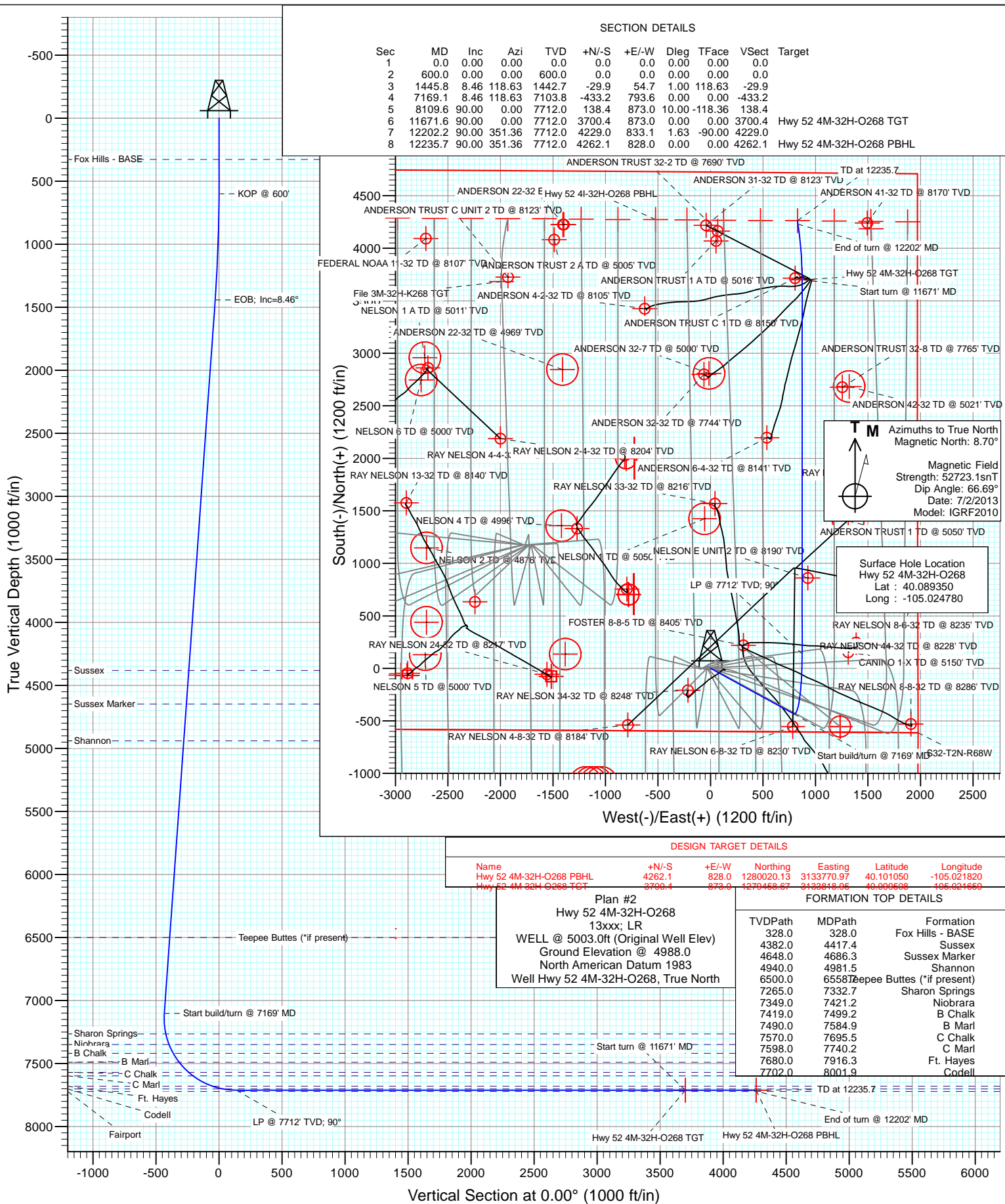




Project: DJ Wattenberg  
Site: S32-T2N-R68W (File/Hwy 52)  
Well: Hwy 52 4M-32H-O268  
Wellbore: Hz  
Design: Plan #2



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>North Reference:</b>	True
<b>Well:</b>	Hwy 52 4M-32H-O268	<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		S32-T2N-R68W (File/Hwy 52)			
Site Position:		Northing:	1,275,973.93 ft	Latitude:	40.089950
From:	Lat/Long	Easting:	3,133,277.97 ft	Longitude:	-105.023660
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.31 °

Well	Hwy 52 4M-32H-O268					
Well Position	+N/-S	0.0 ft	Northing:	1,275,753.66 ft	Latitude:	40.089350
	+E/-W	0.0 ft	Easting:	3,132,965.79 ft	Longitude:	-105.024780
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,988.0 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	7/2/2013	8.70	66.69	52,723

<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	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	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,445.8	8.46	118.63	1,442.7	-29.9	54.7	1.00	1.00	0.00	118.63	
7,169.1	8.46	118.63	7,103.8	-433.2	793.6	0.00	0.00	0.00	0.00	
8,109.6	90.00	0.00	7,712.0	138.4	873.0	10.00	8.67	-12.61	-118.36	
11,671.6	90.00	0.00	7,712.0	3,700.4	873.0	0.00	0.00	0.00	0.00	Hwy 52 4M-32H-O268
12,202.2	90.00	351.36	7,712.0	4,229.0	833.1	1.63	0.00	-1.63	-90.00	
12,235.7	90.00	351.36	7,712.0	4,262.1	828.0	0.00	0.00	0.00	0.00	Hwy 52 4M-32H-O268

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>North Reference:</b>	True
<b>Well:</b>	Hwy 52 4M-32H-O268	<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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
328.0	0.00	0.00	328.0	0.0	0.0	0.0	0.00	0.00	Fox Hills - BASE
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	KOP @ 600'
700.0	1.00	118.63	700.0	-0.4	0.8	-0.4	1.00	1.00	
800.0	2.00	118.63	800.0	-1.7	3.1	-1.7	1.00	1.00	
900.0	3.00	118.63	899.9	-3.8	6.9	-3.8	1.00	1.00	
1,000.0	4.00	118.63	999.7	-6.7	12.3	-6.7	1.00	1.00	
1,100.0	5.00	118.63	1,099.4	-10.4	19.1	-10.4	1.00	1.00	
1,200.0	6.00	118.63	1,198.9	-15.0	27.6	-15.0	1.00	1.00	
1,300.0	7.00	118.63	1,298.3	-20.5	37.5	-20.5	1.00	1.00	
1,400.0	8.00	118.63	1,397.4	-26.7	48.9	-26.7	1.00	1.00	
1,445.8	8.46	118.63	1,442.7	-29.9	54.7	-29.9	1.00	1.00	EOB; Inc=8.46°
1,500.0	8.46	118.63	1,496.3	-33.7	61.7	-33.7	0.00	0.00	
1,600.0	8.46	118.63	1,595.3	-40.7	74.6	-40.7	0.00	0.00	
1,700.0	8.46	118.63	1,694.2	-47.8	87.5	-47.8	0.00	0.00	
1,800.0	8.46	118.63	1,793.1	-54.8	100.4	-54.8	0.00	0.00	
1,900.0	8.46	118.63	1,892.0	-61.9	113.3	-61.9	0.00	0.00	
2,000.0	8.46	118.63	1,990.9	-68.9	126.2	-68.9	0.00	0.00	
2,100.0	8.46	118.63	2,089.8	-76.0	139.2	-76.0	0.00	0.00	
2,200.0	8.46	118.63	2,188.7	-83.0	152.1	-83.0	0.00	0.00	
2,300.0	8.46	118.63	2,287.6	-90.0	165.0	-90.0	0.00	0.00	
2,400.0	8.46	118.63	2,386.6	-97.1	177.9	-97.1	0.00	0.00	
2,500.0	8.46	118.63	2,485.5	-104.1	190.8	-104.1	0.00	0.00	
2,600.0	8.46	118.63	2,584.4	-111.2	203.7	-111.2	0.00	0.00	
2,700.0	8.46	118.63	2,683.3	-118.2	216.6	-118.2	0.00	0.00	
2,800.0	8.46	118.63	2,782.2	-125.3	229.5	-125.3	0.00	0.00	
2,900.0	8.46	118.63	2,881.1	-132.3	242.4	-132.3	0.00	0.00	
3,000.0	8.46	118.63	2,980.0	-139.4	255.4	-139.4	0.00	0.00	
3,100.0	8.46	118.63	3,078.9	-146.4	268.3	-146.4	0.00	0.00	
3,200.0	8.46	118.63	3,177.9	-153.5	281.2	-153.5	0.00	0.00	
3,300.0	8.46	118.63	3,276.8	-160.5	294.1	-160.5	0.00	0.00	
3,400.0	8.46	118.63	3,375.7	-167.6	307.0	-167.6	0.00	0.00	
3,500.0	8.46	118.63	3,474.6	-174.6	319.9	-174.6	0.00	0.00	
3,600.0	8.46	118.63	3,573.5	-181.7	332.8	-181.7	0.00	0.00	
3,700.0	8.46	118.63	3,672.4	-188.7	345.7	-188.7	0.00	0.00	
3,800.0	8.46	118.63	3,771.3	-195.7	358.6	-195.7	0.00	0.00	
3,900.0	8.46	118.63	3,870.2	-202.8	371.6	-202.8	0.00	0.00	
4,000.0	8.46	118.63	3,969.2	-209.8	384.5	-209.8	0.00	0.00	
4,100.0	8.46	118.63	4,068.1	-216.9	397.4	-216.9	0.00	0.00	
4,200.0	8.46	118.63	4,167.0	-223.9	410.3	-223.9	0.00	0.00	
4,300.0	8.46	118.63	4,265.9	-231.0	423.2	-231.0	0.00	0.00	
4,400.0	8.46	118.63	4,364.8	-238.0	436.1	-238.0	0.00	0.00	
4,417.4	8.46	118.63	4,382.0	-239.2	438.3	-239.2	0.00	0.00	Sussex
4,500.0	8.46	118.63	4,463.7	-245.1	449.0	-245.1	0.00	0.00	
4,600.0	8.46	118.63	4,562.6	-252.1	461.9	-252.1	0.00	0.00	
4,686.3	8.46	118.63	4,648.0	-258.2	473.1	-258.2	0.00	0.00	Sussex Marker
4,700.0	8.46	118.63	4,661.5	-259.2	474.8	-259.2	0.00	0.00	

# Cathedral Energy Services

## Planning Report

**Database:** USA EDM 5000 Multi Users DB  
**Company:** EnCana Oil & Gas (USA) Inc  
**Project:** DJ Wattenberg  
**Site:** S32-T2N-R68W (File/Hwy 52)  
**Well:** Hwy 52 4M-32H-O268  
**Wellbore:** Hz  
**Design:** Plan #2

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

Well Hwy 52 4M-32H-O268  
WELL @ 5003.0ft (Original Well Elev)  
WELL @ 5003.0ft (Original Well Elev)  
True  
Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,800.0	8.46	118.63	4,760.5	-266.2	487.7	-266.2	0.00	0.00	
4,900.0	8.46	118.63	4,859.4	-273.3	500.7	-273.3	0.00	0.00	
4,981.5	8.46	118.63	4,940.0	-279.0	511.2	-279.0	0.00	0.00	Shannon
5,000.0	8.46	118.63	4,958.3	-280.3	513.6	-280.3	0.00	0.00	
5,100.0	8.46	118.63	5,057.2	-287.3	526.5	-287.3	0.00	0.00	
5,200.0	8.46	118.63	5,156.1	-294.4	539.4	-294.4	0.00	0.00	
5,300.0	8.46	118.63	5,255.0	-301.4	552.3	-301.4	0.00	0.00	
5,400.0	8.46	118.63	5,353.9	-308.5	565.2	-308.5	0.00	0.00	
5,500.0	8.46	118.63	5,452.8	-315.5	578.1	-315.5	0.00	0.00	
5,600.0	8.46	118.63	5,551.8	-322.6	591.0	-322.6	0.00	0.00	
5,700.0	8.46	118.63	5,650.7	-329.6	603.9	-329.6	0.00	0.00	
5,800.0	8.46	118.63	5,749.6	-336.7	616.9	-336.7	0.00	0.00	
5,900.0	8.46	118.63	5,848.5	-343.7	629.8	-343.7	0.00	0.00	
6,000.0	8.46	118.63	5,947.4	-350.8	642.7	-350.8	0.00	0.00	
6,100.0	8.46	118.63	6,046.3	-357.8	655.6	-357.8	0.00	0.00	
6,200.0	8.46	118.63	6,145.2	-364.9	668.5	-364.9	0.00	0.00	
6,300.0	8.46	118.63	6,244.1	-371.9	681.4	-371.9	0.00	0.00	
6,400.0	8.46	118.63	6,343.0	-379.0	694.3	-379.0	0.00	0.00	
6,500.0	8.46	118.63	6,442.0	-386.0	707.2	-386.0	0.00	0.00	
6,558.7	8.46	118.63	6,500.0	-390.1	714.8	-390.1	0.00	0.00	Teepee Buttes (*if present)
6,600.0	8.46	118.63	6,540.9	-393.0	720.1	-393.0	0.00	0.00	
6,700.0	8.46	118.63	6,639.8	-400.1	733.0	-400.1	0.00	0.00	
6,800.0	8.46	118.63	6,738.7	-407.1	746.0	-407.1	0.00	0.00	
6,900.0	8.46	118.63	6,837.6	-414.2	758.9	-414.2	0.00	0.00	
7,000.0	8.46	118.63	6,936.5	-421.2	771.8	-421.2	0.00	0.00	
7,100.0	8.46	118.63	7,035.4	-428.3	784.7	-428.3	0.00	0.00	
7,169.1	8.46	118.63	7,103.8	-433.2	793.6	-433.2	0.00	0.00	Start build/turn @ 7169' MD
7,200.0	7.50	97.34	7,134.4	-434.5	797.6	-434.5	10.00	-3.11	
7,300.0	11.69	39.11	7,233.2	-427.5	810.5	-427.5	10.00	4.19	
7,332.7	14.35	30.67	7,265.0	-421.4	814.7	-421.4	10.00	8.15	Sharon Springs
7,400.0	20.40	20.55	7,329.3	-403.2	823.0	-403.2	10.00	8.97	
7,421.2	22.38	18.48	7,349.0	-395.9	825.6	-395.9	10.00	9.35	Niobrara
7,499.2	29.82	13.16	7,419.0	-362.9	834.8	-362.9	10.00	9.55	B Chalk
7,500.0	29.90	13.12	7,419.7	-362.5	834.8	-362.5	10.00	9.66	
7,584.9	38.16	9.56	7,490.0	-316.0	844.0	-316.0	10.00	9.73	B Marl
7,600.0	39.64	9.07	7,501.7	-306.6	845.6	-306.6	10.00	9.79	
7,695.5	49.02	6.51	7,570.0	-240.6	854.5	-240.6	10.00	9.83	C Chalk
7,700.0	49.46	6.41	7,572.9	-237.2	854.8	-237.2	10.00	9.85	
7,740.2	53.43	5.56	7,598.0	-205.9	858.1	-205.9	10.00	9.86	C Marl
7,800.0	59.33	4.44	7,631.1	-156.3	862.4	-156.3	10.00	9.88	
7,900.0	69.23	2.84	7,674.4	-66.5	868.1	-66.5	10.00	9.90	
7,916.3	70.85	2.60	7,680.0	-51.2	868.8	-51.2	10.00	9.90	Ft. Hayes
8,000.0	79.14	1.44	7,701.6	29.5	871.6	29.5	10.00	9.91	
8,001.9	79.33	1.41	7,702.0	31.4	871.7	31.4	10.00	9.91	Codell
8,100.0	89.05	0.12	7,711.9	128.8	873.0	128.8	10.00	9.91	
8,109.6	90.00	0.00	7,712.0	138.4	873.0	138.4	10.00	9.92	LP @ 7712' TVD; 90°
8,200.0	90.00	0.00	7,712.0	228.8	873.0	228.8	0.00	0.00	
8,300.0	90.00	0.00	7,712.0	328.8	873.0	328.8	0.00	0.00	
8,400.0	90.00	0.00	7,712.0	428.8	873.0	428.8	0.00	0.00	
8,500.0	90.00	0.00	7,712.0	528.8	873.0	528.8	0.00	0.00	
8,600.0	90.00	0.00	7,712.0	628.8	873.0	628.8	0.00	0.00	
8,700.0	90.00	0.00	7,712.0	728.8	873.0	728.8	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 Hwy 52 4M-32H-O268
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>North Reference:</b>	True
<b>Well:</b>	Hwy 52 4M-32H-O268	<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
8,800.0	90.00	0.00	7,712.0	828.8	873.0	828.8	0.00	0.00	
8,900.0	90.00	0.00	7,712.0	928.8	873.0	928.8	0.00	0.00	
9,000.0	90.00	0.00	7,712.0	1,028.8	873.0	1,028.8	0.00	0.00	
9,100.0	90.00	0.00	7,712.0	1,128.8	873.0	1,128.8	0.00	0.00	
9,200.0	90.00	0.00	7,712.0	1,228.8	873.0	1,228.8	0.00	0.00	
9,300.0	90.00	0.00	7,712.0	1,328.8	873.0	1,328.8	0.00	0.00	
9,400.0	90.00	0.00	7,712.0	1,428.8	873.0	1,428.8	0.00	0.00	
9,500.0	90.00	0.00	7,712.0	1,528.8	873.0	1,528.8	0.00	0.00	
9,600.0	90.00	0.00	7,712.0	1,628.8	873.0	1,628.8	0.00	0.00	
9,700.0	90.00	0.00	7,712.0	1,728.8	873.0	1,728.8	0.00	0.00	
9,800.0	90.00	0.00	7,712.0	1,828.8	873.0	1,828.8	0.00	0.00	
9,900.0	90.00	0.00	7,712.0	1,928.8	873.0	1,928.8	0.00	0.00	
10,000.0	90.00	0.00	7,712.0	2,028.8	873.0	2,028.8	0.00	0.00	
10,100.0	90.00	0.00	7,712.0	2,128.8	873.0	2,128.8	0.00	0.00	
10,200.0	90.00	0.00	7,712.0	2,228.8	873.0	2,228.8	0.00	0.00	
10,300.0	90.00	0.00	7,712.0	2,328.8	873.0	2,328.8	0.00	0.00	
10,400.0	90.00	0.00	7,712.0	2,428.8	873.0	2,428.8	0.00	0.00	
10,500.0	90.00	0.00	7,712.0	2,528.8	873.0	2,528.8	0.00	0.00	
10,600.0	90.00	0.00	7,712.0	2,628.8	873.0	2,628.8	0.00	0.00	
10,700.0	90.00	0.00	7,712.0	2,728.8	873.0	2,728.8	0.00	0.00	
10,800.0	90.00	0.00	7,712.0	2,828.8	873.0	2,828.8	0.00	0.00	
10,900.0	90.00	0.00	7,712.0	2,928.8	873.0	2,928.8	0.00	0.00	
11,000.0	90.00	0.00	7,712.0	3,028.8	873.0	3,028.8	0.00	0.00	
11,100.0	90.00	0.00	7,712.0	3,128.8	873.0	3,128.8	0.00	0.00	
11,200.0	90.00	0.00	7,712.0	3,228.8	873.0	3,228.8	0.00	0.00	
11,300.0	90.00	0.00	7,712.0	3,328.8	873.0	3,328.8	0.00	0.00	
11,400.0	90.00	0.00	7,712.0	3,428.8	873.0	3,428.8	0.00	0.00	
11,500.0	90.00	0.00	7,712.0	3,528.8	873.0	3,528.8	0.00	0.00	
11,600.0	90.00	0.00	7,712.0	3,628.8	873.0	3,628.8	0.00	0.00	
11,671.6	90.00	0.00	7,712.0	3,700.4	873.0	3,700.4	0.00	0.00	Start turn @ 11671' MD
11,700.0	90.00	359.54	7,712.0	3,728.8	872.9	3,728.8	1.63	0.00	
11,800.0	90.00	357.91	7,712.0	3,828.8	870.7	3,828.8	1.63	0.00	
11,900.0	90.00	356.28	7,712.0	3,928.7	865.6	3,928.7	1.63	0.00	
12,000.0	90.00	354.65	7,712.0	4,028.4	857.7	4,028.4	1.63	0.00	
12,100.0	90.00	353.02	7,712.0	4,127.8	846.9	4,127.8	1.63	0.00	
12,200.0	90.00	351.39	7,712.0	4,226.8	833.4	4,226.8	1.63	0.00	
12,202.2	90.00	351.36	7,712.0	4,229.0	833.1	4,229.0	1.63	0.00	End of turn @ 12202' MD
12,235.7	90.00	351.36	7,712.0	4,262.1	828.0	4,262.1	0.00	0.00	TD at 12235.7

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	
- Shape									Latitude Longitude
Hwy 52 4M-32H-O268 P	- plan hits target center	0.00	0.00	7,712.0	4,262.1	828.0	1,280,020.13	3,133,770.97	40.101050 -105.021820
	- Point								
Hwy 52 4M-32H-O268 T	- plan hits target center	0.00	0.00	7,712.0	3,700.4	873.0	1,279,458.67	3,133,818.95	40.099508 -105.021659
	- Point								

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>North Reference:</b>	True
<b>Well:</b>	Hwy 52 4M-32H-O268	<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 (°)
328.0	328.0	Fox Hills - BASE			
4,417.4	4,382.0	Sussex			
4,686.3	4,648.0	Sussex Marker			
4,981.5	4,940.0	Shannon			
6,558.7	6,500.0	Teepee Buttes (*if present)			
7,332.7	7,265.0	Sharon Springs			
7,421.2	7,349.0	Niobrara			
7,499.2	7,419.0	B Chalk			
7,584.9	7,490.0	B Marl			
7,695.5	7,570.0	C Chalk			
7,740.2	7,598.0	C Marl			
7,916.3	7,680.0	Ft. Hayes			
8,001.9	7,702.0	Codell			

### Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
600.0	600.0	0.0	0.0	KOP @ 600'
1,445.8	1,442.7	-29.9	54.7	EOB; Inc=8.46°
7,169.1	7,103.8	-433.2	793.6	Start build/turn @ 7169' MD
8,109.6	7,712.0	138.4	873.0	LP @ 7712' TVD; 90°
11,671.6	7,712.0	3,700.4	873.0	Start turn @ 11671' MD
12,202.2	7,712.0	4,229.0	833.1	End of turn @ 12202' MD
12,235.7	7,712.0	4,262.1	828.0	TD at 12235.7

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

**DJ Wattenberg**

**S32-T2N-R68W (File/Hwy 52)**

**Hwy 52 4M-32H-O268**

**Hz**

**Plan #2**

## **Anticollision Report**

**14 July, 2013**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	7/14/2013		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	12,235.7	Plan #2 (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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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

### Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
<b>Offset Well - Wellbore - Design</b>						
S32-T2N-R68W (File/Hwy 52)						
ANDERSON 21-32 (EXISTING) - ENCANA WELL - NO S						Out of range
ANDERSON 22-32 (EXISTING) - KPK WELL - NO SURV						Out of range
ANDERSON 22-32 ENC (EXISTING) - ENCANA WELL -						Out of range
ANDERSON 31-32 (EXISTING) - ENCANA WELL - PLAN						Out of range
ANDERSON 32-32 (EXISTING) - ENCANA WELL - SURV						Out of range
ANDERSON 32-7 (EXISTING) - KPK WELL - NO SURVE						Out of range
ANDERSON 41-32 (EXISTING) - ENCANA WELL - NO S						Out of range
ANDERSON 4-2-32 (EXISTING) - ENCANA WELL - SUR						Out of range
ANDERSON 6-4-32 (EXISTING) - ENCANA WELL - SUR	10,169.3	7,907.7	329.9	257.7	4.565	CC, ES
ANDERSON 6-4-32 (EXISTING) - ENCANA WELL - SUR	10,200.0	7,907.6	331.4	258.6	4.553	SF
ANDERSON TRUST 1 (EXISTING) - KPK WELL - NO SU						Out of range
ANDERSON TRUST 1 A (EXISTING) - ENCANA WELL -						Out of range
ANDERSON TRUST 2 A (EXISTING) - ENCANA WELL -						Out of range
ANDERSON TRUST 32-2 (EXISTING) - ENCANA WELL						Out of range
ANDERSON TRUST 32-8 (EXISTING) - ENCANA WELL	10,648.3	7,671.0	382.0	318.0	5.967	CC, ES
ANDERSON TRUST 32-8 (EXISTING) - ENCANA WELL	10,700.0	7,671.0	385.5	320.6	5.940	SF
ANDERSON TRUST C 1 (EXISTING) - ENCANA WELL -	11,689.4	7,655.6	61.1	-20.5	0.749	Level 1, CC, ES, SF
ANDERSON TRUST C UNIT 2 (EXISTING) - ENCANA W						Out of range
BROWN 22-5 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
BROWN 31-5 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
BROWN 41-5 (EXISTING) - ENCANA WELL - ENCANA W	1,356.2	1,332.8	310.0	303.5	47.633	CC, ES
BROWN 41-5 (EXISTING) - ENCANA WELL - ENCANA W	2,000.0	1,929.7	370.2	360.3	37.419	SF
BROWN 5-3 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
BROWN 5-5 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
BROWN C UNIT 1 (EXISTING) - ENCANA WELL - NO S						Out of range
BROWN C UNIT 2 (EXISTING) - ENCANA WELL - NO S						Out of range
BULTHAUP 39-6 (EXISTING) - KERR-MCGEE WELL - S						Out of range
BULTHAUP 40-6 (EXISTING) - KERR-MCGEE WELL - S						Out of range
CANINO 1-X (EXISTING) - ENCANA WELL - NO SURVE						Out of range
FEDERAL NOAA 11-32 (EXISTING) - ENCANA WELL - N						Out of range
File 3A-32H-K268 - Hz - Plan #2						Out of range
File 3B-32H-K268 - Hz - Plan #1						Out of range
File 3C-32H-K268 - Hz - Plan #1						Out of range
File 3D-32H-K268 - Hz - Plan #1						Out of range
File 3E-32H-K268 - Hz - Plan #1						Out of range
File 3F-32H-K268 - Hz - Plan #1						Out of range
File 3G-32H-K268 - Hz - Plan #1						Out of range
File 3H-32H-K268 - Hz - Plan #1						Out of range
File 3I-32H-K268 - Hz - Plan #2						Out of range
File 3J-32H-K268 - Hz - Plan #1						Out of range
File 3K-32H-K268 - Hz - Plan #1						Out of range
File 3L-32H-K268 - Hz - Plan #1						Out of range
File 3M-32H-K268 - Hz - Plan #2						Out of range
File 3N-32H-K268 - Hz - Plan #1						Out of range
File 3O-32H-K268 - Hz - Plan #1						Out of range
File 3P-32H-K268 - Hz - Plan #1						Out of range
FOSTER 33-5 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
FOSTER 43-5 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
FOSTER 4-5 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
FOSTER 4-6-5 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
FOSTER 6-4-5 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
FOSTER 6-4-5X (EXISTING) - ENCANA WELL - SURVEY						Out of range
FOSTER 6-8-5 (EXISTING) - ENCANA WELL - SURVEYS						Out of range

