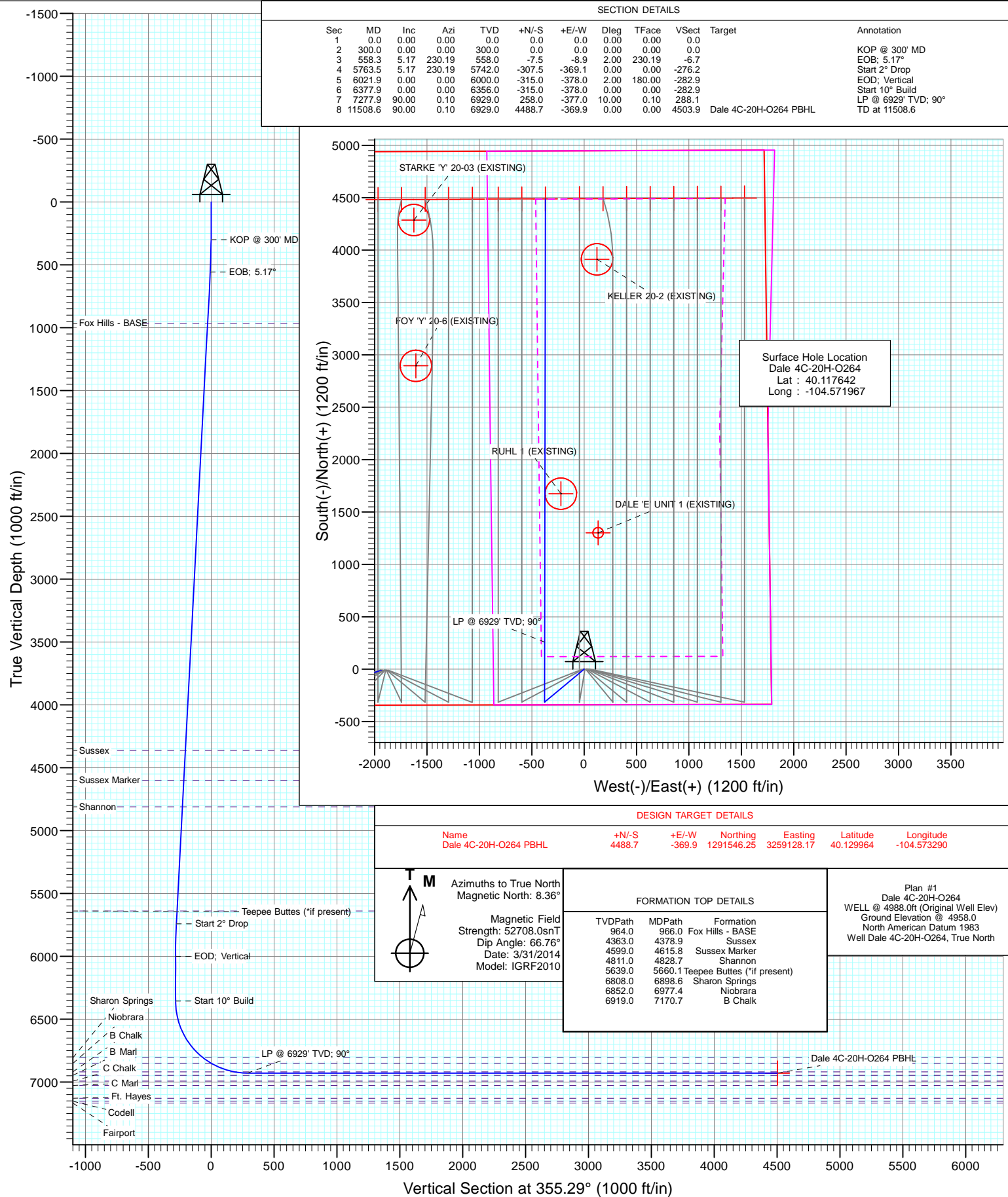




Project: DJ Wattenberg
Site: S20-T2N-R64W (Dale)
Well: Dale 4C-20H-O264
Wellbore: HZ
Design: Plan #1





Planning Report

Database: USA EDM 5000 Multi Users DB
Company: EnCana Oil & Gas (USA) Inc
Project: DJ Wattenberg
Site: S20-T2N-R64W (Dale)
Well: Dale 4C-20H-O264
Wellbore: HZ
Design: Plan #1

Local Co-ordinate Reference: Well Dale 4C-20H-O264
TVD Reference: WELL @ 4988.0ft (Original Well Elev)
MD Reference: WELL @ 4988.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project DJ Wattenberg

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: Colorado Northern Zone
System Datum: Mean Sea Level

Site S20-T2N-R64W (Dale)

Site Position:
From: Lat/Long
Position Uncertainty: 0.0 ft
Northing: 1,287,029.38 ft
Easting: 3,257,598.23 ft
Slot Radius: 13.200 in
Latitude: 40.117609
Longitude: -104.578929
Grid Convergence: 0.60 °

Well Dale 4C-20H-O264

Well Position **+N/-S** 0.0 ft **Northing:** 1,287,061.69 ft **Latitude:** 40.117642
+E/-W 0.0 ft **Easting:** 3,259,545.07 ft **Longitude:** -104.571967
Position Uncertainty 0.0 ft **Wellhead Elevation:** ft **Ground Level:** 4,958.0 ft

Wellbore HZ

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/31/2014	8.36	66.76	52,708

Design Plan #1

Audit Notes:

Version: **Phase:** PLAN **Tie On Depth:** 0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	355.29

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
558.3	5.17	230.19	558.0	-7.5	-8.9	2.00	2.00	0.00	230.19	
5,763.5	5.17	230.19	5,742.0	-307.5	-369.1	0.00	0.00	0.00	0.00	
6,021.9	0.00	0.00	6,000.0	-315.0	-378.0	2.00	-2.00	0.00	180.00	
6,377.9	0.00	0.00	6,356.0	-315.0	-378.0	0.00	0.00	0.00	0.00	
7,277.9	90.00	0.10	6,929.0	258.0	-377.0	10.00	10.00	0.00	0.10	
11,508.6	90.00	0.10	6,929.0	4,488.7	-369.9	0.00	0.00	0.00	0.00	Dale 4C-20H-O264 P



