



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site:</b>	S7-T2N-R67W (Wandell)	<b>North Reference:</b>	True
<b>Well:</b>	Wandell 2G-7H-D267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #2		

<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-T2N-R67W (Wandell)			
Site Position:		Northing:	1,300,891.64 ft	Latitude:	40.157970
From:	Lat/Long	Easting:	3,157,022.59 ft	Longitude:	-104.938230
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.36 °

Well	Wandell 2G-7H-D267					
Well Position	+N/-S	0.0 ft	Northing:	1,300,731.69 ft	Latitude:	40.157530
	+E/-W	0.0 ft	Easting:	3,157,076.71 ft	Longitude:	-104.938040
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,872.0 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 (nT)</b>
	IGRF2010	6/28/2013	8.66	66.76	52,771

<b>Design</b>	Plan #2			
<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) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	162.91

<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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,312.5	11.12	61.55	1,305.5	51.3	94.7	1.00	1.00	0.00	61.55	
6,867.8	11.12	61.55	6,756.4	561.9	1,037.1	0.00	0.00	0.00	0.00	
7,819.7	90.00	179.50	7,372.0	-7.7	1,149.0	10.00	8.29	12.39	117.50	
11,658.9	90.00	179.50	7,372.0	-3,846.8	1,182.5	0.00	0.00	0.00	0.00	Wandell 2G-7H-D267

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<b>Site:</b>	S7-T2N-R67W (Wandell)	<b>North Reference:</b>	True
<b>Well:</b>	Wandell 2G-7H-D267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'
285.0	0.85	61.55	285.0	0.3	0.6	-0.1	1.00	1.00	Fox Hills - BASE
300.0	1.00	61.55	300.0	0.4	0.8	-0.2	1.00	1.00	
400.0	2.00	61.55	400.0	1.7	3.1	-0.7	1.00	1.00	
500.0	3.00	61.55	499.9	3.7	6.9	-1.5	1.00	1.00	
600.0	4.00	61.55	599.7	6.6	12.3	-2.7	1.00	1.00	
700.0	5.00	61.55	699.4	10.4	19.2	-4.3	1.00	1.00	
800.0	6.00	61.55	798.9	15.0	27.6	-6.2	1.00	1.00	
900.0	7.00	61.55	898.3	20.3	37.5	-8.4	1.00	1.00	
1,000.0	8.00	61.55	997.4	26.6	49.0	-11.0	1.00	1.00	
1,100.0	9.00	61.55	1,096.3	33.6	62.0	-13.9	1.00	1.00	
1,200.0	10.00	61.55	1,194.9	41.5	76.5	-17.2	1.00	1.00	
1,300.0	11.00	61.55	1,293.3	50.2	92.6	-20.7	1.00	1.00	
1,312.5	11.12	61.55	1,305.5	51.3	94.7	-21.2	1.00	1.00	EOB; Inc=11.12°
1,400.0	11.12	61.55	1,391.4	59.3	109.5	-24.5	0.00	0.00	
1,500.0	11.12	61.55	1,489.5	68.5	126.5	-28.3	0.00	0.00	
1,600.0	11.12	61.55	1,587.6	77.7	143.4	-32.1	0.00	0.00	
1,700.0	11.12	61.55	1,685.7	86.9	160.4	-35.9	0.00	0.00	
1,800.0	11.12	61.55	1,783.9	96.1	177.4	-39.7	0.00	0.00	
1,900.0	11.12	61.55	1,882.0	105.3	194.3	-43.5	0.00	0.00	
2,000.0	11.12	61.55	1,980.1	114.5	211.3	-47.3	0.00	0.00	
2,100.0	11.12	61.55	2,078.2	123.7	228.3	-51.2	0.00	0.00	
2,200.0	11.12	61.55	2,176.3	132.9	245.2	-55.0	0.00	0.00	
2,300.0	11.12	61.55	2,274.5	142.1	262.2	-58.8	0.00	0.00	
2,400.0	11.12	61.55	2,372.6	151.3	279.2	-62.6	0.00	0.00	
2,500.0	11.12	61.55	2,470.7	160.4	296.1	-66.4	0.00	0.00	
2,600.0	11.12	61.55	2,568.8	169.6	313.1	-70.2	0.00	0.00	
2,700.0	11.12	61.55	2,667.0	178.8	330.0	-74.0	0.00	0.00	
2,800.0	11.12	61.55	2,765.1	188.0	347.0	-77.8	0.00	0.00	
2,900.0	11.12	61.55	2,863.2	197.2	364.0	-81.6	0.00	0.00	
3,000.0	11.12	61.55	2,961.3	206.4	380.9	-85.4	0.00	0.00	
3,100.0	11.12	61.55	3,059.4	215.6	397.9	-89.2	0.00	0.00	
3,200.0	11.12	61.55	3,157.6	224.8	414.9	-93.0	0.00	0.00	
3,300.0	11.12	61.55	3,255.7	234.0	431.8	-96.8	0.00	0.00	
3,400.0	11.12	61.55	3,353.8	243.2	448.8	-100.6	0.00	0.00	
3,500.0	11.12	61.55	3,451.9	252.4	465.8	-104.4	0.00	0.00	
3,600.0	11.12	61.55	3,550.0	261.6	482.7	-108.2	0.00	0.00	
3,700.0	11.12	61.55	3,648.2	270.8	499.7	-112.0	0.00	0.00	
3,800.0	11.12	61.55	3,746.3	279.9	516.7	-115.8	0.00	0.00	
3,900.0	11.12	61.55	3,844.4	289.1	533.6	-119.6	0.00	0.00	
4,000.0	11.12	61.55	3,942.5	298.3	550.6	-123.4	0.00	0.00	
4,100.0	11.12	61.55	4,040.6	307.5	567.5	-127.2	0.00	0.00	
4,200.0	11.12	61.55	4,138.8	316.7	584.5	-131.0	0.00	0.00	
4,272.6	11.12	61.55	4,210.0	323.4	596.8	-133.7	0.00	0.00	Sussex Marker
4,300.0	11.12	61.55	4,236.9	325.9	601.5	-134.8	0.00	0.00	
4,400.0	11.12	61.55	4,335.0	335.1	618.4	-138.6	0.00	0.00	
4,500.0	11.12	61.55	4,433.1	344.3	635.4	-142.4	0.00	0.00	
4,600.0	11.12	61.55	4,531.2	353.5	652.4	-146.2	0.00	0.00	
4,700.0	11.12	61.55	4,629.4	362.7	669.3	-150.0	0.00	0.00	
4,796.4	11.12	61.55	4,724.0	371.5	685.7	-153.7	0.00	0.00	Shannon

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<b>Well:</b>	Wandell 2G-7H-D267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #2		

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,800.0	11.12	61.55	4,727.5	371.9	686.3	-153.8	0.00	0.00	
4,900.0	11.12	61.55	4,825.6	381.1	703.3	-157.6	0.00	0.00	
4,947.3	11.12	61.55	4,872.0	385.4	711.3	-159.4	0.00	0.00	Sussex
5,000.0	11.12	61.55	4,923.7	390.3	720.2	-161.4	0.00	0.00	
5,100.0	11.12	61.55	5,021.9	399.4	737.2	-165.2	0.00	0.00	
5,200.0	11.12	61.55	5,120.0	408.6	754.2	-169.0	0.00	0.00	
5,300.0	11.12	61.55	5,218.1	417.8	771.1	-172.8	0.00	0.00	
5,400.0	11.12	61.55	5,316.2	427.0	788.1	-176.6	0.00	0.00	
5,500.0	11.12	61.55	5,414.3	436.2	805.1	-180.4	0.00	0.00	
5,600.0	11.12	61.55	5,512.5	445.4	822.0	-184.2	0.00	0.00	
5,700.0	11.12	61.55	5,610.6	454.6	839.0	-188.0	0.00	0.00	
5,800.0	11.12	61.55	5,708.7	463.8	855.9	-191.8	0.00	0.00	
5,900.0	11.12	61.55	5,806.8	473.0	872.9	-195.6	0.00	0.00	
6,000.0	11.12	61.55	5,904.9	482.2	889.9	-199.4	0.00	0.00	
6,100.0	11.12	61.55	6,003.1	491.4	906.8	-203.2	0.00	0.00	
6,200.0	11.12	61.55	6,101.2	500.6	923.8	-207.0	0.00	0.00	
6,300.0	11.12	61.55	6,199.3	509.7	940.8	-210.8	0.00	0.00	
6,300.7	11.12	61.55	6,200.0	509.8	940.9	-210.8	0.00	0.00	Teepee Buttes (*if present)
6,400.0	11.12	61.55	6,297.4	518.9	957.7	-214.6	0.00	0.00	
6,500.0	11.12	61.55	6,395.5	528.1	974.7	-218.4	0.00	0.00	
6,600.0	11.12	61.55	6,493.7	537.3	991.7	-222.2	0.00	0.00	
6,700.0	11.12	61.55	6,591.8	546.5	1,008.6	-226.0	0.00	0.00	
6,800.0	11.12	61.55	6,689.9	555.7	1,025.6	-229.8	0.00	0.00	
6,867.8	11.12	61.55	6,756.4	561.9	1,037.1	-232.4	0.00	0.00	Start build/turn @ 6867' MD
6,900.0	10.05	78.14	6,788.1	564.0	1,042.6	-232.8	10.00	-3.35	
7,000.0	12.69	129.00	6,886.4	558.9	1,059.7	-222.8	10.00	2.64	
7,100.0	20.47	151.77	6,982.2	536.5	1,076.5	-196.5	10.00	7.78	
7,138.6	23.91	156.43	7,018.0	523.4	1,082.9	-182.1	10.00	8.91	Sharon Springs
7,200.0	29.58	161.68	7,072.8	497.6	1,092.6	-154.6	10.00	9.24	
7,237.7	33.14	164.07	7,105.0	478.8	1,098.4	-134.9	10.00	9.44	Niobrara
7,298.4	38.94	167.09	7,154.0	444.3	1,107.2	-99.3	10.00	9.56	B Chalk
7,300.0	39.10	167.16	7,155.3	443.3	1,107.4	-98.3	10.00	9.62	
7,329.9	41.98	168.37	7,178.0	424.3	1,111.5	-78.9	10.00	9.65	B Marl
7,384.7	47.30	170.28	7,217.0	386.4	1,118.6	-40.7	10.00	9.70	C Chalk
7,400.0	48.79	170.75	7,227.2	375.2	1,120.5	-29.4	10.00	9.73	
7,429.4	51.65	171.60	7,246.0	352.9	1,124.0	-7.1	10.00	9.75	C Marl
7,500.0	58.56	173.40	7,286.4	295.5	1,131.5	50.0	10.00	9.78	
7,600.0	68.37	175.55	7,331.0	206.6	1,140.0	137.5	10.00	9.81	
7,622.8	70.61	176.00	7,339.0	185.3	1,141.6	158.4	10.00	9.83	Ft. Hayes
7,700.0	78.21	177.42	7,359.7	111.1	1,145.8	230.5	10.00	9.84	
7,711.7	79.36	177.63	7,362.0	99.6	1,146.3	241.6	10.00	9.85	Codell
7,800.0	88.06	179.16	7,371.7	12.0	1,148.8	326.1	10.00	9.85	
7,819.7	90.00	179.50	7,372.0	-7.7	1,149.0	345.0	10.00	9.85	LP @ 7372' TVD; 90°
7,900.0	90.00	179.50	7,372.0	-88.0	1,149.7	421.9	0.00	0.00	
8,000.0	90.00	179.50	7,372.0	-188.0	1,150.6	517.8	0.00	0.00	
8,100.0	90.00	179.50	7,372.0	-288.0	1,151.4	613.6	0.00	0.00	
8,200.0	90.00	179.50	7,372.0	-388.0	1,152.3	709.5	0.00	0.00	
8,300.0	90.00	179.50	7,372.0	-488.0	1,153.2	805.3	0.00	0.00	
8,400.0	90.00	179.50	7,372.0	-588.0	1,154.1	901.1	0.00	0.00	
8,500.0	90.00	179.50	7,372.0	-688.0	1,154.9	997.0	0.00	0.00	
8,600.0	90.00	179.50	7,372.0	-788.0	1,155.8	1,092.8	0.00	0.00	
8,700.0	90.00	179.50	7,372.0	-888.0	1,156.7	1,188.6	0.00	0.00	