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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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

### Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
S32-T2N-R68W (File/Hwy 52)						
FOSTER 8-8-5 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
FOSTER E UNIT 1 (EXISTING) - ENCANA WELL - NO S						Out of range
GENE 11-5 (EXISTING) - KERR-MCGEE WELL - NO SU						Out of range
HIGHLAND 21-5 (EXISTING) - KPK WELL - NO SURVEY						Out of range
HOPE 31-5 (EXISTING) - KPK WELL - NO SURVEYS						Out of range
Hwy 52 4A-32H-O268 - Hz - Plan #1	166.0	168.0	96.8	96.3	182.429	CC
Hwy 52 4A-32H-O268 - Hz - Plan #1	200.0	202.0	96.8	96.1	149.079	ES
Hwy 52 4A-32H-O268 - Hz - Plan #1	1,100.0	1,090.4	167.3	163.5	44.361	SF
Hwy 52 4B-32H-O268 - Hz - Plan #1	166.3	167.3	91.7	91.2	173.072	CC
Hwy 52 4B-32H-O268 - Hz - Plan #1	200.0	201.0	91.7	91.1	141.662	ES
Hwy 52 4B-32H-O268 - Hz - Plan #1	1,100.0	1,095.4	142.2	138.5	37.635	SF
Hwy 52 4C-32H-O268 - Hz - Plan #1	759.8	762.9	84.2	81.6	32.318	CC
Hwy 52 4C-32H-O268 - Hz - Plan #1	800.0	803.1	84.4	81.6	30.711	ES
Hwy 52 4C-32H-O268 - Hz - Plan #1	1,200.0	1,202.3	101.1	96.9	24.355	SF
Hwy 52 4D-32H-O268 - Hz - Plan #1	1,008.7	1,015.1	74.2	70.8	21.274	CC, ES
Hwy 52 4D-32H-O268 - Hz - Plan #1	7,700.0	7,806.5	436.6	408.4	15.476	SF
Hwy 52 4E-32H-O268 - Hz - Plan #1	600.0	601.0	66.8	64.8	32.695	CC, ES
Hwy 52 4E-32H-O268 - Hz - Plan #1	7,475.5	7,713.1	169.7	139.8	5.685	SF
Hwy 52 4F-32H-O268 - Hz - Plan #1	905.6	910.6	52.8	49.6	16.378	CC, ES
Hwy 52 4F-32H-O268 - Hz - Plan #1	7,874.6	7,824.5	252.0	224.3	9.109	SF
Hwy 52 4G-32H-O268 - Hz - Plan #1	1,723.6	1,734.2	34.7	27.6	4.877	CC, ES
Hwy 52 4G-32H-O268 - Hz - Plan #1	1,800.0	1,810.1	35.6	27.7	4.524	SF
Hwy 52 4H-32H-O268 - Hz - Plan #1	600.0	601.0	51.7	49.7	25.317	CC, ES
Hwy 52 4H-32H-O268 - Hz - Plan #1	2,200.0	2,207.6	95.4	85.4	9.549	SF
Hwy 52 4I-32H-O268 - Hz - Plan #1	200.0	200.0	36.9	36.3	57.168	CC, ES
Hwy 52 4I-32H-O268 - Hz - Plan #1	600.0	597.4	48.5	46.4	23.295	SF
Hwy 52 4J-32H-O268 - Hz - Plan #1	300.0	300.0	31.8	30.8	31.933	CC
Hwy 52 4J-32H-O268 - Hz - Plan #1	400.0	399.9	31.9	30.5	23.710	ES
Hwy 52 4J-32H-O268 - Hz - Plan #1	700.0	699.1	36.5	34.1	15.101	SF
Hwy 52 4K-32H-O268 - Hz - Plan #1	652.2	652.5	25.9	23.6	11.576	CC
Hwy 52 4K-32H-O268 - Hz - Plan #1	700.0	700.2	26.0	23.6	10.819	ES
Hwy 52 4K-32H-O268 - Hz - Plan #1	900.0	899.9	30.5	27.4	9.658	SF
Hwy 52 4L-32H-O268 - Hz - Plan #1	773.3	774.0	18.0	15.4	6.715	CC, ES
Hwy 52 4L-32H-O268 - Hz - Plan #1	12,235.7	12,071.5	452.0	333.3	3.807	SF
Hwy 52 4N-32H-O268 - Hz - Plan #1	534.9	534.9	6.7	4.9	3.682	CC
Hwy 52 4N-32H-O268 - Hz - Plan #1	600.0	600.0	6.8	4.7	3.324	ES
Hwy 52 4N-32H-O268 - Hz - Plan #1	1,400.0	1,399.0	12.0	7.0	2.418	SF
Hwy 52 4O-32H-O268 - Hz - Plan #1	400.0	400.0	8.4	7.0	6.246	CC, ES
Hwy 52 4O-32H-O268 - Hz - Plan #1	500.0	499.9	9.2	7.5	5.446	SF
Hwy 52 4P-32H-O268 - Hz - Plan #1	200.0	200.0	14.5	13.8	22.389	CC, ES
Hwy 52 4P-32H-O268 - Hz - Plan #1	400.0	398.7	21.1	19.8	15.587	SF
LAURIE 32-5 (EXISTING) - KPK WELL - NO SURVEYS						Out of range
NATALIE 33-5 (EXISTING) - KPK WELL - NO SURVEYS						Out of range
NELSON 1 (EXISTING) - TEXAS TEA WELL - NO SURV						Out of range
NELSON 1 A (EXISTING) - TEXAS TEA WELL - NO SUR						Out of range
NELSON 2 (EXISTING) - TEXAS TEA WELL - NO SURV						Out of range
NELSON 3 (EXISTING) - TEXAS TEA WELL - NO SURV						Out of range
NELSON 4 (EXISTING) - TEXAS TEA WELL - NO SURV						Out of range
NELSON 5 (EXISTING) - VESSELS WELL - NO SURVEY						Out of range
NELSON 5 TT (EXISTING) - TEXAS TEA WELL - NO SU						Out of range
NELSON 6 (EXISTING) - VESSELS WELL - NO SURVEY						Out of range
NELSON E UNIT 1 (EXISTING) - ENCANA WELL - NO S						Out of range
NELSON E UNIT 2 (EXISTING) - ENCANA WELL - NO S	8,831.6	7,665.0	54.2	19.0	1.542	CC, ES, SF

CC - Min centre to center distance or covergent 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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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

### 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>						
S32-T2N-R68W (File/Hwy 52)						
PAQUETTE 13-5 (EXISTING) - KERR-MCGEE WELL - N						Out of range
PAQUETTE 14-5 (EXISTING) - KERR-MCGEE WELL - N						Out of range
RAY NELSON 0-4-32 (EXISTING) - ENCANA WELL - NO						Out of range
RAY NELSON 12-32 (EXISTING) - ENCANA WELL - NO						Out of range
RAY NELSON 13-32 (EXISTING) - ENCANA WELL - SUR						Out of range
RAY NELSON 14-32 (EXISTING) - ENCANA WELL - SUR						Out of range
RAY NELSON 23-32 (EXISTING) - ENCANA WELL - NO						Out of range
RAY NELSON 24-32 (EXISTING) - ENCANA WELL - SUR						Out of range
RAY NELSON 2-4-32 (EXISTING) - ENCANA WELL - NO						Out of range
RAY NELSON 33-32 (EXISTING) - ENCANA WELL - ENC	1,126.1	1,107.4	346.0	342.1	88.477	CC, ES
RAY NELSON 33-32 (EXISTING) - ENCANA WELL - ENC	2,000.0	1,877.3	468.9	461.0	59.669	SF
RAY NELSON 34-32 (EXISTING) - ENCANA WELL - ENC	1,811.6	1,796.3	52.8	45.9	7.634	CC, ES
RAY NELSON 34-32 (EXISTING) - ENCANA WELL - ENC	1,900.0	1,883.3	55.0	47.7	7.537	SF
RAY NELSON 44-32 (EXISTING) - ENCANA WELL - ENC	149.7	140.8	367.1	366.6	806.086	CC, ES
RAY NELSON 44-32 (EXISTING) - ENCANA WELL - ENC	1,300.0	1,191.0	490.2	485.5	106.092	SF
RAY NELSON 4-4-32 (EXISTING) - ENCANA WELL - SU						Out of range
RAY NELSON 4-6-32 (EXISTING) - ENCANA WELL - SU						Out of range
RAY NELSON 4-8-32 (EXISTING) - ENCANA WELL - PLA						Out of range
RAY NELSON 6-8-32 (EXISTING) - ENCANA WELL - PLA	6,300.0	6,374.8	109.1	71.2	2.875	SF
RAY NELSON 6-8-32 (EXISTING) - ENCANA WELL - PLA	6,400.0	6,472.0	104.8	68.4	2.879	ES
RAY NELSON 6-8-32 (EXISTING) - ENCANA WELL - PLA	6,435.2	6,506.2	104.5	68.7	2.920	CC
Ray Nelson 7-8-32 - DD - Plan #1	500.0	491.0	370.0	368.3	220.592	CC, ES
Ray Nelson 7-8-32 - DD - Plan #1	7,300.0	7,351.3	441.8	413.8	15.765	SF
RAY NELSON 8-4-32 (EXISTING) - ENCANA WELL - PLA						Out of range
RAY NELSON 8-6-32 (EXISTING) - ENCANA WELL - PLA						Out of range
RAY NELSON 8-8-32 (EXISTING) - ENCANA WELL - SU	0.0	0.0	370.1			
RAY NELSON 8-8-32 (EXISTING) - ENCANA WELL - SU	1,300.0	1,179.6	481.1	475.7	88.551	SF
SCHRINER 11-5 (EXISTING) - KERR-MCGEE WELL - N						Out of range
SCHRINER 12-5 (EXISTING) - KERR-MCGEE WELL - N						Out of range

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - ANDERSON 6-4-32 (EXISTING) - ENCANA WELL - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 71-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
9,800.0	7,712.0	7,909.5	7,666.2	39.6	30.6	-89.00	2,198.1	543.1	495.2	429.0	66.21	7.479		
9,900.0	7,712.0	7,909.0	7,665.7	41.1	30.6	-88.91	2,198.1	543.1	425.9	358.1	67.84	6.278		
10,000.0	7,712.0	7,908.5	7,665.3	42.7	30.6	-88.83	2,198.1	543.1	370.8	301.4	69.48	5.338		
10,100.0	7,712.0	7,908.0	7,664.8	44.2	30.6	-88.75	2,198.1	543.1	337.1	266.0	71.13	4.740		
10,169.3	7,712.0	7,907.7	7,664.5	45.3	30.6	-88.69	2,198.1	543.1	329.9	257.7	72.27	4.565 CC, ES		
10,200.0	7,712.0	7,907.6	7,664.3	45.8	30.6	-88.67	2,198.1	543.1	331.4	258.6	72.78	4.553 SF		
10,300.0	7,712.0	7,907.1	7,663.8	47.3	30.6	-88.58	2,198.1	543.2	354.9	280.4	74.45	4.767		
10,400.0	7,712.0	7,906.6	7,663.4	48.9	30.6	-88.50	2,198.1	543.2	402.6	326.5	76.11	5.289		
10,500.0	7,712.0	7,906.1	7,662.9	50.5	30.6	-88.42	2,198.1	543.2	467.1	389.4	77.79	6.005		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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>Offset Design</b> S32-T2N-R68W (File/Hwy 52) - ANDERSON TRUST 32-8 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 7765-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	+E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)				
10,400.0	7,712.0	7,671.0	7,671.0	48.9	13.4	90.00	2,677.1	1,255.0	455.6	395.8	59.84	7.613		
10,500.0	7,712.0	7,671.0	7,671.0	50.5	13.4	90.00	2,677.1	1,255.0	409.8	348.2	61.52	6.661		
10,600.0	7,712.0	7,671.0	7,671.0	52.1	13.4	90.00	2,677.1	1,255.0	385.0	321.8	63.20	6.092		
10,648.3	7,712.0	7,671.0	7,671.0	52.9	13.4	90.00	2,677.1	1,255.0	382.0	318.0	64.02	5.967 CC, ES		
10,700.0	7,712.0	7,671.0	7,671.0	53.7	13.4	90.00	2,677.1	1,255.0	385.5	320.6	64.89	5.940 SF		
10,800.0	7,712.0	7,671.0	7,671.0	55.4	13.4	90.00	2,677.1	1,255.0	411.0	344.4	66.59	6.173		
10,900.0	7,712.0	7,671.0	7,671.0	57.0	13.4	90.00	2,677.1	1,255.0	457.5	389.2	68.28	6.700		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - ANDERSON TRUST C 1 (EXISTING) - ENCANA WELL - GYRO													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		
11,200.0	7,712.0	7,664.4	7,662.7	61.9	13.5	-97.09	3,717.7	811.4	492.7	419.8	72.90	6.759		
11,300.0	7,712.0	7,662.6	7,660.9	63.6	13.5	-95.43	3,717.7	811.4	393.7	318.9	74.80	5.264		
11,400.0	7,712.0	7,660.8	7,659.0	65.3	13.5	-93.76	3,717.7	811.5	295.4	218.7	76.65	3.854		
11,500.0	7,712.0	7,659.0	7,657.2	66.9	13.5	-92.09	3,717.8	811.5	198.7	120.2	78.46	2.532		
11,600.0	7,712.0	7,657.2	7,655.4	68.6	13.5	-90.41	3,717.8	811.5	108.1	27.9	80.21	1.348	Level 3	
11,689.4	7,712.0	7,655.6	7,653.8	70.1	13.5	-88.91	3,717.8	811.6	61.1	-20.5	81.62	0.749	Level 1, CC, ES, SF	
11,700.0	7,712.0	7,655.4	7,653.6	70.3	13.5	-88.74	3,717.8	811.6	62.3	-19.5	81.79	0.762	Level 1	
11,800.0	7,712.0	7,653.6	7,651.9	71.9	13.5	-87.18	3,717.8	811.6	125.7	42.8	82.97	1.515		
11,900.0	7,712.0	7,651.9	7,650.2	73.6	13.5	-85.94	3,717.9	811.6	217.6	133.6	84.07	2.589		
12,000.0	7,712.0	7,650.3	7,648.6	75.2	13.5	-85.09	3,717.9	811.7	313.9	228.8	85.13	3.687		
12,100.0	7,712.0	7,648.7	7,647.0	76.9	13.5	-84.61	3,717.9	811.7	411.4	325.3	86.17	4.774		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - BROWN 41-5 (EXISTING) - ENCANA WELL - ENCANA WELL														Offset Site Error:	0.0 ft
Survey Program: 41-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	55.98	204.0	302.2	364.7						
100.0	100.0	88.3	88.3	0.1	0.1	56.03	204.0	302.8	365.1	364.8	0.28	1,320.963			
200.0	200.0	187.7	187.7	0.3	0.3	56.13	203.9	303.8	365.9	365.3	0.62	585.774			
300.0	300.0	289.2	289.2	0.5	0.5	56.26	203.7	304.9	366.7	365.7	0.98	375.559			
400.0	400.0	399.7	399.7	0.7	0.7	56.59	201.3	305.2	365.7	364.3	1.35	271.652			
500.0	500.0	507.5	507.2	0.8	0.9	57.44	194.7	304.9	362.1	360.4	1.72	210.068			
600.0	600.0	615.5	614.6	1.0	1.2	59.11	182.7	305.4	356.6	354.5	2.14	166.913			
700.0	700.0	719.1	716.7	1.2	1.5	-57.25	165.9	306.3	348.8	346.2	2.63	132.702			
800.0	800.0	812.4	808.6	1.4	1.8	-55.02	149.1	308.3	340.9	337.8	3.10	109.879			
900.0	899.9	909.3	903.7	1.6	2.1	-52.60	131.1	312.0	333.8	330.2	3.62	92.104			
1,000.0	999.7	1,009.0	1,001.2	1.7	2.5	-49.90	110.9	316.7	326.5	322.3	4.21	77.540			
1,100.0	1,099.4	1,104.0	1,093.1	1.9	3.0	-46.67	87.6	322.7	319.0	314.1	4.85	65.701			
1,200.0	1,198.9	1,191.0	1,176.6	2.2	3.4	-43.33	64.5	330.2	313.2	307.7	5.48	57.113			
1,300.0	1,298.3	1,279.0	1,260.7	2.4	3.8	-39.83	40.7	340.4	310.3	304.2	6.13	50.587			
1,356.2	1,354.0	1,332.8	1,311.9	2.5	4.1	-37.69	26.0	347.9	310.0	303.5	6.51	47.633 CC, ES			
1,400.0	1,397.4	1,371.7	1,349.0	2.7	4.3	-36.22	15.8	353.9	310.4	303.6	6.78	45.796			
1,500.0	1,496.3	1,460.3	1,433.1	2.9	4.8	-33.02	-7.2	369.4	313.5	306.2	7.38	42.513			
1,600.0	1,595.3	1,554.2	1,521.8	3.2	5.4	-29.64	-32.0	387.7	319.8	311.8	7.97	40.137			
1,700.0	1,694.2	1,646.8	1,609.1	3.5	5.9	-26.53	-55.8	407.1	328.6	320.1	8.50	38.672			
1,800.0	1,793.1	1,737.0	1,693.8	3.8	6.4	-23.64	-79.3	427.7	340.3	331.3	8.99	37.860			
1,900.0	1,892.0	1,831.1	1,781.2	4.1	7.1	-20.54	-105.7	450.5	355.0	345.5	9.47	37.496			
2,000.0	1,990.9	1,929.7	1,872.3	4.4	7.7	-17.20	-135.3	473.6	370.2	360.3	9.89	37.419 SF			
2,100.0	2,089.8	2,027.3	1,963.0	4.7	8.4	-14.51	-162.5	497.2	386.8	376.5	10.26	37.710			
2,200.0	2,188.7	2,123.2	2,052.7	5.0	9.0	-12.31	-187.6	520.5	403.5	392.9	10.61	38.024			
2,300.0	2,287.6	2,219.2	2,141.9	5.3	9.6	-10.18	-213.6	544.2	421.7	410.7	10.92	38.602			
2,400.0	2,386.6	2,319.0	2,235.1	5.6	10.2	-8.38	-238.9	569.3	440.0	428.8	11.23	39.195			
2,500.0	2,485.5	2,414.8	2,324.6	5.9	10.9	-6.77	-263.3	593.2	458.6	447.1	11.53	39.785			
2,600.0	2,584.4	2,529.6	2,432.4	6.2	11.6	-4.83	-293.1	619.5	475.8	464.0	11.83	40.219			
2,700.0	2,683.3	2,629.8	2,527.0	6.5	12.2	-3.14	-318.9	639.8	491.0	478.9	12.10	40.582			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4A-32H-O268 - 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	2.0	2.0	0.0	0.0	-92.04	-3.5	-96.7	96.8				
100.0	100.0	102.0	102.0	0.1	0.2	-92.04	-3.5	-96.7	96.8	96.5	0.30	322.404	
166.0	166.0	168.0	168.0	0.3	0.3	-92.04	-3.5	-96.7	96.8	96.3	0.53	182.429 CC	
200.0	200.0	202.0	202.0	0.3	0.3	-92.04	-3.5	-96.7	96.8	96.1	0.65	149.079 ES	
300.0	300.0	300.0	300.0	0.5	0.5	-91.91	-3.2	-97.6	97.6	96.7	1.00	98.105	
400.0	400.0	398.7	398.6	0.7	0.7	-91.51	-2.6	-100.1	100.2	98.8	1.34	74.480	
500.0	500.0	496.9	496.8	0.8	0.9	-90.90	-1.6	-104.2	104.3	102.6	1.70	61.457	
600.0	600.0	594.9	594.6	1.0	1.1	-90.13	-0.2	-109.9	110.2	108.1	2.06	53.569	
700.0	700.0	693.8	693.2	1.2	1.3	152.27	1.5	-117.1	118.2	115.9	2.38	49.606	
800.0	800.0	793.3	792.4	1.4	1.5	153.52	3.3	-124.5	128.0	125.3	2.73	46.868	
900.0	899.9	892.5	891.4	1.6	1.7	154.89	5.1	-131.9	139.4	136.4	3.08	45.291	
1,000.0	999.7	991.6	990.2	1.7	1.9	156.31	6.9	-139.2	152.5	149.1	3.43	44.528	
1,100.0	1,099.4	1,090.4	1,088.7	1.9	2.1	157.72	8.6	-146.6	167.3	163.5	3.77	44.361 SF	
1,200.0	1,198.9	1,189.0	1,186.9	2.2	2.3	159.09	10.4	-153.9	183.7	179.6	4.12	44.645	
1,300.0	1,298.3	1,287.2	1,284.9	2.4	2.5	160.39	12.2	-161.2	201.9	197.4	4.46	45.278	
1,400.0	1,397.4	1,385.1	1,382.5	2.7	2.7	161.61	13.9	-168.4	221.8	217.0	4.80	46.191	
1,500.0	1,496.3	1,482.7	1,479.8	2.9	3.0	162.76	15.7	-175.7	243.2	238.0	5.15	47.248	
1,600.0	1,595.3	1,580.2	1,577.0	3.2	3.2	163.76	17.5	-182.9	264.8	259.3	5.49	48.192	
1,700.0	1,694.2	1,677.8	1,674.3	3.5	3.4	164.60	19.2	-190.1	286.5	280.6	5.84	49.037	
1,800.0	1,793.1	1,775.3	1,771.5	3.8	3.6	165.33	21.0	-197.4	308.2	302.0	6.19	49.798	
1,900.0	1,892.0	1,872.8	1,868.8	4.1	3.8	165.97	22.7	-204.6	330.0	323.4	6.54	50.486	
2,000.0	1,990.9	1,970.4	1,966.1	4.4	4.0	166.52	24.5	-211.9	351.8	344.9	6.88	51.111	
2,100.0	2,089.8	2,067.9	2,063.3	4.7	4.2	167.01	26.2	-219.1	373.6	366.4	7.23	51.681	
2,200.0	2,188.7	2,165.4	2,160.6	5.0	4.5	167.45	28.0	-226.3	395.5	387.9	7.58	52.203	
2,300.0	2,287.6	2,263.0	2,257.8	5.3	4.7	167.84	29.7	-233.6	417.4	409.5	7.92	52.683	
2,400.0	2,386.6	2,360.5	2,355.1	5.6	4.9	168.19	31.5	-240.8	439.3	431.0	8.27	53.126	
2,500.0	2,485.5	2,458.1	2,452.3	5.9	5.1	168.51	33.2	-248.0	461.2	452.6	8.61	53.535	
2,600.0	2,584.4	2,555.6	2,549.6	6.2	5.3	168.80	35.0	-255.3	483.1	474.2	8.96	53.914	



