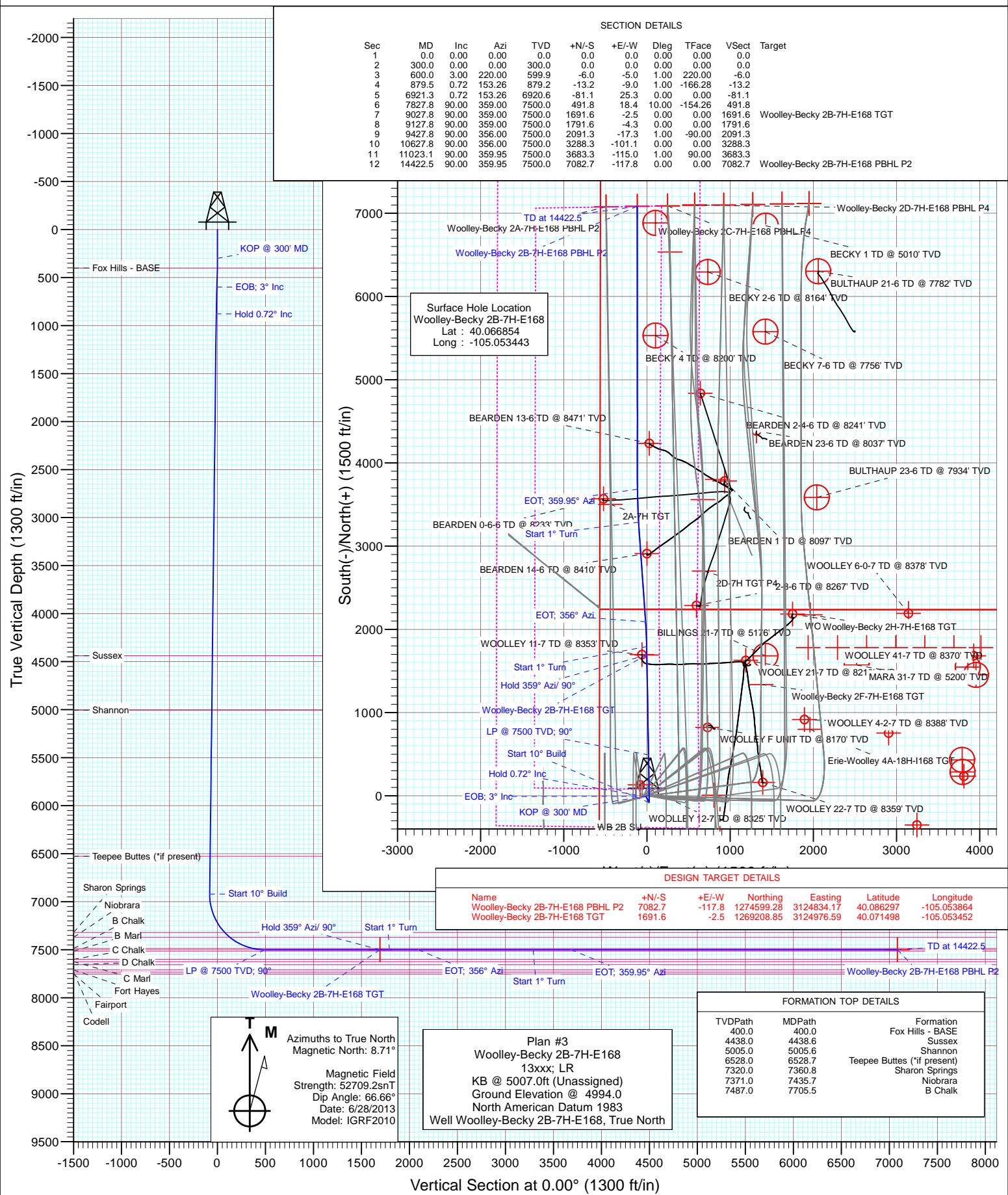




Project: DJ Wattenberg  
Site: S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)  
Well: Woolley-Becky 2B-7H-E168  
Wellbore: Hz  
Design: Plan #3



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>North Reference:</b>	True
<b>Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #3		

<b>Project</b>	DJ Wattenberg		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado 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-Becky 2B-7H-E168					
Well Position	+N/-S	0.0 ft	Northing:	1,267,517.30 ft	Latitude:	40.066854
	+E/-W	0.0 ft	Easting:	3,124,987.63 ft	Longitude:	-105.053443
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,994.0 ft

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

<b>Design</b>	Plan #3			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	0.00

<b>Plan Sections</b>										
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	
600.0	3.00	220.00	599.9	-6.0	-5.0	1.00	1.00	0.00	220.00	
879.5	0.72	153.26	879.2	-13.2	-9.0	1.00	-0.82	-23.88	-166.28	
6,921.3	0.72	153.26	6,920.6	-81.1	25.3	0.00	0.00	0.00	0.00	
7,827.8	90.00	359.00	7,500.0	491.8	18.4	10.00	9.85	-17.02	-154.26	
9,027.8	90.00	359.00	7,500.0	1,691.6	-2.5	0.00	0.00	0.00	0.00	Woolley-Becky 2B-7H
9,127.8	90.00	359.00	7,500.0	1,791.6	-4.3	0.00	0.00	0.00	0.00	
9,427.8	90.00	356.00	7,500.0	2,091.3	-17.3	1.00	0.00	-1.00	-90.00	
10,627.8	90.00	356.00	7,500.0	3,288.3	-101.1	0.00	0.00	0.00	0.00	
11,023.1	90.00	359.95	7,500.0	3,683.3	-115.0	1.00	0.00	1.00	90.00	
14,422.5	90.00	359.95	7,500.0	7,082.7	-117.8	0.00	0.00	0.00	0.00	Woolley-Becky 2B-7H

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>North Reference:</b>	True
<b>Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #3		

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300' MD
400.0	1.00	220.00	400.0	-0.7	-0.6	-0.7	1.00	1.00	Fox Hills - BASE
500.0	2.00	220.00	500.0	-2.7	-2.2	-2.7	1.00	1.00	
600.0	3.00	220.00	599.9	-6.0	-5.0	-6.0	1.00	1.00	EOB; 3° Inc
700.0	2.04	213.33	699.8	-9.5	-7.7	-9.5	1.00	-0.96	
800.0	1.16	195.83	799.7	-12.0	-9.0	-12.0	1.00	-0.88	
879.5	0.72	153.26	879.2	-13.2	-9.0	-13.2	1.00	-0.55	Hold 0.72° Inc
900.0	0.72	153.26	899.7	-13.4	-8.8	-13.4	0.00	0.00	
1,000.0	0.72	153.26	999.7	-14.5	-8.3	-14.5	0.00	0.00	
1,100.0	0.72	153.26	1,099.7	-15.7	-7.7	-15.7	0.00	0.00	
1,200.0	0.72	153.26	1,199.7	-16.8	-7.1	-16.8	0.00	0.00	
1,300.0	0.72	153.26	1,299.7	-17.9	-6.6	-17.9	0.00	0.00	
1,400.0	0.72	153.26	1,399.7	-19.0	-6.0	-19.0	0.00	0.00	
1,500.0	0.72	153.26	1,499.7	-20.2	-5.4	-20.2	0.00	0.00	
1,600.0	0.72	153.26	1,599.7	-21.3	-4.9	-21.3	0.00	0.00	
1,700.0	0.72	153.26	1,699.7	-22.4	-4.3	-22.4	0.00	0.00	
1,800.0	0.72	153.26	1,799.6	-23.5	-3.7	-23.5	0.00	0.00	
1,900.0	0.72	153.26	1,899.6	-24.7	-3.2	-24.7	0.00	0.00	
2,000.0	0.72	153.26	1,999.6	-25.8	-2.6	-25.8	0.00	0.00	
2,100.0	0.72	153.26	2,099.6	-26.9	-2.0	-26.9	0.00	0.00	
2,200.0	0.72	153.26	2,199.6	-28.0	-1.5	-28.0	0.00	0.00	
2,300.0	0.72	153.26	2,299.6	-29.2	-0.9	-29.2	0.00	0.00	
2,400.0	0.72	153.26	2,399.6	-30.3	-0.3	-30.3	0.00	0.00	
2,500.0	0.72	153.26	2,499.6	-31.4	0.2	-31.4	0.00	0.00	
2,600.0	0.72	153.26	2,599.6	-32.5	0.8	-32.5	0.00	0.00	
2,700.0	0.72	153.26	2,699.6	-33.7	1.4	-33.7	0.00	0.00	
2,800.0	0.72	153.26	2,799.6	-34.8	1.9	-34.8	0.00	0.00	
2,900.0	0.72	153.26	2,899.6	-35.9	2.5	-35.9	0.00	0.00	
3,000.0	0.72	153.26	2,999.5	-37.0	3.1	-37.0	0.00	0.00	
3,100.0	0.72	153.26	3,099.5	-38.2	3.6	-38.2	0.00	0.00	
3,200.0	0.72	153.26	3,199.5	-39.3	4.2	-39.3	0.00	0.00	
3,300.0	0.72	153.26	3,299.5	-40.4	4.8	-40.4	0.00	0.00	
3,400.0	0.72	153.26	3,399.5	-41.5	5.3	-41.5	0.00	0.00	
3,500.0	0.72	153.26	3,499.5	-42.7	5.9	-42.7	0.00	0.00	
3,600.0	0.72	153.26	3,599.5	-43.8	6.4	-43.8	0.00	0.00	
3,700.0	0.72	153.26	3,699.5	-44.9	7.0	-44.9	0.00	0.00	
3,800.0	0.72	153.26	3,799.5	-46.0	7.6	-46.0	0.00	0.00	
3,900.0	0.72	153.26	3,899.5	-47.1	8.1	-47.1	0.00	0.00	
4,000.0	0.72	153.26	3,999.5	-48.3	8.7	-48.3	0.00	0.00	
4,100.0	0.72	153.26	4,099.5	-49.4	9.3	-49.4	0.00	0.00	
4,200.0	0.72	153.26	4,199.5	-50.5	9.8	-50.5	0.00	0.00	
4,300.0	0.72	153.26	4,299.4	-51.6	10.4	-51.6	0.00	0.00	
4,400.0	0.72	153.26	4,399.4	-52.8	11.0	-52.8	0.00	0.00	
4,438.6	0.72	153.26	4,438.0	-53.2	11.2	-53.2	0.00	0.00	Sussex
4,500.0	0.72	153.26	4,499.4	-53.9	11.5	-53.9	0.00	0.00	
4,600.0	0.72	153.26	4,599.4	-55.0	12.1	-55.0	0.00	0.00	
4,700.0	0.72	153.26	4,699.4	-56.1	12.7	-56.1	0.00	0.00	
4,800.0	0.72	153.26	4,799.4	-57.3	13.2	-57.3	0.00	0.00	
4,900.0	0.72	153.26	4,899.4	-58.4	13.8	-58.4	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>North Reference:</b>	True
<b>Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
5,000.0	0.72	153.26	4,999.4	-59.5	14.4	-59.5	0.00	0.00	
5,005.6	0.72	153.26	5,005.0	-59.6	14.4	-59.6	0.00	0.00	Shannon
5,100.0	0.72	153.26	5,099.4	-60.6	14.9	-60.6	0.00	0.00	
5,200.0	0.72	153.26	5,199.4	-61.8	15.5	-61.8	0.00	0.00	
5,300.0	0.72	153.26	5,299.4	-62.9	16.1	-62.9	0.00	0.00	
5,400.0	0.72	153.26	5,399.4	-64.0	16.6	-64.0	0.00	0.00	
5,500.0	0.72	153.26	5,499.3	-65.1	17.2	-65.1	0.00	0.00	
5,600.0	0.72	153.26	5,599.3	-66.3	17.8	-66.3	0.00	0.00	
5,700.0	0.72	153.26	5,699.3	-67.4	18.3	-67.4	0.00	0.00	
5,800.0	0.72	153.26	5,799.3	-68.5	18.9	-68.5	0.00	0.00	
5,900.0	0.72	153.26	5,899.3	-69.6	19.5	-69.6	0.00	0.00	
6,000.0	0.72	153.26	5,999.3	-70.8	20.0	-70.8	0.00	0.00	
6,100.0	0.72	153.26	6,099.3	-71.9	20.6	-71.9	0.00	0.00	
6,200.0	0.72	153.26	6,199.3	-73.0	21.2	-73.0	0.00	0.00	
6,300.0	0.72	153.26	6,299.3	-74.1	21.7	-74.1	0.00	0.00	
6,400.0	0.72	153.26	6,399.3	-75.3	22.3	-75.3	0.00	0.00	
6,500.0	0.72	153.26	6,499.3	-76.4	22.9	-76.4	0.00	0.00	
6,528.7	0.72	153.26	6,528.0	-76.7	23.0	-76.7	0.00	0.00	Teepee Buttes (*if present)
6,600.0	0.72	153.26	6,599.3	-77.5	23.4	-77.5	0.00	0.00	
6,700.0	0.72	153.26	6,699.3	-78.6	24.0	-78.6	0.00	0.00	
6,800.0	0.72	153.26	6,799.2	-79.8	24.6	-79.8	0.00	0.00	
6,900.0	0.72	153.26	6,899.2	-80.9	25.1	-80.9	0.00	0.00	
6,921.3	0.72	153.26	6,920.6	-81.1	25.3	-81.1	0.00	0.00	Start 10° Build
7,000.0	7.23	1.47	6,999.0	-76.6	25.6	-76.6	10.00	8.27	
7,100.0	17.22	0.01	7,096.7	-55.5	25.8	-55.5	10.00	10.00	
7,200.0	27.22	359.61	7,189.1	-17.7	25.6	-17.7	10.00	10.00	
7,300.0	37.22	359.41	7,273.6	35.6	25.2	35.6	10.00	10.00	
7,360.8	43.30	359.33	7,320.0	74.8	24.7	74.8	10.00	10.00	Sharon Springs
7,400.0	47.22	359.29	7,347.6	102.7	24.4	102.7	10.00	10.00	
7,435.7	50.79	359.26	7,371.0	129.6	24.0	129.6	10.00	10.00	Niobrara
7,500.0	57.22	359.20	7,408.8	181.6	23.3	181.6	10.00	10.00	
7,600.0	67.22	359.13	7,455.3	269.9	22.1	269.9	10.00	10.00	
7,700.0	77.22	359.07	7,485.8	365.0	20.6	365.0	10.00	10.00	
7,705.5	77.77	359.07	7,487.0	370.4	20.5	370.4	10.00	10.00	B Chalk
7,800.0	87.22	359.02	7,499.3	464.0	18.9	464.0	10.00	10.00	
7,827.8	90.00	359.00	7,500.0	491.8	18.4	491.8	10.00	10.00	LP @ 7500 TVD; 90°
7,900.0	90.00	359.00	7,500.0	563.9	17.2	563.9	0.00	0.00	
8,000.0	90.00	359.00	7,500.0	663.9	15.4	663.9	0.00	0.00	
8,100.0	90.00	359.00	7,500.0	763.9	13.7	763.9	0.00	0.00	
8,200.0	90.00	359.00	7,500.0	863.9	11.9	863.9	0.00	0.00	
8,300.0	90.00	359.00	7,500.0	963.9	10.2	963.9	0.00	0.00	
8,400.0	90.00	359.00	7,500.0	1,063.9	8.4	1,063.9	0.00	0.00	
8,500.0	90.00	359.00	7,500.0	1,163.9	6.7	1,163.9	0.00	0.00	
8,600.0	90.00	359.00	7,500.0	1,263.8	5.0	1,263.8	0.00	0.00	
8,700.0	90.00	359.00	7,500.0	1,363.8	3.2	1,363.8	0.00	0.00	
8,800.0	90.00	359.00	7,500.0	1,463.8	1.5	1,463.8	0.00	0.00	
8,900.0	90.00	359.00	7,500.0	1,563.8	-0.3	1,563.8	0.00	0.00	
9,000.0	90.00	359.00	7,500.0	1,663.8	-2.0	1,663.8	0.00	0.00	
9,027.8	90.00	359.00	7,500.0	1,691.6	-2.5	1,691.6	0.00	0.00	Hold 359° Azi/ 90°
9,100.0	90.00	359.00	7,500.0	1,763.8	-3.8	1,763.8	0.00	0.00	
9,127.8	90.00	359.00	7,500.0	1,791.6	-4.3	1,791.6	0.00	0.00	Start 1° Turn
9,200.0	90.00	358.28	7,500.0	1,863.7	-6.0	1,863.7	1.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>North Reference:</b>	True
<b>Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #3		

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,300.0	90.00	357.28	7,500.0	1,963.7	-9.9	1,963.7	1.00	0.00	
9,400.0	90.00	356.28	7,500.0	2,063.5	-15.5	2,063.5	1.00	0.00	
9,427.8	90.00	356.00	7,500.0	2,091.3	-17.3	2,091.3	1.00	0.00	EOT; 356° Azi
9,500.0	90.00	356.00	7,500.0	2,163.3	-22.4	2,163.3	0.00	0.00	
9,600.0	90.00	356.00	7,500.0	2,263.0	-29.4	2,263.0	0.00	0.00	
9,700.0	90.00	356.00	7,500.0	2,362.8	-36.3	2,362.8	0.00	0.00	
9,800.0	90.00	356.00	7,500.0	2,462.5	-43.3	2,462.5	0.00	0.00	
9,900.0	90.00	356.00	7,500.0	2,562.3	-50.3	2,562.3	0.00	0.00	
10,000.0	90.00	356.00	7,500.0	2,662.0	-57.3	2,662.0	0.00	0.00	
10,100.0	90.00	356.00	7,500.0	2,761.8	-64.2	2,761.8	0.00	0.00	
10,200.0	90.00	356.00	7,500.0	2,861.6	-71.2	2,861.6	0.00	0.00	
10,300.0	90.00	356.00	7,500.0	2,961.3	-78.2	2,961.3	0.00	0.00	
10,400.0	90.00	356.00	7,500.0	3,061.1	-85.2	3,061.1	0.00	0.00	
10,500.0	90.00	356.00	7,500.0	3,160.8	-92.1	3,160.8	0.00	0.00	
10,600.0	90.00	356.00	7,500.0	3,260.6	-99.1	3,260.6	0.00	0.00	
10,627.8	90.00	356.00	7,500.0	3,288.3	-101.1	3,288.3	0.00	0.00	Start 1° Turn
10,700.0	90.00	356.72	7,500.0	3,360.4	-105.6	3,360.4	1.00	0.00	
10,800.0	90.00	357.72	7,500.0	3,460.3	-110.5	3,460.3	1.00	0.00	
10,900.0	90.00	358.72	7,500.0	3,560.2	-113.6	3,560.2	1.00	0.00	
11,000.0	90.00	359.72	7,500.0	3,660.2	-114.9	3,660.2	1.00	0.00	
11,023.1	90.00	359.95	7,500.0	3,683.3	-115.0	3,683.3	1.00	0.00	EOT; 359.95° Azi
11,100.0	90.00	359.95	7,500.0	3,760.2	-115.1	3,760.2	0.00	0.00	
11,200.0	90.00	359.95	7,500.0	3,860.2	-115.2	3,860.2	0.00	0.00	
11,300.0	90.00	359.95	7,500.0	3,960.2	-115.2	3,960.2	0.00	0.00	
11,400.0	90.00	359.95	7,500.0	4,060.2	-115.3	4,060.2	0.00	0.00	
11,500.0	90.00	359.95	7,500.0	4,160.2	-115.4	4,160.2	0.00	0.00	
11,600.0	90.00	359.95	7,500.0	4,260.2	-115.5	4,260.2	0.00	0.00	
11,700.0	90.00	359.95	7,500.0	4,360.2	-115.6	4,360.2	0.00	0.00	
11,800.0	90.00	359.95	7,500.0	4,460.2	-115.6	4,460.2	0.00	0.00	
11,900.0	90.00	359.95	7,500.0	4,560.2	-115.7	4,560.2	0.00	0.00	
12,000.0	90.00	359.95	7,500.0	4,660.2	-115.8	4,660.2	0.00	0.00	
12,100.0	90.00	359.95	7,500.0	4,760.2	-115.9	4,760.2	0.00	0.00	
12,200.0	90.00	359.95	7,500.0	4,860.2	-116.0	4,860.2	0.00	0.00	
12,300.0	90.00	359.95	7,500.0	4,960.2	-116.1	4,960.2	0.00	0.00	
12,400.0	90.00	359.95	7,500.0	5,060.2	-116.1	5,060.2	0.00	0.00	
12,500.0	90.00	359.95	7,500.0	5,160.2	-116.2	5,160.2	0.00	0.00	
12,600.0	90.00	359.95	7,500.0	5,260.2	-116.3	5,260.2	0.00	0.00	
12,700.0	90.00	359.95	7,500.0	5,360.2	-116.4	5,360.2	0.00	0.00	
12,800.0	90.00	359.95	7,500.0	5,460.2	-116.5	5,460.2	0.00	0.00	
12,900.0	90.00	359.95	7,500.0	5,560.2	-116.5	5,560.2	0.00	0.00	
13,000.0	90.00	359.95	7,500.0	5,660.2	-116.6	5,660.2	0.00	0.00	
13,100.0	90.00	359.95	7,500.0	5,760.2	-116.7	5,760.2	0.00	0.00	
13,200.0	90.00	359.95	7,500.0	5,860.2	-116.8	5,860.2	0.00	0.00	
13,300.0	90.00	359.95	7,500.0	5,960.2	-116.9	5,960.2	0.00	0.00	
13,400.0	90.00	359.95	7,500.0	6,060.2	-117.0	6,060.2	0.00	0.00	
13,500.0	90.00	359.95	7,500.0	6,160.2	-117.0	6,160.2	0.00	0.00	
13,600.0	90.00	359.95	7,500.0	6,260.2	-117.1	6,260.2	0.00	0.00	
13,700.0	90.00	359.95	7,500.0	6,360.2	-117.2	6,360.2	0.00	0.00	
13,800.0	90.00	359.95	7,500.0	6,460.2	-117.3	6,460.2	0.00	0.00	
13,900.0	90.00	359.95	7,500.0	6,560.2	-117.4	6,560.2	0.00	0.00	
14,000.0	90.00	359.95	7,500.0	6,660.2	-117.4	6,660.2	0.00	0.00	
14,100.0	90.00	359.95	7,500.0	6,760.2	-117.5	6,760.2	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>North Reference:</b>	True
<b>Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #3		

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
14,200.0	90.00	359.95	7,500.0	6,860.2	-117.6	6,860.2	0.00	0.00	
14,300.0	90.00	359.95	7,500.0	6,960.2	-117.7	6,960.2	0.00	0.00	
14,400.0	90.00	359.95	7,500.0	7,060.2	-117.8	7,060.2	0.00	0.00	
14,422.5	90.00	359.95	7,500.0	7,082.7	-117.8	7,082.7	0.00	0.00	TD at 14422.5

### Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Woolley-Becky 2B-7H-E - plan hits target center - Point	0.00	0.00	7,500.0	1,691.6	-2.5	1,269,208.85	3,124,976.59	40.071498	-105.053452
Woolley-Becky 2B-7H-E - plan hits target center - Point	0.00	0.00	7,500.0	7,082.7	-117.8	1,274,599.28	3,124,834.17	40.086297	-105.053864
Woolley-Becky 2B-7H-E - plan misses target center by 72.0ft at 14422.5ft MD (7500.0 TVD, 7082.7 N, -117.8 E) - Point	0.00	0.00	7,572.0	7,083.8	-116.7	1,274,600.38	3,124,835.28	40.086300	-105.053860

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
400.0	400.0	Fox Hills - BASE			
4,438.6	4,438.0	Sussex			
5,005.6	5,005.0	Shannon			
6,528.7	6,528.0	Teepee Buttes (*if present)			
7,360.8	7,320.0	Sharon Springs			
7,435.7	7,371.0	Niobrara			
7,705.5	7,487.0	B Chalk			

### Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
300.0	300.0	0.0	0.0	KOP @ 300' MD
600.0	599.9	-6.0	-5.0	EOB; 3° Inc
879.5	879.2	-13.2	-9.0	Hold 0.72° Inc
6,921.3	6,920.6	-81.1	25.3	Start 10° Build
7,827.8	7,500.0	491.8	18.4	LP @ 7500 TVD; 90°
9,027.8	7,500.0	1,691.6	-2.5	Hold 359° Azi/ 90°
9,127.8	7,500.0	1,791.6	-4.3	Start 1° Turn
9,427.8	7,500.0	2,091.3	-17.3	EOT; 356° Azi
10,627.8	7,500.0	3,288.3	-101.1	Start 1° Turn
11,023.1	7,500.0	3,683.3	-115.0	EOT; 359.95° Azi
14,422.5	7,500.0	7,082.7	-117.8	TD at 14422.5

# **EnCana Oil & Gas (USA) Inc**

**DJ Wattenberg**

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

**Woolley-Becky 2B-7H-E168**

**Hz**

**Plan #3**

## **Anticollision Report**

**23 June, 2015**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #3		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.0ft	<b>Error Model:</b>	Systematic Ellipse
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum ellipse separation of 1,000.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	6/23/2015		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	14,422.4	Plan #3 (Hz)	Geolink MWD	Geolink MWD



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

### Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
<b>Offset Well - Wellbore - Design</b>						
S12-T1N-R69W (Bailey)						
Bailey 43-12 - DD - DD						Out of range
Bailey 43-12 - DD - Plan #1						Out of range
S18-T1N-R68W (Erie Woolley)						
WOOLLEY 11-7 (EXISTING) - ENCANA WELL - SURVE	8,981.8	7,712.5	61.2	14.7	1.317	Level 3, CC, ES, SF
WOOLLEY 21-7 (EXISTING) - ENCANA WELL - NO SU						Out of range
WOOLLEY 22-7 (EXISTING) - ENCANA WELL - SURVE						Out of range
WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SURVE	7,000.0	7,445.8	890.3	842.5	18.637	CC, ES, SF
WOOLLEY 4-0-7 (EXISTING) - ENCANA WELL - SURVE						Out of range
S1-T1N-R69W (Bailey)						
Bailey 8-8-1 - DD - DD	9,648.5	7,707.5	555.5	490.3	8.518	CC, ES
Bailey 8-8-1 - DD - DD	9,800.0	7,711.3	575.8	506.6	8.320	SF
Bailey 8-8-1 - DD - Plan #1	9,628.4	7,676.3	542.8	477.6	8.323	CC, ES
Bailey 8-8-1 - DD - Plan #1	9,700.0	7,676.3	547.5	479.9	8.096	SF
S6-T1N-R68W (Bearden)						
Bearden #1 (Existing Well) - Existing - Existing						Out of range
Bearden 13-6 (Existing Well) - DD - DD	11,565.9	7,602.2	149.1	55.7	1.597	CC, ES, SF
Bearden 14-6(Existing Well) - DD - DD	10,233.1	7,651.1	71.8	0.2	1.003	Level 2, CC, ES, SF
Bearden 24-6 - DD - Plan #1						Out of range
S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)						
BEARDEN 0-6-6 (EXISTING) - ENCANA WELL - SURVE	10,908.8	7,731.9	413.5	334.5	5.237	CC, ES, SF
BEARDEN 1 (EXISTING) - ENCANA WELL - SURVEYS	11,112.5	7,476.9	1,045.8	963.5	12.705	CC, ES
BEARDEN 1 (EXISTING) - ENCANA WELL - SURVEYS	11,200.0	7,477.7	1,049.5	966.0	12.581	SF
BEARDEN 13-6 (EXISTING) - ENCANA WELL - SURVE	11,565.9	7,602.2	149.1	55.7	1.597	CC, ES, SF
BEARDEN 14-6 (EXISTING) - ENCANA WELL - SURVE	10,233.0	7,651.1	71.8	0.2	1.003	Level 2, CC, ES, SF
BEARDEN 23-6 (EXISTING) - ENCANA WELL - GYRO						Out of range
BEARDEN 2-4-6 (EXISTING) - ENCANA WELL - PLAN O	12,175.1	7,610.5	757.7	645.7	6.769	CC, ES
BEARDEN 2-4-6 (EXISTING) - ENCANA WELL - PLAN O	12,200.0	7,610.5	758.1	646.0	6.764	SF
BEARDEN 2-8-6 (EXISTING) - ENCANA WELL - SURVE	9,570.6	7,684.1	628.1	559.0	9.085	CC
BEARDEN 2-8-6 (EXISTING) - ENCANA WELL - SURVE	9,600.0	7,684.1	628.8	558.8	8.983	ES
BEARDEN 2-8-6 (EXISTING) - ENCANA WELL - SURVE	9,700.0	7,684.4	641.3	569.3	8.908	SF
BECKY 2-6 (EXISTING) - NOBLE WELL - NO SURVEYS	13,632.7	7,453.0	848.6	722.8	6.744	CC, ES
BECKY 2-6 (EXISTING) - NOBLE WELL - NO SURVEYS	13,700.0	7,453.0	851.2	724.7	6.729	SF
BECKY 4 (EXISTING) - MARTIN EXP WELL - NO SURV	12,870.5	7,457.0	218.7	106.1	1.943	CC, ES, SF
BECKY 5-6 (EXISTING) - FOUNDATION WELL - NO SU	14,223.0	7,448.0	219.2	83.1	1.611	CC, ES, SF
BECKY 7-6 (EXISTING) - NOBLE WELL - NO SURVEYS						Out of range
BULTHAUP 21-6 (EXISTING) - KERR-MCGEE WELL - S						Out of range
Thomas 7-12 (Existing) - Existing - NO SURVEYS	6,907.8	6,895.0	907.0	882.9	37.663	CC, ES
Thomas 7-12 (Existing) - Existing - NO SURVEYS	7,000.0	6,987.0	911.3	886.9	37.345	SF
THOMAS K UNIT 1 (EXISTING) - EXISTING - NO SURV						Out of range
WOOLLEY 11-7 (EXISTING) - ENCANA WELL - SURVE	8,981.8	7,712.5	61.2	14.7	1.317	Level 3, CC, ES, SF
WOOLLEY 12-7 (EXISTING) - ENCANA WELL - NO SU	7,440.0	7,461.7	107.4	81.1	4.089	CC, ES, SF
WOOLLEY 21-7 (EXISTING) - ENCANA WELL - GYRO						Out of range
WOOLLEY 22-7 (EXISTING) - ENCANA WELL - SURVE						Out of range
WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SURVE	7,000.0	7,445.8	890.3	842.5	18.637	CC, ES, SF
WOOLLEY 4-0-7 (EXISTING) - ENCANA WELL - SURVE						Out of range
WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL - GY	8,157.1	7,527.5	705.5	671.8	20.980	CC, ES
WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL - GY	8,300.0	7,516.1	719.7	684.3	20.326	SF
Woolley-Becky 2A-7H-E168 - Hz - Plan #3	200.0	200.0	7.3	6.6	11.148	CC, ES
Woolley-Becky 2A-7H-E168 - Hz - Plan #3	14,422.5	14,681.2	445.2	230.4	2.073	SF
Woolley-Becky 2C-7H-E168 - Hz - Plan #5	300.0	300.0	7.6	6.6	7.543	CC, ES

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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)						
Woolley-Becky 2C-7H-E168 - Hz - Plan #5	14,422.5	14,633.9	437.0	223.8	2.050	SF
Woolley-Becky 2D-7H-E168 - Hz - Plan #5	300.0	300.0	15.1	14.1	15.086	CC, ES
Woolley-Becky 2D-7H-E168 - Hz - Plan #5	14,422.5	14,426.6	689.5	436.4	2.724	SF
Woolley-Becky 2E-7H-E168 - Hz - Plan #3	300.0	300.0	22.7	21.7	22.629	CC, ES
Woolley-Becky 2E-7H-E168 - Hz - Plan #3	14,422.5	14,656.9	1,066.6	819.9	4.322	SF
Woolley-Becky 2F-7H-E168 - Hz - Plan #4	300.0	300.0	30.2	29.2	30.174	CC, ES
Woolley-Becky 2F-7H-E168 - Hz - Plan #4	500.0	498.8	36.0	34.3	21.190	SF
Woolley-Becky 2G-7H-E168 - Hz - Plan #3	203.3	203.3	37.5	36.8	56.450	CC
Woolley-Becky 2G-7H-E168 - Hz - Plan #3	300.0	299.7	37.7	36.7	37.673	ES
Woolley-Becky 2G-7H-E168 - Hz - Plan #3	600.0	597.0	53.1	51.1	25.894	SF
Woolley-Becky 2H-7H-E168 - Hz - Plan #4	200.0	200.0	45.1	44.4	69.034	CC, ES
Woolley-Becky 2H-7H-E168 - Hz - Plan #4	700.0	694.0	74.8	72.4	31.206	SF
Woolley-Sosa 2A-7H-E168 - Hz - Plan #2	784.6	782.2	500.7	497.9	177.871	CC
Woolley-Sosa 2A-7H-E168 - Hz - Plan #2	7,753.9	7,528.8	527.8	497.3	17.357	ES
Woolley-Sosa 2A-7H-E168 - Hz - Plan #2	7,900.0	7,465.6	542.8	511.1	17.115	SF
Woolley-Sosa 2B-7H-E168 - HZ - Plan #2	300.0	300.0	49.8	48.8	49.729	CC
Woolley-Sosa 2B-7H-E168 - HZ - Plan #2	500.0	498.7	50.1	48.4	29.433	ES
Woolley-Sosa 2B-7H-E168 - HZ - Plan #2	7,543.3	7,556.6	188.7	161.3	6.880	SF
Woolley-Sosa 2C-7H-E168 - HZ - Plan #2	692.9	692.7	33.5	31.1	13.892	CC
Woolley-Sosa 2C-7H-E168 - HZ - Plan #2	700.0	699.8	33.5	31.0	13.746	ES
Woolley-Sosa 2C-7H-E168 - HZ - Plan #2	7,742.4	7,533.1	201.1	170.8	6.644	SF
Woolley-Sosa 2D-7H-E168 - HZ - Plan #2	720.7	720.5	23.6	21.1	9.434	CC, ES
Woolley-Sosa 2D-7H-E168 - HZ - Plan #2	900.0	899.3	27.4	24.3	8.742	SF
Woolley-Sosa 2E-7H-E168 - HZ - Plan #3	679.4	679.1	15.4	13.1	6.562	CC
Woolley-Sosa 2E-7H-E168 - HZ - Plan #3	700.0	699.8	15.4	13.0	6.374	ES
Woolley-Sosa 2E-7H-E168 - HZ - Plan #3	1,200.0	1,199.6	21.5	17.3	5.162	SF
Woolley-Sosa 2F-7H-E168 - HZ - Plan #2	514.5	514.6	5.9	4.1	3.342	CC, ES, SF
Woolley-Sosa 2G-7H-E168 - HZ - Plan #2	200.0	200.0	0.0	-0.6	0.019	Level 1, CC, ES, SF