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Wellbore: HZ
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MD Reference: WELL @ 4988.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: 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
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300' MD
400.0	2.00	230.19	400.0	-1.1	-1.3	-1.0	2.00	2.00	
500.0	4.00	230.19	499.8	-4.5	-5.4	-4.0	2.00	2.00	
558.3	5.17	230.19	558.0	-7.5	-8.9	-6.7	2.00	2.00	EOB; 5.17°
600.0	5.17	230.19	599.5	-9.9	-11.8	-8.8	0.00	0.00	
700.0	5.17	230.19	699.1	-15.6	-18.7	-14.0	0.00	0.00	
800.0	5.17	230.19	798.7	-21.4	-25.7	-19.2	0.00	0.00	
900.0	5.17	230.19	898.3	-27.1	-32.6	-24.4	0.00	0.00	
966.0	5.17	230.19	964.0	-31.0	-37.1	-27.8	0.00	0.00	Fox Hills - BASE
1,000.0	5.17	230.19	997.9	-32.9	-39.5	-29.6	0.00	0.00	
1,100.0	5.17	230.19	1,097.4	-38.7	-46.4	-34.7	0.00	0.00	
1,200.0	5.17	230.19	1,197.0	-44.4	-53.3	-39.9	0.00	0.00	
1,300.0	5.17	230.19	1,296.6	-50.2	-60.3	-45.1	0.00	0.00	
1,400.0	5.17	230.19	1,396.2	-56.0	-67.2	-50.3	0.00	0.00	
1,500.0	5.17	230.19	1,495.8	-61.7	-74.1	-55.4	0.00	0.00	
1,600.0	5.17	230.19	1,595.4	-67.5	-81.0	-60.6	0.00	0.00	
1,700.0	5.17	230.19	1,695.0	-73.3	-87.9	-65.8	0.00	0.00	
1,800.0	5.17	230.19	1,794.6	-79.0	-94.8	-71.0	0.00	0.00	
1,900.0	5.17	230.19	1,894.2	-84.8	-101.8	-76.2	0.00	0.00	
2,000.0	5.17	230.19	1,993.8	-90.6	-108.7	-81.3	0.00	0.00	
2,100.0	5.17	230.19	2,093.4	-96.3	-115.6	-86.5	0.00	0.00	
2,200.0	5.17	230.19	2,193.0	-102.1	-122.5	-91.7	0.00	0.00	
2,300.0	5.17	230.19	2,292.6	-107.9	-129.4	-96.9	0.00	0.00	
2,400.0	5.17	230.19	2,392.2	-113.6	-136.4	-102.0	0.00	0.00	
2,500.0	5.17	230.19	2,491.8	-119.4	-143.3	-107.2	0.00	0.00	
2,600.0	5.17	230.19	2,591.4	-125.2	-150.2	-112.4	0.00	0.00	
2,700.0	5.17	230.19	2,690.9	-130.9	-157.1	-117.6	0.00	0.00	
2,800.0	5.17	230.19	2,790.5	-136.7	-164.0	-122.8	0.00	0.00	
2,900.0	5.17	230.19	2,890.1	-142.5	-170.9	-127.9	0.00	0.00	
3,000.0	5.17	230.19	2,989.7	-148.2	-177.9	-133.1	0.00	0.00	
3,100.0	5.17	230.19	3,089.3	-154.0	-184.8	-138.3	0.00	0.00	
3,200.0	5.17	230.19	3,188.9	-159.8	-191.7	-143.5	0.00	0.00	
3,300.0	5.17	230.19	3,288.5	-165.5	-198.6	-148.6	0.00	0.00	
3,400.0	5.17	230.19	3,388.1	-171.3	-205.5	-153.8	0.00	0.00	
3,500.0	5.17	230.19	3,487.7	-177.0	-212.5	-159.0	0.00	0.00	
3,600.0	5.17	230.19	3,587.3	-182.8	-219.4	-164.2	0.00	0.00	
3,700.0	5.17	230.19	3,686.9	-188.6	-226.3	-169.4	0.00	0.00	
3,800.0	5.17	230.19	3,786.5	-194.3	-233.2	-174.5	0.00	0.00	
3,900.0	5.17	230.19	3,886.1	-200.1	-240.1	-179.7	0.00	0.00	
4,000.0	5.17	230.19	3,985.7	-205.9	-247.1	-184.9	0.00	0.00	
4,100.0	5.17	230.19	4,085.3	-211.6	-254.0	-190.1	0.00	0.00	
4,200.0	5.17	230.19	4,184.9	-217.4	-260.9	-195.2	0.00	0.00	
4,300.0	5.17	230.19	4,284.4	-223.2	-267.8	-200.4	0.00	0.00	
4,378.9	5.17	230.19	4,363.0	-227.7	-273.3	-204.5	0.00	0.00	Sussex
4,400.0	5.17	230.19	4,384.0	-228.9	-274.7	-205.6	0.00	0.00	
4,500.0	5.17	230.19	4,483.6	-234.7	-281.6	-210.8	0.00	0.00	
4,600.0	5.17	230.19	4,583.2	-240.5	-288.6	-216.0	0.00	0.00	
4,615.8	5.17	230.19	4,599.0	-241.4	-289.7	-216.8	0.00	0.00	Sussex Marker
4,700.0	5.17	230.19	4,682.8	-246.2	-295.5	-221.1	0.00	0.00	



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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	5.17	230.19	4,782.4	-252.0	-302.4	-226.3	0.00	0.00	
4,828.7	5.17	230.19	4,811.0	-253.7	-304.4	-227.8	0.00	0.00	Shannon
4,900.0	5.17	230.19	4,882.0	-257.8	-309.3	-231.5	0.00	0.00	
5,000.0	5.17	230.19	4,981.6	-263.5	-316.2	-236.7	0.00	0.00	
5,100.0	5.17	230.19	5,081.2	-269.3	-323.2	-241.8	0.00	0.00	
5,200.0	5.17	230.19	5,180.8	-275.1	-330.1	-247.0	0.00	0.00	
5,300.0	5.17	230.19	5,280.4	-280.8	-337.0	-252.2	0.00	0.00	
5,400.0	5.17	230.19	5,380.0	-286.6	-343.9	-257.4	0.00	0.00	
5,500.0	5.17	230.19	5,479.6	-292.4	-350.8	-262.6	0.00	0.00	
5,600.0	5.17	230.19	5,579.2	-298.1	-357.7	-267.7	0.00	0.00	
5,660.1	5.17	230.19	5,639.0	-301.6	-361.9	-270.8	0.00	0.00	Teepee Buttes (*if present)
5,700.0	5.17	230.19	5,678.8	-303.9	-364.7	-272.9	0.00	0.00	
5,763.5	5.17	230.19	5,742.0	-307.5	-369.1	-276.2	0.00	0.00	Start 2° Drop
5,800.0	4.44	230.19	5,778.4	-309.5	-371.4	-278.0	2.00	-2.00	
5,900.0	2.44	230.19	5,878.2	-313.3	-376.0	-281.4	2.00	-2.00	
6,000.0	0.44	230.19	5,978.1	-314.9	-377.9	-282.8	2.00	-2.00	
6,021.9	0.00	0.00	6,000.0	-315.0	-378.0	-282.9	2.00	-2.00	EOD; Vertical
6,100.0	0.00	0.00	6,078.1	-315.0	-378.0	-282.9	0.00	0.00	
6,200.0	0.00	0.00	6,178.1	-315.0	-378.0	-282.9	0.00	0.00	
6,300.0	0.00	0.00	6,278.1	-315.0	-378.0	-282.9	0.00	0.00	
6,377.9	0.00	0.00	6,356.0	-315.0	-378.0	-282.9	0.00	0.00	Start 10° Build
6,400.0	2.21	0.10	6,378.1	-314.6	-378.0	-282.5	10.00	10.00	
6,450.0	7.21	0.10	6,428.0	-310.5	-378.0	-278.4	10.00	10.00	
6,500.0	12.21	0.10	6,477.2	-302.0	-378.0	-270.0	10.00	10.00	
6,550.0	17.21	0.10	6,525.6	-289.3	-378.0	-257.3	10.00	10.00	
6,600.0	22.21	0.10	6,572.6	-272.5	-377.9	-240.5	10.00	10.00	
6,650.0	27.21	0.10	6,618.0	-251.6	-377.9	-219.7	10.00	10.00	
6,700.0	32.21	0.10	6,661.4	-226.8	-377.9	-195.0	10.00	10.00	
6,750.0	37.21	0.10	6,702.5	-198.4	-377.8	-166.7	10.00	10.00	
6,800.0	42.21	0.10	6,741.0	-166.4	-377.8	-134.8	10.00	10.00	
6,850.0	47.21	0.10	6,776.5	-131.3	-377.7	-99.8	10.00	10.00	
6,898.6	52.07	0.10	6,808.0	-94.2	-377.6	-62.9	10.00	10.00	Sharon Springs
6,900.0	52.21	0.10	6,808.8	-93.1	-377.6	-61.8	10.00	10.00	
6,950.0	57.21	0.10	6,837.7	-52.3	-377.6	-21.1	10.00	10.00	
6,977.4	59.95	0.10	6,852.0	-28.9	-377.5	2.2	10.00	10.00	Niobrara
7,000.0	62.21	0.10	6,862.9	-9.2	-377.5	21.9	10.00	10.00	
7,050.0	67.21	0.10	6,884.3	36.0	-377.4	66.9	10.00	10.00	
7,100.0	72.21	0.10	6,901.6	82.9	-377.3	113.6	10.00	10.00	
7,150.0	77.21	0.10	6,914.8	131.1	-377.3	161.7	10.00	10.00	
7,170.7	79.28	0.10	6,919.0	151.4	-377.2	181.8	10.00	10.00	B Chalk
7,200.0	82.21	0.10	6,923.7	180.3	-377.2	210.7	10.00	10.00	
7,250.0	87.21	0.10	6,928.3	230.1	-377.1	260.3	10.00	10.00	
7,277.9	90.00	0.10	6,929.0	258.0	-377.0	288.1	10.00	10.00	LP @ 6929' TVD; 90°
7,300.0	90.00	0.10	6,929.0	280.1	-377.0	310.1	0.00	0.00	
7,400.0	90.00	0.10	6,929.0	380.1	-376.8	409.7	0.00	0.00	
7,500.0	90.00	0.10	6,929.0	480.1	-376.7	509.4	0.00	0.00	
7,600.0	90.00	0.10	6,929.0	580.1	-376.5	609.0	0.00	0.00	
7,700.0	90.00	0.10	6,929.0	680.1	-376.3	708.7	0.00	0.00	
7,800.0	90.00	0.10	6,929.0	780.1	-376.2	808.3	0.00	0.00	
7,900.0	90.00	0.10	6,929.0	880.1	-376.0	908.0	0.00	0.00	
8,000.0	90.00	0.10	6,929.0	980.1	-375.8	1,007.6	0.00	0.00	
8,100.0	90.00	0.10	6,929.0	1,080.1	-375.7	1,107.3	0.00	0.00	



