,213.2	280.2	464.1	301.4	162.66	2.853	
13,058.5	7,500.0	13,299.6	7,740.0	95.2	95.4	-121.17	-5,271.7	280.2	463.7	299.4	164.38	2.821	
13,100.0	7,500.0	13,341.1	7,740.0	95.9	96.1	-121.20	-5,313.2	280.2	463.3	297.7	165.55	2.798	
13,200.0	7,500.0	13,441.1	7,740.0	97.6	97.8	-121.28	-5,413.2	280.2	462.2	293.8	168.39	2.745	
13,300.0	7,500.0	13,541.1	7,740.0	99.4	99.6	-121.36	-5,513.1	280.2	461.2	289.9	171.23	2.693	
13,400.0	7,500.0	13,641.1	7,740.0	101.1	101.3	-121.44	-5,613.1	280.2	460.1	286.0	174.06	2.643	
13,500.0	7,500.0	13,741.1	7,740.0	102.9	103.0	-121.53	-5,713.1	280.2	459.0	282.1	176.88	2.595	
13,600.0	7,500.0	13,841.1	7,740.0	104.6	104.8	-121.61	-5,813.1	280.2	458.0	278.2	179.70	2.548	
13,700.0	7,500.0	13,941.0	7,740.0	106.3	106.5	-121.69	-5,913.1	280.2	456.9	274.4	182.52	2.503	
13,800.0	7,500.0	14,041.0	7,740.0	108.1	108.3	-121.77	-6,013.1	280.2	455.8	270.5	185.33	2.460	
13,900.0	7,500.0	14,141.0	7,740.0	109.8	110.0	-121.86	-6,113.1	280.2	454.8	266.6	188.13	2.417	
14,000.0	7,500.0	14,241.0	7,740.0	111.6	111.7	-121.94	-6,213.1	280.2	453.7	262.8	190.93	2.376	
14,100.0	7,500.0	14,341.0	7,740.0	113.3	113.5	-122.02	-6,313.1	280.2	452.6	258.9	193.72	2.337	
14,200.0	7,500.0	14,441.0	7,740.0	115.0	115.2	-122.11	-6,413.1	280.2	451.6	255.1	196.51	2.298	

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 2B-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 2B-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	
14,300.0	7,500.0	14,541.0	7,740.0	116.8	116.9	-122.19	-6,513.1	280.2	450.5	251.2	199.29	2.261	
14,400.0	7,500.0	14,641.0	7,740.0	118.5	118.7	-122.28	-6,613.1	280.2	449.5	247.4	202.06	2.224	
14,500.0	7,500.0	14,741.0	7,740.0	120.3	120.4	-122.36	-6,713.0	280.2	448.4	243.6	204.83	2.189	
14,600.0	7,500.0	14,841.0	7,740.0	122.0	122.2	-122.45	-6,813.0	280.2	447.3	239.8	207.59	2.155	
14,700.0	7,500.0	14,941.0	7,740.0	123.7	123.9	-122.53	-6,913.0	280.2	446.3	235.9	210.35	2.122	
14,800.0	7,500.0	15,041.0	7,740.0	125.5	125.7	-122.62	-7,013.0	280.2	445.2	232.1	213.10	2.089	
14,900.0	7,500.0	15,141.0	7,740.0	127.2	127.4	-122.71	-7,113.0	280.2	444.2	228.3	215.84	2.058	
15,000.0	7,500.0	15,240.9	7,740.0	129.0	129.1	-122.79	-7,213.0	280.2	443.1	224.6	218.58	2.027	
15,100.0	7,500.0	15,340.9	7,740.0	130.7	130.9	-122.88	-7,313.0	280.2	442.1	220.8	221.31	1.998	
15,200.0	7,500.0	15,440.9	7,740.0	132.5	132.6	-122.97	-7,413.0	280.2	441.0	217.0	224.03	1.969	
15,300.0	7,500.0	15,540.9	7,740.0	134.2	134.4	-123.06	-7,513.0	280.2	440.0	213.2	226.75	1.940	
15,400.0	7,500.0	15,640.9	7,740.0	136.0	136.1	-123.15	-7,613.0	280.2	438.9	209.5	229.46	1.913	
15,500.0	7,500.0	15,740.9	7,740.0	137.7	137.9	-123.24	-7,713.0	280.2	437.9	205.7	232.16	1.886	
15,600.0	7,500.0	15,840.9	7,740.0	139.4	139.6	-123.33	-7,813.0	280.2	436.8	202.0	234.86	1.860	
15,706.0	7,500.0	15,946.9	7,740.0	141.3	141.4	-123.42	-7,919.0	280.2	435.7	198.0	237.71	1.833 SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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		
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	19.9	19.9					
100.0	100.0	100.0	100.0	0.2	0.2	90.00	0.0	19.9	19.9	19.6	0.30	65.434		
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	19.9	19.9	19.2	0.65	30.442		
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	19.9	19.9	18.9	1.00	19.835	CC, ES	
400.0	400.0	400.0	400.0	0.7	0.7	131.87	0.0	19.9	20.4	19.1	1.35	15.130		
500.0	500.0	500.0	500.0	0.9	0.8	136.88	0.0	19.9	22.3	20.6	1.70	13.089		
600.0	599.9	599.7	599.7	1.0	1.0	141.80	0.7	20.4	26.0	24.0	2.05	12.670		
700.0	699.7	699.2	699.2	1.2	1.2	144.38	2.7	22.1	32.1	29.7	2.41	13.302		
800.0	799.4	798.7	798.6	1.4	1.4	144.56	6.0	24.8	39.6	36.8	2.77	14.264		
900.0	899.2	898.0	897.7	1.6	1.6	142.80	10.7	28.7	47.8	44.7	3.15	15.191		
1,000.0	998.9	997.1	996.5	1.8	1.8	140.03	16.6	33.6	57.0	53.4	3.54	16.109		
1,100.0	1,098.7	1,096.0	1,094.9	2.1	2.0	136.77	23.9	39.6	67.1	63.1	3.93	17.049		
1,200.0	1,198.5	1,194.6	1,192.9	2.3	2.2	133.36	32.5	46.6	78.4	74.0	4.34	18.037		
1,300.0	1,298.2	1,293.8	1,291.3	2.5	2.5	116.80	41.8	54.3	89.8	85.1	4.77	18.845		
1,400.0	1,397.9	1,393.2	1,390.0	2.7	2.7	103.29	51.2	62.0	100.1	95.0	5.20	19.267		
1,450.9	1,448.6	1,443.9	1,440.3	2.8	2.9	97.64	56.0	66.0	104.9	99.5	5.42	19.356		
1,500.0	1,497.6	1,492.8	1,488.9	2.9	3.0	97.39	60.6	69.8	109.4	103.7	5.64	19.406		
1,600.0	1,597.2	1,592.4	1,587.7	3.1	3.2	96.96	69.9	77.5	118.5	112.4	6.08	19.489		
1,700.0	1,696.9	1,692.0	1,686.5	3.3	3.5	96.59	79.3	85.2	127.5	121.0	6.52	19.556		
1,800.0	1,796.5	1,791.5	1,785.4	3.6	3.8	96.26	88.7	92.9	136.6	129.7	6.97	19.610		
1,900.0	1,896.1	1,891.1	1,884.2	3.8	4.0	95.98	98.1	100.7	145.7	138.3	7.41	19.654		
2,000.0	1,995.8	1,990.7	1,983.1	4.0	4.3	95.73	107.5	108.4	154.8	146.9	7.86	19.691		
2,100.0	2,095.4	2,090.3	2,081.9	4.2	4.6	95.51	116.9	116.1	163.9	155.6	8.31	19.722		
2,200.0	2,195.1	2,189.9	2,180.7	4.4	4.8	95.31	126.3	123.9	173.0	164.2	8.76	19.748		
2,300.0	2,294.7	2,289.5	2,279.6	4.7	5.1	95.13	135.6	131.6	182.1	172.9	9.21	19.771		
2,400.0	2,394.4	2,389.0	2,378.4	4.9	5.4	94.97	145.0	139.3	191.2	181.5	9.66	19.791		
2,500.0	2,494.0	2,488.6	2,477.2	5.1	5.6	94.82	154.4	147.1	200.3	190.2	10.11	19.808		
2,600.0	2,593.6	2,588.2	2,576.1	5.3	5.9	94.69	163.8	154.8	209.4	198.8	10.56	19.823		
2,700.0	2,693.3	2,687.8	2,674.9	5.6	6.2	94.57	173.2	162.5	218.5	207.5	11.02	19.836		
2,800.0	2,792.9	2,787.4	2,773.8	5.8	6.4	94.45	182.6	170.2	227.6	216.2	11.47	19.848		
2,900.0	2,892.6	2,887.0	2,872.6	6.0	6.7	94.35	191.9	178.0	236.7	224.8	11.92	19.858		
3,000.0	2,992.2	2,986.5	2,971.4	6.2	7.0	94.25	201.3	185.7	245.8	233.5	12.37	19.868		
3,100.0	3,091.9	3,086.1	3,070.3	6.5	7.3	94.16	210.7	193.4	254.9	242.1	12.83	19.876		
3,200.0	3,191.5	3,185.7	3,169.1	6.7	7.5	94.08	220.1	201.2	264.1	250.8	13.28	19.884		
3,300.0	3,291.2	3,285.3	3,268.0	6.9	7.8	94.00	229.5	208.9	273.2	259.4	13.73	19.891		
3,400.0	3,390.8	3,384.9	3,366.8	7.1	8.1	93.93	238.9	216.6	282.3	268.1	14.19	19.897		
3,500.0	3,490.4	3,484.5	3,465.6	7.4	8.3	93.86	248.3	224.4	291.4	276.7	14.64	19.903		
3,600.0	3,590.1	3,584.0	3,564.5	7.6	8.6	93.79	257.6	232.1	300.5	285.4	15.09	19.908		
3,700.0	3,689.7	3,683.6	3,663.3	7.8	8.9	93.73	267.0	239.8	309.6	294.1	15.55	19.913		
3,800.0	3,789.4	3,783.2	3,762.1	8.1	9.2	93.68	276.4	247.5	318.7	302.7	16.00	19.918		
3,900.0	3,889.0	3,882.8	3,861.0	8.3	9.4	93.62	285.8	255.3	327.8	311.4	16.46	19.922		
4,000.0	3,988.7	3,982.4	3,959.8	8.5	9.7	93.57	295.2	263.0	336.9	320.0	16.91	19.926		
4,100.0	4,088.3	4,082.0	4,058.7	8.7	10.0	93.52	304.6	270.7	346.1	328.7	17.36	19.930		
4,200.0	4,187.9	4,181.6	4,157.5	9.0	10.3	93.48	314.0	278.5	355.2	337.3	17.82	19.933		
4,300.0	4,287.6	4,281.1	4,256.3	9.2	10.5	93.43	323.3	286.2	364.3	346.0	18.27	19.936		
4,400.0	4,387.2	4,380.7	4,355.2	9.4	10.8	93.39	332.7	293.9	373.4	354.7	18.73	19.939		
4,500.0	4,486.9	4,480.3	4,454.0	9.6	11.1	93.35	342.1	301.7	382.5	363.3	19.18	19.942		
4,600.0	4,586.5	4,579.9	4,552.9	9.9	11.3	93.31	351.5	309.4	391.6	372.0	19.63	19.945		
4,700.0	4,686.2	4,679.5	4,651.7	10.1	11.6	93.28	360.9	317.1	400.7	380.6	20.09	19.947		
4,800.0	4,785.8	4,779.1	4,750.5	10.3	11.9	93.24	370.3	324.8	409.8	389.3	20.54	19.950		
4,900.0	4,885.4	4,878.6	4,849.4	10.6	12.2	93.21	379.6	332.6	419.0	398.0	21.00	19.952		
5,000.0	4,985.1	4,978.2	4,948.2	10.8	12.4	93.18	389.0	340.3	428.1	406.6	21.45	19.954		