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T1N-R68W (Erie Woolley) - WOOLLEY 11-7 (EXISTING) - ENCANA WELL - SURVEYS													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		
8,000.0	7,500.0	7,683.3	7,523.1	18.4	26.1	-64.80	1,643.6	-63.0	983.2	943.3	39.95	24.611		
8,100.0	7,500.0	7,686.3	7,526.1	19.7	26.1	-67.07	1,643.7	-63.0	883.5	843.4	40.13	22.018		
8,200.0	7,500.0	7,689.2	7,529.0	21.1	26.1	-69.43	1,643.8	-63.0	783.8	743.5	40.30	19.449		
8,300.0	7,500.0	7,692.1	7,531.9	22.5	26.1	-71.87	1,643.9	-63.0	684.2	643.7	40.48	16.902		
8,400.0	7,500.0	7,695.1	7,534.9	24.0	26.1	-74.39	1,644.0	-63.0	584.7	544.1	40.67	14.376		
8,500.0	7,500.0	7,698.1	7,537.8	25.5	26.1	-76.99	1,644.1	-63.0	485.4	444.6	40.89	11.873		
8,600.0	7,500.0	7,701.0	7,540.8	27.0	26.1	-79.65	1,644.2	-63.0	386.5	345.3	41.15	9.392		
8,700.0	7,500.0	7,704.0	7,543.8	28.6	26.1	-82.38	1,644.2	-62.9	288.2	246.7	41.55	6.937		
8,800.0	7,500.0	7,707.0	7,546.8	30.2	26.1	-85.15	1,644.3	-62.9	191.7	149.4	42.38	4.524		
8,900.0	7,500.0	7,710.0	7,549.8	31.8	26.1	-87.95	1,644.4	-62.9	102.1	57.3	44.83	2.278		
8,981.8	7,500.0	7,712.5	7,552.3	33.1	26.1	-90.26	1,644.5	-62.9	61.2	14.7	46.49	1.317	Level 3, CC, ES, SF	
9,000.0	7,500.0	7,713.0	7,552.8	33.4	26.1	-90.77	1,644.5	-62.9	63.9	16.4	47.44	1.346	Level 3	
9,100.0	7,500.0	7,716.1	7,555.9	35.0	26.1	-93.61	1,644.6	-62.9	133.1	87.7	45.38	2.933		
9,200.0	7,500.0	7,719.1	7,558.9	36.6	26.1	-96.20	1,644.7	-62.9	226.4	182.8	43.59	5.195		
9,300.0	7,500.0	7,722.2	7,561.9	38.3	26.1	-98.30	1,644.8	-62.9	323.4	280.4	43.01	7.519		
9,400.0	7,500.0	7,725.2	7,565.0	40.0	26.1	-99.89	1,644.9	-62.9	421.5	378.7	42.82	9.844		
9,500.0	7,500.0	7,728.3	7,568.0	41.6	26.1	-101.83	1,645.0	-62.9	520.1	477.3	42.78	12.158		
9,600.0	7,500.0	7,731.3	7,571.1	43.3	26.1	-104.01	1,645.1	-62.8	619.2	576.3	42.82	14.459		
9,700.0	7,500.0	7,734.4	7,574.2	45.0	26.1	-106.16	1,645.2	-62.8	718.4	675.5	42.91	16.745		
9,800.0	7,500.0	7,737.5	7,577.2	46.7	26.1	-108.27	1,645.3	-62.8	817.9	774.9	43.01	19.015		
9,900.0	7,500.0	7,740.6	7,580.3	48.3	26.1	-110.34	1,645.4	-62.8	917.5	874.3	43.13	21.270		
10,000.0	7,500.0	7,743.7	7,583.4	50.0	26.1	-112.36	1,645.5	-62.8	1,017.1	973.8	43.26	23.510		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T1N-R68W (Erie Woolley) - WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SURVEYS											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	
3,700.0	3,699.5	4,201.1	3,915.6	6.5	25.8	-77.85	204.8	974.5	1,012.5	982.4	30.08	33.657	
3,800.0	3,799.5	4,288.5	3,994.5	6.7	26.5	-75.86	167.4	971.1	997.2	966.0	31.27	31.895	
3,900.0	3,899.5	4,374.1	4,072.0	6.8	27.1	-73.88	131.1	967.8	983.5	951.1	32.41	30.342	
4,000.0	3,999.5	4,483.8	4,170.6	7.0	28.0	-71.20	83.3	963.5	971.1	937.3	33.80	28.735	
4,100.0	4,099.5	4,587.5	4,261.9	7.2	28.9	-68.40	34.6	957.8	958.6	923.4	35.16	27.260	
4,200.0	4,199.5	4,671.0	4,335.6	7.4	29.6	-66.12	-4.5	952.8	947.8	911.5	36.32	26.096	
4,300.0	4,299.4	4,743.0	4,399.9	7.5	30.1	-64.22	-36.5	949.2	940.2	902.9	37.28	25.217	
4,400.0	4,399.4	4,833.1	4,482.1	7.7	30.8	-62.03	-73.4	945.6	935.3	897.1	38.26	24.446	
4,500.0	4,499.4	4,928.4	4,570.5	7.9	31.4	-59.91	-108.6	941.9	932.2	893.0	39.16	23.803	
4,600.0	4,599.4	5,035.3	4,671.2	8.1	32.0	-57.76	-144.3	936.7	929.1	889.1	40.04	23.208	
4,700.0	4,699.4	5,126.4	4,757.7	8.2	32.5	-56.06	-172.5	932.4	927.1	886.4	40.74	22.757	
4,800.0	4,799.4	5,223.8	4,851.4	8.4	33.0	-54.47	-198.8	928.5	926.1	884.7	41.38	22.380	
4,900.0	4,899.4	5,321.9	4,946.7	8.6	33.4	-53.11	-221.6	924.9	925.6	883.7	41.94	22.072	
4,960.0	4,959.4	5,380.7	5,004.3	8.7	33.6	-52.43	-233.0	923.2	925.5	883.3	42.23	21.915	
5,000.0	4,999.4	5,420.5	5,043.5	8.8	33.7	-52.01	-240.1	922.1	925.5	883.1	42.42	21.818	
5,100.0	5,099.4	5,525.3	5,146.9	8.9	34.0	-51.01	-257.1	919.3	925.5	882.6	42.89	21.578	
5,200.0	5,199.4	5,634.3	5,255.0	9.1	34.3	-50.20	-270.9	916.3	924.8	881.5	43.28	21.366	
5,300.0	5,299.4	5,740.4	5,360.5	9.3	34.5	-49.63	-280.6	913.1	923.1	879.5	43.63	21.160	
5,400.0	5,399.4	5,837.8	5,457.7	9.5	34.6	-49.30	-286.5	910.7	921.4	877.5	43.92	20.979	
5,500.0	5,499.3	5,941.1	5,561.0	9.6	34.7	-49.11	-290.1	909.1	919.9	875.7	44.19	20.819	
5,600.0	5,599.3	6,048.6	5,668.4	9.8	34.8	-49.07	-291.4	907.2	917.6	873.2	44.42	20.656	
5,700.0	5,699.3	6,147.2	5,767.1	10.0	34.8	-49.11	-291.3	905.4	915.0	870.3	44.66	20.487	
5,800.0	5,799.3	6,246.8	5,866.6	10.2	34.9	-49.14	-291.3	903.6	912.5	867.6	44.90	20.321	
5,900.0	5,899.3	6,346.3	5,966.1	10.4	35.0	-49.17	-291.4	901.9	910.0	864.8	45.14	20.158	
6,000.0	5,999.3	6,445.4	6,065.2	10.5	35.0	-49.20	-291.5	900.3	907.6	862.2	45.38	19.998	
6,100.0	6,099.3	6,542.7	6,162.5	10.7	35.1	-49.23	-291.6	898.8	905.3	859.7	45.62	19.846	
6,200.0	6,199.3	6,638.7	6,258.4	10.9	35.1	-49.29	-291.2	897.9	903.5	857.7	45.85	19.708	
6,300.0	6,299.3	6,737.7	6,357.4	11.1	35.2	-49.38	-290.6	897.3	902.0	855.9	46.08	19.574	
6,400.0	6,399.3	6,837.8	6,457.6	11.2	35.2	-49.45	-290.3	896.7	900.5	854.2	46.32	19.441	
6,500.0	6,499.3	6,938.4	6,558.2	11.4	35.3	-49.51	-290.3	896.0	898.9	852.4	46.56	19.306	
6,600.0	6,599.3	7,039.5	6,659.2	11.6	35.4	-49.55	-290.3	895.1	897.3	850.5	46.81	19.171	
6,700.0	6,699.3	7,141.8	6,761.5	11.8	35.4	-49.59	-290.5	894.0	895.5	848.4	47.05	19.030	
6,800.0	6,799.2	7,243.2	6,863.0	11.9	35.5	-49.61	-290.8	892.6	893.4	846.1	47.30	18.887	
6,900.0	6,899.2	7,344.1	6,963.8	12.1	35.6	-49.63	-291.1	891.1	891.2	843.7	47.55	18.742	
6,978.5	6,977.6	7,423.9	7,043.6	12.2	35.6	101.69	-291.3	889.9	890.5	842.8	47.72	18.660	
7,000.0	6,999.0	7,445.8	7,065.5	12.3	35.7	102.51	-291.3	889.5	890.3	842.5	47.77	18.637 CC, ES, SF	
7,100.0	7,096.7	7,545.4	7,165.1	12.4	35.7	104.95	-291.4	887.7	893.8	845.9	47.91	18.656	
7,200.0	7,189.1	7,638.1	7,257.8	12.6	35.8	106.62	-291.4	885.9	902.9	855.0	47.96	18.826	
7,300.0	7,273.6	7,723.0	7,342.7	12.8	35.8	107.98	-291.3	884.3	919.4	871.4	47.93	19.182	
7,400.0	7,347.6	7,798.3	7,417.9	13.1	35.9	108.65	-291.1	882.8	944.6	896.8	47.80	19.763	
7,500.0	7,408.8	7,861.0	7,480.6	13.5	35.9	108.13	-290.8	881.6	979.9	932.3	47.57	20.596	
7,600.0	7,455.3	7,907.4	7,527.1	14.2	36.0	105.78	-290.4	880.7	1,025.5	978.3	47.26	21.699	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S1-T1N-R69W (Bailey) - Bailey 8-8-1 - DD - DD													Offset Site Error: 0.0 ft	
Survey Program: 811-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
8,800.0	7,500.0	7,686.0	7,461.7	30.2	27.9	-87.27	2,272.1	-586.6	1,000.0	963.6	36.40	27.469	8.518 CC, ES  8.320 SF	
8,900.0	7,500.0	7,688.6	7,464.2	31.8	27.9	-87.53	2,272.2	-586.7	919.9	882.3	37.66	24.429		
9,000.0	7,500.0	7,691.1	7,466.8	33.4	27.9	-87.78	2,272.3	-586.7	844.1	804.8	39.33	21.461		
9,100.0	7,500.0	7,693.7	7,469.3	35.0	27.9	-88.03	2,272.3	-586.7	773.8	732.3	41.59	18.607		
9,200.0	7,500.0	7,696.2	7,471.8	36.6	27.9	-88.27	2,272.4	-586.8	710.3	665.7	44.59	15.929		
9,300.0	7,500.0	7,698.7	7,474.3	38.3	27.9	-88.50	2,272.4	-586.8	654.5	606.1	48.46	13.507		
9,400.0	7,500.0	7,701.2	7,476.9	40.0	27.9	-88.75	2,272.5	-586.8	608.5	555.3	53.15	11.449		
9,500.0	7,500.0	7,703.8	7,479.4	41.6	27.9	-89.01	2,272.6	-586.8	575.0	516.7	58.30	9.863		
9,600.0	7,500.0	7,706.3	7,481.9	43.3	27.9	-89.27	2,272.6	-586.9	557.7	494.5	63.20	8.824		
9,648.5	7,500.0	7,707.5	7,483.1	44.1	27.9	-89.39	2,272.6	-586.9	555.5	490.3	65.22			
9,700.0	7,500.0	7,708.8	7,484.4	45.0	27.9	-89.53	2,272.7	-586.9	557.9	490.9	67.00	8.327		
9,800.0	7,500.0	7,711.3	7,486.9	46.7	27.9	-89.78	2,272.7	-586.9	575.8	506.6	69.21			
9,900.0	7,500.0	7,713.7	7,489.4	48.3	27.9	-90.04	2,272.8	-587.0	609.8	540.0	69.82	8.733		
10,000.0	7,500.0	7,716.2	7,491.8	50.0	27.9	-90.29	2,272.8	-587.0	657.3	588.1	69.23	9.495		
10,100.0	7,500.0	7,718.7	7,494.3	51.7	27.9	-90.55	2,272.9	-587.0	715.8	647.9	67.92	10.539		
10,200.0	7,500.0	7,721.2	7,496.8	53.4	27.9	-90.81	2,273.0	-587.1	782.7	716.4	66.26	11.812		
10,300.0	7,500.0	7,723.7	7,499.3	55.2	27.9	-91.06	2,273.0	-587.1	856.1	791.5	64.53	13.266		
10,400.0	7,500.0	7,726.2	7,501.8	56.9	27.9	-91.32	2,273.1	-587.1	934.4	871.5	62.85	14.867		
10,500.0	7,500.0	7,728.7	7,504.3	58.6	27.9	-91.58	2,273.1	-587.1	1,016.5	955.2	61.30	16.583		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S1-T1N-R69W (Bailey) - Bailey 8-8-1 - DD - Plan #1													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		
8,800.0	7,500.0	7,676.3	7,489.0	30.2	28.2	-90.00	2,253.5	-572.8	976.4	940.0	36.37	26.849		
8,900.0	7,500.0	7,676.3	7,489.0	31.8	28.2	-90.00	2,253.5	-572.8	896.4	858.7	37.63	23.821		
9,000.0	7,500.0	7,676.3	7,489.0	33.4	28.2	-90.00	2,253.5	-572.8	820.7	781.4	39.34	20.859		
9,100.0	7,500.0	7,676.3	7,489.0	35.0	28.2	-90.00	2,253.5	-572.8	750.8	709.1	41.69	18.010		
9,200.0	7,500.0	7,676.3	7,489.0	36.6	28.2	-90.00	2,253.5	-572.8	687.9	643.1	44.84	15.341		
9,300.0	7,500.0	7,676.3	7,489.0	38.3	28.2	-90.00	2,253.5	-572.8	633.2	584.3	48.92	12.943		
9,400.0	7,500.0	7,676.3	7,489.0	40.0	28.2	-90.00	2,253.5	-572.8	588.8	535.0	53.85	10.935		
9,500.0	7,500.0	7,676.3	7,489.0	41.6	28.2	-90.00	2,253.5	-572.8	557.8	498.6	59.16	9.428		
9,600.0	7,500.0	7,676.3	7,489.0	43.3	28.2	-90.00	2,253.5	-572.8	543.5	479.5	64.04	8.488		
9,628.4	7,500.0	7,676.3	7,489.0	43.8	28.2	-90.00	2,253.5	-572.8	542.8	477.6	65.22	8.323 CC, ES		
9,700.0	7,500.0	7,676.3	7,489.0	45.0	28.2	-90.00	2,253.5	-572.8	547.5	479.9	67.62	8.096 SF		
9,800.0	7,500.0	7,676.3	7,489.0	46.7	28.2	-90.00	2,253.5	-572.8	569.3	499.8	69.48	8.193		
9,900.0	7,500.0	7,676.3	7,489.0	48.3	28.2	-90.00	2,253.5	-572.8	606.9	537.2	69.74	8.703		
10,000.0	7,500.0	7,676.3	7,489.0	50.0	28.2	-90.00	2,253.5	-572.8	657.8	588.9	68.87	9.551		
10,100.0	7,500.0	7,676.3	7,489.0	51.7	28.2	-90.00	2,253.5	-572.8	719.0	651.7	67.37	10.673		
10,200.0	7,500.0	7,676.3	7,489.0	53.4	28.2	-90.00	2,253.5	-572.8	788.2	722.6	65.62	12.013		
10,300.0	7,500.0	7,676.3	7,489.0	55.2	28.2	-90.00	2,253.5	-572.8	863.5	799.7	63.84	13.527		
10,400.0	7,500.0	7,676.3	7,489.0	56.9	28.2	-90.00	2,253.5	-572.8	943.4	881.2	62.15	15.179		
10,500.0	7,500.0	7,676.3	7,489.0	58.6	28.2	-90.00	2,253.5	-572.8	1,026.8	966.2	60.61	16.940		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S6-T1N-R68W (Bearden) - Bearden 13-6 (Existing Well) - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 765-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
10,600.0	7,500.0	7,576.8	7,458.7	60.3	24.1	82.51	4,225.5	33.6	974.4	931.1	43.32	22.492		
10,700.0	7,500.0	7,579.3	7,461.2	62.0	24.1	82.81	4,225.6	33.6	876.7	832.3	44.42	19.735		
10,800.0	7,500.0	7,581.8	7,463.8	63.7	24.1	83.06	4,225.7	33.6	779.1	733.4	45.77	17.023		
10,900.0	7,500.0	7,584.4	7,466.3	65.4	24.1	83.42	4,225.7	33.6	681.9	634.4	47.46	14.368		
11,000.0	7,500.0	7,587.0	7,468.9	67.2	24.1	83.93	4,225.8	33.6	585.0	535.4	49.65	11.783		
11,100.0	7,500.0	7,589.6	7,471.6	68.9	24.1	84.84	4,225.9	33.6	489.0	436.3	52.69	9.281		
11,200.0	7,500.0	7,592.3	7,474.2	70.6	24.1	85.85	4,226.0	33.6	395.0	337.7	57.31	6.893		
11,300.0	7,500.0	7,595.0	7,476.9	72.3	24.1	86.88	4,226.0	33.6	304.8	240.1	64.67	4.713		
11,400.0	7,500.0	7,597.7	7,479.6	74.1	24.1	87.92	4,226.1	33.6	223.0	146.5	76.56	2.913		
11,500.0	7,500.0	7,600.4	7,482.3	75.8	24.1	88.97	4,226.2	33.6	163.0	71.7	91.35	1.785		
11,565.9	7,500.0	7,602.2	7,484.1	76.9	24.1	89.67	4,226.2	33.7	149.1	55.7	93.38	1.597 CC, ES, SF		
11,600.0	7,500.0	7,603.2	7,485.1	77.5	24.1	90.03	4,226.3	33.7	153.0	63.3	89.62	1.707		
11,700.0	7,500.0	7,605.9	7,487.9	79.2	24.1	91.10	4,226.3	33.7	200.5	127.5	73.04	2.745		
11,800.0	7,500.0	7,608.8	7,490.7	81.0	24.1	92.18	4,226.4	33.7	277.5	216.1	61.37	4.521		
11,900.0	7,500.0	7,611.6	7,493.5	82.7	24.1	93.27	4,226.5	33.7	365.7	311.1	54.63	6.694		
12,000.0	7,500.0	7,614.5	7,496.4	84.4	24.2	94.38	4,226.6	33.7	458.8	408.1	50.69	9.051		
12,100.0	7,500.0	7,617.4	7,499.3	86.2	24.2	95.48	4,226.7	33.8	554.3	506.0	48.30	11.477		
12,200.0	7,500.0	7,620.4	7,502.3	87.9	24.2	96.60	4,226.8	33.8	651.1	604.3	46.78	13.919		
12,300.0	7,500.0	7,623.3	7,505.3	89.6	24.2	97.72	4,226.8	33.8	748.8	703.0	45.79	16.351		
12,400.0	7,500.0	7,626.3	7,508.3	91.4	24.2	98.85	4,226.9	33.8	847.0	801.8	45.14	18.762		
12,500.0	7,500.0	7,629.4	7,511.3	93.1	24.2	99.99	4,227.0	33.9	945.5	900.8	44.71	21.148		
12,600.0	7,500.0	7,631.0	7,512.9	94.9	24.2	100.59	4,227.1	33.9	1,044.4	999.9	44.42	23.512		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S6-T1N-R68W (Bearden) - Bearden 14-6(Existing Well) - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 797-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	7,629.7	7,464.2	36.6	25.6	59.51	2,899.1	-1.7	1,035.6	997.7	37.94	27.296		
9,300.0	7,500.0	7,631.8	7,466.3	38.3	25.6	70.38	2,899.2	-1.7	935.7	897.7	38.05	24.590		
9,400.0	7,500.0	7,633.9	7,468.4	40.0	25.6	76.25	2,899.2	-1.7	836.0	797.8	38.15	21.916		
9,500.0	7,500.0	7,636.0	7,470.5	41.6	25.6	78.59	2,899.2	-1.7	736.4	698.2	38.22	19.267		
9,600.0	7,500.0	7,638.1	7,472.6	43.3	25.6	80.20	2,899.3	-1.8	637.0	598.7	38.30	16.632		
9,700.0	7,500.0	7,640.2	7,474.7	45.0	25.6	81.81	2,899.3	-1.8	537.8	499.4	38.40	14.004		
9,800.0	7,500.0	7,642.3	7,476.7	46.7	25.7	83.43	2,899.4	-1.8	438.9	400.3	38.58	11.376		
9,900.0	7,500.0	7,644.3	7,478.8	48.3	25.7	85.05	2,899.4	-1.8	340.6	301.6	39.00	8.734		
10,000.0	7,500.0	7,646.4	7,480.8	50.0	25.7	86.66	2,899.4	-1.8	243.8	203.6	40.22	6.063		
10,100.0	7,500.0	7,648.4	7,482.8	51.7	25.7	88.28	2,899.5	-1.8	151.2	106.8	44.41	3.404		
10,200.0	7,500.0	7,650.4	7,484.9	53.4	25.7	89.88	2,899.5	-1.9	79.1	17.3	61.72	1.281 Level 3		
10,233.1	7,500.0	7,651.1	7,485.5	54.0	25.7	90.41	2,899.5	-1.9	71.8	0.2	71.61	1.003 Level 2, CC, ES, SF		
10,300.0	7,500.0	7,652.4	7,486.9	55.2	25.7	91.47	2,899.6	-1.9	98.2	29.7	68.45	1.434 Level 3		
10,400.0	7,500.0	7,654.4	7,488.8	56.9	25.7	93.06	2,899.6	-1.9	181.7	127.0	54.74	3.320		
10,500.0	7,500.0	7,656.4	7,490.8	58.6	25.7	94.63	2,899.6	-1.9	276.4	227.2	49.20	5.617		
10,600.0	7,500.0	7,658.3	7,492.8	60.3	25.7	96.18	2,899.7	-1.9	373.8	327.1	46.72	8.002		
10,700.0	7,500.0	7,660.3	7,494.7	62.0	25.7	97.17	2,899.7	-1.9	472.3	426.9	45.39	10.405		
10,800.0	7,500.0	7,662.2	7,496.6	63.7	25.7	97.69	2,899.8	-2.0	571.0	526.5	44.55	12.819		
10,900.0	7,500.0	7,664.1	7,498.5	65.4	25.7	97.96	2,899.8	-2.0	669.9	626.0	43.96	15.239		
11,000.0	7,500.0	7,666.0	7,500.4	67.2	25.7	98.03	2,899.8	-2.0	768.9	725.3	43.53	17.662		
11,100.0	7,500.0	7,667.8	7,502.3	68.9	25.7	98.74	2,899.9	-2.0	867.9	824.7	43.22	20.081		
11,200.0	7,500.0	7,669.7	7,504.1	70.6	25.7	99.65	2,899.9	-2.0	967.1	924.1	43.02	22.481		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 0-6-6 (EXISTING) - ENCANA WELL - S												Offset Site Error:	0.0 ft
Survey Program: 46-Geolink MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)					
10,000.0	7,500.0	7,734.9	7,490.6	50.0	31.0	-90.93	3,560.4	-527.1	1,013.9	958.3	55.59	18.238	
10,100.0	7,500.0	7,734.5	7,490.2	51.7	31.0	-90.88	3,560.4	-527.1	923.1	865.8	57.25	16.123	
10,200.0	7,500.0	7,734.1	7,489.9	53.4	31.0	-90.83	3,560.4	-527.1	834.5	775.2	59.25	14.084	
10,300.0	7,500.0	7,733.8	7,489.5	55.2	31.0	-90.78	3,560.4	-527.1	748.7	687.0	61.63	12.147	
10,400.0	7,500.0	7,733.5	7,489.2	56.9	31.0	-90.73	3,560.4	-527.1	666.9	602.4	64.45	10.347	
10,500.0	7,500.0	7,733.1	7,488.9	58.6	31.0	-90.69	3,560.4	-527.1	590.7	523.0	67.69	8.727	
10,600.0	7,500.0	7,732.8	7,488.5	60.3	31.0	-90.64	3,560.4	-527.1	522.6	451.4	71.19	7.341	
10,700.0	7,500.0	7,732.5	7,488.2	62.0	31.0	-90.59	3,560.4	-527.1	466.6	392.0	74.55	6.259	
10,800.0	7,500.0	7,732.2	7,487.9	63.7	31.0	-90.55	3,560.4	-527.1	428.6	351.4	77.14	5.556	
10,900.0	7,500.0	7,731.9	7,487.6	65.4	31.0	-90.51	3,560.4	-527.1	413.6	334.7	78.83	5.246	
10,908.8	7,500.0	7,731.9	7,487.6	65.6	31.0	-90.50	3,560.4	-527.1	413.5	334.5	78.96	5.237 CC, ES, SF	
11,000.0	7,500.0	7,731.7	7,487.4	67.2	31.0	-90.47	3,560.4	-527.1	424.1	344.0	80.16	5.291	
11,100.0	7,500.0	7,731.4	7,487.2	68.9	31.0	-90.44	3,560.4	-527.1	457.9	377.4	80.55	5.685	
11,200.0	7,500.0	7,731.2	7,486.9	70.6	31.0	-90.41	3,560.4	-527.1	509.5	430.0	79.53	6.407	
11,300.0	7,500.0	7,731.0	7,486.7	72.3	31.0	-90.37	3,560.4	-527.1	574.0	496.4	77.58	7.399	
11,400.0	7,500.0	7,730.7	7,486.5	74.1	31.0	-90.34	3,560.4	-527.2	647.6	572.3	75.32	8.598	
11,500.0	7,500.0	7,730.5	7,486.2	75.8	31.0	-90.31	3,560.4	-527.2	727.5	654.4	73.11	9.951	
11,600.0	7,500.0	7,730.3	7,486.0	77.5	31.0	-90.28	3,560.4	-527.2	811.9	740.8	71.10	11.419	
11,700.0	7,500.0	7,730.1	7,485.8	79.2	31.0	-90.25	3,560.4	-527.2	899.4	830.1	69.33	12.973	
11,800.0	7,500.0	7,729.9	7,485.6	81.0	31.0	-90.22	3,560.4	-527.2	989.4	921.6	67.81	14.590	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 1 (EXISTING) - ENCANA WELL - SUR										Offset Site Error:		0.0 ft	
Survey Program:		100-MWD										Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	Centre +E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)					
10,900.0	7,500.0	7,475.0	7,472.5	65.4	13.3	90.19	3,773.5	930.7	1,065.9	988.0	77.85	13.692			
11,000.0	7,500.0	7,475.9	7,473.4	67.2	13.3	90.24	3,773.5	930.7	1,051.8	971.6	80.24	13.108			
11,100.0	7,500.0	7,476.8	7,474.3	68.9	13.3	90.29	3,773.5	930.7	1,045.9	963.8	82.12	12.737			
11,112.5	7,500.0	7,476.9	7,474.4	69.1	13.3	90.30	3,773.5	930.7	1,045.8	963.5	82.31	12.705 CC, ES			
11,200.0	7,500.0	7,477.7	7,475.3	70.6	13.3	90.34	3,773.5	930.7	1,049.5	966.0	83.42	12.581 SF			
11,300.0	7,500.0	7,478.7	7,476.2	72.3	13.3	90.39	3,773.6	930.7	1,062.5	978.4	84.12	12.631			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 13-6 (EXISTING) - ENCANA WELL - S										Offset Site Error:		0.0 ft		
Survey Program: 765-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)				
10,600.0	7,500.0	7,576.8	7,458.7	60.3	24.1	82.50	4,225.5	33.5	974.3	931.0	43.32	22.491		
10,700.0	7,500.0	7,579.3	7,461.2	62.0	24.1	82.81	4,225.6	33.5	876.6	832.2	44.42	19.734		
10,800.0	7,500.0	7,581.8	7,463.8	63.7	24.1	83.06	4,225.6	33.5	779.1	733.3	45.77	17.022		
10,900.0	7,500.0	7,584.4	7,466.3	65.4	24.1	83.42	4,225.7	33.6	681.8	634.4	47.46	14.367		
11,000.0	7,500.0	7,587.0	7,468.9	67.2	24.1	83.93	4,225.8	33.6	585.0	535.3	49.65	11.782		
11,100.0	7,500.0	7,589.6	7,471.6	68.9	24.1	84.84	4,225.8	33.6	489.0	436.3	52.69	9.280		
11,200.0	7,500.0	7,592.3	7,474.2	70.6	24.1	85.85	4,225.9	33.6	395.0	337.6	57.30	6.892		
11,300.0	7,500.0	7,595.0	7,476.9	72.3	24.1	86.88	4,226.0	33.6	304.7	240.1	64.67	4.712		
11,400.0	7,500.0	7,597.7	7,479.6	74.1	24.1	87.92	4,226.1	33.6	223.0	146.4	76.56	2.912		
11,500.0	7,500.0	7,600.4	7,482.3	75.8	24.1	88.97	4,226.1	33.6	163.0	71.6	91.35	1.784		
11,565.9	7,500.0	7,602.2	7,484.1	76.9	24.1	89.67	4,226.2	33.6	149.1	55.7	93.38	1.597 CC, ES, SF		
11,600.0	7,500.0	7,603.2	7,485.1	77.5	24.1	90.03	4,226.2	33.6	152.9	63.3	89.61	1.707		
11,700.0	7,500.0	7,606.0	7,487.9	79.2	24.1	91.10	4,226.3	33.7	200.5	127.5	73.03	2.746		
11,800.0	7,500.0	7,608.8	7,490.7	81.0	24.1	92.18	4,226.4	33.7	277.5	216.1	61.36	4.522		
11,900.0	7,500.0	7,611.6	7,493.5	82.7	24.1	93.28	4,226.5	33.7	365.8	311.1	54.63	6.696		
12,000.0	7,500.0	7,614.5	7,496.4	84.4	24.2	94.38	4,226.5	33.7	458.9	408.2	50.69	9.052		
12,100.0	7,500.0	7,617.4	7,499.3	86.2	24.2	95.49	4,226.6	33.7	554.3	506.0	48.29	11.479		
12,200.0	7,500.0	7,620.4	7,502.3	87.9	24.2	96.60	4,226.7	33.8	651.2	604.4	46.78	13.921		
12,300.0	7,500.0	7,623.3	7,505.3	89.6	24.2	97.73	4,226.8	33.8	748.8	703.0	45.79	16.353		
12,400.0	7,500.0	7,626.3	7,508.3	91.4	24.2	98.85	4,226.9	33.8	847.0	801.9	45.14	18.763		
12,500.0	7,500.0	7,629.4	7,511.3	93.1	24.2	99.99	4,227.0	33.8	945.6	900.9	44.71	21.150		
12,600.0	7,500.0	7,631.0	7,512.9	94.9	24.2	100.59	4,227.0	33.9	1,044.4	1,000.0	44.42	23.513		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 14-6 (EXISTING) - ENCANA WELL - S													Offset Site Error:	0.0 ft
Survey Program: 797-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	7,629.7	7,464.2	36.6	25.6	59.53	2,899.1	-1.6	1,035.5	997.6	37.94	27.295		
9,300.0	7,500.0	7,631.8	7,466.3	38.3	25.6	70.39	2,899.1	-1.7	935.7	897.6	38.05	24.589		
9,400.0	7,500.0	7,633.9	7,468.4	40.0	25.6	76.26	2,899.2	-1.7	835.9	797.8	38.15	21.914		
9,500.0	7,500.0	7,636.0	7,470.5	41.6	25.6	78.59	2,899.2	-1.7	736.4	698.1	38.22	19.266		
9,600.0	7,500.0	7,638.1	7,472.6	43.3	25.6	80.20	2,899.2	-1.7	636.9	598.6	38.30	16.631		
9,700.0	7,500.0	7,640.2	7,474.7	45.0	25.6	81.82	2,899.3	-1.7	537.7	499.3	38.40	14.003		
9,800.0	7,500.0	7,642.3	7,476.7	46.7	25.7	83.43	2,899.3	-1.8	438.8	400.3	38.58	11.374		
9,900.0	7,500.0	7,644.3	7,478.8	48.3	25.7	85.05	2,899.4	-1.8	340.6	301.6	39.00	8.733		
10,000.0	7,500.0	7,646.4	7,480.8	50.0	25.7	86.67	2,899.4	-1.8	243.8	203.6	40.22	6.062		
10,100.0	7,500.0	7,648.4	7,482.8	51.7	25.7	88.28	2,899.4	-1.8	151.1	106.7	44.42	3.403		
10,200.0	7,500.0	7,650.4	7,484.9	53.4	25.7	89.88	2,899.5	-1.8	79.1	17.3	61.74	1.281 Level 3		
10,233.0	7,500.0	7,651.1	7,485.5	54.0	25.7	90.41	2,899.5	-1.8	71.8	0.2	71.61	1.003 Level 2, CC, ES, SF		
10,300.0	7,500.0	7,652.4	7,486.9	55.2	25.7	91.48	2,899.5	-1.9	98.2	29.8	68.45	1.435 Level 3		
10,400.0	7,500.0	7,654.4	7,488.8	56.9	25.7	93.06	2,899.6	-1.9	181.8	127.0	54.74	3.320		
10,500.0	7,500.0	7,656.4	7,490.8	58.6	25.7	94.63	2,899.6	-1.9	276.4	227.2	49.21	5.618		
10,600.0	7,500.0	7,658.3	7,492.8	60.3	25.7	96.18	2,899.6	-1.9	373.9	327.2	46.72	8.003		
10,700.0	7,500.0	7,660.3	7,494.7	62.0	25.7	97.17	2,899.7	-1.9	472.3	426.9	45.39	10.405		
10,800.0	7,500.0	7,662.2	7,496.6	63.7	25.7	97.69	2,899.7	-1.9	571.1	526.5	44.55	12.820		
10,900.0	7,500.0	7,664.1	7,498.5	65.4	25.7	97.95	2,899.7	-1.9	670.0	626.0	43.96	15.240		
11,000.0	7,500.0	7,666.0	7,500.4	67.2	25.7	98.03	2,899.8	-2.0	768.9	725.4	43.53	17.663		
11,100.0	7,500.0	7,667.8	7,502.3	68.9	25.7	98.73	2,899.8	-2.0	868.0	824.7	43.22	20.082		
11,200.0	7,500.0	7,669.7	7,504.1	70.6	25.7	99.65	2,899.9	-2.0	967.2	924.2	43.02	22.482		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 2-4-6 (EXISTING) - ENCANA WELL - P													Offset Site Error: 0.0 ft
Survey Program: 775-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	
11,500.0	7,500.0	7,610.5	7,484.0	75.8	25.4	90.00	4,835.9	641.7	1,014.8	931.8	83.00	12.227	
11,600.0	7,500.0	7,610.5	7,484.0	77.5	25.4	90.00	4,835.9	641.7	951.2	862.9	88.25	10.778	
11,700.0	7,500.0	7,610.5	7,484.0	79.2	25.4	90.00	4,835.9	641.7	894.3	800.6	93.69	9.545	
11,800.0	7,500.0	7,610.5	7,484.0	81.0	25.4	90.00	4,835.9	641.7	845.4	746.4	99.05	8.535	
11,900.0	7,500.0	7,610.5	7,484.0	82.7	25.4	90.00	4,835.9	641.7	806.1	702.1	104.00	7.750	
12,000.0	7,500.0	7,610.5	7,484.0	84.4	25.4	90.00	4,835.9	641.7	777.6	669.5	108.09	7.194	
12,100.0	7,500.0	7,610.5	7,484.0	86.2	25.4	90.00	4,835.9	641.7	761.4	650.5	110.89	6.866	
12,175.1	7,500.0	7,610.5	7,484.0	87.5	25.4	90.00	4,835.9	641.7	757.7	645.7	111.94	6.769 CC, ES	
12,200.0	7,500.0	7,610.5	7,484.0	87.9	25.4	90.00	4,835.9	641.7	758.1	646.0	112.07	6.764 SF	
12,300.0	7,500.0	7,610.5	7,484.0	89.6	25.4	90.00	4,835.9	641.7	767.9	656.4	111.54	6.885	
12,400.0	7,500.0	7,610.5	7,484.0	91.4	25.4	90.00	4,835.9	641.7	790.4	680.9	109.46	7.220	
12,500.0	7,500.0	7,610.5	7,484.0	93.1	25.4	90.00	4,835.9	641.7	824.4	718.2	106.21	7.762	
12,600.0	7,500.0	7,610.5	7,484.0	94.9	25.4	90.00	4,835.9	641.7	868.7	766.5	102.20	8.500	
12,700.0	7,500.0	7,610.5	7,484.0	96.6	25.4	90.00	4,835.9	641.7	921.7	823.9	97.84	9.421	
12,800.0	7,500.0	7,610.5	7,484.0	98.3	25.4	90.00	4,835.9	641.7	982.1	888.7	93.44	10.511	
12,900.0	7,500.0	7,610.5	7,484.0	100.1	25.4	90.00	4,835.9	641.7	1,048.6	959.4	89.21	11.755	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 2-8-6 (EXISTING) - ENCANA WELL - S													Offset Site Error: 0.0 ft
Survey Program: 76-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
8,800.0	7,500.0	7,682.5	7,490.1	30.2	27.7	90.57	2,277.5	599.2	1,009.7	972.4	37.34	27.038	
8,900.0	7,500.0	7,682.7	7,490.3	31.8	27.7	90.59	2,277.5	599.2	932.1	892.0	40.10	23.242	
9,000.0	7,500.0	7,682.9	7,490.5	33.4	27.7	90.61	2,277.5	599.2	859.2	815.8	43.45	19.776	
9,100.0	7,500.0	7,683.0	7,490.7	35.0	27.7	90.62	2,277.5	599.2	792.2	744.8	47.41	16.710	
9,200.0	7,500.0	7,683.2	7,490.8	36.6	27.7	90.63	2,277.5	599.2	733.2	681.2	51.97	14.107	
9,300.0	7,500.0	7,683.4	7,491.0	38.3	27.7	90.65	2,277.5	599.2	685.2	628.2	56.99	12.024	
9,400.0	7,500.0	7,683.7	7,491.3	40.0	27.7	90.66	2,277.5	599.2	650.9	588.9	62.05	10.491	
9,500.0	7,500.0	7,683.9	7,491.5	41.6	27.7	90.69	2,277.5	599.2	632.0	565.5	66.57	9.494	
9,570.6	7,500.0	7,684.1	7,491.7	42.8	27.7	90.70	2,277.5	599.2	628.1	559.0	69.13	9.085 CC	
9,600.0	7,500.0	7,684.1	7,491.8	43.3	27.7	90.71	2,277.5	599.2	628.8	558.8	70.00	8.983 ES	
9,700.0	7,500.0	7,684.4	7,492.0	45.0	27.7	90.73	2,277.5	599.2	641.3	569.3	71.99	8.908 SF	
9,800.0	7,500.0	7,684.6	7,492.3	46.7	27.7	90.75	2,277.5	599.2	668.7	596.1	72.55	9.217	
9,900.0	7,500.0	7,684.9	7,492.5	48.3	27.7	90.78	2,277.5	599.2	709.2	637.3	71.95	9.858	
10,000.0	7,500.0	7,685.2	7,492.8	50.0	27.7	90.80	2,277.5	599.2	760.8	690.3	70.57	10.781	
10,100.0	7,500.0	7,685.4	7,493.0	51.7	27.7	90.82	2,277.5	599.2	821.4	752.6	68.78	11.944	
10,200.0	7,500.0	7,685.7	7,493.3	53.4	27.7	90.85	2,277.5	599.2	889.2	822.3	66.82	13.307	
10,300.0	7,500.0	7,685.9	7,493.6	55.2	27.7	90.87	2,277.5	599.2	962.5	897.7	64.87	14.838	
10,400.0	7,500.0	7,686.2	7,493.8	56.9	27.7	90.90	2,277.5	599.2	1,040.4	977.3	63.02	16.508	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BECKY 2-6 (EXISTING) - NOBLE WELL - NO SUR													Offset Site Error: 0.0 ft
Survey Program: 8164-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	
13,000.0	7,500.0	7,453.0	7,453.0	101.8	13.0	90.00	6,293.6	731.4	1,058.5	961.8	96.72	10.944	
13,100.0	7,500.0	7,453.0	7,453.0	103.5	13.0	90.00	6,293.6	731.4	1,001.9	899.5	102.43	9.782	
13,200.0	7,500.0	7,453.0	7,453.0	105.3	13.0	90.00	6,293.6	731.4	952.5	844.4	108.16	8.807	
13,300.0	7,500.0	7,453.0	7,453.0	107.0	13.0	90.00	6,293.6	731.4	911.5	797.8	113.64	8.021	
13,400.0	7,500.0	7,453.0	7,453.0	108.8	13.0	90.00	6,293.6	731.4	879.9	761.4	118.55	7.422	
13,500.0	7,500.0	7,453.0	7,453.0	110.5	13.0	90.00	6,293.6	731.4	858.9	736.4	122.52	7.010	
13,600.0	7,500.0	7,453.0	7,453.0	112.3	13.0	90.00	6,293.6	731.4	849.2	724.0	125.24	6.781	
13,632.7	7,500.0	7,453.0	7,453.0	112.8	13.0	90.00	6,293.6	731.4	848.6	722.8	125.82	6.744 CC, ES	
13,700.0	7,500.0	7,453.0	7,453.0	114.0	13.0	90.00	6,293.6	731.4	851.2	724.7	126.49	6.729 SF	
13,800.0	7,500.0	7,453.0	7,453.0	115.7	13.0	90.00	6,293.6	731.4	864.9	738.6	126.26	6.850	
13,900.0	7,500.0	7,453.0	7,453.0	117.5	13.0	90.00	6,293.6	731.4	889.7	765.0	124.67	7.136	
14,000.0	7,500.0	7,453.0	7,453.0	119.2	13.0	90.00	6,293.6	731.4	924.6	802.6	122.02	7.578	
14,100.0	7,500.0	7,453.0	7,453.0	121.0	13.0	90.00	6,293.6	731.4	968.7	850.1	118.60	8.168	
14,200.0	7,500.0	7,453.0	7,453.0	122.7	13.0	90.00	6,293.6	731.4	1,020.7	906.0	114.73	8.896	
14,300.0	7,500.0	7,453.0	7,453.0	124.5	13.0	90.00	6,293.6	731.4	1,079.5	968.8	110.67	9.754	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BECKY 4 (EXISTING) - MARTIN EXP WELL - NO													Offset Site Error: 0.0 ft
Survey Program: 8200-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	
11,900.0	7,500.0	7,457.0	7,457.0	82.7	13.0	90.00	5,530.8	102.1	994.8	954.0	40.78	24.396	
12,000.0	7,500.0	7,457.0	7,457.0	84.4	13.0	90.00	5,530.8	102.1	897.5	854.9	42.55	21.091	
12,100.0	7,500.0	7,457.0	7,457.0	86.2	13.0	90.00	5,530.8	102.1	800.9	756.1	44.83	17.866	
12,200.0	7,500.0	7,457.0	7,457.0	87.9	13.0	90.00	5,530.8	102.1	705.2	657.4	47.80	14.753	
12,300.0	7,500.0	7,457.0	7,457.0	89.6	13.0	90.00	5,530.8	102.1	610.9	559.1	51.79	11.796	
12,400.0	7,500.0	7,457.0	7,457.0	91.4	13.0	90.00	5,530.8	102.1	518.8	461.5	57.29	9.055	
12,500.0	7,500.0	7,457.0	7,457.0	93.1	13.0	90.00	5,530.8	102.1	430.2	365.1	65.07	6.611	
12,600.0	7,500.0	7,457.0	7,457.0	94.9	13.0	90.00	5,530.8	102.1	347.8	271.6	76.20	4.564	
12,700.0	7,500.0	7,457.0	7,457.0	96.6	13.0	90.00	5,530.8	102.1	277.2	185.8	91.40	3.033	
12,800.0	7,500.0	7,457.0	7,457.0	98.3	13.0	90.00	5,530.8	102.1	229.7	122.3	107.39	2.139	
12,870.5	7,500.0	7,457.0	7,457.0	99.6	13.0	90.00	5,530.8	102.1	218.7	106.1	112.55	1.943 CC, ES, SF	
12,900.0	7,500.0	7,457.0	7,457.0	100.1	13.0	90.00	5,530.8	102.1	220.6	108.7	111.95	1.971	
13,000.0	7,500.0	7,457.0	7,457.0	101.8	13.0	90.00	5,530.8	102.1	254.1	153.9	100.29	2.534	
13,100.0	7,500.0	7,457.0	7,457.0	103.5	13.0	90.00	5,530.8	102.1	317.0	232.3	84.72	3.742	
13,200.0	7,500.0	7,457.0	7,457.0	105.3	13.0	90.00	5,530.8	102.1	395.5	323.1	72.38	5.464	
13,300.0	7,500.0	7,457.0	7,457.0	107.0	13.0	90.00	5,530.8	102.1	482.0	418.3	63.65	7.573	
13,400.0	7,500.0	7,457.0	7,457.0	108.8	13.0	90.00	5,530.8	102.1	572.9	515.4	57.53	9.959	
13,500.0	7,500.0	7,457.0	7,457.0	110.5	13.0	90.00	5,530.8	102.1	666.4	613.3	53.16	12.536	
13,600.0	7,500.0	7,457.0	7,457.0	112.3	13.0	90.00	5,530.8	102.1	761.6	711.6	49.98	15.239	
13,700.0	7,500.0	7,457.0	7,457.0	114.0	13.0	90.00	5,530.8	102.1	857.9	810.3	47.60	18.022	
13,800.0	7,500.0	7,457.0	7,457.0	115.7	13.0	90.00	5,530.8	102.1	954.9	909.1	45.80	20.850	