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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
8,200.0	90.00	0.10	6,929.0	1,180.1	-375.5	1,206.9	0.00	0.00	
8,300.0	90.00	0.10	6,929.0	1,280.1	-375.3	1,306.6	0.00	0.00	
8,400.0	90.00	0.10	6,929.0	1,380.1	-375.2	1,406.2	0.00	0.00	
8,500.0	90.00	0.10	6,929.0	1,480.1	-375.0	1,505.9	0.00	0.00	
8,600.0	90.00	0.10	6,929.0	1,580.1	-374.8	1,605.5	0.00	0.00	
8,700.0	90.00	0.10	6,929.0	1,680.1	-374.7	1,705.2	0.00	0.00	
8,800.0	90.00	0.10	6,929.0	1,780.1	-374.5	1,804.8	0.00	0.00	
8,900.0	90.00	0.10	6,929.0	1,880.1	-374.3	1,904.5	0.00	0.00	
9,000.0	90.00	0.10	6,929.0	1,980.1	-374.1	2,004.1	0.00	0.00	
9,100.0	90.00	0.10	6,929.0	2,080.1	-374.0	2,103.8	0.00	0.00	
9,200.0	90.00	0.10	6,929.0	2,180.1	-373.8	2,203.4	0.00	0.00	
9,300.0	90.00	0.10	6,929.0	2,280.1	-373.6	2,303.0	0.00	0.00	
9,400.0	90.00	0.10	6,929.0	2,380.1	-373.5	2,402.7	0.00	0.00	
9,500.0	90.00	0.10	6,929.0	2,480.1	-373.3	2,502.3	0.00	0.00	
9,600.0	90.00	0.10	6,929.0	2,580.1	-373.1	2,602.0	0.00	0.00	
9,700.0	90.00	0.10	6,929.0	2,680.1	-373.0	2,701.6	0.00	0.00	
9,800.0	90.00	0.10	6,929.0	2,780.1	-372.8	2,801.3	0.00	0.00	
9,900.0	90.00	0.10	6,929.0	2,880.1	-372.6	2,900.9	0.00	0.00	
10,000.0	90.00	0.10	6,929.0	2,980.1	-372.5	3,000.6	0.00	0.00	
10,100.0	90.00	0.10	6,929.0	3,080.1	-372.3	3,100.2	0.00	0.00	
10,200.0	90.00	0.10	6,929.0	3,180.1	-372.1	3,199.9	0.00	0.00	
10,300.0	90.00	0.10	6,929.0	3,280.1	-372.0	3,299.5	0.00	0.00	
10,400.0	90.00	0.10	6,929.0	3,380.1	-371.8	3,399.2	0.00	0.00	
10,500.0	90.00	0.10	6,929.0	3,480.1	-371.6	3,498.8	0.00	0.00	
10,600.0	90.00	0.10	6,929.0	3,580.1	-371.5	3,598.5	0.00	0.00	
10,700.0	90.00	0.10	6,929.0	3,680.1	-371.3	3,698.1	0.00	0.00	
10,800.0	90.00	0.10	6,929.0	3,780.1	-371.1	3,797.8	0.00	0.00	
10,900.0	90.00	0.10	6,929.0	3,880.1	-371.0	3,897.4	0.00	0.00	
11,000.0	90.00	0.10	6,929.0	3,980.1	-370.8	3,997.1	0.00	0.00	
11,100.0	90.00	0.10	6,929.0	4,080.1	-370.6	4,096.7	0.00	0.00	
11,200.0	90.00	0.10	6,929.0	4,180.1	-370.5	4,196.4	0.00	0.00	
11,300.0	90.00	0.10	6,929.0	4,280.1	-370.3	4,296.0	0.00	0.00	
11,400.0	90.00	0.10	6,929.0	4,380.1	-370.1	4,395.7	0.00	0.00	
11,508.6	90.00	0.10	6,929.0	4,488.7	-369.9	4,503.9	0.00	0.00	TD at 11508.6

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Dale 4C-20H-O264 PBH	0.00	0.00	6,929.0	4,488.7	-369.9	1,291,546.25	3,259,128.17	40.129964	-104.573290
- plan hits target center									
- Point									



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site:	S20-T2N-R64W (Dale)	North Reference:	True
Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
966.0	964.0	Fox Hills - BASE				
4,378.9	4,363.0	Sussex				
4,615.8	4,599.0	Sussex Marker				
4,828.7	4,811.0	Shannon				
5,660.1	5,639.0	Teepee Buttes (*if present)				
6,898.6	6,808.0	Sharon Springs				
6,977.4	6,852.0	Niobrara				
7,170.7	6,919.0	B Chalk				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
300.0	300.0	0.0	0.0	KOP @ 300' MD	
558.3	558.0	-7.5	-8.9	EOB; 5.17°	
5,763.5	5,742.0	-307.5	-369.1	Start 2° Drop	
6,021.9	6,000.0	-315.0	-378.0	EOD; Vertical	
6,377.9	6,356.0	-315.0	-378.0	Start 10° Build	
7,277.9	6,929.0	258.0	-377.0	LP @ 6929' TVD; 90°	
11,508.6	6,929.0	4,488.7	-369.9	TD at 11508.6	



EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S20-T2N-R64W (Dale)

Dale 4C-20H-O264

HZ

Plan #1

Anticollision Report

02 April, 2014



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,550.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	4/2/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,508.1	Plan #1 (HZ)	Geolink MWD	Geolink MWD	