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 2B-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 2B-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
5,100.0	5,084.7	5,077.8	5,047.1	11.0	12.7	93.15	398.4	348.0	437.2	415.3	21.91	19.956	
5,200.0	5,184.4	5,177.4	5,145.9	11.2	13.0	93.12	407.8	355.8	446.3	423.9	22.36	19.958	
5,300.0	5,284.0	5,277.0	5,244.7	11.5	13.3	93.09	417.2	363.5	455.4	432.6	22.82	19.960	
5,400.0	5,383.7	5,376.6	5,343.6	11.7	13.5	93.07	426.6	371.2	464.5	441.3	23.27	19.961	
5,500.0	5,483.3	5,476.1	5,442.4	11.9	13.8	93.04	436.0	379.0	473.6	449.9	23.73	19.963	
5,600.0	5,583.0	5,575.7	5,541.2	12.1	14.1	93.02	445.3	386.7	482.8	458.6	24.18	19.964	
5,700.0	5,682.6	5,675.3	5,640.1	12.4	14.4	92.99	454.7	394.4	491.9	467.2	24.64	19.966	
5,800.0	5,782.2	5,774.9	5,738.9	12.6	14.6	92.97	464.1	402.1	501.0	475.9	25.09	19.967	
5,900.0	5,881.9	5,874.5	5,837.8	12.8	14.9	92.95	473.5	409.9	510.1	484.6	25.55	19.969	
6,000.0	5,981.5	5,974.1	5,936.6	13.1	15.2	92.93	482.9	417.6	519.2	493.2	26.00	19.970	
6,100.0	6,081.2	6,073.6	6,035.4	13.3	15.5	92.91	492.3	425.3	528.3	501.9	26.45	19.971	
6,200.0	6,180.8	6,173.2	6,134.3	13.5	15.7	92.89	501.7	433.1	537.4	510.5	26.91	19.972	
6,300.0	6,280.5	6,272.8	6,233.1	13.7	16.0	92.87	511.0	440.8	546.6	519.2	27.36	19.973	
6,400.0	6,380.1	6,372.4	6,332.0	14.0	16.3	92.85	520.4	448.5	555.7	527.9	27.82	19.974	
6,500.0	6,479.7	6,472.0	6,430.8	14.2	16.6	92.83	529.8	456.2	564.8	536.5	28.27	19.975	
6,600.0	6,579.4	6,571.6	6,529.6	14.4	16.8	92.81	539.2	464.0	573.9	545.2	28.73	19.976	
6,700.0	6,679.0	6,671.1	6,628.5	14.7	17.1	92.80	548.6	471.7	583.0	553.8	29.18	19.977	
6,800.0	6,778.7	6,770.7	6,727.3	14.9	17.4	92.78	558.0	479.4	592.1	562.5	29.64	19.978	
6,901.0	6,879.3	6,871.3	6,827.1	15.1	17.7	92.76	567.4	487.2	601.3	571.2	30.10	19.979	
6,950.0	6,928.3	6,920.1	6,875.5	15.2	17.8	-176.88	572.0	491.0	606.0	575.7	30.29	20.005	
7,000.0	6,978.2	6,975.9	6,931.1	15.2	17.9	-103.99	574.5	495.4	611.0	580.6	30.39	20.104	
7,050.0	7,027.7	7,032.2	6,987.1	15.2	17.9	-99.82	571.5	499.8	615.9	585.5	30.40	20.262	
7,100.0	7,076.5	7,089.0	7,043.1	15.1	17.9	-98.28	563.0	504.1	620.7	590.4	30.32	20.476	
7,150.0	7,124.1	7,146.2	7,098.3	15.0	17.9	-97.37	548.7	508.5	625.4	595.2	30.15	20.742	
7,200.0	7,170.3	7,203.7	7,152.1	14.9	17.8	-96.70	528.9	512.7	629.8	599.9	29.91	21.058	
7,250.0	7,214.6	7,261.5	7,203.9	14.8	17.7	-96.13	503.7	516.7	634.0	604.4	29.60	21.416	
7,300.0	7,256.7	7,319.5	7,253.1	14.6	17.5	-95.59	473.2	520.6	637.9	608.7	29.25	21.808	
7,350.0	7,296.2	7,377.6	7,299.0	14.4	17.3	-95.06	437.9	524.2	641.5	612.6	28.87	22.222	
7,400.0	7,333.0	7,435.7	7,341.1	14.2	17.1	-94.54	398.1	527.4	644.8	616.3	28.47	22.643	
7,450.0	7,366.7	7,493.6	7,379.0	14.1	16.9	-94.01	354.3	530.4	647.6	619.6	28.09	23.057	
7,500.0	7,397.1	7,551.5	7,412.1	13.9	16.7	-93.47	307.0	533.0	650.1	622.4	27.74	23.441	
7,550.0	7,423.8	7,609.0	7,440.2	13.8	16.6	-92.92	256.8	535.2	652.3	624.8	27.44	23.772	
7,600.0	7,446.8	7,666.2	7,463.0	13.7	16.5	-92.37	204.5	537.0	654.0	626.8	27.22	24.029	
7,650.0	7,465.8	7,722.9	7,480.4	13.6	16.4	-91.81	150.5	538.3	655.3	628.2	27.09	24.193	
7,700.0	7,480.8	7,779.1	7,492.3	13.6	16.4	-91.25	95.6	539.3	656.2	629.1	27.06	24.249	
7,750.0	7,491.5	7,834.8	7,498.7	13.7	16.4	-90.70	40.3	539.8	656.7	629.6	27.15	24.186	
7,800.0	7,497.9	7,888.4	7,500.0	13.8	16.5	-90.19	-13.2	539.9	656.8	629.5	27.36	24.011	
7,848.8	7,500.0	7,937.1	7,500.0	13.9	16.6	-90.00	-62.0	539.9	656.9	629.2	27.68	23.731	
7,900.0	7,500.0	7,988.3	7,500.0	14.1	16.8	-90.00	-113.2	539.9	656.9	628.8	28.09	23.386	
8,000.0	7,500.0	8,088.3	7,500.0	14.7	17.3	-90.00	-213.2	539.9	656.9	627.7	29.22	22.484	
8,100.0	7,500.0	8,188.3	7,500.0	15.4	17.9	-90.00	-313.2	539.9	656.9	626.2	30.70	21.394	
8,200.0	7,500.0	8,288.3	7,500.0	16.3	18.7	-90.00	-413.2	539.9	656.9	624.4	32.50	20.209	
8,300.0	7,500.0	8,388.3	7,500.0	17.3	19.6	-90.00	-513.2	539.9	656.9	622.3	34.57	19.002	
8,400.0	7,500.0	8,488.3	7,500.0	18.5	20.6	-90.00	-613.2	539.9	656.9	620.0	36.85	17.825	
8,500.0	7,500.0	8,588.3	7,500.0	19.7	21.7	-90.00	-713.2	539.9	656.9	617.6	39.31	16.708	
8,600.0	7,500.0	8,688.3	7,500.0	21.0	22.9	-90.00	-813.2	539.9	656.9	614.9	41.93	15.667	
8,700.0	7,500.0	8,788.3	7,500.0	22.4	24.2	-90.00	-913.2	539.9	656.9	612.2	44.66	14.707	
8,800.0	7,500.0	8,888.3	7,500.0	23.8	25.5	-90.00	-1,013.2	539.9	656.9	609.4	47.50	13.829	
8,900.0	7,500.0	8,988.3	7,500.0	25.3	26.9	-90.00	-1,113.2	539.9	656.9	606.5	50.42	13.028	
9,000.0	7,500.0	9,088.3	7,500.0	26.7	28.3	-90.00	-1,213.2	539.9	656.9	603.5	53.41	12.298	
9,100.0	7,500.0	9,188.3	7,500.0	28.3	29.7	-90.00	-1,313.2	539.9	656.9	600.4	56.47	11.633	
9,200.0	7,500.0	9,288.3	7,500.0	29.8	31.2	-90.00	-1,413.2	539.9	656.9	597.3	59.57	11.027	

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 2B-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 2B-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						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	
9,300.0	7,500.0	9,388.3	7,500.0	31.4	32.7	-90.00	-1,513.2	539.9	656.9	594.2	62.71	10.474	
9,400.0	7,500.0	9,488.3	7,500.0	33.0	34.2	-90.00	-1,613.2	539.9	656.9	591.0	65.90	9.968	
9,500.0	7,500.0	9,588.3	7,500.0	34.6	35.8	-90.00	-1,713.2	539.9	656.9	587.8	69.11	9.505	
9,600.0	7,500.0	9,688.3	7,500.0	36.2	37.3	-90.00	-1,813.2	539.9	656.9	584.5	72.35	9.079	
9,700.0	7,500.0	9,788.3	7,500.0	37.8	38.9	-90.00	-1,913.2	539.9	656.9	581.3	75.61	8.687	
9,800.0	7,500.0	9,888.3	7,500.0	39.5	40.5	-90.00	-2,013.2	539.9	656.9	578.0	78.90	8.325	
9,900.0	7,500.0	9,988.3	7,500.0	41.1	42.1	-90.00	-2,113.2	539.9	656.9	574.7	82.20	7.991	
10,000.0	7,500.0	10,088.3	7,500.0	42.8	43.7	-90.00	-2,213.2	539.9	656.9	571.3	85.52	7.681	
10,100.0	7,500.0	10,188.3	7,500.0	44.5	45.4	-90.00	-2,313.2	539.9	656.9	568.0	88.86	7.392	
10,200.0	7,500.0	10,288.3	7,500.0	46.1	47.0	-90.00	-2,413.2	539.9	656.9	564.7	92.21	7.124	
10,300.0	7,500.0	10,388.3	7,500.0	47.8	48.7	-90.00	-2,513.2	539.9	656.9	561.3	95.56	6.874	
10,400.0	7,500.0	10,488.3	7,500.0	49.5	50.3	-90.00	-2,613.2	539.9	656.9	557.9	98.93	6.640	
10,500.0	7,500.0	10,588.3	7,500.0	51.2	52.0	-90.00	-2,713.2	539.9	656.9	554.6	102.31	6.420	
10,600.0	7,500.0	10,688.3	7,500.0	52.9	53.7	-90.00	-2,813.2	539.9	656.9	551.2	105.70	6.215	
10,700.0	7,500.0	10,788.3	7,500.0	54.6	55.3	-90.00	-2,913.2	539.9	656.9	547.8	109.09	6.021	
10,800.0	7,500.0	10,888.3	7,500.0	56.3	57.0	-90.00	-3,013.2	539.9	656.9	544.4	112.50	5.839	
10,900.0	7,500.0	10,988.3	7,500.0	58.0	58.7	-90.00	-3,113.2	539.9	656.9	541.0	115.90	5.667	
11,000.0	7,500.0	11,088.3	7,500.0	59.7	60.4	-90.00	-3,213.2	539.9	656.9	537.6	119.32	5.505	
11,100.0	7,500.0	11,188.3	7,500.0	61.4	62.1	-90.00	-3,313.2	539.9	656.9	534.1	122.74	5.352	
11,134.7	7,500.0	11,223.0	7,500.0	62.0	62.6	-90.00	-3,347.9	539.9	656.9	532.9	123.93	5.301	
11,200.0	7,500.0	11,280.1	7,500.0	63.1	63.6	-90.00	-3,404.9	540.1	657.2	531.1	126.02	5.215	
11,300.0	7,500.0	11,361.3	7,500.0	64.8	65.0	-90.00	-3,486.2	542.3	659.8	530.7	129.13	5.110	
11,400.0	7,500.0	11,444.1	7,500.0	66.5	66.4	-90.00	-3,568.8	546.9	665.3	533.1	132.26	5.031	
11,500.0	7,500.0	11,541.8	7,500.0	68.2	68.1	-90.00	-3,666.3	553.7	672.3	536.7	135.65	4.956	
11,600.0	7,500.0	11,641.6	7,500.0	70.0	69.8	-90.00	-3,765.8	560.6	679.3	540.2	139.08	4.884	
11,700.0	7,500.0	11,741.3	7,500.0	71.7	71.5	-90.00	-3,865.3	567.6	686.3	543.7	142.52	4.815	
11,800.0	7,500.0	11,841.1	7,500.0	73.4	73.2	-90.00	-3,964.8	574.5	693.2	547.3	145.95	4.750	
11,900.0	7,500.0	11,940.8	7,500.0	75.1	74.9	-90.00	-4,064.3	581.5	700.2	550.8	149.39	4.687	
12,000.0	7,500.0	12,040.6	7,500.0	76.9	76.7	-90.00	-4,163.8	588.5	707.2	554.3	152.84	4.627	
12,100.0	7,500.0	12,140.3	7,500.0	78.6	78.4	-90.00	-4,263.3	595.4	714.2	557.9	156.28	4.570	
12,200.0	7,500.0	12,255.6	7,500.0	80.3	80.4	-90.00	-4,378.3	602.8	720.6	560.6	160.00	4.504	
12,300.0	7,500.0	12,389.2	7,500.0	82.0	82.7	-90.00	-4,511.9	606.1	723.1	559.1	164.04	4.408	
12,400.0	7,500.0	12,490.3	7,500.0	83.8	84.4	-90.00	-4,613.0	606.2	723.2	555.6	167.52	4.317	
12,500.0	7,500.0	12,590.3	7,500.0	85.5	86.1	-90.00	-4,713.0	606.2	723.2	552.2	170.98	4.230	
12,600.0	7,500.0	12,690.3	7,500.0	87.2	87.8	-90.00	-4,813.0	606.2	723.2	548.7	174.45	4.146	
12,700.0	7,500.0	12,790.3	7,500.0	89.0	89.6	-90.00	-4,913.0	606.2	723.2	545.3	177.92	4.065	
12,800.0	7,500.0	12,890.3	7,500.0	90.7	91.3	-90.00	-5,013.0	606.2	723.2	541.8	181.38	3.987	
12,900.0	7,500.0	12,990.3	7,500.0	92.4	93.0	-90.00	-5,113.0	606.2	723.2	538.4	184.85	3.913	
12,986.8	7,500.0	13,077.2	7,500.0	93.9	94.5	-90.00	-5,199.9	606.3	723.3	535.4	187.87	3.850	
13,000.0	7,500.0	13,090.3	7,500.0	94.2	94.7	-90.00	-5,213.0	606.3	723.2	534.9	188.34	3.840	
13,058.5	7,500.0	13,148.9	7,500.0	95.2	95.7	-90.00	-5,271.6	606.3	722.8	532.4	190.44	3.795	
13,100.0	7,500.0	13,190.3	7,500.0	95.9	96.5	-90.00	-5,313.0	606.3	722.3	530.4	191.88	3.764	
13,200.0	7,500.0	13,290.3	7,500.0	97.6	98.2	-90.00	-5,413.0	606.3	721.1	525.7	195.36	3.691	
13,300.0	7,500.0	13,390.3	7,500.0	99.4	99.9	-90.00	-5,513.0	606.3	719.8	521.0	198.83	3.620	
13,400.0	7,500.0	13,490.3	7,500.0	101.1	101.6	-90.00	-5,613.0	606.3	718.6	516.3	202.31	3.552	
13,500.0	7,500.0	13,590.3	7,500.0	102.9	103.4	-90.00	-5,713.0	606.3	717.4	511.6	205.78	3.486	
13,600.0	7,500.0	13,690.3	7,500.0	104.6	105.1	-90.00	-5,813.0	606.4	716.1	506.9	209.26	3.422	
13,700.0	7,500.0	13,790.3	7,500.0	106.3	106.8	-90.00	-5,913.0	606.4	714.9	502.2	212.74	3.360	
13,800.0	7,500.0	13,890.3	7,500.0	108.1	108.6	-90.00	-6,013.0	606.4	713.7	497.4	216.22	3.301	
13,900.0	7,500.0	13,990.3	7,500.0	109.8	110.3	-90.00	-6,113.0	606.4	712.4	492.7	219.70	3.243	
14,000.0	7,500.0	14,090.3	7,500.0	111.6	112.0	-90.00	-6,213.0	606.4	711.2	488.0	223.18	3.187	
14,100.0	7,500.0	14,190.3	7,500.0	113.3	113.8	-90.00	-6,313.0	606.4	710.0	483.3	226.66	3.132	