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BECKY 5-6 (EXISTING) - FOUNDATION WELL - N													Offset Site Error: 0.0 ft
Survey Program: 7771-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)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
13,300.0	7,500.0	7,448.0	7,448.0	107.0	13.0	90.00	6,883.4	101.6	948.7	901.8	46.88	20.238	
13,400.0	7,500.0	7,448.0	7,448.0	108.8	13.0	90.00	6,883.4	101.6	851.7	802.2	49.47	17.215	
13,500.0	7,500.0	7,448.0	7,448.0	110.5	13.0	90.00	6,883.4	101.6	755.5	702.7	52.82	14.304	
13,600.0	7,500.0	7,448.0	7,448.0	112.3	13.0	90.00	6,883.4	101.6	660.5	603.2	57.22	11.543	
13,700.0	7,500.0	7,448.0	7,448.0	114.0	13.0	90.00	6,883.4	101.6	567.1	503.9	63.15	8.980	
13,800.0	7,500.0	7,448.0	7,448.0	115.7	13.0	90.00	6,883.4	101.6	476.4	405.1	71.38	6.675	
13,900.0	7,500.0	7,448.0	7,448.0	117.5	13.0	90.00	6,883.4	101.6	390.4	307.3	83.03	4.701	
14,000.0	7,500.0	7,448.0	7,448.0	119.2	13.0	90.00	6,883.4	101.6	312.7	213.3	99.43	3.145	
14,100.0	7,500.0	7,448.0	7,448.0	121.0	13.0	90.00	6,883.4	101.6	251.4	131.4	119.99	2.095	
14,200.0	7,500.0	7,448.0	7,448.0	122.7	13.0	90.00	6,883.4	101.6	220.4	85.2	135.25	1.630	
14,223.0	7,500.0	7,448.0	7,448.0	123.1	13.0	90.00	6,883.4	101.6	219.2	83.1	136.10	1.611	CC, ES, SF
14,300.0	7,500.0	7,448.0	7,448.0	124.5	13.0	90.00	6,883.4	101.6	232.3	102.3	130.02	1.787	
14,400.0	7,500.0	7,448.0	7,448.0	126.2	13.0	90.00	6,883.4	101.6	281.7	170.7	111.04	2.537	
14,422.5	7,500.0	7,448.0	7,448.0	126.6	13.0	90.00	6,883.4	101.6	296.4	189.7	106.62	2.780	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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
0.0	0.0	0.0	0.0	0.0	0.0	-175.88	-982.8	-70.8	985.4				
100.0	100.0	88.0	88.0	0.2	0.2	-175.88	-982.8	-70.8	985.4	985.1	0.31	3,224.020	
200.0	200.0	188.0	188.0	0.3	0.3	-175.88	-982.8	-70.8	985.4	984.7	0.65	1,505.068	
300.0	300.0	288.0	288.0	0.5	0.5	-175.88	-982.8	-70.8	985.4	984.4	1.00	981.671	
400.0	400.0	388.0	388.0	0.7	0.7	-35.91	-982.8	-70.8	984.7	983.3	1.35	727.728	
500.0	500.0	488.0	488.0	0.9	0.9	-36.01	-982.8	-70.8	982.5	980.8	1.70	576.769	
600.0	599.9	587.9	587.9	1.0	1.0	-36.19	-982.8	-70.8	979.0	977.0	2.06	476.086	
700.0	699.8	687.8	687.8	1.2	1.2	-29.64	-982.8	-70.8	975.3	972.9	2.41	405.112	
800.0	799.7	787.7	787.7	1.4	1.4	-12.19	-982.8	-70.8	972.8	970.1	2.76	352.935	
900.0	899.7	887.7	887.7	1.6	1.5	30.40	-982.8	-70.8	971.4	968.3	3.10	312.994	
1,000.0	999.7	987.7	987.7	1.7	1.7	30.43	-982.8	-70.8	970.3	966.8	3.45	281.154	
1,100.0	1,099.7	1,087.7	1,087.7	1.9	1.9	30.47	-982.8	-70.8	969.2	965.4	3.80	255.119	
1,200.0	1,199.7	1,187.7	1,187.7	2.1	2.1	30.51	-982.8	-70.8	968.1	964.0	4.15	233.439	
1,300.0	1,299.7	1,287.7	1,287.7	2.3	2.2	30.55	-982.8	-70.8	967.0	962.5	4.50	215.108	
1,400.0	1,399.7	1,387.7	1,387.7	2.4	2.4	30.58	-982.8	-70.8	965.9	961.1	4.84	199.408	
1,500.0	1,499.7	1,487.7	1,487.7	2.6	2.6	30.62	-982.8	-70.8	964.9	959.7	5.19	185.811	
1,600.0	1,599.7	1,587.7	1,587.7	2.8	2.8	30.66	-982.8	-70.8	963.8	958.2	5.54	173.922	
1,700.0	1,699.7	1,687.7	1,687.7	3.0	2.9	30.70	-982.8	-70.8	962.7	956.8	5.89	163.438	
1,800.0	1,799.6	1,787.6	1,787.6	3.1	3.1	30.74	-982.8	-70.8	961.6	955.4	6.24	154.126	
1,900.0	1,899.6	1,887.6	1,887.6	3.3	3.3	30.77	-982.8	-70.8	960.5	953.9	6.59	145.798	
2,000.0	1,999.6	1,987.6	1,987.6	3.5	3.5	30.81	-982.8	-70.8	959.5	952.5	6.94	138.308	
2,100.0	2,099.6	2,087.6	2,087.6	3.7	3.6	30.85	-982.8	-70.8	958.4	951.1	7.29	131.534	
2,200.0	2,199.6	2,187.6	2,187.6	3.8	3.8	30.89	-982.8	-70.8	957.3	949.7	7.64	125.379	
2,300.0	2,299.6	2,287.6	2,287.6	4.0	4.0	30.93	-982.8	-70.8	956.2	948.2	7.98	119.761	
2,400.0	2,399.6	2,387.6	2,387.6	4.2	4.2	30.97	-982.8	-70.8	955.1	946.8	8.33	114.614	
2,500.0	2,499.6	2,487.6	2,487.6	4.4	4.3	31.01	-982.8	-70.8	954.1	945.4	8.68	109.881	
2,600.0	2,599.6	2,587.6	2,587.6	4.6	4.5	31.05	-982.8	-70.8	953.0	943.9	9.03	105.514	
2,700.0	2,699.6	2,687.6	2,687.6	4.7	4.7	31.09	-982.8	-70.8	951.9	942.5	9.38	101.471	
2,800.0	2,799.6	2,787.6	2,787.6	4.9	4.9	31.12	-982.8	-70.8	950.8	941.1	9.73	97.718	
2,900.0	2,899.6	2,887.6	2,887.6	5.1	5.0	31.16	-982.8	-70.8	949.7	939.7	10.08	94.226	
3,000.0	2,999.5	2,987.5	2,987.5	5.3	5.2	31.20	-982.8	-70.8	948.7	938.2	10.43	90.967	
3,100.0	3,099.5	3,087.5	3,087.5	5.4	5.4	31.24	-982.8	-70.8	947.6	936.8	10.78	87.919	
3,200.0	3,199.5	3,187.5	3,187.5	5.6	5.6	31.28	-982.8	-70.8	946.5	935.4	11.13	85.063	
3,300.0	3,299.5	3,287.5	3,287.5	5.8	5.7	31.32	-982.8	-70.8	945.4	934.0	11.48	82.380	
3,400.0	3,399.5	3,387.5	3,387.5	6.0	5.9	31.36	-982.8	-70.8	944.4	932.5	11.83	79.856	
3,500.0	3,499.5	3,487.5	3,487.5	6.1	6.1	31.40	-982.8	-70.8	943.3	931.1	12.18	77.477	
3,600.0	3,599.5	3,587.5	3,587.5	6.3	6.3	31.44	-982.8	-70.8	942.2	929.7	12.52	75.230	
3,700.0	3,699.5	3,687.5	3,687.5	6.5	6.4	31.48	-982.8	-70.8	941.1	928.3	12.87	73.105	
3,800.0	3,799.5	3,787.5	3,787.5	6.7	6.6	31.52	-982.8	-70.8	940.1	926.8	13.22	71.093	
3,900.0	3,899.5	3,887.5	3,887.5	6.8	6.8	31.56	-982.8	-70.8	939.0	925.4	13.57	69.184	
4,000.0	3,999.5	3,987.5	3,987.5	7.0	7.0	31.60	-982.8	-70.8	937.9	924.0	13.92	67.371	
4,100.0	4,099.5	4,087.5	4,087.5	7.2	7.1	31.64	-982.8	-70.8	936.8	922.6	14.27	65.647	
4,200.0	4,199.5	4,187.5	4,187.5	7.4	7.3	31.68	-982.8	-70.8	935.8	921.2	14.62	64.005	
4,300.0	4,299.4	4,287.4	4,287.4	7.5	7.5	31.72	-982.8	-70.8	934.7	919.7	14.97	62.439	
4,400.0	4,399.4	4,387.4	4,387.4	7.7	7.7	31.76	-982.8	-70.8	933.6	918.3	15.32	60.946	
4,500.0	4,499.4	4,487.4	4,487.4	7.9	7.8	31.80	-982.8	-70.8	932.6	916.9	15.67	59.518	
4,600.0	4,599.4	4,587.4	4,587.4	8.1	8.0	31.84	-982.8	-70.8	931.5	915.5	16.02	58.153	
4,700.0	4,699.4	4,687.4	4,687.4	8.2	8.2	31.89	-982.8	-70.8	930.4	914.1	16.37	56.847	
4,800.0	4,799.4	4,787.4	4,787.4	8.4	8.4	31.93	-982.8	-70.8	929.4	912.6	16.72	55.595	
4,900.0	4,899.4	4,887.4	4,887.4	8.6	8.5	31.97	-982.8	-70.8	928.3	911.2	17.07	54.394	
5,000.0	4,999.4	4,987.4	4,987.4	8.8	8.7	32.01	-982.8	-70.8	927.2	909.8	17.42	53.241	
5,100.0	5,099.4	5,087.4	5,087.4	8.9	8.9	32.05	-982.8	-70.8	926.2	908.4	17.76	52.134	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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	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)			
5,200.0	5,199.4	5,187.4	5,187.4	9.1	9.1	32.09	-982.8	-70.8	925.1	907.0	18.11	51.069	
5,300.0	5,299.4	5,287.4	5,287.4	9.3	9.2	32.13	-982.8	-70.8	924.0	905.6	18.46	50.045	
5,400.0	5,399.4	5,387.4	5,387.4	9.5	9.4	32.17	-982.8	-70.8	923.0	904.1	18.81	49.059	
5,500.0	5,499.3	5,487.3	5,487.3	9.6	9.6	32.22	-982.8	-70.8	921.9	902.7	19.16	48.109	
5,600.0	5,599.3	5,587.3	5,587.3	9.8	9.8	32.26	-982.8	-70.8	920.8	901.3	19.51	47.193	
5,700.0	5,699.3	5,687.3	5,687.3	10.0	9.9	32.30	-982.8	-70.8	919.8	899.9	19.86	46.309	
5,800.0	5,799.3	5,787.3	5,787.3	10.2	10.1	32.34	-982.8	-70.8	918.7	898.5	20.21	45.456	
5,900.0	5,899.3	5,887.3	5,887.3	10.4	10.3	32.38	-982.8	-70.8	917.6	897.1	20.56	44.631	
6,000.0	5,999.3	5,987.3	5,987.3	10.5	10.4	32.43	-982.8	-70.8	916.6	895.7	20.91	43.835	
6,100.0	6,099.3	6,087.3	6,087.3	10.7	10.6	32.47	-982.8	-70.8	915.5	894.2	21.26	43.064	
6,200.0	6,199.3	6,187.3	6,187.3	10.9	10.8	32.51	-982.8	-70.8	914.4	892.8	21.61	42.319	
6,300.0	6,299.3	6,287.3	6,287.3	11.1	11.0	32.55	-982.8	-70.8	913.4	891.4	21.96	41.597	
6,400.0	6,399.3	6,387.3	6,387.3	11.2	11.1	32.60	-982.8	-70.8	912.3	890.0	22.31	40.898	
6,500.0	6,499.3	6,487.3	6,487.3	11.4	11.3	32.64	-982.8	-70.8	911.3	888.6	22.66	40.220	
6,600.0	6,599.3	6,587.3	6,587.3	11.6	11.5	32.68	-982.8	-70.8	910.2	887.2	23.01	39.563	
6,700.0	6,699.3	6,687.3	6,687.3	11.8	11.7	32.72	-982.8	-70.8	909.1	885.8	23.36	38.926	
6,800.0	6,799.2	6,787.2	6,787.2	11.9	11.8	32.77	-982.8	-70.8	908.1	884.4	23.71	38.307	
6,900.0	6,899.2	6,887.2	6,887.2	12.1	12.0	32.81	-982.8	-70.8	907.0	883.0	24.05	37.707	
6,907.8	6,907.0	6,895.0	6,895.0	12.1	12.0	90.00	-982.8	-70.8	907.0	882.9	24.08	37.663 CC, ES	
7,000.0	6,999.0	6,987.0	6,987.0	12.3	12.2	-175.36	-982.8	-70.8	911.3	886.9	24.40	37.345 SF	
7,100.0	7,096.7	7,084.7	7,084.7	12.4	12.4	-173.79	-982.8	-70.8	932.4	907.6	24.75	37.678	
7,200.0	7,189.1	7,177.1	7,177.1	12.6	12.5	-173.15	-982.8	-70.8	969.9	944.8	25.08	38.676	
7,300.0	7,273.6	7,261.6	7,261.6	12.8	12.7	-172.52	-982.8	-70.8	1,022.9	997.5	25.40	40.276	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 11-7 (EXISTING) - ENCANA WELL - S														Offset Site Error:	0.0 ft
Survey Program: 132-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		
8,000.0	7,500.0	7,683.3	7,523.1	18.4	26.1	-64.80	1,643.6	-63.0	983.2	943.3	39.95	24.611			
8,100.0	7,500.0	7,686.3	7,526.1	19.7	26.1	-67.07	1,643.7	-63.0	883.5	843.4	40.13	22.018			
8,200.0	7,500.0	7,689.2	7,529.0	21.1	26.1	-69.43	1,643.8	-63.0	783.8	743.5	40.30	19.449			
8,300.0	7,500.0	7,692.1	7,531.9	22.5	26.1	-71.87	1,643.9	-63.0	684.2	643.7	40.48	16.902			
8,400.0	7,500.0	7,695.1	7,534.9	24.0	26.1	-74.39	1,644.0	-63.0	584.7	544.1	40.67	14.376			
8,500.0	7,500.0	7,698.1	7,537.8	25.5	26.1	-76.99	1,644.1	-63.0	485.4	444.5	40.89	11.873			
8,600.0	7,500.0	7,701.0	7,540.8	27.0	26.1	-79.65	1,644.1	-63.0	386.5	345.3	41.15	9.392			
8,700.0	7,500.0	7,704.0	7,543.8	28.6	26.1	-82.38	1,644.2	-62.9	288.2	246.7	41.55	6.937			
8,800.0	7,500.0	7,707.0	7,546.8	30.2	26.1	-85.15	1,644.3	-62.9	191.7	149.3	42.38	4.524			
8,900.0	7,500.0	7,710.0	7,549.8	31.8	26.1	-87.95	1,644.4	-62.9	102.1	57.3	44.83	2.278			
8,981.8	7,500.0	7,712.5	7,552.3	33.1	26.1	-90.26	1,644.5	-62.9	61.2	14.7	46.49	1.317	Level 3, CC, ES, SF		
9,000.0	7,500.0	7,713.0	7,552.8	33.4	26.1	-90.77	1,644.5	-62.9	63.9	16.4	47.44	1.346	Level 3		
9,100.0	7,500.0	7,716.1	7,555.9	35.0	26.1	-93.61	1,644.6	-62.9	133.1	87.7	45.38	2.933			
9,200.0	7,500.0	7,719.1	7,558.9	36.6	26.1	-96.20	1,644.7	-62.9	226.4	182.8	43.59	5.195			
9,300.0	7,500.0	7,722.2	7,561.9	38.3	26.1	-98.30	1,644.8	-62.9	323.4	280.4	43.01	7.519			
9,400.0	7,500.0	7,725.2	7,565.0	40.0	26.1	-99.89	1,644.9	-62.9	421.5	378.7	42.82	9.844			
9,500.0	7,500.0	7,728.3	7,568.0	41.6	26.1	-101.83	1,645.0	-62.9	520.1	477.3	42.78	12.158			
9,600.0	7,500.0	7,731.3	7,571.1	43.3	26.1	-104.01	1,645.1	-62.8	619.2	576.3	42.82	14.459			
9,700.0	7,500.0	7,734.4	7,574.2	45.0	26.1	-106.16	1,645.2	-62.8	718.4	675.5	42.91	16.745			
9,800.0	7,500.0	7,737.5	7,577.2	46.7	26.1	-108.27	1,645.3	-62.8	817.9	774.9	43.01	19.015			
9,900.0	7,500.0	7,740.6	7,580.3	48.3	26.1	-110.34	1,645.4	-62.8	917.5	874.3	43.13	21.270			
10,000.0	7,500.0	7,743.7	7,583.4	50.0	26.1	-112.36	1,645.4	-62.8	1,017.1	973.8	43.26	23.510			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 12-7 (EXISTING) - ENCANA WELL - N													Offset Site Error:	0.0 ft
Survey Program: 8325-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	88.0	88.0	0.0	0.2	-32.38	131.5	-83.4	155.7					
100.0	100.0	188.0	188.0	0.2	0.3	-32.38	131.5	-83.4	155.7	155.2	0.48	324.321		
200.0	200.0	288.0	288.0	0.3	0.5	-32.38	131.5	-83.4	155.7	154.9	0.83	187.797		
300.0	300.0	388.0	388.0	0.5	0.7	-32.38	131.5	-83.4	155.7	154.5	1.18	132.163		
400.0	400.0	488.0	488.0	0.7	0.9	107.92	131.5	-83.4	156.0	154.5	1.53	102.092		
500.0	500.0	588.0	588.0	0.9	1.0	108.82	131.5	-83.4	156.8	154.9	1.88	83.381		
600.0	599.9	687.9	687.9	1.0	1.2	110.30	131.5	-83.4	158.3	156.0	2.24	70.677		
700.0	699.8	787.8	787.8	1.2	1.4	118.43	131.5	-83.4	160.0	157.5	2.59	61.677		
800.0	799.7	887.7	887.7	1.4	1.5	136.74	131.5	-83.4	161.6	158.7	2.95	54.883		
900.0	899.7	987.7	987.7	1.6	1.7	179.51	131.5	-83.4	163.0	159.7	3.29	49.513		
1,000.0	999.7	1,087.7	1,087.7	1.7	1.9	179.51	131.5	-83.4	164.2	160.6	3.64	45.136		
1,100.0	1,099.7	1,187.7	1,187.7	1.9	2.1	179.52	131.5	-83.4	165.5	161.5	3.99	41.518		
1,200.0	1,199.7	1,287.7	1,287.7	2.1	2.2	179.52	131.5	-83.4	166.8	162.4	4.33	38.477		
1,300.0	1,299.7	1,387.7	1,387.7	2.3	2.4	179.53	131.5	-83.4	168.0	163.3	4.68	35.887		
1,400.0	1,399.7	1,487.7	1,487.7	2.4	2.6	179.53	131.5	-83.4	169.3	164.2	5.03	33.654		
1,500.0	1,499.7	1,587.7	1,587.7	2.6	2.8	179.53	131.5	-83.4	170.5	165.2	5.38	31.709		
1,600.0	1,599.7	1,687.7	1,687.7	2.8	2.9	179.54	131.5	-83.4	171.8	166.1	5.73	30.000		
1,700.0	1,699.7	1,787.7	1,787.7	3.0	3.1	179.54	131.5	-83.4	173.1	167.0	6.07	28.487		
1,800.0	1,799.6	1,887.6	1,887.6	3.1	3.3	179.54	131.5	-83.4	174.3	167.9	6.42	27.137		
1,900.0	1,899.6	1,987.6	1,987.6	3.3	3.5	179.55	131.5	-83.4	175.6	168.8	6.77	25.926		
2,000.0	1,999.6	2,087.6	2,087.6	3.5	3.6	179.55	131.5	-83.4	176.8	169.7	7.12	24.834		
2,100.0	2,099.6	2,187.6	2,187.6	3.7	3.8	179.55	131.5	-83.4	178.1	170.6	7.47	23.843		
2,200.0	2,199.6	2,287.6	2,287.6	3.8	4.0	179.56	131.5	-83.4	179.3	171.5	7.82	22.941		
2,300.0	2,299.6	2,387.6	2,387.6	4.0	4.2	179.56	131.5	-83.4	180.6	172.4	8.17	22.116		
2,400.0	2,399.6	2,487.6	2,487.6	4.2	4.3	179.56	131.5	-83.4	181.9	173.4	8.52	21.358		
2,500.0	2,499.6	2,587.6	2,587.6	4.4	4.5	179.56	131.5	-83.4	183.1	174.3	8.86	20.659		
2,600.0	2,599.6	2,687.6	2,687.6	4.6	4.7	179.57	131.5	-83.4	184.4	175.2	9.21	20.014		
2,700.0	2,699.6	2,787.6	2,787.6	4.7	4.9	179.57	131.5	-83.4	185.6	176.1	9.56	19.416		
2,800.0	2,799.6	2,887.6	2,887.6	4.9	5.0	179.57	131.5	-83.4	186.9	177.0	9.91	18.859		
2,900.0	2,899.6	2,987.6	2,987.6	5.1	5.2	179.58	131.5	-83.4	188.2	177.9	10.26	18.341		
3,000.0	2,999.5	3,087.5	3,087.5	5.3	5.4	179.58	131.5	-83.4	189.4	178.8	10.61	17.856		
3,100.0	3,099.5	3,187.5	3,187.5	5.4	5.6	179.58	131.5	-83.4	190.7	179.7	10.96	17.403		
3,200.0	3,199.5	3,287.5	3,287.5	5.6	5.7	179.58	131.5	-83.4	191.9	180.6	11.31	16.977		
3,300.0	3,299.5	3,387.5	3,387.5	5.8	5.9	179.59	131.5	-83.4	193.2	181.5	11.65	16.577		
3,400.0	3,399.5	3,487.5	3,487.5	6.0	6.1	179.59	131.5	-83.4	194.5	182.5	12.00	16.200		
3,500.0	3,499.5	3,587.5	3,587.5	6.1	6.3	179.59	131.5	-83.4	195.7	183.4	12.35	15.844		
3,600.0	3,599.5	3,687.5	3,687.5	6.3	6.4	179.59	131.5	-83.4	197.0	184.3	12.70	15.508		
3,700.0	3,699.5	3,787.5	3,787.5	6.5	6.6	179.60	131.5	-83.4	198.2	185.2	13.05	15.190		
3,800.0	3,799.5	3,887.5	3,887.5	6.7	6.8	179.60	131.5	-83.4	199.5	186.1	13.40	14.888		
3,900.0	3,899.5	3,987.5	3,987.5	6.8	7.0	179.60	131.5	-83.4	200.7	187.0	13.75	14.602		
4,000.0	3,999.5	4,087.5	4,087.5	7.0	7.1	179.61	131.5	-83.4	202.0	187.9	14.10	14.330		
4,100.0	4,099.5	4,187.5	4,187.5	7.2	7.3	179.61	131.5	-83.4	203.3	188.8	14.45	14.071		
4,200.0	4,199.5	4,287.5	4,287.5	7.4	7.5	179.61	131.5	-83.4	204.5	189.7	14.79	13.824		
4,300.0	4,299.4	4,387.4	4,387.4	7.5	7.7	179.61	131.5	-83.4	205.8	190.6	15.14	13.589		
4,400.0	4,399.4	4,487.4	4,487.4	7.7	7.8	179.61	131.5	-83.4	207.0	191.6	15.49	13.364		
4,500.0	4,499.4	4,587.4	4,587.4	7.9	8.0	179.62	131.5	-83.4	208.3	192.5	15.84	13.149		
4,600.0	4,599.4	4,687.4	4,687.4	8.1	8.2	179.62	131.5	-83.4	209.6	193.4	16.19	12.943		
4,700.0	4,699.4	4,787.4	4,787.4	8.2	8.4	179.62	131.5	-83.4	210.8	194.3	16.54	12.746		
4,800.0	4,799.4	4,887.4	4,887.4	8.4	8.5	179.62	131.5	-83.4	212.1	195.2	16.89	12.557		
4,900.0	4,899.4	4,987.4	4,987.4	8.6	8.7	179.63	131.5	-83.4	213.3	196.1	17.24	12.376		
5,000.0	4,999.4	5,087.4	5,087.4	8.8	8.9	179.63	131.5	-83.4	214.6	197.0	17.59	12.202		
5,100.0	5,099.4	5,187.4	5,187.4	8.9	9.1	179.63	131.5	-83.4	215.9	197.9	17.94	12.035		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 12-7 (EXISTING) - ENCANA WELL - N													Offset Site Error:	0.0 ft
Survey Program: 8325-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
5,200.0	5,199.4	5,287.4	5,287.4	9.1	9.2	179.63	131.5	-83.4	217.1	198.8	18.28	11.874		
5,300.0	5,299.4	5,387.4	5,387.4	9.3	9.4	179.63	131.5	-83.4	218.4	199.7	18.63	11.719		
5,400.0	5,399.4	5,487.4	5,487.4	9.5	9.6	179.64	131.5	-83.4	219.6	200.6	18.98	11.570		
5,500.0	5,499.3	5,587.3	5,587.3	9.6	9.8	179.64	131.5	-83.4	220.9	201.6	19.33	11.426		
5,600.0	5,599.3	5,687.3	5,687.3	9.8	9.9	179.64	131.5	-83.4	222.1	202.5	19.68	11.288		
5,700.0	5,699.3	5,787.3	5,787.3	10.0	10.1	179.64	131.5	-83.4	223.4	203.4	20.03	11.154		
5,800.0	5,799.3	5,887.3	5,887.3	10.2	10.3	179.64	131.5	-83.4	224.7	204.3	20.38	11.025		
5,900.0	5,899.3	5,987.3	5,987.3	10.4	10.4	179.65	131.5	-83.4	225.9	205.2	20.73	10.900		
6,000.0	5,999.3	6,087.3	6,087.3	10.5	10.6	179.65	131.5	-83.4	227.2	206.1	21.08	10.779		
6,100.0	6,099.3	6,187.3	6,187.3	10.7	10.8	179.65	131.5	-83.4	228.4	207.0	21.43	10.662		
6,200.0	6,199.3	6,287.3	6,287.3	10.9	11.0	179.65	131.5	-83.4	229.7	207.9	21.77	10.549		
6,300.0	6,299.3	6,387.3	6,387.3	11.1	11.1	179.65	131.5	-83.4	231.0	208.8	22.12	10.440		
6,400.0	6,399.3	6,487.3	6,487.3	11.2	11.3	179.66	131.5	-83.4	232.2	209.7	22.47	10.334		
6,500.0	6,499.3	6,587.3	6,587.3	11.4	11.5	179.66	131.5	-83.4	233.5	210.7	22.82	10.231		
6,600.0	6,599.3	6,687.3	6,687.3	11.6	11.7	179.66	131.5	-83.4	234.7	211.6	23.17	10.131		
6,700.0	6,699.3	6,787.3	6,787.3	11.8	11.8	179.66	131.5	-83.4	236.0	212.5	23.52	10.034		
6,800.0	6,799.2	6,887.2	6,887.2	11.9	12.0	179.66	131.5	-83.4	237.3	213.4	23.87	9.940		
6,900.0	6,899.2	6,987.2	6,987.2	12.1	12.2	179.67	131.5	-83.4	238.5	214.3	24.22	9.849		
7,000.0	6,999.0	7,087.0	7,087.0	12.3	12.4	-29.31	131.5	-83.4	234.9	210.4	24.57	9.564		
7,100.0	7,096.7	7,184.7	7,184.7	12.4	12.5	-31.45	131.5	-83.4	216.5	191.6	24.91	8.692		
7,200.0	7,189.1	7,277.1	7,277.1	12.6	12.7	-39.01	131.5	-83.4	184.8	159.5	25.25	7.319		
7,300.0	7,273.6	7,361.6	7,361.6	12.8	12.8	-54.30	131.5	-83.4	144.9	119.3	25.60	5.659		
7,400.0	7,347.6	7,435.6	7,435.6	13.1	13.0	-79.20	131.5	-83.4	111.6	85.5	26.05	4.284		
7,440.0	7,373.7	7,461.7	7,461.7	13.3	13.0	-90.00	131.5	-83.4	107.4	81.1	26.27	4.089 CC, ES, SF		
7,500.0	7,408.8	7,496.8	7,496.8	13.5	13.1	-103.76	131.5	-83.4	117.9	91.4	26.49	4.450		
7,600.0	7,455.3	7,543.3	7,543.3	14.2	13.2	-116.23	131.5	-83.4	174.0	147.3	26.69	6.519		
7,700.0	7,485.8	7,573.8	7,573.8	15.0	13.2	-115.45	131.5	-83.4	255.6	228.8	26.85	9.521		
7,800.0	7,499.3	7,587.3	7,587.3	16.0	13.2	-98.45	131.5	-83.4	347.9	320.9	27.00	12.885		
7,900.0	7,500.0	7,588.0	7,588.0	17.2	13.2	-90.00	131.5	-83.4	444.0	416.8	27.14	16.360		
8,000.0	7,500.0	7,588.0	7,588.0	18.4	13.2	-90.00	131.5	-83.4	541.5	514.2	27.29	19.845		
8,100.0	7,500.0	7,588.0	7,588.0	19.7	13.2	-90.00	131.5	-83.4	639.8	612.4	27.44	23.316		
8,200.0	7,500.0	7,588.0	7,588.0	21.1	13.2	-90.00	131.5	-83.4	738.6	711.0	27.60	26.764		
8,300.0	7,500.0	7,588.0	7,588.0	22.5	13.2	-90.00	131.5	-83.4	837.6	809.9	27.75	30.183		
8,400.0	7,500.0	7,588.0	7,588.0	24.0	13.2	-90.00	131.5	-83.4	936.9	909.0	27.91	33.571		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - S													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	
3,700.0	3,699.5	4,201.1	3,915.6	6.5	25.8	-77.85	204.8	974.5	1,012.5	982.4	30.08	33.657	
3,800.0	3,799.5	4,288.5	3,994.5	6.7	26.5	-75.86	167.4	971.1	997.2	966.0	31.27	31.895	
3,900.0	3,899.5	4,374.1	4,072.0	6.8	27.1	-73.88	131.1	967.8	983.5	951.1	32.41	30.342	
4,000.0	3,999.5	4,483.8	4,170.6	7.0	28.0	-71.20	83.3	963.5	971.1	937.3	33.80	28.735	
4,100.0	4,099.5	4,587.5	4,261.9	7.2	28.9	-68.40	34.6	957.8	958.6	923.4	35.16	27.260	
4,200.0	4,199.5	4,671.0	4,335.6	7.4	29.6	-66.12	-4.5	952.8	947.8	911.5	36.32	26.096	
4,300.0	4,299.4	4,743.0	4,399.9	7.5	30.1	-64.22	-36.5	949.2	940.2	902.9	37.28	25.217	
4,400.0	4,399.4	4,833.1	4,482.1	7.7	30.8	-62.02	-73.4	945.6	935.3	897.1	38.26	24.446	
4,500.0	4,499.4	4,928.4	4,570.5	7.9	31.4	-59.91	-108.6	941.9	932.2	893.0	39.16	23.803	
4,600.0	4,599.4	5,035.3	4,671.2	8.1	32.0	-57.76	-144.3	936.7	929.1	889.1	40.04	23.208	
4,700.0	4,699.4	5,126.4	4,757.7	8.2	32.5	-56.06	-172.5	932.4	927.1	886.4	40.74	22.757	
4,800.0	4,799.4	5,223.8	4,851.4	8.4	33.0	-54.47	-198.8	928.5	926.1	884.7	41.38	22.380	
4,900.0	4,899.4	5,321.9	4,946.7	8.6	33.4	-53.11	-221.6	924.9	925.6	883.7	41.94	22.072	
4,960.0	4,959.4	5,380.6	5,004.3	8.7	33.6	-52.43	-233.0	923.2	925.5	883.3	42.23	21.916	
5,000.0	4,999.4	5,420.5	5,043.5	8.8	33.7	-52.01	-240.1	922.1	925.5	883.1	42.42	21.818	
5,100.0	5,099.4	5,525.3	5,146.9	8.9	34.0	-51.01	-257.1	919.3	925.5	882.6	42.89	21.578	
5,200.0	5,199.4	5,634.3	5,255.0	9.1	34.3	-50.20	-270.9	916.3	924.8	881.5	43.28	21.366	
5,300.0	5,299.4	5,740.4	5,360.5	9.3	34.5	-49.63	-280.7	913.1	923.1	879.5	43.63	21.160	
5,400.0	5,399.4	5,837.8	5,457.7	9.5	34.6	-49.30	-286.5	910.7	921.4	877.5	43.92	20.979	
5,500.0	5,499.3	5,941.1	5,561.0	9.6	34.7	-49.11	-290.2	909.1	919.9	875.7	44.19	20.819	
5,600.0	5,599.3	6,048.6	5,668.4	9.8	34.8	-49.07	-291.4	907.2	917.6	873.2	44.42	20.656	
5,700.0	5,699.3	6,147.2	5,767.1	10.0	34.8	-49.11	-291.3	905.4	915.0	870.3	44.66	20.488	
5,800.0	5,799.3	6,246.8	5,866.6	10.2	34.9	-49.14	-291.3	903.6	912.5	867.6	44.90	20.321	
5,900.0	5,899.3	6,346.3	5,966.1	10.4	35.0	-49.17	-291.4	901.9	910.0	864.8	45.14	20.158	
6,000.0	5,999.3	6,445.4	6,065.2	10.5	35.0	-49.20	-291.5	900.3	907.6	862.2	45.38	19.998	
6,100.0	6,099.3	6,542.7	6,162.5	10.7	35.1	-49.23	-291.6	898.8	905.3	859.7	45.62	19.846	
6,200.0	6,199.3	6,638.7	6,258.4	10.9	35.1	-49.29	-291.2	897.9	903.5	857.7	45.84	19.708	
6,300.0	6,299.3	6,737.7	6,357.4	11.1	35.2	-49.38	-290.6	897.3	902.0	855.9	46.08	19.574	
6,400.0	6,399.3	6,837.8	6,457.6	11.2	35.2	-49.45	-290.3	896.7	900.5	854.2	46.32	19.441	
6,500.0	6,499.3	6,938.4	6,558.2	11.4	35.3	-49.51	-290.3	896.0	898.9	852.4	46.56	19.306	
6,600.0	6,599.3	7,039.5	6,659.2	11.6	35.4	-49.55	-290.3	895.1	897.3	850.5	46.81	19.171	
6,700.0	6,699.3	7,141.8	6,761.5	11.8	35.4	-49.59	-290.5	894.0	895.5	848.4	47.05	19.031	
6,800.0	6,799.2	7,243.2	6,863.0	11.9	35.5	-49.61	-290.8	892.6	893.4	846.1	47.30	18.887	
6,900.0	6,899.2	7,344.1	6,963.8	12.1	35.6	-49.63	-291.1	891.1	891.2	843.7	47.55	18.742	
6,978.5	6,977.6	7,423.9	7,043.6	12.2	35.6	101.69	-291.3	889.9	890.5	842.8	47.72	18.660	
7,000.0	6,999.0	7,445.8	7,065.5	12.3	35.7	102.51	-291.3	889.5	890.3	842.5	47.77	18.637 CC, ES, SF	
7,100.0	7,096.7	7,545.4	7,165.1	12.4	35.7	104.95	-291.4	887.7	893.8	845.9	47.91	18.656	
7,200.0	7,189.1	7,638.1	7,257.8	12.6	35.8	106.62	-291.4	885.9	902.9	855.0	47.96	18.826	
7,300.0	7,273.6	7,723.0	7,342.7	12.8	35.8	107.98	-291.3	884.3	919.4	871.4	47.93	19.182	
7,400.0	7,347.6	7,798.3	7,417.9	13.1	35.9	108.65	-291.1	882.8	944.6	896.8	47.80	19.763	
7,500.0	7,408.8	7,861.0	7,480.6	13.5	35.9	108.13	-290.8	881.6	979.9	932.3	47.57	20.596	
7,600.0	7,455.3	7,907.4	7,527.1	14.2	36.0	105.78	-290.4	880.7	1,025.5	978.3	47.26	21.699	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY F UNIT 1 (EXISTING) - ENCANA WEL										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			
7,400.0	7,347.6	7,455.7	7,454.2	13.1	13.1	57.67	840.0	717.6	1,014.3	988.3	26.01	39.001			
7,500.0	7,408.8	7,500.0	7,498.4	13.5	13.2	66.51	835.9	717.5	955.4	929.0	26.41	36.177			
7,600.0	7,455.3	7,531.0	7,529.2	14.2	13.3	75.60	833.0	718.0	895.9	869.0	26.95	33.243			
7,700.0	7,485.8	7,546.4	7,544.5	15.0	13.3	83.49	831.7	718.3	839.7	812.0	27.70	30.318			
7,800.0	7,499.3	7,550.4	7,548.5	16.0	13.3	89.51	831.4	718.4	790.2	761.5	28.69	27.544			
7,900.0	7,500.0	7,545.0	7,543.1	17.2	13.3	90.42	831.8	718.3	750.6	720.7	29.92	25.089			
8,000.0	7,500.0	7,538.6	7,536.8	18.4	13.3	89.90	832.3	718.2	722.6	691.3	31.32	23.069			
8,100.0	7,500.0	7,531.7	7,529.9	19.7	13.3	89.34	832.9	718.0	707.8	675.0	32.80	21.578			
8,157.1	7,500.0	7,527.5	7,525.8	20.5	13.2	89.01	833.3	717.9	705.5	671.8	33.63	20.980 CC, ES			
8,200.0	7,500.0	7,524.3	7,522.5	21.1	13.2	88.74	833.6	717.9	706.8	672.6	34.20	20.664			
8,300.0	7,500.0	7,516.1	7,514.4	22.5	13.2	88.08	834.3	717.7	719.7	684.3	35.41	20.326 SF			
8,400.0	7,500.0	7,507.3	7,505.6	24.0	13.2	87.37	835.2	717.6	745.8	709.5	36.34	20.521			
8,500.0	7,500.0	7,500.0	7,498.4	25.5	13.2	86.78	835.9	717.5	783.8	746.8	37.01	21.177			
8,600.0	7,500.0	7,500.0	7,498.4	27.0	13.2	86.78	835.9	717.5	832.1	794.7	37.46	22.211			
8,700.0	7,500.0	7,500.0	7,498.4	28.6	13.2	86.78	835.9	717.5	889.1	851.4	37.73	23.567			
8,800.0	7,500.0	7,500.0	7,498.4	30.2	13.2	86.78	835.9	717.5	953.2	915.3	37.85	25.181			
8,900.0	7,500.0	7,475.5	7,474.0	31.8	13.2	84.81	838.3	717.4	1,022.5	984.7	37.82	27.039			