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S20-T2N-R64W (Dale)						
DALE 1 (EXISTING) - EXISTING - NOBLE WELL						Out of range
Dale 3A-20H-N264 - HZ - Plan #1						Out of range
Dale 3B-20H-N264 - HZ - Plan #1						Out of range
Dale 3C-20H-N264 - HZ - Plan #1						Out of range
Dale 3D-20H-N264 - HZ - Plan #1						Out of range
Dale 3E-20H-N264 - HZ - Plan #1						Out of range
Dale 3F-20H-N264 - HZ - Plan #1						Out of range
Dale 3G-20H-N264 - HZ - Plan #1						Out of range
Dale 3H-20H-N264 - HZ - Plan #1						Out of range
Dale 3I-20H-N264 - HZ - Plan #1	6,377.9	6,381.6	1,364.7	1,340.0	55.354	CC
Dale 3I-20H-N264 - HZ - Plan #1	11,508.6	11,518.0	1,372.4	1,209.8	8.438	ES, SF
Dale 3J-20H-N264 - HZ - Plan #1	10,384.4	10,493.8	1,073.6	950.0	8.688	CC
Dale 3J-20H-N264 - HZ - Plan #1	11,100.0	11,167.7	1,076.7	929.2	7.301	ES
Dale 3J-20H-N264 - HZ - Plan #1	11,508.6	11,400.0	1,122.0	963.4	7.078	SF
Dale 3K-20H-N264 - HZ - Plan #1	6,377.9	6,412.0	914.7	890.0	37.023	CC
Dale 3K-20H-N264 - HZ - Plan #1	11,508.6	11,773.8	951.4	793.3	6.017	ES, SF
Dale 3L-20H-N264 - HZ - Plan #1	6,377.9	6,436.8	689.7	664.9	27.868	CC
Dale 3L-20H-N264 - HZ - Plan #1	11,508.6	11,572.7	697.4	534.7	4.285	ES, SF
Dale 4A-20H-O264 - HZ - Plan #1	166.3	167.3	15.1	14.6	31.619	CC
Dale 4A-20H-O264 - HZ - Plan #1	200.0	201.0	15.1	14.5	25.375	ES
Dale 4A-20H-O264 - HZ - Plan #1	11,508.6	11,645.9	459.5	300.1	2.883	SF
Dale 4B-20H-O264 - HZ - Plan #1	232.4	233.4	7.6	6.8	10.659	CC, ES
Dale 4B-20H-O264 - HZ - Plan #1	11,508.6	11,752.2	318.3	200.6	2.705	SF
Dale 4D-20H-O264 - HZ - Plan #1	300.0	300.0	7.6	6.6	8.012	CC, ES
Dale 4D-20H-O264 - HZ - Plan #1	11,508.6	11,589.1	338.0	181.3	2.158	SF
Dale 4E-20H-O264 - HZ - Plan #1	300.0	300.0	14.8	13.9	15.733	CC, ES
Dale 4E-20H-O264 - HZ - Plan #1	11,508.6	11,747.9	597.3	446.9	3.970	SF
Dale 4F-20H-O264 - HZ - Plan #1	300.0	300.0	22.4	21.4	23.743	CC, ES
Dale 4F-20H-O264 - HZ - Plan #1	11,508.6	11,509.8	774.8	612.3	4.767	SF
Dale 4G-20H-O264 - HZ - Plan #1	300.0	300.0	29.9	29.0	31.754	CC, ES
Dale 4G-20H-O264 - HZ - Plan #1	11,508.6	11,624.2	1,004.1	842.2	6.200	SF
Dale 4H-20H-O264 - HZ - Plan #1	300.0	300.0	37.5	36.5	39.765	CC, ES
Dale 4H-20H-O264 - HZ - Plan #1	11,508.6	11,797.0	1,247.0	1,087.0	7.796	SF
Dale 4I-20H-O264 - HZ - Plan #1	300.0	300.0	45.0	44.1	47.777	CC, ES
Dale 4I-20H-O264 - HZ - Plan #1	11,508.6	11,600.1	1,449.8	1,287.2	8.916	SF
Dale 4J-20H-O264 - HZ - Plan #1	234.7	233.7	52.3	51.6	73.396	CC, ES
Dale 4J-20H-O264 - HZ - Plan #1	500.0	493.6	67.9	66.3	41.471	SF
Dale 4K-20H-O264 - HZ - Plan #1	200.0	199.0	59.9	59.3	101.161	CC, ES
Dale 4K-20H-O264 - HZ - Plan #1	558.3	547.3	90.0	88.2	48.819	SF
DALE 'E' UNIT 1 (EXISTING) - EXISTING - ENCANA WE	8,322.4	6,866.0	508.1	468.8	12.937	CC, ES
DALE 'E' UNIT 1 (EXISTING) - EXISTING - ENCANA WE	8,400.0	6,866.0	514.0	473.5	12.692	SF
FOY 1 (EXISTING) - EXISTING - NOBLE WELL						Out of range
FOY 'Y' 20-6 (EXISTING) - EXISTING - NOBLE WELL	9,913.2	6,859.0	1,233.3	1,167.6	18.767	CC, ES
FOY 'Y' 20-6 (EXISTING) - EXISTING - NOBLE WELL	10,300.0	6,859.0	1,292.6	1,220.2	17.866	SF
KELLER 20-2 (EXISTING) - EXISTING - NOBLE WELL	10,932.4	6,835.0	493.1	409.9	5.926	CC, ES
KELLER 20-2 (EXISTING) - EXISTING - NOBLE WELL	11,000.0	6,835.0	497.7	413.3	5.899	SF
RUHL 1 (EXISTING) - EXISTING - NEBRASKA WELL	8,694.8	6,860.0	152.1	106.8	3.361	CC, ES
RUHL 1 (EXISTING) - EXISTING - NEBRASKA WELL	8,700.0	6,860.0	152.1	106.8	3.356	SF
STARKE 'Y' 20-03 (EXISTING) - EXISTING - NOBLE WE	11,304.7	6,845.0	1,255.2	1,165.5	13.998	CC, ES
STARKE 'Y' 20-03 (EXISTING) - EXISTING - NOBLE WE	11,508.6	6,845.0	1,271.6	1,178.4	13.643	SF