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 2B-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 2B-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		
14,200.0	7,500.0	14,290.3	7,500.0	115.0	115.5	-90.00	-6,413.0	606.5	708.7	478.6	230.15	3.079		
14,300.0	7,500.0	14,390.2	7,500.0	116.8	117.2	-90.00	-6,513.0	606.5	707.5	473.9	233.63	3.028		
14,400.0	7,500.0	14,490.2	7,500.0	118.5	119.0	-90.00	-6,612.9	606.5	706.3	469.1	237.12	2.979		
14,500.0	7,500.0	14,590.2	7,500.0	120.3	120.7	-90.00	-6,712.9	606.5	705.0	464.4	240.60	2.930		
14,600.0	7,500.0	14,690.2	7,500.0	122.0	122.4	-90.00	-6,812.9	606.5	703.8	459.7	244.09	2.883		
14,700.0	7,500.0	14,790.2	7,500.0	123.7	124.2	-90.00	-6,912.9	606.5	702.5	455.0	247.57	2.838		
14,800.0	7,500.0	14,890.2	7,500.0	125.5	125.9	-90.00	-7,012.9	606.5	701.3	450.3	251.06	2.793		
14,900.0	7,500.0	14,990.2	7,500.0	127.2	127.7	-90.00	-7,112.9	606.6	700.1	445.5	254.55	2.750		
15,000.0	7,500.0	15,090.2	7,500.0	129.0	129.4	-90.00	-7,212.9	606.6	698.8	440.8	258.04	2.708		
15,100.0	7,500.0	15,190.2	7,500.0	130.7	131.1	-90.00	-7,312.9	606.6	697.6	436.1	261.52	2.667		
15,200.0	7,500.0	15,290.2	7,500.0	132.5	132.9	-90.00	-7,412.9	606.6	696.4	431.4	265.01	2.628		
15,300.0	7,500.0	15,390.2	7,500.0	134.2	134.6	-90.00	-7,512.9	606.6	695.1	426.6	268.50	2.589		
15,400.0	7,500.0	15,490.2	7,500.0	136.0	136.3	-90.00	-7,612.9	606.6	693.9	421.9	271.99	2.551		
15,500.0	7,500.0	15,590.2	7,500.0	137.7	138.1	-90.00	-7,712.9	606.7	692.7	417.2	275.48	2.514		
15,600.0	7,500.0	15,690.1	7,500.0	139.4	139.8	-90.00	-7,812.9	606.7	691.4	412.5	278.98	2.478		
15,706.0	7,500.0	15,796.2	7,500.0	141.3	141.7	-90.00	-7,918.9	606.7	690.1	407.4	282.68	2.441 SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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		
0.0	0.0	0.0	0.0	0.0	0.0	90.70	-0.4	29.9	29.9					
100.0	100.0	100.0	100.0	0.2	0.2	90.70	-0.4	29.9	29.9	29.6	0.30	98.619		
200.0	200.0	200.0	200.0	0.3	0.3	90.70	-0.4	29.9	29.9	29.3	0.65	45.882		
300.0	300.0	300.0	300.0	0.5	0.5	90.70	-0.4	29.9	29.9	28.9	1.00	29.895	CC, ES	
400.0	400.0	400.0	400.0	0.7	0.7	131.94	-0.4	29.9	30.5	29.2	1.35	22.592		
500.0	500.0	500.0	500.0	0.9	0.8	135.38	-0.4	29.9	32.3	30.6	1.70	18.998		
600.0	599.9	599.9	599.9	1.0	1.0	140.30	-0.4	29.9	35.6	33.5	2.05	17.314		
700.0	699.7	699.7	699.7	1.2	1.2	145.80	-0.4	29.9	40.5	38.1	2.41	16.804		
800.0	799.4	799.4	799.4	1.4	1.4	150.64	-0.4	29.9	46.4	43.6	2.76	16.813		
900.0	899.2	899.2	899.2	1.6	1.5	154.37	-0.4	29.9	52.6	49.5	3.11	16.909		
1,000.0	998.9	998.9	998.9	1.8	1.7	157.30	-0.4	29.9	59.0	55.5	3.46	17.041		
1,100.0	1,098.7	1,098.3	1,098.3	2.1	1.9	158.96	0.2	30.6	65.8	62.0	3.81	17.263		
1,200.0	1,198.5	1,197.6	1,197.5	2.3	2.1	159.05	1.8	32.6	73.2	69.1	4.16	17.593		
1,300.0	1,298.2	1,296.7	1,296.6	2.5	2.2	144.70	4.5	35.9	81.1	76.6	4.53	17.916		
1,400.0	1,397.9	1,395.9	1,395.5	2.7	2.4	132.22	8.2	40.6	89.1	84.2	4.90	18.170		
1,450.9	1,448.6	1,446.3	1,445.8	2.8	2.5	126.78	10.6	43.5	93.2	88.1	5.10	18.273		
1,500.0	1,497.6	1,494.9	1,494.3	2.9	2.6	126.55	13.1	46.6	97.2	91.9	5.29	18.378		
1,600.0	1,597.2	1,593.8	1,592.7	3.1	2.8	125.50	19.0	53.8	106.0	100.3	5.69	18.619		
1,700.0	1,696.9	1,692.5	1,690.8	3.3	3.0	123.85	25.9	62.4	115.6	109.4	6.11	18.899		
1,800.0	1,796.5	1,790.9	1,788.4	3.6	3.3	121.76	33.9	72.3	126.0	119.4	6.55	19.225		
1,900.0	1,896.1	1,889.0	1,885.4	3.8	3.5	119.38	42.9	83.5	137.4	130.4	7.01	19.605		
2,000.0	1,995.8	1,987.8	1,983.0	4.0	3.8	116.98	52.7	95.6	149.6	142.2	7.47	20.027		
2,100.0	2,095.4	2,086.9	2,080.8	4.2	4.1	114.92	62.6	107.7	162.1	154.2	7.94	20.425		
2,200.0	2,195.1	2,185.9	2,178.7	4.4	4.4	113.16	72.4	119.9	174.8	166.4	8.40	20.798		
2,300.0	2,294.7	2,285.0	2,276.5	4.7	4.7	111.64	82.2	132.0	187.6	178.7	8.87	21.148		
2,400.0	2,394.4	2,384.1	2,374.3	4.9	5.0	110.32	92.1	144.2	200.5	191.1	9.33	21.477		
2,500.0	2,494.0	2,483.1	2,472.1	5.1	5.2	109.15	101.9	156.4	213.5	203.7	9.80	21.785		
2,600.0	2,593.6	2,582.2	2,569.9	5.3	5.5	108.12	111.8	168.5	226.6	216.3	10.26	22.075		
2,700.0	2,693.3	2,681.3	2,667.8	5.6	5.9	107.20	121.6	180.7	239.7	229.0	10.73	22.346		
2,800.0	2,792.9	2,780.3	2,765.6	5.8	6.2	106.38	131.4	192.8	252.9	241.7	11.19	22.602		
2,900.0	2,892.6	2,879.4	2,863.4	6.0	6.5	105.64	141.3	205.0	266.1	254.5	11.65	22.842		
3,000.0	2,992.2	2,978.4	2,961.2	6.2	6.8	104.97	151.1	217.2	279.4	267.3	12.11	23.068		
3,100.0	3,091.9	3,077.5	3,059.0	6.5	7.1	104.36	161.0	229.3	292.7	280.2	12.57	23.282		
3,200.0	3,191.5	3,176.6	3,156.9	6.7	7.4	103.80	170.8	241.5	306.1	293.1	13.03	23.483		
3,300.0	3,291.2	3,275.6	3,254.7	6.9	7.7	103.29	180.6	253.6	319.5	306.0	13.49	23.674		
3,400.0	3,390.8	3,374.7	3,352.5	7.1	8.0	102.82	190.5	265.8	332.9	318.9	13.95	23.854		
3,500.0	3,490.4	3,473.8	3,450.3	7.4	8.3	102.39	200.3	278.0	346.3	331.9	14.41	24.025		
3,600.0	3,590.1	3,572.8	3,548.1	7.6	8.7	101.99	210.2	290.1	359.7	344.8	14.87	24.187		
3,700.0	3,689.7	3,671.9	3,646.0	7.8	9.0	101.61	220.0	302.3	373.2	357.8	15.33	24.341		
3,800.0	3,789.4	3,771.0	3,743.8	8.1	9.3	101.27	229.8	314.4	386.6	370.8	15.79	24.487		
3,900.0	3,889.0	3,870.0	3,841.6	8.3	9.6	100.95	239.7	326.6	400.1	383.9	16.25	24.626		
4,000.0	3,988.7	3,969.1	3,939.4	8.5	9.9	100.64	249.5	338.7	413.6	396.9	16.70	24.759		
4,100.0	4,088.3	4,068.1	4,037.2	8.7	10.2	100.36	259.4	350.9	427.1	409.9	17.16	24.886		
4,200.0	4,187.9	4,167.2	4,135.1	9.0	10.6	100.10	269.2	363.1	440.6	423.0	17.62	25.006		
4,300.0	4,287.6	4,266.3	4,232.9	9.2	10.9	99.85	279.0	375.2	454.1	436.0	18.08	25.122		
4,400.0	4,387.2	4,365.3	4,330.7	9.4	11.2	99.61	288.9	387.4	467.7	449.1	18.53	25.232		
4,500.0	4,486.9	4,464.4	4,428.5	9.6	11.5	99.39	298.7	399.5	481.2	462.2	18.99	25.338		
4,600.0	4,586.5	4,563.5	4,526.3	9.9	11.8	99.18	308.5	411.7	494.7	475.3	19.45	25.439		
4,700.0	4,686.2	4,662.5	4,624.2	10.1	12.2	98.98	318.4	423.9	508.3	488.4	19.90	25.537		
4,800.0	4,785.8	4,761.6	4,722.0	10.3	12.5	98.79	328.2	436.0	521.8	501.5	20.36	25.630		
4,900.0	4,885.4	4,860.6	4,819.8	10.6	12.8	98.61	338.1	448.2	535.4	514.6	20.82	25.719		
5,000.0	4,985.1	4,959.7	4,917.6	10.8	13.1	98.44	347.9	460.3	548.9	527.7	21.27	25.805		

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 2B-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 2B-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		
5,100.0	5,084.7	5,058.8	5,015.5	11.0	13.4	98.28	357.7	472.5	562.5	540.8	21.73	25.888		
5,200.0	5,184.4	5,157.8	5,113.3	11.2	13.8	98.13	367.6	484.7	576.1	553.9	22.18	25.968		
5,300.0	5,284.0	5,256.9	5,211.1	11.5	14.1	97.98	377.4	496.8	589.7	567.0	22.64	26.045		
5,400.0	5,383.7	5,356.0	5,308.9	11.7	14.4	97.84	387.3	509.0	603.2	580.1	23.10	26.119		
5,500.0	5,483.3	5,455.0	5,406.7	11.9	14.7	97.71	397.1	521.1	616.8	593.3	23.55	26.190		
5,600.0	5,583.0	5,554.1	5,504.6	12.1	15.0	97.58	406.9	533.3	630.4	606.4	24.01	26.259		
5,700.0	5,682.6	5,653.2	5,602.4	12.4	15.4	97.45	416.8	545.5	644.0	619.5	24.46	26.326		
5,800.0	5,782.2	5,752.2	5,700.2	12.6	15.7	97.34	426.6	557.6	657.6	632.7	24.92	26.390		
5,900.0	5,881.9	5,851.3	5,798.0	12.8	16.0	97.22	436.5	569.8	671.2	645.8	25.37	26.452		
6,000.0	5,981.5	5,950.3	5,895.8	13.1	16.3	97.11	446.3	581.9	684.8	658.9	25.83	26.512		
6,100.0	6,081.2	6,049.4	5,993.7	13.3	16.7	97.01	456.1	594.1	698.4	672.1	26.28	26.570		
6,200.0	6,180.8	6,148.5	6,091.5	13.5	17.0	96.91	466.0	606.3	712.0	685.2	26.74	26.627		
6,300.0	6,280.5	6,247.5	6,189.3	13.7	17.3	96.81	475.8	618.4	725.6	698.4	27.19	26.681		
6,400.0	6,380.1	6,346.6	6,287.1	14.0	17.6	96.72	485.7	630.6	739.2	711.5	27.65	26.734		
6,500.0	6,479.7	6,445.7	6,384.9	14.2	17.9	96.63	495.5	642.7	752.8	724.7	28.10	26.785		
6,600.0	6,579.4	6,544.7	6,482.8	14.4	18.3	96.54	505.3	654.9	766.4	737.8	28.56	26.835		
6,700.0	6,679.0	6,643.8	6,580.6	14.7	18.6	96.46	515.2	667.1	780.0	751.0	29.01	26.883		
6,800.0	6,778.7	6,742.8	6,678.4	14.9	18.9	96.38	525.0	679.2	793.6	764.1	29.47	26.930		
6,901.0	6,879.3	6,842.9	6,777.2	15.1	19.2	96.30	535.0	691.5	807.4	777.4	29.93	26.976		
6,950.0	6,928.3	6,891.3	6,825.0	15.2	19.4	-173.11	539.8	697.4	814.1	784.0	30.16	26.990		
7,000.0	6,978.2	6,940.3	6,873.4	15.2	19.6	-100.06	544.6	703.5	821.2	790.9	30.33	27.075		
7,050.0	7,027.7	6,988.5	6,921.0	15.2	19.7	-96.04	549.4	709.4	828.5	798.1	30.42	27.232		
7,100.0	7,076.5	7,035.5	6,967.4	15.1	19.9	-94.89	554.1	715.1	836.2	805.7	30.45	27.459		
7,150.0	7,124.1	7,081.0	7,012.3	15.0	20.0	-94.59	558.6	720.7	844.4	814.0	30.42	27.755		
7,200.0	7,170.3	7,124.6	7,055.3	14.9	20.2	-94.67	562.9	726.1	853.3	822.9	30.35	28.117		
7,250.0	7,214.6	7,165.9	7,096.2	14.8	20.3	-94.91	567.0	731.1	863.1	832.8	30.24	28.541		
7,300.0	7,256.7	7,207.9	7,137.7	14.6	20.4	-95.31	571.0	736.3	874.0	843.9	30.10	29.038		
7,350.0	7,296.2	7,256.5	7,185.8	14.4	20.5	-95.94	572.3	742.6	886.0	856.1	29.90	29.633		
7,400.0	7,333.0	7,308.7	7,237.4	14.2	20.6	-96.63	569.1	749.6	898.7	869.1	29.65	30.308		
7,450.0	7,366.7	7,365.4	7,292.8	14.1	20.7	-97.39	560.3	757.4	912.2	882.8	29.37	31.062		
7,500.0	7,397.1	7,427.7	7,352.4	13.9	20.7	-98.23	544.3	766.4	926.1	897.1	29.04	31.893		
7,550.0	7,423.8	7,497.1	7,416.2	13.8	20.7	-99.18	519.0	776.5	940.2	911.6	28.67	32.800		
7,600.0	7,446.8	7,575.5	7,483.8	13.7	20.6	-100.24	481.3	788.1	954.2	926.0	28.25	33.783		
7,650.0	7,465.8	7,664.6	7,553.6	13.6	20.4	-101.37	427.5	801.0	967.7	939.9	27.80	34.810		
7,700.0	7,480.8	7,766.6	7,622.1	13.6	20.3	-102.49	353.5	815.2	980.0	952.6	27.36	35.814		
7,750.0	7,491.5	7,882.1	7,682.4	13.7	20.2	-103.44	256.3	829.9	990.5	963.5	27.03	36.643		
7,800.0	7,497.9	8,010.0	7,724.9	13.8	20.2	-103.97	136.8	843.8	998.6	971.6	26.94	37.061		
7,848.8	7,500.0	8,142.4	7,740.0	13.9	20.4	-103.87	6.0	854.9	1,003.4	976.2	27.22	36.859		
7,900.0	7,500.0	8,193.5	7,740.0	14.1	20.5	-103.82	-44.9	858.5	1,006.9	979.3	27.57	36.516		
8,000.0	7,500.0	8,293.2	7,740.0	14.7	20.9	-103.73	-144.5	865.5	1,013.7	985.1	28.55	35.504		
8,100.0	7,500.0	8,393.0	7,740.0	15.4	21.4	-103.63	-244.0	872.4	1,020.5	990.6	29.88	34.148		
8,200.0	7,500.0	8,503.4	7,740.0	16.3	22.1	-103.54	-354.1	879.8	1,027.0	995.4	31.62	32.482		
8,300.0	7,500.0	8,624.4	7,740.0	17.3	23.0	-103.46	-475.0	885.7	1,031.7	997.9	33.77	30.555		
8,400.0	7,500.0	8,745.6	7,740.0	18.5	24.0	-103.42	-596.2	889.0	1,034.4	998.2	36.18	28.592		
8,500.0	7,500.0	8,862.6	7,740.0	19.7	25.1	-103.41	-713.2	889.8	1,035.0	996.3	38.75	26.713		
8,600.0	7,500.0	8,962.6	7,740.0	21.0	26.2	-103.41	-813.2	889.8	1,035.0	993.8	41.28	25.074		
8,700.0	7,500.0	9,062.6	7,740.0	22.4	27.3	-103.41	-913.2	889.8	1,035.0	991.1	43.93	23.563		
8,800.0	7,500.0	9,162.6	7,740.0	23.8	28.5	-103.41	-1,013.2	889.8	1,035.0	988.4	46.67	22.176		
8,900.0	7,500.0	9,262.6	7,740.0	25.3	29.7	-103.41	-1,113.2	889.8	1,035.0	985.5	49.50	20.908		
8,952.7	7,500.0	9,315.3	7,740.0	26.0	30.4	-103.41	-1,165.8	889.8	1,035.0	984.0	51.02	20.285		
9,000.0	7,500.0	9,359.6	7,740.0	26.7	30.9	-103.41	-1,210.2	889.9	1,035.1	982.7	52.36	19.769		
9,100.0	7,500.0	9,452.6	7,740.0	28.3	32.2	-103.40	-1,303.1	890.6	1,035.9	980.7	55.22	18.761		