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2A-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	-90.00	0.0	-7.3	7.3					
100.0	100.0	100.0	100.0	0.2	0.2	-90.00	0.0	-7.3	7.3	7.0	0.30	23.962		
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-7.3	7.3	6.6	0.65	11.148	CC, ES	
300.0	300.0	299.9	299.9	0.5	0.5	-93.10	-0.4	-8.0	8.0	7.0	1.00	8.030		
400.0	400.0	399.7	399.7	0.7	0.7	43.70	-1.7	-10.3	9.8	8.4	1.35	7.248		
500.0	500.0	499.5	499.4	0.9	0.9	43.96	-3.9	-14.1	11.9	10.2	1.70	6.979		
600.0	599.9	599.3	599.0	1.0	1.1	46.14	-7.0	-19.3	14.3	12.3	2.06	6.946		
700.0	699.8	699.3	698.7	1.2	1.3	56.34	-9.6	-25.3	17.6	15.2	2.42	7.267		
800.0	799.7	799.2	798.4	1.4	1.5	76.66	-11.0	-31.2	22.3	19.5	2.78	8.002		
900.0	899.7	899.0	898.1	1.6	1.7	118.92	-12.3	-37.0	28.3	25.1	3.13	9.020		
1,000.0	999.7	998.8	997.7	1.7	1.9	118.14	-13.7	-42.9	34.7	31.2	3.48	9.961		
1,100.0	1,099.7	1,098.6	1,097.3	1.9	2.1	117.61	-15.0	-48.8	41.1	37.3	3.83	10.730		
1,200.0	1,199.7	1,198.3	1,196.9	2.1	2.3	117.22	-16.4	-54.6	47.6	43.4	4.18	11.371		
1,300.0	1,299.7	1,298.1	1,296.5	2.3	2.5	116.92	-17.7	-60.5	54.0	49.5	4.53	11.913		
1,400.0	1,399.7	1,397.9	1,396.1	2.4	2.7	116.69	-19.1	-66.4	60.5	55.6	4.88	12.377		
1,500.0	1,499.7	1,497.7	1,495.7	2.6	2.9	116.50	-20.4	-72.2	66.9	61.7	5.24	12.779		
1,600.0	1,599.7	1,597.5	1,595.3	2.8	3.1	116.34	-21.7	-78.1	73.3	67.8	5.59	13.131		
1,700.0	1,699.7	1,697.3	1,695.0	3.0	3.3	116.21	-23.1	-84.0	79.8	73.9	5.94	13.441		
1,800.0	1,799.6	1,797.1	1,794.6	3.1	3.5	116.10	-24.4	-89.8	86.2	80.0	6.29	13.716		
1,900.0	1,899.6	1,896.9	1,894.2	3.3	3.7	116.01	-25.8	-95.7	92.7	86.0	6.64	13.963		
2,000.0	1,999.6	1,996.7	1,993.8	3.5	3.9	115.92	-27.1	-101.6	99.1	92.1	6.99	14.184		
2,100.0	2,099.6	2,096.5	2,093.4	3.7	4.1	115.85	-28.5	-107.4	105.6	98.2	7.34	14.385		
2,200.0	2,199.6	2,196.3	2,193.0	3.8	4.3	115.78	-29.8	-113.3	112.0	104.3	7.69	14.567		
2,300.0	2,299.6	2,296.1	2,292.6	4.0	4.5	115.73	-31.2	-119.2	118.5	110.4	8.04	14.733		
2,400.0	2,399.6	2,395.9	2,392.2	4.2	4.7	115.68	-32.5	-125.0	124.9	116.5	8.39	14.886		
2,500.0	2,499.6	2,495.6	2,491.8	4.4	4.9	115.63	-33.8	-130.9	131.4	122.6	8.74	15.026		
2,600.0	2,599.6	2,595.4	2,591.4	4.6	5.1	115.59	-35.2	-136.8	137.8	128.7	9.09	15.155		
2,700.0	2,699.6	2,695.2	2,691.1	4.7	5.3	115.55	-36.5	-142.6	144.3	134.8	9.44	15.275		
2,800.0	2,799.6	2,795.0	2,790.7	4.9	5.5	115.51	-37.9	-148.5	150.7	140.9	9.79	15.386		
2,900.0	2,899.6	2,894.8	2,890.3	5.1	5.7	115.48	-39.2	-154.3	157.1	147.0	10.15	15.489		
3,000.0	2,999.5	2,994.6	2,989.9	5.3	5.9	115.45	-40.6	-160.2	163.6	153.1	10.50	15.586		
3,100.0	3,099.5	3,094.4	3,089.5	5.4	6.1	115.42	-41.9	-166.1	170.0	159.2	10.85	15.676		
3,200.0	3,199.5	3,194.2	3,189.1	5.6	6.3	115.40	-43.3	-171.9	176.5	165.3	11.20	15.761		
3,300.0	3,299.5	3,294.0	3,288.7	5.8	6.5	115.37	-44.6	-177.8	182.9	171.4	11.55	15.840		
3,400.0	3,399.5	3,393.8	3,388.3	6.0	6.7	115.35	-46.0	-183.7	189.4	177.5	11.90	15.915		
3,500.0	3,499.5	3,493.6	3,487.9	6.1	6.9	115.33	-47.3	-189.5	195.8	183.6	12.25	15.986		
3,600.0	3,599.5	3,593.4	3,587.5	6.3	7.1	115.31	-48.6	-195.4	202.3	189.7	12.60	16.052		
3,700.0	3,699.5	3,693.1	3,687.2	6.5	7.3	115.29	-50.0	-201.3	208.7	195.8	12.95	16.115		
3,800.0	3,799.5	3,792.9	3,786.8	6.7	7.5	115.28	-51.3	-207.1	215.2	201.9	13.30	16.175		
3,900.0	3,899.5	3,892.7	3,886.4	6.8	7.7	115.26	-52.7	-213.0	221.6	208.0	13.65	16.232		
4,000.0	3,999.5	3,992.5	3,986.0	7.0	8.0	115.25	-54.0	-218.9	228.1	214.1	14.00	16.285		
4,100.0	4,099.5	4,092.3	4,085.6	7.2	8.2	115.23	-55.4	-224.7	234.5	220.1	14.35	16.336		
4,200.0	4,199.5	4,192.1	4,185.2	7.4	8.4	115.22	-56.7	-230.6	241.0	226.2	14.71	16.385		
4,300.0	4,299.4	4,291.9	4,284.8	7.5	8.6	115.21	-58.1	-236.5	247.4	232.3	15.06	16.432		
4,400.0	4,399.4	4,391.7	4,384.4	7.7	8.8	115.19	-59.4	-242.3	253.8	238.4	15.41	16.476		
4,500.0	4,499.4	4,491.5	4,484.0	7.9	9.0	115.18	-60.8	-248.2	260.3	244.5	15.76	16.518		
4,600.0	4,599.4	4,591.3	4,583.7	8.1	9.2	115.17	-62.1	-254.1	266.7	250.6	16.11	16.559		
4,700.0	4,699.4	4,691.1	4,683.3	8.2	9.4	115.16	-63.4	-259.9	273.2	256.7	16.46	16.598		
4,800.0	4,799.4	4,790.9	4,782.9	8.4	9.6	115.15	-64.8	-265.8	279.6	262.8	16.81	16.635		
4,900.0	4,899.4	4,890.6	4,882.5	8.6	9.8	115.14	-66.1	-271.7	286.1	268.9	17.16	16.670		
5,000.0	4,999.4	4,990.4	4,982.1	8.8	10.0	115.13	-67.5	-277.5	292.5	275.0	17.51	16.705		
5,100.0	5,099.4	5,090.2	5,081.7	8.9	10.2	115.12	-68.8	-283.4	299.0	281.1	17.86	16.737		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2A-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		
5,200.0	5,199.4	5,190.0	5,181.3	9.1	10.4	115.11	-70.2	-289.3	305.4	287.2	18.21	16.769		
5,300.0	5,299.4	5,289.8	5,280.9	9.3	10.6	115.11	-71.5	-295.1	311.9	293.3	18.56	16.799		
5,400.0	5,399.4	5,389.6	5,380.5	9.5	10.8	115.10	-72.9	-301.0	318.3	299.4	18.91	16.829		
5,500.0	5,499.3	5,489.4	5,480.1	9.6	11.0	115.09	-74.2	-306.9	324.8	305.5	19.27	16.857		
5,600.0	5,599.3	5,589.2	5,579.8	9.8	11.2	115.08	-75.6	-312.7	331.2	311.6	19.62	16.884		
5,700.0	5,699.3	5,689.0	5,679.4	10.0	11.4	115.08	-76.9	-318.6	337.7	317.7	19.97	16.910		
5,800.0	5,799.3	5,788.8	5,779.0	10.2	11.6	115.07	-78.2	-324.5	344.1	323.8	20.32	16.936		
5,900.0	5,899.3	5,888.6	5,878.6	10.4	11.8	115.06	-79.6	-330.3	350.5	329.9	20.67	16.960		
6,000.0	5,999.3	5,988.4	5,978.2	10.5	12.0	115.06	-80.9	-336.2	357.0	336.0	21.02	16.984		
6,100.0	6,099.3	6,088.2	6,077.8	10.7	12.2	115.05	-82.3	-342.0	363.4	342.1	21.37	17.007		
6,200.0	6,199.3	6,187.9	6,177.4	10.9	12.4	115.05	-83.6	-347.9	369.9	348.2	21.72	17.029		
6,300.0	6,299.3	6,287.7	6,277.0	11.1	12.6	115.04	-85.0	-353.8	376.3	354.3	22.07	17.050		
6,400.0	6,399.3	6,387.5	6,376.6	11.2	12.8	115.04	-86.3	-359.6	382.8	360.4	22.42	17.071		
6,500.0	6,499.3	6,487.3	6,476.2	11.4	13.0	115.03	-87.7	-365.5	389.2	366.5	22.77	17.091		
6,600.0	6,599.3	6,587.1	6,575.9	11.6	13.2	115.03	-89.0	-371.4	395.7	372.6	23.12	17.111		
6,700.0	6,699.3	6,686.9	6,675.5	11.8	13.4	115.02	-90.3	-377.2	402.1	378.6	23.48	17.130		
6,800.0	6,799.2	6,786.7	6,775.1	11.9	13.6	115.02	-91.7	-383.1	408.6	384.7	23.83	17.148		
6,900.0	6,899.2	6,886.5	6,874.7	12.1	13.9	115.01	-93.0	-389.0	415.0	390.8	24.18	17.166		
7,000.0	6,999.0	6,986.0	6,974.0	12.3	14.1	-93.43	-94.4	-394.8	421.5	397.0	24.50	17.205		
7,100.0	7,096.7	7,083.2	7,071.0	12.4	14.3	-94.15	-95.7	-400.5	429.0	404.2	24.77	17.316		
7,200.0	7,189.1	7,175.3	7,163.0	12.6	14.4	-97.37	-96.9	-405.9	439.6	414.5	25.04	17.553		
7,300.0	7,273.6	7,283.3	7,270.3	12.8	14.6	-101.92	-87.7	-412.3	454.5	429.0	25.43	17.869		
7,400.0	7,347.6	7,404.4	7,386.0	13.1	14.8	-106.35	-53.7	-419.1	471.8	445.9	25.93	18.194		
7,500.0	7,408.8	7,541.8	7,505.4	13.5	15.1	-110.51	13.3	-426.1	489.6	463.1	26.49	18.484		
7,600.0	7,455.3	7,698.1	7,617.3	14.2	15.6	-114.08	121.5	-432.7	505.1	478.0	27.13	18.617		
7,700.0	7,485.8	7,872.4	7,702.7	15.0	16.5	-116.61	272.5	-437.7	515.4	487.3	28.06	18.368		
7,800.0	7,499.3	8,057.8	7,739.6	16.0	18.0	-117.62	453.5	-439.9	518.0	488.4	29.63	17.484		
7,900.0	7,500.0	8,168.3	7,740.0	17.2	19.1	-117.71	563.9	-439.9	516.3	484.6	31.63	16.321		
8,000.0	7,500.0	8,268.3	7,740.0	18.4	20.2	-117.80	663.9	-439.9	514.7	481.0	33.77	15.241		
8,100.0	7,500.0	8,368.3	7,740.0	19.7	21.4	-117.89	763.9	-439.9	513.2	477.1	36.05	14.236		
8,200.0	7,500.0	8,468.3	7,740.0	21.1	22.7	-117.98	863.9	-439.9	511.6	473.2	38.43	13.312		
8,300.0	7,500.0	8,568.2	7,740.0	22.5	24.0	-118.07	963.9	-439.9	510.1	469.2	40.91	12.469		
8,400.0	7,500.0	8,668.2	7,740.0	24.0	25.4	-118.16	1,063.9	-439.9	508.6	465.1	43.46	11.703		
8,500.0	7,500.0	8,768.2	7,740.0	25.5	26.8	-118.26	1,163.9	-439.9	507.0	461.0	46.06	11.007		
8,600.0	7,500.0	8,868.2	7,740.0	27.0	28.3	-118.35	1,263.8	-439.9	505.5	456.8	48.72	10.375		
8,700.0	7,500.0	8,968.2	7,740.0	28.6	29.8	-118.44	1,363.8	-439.9	503.9	452.5	51.42	9.802		
8,800.0	7,500.0	9,068.2	7,740.0	30.2	31.3	-118.54	1,463.8	-439.9	502.4	448.3	54.15	9.279		
8,900.0	7,500.0	9,168.2	7,740.0	31.8	32.9	-118.63	1,563.8	-439.9	500.9	444.0	56.90	8.803		
9,000.0	7,500.0	9,268.1	7,740.0	33.4	34.4	-118.73	1,663.8	-439.9	499.4	439.7	59.68	8.367		
9,100.0	7,500.0	9,368.1	7,740.0	35.0	36.0	-118.83	1,763.8	-439.9	497.8	435.3	62.48	7.968		
9,200.0	7,500.0	9,468.1	7,740.0	36.6	37.6	-118.96	1,863.7	-439.9	495.9	430.6	65.28	7.596		
9,300.0	7,500.0	9,568.0	7,740.0	38.3	39.2	-119.19	1,963.7	-439.9	492.5	424.5	68.03	7.239		
9,400.0	7,500.0	9,667.9	7,740.0	40.0	40.8	-119.54	2,063.5	-439.9	487.6	416.9	70.73	6.894		
9,500.0	7,500.0	9,767.6	7,740.0	41.6	42.5	-119.95	2,163.3	-439.9	481.6	408.2	73.36	6.565		
9,600.0	7,500.0	9,867.4	7,740.0	43.3	44.1	-120.37	2,263.0	-439.9	475.6	399.6	75.96	6.261		
9,700.0	7,500.0	9,967.1	7,740.0	45.0	45.8	-120.80	2,362.8	-439.9	469.6	391.0	78.54	5.978		
9,800.0	7,500.0	10,066.9	7,740.0	46.7	47.4	-121.24	2,462.5	-439.9	463.6	382.5	81.10	5.716		
9,900.0	7,500.0	10,166.6	7,740.0	48.3	49.1	-121.69	2,562.3	-439.9	457.6	374.0	83.62	5.473		
10,000.0	7,500.0	10,266.4	7,740.0	50.0	50.7	-122.16	2,662.0	-439.9	451.7	365.6	86.11	5.246		
10,100.0	7,500.0	10,366.2	7,740.0	51.7	52.4	-122.63	2,761.8	-439.9	445.8	357.2	88.56	5.034		
10,200.0	7,500.0	10,465.9	7,740.0	53.4	54.1	-123.12	2,861.6	-439.9	439.9	349.0	90.97	4.836		
10,300.0	7,500.0	10,565.7	7,740.0	55.2	55.8	-123.63	2,961.3	-439.9	434.1	340.8	93.34	4.651		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2A-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				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
10,400.0	7,500.0	10,665.4	7,740.0	56.9	57.5	-124.14	3,061.1	-439.9	428.3	332.7	95.66	4.478		
10,500.0	7,500.0	10,765.2	7,740.0	58.6	59.2	-124.67	3,160.8	-439.9	422.6	324.6	97.93	4.315		
10,600.0	7,500.0	10,864.9	7,740.0	60.3	60.8	-125.22	3,260.6	-439.9	416.8	316.7	100.14	4.163		
10,700.0	7,500.0	10,964.7	7,740.0	62.0	62.5	-125.72	3,360.4	-439.9	411.5	309.2	102.34	4.021		
10,800.0	7,500.0	11,064.6	7,740.0	63.7	64.2	-126.09	3,460.3	-439.9	407.6	302.9	104.65	3.895		
10,900.0	7,500.0	11,161.3	7,740.0	65.4	65.9	-126.31	3,557.0	-440.2	405.3	298.2	107.17	3.782		
10,942.2	7,500.0	11,201.9	7,740.0	66.2	66.6	-126.33	3,597.5	-440.7	405.1	296.8	108.33	3.740		
11,000.0	7,500.0	11,259.7	7,740.0	67.2	67.6	-126.30	3,655.3	-441.6	405.4	295.4	109.97	3.686		
11,100.0	7,500.0	11,359.7	7,740.0	68.9	69.3	-126.19	3,755.3	-443.1	406.5	293.6	112.90	3.600		
11,200.0	7,500.0	11,459.7	7,740.0	70.6	71.0	-126.07	3,855.3	-444.6	407.6	291.8	115.84	3.519		
11,300.0	7,500.0	11,559.7	7,740.0	72.3	72.7	-125.96	3,955.2	-446.1	408.8	290.0	118.80	3.441		
11,400.0	7,500.0	11,659.6	7,740.0	74.1	74.4	-125.84	4,055.2	-447.6	409.9	288.1	121.76	3.366		
11,500.0	7,500.0	11,759.6	7,740.0	75.8	76.2	-125.73	4,155.2	-449.1	411.1	286.3	124.74	3.295		
11,600.0	7,500.0	11,859.6	7,740.0	77.5	77.9	-125.61	4,255.2	-450.6	412.2	284.5	127.72	3.227		
11,700.0	7,500.0	11,959.6	7,740.0	79.2	79.6	-125.50	4,355.2	-452.1	413.3	282.6	130.71	3.162		
11,800.0	7,500.0	12,059.6	7,740.0	81.0	81.3	-125.38	4,455.1	-453.6	414.5	280.8	133.71	3.100		
11,900.0	7,500.0	12,159.6	7,740.0	82.7	83.1	-125.27	4,555.1	-455.1	415.7	278.9	136.71	3.040		
12,000.0	7,500.0	12,259.6	7,740.0	84.4	84.8	-125.16	4,655.1	-456.5	416.8	277.1	139.73	2.983		
12,100.0	7,500.0	12,359.6	7,740.0	86.2	86.5	-125.05	4,755.1	-458.0	418.0	275.2	142.75	2.928		
12,200.0	7,500.0	12,459.6	7,740.0	87.9	88.2	-124.94	4,855.1	-459.5	419.1	273.3	145.78	2.875		
12,300.0	7,500.0	12,559.6	7,740.0	89.6	90.0	-124.83	4,955.0	-461.0	420.3	271.5	148.82	2.824		
12,400.0	7,500.0	12,659.5	7,740.0	91.4	91.7	-124.72	5,055.0	-462.5	421.4	269.6	151.86	2.775		
12,500.0	7,500.0	12,759.5	7,740.0	93.1	93.4	-124.61	5,155.0	-464.0	422.6	267.7	154.91	2.728		
12,600.0	7,500.0	12,859.5	7,740.0	94.9	95.2	-124.50	5,255.0	-465.5	423.8	265.8	157.97	2.683		
12,700.0	7,500.0	12,959.5	7,740.0	96.6	96.9	-124.39	5,355.0	-467.0	424.9	263.9	161.04	2.639		
12,800.0	7,500.0	13,059.5	7,740.0	98.3	98.6	-124.28	5,454.9	-468.5	426.1	262.0	164.11	2.596		
12,900.0	7,500.0	13,159.5	7,740.0	100.1	100.4	-124.18	5,554.9	-470.0	427.3	260.1	167.19	2.556		
13,000.0	7,500.0	13,259.5	7,740.0	101.8	102.1	-124.07	5,654.9	-471.5	428.4	258.2	170.27	2.516		
13,100.0	7,500.0	13,359.5	7,740.0	103.5	103.8	-123.97	5,754.9	-473.0	429.6	256.2	173.37	2.478		
13,200.0	7,500.0	13,459.5	7,740.0	105.3	105.6	-123.86	5,854.8	-474.5	430.8	254.3	176.46	2.441		
13,300.0	7,500.0	13,559.5	7,740.0	107.0	107.3	-123.76	5,954.8	-476.0	431.9	252.4	179.57	2.405		
13,400.0	7,500.0	13,659.4	7,740.0	108.8	109.0	-123.65	6,054.8	-477.5	433.1	250.4	182.68	2.371		
13,500.0	7,500.0	13,759.4	7,740.0	110.5	110.8	-123.55	6,154.8	-479.0	434.3	248.5	185.79	2.338		
13,600.0	7,500.0	13,859.4	7,740.0	112.3	112.5	-123.45	6,254.8	-480.4	435.5	246.6	188.92	2.305		
13,700.0	7,500.0	13,959.4	7,740.0	114.0	114.3	-123.34	6,354.7	-481.9	436.7	244.6	192.04	2.274		
13,800.0	7,500.0	14,059.4	7,740.0	115.7	116.0	-123.24	6,454.7	-483.4	437.8	242.7	195.18	2.243		
13,900.0	7,500.0	14,159.4	7,740.0	117.5	117.7	-123.14	6,554.7	-484.9	439.0	240.7	198.32	2.214		
14,000.0	7,500.0	14,259.4	7,740.0	119.2	119.5	-123.04	6,654.7	-486.4	440.2	238.7	201.46	2.185		
14,100.0	7,500.0	14,359.4	7,740.0	121.0	121.2	-122.94	6,754.7	-487.9	441.4	236.8	204.61	2.157		
14,200.0	7,500.0	14,459.4	7,740.0	122.7	123.0	-122.84	6,854.6	-489.4	442.6	234.8	207.76	2.130		
14,300.0	7,500.0	14,559.4	7,740.0	124.5	124.7	-122.74	6,954.6	-490.9	443.8	232.8	210.92	2.104		
14,400.0	7,500.0	14,659.3	7,740.0	126.2	126.4	-122.65	7,054.6	-492.4	444.9	230.9	214.09	2.078		
14,422.5	7,500.0	14,681.2	7,740.0	126.6	126.8	-122.62	7,076.5	-492.7	445.2	230.4	214.80	2.073 SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2C-7H-E168 - Hz - Plan #5												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	90.06	0.0	7.6	7.6					
100.0	100.0	100.0	100.0	0.2	0.2	90.06	0.0	7.6	7.6	7.3	0.30	24.883		
200.0	200.0	200.0	200.0	0.3	0.3	90.06	0.0	7.6	7.6	6.9	0.65	11.577		
300.0	300.0	300.0	300.0	0.5	0.5	90.06	0.0	7.6	7.6	6.6	1.00	7.543	CC, ES	
400.0	400.0	400.0	400.0	0.7	0.7	-134.64	0.0	7.6	8.1	6.8	1.35	6.027		
500.0	500.0	500.0	500.0	0.9	0.8	-145.20	0.0	7.6	10.2	8.5	1.70	5.969		
600.0	599.9	599.9	599.9	1.0	1.0	-155.45	0.0	7.6	14.0	11.9	2.05	6.806		
700.0	699.8	699.5	699.5	1.2	1.2	-153.56	-0.1	8.4	18.7	16.3	2.40	7.777		
800.0	799.7	799.1	799.1	1.4	1.4	-135.93	-0.4	11.0	23.1	20.3	2.75	8.393		
900.0	899.7	898.7	898.5	1.6	1.6	-90.72	-0.9	15.3	27.2	24.1	3.10	8.779		
1,000.0	999.7	998.5	998.2	1.7	1.7	-87.49	-1.5	20.7	31.9	28.4	3.46	9.221		
1,100.0	1,099.7	1,098.4	1,097.9	1.9	1.9	-85.06	-2.1	26.2	36.6	32.8	3.81	9.608		
1,200.0	1,199.7	1,198.2	1,197.6	2.1	2.1	-83.19	-2.7	31.7	41.4	37.2	4.16	9.942		
1,300.0	1,299.7	1,298.1	1,297.4	2.3	2.3	-81.71	-3.3	37.2	46.2	41.7	4.51	10.232		
1,400.0	1,399.7	1,398.0	1,397.1	2.4	2.5	-80.51	-3.9	42.7	51.0	46.2	4.87	10.486		
1,500.0	1,499.7	1,497.9	1,496.8	2.6	2.7	-79.52	-4.5	48.1	55.9	50.7	5.22	10.709		
1,600.0	1,599.7	1,597.7	1,596.5	2.8	2.9	-78.68	-5.1	53.6	60.8	55.2	5.57	10.907		
1,700.0	1,699.7	1,697.6	1,696.3	3.0	3.1	-77.97	-5.7	59.1	65.7	59.7	5.92	11.084		
1,800.0	1,799.6	1,797.5	1,796.0	3.1	3.3	-77.36	-6.3	64.6	70.6	64.3	6.28	11.242		
1,900.0	1,899.6	1,897.4	1,895.7	3.3	3.5	-76.83	-6.9	70.1	75.5	68.8	6.63	11.385		
2,000.0	1,999.6	1,997.3	1,995.4	3.5	3.7	-76.36	-7.5	75.5	80.4	73.4	6.98	11.514		
2,100.0	2,099.6	2,097.1	2,095.2	3.7	3.9	-75.95	-8.2	81.0	85.3	77.9	7.33	11.632		
2,200.0	2,199.6	2,197.0	2,194.9	3.8	4.1	-75.58	-8.8	86.5	90.2	82.5	7.68	11.740		
2,300.0	2,299.6	2,296.9	2,294.6	4.0	4.3	-75.25	-9.4	92.0	95.1	87.1	8.03	11.838		
2,400.0	2,399.6	2,396.8	2,394.3	4.2	4.5	-74.96	-10.0	97.5	100.0	91.7	8.39	11.929		
2,500.0	2,499.6	2,496.6	2,494.1	4.4	4.7	-74.69	-10.6	102.9	105.0	96.2	8.74	12.013		
2,600.0	2,599.6	2,596.5	2,593.8	4.6	4.9	-74.44	-11.2	108.4	109.9	100.8	9.09	12.090		
2,700.0	2,699.6	2,696.4	2,693.5	4.7	5.1	-74.22	-11.8	113.9	114.8	105.4	9.44	12.162		
2,800.0	2,799.6	2,796.3	2,793.2	4.9	5.3	-74.01	-12.4	119.4	119.7	110.0	9.79	12.229		
2,900.0	2,899.6	2,896.1	2,893.0	5.1	5.5	-73.82	-13.0	124.9	124.7	114.5	10.14	12.292		
3,000.0	2,999.5	2,996.0	2,992.7	5.3	5.7	-73.65	-13.6	130.4	129.6	119.1	10.49	12.350		
3,100.0	3,099.5	3,095.9	3,092.4	5.4	5.9	-73.48	-14.2	135.8	134.5	123.7	10.85	12.405		
3,200.0	3,199.5	3,195.8	3,192.1	5.6	6.1	-73.33	-14.8	141.3	139.5	128.3	11.20	12.457		
3,300.0	3,299.5	3,295.7	3,291.9	5.8	6.2	-73.19	-15.5	146.8	144.4	132.9	11.55	12.505		
3,400.0	3,399.5	3,395.5	3,391.6	6.0	6.4	-73.06	-16.1	152.3	149.4	137.5	11.90	12.551		
3,500.0	3,499.5	3,495.4	3,491.3	6.1	6.6	-72.94	-16.7	157.8	154.3	142.0	12.25	12.594		
3,600.0	3,599.5	3,595.3	3,591.0	6.3	6.8	-72.82	-17.3	163.2	159.2	146.6	12.60	12.635		
3,700.0	3,699.5	3,695.2	3,690.8	6.5	7.0	-72.71	-17.9	168.7	164.2	151.2	12.95	12.673		
3,800.0	3,799.5	3,795.0	3,790.5	6.7	7.2	-72.61	-18.5	174.2	169.1	155.8	13.31	12.710		
3,900.0	3,899.5	3,894.9	3,890.2	6.8	7.4	-72.52	-19.1	179.7	174.1	160.4	13.66	12.745		
4,000.0	3,999.5	3,994.8	3,989.9	7.0	7.6	-72.43	-19.7	185.2	179.0	165.0	14.01	12.778		
4,100.0	4,099.5	4,094.7	4,089.7	7.2	7.8	-72.34	-20.3	190.6	183.9	169.6	14.36	12.809		
4,200.0	4,199.5	4,194.6	4,189.4	7.4	8.0	-72.26	-20.9	196.1	188.9	174.2	14.71	12.839		
4,300.0	4,299.4	4,294.4	4,289.1	7.5	8.2	-72.18	-21.5	201.6	193.8	178.8	15.06	12.868		
4,400.0	4,399.4	4,394.3	4,388.8	7.7	8.4	-72.11	-22.1	207.1	198.8	183.3	15.41	12.895		
4,500.0	4,499.4	4,494.2	4,488.6	7.9	8.6	-72.04	-22.7	212.6	203.7	187.9	15.76	12.921		
4,600.0	4,599.4	4,594.1	4,588.3	8.1	8.8	-71.97	-23.4	218.0	208.6	192.5	16.12	12.947		
4,700.0	4,699.4	4,693.9	4,688.0	8.2	9.0	-71.91	-24.0	223.5	213.6	197.1	16.47	12.971		
4,800.0	4,799.4	4,793.8	4,787.7	8.4	9.2	-71.85	-24.6	229.0	218.5	201.7	16.82	12.994		
4,900.0	4,899.4	4,893.7	4,887.5	8.6	9.4	-71.79	-25.2	234.5	223.5	206.3	17.17	13.016		
5,000.0	4,999.4	4,993.6	4,987.2	8.8	9.6	-71.73	-25.8	240.0	228.4	210.9	17.52	13.037		
5,100.0	5,099.4	5,093.5	5,086.9	8.9	9.8	-71.68	-26.4	245.4	233.4	215.5	17.87	13.057		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2C-7H-E168 - Hz - Plan #5											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	
5,200.0	5,199.4	5,193.3	5,186.6	9.1	10.0	-71.63	-27.0	250.9	238.3	220.1	18.22	13.077	
5,300.0	5,299.4	5,293.2	5,286.4	9.3	10.2	-71.58	-27.6	256.4	243.3	224.7	18.57	13.096	
5,400.0	5,399.4	5,393.1	5,386.1	9.5	10.4	-71.53	-28.2	261.9	248.2	229.3	18.93	13.114	
5,500.0	5,499.3	5,493.0	5,485.8	9.6	10.6	-71.49	-28.8	267.4	253.1	233.9	19.28	13.132	
5,600.0	5,599.3	5,592.8	5,585.5	9.8	10.8	-71.45	-29.4	272.8	258.1	238.5	19.63	13.149	
5,700.0	5,699.3	5,692.7	5,685.3	10.0	11.0	-71.40	-30.0	278.3	263.0	243.0	19.98	13.165	
5,800.0	5,799.3	5,792.6	5,785.0	10.2	11.2	-71.36	-30.6	283.8	268.0	247.6	20.33	13.181	
5,900.0	5,899.3	5,892.5	5,884.7	10.4	11.4	-71.32	-31.3	289.3	272.9	252.2	20.68	13.196	
6,000.0	5,999.3	5,992.4	5,984.4	10.5	11.6	-71.29	-31.9	294.8	277.9	256.8	21.03	13.211	
6,100.0	6,099.3	6,092.2	6,084.2	10.7	11.8	-71.25	-32.5	300.2	282.8	261.4	21.38	13.225	
6,200.0	6,199.3	6,192.1	6,183.9	10.9	12.0	-71.22	-33.1	305.7	287.8	266.0	21.74	13.239	
6,300.0	6,299.3	6,292.0	6,283.6	11.1	12.2	-71.18	-33.7	311.2	292.7	270.6	22.09	13.252	
6,400.0	6,399.3	6,391.9	6,383.3	11.2	12.4	-71.15	-34.3	316.7	297.6	275.2	22.44	13.265	
6,500.0	6,499.3	6,491.7	6,483.1	11.4	12.6	-71.12	-34.9	322.2	302.6	279.8	22.79	13.278	
6,600.0	6,599.3	6,591.6	6,582.8	11.6	12.8	-71.09	-35.5	327.7	307.5	284.4	23.14	13.290	
6,700.0	6,699.3	6,691.5	6,682.5	11.8	13.0	-71.06	-36.1	333.1	312.5	289.0	23.49	13.302	
6,800.0	6,799.2	6,791.4	6,782.3	11.9	13.2	-71.03	-36.7	338.6	317.4	293.6	23.84	13.313	
6,900.0	6,899.2	6,891.2	6,882.0	12.1	13.4	-71.00	-37.3	344.1	322.4	298.2	24.19	13.325	
7,000.0	6,999.0	6,990.9	6,981.5	12.3	13.6	81.40	-37.9	349.6	326.7	302.2	24.52	13.327	
7,100.0	7,096.7	7,088.2	7,078.7	12.4	13.8	86.25	-38.5	354.9	330.1	305.3	24.78	13.319	
7,200.0	7,189.1	7,180.7	7,170.9	12.6	14.0	92.18	-39.1	360.0	335.5	310.5	25.05	13.394	
7,300.0	7,273.6	7,278.1	7,267.7	12.8	14.2	98.64	-30.2	365.1	346.3	320.9	25.45	13.606	
7,400.0	7,347.6	7,385.1	7,370.6	13.1	14.4	104.75	-1.7	370.3	362.0	336.0	26.01	13.920	
7,500.0	7,408.8	7,504.4	7,476.8	13.5	14.6	110.39	51.9	375.2	381.1	354.4	26.64	14.306	
7,600.0	7,455.3	7,639.2	7,580.5	14.2	15.1	115.43	137.4	379.4	401.1	373.9	27.22	14.739	
7,700.0	7,485.8	7,791.8	7,670.3	15.0	15.9	119.60	260.3	382.1	419.2	391.4	27.78	15.090	
7,800.0	7,499.3	7,961.9	7,728.4	16.0	17.2	122.51	419.4	382.5	432.1	403.4	28.63	15.091	
7,900.0	7,500.0	8,113.6	7,740.0	17.2	18.7	123.44	570.3	380.5	435.5	405.3	30.26	14.395	
8,000.0	7,500.0	8,213.6	7,740.0	18.4	19.9	123.44	670.3	378.8	435.5	403.2	32.30	13.484	
8,100.0	7,500.0	8,313.6	7,740.0	19.7	21.1	123.44	770.3	377.1	435.5	401.1	34.47	12.635	
8,200.0	7,500.0	8,413.6	7,740.0	21.1	22.4	123.44	870.2	375.3	435.5	398.8	36.75	11.851	
8,300.0	7,500.0	8,513.6	7,740.0	22.5	23.7	123.44	970.2	373.6	435.5	396.4	39.12	11.134	
8,400.0	7,500.0	8,613.6	7,740.0	24.0	25.1	123.44	1,070.2	371.8	435.5	394.0	41.56	10.481	
8,500.0	7,500.0	8,713.6	7,740.0	25.5	26.6	123.44	1,170.2	370.1	435.5	391.5	44.06	9.886	
8,600.0	7,500.0	8,813.6	7,740.0	27.0	28.0	123.44	1,270.2	368.3	435.5	388.9	46.61	9.345	
8,700.0	7,500.0	8,913.6	7,740.0	28.6	29.5	123.44	1,370.2	366.6	435.5	386.3	49.20	8.852	
8,800.0	7,500.0	9,013.6	7,740.0	30.2	31.1	123.44	1,470.2	364.8	435.5	383.7	51.83	8.403	
8,900.0	7,500.0	9,113.6	7,740.0	31.8	32.6	123.44	1,570.1	363.1	435.5	381.0	54.49	7.992	
9,000.0	7,500.0	9,213.6	7,740.0	33.4	34.2	123.44	1,670.1	361.4	435.5	378.3	57.18	7.617	
9,100.0	7,500.0	9,313.6	7,740.0	35.0	35.8	123.44	1,770.1	359.6	435.5	375.6	59.89	7.272	
9,100.0	7,500.0	9,313.6	7,740.0	35.0	35.8	123.44	1,770.1	359.6	435.5	375.6	59.89	7.272	
9,200.0	7,500.0	9,413.6	7,740.0	36.6	37.4	123.41	1,870.1	357.9	435.9	373.3	62.64	6.958	
9,300.0	7,500.0	9,513.5	7,740.0	38.3	39.0	123.26	1,970.1	356.1	437.7	372.2	65.49	6.683	
9,400.0	7,500.0	9,613.5	7,740.0	40.0	40.7	123.01	2,070.0	354.4	440.9	372.5	68.45	6.442	
9,500.0	7,500.0	9,713.3	7,740.0	41.6	42.3	122.65	2,169.8	352.6	445.3	373.8	71.50	6.228	
9,600.0	7,500.0	9,813.2	7,740.0	43.3	44.0	122.29	2,269.7	350.9	449.7	375.1	74.58	6.030	
9,700.0	7,500.0	9,913.0	7,740.0	45.0	45.6	121.94	2,369.5	349.1	454.1	376.5	77.68	5.846	
9,800.0	7,500.0	10,012.9	7,740.0	46.7	47.3	121.59	2,469.4	347.4	458.6	377.8	80.81	5.675	
9,900.0	7,500.0	10,112.8	7,740.0	48.3	48.9	121.25	2,569.2	345.7	463.1	379.1	83.95	5.516	
10,000.0	7,500.0	10,212.6	7,740.0	50.0	50.6	120.92	2,669.0	343.9	467.5	380.4	87.12	5.366	
10,100.0	7,500.0	10,312.5	7,740.0	51.7	52.3	120.59	2,768.9	342.2	472.0	381.7	90.31	5.227	
10,200.0	7,500.0	10,412.4	7,740.0	53.4	54.0	120.27	2,868.7	340.4	476.5	383.0	93.52	5.096	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2C-7H-E168 - Hz - Plan #5												Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
10,300.0	7,500.0	10,512.2	7,740.0	55.2	55.7	119.96	2,968.6	338.7	481.1	384.3	96.75	4.973	
10,400.0	7,500.0	10,612.1	7,740.0	56.9	57.4	119.65	3,068.4	336.9	485.6	385.6	99.99	4.857	
10,500.0	7,500.0	10,711.9	7,740.0	58.6	59.0	119.35	3,168.3	335.2	490.2	386.9	103.24	4.748	
10,600.0	7,500.0	10,811.8	7,740.0	60.3	60.7	119.05	3,268.1	333.5	494.7	388.2	106.52	4.645	
10,700.0	7,500.0	10,911.7	7,740.0	62.0	62.4	118.77	3,368.0	331.7	498.9	389.2	109.78	4.545	
10,800.0	7,500.0	11,011.6	7,740.0	63.7	64.2	118.59	3,467.9	330.0	501.7	388.7	112.96	4.441	
10,900.0	7,500.0	11,111.6	7,740.0	65.4	65.9	118.51	3,567.9	328.2	502.8	386.8	116.06	4.333	
11,000.0	7,500.0	11,211.6	7,740.0	67.2	67.6	118.53	3,667.9	326.5	502.5	383.4	119.06	4.221	
11,100.0	7,500.0	11,311.6	7,740.0	68.9	69.3	118.62	3,767.9	324.7	501.1	379.1	121.99	4.107	
11,200.0	7,500.0	11,411.6	7,740.0	70.6	71.0	118.71	3,867.8	323.0	499.6	374.7	124.92	4.000	
11,300.0	7,500.0	11,511.6	7,740.0	72.3	72.7	118.80	3,967.8	321.2	498.2	370.3	127.85	3.897	
11,400.0	7,500.0	11,611.6	7,740.0	74.1	74.4	118.90	4,067.8	319.5	496.7	365.9	130.77	3.798	
11,500.0	7,500.0	11,711.6	7,740.0	75.8	76.2	118.99	4,167.8	317.8	495.3	361.6	133.68	3.705	
11,600.0	7,500.0	11,811.6	7,740.0	77.5	77.9	119.08	4,267.7	316.0	493.8	357.2	136.59	3.615	
11,700.0	7,500.0	11,911.5	7,740.0	79.2	79.6	119.18	4,367.7	314.3	492.3	352.8	139.50	3.529	
11,800.0	7,500.0	12,011.5	7,740.0	81.0	81.3	119.27	4,467.7	312.5	490.9	348.5	142.40	3.447	
11,900.0	7,500.0	12,111.5	7,740.0	82.7	83.1	119.37	4,567.6	310.8	489.4	344.1	145.30	3.368	
12,000.0	7,500.0	12,211.5	7,740.0	84.4	84.8	119.46	4,667.6	309.0	488.0	339.8	148.20	3.293	
12,100.0	7,500.0	12,311.5	7,740.0	86.2	86.5	119.56	4,767.6	307.3	486.6	335.5	151.08	3.220	
12,200.0	7,500.0	12,411.5	7,740.0	87.9	88.2	119.66	4,867.5	305.5	485.1	331.1	153.97	3.151	
12,300.0	7,500.0	12,511.5	7,740.0	89.6	90.0	119.75	4,967.5	303.8	483.7	326.8	156.84	3.084	
12,400.0	7,500.0	12,611.4	7,740.0	91.4	91.7	119.85	5,067.5	302.0	482.2	322.5	159.71	3.019	
12,500.0	7,500.0	12,711.4	7,740.0	93.1	93.4	119.95	5,167.5	300.3	480.8	318.2	162.58	2.957	
12,600.0	7,500.0	12,811.4	7,740.0	94.9	95.2	120.05	5,267.4	298.6	479.3	313.9	165.44	2.897	
12,700.0	7,500.0	12,911.4	7,740.0	96.6	96.9	120.15	5,367.4	296.8	477.9	309.6	168.29	2.840	
12,800.0	7,500.0	13,011.4	7,740.0	98.3	98.6	120.25	5,467.4	295.1	476.5	305.3	171.13	2.784	
12,900.0	7,500.0	13,111.4	7,740.0	100.1	100.4	120.35	5,567.3	293.3	475.0	301.0	173.97	2.730	
13,000.0	7,500.0	13,211.4	7,740.0	101.8	102.1	120.45	5,667.3	291.6	473.6	296.8	176.81	2.679	
13,100.0	7,500.0	13,311.3	7,740.0	103.5	103.8	120.55	5,767.3	289.8	472.2	292.5	179.63	2.628	
13,200.0	7,500.0	13,411.3	7,740.0	105.3	105.6	120.66	5,867.3	288.1	470.7	288.3	182.45	2.580	
13,300.0	7,500.0	13,511.3	7,740.0	107.0	107.3	120.76	5,967.2	286.3	469.3	284.0	185.26	2.533	
13,400.0	7,500.0	13,611.3	7,740.0	108.8	109.1	120.87	6,067.2	284.6	467.9	279.8	188.07	2.488	
13,500.0	7,500.0	13,711.3	7,740.0	110.5	110.8	120.97	6,167.2	282.9	466.4	275.6	190.86	2.444	
13,600.0	7,500.0	13,811.3	7,740.0	112.3	112.5	121.08	6,267.1	281.1	465.0	271.4	193.65	2.401	
13,700.0	7,500.0	13,911.3	7,740.0	114.0	114.3	121.18	6,367.1	279.4	463.6	267.2	196.43	2.360	
13,800.0	7,500.0	14,011.2	7,740.0	115.7	116.0	121.29	6,467.1	277.6	462.2	263.0	199.21	2.320	
13,900.0	7,500.0	14,113.7	7,740.0	117.5	117.8	121.41	6,569.5	275.7	460.7	258.7	201.95	2.281	
14,000.0	7,500.0	14,221.0	7,740.0	119.2	119.7	121.63	6,676.8	272.2	457.9	253.5	204.43	2.240	
14,100.0	7,500.0	14,328.1	7,740.0	121.0	121.5	121.99	6,783.7	266.6	453.6	247.0	206.54	2.196	
14,200.0	7,500.0	14,428.7	7,740.0	122.7	123.3	122.42	6,884.1	260.3	448.3	239.7	208.57	2.149	
14,300.0	7,500.0	14,528.5	7,740.0	124.5	125.0	122.85	6,983.7	254.0	443.0	232.5	210.55	2.104	
14,400.0	7,500.0	14,628.3	7,740.0	126.2	126.7	123.29	7,083.3	247.7	437.8	225.4	212.47	2.061	
14,422.5	7,500.0	14,633.9	7,740.0	126.6	126.8	123.32	7,088.9	247.3	437.0	223.8	213.21	2.050 SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2D-7H-E168 - Hz - Plan #5													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	90.03	0.0	15.1	15.1					
100.0	100.0	100.0	100.0	0.2	0.2	90.03	0.0	15.1	15.1	14.8	0.30	49.767		
200.0	200.0	200.0	200.0	0.3	0.3	90.03	0.0	15.1	15.1	14.5	0.65	23.153		
300.0	300.0	300.0	300.0	0.5	0.5	90.03	0.0	15.1	15.1	14.1	1.00	15.086 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-132.41	0.0	15.1	15.7	14.3	1.35	11.610		
500.0	500.0	500.0	500.0	0.9	0.8	-138.71	0.0	15.1	17.6	15.9	1.70	10.317		
600.0	599.9	599.5	599.5	1.0	1.0	-145.65	-0.1	16.0	21.8	19.8	2.05	10.637		
700.0	699.8	698.9	698.9	1.2	1.2	-142.45	-0.4	18.5	27.8	25.4	2.40	11.574		
800.0	799.7	798.3	798.1	1.4	1.4	-125.08	-0.8	22.8	33.7	31.0	2.75	12.249		
900.0	899.7	897.5	897.2	1.6	1.6	-80.81	-1.5	28.8	39.6	36.5	3.10	12.755		
1,000.0	999.7	996.6	996.0	1.7	1.8	-78.49	-2.3	36.5	46.6	43.1	3.45	13.481		
1,100.0	1,099.7	1,095.8	1,094.7	1.9	2.0	-76.24	-3.3	45.7	55.0	51.2	3.80	14.464		
1,200.0	1,199.7	1,195.4	1,193.9	2.1	2.2	-74.53	-4.3	55.1	63.8	59.6	4.16	15.344		
1,300.0	1,299.7	1,295.0	1,293.0	2.3	2.4	-73.22	-5.3	64.6	72.6	68.1	4.51	16.098		
1,400.0	1,399.7	1,394.6	1,392.2	2.4	2.7	-72.20	-6.4	74.1	81.4	76.6	4.86	16.749		
1,500.0	1,499.7	1,494.2	1,491.3	2.6	2.9	-71.38	-7.4	83.5	90.3	85.1	5.21	17.318		
1,600.0	1,599.7	1,593.8	1,590.5	2.8	3.1	-70.71	-8.4	93.0	99.1	93.6	5.56	17.818		
1,700.0	1,699.7	1,693.4	1,689.6	3.0	3.3	-70.15	-9.4	102.5	108.0	102.1	5.92	18.261		
1,800.0	1,799.6	1,793.0	1,788.7	3.1	3.6	-69.67	-10.4	111.9	116.9	110.6	6.27	18.657		
1,900.0	1,899.6	1,892.6	1,887.9	3.3	3.8	-69.26	-11.4	121.4	125.8	119.2	6.62	19.011		
2,000.0	1,999.6	1,992.2	1,987.0	3.5	4.1	-68.90	-12.5	130.8	134.7	127.7	6.97	19.331		
2,100.0	2,099.6	2,091.8	2,086.2	3.7	4.3	-68.59	-13.5	140.3	143.6	136.3	7.32	19.622		
2,200.0	2,199.6	2,191.4	2,185.3	3.8	4.5	-68.32	-14.5	149.8	152.5	144.8	7.67	19.886		
2,300.0	2,299.6	2,291.0	2,284.5	4.0	4.8	-68.07	-15.5	159.2	161.4	153.4	8.02	20.127		
2,400.0	2,399.6	2,390.6	2,383.6	4.2	5.0	-67.85	-16.5	168.7	170.3	162.0	8.37	20.349		
2,500.0	2,499.6	2,490.2	2,482.8	4.4	5.2	-67.65	-17.6	178.1	179.3	170.5	8.72	20.553		
2,600.0	2,599.6	2,589.8	2,581.9	4.6	5.5	-67.47	-18.6	187.6	188.2	179.1	9.07	20.742		
2,700.0	2,699.6	2,689.4	2,681.0	4.7	5.7	-67.31	-19.6	197.1	197.1	187.7	9.42	20.917		
2,800.0	2,799.6	2,789.0	2,780.2	4.9	6.0	-67.16	-20.6	206.5	206.0	196.2	9.77	21.080		
2,900.0	2,899.6	2,888.6	2,879.3	5.1	6.2	-67.03	-21.6	216.0	214.9	204.8	10.12	21.231		
3,000.0	2,999.5	2,988.2	2,978.5	5.3	6.4	-66.90	-22.7	225.4	223.9	213.4	10.47	21.373		
3,100.0	3,099.5	3,087.8	3,077.6	5.4	6.7	-66.79	-23.7	234.9	232.8	222.0	10.82	21.505		
3,200.0	3,199.5	3,187.4	3,176.8	5.6	6.9	-66.68	-24.7	244.4	241.7	230.5	11.17	21.629		
3,300.0	3,299.5	3,287.0	3,275.9	5.8	7.1	-66.58	-25.7	253.8	250.6	239.1	11.53	21.746		
3,400.0	3,399.5	3,386.6	3,375.1	6.0	7.4	-66.49	-26.7	263.3	259.6	247.7	11.88	21.856		
3,500.0	3,499.5	3,486.2	3,474.2	6.1	7.6	-66.40	-27.7	272.8	268.5	256.3	12.23	21.960		
3,600.0	3,599.5	3,585.8	3,573.3	6.3	7.9	-66.32	-28.8	282.2	277.4	264.8	12.58	22.058		
3,700.0	3,699.5	3,685.4	3,672.5	6.5	8.1	-66.24	-29.8	291.7	286.3	273.4	12.93	22.150		
3,800.0	3,799.5	3,785.0	3,771.6	6.7	8.3	-66.17	-30.8	301.1	295.3	282.0	13.28	22.238		
3,900.0	3,899.5	3,884.6	3,870.8	6.8	8.6	-66.10	-31.8	310.6	304.2	290.6	13.63	22.322		
4,000.0	3,999.5	3,984.2	3,969.9	7.0	8.8	-66.04	-32.8	320.1	313.1	299.1	13.98	22.401		
4,100.0	4,099.5	4,083.8	4,069.1	7.2	9.1	-65.98	-33.9	329.5	322.1	307.7	14.33	22.476		
4,200.0	4,199.5	4,183.4	4,168.2	7.4	9.3	-65.93	-34.9	339.0	331.0	316.3	14.68	22.548		
4,300.0	4,299.4	4,283.0	4,267.3	7.5	9.5	-65.87	-35.9	348.4	339.9	324.9	15.03	22.617		
4,400.0	4,399.4	4,382.6	4,366.5	7.7	9.8	-65.82	-36.9	357.9	348.8	333.5	15.38	22.682		
4,500.0	4,499.4	4,482.2	4,465.6	7.9	10.0	-65.77	-37.9	367.4	357.8	342.0	15.73	22.744		
4,600.0	4,599.4	4,581.8	4,564.8	8.1	10.3	-65.73	-39.0	376.8	366.7	350.6	16.08	22.804		
4,700.0	4,699.4	4,681.4	4,663.9	8.2	10.5	-65.68	-40.0	386.3	375.6	359.2	16.43	22.862		
4,800.0	4,799.4	4,781.0	4,763.1	8.4	10.7	-65.64	-41.0	395.7	384.6	367.8	16.78	22.916		
4,900.0	4,899.4	4,880.6	4,862.2	8.6	11.0	-65.60	-42.0	405.2	393.5	376.4	17.13	22.969		
5,000.0	4,999.4	4,980.2	4,961.4	8.8	11.2	-65.56	-43.0	414.7	402.4	384.9	17.48	23.020		
5,100.0	5,099.4	5,079.8	5,060.5	8.9	11.5	-65.53	-44.0	424.1	411.4	393.5	17.83	23.068		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2D-7H-E168 - Hz - Plan #5											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	
5,200.0	5,199.4	5,179.4	5,159.6	9.1	11.7	-65.49	-45.1	433.6	420.3	402.1	18.18	23.115	
5,300.0	5,299.4	5,279.0	5,258.8	9.3	11.9	-65.46	-46.1	443.1	429.2	410.7	18.53	23.160	
5,400.0	5,399.4	5,378.6	5,357.9	9.5	12.2	-65.43	-47.1	452.5	438.2	419.3	18.88	23.203	
5,500.0	5,499.3	5,478.2	5,457.1	9.6	12.4	-65.40	-48.1	462.0	447.1	427.9	19.23	23.245	
5,600.0	5,599.3	5,577.8	5,556.2	9.8	12.7	-65.37	-49.1	471.4	456.0	436.4	19.58	23.285	
5,700.0	5,699.3	5,677.4	5,655.4	10.0	12.9	-65.34	-50.2	480.9	465.0	445.0	19.93	23.324	
5,800.0	5,799.3	5,777.0	5,754.5	10.2	13.1	-65.31	-51.2	490.4	473.9	453.6	20.28	23.362	
5,900.0	5,899.3	5,876.6	5,853.7	10.4	13.4	-65.28	-52.2	499.8	482.8	462.2	20.64	23.398	
6,000.0	5,999.3	5,976.2	5,952.8	10.5	13.6	-65.26	-53.2	509.3	491.8	470.8	20.99	23.433	
6,100.0	6,099.3	6,075.8	6,051.9	10.7	13.9	-65.23	-54.2	518.7	500.7	479.4	21.34	23.467	
6,200.0	6,199.3	6,175.4	6,151.1	10.9	14.1	-65.21	-55.3	528.2	509.6	487.9	21.69	23.500	
6,300.0	6,299.3	6,275.0	6,250.2	11.1	14.3	-65.19	-56.3	537.7	518.6	496.5	22.04	23.532	
6,400.0	6,399.3	6,374.6	6,349.4	11.2	14.6	-65.16	-57.3	547.1	527.5	505.1	22.39	23.562	
6,500.0	6,499.3	6,474.2	6,448.5	11.4	14.8	-65.14	-58.3	556.6	536.4	513.7	22.74	23.592	
6,600.0	6,599.3	6,573.8	6,547.7	11.6	15.1	-65.12	-59.3	566.0	545.4	522.3	23.09	23.621	
6,700.0	6,699.3	6,673.4	6,646.8	11.8	15.3	-65.10	-60.3	575.5	554.3	530.9	23.44	23.649	
6,800.0	6,799.2	6,773.0	6,746.0	11.9	15.5	-65.08	-61.4	585.0	563.2	539.4	23.79	23.677	
6,900.0	6,899.2	6,872.6	6,845.1	12.1	15.8	-65.07	-62.4	594.4	572.2	548.0	24.14	23.703	
7,000.0	6,999.0	6,971.3	6,943.4	12.3	16.0	-65.06	-63.1	603.8	581.0	556.6	24.46	23.758	
7,100.0	7,096.7	7,067.9	7,038.8	12.4	16.2	-65.05	-63.7	613.0	590.1	565.4	24.72	23.874	
7,200.0	7,189.1	7,166.2	7,132.8	12.6	16.5	-65.04	-64.3	622.3	599.4	574.4	25.01	23.967	
7,300.0	7,273.6	7,266.5	7,222.5	12.8	16.7	-65.03	-64.9	631.3	608.6	583.2	25.42	23.939	
7,400.0	7,347.6	7,368.9	7,304.9	13.1	17.0	-65.02	-65.5	639.8	617.4	591.3	26.07	23.687	
7,500.0	7,408.8	7,473.5	7,376.6	13.5	17.4	-65.01	-66.1	647.5	625.6	598.6	27.02	23.149	
7,600.0	7,455.3	7,580.2	7,434.5	14.2	18.0	-65.00	-66.7	653.9	632.8	604.5	28.35	22.320	
7,700.0	7,485.8	7,689.0	7,475.5	15.0	18.7	-64.99	-67.3	658.9	638.8	608.7	30.05	21.258	
7,800.0	7,499.3	7,799.5	7,497.1	16.0	19.6	-64.98	-67.9	662.1	643.3	611.2	32.07	20.058	
7,900.0	7,500.0	7,905.6	7,500.0	17.2	20.6	-64.97	-68.5	663.5	646.3	612.0	34.34	18.821	
8,000.0	7,500.0	8,005.5	7,500.0	18.4	21.6	-64.96	-69.1	664.5	649.1	612.3	36.80	17.640	
8,100.0	7,500.0	8,105.5	7,500.0	19.7	22.7	-64.95	-69.7	665.6	651.9	612.5	39.42	16.540	
8,200.0	7,500.0	8,205.4	7,500.0	21.1	23.9	-64.94	-70.3	666.6	654.7	612.6	42.16	15.529	
8,300.0	7,500.0	8,305.4	7,500.0	22.5	25.2	-64.93	-70.9	667.7	657.5	612.5	45.01	14.607	
8,400.0	7,500.0	8,405.4	7,500.0	24.0	26.5	-64.92	-71.5	668.7	660.3	612.4	47.95	13.770	
8,500.0	7,500.0	8,505.3	7,500.0	25.5	27.9	-64.91	-72.1	669.8	663.1	612.1	50.96	13.011	
8,600.0	7,500.0	8,605.3	7,500.0	27.0	29.3	-64.90	-72.7	670.8	665.9	611.9	54.03	12.324	
8,700.0	7,500.0	8,705.2	7,500.0	28.6	30.7	-64.89	-73.3	671.9	668.7	611.5	57.15	11.700	
8,800.0	7,500.0	8,805.2	7,500.0	30.2	32.2	-64.88	-73.9	672.9	671.5	611.2	60.32	11.132	
8,900.0	7,500.0	8,905.2	7,500.0	31.8	33.7	-64.87	-74.5	673.9	674.3	610.8	63.52	10.615	
9,000.0	7,500.0	9,005.1	7,500.0	33.4	35.2	-64.86	-75.1	675.0	677.1	610.3	66.75	10.144	
9,100.0	7,500.0	9,105.1	7,500.0	35.0	36.8	-64.85	-75.7	676.0	679.9	609.8	70.00	9.712	
9,200.0	7,500.0	9,205.0	7,500.0	36.6	38.4	-64.84	-76.3	677.1	683.1	609.8	73.28	9.321	
9,300.0	7,500.0	9,304.9	7,500.0	38.3	39.9	-64.83	-76.9	678.1	688.0	611.4	76.58	8.984	
9,400.0	7,500.0	9,404.7	7,500.0	40.0	41.5	-64.82	-77.5	679.2	694.7	614.8	79.89	8.695	
9,500.0	7,500.0	9,504.4	7,500.0	41.6	43.1	-64.81	-78.1	680.2	702.6	619.4	83.22	8.443	
9,600.0	7,500.0	9,604.1	7,500.0	43.3	44.7	-64.80	-78.7	681.3	710.7	624.1	86.56	8.210	
9,700.0	7,500.0	9,703.7	7,500.0	45.0	46.4	-64.79	-79.3	682.3	718.7	628.8	89.91	7.993	
9,800.0	7,500.0	9,803.4	7,500.0	46.7	48.0	-64.78	-79.9	683.4	726.7	633.4	93.27	7.791	
9,900.0	7,500.0	9,903.1	7,500.0	48.3	49.6	-64.77	-80.5	684.4	734.7	638.1	96.65	7.602	
10,000.0	7,500.0	10,002.8	7,500.0	50.0	51.3	-64.76	-81.1	685.4	742.7	642.7	100.03	7.425	
10,100.0	7,500.0	10,110.6	7,500.0	51.7	53.1	-64.75	-81.7	686.2	750.5	647.0	103.45	7.254	
10,200.0	7,500.0	10,225.5	7,500.0	53.4	55.0	-64.74	-82.3	687.0	756.4	649.5	106.89	7.076	
10,300.0	7,500.0	10,340.7	7,500.0	55.2	56.9	-64.73	-82.9	687.9	760.3	650.0	110.31	6.893	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2D-7H-E168 - Hz - Plan #5										Offset Site Error:		0.0 ft	
Survey Program: 0-Geolink MWD										Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
10,400.0	7,500.0	10,456.0	7,500.0	56.9	58.8	90.00	3,107.3	675.7	762.3	648.6	113.69	6.705	
10,500.0	7,500.0	10,571.3	7,500.0	58.6	60.7	90.00	3,222.3	667.5	762.2	645.1	117.04	6.512	
10,600.0	7,500.0	10,686.6	7,500.0	60.3	62.6	90.00	3,337.1	657.1	760.1	639.7	120.36	6.315	
10,700.0	7,500.0	10,801.7	7,500.0	62.0	64.5	90.00	3,451.6	644.3	755.5	631.9	123.62	6.111	
10,800.0	7,500.0	10,915.4	7,500.0	63.7	66.3	90.00	3,564.3	629.5	747.3	620.4	126.85	5.891	
10,900.0	7,500.0	11,014.8	7,500.0	65.4	68.0	90.00	3,662.7	615.7	736.4	606.2	130.28	5.653	
11,000.0	7,500.0	11,114.0	7,500.0	67.2	69.6	90.00	3,760.9	601.9	723.9	590.2	133.70	5.414	
11,100.0	7,500.0	11,213.1	7,500.0	68.9	71.3	90.00	3,859.0	588.1	710.1	573.0	137.11	5.179	
11,200.0	7,500.0	11,306.3	7,500.0	70.6	72.8	90.00	3,951.4	575.3	696.5	555.8	140.65	4.952	
11,300.0	7,500.0	11,400.0	7,500.0	72.3	74.4	90.00	4,044.4	563.8	684.2	540.1	144.17	4.746	
11,400.0	7,500.0	11,483.8	7,500.0	74.1	75.8	90.00	4,127.6	554.8	673.5	525.6	147.86	4.555	
11,500.0	7,500.0	11,572.9	7,500.0	75.8	77.3	90.00	4,216.4	546.6	664.3	512.9	151.44	4.387	
11,600.0	7,500.0	11,662.3	7,500.0	77.5	78.9	90.00	4,305.6	539.7	656.7	501.7	154.99	4.237	
11,700.0	7,500.0	11,751.9	7,500.0	79.2	80.4	90.00	4,395.0	534.2	650.7	492.2	158.52	4.105	
11,800.0	7,500.0	11,841.7	7,500.0	81.0	81.9	90.00	4,484.6	530.1	646.2	484.2	162.02	3.988	
11,900.0	7,500.0	11,931.5	7,500.0	82.7	83.5	90.00	4,574.4	527.4	643.3	477.8	165.49	3.887	
12,000.0	7,500.0	12,021.4	7,500.0	84.4	85.0	90.00	4,664.3	526.1	641.9	473.0	168.92	3.800	
12,036.0	7,500.0	12,053.8	7,500.0	85.1	85.6	90.00	4,696.7	526.0	641.8	471.7	170.15	3.772	
12,100.0	7,500.0	12,111.4	7,500.0	86.2	86.6	90.00	4,754.3	526.2	642.2	469.8	172.32	3.727	
12,200.0	7,500.0	12,204.6	7,500.0	87.9	88.2	90.00	4,847.5	527.8	643.9	468.2	175.72	3.664	
12,300.0	7,500.0	12,304.6	7,500.0	89.6	89.9	90.00	4,947.5	529.7	645.9	466.7	179.19	3.605	
12,400.0	7,500.0	12,404.6	7,500.0	91.4	91.7	90.00	5,047.4	531.7	648.0	465.3	182.66	3.547	
12,500.0	7,500.0	12,504.5	7,500.0	93.1	93.4	90.00	5,147.4	533.7	650.0	463.9	186.13	3.492	
12,600.0	7,500.0	12,604.5	7,500.0	94.9	95.1	90.00	5,247.3	535.7	652.1	462.5	189.61	3.439	
12,700.0	7,500.0	12,704.5	7,500.0	96.6	96.8	90.00	5,347.3	537.6	654.1	461.1	193.08	3.388	
12,800.0	7,500.0	12,804.5	7,500.0	98.3	98.6	90.00	5,447.3	539.6	656.2	459.6	196.56	3.338	
12,900.0	7,500.0	12,904.5	7,500.0	100.1	100.3	90.00	5,547.2	541.6	658.2	458.2	200.04	3.291	
13,000.0	7,500.0	13,004.4	7,500.0	101.8	102.1	90.00	5,647.2	543.5	660.3	456.8	203.52	3.244	
13,100.0	7,500.0	13,104.4	7,500.0	103.5	103.8	90.00	5,747.1	545.5	662.4	455.4	207.00	3.200	
13,200.0	7,500.0	13,204.4	7,500.0	105.3	105.5	90.00	5,847.1	547.5	664.4	453.9	210.48	3.157	
13,300.0	7,500.0	13,304.4	7,500.0	107.0	107.3	90.00	5,947.0	549.5	666.5	452.5	213.96	3.115	
13,400.0	7,500.0	13,404.4	7,500.0	108.8	109.0	90.00	6,047.0	551.4	668.5	451.1	217.44	3.074	
13,500.0	7,500.0	13,504.3	7,500.0	110.5	110.7	90.00	6,147.0	553.4	670.6	449.6	220.92	3.035	
13,600.0	7,500.0	13,604.3	7,500.0	112.3	112.5	90.00	6,246.9	555.4	672.6	448.2	224.41	2.997	
13,700.0	7,500.0	13,704.3	7,500.0	114.0	114.2	90.00	6,346.9	557.3	674.7	446.8	227.89	2.960	
13,800.0	7,500.0	13,804.3	7,500.0	115.7	116.0	90.00	6,446.8	559.3	676.7	445.3	231.38	2.925	
13,900.0	7,500.0	13,904.2	7,500.0	117.5	117.7	90.00	6,546.8	561.3	678.8	443.9	234.87	2.890	
14,000.0	7,500.0	14,004.2	7,500.0	119.2	119.4	90.00	6,646.8	563.3	680.8	442.5	238.35	2.856	
14,100.0	7,500.0	14,104.2	7,500.0	121.0	121.2	90.00	6,746.7	565.2	682.9	441.1	241.84	2.824	
14,200.0	7,500.0	14,204.2	7,500.0	122.7	122.9	90.00	6,846.7	567.2	684.9	439.6	245.33	2.792	
14,300.0	7,500.0	14,304.2	7,500.0	124.5	124.7	90.00	6,946.6	569.2	687.0	438.2	248.82	2.761	
14,400.0	7,500.0	14,404.1	7,500.0	126.2	126.4	90.00	7,046.6	571.1	689.1	436.7	252.31	2.731	
14,422.5	7,500.0	14,426.6	7,500.0	126.6	126.8	90.00	7,069.1	571.6	689.5	436.4	253.09	2.724 SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 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	90.00	0.0	22.7	22.7						
100.0	100.0	100.0	100.0	0.2	0.2	90.00	0.0	22.7	22.7	22.4	0.30	74.650			
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	22.7	22.7	22.0	0.65	34.730			
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	22.7	22.7	21.7	1.00	22.629	CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-131.64	0.0	22.7	23.2	21.9	1.35	17.199			
500.0	500.0	499.5	499.5	0.9	0.8	-135.75	-0.1	23.5	25.9	24.2	1.70	15.231			
600.0	599.9	598.8	598.8	1.0	1.0	-140.41	-0.2	26.1	31.7	29.7	2.05	15.446			
700.0	699.8	698.0	697.8	1.2	1.2	-136.51	-0.5	30.4	39.2	36.8	2.40	16.312			
800.0	799.7	797.0	796.6	1.4	1.4	-119.44	-0.9	36.4	46.8	44.0	2.75	16.992			
900.0	899.7	895.8	895.2	1.6	1.6	-75.95	-1.5	44.1	54.4	51.3	3.10	17.549			
1,000.0	999.7	994.5	993.4	1.7	1.8	-74.61	-2.1	53.4	63.2	59.8	3.45	18.336			
1,100.0	1,099.7	1,092.7	1,091.1	1.9	2.1	-73.28	-2.8	64.4	73.8	70.0	3.80	19.431			
1,200.0	1,199.7	1,192.0	1,189.6	2.1	2.3	-72.12	-3.7	76.5	85.2	81.1	4.15	20.555			
1,300.0	1,299.7	1,291.3	1,288.1	2.3	2.6	-71.23	-4.5	88.5	96.7	92.3	4.50	21.510			
1,400.0	1,399.7	1,390.6	1,386.7	2.4	2.8	-70.53	-5.3	100.6	108.3	103.4	4.85	22.332			
1,500.0	1,499.7	1,490.0	1,485.3	2.6	3.1	-69.97	-6.1	112.7	119.8	114.6	5.20	23.046			
1,600.0	1,599.7	1,589.3	1,583.9	2.8	3.3	-69.50	-6.9	124.8	131.4	125.8	5.55	23.672			
1,700.0	1,699.7	1,688.6	1,682.5	3.0	3.6	-69.11	-7.8	136.8	142.9	137.0	5.90	24.226			
1,800.0	1,799.6	1,787.9	1,781.1	3.1	3.9	-68.78	-8.6	148.9	154.5	148.3	6.25	24.719			
1,900.0	1,899.6	1,887.3	1,879.7	3.3	4.1	-68.50	-9.4	161.0	166.1	159.5	6.60	25.161			
2,000.0	1,999.6	1,986.6	1,978.2	3.5	4.4	-68.25	-10.2	173.1	177.7	170.7	6.95	25.559			
2,100.0	2,099.6	2,085.9	2,076.8	3.7	4.7	-68.03	-11.0	185.1	189.2	181.9	7.30	25.919			
2,200.0	2,199.6	2,185.2	2,175.4	3.8	4.9	-67.84	-11.9	197.2	200.8	193.2	7.65	26.247			
2,300.0	2,299.6	2,284.6	2,274.0	4.0	5.2	-67.67	-12.7	209.3	212.4	204.4	8.00	26.546			
2,400.0	2,399.6	2,383.9	2,372.6	4.2	5.5	-67.51	-13.5	221.4	224.0	215.6	8.35	26.821			
2,500.0	2,499.6	2,483.2	2,471.2	4.4	5.8	-67.38	-14.3	233.4	235.6	226.9	8.70	27.074			
2,600.0	2,599.6	2,582.5	2,569.8	4.6	6.0	-67.25	-15.1	245.5	247.1	238.1	9.05	27.307			
2,700.0	2,699.6	2,681.9	2,668.3	4.7	6.3	-67.14	-16.0	257.6	258.7	249.3	9.40	27.524			
2,800.0	2,799.6	2,781.2	2,766.9	4.9	6.6	-67.03	-16.8	269.7	270.3	260.6	9.75	27.725			
2,900.0	2,899.6	2,880.5	2,865.5	5.1	6.8	-66.94	-17.6	281.7	281.9	271.8	10.10	27.912			
3,000.0	2,999.5	2,979.8	2,964.1	5.3	7.1	-66.85	-18.4	293.8	293.5	283.1	10.45	28.086			
3,100.0	3,099.5	3,079.2	3,062.7	5.4	7.4	-66.77	-19.2	305.9	305.1	294.3	10.80	28.250			
3,200.0	3,199.5	3,178.5	3,161.3	5.6	7.7	-66.69	-20.1	318.0	316.7	305.5	11.15	28.403			
3,300.0	3,299.5	3,277.8	3,259.8	5.8	7.9	-66.62	-20.9	330.0	328.3	316.8	11.50	28.547			
3,400.0	3,399.5	3,377.1	3,358.4	6.0	8.2	-66.55	-21.7	342.1	339.9	328.0	11.85	28.683			
3,500.0	3,499.5	3,476.5	3,457.0	6.1	8.5	-66.49	-22.5	354.2	351.5	339.3	12.20	28.811			
3,600.0	3,599.5	3,575.8	3,555.6	6.3	8.8	-66.44	-23.3	366.3	363.1	350.5	12.55	28.931			
3,700.0	3,699.5	3,675.1	3,654.2	6.5	9.0	-66.38	-24.2	378.3	374.6	361.7	12.90	29.046			
3,800.0	3,799.5	3,774.4	3,752.8	6.7	9.3	-66.33	-25.0	390.4	386.2	373.0	13.25	29.154			
3,900.0	3,899.5	3,873.8	3,851.4	6.8	9.6	-66.28	-25.8	402.5	397.8	384.2	13.60	29.257			
4,000.0	3,999.5	3,973.1	3,949.9	7.0	9.8	-66.24	-26.6	414.6	409.4	395.5	13.95	29.354			
4,100.0	4,099.5	4,072.4	4,048.5	7.2	10.1	-66.20	-27.4	426.6	421.0	406.7	14.30	29.447			
4,200.0	4,199.5	4,171.7	4,147.1	7.4	10.4	-66.16	-28.3	438.7	432.6	418.0	14.65	29.536			
4,300.0	4,299.4	4,271.1	4,245.7	7.5	10.7	-66.12	-29.1	450.8	444.2	429.2	15.00	29.620			
4,400.0	4,399.4	4,370.4	4,344.3	7.7	10.9	-66.08	-29.9	462.9	455.8	440.5	15.35	29.701			
4,500.0	4,499.4	4,469.7	4,442.9	7.9	11.2	-66.05	-30.7	474.9	467.4	451.7	15.70	29.777			
4,600.0	4,599.4	4,569.0	4,541.5	8.1	11.5	-66.02	-31.5	487.0	479.0	462.9	16.05	29.851			
4,700.0	4,699.4	4,668.4	4,640.0	8.2	11.8	-65.98	-32.4	499.1	490.6	474.2	16.40	29.922			
4,800.0	4,799.4	4,767.7	4,738.6	8.4	12.0	-65.95	-33.2	511.2	502.2	485.4	16.75	29.989			
4,900.0	4,899.4	4,867.0	4,837.2	8.6	12.3	-65.93	-34.0	523.2	513.8	496.7	17.10	30.054			
5,000.0	4,999.4	4,966.3	4,935.8	8.8	12.6	-65.90	-34.8	535.3	525.4	507.9	17.44	30.116			
5,100.0	5,099.4	5,065.7	5,034.4	8.9	12.9	-65.87	-35.7	547.4	537.0	519.2	17.79	30.176			