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 3I-20H-N264 - 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)				
4,000.0	3,985.7	4,049.8	4,042.8	9.0	8.0	39.73	-213.3	-1,791.6	1,545.1	1,529.4	15.67	98.574		
4,100.0	4,085.3	4,149.4	4,142.2	9.2	8.3	39.73	-219.1	-1,788.8	1,535.4	1,519.4	16.08	95.513		
4,200.0	4,184.9	4,248.9	4,241.5	9.4	8.5	39.73	-224.9	-1,786.1	1,525.8	1,509.3	16.48	92.600		
4,300.0	4,284.4	4,348.4	4,340.8	9.7	8.7	39.73	-230.7	-1,783.3	1,516.1	1,499.2	16.88	89.825		
4,400.0	4,384.0	4,448.0	4,440.1	9.9	8.9	39.73	-236.4	-1,780.6	1,506.5	1,489.2	17.28	87.180		
4,500.0	4,483.6	4,547.5	4,539.5	10.1	9.1	39.72	-242.2	-1,777.9	1,496.8	1,479.1	17.68	84.654		
4,600.0	4,583.2	4,647.0	4,638.8	10.4	9.3	39.72	-248.0	-1,775.1	1,487.1	1,469.1	18.08	82.241		
4,700.0	4,682.8	4,746.6	4,738.1	10.6	9.5	39.72	-253.7	-1,772.4	1,477.5	1,459.0	18.48	79.932		
4,800.0	4,782.4	4,846.1	4,837.4	10.8	9.7	39.72	-259.5	-1,769.6	1,467.8	1,448.9	18.89	77.722		
4,900.0	4,882.0	4,945.6	4,936.8	11.1	9.9	39.71	-265.3	-1,766.9	1,458.2	1,438.9	19.29	75.603		
5,000.0	4,981.6	5,045.2	5,036.1	11.3	10.1	39.71	-271.1	-1,764.2	1,448.5	1,428.8	19.69	73.571		
5,100.0	5,081.2	5,144.7	5,135.4	11.6	10.3	39.71	-276.8	-1,761.4	1,438.8	1,418.7	20.09	71.620		
5,200.0	5,180.8	5,244.2	5,234.7	11.8	10.5	39.71	-282.6	-1,758.7	1,429.2	1,408.7	20.49	69.745		
5,300.0	5,280.4	5,343.8	5,334.1	12.0	10.7	39.71	-288.4	-1,756.0	1,419.5	1,398.6	20.89	67.943		
5,400.0	5,380.0	5,443.3	5,433.4	12.3	10.9	39.70	-294.1	-1,753.2	1,409.8	1,388.6	21.29	66.208		
5,500.0	5,479.6	5,542.8	5,532.7	12.5	11.1	39.70	-299.9	-1,750.5	1,400.2	1,378.5	21.70	64.537		
5,600.0	5,579.2	5,642.4	5,632.1	12.7	11.3	39.70	-305.7	-1,747.7	1,390.5	1,368.4	22.10	62.928		
5,700.0	5,678.8	5,732.7	5,722.2	13.0	11.5	39.72	-310.3	-1,745.6	1,381.2	1,358.7	22.47	61.468		
5,763.5	5,742.0	5,790.0	5,779.5	13.1	11.6	39.77	-312.5	-1,744.5	1,375.6	1,352.9	22.70	60.591		
5,800.0	5,778.4	5,823.0	5,812.5	13.2	11.7	39.76	-313.6	-1,744.0	1,372.7	1,349.9	22.84	60.105		
5,900.0	5,878.2	5,913.6	5,903.1	13.4	11.8	39.75	-315.6	-1,743.0	1,367.0	1,343.9	23.18	58.980		
6,000.0	5,978.1	6,004.3	5,993.8	13.5	12.0	39.75	-316.4	-1,742.7	1,364.7	1,341.3	23.48	58.124		
6,021.9	6,000.0	6,025.6	6,015.0	13.5	12.0	-90.06	-316.4	-1,742.7	1,364.7	1,341.1	23.54	57.967		
6,100.0	6,078.1	6,103.7	6,093.1	13.7	12.1	-90.06	-316.4	-1,742.7	1,364.7	1,340.9	23.78	57.375		
6,200.0	6,178.1	6,203.7	6,193.1	13.8	12.3	-90.06	-316.4	-1,742.7	1,364.7	1,340.6	24.10	56.633		
6,300.0	6,278.1	6,303.7	6,293.1	13.9	12.4	-90.06	-316.4	-1,742.7	1,364.7	1,340.3	24.41	55.908		
6,377.9	6,356.0	6,381.6	6,371.0	14.0	12.5	-90.06	-316.4	-1,742.7	1,364.7	1,340.0	24.65	55.354 CC		
6,400.0	6,378.1	6,403.4	6,392.9	14.1	12.6	-90.16	-316.2	-1,742.7	1,364.7	1,340.0	24.71	55.219		
6,450.0	6,428.0	6,452.6	6,441.9	14.1	12.6	-90.18	-312.7	-1,742.7	1,364.7	1,339.9	24.78	55.073		
6,500.0	6,477.2	6,501.8	6,490.4	14.1	12.6	-90.20	-305.0	-1,742.8	1,364.8	1,340.0	24.79	55.059		
6,550.0	6,525.6	6,551.0	6,538.2	14.1	12.6	-90.22	-293.2	-1,742.9	1,364.9	1,340.2	24.74	55.160		
6,600.0	6,572.6	6,600.3	6,584.9	14.0	12.6	-90.23	-277.3	-1,743.0	1,365.1	1,340.4	24.66	55.355		
6,650.0	6,618.0	6,649.7	6,630.1	14.0	12.5	-90.25	-257.5	-1,743.2	1,365.3	1,340.7	24.55	55.619		
6,700.0	6,661.4	6,699.2	6,673.5	13.9	12.5	-90.26	-233.7	-1,743.4	1,365.5	1,341.1	24.42	55.920		
6,750.0	6,702.5	6,748.7	6,714.7	13.8	12.4	-90.27	-206.3	-1,743.6	1,365.8	1,341.5	24.29	56.221		
6,800.0	6,741.0	6,798.3	6,753.5	13.8	12.3	-90.28	-175.4	-1,743.9	1,366.2	1,342.0	24.19	56.480		
6,850.0	6,776.5	6,848.0	6,789.5	13.8	12.3	-90.28	-141.1	-1,744.2	1,366.5	1,342.4	24.12	56.653		
6,900.0	6,808.8	6,897.8	6,822.4	13.8	12.3	-90.29	-103.8	-1,744.5	1,366.9	1,342.8	24.11	56.695		
6,950.0	6,837.7	6,947.7	6,852.1	13.8	12.3	-90.29	-63.7	-1,744.8	1,367.3	1,343.2	24.17	56.563		
7,000.0	6,862.9	6,997.7	6,878.2	13.8	12.4	-90.29	-21.1	-1,745.2	1,367.8	1,343.5	24.33	56.225		
7,050.0	6,884.3	7,047.7	6,900.5	14.0	12.5	-90.29	23.6	-1,745.6	1,368.3	1,343.7	24.58	55.662		
7,100.0	6,901.6	7,097.9	6,918.9	14.1	12.7	-90.28	70.3	-1,746.0	1,368.7	1,343.8	24.95	54.867		
7,150.0	6,914.8	7,148.1	6,933.1	14.3	12.9	-90.27	118.5	-1,746.4	1,369.2	1,343.8	25.42	53.855		
7,200.0	6,923.7	7,198.4	6,943.1	14.6	13.2	-90.26	167.8	-1,746.9	1,369.7	1,343.7	26.01	52.653		
7,250.0	6,928.3	7,248.9	6,948.7	14.9	13.6	-90.25	217.9	-1,747.3	1,370.3	1,343.6	26.71	51.299		
7,277.9	6,929.0	7,277.0	6,949.9	15.1	13.8	-90.25	246.0	-1,747.5	1,370.6	1,343.4	27.14	50.491		