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4B-32H-O268 - 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	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis			
0.0	0.0	1.0	1.0	0.0	0.0	-88.42	2.5	-91.7	91.7					
100.0	100.0	101.0	101.0	0.1	0.2	-88.42	2.5	-91.7	91.7	91.4	0.30	307.339		
166.3	166.3	167.3	167.3	0.3	0.3	-88.42	2.5	-91.7	91.7	91.2	0.53	173.072	CC	
200.0	200.0	201.0	201.0	0.3	0.3	-88.42	2.5	-91.7	91.7	91.1	0.65	141.662	ES	
300.0	300.0	300.0	300.0	0.5	0.5	-88.22	2.9	-92.5	92.5	91.5	1.00	92.984		
400.0	400.0	398.0	397.9	0.7	0.7	-87.64	3.9	-94.8	94.9	93.6	1.34	70.702		
500.0	500.0	497.4	497.2	0.8	0.9	-86.80	5.5	-98.4	98.6	96.9	1.69	58.198		
600.0	600.0	597.3	597.1	1.0	1.0	-85.99	7.2	-102.1	102.4	100.4	2.05	50.006		
700.0	700.0	697.2	696.9	1.2	1.2	156.30	8.8	-105.8	107.1	104.7	2.39	44.807		
800.0	800.0	796.9	796.6	1.4	1.4	157.48	10.5	-109.5	113.3	110.6	2.74	41.389		
900.0	899.9	896.6	896.1	1.6	1.6	158.83	12.1	-113.2	121.3	118.2	3.09	39.293		
1,000.0	999.7	996.1	995.5	1.7	1.8	160.26	13.7	-116.9	130.9	127.5	3.43	38.124		
1,100.0	1,099.4	1,095.4	1,094.7	1.9	2.0	161.72	15.4	-120.6	142.2	138.5	3.78	37.635	SF	
1,200.0	1,198.9	1,194.4	1,193.7	2.2	2.2	163.14	17.0	-124.3	155.3	151.2	4.12	37.659		
1,300.0	1,298.3	1,293.2	1,292.5	2.4	2.3	164.49	18.6	-128.0	170.2	165.7	4.47	38.084		
1,400.0	1,397.4	1,391.8	1,390.9	2.7	2.5	165.75	20.3	-131.6	186.8	181.9	4.81	38.826		
1,500.0	1,496.3	1,490.0	1,489.1	2.9	2.7	166.91	21.9	-135.3	204.8	199.7	5.15	39.746		
1,600.0	1,595.3	1,588.3	1,587.3	3.2	2.9	167.92	23.5	-138.9	223.2	217.7	5.50	40.576		
1,700.0	1,694.2	1,686.5	1,685.4	3.5	3.1	168.77	25.1	-142.6	241.6	235.7	5.85	41.320		
1,800.0	1,793.1	1,784.7	1,783.6	3.8	3.3	169.50	26.8	-146.2	260.0	253.8	6.19	41.990		
1,900.0	1,892.0	1,883.0	1,881.7	4.1	3.5	170.13	28.4	-149.9	278.5	272.0	6.54	42.596		
2,000.0	1,990.9	1,981.2	1,979.9	4.4	3.6	170.69	30.0	-153.5	297.0	290.1	6.88	43.148		
2,100.0	2,089.8	2,079.4	2,078.0	4.7	3.8	171.18	31.6	-157.2	315.5	308.3	7.23	43.651		
2,200.0	2,188.7	2,177.7	2,176.2	5.0	4.0	171.62	33.3	-160.8	334.1	326.5	7.57	44.111		
2,300.0	2,287.6	2,275.9	2,274.3	5.3	4.2	172.01	34.9	-164.5	352.7	344.7	7.92	44.534		
2,400.0	2,386.6	2,374.1	2,372.5	5.6	4.4	172.36	36.5	-168.1	371.2	363.0	8.26	44.924		
2,500.0	2,485.5	2,472.4	2,470.6	5.9	4.6	172.67	38.1	-171.8	389.8	381.2	8.61	45.285		
2,600.0	2,584.4	2,570.6	2,568.8	6.2	4.7	172.96	39.7	-175.4	408.4	399.5	8.95	45.619		
2,700.0	2,683.3	2,668.9	2,666.9	6.5	4.9	173.23	41.4	-179.1	427.0	417.7	9.30	45.930		
2,800.0	2,782.2	2,767.1	2,765.1	6.8	5.1	173.47	43.0	-182.7	445.7	436.0	9.64	46.220		
2,900.0	2,881.1	2,865.3	2,863.2	7.1	5.3	173.69	44.6	-186.4	464.3	454.3	9.99	46.490		
3,000.0	2,980.0	2,963.6	2,961.4	7.4	5.5	173.89	46.2	-190.0	482.9	472.6	10.33	46.744		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4C-32H-O268 - 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	1.0	1.0	0.0	0.0	-92.31	-3.5	-86.7	86.8					
100.0	100.0	101.0	101.0	0.1	0.2	-92.31	-3.5	-86.7	86.8	86.5	0.30	290.815		
200.0	200.0	201.0	201.0	0.3	0.3	-92.31	-3.5	-86.7	86.8	86.1	0.65	134.042		
300.0	300.0	301.0	301.0	0.5	0.5	-92.31	-3.5	-86.7	86.8	85.8	1.00	87.092		
400.0	400.0	401.0	401.0	0.7	0.7	-92.31	-3.5	-86.7	86.8	85.4	1.35	64.500		
500.0	500.0	501.0	501.0	0.8	0.8	-92.31	-3.5	-86.7	86.8	85.1	1.69	51.214		
600.0	600.0	602.4	602.4	1.0	1.0	-92.04	-3.1	-85.9	86.0	83.9	2.05	42.016		
700.0	700.0	703.1	703.1	1.2	1.2	150.44	-1.8	-83.7	84.5	82.1	2.40	35.261		
759.8	759.8	762.9	762.8	1.3	1.3	151.44	-1.0	-82.3	84.2	81.6	2.61	32.318 CC		
800.0	800.0	803.1	803.0	1.4	1.4	152.23	-0.4	-81.3	84.4	81.6	2.75	30.711 ES		
900.0	899.9	903.0	902.9	1.6	1.6	154.52	1.0	-78.8	85.9	82.8	3.10	27.719		
1,000.0	999.7	1,002.9	1,002.7	1.7	1.7	157.17	2.3	-76.4	89.1	85.7	3.45	25.835		
1,100.0	1,099.4	1,102.6	1,102.5	1.9	1.9	160.00	3.7	-73.9	94.2	90.4	3.80	24.778		
1,200.0	1,198.9	1,202.3	1,202.1	2.2	2.1	162.81	5.1	-71.5	101.1	96.9	4.15	24.355 SF		
1,300.0	1,298.3	1,301.8	1,301.5	2.4	2.3	165.49	6.5	-69.1	109.9	105.4	4.50	24.428		
1,400.0	1,397.4	1,401.1	1,400.8	2.7	2.5	167.94	7.8	-66.6	120.6	115.8	4.85	24.895		
1,500.0	1,496.3	1,500.2	1,499.8	2.9	2.6	170.11	9.2	-64.2	133.0	127.8	5.19	25.607		
1,600.0	1,595.3	1,599.3	1,598.9	3.2	2.8	171.93	10.6	-61.8	145.7	140.2	5.54	26.280		
1,700.0	1,694.2	1,698.4	1,697.9	3.5	3.0	173.45	12.0	-59.3	158.6	152.7	5.90	26.894		
1,800.0	1,793.1	1,797.5	1,797.0	3.8	3.2	174.75	13.3	-56.9	171.5	165.2	6.25	27.455		
1,900.0	1,892.0	1,896.6	1,896.0	4.1	3.4	175.86	14.7	-54.5	184.5	177.9	6.60	27.966		
2,000.0	1,990.9	1,995.6	1,995.1	4.4	3.5	176.83	16.1	-52.0	197.5	190.6	6.95	28.433		
2,100.0	2,089.8	2,094.7	2,094.2	4.7	3.7	177.68	17.4	-49.6	210.6	203.3	7.30	28.861		
2,200.0	2,188.7	2,193.8	2,193.2	5.0	3.9	178.43	18.8	-47.2	223.8	216.1	7.65	29.254		
2,300.0	2,287.6	2,292.9	2,292.3	5.3	4.1	179.09	20.2	-44.8	237.0	229.0	8.00	29.615		
2,400.0	2,386.6	2,392.0	2,391.3	5.6	4.2	179.69	21.6	-42.3	250.2	241.8	8.35	29.948		
2,500.0	2,485.5	2,491.1	2,490.4	5.9	4.4	-179.78	22.9	-39.9	263.4	254.7	8.71	30.256		
2,600.0	2,584.4	2,590.2	2,589.4	6.2	4.6	-179.29	24.3	-37.5	276.7	267.6	9.06	30.541		
2,700.0	2,683.3	2,689.3	2,688.5	6.5	4.8	-178.85	25.7	-35.0	289.9	280.5	9.41	30.805		
2,800.0	2,782.2	2,788.4	2,787.5	6.8	5.0	-178.45	27.0	-32.6	303.2	293.5	9.77	31.051		
2,900.0	2,881.1	2,887.5	2,886.6	7.1	5.1	-178.09	28.4	-30.2	316.5	306.4	10.12	31.280		
3,000.0	2,980.0	2,986.6	2,985.6	7.4	5.3	-177.75	29.8	-27.8	329.8	319.4	10.47	31.494		
3,100.0	3,078.9	3,085.7	3,084.7	7.7	5.5	-177.44	31.2	-25.3	343.2	332.3	10.83	31.695		
3,200.0	3,177.9	3,184.8	3,183.7	8.0	5.7	-177.15	32.5	-22.9	356.5	345.3	11.18	31.883		
3,300.0	3,276.8	3,283.8	3,282.8	8.3	5.9	-176.88	33.9	-20.5	369.8	358.3	11.54	32.059		
3,400.0	3,375.7	3,382.9	3,381.8	8.6	6.0	-176.63	35.3	-18.0	383.2	371.3	11.89	32.225		
3,500.0	3,474.6	3,482.0	3,480.9	8.9	6.2	-176.40	36.6	-15.6	396.5	384.3	12.25	32.382		
3,600.0	3,573.5	3,581.1	3,579.9	9.2	6.4	-176.18	38.0	-13.2	409.9	397.3	12.60	32.530		
3,700.0	3,672.4	3,680.2	3,679.0	9.5	6.6	-175.98	39.4	-10.8	423.2	410.3	12.96	32.669		
3,800.0	3,771.3	3,779.3	3,778.1	9.9	6.8	-175.79	40.8	-8.3	436.6	423.3	13.31	32.802		
3,900.0	3,870.2	3,878.4	3,877.1	10.2	6.9	-175.61	42.1	-5.9	450.0	436.3	13.67	32.927		
4,000.0	3,969.2	3,977.5	3,976.2	10.5	7.1	-175.44	43.5	-3.5	463.4	449.3	14.02	33.046		
4,100.0	4,068.1	4,076.6	4,075.2	10.8	7.3	-175.28	44.9	-1.0	476.8	462.4	14.38	33.159		
4,200.0	4,167.0	4,175.7	4,174.3	11.1	7.5	-175.13	46.2	1.4	490.1	475.4	14.73	33.266		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4D-32H-O268 - 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				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	1.0	1.0	0.0	0.0	-88.27	2.5	-81.7	81.7					
100.0	100.0	101.0	101.0	0.1	0.2	-88.27	2.5	-81.7	81.7	81.4	0.30	273.842		
200.0	200.0	201.0	201.0	0.3	0.3	-88.27	2.5	-81.7	81.7	81.1	0.65	126.218		
300.0	300.0	301.0	301.0	0.5	0.5	-88.27	2.5	-81.7	81.7	80.7	1.00	82.009		
400.0	400.0	401.0	401.0	0.7	0.7	-88.27	2.5	-81.7	81.7	80.4	1.35	60.735		
500.0	500.0	501.0	501.0	0.8	0.8	-88.27	2.5	-81.7	81.7	80.0	1.69	48.225		
600.0	600.0	602.4	602.4	1.0	1.0	-88.10	2.7	-80.8	80.9	78.8	2.05	39.506		
700.0	700.0	703.7	703.7	1.2	1.2	154.10	3.3	-78.2	79.1	76.7	2.40	32.976		
800.0	800.0	805.0	804.9	1.4	1.4	155.90	4.4	-73.8	77.2	74.5	2.75	28.073		
900.0	899.9	906.2	905.9	1.6	1.6	158.76	5.9	-67.7	75.4	72.3	3.10	24.284		
1,000.0	999.7	1,006.4	1,005.7	1.7	1.8	162.55	7.6	-60.4	74.3	70.8	3.46	21.467		
1,008.7	1,008.4	1,015.1	1,014.4	1.8	1.8	162.90	7.8	-59.8	74.2	70.8	3.49	21.274 CC, ES		
1,100.0	1,099.4	1,106.2	1,105.3	1.9	2.0	166.74	9.4	-53.1	75.1	71.3	3.82	19.682		
1,200.0	1,198.9	1,206.0	1,204.8	2.2	2.2	171.01	11.1	-45.8	78.1	73.9	4.18	18.695		
1,300.0	1,298.3	1,305.7	1,304.2	2.4	2.4	175.06	12.9	-38.6	83.2	78.7	4.54	18.325		
1,400.0	1,397.4	1,405.3	1,403.5	2.7	2.6	178.66	14.7	-31.3	90.4	85.5	4.91	18.428		
1,500.0	1,496.3	1,504.8	1,502.7	2.9	2.8	-178.31	16.4	-24.0	99.4	94.1	5.28	18.831		
1,600.0	1,595.3	1,604.2	1,601.9	3.2	3.0	-175.80	18.2	-16.8	108.8	103.2	5.66	19.230		
1,700.0	1,694.2	1,703.7	1,701.1	3.5	3.2	-173.69	19.9	-9.5	118.4	112.4	6.04	19.594		
1,800.0	1,793.1	1,803.1	1,800.2	3.8	3.5	-171.89	21.7	-2.2	128.2	121.7	6.43	19.924		
1,900.0	1,892.0	1,902.6	1,899.4	4.1	3.7	-170.35	23.5	5.1	138.0	131.2	6.82	20.221		
2,000.0	1,990.9	2,002.0	1,998.6	4.4	3.9	-169.02	25.2	12.3	147.9	140.7	7.22	20.490		
2,100.0	2,089.8	2,101.5	2,097.8	4.7	4.1	-167.85	27.0	19.6	157.9	150.3	7.62	20.731		
2,200.0	2,188.7	2,200.9	2,196.9	5.0	4.3	-166.83	28.7	26.9	168.0	160.0	8.02	20.949		
2,300.0	2,287.6	2,300.4	2,296.1	5.3	4.5	-165.92	30.5	34.1	178.1	169.7	8.42	21.146		
2,400.0	2,386.6	2,399.8	2,395.3	5.6	4.7	-165.10	32.3	41.4	188.2	179.4	8.83	21.325		
2,500.0	2,485.5	2,499.3	2,494.4	5.9	5.0	-164.37	34.0	48.7	198.4	189.2	9.23	21.488		
2,600.0	2,584.4	2,598.7	2,593.6	6.2	5.2	-163.71	35.8	55.9	208.6	198.9	9.64	21.636		
2,700.0	2,683.3	2,698.2	2,692.8	6.5	5.4	-163.12	37.5	63.2	218.8	208.8	10.05	21.771		
2,800.0	2,782.2	2,797.6	2,791.9	6.8	5.6	-162.57	39.3	70.5	229.1	218.6	10.46	21.895		
2,900.0	2,881.1	2,897.1	2,891.1	7.1	5.8	-162.08	41.0	77.7	239.3	228.4	10.87	22.009		
3,000.0	2,980.0	2,996.5	2,990.3	7.4	6.0	-161.62	42.8	85.0	249.6	238.3	11.29	22.114		
3,100.0	3,078.9	3,096.0	3,089.5	7.7	6.3	-161.20	44.6	92.3	259.9	248.2	11.70	22.211		
3,200.0	3,177.9	3,195.4	3,188.6	8.0	6.5	-160.81	46.3	99.5	270.2	258.1	12.12	22.301		
3,300.0	3,276.8	3,294.9	3,287.8	8.3	6.7	-160.45	48.1	106.8	280.5	268.0	12.53	22.385		
3,400.0	3,375.7	3,394.3	3,387.0	8.6	6.9	-160.12	49.8	114.1	290.9	277.9	12.95	22.462		
3,500.0	3,474.6	3,493.8	3,486.1	8.9	7.1	-159.81	51.6	121.3	301.2	287.8	13.37	22.535		
3,600.0	3,573.5	3,593.2	3,585.3	9.2	7.3	-159.52	53.4	128.6	311.5	297.8	13.78	22.602		
3,700.0	3,672.4	3,692.7	3,684.5	9.5	7.6	-159.24	55.1	135.9	321.9	307.7	14.20	22.666		
3,800.0	3,771.3	3,792.1	3,783.6	9.9	7.8	-158.99	56.9	143.1	332.3	317.6	14.62	22.725		
3,900.0	3,870.2	3,891.6	3,882.8	10.2	8.0	-158.75	58.6	150.4	342.6	327.6	15.04	22.781		
4,000.0	3,969.2	3,991.0	3,982.0	10.5	8.2	-158.52	60.4	157.7	353.0	337.5	15.46	22.833		
4,100.0	4,068.1	4,090.5	4,081.1	10.8	8.4	-158.31	62.1	164.9	363.4	347.5	15.88	22.883		
4,200.0	4,167.0	4,189.9	4,180.3	11.1	8.6	-158.11	63.9	172.2	373.8	357.5	16.30	22.929		
4,300.0	4,265.9	4,289.4	4,279.5	11.4	8.9	-157.92	65.7	179.5	384.1	367.4	16.72	22.973		
4,400.0	4,364.8	4,388.9	4,378.7	11.7	9.1	-157.74	67.4	186.7	394.5	377.4	17.14	23.015		
4,500.0	4,463.7	4,488.3	4,477.8	12.0	9.3	-157.57	69.2	194.0	404.9	387.4	17.56	23.055		
4,600.0	4,562.6	4,587.8	4,577.0	12.3	9.5	-157.41	70.9	201.3	415.3	397.3	17.99	23.092		
4,700.0	4,661.5	4,687.2	4,676.2	12.6	9.7	-157.25	72.7	208.5	425.7	407.3	18.41	23.128		
4,800.0	4,760.5	4,786.7	4,775.3	13.0	9.9	-157.11	74.5	215.8	436.1	417.3	18.83	23.162		
4,900.0	4,859.4	4,886.1	4,874.5	13.3	10.2	-156.97	76.2	223.1	446.5	427.3	19.25	23.194		
5,000.0	4,958.3	4,985.6	4,973.7	13.6	10.4	-156.83	78.0	230.3	456.9	437.3	19.67	23.225		

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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4D-32H-O268 - 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 Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	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	5,057.2	5,085.0	5,072.8	13.9	10.6	-156.71	79.7	237.6	467.4	447.3	20.10	23.255		
5,200.0	5,156.1	5,184.5	5,172.0	14.2	10.8	-156.58	81.5	244.9	477.8	457.2	20.52	23.283		
5,300.0	5,255.0	5,283.9	5,271.2	14.5	11.0	-156.47	83.3	252.1	488.2	467.2	20.94	23.310		
5,400.0	5,353.9	5,383.4	5,370.4	14.8	11.2	-156.35	85.0	259.4	498.6	477.2	21.37	23.335		
7,500.0	7,419.7	7,890.7	7,687.6	20.7	17.3	-110.36	-291.1	429.2	490.8	460.8	29.98	16.371		
7,600.0	7,501.7	7,850.4	7,674.7	20.6	17.1	-105.87	-253.0	428.3	454.5	425.4	29.12	15.609		
7,700.0	7,572.9	7,806.5	7,657.6	20.6	16.8	-100.43	-212.6	427.0	436.6	408.4	28.21	15.476 SF		
7,745.7	7,601.2	7,785.8	7,648.4	20.6	16.7	-97.55	-194.0	426.3	434.7	406.8	27.90	15.583		
7,800.0	7,631.1	7,760.8	7,636.5	20.6	16.6	-93.83	-172.1	425.5	437.3	409.7	27.57	15.859		
7,900.0	7,674.4	7,714.0	7,611.7	20.6	16.3	-86.31	-132.4	423.6	453.8	426.6	27.19	16.691		
8,000.0	7,701.6	7,666.5	7,583.3	20.8	16.1	-78.40	-94.4	421.6	481.8	455.1	26.79	17.983		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4E-32H-O268 - 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	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		
0.0	0.0	1.0	1.0	0.0	0.0	-93.10	-3.6	-66.7	66.8					
100.0	100.0	101.0	101.0	0.1	0.2	-93.10	-3.6	-66.7	66.8	66.5	0.30	223.894		
200.0	200.0	201.0	201.0	0.3	0.3	-93.10	-3.6	-66.7	66.8	66.2	0.65	103.196		
300.0	300.0	301.0	301.0	0.5	0.5	-93.10	-3.6	-66.7	66.8	65.8	1.00	67.051		
400.0	400.0	401.0	401.0	0.7	0.7	-93.10	-3.6	-66.7	66.8	65.5	1.35	49.657		
500.0	500.0	501.0	501.0	0.8	0.8	-93.10	-3.6	-66.7	66.8	65.1	1.69	39.429		
600.0	600.0	601.0	601.0	1.0	1.0	-93.10	-3.6	-66.7	66.8	64.8	2.04	32.695 CC, ES		
700.0	700.0	701.0	701.0	1.2	1.2	148.66	-3.6	-66.7	67.6	65.2	2.39	28.237		
800.0	800.0	801.0	801.0	1.4	1.4	149.77	-3.6	-66.7	69.8	67.1	2.74	25.462		
900.0	899.9	900.9	900.9	1.6	1.5	151.46	-3.6	-66.7	73.6	70.5	3.09	23.814		
1,000.0	999.7	1,002.0	1,002.0	1.7	1.7	153.72	-3.5	-65.8	78.2	74.7	3.44	22.697		
1,100.0	1,099.4	1,103.2	1,103.2	1.9	1.9	156.53	-3.0	-63.2	82.7	78.9	3.80	21.787		
1,200.0	1,198.9	1,204.5	1,204.3	2.2	2.1	159.81	-2.2	-58.8	87.4	83.2	4.15	21.065		
1,300.0	1,298.3	1,305.7	1,305.3	2.4	2.3	163.48	-1.2	-52.6	92.3	87.8	4.50	20.525		
1,400.0	1,397.4	1,406.8	1,406.2	2.7	2.5	167.44	0.2	-44.6	97.7	92.8	4.85	20.155		
1,500.0	1,496.3	1,508.0	1,506.8	2.9	2.7	171.59	1.9	-35.0	103.4	98.2	5.20	19.879		
1,600.0	1,595.3	1,608.6	1,606.8	3.2	2.9	175.76	3.8	-23.7	108.5	102.9	5.57	19.471		
1,700.0	1,694.2	1,708.2	1,705.7	3.5	3.1	179.62	5.8	-12.2	113.7	107.7	5.95	19.120		
1,800.0	1,793.1	1,807.7	1,804.6	3.8	3.4	-176.87	7.8	-0.7	119.4	113.1	6.34	18.845		
1,900.0	1,892.0	1,907.3	1,903.5	4.1	3.6	-173.69	9.8	10.8	125.5	118.8	6.74	18.622		
2,000.0	1,990.9	2,006.9	2,002.4	4.4	3.9	-170.82	11.8	22.3	132.0	124.8	7.16	18.435		
2,100.0	2,089.8	2,106.5	2,101.3	4.7	4.1	-168.21	13.8	33.8	138.8	131.2	7.59	18.276		
2,200.0	2,188.7	2,206.1	2,200.2	5.0	4.4	-165.86	15.8	45.3	145.8	137.8	8.04	18.137		
2,300.0	2,287.6	2,305.7	2,299.1	5.3	4.6	-163.72	17.7	56.8	153.1	144.6	8.50	18.016		
2,400.0	2,386.6	2,405.2	2,397.9	5.6	4.9	-161.78	19.7	68.3	160.5	151.6	8.96	17.908		
2,500.0	2,485.5	2,504.8	2,496.8	5.9	5.1	-160.01	21.7	79.8	168.1	158.7	9.44	17.812		
2,600.0	2,584.4	2,604.4	2,595.7	6.2	5.4	-158.40	23.7	91.3	175.9	166.0	9.92	17.725		
2,700.0	2,683.3	2,704.0	2,694.6	6.5	5.6	-156.92	25.7	102.8	183.8	173.4	10.41	17.648		
2,800.0	2,782.2	2,803.6	2,793.5	6.8	5.9	-155.57	27.7	114.3	191.8	180.9	10.91	17.579		
2,900.0	2,881.1	2,903.1	2,892.4	7.1	6.2	-154.32	29.7	125.8	199.9	188.5	11.41	17.517		
3,000.0	2,980.0	3,002.7	2,991.3	7.4	6.4	-153.17	31.7	137.3	208.1	196.1	11.92	17.460		
3,100.0	3,078.9	3,102.3	3,090.2	7.7	6.7	-152.11	33.7	148.8	216.3	203.9	12.43	17.410		
3,200.0	3,177.9	3,201.9	3,189.1	8.0	6.9	-151.13	35.6	160.3	224.7	211.7	12.94	17.364		
3,300.0	3,276.8	3,301.5	3,288.0	8.3	7.2	-150.22	37.6	171.8	233.0	219.6	13.45	17.323		
3,400.0	3,375.7	3,401.0	3,386.9	8.6	7.5	-149.37	39.6	183.3	241.5	227.5	13.97	17.285		
3,500.0	3,474.6	3,500.6	3,485.8	8.9	7.7	-148.58	41.6	194.8	250.0	235.5	14.49	17.251		
3,600.0	3,573.5	3,600.2	3,584.7	9.2	8.0	-147.84	43.6	206.3	258.5	243.5	15.01	17.220		
3,700.0	3,672.4	3,699.8	3,683.6	9.5	8.3	-147.14	45.6	217.8	267.1	251.6	15.54	17.193		
3,800.0	3,771.3	3,799.4	3,782.5	9.9	8.5	-146.50	47.6	229.3	275.7	259.7	16.06	17.167		
3,900.0	3,870.2	3,898.9	3,881.4	10.2	8.8	-145.89	49.6	240.8	284.4	267.8	16.59	17.144		
4,000.0	3,969.2	3,998.5	3,980.3	10.5	9.0	-145.31	51.6	252.3	293.1	275.9	17.11	17.123		
4,100.0	4,068.1	4,098.1	4,079.2	10.8	9.3	-144.77	53.5	263.9	301.8	284.1	17.64	17.104		
4,200.0	4,167.0	4,197.7	4,178.1	11.1	9.6	-144.26	55.5	275.4	310.5	292.3	18.17	17.086		
4,300.0	4,265.9	4,297.3	4,276.9	11.4	9.8	-143.78	57.5	286.9	319.2	300.5	18.70	17.070		
4,400.0	4,364.8	4,396.9	4,375.8	11.7	10.1	-143.32	59.5	298.4	328.0	308.8	19.23	17.056		
4,500.0	4,463.7	4,496.4	4,474.7	12.0	10.4	-142.89	61.5	309.9	336.8	317.1	19.76	17.042		
4,600.0	4,562.6	4,596.0	4,573.6	12.3	10.6	-142.48	63.5	321.4	345.6	325.3	20.30	17.030		
4,700.0	4,661.5	4,695.6	4,672.5	12.6	10.9	-142.09	65.5	332.9	354.5	333.6	20.83	17.019		
4,800.0	4,760.5	4,795.2	4,771.4	13.0	11.2	-141.72	67.5	344.4	363.3	341.9	21.36	17.008		
4,900.0	4,859.4	4,894.8	4,870.3	13.3	11.4	-141.36	69.5	355.9	372.2	350.3	21.89	16.999		
5,000.0	4,958.3	4,994.3	4,969.2	13.6	11.7	-141.03	71.4	367.4	381.0	358.6	22.43	16.990		
5,100.0	5,057.2	5,093.9	5,068.1	13.9	12.0	-140.71	73.4	378.9	389.9	367.0	22.96	16.982		