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<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
8,800.0	90.00	179.50	7,372.0	-988.0	1,157.5	1,284.5	0.00	0.00	
8,900.0	90.00	179.50	7,372.0	-1,088.0	1,158.4	1,380.3	0.00	0.00	
9,000.0	90.00	179.50	7,372.0	-1,188.0	1,159.3	1,476.2	0.00	0.00	
9,100.0	90.00	179.50	7,372.0	-1,288.0	1,160.2	1,572.0	0.00	0.00	
9,200.0	90.00	179.50	7,372.0	-1,388.0	1,161.0	1,667.8	0.00	0.00	
9,300.0	90.00	179.50	7,372.0	-1,488.0	1,161.9	1,763.7	0.00	0.00	
9,400.0	90.00	179.50	7,372.0	-1,588.0	1,162.8	1,859.5	0.00	0.00	
9,500.0	90.00	179.50	7,372.0	-1,687.9	1,163.7	1,955.4	0.00	0.00	
9,600.0	90.00	179.50	7,372.0	-1,787.9	1,164.5	2,051.2	0.00	0.00	
9,700.0	90.00	179.50	7,372.0	-1,887.9	1,165.4	2,147.0	0.00	0.00	
9,800.0	90.00	179.50	7,372.0	-1,987.9	1,166.3	2,242.9	0.00	0.00	
9,900.0	90.00	179.50	7,372.0	-2,087.9	1,167.1	2,338.7	0.00	0.00	
10,000.0	90.00	179.50	7,372.0	-2,187.9	1,168.0	2,434.6	0.00	0.00	
10,100.0	90.00	179.50	7,372.0	-2,287.9	1,168.9	2,530.4	0.00	0.00	
10,200.0	90.00	179.50	7,372.0	-2,387.9	1,169.8	2,626.2	0.00	0.00	
10,300.0	90.00	179.50	7,372.0	-2,487.9	1,170.6	2,722.1	0.00	0.00	
10,400.0	90.00	179.50	7,372.0	-2,587.9	1,171.5	2,817.9	0.00	0.00	
10,500.0	90.00	179.50	7,372.0	-2,687.9	1,172.4	2,913.7	0.00	0.00	
10,600.0	90.00	179.50	7,372.0	-2,787.9	1,173.3	3,009.6	0.00	0.00	
10,700.0	90.00	179.50	7,372.0	-2,887.9	1,174.1	3,105.4	0.00	0.00	
10,800.0	90.00	179.50	7,372.0	-2,987.9	1,175.0	3,201.3	0.00	0.00	
10,900.0	90.00	179.50	7,372.0	-3,087.9	1,175.9	3,297.1	0.00	0.00	
11,000.0	90.00	179.50	7,372.0	-3,187.9	1,176.7	3,392.9	0.00	0.00	
11,100.0	90.00	179.50	7,372.0	-3,287.9	1,177.6	3,488.8	0.00	0.00	
11,200.0	90.00	179.50	7,372.0	-3,387.9	1,178.5	3,584.6	0.00	0.00	
11,300.0	90.00	179.50	7,372.0	-3,487.9	1,179.4	3,680.5	0.00	0.00	
11,400.0	90.00	179.50	7,372.0	-3,587.9	1,180.2	3,776.3	0.00	0.00	
11,500.0	90.00	179.50	7,372.0	-3,687.9	1,181.1	3,872.1	0.00	0.00	
11,600.0	90.00	179.50	7,372.0	-3,787.9	1,182.0	3,968.0	0.00	0.00	
11,658.9	90.00	179.50	7,372.0	-3,846.8	1,182.5	4,024.4	0.00	0.00	TD at 11658.9

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Wandell 2G-7H-D267 PE	0.00	0.37	7,372.0	-3,846.8	1,182.5	1,296,892.50	3,158,283.56	40.146970	-104.933810
- plan hits target center									
- Point									

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site:</b>	S7-T2N-R67W (Wandell)	<b>North Reference:</b>	True
<b>Well:</b>	Wandell 2G-7H-D267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #2		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
285.0	285.0	Fox Hills - BASE				
4,272.6	4,210.0	Sussex Marker				
4,796.4	4,724.0	Shannon				
4,947.3	4,872.0	Sussex				
6,300.7	6,200.0	Teepee Buttes (*if present)				
7,138.6	7,018.0	Sharon Springs				
7,237.7	7,105.0	Niobrara				
7,298.4	7,154.0	B Chalk				
7,329.9	7,178.0	B Marl				
7,384.7	7,217.0	C Chalk				
7,429.4	7,246.0	C Marl				
7,622.8	7,339.0	Ft. Hayes				
7,711.7	7,362.0	Codell				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.0	200.0	0.0	0.0	KOP @ 200'	
1,312.5	1,305.5	51.3	94.7	EOB; Inc=11.12°	
6,867.8	6,756.4	561.9	1,037.1	Start build/turn @ 6867' MD	
7,819.7	7,372.0	-7.7	1,149.0	LP @ 7372' TVD; 90°	
11,658.9	7,372.0	-3,846.8	1,182.5	TD at 11658.9	

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

**DJ Wattenberg**

**S7-T2N-R67W (Wandell)**

**Wandell 2G-7H-D267**

**HZ**

**Plan #2**

## **Anticollision Report**

**15 July, 2013**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #2		
<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 center-center distance of 500.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	7/15/2013		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	11,658.9	Plan #2 (HZ)	Geolink MWD	Geolink MWD

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S7-T2N-R67W (Wandell)						
WANDELL #2 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
WANDELL 0-4-7 (EXISTING) - ENCANA WELL - SURVE						Out of range
WANDELL 11-7 (EXISTING) - DD - Plan #1						Out of range
WANDELL 12-7 (EXISTING) - ENCANA WELL - NO SUR						Out of range
WANDELL 13-7 (EXISTING) - DD - DD						Out of range
WANDELL 13-7 (EXISTING) - DD - Plan #1						Out of range
WANDELL 2-0-7 (EXISTING) - ENCANA WELL - SURVE						Out of range
WANDELL 21-7 (EXISTING) - ENCANA WELL - NO SUR	7,630.8	7,322.6	156.4	130.2	5.985	CC, ES, SF
WANDELL 22-7 (EXISTING) - ENCANA WELL - SURVEY	8,781.0	7,554.3	283.1	246.4	7.706	CC, ES
WANDELL 22-7 (EXISTING) - ENCANA WELL - SURVEY	8,800.0	7,554.2	283.7	246.7	7.668	SF
WANDELL 23-7 (EXISTING) - DD - Plan #1	10,170.1	7,747.8	335.4	268.3	5.001	CC, ES
WANDELL 23-7 (EXISTING) - DD - Plan #1	10,200.0	7,745.0	336.7	269.1	4.981	SF
WANDELL 24-7 (EXISTING) - ENCANA WELL - SURVEY						Out of range
Wandell 2A-7H-D267 - HZ - Plan #1	200.0	199.0	61.5	60.8	94.456	CC, ES
Wandell 2A-7H-D267 - HZ - Plan #1	700.0	691.8	98.7	96.3	40.743	SF
Wandell 2B-7H-D267 - HZ - Plan #1	200.0	199.0	50.3	49.7	77.282	CC, ES
Wandell 2B-7H-D267 - HZ - Plan #1	700.0	694.9	79.0	76.6	32.609	SF
Wandell 2C-7H-D267 - HZ - Plan #1	200.0	199.0	39.1	38.5	60.108	CC, ES
Wandell 2C-7H-D267 - HZ - Plan #1	700.0	697.7	60.7	58.3	25.090	SF
Wandell 2D-7H-D267 - HZ - Plan #1	200.0	199.0	30.7	30.1	47.228	CC, ES
Wandell 2D-7H-D267 - HZ - Plan #1	700.0	698.8	50.1	47.6	20.801	SF
Wandell 2E-7H-D267 - HZ - Plan #1	200.0	200.0	19.6	18.9	29.974	CC, ES
Wandell 2E-7H-D267 - HZ - Plan #1	800.0	800.9	39.7	37.0	14.247	SF
Wandell 2F-7H-D267 - HZ - Plan #1	200.0	200.0	11.2	10.5	17.128	CC, ES
Wandell 2F-7H-D267 - HZ - Plan #1	10,200.0	9,940.4	498.7	415.2	5.970	SF
WANDELL 4-0-7 (EXISTING) - ENCANA WELL - SURVE	0.0	0.0	168.9			
WANDELL 4-0-7 (EXISTING) - ENCANA WELL - SURVE	1,732.2	1,734.0	173.8	165.1	19.962	ES
WANDELL 4-0-7 (EXISTING) - ENCANA WELL - SURVE	2,300.0	2,292.1	203.3	190.0	15.283	SF
WANDELL 4-4-7 (EXISTING) - ENCANA WELL - SURVE	9,513.6	7,729.9	78.1	22.7	1.411	Level 3, CC, ES, SF
WANDELL C UNIT #1 (EXISTING) - ENCANA WELL - NO	565.4	542.2	120.1	118.1	61.694	CC
WANDELL C UNIT #1 (EXISTING) - ENCANA WELL - NO	600.0	576.7	120.1	118.0	57.857	ES
WANDELL C UNIT #1 (EXISTING) - ENCANA WELL - NO	1,300.0	1,270.3	152.2	147.3	30.671	SF