7,300.0	6,929.0	7,299.2	6,950.0	15.2	14.0	-90.25	268.2	-1,747.7	1,370.8	1,343.3	27.50	49.841		
7,400.0	6,929.0	7,399.2	6,950.0	16.1	14.9	-90.25	368.2	-1,748.6	1,371.8	1,342.5	29.34	46.763		
7,500.0	6,929.0	7,499.2	6,950.0	17.0	15.9	-90.25	468.2	-1,749.5	1,372.8	1,341.4	31.45	43.647		
7,600.0	6,929.0	7,599.2	6,950.0	18.1	17.1	-90.25	568.2	-1,750.3	1,373.9	1,340.1	33.80	40.643		
7,700.0	6,929.0	7,699.2	6,950.0	19.3	18.3	-90.25	668.2	-1,751.2	1,374.9	1,338.6	36.34	37.834		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 3I-20H-N264 - 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)				
7,800.0	6,929.0	7,799.2	6,950.0	20.6	19.7	-90.25	768.2	-1,752.0	1,375.9	1,336.9	39.03	35.255		
7,900.0	6,929.0	7,899.2	6,950.0	21.9	21.1	-90.25	868.2	-1,752.9	1,377.0	1,335.1	41.84	32.913		
8,000.0	6,929.0	7,999.2	6,950.0	23.3	22.5	-90.25	968.1	-1,753.8	1,378.0	1,333.3	44.75	30.797		
8,100.0	6,929.0	8,099.2	6,950.0	24.8	24.0	-90.25	1,068.1	-1,754.6	1,379.0	1,331.3	47.73	28.890		
8,200.0	6,929.0	8,199.2	6,950.0	26.2	25.5	-90.25	1,168.1	-1,755.5	1,380.1	1,329.3	50.79	27.173		
8,300.0	6,929.0	8,299.2	6,950.0	27.7	27.1	-90.25	1,268.1	-1,756.4	1,381.1	1,327.2	53.90	25.624		
8,400.0	6,929.0	8,399.2	6,950.0	29.3	28.6	-90.25	1,368.1	-1,757.2	1,382.1	1,325.1	57.06	24.224		
8,500.0	6,929.0	8,499.2	6,950.0	30.8	30.2	-90.25	1,468.1	-1,758.1	1,383.2	1,322.9	60.25	22.957		
8,600.0	6,929.0	8,599.2	6,950.0	32.4	31.8	-90.25	1,568.1	-1,759.0	1,384.2	1,320.7	63.48	21.805		
8,700.0	6,929.0	8,699.2	6,950.0	34.0	33.5	-90.25	1,668.1	-1,759.8	1,385.2	1,318.5	66.74	20.757		
8,800.0	6,929.0	8,799.2	6,950.0	35.6	35.1	-90.25	1,768.1	-1,760.7	1,386.3	1,316.3	70.02	19.799		
8,900.0	6,929.0	8,899.2	6,950.0	37.2	36.7	-90.25	1,868.1	-1,761.6	1,387.3	1,314.0	73.32	18.921		
9,000.0	6,929.0	8,999.2	6,950.0	38.9	38.4	-90.25	1,968.1	-1,762.4	1,388.3	1,311.7	76.64	18.115		
9,100.0	6,929.0	9,099.1	6,950.0	40.5	40.1	-90.25	2,068.0	-1,763.3	1,389.4	1,309.4	79.98	17.372		
9,200.0	6,929.0	9,199.1	6,950.0	42.2	41.7	-90.25	2,168.0	-1,764.2	1,390.4	1,307.1	83.33	16.686		
9,300.0	6,929.0	9,299.1	6,950.0	43.8	43.4	-90.25	2,268.0	-1,765.0	1,391.4	1,304.8	86.69	16.051		
9,400.0	6,929.0	9,399.1	6,950.0	45.5	45.1	-90.25	2,368.0	-1,765.9	1,392.5	1,302.4	90.06	15.461		
9,500.0	6,929.0	9,499.1	6,950.0	47.2	46.8	-90.25	2,468.0	-1,766.8	1,393.5	1,300.1	93.45	14.912		
9,600.0	6,929.0	9,599.1	6,950.0	48.9	48.5	-90.25	2,568.0	-1,767.6	1,394.5	1,297.7	96.84	14.401		
9,700.0	6,929.0	9,699.1	6,950.0	50.5	50.2	-90.25	2,668.0	-1,768.5	1,395.6	1,295.3	100.24	13.922		
9,800.0	6,929.0	9,799.1	6,950.0	52.2	51.9	-90.25	2,768.0	-1,769.3	1,396.6	1,293.0	103.65	13.475		
9,900.0	6,929.0	9,899.1	6,950.0	53.9	53.6	-90.25	2,868.0	-1,770.2	1,397.6	1,290.6	107.06	13.054		
10,000.0	6,929.0	9,999.1	6,950.0	55.6	55.3	-90.25	2,968.0	-1,771.1	1,398.7	1,288.2	110.48	12.660		
10,100.0	6,929.0	10,099.1	6,950.0	57.3	57.0	-90.25	3,068.0	-1,771.9	1,399.7	1,285.8	113.91	12.288		
10,200.0	6,929.0	10,199.1	6,950.0	59.0	58.7	-90.25	3,167.9	-1,772.8	1,400.7	1,283.4	117.34	11.938		
10,300.0	6,929.0	10,299.1	6,950.0	60.7	60.4	-90.25	3,267.9	-1,773.7	1,401.8	1,281.0	120.77	11.607		
10,400.0	6,929.0	10,399.1	6,950.0	62.4	62.1	-90.25	3,367.9	-1,774.5	1,402.8	1,278.6	124.21	11.294		
10,500.0	6,929.0	10,499.1	6,950.0	64.2	63.9	-90.24	3,467.9	-1,775.4	1,403.8	1,276.2	127.65	10.997		
10,600.0	6,929.0	10,599.1	6,950.0	65.9	65.6	-90.24	3,567.9	-1,776.3	1,404.9	1,273.8	131.10	10.716		
10,700.0	6,929.0	10,699.1	6,950.0	67.6	67.3	-90.24	3,667.9	-1,777.1	1,405.9	1,271.4	134.55	10.449		
10,800.0	6,929.0	10,799.1	6,950.0	69.3	69.0	-90.24	3,767.9	-1,778.0	1,406.9	1,268.9	138.00	10.195		
10,900.0	6,929.0	10,899.0	6,950.0	71.0	70.8	-90.24	3,867.9	-1,778.9	1,408.0	1,266.5	141.46	9.953		
11,000.0	6,929.0	10,999.0	6,950.0	72.7	72.5	-90.24	3,967.9	-1,779.7	1,409.0	1,264.1	144.91	9.723		
11,100.0	6,929.0	11,099.0	6,950.0	74.5	74.2	-90.24	4,067.9	-1,780.6	1,410.0	1,261.7	148.37	9.503		
11,200.0	6,929.0	11,199.0	6,950.0	76.2	76.0	-90.25	4,167.9	-1,781.5	1,411.0	1,259.3	151.82	9.283		
11,300.0	6,929.0	11,299.0	6,950.0	77.9	77.7	-90.25	4,267.9	-1,782.4	1,412.0	1,256.9	155.27	9.063		
11,400.0	6,929.0	11,399.0	6,950.0	79.6	79.4	-90.25	4,367.9	-1,783.3	1,413.0	1,254.5	158.72	8.843		
11,500.5	6,929.0	11,518.0	6,950.0	81.4	81.4	-90.25	4,482.9	-1,742.3	1,376.1	1,215.3	160.76	8.560		
11,508.6	6,929.0	11,518.0	6,950.0	81.5	81.4	-90.25	4,482.9	-1,742.3	1,372.4	1,209.8	162.64	8.438 ES, SF		