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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4E-32H-O268 - 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	
5,200.0	5,156.1	5,193.5	5,167.0	14.2	12.2	-140.40	75.4	390.4	398.8	375.3	23.50	16.975	
5,300.0	5,255.0	5,293.1	5,265.9	14.5	12.5	-140.10	77.4	401.9	407.7	383.7	24.03	16.968	
5,400.0	5,353.9	5,392.7	5,364.8	14.8	12.8	-139.82	79.4	413.4	416.7	392.1	24.56	16.962	
5,500.0	5,452.8	5,492.2	5,463.7	15.1	13.0	-139.55	81.4	424.9	425.6	400.5	25.10	16.956	
5,600.0	5,551.8	5,591.8	5,562.6	15.4	13.3	-139.29	83.4	436.4	434.5	408.9	25.63	16.950	
5,700.0	5,650.7	5,691.4	5,661.5	15.7	13.6	-139.05	85.4	447.9	443.5	417.3	26.17	16.946	
5,800.0	5,749.6	5,791.0	5,760.4	16.1	13.8	-138.81	87.4	459.4	452.4	425.7	26.71	16.941	
5,900.0	5,848.5	5,890.6	5,859.3	16.4	14.1	-138.58	89.3	470.9	461.4	434.1	27.24	16.937	
6,000.0	5,947.4	5,990.2	5,958.2	16.7	14.4	-138.36	91.3	482.4	470.4	442.6	27.78	16.933	
6,100.0	6,046.3	6,089.7	6,057.0	17.0	14.6	-138.15	93.3	493.9	479.3	451.0	28.31	16.929	
6,200.0	6,145.2	6,189.3	6,155.9	17.3	14.9	-137.94	95.3	505.4	488.3	459.5	28.85	16.926	
6,300.0	6,244.1	6,288.9	6,254.8	17.6	15.2	-137.75	97.3	516.9	497.3	467.9	29.39	16.923	
7,000.0	6,936.5	7,582.9	7,389.3	19.8	19.0	-159.13	-251.8	657.3	495.9	467.7	28.20	17.585	
7,100.0	7,035.4	7,708.8	7,422.1	20.1	19.8	177.17	-372.9	663.9	407.9	382.0	25.87	15.767	
7,200.0	7,134.4	7,751.0	7,427.1	20.4	20.2	-179.13	-414.9	665.4	320.8	292.5	28.38	11.307	
7,300.0	7,233.2	7,753.1	7,427.2	20.6	20.2	-135.38	-417.0	665.5	241.7	210.1	31.58	7.654	
7,400.0	7,329.3	7,734.4	7,425.5	20.7	20.0	-118.36	-398.3	664.8	184.7	153.3	31.36	5.889	
7,475.5	7,398.2	7,713.1	7,422.7	20.7	19.9	-107.48	-377.2	664.0	169.7	139.8	29.84	5.685 SF	
7,500.0	7,419.7	7,705.3	7,421.5	20.7	19.8	-103.62	-369.5	663.7	171.3	142.0	29.25	5.855	
7,600.0	7,501.7	7,670.5	7,414.9	20.6	19.6	-86.15	-335.4	662.2	205.3	178.3	27.00	7.604	
7,700.0	7,572.9	7,632.1	7,405.3	20.6	19.3	-68.22	-298.3	660.2	264.7	239.2	25.54	10.364	
7,800.0	7,631.1	7,591.5	7,392.4	20.6	19.0	-53.42	-259.9	657.8	331.7	307.6	24.07	13.781	
7,900.0	7,674.4	7,550.0	7,376.4	20.6	18.8	-42.87	-221.7	655.1	398.5	376.4	22.10	18.030	
8,000.0	7,701.6	7,500.0	7,353.7	20.8	18.5	-35.38	-177.3	651.4	461.6	441.5	20.06	23.006	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4F-32H-O268 - 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				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	1.0	1.0	0.0	0.0	-87.81	2.4	-61.7	61.7					
100.0	100.0	101.0	101.0	0.1	0.2	-87.81	2.4	-61.7	61.7	61.4	0.30	206.857		
200.0	200.0	201.0	201.0	0.3	0.3	-87.81	2.4	-61.7	61.7	61.1	0.65	95.344		
300.0	300.0	301.0	301.0	0.5	0.5	-87.81	2.4	-61.7	61.7	60.7	1.00	61.948		
400.0	400.0	401.0	401.0	0.7	0.7	-87.81	2.4	-61.7	61.7	60.4	1.35	45.879		
500.0	500.0	501.0	501.0	0.8	0.8	-87.81	2.4	-61.7	61.7	60.0	1.69	36.428		
600.0	600.0	602.6	602.6	1.0	1.0	-86.64	3.5	-60.3	60.4	58.4	2.05	29.489		
700.0	700.0	703.9	703.8	1.2	1.2	158.84	7.0	-56.1	57.5	55.0	2.41	23.877		
800.0	800.0	804.8	804.3	1.4	1.4	166.82	12.8	-49.3	54.4	51.6	2.78	19.548		
900.0	899.9	905.1	903.7	1.6	1.7	179.06	20.7	-39.8	52.8	49.6	3.20	16.503		
905.6	905.4	910.6	909.2	1.6	1.7	179.84	21.2	-39.2	52.8	49.6	3.22	16.378 CC, ES		
1,000.0	999.7	1,005.2	1,002.8	1.7	1.9	-167.38	29.0	-28.4	54.2	50.5	3.64	14.866		
1,100.0	1,099.4	1,105.4	1,102.0	1.9	2.2	-155.57	36.0	-15.8	58.2	54.1	4.11	14.176		
1,200.0	1,198.9	1,205.8	1,201.2	2.2	2.5	-146.01	41.8	-2.0	64.1	59.5	4.58	13.984		
1,300.0	1,298.3	1,306.2	1,300.5	2.4	2.8	-138.55	46.4	13.1	71.2	66.1	5.09	13.992		
1,400.0	1,397.4	1,406.8	1,399.7	2.7	3.1	-132.79	49.7	29.4	78.8	73.2	5.62	14.033		
1,500.0	1,496.3	1,506.6	1,498.0	2.9	3.4	-128.42	52.0	46.5	87.0	80.8	6.18	14.089		
1,600.0	1,595.3	1,606.1	1,596.0	3.2	3.8	-124.91	54.3	63.6	95.6	88.9	6.75	14.170		
1,700.0	1,694.2	1,705.6	1,693.9	3.5	4.1	-122.00	56.6	80.7	104.6	97.2	7.33	14.258		
1,800.0	1,793.1	1,805.1	1,791.9	3.8	4.4	-119.54	58.8	97.8	113.7	105.8	7.93	14.348		
1,900.0	1,892.0	1,904.5	1,889.9	4.1	4.8	-117.46	61.1	114.9	123.0	114.5	8.52	14.435		
2,000.0	1,990.9	2,004.0	1,987.8	4.4	5.1	-115.67	63.4	132.0	132.5	123.4	9.13	14.520		
2,100.0	2,089.8	2,103.5	2,085.8	4.7	5.4	-114.12	65.7	149.1	142.1	132.3	9.73	14.600		
2,200.0	2,188.7	2,203.0	2,183.8	5.0	5.8	-112.76	68.0	166.2	151.7	141.4	10.34	14.676		
2,300.0	2,287.6	2,302.4	2,281.7	5.3	6.1	-111.57	70.2	183.2	161.5	150.5	10.95	14.747		
2,400.0	2,386.6	2,401.9	2,379.7	5.6	6.5	-110.52	72.5	200.3	171.3	159.7	11.56	14.814		
2,500.0	2,485.5	2,501.4	2,477.7	5.9	6.8	-109.57	74.8	217.4	181.1	169.0	12.17	14.877		
2,600.0	2,584.4	2,600.8	2,575.6	6.2	7.2	-108.73	77.1	234.5	191.0	178.2	12.79	14.936		
2,700.0	2,683.3	2,700.3	2,673.6	6.5	7.5	-107.97	79.4	251.6	201.0	187.5	13.40	14.992		
2,800.0	2,782.2	2,799.8	2,771.6	6.8	7.8	-107.28	81.6	268.7	210.9	196.9	14.02	15.044		
2,900.0	2,881.1	2,899.3	2,869.5	7.1	8.2	-106.65	83.9	285.8	220.9	206.3	14.64	15.092		
3,000.0	2,980.0	2,998.7	2,967.5	7.4	8.5	-106.08	86.2	302.9	230.9	215.7	15.25	15.138		
3,100.0	3,078.9	3,098.2	3,065.5	7.7	8.9	-105.55	88.5	320.0	241.0	225.1	15.87	15.182		
3,200.0	3,177.9	3,197.7	3,163.4	8.0	9.2	-105.07	90.8	337.1	251.0	234.5	16.49	15.222		
3,300.0	3,276.8	3,297.1	3,261.4	8.3	9.6	-104.63	93.0	354.2	261.1	244.0	17.11	15.261		
3,400.0	3,375.7	3,396.6	3,359.4	8.6	9.9	-104.21	95.3	371.2	271.2	253.4	17.73	15.297		
3,500.0	3,474.6	3,496.1	3,457.3	8.9	10.3	-103.83	97.6	388.3	281.3	262.9	18.35	15.332		
3,600.0	3,573.5	3,595.6	3,555.3	9.2	10.6	-103.47	99.9	405.4	291.4	272.4	18.97	15.364		
3,700.0	3,672.4	3,695.0	3,653.2	9.5	11.0	-103.14	102.2	422.5	301.5	281.9	19.58	15.395		
3,800.0	3,771.3	3,794.5	3,751.2	9.9	11.3	-102.83	104.4	439.6	311.6	291.4	20.20	15.424		
3,900.0	3,870.2	3,894.0	3,849.2	10.2	11.7	-102.54	106.7	456.7	321.8	300.9	20.82	15.452		
4,000.0	3,969.2	3,993.4	3,947.1	10.5	12.0	-102.27	109.0	473.8	331.9	310.5	21.44	15.479		
4,100.0	4,068.1	4,092.9	4,045.1	10.8	12.4	-102.01	111.3	490.9	342.1	320.0	22.06	15.504		
4,200.0	4,167.0	4,192.4	4,143.1	11.1	12.7	-101.77	113.6	508.0	352.2	329.5	22.68	15.528		
4,300.0	4,265.9	4,291.9	4,241.0	11.4	13.1	-101.54	115.8	525.1	362.4	339.1	23.30	15.551		
4,400.0	4,364.8	4,391.3	4,339.0	11.7	13.4	-101.32	118.1	542.2	372.6	348.6	23.92	15.573		
4,500.0	4,463.7	4,490.8	4,437.0	12.0	13.8	-101.12	120.4	559.2	382.7	358.2	24.54	15.594		
4,600.0	4,562.6	4,590.3	4,534.9	12.3	14.1	-100.92	122.7	576.3	392.9	367.8	25.16	15.614		
4,700.0	4,661.5	4,689.7	4,632.9	12.6	14.5	-100.74	125.0	593.4	403.1	377.3	25.79	15.633		
4,800.0	4,760.5	4,789.2	4,730.9	13.0	14.8	-100.56	127.2	610.5	413.3	386.9	26.41	15.652		
4,900.0	4,859.4	4,888.7	4,828.8	13.3	15.2	-100.39	129.5	627.6	423.5	396.5	27.03	15.669		
5,000.0	4,958.3	4,988.2	4,926.8	13.6	15.5	-100.23	131.8	644.7	433.7	406.0	27.65	15.686		

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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4F-32H-O268 - 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		
5,100.0	5,057.2	5,087.6	5,024.8	13.9	15.9	-100.08	134.1	661.8	443.9	415.6	28.27	15.703		
5,200.0	5,156.1	5,187.1	5,122.7	14.2	16.2	-99.94	136.4	678.9	454.1	425.2	28.89	15.718		
5,300.0	5,255.0	5,286.6	5,220.7	14.5	16.6	-99.80	138.6	696.0	464.3	434.8	29.51	15.733		
5,400.0	5,353.9	5,386.0	5,318.7	14.8	16.9	-99.67	140.9	713.1	474.5	444.4	30.13	15.748		
5,500.0	5,452.8	5,485.5	5,416.6	15.1	17.3	-99.54	143.2	730.2	484.7	454.0	30.75	15.762		
5,600.0	5,551.8	5,585.0	5,514.6	15.4	17.6	-99.42	145.5	747.2	494.9	463.5	31.37	15.775		
7,400.0	7,329.3	8,156.6	7,712.0	20.7	26.6	96.31	-403.2	1,130.6	490.2	463.1	27.17	18.044		
7,500.0	7,419.7	8,077.3	7,708.3	20.7	26.1	100.73	-324.0	1,130.0	413.9	386.9	26.95	15.356		
7,600.0	7,501.7	7,996.7	7,693.7	20.6	25.7	98.60	-244.8	1,127.4	346.0	319.2	26.84	12.892		
7,700.0	7,572.9	7,929.3	7,673.2	20.6	25.4	94.28	-180.8	1,123.8	292.2	265.2	27.04	10.805		
7,800.0	7,631.1	7,868.1	7,648.2	20.6	25.2	87.26	-125.1	1,119.5	259.4	232.0	27.46	9.449		
7,874.6	7,664.9	7,824.5	7,627.0	20.6	25.1	80.32	-87.3	1,115.8	252.0	224.3	27.66	9.109 SF		
7,900.0	7,674.4	7,810.0	7,619.3	20.6	25.0	77.69	-75.0	1,114.4	252.8	225.2	27.63	9.150		
8,000.0	7,701.6	7,754.0	7,586.8	20.8	24.8	66.49	-29.7	1,108.8	270.5	243.5	27.01	10.014		
8,100.0	7,711.9	7,700.0	7,551.5	21.1	24.7	55.25	10.6	1,102.6	304.6	278.7	25.86	11.778		
8,200.0	7,712.0	7,650.0	7,515.6	21.5	24.6	48.53	44.8	1,096.3	350.3	325.1	25.24	13.878		
8,300.0	7,712.0	7,600.0	7,476.9	22.0	24.4	42.53	75.7	1,089.6	408.3	383.7	24.64	16.573		
8,400.0	7,712.0	7,572.1	7,454.2	22.6	24.4	39.41	91.4	1,085.6	475.4	450.9	24.56	19.355		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4G-32H-O268 - 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	1.0	1.0	0.0	0.0	-93.70	-3.7	-56.7	56.8					
100.0	100.0	101.0	101.0	0.1	0.2	-93.70	-3.7	-56.7	56.8	56.5	0.30	190.457		
200.0	200.0	201.0	201.0	0.3	0.3	-93.70	-3.7	-56.7	56.8	56.2	0.65	87.785		
300.0	300.0	301.0	301.0	0.5	0.5	-93.70	-3.7	-56.7	56.8	55.8	1.00	57.037		
400.0	400.0	401.0	401.0	0.7	0.7	-93.70	-3.7	-56.7	56.8	55.5	1.35	42.241		
500.0	500.0	501.0	501.0	0.8	0.8	-93.70	-3.7	-56.7	56.8	55.1	1.69	33.541		
600.0	600.0	601.0	601.0	1.0	1.0	-93.70	-3.7	-56.7	56.8	54.8	2.04	27.812		
700.0	700.0	701.0	701.0	1.2	1.2	148.14	-3.7	-56.7	57.6	55.2	2.39	24.065		
800.0	800.0	802.0	802.0	1.4	1.4	149.44	-3.7	-56.3	59.4	56.6	2.74	21.634		
900.0	899.9	904.1	904.1	1.6	1.6	151.37	-3.8	-52.6	59.6	56.5	3.10	19.230		
1,000.0	999.7	1,006.2	1,005.8	1.7	1.8	154.08	-4.1	-45.3	57.8	54.4	3.45	16.755		
1,100.0	1,099.4	1,108.0	1,107.1	1.9	2.0	157.93	-4.4	-34.4	54.3	50.5	3.80	14.268		
1,200.0	1,198.9	1,209.1	1,207.2	2.2	2.2	163.36	-5.0	-20.4	49.5	45.3	4.16	11.902		
1,300.0	1,298.3	1,309.7	1,306.5	2.4	2.5	170.36	-6.1	-4.6	45.0	40.5	4.51	9.971		
1,400.0	1,397.4	1,410.1	1,405.4	2.7	2.8	179.19	-7.7	12.9	41.4	36.5	4.90	8.442		
1,500.0	1,496.3	1,510.5	1,503.9	2.9	3.1	-170.07	-9.8	31.9	38.7	33.3	5.37	7.205		
1,600.0	1,595.3	1,610.7	1,601.9	3.2	3.5	-156.86	-12.5	52.6	36.2	30.2	6.01	6.033		
1,700.0	1,694.2	1,710.6	1,699.3	3.5	3.9	-140.52	-15.7	74.8	34.7	27.9	6.87	5.055		
1,723.6	1,717.6	1,734.2	1,722.2	3.6	4.0	-136.22	-16.5	80.3	34.7	27.6	7.11	4.877 CC, ES		
1,800.0	1,793.1	1,810.1	1,795.9	3.8	4.3	-122.05	-19.3	98.4	35.6	27.7	7.87	4.524 SF		
1,900.0	1,892.0	1,909.5	1,892.3	4.1	4.7	-105.75	-23.0	122.0	39.9	31.1	8.73	4.566		
2,000.0	1,990.9	2,008.8	1,988.7	4.4	5.2	-93.33	-26.6	145.7	46.6	37.2	9.37	4.973		
2,100.0	2,089.8	2,108.1	2,085.2	4.7	5.6	-84.35	-30.3	169.3	55.0	45.1	9.90	5.556		
2,200.0	2,188.7	2,207.5	2,181.6	5.0	6.0	-77.84	-34.0	193.0	64.4	54.0	10.37	6.207		
2,300.0	2,287.6	2,306.8	2,278.0	5.3	6.5	-73.03	-37.7	216.6	74.3	63.5	10.82	6.869		
2,400.0	2,386.6	2,406.1	2,374.4	5.6	6.9	-69.37	-41.3	240.3	84.7	73.4	11.27	7.515		
2,500.0	2,485.5	2,505.5	2,470.8	5.9	7.4	-66.52	-45.0	263.9	95.4	83.6	11.73	8.131		
2,600.0	2,584.4	2,604.8	2,567.2	6.2	7.8	-64.24	-48.7	287.6	106.2	94.0	12.19	8.714		
2,700.0	2,683.3	2,704.1	2,663.6	6.5	8.3	-62.39	-52.3	311.2	117.1	104.5	12.65	9.261		
2,800.0	2,782.2	2,803.5	2,760.0	6.8	8.7	-60.85	-56.0	334.9	128.2	115.1	13.12	9.774		
2,900.0	2,881.1	2,902.8	2,856.4	7.1	9.2	-59.56	-59.7	358.5	139.3	125.8	13.59	10.254		
3,000.0	2,980.0	3,002.1	2,952.8	7.4	9.6	-58.46	-63.4	382.2	150.5	136.5	14.07	10.703		
3,100.0	3,078.9	3,101.5	3,049.2	7.7	10.1	-57.51	-67.0	405.8	161.8	147.2	14.54	11.124		
3,200.0	3,177.9	3,200.8	3,145.6	8.0	10.5	-56.69	-70.7	429.5	173.1	158.1	15.03	11.518		
3,300.0	3,276.8	3,300.1	3,242.0	8.3	11.0	-55.97	-74.4	453.2	184.4	168.9	15.51	11.888		
3,400.0	3,375.7	3,399.5	3,338.4	8.6	11.5	-55.33	-78.0	476.8	195.7	179.7	16.00	12.236		
3,500.0	3,474.6	3,498.8	3,434.8	8.9	11.9	-54.76	-81.7	500.5	207.1	190.6	16.49	12.563		
3,600.0	3,573.5	3,598.1	3,531.2	9.2	12.4	-54.25	-85.4	524.1	218.5	201.5	16.97	12.871		
3,700.0	3,672.4	3,697.5	3,627.6	9.5	12.8	-53.79	-89.0	547.8	229.9	212.4	17.47	13.161		
3,800.0	3,771.3	3,796.8	3,724.0	9.9	13.3	-53.37	-92.7	571.4	241.3	223.3	17.96	13.436		
3,900.0	3,870.2	3,896.1	3,820.5	10.2	13.8	-52.99	-96.4	595.1	252.7	234.3	18.45	13.696		
4,000.0	3,969.2	3,995.5	3,916.9	10.5	14.2	-52.65	-100.1	618.7	264.1	245.2	18.95	13.942		
4,100.0	4,068.1	4,094.8	4,013.3	10.8	14.7	-52.33	-103.7	642.4	275.6	256.1	19.44	14.175		
4,200.0	4,167.0	4,194.1	4,109.7	11.1	15.1	-52.04	-107.4	666.0	287.0	267.1	19.94	14.397		
4,300.0	4,265.9	4,293.4	4,206.1	11.4	15.6	-51.77	-111.1	689.7	298.5	278.0	20.43	14.608		
4,400.0	4,364.8	4,392.8	4,302.5	11.7	16.1	-51.52	-114.7	713.3	309.9	289.0	20.93	14.808		
4,500.0	4,463.7	4,492.1	4,398.9	12.0	16.5	-51.29	-118.4	737.0	321.4	300.0	21.43	15.000		
4,600.0	4,562.6	4,591.4	4,495.3	12.3	17.0	-51.07	-122.1	760.6	332.9	311.0	21.93	15.182		
4,700.0	4,661.5	4,690.8	4,591.7	12.6	17.4	-50.87	-125.8	784.3	344.4	321.9	22.42	15.356		
4,800.0	4,760.5	4,790.1	4,688.1	13.0	17.9	-50.68	-129.4	807.9	355.8	332.9	22.92	15.522		
4,900.0	4,859.4	4,889.4	4,784.5	13.3	18.4	-50.50	-133.1	831.6	367.3	343.9	23.42	15.682		
5,000.0	4,958.3	4,988.8	4,880.9	13.6	18.8	-50.34	-136.8	855.2	378.8	354.9	23.92	15.834		

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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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													S32-T2N-R68W (File/Hwy 52) - Hwy 52 4G-32H-O268 - 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)								
5,100.0	5,057.2	5,088.1	4,977.3	13.9	19.3	-50.18	-140.4	878.9	390.3	365.9	24.42	15.980						
5,200.0	5,156.1	5,187.4	5,073.7	14.2	19.7	-50.04	-144.1	902.6	401.8	376.9	24.92	16.120						
5,300.0	5,255.0	5,286.8	5,170.1	14.5	20.2	-49.90	-147.8	926.2	413.3	387.8	25.42	16.255						
5,400.0	5,353.9	5,386.1	5,266.5	14.8	20.7	-49.76	-151.5	949.9	424.8	398.8	25.93	16.384						
5,500.0	5,452.8	5,485.4	5,362.9	15.1	21.1	-49.64	-155.1	973.5	436.3	409.8	26.43	16.508						
5,600.0	5,551.8	5,584.8	5,459.3	15.4	21.6	-49.52	-158.8	997.2	447.8	420.8	26.93	16.628						
5,700.0	5,650.7	5,684.1	5,555.7	15.7	22.0	-49.41	-162.5	1,020.8	459.3	431.8	27.43	16.743						
5,800.0	5,749.6	5,783.4	5,652.2	16.1	22.5	-49.30	-166.1	1,044.5	470.8	442.8	27.93	16.854						
5,900.0	5,848.5	5,882.8	5,748.6	16.4	23.0	-49.20	-169.8	1,068.1	482.3	453.8	28.43	16.961						
6,000.0	5,947.4	5,982.1	5,845.0	16.7	23.4	-49.10	-173.5	1,091.8	493.8	464.8	28.94	17.064						

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4H-32H-O268 - 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	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis			
0.0	0.0	1.0	1.0	0.0	0.0	-87.44	2.3	-51.7	51.7					
100.0	100.0	101.0	101.0	0.1	0.2	-87.44	2.3	-51.7	51.7	51.4	0.30	173.372		
200.0	200.0	201.0	201.0	0.3	0.3	-87.44	2.3	-51.7	51.7	51.1	0.65	79.910		
300.0	300.0	301.0	301.0	0.5	0.5	-87.44	2.3	-51.7	51.7	50.7	1.00	51.921		
400.0	400.0	401.0	401.0	0.7	0.7	-87.44	2.3	-51.7	51.7	50.4	1.35	38.452		
500.0	500.0	501.0	501.0	0.8	0.8	-87.44	2.3	-51.7	51.7	50.0	1.69	30.532		
600.0	600.0	601.0	601.0	1.0	1.0	-87.44	2.3	-51.7	51.7	49.7	2.04	25.317	CC, ES	
700.0	700.0	701.0	701.0	1.2	1.2	154.35	2.3	-51.7	52.5	50.1	2.39	21.953		
800.0	800.0	801.9	801.9	1.4	1.4	155.65	2.4	-50.8	54.0	51.3	2.74	19.688		
900.0	899.9	902.8	902.8	1.6	1.6	157.87	2.5	-48.1	55.4	52.3	3.09	17.902		
1,000.0	999.7	1,003.8	1,003.6	1.7	1.7	160.94	2.7	-43.7	56.8	53.3	3.44	16.479		
1,100.0	1,099.4	1,104.7	1,104.3	1.9	1.9	164.80	3.0	-37.4	58.3	54.5	3.80	15.356		
1,200.0	1,198.9	1,205.5	1,204.9	2.2	2.1	169.35	3.4	-29.4	60.1	56.0	4.15	14.494		
1,300.0	1,298.3	1,306.3	1,305.2	2.4	2.3	174.48	3.9	-19.7	62.4	57.9	4.50	13.864		
1,400.0	1,397.4	1,407.1	1,405.3	2.7	2.6	-179.99	4.5	-8.2	65.4	60.6	4.87	13.435		
1,500.0	1,496.3	1,507.8	1,505.1	2.9	2.8	-174.23	5.1	5.1	69.1	63.8	5.27	13.115		
1,600.0	1,595.3	1,608.4	1,604.6	3.2	3.1	-168.18	5.9	20.1	72.2	66.5	5.71	12.650		
1,700.0	1,694.2	1,708.9	1,703.7	3.5	3.4	-161.70	6.7	36.8	74.9	68.7	6.21	12.059		
1,800.0	1,793.1	1,809.2	1,802.3	3.8	3.7	-154.68	7.6	55.2	77.5	70.7	6.80	11.400		
1,900.0	1,892.0	1,909.3	1,900.4	4.1	4.1	-147.11	8.6	75.3	80.4	72.9	7.49	10.746		
2,000.0	1,990.9	2,009.1	1,997.8	4.4	4.5	-139.09	9.7	97.0	84.1	75.8	8.26	10.174		
2,100.0	2,089.8	2,108.6	2,094.4	4.7	4.9	-130.79	10.9	120.4	88.9	79.8	9.11	9.758		
2,200.0	2,188.7	2,207.6	2,190.3	5.0	5.3	-122.47	12.1	145.3	95.4	85.4	9.99	9.549	SF	
2,300.0	2,287.6	2,306.2	2,285.2	5.3	5.8	-114.42	13.4	171.7	103.7	92.9	10.84	9.568		
2,400.0	2,386.6	2,404.5	2,379.5	5.6	6.3	-106.97	14.8	199.5	114.2	102.6	11.64	9.818		
2,500.0	2,485.5	2,502.9	2,473.8	5.9	6.8	-100.74	16.2	227.4	126.4	114.1	12.35	10.235		
2,600.0	2,584.4	2,601.3	2,568.1	6.2	7.3	-95.63	17.6	255.4	139.8	126.8	13.01	10.750		
2,700.0	2,683.3	2,699.6	2,662.5	6.5	7.8	-91.44	19.0	283.4	154.2	140.5	13.62	11.316		
2,800.0	2,782.2	2,798.0	2,756.8	6.8	8.3	-87.97	20.4	311.4	169.2	154.9	14.21	11.903		
2,900.0	2,881.1	2,896.4	2,851.1	7.1	8.8	-85.06	21.8	339.4	184.7	169.9	14.78	12.494		
3,000.0	2,980.0	2,994.8	2,945.4	7.4	9.4	-82.61	23.2	367.3	200.6	185.2	15.34	13.076		
3,100.0	3,078.9	3,093.2	3,039.7	7.7	9.9	-80.52	24.6	395.3	216.8	200.9	15.89	13.643		
3,200.0	3,177.9	3,191.6	3,134.0	8.0	10.4	-78.72	25.9	423.3	233.2	216.8	16.44	14.191		
3,300.0	3,276.8	3,290.0	3,228.4	8.3	10.9	-77.16	27.3	451.3	249.9	232.9	16.98	14.717		
3,400.0	3,375.7	3,388.4	3,322.7	8.6	11.4	-75.80	28.7	479.3	266.7	249.2	17.52	15.222		
3,500.0	3,474.6	3,486.8	3,417.0	8.9	12.0	-74.59	30.1	507.3	283.6	265.6	18.06	15.704		
3,600.0	3,573.5	3,585.1	3,511.3	9.2	12.5	-73.52	31.5	535.2	300.7	282.1	18.60	16.165		
3,700.0	3,672.4	3,683.5	3,605.6	9.5	13.0	-72.57	32.9	563.2	317.8	298.7	19.14	16.605		
3,800.0	3,771.3	3,781.9	3,699.9	9.9	13.5	-71.71	34.3	591.2	335.0	315.4	19.68	17.024		
3,900.0	3,870.2	3,880.3	3,794.2	10.2	14.1	-70.94	35.7	619.2	352.3	332.1	20.22	17.424		
4,000.0	3,969.2	3,978.7	3,888.6	10.5	14.6	-70.24	37.1	647.2	369.7	348.9	20.76	17.805		
4,100.0	4,068.1	4,077.1	3,982.9	10.8	15.1	-69.60	38.5	675.2	387.0	365.7	21.30	18.169		
4,200.0	4,167.0	4,175.5	4,077.2	11.1	15.7	-69.02	39.9	703.1	404.5	382.6	21.84	18.517		
4,300.0	4,265.9	4,273.9	4,171.5	11.4	16.2	-68.48	41.3	731.1	421.9	399.5	22.38	18.849		
4,400.0	4,364.8	4,372.3	4,265.8	11.7	16.7	-67.99	42.7	759.1	439.4	416.5	22.93	19.167		
4,500.0	4,463.7	4,470.7	4,360.1	12.0	17.2	-67.54	44.0	787.1	457.0	433.5	23.47	19.471		
4,600.0	4,562.6	4,569.0	4,454.5	12.3	17.8	-67.12	45.4	815.1	474.5	450.5	24.01	19.761		
4,700.0	4,661.5	4,667.4	4,548.8	12.6	18.3	-66.72	46.8	843.0	492.1	467.5	24.56	20.040		