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T2N-R67W (Wandell) - WANDELL 21-7 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 7930-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)				
3,700.0	3,648.2	3,629.2	3,629.2	12.1	6.3	41.00	167.2	986.1	497.3	481.7	15.59	31.907		
3,800.0	3,746.3	3,727.3	3,727.3	12.5	6.5	42.49	167.2	986.1	482.8	466.6	16.19	29.821		
3,900.0	3,844.4	3,825.4	3,825.4	12.8	6.7	44.07	167.2	986.1	468.6	451.8	16.81	27.874		
4,000.0	3,942.5	3,923.5	3,923.5	13.2	6.8	45.75	167.2	986.1	454.8	437.4	17.45	26.061		
4,100.0	4,040.6	4,021.6	4,021.6	13.6	7.0	47.52	167.2	986.1	441.4	423.3	18.11	24.372		
4,200.0	4,138.8	4,119.8	4,119.8	14.0	7.2	49.41	167.2	986.1	428.5	409.7	18.79	22.803		
4,300.0	4,236.9	4,217.9	4,217.9	14.4	7.4	51.40	167.2	986.1	416.1	396.6	19.49	21.348		
4,400.0	4,335.0	4,316.0	4,316.0	14.7	7.5	53.51	167.2	986.1	404.2	384.0	20.21	20.003		
4,500.0	4,433.1	4,414.1	4,414.1	15.1	7.7	55.75	167.2	986.1	392.9	371.9	20.94	18.763		
4,600.0	4,531.2	4,512.2	4,512.2	15.5	7.9	58.11	167.2	986.1	382.2	360.5	21.68	17.624		
4,700.0	4,629.4	4,610.4	4,610.4	15.9	8.0	60.59	167.2	986.1	372.2	349.8	22.44	16.584		
4,800.0	4,727.5	4,708.5	4,708.5	16.3	8.2	63.21	167.2	986.1	363.0	339.8	23.21	15.639		
4,900.0	4,825.6	4,806.6	4,806.6	16.7	8.4	65.95	167.2	986.1	354.6	330.6	23.98	14.786		
5,000.0	4,923.7	4,904.7	4,904.7	17.0	8.6	68.81	167.2	986.1	347.0	322.3	24.75	14.022		
5,100.0	5,021.9	5,002.9	5,002.9	17.4	8.7	71.79	167.2	986.1	340.4	314.9	25.51	13.346		
5,200.0	5,120.0	5,101.0	5,101.0	17.8	8.9	74.87	167.2	986.1	334.8	308.5	26.25	12.753		
5,300.0	5,218.1	5,199.1	5,199.1	18.2	9.1	78.05	167.2	986.1	330.2	303.2	26.97	12.242		
5,400.0	5,316.2	5,297.2	5,297.2	18.6	9.2	81.30	167.2	986.1	326.6	299.0	27.66	11.810		
5,500.0	5,414.3	5,395.3	5,395.3	19.0	9.4	84.61	167.2	986.1	324.2	295.9	28.31	11.453		
5,600.0	5,512.5	5,493.5	5,493.5	19.3	9.6	87.96	167.2	986.1	323.0	294.0	28.92	11.168		
5,660.8	5,572.1	5,553.1	5,553.1	19.6	9.7	90.00	167.2	986.1	322.7	293.5	29.27	11.028		
5,700.0	5,610.6	5,591.6	5,591.6	19.7	9.8	91.32	167.2	986.1	322.8	293.4	29.48	10.951		
5,800.0	5,708.7	5,689.7	5,689.7	20.1	9.9	94.67	167.2	986.1	323.9	293.9	29.99	10.800		
5,900.0	5,806.8	5,787.8	5,787.8	20.5	10.1	97.99	167.2	986.1	326.0	295.6	30.44	10.710		
6,000.0	5,904.9	5,885.9	5,885.9	20.9	10.3	101.25	167.2	986.1	329.3	298.5	30.84	10.678		
6,100.0	6,003.1	5,984.1	5,984.1	21.3	10.4	104.45	167.2	986.1	333.7	302.5	31.19	10.698		
6,200.0	6,101.2	6,082.2	6,082.2	21.6	10.6	107.55	167.2	986.1	339.1	307.6	31.49	10.768		
6,300.0	6,199.3	6,180.3	6,180.3	22.0	10.8	110.55	167.2	986.1	345.5	313.8	31.75	10.882		
6,400.0	6,297.4	6,278.4	6,278.4	22.4	11.0	113.44	167.2	986.1	352.9	320.9	31.97	11.038		
6,500.0	6,395.5	6,376.5	6,376.5	22.8	11.1	116.21	167.2	986.1	361.1	328.9	32.15	11.230		
6,600.0	6,493.7	6,474.7	6,474.7	23.2	11.3	118.85	167.2	986.1	370.1	337.8	32.31	11.455		
6,700.0	6,591.8	6,572.8	6,572.8	23.6	11.5	121.37	167.2	986.1	380.0	347.5	32.45	11.709		
6,800.0	6,689.9	6,670.9	6,670.9	23.9	11.6	123.75	167.2	986.1	390.5	357.9	32.57	11.990		
6,900.0	6,788.1	6,769.1	6,769.1	24.3	11.8	126.68	167.2	986.1	400.8	368.1	32.69	12.259		
7,000.0	6,886.4	6,867.4	6,867.4	24.6	12.0	129.23	167.2	986.1	398.5	366.2	32.27	12.348		
7,100.0	6,982.2	6,963.2	6,963.2	24.7	12.2	131.36	167.2	986.1	380.2	349.2	30.97	12.274		
7,200.0	7,072.8	7,053.8	7,053.8	24.7	12.3	133.07	167.2	986.1	347.1	318.2	28.89	12.014		
7,300.0	7,155.3	7,136.3	7,136.3	24.7	12.5	134.41	167.2	986.1	301.5	275.1	26.36	11.438		
7,400.0	7,227.2	7,208.2	7,208.2	24.6	12.6	135.32	167.2	986.1	247.6	223.2	24.42	10.142		
7,500.0	7,286.4	7,267.4	7,267.4	24.5	12.7	135.80	167.2	986.1	193.9	169.3	24.63	7.872		
7,600.0	7,331.0	7,312.0	7,312.0	24.4	12.8	135.86	167.2	986.1	158.9	133.0	25.89	6.135		
7,630.8	7,341.6	7,322.6	7,322.6	24.4	12.8	135.80	167.2	986.1	156.4	130.2	26.12	5.985 CC, ES, SF		
7,700.0	7,359.7	7,340.7	7,340.7	24.4	12.8	135.71	167.2	986.1	169.3	143.0	26.27	6.445		
7,800.0	7,371.7	7,352.7	7,352.7	24.5	12.8	135.52	167.2	986.1	224.9	198.4	26.42	8.512		
7,900.0	7,372.0	7,353.0	7,353.0	24.7	12.8	135.00	167.2	986.1	303.2	276.5	26.71	11.350		
8,000.0	7,372.0	7,353.0	7,353.0	25.0	12.8	134.00	167.2	986.1	391.5	364.2	27.25	14.368		
8,100.0	7,372.0	7,353.0	7,353.0	25.4	12.8	132.00	167.2	986.1	484.3	456.4	27.97	17.317		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T2N-R67W (Wandell) - WANDELL 22-7 (EXISTING) - ENCANA WELL - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 460-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		
8,400.0	7,372.0	7,556.5	7,357.6	27.3	25.8	90.72	-971.5	874.3	474.7	443.0	31.72	14.963		
8,500.0	7,372.0	7,555.9	7,357.0	28.1	25.8	90.61	-971.5	874.3	398.9	366.0	32.94	12.110		
8,600.0	7,372.0	7,555.3	7,356.4	29.0	25.8	90.50	-971.5	874.3	336.0	301.8	34.24	9.815		
8,700.0	7,372.0	7,554.8	7,355.9	30.0	25.8	90.38	-971.5	874.3	294.5	258.9	35.59	8.273		
8,781.0	7,372.0	7,554.3	7,355.4	30.8	25.8	90.29	-971.5	874.3	283.1	246.4	36.74	7.706	CC, ES	
8,800.0	7,372.0	7,554.2	7,355.3	31.0	25.8	90.27	-971.5	874.3	283.7	246.7	37.00	7.668	SF	
8,900.0	7,372.0	7,553.7	7,354.8	32.1	25.8	90.16	-971.5	874.3	307.1	268.6	38.46	7.985		
9,000.0	7,372.0	7,553.1	7,354.2	33.3	25.8	90.04	-971.5	874.3	357.9	317.9	39.94	8.960		
9,100.0	7,372.0	7,552.5	7,353.7	34.5	25.8	89.93	-971.5	874.3	426.5	385.0	41.46	10.285		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S7-T2N-R67W (Wandell) - WANDELL 23-7 (EXISTING) - 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										
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation	Warning				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor					
9,800.0	7,372.0	7,780.0	7,478.9	44.1	28.1	101.27	-2,357.8	839.0	498.3	437.9	60.38	8.252					
9,900.0	7,372.0	7,771.8	7,470.8	45.5	28.0	99.89	-2,358.6	838.2	429.9	367.7	62.20	6.911					
10,000.0	7,372.0	7,763.2	7,462.3	47.0	28.0	98.44	-2,359.4	837.4	375.7	311.7	64.01	5.870					
10,100.0	7,372.0	7,754.3	7,453.5	48.5	28.0	96.93	-2,360.3	836.5	342.6	276.7	65.81	5.205					
10,170.1	7,372.0	7,747.8	7,447.0	49.6	28.0	95.82	-2,361.0	835.9	335.4	268.3	67.07	5.001	CC, ES				
10,200.0	7,372.0	7,745.0	7,444.2	50.1	28.0	95.34	-2,361.3	835.6	336.7	269.1	67.60	4.981	SF				
10,300.0	7,372.0	7,735.2	7,434.6	51.6	27.9	93.68	-2,362.3	834.6	359.4	290.1	69.35	5.182					
10,400.0	7,372.0	7,725.0	7,424.4	53.2	27.9	91.95	-2,363.4	833.5	405.9	334.9	71.07	5.712					
10,500.0	7,372.0	7,714.2	7,413.8	54.7	27.9	90.14	-2,364.6	832.4	469.2	396.5	72.74	6.451					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T2N-R67W (Wandell) - Wandell 2A-7H-D267 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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)						
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-61.5	61.5					
100.0	100.0	99.0	99.0	0.2	0.2	-90.00	0.0	-61.5	61.5	61.2	0.30	203.500		
200.0	200.0	199.0	199.0	0.3	0.3	-90.00	0.0	-61.5	61.5	60.8	0.65	94.456 CC, ES		
300.0	300.0	298.1	298.1	0.5	0.5	-151.50	0.5	-62.2	63.0	62.0	1.00	63.043		
400.0	400.0	397.0	397.0	0.7	0.7	-151.37	1.8	-64.3	67.4	66.1	1.35	50.014		