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 2B-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 2B-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	
9,200.0	7,500.0	9,552.6	7,740.0	29.8	33.5	-103.38	-1,403.1	891.6	1,036.8	978.6	58.22	17.808	
9,300.0	7,500.0	9,652.6	7,740.0	31.4	34.9	-103.37	-1,503.1	892.6	1,037.8	976.5	61.28	16.937	
9,400.0	7,500.0	9,752.6	7,740.0	33.0	36.4	-103.36	-1,603.1	893.6	1,038.8	974.4	64.36	16.139	
9,500.0	7,500.0	9,852.6	7,740.0	34.6	37.8	-103.35	-1,703.1	894.6	1,039.8	972.3	67.48	15.407	
9,600.0	7,500.0	9,952.6	7,740.0	36.2	39.3	-103.33	-1,803.1	895.6	1,040.7	970.1	70.63	14.734	
9,700.0	7,500.0	10,052.6	7,740.0	37.8	40.8	-103.32	-1,903.1	896.6	1,041.7	967.9	73.81	14.114	
9,800.0	7,500.0	10,152.6	7,740.0	39.5	42.4	-103.31	-2,003.1	897.6	1,042.7	965.7	77.00	13.541	
9,900.0	7,500.0	10,252.6	7,740.0	41.1	43.9	-103.30	-2,103.1	898.6	1,043.6	963.4	80.21	13.011	
10,000.0	7,500.0	10,352.6	7,740.0	42.8	45.5	-103.28	-2,203.0	899.6	1,044.6	961.2	83.44	12.519	
10,100.0	7,500.0	10,452.5	7,740.0	44.5	47.0	-103.27	-2,303.0	900.6	1,045.6	958.9	86.69	12.062	
10,200.0	7,500.0	10,552.5	7,740.0	46.1	48.6	-103.26	-2,403.0	901.6	1,046.5	956.6	89.94	11.635	
10,300.0	7,500.0	10,652.5	7,740.0	47.8	50.2	-103.25	-2,503.0	902.6	1,047.5	954.3	93.21	11.238	
10,400.0	7,500.0	10,752.5	7,740.0	49.5	51.8	-103.23	-2,603.0	903.6	1,048.5	952.0	96.49	10.866	
10,500.0	7,500.0	10,852.5	7,740.0	51.2	53.4	-103.22	-2,703.0	904.6	1,049.4	949.7	99.78	10.517	
10,600.0	7,500.0	10,952.5	7,740.0	52.9	55.1	-103.21	-2,803.0	905.6	1,050.4	947.3	103.08	10.190	
10,700.0	7,500.0	11,052.5	7,740.0	54.6	56.7	-103.20	-2,903.0	906.6	1,051.4	945.0	106.39	9.882	
10,800.0	7,500.0	11,152.5	7,740.0	56.3	58.3	-103.18	-3,003.0	907.6	1,052.4	942.6	109.70	9.593	
10,900.0	7,500.0	11,252.5	7,740.0	58.0	60.0	-103.17	-3,103.0	908.6	1,053.3	940.3	113.02	9.319	
11,000.0	7,500.0	11,352.5	7,740.0	59.7	61.6	-103.16	-3,202.9	909.6	1,054.3	937.9	116.35	9.061	
11,100.0	7,500.0	11,452.5	7,740.0	61.4	63.3	-103.15	-3,302.9	910.6	1,055.3	935.6	119.68	8.817	
11,200.0	7,500.0	11,552.5	7,740.0	63.1	64.9	-103.13	-3,402.9	911.6	1,056.2	933.2	123.02	8.586	
11,300.0	7,500.0	11,652.5	7,740.0	64.8	66.6	-103.12	-3,502.9	912.5	1,057.2	930.8	126.36	8.366	
11,400.0	7,500.0	11,752.5	7,740.0	66.5	68.3	-103.11	-3,602.9	913.5	1,058.2	928.5	129.71	8.158	
11,500.0	7,500.0	11,852.5	7,740.0	68.2	70.0	-103.10	-3,702.9	914.5	1,059.1	926.1	133.06	7.960	
11,600.0	7,500.0	11,952.5	7,740.0	70.0	71.6	-103.09	-3,802.9	915.5	1,060.1	923.7	136.42	7.771	
11,700.0	7,500.0	12,052.5	7,740.0	71.7	73.3	-103.07	-3,902.9	916.5	1,061.1	921.3	139.78	7.591	
11,800.0	7,500.0	12,152.5	7,740.0	73.4	75.0	-103.06	-4,002.9	917.5	1,062.0	918.9	143.14	7.420	
11,900.0	7,500.0	12,252.5	7,740.0	75.1	76.7	-103.05	-4,102.9	918.5	1,063.0	916.5	146.51	7.256	
12,000.0	7,500.0	12,352.5	7,740.0	76.9	78.4	-103.04	-4,202.8	919.5	1,064.0	914.1	149.88	7.099	
12,100.0	7,500.0	12,452.4	7,740.0	78.6	80.1	-103.02	-4,302.8	920.5	1,065.0	911.7	153.25	6.949	
12,200.0	7,500.0	12,552.4	7,740.0	80.3	81.8	-103.01	-4,402.8	921.5	1,065.9	909.3	156.62	6.806	
12,300.0	7,500.0	12,652.4	7,740.0	82.0	83.5	-103.00	-4,502.8	922.5	1,066.9	906.9	160.00	6.668	
12,400.0	7,500.0	12,752.4	7,740.0	83.8	85.2	-102.99	-4,602.8	923.5	1,067.9	904.5	163.38	6.536	
12,500.0	7,500.0	12,852.4	7,740.0	85.5	86.9	-102.98	-4,702.8	924.5	1,068.8	902.1	166.76	6.410	
12,600.0	7,500.0	12,952.4	7,740.0	87.2	88.6	-102.96	-4,802.8	925.5	1,069.8	899.7	170.14	6.288	
12,700.0	7,500.0	13,052.4	7,740.0	89.0	90.3	-102.95	-4,902.8	926.5	1,070.8	897.3	173.53	6.171	
12,800.0	7,500.0	13,152.4	7,740.0	90.7	92.0	-102.94	-5,002.8	927.5	1,071.7	894.8	176.91	6.058	
12,900.0	7,500.0	13,252.4	7,740.0	92.4	93.7	-102.93	-5,102.8	928.5	1,072.7	892.4	180.30	5.950	
12,986.8	7,500.0	13,339.2	7,740.0	93.9	95.2	-102.92	-5,189.6	929.3	1,073.6	890.3	183.25	5.859	
13,000.0	7,500.0	13,352.4	7,740.0	94.2	95.4	-102.92	-5,202.7	929.5	1,073.7	889.9	183.72	5.844	
13,058.5	7,500.0	13,410.9	7,740.0	95.2	96.4	-102.91	-5,261.3	930.1	1,073.8	888.0	185.83	5.779	
13,100.0	7,500.0	13,452.4	7,740.0	95.9	97.1	-102.92	-5,302.7	930.5	1,073.7	886.5	187.23	5.735	
13,200.0	7,500.0	13,552.4	7,740.0	97.6	98.9	-102.92	-5,402.7	931.5	1,073.5	882.9	190.62	5.632	
13,300.0	7,500.0	13,652.4	7,740.0	99.4	100.6	-102.92	-5,502.7	932.5	1,073.2	879.2	194.00	5.532	
13,400.0	7,500.0	13,752.4	7,740.0	101.1	102.3	-102.93	-5,602.7	933.5	1,073.0	875.6	197.39	5.436	
13,500.0	7,500.0	13,852.4	7,740.0	102.9	104.0	-102.93	-5,702.7	934.4	1,072.7	871.9	200.77	5.343	
13,600.0	7,500.0	13,952.4	7,740.0	104.6	105.7	-102.93	-5,802.7	935.4	1,072.5	868.3	204.16	5.253	
13,700.0	7,500.0	14,052.4	7,740.0	106.3	107.5	-102.93	-5,902.7	936.4	1,072.2	864.7	207.55	5.166	
13,800.0	7,500.0	14,152.4	7,740.0	108.1	109.2	-102.94	-6,002.7	937.4	1,072.0	861.0	210.94	5.082	
13,900.0	7,500.0	14,252.4	7,740.0	109.8	110.9	-102.94	-6,102.7	938.4	1,071.7	857.4	214.33	5.000	
14,000.0	7,500.0	14,352.4	7,740.0	111.6	112.6	-102.94	-6,202.7	939.4	1,071.5	853.8	217.72	4.921	
14,100.0	7,500.0	14,452.4	7,740.0	113.3	114.3	-102.95	-6,302.7	940.4	1,071.2	850.1	221.11	4.845	

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 2B-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 2B-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					
14,200.0	7,500.0	14,552.4	7,740.0	115.0	116.1	-102.95	-6,402.7	941.4	1,071.0	846.5	224.50	4.770					
14,300.0	7,500.0	14,652.4	7,740.0	116.8	117.8	-102.95	-6,502.7	942.4	1,070.7	842.8	227.90	4.698					
14,400.0	7,500.0	14,752.4	7,740.0	118.5	119.5	-102.96	-6,602.7	943.4	1,070.5	839.2	231.29	4.628					
14,500.0	7,500.0	14,852.4	7,740.0	120.3	121.3	-102.96	-6,702.7	944.4	1,070.2	835.5	234.69	4.560					
14,600.0	7,500.0	14,952.4	7,740.0	122.0	123.0	-102.96	-6,802.7	945.4	1,070.0	831.9	238.08	4.494					
14,700.0	7,500.0	15,052.4	7,740.0	123.7	124.7	-102.97	-6,902.7	946.4	1,069.7	828.3	241.48	4.430					
14,800.0	7,500.0	15,152.4	7,740.0	125.5	126.4	-102.97	-7,002.7	947.4	1,069.5	824.6	244.87	4.368					
14,900.0	7,500.0	15,252.4	7,740.0	127.2	128.2	-102.97	-7,102.6	948.4	1,069.2	821.0	248.27	4.307					
15,000.0	7,500.0	15,352.4	7,740.0	129.0	129.9	-102.97	-7,202.6	949.4	1,069.0	817.3	251.67	4.248					
15,100.0	7,500.0	15,452.4	7,740.0	130.7	131.6	-102.98	-7,302.6	950.4	1,068.7	813.7	255.06	4.190					
15,200.0	7,500.0	15,552.4	7,740.0	132.5	133.4	-102.98	-7,402.6	951.4	1,068.5	810.0	258.46	4.134					
15,300.0	7,500.0	15,652.4	7,740.0	134.2	135.1	-102.98	-7,502.6	952.4	1,068.2	806.4	261.86	4.079					
15,400.0	7,500.0	15,752.4	7,740.0	136.0	136.8	-102.99	-7,602.6	953.4	1,068.0	802.7	265.26	4.026					
15,500.0	7,500.0	15,852.4	7,740.0	137.7	138.6	-102.99	-7,702.6	954.4	1,067.7	799.1	268.66	3.974					
15,600.0	7,500.0	15,952.4	7,740.0	139.4	140.3	-102.99	-7,802.6	955.4	1,067.5	795.4	272.06	3.924					
15,706.0	7,500.0	16,058.4	7,740.0	141.3	142.2	-103.00	-7,908.7	956.4	1,067.2	791.6	275.66	3.872 SF					