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 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	
5,200.0	5,199.4	5,165.0	5,133.0	9.1	13.1	-65.85	-36.5	559.5	548.6	530.4	18.14	30.233	
5,300.0	5,299.4	5,264.3	5,231.5	9.3	13.4	-65.82	-37.3	571.5	560.2	541.7	18.49	30.289	
5,400.0	5,399.4	5,363.6	5,330.1	9.5	13.7	-65.80	-38.1	583.6	571.8	552.9	18.84	30.342	
5,500.0	5,499.3	5,463.0	5,428.7	9.6	13.9	-65.78	-38.9	595.7	583.4	564.2	19.19	30.393	
5,600.0	5,599.3	5,562.3	5,527.3	9.8	14.2	-65.76	-39.8	607.8	594.9	575.4	19.54	30.443	
5,700.0	5,699.3	5,661.6	5,625.9	10.0	14.5	-65.74	-40.6	619.8	606.5	586.7	19.89	30.491	
5,800.0	5,799.3	5,760.9	5,724.5	10.2	14.8	-65.72	-41.4	631.9	618.1	597.9	20.24	30.537	
5,900.0	5,899.3	5,860.3	5,823.1	10.4	15.0	-65.70	-42.2	644.0	629.7	609.1	20.59	30.581	
6,000.0	5,999.3	5,959.6	5,921.6	10.5	15.3	-65.68	-43.0	656.1	641.3	620.4	20.94	30.624	
6,100.0	6,099.3	6,058.9	6,020.2	10.7	15.6	-65.66	-43.9	668.1	652.9	631.6	21.29	30.666	
6,200.0	6,199.3	6,158.2	6,118.8	10.9	15.9	-65.65	-44.7	680.2	664.5	642.9	21.64	30.706	
6,300.0	6,299.3	6,257.6	6,217.4	11.1	16.1	-65.63	-45.5	692.3	676.1	654.1	21.99	30.745	
6,400.0	6,399.3	6,356.9	6,316.0	11.2	16.4	-65.62	-46.3	704.3	687.7	665.4	22.34	30.783	
6,500.0	6,499.3	6,456.2	6,414.6	11.4	16.7	-65.60	-47.1	716.4	699.3	676.6	22.69	30.820	
6,600.0	6,599.3	6,555.5	6,513.2	11.6	17.0	-65.59	-48.0	728.5	710.9	687.9	23.04	30.855	
6,700.0	6,699.3	6,654.9	6,611.7	11.8	17.2	-65.57	-48.8	740.6	722.5	699.1	23.39	30.890	
6,800.0	6,799.2	6,754.2	6,710.3	11.9	17.5	-65.56	-49.6	752.6	734.1	710.4	23.74	30.923	
6,900.0	6,899.2	6,853.5	6,808.9	12.1	17.8	-65.54	-50.4	764.7	745.7	721.6	24.09	30.956	
7,000.0	6,999.0	6,952.6	6,907.3	12.3	18.1	85.74	-51.2	776.8	757.2	732.8	24.41	31.017	
7,100.0	7,096.7	7,049.3	7,003.3	12.4	18.3	87.67	-52.0	788.5	768.5	743.8	24.68	31.140	
7,200.0	7,189.1	7,140.8	7,094.0	12.6	18.6	89.44	-52.8	799.6	780.6	755.7	24.95	31.291	
7,300.0	7,273.6	7,226.3	7,178.9	12.8	18.8	91.46	-53.3	810.0	795.6	770.2	25.32	31.423	
7,400.0	7,347.6	7,328.8	7,279.9	13.1	19.1	94.01	-42.7	822.3	813.9	787.9	25.96	31.350	
7,500.0	7,408.8	7,448.5	7,393.4	13.5	19.4	96.74	-7.7	835.9	834.4	807.5	26.90	31.015	
7,600.0	7,455.3	7,594.2	7,517.9	14.2	19.8	99.74	65.7	850.5	855.5	827.4	28.13	30.418	
7,700.0	7,485.8	7,776.1	7,641.4	15.0	20.5	102.84	197.6	864.5	874.3	844.7	29.59	29.552	
7,800.0	7,499.3	7,999.1	7,727.7	16.0	21.8	105.20	401.5	873.2	886.5	855.2	31.34	28.285	
7,900.0	7,500.0	8,169.9	7,740.0	17.2	23.1	105.66	571.4	873.3	889.1	855.6	33.53	26.518	
8,000.0	7,500.0	8,269.9	7,740.0	18.4	24.1	105.65	671.4	872.4	890.0	854.1	35.89	24.796	
8,100.0	7,500.0	8,369.9	7,740.0	19.7	25.1	105.63	771.4	871.5	890.8	852.4	38.41	23.195	
8,200.0	7,500.0	8,469.9	7,740.0	21.1	26.2	105.61	871.4	870.7	891.7	850.6	41.04	21.724	
8,300.0	7,500.0	8,569.9	7,740.0	22.5	27.3	105.60	971.4	869.8	892.5	848.7	43.79	20.383	
8,400.0	7,500.0	8,669.9	7,740.0	24.0	28.6	105.58	1,071.4	868.9	893.3	846.7	46.61	19.165	
8,500.0	7,500.0	8,769.9	7,740.0	25.5	29.8	105.57	1,171.4	868.0	894.2	844.7	49.51	18.061	
8,600.0	7,500.0	8,869.9	7,740.0	27.0	31.2	105.55	1,271.4	867.2	895.0	842.6	52.47	17.059	
8,700.0	7,500.0	8,969.9	7,740.0	28.6	32.5	105.54	1,371.4	866.3	895.9	840.4	55.47	16.150	
8,800.0	7,500.0	9,069.9	7,740.0	30.2	33.9	105.52	1,471.4	865.4	896.7	838.2	58.52	15.324	
8,900.0	7,500.0	9,169.9	7,740.0	31.8	35.4	105.51	1,571.3	864.5	897.5	835.9	61.60	14.570	
9,000.0	7,500.0	9,269.9	7,740.0	33.4	36.8	105.50	1,671.3	863.7	898.4	833.7	64.71	13.882	
9,100.0	7,500.0	9,369.9	7,740.0	35.0	38.3	105.48	1,771.3	862.8	899.2	831.4	67.85	13.252	
9,200.0	7,500.0	9,469.8	7,740.0	36.6	39.8	105.46	1,871.3	861.9	900.5	829.5	71.02	12.680	
9,300.0	7,500.0	9,569.8	7,740.0	38.3	41.3	105.42	1,971.3	861.1	903.4	829.2	74.21	12.173	
9,400.0	7,500.0	9,669.7	7,740.0	40.0	42.9	105.35	2,071.1	860.2	908.0	830.5	77.43	11.726	
9,500.0	7,500.0	9,769.5	7,740.0	41.6	44.4	105.25	2,171.0	859.3	913.8	833.1	80.68	11.326	
9,600.0	7,500.0	9,869.3	7,740.0	43.3	46.0	105.15	2,270.8	858.4	919.7	835.8	83.94	10.958	
9,700.0	7,500.0	9,969.1	7,740.0	45.0	47.6	105.05	2,370.6	857.6	925.6	838.4	87.22	10.613	
9,800.0	7,500.0	10,068.9	7,740.0	46.7	49.2	104.96	2,470.4	856.7	931.5	841.0	90.51	10.292	
9,900.0	7,500.0	10,168.8	7,740.0	48.3	50.8	104.86	2,570.2	855.8	937.4	843.6	93.81	9.993	
10,000.0	7,500.0	10,268.6	7,740.0	50.0	52.4	104.77	2,670.0	855.0	943.3	846.2	97.12	9.713	
10,100.0	7,500.0	10,368.4	7,740.0	51.7	54.0	104.67	2,769.8	854.1	949.2	848.8	100.44	9.450	
10,200.0	7,500.0	10,468.2	7,740.0	53.4	55.7	104.58	2,869.6	853.2	955.1	851.3	103.77	9.204	
10,300.0	7,500.0	10,568.0	7,740.0	55.2	57.3	104.49	2,969.4	852.3	961.0	853.9	107.11	8.972	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 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				Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
10,400.0	7,500.0	10,667.8	7,740.0	56.9	58.9	104.40	3,069.2	851.5	966.9	856.5	110.45	8.754	
10,500.0	7,500.0	10,767.6	7,740.0	58.6	60.6	104.31	3,169.1	850.6	972.8	859.0	113.81	8.548	
10,600.0	7,500.0	10,867.5	7,740.0	60.3	62.2	104.22	3,268.9	849.7	978.8	861.6	117.17	8.353	
10,700.0	7,500.0	10,967.3	7,740.0	62.0	63.9	104.13	3,368.7	848.9	984.2	863.7	120.53	8.166	
10,800.0	7,500.0	11,067.2	7,740.0	63.7	65.6	104.06	3,468.6	848.0	988.1	864.2	123.89	7.975	
10,900.0	7,500.0	11,167.2	7,740.0	65.4	67.2	104.03	3,568.6	847.1	990.3	863.0	127.25	7.782	
11,000.0	7,500.0	11,267.2	7,740.0	67.2	68.9	104.02	3,668.6	846.2	990.7	860.1	130.59	7.587	
11,100.0	7,500.0	11,367.2	7,740.0	68.9	70.6	104.03	3,768.6	845.4	990.0	856.1	133.93	7.392	
11,184.3	7,500.0	11,443.9	7,740.0	70.3	71.9	104.04	3,845.3	844.9	989.6	852.8	136.72	7.238	
11,200.0	7,500.0	11,457.3	7,740.0	70.6	72.1	104.04	3,858.7	844.9	989.6	852.3	137.23	7.211	
11,300.0	7,500.0	11,543.0	7,740.0	72.3	73.6	104.02	3,944.4	845.6	990.5	850.0	140.51	7.050	
11,400.0	7,500.0	11,635.4	7,740.0	74.1	75.1	103.99	4,036.8	847.7	992.8	848.9	143.83	6.903	
11,500.0	7,500.0	11,735.4	7,740.0	75.8	76.8	103.96	4,136.7	850.2	995.2	848.0	147.20	6.761	
11,600.0	7,500.0	11,835.3	7,740.0	77.5	78.5	103.92	4,236.6	852.6	997.6	847.1	150.58	6.625	
11,700.0	7,500.0	11,935.3	7,740.0	79.2	80.3	103.89	4,336.6	855.0	1,000.1	846.1	153.96	6.496	
11,800.0	7,500.0	12,035.3	7,740.0	81.0	82.0	103.86	4,436.5	857.4	1,002.5	845.2	157.34	6.372	
11,900.0	7,500.0	12,135.2	7,740.0	82.7	83.7	103.82	4,536.5	859.9	1,005.0	844.2	160.73	6.253	
12,000.0	7,500.0	12,235.2	7,740.0	84.4	85.4	103.79	4,636.4	862.3	1,007.4	843.3	164.12	6.138	
12,100.0	7,500.0	12,335.2	7,740.0	86.2	87.1	103.75	4,736.3	864.7	1,009.9	842.3	167.51	6.029	
12,200.0	7,500.0	12,435.2	7,740.0	87.9	88.8	103.72	4,836.3	867.2	1,012.3	841.4	170.90	5.923	
12,300.0	7,500.0	12,535.1	7,740.0	89.6	90.5	103.69	4,936.2	869.6	1,014.7	840.4	174.30	5.822	
12,400.0	7,500.0	12,635.1	7,740.0	91.4	92.3	103.65	5,036.2	872.0	1,017.2	839.5	177.69	5.724	
12,500.0	7,500.0	12,735.1	7,740.0	93.1	94.0	103.62	5,136.1	874.5	1,019.6	838.5	181.09	5.630	
12,600.0	7,500.0	12,835.0	7,740.0	94.9	95.7	103.59	5,236.0	876.9	1,022.1	837.6	184.50	5.540	
12,700.0	7,500.0	12,935.0	7,740.0	96.6	97.4	103.55	5,336.0	879.3	1,024.5	836.6	187.90	5.452	
12,800.0	7,500.0	13,035.0	7,740.0	98.3	99.1	103.52	5,435.9	881.8	1,026.9	835.6	191.31	5.368	
12,900.0	7,500.0	13,134.9	7,740.0	100.1	100.9	103.49	5,535.9	884.2	1,029.4	834.7	194.71	5.287	
13,000.0	7,500.0	13,234.9	7,740.0	101.8	102.6	103.45	5,635.8	886.6	1,031.8	833.7	198.12	5.208	
13,100.0	7,500.0	13,334.9	7,740.0	103.5	104.3	103.42	5,735.7	889.0	1,034.3	832.7	201.53	5.132	
13,200.0	7,500.0	13,434.8	7,740.0	105.3	106.0	103.39	5,835.7	891.5	1,036.7	831.8	204.95	5.059	
13,300.0	7,500.0	13,534.8	7,740.0	107.0	107.8	103.36	5,935.6	893.9	1,039.2	830.8	208.36	4.987	
13,400.0	7,500.0	13,634.8	7,740.0	108.8	109.5	103.33	6,035.5	896.3	1,041.6	829.8	211.78	4.918	
13,500.0	7,500.0	13,734.7	7,740.0	110.5	111.2	103.29	6,135.5	898.8	1,044.1	828.9	215.19	4.852	
13,600.0	7,500.0	13,834.7	7,740.0	112.3	113.0	103.26	6,235.4	901.2	1,046.5	827.9	218.61	4.787	
13,700.0	7,500.0	13,934.7	7,740.0	114.0	114.7	103.23	6,335.4	903.6	1,049.0	826.9	222.03	4.724	
13,800.0	7,500.0	14,034.6	7,740.0	115.7	116.4	103.20	6,435.3	906.1	1,051.4	825.9	225.45	4.663	
13,900.0	7,500.0	14,134.6	7,740.0	117.5	118.2	103.17	6,535.2	908.5	1,053.9	825.0	228.88	4.604	
14,000.0	7,500.0	14,234.6	7,740.0	119.2	119.9	103.14	6,635.2	910.9	1,056.3	824.0	232.30	4.547	
14,100.0	7,500.0	14,334.6	7,740.0	121.0	121.6	103.11	6,735.1	913.3	1,058.7	823.0	235.73	4.491	
14,200.0	7,500.0	14,434.5	7,740.0	122.7	123.4	103.08	6,835.1	915.8	1,061.2	822.0	239.15	4.437	
14,300.0	7,500.0	14,534.5	7,740.0	124.5	125.1	103.04	6,935.0	918.2	1,063.6	821.1	242.58	4.385	
14,400.0	7,500.0	14,634.5	7,740.0	126.2	126.8	103.01	7,034.9	920.6	1,066.1	820.1	246.01	4.334	
14,422.5	7,500.0	14,656.9	7,740.0	126.6	127.2	103.01	7,057.4	921.2	1,066.6	819.9	246.78	4.322 SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2F-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		
0.0	0.0	0.0	0.0	0.0	0.0	90.69	-0.4	30.2	30.2					
100.0	100.0	100.0	100.0	0.2	0.2	90.69	-0.4	30.2	30.2	29.9	0.30	99.540		
200.0	200.0	200.0	200.0	0.3	0.3	90.69	-0.4	30.2	30.2	29.6	0.65	46.310		
300.0	300.0	300.0	300.0	0.5	0.5	90.69	-0.4	30.2	30.2	29.2	1.00	30.174 CC, ES		
400.0	400.0	399.5	399.4	0.7	0.7	-130.74	-0.2	31.1	31.7	30.3	1.35	23.441		
500.0	500.0	498.8	498.7	0.9	0.9	-134.35	0.1	33.6	36.0	34.3	1.70	21.190 SF		
600.0	599.9	597.7	597.6	1.0	1.0	-138.71	0.7	37.9	43.5	41.5	2.05	21.223		
700.0	699.8	696.4	696.1	1.2	1.2	-135.24	1.5	43.8	52.8	50.4	2.40	22.015		
800.0	799.7	795.0	794.4	1.4	1.4	-119.22	2.5	51.4	62.3	59.6	2.75	22.698		
900.0	899.7	893.4	892.3	1.6	1.7	-77.07	3.7	60.6	72.0	68.9	3.09	23.289		
1,000.0	999.7	991.5	989.8	1.7	1.9	-77.09	5.2	71.5	82.8	79.4	3.43	24.114		
1,100.0	1,099.7	1,089.2	1,086.7	1.9	2.2	-77.00	6.9	84.0	95.3	91.6	3.78	25.246		
1,200.0	1,199.7	1,186.4	1,182.9	2.1	2.4	-76.83	8.8	98.0	109.6	105.4	4.12	26.607		
1,300.0	1,299.7	1,283.2	1,278.4	2.3	2.8	-76.63	10.9	113.6	125.4	121.0	4.46	28.147		
1,400.0	1,399.7	1,379.4	1,373.0	2.4	3.1	-76.41	13.2	130.7	143.0	138.2	4.79	29.827		
1,500.0	1,499.7	1,475.8	1,467.6	2.6	3.4	-76.19	15.7	149.3	162.1	156.9	5.13	31.581		
1,600.0	1,599.7	1,573.9	1,563.7	2.8	3.8	-75.99	18.3	168.6	181.5	176.1	5.48	33.135		
1,700.0	1,699.7	1,672.0	1,659.9	3.0	4.2	-75.84	21.0	187.9	201.0	195.2	5.83	34.505		
1,800.0	1,799.6	1,770.1	1,756.0	3.1	4.5	-75.71	23.6	207.2	220.5	214.4	6.17	35.721		
1,900.0	1,899.6	1,868.2	1,852.1	3.3	4.9	-75.60	26.2	226.5	240.0	233.5	6.52	36.808		
2,000.0	1,999.6	1,966.2	1,948.2	3.5	5.3	-75.51	28.8	245.8	259.5	252.6	6.87	37.786		
2,100.0	2,099.6	2,064.3	2,044.4	3.7	5.6	-75.43	31.4	265.2	279.0	271.8	7.22	38.669		
2,200.0	2,199.6	2,162.4	2,140.5	3.8	6.0	-75.37	34.0	284.5	298.5	290.9	7.56	39.472		
2,300.0	2,299.6	2,260.5	2,236.6	4.0	6.4	-75.31	36.6	303.8	318.0	310.1	7.91	40.205		
2,400.0	2,399.6	2,358.6	2,332.7	4.2	6.8	-75.25	39.2	323.1	337.5	329.2	8.26	40.876		
2,500.0	2,499.6	2,456.6	2,428.9	4.4	7.2	-75.21	41.8	342.4	357.0	348.4	8.60	41.493		
2,600.0	2,599.6	2,554.7	2,525.0	4.6	7.5	-75.16	44.4	361.7	376.5	367.5	8.95	42.062		
2,700.0	2,699.6	2,652.8	2,621.1	4.7	7.9	-75.13	47.1	381.0	396.0	386.7	9.30	42.589		
2,800.0	2,799.6	2,750.9	2,717.2	4.9	8.3	-75.09	49.7	400.3	415.5	405.8	9.64	43.078		
2,900.0	2,899.6	2,849.0	2,813.4	5.1	8.7	-75.06	52.3	419.6	435.0	425.0	9.99	43.534		
3,000.0	2,999.5	2,947.0	2,909.5	5.3	9.1	-75.03	54.9	438.9	454.5	444.1	10.34	43.958		
3,100.0	3,099.5	3,045.1	3,005.6	5.4	9.5	-75.01	57.5	458.3	474.0	463.3	10.69	44.356		
3,200.0	3,199.5	3,143.2	3,101.7	5.6	9.8	-74.98	60.1	477.6	493.5	482.4	11.03	44.728		
3,300.0	3,299.5	3,241.3	3,197.9	5.8	10.2	-74.96	62.7	496.9	513.0	501.6	11.38	45.077		
3,400.0	3,399.5	3,339.4	3,294.0	6.0	10.6	-74.94	65.3	516.2	532.5	520.8	11.73	45.406		
3,500.0	3,499.5	3,437.4	3,390.1	6.1	11.0	-74.92	67.9	535.5	552.0	539.9	12.07	45.716		
3,600.0	3,599.5	3,535.5	3,486.2	6.3	11.4	-74.90	70.5	554.8	571.5	559.1	12.42	46.009		
3,700.0	3,699.5	3,633.6	3,582.4	6.5	11.8	-74.88	73.2	574.1	591.0	578.2	12.77	46.286		
3,800.0	3,799.5	3,731.7	3,678.5	6.7	12.1	-74.87	75.8	593.4	610.5	597.4	13.11	46.548		
3,900.0	3,899.5	3,829.8	3,774.6	6.8	12.5	-74.85	78.4	612.7	630.0	616.5	13.46	46.797		
4,000.0	3,999.5	3,927.8	3,870.7	7.0	12.9	-74.84	81.0	632.0	649.5	635.7	13.81	47.033		
4,100.0	4,099.5	4,025.9	3,966.9	7.2	13.3	-74.83	83.6	651.3	669.0	654.8	14.16	47.258		
4,200.0	4,199.5	4,124.0	4,063.0	7.4	13.7	-74.82	86.2	670.7	688.5	674.0	14.50	47.472		
4,300.0	4,299.4	4,222.1	4,159.1	7.5	14.1	-74.80	88.8	690.0	708.0	693.1	14.85	47.676		
4,400.0	4,399.4	4,320.2	4,255.2	7.7	14.4	-74.79	91.4	709.3	727.5	712.3	15.20	47.871		
4,500.0	4,499.4	4,418.2	4,351.4	7.9	14.8	-74.78	94.0	728.6	747.0	731.4	15.54	48.057		
4,600.0	4,599.4	4,516.3	4,447.5	8.1	15.2	-74.77	96.6	747.9	766.5	750.6	15.89	48.234		
4,700.0	4,699.4	4,614.4	4,543.6	8.2	15.6	-74.76	99.3	767.2	786.0	769.7	16.24	48.405		
4,800.0	4,799.4	4,712.5	4,639.8	8.4	16.0	-74.75	101.9	786.5	805.5	788.9	16.58	48.568		
4,900.0	4,899.4	4,810.6	4,735.9	8.6	16.4	-74.75	104.5	805.8	825.0	808.0	16.93	48.724		
5,000.0	4,999.4	4,908.6	4,832.0	8.8	16.8	-74.74	107.1	825.1	844.5	827.2	17.28	48.875		
5,100.0	5,099.4	5,006.7	4,928.1	8.9	17.1	-74.73	109.7	844.4	864.0	846.3	17.62	49.019		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2F-7H-E168 - Hz - Plan #4												Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD												Offset Well Error:	0.0 ft
Offset				Semi Major Axis			Distance					Warning	
Reference		Offset		Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis		Separation Factor
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	(ft)	(ft)		+N/-S (ft)	+E/-W (ft)	(ft)	(ft)			
5,200.0	5,199.4	5,104.8	5,024.3	9.1	17.5	-74.72	112.3	863.8	883.4	865.5	17.97		49.158
5,300.0	5,299.4	5,202.9	5,120.4	9.3	17.9	-74.72	114.9	883.1	902.9	884.6	18.32	49.291	
5,400.0	5,399.4	5,301.0	5,216.5	9.5	18.3	-74.71	117.5	902.4	922.4	903.8	18.67	49.420	
5,500.0	5,499.3	5,399.0	5,312.6	9.6	18.7	-74.70	120.1	921.7	941.9	922.9	19.01	49.544	
5,600.0	5,599.3	5,497.1	5,408.8	9.8	19.1	-74.70	122.8	941.0	961.4	942.1	19.36	49.663	
5,700.0	5,699.3	5,595.2	5,504.9	10.0	19.5	-74.69	125.4	960.3	980.9	961.2	19.71	49.778	
5,800.0	5,799.3	5,693.3	5,601.0	10.2	19.8	-74.68	128.0	979.6	1,000.4	980.4	20.05	49.890	
5,900.0	5,899.3	5,791.4	5,697.1	10.4	20.2	-74.68	130.6	998.9	1,019.9	999.5	20.40	49.997	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2G-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	90.56	-0.4	37.5	37.5				
100.0	100.0	100.0	100.0	0.2	0.2	90.56	-0.4	37.5	37.5	37.2	0.30	123.501	
200.0	200.0	200.0	200.0	0.3	0.3	90.56	-0.4	37.5	37.5	36.9	0.65	57.458	
203.3	203.3	203.3	203.3	0.3	0.3	90.56	-0.4	37.5	37.5	36.8	0.66	56.450 CC	
300.0	300.0	299.7	299.7	0.5	0.5	90.62	-0.4	37.7	37.7	36.7	1.00	37.673 ES	
400.0	400.0	399.0	399.0	0.7	0.7	-129.92	-0.7	39.4	40.0	38.6	1.35	29.634	
500.0	500.0	498.1	498.0	0.9	0.9	-131.66	-1.3	42.8	45.1	43.4	1.70	26.546	
600.0	599.9	597.0	596.7	1.0	1.0	-133.97	-2.2	47.8	53.1	51.1	2.05	25.894 SF	
700.0	699.8	695.5	695.1	1.2	1.2	-128.82	-3.4	54.6	62.7	60.3	2.40	26.106	
800.0	799.7	793.9	793.1	1.4	1.5	-111.39	-4.8	62.9	72.5	69.8	2.75	26.343	
900.0	899.7	892.1	890.8	1.6	1.7	-67.96	-6.6	72.9	82.5	79.4	3.10	26.608	
1,000.0	999.7	990.0	988.0	1.7	2.0	-66.81	-8.7	84.5	93.7	90.3	3.45	27.181	
1,100.0	1,099.7	1,087.5	1,084.5	1.9	2.2	-65.72	-11.0	97.7	106.6	102.8	3.79	28.107	
1,200.0	1,199.7	1,184.5	1,180.4	2.1	2.5	-64.70	-13.6	112.4	121.1	117.0	4.13	29.300	
1,300.0	1,299.7	1,281.1	1,275.5	2.3	2.8	-63.78	-16.4	128.6	137.3	132.9	4.47	30.700	
1,400.0	1,399.7	1,377.0	1,369.8	2.4	3.2	-62.95	-19.6	146.3	155.2	150.4	4.81	32.265	
1,500.0	1,499.7	1,472.4	1,463.1	2.6	3.6	-62.21	-22.9	165.4	174.8	169.6	5.15	33.963	
1,600.0	1,599.7	1,567.0	1,555.5	2.8	3.9	-61.54	-26.5	185.9	195.9	190.4	5.48	35.770	
1,700.0	1,699.7	1,661.0	1,646.8	3.0	4.4	-60.96	-30.4	207.7	218.7	212.9	5.81	37.668	
1,800.0	1,799.6	1,754.4	1,737.2	3.1	4.8	-60.43	-34.5	230.9	243.1	236.9	6.13	39.639	
1,900.0	1,899.6	1,851.0	1,830.5	3.3	5.2	-60.17	-37.9	255.6	268.2	261.7	6.47	41.433	
2,000.0	1,999.6	1,947.6	1,923.8	3.5	5.7	-60.27	-39.8	280.5	293.4	286.6	6.81	43.059	
2,100.0	2,099.6	2,048.0	2,020.9	3.7	6.2	-60.61	-40.3	306.1	318.3	311.1	7.17	44.371	
2,200.0	2,199.6	2,151.1	2,121.0	3.8	6.6	-60.92	-40.8	330.7	341.6	334.0	7.54	45.280	
2,300.0	2,299.6	2,248.5	2,215.8	4.0	7.0	-61.17	-41.2	353.1	364.0	356.1	7.89	46.144	
2,400.0	2,399.6	2,346.0	2,310.6	4.2	7.5	-61.39	-41.6	375.5	386.4	378.2	8.23	46.936	
2,500.0	2,499.6	2,443.4	2,405.5	4.4	7.9	-61.59	-42.0	398.0	408.9	400.3	8.58	47.665	
2,600.0	2,599.6	2,540.8	2,500.3	4.6	8.3	-61.77	-42.4	420.4	431.3	422.4	8.92	48.338	
2,700.0	2,699.6	2,638.3	2,595.1	4.7	8.8	-61.93	-42.8	442.8	453.8	444.5	9.27	48.961	
2,800.0	2,799.6	2,735.7	2,689.9	4.9	9.2	-62.07	-43.2	465.3	476.2	466.6	9.61	49.540	
2,900.0	2,899.6	2,833.2	2,784.7	5.1	9.6	-62.21	-43.6	487.7	498.7	488.7	9.96	50.079	
3,000.0	2,999.5	2,930.6	2,879.6	5.3	10.1	-62.33	-44.0	510.1	521.1	510.8	10.30	50.582	
3,100.0	3,099.5	3,028.0	2,974.4	5.4	10.5	-62.44	-44.4	532.5	543.6	532.9	10.65	51.052	
3,200.0	3,199.5	3,125.5	3,069.2	5.6	10.9	-62.54	-44.8	555.0	566.0	555.0	10.99	51.493	
3,300.0	3,299.5	3,222.9	3,164.0	5.8	11.4	-62.63	-45.2	577.4	588.5	577.2	11.34	51.907	
3,400.0	3,399.5	3,320.4	3,258.9	6.0	11.8	-62.72	-45.6	599.8	611.0	599.3	11.68	52.297	
3,500.0	3,499.5	3,417.8	3,353.7	6.1	12.2	-62.80	-46.1	622.3	633.4	621.4	12.03	52.665	
3,600.0	3,599.5	3,515.2	3,448.5	6.3	12.6	-62.87	-46.5	644.7	655.9	643.5	12.37	53.012	
3,700.0	3,699.5	3,612.7	3,543.3	6.5	13.1	-62.94	-46.9	667.1	678.3	665.6	12.72	53.341	
3,800.0	3,799.5	3,710.1	3,638.2	6.7	13.5	-63.01	-47.3	689.6	700.8	687.7	13.06	53.652	
3,900.0	3,899.5	3,807.6	3,733.0	6.8	14.0	-63.07	-47.7	712.0	723.3	709.9	13.41	53.947	
4,000.0	3,999.5	3,905.0	3,827.8	7.0	14.4	-63.13	-48.1	734.4	745.7	732.0	13.75	54.227	
4,100.0	4,099.5	4,002.4	3,922.6	7.2	14.8	-63.18	-48.5	756.9	768.2	754.1	14.10	54.494	
4,200.0	4,199.5	4,099.9	4,017.4	7.4	15.3	-63.24	-48.9	779.3	790.7	776.2	14.44	54.748	
4,300.0	4,299.4	4,197.3	4,112.3	7.5	15.7	-63.28	-49.3	801.7	813.1	798.4	14.79	54.990	
4,400.0	4,399.4	4,294.8	4,207.1	7.7	16.1	-63.33	-49.7	824.1	835.6	820.5	15.13	55.222	
4,500.0	4,499.4	4,392.2	4,301.9	7.9	16.6	-63.37	-50.1	846.6	858.1	842.6	15.48	55.443	
4,600.0	4,599.4	4,489.6	4,396.7	8.1	17.0	-63.42	-50.5	869.0	880.6	864.7	15.82	55.654	
4,700.0	4,699.4	4,587.1	4,491.6	8.2	17.4	-63.45	-50.9	891.4	903.0	886.9	16.17	55.856	
4,800.0	4,799.4	4,684.5	4,586.4	8.4	17.9	-63.49	-51.3	913.9	925.5	909.0	16.51	56.050	
4,900.0	4,899.4	4,782.0	4,681.2	8.6	18.3	-63.53	-51.7	936.3	948.0	931.1	16.86	56.236	
5,000.0	4,999.4	4,879.4	4,776.0	8.8	18.7	-63.56	-52.1	958.7	970.4	953.2	17.20	56.415	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2G-7H-E168 - Hz - Plan #3		Offset Site Error:		0.0 ft	
Survey Program:												0-Geolink MWD		Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning				
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor					
5,100.0	5,099.4	4,976.9	4,870.9	8.9	19.2	-63.59	-52.5	981.2	992.9	975.4	17.55	56.586					
5,200.0	5,199.4	5,074.3	4,965.7	9.1	19.6	-63.63	-52.9	1,003.6	1,015.4	997.5	17.89	56.751					