500.0	499.9	495.7	495.6	0.9	0.9	-151.16	4.1	-67.9	74.9	73.2	1.70	44.023		
600.0	599.7	594.0	593.7	1.1	1.1	-150.93	7.3	-72.9	85.3	83.3	2.06	41.441		
700.0	699.4	691.8	691.2	1.3	1.3	-150.70	11.4	-79.3	98.7	96.3	2.42	40.743 SF		
800.0	798.9	788.9	787.9	1.5	1.5	-150.47	16.3	-87.0	115.0	112.2	2.79	41.170		
900.0	898.3	885.3	883.6	1.8	1.7	-150.26	22.1	-96.0	134.2	131.0	3.17	42.300		
1,000.0	997.4	980.7	978.3	2.0	2.0	-150.07	28.7	-106.2	156.3	152.7	3.56	43.880		
1,100.0	1,096.3	1,075.2	1,071.8	2.3	2.3	-149.89	36.0	-117.7	181.2	177.3	3.96	45.746		
1,200.0	1,194.9	1,168.6	1,164.0	2.7	2.6	-149.72	44.1	-130.3	209.0	204.6	4.37	47.791		
1,300.0	1,293.3	1,263.0	1,257.0	3.0	2.9	-149.60	52.9	-144.0	239.1	234.4	4.80	49.863		
1,400.0	1,391.4	1,358.0	1,350.6	3.4	3.2	-149.73	61.7	-157.8	270.3	265.0	5.23	51.657		
1,500.0	1,489.5	1,453.1	1,444.2	3.7	3.5	-149.85	70.6	-171.7	301.4	295.8	5.67	53.133		
1,600.0	1,587.6	1,548.1	1,537.8	4.1	3.8	-149.95	79.5	-185.5	332.6	326.5	6.12	54.371		
1,700.0	1,685.7	1,643.1	1,631.3	4.5	4.2	-150.02	88.4	-199.4	363.7	357.2	6.56	55.423		
1,800.0	1,783.9	1,738.1	1,724.9	4.9	4.5	-150.09	97.3	-213.2	394.9	387.9	7.01	56.326		
1,900.0	1,882.0	1,833.2	1,818.5	5.2	4.8	-150.15	106.1	-227.1	426.0	418.6	7.46	57.110		
2,000.0	1,980.1	1,928.2	1,912.1	5.6	5.1	-150.20	115.0	-240.9	457.2	449.3	7.91	57.795		
2,100.0	2,078.2	2,023.2	2,005.7	6.0	5.5	-150.24	123.9	-254.8	488.3	479.9	8.36	58.399		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T2N-R67W (Wandell) - Wandell 2B-7H-D267 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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)						
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-50.3	50.3					
100.0	100.0	99.0	99.0	0.2	0.2	-90.00	0.0	-50.3	50.3	0.30	166.500			
200.0	200.0	199.0	199.0	0.3	0.3	-90.00	0.0	-50.3	50.3	0.65	77.282 CC, ES			
300.0	300.0	299.0	299.0	0.5	0.5	-152.02	0.0	-50.3	51.1	1.00	51.070			
400.0	400.0	398.3	398.3	0.7	0.7	-152.65	0.6	-50.9	54.0	1.35	40.007			
500.0	499.9	497.5	497.5	0.9	0.9	-152.73	2.4	-52.7	59.6	1.70	35.040			
600.0	599.7	596.4	596.3	1.1	1.0	-152.39	5.5	-55.6	68.0	2.06	33.016			
700.0	699.4	694.9	694.6	1.3	1.2	-151.79	9.8	-59.8	79.0	2.42	32.609 SF			
800.0	798.9	792.9	792.3	1.5	1.4	-151.07	15.2	-65.0	92.8	2.80	33.161			
900.0	898.3	890.4	889.3	1.8	1.7	-150.33	21.8	-71.4	109.3	3.19	34.303			
1,000.0	997.4	987.1	985.4	2.0	1.9	-149.61	29.6	-78.9	128.5	3.59	35.808			
1,100.0	1,096.3	1,083.0	1,080.6	2.3	2.1	-148.95	38.4	-87.5	150.3	4.00	37.546			
1,200.0	1,194.9	1,180.1	1,176.8	2.7	2.4	-148.53	47.9	-96.6	174.1	4.43	39.286			
1,300.0	1,293.3	1,276.9	1,272.7	3.0	2.7	-148.44	57.3	-105.7	199.4	4.87	40.941			
1,400.0	1,391.4	1,373.4	1,368.3	3.4	2.9	-148.61	66.7	-114.9	225.6	5.32	42.414			
1,500.0	1,489.5	1,469.9	1,463.9	3.7	3.2	-148.76	76.1	-124.0	251.8	5.77	43.625			
1,600.0	1,587.6	1,566.4	1,559.5	4.1	3.5	-148.89	85.5	-133.1	277.9	6.23	44.641			
1,700.0	1,685.7	1,662.9	1,655.1	4.5	3.8	-148.99	95.0	-142.2	304.1	6.68	45.503			
1,800.0	1,783.9	1,759.4	1,750.7	4.9	4.0	-149.07	104.4	-151.3	330.3	7.14	46.243			
1,900.0	1,882.0	1,855.9	1,846.4	5.2	4.3	-149.14	113.8	-160.4	356.5	7.60	46.884			
2,000.0	1,980.1	1,952.5	1,942.0	5.6	4.6	-149.21	123.2	-169.5	382.7	8.07	47.445			
2,100.0	2,078.2	2,049.0	2,037.6	6.0	4.9	-149.26	132.6	-178.6	408.9	8.53	47.940			
2,200.0	2,176.3	2,145.5	2,133.2	6.4	5.2	-149.31	142.0	-187.7	435.1	8.99	48.379			
2,300.0	2,274.5	2,242.0	2,228.8	6.7	5.4	-149.35	151.5	-196.8	461.3	9.46	48.771			
2,400.0	2,372.6	2,338.5	2,324.4	7.1	5.7	-149.39	160.9	-205.9	487.5	9.92	49.123			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T2N-R67W (Wandell) - Wandell 2C-7H-D267 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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)						
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-39.1	39.1					
100.0	100.0	99.0	99.0	0.2	0.2	-90.00	0.0	-39.1	39.1	38.8	0.30	129.500		
200.0	200.0	199.0	199.0	0.3	0.3	-90.00	0.0	-39.1	39.1	38.5	0.65	60.108 CC, ES		
300.0	300.0	299.0	299.0	0.5	0.5	-152.14	0.0	-39.1	39.9	38.9	1.00	39.893		
400.0	400.0	399.0	399.0	0.7	0.7	-153.79	0.0	-39.1	42.2	40.9	1.35	31.285		
500.0	499.9	498.7	498.7	0.9	0.8	-155.14	0.8	-39.4	46.4	44.7	1.70	27.274		
600.0	599.7	598.3	598.2	1.1	1.0	-155.17	3.3	-40.2	52.5	50.5	2.06	25.560		
700.0	699.4	697.7	697.6	1.3	1.2	-154.28	7.4	-41.5	60.7	58.3	2.42	25.090 SF		
800.0	798.9	796.9	796.5	1.5	1.4	-152.86	13.1	-43.3	70.9	68.1	2.80	25.350		
900.0	898.3	895.7	895.1	1.8	1.6	-151.22	20.4	-45.6	83.2	80.0	3.19	26.052		
1,000.0	997.4	994.3	993.3	2.0	1.8	-149.58	29.3	-48.4	97.5	93.9	3.61	27.033		
1,100.0	1,096.3	1,093.0	1,091.5	2.3	2.0	-148.61	38.5	-51.3	113.5	109.4	4.03	28.135		
1,200.0	1,194.9	1,191.5	1,189.5	2.7	2.3	-148.26	47.7	-54.2	130.9	126.4	4.47	29.298		
1,300.0	1,293.3	1,289.7	1,287.2	3.0	2.5	-148.32	56.8	-57.0	149.8	144.9	4.91	30.505		
1,400.0	1,391.4	1,387.7	1,384.8	3.4	2.7	-148.63	66.0	-59.9	169.7	164.3	5.36	31.638		
1,500.0	1,489.5	1,485.7	1,482.3	3.7	3.0	-148.89	75.1	-62.8	189.5	183.7	5.82	32.577		
1,600.0	1,587.6	1,583.7	1,579.8	4.1	3.2	-149.10	84.3	-65.7	209.3	203.1	6.27	33.367		
1,700.0	1,685.7	1,681.7	1,677.4	4.5	3.4	-149.27	93.4	-68.6	229.2	222.5	6.73	34.041		
1,800.0	1,783.9	1,779.7	1,774.9	4.9	3.7	-149.41	102.5	-71.5	249.0	241.8	7.19	34.622		
1,900.0	1,882.0	1,877.7	1,872.4	5.2	3.9	-149.53	111.7	-74.3	268.9	261.2	7.65	35.126		
2,000.0	1,980.1	1,975.7	1,970.0	5.6	4.1	-149.64	120.8	-77.2	288.7	280.6	8.12	35.569		
2,100.0	2,078.2	2,073.8	2,067.5	6.0	4.4	-149.73	130.0	-80.1	308.6	300.0	8.58	35.961		
2,200.0	2,176.3	2,171.8	2,165.1	6.4	4.6	-149.81	139.1	-83.0	328.4	319.4	9.05	36.310		
2,300.0	2,274.5	2,269.8	2,262.6	6.7	4.8	-149.89	148.3	-85.9	348.3	338.8	9.51	36.622		
2,400.0	2,372.6	2,367.8	2,360.1	7.1	5.1	-149.95	157.4	-88.7	368.1	358.1	9.98	36.903		
2,500.0	2,470.7	2,465.8	2,457.7	7.5	5.3	-150.01	166.5	-91.6	388.0	377.5	10.44	37.157		
2,600.0	2,568.8	2,563.8	2,555.2	7.9	5.5	-150.06	175.7	-94.5	407.8	396.9	10.91	37.388		
2,700.0	2,667.0	2,661.8	2,652.8	8.3	5.8	-150.11	184.8	-97.4	427.7	416.3	11.37	37.599		
2,800.0	2,765.1	2,759.8	2,750.3	8.6	6.0	-150.15	194.0	-100.3	447.5	435.7	11.84	37.793		
2,900.0	2,863.2	2,857.8	2,847.8	9.0	6.3	-150.19	203.1	-103.2	467.4	455.1	12.31	37.971		
3,000.0	2,961.3	2,955.8	2,945.4	9.4	6.5	-150.23	212.3	-106.0	487.2	474.5	12.78	38.135		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T2N-R67W (Wandell) - Wandell 2D-7H-D267 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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)						
0.0	0.0	0.0	0.0	0.0	0.0	-90.02	0.0	-30.7	30.8					
100.0	100.0	99.0	99.0	0.2	0.2	-90.02	0.0	-30.7	30.7	30.4	0.30	101.750		
200.0	200.0	199.0	199.0	0.3	0.3	-90.02	0.0	-30.7	30.7	30.1	0.65	47.228 CC, ES		
300.0	300.0	299.0	299.0	0.5	0.5	-152.32	0.0	-30.7	31.5	30.5	1.00	31.510		
400.0	400.0	399.0	399.0	0.7	0.7	-154.36	0.0	-30.7	33.9	32.5	1.35	25.081		
500.0	499.9	498.9	498.9	0.9	0.8	-157.21	0.0	-30.7	37.8	36.1	1.70	22.257		
600.0	599.7	598.9	598.9	1.1	1.0	-159.21	0.8	-30.7	43.3	41.3	2.05	21.122		