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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	90.52	-0.4	40.0	40.0					
100.0	100.0	100.0	100.0	0.2	0.2	90.52	-0.4	40.0	40.0	39.7	0.30	131.795		
200.0	200.0	200.0	200.0	0.3	0.3	90.52	-0.4	40.0	40.0	39.4	0.65	61.316		
300.0	300.0	300.0	300.0	0.5	0.5	90.52	-0.4	40.0	40.0	39.0	1.00	39.952 CC, ES		
400.0	400.0	399.3	399.3	0.7	0.7	130.93	0.0	40.8	41.4	40.0	1.35	30.649		
500.0	500.0	498.6	498.5	0.9	0.9	132.01	1.0	43.2	45.5	43.8	1.70	26.732		
600.0	599.9	597.6	597.5	1.0	1.0	133.43	2.8	47.1	52.3	50.2	2.06	25.437		
700.0	699.7	696.2	695.9	1.2	1.2	134.88	5.2	52.5	61.9	59.5	2.42	25.598		
800.0	799.4	794.5	793.9	1.4	1.4	135.80	8.3	59.5	73.6	70.8	2.78	26.431		
900.0	899.2	892.5	891.4	1.6	1.7	135.90	12.0	68.0	86.8	83.7	3.16	27.494		
1,000.0	998.9	990.0	988.3	1.8	1.9	135.49	16.4	78.0	101.5	97.9	3.53	28.708		
1,100.0	1,098.7	1,087.1	1,084.6	2.1	2.2	134.80	21.5	89.4	117.6	113.7	3.92	30.029		
1,200.0	1,198.5	1,183.6	1,180.1	2.3	2.4	133.93	27.1	102.2	135.2	130.9	4.30	31.432		
1,300.0	1,298.2	1,279.7	1,274.9	2.5	2.7	119.28	33.4	116.4	153.8	149.1	4.70	32.705		
1,400.0	1,397.9	1,375.5	1,369.2	2.7	3.1	106.70	40.3	132.1	172.6	167.5	5.11	33.746		
1,450.9	1,448.6	1,424.1	1,416.9	2.8	3.2	101.27	44.1	140.6	182.3	176.9	5.33	34.204		
1,500.0	1,497.6	1,470.9	1,462.8	2.9	3.4	101.17	47.9	149.1	191.8	186.3	5.54	34.644		
1,600.0	1,597.2	1,568.5	1,558.3	3.1	3.8	100.91	55.9	167.4	211.8	205.9	5.97	35.495		
1,700.0	1,696.9	1,666.5	1,654.2	3.3	4.2	100.70	64.1	185.7	231.8	225.4	6.40	36.216		
1,800.0	1,796.5	1,764.4	1,750.1	3.6	4.5	100.52	72.2	204.1	251.9	245.0	6.84	36.836		
1,900.0	1,896.1	1,862.4	1,845.9	3.8	4.9	100.37	80.3	222.5	271.9	264.6	7.27	37.373		
2,000.0	1,995.8	1,960.4	1,941.8	4.0	5.3	100.24	88.5	240.9	291.9	284.2	7.71	37.842		
2,100.0	2,095.4	2,058.4	2,037.7	4.2	5.7	100.12	96.6	259.3	311.9	303.8	8.15	38.256		
2,200.0	2,195.1	2,156.3	2,133.6	4.4	6.1	100.02	104.7	277.7	331.9	323.4	8.59	38.624		
2,300.0	2,294.7	2,254.3	2,229.5	4.7	6.5	99.93	112.9	296.1	352.0	342.9	9.04	38.953		
2,400.0	2,394.4	2,352.3	2,325.4	4.9	6.8	99.85	121.0	314.4	372.0	362.5	9.48	39.248		
2,500.0	2,494.0	2,450.2	2,421.3	5.1	7.2	99.78	129.1	332.8	392.0	382.1	9.92	39.515		
2,600.0	2,593.6	2,548.2	2,517.2	5.3	7.6	99.72	137.3	351.2	412.1	401.7	10.36	39.757		
2,700.0	2,693.3	2,646.2	2,613.1	5.6	8.0	99.66	145.4	369.6	432.1	421.3	10.81	39.977		
2,800.0	2,792.9	2,744.2	2,708.9	5.8	8.4	99.61	153.5	388.0	452.1	440.9	11.25	40.179		
2,900.0	2,892.6	2,842.1	2,804.8	6.0	8.8	99.56	161.6	406.4	472.1	460.4	11.70	40.364		
3,000.0	2,992.2	2,940.1	2,900.7	6.2	9.2	99.51	169.8	424.8	492.2	480.0	12.14	40.535		
3,100.0	3,091.9	3,038.1	2,996.6	6.5	9.6	99.47	177.9	443.1	512.2	499.6	12.59	40.693		
3,200.0	3,191.5	3,136.1	3,092.5	6.7	10.0	99.43	186.0	461.5	532.2	519.2	13.03	40.839		
3,300.0	3,291.2	3,234.0	3,188.4	6.9	10.4	99.40	194.2	479.9	552.2	538.8	13.48	40.975		
3,400.0	3,390.8	3,332.0	3,284.3	7.1	10.7	99.36	202.3	498.3	572.3	558.4	13.92	41.102		
3,500.0	3,490.4	3,430.0	3,380.2	7.4	11.1	99.33	210.4	516.7	592.3	577.9	14.37	41.221		
3,600.0	3,590.1	3,528.0	3,476.1	7.6	11.5	99.31	218.6	535.1	612.3	597.5	14.82	41.331		
3,700.0	3,689.7	3,625.9	3,571.9	7.8	11.9	99.28	226.7	553.5	632.4	617.1	15.26	41.435		
3,800.0	3,789.4	3,723.9	3,667.8	8.1	12.3	99.25	234.8	571.8	652.4	636.7	15.71	41.533		
3,900.0	3,889.0	3,821.9	3,763.7	8.3	12.7	99.23	242.9	590.2	672.4	656.3	16.15	41.625		
4,000.0	3,988.7	3,919.8	3,859.6	8.5	13.1	99.21	251.1	608.6	692.5	675.9	16.60	41.712		
4,100.0	4,088.3	4,017.8	3,955.5	8.7	13.5	99.19	259.2	627.0	712.5	695.4	17.05	41.794		
4,200.0	4,187.9	4,115.8	4,051.4	9.0	13.9	99.17	267.3	645.4	732.5	715.0	17.49	41.871		
4,300.0	4,287.6	4,213.8	4,147.3	9.2	14.3	99.15	275.5	663.8	752.5	734.6	17.94	41.945		
4,400.0	4,387.2	4,311.7	4,243.2	9.4	14.7	99.13	283.6	682.2	772.6	754.2	18.39	42.015		
4,500.0	4,486.9	4,409.7	4,339.1	9.6	15.1	99.11	291.7	700.5	792.6	773.8	18.84	42.081		
4,600.0	4,586.5	4,507.7	4,434.9	9.9	15.5	99.10	299.9	718.9	812.6	793.4	19.28	42.144		
4,700.0	4,686.2	4,605.7	4,530.8	10.1	15.9	99.08	308.0	737.3	832.7	812.9	19.73	42.204		
4,800.0	4,785.8	4,703.6	4,626.7	10.3	16.3	99.07	316.1	755.7	852.7	832.5	20.18	42.261		
4,900.0	4,885.4	4,801.6	4,722.6	10.6	16.7	99.05	324.2	774.1	872.7	852.1	20.62	42.316		
5,000.0	4,985.1	4,899.6	4,818.5	10.8	17.1	99.04	332.4	792.5	892.8	871.7	21.07	42.368		

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 2B-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 2B-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	5,084.7	4,997.5	4,914.4	11.0	17.4	99.03	340.5	810.8	912.8	891.3	21.52	42.418	
5,200.0	5,184.4	5,095.5	5,010.3	11.2	17.8	99.01	348.6	829.2	932.8	910.9	21.97	42.466	
5,300.0	5,284.0	5,193.5	5,106.2	11.5	18.2	99.00	356.8	847.6	952.9	930.4	22.41	42.512	
5,400.0	5,383.7	5,291.5	5,202.0	11.7	18.6	98.99	364.9	866.0	972.9	950.0	22.86	42.556	
5,500.0	5,483.3	5,389.4	5,297.9	11.9	19.0	98.98	373.0	884.4	992.9	969.6	23.31	42.598	
5,600.0	5,583.0	5,487.4	5,393.8	12.1	19.4	98.97	381.2	902.8	1,012.9	989.2	23.76	42.639	
5,700.0	5,682.6	5,585.4	5,489.7	12.4	19.8	98.96	389.3	921.2	1,033.0	1,008.8	24.20	42.678	
5,800.0	5,782.2	5,683.4	5,585.6	12.6	20.2	98.95	397.4	939.5	1,053.0	1,028.4	24.65	42.715	
5,900.0	5,881.9	5,781.3	5,681.5	12.8	20.6	98.94	405.6	957.9	1,073.0	1,047.9	25.10	42.752	
6,000.0	5,981.5	5,879.3	5,777.4	13.1	21.0	98.93	413.7	976.3	1,093.1	1,067.5	25.55	42.786	
6,100.0	6,081.2	5,977.3	5,873.3	13.3	21.4	98.92	421.8	994.7	1,113.1	1,087.1	25.99	42.820	
6,200.0	6,180.8	6,075.3	5,969.2	13.5	21.8	98.91	429.9	1,013.1	1,133.1	1,106.7	26.44	42.852	
6,300.0	6,280.5	6,173.2	6,065.0	13.7	22.2	98.91	438.1	1,031.5	1,153.2	1,126.3	26.89	42.884	
6,400.0	6,380.1	6,271.2	6,160.9	14.0	22.6	98.90	446.2	1,049.9	1,173.2	1,145.9	27.34	42.914	
6,500.0	6,479.7	6,369.2	6,256.8	14.2	23.0	98.89	454.3	1,068.2	1,193.2	1,165.4	27.79	42.943	
6,600.0	6,579.4	6,467.1	6,352.7	14.4	23.4	98.88	462.5	1,086.6	1,213.3	1,185.0	28.23	42.971	
6,700.0	6,679.0	6,565.1	6,448.6	14.7	23.8	98.88	470.6	1,105.0	1,233.3	1,204.6	28.68	42.999	
6,800.0	6,778.7	6,663.1	6,544.5	14.9	24.2	98.87	478.7	1,123.4	1,253.3	1,224.2	29.13	43.025	
6,901.0	6,879.3	6,762.1	6,641.3	15.1	24.6	98.86	486.9	1,142.0	1,273.6	1,244.0	29.58	43.051	
6,950.0	6,928.3	6,810.0	6,688.3	15.2	24.8	-170.14	490.9	1,151.0	1,283.4	1,253.4	29.93	42.879	
7,000.0	6,978.2	6,858.5	6,735.8	15.2	25.0	-96.60	494.9	1,160.1	1,293.3	1,263.1	30.21	42.815	
7,050.0	7,027.7	6,906.4	6,782.6	15.2	25.1	-92.02	498.9	1,169.0	1,303.2	1,272.8	30.41	42.861	
7,100.0	7,076.5	6,953.1	6,828.3	15.1	25.3	-90.27	502.8	1,177.8	1,313.1	1,282.5	30.53	43.015	
7,150.0	7,124.1	6,998.3	6,872.6	15.0	25.5	-89.34	506.5	1,186.3	1,322.9	1,292.4	30.57	43.270	
7,200.0	7,170.3	7,044.3	6,917.7	14.9	25.7	-88.83	509.7	1,194.9	1,332.9	1,302.4	30.54	43.638	
7,250.0	7,214.6	7,093.4	6,965.9	14.8	25.8	-88.52	509.3	1,204.2	1,342.9	1,312.5	30.42	44.141	
7,300.0	7,256.7	7,144.9	7,016.2	14.6	26.0	-88.34	504.4	1,213.8	1,352.8	1,322.6	30.22	44.760	
7,350.0	7,296.2	7,199.1	7,068.5	14.4	26.1	-88.25	494.3	1,223.9	1,362.6	1,332.6	29.95	45.492	
7,400.0	7,333.0	7,256.6	7,122.6	14.2	26.2	-88.25	478.1	1,234.2	1,372.1	1,342.5	29.61	46.340	
7,450.0	7,366.7	7,317.6	7,178.0	14.1	26.2	-88.34	455.0	1,244.9	1,381.3	1,352.1	29.21	47.286	
7,500.0	7,397.1	7,382.7	7,234.1	13.9	26.3	-88.49	423.8	1,255.6	1,390.0	1,361.2	28.77	48.307	
7,550.0	7,423.8	7,452.3	7,289.9	13.8	26.3	-88.70	383.6	1,266.3	1,398.0	1,369.7	28.32	49.368	
7,600.0	7,446.8	7,526.8	7,343.8	13.7	26.3	-88.97	333.3	1,276.6	1,405.3	1,377.4	27.88	50.411	
7,650.0	7,465.8	7,606.3	7,393.7	13.6	26.3	-89.25	272.3	1,286.2	1,411.5	1,384.0	27.49	51.345	
7,700.0	7,480.8	7,690.6	7,437.0	13.6	26.3	-89.54	200.5	1,294.5	1,416.7	1,389.4	27.22	52.040	
7,750.0	7,491.5	7,779.3	7,470.9	13.7	26.3	-89.78	118.9	1,301.0	1,420.5	1,393.3	27.13	52.354	
7,800.0	7,497.9	7,871.1	7,492.6	13.8	26.4	-89.94	29.9	1,305.2	1,422.8	1,395.5	27.27	52.176	
7,848.8	7,500.0	7,962.6	7,500.0	13.9	26.5	-90.00	-61.2	1,306.6	1,423.6	1,396.0	27.65	51.494	
7,900.0	7,500.0	8,014.6	7,500.0	14.1	26.6	-90.00	-113.2	1,306.6	1,423.6	1,395.5	28.08	50.691	
8,000.0	7,500.0	8,114.6	7,500.0	14.7	26.9	-90.00	-213.2	1,306.6	1,423.6	1,394.4	29.21	48.735	
8,100.0	7,500.0	8,214.6	7,500.0	15.4	27.3	-90.00	-313.2	1,306.6	1,423.6	1,392.9	30.70	46.371	
8,200.0	7,500.0	8,314.6	7,500.0	16.3	27.8	-90.00	-413.2	1,306.6	1,423.6	1,391.1	32.50	43.802	
8,300.0	7,500.0	8,414.6	7,500.0	17.3	28.4	-90.00	-513.2	1,306.6	1,423.6	1,389.0	34.57	41.186	
8,400.0	7,500.0	8,514.6	7,500.0	18.5	29.1	-90.00	-613.2	1,306.6	1,423.6	1,386.8	36.85	38.634	
8,500.0	7,500.0	8,614.6	7,500.0	19.7	29.9	-90.00	-713.2	1,306.6	1,423.6	1,384.3	39.31	36.212	
8,600.0	7,500.0	8,714.6	7,500.0	21.0	30.7	-90.00	-813.2	1,306.6	1,423.6	1,381.7	41.93	33.955	
8,700.0	7,500.0	8,814.6	7,500.0	22.4	31.7	-90.00	-913.2	1,306.6	1,423.6	1,378.9	44.66	31.875	
8,800.0	7,500.0	8,914.6	7,500.0	23.8	32.7	-90.00	-1,013.2	1,306.6	1,423.6	1,376.1	47.50	29.971	
8,900.0	7,500.0	9,014.6	7,500.0	25.3	33.7	-90.00	-1,113.2	1,306.6	1,423.6	1,373.2	50.42	28.234	
9,000.0	7,500.0	9,114.6	7,500.0	26.7	34.9	-90.00	-1,213.2	1,306.6	1,423.6	1,370.2	53.41	26.652	
9,100.0	7,500.0	9,214.6	7,500.0	28.3	36.0	-90.00	-1,313.2	1,306.6	1,423.6	1,367.1	56.47	25.211	
9,200.0	7,500.0	9,314.6	7,500.0	29.8	37.3	-90.00	-1,413.2	1,306.6	1,423.6	1,364.0	59.57	23.898	