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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4I-32H-O268 - 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	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	-95.87	-3.8	-36.7	36.9				
100.0	100.0	100.0	100.0	0.1	0.1	-95.87	-3.8	-36.7	36.9	36.6	0.30	124.424	
200.0	200.0	200.0	200.0	0.3	0.3	-95.87	-3.8	-36.7	36.9	36.3	0.65	57.168	CC, ES
300.0	300.0	299.5	299.5	0.5	0.5	-96.70	-4.4	-37.3	37.6	36.6	0.99	37.790	
400.0	400.0	398.9	398.9	0.7	0.7	-99.01	-6.2	-39.2	39.7	38.3	1.35	29.430	
500.0	500.0	498.2	498.1	0.8	0.9	-102.37	-9.3	-42.2	43.3	41.6	1.71	25.312	
600.0	600.0	597.4	597.1	1.0	1.1	-106.21	-13.5	-46.5	48.5	46.4	2.08	23.295	SF
700.0	700.0	696.2	695.6	1.2	1.3	131.93	-19.0	-51.9	56.0	53.6	2.40	23.340	
800.0	800.0	795.3	794.2	1.4	1.5	130.09	-25.4	-58.4	66.2	63.4	2.75	24.017	
900.0	899.9	894.6	893.1	1.6	1.7	129.66	-32.1	-65.1	77.6	74.5	3.11	24.923	
1,000.0	999.7	993.8	991.9	1.7	2.0	130.17	-38.7	-71.7	90.2	86.7	3.48	25.912	
1,100.0	1,099.4	1,092.9	1,090.5	1.9	2.2	131.26	-45.3	-78.3	103.9	100.0	3.85	26.950	
1,200.0	1,198.9	1,191.7	1,188.9	2.2	2.4	132.69	-51.9	-84.9	118.8	114.5	4.24	28.027	
1,300.0	1,298.3	1,290.3	1,287.0	2.4	2.6	134.31	-58.5	-91.5	135.0	130.3	4.63	29.138	
1,400.0	1,397.4	1,388.7	1,385.0	2.7	2.9	136.02	-65.1	-98.1	152.5	147.4	5.03	30.285	
1,500.0	1,496.3	1,486.8	1,482.6	2.9	3.1	137.75	-71.6	-104.7	171.2	165.7	5.44	31.437	
1,600.0	1,595.3	1,584.8	1,580.3	3.2	3.3	139.23	-78.2	-111.2	190.1	184.3	5.86	32.451	
1,700.0	1,694.2	1,682.9	1,677.9	3.5	3.6	140.44	-84.7	-117.8	209.2	202.9	6.28	33.342	
1,800.0	1,793.1	1,781.0	1,775.5	3.8	3.8	141.45	-91.3	-124.3	228.4	221.7	6.69	34.132	
1,900.0	1,892.0	1,879.1	1,873.2	4.1	4.0	142.30	-97.8	-130.9	247.6	240.5	7.11	34.835	
2,000.0	1,990.9	1,977.1	1,970.8	4.4	4.3	143.03	-104.4	-137.4	266.8	259.3	7.52	35.466	
2,100.0	2,089.8	2,075.2	2,068.4	4.7	4.5	143.66	-110.9	-144.0	286.1	278.2	7.94	36.035	
2,200.0	2,188.7	2,173.3	2,166.1	5.0	4.7	144.21	-117.5	-150.6	305.4	297.1	8.36	36.550	
2,300.0	2,287.6	2,271.4	2,263.7	5.3	5.0	144.70	-124.0	-157.1	324.8	316.0	8.77	37.018	
2,400.0	2,386.6	2,369.5	2,361.4	5.6	5.2	145.13	-130.6	-163.7	344.1	334.9	9.19	37.446	
2,500.0	2,485.5	2,467.5	2,459.0	5.9	5.5	145.51	-137.1	-170.2	363.5	353.9	9.61	37.839	
2,600.0	2,584.4	2,565.6	2,556.6	6.2	5.7	145.86	-143.7	-176.8	382.9	372.9	10.02	38.201	
2,700.0	2,683.3	2,663.7	2,654.3	6.5	5.9	146.17	-150.2	-183.4	402.3	391.9	10.44	38.534	
2,800.0	2,782.2	2,761.8	2,751.9	6.8	6.2	146.45	-156.8	-189.9	421.7	410.9	10.86	38.843	
2,900.0	2,881.1	2,859.8	2,849.5	7.1	6.4	146.71	-163.3	-196.5	441.1	429.9	11.27	39.130	
3,000.0	2,980.0	2,957.9	2,947.2	7.4	6.6	146.95	-169.9	-203.0	460.6	448.9	11.69	39.397	
3,100.0	3,078.9	3,056.0	3,044.8	7.7	6.9	147.17	-176.4	-209.6	480.0	467.9	12.11	39.647	
3,200.0	3,177.9	3,154.1	3,142.5	8.0	7.1	147.37	-183.0	-216.2	499.5	486.9	12.52	39.880	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4J-32H-O268 - 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	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	-86.03	2.2	-31.7	31.8				
100.0	100.0	100.0	100.0	0.1	0.1	-86.03	2.2	-31.7	31.8	31.5	0.30	107.070	
200.0	200.0	200.0	200.0	0.3	0.3	-86.03	2.2	-31.7	31.8	31.1	0.65	49.194	
300.0	300.0	300.0	300.0	0.5	0.5	-86.03	2.2	-31.7	31.8	30.8	0.99	31.933 CC	
400.0	400.0	399.9	399.9	0.7	0.7	-87.59	1.3	-31.8	31.9	30.5	1.34	23.710 ES	
500.0	500.0	499.8	499.8	0.8	0.9	-92.19	-1.2	-32.3	32.3	30.6	1.69	19.061	
600.0	600.0	599.6	599.4	1.0	1.0	-99.49	-5.5	-33.0	33.5	31.4	2.05	16.327	
700.0	700.0	699.1	698.8	1.2	1.2	133.68	-11.5	-34.0	36.5	34.1	2.42	15.101 SF	
800.0	800.0	798.5	797.9	1.4	1.4	126.79	-19.2	-35.3	42.3	39.5	2.79	15.148	
900.0	899.9	898.0	897.0	1.6	1.7	122.11	-28.1	-36.9	50.2	47.0	3.16	15.853	
1,000.0	999.7	997.6	996.1	1.7	1.9	120.11	-37.1	-38.4	59.2	55.7	3.55	16.686	
1,100.0	1,099.4	1,097.1	1,095.2	1.9	2.1	119.89	-46.1	-40.0	69.2	65.2	3.95	17.528	
1,200.0	1,198.9	1,196.5	1,194.2	2.2	2.3	120.79	-55.1	-41.5	80.0	75.6	4.36	18.353	
1,300.0	1,298.3	1,295.8	1,293.0	2.4	2.6	122.37	-64.1	-43.0	91.7	87.0	4.79	19.170	
1,400.0	1,397.4	1,394.9	1,391.7	2.7	2.8	124.37	-73.1	-44.6	104.5	99.3	5.23	19.994	
1,500.0	1,496.3	1,493.8	1,490.3	2.9	3.0	126.55	-82.1	-46.1	118.3	112.6	5.68	20.826	
1,600.0	1,595.3	1,592.8	1,588.8	3.2	3.3	128.38	-91.0	-47.6	132.3	126.2	6.14	21.564	
1,700.0	1,694.2	1,691.7	1,687.3	3.5	3.5	129.85	-100.0	-49.2	146.5	139.9	6.59	22.212	
1,800.0	1,793.1	1,790.6	1,785.8	3.8	3.7	131.07	-108.9	-50.7	160.7	153.6	7.05	22.785	
1,900.0	1,892.0	1,889.6	1,884.3	4.1	3.9	132.09	-117.9	-52.2	175.0	167.4	7.51	23.294	
2,000.0	1,990.9	1,988.5	1,982.8	4.4	4.2	132.95	-126.9	-53.8	189.3	181.3	7.97	23.749	
2,100.0	2,089.8	2,087.4	2,081.3	4.7	4.4	133.70	-135.8	-55.3	203.6	195.2	8.43	24.159	
2,200.0	2,188.7	2,186.4	2,179.9	5.0	4.6	134.34	-144.8	-56.8	218.0	209.1	8.89	24.528	
2,300.0	2,287.6	2,285.3	2,278.4	5.3	4.9	134.91	-153.7	-58.3	232.4	223.1	9.35	24.863	
2,400.0	2,386.6	2,384.2	2,376.9	5.6	5.1	135.41	-162.7	-59.9	246.8	237.0	9.81	25.169	
2,500.0	2,485.5	2,483.2	2,475.4	5.9	5.3	135.85	-171.6	-61.4	261.3	251.0	10.27	25.448	
2,600.0	2,584.4	2,582.1	2,573.9	6.2	5.6	136.25	-180.6	-62.9	275.7	265.0	10.73	25.705	
2,700.0	2,683.3	2,681.0	2,672.4	6.5	5.8	136.60	-189.6	-64.5	290.2	279.0	11.19	25.941	
2,800.0	2,782.2	2,779.9	2,770.9	6.8	6.0	136.93	-198.5	-66.0	304.7	293.0	11.65	26.160	
2,900.0	2,881.1	2,878.9	2,869.5	7.1	6.3	137.22	-207.5	-67.5	319.2	307.1	12.11	26.362	
3,000.0	2,980.0	2,977.8	2,968.0	7.4	6.5	137.49	-216.4	-69.1	333.7	321.1	12.57	26.550	
3,100.0	3,078.9	3,076.7	3,066.5	7.7	6.7	137.74	-225.4	-70.6	348.2	335.1	13.03	26.725	
3,200.0	3,177.9	3,175.7	3,165.0	8.0	7.0	137.97	-234.4	-72.1	362.7	349.2	13.49	26.888	
3,300.0	3,276.8	3,274.6	3,263.5	8.3	7.2	138.17	-243.3	-73.7	377.2	363.2	13.95	27.041	
3,400.0	3,375.7	3,373.5	3,362.0	8.6	7.4	138.37	-252.3	-75.2	391.7	377.3	14.41	27.185	
3,500.0	3,474.6	3,472.5	3,460.5	8.9	7.7	138.55	-261.2	-76.7	406.2	391.4	14.87	27.320	
3,600.0	3,573.5	3,571.4	3,559.1	9.2	7.9	138.72	-270.2	-78.3	420.8	405.4	15.33	27.447	
3,700.0	3,672.4	3,670.3	3,657.6	9.5	8.1	138.87	-279.2	-79.8	435.3	419.5	15.79	27.566	
3,800.0	3,771.3	3,769.3	3,756.1	9.9	8.4	139.02	-288.1	-81.3	449.8	433.6	16.25	27.679	
3,900.0	3,870.2	3,868.2	3,854.6	10.2	8.6	139.16	-297.1	-82.9	464.3	447.6	16.71	27.786	
4,000.0	3,969.2	3,967.1	3,953.1	10.5	8.8	139.29	-306.0	-84.4	478.9	461.7	17.17	27.887	
4,100.0	4,068.1	4,066.1	4,051.6	10.8	9.1	139.41	-315.0	-85.9	493.4	475.8	17.63	27.983	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4K-32H-O268 - 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	-98.15	-3.8	-26.7	27.0					
100.0	100.0	100.0	100.0	0.1	0.1	-98.15	-3.8	-26.7	27.0	26.7	0.30	90.989		
200.0	200.0	200.0	200.0	0.3	0.3	-98.15	-3.8	-26.7	27.0	26.4	0.65	41.806		
300.0	300.0	300.0	300.0	0.5	0.5	-98.15	-3.8	-26.7	27.0	26.0	0.99	27.137		
400.0	400.0	400.0	400.0	0.7	0.7	-98.15	-3.8	-26.7	27.0	25.7	1.34	20.088		
500.0	500.0	500.1	500.1	0.8	0.8	-99.92	-4.6	-26.3	26.7	25.0	1.69	15.781		
600.0	600.0	600.2	600.2	1.0	1.0	-105.43	-6.9	-25.1	26.1	24.0	2.04	12.753		
652.2	652.2	652.5	652.4	1.1	1.1	131.84	-8.8	-24.2	25.9	23.6	2.23	11.576 CC		
700.0	700.0	700.2	700.1	1.2	1.2	127.85	-10.8	-23.1	26.0	23.6	2.41	10.819 ES		
800.0	800.0	800.1	799.8	1.4	1.4	119.42	-16.2	-20.3	27.5	24.7	2.78	9.911		
900.0	899.9	899.9	899.3	1.6	1.6	111.82	-23.2	-16.7	30.5	27.4	3.16	9.658 SF		
1,000.0	999.7	999.7	998.6	1.7	1.8	105.82	-31.6	-12.3	35.0	31.4	3.56	9.817		
1,100.0	1,099.4	1,099.5	1,098.0	1.9	2.1	103.06	-40.4	-7.7	40.2	36.3	3.98	10.110		
1,200.0	1,198.9	1,199.4	1,197.3	2.2	2.3	103.07	-49.2	-3.2	45.9	41.5	4.42	10.399		
1,300.0	1,298.3	1,299.2	1,296.6	2.4	2.5	104.93	-58.0	1.4	52.1	47.2	4.88	10.673		
1,400.0	1,397.4	1,398.9	1,395.8	2.7	2.8	108.01	-66.8	6.0	58.8	53.4	5.36	10.963		
1,500.0	1,496.3	1,498.5	1,495.0	2.9	3.0	111.69	-75.5	10.5	66.1	60.3	5.85	11.302		
1,600.0	1,595.3	1,598.2	1,594.1	3.2	3.2	114.78	-84.3	15.1	73.8	67.4	6.34	11.634		
1,700.0	1,694.2	1,697.8	1,693.3	3.5	3.5	117.28	-93.1	19.7	81.6	74.8	6.83	11.945		
1,800.0	1,793.1	1,797.4	1,792.4	3.8	3.7	119.34	-101.9	24.2	89.6	82.2	7.32	12.233		
1,900.0	1,892.0	1,897.1	1,891.6	4.1	3.9	121.07	-110.7	28.8	97.6	89.8	7.81	12.499		
2,000.0	1,990.9	1,996.7	1,990.7	4.4	4.2	122.52	-119.4	33.4	105.7	97.4	8.30	12.743		
2,100.0	2,089.8	2,096.4	2,089.8	4.7	4.4	123.78	-128.2	37.9	113.9	105.1	8.79	12.968		
2,200.0	2,188.7	2,196.0	2,189.0	5.0	4.7	124.86	-137.0	42.5	122.2	112.9	9.27	13.176		
2,300.0	2,287.6	2,295.6	2,288.1	5.3	4.9	125.80	-145.8	47.1	130.4	120.7	9.76	13.367		
2,400.0	2,386.6	2,395.3	2,387.3	5.6	5.2	126.64	-154.6	51.6	138.7	128.5	10.24	13.543		
2,500.0	2,485.5	2,494.9	2,486.4	5.9	5.4	127.37	-163.4	56.2	147.1	136.3	10.73	13.707		
2,600.0	2,584.4	2,594.5	2,585.6	6.2	5.6	128.03	-172.1	60.7	155.4	144.2	11.21	13.859		
2,700.0	2,683.3	2,694.2	2,684.7	6.5	5.9	128.62	-180.9	65.3	163.8	152.1	11.70	14.000		
2,800.0	2,782.2	2,793.8	2,783.8	6.8	6.1	129.16	-189.7	69.9	172.2	160.0	12.18	14.131		
2,900.0	2,881.1	2,893.4	2,883.0	7.1	6.4	129.64	-198.5	74.4	180.6	167.9	12.67	14.254		
3,000.0	2,980.0	2,993.1	2,982.1	7.4	6.6	130.09	-207.3	79.0	189.0	175.8	13.15	14.368		
3,100.0	3,078.9	3,092.7	3,081.3	7.7	6.9	130.49	-216.0	83.6	197.4	183.8	13.64	14.476		
3,200.0	3,177.9	3,192.3	3,180.4	8.0	7.1	130.86	-224.8	88.1	205.8	191.7	14.12	14.577		
3,300.0	3,276.8	3,292.0	3,279.6	8.3	7.3	131.20	-233.6	92.7	214.3	199.7	14.60	14.672		
3,400.0	3,375.7	3,391.6	3,378.7	8.6	7.6	131.52	-242.4	97.3	222.7	207.6	15.09	14.761		
3,500.0	3,474.6	3,491.3	3,477.8	8.9	7.8	131.81	-251.2	101.8	231.2	215.6	15.57	14.845		
3,600.0	3,573.5	3,590.9	3,577.0	9.2	8.1	132.08	-259.9	106.4	239.6	223.6	16.06	14.925		
3,700.0	3,672.4	3,690.5	3,676.1	9.5	8.3	132.34	-268.7	110.9	248.1	231.5	16.54	15.000		
3,800.0	3,771.3	3,790.2	3,775.3	9.9	8.6	132.57	-277.5	115.5	256.5	239.5	17.02	15.071		
3,900.0	3,870.2	3,889.8	3,874.4	10.2	8.8	132.79	-286.3	120.1	265.0	247.5	17.51	15.139		
4,000.0	3,969.2	3,989.4	3,973.6	10.5	9.1	133.00	-295.1	124.6	273.5	255.5	17.99	15.203		
4,100.0	4,068.1	4,089.1	4,072.7	10.8	9.3	133.20	-303.8	129.2	282.0	263.5	18.47	15.265		
4,200.0	4,167.0	4,188.7	4,171.8	11.1	9.5	133.38	-312.6	133.8	290.4	271.5	18.95	15.323		
4,300.0	4,265.9	4,288.3	4,271.0	11.4	9.8	133.56	-321.4	138.3	298.9	279.5	19.44	15.378		
4,400.0	4,364.8	4,388.0	4,370.1	11.7	10.0	133.72	-330.2	142.9	307.4	287.5	19.92	15.431		
4,500.0	4,463.7	4,487.6	4,469.3	12.0	10.3	133.87	-339.0	147.4	315.9	295.5	20.40	15.482		
4,600.0	4,562.6	4,587.2	4,568.4	12.3	10.5	134.02	-347.7	152.0	324.4	303.5	20.89	15.530		
4,700.0	4,661.5	4,686.9	4,667.6	12.6	10.8	134.16	-356.5	156.6	332.9	311.5	21.37	15.577		
4,800.0	4,760.5	4,786.5	4,766.7	13.0	11.0	134.29	-365.3	161.1	341.4	319.5	21.85	15.621		
4,900.0	4,859.4	4,886.2	4,865.9	13.3	11.3	134.42	-374.1	165.7	349.9	327.5	22.34	15.664		
5,000.0	4,958.3	4,985.8	4,965.0	13.6	11.5	134.54	-382.9	170.3	358.4	335.5	22.82	15.705		

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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4K-32H-O268 - 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		
5,100.0	5,057.2	5,085.4	5,064.1	13.9	11.7	134.66	-391.6	174.8	366.9	343.6	23.30	15.744		
5,200.0	5,156.1	5,185.1	5,163.3	14.2	12.0	134.76	-400.4	179.4	375.4	351.6	23.78	15.782		
5,300.0	5,255.0	5,284.7	5,262.4	14.5	12.2	134.87	-409.2	184.0	383.9	359.6	24.27	15.818		
5,400.0	5,353.9	5,384.3	5,361.6	14.8	12.5	134.97	-418.0	188.5	392.4	367.6	24.75	15.853		
5,500.0	5,452.8	5,484.0	5,460.7	15.1	12.7	135.07	-426.8	193.1	400.9	375.6	25.23	15.886		
5,600.0	5,551.8	5,583.6	5,559.9	15.4	13.0	135.16	-435.6	197.6	409.4	383.6	25.72	15.919		
5,700.0	5,650.7	5,683.2	5,659.0	15.7	13.2	135.25	-444.3	202.2	417.9	391.7	26.20	15.950		
5,800.0	5,749.6	5,782.9	5,758.1	16.1	13.5	135.33	-453.1	206.8	426.4	399.7	26.68	15.980		
5,900.0	5,848.5	5,882.5	5,857.3	16.4	13.7	135.41	-461.9	211.3	434.9	407.7	27.16	16.009		
6,000.0	5,947.4	5,982.1	5,956.4	16.7	13.9	135.49	-470.7	215.9	443.4	415.7	27.65	16.038		
6,100.0	6,046.3	6,081.8	6,055.6	17.0	14.2	135.56	-479.5	220.5	451.9	423.8	28.13	16.065		
6,200.0	6,145.2	6,181.4	6,154.7	17.3	14.4	135.64	-488.2	225.0	460.4	431.8	28.61	16.091		
6,300.0	6,244.1	6,281.1	6,253.9	17.6	14.7	135.71	-497.0	229.6	468.9	439.8	29.10	16.117		
6,400.0	6,343.0	6,380.7	6,353.0	17.9	14.9	135.77	-505.8	234.2	477.4	447.9	29.58	16.141		
6,500.0	6,442.0	6,480.3	6,452.1	18.2	15.2	135.84	-514.6	238.7	485.9	455.9	30.06	16.165		
6,600.0	6,540.9	6,580.0	6,551.3	18.5	15.4	135.90	-523.4	243.3	494.5	463.9	30.54	16.189		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4L-32H-O268 - 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				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	0.0	0.0	0.0	0.0	-84.35	2.1	-21.7	21.8					
100.0	100.0	100.0	100.0	0.1	0.1	-84.35	2.1	-21.7	21.8	21.5	0.30	73.467		
200.0	200.0	200.0	200.0	0.3	0.3	-84.35	2.1	-21.7	21.8	21.2	0.65	33.755		
300.0	300.0	300.0	300.0	0.5	0.5	-84.35	2.1	-21.7	21.8	20.8	0.99	21.911		
400.0	400.0	400.0	400.0	0.7	0.7	-84.35	2.1	-21.7	21.8	20.5	1.34	16.220		
500.0	500.0	500.0	500.0	0.8	0.8	-84.35	2.1	-21.7	21.8	20.1	1.69	12.876		
600.0	600.0	600.5	600.4	1.0	1.0	-88.05	0.7	-20.7	20.7	18.7	2.04	10.132		
700.0	700.0	700.7	700.6	1.2	1.2	141.56	-3.6	-17.7	18.7	16.3	2.40	7.783		
773.3	773.2	774.0	773.6	1.3	1.4	127.43	-8.6	-14.2	18.0	15.4	2.69	6.715 CC, ES		
800.0	800.0	800.7	800.1	1.4	1.4	121.31	-10.8	-12.7	18.2	15.4	2.79	6.505		
900.0	899.9	900.5	899.3	1.6	1.7	98.66	-20.3	-5.7	20.8	17.6	3.20	6.502		
1,000.0	999.7	1,000.3	998.3	1.7	1.9	84.79	-29.6	2.2	25.1	21.5	3.60	6.973		
1,100.0	1,099.4	1,100.2	1,097.4	1.9	2.1	78.54	-39.0	10.2	30.0	26.0	4.01	7.480		
1,200.0	1,198.9	1,200.0	1,196.5	2.2	2.4	76.84	-48.4	18.1	34.7	30.3	4.45	7.804		
1,300.0	1,298.3	1,299.9	1,295.6	2.4	2.7	78.02	-57.8	26.1	39.1	34.2	4.93	7.932		
1,400.0	1,397.4	1,399.8	1,394.8	2.7	2.9	81.23	-67.1	34.0	43.2	37.7	5.45	7.920		
1,500.0	1,496.3	1,499.7	1,493.9	2.9	3.2	85.70	-76.5	42.0	47.2	41.2	6.01	7.860		
1,600.0	1,595.3	1,599.5	1,593.0	3.2	3.5	89.65	-85.9	49.9	51.5	44.9	6.57	7.836		
1,700.0	1,694.2	1,699.4	1,692.1	3.5	3.7	92.99	-95.2	57.9	56.0	48.9	7.14	7.843		
1,800.0	1,793.1	1,799.2	1,791.1	3.8	4.0	95.83	-104.6	65.8	60.7	53.0	7.71	7.869		
1,900.0	1,892.0	1,899.1	1,890.2	4.1	4.3	98.25	-114.0	73.8	65.4	57.2	8.28	7.909		
2,000.0	1,990.9	1,998.9	1,989.3	4.4	4.5	100.34	-123.3	81.7	70.3	61.5	8.84	7.956		
2,100.0	2,089.8	2,098.8	2,088.4	4.7	4.8	102.16	-132.7	89.7	75.3	65.9	9.40	8.008		
2,200.0	2,188.7	2,198.6	2,187.5	5.0	5.1	103.75	-142.1	97.6	80.3	70.4	9.97	8.062		
2,300.0	2,287.6	2,298.5	2,286.6	5.3	5.4	105.15	-151.5	105.6	85.4	74.9	10.53	8.116		
2,400.0	2,386.6	2,398.3	2,385.7	5.6	5.6	106.40	-160.8	113.6	90.6	79.5	11.08	8.171		
2,500.0	2,485.5	2,498.2	2,484.8	5.9	5.9	107.51	-170.2	121.5	95.7	84.1	11.64	8.224		
2,600.0	2,584.4	2,598.0	2,583.9	6.2	6.2	108.50	-179.6	129.5	100.9	88.7	12.20	8.276		
2,700.0	2,683.3	2,697.9	2,683.0	6.5	6.5	109.40	-188.9	137.4	106.2	93.4	12.75	8.327		
2,800.0	2,782.2	2,797.7	2,782.1	6.8	6.7	110.22	-198.3	145.4	111.4	98.1	13.30	8.376		
2,900.0	2,881.1	2,897.6	2,881.1	7.1	7.0	110.96	-207.7	153.3	116.7	102.8	13.86	8.422		
3,000.0	2,980.0	2,997.4	2,980.2	7.4	7.3	111.63	-217.0	161.3	122.0	107.6	14.41	8.467		
3,100.0	3,078.9	3,097.3	3,079.3	7.7	7.6	112.25	-226.4	169.2	127.3	112.3	14.96	8.510		
3,200.0	3,177.9	3,197.1	3,178.4	8.0	7.8	112.82	-235.8	177.2	132.6	117.1	15.51	8.551		
3,300.0	3,276.8	3,297.0	3,277.5	8.3	8.1	113.35	-245.1	185.1	138.0	121.9	16.06	8.591		
3,400.0	3,375.7	3,396.8	3,376.6	8.6	8.4	113.84	-254.5	193.1	143.3	126.7	16.61	8.629		
3,500.0	3,474.6	3,496.7	3,475.7	8.9	8.7	114.29	-263.9	201.0	148.7	131.5	17.16	8.665		
3,600.0	3,573.5	3,596.5	3,574.8	9.2	8.9	114.71	-273.3	209.0	154.0	136.3	17.71	8.699		
3,700.0	3,672.4	3,696.4	3,673.9	9.5	9.2	115.10	-282.6	216.9	159.4	141.2	18.25	8.732		
3,800.0	3,771.3	3,796.2	3,773.0	9.9	9.5	115.47	-292.0	224.9	164.8	146.0	18.80	8.764		
3,900.0	3,870.2	3,896.1	3,872.1	10.2	9.8	115.81	-301.4	232.8	170.2	150.8	19.35	8.794		
4,000.0	3,969.2	3,995.9	3,971.1	10.5	10.0	116.13	-310.7	240.8	175.6	155.7	19.90	8.823		
4,100.0	4,068.1	4,095.8	4,070.2	10.8	10.3	116.44	-320.1	248.7	181.0	160.5	20.44	8.851		
4,200.0	4,167.0	4,195.6	4,169.3	11.1	10.6	116.72	-329.5	256.7	186.4	165.4	20.99	8.878		
4,300.0	4,265.9	4,295.5	4,268.4	11.4	10.9	116.99	-338.8	264.7	191.8	170.2	21.54	8.904		
4,400.0	4,364.8	4,395.3	4,367.5	11.7	11.1	117.25	-348.2	272.6	197.2	175.1	22.08	8.928		
4,500.0	4,463.7	4,495.2	4,466.6	12.0	11.4	117.49	-357.6	280.6	202.6	180.0	22.63	8.952		
4,600.0	4,562.6	4,595.0	4,565.7	12.3	11.7	117.72	-366.9	288.5	208.0	184.8	23.18	8.975		
4,700.0	4,661.5	4,694.9	4,664.8	12.6	12.0	117.93	-376.3	296.5	213.4	189.7	23.72	8.997		
4,800.0	4,760.5	4,794.7	4,763.9	13.0	12.2	118.14	-385.7	304.4	218.8	194.6	24.27	9.018		
4,900.0	4,859.4	4,894.6	4,863.0	13.3	12.5	118.34	-395.0	312.4	224.3	199.5	24.81	9.039		
5,000.0	4,958.3	4,994.4	4,962.0	13.6	12.8	118.52	-404.4	320.3	229.7	204.3	25.36	9.058		