700.0	699.4	698.8	698.8	1.3	1.2	-159.49	3.4	-30.4	50.1	47.6	2.41	20.801 SF		
800.0	798.9	798.7	798.6	1.5	1.4	-158.62	7.7	-30.0	58.0	55.2	2.77	20.938		
900.0	898.3	898.5	898.2	1.8	1.6	-157.05	13.8	-29.3	67.2	64.1	3.15	21.346		
1,000.0	997.4	998.2	997.5	2.0	1.8	-155.10	21.5	-28.5	77.7	74.2	3.55	21.908		
1,100.0	1,096.3	1,097.6	1,096.5	2.3	2.0	-153.05	30.9	-27.6	89.7	85.7	3.97	22.570		
1,200.0	1,194.9	1,196.6	1,195.1	2.7	2.2	-151.69	40.7	-26.6	103.1	98.7	4.41	23.382		
1,300.0	1,293.3	1,295.5	1,293.4	3.0	2.4	-151.03	50.4	-25.6	118.2	113.3	4.86	24.321		
1,400.0	1,391.4	1,394.2	1,391.7	3.4	2.7	-150.80	60.1	-24.6	134.1	128.8	5.31	25.239		
1,500.0	1,489.5	1,492.9	1,489.9	3.7	2.9	-150.62	69.9	-23.6	150.1	144.3	5.78	25.988		
1,600.0	1,587.6	1,591.6	1,588.1	4.1	3.1	-150.48	79.6	-22.6	166.1	159.8	6.24	26.610		
1,700.0	1,685.7	1,690.3	1,686.3	4.5	3.4	-150.37	89.3	-21.6	182.0	175.3	6.71	27.133		
1,800.0	1,783.9	1,789.1	1,784.6	4.9	3.6	-150.27	99.1	-20.6	198.0	190.8	7.18	27.578		
1,900.0	1,882.0	1,887.8	1,882.8	5.2	3.8	-150.19	108.8	-19.6	214.0	206.3	7.65	27.961		
2,000.0	1,980.1	1,986.5	1,981.0	5.6	4.1	-150.12	118.5	-18.6	230.0	221.8	8.13	28.294		
2,100.0	2,078.2	2,085.2	2,079.3	6.0	4.3	-150.06	128.3	-17.6	245.9	237.3	8.60	28.585		
2,200.0	2,176.3	2,183.9	2,177.5	6.4	4.5	-150.00	138.0	-16.6	261.9	252.8	9.08	28.842		
2,300.0	2,274.5	2,282.6	2,275.7	6.7	4.8	-149.95	147.7	-15.6	277.9	268.3	9.56	29.070		
2,400.0	2,372.6	2,381.3	2,373.9	7.1	5.0	-149.91	157.5	-14.6	293.9	283.8	10.04	29.274		
2,500.0	2,470.7	2,480.1	2,472.2	7.5	5.3	-149.87	167.2	-13.6	309.8	299.3	10.52	29.458		
2,600.0	2,568.8	2,578.8	2,570.4	7.9	5.5	-149.84	176.9	-12.6	325.8	314.8	11.00	29.623		
2,700.0	2,667.0	2,677.5	2,668.6	8.3	5.7	-149.81	186.7	-11.7	341.8	330.3	11.48	29.773		
2,800.0	2,765.1	2,776.2	2,766.9	8.6	6.0	-149.78	196.4	-10.7	357.8	345.8	11.96	29.910		
2,900.0	2,863.2	2,874.9	2,865.1	9.0	6.2	-149.75	206.1	-9.7	373.8	361.3	12.44	30.036		
3,000.0	2,961.3	2,973.6	2,963.3	9.4	6.5	-149.73	215.9	-8.7	389.7	376.8	12.93	30.150		
3,100.0	3,059.4	3,072.4	3,061.6	9.8	6.7	-149.71	225.6	-7.7	405.7	392.3	13.41	30.256		
3,200.0	3,157.6	3,171.1	3,159.8	10.2	6.9	-149.69	235.3	-6.7	421.7	407.8	13.89	30.354		
3,300.0	3,255.7	3,269.8	3,258.0	10.5	7.2	-149.67	245.1	-5.7	437.7	423.3	14.38	30.445		
3,400.0	3,353.8	3,368.5	3,356.2	10.9	7.4	-149.65	254.8	-4.7	453.6	438.8	14.86	30.529		
3,500.0	3,451.9	3,467.2	3,454.5	11.3	7.7	-149.63	264.5	-3.7	469.6	454.3	15.34	30.608		
3,600.0	3,550.0	3,565.9	3,552.7	11.7	7.9	-149.62	274.3	-2.7	485.6	469.8	15.83	30.681		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T2N-R67W (Wandell) - Wandell 2E-7H-D267 - HZ - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-90.05	0.0	-19.6	19.6					
100.0	100.0	100.0	100.0	0.2	0.2	-90.05	0.0	-19.6	19.6	19.3	0.30	64.426		
200.0	200.0	200.0	200.0	0.3	0.3	-90.05	0.0	-19.6	19.6	18.9	0.65	29.974	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	-152.76	0.0	-19.6	20.3	19.3	1.00	20.298		
400.0	400.0	400.0	400.0	0.7	0.7	-155.78	0.0	-19.6	22.7	21.3	1.35	16.794		
500.0	499.9	500.2	500.2	0.9	0.9	-158.16	0.7	-19.1	26.2	24.5	1.70	15.375		
600.0	599.7	600.4	600.4	1.1	1.0	-158.61	2.9	-17.7	30.2	28.1	2.06	14.677		
700.0	699.4	700.6	700.5	1.3	1.2	-157.77	6.6	-15.3	34.7	32.3	2.42	14.355		
800.0	798.9	800.9	800.6	1.5	1.4	-156.12	11.8	-12.0	39.7	37.0	2.79	14.247	SF	
900.0	898.3	901.2	900.5	1.8	1.6	-153.98	18.4	-7.7	45.4	42.2	3.18	14.263		
1,000.0	997.4	1,001.4	1,000.3	2.0	1.8	-151.58	26.5	-2.5	51.6	48.0	3.60	14.344		
1,100.0	1,096.3	1,101.4	1,099.6	2.3	2.1	-149.38	35.8	3.4	58.7	54.7	4.04	14.529		
1,200.0	1,194.9	1,201.0	1,198.7	2.7	2.3	-148.35	45.1	9.4	67.3	62.8	4.50	14.973		
1,300.0	1,293.3	1,300.5	1,297.5	3.0	2.6	-148.22	54.4	15.4	77.4	72.4	4.95	15.625		
1,400.0	1,391.4	1,399.9	1,396.3	3.4	2.8	-148.53	63.7	21.4	88.4	82.9	5.41	16.330		
1,500.0	1,489.5	1,499.3	1,495.1	3.7	3.1	-148.78	73.0	27.4	99.4	93.5	5.87	16.916		
1,600.0	1,587.6	1,598.7	1,593.9	4.1	3.3	-148.98	82.4	33.4	110.3	104.0	6.34	17.410		
1,700.0	1,685.7	1,698.0	1,692.6	4.5	3.6	-149.15	91.7	39.3	121.3	114.5	6.81	17.831		
1,800.0	1,783.9	1,797.4	1,791.4	4.9	3.8	-149.28	101.0	45.3	132.3	125.1	7.27	18.194		
1,900.0	1,882.0	1,896.8	1,890.2	5.2	4.1	-149.40	110.3	51.3	143.3	135.6	7.74	18.510		
2,000.0	1,980.1	1,996.2	1,988.9	5.6	4.3	-149.50	119.6	57.3	154.3	146.1	8.22	18.787		
2,100.0	2,078.2	2,095.6	2,087.7	6.0	4.6	-149.58	128.9	63.3	165.3	156.7	8.69	19.032		
2,200.0	2,176.3	2,195.0	2,186.5	6.4	4.8	-149.66	138.2	69.3	176.3	167.2	9.16	19.250		
2,300.0	2,274.5	2,294.4	2,285.3	6.7	5.1	-149.73	147.5	75.2	187.3	177.7	9.63	19.446		
2,400.0	2,372.6	2,393.8	2,384.0	7.1	5.3	-149.78	156.8	81.2	198.3	188.2	10.11	19.622		
2,500.0	2,470.7	2,493.2	2,482.8	7.5	5.6	-149.84	166.2	87.2	209.3	198.8	10.58	19.782		
2,600.0	2,568.8	2,592.6	2,581.6	7.9	5.9	-149.88	175.5	93.2	220.3	209.3	11.06	19.927		
2,700.0	2,667.0	2,692.0	2,680.4	8.3	6.1	-149.93	184.8	99.2	231.3	219.8	11.53	20.059		
2,800.0	2,765.1	2,791.4	2,779.1	8.6	6.4	-149.97	194.1	105.2	242.3	230.3	12.01	20.181		
2,900.0	2,863.2	2,890.8	2,877.9	9.0	6.6	-150.00	203.4	111.1	253.3	240.9	12.48	20.292		
3,000.0	2,961.3	2,990.2	2,976.7	9.4	6.9	-150.04	212.7	117.1	264.3	251.4	12.96	20.395		
3,100.0	3,059.4	3,089.5	3,075.5	9.8	7.1	-150.07	222.0	123.1	275.3	261.9	13.44	20.491		
3,200.0	3,157.6	3,188.9	3,174.2	10.2	7.4	-150.09	231.3	129.1	286.3	272.4	13.91	20.579		
3,300.0	3,255.7	3,288.3	3,273.0	10.5	7.7	-150.12	240.6	135.1	297.3	283.0	14.39	20.662		
3,400.0	3,353.8	3,387.7	3,371.8	10.9	7.9	-150.14	250.0	141.0	308.3	293.5	14.87	20.739		
3,500.0	3,451.9	3,487.1	3,470.6	11.3	8.2	-150.17	259.3	147.0	319.4	304.0	15.35	20.811		
3,600.0	3,550.0	3,586.5	3,569.3	11.7	8.4	-150.19	268.6	153.0	330.4	314.5	15.82	20.878		
3,700.0	3,648.2	3,685.9	3,668.1	12.1	8.7	-150.21	277.9	159.0	341.4	325.1	16.30	20.942		
3,800.0	3,746.3	3,785.3	3,766.9	12.5	8.9	-150.22	287.2	165.0	352.4	335.6	16.78	21.001		
3,900.0	3,844.4	3,884.7	3,865.7	12.8	9.2	-150.24	296.5	171.0	363.4	346.1	17.26	21.057		
4,000.0	3,942.5	3,984.1	3,964.4	13.2	9.5	-150.26	305.8	176.9	374.4	356.6	17.73	21.110		
4,100.0	4,040.6	4,083.5	4,063.2	13.6	9.7	-150.27	315.1	182.9	385.4	367.1	18.21	21.160		
4,200.0	4,138.8	4,182.9	4,162.0	14.0	10.0	-150.29	324.5	188.9	396.4	377.7	18.69	21.208		
4,300.0	4,236.9	4,282.3	4,260.8	14.4	10.2	-150.30	333.8	194.9	407.4	388.2	19.17	21.253		
4,400.0	4,335.0	4,381.7	4,359.5	14.7	10.5	-150.31	343.1	200.9	418.4	398.7	19.65	21.296		
4,500.0	4,433.1	4,481.0	4,458.3	15.1	10.8	-150.33	352.4	206.9	429.4	409.2	20.12	21.336		
4,600.0	4,531.2	4,580.4	4,557.1	15.5	11.0	-150.34	361.7	212.8	440.4	419.8	20.60	21.375		
4,700.0	4,629.4	4,679.8	4,655.9	15.9	11.3	-150.35	371.0	218.8	451.4	430.3	21.08	21.412		
4,800.0	4,727.5	4,779.2	4,754.6	16.3	11.5	-150.36	380.3	224.8	462.4	440.8	21.56	21.447		
4,900.0	4,825.6	4,878.6	4,853.4	16.7	11.8	-150.37	389.6	230.8	473.4	451.3	22.04	21.481		
5,000.0	4,923.7	4,978.0	4,952.2	17.0	12.1	-150.38	398.9	236.8	484.4	461.9	22.52	21.513		
5,100.0	5,021.9	5,077.4	5,051.0	17.4	12.3	-150.39	408.3	242.8	495.4	472.4	22.99	21.543		