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 2B-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 2B-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		
9,300.0	7,500.0	9,414.6	7,500.0	31.4	38.5	-90.00	-1,513.2	1,306.6	1,423.6	1,360.9	62.71	22.700		
9,400.0	7,500.0	9,514.6	7,500.0	33.0	39.8	-90.00	-1,613.2	1,306.6	1,423.6	1,357.7	65.90	21.604		
9,500.0	7,500.0	9,614.6	7,500.0	34.6	41.2	-90.00	-1,713.2	1,306.6	1,423.6	1,354.5	69.11	20.599		
9,600.0	7,500.0	9,714.6	7,500.0	36.2	42.5	-90.00	-1,813.2	1,306.6	1,423.6	1,351.3	72.35	19.676		
9,700.0	7,500.0	9,814.6	7,500.0	37.8	43.9	-90.00	-1,913.2	1,306.6	1,423.6	1,348.0	75.62	18.827		
9,800.0	7,500.0	9,914.6	7,500.0	39.5	45.3	-90.00	-2,013.2	1,306.6	1,423.6	1,344.7	78.90	18.043		
9,900.0	7,500.0	10,014.6	7,500.0	41.1	46.8	-90.00	-2,113.2	1,306.6	1,423.6	1,341.4	82.21	17.318		
10,000.0	7,500.0	10,114.6	7,500.0	42.8	48.2	-90.00	-2,213.2	1,306.6	1,423.6	1,338.1	85.53	16.645		
10,100.0	7,500.0	10,214.6	7,500.0	44.5	49.7	-90.00	-2,313.2	1,306.6	1,423.6	1,334.7	88.86	16.021		
10,200.0	7,500.0	10,314.6	7,500.0	46.1	51.2	-90.00	-2,413.2	1,306.6	1,423.6	1,331.4	92.21	15.439		
10,300.0	7,500.0	10,414.6	7,500.0	47.8	52.7	-90.00	-2,513.2	1,306.6	1,423.6	1,328.0	95.57	14.896		
10,400.0	7,500.0	10,514.6	7,500.0	49.5	54.3	-90.00	-2,613.2	1,306.6	1,423.6	1,324.7	98.94	14.389		
10,500.0	7,500.0	10,614.6	7,500.0	51.2	55.8	-90.00	-2,713.2	1,306.6	1,423.6	1,321.3	102.32	13.914		
10,600.0	7,500.0	10,714.6	7,500.0	52.9	57.4	-90.00	-2,813.2	1,306.6	1,423.6	1,317.9	105.70	13.468		
10,700.0	7,500.0	10,814.6	7,500.0	54.6	58.9	-90.00	-2,913.2	1,306.6	1,423.6	1,314.5	109.10	13.049		
10,800.0	7,500.0	10,914.6	7,500.0	56.3	60.5	-90.00	-3,013.2	1,306.6	1,423.6	1,311.1	112.50	12.654		
10,900.0	7,500.0	11,014.6	7,500.0	58.0	62.1	-90.00	-3,113.2	1,306.6	1,423.6	1,307.7	115.91	12.282		
11,000.0	7,500.0	11,114.6	7,500.0	59.7	63.7	-90.00	-3,213.2	1,306.6	1,423.6	1,304.3	119.32	11.931		
11,100.0	7,500.0	11,214.6	7,500.0	61.4	65.3	-90.00	-3,313.2	1,306.6	1,423.6	1,300.9	122.74	11.599		
11,200.0	7,500.0	11,314.6	7,500.0	63.1	66.9	-90.00	-3,413.2	1,306.6	1,423.6	1,297.4	126.16	11.284		
11,300.0	7,500.0	11,414.6	7,500.0	64.8	68.5	-90.00	-3,513.2	1,306.6	1,423.6	1,294.0	129.59	10.985		
11,400.0	7,500.0	11,514.6	7,500.0	66.5	70.2	-90.00	-3,613.2	1,306.6	1,423.6	1,290.6	133.03	10.702		
11,500.0	7,500.0	11,614.6	7,500.0	68.2	71.8	-90.00	-3,713.2	1,306.6	1,423.6	1,287.1	136.46	10.432		
11,600.0	7,500.0	11,714.6	7,500.0	70.0	73.4	-90.00	-3,813.2	1,306.6	1,423.6	1,283.7	139.90	10.176		
11,700.0	7,500.0	11,814.6	7,500.0	71.7	75.1	-90.00	-3,913.2	1,306.6	1,423.6	1,280.3	143.35	9.931		
11,800.0	7,500.0	11,914.6	7,500.0	73.4	76.7	-90.00	-4,013.2	1,306.6	1,423.6	1,276.8	146.79	9.698		
11,900.0	7,500.0	12,014.6	7,500.0	75.1	78.4	-90.00	-4,113.2	1,306.6	1,423.6	1,273.4	150.24	9.475		
12,000.0	7,500.0	12,114.6	7,500.0	76.9	80.0	-90.00	-4,213.2	1,306.6	1,423.6	1,269.9	153.69	9.263		
12,100.0	7,500.0	12,214.6	7,500.0	78.6	81.7	-90.00	-4,313.2	1,306.6	1,423.6	1,266.5	157.15	9.059		
12,200.0	7,500.0	12,314.6	7,500.0	80.3	83.3	-90.00	-4,413.2	1,306.6	1,423.6	1,263.0	160.60	8.864		
12,300.0	7,500.0	12,414.6	7,500.0	82.0	85.0	-90.00	-4,513.2	1,306.6	1,423.6	1,259.5	164.06	8.677		
12,400.0	7,500.0	12,514.6	7,500.0	83.8	86.7	-90.00	-4,613.2	1,306.6	1,423.6	1,256.1	167.52	8.498		
12,500.0	7,500.0	12,614.6	7,500.0	85.5	88.4	-90.00	-4,713.2	1,306.6	1,423.6	1,252.6	170.99	8.326		
12,600.0	7,500.0	12,714.6	7,500.0	87.2	90.0	-90.00	-4,813.2	1,306.6	1,423.6	1,249.2	174.45	8.160		
12,700.0	7,500.0	12,814.6	7,500.0	89.0	91.7	-90.00	-4,913.2	1,306.6	1,423.6	1,245.7	177.92	8.001		
12,800.0	7,500.0	12,914.6	7,500.0	90.7	93.4	-90.00	-5,013.2	1,306.6	1,423.6	1,242.2	181.39	7.848		
12,900.0	7,500.0	13,014.6	7,500.0	92.4	95.1	-90.00	-5,113.2	1,306.6	1,423.6	1,238.8	184.86	7.701		
12,986.8	7,500.0	13,101.4	7,500.0	93.9	96.5	-90.00	-5,200.0	1,306.6	1,423.6	1,235.7	187.87	7.578		
13,000.0	7,500.0	13,114.6	7,500.0	94.2	96.8	-90.00	-5,213.2	1,306.6	1,423.6	1,235.2	188.37	7.557		
13,058.5	7,500.0	13,173.1	7,500.0	95.2	97.8	-90.00	-5,271.7	1,306.6	1,423.2	1,232.6	190.59	7.467		
13,100.0	7,500.0	13,214.6	7,500.0	95.9	98.5	-90.00	-5,313.2	1,306.6	1,422.6	1,230.6	192.03	7.408		
13,200.0	7,500.0	13,314.6	7,500.0	97.6	100.2	-90.00	-5,413.1	1,306.6	1,421.4	1,225.9	195.50	7.270		
13,300.0	7,500.0	13,414.6	7,500.0	99.4	101.8	-90.00	-5,513.1	1,306.6	1,420.1	1,221.2	198.98	7.137		
13,400.0	7,500.0	13,514.5	7,500.0	101.1	103.5	-90.00	-5,613.1	1,306.6	1,418.9	1,216.4	202.46	7.008		
13,500.0	7,500.0	13,614.5	7,500.0	102.9	105.2	-90.00	-5,713.1	1,306.6	1,417.6	1,211.7	205.93	6.884		
13,600.0	7,500.0	13,714.5	7,500.0	104.6	106.9	-90.00	-5,813.1	1,306.6	1,416.4	1,207.0	209.41	6.764		
13,700.0	7,500.0	13,814.5	7,500.0	106.3	108.6	-90.00	-5,913.1	1,306.6	1,415.1	1,202.2	212.89	6.647		
13,800.0	7,500.0	13,914.5	7,500.0	108.1	110.3	-90.00	-6,013.1	1,306.6	1,413.9	1,197.5	216.37	6.535		
13,900.0	7,500.0	14,014.5	7,500.0	109.8	112.1	-90.00	-6,113.1	1,306.6	1,412.6	1,192.8	219.85	6.425		
14,000.0	7,500.0	14,114.5	7,500.0	111.6	113.8	-90.00	-6,213.1	1,306.6	1,411.4	1,188.1	223.33	6.320		
14,100.0	7,500.0	14,214.5	7,500.0	113.3	115.5	-90.00	-6,313.1	1,306.6	1,410.1	1,183.3	226.81	6.217		
14,200.0	7,500.0	14,314.5	7,500.0	115.0	117.2	-90.00	-6,413.1	1,306.6	1,408.9	1,178.6	230.30	6.118		

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 2B-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 2B-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						
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	7,500.0	14,414.5	7,500.0	116.8	118.9	-90.00	-6,513.1	1,306.6	1,407.6	1,173.9	233.78	6.021	
14,400.0	7,500.0	14,514.5	7,500.0	118.5	120.6	-90.00	-6,613.1	1,306.6	1,406.4	1,169.1	237.27	5.927	
14,500.0	7,500.0	14,614.5	7,500.0	120.3	122.3	-90.00	-6,713.0	1,306.6	1,405.1	1,164.4	240.75	5.836	
14,600.0	7,500.0	14,714.5	7,500.0	122.0	124.0	-90.00	-6,813.0	1,306.6	1,403.9	1,159.6	244.24	5.748	
14,700.0	7,500.0	14,814.4	7,500.0	123.7	125.7	-90.00	-6,913.0	1,306.6	1,402.6	1,154.9	247.72	5.662	
14,800.0	7,500.0	14,914.4	7,500.0	125.5	127.5	-90.00	-7,013.0	1,306.6	1,401.4	1,150.2	251.21	5.579	
14,900.0	7,500.0	15,014.4	7,500.0	127.2	129.2	-90.00	-7,113.0	1,306.6	1,400.1	1,145.4	254.70	5.497	
15,000.0	7,500.0	15,114.4	7,500.0	129.0	130.9	-90.00	-7,213.0	1,306.6	1,398.9	1,140.7	258.19	5.418	
15,100.0	7,500.0	15,214.4	7,500.0	130.7	132.6	-90.00	-7,313.0	1,306.6	1,397.6	1,136.0	261.68	5.341	
15,200.0	7,500.0	15,314.4	7,500.0	132.5	134.3	-90.00	-7,413.0	1,306.6	1,396.4	1,131.2	265.16	5.266	
15,300.0	7,500.0	15,414.4	7,500.0	134.2	136.1	-90.00	-7,513.0	1,306.6	1,395.1	1,126.5	268.65	5.193	
15,400.0	7,500.0	15,514.4	7,500.0	136.0	137.8	-90.00	-7,613.0	1,306.6	1,393.9	1,121.7	272.15	5.122	
15,500.0	7,500.0	15,614.4	7,500.0	137.7	139.5	-90.00	-7,713.0	1,306.6	1,392.6	1,117.0	275.64	5.052	
15,600.0	7,500.0	15,714.4	7,500.0	139.4	141.2	-90.00	-7,813.0	1,306.6	1,391.4	1,112.2	279.13	4.985	
15,706.0	7,500.0	15,820.4	7,500.0	141.3	143.0	-90.00	-7,919.0	1,306.6	1,390.0	1,107.2	282.83	4.915 SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Woolley-Sosa 2B-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 2B-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 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							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	90.41	-0.4	49.8	49.8						
100.0	100.0	100.0	100.0	0.2	0.2	90.41	-0.4	49.8	49.8	49.5	0.30	164.050			
200.0	200.0	200.0	200.0	0.3	0.3	90.41	-0.4	49.8	49.8	49.2	0.65	76.323 CC, ES			
300.0	300.0	299.2	299.2	0.5	0.5	90.09	-0.1	50.6	50.6	49.6	1.00	50.583			
400.0	400.0	398.3	398.2	0.7	0.7	129.88	0.8	53.1	53.7	52.3	1.35	39.776			
500.0	500.0	497.2	497.1	0.9	0.9	130.41	2.2	57.1	59.4	57.7	1.70	34.961			
600.0	599.9	595.8	595.5	1.0	1.1	131.44	4.1	62.7	68.0	65.9	2.06	33.067			
700.0	699.7	694.0	693.3	1.2	1.3	132.68	6.6	69.9	79.3	76.9	2.42	32.792			
800.0	799.4	791.7	790.6	1.4	1.5	133.66	9.6	78.7	92.8	90.0	2.78	33.314			
900.0	899.2	889.0	887.3	1.6	1.7	134.03	13.1	88.9	107.8	104.7	3.16	34.166			
1,000.0	998.9	985.8	983.3	1.8	2.0	134.01	17.2	100.7	124.5	120.9	3.53	35.239			
1,100.0	1,098.7	1,082.0	1,078.6	2.1	2.3	133.72	21.7	113.9	142.6	138.7	3.91	36.466			
1,200.0	1,198.5	1,177.7	1,173.0	2.3	2.6	133.28	26.8	128.5	162.3	158.0	4.29	37.808			
1,300.0	1,298.2	1,272.9	1,266.7	2.5	2.9	118.98	32.3	144.5	182.8	178.2	4.68	39.028			
1,400.0	1,397.9	1,367.8	1,359.7	2.7	3.3	106.69	38.3	161.9	203.7	198.7	5.09	40.019			
1,450.9	1,448.6	1,415.9	1,406.8	2.8	3.5	101.37	41.5	171.3	214.5	209.2	5.30	40.453			
1,500.0	1,497.6	1,462.2	1,452.0	2.9	3.7	101.40	44.7	180.7	225.1	219.6	5.51	40.869			
1,600.0	1,597.2	1,556.0	1,543.4	3.1	4.1	101.34	51.7	200.8	247.8	241.9	5.93	41.797			
1,700.0	1,696.9	1,651.5	1,636.1	3.3	4.5	101.18	59.1	222.5	271.7	265.3	6.36	42.753			
1,800.0	1,796.5	1,748.5	1,730.3	3.6	4.9	101.03	66.8	244.6	295.7	289.0	6.79	43.574			
1,900.0	1,896.1	1,845.6	1,824.5	3.8	5.3	100.91	74.4	266.7	319.8	312.6	7.22	44.287			
2,000.0	1,995.8	1,942.7	1,918.7	4.0	5.8	100.80	82.0	288.9	343.8	336.2	7.66	44.911			
2,100.0	2,095.4	2,039.7	2,012.9	4.2	6.2	100.71	89.6	311.0	367.9	359.8	8.09	45.462			
2,200.0	2,195.1	2,136.8	2,107.1	4.4	6.7	100.63	97.3	333.1	391.9	383.4	8.53	45.951			
2,300.0	2,294.7	2,233.9	2,201.3	4.7	7.1	100.56	104.9	355.3	416.0	407.0	8.97	46.389			
2,400.0	2,394.4	2,330.9	2,295.5	4.9	7.5	100.49	112.5	377.4	440.0	430.6	9.41	46.782			
2,500.0	2,494.0	2,428.0	2,389.7	5.1	8.0	100.44	120.1	399.5	464.1	454.3	9.85	47.137			
2,600.0	2,593.6	2,525.0	2,483.9	5.3	8.4	100.39	127.8	421.6	488.2	477.9	10.29	47.460			
2,700.0	2,693.3	2,622.1	2,578.1	5.6	8.9	100.34	135.4	443.8	512.2	501.5	10.73	47.754			
2,800.0	2,792.9	2,719.2	2,672.2	5.8	9.3	100.30	143.0	465.9	536.3	525.1	11.17	48.023			
2,900.0	2,892.6	2,816.2	2,766.4	6.0	9.8	100.26	150.6	488.0	560.3	548.7	11.61	48.270			
3,000.0	2,992.2	2,913.3	2,860.6	6.2	10.2	100.22	158.3	510.2	584.4	572.3	12.05	48.498			
3,100.0	3,091.9	3,010.4	2,954.8	6.5	10.7	100.19	165.9	532.3	608.4	595.9	12.49	48.709			
3,200.0	3,191.5	3,107.4	3,049.0	6.7	11.1	100.16	173.5	554.4	632.5	619.6	12.93	48.904			
3,300.0	3,291.2	3,204.5	3,143.2	6.9	11.6	100.13	181.1	576.6	656.5	643.2	13.38	49.086			
3,400.0	3,390.8	3,301.6	3,237.4	7.1	12.0	100.11	188.8	598.7	680.6	666.8	13.82	49.255			
3,500.0	3,490.4	3,398.6	3,331.6	7.4	12.5	100.08	196.4	620.8	704.6	690.4	14.26	49.413			
3,600.0	3,590.1	3,495.7	3,425.8	7.6	12.9	100.06	204.0	643.0	728.7	714.0	14.70	49.561			
3,700.0	3,689.7	3,592.7	3,520.0	7.8	13.4	100.04	211.6	665.1	752.8	737.6	15.15	49.700			
3,800.0	3,789.4	3,689.8	3,614.2	8.1	13.8	100.02	219.3	687.2	776.8	761.2	15.59	49.831			
3,900.0	3,889.0	3,786.9	3,708.4	8.3	14.3	100.00	226.9	709.4	800.9	784.8	16.03	49.954			
4,000.0	3,988.7	3,883.9	3,802.6	8.5	14.7	99.98	234.5	731.5	824.9	808.5	16.48	50.070			
4,100.0	4,088.3	3,981.0	3,896.8	8.7	15.2	99.96	242.1	753.6	849.0	832.1	16.92	50.180			
4,200.0	4,187.9	4,078.1	3,991.0	9.0	15.6	99.95	249.8	775.8	873.0	855.7	17.36	50.283			
4,300.0	4,287.6	4,175.1	4,085.2	9.2	16.1	99.93	257.4	797.9	897.1	879.3	17.81	50.382			
4,400.0	4,387.2	4,272.2	4,179.4	9.4	16.5	99.92	265.0	820.0	921.2	902.9	18.25	50.475			
4,500.0	4,486.9	4,369.2	4,273.6	9.6	17.0	99.91	272.6	842.1	945.2	926.5	18.69	50.563			
4,600.0	4,586.5	4,466.3	4,367.8	9.9	17.4	99.89	280.3	864.3	969.3	950.1	19.14	50.648			
4,700.0	4,686.2	4,563.4	4,462.0	10.1	17.9	99.88	287.9	886.4	993.3	973.7	19.58	50.728			
4,800.0	4,785.8	4,660.4	4,556.2	10.3	18.3	99.87	295.5	908.5	1,017.4	997.4	20.03	50.805			
4,900.0	4,885.4	4,757.5	4,650.4	10.6	18.8	99.86	303.1	930.7	1,041.4	1,021.0	20.47	50.878			
5,000.0	4,985.1	4,854.6	4,744.6	10.8	19.2	99.85	310.8	952.8	1,065.5	1,044.6	20.91	50.948			