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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4L-32H-O268 - 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 (ft)	Vertical Depth (ft)	Measured Depth (ft)	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	5,057.2	5,094.3	5,061.1	13.9	13.1	118.70	-413.8	328.3	235.1	209.2	25.90	9.077		
5,200.0	5,156.1	5,194.1	5,160.2	14.2	13.4	118.87	-423.2	336.2	240.6	214.1	26.45	9.095		
5,300.0	5,255.0	5,294.0	5,259.3	14.5	13.6	119.03	-432.5	344.2	246.0	219.0	26.99	9.113		
5,400.0	5,353.9	5,393.8	5,358.4	14.8	13.9	119.19	-441.9	352.1	251.4	223.9	27.54	9.130		
5,500.0	5,452.8	5,493.7	5,457.5	15.1	14.2	119.34	-451.3	360.1	256.9	228.8	28.08	9.147		
5,600.0	5,551.8	5,593.5	5,556.6	15.4	14.5	119.48	-460.6	368.0	262.3	233.7	28.63	9.163		
5,700.0	5,650.7	5,693.4	5,655.7	15.7	14.7	119.62	-470.0	376.0	267.8	238.6	29.17	9.178		
5,800.0	5,749.6	5,793.2	5,754.8	16.1	15.0	119.75	-479.4	383.9	273.2	243.5	29.72	9.193		
5,900.0	5,848.5	5,893.1	5,853.9	16.4	15.3	119.88	-488.7	391.9	278.6	248.4	30.26	9.207		
6,000.0	5,947.4	5,992.9	5,953.0	16.7	15.6	120.00	-498.1	399.8	284.1	253.3	30.81	9.221		
6,100.0	6,046.3	6,092.8	6,052.0	17.0	15.8	120.12	-507.5	407.8	289.5	258.2	31.35	9.235		
6,200.0	6,145.2	6,192.6	6,151.1	17.3	16.1	120.23	-516.8	415.8	295.0	263.1	31.90	9.248		
6,300.0	6,244.1	6,292.5	6,250.2	17.6	16.4	120.34	-526.2	423.7	300.4	268.0	32.44	9.261		
6,400.0	6,343.0	6,392.3	6,349.3	17.9	16.7	120.44	-535.6	431.7	305.9	272.9	32.98	9.273		
6,500.0	6,442.0	6,492.2	6,448.4	18.2	16.9	120.54	-545.0	439.6	311.3	277.8	33.53	9.285		
6,600.0	6,540.9	6,592.0	6,547.5	18.5	17.2	120.64	-554.3	447.6	316.8	282.7	34.07	9.297		
6,700.0	6,639.8	6,691.9	6,646.6	18.9	17.5	120.73	-563.7	455.5	322.2	287.6	34.62	9.308		
6,800.0	6,738.7	6,791.7	6,745.7	19.2	17.8	120.83	-573.1	463.5	327.7	292.5	35.16	9.319		
6,900.0	6,837.6	6,908.3	6,861.5	19.5	18.0	121.37	-581.1	472.7	332.1	296.5	35.63	9.322		
7,000.0	6,936.5	7,042.7	6,994.3	19.8	18.1	125.92	-564.4	483.1	327.3	292.1	35.20	9.300		
7,100.0	7,035.4	7,159.8	7,103.9	20.1	17.9	134.15	-525.0	491.5	316.2	282.6	33.64	9.400		
7,200.0	7,134.4	7,255.5	7,186.2	20.4	17.6	164.86	-476.7	497.6	307.3	275.9	31.41	9.786		
7,237.1	7,171.2	7,287.6	7,211.8	20.5	17.5	-164.21	-457.5	499.5	306.5	276.0	30.51	10.047		
7,300.0	7,233.2	7,339.8	7,251.2	20.6	17.3	-128.30	-423.3	502.3	308.7	279.6	29.10	10.610		
7,400.0	7,329.3	7,418.0	7,303.9	20.7	17.1	-101.41	-365.7	506.0	320.3	293.0	27.31	11.729		
7,500.0	7,419.7	7,491.9	7,346.1	20.7	16.8	-86.37	-305.2	508.8	339.1	312.8	26.31	12.888		
7,600.0	7,501.7	7,562.6	7,378.8	20.6	16.6	-75.75	-242.6	510.9	362.2	336.3	25.89	13.991		
7,700.0	7,572.9	7,631.0	7,403.0	20.6	16.5	-67.74	-178.7	512.2	386.9	361.3	25.61	15.106		
7,800.0	7,631.1	7,700.0	7,419.5	20.6	16.5	-61.52	-111.8	513.0	410.9	385.8	25.19	16.311		
7,900.0	7,674.4	7,762.7	7,427.5	20.6	16.5	-57.02	-49.6	513.1	432.8	408.1	24.67	17.543		
8,000.0	7,701.6	7,838.7	7,429.0	20.8	16.6	-53.51	26.4	512.5	450.9	426.8	24.10	18.709		
8,100.0	7,711.9	7,938.0	7,429.0	21.1	16.9	-51.95	125.7	511.7	458.9	434.9	24.04	19.087		
8,200.0	7,712.0	8,038.0	7,429.0	21.5	17.4	-52.00	225.7	510.8	459.7	434.7	25.01	18.379		
8,300.0	7,712.0	8,138.0	7,429.0	22.0	18.0	-52.07	325.7	509.9	460.4	434.1	26.29	17.510		
8,400.0	7,712.0	8,238.0	7,429.0	22.6	18.8	-52.13	425.7	509.0	461.1	433.3	27.79	16.588		
8,500.0	7,712.0	8,338.0	7,429.0	23.4	19.7	-52.20	525.6	508.2	461.7	432.3	29.49	15.659		
8,600.0	7,712.0	8,438.0	7,429.0	24.3	20.7	-52.27	625.6	507.3	462.4	431.1	31.34	14.754		
8,700.0	7,712.0	8,538.0	7,429.0	25.2	21.8	-52.33	725.6	506.4	463.1	429.8	33.33	13.894		
8,800.0	7,712.0	8,638.0	7,429.0	26.3	23.0	-52.40	825.6	505.5	463.8	428.4	35.43	13.089		
8,900.0	7,712.0	8,738.0	7,429.0	27.4	24.3	-52.46	925.6	504.7	464.5	426.9	37.63	12.343		
9,000.0	7,712.0	8,838.0	7,429.0	28.6	25.6	-52.53	1,025.6	503.8	465.2	425.3	39.91	11.656		
9,100.0	7,712.0	8,938.0	7,429.0	29.8	27.0	-52.59	1,125.6	502.9	465.9	423.6	42.26	11.025		
9,200.0	7,712.0	9,038.0	7,429.0	31.1	28.4	-52.66	1,225.6	502.1	466.6	421.9	44.67	10.446		
9,300.0	7,712.0	9,138.0	7,429.0	32.5	29.8	-52.72	1,325.6	501.2	467.3	420.2	47.12	9.916		
9,400.0	7,712.0	9,238.0	7,429.0	33.8	31.3	-52.79	1,425.6	500.3	468.0	418.4	49.62	9.431		
9,500.0	7,712.0	9,338.0	7,429.0	35.2	32.8	-52.85	1,525.6	499.4	468.7	416.5	52.16	8.985		
9,600.0	7,712.0	9,438.0	7,429.0	36.7	34.3	-52.92	1,625.6	498.6	469.4	414.6	54.73	8.576		
9,700.0	7,712.0	9,538.0	7,429.0	38.1	35.9	-52.98	1,725.6	497.7	470.1	412.7	57.33	8.199		
9,800.0	7,712.0	9,637.9	7,429.0	39.6	37.5	-53.05	1,825.5	496.8	470.8	410.8	59.96	7.851		
9,900.0	7,712.0	9,737.9	7,429.0	41.1	39.0	-53.11	1,925.5	495.9	471.5	408.8	62.61	7.530		
10,000.0	7,712.0	9,837.9	7,429.0	42.7	40.6	-53.17	2,025.5	495.1	472.2	406.9	65.29	7.232		
10,100.0	7,712.0	9,937.9	7,429.0	44.2	42.2	-53.24	2,125.5	494.2	472.9	404.9	67.98	6.956		

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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4L-32H-O268 - 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				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)			
10,200.0	7,712.0	10,037.9	7,429.0	45.8	43.9	-53.30	2,225.5	493.3	473.6	402.9	70.69	6.699	
10,300.0	7,712.0	10,137.9	7,429.0	47.3	45.5	-53.36	2,325.5	492.5	474.3	400.8	73.41	6.460	
10,400.0	7,712.0	10,237.9	7,429.0	48.9	47.1	-53.43	2,425.5	491.6	475.0	398.8	76.15	6.237	
10,500.0	7,712.0	10,337.9	7,429.0	50.5	48.8	-53.49	2,525.5	490.7	475.7	396.7	78.91	6.028	
10,600.0	7,712.0	10,437.9	7,429.0	52.1	50.4	-53.55	2,625.5	489.8	476.4	394.7	81.68	5.832	
10,700.0	7,712.0	10,537.9	7,429.0	53.7	52.1	-53.61	2,725.5	489.0	477.1	392.6	84.46	5.649	
10,800.0	7,712.0	10,637.9	7,429.0	55.4	53.8	-53.68	2,825.5	488.1	477.8	390.5	87.25	5.476	
10,900.0	7,712.0	10,737.9	7,429.0	57.0	55.4	-53.74	2,925.5	487.2	478.5	388.4	90.05	5.313	
11,000.0	7,712.0	10,837.9	7,429.0	58.6	57.1	-53.80	3,025.5	486.3	479.2	386.3	92.86	5.160	
11,100.0	7,712.0	10,937.9	7,429.0	60.3	58.8	-53.86	3,125.4	485.5	479.9	384.2	95.68	5.015	
11,200.0	7,712.0	11,037.9	7,429.0	61.9	60.5	-53.92	3,225.4	484.6	480.6	382.1	98.51	4.878	
11,300.0	7,712.0	11,137.9	7,429.0	63.6	62.2	-53.98	3,325.4	483.7	481.3	379.9	101.35	4.749	
11,400.0	7,712.0	11,237.9	7,429.0	65.3	63.9	-54.04	3,425.4	482.9	482.0	377.8	104.19	4.626	
11,500.0	7,712.0	11,337.9	7,429.0	66.9	65.6	-54.10	3,525.4	482.0	482.7	375.6	107.05	4.509	
11,600.0	7,712.0	11,437.9	7,429.0	68.6	67.3	-54.17	3,625.4	481.1	483.4	373.5	109.91	4.398	
11,700.0	7,712.0	11,537.9	7,429.0	70.3	69.0	-54.22	3,725.4	480.2	484.0	371.4	112.61	4.298	
11,800.0	7,712.0	11,637.9	7,429.0	71.9	70.7	-54.11	3,825.4	479.4	482.9	368.3	114.65	4.212	
11,900.0	7,712.0	11,737.9	7,429.0	73.6	72.4	-53.79	3,925.3	478.5	479.5	363.2	116.30	4.123	
12,000.0	7,712.0	11,837.5	7,429.0	75.2	74.1	-53.23	4,025.0	477.6	473.9	356.3	117.51	4.032	
12,100.0	7,712.0	11,937.0	7,429.0	76.9	75.8	-52.43	4,124.5	476.8	466.0	347.7	118.25	3.941	
12,200.0	7,712.0	12,036.2	7,429.0	78.5	77.5	-51.35	4,223.7	475.9	456.0	337.5	118.42	3.850	
12,235.7	7,712.0	12,071.5	7,429.0	79.1	78.1	-50.95	4,259.0	475.6	452.0	333.3	118.74	3.807 SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4N-32H-O268 - 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				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	0.0	0.0	0.0	0.0	56.88	3.7	5.6	6.7					
100.0	100.0	100.0	100.0	0.1	0.1	56.88	3.7	5.6	6.7	6.4	0.30	22.519		
200.0	200.0	200.0	200.0	0.3	0.3	56.88	3.7	5.6	6.7	6.0	0.65	10.347		
300.0	300.0	300.0	300.0	0.5	0.5	56.88	3.7	5.6	6.7	5.7	0.99	6.716		
400.0	400.0	400.0	400.0	0.7	0.7	56.88	3.7	5.6	6.7	5.3	1.34	4.972		
500.0	500.0	500.0	500.0	0.8	0.8	56.88	3.7	5.6	6.7	5.0	1.69	3.947		
534.9	534.9	534.9	534.9	0.9	0.9	56.88	3.7	5.6	6.7	4.9	1.81	3.682 CC		
600.0	600.0	600.0	600.0	1.0	1.0	58.49	3.5	5.8	6.8	4.7	2.04	3.324 ES		
700.0	700.0	699.9	699.9	1.2	1.2	-54.20	2.7	7.3	7.3	4.9	2.39	3.039		
800.0	800.0	799.8	799.7	1.4	1.4	-49.09	1.1	10.4	7.8	5.1	2.74	2.850		
900.0	899.9	899.7	899.5	1.6	1.6	-44.73	-1.4	15.0	8.4	5.3	3.10	2.719		
1,000.0	999.7	999.6	999.1	1.7	1.8	-41.03	-4.7	21.1	9.1	5.6	3.46	2.624		
1,100.0	1,099.4	1,099.5	1,098.6	1.9	2.0	-37.88	-8.9	28.8	9.8	6.0	3.83	2.553		
1,200.0	1,198.9	1,199.3	1,197.9	2.2	2.2	-35.20	-13.8	37.9	10.5	6.3	4.21	2.498		
1,300.0	1,298.3	1,299.2	1,297.0	2.4	2.4	-32.91	-19.6	48.6	11.2	6.7	4.58	2.454		
1,400.0	1,397.4	1,399.0	1,395.9	2.7	2.7	-30.95	-26.2	60.8	12.0	7.0	4.97	2.418 SF		
1,500.0	1,496.3	1,498.8	1,494.5	2.9	3.0	-28.71	-33.6	74.6	13.0	7.7	5.35	2.431		
1,600.0	1,595.3	1,598.5	1,592.7	3.2	3.3	-24.22	-41.8	89.8	15.4	9.7	5.70	2.709		
1,700.0	1,694.2	1,698.2	1,690.5	3.5	3.7	-19.17	-50.8	106.5	19.6	13.5	6.02	3.252		
1,800.0	1,793.1	1,797.8	1,788.0	3.8	4.0	-14.96	-60.5	124.5	25.3	18.9	6.33	3.988		
1,900.0	1,892.0	1,897.6	1,885.6	4.1	4.4	-12.23	-70.4	142.7	31.3	24.6	6.66	4.690		
2,000.0	1,990.9	1,997.4	1,983.3	4.4	4.8	-10.37	-80.2	161.0	37.3	30.3	7.00	5.328		
2,100.0	2,089.8	2,097.2	2,080.9	4.7	5.2	-9.04	-90.1	179.2	43.4	36.0	7.34	5.907		
2,200.0	2,188.7	2,197.0	2,178.6	5.0	5.5	-8.03	-99.9	197.4	49.5	41.8	7.69	6.435		
2,300.0	2,287.6	2,296.9	2,276.2	5.3	5.9	-7.24	-109.7	215.7	55.6	47.5	8.03	6.918		
2,400.0	2,386.6	2,396.7	2,373.8	5.6	6.3	-6.61	-119.6	233.9	61.7	53.3	8.38	7.361		
2,500.0	2,485.5	2,496.5	2,471.5	5.9	6.7	-6.09	-129.4	252.1	67.8	59.1	8.72	7.769		
2,600.0	2,584.4	2,596.3	2,569.1	6.2	7.1	-5.66	-139.3	270.3	73.9	64.8	9.07	8.146		
2,700.0	2,683.3	2,696.1	2,666.7	6.5	7.5	-5.30	-149.1	288.6	80.0	70.6	9.42	8.495		
2,800.0	2,782.2	2,795.9	2,764.4	6.8	7.9	-4.98	-158.9	306.8	86.1	76.4	9.77	8.819		
2,900.0	2,881.1	2,895.7	2,862.0	7.1	8.3	-4.71	-168.8	325.0	92.3	82.2	10.12	9.120		
3,000.0	2,980.0	2,995.5	2,959.7	7.4	8.7	-4.47	-178.6	343.3	98.4	87.9	10.47	9.402		
3,100.0	3,078.9	3,095.3	3,057.3	7.7	9.1	-4.26	-188.5	361.5	104.5	93.7	10.81	9.666		
3,200.0	3,177.9	3,195.2	3,154.9	8.0	9.5	-4.08	-198.3	379.7	110.7	99.5	11.16	9.913		
3,300.0	3,276.8	3,295.0	3,252.6	8.3	9.9	-3.91	-208.1	397.9	116.8	105.3	11.51	10.145		
3,400.0	3,375.7	3,394.8	3,350.2	8.6	10.3	-3.76	-218.0	416.2	122.9	111.1	11.86	10.363		
3,500.0	3,474.6	3,494.6	3,447.8	8.9	10.7	-3.62	-227.8	434.4	129.1	116.8	12.21	10.569		
3,600.0	3,573.5	3,594.4	3,545.5	9.2	11.1	-3.50	-237.7	452.6	135.2	122.6	12.56	10.763		
3,700.0	3,672.4	3,694.2	3,643.1	9.5	11.5	-3.39	-247.5	470.9	141.3	128.4	12.91	10.947		
3,800.0	3,771.3	3,794.0	3,740.8	9.9	11.9	-3.28	-257.3	489.1	147.5	134.2	13.26	11.121		
3,900.0	3,870.2	3,893.8	3,838.4	10.2	12.3	-3.19	-267.2	507.3	153.6	140.0	13.61	11.287		
4,000.0	3,969.2	3,993.6	3,936.0	10.5	12.7	-3.10	-277.0	525.6	159.7	145.8	13.96	11.444		
4,100.0	4,068.1	4,093.5	4,033.7	10.8	13.1	-3.02	-286.9	543.8	165.9	151.6	14.31	11.593		
4,200.0	4,167.0	4,193.3	4,131.3	11.1	13.5	-2.94	-296.7	562.0	172.0	157.4	14.66	11.735		
4,300.0	4,265.9	4,293.1	4,229.0	11.4	13.9	-2.87	-306.5	580.2	178.2	163.1	15.01	11.870		
4,400.0	4,364.8	4,392.9	4,326.6	11.7	14.3	-2.80	-316.4	598.5	184.3	168.9	15.36	12.000		
4,500.0	4,463.7	4,492.7	4,424.2	12.0	14.7	-2.74	-326.2	616.7	190.4	174.7	15.71	12.123		
4,600.0	4,562.6	4,592.5	4,521.9	12.3	15.1	-2.69	-336.1	634.9	196.6	180.5	16.06	12.242		
4,700.0	4,661.5	4,692.3	4,619.5	12.6	15.5	-2.63	-345.9	653.2	202.7	186.3	16.41	12.355		
4,800.0	4,760.5	4,792.1	4,717.1	13.0	15.9	-2.58	-355.7	671.4	208.8	192.1	16.76	12.463		
4,900.0	4,859.4	4,891.9	4,814.8	13.3	16.3	-2.53	-365.6	689.6	215.0	197.9	17.11	12.567		
5,000.0	4,958.3	4,991.8	4,912.4	13.6	16.7	-2.49	-375.4	707.8	221.1	203.7	17.46	12.667		

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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4N-32H-O268 - 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	
5,100.0	5,057.2	5,091.6	5,010.1	13.9	17.1	-2.44	-385.3	726.1	227.3	209.5	17.81	12.763	
5,200.0	5,156.1	5,191.4	5,107.7	14.2	17.6	-2.40	-395.1	744.3	233.4	215.2	18.16	12.855	
5,300.0	5,255.0	5,291.2	5,205.3	14.5	18.0	-2.36	-405.0	762.5	239.5	221.0	18.51	12.944	
5,400.0	5,353.9	5,391.0	5,303.0	14.8	18.4	-2.33	-414.8	780.8	245.7	226.8	18.86	13.029	
5,500.0	5,452.8	5,490.8	5,400.6	15.1	18.8	-2.29	-424.6	799.0	251.8	232.6	19.21	13.112	
5,600.0	5,551.8	5,590.6	5,498.2	15.4	19.2	-2.26	-434.5	817.2	258.0	238.4	19.56	13.191	
5,700.0	5,650.7	5,690.4	5,595.9	15.7	19.6	-2.23	-444.3	835.5	264.1	244.2	19.91	13.268	
5,800.0	5,749.6	5,790.3	5,693.5	16.1	20.0	-2.20	-454.2	853.7	270.2	250.0	20.26	13.342	
5,900.0	5,848.5	5,890.1	5,791.2	16.4	20.4	-2.17	-464.0	871.9	276.4	255.8	20.61	13.413	
6,000.0	5,947.4	5,989.9	5,888.8	16.7	20.8	-2.14	-473.8	890.1	282.5	261.6	20.96	13.482	
6,100.0	6,046.3	6,089.7	5,986.4	17.0	21.2	-2.11	-483.7	908.4	288.7	267.4	21.31	13.549	
6,200.0	6,145.2	6,189.5	6,084.1	17.3	21.6	-2.09	-493.5	926.6	294.8	273.1	21.66	13.614	
6,300.0	6,244.1	6,289.3	6,181.7	17.6	22.0	-2.06	-503.4	944.8	300.9	278.9	22.01	13.676	
6,400.0	6,343.0	6,389.1	6,279.3	17.9	22.4	-2.04	-513.2	963.1	307.1	284.7	22.35	13.737	
6,500.0	6,442.0	6,488.9	6,377.0	18.2	22.8	-2.02	-523.0	981.3	313.2	290.5	22.70	13.795	
6,600.0	6,540.9	6,588.7	6,474.6	18.5	23.2	-2.00	-532.9	999.5	319.4	296.3	23.05	13.852	
6,700.0	6,639.8	6,688.6	6,572.3	18.9	23.6	-1.98	-542.7	1,017.7	325.5	302.1	23.40	13.908	
6,800.0	6,738.7	6,788.4	6,669.9	19.2	24.0	-1.96	-552.6	1,036.0	331.6	307.9	23.75	13.961	
6,900.0	6,837.6	6,888.2	6,767.5	19.5	24.4	-1.94	-562.4	1,054.2	337.8	313.7	24.10	14.013	
7,000.0	6,936.5	7,007.8	6,884.8	19.8	24.9	-2.67	-569.2	1,076.1	342.3	317.8	24.51	13.967	
7,100.0	7,035.4	7,136.3	7,009.5	20.1	25.1	-7.39	-550.5	1,099.4	338.6	313.4	25.19	13.441	
7,200.0	7,134.4	7,248.4	7,112.7	20.4	25.2	6.15	-511.5	1,118.6	330.9	304.3	26.52	12.476	
7,300.0	7,233.2	7,348.4	7,196.8	20.6	25.2	56.11	-460.1	1,134.4	327.5	299.3	28.19	11.618	
7,303.2	7,236.3	7,351.5	7,199.3	20.6	25.2	56.84	-458.2	1,134.8	327.5	299.3	28.25	11.595	
7,400.0	7,329.3	7,440.6	7,265.6	20.7	25.1	66.49	-400.1	1,147.2	330.4	300.6	29.80	11.085	
7,500.0	7,419.7	7,526.9	7,320.5	20.7	25.0	66.09	-334.6	1,157.5	338.7	307.8	30.85	10.979	
7,600.0	7,501.7	7,608.6	7,363.1	20.6	24.9	62.86	-265.4	1,165.4	351.0	320.1	30.97	11.336	
7,700.0	7,572.9	7,686.7	7,394.5	20.6	24.9	58.95	-194.1	1,171.3	365.8	335.7	30.10	12.154	
7,800.0	7,631.1	7,762.2	7,415.4	20.6	24.9	55.12	-121.7	1,175.2	381.5	353.0	28.49	13.389	
7,900.0	7,674.4	7,835.6	7,426.6	20.6	24.9	51.69	-49.3	1,177.3	396.6	369.9	26.66	14.874	
8,000.0	7,701.6	7,914.4	7,429.0	20.8	25.0	48.66	29.5	1,177.7	409.9	384.5	25.34	16.174	
8,100.0	7,711.9	8,013.8	7,429.0	21.1	25.2	47.13	128.8	1,177.7	415.8	390.4	25.44	16.343	
8,200.0	7,712.0	8,113.8	7,429.0	21.5	25.5	47.11	228.8	1,177.7	415.9	389.5	26.38	15.765	
8,300.0	7,712.0	8,213.8	7,429.0	22.0	25.9	47.11	328.8	1,177.7	415.9	388.4	27.48	15.130	
8,400.0	7,712.0	8,313.8	7,429.0	22.6	26.5	47.11	428.8	1,177.7	415.9	387.1	28.78	14.448	
8,500.0	7,712.0	8,413.8	7,429.0	23.4	27.1	47.11	528.8	1,177.7	415.9	385.6	30.24	13.750	
8,600.0	7,712.0	8,513.8	7,429.0	24.3	27.9	47.11	628.8	1,177.7	415.9	384.0	31.85	13.056	
8,700.0	7,712.0	8,613.8	7,429.0	25.2	28.7	47.11	728.8	1,177.7	415.9	382.3	33.58	12.385	
8,800.0	7,712.0	8,713.8	7,429.0	26.3	29.6	47.11	828.8	1,177.7	415.9	380.4	35.41	11.744	
8,900.0	7,712.0	8,813.8	7,429.0	27.4	30.6	47.11	928.8	1,177.7	415.9	378.5	37.33	11.139	
9,000.0	7,712.0	8,913.8	7,429.0	28.6	31.7	47.11	1,028.8	1,177.7	415.9	376.5	39.33	10.574	
9,100.0	7,712.0	9,013.8	7,429.0	29.8	32.8	47.11	1,128.8	1,177.7	415.9	374.5	41.39	10.047	
9,200.0	7,712.0	9,113.8	7,429.0	31.1	33.9	47.11	1,228.8	1,177.7	415.9	372.3	43.51	9.558	
9,300.0	7,712.0	9,213.8	7,429.0	32.5	35.2	47.11	1,328.8	1,177.7	415.9	370.2	45.68	9.104	
9,400.0	7,712.0	9,313.8	7,429.0	33.8	36.4	47.11	1,428.8	1,177.7	415.9	368.0	47.88	8.685	
9,500.0	7,712.0	9,413.8	7,429.0	35.2	37.7	47.11	1,528.8	1,177.7	415.9	365.7	50.13	8.296	
9,600.0	7,712.0	9,513.8	7,429.0	36.7	39.1	47.11	1,628.8	1,177.7	415.9	363.4	52.40	7.936	
9,700.0	7,712.0	9,613.8	7,429.0	38.1	40.4	47.11	1,728.8	1,177.7	415.9	361.1	54.71	7.602	
9,800.0	7,712.0	9,713.8	7,429.0	39.6	41.8	47.11	1,828.8	1,177.7	415.9	358.8	57.03	7.292	
9,900.0	7,712.0	9,813.8	7,429.0	41.1	43.3	47.11	1,928.8	1,177.7	415.9	356.5	59.38	7.003	
10,000.0	7,712.0	9,913.8	7,429.0	42.7	44.7	47.11	2,028.8	1,177.7	415.9	354.1	61.75	6.735	
10,100.0	7,712.0	10,013.8	7,429.0	44.2	46.2	47.11	2,128.8	1,177.7	415.9	351.7	64.13	6.484	