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 Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T2N-R67W (Wandell) - Wandell 2F-7H-D267 - HZ - Plan #1													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	-90.13	0.0	-11.2	11.2							
100.0	100.0	100.0	100.0	0.2	0.2	-90.13	0.0	-11.2	11.2	10.9	0.30	36.815	CC, ES			
200.0	200.0	200.0	200.0	0.3	0.3	-90.13	0.0	-11.2	11.2	10.5	0.65	17.128				
300.0	300.0	300.0	300.0	0.5	0.5	-153.66	0.0	-11.2	12.0	11.0	1.00	11.933				
400.0	400.0	400.2	400.2	0.7	0.7	-156.28	0.5	-10.5	13.6	12.3	1.35	10.078				
500.0	499.9	500.4	500.3	0.9	0.9	-157.17	2.2	-8.5	15.5	13.8	1.70	9.084				
600.0	599.7	600.6	600.4	1.1	1.0	-156.84	5.0	-5.1	17.5	15.4	2.06	8.494				
700.0	699.4	700.8	700.5	1.3	1.2	-155.67	9.0	-0.4	19.7	17.3	2.43	8.122				
800.0	798.9	801.1	800.4	1.5	1.5	-153.95	14.1	5.6	22.1	19.3	2.80	7.878				
900.0	898.3	901.4	900.2	1.8	1.7	-151.87	20.2	13.0	24.7	21.5	3.20	7.709				
1,000.0	997.4	1,001.7	999.9	2.0	1.9	-149.58	27.6	21.7	27.5	23.9	3.62	7.583				
1,100.0	1,096.3	1,102.0	1,099.4	2.3	2.2	-147.19	36.0	31.7	30.5	26.4	4.08	7.480				
1,200.0	1,194.9	1,202.1	1,198.4	2.7	2.5	-144.96	45.5	43.0	34.0	29.4	4.58	7.418				
1,300.0	1,293.3	1,302.0	1,297.2	3.0	2.8	-144.33	55.1	54.5	38.6	33.5	5.07	7.612				
1,400.0	1,391.4	1,401.9	1,395.9	3.4	3.1	-144.69	64.7	65.9	44.1	38.6	5.56	7.943				
1,500.0	1,489.5	1,501.7	1,494.6	3.7	3.4	-144.97	74.3	77.4	49.7	43.6	6.05	8.218				
1,600.0	1,587.6	1,601.6	1,593.4	4.1	3.7	-145.20	83.9	88.8	55.2	48.7	6.54	8.448				
1,700.0	1,685.7	1,701.4	1,692.1	4.5	4.0	-145.39	93.6	100.3	60.8	53.8	7.03	8.643				
1,800.0	1,783.9	1,801.3	1,790.8	4.9	4.3	-145.55	103.2	111.8	66.3	58.8	7.53	8.811				
1,900.0	1,882.0	1,901.1	1,889.5	5.2	4.6	-145.68	112.8	123.2	71.9	63.9	8.03	8.956				
2,000.0	1,980.1	2,000.9	1,988.2	5.6	4.9	-145.79	122.4	134.7	77.4	68.9	8.53	9.083				
2,100.0	2,078.2	2,100.8	2,086.9	6.0	5.2	-145.89	132.0	146.2	83.0	74.0	9.03	9.195				
2,200.0	2,176.3	2,200.6	2,185.7	6.4	5.5	-145.97	141.7	157.6	88.5	79.0	9.53	9.294				
2,300.0	2,274.5	2,300.5	2,284.4	6.7	5.8	-146.05	151.3	169.1	94.1	84.1	10.03	9.383				
2,400.0	2,372.6	2,400.3	2,383.1	7.1	6.1	-146.12	160.9	180.5	99.6	89.1	10.53	9.463				
2,500.0	2,470.7	2,500.2	2,481.8	7.5	6.5	-146.18	170.5	192.0	105.2	94.2	11.03	9.535				
2,600.0	2,568.8	2,600.0	2,580.5	7.9	6.8	-146.23	180.1	203.5	110.7	99.2	11.54	9.600				
2,700.0	2,667.0	2,699.9	2,679.3	8.3	7.1	-146.28	189.8	214.9	116.3	104.3	12.04	9.660				
2,800.0	2,765.1	2,799.7	2,778.0	8.6	7.4	-146.32	199.4	226.4	121.9	109.3	12.54	9.714				
2,900.0	2,863.2	2,899.6	2,876.7	9.0	7.7	-146.37	209.0	237.8	127.4	114.4	13.05	9.764				
3,000.0	2,961.3	2,999.4	2,975.4	9.4	8.0	-146.40	218.6	249.3	133.0	119.4	13.55	9.810				
3,100.0	3,059.4	3,099.3	3,074.1	9.8	8.3	-146.44	228.3	260.8	138.5	124.4	14.06	9.853				
3,200.0	3,157.6	3,199.1	3,172.8	10.2	8.6	-146.47	237.9	272.2	144.1	129.5	14.56	9.893				
3,300.0	3,255.7	3,298.9	3,271.6	10.5	9.0	-146.50	247.5	283.7	149.6	134.5	15.07	9.929				
3,400.0	3,353.8	3,398.8	3,370.3	10.9	9.3	-146.52	257.1	295.1	155.2	139.6	15.57	9.964				
3,500.0	3,451.9	3,498.6	3,469.0	11.3	9.6	-146.55	266.7	306.6	160.7	144.6	16.08	9.996				
3,600.0	3,550.0	3,598.5	3,567.7	11.7	9.9	-146.57	276.4	318.1	166.3	149.7	16.58	10.026				
3,700.0	3,648.2	3,698.3	3,666.4	12.1	10.2	-146.60	286.0	329.5	171.8	154.7	17.09	10.054				
3,800.0	3,746.3	3,798.2	3,765.1	12.5	10.5	-146.62	295.6	341.0	177.4	159.8	17.60	10.080				
3,900.0	3,844.4	3,898.0	3,863.9	12.8	10.8	-146.64	305.2	352.5	182.9	164.8	18.10	10.105				
4,000.0	3,942.5	3,997.9	3,962.6	13.2	11.2	-146.65	314.8	363.9	188.5	169.9	18.61	10.129				
4,100.0	4,040.6	4,097.7	4,061.3	13.6	11.5	-146.67	324.5	375.4	194.0	174.9	19.11	10.151				
4,200.0	4,138.8	4,197.6	4,160.0	14.0	11.8	-146.69	334.1	386.8	199.6	180.0	19.62	10.172				
4,300.0	4,236.9	4,297.4	4,258.7	14.4	12.1	-146.70	343.7	398.3	205.1	185.0	20.13	10.192				
4,400.0	4,335.0	4,397.2	4,357.5	14.7	12.4	-146.72	353.3	409.8	210.7	190.0	20.63	10.211				
4,500.0	4,433.1	4,497.1	4,456.2	15.1	12.7	-146.73	362.9	421.2	216.2	195.1	21.14	10.229				
4,600.0	4,531.2	4,596.9	4,554.9	15.5	13.0	-146.74	372.6	432.7	221.8	200.1	21.65	10.246				
4,700.0	4,629.4	4,696.8	4,653.6	15.9	13.4	-146.76	382.2	444.1	227.3	205.2	22.15	10.262				
4,800.0	4,727.5	4,796.6	4,752.3	16.3	13.7	-146.77	391.8	455.6	232.9	210.2	22.66	10.278				
4,900.0	4,825.6	4,896.5	4,851.0	16.7	14.0	-146.78	401.4	467.1	238.4	215.3	23.17	10.292				
5,000.0	4,923.7	4,996.3	4,949.8	17.0	14.3	-146.79	411.0	478.5	244.0	220.3	23.67	10.307				
5,100.0	5,021.9	5,096.2	5,048.5	17.4	14.6	-146.80	420.7	490.0	249.5	225.4	24.18	10.320				