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 2B-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 2B-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 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
5,100.0	5,084.7	4,951.6	4,838.8	11.0	19.7	99.84	318.4	974.9	1,089.5	1,068.2	21.36	51.015	
5,200.0	5,184.4	5,048.7	4,933.0	11.2	20.1	99.83	326.0	997.1	1,113.6	1,091.8	21.80	51.079	
5,300.0	5,284.0	5,145.8	5,027.2	11.5	20.6	99.82	333.6	1,019.2	1,137.7	1,115.4	22.25	51.140	
5,400.0	5,383.7	5,242.8	5,121.4	11.7	21.0	99.81	341.3	1,041.3	1,161.7	1,139.0	22.69	51.199	
5,500.0	5,483.3	5,339.9	5,215.6	11.9	21.5	99.80	348.9	1,063.5	1,185.8	1,162.6	23.13	51.256	
5,600.0	5,583.0	5,436.9	5,309.8	12.1	21.9	99.79	356.5	1,085.6	1,209.8	1,186.2	23.58	51.310	
5,700.0	5,682.6	5,534.0	5,404.0	12.4	22.4	99.79	364.2	1,107.7	1,233.9	1,209.9	24.02	51.362	
5,800.0	5,782.2	5,631.1	5,498.2	12.6	22.8	99.78	371.8	1,129.9	1,257.9	1,233.5	24.47	51.412	
5,900.0	5,881.9	5,728.1	5,592.4	12.8	23.3	99.77	379.4	1,152.0	1,282.0	1,257.1	24.91	51.461	
6,000.0	5,981.5	5,825.2	5,686.6	13.1	23.7	99.76	387.0	1,174.1	1,306.1	1,280.7	25.36	51.507	
6,100.0	6,081.2	5,922.3	5,780.8	13.3	24.2	99.76	394.7	1,196.3	1,330.1	1,304.3	25.80	51.552	
6,200.0	6,180.8	6,019.3	5,875.0	13.5	24.6	99.75	402.3	1,218.4	1,354.2	1,327.9	26.25	51.596	
6,300.0	6,280.5	6,116.4	5,969.2	13.7	25.1	99.74	409.9	1,240.5	1,378.2	1,351.5	26.69	51.638	
6,400.0	6,380.1	6,213.4	6,063.4	14.0	25.5	99.74	417.5	1,262.6	1,402.3	1,375.1	27.13	51.678	
6,500.0	6,479.7	6,310.5	6,157.6	14.2	26.0	99.73	425.2	1,284.8	1,426.3	1,398.8	27.58	51.717	
6,600.0	6,579.4	6,407.6	6,251.8	14.4	26.4	99.73	432.8	1,306.9	1,450.4	1,422.4	28.02	51.755	
6,700.0	6,679.0	6,504.6	6,346.0	14.7	26.9	99.72	440.4	1,329.0	1,474.5	1,446.0	28.47	51.792	
6,800.0	6,778.7	6,601.7	6,440.2	14.9	27.3	99.72	448.0	1,351.2	1,498.5	1,469.6	28.91	51.827	
6,901.0	6,879.3	6,699.7	6,535.3	15.1	27.8	99.71	455.7	1,373.5	1,522.8	1,493.4	29.36	51.862	
6,950.0	6,928.3	6,747.2	6,581.4	15.2	28.0	-169.07	459.5	1,384.4	1,534.5	1,504.7	29.80	51.493	
7,000.0	6,978.2	6,795.4	6,628.1	15.2	28.2	-95.28	463.2	1,395.3	1,546.4	1,516.2	30.17	51.254	
7,050.0	7,027.7	6,842.8	6,674.1	15.2	28.5	-90.43	467.0	1,406.1	1,558.1	1,527.6	30.46	51.155	
7,100.0	7,076.5	6,889.1	6,719.1	15.1	28.7	-88.41	470.6	1,416.7	1,569.6	1,538.9	30.66	51.197	
7,150.0	7,124.1	6,934.0	6,762.7	15.0	28.9	-87.21	474.1	1,426.9	1,580.9	1,550.2	30.77	51.373	
7,200.0	7,170.3	6,977.1	6,804.5	14.9	29.1	-86.39	477.5	1,436.8	1,592.2	1,561.4	30.81	51.671	
7,250.0	7,214.6	7,018.2	6,844.4	14.8	29.3	-85.78	480.8	1,446.1	1,603.5	1,572.7	30.79	52.076	
7,300.0	7,256.7	7,056.8	6,881.8	14.6	29.5	-85.30	483.8	1,454.9	1,614.8	1,584.1	30.72	52.571	
7,350.0	7,296.2	7,092.7	6,916.7	14.4	29.6	-84.86	486.6	1,463.1	1,626.3	1,595.7	30.60	53.138	
7,400.0	7,333.0	7,125.6	6,948.6	14.2	29.8	-84.43	489.2	1,470.6	1,638.0	1,607.5	30.47	53.759	
7,450.0	7,366.7	7,155.3	6,977.5	14.1	29.9	-83.96	491.5	1,477.4	1,650.1	1,619.8	30.32	54.420	
7,500.0	7,397.1	7,181.6	7,002.9	13.9	30.0	-83.40	493.6	1,483.4	1,662.6	1,632.4	30.17	55.110	
7,550.0	7,423.8	7,204.1	7,024.8	13.8	30.1	-82.73	495.4	1,488.5	1,675.6	1,645.6	30.02	55.823	
7,600.0	7,446.8	7,222.9	7,043.0	13.7	30.2	-81.91	496.8	1,492.8	1,689.2	1,659.3	29.86	56.562	
7,650.0	7,465.8	7,237.7	7,057.4	13.6	30.3	-80.92	498.0	1,496.2	1,703.3	1,673.6	29.71	57.336	
7,700.0	7,480.8	7,248.4	7,067.8	13.6	30.4	-79.76	498.8	1,498.6	1,717.9	1,688.4	29.53	58.165	
7,750.0	7,491.5	7,254.9	7,074.1	13.7	30.4	-78.42	499.4	1,500.1	1,733.0	1,703.7	29.34	59.071	
7,800.0	7,497.9	7,257.2	7,076.4	13.8	30.4	-76.90	499.5	1,500.6	1,748.5	1,719.4	29.10	60.079	
7,848.8	7,500.0	7,255.4	7,074.6	13.9	30.4	-75.26	499.4	1,500.2	1,764.0	1,735.1	28.83	61.177	
7,900.0	7,500.0	7,251.4	7,070.7	14.1	30.4	-75.13	499.1	1,499.3	1,780.9	1,751.9	29.02	61.359	
8,000.0	7,500.0	8,412.8	7,740.0	14.7	32.5	-97.71	-213.2	1,656.6	1,789.7	1,760.4	29.29	61.098	
8,100.0	7,500.0	8,512.8	7,740.0	15.4	32.9	-97.71	-313.2	1,656.6	1,789.7	1,759.0	30.76	58.178	
8,200.0	7,500.0	8,612.8	7,740.0	16.3	33.3	-97.71	-413.2	1,656.6	1,789.7	1,757.2	32.54	55.002	
8,300.0	7,500.0	8,712.8	7,740.0	17.3	33.8	-97.71	-513.2	1,656.6	1,789.7	1,755.2	34.58	51.763	
8,400.0	7,500.0	8,812.8	7,740.0	18.5	34.4	-97.71	-613.2	1,656.6	1,789.7	1,752.9	36.83	48.597	
8,500.0	7,500.0	8,912.8	7,740.0	19.7	35.0	-97.71	-713.2	1,656.6	1,789.7	1,750.5	39.26	45.587	
8,600.0	7,500.0	9,012.8	7,740.0	21.0	35.7	-97.71	-813.2	1,656.6	1,789.7	1,747.9	41.84	42.777	
8,700.0	7,500.0	9,112.8	7,740.0	22.4	36.5	-97.71	-913.2	1,656.6	1,789.7	1,745.2	44.54	40.182	
8,800.0	7,500.0	9,212.8	7,740.0	23.8	37.4	-97.71	-1,013.2	1,656.6	1,789.7	1,742.4	47.34	37.803	
8,900.0	7,500.0	9,312.8	7,740.0	25.3	38.3	-97.71	-1,113.2	1,656.6	1,789.7	1,739.5	50.23	35.630	
9,000.0	7,500.0	9,412.8	7,740.0	26.7	39.3	-97.71	-1,213.2	1,656.6	1,789.7	1,736.5	53.19	33.649	
9,100.0	7,500.0	9,512.8	7,740.0	28.3	40.4	-97.71	-1,313.2	1,656.6	1,789.7	1,733.5	56.21	31.842	
9,200.0	7,500.0	9,612.8	7,740.0	29.8	41.4	-97.71	-1,413.2	1,656.6	1,789.7	1,730.5	59.27	30.194	