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2H-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									
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	90.46	-0.4	45.1	45.1						
100.0	100.0	100.0	100.0	0.2	0.2	90.46	-0.4	45.1	45.1	44.8	0.30	148.383			
200.0	200.0	200.0	200.0	0.3	0.3	90.46	-0.4	45.1	45.1	44.4	0.65	69.034 CC, ES			
300.0	300.0	299.2	299.2	0.5	0.5	90.49	-0.4	45.9	45.9	44.9	1.00	45.911			
400.0	400.0	398.3	398.3	0.7	0.7	-130.20	-0.5	48.5	49.1	47.7	1.35	36.412			
500.0	500.0	497.2	497.1	0.9	0.9	-132.06	-0.6	52.8	55.1	53.4	1.70	32.488			
600.0	599.9	595.8	595.5	1.0	1.1	-134.50	-0.8	58.7	64.1	62.1	2.05	31.318			
700.0	699.8	694.0	693.4	1.2	1.3	-129.71	-1.0	66.3	74.8	72.4	2.40	31.206 SF			
800.0	799.7	792.0	791.0	1.4	1.5	-112.90	-1.3	75.6	85.7	82.9	2.74	31.227			
900.0	899.7	889.9	888.2	1.6	1.7	-70.22	-1.7	86.5	96.8	93.7	3.09	31.331			
1,000.0	999.7	987.4	984.9	1.7	2.0	-69.82	-2.0	99.1	109.1	105.6	3.43	31.775			
1,100.0	1,099.7	1,084.5	1,081.0	1.9	2.3	-69.39	-2.5	113.2	123.0	119.2	3.77	32.596			
1,200.0	1,199.7	1,181.1	1,176.3	2.1	2.6	-68.96	-3.0	128.8	138.6	134.5	4.11	33.700			
1,300.0	1,299.7	1,277.1	1,270.8	2.3	2.9	-68.54	-3.5	146.0	155.9	151.5	4.45	35.024			
1,400.0	1,399.7	1,372.6	1,364.4	2.4	3.3	-68.14	-4.1	164.6	174.8	170.0	4.79	36.522			
1,500.0	1,499.7	1,467.4	1,457.1	2.6	3.7	-67.77	-4.7	184.6	195.4	190.2	5.12	38.160			
1,600.0	1,599.7	1,561.5	1,548.7	2.8	4.1	-67.43	-5.4	206.0	217.5	212.1	5.45	39.913			
1,700.0	1,699.7	1,654.9	1,639.3	3.0	4.5	-67.11	-6.1	228.7	241.3	235.5	5.78	41.762			
1,800.0	1,799.6	1,747.6	1,728.8	3.1	5.0	-66.82	-6.8	252.7	266.6	260.5	6.10	43.693			
1,900.0	1,899.6	1,839.4	1,817.1	3.3	5.4	-66.55	-7.6	277.9	293.4	287.0	6.42	45.693			
2,000.0	1,999.6	1,930.4	1,904.2	3.5	5.9	-66.30	-8.4	304.3	321.8	315.1	6.74	47.753			
2,100.0	2,099.6	2,020.6	1,990.1	3.7	6.4	-66.08	-9.3	331.7	351.7	344.7	7.05	49.866			
2,200.0	2,199.6	2,113.4	2,078.1	3.8	7.0	-65.87	-10.2	361.2	382.9	375.5	7.38	51.859			
2,300.0	2,299.6	2,208.4	2,168.2	4.0	7.5	-65.68	-11.1	391.4	414.1	406.4	7.72	53.621			
2,400.0	2,399.6	2,303.4	2,258.2	4.2	8.1	-65.52	-12.0	421.6	445.4	437.3	8.06	55.236			
2,500.0	2,499.6	2,398.3	2,348.3	4.4	8.7	-65.38	-13.0	451.8	476.6	468.2	8.40	56.721			
2,600.0	2,599.6	2,493.3	2,438.3	4.6	9.2	-65.26	-13.9	482.0	507.9	499.1	8.74	58.092			
2,700.0	2,699.6	2,588.3	2,528.4	4.7	9.8	-65.15	-14.9	512.2	539.1	530.1	9.08	59.360			
2,800.0	2,799.6	2,683.3	2,618.4	4.9	10.4	-65.06	-15.8	542.4	570.4	561.0	9.42	60.538			
2,900.0	2,899.6	2,778.3	2,708.4	5.1	10.9	-64.97	-16.7	572.7	601.7	591.9	9.76	61.635			
3,000.0	2,999.5	2,873.3	2,798.5	5.3	11.5	-64.90	-17.7	602.9	632.9	622.8	10.10	62.658			
3,100.0	3,099.5	2,968.3	2,888.5	5.4	12.1	-64.83	-18.6	633.1	664.2	653.7	10.44	63.615			
3,200.0	3,199.5	3,063.2	2,978.6	5.6	12.6	-64.76	-19.5	663.3	695.4	684.7	10.78	64.512			
3,300.0	3,299.5	3,158.2	3,068.6	5.8	13.2	-64.70	-20.5	693.5	726.7	715.6	11.12	65.355			
3,400.0	3,399.5	3,253.2	3,158.7	6.0	13.8	-64.65	-21.4	723.7	758.0	746.5	11.46	66.148			
3,500.0	3,499.5	3,348.2	3,248.7	6.1	14.4	-64.60	-22.4	753.9	789.2	777.4	11.80	66.896			
3,600.0	3,599.5	3,443.2	3,338.8	6.3	14.9	-64.56	-23.3	784.1	820.5	808.4	12.14	67.602			
3,700.0	3,699.5	3,538.2	3,428.8	6.5	15.5	-64.51	-24.2	814.4	851.8	839.3	12.48	68.270			
3,800.0	3,799.5	3,633.1	3,518.9	6.7	16.1	-64.48	-25.2	844.6	883.0	870.2	12.82	68.903			
3,900.0	3,899.5	3,728.1	3,608.9	6.8	16.6	-64.44	-26.1	874.8	914.3	901.1	13.15	69.503			
4,000.0	3,999.5	3,823.1	3,699.0	7.0	17.2	-64.40	-27.1	905.0	945.6	932.1	13.49	70.074			
4,100.0	4,099.5	3,918.1	3,789.0	7.2	17.8	-64.37	-28.0	935.2	976.8	963.0	13.83	70.616			
4,200.0	4,199.5	4,013.1	3,879.1	7.4	18.4	-64.34	-28.9	965.4	1,008.1	993.9	14.17	71.133			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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	
0.0	0.0	0.0	0.0	0.0	0.0	-89.96	0.4	-508.0	508.0				
100.0	100.0	100.0	100.0	0.2	0.2	-89.96	0.4	-508.0	508.0	507.7	0.30	1,672.710	
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.4	-508.0	508.0	507.3	0.65	778.213	
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.4	-508.0	508.0	507.3	0.65	778.179	
300.0	300.0	300.0	300.0	0.5	0.5	-89.86	1.2	-508.0	508.0	507.0	1.00	506.607	
400.0	400.0	399.9	399.8	0.7	0.7	50.52	3.9	-508.0	507.4	506.1	1.36	373.880	
500.0	500.0	499.5	499.4	0.9	0.9	51.25	8.2	-508.0	505.9	504.1	1.72	293.853	
600.0	599.9	598.8	598.5	1.0	1.1	52.34	14.2	-508.0	503.3	501.2	2.10	239.579	
700.0	699.8	698.0	697.4	1.2	1.3	60.24	21.6	-508.0	501.2	498.8	2.49	201.526	
784.6	784.4	782.2	781.4	1.4	1.4	74.49	28.0	-508.0	500.7	497.9	2.81	177.871	CC
800.0	799.7	797.5	796.6	1.4	1.5	78.87	29.1	-508.0	500.7	497.8	2.87	174.197	
900.0	899.7	897.1	895.9	1.6	1.7	122.46	36.6	-508.0	501.7	498.4	3.26	153.842	
1,000.0	999.7	996.7	995.3	1.7	1.9	123.43	44.2	-508.0	503.2	499.5	3.65	137.913	
1,100.0	1,099.7	1,096.3	1,094.6	1.9	2.1	124.39	51.7	-508.0	504.8	500.8	4.04	125.063	
1,200.0	1,199.7	1,196.0	1,193.9	2.1	2.3	125.35	59.2	-508.0	506.6	502.2	4.42	114.495	
1,300.0	1,299.7	1,295.6	1,293.3	2.3	2.5	126.31	66.7	-508.0	508.5	503.7	4.81	105.662	
1,400.0	1,399.7	1,395.2	1,392.6	2.4	2.8	127.25	74.2	-508.0	510.6	505.4	5.20	98.179	
1,500.0	1,499.7	1,494.8	1,492.0	2.6	3.0	128.19	81.7	-508.0	512.8	507.2	5.59	91.765	
1,600.0	1,599.7	1,594.4	1,591.3	2.8	3.2	129.12	89.3	-508.0	515.2	509.2	5.98	86.213	
1,700.0	1,699.7	1,694.1	1,690.6	3.0	3.4	130.04	96.8	-508.0	517.7	511.3	6.36	81.366	
1,800.0	1,799.6	1,793.7	1,790.0	3.1	3.6	130.95	104.3	-508.0	520.3	513.5	6.75	77.100	
1,900.0	1,899.6	1,893.3	1,889.3	3.3	3.8	131.85	111.8	-508.0	523.0	515.9	7.13	73.322	
2,000.0	1,999.6	1,992.9	1,988.7	3.5	4.1	132.74	119.3	-508.0	525.9	518.4	7.52	69.955	
2,100.0	2,099.6	2,092.6	2,088.0	3.7	4.3	133.62	126.8	-508.0	528.9	521.0	7.90	66.939	
2,200.0	2,199.6	2,192.2	2,187.3	3.8	4.5	134.50	134.3	-508.0	532.0	523.7	8.28	64.224	
2,300.0	2,299.6	2,291.8	2,286.7	4.0	4.7	135.36	141.9	-508.0	535.3	526.6	8.67	61.769	
2,400.0	2,399.6	2,391.4	2,386.0	4.2	4.9	136.21	149.4	-508.0	538.7	529.6	9.05	59.540	
2,500.0	2,499.6	2,491.0	2,485.3	4.4	5.1	137.05	156.9	-508.0	542.1	532.7	9.43	57.510	
2,600.0	2,599.6	2,590.7	2,584.7	4.6	5.4	137.88	164.4	-508.0	545.8	535.9	9.81	55.654	
2,700.0	2,699.6	2,690.3	2,684.0	4.7	5.6	138.70	171.9	-508.0	549.5	539.3	10.18	53.952	
2,800.0	2,799.6	2,789.9	2,783.4	4.9	5.8	139.51	179.4	-508.0	553.3	542.7	10.56	52.388	
2,900.0	2,899.6	2,889.5	2,882.7	5.1	6.0	140.30	187.0	-508.0	557.2	546.3	10.94	50.946	
3,000.0	2,999.5	2,989.2	2,982.0	5.3	6.2	141.09	194.5	-508.0	561.3	550.0	11.31	49.614	
3,100.0	3,099.5	3,088.8	3,081.4	5.4	6.5	141.86	202.0	-508.0	565.4	553.8	11.69	48.380	
3,200.0	3,199.5	3,188.4	3,180.7	5.6	6.7	142.63	209.5	-508.0	569.7	557.6	12.06	47.235	
3,300.0	3,299.5	3,288.0	3,280.1	5.8	6.9	143.38	217.0	-508.0	574.0	561.6	12.43	46.170	
3,400.0	3,399.5	3,387.7	3,379.4	6.0	7.1	144.12	224.5	-508.0	578.5	565.7	12.80	45.178	
3,500.0	3,499.5	3,487.3	3,478.7	6.1	7.3	144.85	232.0	-508.0	583.0	569.9	13.18	44.252	
3,600.0	3,599.5	3,586.9	3,578.1	6.3	7.5	145.56	239.6	-508.0	587.7	574.1	13.55	43.387	
3,700.0	3,699.5	3,686.5	3,677.4	6.5	7.8	146.27	247.1	-508.0	592.4	578.5	13.91	42.577	
3,800.0	3,799.5	3,786.1	3,776.7	6.7	8.0	146.96	254.6	-508.0	597.2	582.9	14.28	41.818	
3,900.0	3,899.5	3,885.8	3,876.1	6.8	8.2	147.65	262.1	-508.0	602.1	587.5	14.65	41.105	
4,000.0	3,999.5	3,985.4	3,975.4	7.0	8.4	148.32	269.6	-508.0	607.1	592.1	15.01	40.435	
4,100.0	4,099.5	4,085.0	4,074.8	7.2	8.6	148.98	277.1	-508.0	612.2	596.8	15.38	39.805	
4,200.0	4,199.5	4,184.6	4,174.1	7.4	8.8	149.63	284.6	-508.0	617.3	601.6	15.74	39.210	
4,300.0	4,299.4	4,284.3	4,273.4	7.5	9.1	150.27	292.2	-508.0	622.6	606.5	16.11	38.650	
4,400.0	4,399.4	4,383.9	4,372.8	7.7	9.3	150.90	299.7	-508.0	627.9	611.4	16.47	38.121	
4,500.0	4,499.4	4,483.5	4,472.1	7.9	9.5	151.52	307.2	-508.0	633.3	616.4	16.83	37.620	
4,600.0	4,599.4	4,583.1	4,571.5	8.1	9.7	152.13	314.7	-508.0	638.7	621.5	17.19	37.147	
4,700.0	4,699.4	4,682.7	4,670.8	8.2	9.9	152.72	322.2	-508.0	644.3	626.7	17.56	36.698	
4,800.0	4,799.4	4,782.4	4,770.1	8.4	10.2	153.31	329.7	-508.0	649.8	631.9	17.92	36.273	
4,900.0	4,899.4	4,882.0	4,869.5	8.6	10.4	153.89	337.3	-508.0	655.5	637.2	18.27	35.870	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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	4,999.4	4,981.6	4,968.8	8.8	10.6	154.46	344.8	-508.0	661.2	642.6	18.63	35.487		
5,100.0	5,099.4	5,081.2	5,068.1	8.9	10.8	155.02	352.3	-508.0	667.0	648.0	18.99	35.123		
5,200.0	5,199.4	5,180.9	5,167.5	9.1	11.0	155.56	359.8	-508.0	672.9	653.5	19.35	34.776		
5,300.0	5,299.4	5,280.5	5,266.8	9.3	11.2	156.10	367.3	-508.0	678.8	659.1	19.71	34.447		
5,400.0	5,399.4	5,380.1	5,366.2	9.5	11.5	156.63	374.8	-508.0	684.8	664.7	20.06	34.132		
5,500.0	5,499.3	5,479.7	5,465.5	9.6	11.7	157.15	382.3	-508.0	690.8	670.4	20.42	33.833		
5,600.0	5,599.3	5,579.3	5,564.8	9.8	11.9	157.66	389.9	-508.0	696.9	676.1	20.77	33.547		
5,700.0	5,699.3	5,679.0	5,664.2	10.0	12.1	158.17	397.4	-508.0	703.0	681.9	21.13	33.275		
5,800.0	5,799.3	5,778.6	5,763.5	10.2	12.3	158.66	404.9	-508.0	709.2	687.7	21.48	33.014		
5,900.0	5,899.3	5,878.2	5,862.9	10.4	12.5	159.14	412.4	-508.0	715.5	693.6	21.84	32.766		
6,000.0	5,999.3	5,977.8	5,962.2	10.5	12.8	159.62	419.9	-508.0	721.8	699.6	22.19	32.528		
6,100.0	6,099.3	6,077.5	6,061.5	10.7	13.0	160.09	427.4	-508.0	728.1	705.6	22.54	32.300		
6,200.0	6,199.3	6,177.1	6,160.9	10.9	13.2	160.55	434.9	-508.0	734.5	711.6	22.89	32.082		
6,300.0	6,299.3	6,276.7	6,260.2	11.1	13.4	161.00	442.5	-508.0	740.9	717.7	23.25	31.873		
6,400.0	6,399.3	6,376.3	6,359.5	11.2	13.6	161.45	450.0	-508.0	747.4	723.8	23.60	31.673		
6,500.0	6,499.3	6,475.9	6,458.9	11.4	13.9	161.88	457.5	-508.0	754.0	730.0	23.95	31.481		
6,600.0	6,599.3	6,575.6	6,558.2	11.6	14.1	162.31	465.0	-508.0	760.5	736.2	24.30	31.296		
6,700.0	6,699.3	6,675.2	6,657.6	11.8	14.3	162.74	472.5	-508.0	767.1	742.5	24.65	31.119		
6,800.0	6,799.2	6,774.8	6,756.9	11.9	14.5	163.15	480.0	-508.0	773.8	748.8	25.00	30.949		
6,900.0	6,899.2	6,874.4	6,856.2	12.1	14.7	163.56	487.6	-508.0	780.5	755.1	25.35	30.786		
7,000.0	6,999.0	6,974.3	6,955.8	12.3	14.9	-44.44	495.1	-508.0	783.2	757.5	25.71	30.462		
7,100.0	7,096.7	7,073.2	7,054.4	12.4	15.2	-44.39	502.5	-508.0	773.3	747.2	26.11	29.623		
7,200.0	7,189.1	7,443.1	7,415.5	12.6	15.1	-59.05	452.7	-508.0	746.5	720.7	25.79	28.945		
7,300.0	7,273.6	7,656.8	7,586.6	12.8	14.4	-84.95	326.6	-508.0	683.3	658.5	24.83	27.515		
7,400.0	7,347.6	7,659.7	7,588.6	13.1	14.4	-92.35	324.5	-508.0	625.1	599.3	25.81	24.218		
7,500.0	7,408.8	7,632.0	7,569.3	13.5	14.5	-94.63	344.4	-508.0	578.4	551.3	27.11	21.337		
7,600.0	7,455.3	7,594.4	7,541.7	14.2	14.6	-94.10	369.9	-508.0	546.3	517.8	28.48	19.183		
7,700.0	7,485.8	7,552.5	7,509.0	15.0	14.8	-91.50	396.2	-508.0	530.0	500.2	29.77	17.804		
7,753.9	7,495.2	7,528.8	7,489.7	15.6	14.8	-89.39	409.9	-508.0	527.8	497.3	30.41	17.357 ES		
7,800.0	7,499.3	7,508.1	7,472.4	16.0	14.9	-87.26	421.3	-508.0	529.3	498.4	30.87	17.146		
7,900.0	7,500.0	7,465.6	7,435.6	17.2	15.0	-83.04	442.6	-508.0	542.8	511.1	31.72	17.115 SF		
8,000.0	7,500.0	7,432.0	7,405.5	18.4	15.1	-79.83	457.5	-508.0	570.5	538.3	32.25	17.692		
8,100.0	7,500.0	7,400.0	7,376.1	19.7	15.2	-76.76	469.9	-508.0	611.5	579.0	32.49	18.822		
8,200.0	7,500.0	7,383.5	7,360.6	21.1	15.2	-75.18	475.7	-508.0	663.6	631.1	32.57	20.377		
8,300.0	7,500.0	7,365.6	7,343.7	22.5	15.3	-73.46	481.5	-508.0	725.0	692.5	32.52	22.292		
8,400.0	7,500.0	7,350.0	7,328.8	24.0	15.3	-71.98	486.1	-508.0	793.6	761.2	32.43	24.474		
8,500.0	7,500.0	7,350.0	7,328.8	25.5	15.3	-71.98	486.1	-508.0	868.1	835.7	32.38	26.809		
8,600.0	7,500.0	7,326.9	7,306.4	27.0	15.3	-69.81	492.2	-508.0	946.6	914.3	32.22	29.375		
8,700.0	7,500.0	7,317.3	7,297.2	28.6	15.4	-68.93	494.4	-508.0	1,028.7	996.6	32.14	32.004		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2B-7H-E168 - HZ - Plan #2													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.57	0.4	-49.8	49.8					
100.0	100.0	100.0	100.0	0.2	0.2	-89.57	0.4	-49.8	49.8	49.5	0.30	164.050		
200.0	200.0	200.0	200.0	0.3	0.3	-89.57	0.4	-49.8	49.8	49.2	0.65	76.323		
300.0	300.0	300.0	300.0	0.5	0.5	-89.57	0.4	-49.8	49.8	48.8	1.00	49.729 CC		
300.3	300.3	300.3	300.3	0.5	0.5	-89.57	0.4	-49.8	49.8	48.8	1.00	49.676		
400.0	400.0	399.4	399.4	0.7	0.7	51.95	1.0	-50.4	49.8	48.5	1.35	36.905		
500.0	500.0	498.7	498.7	0.9	0.9	56.49	3.0	-52.0	50.1	48.4	1.70	29.433 ES		
600.0	599.9	597.8	597.7	1.0	1.0	63.82	6.3	-54.8	51.3	49.2	2.06	24.863		
700.0	699.8	696.7	696.4	1.2	1.2	78.38	10.9	-58.6	55.0	52.5	2.42	22.701		
800.0	799.7	796.3	795.8	1.4	1.4	101.59	16.2	-63.1	61.2	58.4	2.78	22.043		
900.0	899.7	896.0	895.2	1.6	1.6	147.47	21.5	-67.6	68.5	65.4	3.12	21.932		
1,000.0	999.7	995.7	994.6	1.7	1.8	149.71	26.9	-72.0	76.2	72.7	3.47	21.953		
1,100.0	1,099.7	1,095.3	1,094.0	1.9	2.0	151.53	32.2	-76.5	84.0	80.2	3.82	21.997		
1,200.0	1,199.7	1,195.0	1,193.5	2.1	2.3	153.04	37.5	-81.0	91.9	87.7	4.17	22.052		
1,300.0	1,299.7	1,294.9	1,293.1	2.3	2.5	154.77	43.4	-84.9	99.7	95.2	4.52	22.071		
1,400.0	1,399.7	1,394.8	1,392.7	2.4	2.7	157.16	50.5	-87.5	107.3	102.5	4.87	22.058		
1,500.0	1,499.7	1,494.4	1,492.0	2.6	2.9	160.01	58.6	-89.0	115.1	109.9	5.22	22.064		
1,600.0	1,599.7	1,593.9	1,591.2	2.8	3.1	162.62	66.9	-90.3	123.1	117.5	5.56	22.117		
1,700.0	1,699.7	1,693.5	1,690.4	3.0	3.3	164.91	75.2	-91.6	131.2	125.3	5.91	22.202		
1,800.0	1,799.6	1,793.0	1,789.5	3.1	3.5	166.93	83.5	-92.9	139.6	133.4	6.26	22.308		
1,900.0	1,899.6	1,892.5	1,888.7	3.3	3.8	168.72	91.8	-94.2	148.2	141.6	6.61	22.426		
2,000.0	1,999.6	1,992.1	1,987.9	3.5	4.0	170.31	100.1	-95.4	156.8	149.9	6.95	22.552		
2,100.0	2,099.6	2,091.6	2,087.1	3.7	4.2	171.74	108.4	-96.7	165.6	158.3	7.30	22.680		
2,200.0	2,199.6	2,191.1	2,186.3	3.8	4.4	173.02	116.7	-98.0	174.5	166.8	7.65	22.809		
2,300.0	2,299.6	2,290.7	2,285.4	4.0	4.6	174.18	125.0	-99.3	183.4	175.4	8.00	22.936		
2,400.0	2,399.6	2,390.2	2,384.6	4.2	4.9	175.23	133.3	-100.6	192.4	184.1	8.34	23.061		
2,500.0	2,499.6	2,489.8	2,483.8	4.4	5.1	176.18	141.6	-101.9	201.5	192.8	8.69	23.183		
2,600.0	2,599.6	2,589.3	2,583.0	4.6	5.3	177.06	149.9	-103.1	210.6	201.5	9.04	23.301		
2,700.0	2,699.6	2,688.8	2,682.2	4.7	5.5	177.86	158.2	-104.4	219.7	210.4	9.38	23.415		
2,800.0	2,799.6	2,788.4	2,781.3	4.9	5.8	178.59	166.5	-105.7	228.9	219.2	9.73	23.524		
2,900.0	2,899.6	2,887.9	2,880.5	5.1	6.0	179.27	174.8	-107.0	238.2	228.1	10.08	23.630		
3,000.0	2,999.5	2,987.4	2,979.7	5.3	6.2	179.90	183.1	-108.3	247.4	237.0	10.43	23.731		
3,100.0	3,099.5	3,087.0	3,078.9	5.4	6.4	-179.51	191.4	-109.6	256.7	246.0	10.77	23.828		
3,200.0	3,199.5	3,186.5	3,178.1	5.6	6.7	-178.97	199.6	-110.8	266.0	254.9	11.12	23.922		
3,300.0	3,299.5	3,286.0	3,277.2	5.8	6.9	-178.47	207.9	-112.1	275.4	263.9	11.47	24.011		
3,400.0	3,399.5	3,385.6	3,376.4	6.0	7.1	-177.99	216.2	-113.4	284.7	272.9	11.82	24.097		
3,500.0	3,499.5	3,485.1	3,475.6	6.1	7.3	-177.55	224.5	-114.7	294.1	282.0	12.16	24.180		
3,600.0	3,599.5	3,584.6	3,574.8	6.3	7.6	-177.14	232.8	-116.0	303.5	291.0	12.51	24.259		
3,700.0	3,699.5	3,684.2	3,673.9	6.5	7.8	-176.75	241.1	-117.3	312.9	300.1	12.86	24.335		
3,800.0	3,799.5	3,783.7	3,773.1	6.7	8.0	-176.38	249.4	-118.6	322.3	309.1	13.21	24.408		
3,900.0	3,899.5	3,883.2	3,872.3	6.8	8.2	-176.03	257.7	-119.8	331.8	318.2	13.55	24.478		
4,000.0	3,999.5	3,982.8	3,971.5	7.0	8.5	-175.71	266.0	-121.1	341.2	327.3	13.90	24.545		
4,100.0	4,099.5	4,082.3	4,070.7	7.2	8.7	-175.40	274.3	-122.4	350.7	336.4	14.25	24.610		
4,200.0	4,199.5	4,181.8	4,169.8	7.4	8.9	-175.10	282.6	-123.7	360.1	345.5	14.60	24.673		
4,300.0	4,299.4	4,281.4	4,269.0	7.5	9.1	-174.82	290.9	-125.0	369.6	354.7	14.94	24.733		
4,400.0	4,399.4	4,380.9	4,368.2	7.7	9.4	-174.56	299.2	-126.3	379.1	363.8	15.29	24.790		
4,500.0	4,499.4	4,480.4	4,467.4	7.9	9.6	-174.31	307.5	-127.5	388.6	372.9	15.64	24.846		
4,600.0	4,599.4	4,580.0	4,566.6	8.1	9.8	-174.07	315.8	-128.8	398.1	382.1	15.99	24.900		
4,700.0	4,699.4	4,679.5	4,665.7	8.2	10.1	-173.84	324.1	-130.1	407.6	391.3	16.34	24.952		
4,800.0	4,799.4	4,779.0	4,764.9	8.4	10.3	-173.62	332.4	-131.4	417.1	400.4	16.68	25.002		
4,900.0	4,899.4	4,878.6	4,864.1	8.6	10.5	-173.41	340.7	-132.7	426.6	409.6	17.03	25.050		
5,000.0	4,999.4	4,978.1	4,963.3	8.8	10.7	-173.21	349.0	-134.0	436.1	418.8	17.38	25.096		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2B-7H-E168 - HZ - Plan #2													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,099.4	5,077.7	5,062.5	8.9	11.0	-173.02	357.3	-135.3	445.7	427.9	17.73	25.141		
5,200.0	5,199.4	5,177.2	5,161.6	9.1	11.2	-172.84	365.6	-136.5	455.2	437.1	18.07	25.185		
5,300.0	5,299.4	5,276.7	5,260.8	9.3	11.4	-172.67	373.9	-137.8	464.7	446.3	18.42	25.227		
5,400.0	5,399.4	5,376.3	5,360.0	9.5	11.6	-172.50	382.2	-139.1	474.3	455.5	18.77	25.268		
5,500.0	5,499.3	5,475.8	5,459.2	9.6	11.9	-172.34	390.5	-140.4	483.8	464.7	19.12	25.307		
5,600.0	5,599.3	5,575.3	5,558.4	9.8	12.1	-172.18	398.8	-141.7	493.4	473.9	19.46	25.346		
5,700.0	5,699.3	5,674.9	5,657.5	10.0	12.3	-172.03	407.1	-143.0	502.9	483.1	19.81	25.383		
5,800.0	5,799.3	5,774.4	5,756.7	10.2	12.5	-171.89	415.4	-144.2	512.5	492.3	20.16	25.419		
5,900.0	5,899.3	5,873.9	5,855.9	10.4	12.8	-171.75	423.7	-145.5	522.0	501.5	20.51	25.454		
6,000.0	5,999.3	5,973.5	5,955.1	10.5	13.0	-171.61	432.0	-146.8	531.6	510.7	20.86	25.487		
6,100.0	6,099.3	6,073.0	6,054.3	10.7	13.2	-171.49	440.3	-148.1	541.1	519.9	21.20	25.520		
6,200.0	6,199.3	6,172.5	6,153.4	10.9	13.5	-171.36	448.6	-149.4	550.7	529.1	21.55	25.552		
6,300.0	6,299.3	6,272.1	6,252.6	11.1	13.7	-171.24	456.9	-150.7	560.3	538.4	21.90	25.583		
6,400.0	6,399.3	6,371.6	6,351.8	11.2	13.9	-171.13	465.2	-151.9	569.8	547.6	22.25	25.613		
6,500.0	6,499.3	6,471.1	6,451.0	11.4	14.1	-171.01	473.5	-153.2	579.4	556.8	22.60	25.643		
6,600.0	6,599.3	6,570.7	6,550.2	11.6	14.4	-170.90	481.8	-154.5	589.0	566.0	22.94	25.671		
6,700.0	6,699.3	6,670.2	6,649.3	11.8	14.6	-170.80	490.1	-155.8	598.6	575.3	23.29	25.699		
6,800.0	6,799.2	6,769.7	6,748.5	11.9	14.8	-170.70	498.4	-157.1	608.1	584.5	23.64	25.726		
6,900.0	6,899.2	6,869.3	6,847.7	12.1	15.0	-170.60	506.7	-158.4	617.7	593.7	23.99	25.752		
7,000.0	6,999.0	7,863.8	7,500.0	12.3	14.0	-109.44	-76.6	-166.8	536.6	519.4	17.20	31.197		
7,100.0	7,096.7	7,827.7	7,499.6	12.4	13.8	-118.61	-40.5	-166.8	446.9	428.9	17.93	24.920		
7,200.0	7,189.1	7,752.8	7,492.0	12.6	13.7	-115.46	34.0	-166.7	362.5	343.3	19.21	18.869		
7,300.0	7,273.6	7,691.1	7,478.4	12.8	13.6	-111.61	94.1	-166.5	286.6	265.3	21.28	13.468		
7,400.0	7,347.6	7,634.3	7,460.3	13.1	13.6	-104.85	147.9	-166.3	226.1	202.0	24.13	9.370		
7,500.0	7,408.8	7,579.8	7,438.0	13.5	13.7	-94.37	197.7	-166.0	192.3	165.4	26.83	7.165		
7,543.3	7,430.8	7,556.6	7,427.1	13.8	13.8	-88.71	218.1	-165.9	188.7	161.3	27.43	6.880 SF		
7,600.0	7,455.3	7,526.5	7,411.7	14.2	13.8	-80.57	244.0	-165.7	194.5	167.0	27.43	7.089		
7,700.0	7,485.8	7,474.0	7,381.7	15.0	14.0	-65.58	287.0	-165.3	226.8	200.4	26.45	8.575		
7,800.0	7,499.3	7,422.0	7,348.2	16.0	14.2	-52.19	326.8	-164.9	274.6	248.9	25.68	10.692		
7,900.0	7,500.0	7,372.5	7,313.2	17.2	14.3	-44.73	361.7	-164.4	329.8	304.4	25.44	12.966		
8,000.0	7,500.0	7,330.7	7,281.2	18.4	14.5	-40.10	388.7	-164.0	394.7	369.3	25.41	15.531		
8,100.0	7,500.0	7,300.0	7,256.7	19.7	14.6	-37.03	407.0	-163.7	466.9	441.3	25.60	18.237		
8,200.0	7,500.0	7,265.4	7,227.8	21.1	14.7	-33.89	426.1	-163.3	544.5	518.8	25.69	21.192		
8,300.0	7,500.0	7,250.0	7,214.6	22.5	14.8	-32.60	434.0	-163.1	626.3	600.3	26.04	24.052		
8,400.0	7,500.0	7,217.7	7,186.2	24.0	14.9	-30.10	449.4	-162.8	710.9	684.8	26.12	27.220		
8,500.0	7,500.0	7,200.0	7,170.3	25.5	14.9	-28.84	457.2	-162.5	798.0	771.6	26.35	30.286		
8,600.0	7,500.0	7,181.8	7,153.7	27.0	15.0	-27.62	464.6	-162.3	887.0	860.4	26.54	33.415		
8,700.0	7,500.0	7,167.0	7,140.0	28.6	15.0	-26.69	470.3	-162.2	977.4	950.7	26.75	36.541		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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		
0.0	0.0	0.0	0.0	0.0	0.0	-89.47	0.4	-40.0	40.0					
100.0	100.0	100.0	100.0	0.2	0.2	-89.47	0.4	-40.0	40.0	39.7	0.30	131.795		
200.0	200.0	200.0	200.0	0.3	0.3	-89.47	0.4	-40.0	40.0	39.4	0.65	61.316		
300.0	300.0	300.0	300.0	0.5	0.5	-89.47	0.4	-40.0	40.0	39.0	1.00	39.952		
400.0	400.0	400.0	400.0	0.7	0.7	51.52	0.4	-40.0	39.5	38.1	1.35	29.213		
500.0	500.0	500.2	500.2	0.9	0.9	55.88	1.2	-39.6	37.6	35.9	1.70	22.060		
600.0	599.9	600.1	600.1	1.0	1.0	65.95	3.5	-38.5	34.8	32.7	2.07	16.829		
692.9	692.7	692.7	692.6	1.2	1.2	85.32	7.1	-36.8	33.5	31.1	2.41	13.892 CC		
700.0	699.8	699.8	699.6	1.2	1.2	87.04	7.4	-36.6	33.5	31.0	2.44	13.746 ES		
800.0	799.7	799.3	798.9	1.4	1.4	118.99	12.9	-33.9	35.2	32.4	2.80	12.575		
900.0	899.7	898.6	897.9	1.6	1.6	173.63	19.9	-30.5	39.8	36.6	3.16	12.579		
1,000.0	999.7	998.1	997.1	1.7	1.8	-176.92	27.6	-26.8	46.1	42.6	3.52	13.121		
1,100.0	1,099.7	1,097.7	1,096.3	1.9	2.0	-169.89	35.4	-23.0	53.4	49.6	3.86	13.822		
1,200.0	1,199.7	1,197.2	1,195.4	2.1	2.3	-164.61	43.2	-19.2	61.3	57.1	4.21	14.557		
1,300.0	1,299.7	1,296.8	1,294.6	2.3	2.5	-160.55	51.0	-15.4	69.6	65.1	4.56	15.270		
1,400.0	1,399.7	1,396.3	1,393.8	2.4	2.7	-157.37	58.7	-11.6	78.2	73.3	4.91	15.938		
1,500.0	1,499.7	1,495.9	1,493.0	2.6	2.9	-154.82	66.5	-7.8	87.0	81.7	5.25	16.555		
1,600.0	1,599.7	1,595.4	1,592.1	2.8	3.1	-152.75	74.3	-4.1	95.9	90.3	5.60	17.119		
1,700.0	1,699.7	1,694.9	1,691.3	3.0	3.4	-151.02	82.0	-0.3	104.9	98.9	5.95	17.635		
1,800.0	1,799.6	1,794.5	1,790.5	3.1	3.6	-149.57	89.8	3.5	114.0	107.7	6.29	18.106		
1,900.0	1,899.6	1,894.0	1,889.7	3.3	3.8	-148.34	97.6	7.3	123.1	116.5	6.64	18.536		
2,000.0	1,999.6	1,993.6	1,988.8	3.5	4.1	-147.27	105.4	11.1	132.3	125.3	6.99	18.930		
2,100.0	2,099.6	2,093.1	2,088.0	3.7	4.3	-146.35	113.1	14.9	141.5	134.2	7.34	19.292		
2,200.0	2,199.6	2,192.7	2,187.2	3.8	4.5	-145.54	120.9	18.6	150.8	143.1	7.69	19.624		
2,300.0	2,299.6	2,292.2	2,286.3	4.0	4.7	-144.82	128.7	22.4	160.1	152.1	8.03	19.931		
2,400.0	2,399.6	2,391.8	2,385.5	4.2	5.0	-144.18	136.5	26.2	169.4	161.0	8.38	20.215		
2,500.0	2,499.6	2,491.3	2,484.7	4.4	5.2	-143.61	144.2	30.0	178.8	170.0	8.73	20.478		
2,600.0	2,599.6	2,590.9	2,583.9	4.6	5.4	-143.09	152.0	33.8	188.1	179.0	9.08	20.723		
2,700.0	2,699.6	2,690.4	2,683.0	4.7	5.6	-142.63	159.8	37.5	197.5	188.1	9.43	20.950		
2,800.0	2,799.6	2,790.0	2,782.2	4.9	5.9	-142.20	167.5	41.3	206.9	197.1	9.77	21.163		
2,900.0	2,899.6	2,889.5	2,881.4	5.1	6.1	-141.82	175.3	45.1	216.3	206.1	10.12	21.362		
3,000.0	2,999.5	2,989.1	2,980.5	5.3	6.3	-141.46	183.1	48.9	225.6	215.2	10.47	21.548		
3,100.0	3,099.5	3,088.6	3,079.7	5.4	6.6	-141.13	190.9	52.7	235.1	224.2	10.82	21.723		
3,200.0	3,199.5	3,188.2	3,178.9	5.6	6.8	-140.83	198.6	56.5	244.5	233.3	11.17	21.887		
3,300.0	3,299.5	3,287.7	3,278.1	5.8	7.0	-140.55	206.4	60.2	253.9	242.4	11.52	22.042		
3,400.0	3,399.5	3,387.3	3,377.2	6.0	7.3	-140.29	214.2	64.0	263.3	251.4	11.87	22.189		
3,500.0	3,499.5	3,486.8	3,476.4	6.1	7.5	-140.05	222.0	67.8	272.7	260.5	12.22	22.327		
3,600.0	3,599.5	3,586.4	3,575.6	6.3	7.7	-139.83	229.7	71.6	282.2	269.6	12.56	22.458		
3,700.0	3,699.5	3,685.9	3,674.8	6.5	7.9	-139.62	237.5	75.4	291.6	278.7	12.91	22.582		
3,800.0	3,799.5	3,785.5	3,773.9	6.7	8.2	-139.42	245.3	79.2	301.1	287.8	13.26	22.700		
3,900.0	3,899.5	3,885.0	3,873.1	6.8	8.4	-139.23	253.1	82.9	310.5	296.9	13.61	22.812		
4,000.0	3,999.5	3,984.6	3,972.3	7.0	8.6	-139.06	260.8	86.7	319.9	306.0	13.96	22.918		
4,100.0	4,099.5	4,084.1	4,071.4	7.2	8.9	-138.89	268.6	90.5	329.4	315.1	14.31	23.020		
4,200.0	4,199.5	4,183.6	4,170.6	7.4	9.1	-138.74	276.4	94.3	338.8	324.2	14.66	23.117		
4,300.0	4,299.4	4,283.2	4,269.8	7.5	9.3	-138.59	284.1	98.1	348.3	333.3	15.01	23.209		
4,400.0	4,399.4	4,382.7	4,369.0	7.7	9.5	-138.45	291.9	101.9	357.8	342.4	15.36	23.297		
4,500.0	4,499.4	4,482.3	4,468.1	7.9	9.8	-138.32	299.7	105.6	367.2	351.5	15.71	23.382		
4,600.0	4,599.4	4,581.8	4,567.3	8.1	10.0	-138.19	307.5	109.4	376.7	360.6	16.05	23.463		
4,700.0	4,699.4	4,681.4	4,666.5	8.2	10.2	-138.08	315.2	113.2	386.1	369.7	16.40	23.540		