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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4N-32H-O268 - 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 +N/-S	+E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)			
10,200.0	7,712.0	10,113.8	7,429.0	45.8	47.7	47.11	2,228.8	1,177.7	415.9	349.3	66.53	6.251	
10,300.0	7,712.0	10,213.8	7,429.0	47.3	49.2	47.11	2,328.8	1,177.7	415.9	346.9	68.94	6.032	
10,400.0	7,712.0	10,313.8	7,429.0	48.9	50.7	47.11	2,428.8	1,177.7	415.9	344.5	71.37	5.827	
10,500.0	7,712.0	10,413.8	7,429.0	50.5	52.2	47.11	2,528.8	1,177.7	415.9	342.1	73.80	5.635	
10,600.0	7,712.0	10,513.8	7,429.0	52.1	53.8	47.11	2,628.8	1,177.7	415.9	339.6	76.24	5.454	
10,700.0	7,712.0	10,613.8	7,429.0	53.7	55.4	47.11	2,728.8	1,177.7	415.9	337.2	78.70	5.284	
10,800.0	7,712.0	10,713.8	7,429.0	55.4	56.9	47.11	2,828.8	1,177.7	415.9	334.7	81.16	5.124	
10,900.0	7,712.0	10,813.8	7,429.0	57.0	58.5	47.11	2,928.8	1,177.7	415.9	332.2	83.63	4.973	
11,000.0	7,712.0	10,913.8	7,429.0	58.6	60.1	47.11	3,028.8	1,177.7	415.9	329.7	86.11	4.830	
11,100.0	7,712.0	11,013.8	7,429.0	60.3	61.7	47.11	3,128.8	1,177.7	415.9	327.3	88.59	4.694	
11,200.0	7,712.0	11,113.8	7,429.0	61.9	63.3	47.11	3,228.8	1,177.7	415.9	324.8	91.08	4.566	
11,300.0	7,712.0	11,213.8	7,429.0	63.6	64.9	47.11	3,328.8	1,177.7	415.9	322.3	93.57	4.444	
11,400.0	7,712.0	11,313.8	7,429.0	65.3	66.6	47.11	3,428.8	1,177.7	415.9	319.8	96.07	4.329	
11,500.0	7,712.0	11,413.8	7,429.0	66.9	68.2	47.11	3,528.8	1,177.7	415.9	317.3	98.57	4.219	
11,600.0	7,712.0	11,513.8	7,429.0	68.6	69.8	47.11	3,628.8	1,177.7	415.9	314.8	101.07	4.114	
11,647.9	7,712.0	11,561.7	7,429.0	69.4	70.6	47.12	3,676.7	1,177.7	415.9	313.7	102.20	4.070	
11,700.0	7,712.0	11,613.8	7,429.0	70.3	71.5	47.12	3,728.8	1,177.7	415.9	312.5	103.41	4.022	
11,800.0	7,712.0	11,713.8	7,429.0	71.9	73.1	47.31	3,828.8	1,177.7	417.6	312.1	105.48	3.959	
11,900.0	7,712.0	11,813.6	7,429.0	73.6	74.8	47.74	3,928.7	1,177.7	421.3	313.5	107.85	3.907	
12,000.0	7,712.0	11,913.3	7,429.0	75.2	76.4	48.39	4,028.4	1,177.7	427.2	316.7	110.48	3.867	
12,100.0	7,712.0	12,012.7	7,429.0	76.9	78.1	49.24	4,127.8	1,177.7	435.3	322.0	113.35	3.840	
12,200.0	7,712.0	12,111.8	7,429.0	78.5	79.7	50.26	4,226.8	1,177.7	445.7	329.3	116.41	3.829	
12,235.7	7,712.0	12,143.4	7,429.0	79.1	80.3	50.65	4,258.5	1,177.7	449.9	332.0	117.85	3.817	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4O-32H-O268 - 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 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	89.94	0.0	8.4	8.4					
100.0	100.0	100.0	100.0	0.1	0.1	89.94	0.0	8.4	8.4	8.1	0.30	28.289		
200.0	200.0	200.0	200.0	0.3	0.3	89.94	0.0	8.4	8.4	7.7	0.65	12.998		
300.0	300.0	300.0	300.0	0.5	0.5	89.94	0.0	8.4	8.4	7.4	0.99	8.437		
400.0	400.0	400.0	400.0	0.7	0.7	89.94	0.0	8.4	8.4	7.0	1.34	6.246 CC, ES		
500.0	500.0	499.9	499.8	0.8	0.8	91.74	-0.3	9.2	9.2	7.5	1.69	5.446 SF		
600.0	600.0	599.6	599.6	1.0	1.0	95.60	-1.1	11.7	11.7	9.7	2.04	5.743		
700.0	700.0	699.4	699.2	1.2	1.2	-20.40	-2.6	15.8	15.2	12.8	2.39	6.350		
800.0	800.0	799.0	798.7	1.4	1.4	-19.58	-4.6	21.5	18.7	16.0	2.74	6.829		
900.0	899.9	898.6	898.0	1.6	1.6	-19.73	-7.2	28.8	22.3	19.2	3.09	7.219		
1,000.0	999.7	998.1	997.0	1.7	1.8	-20.42	-10.3	37.8	26.0	22.5	3.44	7.546		
1,100.0	1,099.4	1,097.6	1,095.8	1.9	2.1	-21.47	-14.0	48.4	29.7	25.9	3.80	7.825		
1,200.0	1,198.9	1,197.0	1,194.4	2.2	2.3	-22.73	-18.3	60.6	33.5	29.4	4.16	8.065		
1,300.0	1,298.3	1,296.3	1,292.6	2.4	2.6	-24.14	-23.2	74.4	37.4	32.9	4.53	8.270		
1,400.0	1,397.4	1,395.5	1,390.5	2.7	2.9	-25.65	-28.6	89.8	41.5	36.6	4.91	8.444		
1,500.0	1,496.3	1,494.7	1,488.1	2.9	3.3	-27.07	-34.5	106.8	45.8	40.5	5.31	8.630		
1,600.0	1,595.3	1,593.7	1,585.1	3.2	3.6	-27.72	-41.1	125.3	51.7	46.0	5.72	9.043		
1,700.0	1,694.2	1,692.6	1,681.6	3.5	4.0	-27.70	-48.1	145.4	59.2	53.1	6.12	9.675		
1,800.0	1,793.1	1,791.1	1,777.5	3.8	4.4	-27.23	-55.7	166.9	68.3	61.8	6.51	10.488		
1,900.0	1,892.0	1,889.3	1,872.6	4.1	4.9	-26.49	-63.8	190.0	79.1	72.2	6.90	11.457		
2,000.0	1,990.9	1,988.0	1,967.8	4.4	5.4	-25.67	-72.4	214.4	91.2	83.9	7.29	12.519		
2,100.0	2,089.8	2,087.2	2,063.6	4.7	5.8	-25.02	-81.0	239.1	103.5	95.8	7.67	13.492		
2,200.0	2,188.7	2,186.5	2,159.3	5.0	6.3	-24.51	-89.7	263.8	115.8	107.7	8.06	14.371		
2,300.0	2,287.6	2,285.7	2,255.0	5.3	6.8	-24.09	-98.4	288.5	128.1	119.6	8.44	15.170		
2,400.0	2,386.6	2,385.0	2,350.7	5.6	7.3	-23.75	-107.1	313.2	140.4	131.5	8.83	15.898		
2,500.0	2,485.5	2,484.2	2,446.4	5.9	7.8	-23.46	-115.7	337.9	152.7	143.4	9.22	16.564		
2,600.0	2,584.4	2,583.4	2,542.2	6.2	8.2	-23.21	-124.4	362.6	165.0	155.4	9.60	17.176		
2,700.0	2,683.3	2,682.7	2,637.9	6.5	8.7	-23.00	-133.1	387.3	177.3	167.3	9.99	17.740		
2,800.0	2,782.2	2,781.9	2,733.6	6.8	9.2	-22.82	-141.8	412.0	189.6	179.2	10.38	18.261		
2,900.0	2,881.1	2,881.2	2,829.3	7.1	9.7	-22.66	-150.4	436.7	201.9	191.1	10.77	18.745		
3,000.0	2,980.0	2,980.4	2,925.1	7.4	10.2	-22.52	-159.1	461.4	214.2	203.0	11.16	19.194		
3,100.0	3,078.9	3,079.6	3,020.8	7.7	10.7	-22.39	-167.8	486.1	226.5	215.0	11.55	19.613		
3,200.0	3,177.9	3,178.9	3,116.5	8.0	11.2	-22.28	-176.5	510.8	238.8	226.9	11.94	20.005		
3,300.0	3,276.8	3,278.1	3,212.2	8.3	11.7	-22.17	-185.1	535.5	251.1	238.8	12.33	20.371		
3,400.0	3,375.7	3,377.3	3,308.0	8.6	12.2	-22.08	-193.8	560.2	263.4	250.7	12.72	20.715		
3,500.0	3,474.6	3,476.6	3,403.7	8.9	12.7	-22.00	-202.5	584.9	275.8	262.7	13.11	21.038		
3,600.0	3,573.5	3,575.8	3,499.4	9.2	13.2	-21.92	-211.2	609.6	288.1	274.6	13.50	21.342		
3,700.0	3,672.4	3,675.1	3,595.1	9.5	13.7	-21.85	-219.8	634.3	300.4	286.5	13.89	21.629		
3,800.0	3,771.3	3,774.3	3,690.8	9.9	14.2	-21.78	-228.5	659.0	312.7	298.4	14.28	21.900		
3,900.0	3,870.2	3,873.5	3,786.6	10.2	14.7	-21.72	-237.2	683.7	325.0	310.4	14.67	22.157		
4,000.0	3,969.2	3,972.8	3,882.3	10.5	15.2	-21.66	-245.9	708.4	337.3	322.3	15.06	22.400		
4,100.0	4,068.1	4,072.0	3,978.0	10.8	15.7	-21.61	-254.5	733.1	349.7	334.2	15.45	22.631		
4,200.0	4,167.0	4,171.2	4,073.7	11.1	16.2	-21.56	-263.2	757.8	362.0	346.1	15.84	22.850		
4,300.0	4,265.9	4,270.5	4,169.5	11.4	16.7	-21.52	-271.9	782.5	374.3	358.1	16.23	23.059		
4,400.0	4,364.8	4,369.7	4,265.2	11.7	17.2	-21.47	-280.6	807.2	386.6	370.0	16.62	23.258		
4,500.0	4,463.7	4,469.0	4,360.9	12.0	17.7	-21.44	-289.2	831.9	398.9	381.9	17.01	23.448		
4,600.0	4,562.6	4,568.2	4,456.6	12.3	18.2	-21.40	-297.9	856.6	411.3	393.9	17.41	23.629		
4,700.0	4,661.5	4,667.4	4,552.3	12.6	18.7	-21.36	-306.6	881.3	423.6	405.8	17.80	23.802		
4,800.0	4,760.5	4,766.7	4,648.1	13.0	19.2	-21.33	-315.3	906.0	435.9	417.7	18.19	23.967		
4,900.0	4,859.4	4,865.9	4,743.8	13.3	19.7	-21.30	-323.9	930.7	448.2	429.6	18.58	24.126		
5,000.0	4,958.3	4,965.1	4,839.5	13.6	20.2	-21.27	-332.6	955.4	460.5	441.6	18.97	24.278		
5,100.0	5,057.2	5,064.4	4,935.2	13.9	20.7	-21.24	-341.3	980.1	472.9	453.5	19.36	24.424		

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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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											S32-T2N-R68W (File/Hwy 52) - Hwy 52 4O-32H-O268 - 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)						
5,200.0	5,156.1	5,163.6	5,031.0	14.2	21.2	-21.21	-350.0	1,004.8	485.2	465.4	19.75	24.563				
5,300.0	5,255.0	5,262.9	5,126.7	14.5	21.7	-21.19	-358.6	1,029.5	497.5	477.4	20.14	24.698				

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Hwy 52 4P-32H-O268 - 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	75.37	3.7	14.0	14.5				
100.0	100.0	100.0	100.0	0.1	0.1	75.37	3.7	14.0	14.5	14.2	0.30	48.728	
200.0	200.0	200.0	200.0	0.3	0.3	75.37	3.7	14.0	14.5	13.8	0.65	22.389 CC, ES	
300.0	300.0	299.5	299.5	0.5	0.5	77.44	3.5	15.7	16.1	15.1	1.00	16.173	
400.0	400.0	398.7	398.6	0.7	0.7	81.68	3.1	20.9	21.1	19.8	1.36	15.587 SF	
500.0	500.0	497.5	497.0	0.8	0.9	85.51	2.3	29.4	29.6	27.9	1.74	17.061	
600.0	600.0	595.6	594.3	1.0	1.2	88.23	1.3	41.2	41.6	39.4	2.15	19.363	
700.0	700.0	692.8	690.4	1.2	1.5	-28.94	0.0	56.1	56.2	53.8	2.38	23.586	
800.0	800.0	789.3	785.2	1.4	1.8	-28.49	-1.6	74.2	72.6	69.9	2.73	26.632	
900.0	899.9	884.9	878.4	1.6	2.2	-28.51	-3.5	95.2	90.8	87.8	3.07	29.566	
1,000.0	999.7	979.6	970.0	1.7	2.7	-28.77	-5.5	119.0	110.8	107.4	3.42	32.395	
1,100.0	1,099.4	1,077.2	1,063.9	1.9	3.2	-28.96	-8.4	145.6	131.3	127.5	3.78	34.734	
1,200.0	1,198.9	1,176.0	1,158.9	2.2	3.7	-28.79	-12.9	172.1	150.0	145.9	4.15	36.139	
1,300.0	1,298.3	1,275.2	1,254.4	2.4	4.2	-28.37	-19.1	198.4	166.8	162.3	4.53	36.822	
1,400.0	1,397.4	1,374.8	1,350.2	2.7	4.7	-27.74	-27.1	224.4	181.6	176.7	4.92	36.947	
1,500.0	1,496.3	1,474.6	1,446.2	2.9	5.2	-26.95	-36.7	249.9	194.8	189.5	5.31	36.715	
1,600.0	1,595.3	1,573.7	1,541.5	3.2	5.7	-26.09	-47.0	275.2	207.7	202.1	5.69	36.481	
1,700.0	1,694.2	1,672.8	1,636.8	3.5	6.2	-25.34	-57.3	300.4	220.7	214.6	6.08	36.292	
1,800.0	1,793.1	1,771.9	1,732.1	3.8	6.7	-24.67	-67.6	325.6	233.7	227.2	6.47	36.136	
1,900.0	1,892.0	1,871.0	1,827.4	4.1	7.2	-24.07	-77.9	350.9	246.7	239.8	6.85	36.008	
2,000.0	1,990.9	1,970.2	1,922.7	4.4	7.7	-23.53	-88.1	376.1	259.7	252.5	7.23	35.902	
2,100.0	2,089.8	2,069.3	2,018.0	4.7	8.3	-23.04	-98.4	401.3	272.8	265.2	7.62	35.814	
2,200.0	2,188.7	2,168.4	2,113.3	5.0	8.8	-22.60	-108.7	426.6	285.8	277.8	8.00	35.741	
2,300.0	2,287.6	2,267.5	2,208.6	5.3	9.3	-22.20	-119.0	451.8	298.9	290.5	8.38	35.681	
2,400.0	2,386.6	2,366.6	2,303.9	5.6	9.8	-21.83	-129.3	477.0	312.0	303.3	8.76	35.630	
2,500.0	2,485.5	2,465.8	2,399.2	5.9	10.3	-21.49	-139.6	502.3	325.1	316.0	9.14	35.588	
2,600.0	2,584.4	2,564.9	2,494.5	6.2	10.8	-21.17	-149.9	527.5	338.3	328.7	9.51	35.553	
2,700.0	2,683.3	2,664.0	2,589.8	6.5	11.3	-20.88	-160.2	552.7	351.4	341.5	9.89	35.524	
2,800.0	2,782.2	2,763.1	2,685.1	6.8	11.9	-20.61	-170.5	578.0	364.5	354.3	10.27	35.500	
2,900.0	2,881.1	2,862.2	2,780.4	7.1	12.4	-20.36	-180.8	603.2	377.7	367.0	10.64	35.480	
3,000.0	2,980.0	2,961.4	2,875.7	7.4	12.9	-20.13	-191.1	628.4	390.8	379.8	11.02	35.463	
3,100.0	3,078.9	3,060.5	2,971.0	7.7	13.4	-19.91	-201.4	653.7	404.0	392.6	11.40	35.450	
3,200.0	3,177.9	3,159.6	3,066.3	8.0	13.9	-19.70	-211.7	678.9	417.2	405.4	11.77	35.439	
3,300.0	3,276.8	3,258.7	3,161.6	8.3	14.5	-19.51	-222.0	704.1	430.3	418.2	12.15	35.430	
3,400.0	3,375.7	3,357.8	3,256.9	8.6	15.0	-19.33	-232.3	729.4	443.5	431.0	12.52	35.423	
3,500.0	3,474.6	3,456.9	3,352.2	8.9	15.5	-19.16	-242.6	754.6	456.7	443.8	12.89	35.418	
3,600.0	3,573.5	3,556.1	3,447.5	9.2	16.0	-19.00	-252.9	779.8	469.9	456.6	13.27	35.414	
3,700.0	3,672.4	3,655.2	3,542.8	9.5	16.5	-18.84	-263.2	805.0	483.0	469.4	13.64	35.411	
3,800.0	3,771.3	3,754.3	3,638.1	9.9	17.0	-18.70	-273.5	830.3	496.2	482.2	14.01	35.409	



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - NELSON E UNIT 2 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 8190-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		
8,400.0	7,712.0	7,665.0	7,665.0	22.6	13.4	90.00	860.5	927.2	435.0	405.0	29.97	14.515		
8,500.0	7,712.0	7,665.0	7,665.0	23.4	13.4	90.00	860.5	927.2	336.0	305.0	31.01	10.835		
8,600.0	7,712.0	7,665.0	7,665.0	24.3	13.4	90.00	860.5	927.2	237.9	205.7	32.16	7.396		
8,700.0	7,712.0	7,665.0	7,665.0	25.2	13.4	90.00	860.5	927.2	142.3	108.9	33.40	4.262		
8,800.0	7,712.0	7,665.0	7,665.0	26.3	13.4	90.00	860.5	927.2	62.7	28.0	34.71	1.808		
8,831.6	7,712.0	7,665.0	7,665.0	26.6	13.4	90.00	860.5	927.2	54.2	19.0	35.14	1.542 CC, ES, SF		
8,900.0	7,712.0	7,665.0	7,665.0	27.4	13.4	90.00	860.5	927.2	87.2	51.2	36.08	2.418		
9,000.0	7,712.0	7,665.0	7,665.0	28.6	13.4	90.00	860.5	927.2	176.9	139.4	37.50	4.717		
9,100.0	7,712.0	7,665.0	7,665.0	29.8	13.4	90.00	860.5	927.2	273.8	234.8	38.96	7.028		
9,200.0	7,712.0	7,665.0	7,665.0	31.1	13.4	90.00	860.5	927.2	372.3	331.9	40.45	9.204		
9,300.0	7,712.0	7,665.0	7,665.0	32.5	13.4	90.00	860.5	927.2	471.5	429.5	41.98	11.232		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - RAY NELSON 33-32 (EXISTING) - ENCANA WELL - ENCANA WELL														Offset Site Error:	0.0 ft
Survey Program: 926-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	51.81	226.2	287.6	366.0						
100.0	100.0	92.8	92.8	0.1	0.2	51.81	226.2	287.5	365.8	0.31	1,176.008				
200.0	200.0	193.7	193.7	0.3	0.3	51.82	225.9	287.3	365.5	0.66	551.681				
300.0	300.0	294.6	294.6	0.5	0.5	51.82	225.5	286.8	364.9	1.01	359.885				
400.0	400.0	395.5	395.5	0.7	0.7	51.83	225.0	286.2	364.0	1.37	266.639				
500.0	500.0	496.4	496.4	0.8	0.9	51.84	224.2	285.4	362.9	1.72	211.424				
600.0	600.0	597.3	597.3	1.0	1.1	51.85	223.3	284.3	361.6	2.07	174.855				
700.0	700.0	698.2	698.1	1.2	1.2	-66.90	222.3	283.1	359.7	2.39	150.179				
800.0	800.0	799.0	798.9	1.4	1.4	-67.30	221.0	281.8	356.8	2.74	129.997				
900.0	899.9	899.7	899.6	1.6	1.6	-67.98	219.7	280.2	353.1	3.10	113.938				
1,000.0	999.7	997.1	997.0	1.7	1.8	-69.08	219.1	278.1	348.8	3.46	100.907				
1,100.0	1,099.4	1,084.8	1,084.6	1.9	1.9	-70.72	221.7	275.8	346.1	3.81	90.778				
1,126.1	1,125.4	1,107.4	1,107.2	2.0	1.9	-71.22	222.9	275.5	346.0	3.91	88.477 CC, ES				
1,200.0	1,198.9	1,172.1	1,171.7	2.2	2.0	-72.85	227.6	274.8	346.9	4.19	82.779				
1,300.0	1,298.3	1,260.3	1,259.4	2.4	2.2	-75.45	236.6	274.6	351.1	4.59	76.442				
1,400.0	1,397.4	1,351.7	1,350.1	2.7	2.4	-78.46	248.3	274.9	358.1	5.03	71.128				
1,500.0	1,496.3	1,438.5	1,435.8	2.9	2.6	-81.73	262.1	274.8	368.3	5.49	67.062				
1,600.0	1,595.3	1,530.9	1,526.6	3.2	2.8	-85.29	279.0	274.6	382.0	5.97	63.973				
1,700.0	1,694.2	1,616.9	1,610.8	3.5	3.1	-88.62	296.7	273.6	398.7	6.45	61.839				
1,800.0	1,793.1	1,703.4	1,694.8	3.8	3.4	-91.99	317.1	271.7	419.3	6.93	60.537				
1,900.0	1,892.0	1,794.5	1,782.9	4.1	3.8	-95.38	340.0	269.2	442.7	7.40	59.791				
2,000.0	1,990.9	1,877.3	1,862.7	4.4	4.1	-98.28	362.1	266.4	468.9	7.86	59.669 SF				
2,100.0	2,089.8	1,966.8	1,948.4	4.7	4.5	-101.20	387.4	263.1	497.9	8.31	59.917				