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 2B-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 2B-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 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				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)				
9,300.0	7,500.0	9,712.8	7,740.0	31.4	42.6	-97.71	-1,513.2	1,656.6	1,789.7	1,727.3	62.38	28.689		
9,400.0	7,500.0	9,812.8	7,740.0	33.0	43.7	-97.71	-1,613.2	1,656.6	1,789.7	1,724.2	65.53	27.311		
9,500.0	7,500.0	9,912.8	7,740.0	34.6	45.0	-97.71	-1,713.2	1,656.6	1,789.7	1,721.0	68.71	26.047		
9,600.0	7,500.0	10,012.8	7,740.0	36.2	46.2	-97.71	-1,813.2	1,656.6	1,789.7	1,717.8	71.92	24.886		
9,700.0	7,500.0	10,112.8	7,740.0	37.8	47.5	-97.71	-1,913.2	1,656.6	1,789.7	1,714.6	75.15	23.816		
9,800.0	7,500.0	10,212.8	7,740.0	39.5	48.8	-97.71	-2,013.2	1,656.6	1,789.7	1,711.3	78.40	22.828		
9,900.0	7,500.0	10,312.8	7,740.0	41.1	50.1	-97.71	-2,113.2	1,656.6	1,789.7	1,708.1	81.67	21.914		
10,000.0	7,500.0	10,412.8	7,740.0	42.8	51.5	-97.71	-2,213.2	1,656.6	1,789.7	1,704.8	84.96	21.066		
10,100.0	7,500.0	10,512.8	7,740.0	44.5	52.9	-97.71	-2,313.2	1,656.6	1,789.7	1,701.5	88.26	20.278		
10,200.0	7,500.0	10,612.8	7,740.0	46.1	54.3	-97.71	-2,413.2	1,656.6	1,789.7	1,698.2	91.57	19.544		
10,300.0	7,500.0	10,712.8	7,740.0	47.8	55.7	-97.71	-2,513.2	1,656.6	1,789.7	1,694.8	94.90	18.859		
10,400.0	7,500.0	10,812.8	7,740.0	49.5	57.2	-97.71	-2,613.2	1,656.6	1,789.7	1,691.5	98.24	18.219		
10,500.0	7,500.0	10,912.8	7,740.0	51.2	58.6	-97.71	-2,713.2	1,656.6	1,789.7	1,688.1	101.58	17.619		
10,600.0	7,500.0	11,012.8	7,740.0	52.9	60.1	-97.71	-2,813.2	1,656.6	1,789.7	1,684.8	104.94	17.055		
10,700.0	7,500.0	11,112.8	7,740.0	54.6	61.6	-97.71	-2,913.2	1,656.6	1,789.7	1,681.4	108.30	16.526		
10,800.0	7,500.0	11,212.8	7,740.0	56.3	63.1	-97.71	-3,013.2	1,656.6	1,789.7	1,678.1	111.67	16.027		
10,900.0	7,500.0	11,312.8	7,740.0	58.0	64.7	-97.71	-3,113.2	1,656.6	1,789.7	1,674.7	115.04	15.557		
11,000.0	7,500.0	11,412.8	7,740.0	59.7	66.2	-97.71	-3,213.2	1,656.6	1,789.7	1,671.3	118.42	15.113		
11,100.0	7,500.0	11,512.8	7,740.0	61.4	67.7	-97.71	-3,313.2	1,656.6	1,789.7	1,667.9	121.81	14.693		
11,200.0	7,500.0	11,612.8	7,740.0	63.1	69.3	-97.71	-3,413.2	1,656.6	1,789.7	1,664.5	125.20	14.295		
11,300.0	7,500.0	11,712.8	7,740.0	64.8	70.9	-97.71	-3,513.2	1,656.6	1,789.7	1,661.1	128.60	13.917		
11,400.0	7,500.0	11,812.8	7,740.0	66.5	72.4	-97.71	-3,613.2	1,656.6	1,789.7	1,657.7	132.00	13.559		
11,500.0	7,500.0	11,912.8	7,740.0	68.2	74.0	-97.71	-3,713.2	1,656.6	1,789.7	1,654.3	135.40	13.218		
11,600.0	7,500.0	12,012.8	7,740.0	70.0	75.6	-97.71	-3,813.2	1,656.6	1,789.7	1,650.9	138.81	12.893		
11,700.0	7,500.0	12,112.8	7,740.0	71.7	77.2	-97.71	-3,913.2	1,656.6	1,789.7	1,647.5	142.22	12.584		
11,800.0	7,500.0	12,212.8	7,740.0	73.4	78.8	-97.71	-4,013.2	1,656.6	1,789.7	1,644.1	145.64	12.289		
11,900.0	7,500.0	12,312.8	7,740.0	75.1	80.4	-97.71	-4,113.2	1,656.6	1,789.7	1,640.7	149.05	12.007		
12,000.0	7,500.0	12,412.8	7,740.0	76.9	82.0	-97.71	-4,213.2	1,656.6	1,789.7	1,637.3	152.47	11.738		
12,100.0	7,500.0	12,512.8	7,740.0	78.6	83.6	-97.71	-4,313.2	1,656.6	1,789.7	1,633.8	155.90	11.480		
12,200.0	7,500.0	12,612.8	7,740.0	80.3	85.3	-97.71	-4,413.2	1,656.6	1,789.7	1,630.4	159.32	11.233		
12,300.0	7,500.0	12,712.8	7,740.0	82.0	86.9	-97.71	-4,513.2	1,656.6	1,789.7	1,627.0	162.75	10.997		
12,400.0	7,500.0	12,812.8	7,740.0	83.8	88.5	-97.71	-4,613.2	1,656.6	1,789.7	1,623.6	166.18	10.770		
12,500.0	7,500.0	12,912.8	7,740.0	85.5	90.2	-97.71	-4,713.2	1,656.6	1,789.7	1,620.1	169.61	10.552		
12,600.0	7,500.0	13,012.8	7,740.0	87.2	91.8	-97.71	-4,813.2	1,656.6	1,789.7	1,616.7	173.04	10.343		
12,700.0	7,500.0	13,112.8	7,740.0	89.0	93.5	-97.71	-4,913.2	1,656.6	1,789.7	1,613.3	176.48	10.142		
12,800.0	7,500.0	13,212.8	7,740.0	90.7	95.1	-97.71	-5,013.2	1,656.6	1,789.7	1,609.8	179.91	9.948		
12,900.0	7,500.0	13,312.8	7,740.0	92.4	96.8	-97.71	-5,113.2	1,656.6	1,789.7	1,606.4	183.35	9.761		
12,986.8	7,500.0	13,399.6	7,740.0	93.9	98.2	-97.71	-5,200.0	1,656.6	1,789.7	1,603.4	186.34	9.605		
13,000.0	7,500.0	13,412.8	7,740.0	94.2	98.4	-97.71	-5,213.2	1,656.6	1,789.7	1,602.9	186.85	9.579		
13,058.5	7,500.0	13,471.3	7,740.0	95.2	99.4	-97.71	-5,271.7	1,656.6	1,789.3	1,600.2	189.10	9.462		
13,100.0	7,500.0	13,512.8	7,740.0	95.9	100.1	-97.71	-5,313.2	1,656.6	1,788.8	1,598.2	190.53	9.388		
13,200.0	7,500.0	13,612.7	7,740.0	97.6	101.8	-97.72	-5,413.1	1,656.6	1,787.5	1,593.6	193.97	9.216		
13,300.0	7,500.0	13,712.7	7,740.0	99.4	103.4	-97.72	-5,513.1	1,656.6	1,786.3	1,588.9	197.41	9.049		
13,400.0	7,500.0	13,812.7	7,740.0	101.1	105.1	-97.73	-5,613.1	1,656.6	1,785.1	1,584.2	200.85	8.887		
13,500.0	7,500.0	13,912.7	7,740.0	102.9	106.8	-97.73	-5,713.1	1,656.6	1,783.8	1,579.5	204.30	8.732		
13,600.0	7,500.0	14,012.7	7,740.0	104.6	108.5	-97.74	-5,813.1	1,656.6	1,782.6	1,574.8	207.74	8.581		
13,700.0	7,500.0	14,112.7	7,740.0	106.3	110.1	-97.74	-5,913.1	1,656.6	1,781.3	1,570.2	211.18	8.435		
13,800.0	7,500.0	14,212.7	7,740.0	108.1	111.8	-97.75	-6,013.1	1,656.6	1,780.1	1,565.5	214.63	8.294		
13,900.0	7,500.0	14,312.7	7,740.0	109.8	113.5	-97.75	-6,113.1	1,656.6	1,778.9	1,560.8	218.07	8.157		
14,000.0	7,500.0	14,412.7	7,740.0	111.6	115.2	-97.76	-6,213.1	1,656.6	1,777.6	1,556.1	221.52	8.025		
14,100.0	7,500.0	14,512.7	7,740.0	113.3	116.9	-97.77	-6,313.1	1,656.6	1,776.4	1,551.4	224.97	7.896		
14,200.0	7,500.0	14,612.7	7,740.0	115.0	118.6	-97.77	-6,413.1	1,656.6	1,775.1	1,546.7	228.42	7.772		

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 2B-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 2B-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 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							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	7,500.0	14,712.7	7,740.0	116.8	120.3	-97.78	-6,513.1	1,656.6		1,773.9	1,542.0	231.87	7.651			
14,400.0	7,500.0	14,812.6	7,740.0	118.5	121.9	-97.78	-6,613.1	1,656.6		1,772.7	1,537.4	235.32	7.533			
14,500.0	7,500.0	14,912.6	7,740.0	120.3	123.6	-97.79	-6,713.0	1,656.6		1,771.4	1,532.7	238.77	7.419			
14,600.0	7,500.0	15,012.6	7,740.0	122.0	125.3	-97.79	-6,813.0	1,656.6		1,770.2	1,528.0	242.22	7.308			
14,700.0	7,500.0	15,112.6	7,740.0	123.7	127.0	-97.80	-6,913.0	1,656.6		1,768.9	1,523.3	245.67	7.201			
14,800.0	7,500.0	15,212.6	7,740.0	125.5	128.7	-97.80	-7,013.0	1,656.6		1,767.7	1,518.6	249.12	7.096			
14,900.0	7,500.0	15,312.6	7,740.0	127.2	130.4	-97.81	-7,113.0	1,656.6		1,766.5	1,513.9	252.57	6.994			
15,000.0	7,500.0	15,412.6	7,740.0	129.0	132.1	-97.81	-7,213.0	1,656.6		1,765.2	1,509.2	256.02	6.895			
15,100.0	7,500.0	15,512.6	7,740.0	130.7	133.8	-97.82	-7,313.0	1,656.6		1,764.0	1,504.5	259.48	6.798			
15,200.0	7,500.0	15,612.6	7,740.0	132.5	135.5	-97.83	-7,413.0	1,656.6		1,762.8	1,499.8	262.93	6.704			
15,300.0	7,500.0	15,712.6	7,740.0	134.2	137.3	-97.83	-7,513.0	1,656.6		1,761.5	1,495.1	266.38	6.613			
15,400.0	7,500.0	15,812.6	7,740.0	136.0	139.0	-97.84	-7,613.0	1,656.6		1,760.3	1,490.4	269.84	6.523			
15,500.0	7,500.0	15,912.6	7,740.0	137.7	140.7	-97.84	-7,713.0	1,656.6		1,759.0	1,485.7	273.29	6.436			
15,600.0	7,500.0	16,012.6	7,740.0	139.4	142.4	-97.85	-7,813.0	1,656.6		1,757.8	1,481.0	276.75	6.352			
15,706.0	7,500.0	16,118.6	7,740.0	141.3	144.2	-97.85	-7,919.0	1,656.6		1,756.5	1,476.1	280.41	6.264 SF			

Cathedral Energy Services

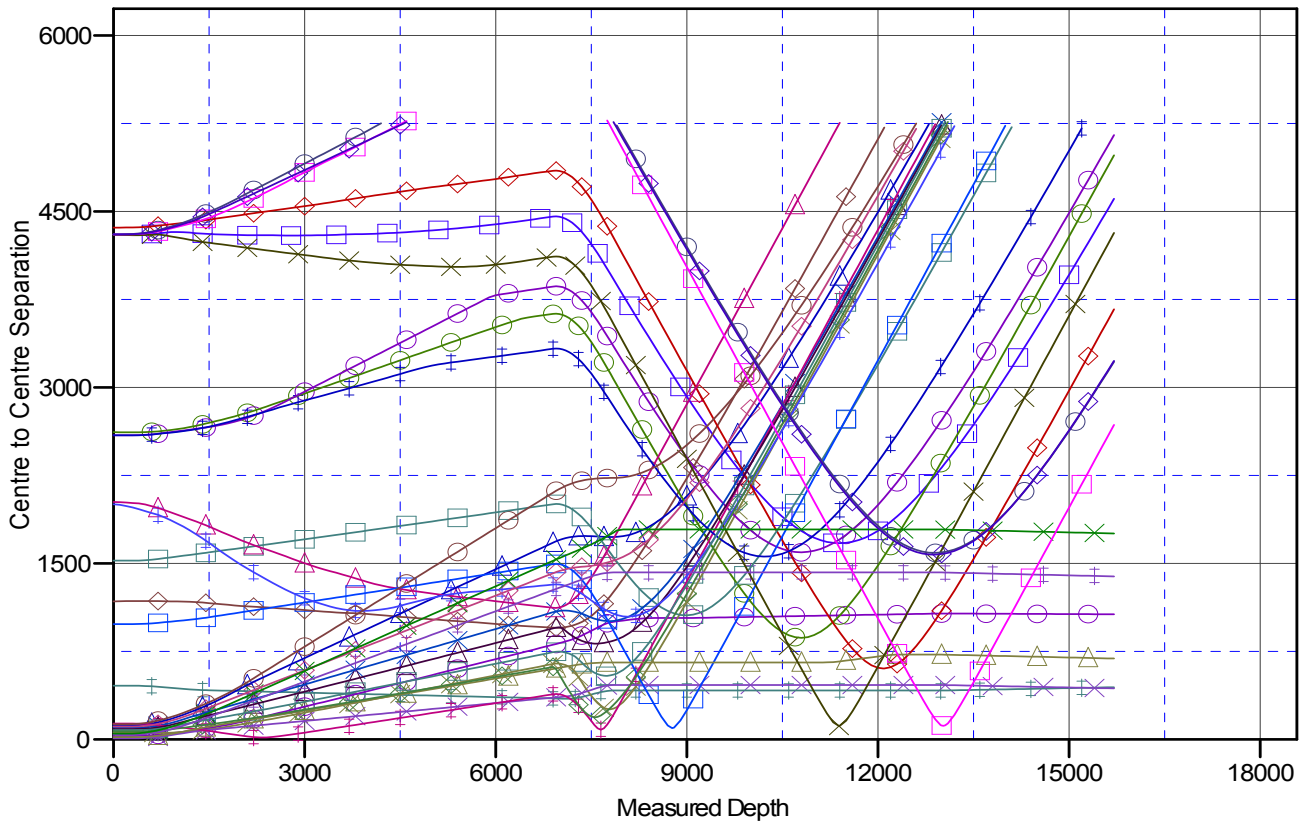
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Reference Well:	Woolley-Sosa 2B-7H-E168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset 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 2B-7H-E168
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.29°

Ladder Plot



LEGEND

1-E168, Hz, Plan #2 V0	Woolley-Becky2E-7H-E168, Hz, Plan #2 V0	Woolley-Becky2C-7H-E168, Hz, Plan #4
WD), DD V0	Woolley-Sosa 2C-7H-E168, Hz, Plan #2 V0	Woolley-Becky2H-7H-E168, Hz, Plan #3
1-E168, Hz, Plan #3 V0	WOOLLEY 11-7 (EXISTING), ENCANA WELL, SURVEYS V0	Woolley-Becky2B-7H-E168, Hz, Plan #2
1 (EXISTING), ENCANA WELL, GYRO V0	WOOLLEY 12-7 (EXISTING), ENCANA WELL, NO SURVEYS V0	Woolley-Sosa 2F-7H-E168, Hz, Plan #2
H-E168, Hz, Plan #2 V0	Woolley-Becky2D-7H-E168, Hz, Plan #4 V0	Woolley-Becky2F-7H-E168, Hz, Plan #3
H-E168, Hz, Plan #2 V0	THOMAS 24-7 (EXISTING), ENCANA WELL, SURVEYS V0	Woolley-Sosa 2G-7H-E168, Hz, Plan #2
(ISTING), ENCANA WELL, SURVEYS V0	Thomas 7-12 (Existing), Existing, NO SURVEYS V0	Sosa 12-18, DD, DD V0
(ISTING), EXISTING, EXISTING V0	Woolley-Sosa 2D-7H-E168, Hz, Plan #2 V0	Sosa 22-18, DD, DD V0
(EXISTING), Existing, NO SURVEYS V0	WOOLLEY 2-4-7 (EXISTING), ENCANA WELL, SURVEYS V0	Sosa 22-18, DD, Plan #2 V0

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