4,800.0	4,799.4	4,780.9	4,765.6	8.4	10.5	-137.96	323.0	117.0	395.6	378.9	16.75	23.615		
4,900.0	4,899.4	4,880.5	4,864.8	8.6	10.7	-137.85	330.8	120.8	405.1	388.0	17.10	23.686		
5,000.0	4,999.4	4,980.0	4,964.0	8.8	10.9	-137.75	338.6	124.5	414.5	397.1	17.45	23.755		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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		
5,100.0	5,099.4	5,079.6	5,063.2	8.9	11.2	-137.65	346.3	128.3	424.0	406.2	17.80	23.821		
5,200.0	5,199.4	5,179.1	5,162.3	9.1	11.4	-137.56	354.1	132.1	433.5	415.3	18.15	23.885		
5,300.0	5,299.4	5,278.7	5,261.5	9.3	11.6	-137.47	361.9	135.9	443.0	424.5	18.50	23.946		
5,400.0	5,399.4	5,378.2	5,360.7	9.5	11.8	-137.38	369.6	139.7	452.4	433.6	18.85	24.005		
5,500.0	5,499.3	5,477.8	5,459.8	9.6	12.1	-137.30	377.4	143.5	461.9	442.7	19.20	24.062		
5,600.0	5,599.3	5,577.3	5,559.0	9.8	12.3	-137.22	385.2	147.2	471.4	451.8	19.55	24.117		
5,700.0	5,699.3	5,676.9	5,658.2	10.0	12.5	-137.14	393.0	151.0	480.9	461.0	19.89	24.170		
5,800.0	5,799.3	5,776.4	5,757.4	10.2	12.8	-137.07	400.7	154.8	490.3	470.1	20.24	24.221		
5,900.0	5,899.3	5,876.0	5,856.5	10.4	13.0	-137.00	408.5	158.6	499.8	479.2	20.59	24.270		
6,000.0	5,999.3	5,975.5	5,955.7	10.5	13.2	-136.93	416.3	162.4	509.3	488.3	20.94	24.318		
6,100.0	6,099.3	6,075.1	6,054.9	10.7	13.5	-136.86	424.1	166.2	518.8	497.5	21.29	24.364		
6,200.0	6,199.3	6,174.6	6,154.1	10.9	13.7	-136.80	431.8	169.9	528.2	506.6	21.64	24.409		
6,300.0	6,299.3	6,274.2	6,253.2	11.1	13.9	-136.74	439.6	173.7	537.7	515.7	21.99	24.453		
6,400.0	6,399.3	6,373.7	6,352.4	11.2	14.1	-136.68	447.4	177.5	547.2	524.9	22.34	24.495		
6,500.0	6,499.3	6,473.3	6,451.6	11.4	14.4	-136.62	455.1	181.3	556.7	534.0	22.69	24.536		
6,600.0	6,599.3	6,572.8	6,550.7	11.6	14.6	-136.57	462.9	185.1	566.2	543.1	23.04	24.575		
6,700.0	6,699.3	6,672.4	6,649.9	11.8	14.8	-136.52	470.7	188.9	575.6	552.3	23.39	24.614		
6,800.0	6,799.2	6,771.9	6,749.1	11.9	15.1	-136.46	478.5	192.6	585.1	561.4	23.74	24.651		
6,900.0	6,899.2	6,871.4	6,848.3	12.1	15.3	-136.41	486.2	196.4	594.6	570.5	24.09	24.687		
7,000.0	6,999.0	6,971.2	6,947.7	12.3	15.5	15.49	494.0	200.2	599.0	574.5	24.43	24.518		
7,100.0	7,096.7	7,070.1	7,046.2	12.4	15.7	18.03	501.7	204.0	587.2	562.4	24.76	23.717		
7,200.0	7,189.1	7,369.4	7,342.1	12.6	15.9	27.34	482.2	215.3	556.1	531.5	24.61	22.592		
7,300.0	7,273.6	7,642.0	7,572.4	12.8	15.2	73.12	341.6	224.0	471.7	449.7	21.99	21.451		
7,400.0	7,347.6	7,653.3	7,580.4	13.1	15.2	94.46	333.4	224.3	384.0	361.5	22.50	17.062		
7,500.0	7,408.8	7,628.6	7,562.9	13.5	15.2	101.02	350.9	223.7	304.2	280.3	23.96	12.699		
7,600.0	7,455.3	7,592.5	7,536.1	14.2	15.4	99.82	375.0	222.6	240.4	214.1	26.31	9.139		
7,700.0	7,485.8	7,551.4	7,503.7	15.0	15.5	92.96	400.3	221.4	204.7	175.5	29.24	7.001		
7,742.4	7,493.6	7,533.1	7,488.7	15.5	15.5	88.59	410.8	220.8	201.1	170.8	30.26	6.644 SF		
7,800.0	7,499.3	7,507.7	7,467.4	16.0	15.6	81.54	424.6	220.0	207.4	176.4	31.04	6.683		
7,900.0	7,500.0	7,465.6	7,430.8	17.2	15.7	70.86	445.3	218.6	243.8	212.7	31.12	7.836		
8,000.0	7,500.0	7,432.5	7,401.0	18.4	15.8	63.49	459.7	217.5	303.9	273.4	30.55	9.947		
8,100.0	7,500.0	7,400.0	7,371.0	19.7	15.9	56.85	472.1	216.4	378.0	348.1	29.94	12.627		
8,200.0	7,500.0	7,384.8	7,356.7	21.1	15.9	53.98	477.3	215.8	460.0	430.3	29.71	15.481		
8,300.0	7,500.0	7,367.2	7,340.0	22.5	15.9	50.86	482.9	215.2	546.8	517.3	29.52	18.520		
8,400.0	7,500.0	7,350.0	7,323.6	24.0	16.0	48.01	487.8	214.5	636.8	607.4	29.41	21.651		
8,500.0	7,500.0	7,350.0	7,323.6	25.5	16.0	48.01	487.8	214.5	729.0	699.5	29.50	24.708		
8,600.0	7,500.0	7,329.2	7,303.4	27.0	16.0	44.82	493.1	213.8	822.4	792.9	29.43	27.946		
8,700.0	7,500.0	7,319.8	7,294.4	28.6	16.0	43.49	495.2	213.4	917.0	887.5	29.47	31.114		
8,800.0	7,500.0	7,300.0	7,275.0	30.2	16.0	40.82	499.3	212.7	1,012.7	983.2	29.46	34.380		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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	-89.29	0.4	-29.9	29.9					
100.0	100.0	100.0	100.0	0.2	0.2	-89.29	0.4	-29.9	29.9	29.6	0.30	98.619		
200.0	200.0	200.0	200.0	0.3	0.3	-89.29	0.4	-29.9	29.9	29.3	0.65	45.882		
300.0	300.0	300.0	300.0	0.5	0.5	-89.29	0.4	-29.9	29.9	28.9	1.00	29.895		
400.0	400.0	400.0	400.0	0.7	0.7	52.03	0.4	-29.9	29.4	28.1	1.35	21.760		
500.0	500.0	500.0	500.0	0.9	0.8	56.29	0.4	-29.9	27.9	26.2	1.70	16.363		
600.0	599.9	600.0	600.0	1.0	1.0	66.22	1.0	-29.4	25.3	23.3	2.06	12.287		
700.0	699.8	699.9	699.9	1.2	1.2	88.81	3.1	-27.7	23.6	21.2	2.43	9.746		
720.7	720.4	720.5	720.5	1.3	1.2	94.56	3.6	-27.2	23.6	21.1	2.50	9.434 CC, ES		
800.0	799.7	799.7	799.5	1.4	1.4	123.12	6.4	-25.0	24.4	21.6	2.78	8.755		
900.0	899.7	899.3	898.9	1.6	1.6	-179.83	11.1	-21.1	27.4	24.3	3.14	8.742 SF		
1,000.0	999.7	998.6	998.0	1.7	1.8	-167.24	17.1	-16.2	32.7	29.2	3.49	9.361		
1,100.0	1,099.7	1,097.7	1,096.6	1.9	2.0	-156.72	24.4	-10.1	40.3	36.4	3.84	10.495		
1,200.0	1,199.7	1,196.4	1,194.7	2.1	2.2	-148.55	33.0	-3.1	50.2	46.0	4.18	12.005		
1,300.0	1,299.7	1,295.5	1,293.1	2.3	2.5	-142.69	42.3	4.6	61.6	57.1	4.53	13.614		
1,400.0	1,399.7	1,394.7	1,391.5	2.4	2.7	-138.68	51.7	12.3	73.5	68.6	4.87	15.082		
1,500.0	1,499.7	1,493.9	1,490.0	2.6	3.0	-135.80	61.0	20.0	85.7	80.4	5.22	16.403		
1,600.0	1,599.7	1,593.1	1,588.4	2.8	3.2	-133.63	70.4	27.7	97.9	92.4	5.57	17.587		
1,700.0	1,699.7	1,692.3	1,686.8	3.0	3.5	-131.95	79.7	35.4	110.3	104.4	5.92	18.649		
1,800.0	1,799.6	1,791.4	1,785.3	3.1	3.8	-130.61	89.1	43.1	122.8	116.6	6.26	19.604		
1,900.0	1,899.6	1,890.6	1,883.7	3.3	4.0	-129.51	98.4	50.8	135.3	128.7	6.61	20.467		
2,000.0	1,999.6	1,989.8	1,982.2	3.5	4.3	-128.60	107.8	58.5	147.9	141.0	6.96	21.248		
2,100.0	2,099.6	2,089.0	2,080.6	3.7	4.6	-127.84	117.1	66.2	160.5	153.2	7.31	21.959		
2,200.0	2,199.6	2,188.2	2,179.0	3.8	4.8	-127.18	126.5	73.9	173.1	165.5	7.66	22.609		
2,300.0	2,299.6	2,287.4	2,277.5	4.0	5.1	-126.62	135.8	81.6	185.8	177.8	8.01	23.204		
2,400.0	2,399.6	2,386.5	2,375.9	4.2	5.4	-126.13	145.2	89.3	198.4	190.1	8.36	23.751		
2,500.0	2,499.6	2,485.7	2,474.4	4.4	5.6	-125.69	154.5	97.0	211.1	202.4	8.70	24.255		
2,600.0	2,599.6	2,584.9	2,572.8	4.6	5.9	-125.31	163.9	104.7	223.8	214.7	9.05	24.722		
2,700.0	2,699.6	2,684.1	2,671.2	4.7	6.2	-124.96	173.2	112.4	236.5	227.1	9.40	25.155		
2,800.0	2,799.6	2,783.3	2,769.7	4.9	6.4	-124.65	182.5	120.1	249.2	239.4	9.75	25.557		
2,900.0	2,899.6	2,882.5	2,868.1	5.1	6.7	-124.37	191.9	127.8	261.9	251.8	10.10	25.933		
3,000.0	2,999.5	2,981.6	2,966.6	5.3	7.0	-124.12	201.2	135.5	274.6	264.2	10.45	26.283		
3,100.0	3,099.5	3,080.8	3,065.0	5.4	7.2	-123.89	210.6	143.2	287.3	276.5	10.80	26.612		
3,200.0	3,199.5	3,180.0	3,163.4	5.6	7.5	-123.68	219.9	150.9	300.0	288.9	11.15	26.920		
3,300.0	3,299.5	3,279.2	3,261.9	5.8	7.8	-123.49	229.3	158.6	312.8	301.3	11.49	27.210		
3,400.0	3,399.5	3,378.4	3,360.3	6.0	8.1	-123.31	238.6	166.3	325.5	313.6	11.84	27.483		
3,500.0	3,499.5	3,477.5	3,458.8	6.1	8.3	-123.14	248.0	174.0	338.2	326.0	12.19	27.741		
3,600.0	3,599.5	3,576.7	3,557.2	6.3	8.6	-122.99	257.3	181.7	350.9	338.4	12.54	27.984		
3,700.0	3,699.5	3,675.9	3,655.6	6.5	8.9	-122.85	266.7	189.4	363.7	350.8	12.89	28.215		
3,800.0	3,799.5	3,775.1	3,754.1	6.7	9.1	-122.71	276.0	197.1	376.4	363.2	13.24	28.433		
3,900.0	3,899.5	3,874.3	3,852.5	6.8	9.4	-122.59	285.4	204.8	389.2	375.6	13.59	28.640		
4,000.0	3,999.5	3,973.5	3,951.0	7.0	9.7	-122.47	294.7	212.5	401.9	388.0	13.94	28.837		
4,100.0	4,099.5	4,072.6	4,049.4	7.2	10.0	-122.36	304.1	220.2	414.6	400.3	14.29	29.025		
4,200.0	4,199.5	4,171.8	4,147.8	7.4	10.2	-122.26	313.4	227.9	427.4	412.7	14.63	29.203		
4,300.0	4,299.4	4,271.0	4,246.3	7.5	10.5	-122.16	322.8	235.6	440.1	425.1	14.98	29.374		
4,400.0	4,399.4	4,370.2	4,344.7	7.7	10.8	-122.07	332.1	243.3	452.9	437.5	15.33	29.536		
4,500.0	4,499.4	4,469.4	4,443.2	7.9	11.0	-121.99	341.5	251.0	465.6	449.9	15.68	29.692		
4,600.0	4,599.4	4,568.5	4,541.6	8.1	11.3	-121.91	350.8	258.7	478.4	462.3	16.03	29.841		
4,700.0	4,699.4	4,667.7	4,640.0	8.2	11.6	-121.83	360.1	266.4	491.1	474.7	16.38	29.983		
4,800.0	4,799.4	4,766.9	4,738.5	8.4	11.9	-121.75	369.5	274.1	503.9	487.1	16.73	30.120		
4,900.0	4,899.4	4,866.1	4,836.9	8.6	12.1	-121.68	378.8	281.8	516.6	499.5	17.08	30.251		
5,000.0	4,999.4	4,965.3	4,935.4	8.8	12.4	-121.62	388.2	289.5	529.4	511.9	17.43	30.377		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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							
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	5,099.4	5,064.5	5,033.8	8.9	12.7	-121.55	397.5	297.2	542.1	524.3	17.78	30.497		
5,200.0	5,199.4	5,163.6	5,132.2	9.1	13.0	-121.49	406.9	304.9	554.9	536.7	18.12	30.614		
5,300.0	5,299.4	5,262.8	5,230.7	9.3	13.2	-121.44	416.2	312.6	567.6	549.1	18.47	30.726		
5,400.0	5,399.4	5,362.0	5,329.1	9.5	13.5	-121.38	425.6	320.3	580.4	561.5	18.82	30.833		
5,500.0	5,499.3	5,461.2	5,427.6	9.6	13.8	-121.33	434.9	328.0	593.1	573.9	19.17	30.937		
5,600.0	5,599.3	5,560.4	5,526.0	9.8	14.0	-121.28	444.3	335.7	605.9	586.3	19.52	31.038		
5,700.0	5,699.3	5,659.5	5,624.4	10.0	14.3	-121.23	453.6	343.4	618.6	598.8	19.87	31.134		
5,800.0	5,799.3	5,758.7	5,722.9	10.2	14.6	-121.18	463.0	351.1	631.4	611.2	20.22	31.228		
5,900.0	5,899.3	5,857.9	5,821.3	10.4	14.9	-121.14	472.3	358.8	644.1	623.6	20.57	31.318		
6,000.0	5,999.3	5,957.1	5,919.8	10.5	15.1	-121.10	481.7	366.5	656.9	636.0	20.92	31.405		
6,100.0	6,099.3	6,056.3	6,018.2	10.7	15.4	-121.05	491.0	374.2	669.6	648.4	21.27	31.489		
6,200.0	6,199.3	6,155.5	6,116.6	10.9	15.7	-121.01	500.4	381.9	682.4	660.8	21.61	31.571		
6,300.0	6,299.3	6,254.6	6,215.1	11.1	16.0	-120.98	509.7	389.6	695.2	673.2	21.96	31.650		
6,400.0	6,399.3	6,353.8	6,313.5	11.2	16.2	-120.94	519.0	397.3	707.9	685.6	22.31	31.727		
6,500.0	6,499.3	6,453.0	6,412.0	11.4	16.5	-120.90	528.4	405.0	720.7	698.0	22.66	31.801		
6,600.0	6,599.3	6,552.2	6,510.4	11.6	16.8	-120.87	537.7	412.7	733.4	710.4	23.01	31.873		
6,700.0	6,699.3	6,651.4	6,608.8	11.8	17.0	-120.84	547.1	420.4	746.2	722.8	23.36	31.943		
6,800.0	6,799.2	6,750.5	6,707.3	11.9	17.3	-120.80	556.4	428.1	758.9	735.2	23.71	32.011		
6,900.0	6,899.2	7,956.4	7,500.0	12.1	16.7	-64.10	-80.9	490.1	759.6	739.8	19.85	38.273		
7,000.0	6,999.0	7,952.1	7,500.0	12.3	16.7	96.29	-76.6	490.1	683.1	662.2	20.89	32.701		
7,100.0	7,096.7	7,931.0	7,500.0	12.4	16.6	104.41	-55.5	490.1	615.0	593.0	22.04	27.901		
7,200.0	7,189.1	7,893.2	7,500.0	12.6	16.5	107.34	-17.7	490.1	558.9	535.6	23.25	24.041		
7,300.0	7,273.6	7,811.9	7,496.7	12.8	16.4	104.07	63.5	489.8	516.2	491.7	24.46	21.104		
7,400.0	7,347.6	7,726.8	7,481.4	13.1	16.4	98.80	147.1	488.6	485.1	459.4	25.73	18.852		
7,500.0	7,408.8	7,654.0	7,458.6	13.5	16.5	93.29	216.2	486.8	467.4	440.5	26.96	17.339		
7,581.8	7,448.0	7,599.5	7,435.9	14.1	16.6	88.35	265.7	485.0	463.1	435.1	27.91	16.588		
7,600.0	7,455.3	7,587.7	7,430.4	14.2	16.6	87.20	276.1	484.6	463.3	435.2	28.11	16.481		
7,700.0	7,485.8	7,525.5	7,397.8	15.0	16.8	80.61	329.0	482.1	471.2	442.0	29.23	16.122		
7,800.0	7,499.3	7,465.7	7,361.3	16.0	17.0	73.80	376.2	479.2	488.5	458.1	30.36	16.093		
7,900.0	7,500.0	7,410.0	7,323.1	17.2	17.2	68.81	416.5	476.2	513.6	482.1	31.46	16.325		
8,000.0	7,500.0	7,363.5	7,288.2	18.4	17.3	65.00	447.3	473.5	549.2	516.8	32.37	16.964		
8,100.0	7,500.0	7,324.7	7,257.4	19.7	17.5	61.78	470.6	471.1	595.1	562.0	33.06	18.000		
8,200.0	7,500.0	7,300.0	7,236.9	21.1	17.5	59.73	484.4	469.5	650.1	616.4	33.62	19.335		
8,300.0	7,500.0	7,264.6	7,206.6	22.5	17.6	56.83	502.6	467.1	712.5	678.7	33.85	21.048		
8,400.0	7,500.0	7,250.0	7,193.8	24.0	17.7	55.64	509.5	466.1	781.4	747.2	34.14	22.888		
8,500.0	7,500.0	7,220.9	7,167.8	25.5	17.8	53.33	522.3	464.1	855.0	820.9	34.17	25.020		
8,600.0	7,500.0	7,200.0	7,148.7	27.0	17.8	51.70	530.7	462.6	932.9	898.7	34.23	27.257		
8,700.0	7,500.0	7,200.0	7,148.7	28.6	17.8	51.70	530.7	462.6	1,014.1	979.7	34.41	29.476		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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	-89.99	0.0	-19.9	19.9					
100.0	100.0	100.0	100.0	0.2	0.2	-89.99	0.0	-19.9	19.9	19.6	0.30	65.434		
200.0	200.0	200.0	200.0	0.3	0.3	-89.99	0.0	-19.9	19.9	19.2	0.65	30.442		
300.0	300.0	300.0	300.0	0.5	0.5	-89.99	0.0	-19.9	19.9	18.9	1.00	19.835		
400.0	400.0	400.0	400.0	0.7	0.7	52.00	0.0	-19.9	19.3	18.0	1.35	14.299		
500.0	500.0	500.0	500.0	0.9	0.8	58.65	0.0	-19.9	17.8	16.1	1.70	10.467		
600.0	599.9	599.9	599.9	1.0	1.0	72.12	0.0	-19.9	16.0	13.9	2.06	7.754		
679.4	679.1	679.1	679.1	1.2	1.2	90.00	0.0	-19.9	15.4	13.1	2.35	6.562 CC		
700.0	699.8	699.8	699.8	1.2	1.2	94.70	0.0	-19.9	15.4	13.0	2.42	6.374 ES		
800.0	799.7	799.7	799.7	1.4	1.4	121.83	0.0	-19.9	16.2	13.4	2.77	5.841		
900.0	899.7	899.7	899.7	1.6	1.5	167.33	0.0	-19.9	17.4	14.3	3.12	5.570		
1,000.0	999.7	999.7	999.7	1.7	1.7	168.18	0.0	-19.9	18.6	15.1	3.47	5.367		
1,100.0	1,099.7	1,099.7	1,099.7	1.9	1.9	171.42	0.5	-19.2	19.9	16.1	3.81	5.212		
1,200.0	1,199.7	1,199.6	1,199.5	2.1	2.1	178.89	2.2	-17.2	21.5	17.3	4.16	5.162 SF		
1,300.0	1,299.7	1,299.4	1,299.2	2.3	2.3	-170.80	4.9	-13.8	24.0	19.5	4.51	5.317		
1,400.0	1,399.7	1,398.9	1,398.6	2.4	2.4	-159.56	8.7	-9.1	28.0	23.1	4.85	5.762		
1,500.0	1,499.7	1,498.3	1,497.7	2.6	2.6	-149.17	13.6	-3.0	33.9	28.7	5.20	6.523		
1,600.0	1,599.7	1,597.3	1,596.2	2.8	2.8	-140.55	19.6	4.3	42.0	36.5	5.55	7.571		
1,700.0	1,699.7	1,696.0	1,694.3	3.0	3.1	-133.80	26.6	12.9	52.2	46.3	5.90	8.855		
1,800.0	1,799.6	1,794.2	1,791.7	3.1	3.3	-128.60	34.6	22.8	64.4	58.2	6.24	10.325		
1,900.0	1,899.6	1,892.0	1,888.4	3.3	3.5	-124.60	43.6	34.0	78.5	72.0	6.58	11.940		
2,000.0	1,999.6	1,990.4	1,985.6	3.5	3.8	-121.58	53.4	46.1	94.0	87.0	6.92	13.572		
2,100.0	2,099.6	2,089.1	2,083.1	3.7	4.1	-119.40	63.2	58.2	109.6	102.3	7.27	15.072		
2,200.0	2,199.6	2,187.8	2,180.5	3.8	4.4	-117.77	73.0	70.3	125.4	117.7	7.62	16.451		
2,300.0	2,299.6	2,286.5	2,278.0	4.0	4.7	-116.50	82.8	82.4	141.2	133.2	7.97	17.718		
2,400.0	2,399.6	2,385.2	2,375.4	4.2	5.0	-115.49	92.6	94.5	157.1	148.8	8.32	18.886		
2,500.0	2,499.6	2,483.9	2,472.9	4.4	5.3	-114.66	102.4	106.6	173.0	164.3	8.67	19.964		
2,600.0	2,599.6	2,582.6	2,570.4	4.6	5.6	-113.97	112.2	118.7	189.0	180.0	9.01	20.962		
2,700.0	2,699.6	2,681.3	2,667.8	4.7	5.9	-113.39	122.0	130.9	204.9	195.6	9.36	21.889		
2,800.0	2,799.6	2,780.0	2,765.3	4.9	6.2	-112.90	131.8	143.0	220.9	211.2	9.71	22.750		
2,900.0	2,899.6	2,878.7	2,862.7	5.1	6.5	-112.47	141.6	155.1	237.0	226.9	10.06	23.553		
3,000.0	2,999.5	2,977.4	2,960.2	5.3	6.8	-112.09	151.4	167.2	253.0	242.6	10.41	24.304		
3,100.0	3,099.5	3,076.1	3,057.6	5.4	7.1	-111.76	161.2	179.3	269.0	258.2	10.76	25.007		
3,200.0	3,199.5	3,174.8	3,155.1	5.6	7.4	-111.47	171.0	191.4	285.0	273.9	11.11	25.666		
3,300.0	3,299.5	3,273.5	3,252.6	5.8	7.7	-111.21	180.8	203.6	301.1	289.6	11.45	26.286		
3,400.0	3,399.5	3,372.2	3,350.0	6.0	8.0	-110.97	190.6	215.7	317.1	305.3	11.80	26.870		
3,500.0	3,499.5	3,470.9	3,447.5	6.1	8.3	-110.76	200.4	227.8	333.2	321.0	12.15	27.421		
3,600.0	3,599.5	3,569.6	3,544.9	6.3	8.6	-110.57	210.2	239.9	349.3	336.8	12.50	27.941		
3,700.0	3,699.5	3,668.3	3,642.4	6.5	9.0	-110.39	220.0	252.0	365.3	352.5	12.85	28.434		
3,800.0	3,799.5	3,767.0	3,739.8	6.7	9.3	-110.23	229.8	264.1	381.4	368.2	13.20	28.901		
3,900.0	3,899.5	3,865.7	3,837.3	6.8	9.6	-110.08	239.6	276.2	397.5	383.9	13.54	29.343		
4,000.0	3,999.5	3,964.4	3,934.8	7.0	9.9	-109.95	249.4	288.4	413.5	399.6	13.89	29.764		
4,100.0	4,099.5	4,063.1	4,032.2	7.2	10.2	-109.82	259.2	300.5	429.6	415.4	14.24	30.165		
4,200.0	4,199.5	4,161.7	4,129.7	7.4	10.5	-109.70	269.0	312.6	445.7	431.1	14.59	30.546		
4,300.0	4,299.4	4,260.4	4,227.1	7.5	10.9	-109.59	278.8	324.7	461.7	446.8	14.94	30.910		
4,400.0	4,399.4	4,359.1	4,324.6	7.7	11.2	-109.49	288.6	336.8	477.8	462.5	15.29	31.257		
4,500.0	4,499.4	4,457.8	4,422.1	7.9	11.5	-109.40	298.4	348.9	493.9	478.3	15.64	31.589		
4,600.0	4,599.4	4,556.5	4,519.5	8.1	11.8	-109.31	308.2	361.0	510.0	494.0	15.98	31.907		
4,700.0	4,699.4	4,655.2	4,617.0	8.2	12.1	-109.22	318.0	373.2	526.1	509.7	16.33	32.211		
4,800.0	4,799.4	4,753.9	4,714.4	8.4	12.4	-109.15	327.8	385.3	542.2	525.5	16.68	32.502		
4,900.0	4,899.4	4,852.6	4,811.9	8.6	12.8	-109.07	337.6	397.4	558.2	541.2	17.03	32.782		
5,000.0	4,999.4	4,951.3	4,909.3	8.8	13.1	-109.00	347.4	409.5	574.3	556.9	17.38	33.050		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2E-7H-E168 - HZ - Plan #3											Offset Site Error: 0.0 ft		
Survey Program: 0-Geolink MWD											Offset Well Error: 0.0 ft		
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
5,100.0	5,099.4	5,050.0	5,006.8	8.9	13.4	-108.93	357.2	421.6	590.4	572.7	17.73	33.308	
5,200.0	5,199.4	5,148.7	5,104.3	9.1	13.7	-108.87	367.1	433.7	606.5	588.4	18.07	33.556	
5,300.0	5,299.4	5,247.4	5,201.7	9.3	14.0	-108.81	376.9	445.8	622.6	604.2	18.42	33.795	
5,400.0	5,399.4	5,346.1	5,299.2	9.5	14.4	-108.76	386.7	458.0	638.7	619.9	18.77	34.025	
5,500.0	5,499.3	5,444.8	5,396.6	9.6	14.7	-108.70	396.5	470.1	654.8	635.6	19.12	34.246	
5,600.0	5,599.3	5,543.5	5,494.1	9.8	15.0	-108.65	406.3	482.2	670.8	651.4	19.47	34.460	
5,700.0	5,699.3	5,642.2	5,591.5	10.0	15.3	-108.60	416.1	494.3	686.9	667.1	19.82	34.666	
5,800.0	5,799.3	5,740.9	5,689.0	10.2	15.6	-108.56	425.9	506.4	703.0	682.9	20.16	34.865	
5,900.0	5,899.3	5,839.6	5,786.5	10.4	16.0	-108.51	435.7	518.5	719.1	698.6	20.51	35.057	
6,000.0	5,999.3	5,938.3	5,883.9	10.5	16.3	-108.47	445.5	530.6	735.2	714.3	20.86	35.243	
6,100.0	6,099.3	6,037.0	5,981.4	10.7	16.6	-108.43	455.3	542.8	751.3	730.1	21.21	35.423	
6,200.0	6,199.3	6,135.7	6,078.8	10.9	16.9	-108.39	465.1	554.9	767.4	745.8	21.56	35.597	
6,300.0	6,299.3	6,234.4	6,176.3	11.1	17.3	-108.35	474.9	567.0	783.5	761.6	21.91	35.766	
6,400.0	6,399.3	6,333.0	6,273.7	11.2	17.6	-108.32	484.7	579.1	799.6	777.3	22.25	35.929	
6,500.0	6,499.3	6,431.7	6,371.2	11.4	17.9	-108.28	494.5	591.2	815.7	793.1	22.60	36.087	
6,600.0	6,599.3	6,530.4	6,468.7	11.6	18.2	-108.25	504.3	603.3	831.8	808.8	22.95	36.241	
6,700.0	6,699.3	6,629.1	6,566.1	11.8	18.5	-108.22	514.1	615.4	847.8	824.5	23.30	36.389	
6,800.0	6,799.2	6,727.8	6,663.6	11.9	18.9	-108.19	523.9	627.6	863.9	840.3	23.65	36.534	
6,900.0	6,899.2	6,826.5	6,761.0	12.1	19.2	-108.16	533.7	639.7	880.0	856.0	24.00	36.674	
7,000.0	6,999.0	6,925.6	6,858.8	12.3	19.5	43.25	543.5	651.8	892.4	868.1	24.33	36.685	
7,100.0	7,096.7	7,024.1	6,956.1	12.4	19.8	45.67	553.3	663.9	893.1	868.5	24.62	36.280	
7,200.0	7,189.1	7,119.1	7,049.9	12.6	20.1	48.63	562.8	675.6	882.5	857.6	24.89	35.452	
7,300.0	7,273.6	7,308.7	7,237.4	12.8	20.6	57.00	569.5	699.7	861.1	835.6	25.45	33.836	
7,400.0	7,347.6	7,532.7	7,447.5	13.1	20.6	74.85	503.4	732.0	819.3	793.4	25.85	31.696	
7,500.0	7,408.8	7,565.1	7,475.1	13.5	20.6	81.73	487.2	736.7	778.9	752.3	26.63	29.253	
7,600.0	7,455.3	7,553.4	7,465.3	14.2	20.6	84.18	493.2	735.0	747.2	719.4	27.80	26.875	
7,700.0	7,485.8	7,525.8	7,441.5	15.0	20.6	84.24	506.7	730.9	725.7	696.4	29.34	24.735	
7,800.0	7,499.3	7,490.7	7,410.4	16.0	20.7	82.67	522.0	725.8	714.8	683.6	31.18	22.928	
7,850.4	7,501.2	7,472.7	7,394.1	16.6	20.7	81.37	529.2	723.1	713.3	681.1	32.19	22.163	
7,900.0	7,500.0	7,455.2	7,378.0	17.2	20.7	80.15	535.6	720.6	714.5	681.3	33.17	21.537	
8,000.0	7,500.0	7,428.0	7,352.6	18.4	20.7	78.09	544.6	716.6	726.4	691.2	35.15	20.665	
8,100.0	7,500.0	7,400.0	7,326.1	19.7	20.7	75.96	552.6	712.6	750.6	713.7	36.88	20.350	
8,200.0	7,500.0	7,390.1	7,316.6	21.1	20.7	75.19	555.1	711.1	786.0	747.6	38.41	20.462	
8,300.0	7,500.0	7,376.4	7,303.5	22.5	20.7	74.14	558.3	709.2	831.7	792.1	39.57	21.021	
8,400.0	7,500.0	7,365.1	7,292.5	24.0	20.7	73.27	560.7	707.6	886.0	845.6	40.42	21.922	
8,500.0	7,500.0	7,350.0	7,277.9	25.5	20.7	72.11	563.6	705.5	947.6	906.6	40.98	23.125	
8,600.0	7,500.0	7,350.0	7,277.9	27.0	20.7	72.11	563.6	705.5	1,015.1	973.6	41.45	24.487	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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		
0.0	0.0	0.0	0.0	0.0	0.0	-89.95	0.0	-9.8	9.8					
100.0	100.0	100.0	100.0	0.2	0.2	-89.95	0.0	-9.8	9.8	9.5	0.30	32.256		
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-9.8	9.8	9.1	0.65	15.007		
300.0	300.0	300.0	300.0	0.5	0.5	-89.95	0.0	-9.8	9.8	8.8	1.00	9.778		
400.0	400.0	400.1	400.1	0.7	0.7	56.98	0.4	-9.0	8.5	7.1	1.35	6.287		
500.0	500.0	500.1	500.0	0.9	0.9	93.25	1.4	-6.6	6.0	4.3	1.71	3.499		
514.5	514.5	514.6	514.5	0.9	0.9	103.08	1.6	-6.1	5.9	4.1	1.76	3.342	CC, ES, SF	
600.0	599.9	599.7	599.6	1.0	1.0	154.66	3.2	-2.6	9.5	7.4	2.06	4.616		
700.0	699.8	699.0	698.7	1.2	1.2	-178.28	5.6	2.9	18.5	16.1	2.40	7.704		
800.0	799.7	798.1	797.5	1.4	1.4	-153.34	8.8	10.0	28.2	25.4	2.75	10.245		
900.0	899.7	897.1	896.0	1.6	1.7	-106.62	12.6	18.6	38.0	34.9	3.10	12.267		
1,000.0	999.7	995.7	994.0	1.7	1.9	-103.65	17.1	28.8	49.0	45.6	3.45	14.237		
1,100.0	1,099.7	1,094.0	1,091.4	1.9	2.2	-101.37	22.2	40.4	61.8	58.0	3.79	16.313		
1,200.0	1,199.7	1,191.7	1,188.1	2.1	2.5	-99.60	28.0	53.5	76.3	72.2	4.13	18.467		
1,300.0	1,299.7	1,289.0	1,284.1	2.3	2.8	-98.19	34.4	68.1	92.5	88.0	4.47	20.682		
1,400.0	1,399.7	1,385.7	1,379.2	2.4	3.1	-97.05	41.5	84.0	110.4	105.6	4.81	22.945		
1,500.0	1,499.7	1,481.7	1,473.4	2.6	3.5	-96.11	49.1	101.3	129.9	124.8	5.15	25.248		
1,600.0	1,599.7	1,579.6	1,569.1	2.8	3.8	-95.36	57.2	119.6	150.3	144.8	5.49	27.369		
1,700.0	1,699.7	1,677.4	1,664.9	3.0	4.2	-94.78	65.4	138.0	170.8	164.9	5.84	29.242		
1,800.0	1,799.6	1,775.3	1,760.7	3.1	4.6	-94.33	73.5	156.4	191.2	185.0	6.19	30.907		
1,900.0	1,899.6	1,873.2	1,856.5	3.3	5.0	-93.97	81.6	174.7	211.7	205.1	6.53	32.396		
2,000.0	1,999.6	1,971.1	1,952.3	3.5	5.3	-93.67	89.7	193.1	232.1	225.2	6.88	33.737		
2,100.0	2,099.6	2,069.0	2,048.1	3.7	5.7	-93.41	97.9	211.5	252.6	245.4	7.23	34.950		
2,200.0	2,199.6	2,166.8	2,143.9	3.8	6.1	-93.20	106.0	229.8	273.1	265.5	7.57	36.052		
2,300.0	2,299.6	2,264.7	2,239.7	4.0	6.5	-93.02	114.1	248.2	293.5	285.6	7.92	37.059		
2,400.0	2,399.6	2,362.6	2,335.5	4.2	6.9	-92.86	122.2	266.6	314.0	305.8	8.27	37.981		
2,500.0	2,499.6	2,460.5	2,431.3	4.4	7.3	-92.72	130.3	284.9	334.5	325.9	8.61	38.829		
2,600.0	2,599.6	2,558.3	2,527.1	4.6	7.7	-92.59	138.5	303.3	355.0	346.0	8.96	39.613		
2,700.0	2,699.6	2,656.2	2,622.9	4.7	8.0	-92.48	146.6	321.7	375.5	366.2	9.31	40.338		
2,800.0	2,799.6	2,754.1	2,718.7	4.9	8.4	-92.38	154.7	340.0	395.9	386.3	9.65	41.011		
2,900.0	2,899.6	2,852.0	2,814.5	5.1	8.8	-92.29	162.8	358.4	416.4	406.4	10.00	41.637		
3,000.0	2,999.5	2,949.9	2,910.3	5.3	9.2	-92.21	171.0	376.8	436.9	426.6	10.35	42.222		
3,100.0	3,099.5	3,047.7	3,006.1	5.4	9.6	-92.14	179.1	395.1	457.4	446.7	10.69	42.769		
3,200.0	3,199.5	3,145.6	3,101.8	5.6	10.0	-92.07	187.2	413.5	477.9	466.8	11.04	43.282		
3,300.0	3,299.5	3,243.5	3,197.6	5.8	10.4	-92.01	195.3	431.9	498.4	487.0	11.39	43.763		
3,400.0	3,399.5	3,341.4	3,293.4	6.0	10.8	-91.95	203.4	450.2	518.9	507.1	11.73	44.216		
3,500.0	3,499.5	3,439.2	3,389.2	6.1	11.2	-91.90	211.6	468.6	539.3	527.3	12.08	44.644		
3,600.0	3,599.5	3,537.1	3,485.0	6.3	11.6	-91.85	219.7	487.0	559.8	547.4	12.43	45.047		
3,700.0	3,699.5	3,635.0	3,580.8	6.5	12.0	-91.80	227.8	505.3	580.3	567.6	12.77	45.429		
3,800.0	3,799.5	3,732.9	3,676.6	6.7	12.4	-91.76	235.9	523.7	600.8	587.7	13.12	45.790		
3,900.0	3,899.5	3,830.8	3,772.4	6.8	12.8	-91.72	244.1	542.1	621.3	607.8	13.47	46.133		
4,000.0	3,999.5	3,928.6	3,868.2	7.0	13.1	-91.69	252.2	560.4	641.8	628.0	13.81	46.459		
4,100.0	4,099.5	4,026.5	3,964.0	7.2	13.5	-91.65	260.3	578.8	662.3	648.1	14.16	46.769		
4,200.0	4,199.5	4,124.4	4,059.8	7.4	13.9	-91.62	268.4	597.2	682.8	668.3	14.51	47.064		
4,300.0	4,299.4	4,222.3	4,155.6	7.5	14.3	-91.59	276.5	615.5	703.3	688.4	14.85	47.345		
4,400.0	4,399.4	4,320.1	4,251.4	7.7	14.7	-91.56	284.7	633.9	723.8	708.6	15.20	47.614		
4,500.0	4,499.4	4,418.0	4,347.2	7.9	15.1	-91.53	292.8	652.3	744.2	728.7	15.55	47.870		
4,600.0	4,599.4	4,515.9	4,443.0	8.1	15.5	-91.50	300.9	670.6	764.7	748.8	15.89	48.116		
4,700.0	4,699.4	4,613.8	4,538.8	8.2	15.9	-91.48	309.0	689.0	785.2	769.0	16.24	48.351		
4,800.0	4,799.4	4,711.7	4,634.6	8.4	16.3	-91.46	317.2	707.4	805.7	789.1	16.59	48.576		
4,900.0	4,899.4	4,809.5	4,730.4	8.6	16.7	-91.43	325.3	725.7	826.2	809.3	16.93	48.792		
5,000.0	4,999.4	4,907.4	4,826.2	8.8	17.1	-91.41	333.4	744.1	846.7	829.4	17.28	48.999		