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 3J-20H-N264 - 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		
2,900.0	2,890.1	3,022.9	3,013.1	6.4	6.5	39.68	-155.1	-1,710.2	1,543.1	1,531.7	11.40	135.399		
3,000.0	2,989.7	3,121.9	3,111.7	6.6	6.8	39.67	-160.9	-1,703.3	1,529.2	1,517.4	11.80	129.623		
3,100.0	3,089.3	3,221.0	3,210.3	6.9	7.0	39.67	-166.8	-1,696.3	1,515.3	1,503.1	12.20	124.226		
3,200.0	3,188.9	3,320.0	3,308.9	7.1	7.2	39.66	-172.6	-1,689.3	1,501.4	1,488.8	12.60	119.171		
3,300.0	3,288.5	3,419.0	3,407.5	7.3	7.5	39.65	-178.5	-1,682.4	1,487.4	1,474.4	13.00	114.428		
3,400.0	3,388.1	3,518.0	3,506.1	7.6	7.7	39.64	-184.3	-1,675.4	1,473.5	1,460.1	13.40	109.967		
3,500.0	3,487.7	3,617.1	3,604.7	7.8	8.0	39.63	-190.2	-1,668.4	1,459.6	1,445.8	13.80	105.766		
3,600.0	3,587.3	3,716.1	3,703.4	8.0	8.2	39.63	-196.0	-1,661.5	1,445.7	1,431.5	14.20	101.801		
3,700.0	3,686.9	3,815.1	3,802.0	8.3	8.4	39.62	-201.9	-1,654.5	1,431.8	1,417.2	14.60	98.054		
3,800.0	3,786.5	3,914.2	3,900.6	8.5	8.7	39.61	-207.7	-1,647.5	1,417.9	1,402.9	15.00	94.506		
3,900.0	3,886.1	4,013.2	3,999.2	8.7	8.9	39.60	-213.6	-1,640.6	1,403.9	1,388.5	15.40	91.143		
4,000.0	3,985.7	4,112.2	4,097.8	9.0	9.1	39.59	-219.4	-1,633.6	1,390.0	1,374.2	15.80	87.951		
4,100.0	4,085.3	4,211.2	4,196.4	9.2	9.4	39.58	-225.3	-1,626.6	1,376.1	1,359.9	16.21	84.916		
4,200.0	4,184.9	4,310.3	4,295.0	9.4	9.6	39.57	-231.2	-1,619.7	1,362.2	1,345.6	16.61	82.028		
4,300.0	4,284.4	4,409.3	4,393.6	9.7	9.8	39.56	-237.0	-1,612.7	1,348.3	1,331.3	17.01	79.276		
4,400.0	4,384.0	4,508.3	4,492.2	9.9	10.1	39.55	-242.9	-1,605.8	1,334.4	1,317.0	17.41	76.650		
4,500.0	4,483.6	4,607.3	4,590.8	10.1	10.3	39.54	-248.7	-1,598.8	1,320.4	1,302.6	17.81	74.143		
4,600.0	4,583.2	4,706.4	4,689.4	10.4	10.5	39.53	-254.6	-1,591.8	1,306.5	1,288.3	18.21	71.746		
4,700.0	4,682.8	4,805.4	4,788.0	10.6	10.8	39.52	-260.4	-1,584.9	1,292.6	1,274.0	18.61	69.452		
4,800.0	4,782.4	4,904.4	4,886.6	10.8	11.0	39.51	-266.3	-1,577.9	1,278.7	1,259.7	19.01	67.255		
4,900.0	4,882.0	5,003.4	4,985.3	11.1	11.2	39.50	-272.1	-1,570.9	1,264.8	1,245.4	19.41	65.149		
5,000.0	4,981.6	5,102.5	5,083.9	11.3	11.5	39.49	-278.0	-1,564.0	1,250.9	1,231.0	19.81	63.128		
5,100.0	5,081.2	5,201.5	5,182.5	11.6	11.7	39.48	-283.8	-1,557.0	1,236.9	1,216.7	20.22	61.187		
5,200.0	5,180.8	5,300.5	5,281.1	11.8	11.9	39.46	-289.7	-1,550.0	1,223.0	1,202.4	20.62	59.322		
5,300.0	5,280.4	5,399.6	5,379.7	12.0	12.2	39.45	-295.5	-1,543.1	1,209.1	1,188.1	21.02	57.528		
5,400.0	5,380.0	5,497.9	5,477.7	12.3	12.4	39.44	-301.3	-1,536.2	1,195.2	1,173.8	21.42	55.804		
5,500.0	5,479.6	5,583.6	5,563.0	12.5	12.6	39.45	-306.0	-1,530.7	1,181.9	1,160.1	21.78	54.256		
5,600.0	5,579.2	5,669.4	5,648.7	12.7	12.8	39.50	-309.8	-1,526.1	1,169.7	1,147.6	22.14	52.825		
5,700.0	5,678.8	5,755.5	5,734.6	13.0	12.9	39.60	-312.7	-1,522.6	1,158.7	1,136.2	22.50	51.503		
5,763.5	5,742.0	5,810.3	5,789.3	13.1	13.0	39.68	-314.2	-1,520.9	1,152.3	1,129.6	22.72	50.716		
5,800.0	5,778.4	5,841.8	5,820.8	13.2	13.1	39.69	-314.9	-1,520.0	1,149.0	1,126.1	22.85	50.275		
5,900.0	5,878.2	5,928.3	5,907.3	13.4	13.2	39.71	-316.2	-1,518.5	1,142.5	1,119.4	23.19	49.266		
6,000.0	5,978.1	6,015.1	5,994.1	13.5	13.3	39.72	-316.7	-1,517.9	1,140.0	1,116.5	23.49	48.522		
6,021.9	6,000.0	6,036.0	6,015.0	13.5	13.3	-90.09	-316.7	-1,517.9	1,139.9	1,116.3	23.56	48.383		
6,100.0	6,078.1	6,114.2	6,093.1	13.7	13.5	-90.09	-316.7	-1,517.9	1,139.9	1,116.1	23.80	47.889		
6,200.0	6,178.1	6,214.2	6,193.1	13.8	13.6	-90.09	-316.7	-1,517.9	1,139.9	1,115.8	24.11	47.270		
6,300.0	6,278.1	6,314.2	6,293.1	13.9	13.7	-90.09	-316.7	-1,517.9	1,139.9	1,115.5	24.43	46.665		
6,377.9	6,356.0	6,392.0	6,371.0	14.0	13.8	-90.09	-316.7	-1,517.9	1,139.9	1,115.2	24.67	46.203		
6,400.0	6,378.1	6,414.2	6,393.1	14.1	13.9	-90.20	-316.7	-1,517.9	1,139.9	1,115.2	24.73	46.086		
6,450.0	6,428.0	6,464.0	6,443.0	14.1	13.9	-90.41	-316.7	-1,517.9	1,139.9	1,115.1	24.84	45.885		
6,500.0	6,477.2	6,515.4	6,494.4	14.1	14.0	-90.79	-315.8	-1,517.9	1,140.0	1,115.1	24.91	45.769		
6,550.0	6,525.6	6,568.7	6,547.3	14.1	14.0	-91.20	-310.3	-1,517.8	1,140.0	1,115.1	24.91	45.765		
6,600.0	6,572.6	6,622.8	6,600.4	14.0	14.0	-91.60	-299.7	-1,517.5	1,140.0	1,115.1	24.86	45.856		
6,650.0	6,618.0	6,677.7	6,652.9	14.0	14.0	-91.99	-283.9	-1,517.2	1,139.9	1,115.2	24.77	46.022		
6,700.0	6,661.4	6,733.4	6,704.5	13.9	14.0	-92.37	-262.9	-1,516.8	1,139.8	1,115.2	24.65	46.240		
6,750.0	6,702.5	6,789.8	6,754.4	13.8	13.9	-92.72	-236.5	-1,516.2	1,139.6	1,115.1	24.52	46.481		
6,800.0	6,741.0	6,847.0	6,802.0	13.8	13.9	-93.06	-204.9	-1,515.5	1,139.4	1,115.0	24.39	46.706		
6,850.0	6,776.5	6,904.9	6,846.8	13.8	13.8	-93.37	-168.3	-1,514.8	1,139.0	1,114.7	24.30	46.871		
6,900.0	6,808.8	6,963.3	6,888.0	13.8	13.8	-93.66	-126.9	-1,513.9	1,138.6	1,114.3	24.26	46.925		
6,950.0	6,837.7	7,022.2	6,925.1	13.8	13.8	-93.90	-81.2	-1,512.9	1,138.1	1,113.7	24.31	46.824		
7,000.0	6,862.9	7,081.6	6,957.5	13.8	13.9	-94.12	-31.5	-1,511.9	1,137.4	1,113.0	24.45	46.524		
7,050.0	6,884.3	7,141.2	6,984.7	14.0	14.0	-94.29	21.5	-1,510.8	1,136.7	1,112.0	24.71	46.005		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 3J-20H-N264 - 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)				
7,100.0	6,901.6	7,201.0	7,006.3	14.1	14.2	-94.43	77.2	-1,509.6	1,135.8	1,110.7	25.10	45.257		
7,150.0	6,914.8	7,260.9	7,022.0	14.3	14.5	-94.52	134.9	-1,508.4	1,134.9	1,109.3	25.63	44.275		
7,200.0	6,923.7	7,320.6	7,031.6	14.6	14.9	-94.57	193.9	-1,507.2	1,133.9	1,107.6	26.30	43.112		
7,250.0	6,928.3	7,380.2	7,034.9	14.9	15.3	-94.58	253.4	-1,505.9	1,132.8	1,105.7	27.09	41.821		
7,277.9	6,929.0	7,408.5	7,035.0	15.1	15.5	-94.61	281.7	-1,505.3	1,132.2	1,104.6	27.54	41.111		
7,300.0	6,929.0	7,430.6	7,035.0	15.2	15.7	-94.61	303.8	-1,504.8	1,131.8	1,103.8	27.92	40.534		
7,400.0	6,929.0	7,530.6	7,035.0	16.1	16.6	-94.62	403.7	-1,502.7	1,129.8	1,100.0	29.79	37.925		
7,500.0	6,929.0	7,630.6	7,035.0	17.0	17.6	-94.63	503.7	-1,500.6	1,127.9	1,096.0	31.94	35.318		
7,600.0	6,929.0	7,730.6	7,035.0	18.1	18.7	-94.63	603.7	-1,498.5	1,126.0	1,091.7	34.30	32.823		