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 Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T2N-R67W (Wandell) - Wandell 2F-7H-D267 - HZ - Plan #1												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	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Total	Separation			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Centres (ft)	Ellipses (ft)	Uncertainty Axis	Factor			
5,200.0	5,120.0	5,196.0	5,147.2	17.8	14.9	-146.81	430.3	501.4	255.1	230.4	24.69	10.333			
5,300.0	5,218.1	5,295.9	5,245.9	18.2	15.2	-146.82	439.9	512.9	260.7	235.5	25.19	10.346			
5,400.0	5,316.2	5,395.7	5,344.6	18.6	15.6	-146.83	449.5	524.4	266.2	240.5	25.70	10.357			
5,500.0	5,414.3	5,495.5	5,443.4	19.0	15.9	-146.84	459.1	535.8	271.8	245.5	26.21	10.369			
5,600.0	5,512.5	5,595.4	5,542.1	19.3	16.2	-146.85	468.8	547.3	277.3	250.6	26.72	10.380			
5,700.0	5,610.6	5,695.2	5,640.8	19.7	16.5	-146.85	478.4	558.7	282.9	255.6	27.22	10.391			
5,800.0	5,708.7	5,795.1	5,739.5	20.1	16.8	-146.86	488.0	570.2	288.4	260.7	27.73	10.401			
5,900.0	5,806.8	5,894.9	5,838.2	20.5	17.1	-146.87	497.6	581.7	294.0	265.7	28.24	10.411			
6,000.0	5,904.9	5,994.8	5,936.9	20.9	17.5	-146.88	507.3	593.1	299.5	270.8	28.74	10.420			
6,100.0	6,003.1	6,094.6	6,035.7	21.3	17.8	-146.88	516.9	604.6	305.1	275.8	29.25	10.429			
6,200.0	6,101.2	6,194.5	6,134.4	21.6	18.1	-146.89	526.5	616.1	310.6	280.9	29.76	10.438			
6,300.0	6,199.3	6,294.3	6,233.1	22.0	18.4	-146.90	536.1	627.5	316.2	285.9	30.27	10.446			
6,400.0	6,297.4	6,394.2	6,331.8	22.4	18.7	-146.90	545.7	639.0	321.7	291.0	30.77	10.455			
6,500.0	6,395.5	6,494.0	6,430.5	22.8	19.0	-146.91	555.4	650.4	327.3	296.0	31.28	10.463			
6,600.0	6,493.7	6,593.9	6,529.3	23.2	19.3	-146.91	565.0	661.9	332.8	301.0	31.79	10.470			
6,700.0	6,591.8	6,697.1	6,631.7	23.6	19.6	-148.19	567.4	673.7	337.9	306.2	31.74	10.647			
6,800.0	6,689.9	6,795.3	6,728.0	23.9	19.6	-152.20	552.6	684.8	343.0	312.4	30.54	11.231			
6,900.0	6,788.1	6,883.6	6,811.4	24.3	19.6	-174.44	525.4	694.2	351.3	322.6	28.62	12.274			
7,000.0	6,886.4	6,965.9	6,884.5	24.6	19.4	129.14	488.7	702.4	364.1	337.3	26.74	13.615			
7,100.0	6,982.2	7,044.6	6,948.8	24.7	19.2	101.50	444.1	709.6	379.9	354.3	25.55	14.866			
7,200.0	7,072.8	7,120.5	7,004.6	24.7	19.0	87.52	393.0	715.7	397.0	372.0	24.99	15.889			
7,300.0	7,155.3	7,200.0	7,055.3	24.7	18.8	78.66	332.1	721.2	414.2	389.4	24.75	16.734			
7,400.0	7,227.2	7,266.5	7,091.0	24.6	18.7	72.90	276.1	724.9	429.9	405.3	24.60	17.479			
7,500.0	7,286.4	7,337.5	7,121.6	24.5	18.6	68.75	212.2	728.1	443.6	419.3	24.39	18.191			
7,600.0	7,331.0	7,407.7	7,144.0	24.4	18.5	65.95	145.8	730.2	454.5	430.3	24.16	18.813			
7,700.0	7,359.7	7,477.3	7,158.1	24.4	18.5	64.25	77.7	731.4	462.1	438.0	24.04	19.223			
7,800.0	7,371.7	7,550.0	7,163.9	24.5	18.6	63.54	5.3	731.6	466.0	441.9	24.13	19.313			
7,900.0	7,372.0	7,640.6	7,164.0	24.7	18.7	63.58	-85.4	731.1	467.5	442.7	24.75	18.885			
8,000.0	7,372.0	7,740.6	7,164.0	25.0	19.1	63.66	-185.3	730.4	468.8	443.0	25.77	18.189			
8,100.0	7,372.0	7,840.6	7,164.0	25.4	19.6	63.74	-285.3	729.8	470.2	443.0	27.13	17.331			
8,200.0	7,372.0	7,940.6	7,164.0	25.9	20.3	63.82	-385.3	729.2	471.5	442.7	28.77	16.391			
8,300.0	7,372.0	8,040.6	7,164.0	26.5	21.1	63.90	-485.3	728.5	472.9	442.2	30.65	15.430			
8,400.0	7,372.0	8,140.6	7,164.0	27.3	22.0	63.98	-585.3	727.9	474.2	441.5	32.73	14.490			
8,500.0	7,372.0	8,240.6	7,164.0	28.1	23.0	64.06	-685.3	727.3	475.6	440.6	34.97	13.598			
8,600.0	7,372.0	8,340.6	7,164.0	29.0	24.0	64.14	-785.3	726.6	476.9	439.6	37.36	12.767			
8,700.0	7,372.0	8,440.5	7,164.0	30.0	25.2	64.22	-885.3	726.0	478.3	438.4	39.85	12.000			
8,800.0	7,372.0	8,540.5	7,164.0	31.0	26.4	64.30	-985.2	725.4	479.6	437.2	42.45	11.299			
8,900.0	7,372.0	8,640.5	7,164.0	32.1	27.7	64.37	-1,085.2	724.7	481.0	435.9	45.12	10.661			
9,000.0	7,372.0	8,740.5	7,164.0	33.3	29.0	64.45	-1,185.2	724.1	482.3	434.5	47.86	10.079			
9,100.0	7,372.0	8,840.5	7,164.0	34.5	30.4	64.53	-1,285.2	723.5	483.7	433.1	50.65	9.550			
9,200.0	7,372.0	8,940.5	7,164.0	35.8	31.8	64.61	-1,385.2	722.8	485.1	431.6	53.49	9.068			
9,300.0	7,372.0	9,040.5	7,164.0	37.1	33.3	64.68	-1,485.2	722.2	486.4	430.1	56.38	8.628			
9,400.0	7,372.0	9,140.5	7,164.0	38.4	34.7	64.76	-1,585.2	721.6	487.8	428.5	59.30	8.226			
9,500.0	7,372.0	9,240.5	7,164.0	39.8	36.2	64.83	-1,685.1	720.9	489.2	426.9	62.25	7.858			
9,600.0	7,372.0	9,340.4	7,164.0	41.2	37.7	64.91	-1,785.1	720.3	490.5	425.3	65.23	7.520			
9,700.0	7,372.0	9,440.4	7,164.0	42.6	39.3	64.98	-1,885.1	719.7	491.9	423.7	68.23	7.209			
9,800.0	7,372.0	9,540.4	7,164.0	44.1	40.8	65.06	-1,985.1	719.0	493.2	422.0	71.25	6.922			
9,900.0	7,372.0	9,640.4	7,164.0	45.5	42.4	65.13	-2,085.1	718.4	494.6	420.3	74.30	6.657			
10,000.0	7,372.0	9,740.4	7,164.0	47.0	44.0	65.20	-2,185.1	717.8	496.0	418.6	77.36	6.411			
10,100.0	7,372.0	9,840.4	7,164.0	48.5	45.6	65.28	-2,285.1	717.1	497.3	416.9	80.44	6.183			
10,200.0	7,372.0	9,940.4	7,164.0	50.1	47.2	65.35	-2,385.1	716.5	498.7	415.2	83.53	5.970 SF			