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

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## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
5,100.0	5,099.4	5,005.3	4,922.0	8.9	17.5	-91.39	341.5	762.5	867.2	849.6	17.63	49.198			
5,200.0	5,199.4	5,103.2	5,017.7	9.1	17.9	-91.37	349.6	780.8	887.7	869.7	17.97	49.390			
5,300.0	5,299.4	5,201.0	5,113.5	9.3	18.3	-91.36	357.8	799.2	908.2	889.9	18.32	49.574			
5,400.0	5,399.4	5,298.9	5,209.3	9.5	18.7	-91.34	365.9	817.6	928.7	910.0	18.67	49.751			
5,500.0	5,499.3	5,396.8	5,305.1	9.6	19.1	-91.32	374.0	835.9	949.2	930.1	19.01	49.922			
5,600.0	5,599.3	5,494.7	5,400.9	9.8	19.5	-91.31	382.1	854.3	969.7	950.3	19.36	50.087			
5,700.0	5,699.3	5,592.5	5,496.7	10.0	19.8	-91.29	390.3	872.7	990.1	970.4	19.71	50.246			
5,800.0	5,799.3	5,690.4	5,592.5	10.2	20.2	-91.28	398.4	891.1	1,010.6	990.6	20.05	50.400			

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## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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							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	0.00	0.0	0.0	0.0					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	0.0	0.0	0.0	-0.3	0.30	0.041	Level 1	
200.0	200.0	200.0	200.0	0.3	0.3	0.00	0.0	0.0	0.0	-0.6	0.65	0.019	Level 1, CC, ES, SF	
300.0	300.0	300.0	300.0	0.5	0.5	70.21	0.3	0.8	0.9	-0.1	1.00	0.875	Level 1	
400.0	400.0	399.9	399.8	0.7	0.7	-155.20	1.1	3.3	4.3	2.9	1.35	3.159		
500.0	500.0	499.5	499.4	0.9	0.9	-158.45	2.6	7.4	11.0	9.3	1.70	6.467		
600.0	599.9	598.7	598.4	1.0	1.1	-160.05	4.5	13.1	21.0	19.0	2.05	10.280		
700.0	699.8	697.6	697.0	1.2	1.3	-153.72	7.0	20.4	32.8	30.4	2.40	13.674		
800.0	799.7	796.3	795.2	1.4	1.5	-135.73	10.1	29.3	44.4	41.7	2.74	16.195		
900.0	899.7	894.7	893.0	1.6	1.8	-92.35	13.7	39.8	56.1	53.0	3.09	18.155		
1,000.0	999.7	992.9	990.3	1.7	2.0	-91.51	17.9	51.8	68.9	65.4	3.43	20.063		
1,100.0	1,099.7	1,090.5	1,086.9	1.9	2.3	-90.76	22.5	65.3	83.4	79.6	3.78	22.079		
1,200.0	1,199.7	1,187.7	1,182.8	2.1	2.6	-90.10	27.7	80.3	99.5	95.4	4.12	24.178		
1,300.0	1,299.7	1,284.2	1,277.8	2.3	3.0	-89.52	33.3	96.7	117.4	112.9	4.46	26.342		
1,400.0	1,399.7	1,380.2	1,371.9	2.4	3.3	-89.01	39.5	114.5	136.8	132.0	4.79	28.560		
1,500.0	1,499.7	1,475.5	1,465.0	2.6	3.7	-88.56	46.1	133.7	157.9	152.8	5.12	30.821		
1,600.0	1,599.7	1,570.1	1,557.1	2.8	4.1	-88.17	53.1	154.1	180.7	175.2	5.45	33.120		
1,700.0	1,699.7	1,666.4	1,650.6	3.0	4.5	-87.82	60.7	176.0	204.6	198.8	5.80	35.296		
1,800.0	1,799.6	1,763.5	1,744.8	3.1	5.0	-87.54	68.3	198.2	228.5	222.4	6.14	37.214		
1,900.0	1,899.6	1,860.6	1,839.0	3.3	5.4	-87.32	75.9	220.3	252.5	246.0	6.49	38.928		
2,000.0	1,999.6	1,957.6	1,933.2	3.5	5.8	-87.13	83.6	242.5	276.5	269.6	6.83	40.471		
2,100.0	2,099.6	2,054.7	2,027.4	3.7	6.3	-86.97	91.2	264.6	300.4	293.2	7.18	41.865		
2,200.0	2,199.6	2,151.8	2,121.6	3.8	6.7	-86.84	98.8	286.7	324.4	316.9	7.52	43.133		
2,300.0	2,299.6	2,248.9	2,215.8	4.0	7.2	-86.73	106.4	308.9	348.4	340.5	7.87	44.289		
2,400.0	2,399.6	2,346.0	2,310.1	4.2	7.6	-86.63	114.1	331.0	372.3	364.1	8.21	45.349		
2,500.0	2,499.6	2,443.1	2,404.3	4.4	8.1	-86.54	121.7	353.1	396.3	387.8	8.56	46.323		
2,600.0	2,599.6	2,540.1	2,498.5	4.6	8.5	-86.46	129.3	375.3	420.3	411.4	8.90	47.223		
2,700.0	2,699.6	2,637.2	2,592.7	4.7	9.0	-86.39	136.9	397.4	444.3	435.0	9.25	48.055		
2,800.0	2,799.6	2,734.3	2,686.9	4.9	9.4	-86.33	144.6	419.5	468.3	458.7	9.59	48.828		
2,900.0	2,899.6	2,831.4	2,781.1	5.1	9.8	-86.27	152.2	441.7	492.2	482.3	9.93	49.547		
3,000.0	2,999.5	2,928.5	2,875.4	5.3	10.3	-86.22	159.8	463.8	516.2	505.9	10.28	50.218		
3,100.0	3,099.5	3,025.5	2,969.6	5.4	10.7	-86.17	167.4	485.9	540.2	529.6	10.62	50.845		
3,200.0	3,199.5	3,122.6	3,063.8	5.6	11.2	-86.13	175.1	508.1	564.2	553.2	10.97	51.434		
3,300.0	3,299.5	3,219.7	3,158.0	5.8	11.6	-86.09	182.7	530.2	588.2	576.8	11.31	51.986		
3,400.0	3,399.5	3,316.8	3,252.2	6.0	12.1	-86.06	190.3	552.4	612.1	600.5	11.66	52.506		
3,500.0	3,499.5	3,413.9	3,346.4	6.1	12.5	-86.02	198.0	574.5	636.1	624.1	12.00	52.996		
3,600.0	3,599.5	3,510.9	3,440.7	6.3	13.0	-85.99	205.6	596.6	660.1	647.7	12.35	53.459		
3,700.0	3,699.5	3,608.0	3,534.9	6.5	13.4	-85.96	213.2	618.8	684.1	671.4	12.69	53.897		
3,800.0	3,799.5	3,705.1	3,629.1	6.7	13.9	-85.94	220.8	640.9	708.1	695.0	13.04	54.312		
3,900.0	3,899.5	3,802.2	3,723.3	6.8	14.3	-85.91	228.5	663.0	732.0	718.7	13.38	54.705		
4,000.0	3,999.5	3,899.3	3,817.5	7.0	14.8	-85.89	236.1	685.2	756.0	742.3	13.73	55.078		
4,100.0	4,099.5	3,996.4	3,911.7	7.2	15.2	-85.87	243.7	707.3	780.0	765.9	14.07	55.434		
4,200.0	4,199.5	4,093.4	4,005.9	7.4	15.7	-85.84	251.3	729.4	804.0	789.6	14.42	55.772		
4,300.0	4,299.4	4,190.5	4,100.2	7.5	16.1	-85.83	259.0	751.6	828.0	813.2	14.76	56.095		
4,400.0	4,399.4	4,287.6	4,194.4	7.7	16.6	-85.81	266.6	773.7	851.9	836.8	15.10	56.403		
4,500.0	4,499.4	4,384.7	4,288.6	7.9	17.0	-85.79	274.2	795.8	875.9	860.5	15.45	56.697		
4,600.0	4,599.4	4,481.8	4,382.8	8.1	17.5	-85.77	281.9	818.0	899.9	884.1	15.79	56.978		
4,700.0	4,699.4	4,578.8	4,477.0	8.2	17.9	-85.76	289.5	840.1	923.9	907.7	16.14	57.248		
4,800.0	4,799.4	4,675.9	4,571.2	8.4	18.4	-85.74	297.1	862.3	947.9	931.4	16.48	57.506		
4,900.0	4,899.4	4,773.0	4,665.5	8.6	18.8	-85.73	304.7	884.4	971.9	955.0	16.83	57.753		
5,000.0	4,999.4	4,870.1	4,759.7	8.8	19.3	-85.71	312.4	906.5	995.8	978.7	17.17	57.991		

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

# Cathedral Energy Services

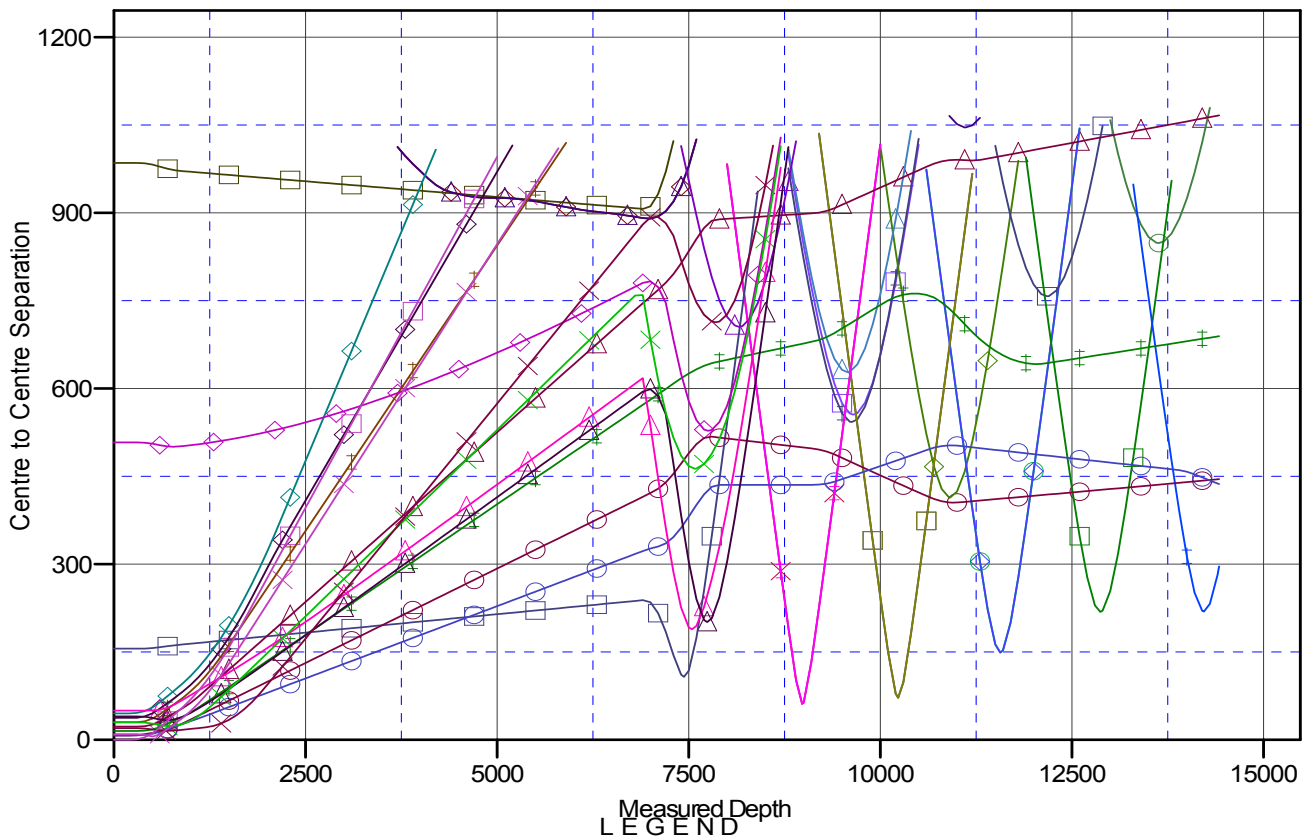
## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2B-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2B-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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-Becky 2B-7H-E168  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.29°

### Ladder Plot



STING), ENCANAWELL, SURVEYS V0	BECKY 2-6 (EXISTING), NOBLE WELL, NO SURVEYS V0	Woolley-Becky 2F-7H-E168, Hz, Plan #3
ISTING), ENCANAWELL, SURVEYS V0	BECKY 4 (EXISTING), MARTINEXP WELL, NO SURVEYS V0	Woolley-Becky 2G-7H-E168, Hz, Plan #3
VO	BECKY 5-6 (EXISTING), FOUNDATION WELL, NO SURVEYS V0	Woolley-Becky 2H-7H-E168, Hz, Plan #3
#1 V0	Thomas 7-12 (Existing), Existing, NO SURVEYS V0	Woolley-Sosa 2A-7H-E168, Hz, Plan #2
ig Well), DD, DD V0	WOOLLEY 11-7 (EXISTING), ENCANAWELL, SURVEYS V0	Woolley-Sosa 2B-7H-E168, HZ, Plan #2
g Well), DD, DD V0	WOOLLEY 12-7 (EXISTING), ENCANAWELL, NO SURVEYS V0	Woolley-Sosa 2C-7H-E168, HZ, Plan #2
STING), ENCANAWELL, SURVEYS V0	WOOLLEY 2-4-7 (EXISTING), ENCANAWELL, SURVEYS V0	Woolley-Sosa 2D-7H-E168, HZ, Plan #2
VG), ENCANAWELL, SURVEYS V0	WOOLLEY F UNIT 1 (EXISTING), ENCANAWELL, GYRO V0	Woolley-Sosa 2E-7H-E168, HZ, Plan #3
STING), ENCANAWELL, SURVEYS V0	Woolley-Becky 2A-7H-E168, Hz, Plan #3 V0	Woolley-Sosa 2F-7H-E168, HZ, Plan #2
STING), ENCANAWELL, SURVEYS V0	Woolley-Becky 2C-7H-E168, Hz, Plan #5 V0	Woolley-Sosa 2G-7H-E168, HZ, Plan #2

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