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - RAY NELSON 34-32 (EXISTING) - ENCANA WELL - ENCANA WELL													Offset Site Error:	0.0 ft
Survey Program: 103-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	0.0	0.0	0.0	0.0	95.08	-12.0	135.1	135.9					
100.0	100.0	91.2	91.2	0.1	0.1	95.06	-12.0	135.4	135.9	135.7	0.28	477.671		
200.0	200.0	190.6	190.6	0.3	0.3	95.05	-12.0	136.2	136.8	136.1	0.63	217.004		
300.0	300.0	290.8	290.8	0.5	0.5	95.20	-12.5	137.1	137.7	136.7	0.98	140.546		
400.0	400.0	391.1	391.0	0.7	0.7	95.50	-13.3	137.8	138.5	137.2	1.33	104.180		
500.0	500.0	491.2	491.2	0.8	0.8	95.78	-14.0	138.4	139.1	137.4	1.68	82.875		
600.0	600.0	591.3	591.3	1.0	1.0	95.97	-14.5	138.9	139.7	137.7	2.03	68.884		
700.0	700.0	691.7	691.6	1.2	1.2	-22.65	-14.9	139.3	139.3	136.9	2.38	58.581		
800.0	800.0	791.8	791.8	1.4	1.4	-23.01	-15.1	139.4	137.0	134.3	2.73	50.251		
900.0	899.9	892.3	892.3	1.6	1.5	-23.76	-15.1	139.3	132.9	129.9	3.08	43.212		
1,000.0	999.7	992.3	992.3	1.7	1.7	-24.93	-15.0	138.9	126.9	123.5	3.43	37.039		
1,100.0	1,099.4	1,092.2	1,092.2	1.9	1.9	-26.50	-15.1	138.3	119.3	115.5	3.78	31.564		
1,200.0	1,198.9	1,192.3	1,192.2	2.2	2.1	-28.82	-15.0	137.4	109.9	105.7	4.14	26.555		
1,300.0	1,298.3	1,291.3	1,291.3	2.4	2.2	-32.28	-14.5	136.3	99.0	94.5	4.50	21.979		
1,400.0	1,397.4	1,390.3	1,390.3	2.7	2.4	-37.41	-13.9	135.3	87.3	82.4	4.89	17.842		
1,500.0	1,496.3	1,489.4	1,489.3	2.9	2.6	-45.01	-13.0	133.9	75.2	69.8	5.32	14.120		
1,600.0	1,595.3	1,588.3	1,588.2	3.2	2.7	-55.35	-12.2	132.2	64.3	58.5	5.81	11.071		
1,700.0	1,694.2	1,686.6	1,686.5	3.5	2.9	-69.07	-11.6	130.4	56.1	49.8	6.34	8.855		
1,800.0	1,793.1	1,784.9	1,784.8	3.8	3.1	-85.78	-10.4	129.1	52.9	46.0	6.86	7.702		
1,811.6	1,804.5	1,796.3	1,796.2	3.8	3.1	-87.79	-10.3	129.0	52.8	45.9	6.92	7.634 CC, ES		
1,900.0	1,892.0	1,883.3	1,883.2	4.1	3.3	-103.01	-8.8	127.9	55.0	47.7	7.30	7.537 SF		
2,000.0	1,990.9	1,982.2	1,982.0	4.4	3.4	-117.80	-7.1	126.7	61.8	54.2	7.61	8.116		
2,100.0	2,089.8	2,081.6	2,081.4	4.7	3.6	-129.04	-6.2	125.9	71.0	63.2	7.88	9.013		
2,200.0	2,188.7	2,181.3	2,181.1	5.0	3.8	-137.44	-6.3	125.5	81.1	73.0	8.14	9.966		
2,300.0	2,287.6	2,280.1	2,279.9	5.3	4.0	-143.89	-6.9	125.3	92.1	83.7	8.40	10.961		
2,400.0	2,386.6	2,379.4	2,379.2	5.6	4.1	-149.02	-7.5	124.8	104.1	95.4	8.68	11.997		
2,500.0	2,485.5	2,478.6	2,478.5	5.9	4.3	-153.33	-8.9	124.3	116.2	107.2	8.96	12.963		
2,600.0	2,584.4	2,574.7	2,574.5	6.2	4.5	-157.64	-10.9	121.6	129.6	120.4	9.23	14.045		
2,700.0	2,683.3	2,674.4	2,674.0	6.5	4.7	-162.27	-13.8	116.3	144.9	135.4	9.50	15.252		
2,800.0	2,782.2	2,773.5	2,772.7	6.8	4.8	-166.57	-18.5	110.5	159.9	150.1	9.78	16.349		
2,900.0	2,881.1	2,870.7	2,869.6	7.1	5.0	-170.77	-24.8	103.5	175.7	165.6	10.08	17.431		
3,000.0	2,980.0	2,967.2	2,965.5	7.4	5.2	-174.44	-31.2	95.6	193.1	182.7	10.40	18.559		
3,100.0	3,078.9	3,062.5	3,060.0	7.7	5.4	-178.03	-38.9	86.2	211.8	201.0	10.75	19.700		
3,200.0	3,177.9	3,157.6	3,153.8	8.0	5.7	-178.19	-48.6	74.0	232.7	221.6	11.13	20.919		
3,300.0	3,276.8	3,254.5	3,249.4	8.3	5.9	-174.99	-58.4	61.8	254.5	242.9	11.53	22.078		
3,400.0	3,375.7	3,347.1	3,341.0	8.6	6.1	-172.63	-66.6	50.0	277.4	265.5	11.93	23.260		
3,500.0	3,474.6	3,437.2	3,429.7	8.9	6.4	-170.61	-74.3	36.8	302.6	290.3	12.34	24.530		
3,600.0	3,573.5	3,531.0	3,521.7	9.2	6.6	-168.43	-83.9	20.9	329.8	317.0	12.77	25.819		
3,700.0	3,672.4	3,622.1	3,610.8	9.5	6.9	-166.55	-93.5	4.9	357.9	344.7	13.21	27.086		
3,800.0	3,771.3	3,723.0	3,709.3	9.9	7.2	-164.46	-106.0	-13.4	386.5	372.8	13.71	28.199		
3,900.0	3,870.2	3,815.3	3,799.0	10.2	7.6	-162.52	-119.5	-30.0	414.9	400.7	14.19	29.233		
4,000.0	3,969.2	3,914.0	3,894.8	10.5	7.9	-160.53	-135.4	-47.6	443.4	428.7	14.72	30.131		
4,100.0	4,068.1	4,000.8	3,978.9	10.8	8.3	-158.94	-149.5	-63.8	473.1	457.9	15.20	31.126		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - RAY NELSON 44-32 (EXISTING) - ENCANA WELL - ENCANA WELL														Offset Site Error:	0.0 ft
Survey Program: 134-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	54.46	213.5	298.8	367.3						
100.0	100.0	91.6	91.6	0.1	0.1	54.52	213.1	299.0	367.2	366.9	0.29	1,262.810			
149.7	149.7	140.8	140.8	0.2	0.2	54.59	212.7	299.2	367.1	366.6	0.46	806.086	CC, ES		
200.0	200.0	185.7	185.7	0.3	0.3	54.65	212.6	299.7	367.4	366.8	0.62	590.990			
300.0	300.0	274.4	274.4	0.5	0.5	54.67	214.0	301.8	370.3	369.4	0.95	388.096			
400.0	400.0	366.4	366.2	0.7	0.6	54.69	216.8	306.2	376.0	374.7	1.30	288.414			
500.0	500.0	455.7	455.2	0.8	0.8	54.80	220.3	312.3	383.9	382.2	1.66	230.910			
600.0	600.0	546.7	545.7	1.0	1.1	55.00	224.7	320.9	394.4	392.3	2.04	193.420			
700.0	700.0	638.2	636.5	1.2	1.3	-63.33	229.6	331.4	406.4	404.1	2.29	177.512			
800.0	800.0	727.0	724.2	1.4	1.6	-63.12	234.7	343.6	419.9	417.2	2.63	159.849			
900.0	899.9	820.2	816.1	1.6	1.9	-62.87	239.9	358.9	434.6	431.6	2.98	145.738			
1,000.0	999.7	924.7	918.8	1.7	2.3	-62.57	243.8	377.3	448.5	445.1	3.38	132.841			
1,100.0	1,099.4	1,017.0	1,009.6	1.9	2.6	-62.23	245.4	394.1	461.1	457.3	3.77	122.341			
1,200.0	1,198.9	1,104.0	1,094.6	2.2	3.0	-61.76	245.6	412.6	474.6	470.5	4.18	113.478			
1,300.0	1,298.3	1,191.0	1,178.9	2.4	3.4	-61.23	245.5	434.1	490.2	485.5	4.62	106.092	SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - RAY NELSON 6-8-32 (EXISTING) - ENCANA WELL - PLAN ONLY												Offset Site Error: 0.0 ft		
Survey Program: 850-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)				
4,400.0	4,364.8	4,527.6	4,415.2	11.7	18.8	-72.47	83.9	791.7	488.0	462.2	25.79	18.917		
4,500.0	4,463.7	4,624.8	4,508.9	12.0	19.2	-71.84	58.2	791.4	465.1	438.6	26.54	17.525		
4,600.0	4,562.6	4,722.0	4,602.7	12.3	19.7	-71.14	32.6	791.1	442.3	415.0	27.30	16.204		
4,700.0	4,661.5	4,819.3	4,696.5	12.6	20.2	-70.36	6.9	790.8	419.6	391.5	28.07	14.950		
4,800.0	4,760.5	4,916.5	4,790.3	13.0	20.7	-69.50	-18.8	790.4	397.0	368.1	28.85	13.758		
4,900.0	4,859.4	5,013.7	4,884.0	13.3	21.1	-68.54	-44.4	790.1	374.4	344.8	29.65	12.626		
5,000.0	4,958.3	5,110.9	4,977.8	13.6	21.6	-67.45	-70.1	789.8	352.0	321.5	30.47	11.550		
5,100.0	5,057.2	5,208.1	5,071.6	13.9	22.1	-66.21	-95.8	789.4	329.7	298.4	31.31	10.529		
5,200.0	5,156.1	5,305.4	5,165.3	14.2	22.6	-64.80	-121.4	789.1	307.6	275.4	32.17	9.560		
5,300.0	5,255.0	5,402.6	5,259.1	14.5	23.0	-63.17	-147.1	788.8	285.6	252.6	33.06	8.641		
5,400.0	5,353.9	5,499.8	5,352.9	14.8	23.5	-61.27	-172.8	788.4	264.0	230.0	33.96	7.774		
5,500.0	5,452.8	5,597.0	5,446.6	15.1	24.0	-59.04	-198.4	788.1	242.7	207.8	34.88	6.957		
5,600.0	5,551.8	5,694.2	5,540.4	15.4	24.5	-56.39	-224.1	787.8	221.7	185.9	35.81	6.192		
5,700.0	5,650.7	5,791.4	5,634.2	15.7	24.9	-53.21	-249.8	787.4	201.4	164.6	36.74	5.481		
5,800.0	5,749.6	5,888.7	5,727.9	16.1	25.4	-49.34	-275.4	787.1	181.8	144.1	37.63	4.830		
5,900.0	5,848.5	5,985.9	5,821.7	16.4	25.9	-44.57	-301.1	786.8	163.2	124.7	38.42	4.246		
6,000.0	5,947.4	6,083.1	5,915.5	16.7	26.4	-38.66	-326.8	786.5	145.9	106.9	39.02	3.740		
6,100.0	6,046.3	6,180.3	6,009.2	17.0	26.8	-31.33	-352.4	786.1	130.7	91.4	39.26	3.328		
6,200.0	6,145.2	6,277.5	6,103.0	17.3	27.3	-22.31	-378.1	785.8	118.1	79.1	38.95	3.031		
6,300.0	6,244.1	6,374.8	6,196.8	17.6	27.8	-11.59	-403.8	785.5	109.1	71.2	37.96	2.875 SF		
6,400.0	6,343.0	6,472.0	6,290.5	17.9	28.3	0.44	-429.4	785.1	104.8	68.4	36.40	2.879 ES		
6,435.2	6,377.9	6,506.2	6,323.5	18.0	28.4	4.83	-438.5	785.0	104.5	68.7	35.77	2.920 CC		
6,500.0	6,442.0	6,569.5	6,384.6	18.2	28.7	12.90	-455.2	784.8	105.5	71.0	34.56	3.053		
6,600.0	6,540.9	6,669.9	6,482.0	18.5	28.8	24.33	-479.6	784.5	109.7	77.0	32.70	3.353		
6,700.0	6,639.8	6,771.4	6,581.3	18.9	28.8	33.91	-500.8	784.2	114.6	83.3	31.34	3.657		
6,800.0	6,738.7	6,873.9	6,682.1	19.2	28.9	42.01	-518.6	784.0	119.1	88.6	30.50	3.904		
6,900.0	6,837.6	6,976.9	6,784.2	19.5	29.0	49.07	-532.9	783.8	122.1	91.9	30.19	4.045		
7,000.0	6,936.5	7,080.4	6,887.1	19.8	29.1	55.53	-543.5	783.7	123.3	92.9	30.41	4.054		
7,100.0	7,035.4	7,184.0	6,990.5	20.1	29.1	61.80	-550.4	783.6	122.3	91.1	31.18	3.922		
7,191.8	7,126.3	7,279.0	7,085.5	20.4	29.2	66.80	-553.5	783.5	121.7	89.4	32.27	3.772		
7,200.0	7,134.4	7,287.5	7,093.9	20.4	29.2	69.31	-553.6	783.5	119.9	87.5	32.39	3.703		
7,300.0	7,233.2	7,387.7	7,194.2	20.6	29.3	152.45	-553.8	783.5	129.2	96.3	32.93	3.924		
7,400.0	7,329.3	7,483.8	7,290.3	20.7	29.4	173.76	-553.8	783.5	155.7	123.3	32.40	4.806		
7,500.0	7,419.7	7,574.3	7,380.7	20.7	29.4	-177.81	-553.8	783.5	198.1	167.2	30.86	6.419		
7,600.0	7,501.7	7,656.3	7,462.7	20.6	29.5	-173.49	-553.8	783.5	254.9	226.2	28.66	8.892		
7,700.0	7,572.9	7,727.5	7,533.9	20.6	29.6	-170.38	-553.8	783.5	324.6	298.3	26.27	12.358		
7,800.0	7,631.1	7,785.6	7,592.1	20.6	29.6	-166.86	-553.8	783.5	405.3	381.0	24.29	16.682		
7,900.0	7,674.4	7,829.0	7,635.4	20.6	29.7	-160.88	-553.8	783.5	494.6	470.6	24.03	20.584		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - Ray Nelson 7-8-32 - 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				Total	Separation	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	57.88	196.7	313.4	370.1					
100.0	100.0	91.0	91.0	0.1	0.1	57.88	196.7	313.4	370.0	369.7	0.28	1,305.751		
200.0	200.0	191.0	191.0	0.3	0.3	57.88	196.7	313.4	370.0	369.4	0.63	587.227		
300.0	300.0	291.0	291.0	0.5	0.5	57.88	196.7	313.4	370.0	369.0	0.98	377.877		
400.0	400.0	391.0	391.0	0.7	0.7	57.88	196.7	313.4	370.0	368.7	1.33	278.566		
500.0	500.0	491.0	491.0	0.8	0.8	57.88	196.7	313.4	370.0	368.3	1.68	220.592 CC, ES		
600.0	600.0	587.4	587.3	1.0	1.0	58.08	195.9	314.4	370.4	368.4	2.02	183.377		
700.0	700.0	683.2	683.1	1.2	1.2	-59.99	193.0	317.9	371.6	369.2	2.37	156.621		
800.0	800.0	778.8	778.4	1.4	1.4	-59.20	188.2	323.9	373.0	370.2	2.74	136.085		
900.0	899.9	874.2	873.1	1.6	1.6	-58.17	181.3	332.3	374.7	371.6	3.14	119.476		
1,000.0	999.7	969.1	967.0	1.7	1.9	-56.92	172.5	343.1	377.0	373.4	3.57	105.647		
1,100.0	1,099.4	1,063.6	1,060.0	1.9	2.2	-55.47	161.8	356.2	379.7	375.7	4.04	93.979		
1,200.0	1,198.9	1,158.9	1,153.1	2.2	2.5	-53.80	149.1	371.8	383.1	378.6	4.55	84.254		
1,300.0	1,298.3	1,258.2	1,250.0	2.4	2.9	-52.18	135.3	388.7	386.2	381.1	5.09	75.902		
1,400.0	1,397.4	1,357.8	1,347.1	2.7	3.3	-50.79	121.4	405.7	388.5	382.9	5.64	68.843		
1,500.0	1,496.3	1,457.4	1,444.3	2.9	3.7	-49.59	107.6	422.7	390.0	383.8	6.21	62.831		
1,600.0	1,595.3	1,557.1	1,541.5	3.2	4.1	-48.42	93.7	439.7	391.6	384.9	6.77	57.824		
1,700.0	1,694.2	1,656.8	1,638.8	3.5	4.5	-47.27	79.9	456.7	393.4	386.1	7.33	53.641		
1,800.0	1,793.1	1,756.4	1,736.0	3.8	4.9	-46.12	66.0	473.7	395.3	387.4	7.89	50.112		
1,900.0	1,892.0	1,856.1	1,833.2	4.1	5.3	-44.99	52.1	490.8	397.4	388.9	8.44	47.109		
2,000.0	1,990.9	1,955.8	1,930.4	4.4	5.7	-43.86	38.3	507.8	399.6	390.6	8.97	44.533		
2,100.0	2,089.8	2,055.4	2,027.7	4.7	6.1	-42.76	24.4	524.8	402.0	392.5	9.50	42.308		
2,200.0	2,188.7	2,155.1	2,124.9	5.0	6.6	-41.66	10.5	541.8	404.5	394.5	10.02	40.373		
2,300.0	2,287.6	2,254.8	2,222.1	5.3	7.0	-40.58	-3.3	558.8	407.2	396.7	10.53	38.681		
2,400.0	2,386.6	2,354.4	2,319.3	5.6	7.4	-39.51	-17.2	575.8	410.0	399.0	11.02	37.195		
2,500.0	2,485.5	2,454.1	2,416.6	5.9	7.8	-38.46	-31.1	592.8	413.0	401.5	11.51	35.883		
2,600.0	2,584.4	2,553.8	2,513.8	6.2	8.2	-37.42	-44.9	609.8	416.1	404.1	11.98	34.721		
2,700.0	2,683.3	2,653.4	2,611.0	6.5	8.7	-36.40	-58.8	626.8	419.3	406.8	12.45	33.687		
2,800.0	2,782.2	2,753.1	2,708.2	6.8	9.1	-35.39	-72.7	643.8	422.7	409.8	12.90	32.766		
2,900.0	2,881.1	2,852.8	2,805.4	7.1	9.5	-34.41	-86.5	660.9	426.2	412.8	13.34	31.942		
3,000.0	2,980.0	2,952.5	2,902.7	7.4	9.9	-33.43	-100.4	677.9	429.8	416.0	13.77	31.204		
3,100.0	3,078.9	3,052.1	2,999.9	7.7	10.4	-32.47	-114.3	694.9	433.5	419.3	14.19	30.541		
3,200.0	3,177.9	3,151.8	3,097.1	8.0	10.8	-31.53	-128.1	711.9	437.4	422.8	14.61	29.945		
3,300.0	3,276.8	3,251.5	3,194.3	8.3	11.2	-30.61	-142.0	728.9	441.4	426.3	15.01	29.408		
3,400.0	3,375.7	3,351.1	3,291.6	8.6	11.6	-29.70	-155.9	745.9	445.4	430.0	15.40	28.923		
3,500.0	3,474.6	3,450.8	3,388.8	8.9	12.0	-28.81	-169.7	762.9	449.6	433.9	15.78	28.486		
3,600.0	3,573.5	3,550.5	3,486.0	9.2	12.5	-27.94	-183.6	779.9	453.9	437.8	16.16	28.090		
3,700.0	3,672.4	3,650.1	3,583.2	9.5	12.9	-27.08	-197.5	796.9	458.4	441.8	16.53	27.733		
3,800.0	3,771.3	3,749.8	3,680.4	9.9	13.3	-26.24	-211.3	813.9	462.9	446.0	16.89	27.409		
3,900.0	3,870.2	3,849.5	3,777.7	10.2	13.7	-25.42	-225.2	831.0	467.5	450.2	17.24	27.116		
4,000.0	3,969.2	3,949.1	3,874.9	10.5	14.2	-24.61	-239.1	848.0	472.2	454.6	17.59	26.850		
4,100.0	4,068.1	4,048.8	3,972.1	10.8	14.6	-23.82	-252.9	865.0	477.0	459.1	17.92	26.610		
4,200.0	4,167.0	4,148.5	4,069.3	11.1	15.0	-23.04	-266.8	882.0	481.9	463.6	18.26	26.392		
4,300.0	4,265.9	4,248.1	4,166.6	11.4	15.4	-22.28	-280.7	899.0	486.8	468.3	18.59	26.195		
4,400.0	4,364.8	4,347.8	4,263.8	11.7	15.9	-21.53	-294.5	916.0	491.9	473.0	18.91	26.016		
4,500.0	4,463.7	4,447.5	4,361.0	12.0	16.3	-20.80	-308.4	933.0	497.0	477.8	19.22	25.855		
6,900.0	6,837.6	6,955.7	6,828.6	19.5	24.2	-12.39	-553.7	1,233.9	495.1	468.0	27.11	18.261		
7,000.0	6,936.5	7,054.6	6,927.5	19.8	24.3	-12.77	-553.7	1,233.9	480.7	453.2	27.53	17.458		
7,100.0	7,035.4	7,153.6	7,026.4	20.1	24.4	-13.17	-553.7	1,233.9	466.4	438.4	27.97	16.676		
7,200.0	7,134.4	7,252.5	7,125.4	20.4	24.5	8.00	-553.7	1,233.9	452.3	424.0	28.27	15.996		
7,300.0	7,233.2	7,351.3	7,224.2	20.6	24.6	67.91	-553.7	1,233.9	441.8	413.8	28.02	15.765 SF		
7,400.0	7,329.3	7,447.4	7,320.3	20.7	24.7	89.59	-553.7	1,233.9	437.5	410.0	27.56	15.878		

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 Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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>Offset Design</b> S32-T2N-R68W (File/Hwy 52) - Ray Nelson 7-8-32 - DD - Plan #1													<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b>	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		
7,402.9	7,332.0	7,450.1	7,323.0	20.7	24.7	90.00	-553.7	1,233.9	437.5	410.0	27.54	15.886		
7,500.0	7,419.7	7,537.8	7,410.7	20.7	24.8	100.86	-553.7	1,233.9	442.5	415.3	27.11	16.323		
7,600.0	7,501.7	7,619.9	7,492.7	20.6	24.8	108.43	-553.7	1,233.9	460.3	433.5	26.79	17.178		
7,700.0	7,572.9	7,691.1	7,563.9	20.6	24.9	113.24	-553.7	1,233.9	493.8	467.1	26.69	18.499		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 S32-T2N-R68W (File/Hwy 52) - RAY NELSON 8-8-32 (EXISTING) - ENCANA WELL - SURVEYS													Offset Site Error: 0.0 ft
Survey Program: 70-Geolink MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
0.0	0.0	0.0	0.0	0.0	0.0	57.88	196.7	313.4	370.1				
100.0	100.0	87.7	87.7	0.1	0.1	57.90	196.9	313.8	370.5	370.2	0.28	1,344.568	
200.0	200.0	184.1	184.0	0.3	0.3	57.98	197.0	315.1	371.7	371.0	0.62	600.482	
300.0	300.0	281.2	281.1	0.5	0.5	58.40	195.8	318.3	373.8	372.8	0.96	388.050	
400.0	400.0	373.3	373.0	0.7	0.7	59.22	193.0	323.9	377.5	376.2	1.30	290.515	
500.0	500.0	468.3	467.5	0.8	0.9	60.42	188.8	332.6	383.2	381.5	1.64	233.562	
600.0	600.0	561.9	560.3	1.0	1.2	61.96	182.8	343.1	389.9	387.9	1.98	196.934	
700.0	700.0	652.3	649.5	1.2	1.5	-54.91	175.6	355.9	398.6	396.0	2.55	156.154	
800.0	800.0	742.2	737.6	1.4	1.8	-53.03	167.0	371.6	408.8	405.8	3.00	136.242	
900.0	899.9	830.6	823.9	1.6	2.2	-51.31	158.7	389.2	420.7	417.3	3.45	121.936	
1,000.0	999.7	922.4	913.1	1.7	2.6	-49.71	150.2	409.2	433.9	430.0	3.92	110.599	
1,100.0	1,099.4	1,012.5	999.9	1.9	3.1	-48.08	140.4	430.8	447.6	443.2	4.42	101.233	
1,200.0	1,198.9	1,096.3	1,079.8	2.2	3.6	-46.44	129.4	453.7	463.2	458.3	4.92	94.101	
1,300.0	1,298.3	1,179.6	1,158.2	2.4	4.1	-44.81	117.7	479.3	481.1	475.7	5.43	88.551 SF	



# Cathedral Energy Services

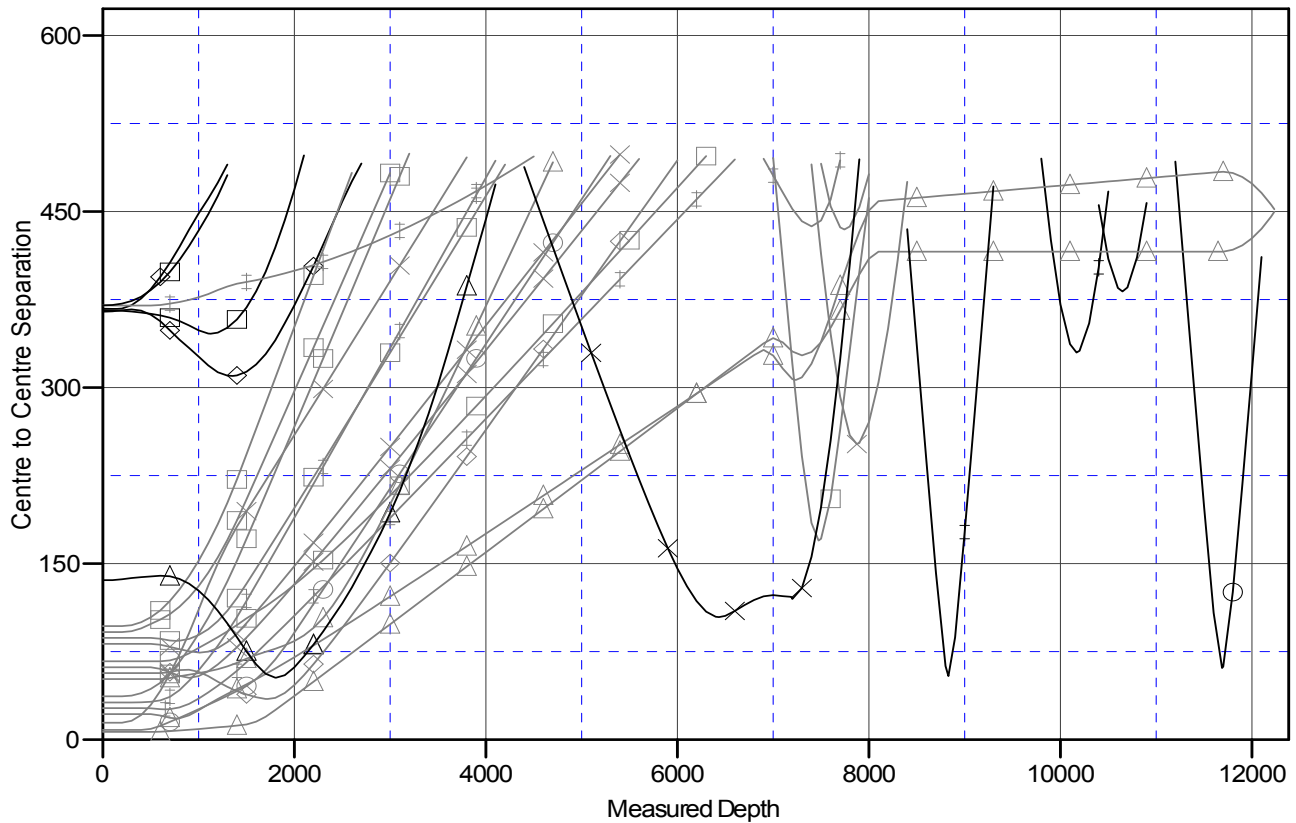
## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Hwy 52 4M-32H-O268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Reference Site:</b>	S32-T2N-R68W (File/Hwy 52)	<b>MD Reference:</b>	WELL @ 5003.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Hwy 52 4M-32H-O268	<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 WELL @ 5003.0ft (Original Well Elev)  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000 °

Coordinates are relative to: Hwy 52 4M-32H-O268  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.31°

### Ladder Plot



### LEGEND

JOANA WELL, SURVEYS V0	✕ Hwy52 4F-32H-O268, Hz, Plan #1 V0	✕ Hwy52 4P-32H-O268, Hz, Plan #1
IG), ENCANA WELL, NO SURVEYS V0	◆ Hwy52 4G-32H-O268, Hz, Plan #1 V0	◆ NELSON E UNIT 2 (EXISTING), E
3) ENCANA WELL, GYRO V0	▲ Hwy52 4H-32H-O268, Hz, Plan #1 V0	■ RAY NELSON 33-32 (EXISTING),
WELL, ENCANA WELL V0	■ Hwy52 4I-32H-O268, Hz, Plan #1 V0	▲ RAY NELSON 34-32 (EXISTING),
0	◆ Hwy52 4J-32H-O268, Hz, Plan #1 V0	◆ RAY NELSON 44-32 (EXISTING),
0	◆ Hwy52 4K-32H-O268, Hz, Plan #1 V0	✕ RAY NELSON 6-8-32 (EXISTING)
0	▲ Hwy52 4L-32H-O268, Hz, Plan #1 V0	◆ Ray Nelson 7-8-32, DD, Plan #1 V0
0	▲ Hwy52 4N-32H-O268, Hz, Plan #1 V0	■ RAY NELSON 8-8-32 (EXISTING)
0	○ Hwy52 4O-32H-O268, Hz, Plan #1 V0	