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 Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T2N-R67W (Wandell) - WANDELL 4-0-7 (EXISTING) - ENCANA WELL - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 621-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)						
0.0	0.0	0.0	0.0	0.0	0.0	-18.33	160.3	-53.1	168.9					
100.0	100.0	97.2	97.2	0.2	0.2	-18.38	160.4	-53.3	169.1	168.8	0.32	528.806		
200.0	200.0	196.4	196.4	0.3	0.4	-18.53	161.0	-54.0	169.8	169.1	0.67	255.058		
300.0	300.0	295.6	295.6	0.5	0.5	-80.61	161.8	-55.0	170.8	169.8	1.01	168.368		
400.0	400.0	394.7	394.7	0.7	0.7	-81.80	163.0	-56.5	172.0	170.7	1.37	126.020		
500.0	499.9	493.7	493.7	0.9	0.9	-83.62	164.5	-58.5	173.6	171.9	1.72	100.779		
600.0	599.7	592.6	592.5	1.1	1.1	-86.04	166.4	-60.9	175.8	173.7	2.09	84.054		
700.0	699.4	694.4	694.2	1.3	1.2	-89.03	168.2	-63.2	178.1	175.6	2.48	71.794		
800.0	798.9	798.4	798.2	1.5	1.4	-92.28	168.6	-63.6	178.7	175.8	2.89	61.829		
889.8	888.1	888.1	887.9	1.7	1.6	-94.84	168.9	-61.3	178.4	175.1	3.27	54.607		
900.0	898.3	898.2	898.0	1.8	1.6	-95.10	169.1	-61.0	178.4	175.1	3.31	53.900		
1,000.0	997.4	997.2	996.8	2.0	1.7	-97.33	171.7	-55.7	179.0	175.2	3.75	47.668		
1,100.0	1,096.3	1,097.9	1,097.1	2.3	1.9	-99.03	176.4	-47.4	179.9	175.7	4.24	42.425		
1,200.0	1,194.9	1,200.2	1,198.5	2.7	2.1	-100.18	182.8	-35.8	180.6	175.8	4.79	37.731		
1,300.0	1,293.3	1,302.9	1,299.8	3.0	2.4	-100.84	189.8	-20.5	179.9	174.5	5.39	33.344		
1,400.0	1,391.4	1,403.1	1,398.1	3.4	2.7	-100.79	198.2	-2.6	178.7	172.6	6.05	29.525		
1,500.0	1,489.5	1,504.1	1,496.5	3.7	3.1	-99.89	207.9	17.7	177.0	170.2	6.78	26.096		
1,600.0	1,587.6	1,603.9	1,593.0	4.1	3.5	-97.88	219.4	40.5	175.3	167.7	7.57	23.139		
1,700.0	1,685.7	1,703.1	1,688.1	4.5	3.9	-94.88	232.5	65.3	174.0	165.5	8.42	20.654		
1,732.2	1,717.3	1,734.0	1,717.5	4.6	4.1	-93.73	237.1	73.5	173.8	165.1	8.71	19.962 ES		
1,800.0	1,783.9	1,799.0	1,779.1	4.9	4.5	-90.90	247.9	91.3	174.5	165.2	9.31	18.749		
1,900.0	1,882.0	1,897.9	1,872.5	5.2	5.0	-86.42	265.4	118.7	177.2	167.0	10.21	17.351		
2,000.0	1,980.1	1,997.1	1,965.2	5.6	5.7	-81.21	283.6	148.8	180.8	169.6	11.13	16.246		
2,100.0	2,078.2	2,093.2	2,054.0	6.0	6.3	-75.44	302.5	180.6	186.4	174.5	11.94	15.611		
2,200.0	2,176.3	2,192.1	2,145.3	6.4	7.0	-70.02	322.4	212.8	194.5	181.8	12.66	15.360		
2,300.0	2,274.5	2,292.1	2,238.1	6.7	7.6	-65.19	341.7	244.8	203.3	190.0	13.30	15.283 SF		
2,400.0	2,372.6	2,390.7	2,329.5	7.1	8.3	-60.67	360.0	277.0	212.8	198.9	13.87	15.336		
2,500.0	2,470.7	2,485.1	2,416.3	7.5	9.0	-56.34	378.1	309.3	224.3	209.9	14.33	15.651		
2,600.0	2,568.8	2,581.0	2,504.3	7.9	9.7	-52.45	397.8	341.9	238.3	223.6	14.71	16.197		
2,700.0	2,667.0	2,680.3	2,595.6	8.3	10.4	-49.05	418.6	375.1	253.6	238.5	15.08	16.814		
2,800.0	2,765.1	2,780.0	2,687.3	8.6	11.1	-45.90	438.3	408.7	268.6	253.2	15.41	17.437		
2,900.0	2,863.2	2,879.1	2,778.8	9.0	11.8	-43.17	457.7	441.7	284.0	268.3	15.70	18.092		
3,000.0	2,961.3	2,976.8	2,869.3	9.4	12.5	-41.04	477.0	472.8	299.6	283.6	16.01	18.713		
3,100.0	3,059.4	3,074.9	2,960.3	9.8	13.2	-39.18	496.8	503.8	315.8	299.5	16.34	19.329		
3,200.0	3,157.6	3,174.3	3,052.3	10.2	13.9	-37.28	516.2	536.1	332.1	315.5	16.62	19.981		
3,300.0	3,255.7	3,272.4	3,143.2	10.5	14.6	-35.67	535.4	567.4	348.5	331.6	16.90	20.623		
3,400.0	3,353.8	3,369.7	3,233.6	10.9	15.3	-34.40	555.1	597.6	365.3	348.0	17.23	21.203		
3,500.0	3,451.9	3,468.1	3,324.6	11.3	16.0	-33.04	574.6	629.3	382.5	365.0	17.52	21.828		
3,600.0	3,550.0	3,573.8	3,422.7	11.7	16.7	-31.48	593.7	664.0	398.6	380.8	17.77	22.428		
3,700.0	3,648.2	3,671.0	3,513.2	12.1	17.4	-30.24	610.8	695.1	414.1	396.1	18.03	22.972		
3,800.0	3,746.3	3,761.2	3,596.9	12.5	18.0	-29.28	628.1	723.8	431.1	412.8	18.30	23.554		
3,900.0	3,844.4	3,852.4	3,681.0	12.8	18.7	-28.38	646.8	753.6	449.9	431.3	18.60	24.192		
4,000.0	3,942.5	3,941.5	3,762.5	13.2	19.4	-27.42	665.6	784.4	470.3	451.5	18.85	24.945		
4,100.0	4,040.6	4,032.4	3,844.8	13.6	20.1	-26.41	685.5	817.3	492.8	473.7	19.09	25.819		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T2N-R67W (Wandell) - WANDELL 4-4-7 (EXISTING) - ENCANA WELL - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 44-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
9,100.0	7,372.0	7,733.1	7,374.4	34.5	36.3	-91.64	-1,700.9	1,241.9	421.0	372.2	48.71	8.642		
9,200.0	7,372.0	7,732.3	7,373.7	35.8	36.3	-91.08	-1,700.9	1,241.9	323.2	272.9	50.29	6.427		
9,300.0	7,372.0	7,731.5	7,372.9	37.1	36.3	-90.51	-1,700.9	1,241.9	227.5	175.6	51.88	4.384		
9,400.0	7,372.0	7,730.7	7,372.1	38.4	36.3	-89.94	-1,700.9	1,241.9	137.9	84.4	53.49	2.578		
9,500.0	7,372.0	7,730.0	7,371.3	39.8	36.3	-89.37	-1,700.9	1,241.9	79.3	24.2	55.11	1.438 Level 3		
9,513.6	7,372.0	7,729.9	7,371.2	40.0	36.3	-89.29	-1,700.9	1,241.9	78.1	22.7	55.34	1.411 Level 3, CC, ES, SF		
9,600.0	7,372.0	7,729.2	7,370.6	41.2	36.3	-88.79	-1,700.9	1,241.8	116.4	59.7	56.74	2.052		
9,700.0	7,372.0	7,728.4	7,369.8	42.6	36.3	-88.21	-1,700.9	1,241.8	202.0	143.7	58.38	3.461		
9,800.0	7,372.0	7,727.6	7,369.0	44.1	36.3	-87.63	-1,700.9	1,241.8	296.8	236.8	60.01	4.945		
9,900.0	7,372.0	7,726.8	7,368.2	45.5	36.3	-87.04	-1,700.9	1,241.8	394.1	332.5	61.66	6.393		
10,000.0	7,372.0	7,726.0	7,367.4	47.0	36.3	-86.46	-1,701.0	1,241.8	492.6	429.3	63.30	7.782		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T2N-R67W (Wandell) - WANDELL C UNIT #1 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 7982-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		
0.0	0.0	0.0	0.0	0.0	0.0	-22.91	111.1	-47.0	122.8					
100.0	100.0	77.0	77.0	0.2	0.1	-22.91	111.1	-47.0	120.6	120.3	0.29	421.130		
200.0	200.0	177.0	177.0	0.3	0.3	-22.91	111.1	-47.0	120.6	120.0	0.64	189.813		
300.0	300.0	277.0	277.0	0.5	0.5	-84.87	111.1	-47.0	120.5	119.6	0.99	122.322		
400.0	400.0	377.0	377.0	0.7	0.7	-86.12	111.1	-47.0	120.3	119.0	1.34	89.826		
500.0	499.9	476.9	476.9	0.9	0.8	-88.19	111.1	-47.0	120.1	118.4	1.70	70.582		
565.4	565.2	542.2	542.2	1.0	0.9	-90.00	111.1	-47.0	120.1	118.1	1.95	61.694 CC		
600.0	599.7	576.7	576.7	1.1	1.0	-91.10	111.1	-47.0	120.1	118.0	2.08	57.857 ES		
700.0	699.4	676.4	676.4	1.3	1.2	-94.82	111.1	-47.0	120.5	118.0	2.46	48.913		
800.0	798.9	775.9	775.9	1.5	1.4	-99.29	111.1	-47.0	121.7	118.8	2.87	42.451		
900.0	898.3	875.3	875.3	1.8	1.5	-104.40	111.1	-47.0	124.0	120.7	3.28	37.780		
1,000.0	997.4	974.4	974.4	2.0	1.7	-109.99	111.1	-47.0	127.9	124.2	3.71	34.499		
1,100.0	1,096.3	1,073.3	1,073.3	2.3	1.9	-115.85	111.1	-47.0	133.7	129.6	4.13	32.345		
1,200.0	1,194.9	1,171.9	1,171.9	2.7	2.0	-121.73	111.1	-47.0	141.8	137.2	4.56	31.123		
1,300.0	1,293.3	1,270.3	1,270.3	3.0	2.2	-127.43	111.1	-47.0	152.2	147.3	4.96	30.671 SF		
1,400.0	1,391.4	1,368.4	1,368.4	3.4	2.4	-132.70	111.1	-47.0	164.8	159.5	5.35	30.807		
1,500.0	1,489.5	1,466.5	1,466.5	3.7	2.6	-137.21	111.1	-47.0	178.6	172.9	5.72	31.231		
1,600.0	1,587.6	1,564.6	1,564.6	4.1	2.7	-141.07	111.1	-47.0	193.3	187.2	6.07	31.828		
1,700.0	1,685.7	1,662.7	1,662.7	4.5	2.9	-144.38	111.1	-47.0	208.8	202.3	6.42	32.522		
1,800.0	1,783.9	1,760.9	1,760.9	4.9	3.1	-147.23	111.1	-47.0	224.8	218.1	6.76	33.264		
1,900.0	1,882.0	1,859.0	1,859.0	5.2	3.2	-149.70	111.1	-47.0	241.4	234.3	7.09	34.023		
2,000.0	1,980.1	1,957.1	1,957.1	5.6	3.4	-151.85	111.1	-47.0	258.3	250.8	7.43	34.778		
2,100.0	2,078.2	2,055.2	2,055.2	6.0	3.6	-153.74	111.1	-47.0	275.5	267.7	7.76	35.517		
2,200.0	2,176.3	2,153.3	2,153.3	6.4	3.8	-155.40	111.1	-47.0	293.0	284.9	8.09	36.231		
2,300.0	2,274.5	2,251.5	2,251.5	6.7	3.9	-156.88	111.1	-47.0	310.7	302.3	8.42	36.916		
2,400.0	2,372.6	2,349.6	2,349.6	7.1	4.1	-158.20	111.1	-47.0	328.6	319.8	8.75	37.571		
2,500.0	2,470.7	2,447.7	2,447.7	7.5	4.3	-159.38	111.1	-47.0	346.6	337.5	9.07	38.194		
2,600.0	2,568.8	2,545.8	2,545.8	7.9	4.4	-160.44	111.1	-47.0	364.8	355.4	9.40	38.786		
2,700.0	2,667.0	2,644.0	2,644.0	8.3	4.6	-161.41	111.1	-47.0	383.0	373.3	9.73	39.347		
2,800.0	2,765.1	2,742.1	2,742.1	8.6	4.8	-162.28	111.1	-47.0	401.4	391.3	10.07	39.880		
2,900.0	2,863.2	2,840.2	2,840.2	9.0	5.0	-163.08	111.1	-47.0	419.9	409.5	10.40	40.384		
3,000.0	2,961.3	2,938.3	2,938.3	9.4	5.1	-163.82	111.1	-47.0	438.4	427.7	10.73	40.862		
3,100.0	3,059.4	3,036.4	3,036.4	9.8	5.3	-164.49	111.1	-47.0	457.0	445.9	11.06	41.315		
3,200.0	3,157.6	3,134.6	3,134.6	10.2	5.5	-165.11	111.1	-47.0	475.6	464.2	11.39	41.745		
3,300.0	3,255.7	3,232.7	3,232.7	10.5	5.6	-165.68	111.1	-47.0	494.3	482.6	11.73	42.153		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Wandell 2G-7H-D267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Reference Site:</b>	S7-T2N-R67W (Wandell)	<b>MD Reference:</b>	KB=13' @ 4885.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Wandell 2G-7H-D267	<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 #2	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB=13' @ 4885.0ft (Original Well Elev)  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000 °

Coordinates are relative to: Wandell 2G-7H-D267  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.36°