7,700.0	6,929.0	7,830.6	7,035.0	19.3	19.9	-94.64	703.6	-1,496.4	1,124.0	1,087.2	36.85	30.501		
7,800.0	6,929.0	7,930.6	7,035.0	20.6	21.2	-94.65	803.6	-1,494.3	1,122.1	1,082.6	39.55	28.375		
7,900.0	6,929.0	8,030.5	7,035.0	21.9	22.6	-94.66	903.5	-1,492.2	1,120.2	1,077.8	42.36	26.446		
8,000.0	6,929.0	8,130.5	7,035.0	23.3	24.0	-94.67	1,003.5	-1,490.1	1,118.3	1,073.0	45.26	24.705		
8,100.0	6,929.0	8,230.5	7,035.0	24.8	25.5	-94.67	1,103.4	-1,488.0	1,116.3	1,068.1	48.25	23.137		
8,200.0	6,929.0	8,330.5	7,035.0	26.2	26.9	-94.68	1,203.4	-1,485.9	1,114.4	1,063.1	51.30	21.724		
8,300.0	6,929.0	8,430.5	7,035.0	27.7	28.5	-94.69	1,303.4	-1,483.8	1,112.5	1,058.1	54.40	20.449		
8,400.0	6,929.0	8,530.4	7,035.0	29.3	30.0	-94.70	1,403.3	-1,481.7	1,110.6	1,053.0	57.55	19.297		
8,500.0	6,929.0	8,630.4	7,035.0	30.8	31.6	-94.71	1,503.3	-1,479.6	1,108.6	1,047.9	60.74	18.253		
8,600.0	6,929.0	8,730.4	7,035.0	32.4	33.2	-94.71	1,603.2	-1,477.5	1,106.7	1,042.7	63.96	17.304		
8,700.0	6,929.0	8,830.4	7,035.0	34.0	34.8	-94.72	1,703.2	-1,475.4	1,104.8	1,037.6	67.20	16.440		
8,800.0	6,929.0	8,930.4	7,035.0	35.6	36.4	-94.73	1,803.2	-1,473.3	1,102.8	1,032.4	70.47	15.650		
8,900.0	6,929.0	9,030.3	7,035.0	37.2	38.0	-94.74	1,903.1	-1,471.2	1,100.9	1,027.2	73.76	14.925		
9,000.0	6,929.0	9,130.3	7,035.0	38.9	39.6	-94.75	2,003.1	-1,469.1	1,099.0	1,021.9	77.07	14.260		
9,100.0	6,929.0	9,230.3	7,035.0	40.5	41.3	-94.76	2,103.0	-1,467.0	1,097.1	1,016.7	80.39	13.646		
9,200.0	6,929.0	9,330.3	7,035.0	42.2	43.0	-94.76	2,203.0	-1,464.9	1,095.1	1,011.4	83.73	13.079		
9,300.0	6,929.0	9,430.3	7,035.0	43.8	44.6	-94.77	2,303.0	-1,462.8	1,093.2	1,006.1	87.08	12.554		
9,400.0	6,929.0	9,530.3	7,035.0	45.5	46.3	-94.78	2,402.9	-1,460.7	1,091.3	1,000.8	90.44	12.066		
9,500.0	6,929.0	9,630.2	7,035.0	47.2	48.0	-94.79	2,502.9	-1,458.6	1,089.4	995.5	93.81	11.612		
9,600.0	6,929.0	9,730.2	7,035.0	48.9	49.6	-94.80	2,602.8	-1,456.5	1,087.4	990.2	97.19	11.188		
9,700.0	6,929.0	9,830.2	7,035.0	50.5	51.3	-94.81	2,702.8	-1,454.4	1,085.5	984.9	100.58	10.792		
9,800.0	6,929.0	9,930.2	7,035.0	52.2	53.0	-94.82	2,802.8	-1,452.3	1,083.6	979.6	103.98	10.421		
9,900.0	6,929.0	10,030.2	7,035.0	53.9	54.7	-94.82	2,902.7	-1,450.2	1,081.6	974.3	107.38	10.073		
10,000.0	6,929.0	10,130.1	7,035.0	55.6	56.4	-94.83	3,002.7	-1,448.1	1,079.7	968.9	110.78	9.746		
10,100.0	6,929.0	10,230.1	7,035.0	57.3	58.1	-94.84	3,102.6	-1,446.0	1,077.8	963.6	114.19	9.438		
10,200.0	6,929.0	10,330.1	7,035.0	59.0	59.8	-94.85	3,202.6	-1,443.9	1,075.9	958.2	117.61	9.148		
10,300.0	6,929.0	10,422.7	7,035.0	60.7	61.4	-94.86	3,295.1	-1,442.1	1,074.1	953.2	120.90	8.884		
10,384.4	6,929.0	10,493.8	7,035.0	62.2	62.6	-94.86	3,366.2	-1,441.5	1,073.6	950.0	123.57	8.688 CC		
10,400.0	6,929.0	10,507.7	7,035.0	62.4	62.9	-94.86	3,380.1	-1,441.5	1,073.6	949.5	124.07	8.653		
10,500.0	6,929.0	10,607.7	7,035.0	64.2	64.6	-94.86	3,480.1	-1,441.5	1,073.7	946.2	127.50	8.421		
10,600.0	6,929.0	10,707.7	7,035.0	65.9	66.3	-94.86	3,580.1	-1,441.5	1,073.9	943.0	130.94	8.202		
10,700.0	6,929.0	10,807.7	7,035.0	67.6	68.0	-94.86	3,680.1	-1,441.5	1,074.1	939.7	134.37	7.993		
10,800.0	6,929.0	10,907.7	7,035.0	69.3	69.7	-94.86	3,780.1	-1,441.5	1,074.2	936.4	137.81	7.795		
10,900.0	6,929.0	11,007.7	7,035.0	71.0	71.4	-94.86	3,880.1	-1,441.5	1,074.4	933.1	141.25	7.606		
11,000.0	6,929.0	11,103.0	7,035.0	72.7	73.1	-94.86	3,975.5	-1,441.5	1,074.6	929.9	144.62	7.430		
11,100.0	6,929.0	11,167.7	7,035.0	74.5	74.2	-94.85	4,040.1	-1,442.7	1,076.7	929.2	147.46	7.301 ES		
11,200.0	6,929.0	11,229.3	7,035.0	76.2	75.2	-94.83	4,101.7	-1,446.1	1,082.3	932.1	150.25	7.204		
11,300.0	6,929.0	11,300.0	7,035.0	77.9	76.4	-94.80	4,172.0	-1,452.6	1,091.5	938.3	153.19	7.125		
11,400.0	6,929.0	11,351.5	7,035.0	79.6	77.3	-94.78	4,223.1	-1,459.2	1,104.1	948.3	155.80	7.087		
11,508.6	6,929.0	11,400.0	7,035.0	81.5	78.1	-94.74	4,271.0	-1,466.8	1,122.0	963.4	158.51	7.078 SF		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 3K-20H-N264 - 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				
2,300.0	2,292.6	2,500.6	2,485.9	5.0	6.1	39.71	-123.9	-1,660.2	1,541.2	1,532.1	9.13	168.761				
2,400.0	2,392.2	2,598.9	2,583.4	5.2	6.4	39.69	-129.9	-1,648.8	1,522.8	1,513.2	9.53	159.749				
2,500.0	2,491.8	2,697.2	2,680.8	5.4	6.7	39.67	-135.9	-1,637.4	1,504.3	1,494.4	9.93	151.460				
2,600.0	2,591.4	2,795.5	2,778.2	5.7	6.9	39.66	-141.8	-1,626.0	1,485.9	1,475.5	10.33	143.811				
2,700.0	2,690.9	2,893.7	2,875.7	5.9	7.2	39.64	-147.8	-1,614.6	1,467.4	1,456.7	10.73	136.730				
2,800.0	2,790.5	2,992.0	2,973.1	6.2	7.5	39.62	-153.8	-1,603.2	1,448.9	1,437.8	11.13	130.156				
2,900.0	2,890.1	3,090.3	3,070.5	6.4	7.8	39.60	-159.8	-1,591.7	1,430.5	1,419.0	11.53	124.037				
3,000.0	2,989.7	3,188.6	3,168.0	6.6	8.1	39.59	-165.8	-1,580.3	1,412.0	1,400.1	11.93	118.328				
3,100.0	3,089.3	3,286.9	3,265.4	6.9	8.4	39.57	-171.8	-1,568.9	1,393.6	1,381.2	12.33	112.989				
3,200.0	3,188.9	3,385.1	3,362.8	7.1	8.6	39.55	-177.8	-1,557.5	1,375.1	1,362.4	12.73	107.984				
3,300.0	3,288.5	3,483.4	3,460.3	7.3	8.9	39.53	-183.8	-1,546.1	1,356.7	1,343.5	13.14	103.285				
3,400.0	3,388.1	3,581.7	3,557.7	7.6	9.2	39.51	-189.8	-1,534.7	1,338.2	1,324.7	13.54	98.862				
3,500.0	3,487.7	3,680.0	3,655.1	7.8	9.5	39.48	-195.8	-1,523.2	1,319.8	1,305.8	13.94	94.694				
3,600.0	3,587.3	3,778.3	3,752.6	8.0	9.8	39.46	-201.7	-1,511.8	1,301.3	1,287.0	14.34	90.758				
3,700.0	3,686.9	3,876.5	3,850.0	8.3	10.1	39.44	-207.7	-1,500.4	1,282.8	1,268.1	14.74	87.036				
3,800.0	3,786.5	3,974.8	3,947.4	8.5	10.3	39.42	-213.7	-1,489.0	1,264.4	1,249.3	15.14	83.511				
3,900.0	3,886.1	4,073.1	4,044.8	8.7	10.6	39.39	-219.7	-1,477.6	1,245.9	1,230.4	15.54	80.167				
4,000.0	3,985.7	4,171.4	4,142.3	9.0	10.9	39.37	-225.7	-1,466.2	1,227.5	1,211.5	15.94	76.991				
4,100.0	4,085.3	4,269.7	4,239.7	9.2	11.2	39.34	-231.7	-1,454.8	1,209.0	1,192.7	16.34	73.971				
4,200.0	4,184.9	4,367.9	4,337.1	9.4	11.5	39.32	-237.7	-1,443.3	1,190.6	1,173.8	16.75	71.095				
4,300.0	4,284.4	4,466.2	4,434.6	9.7	11.8	39.29	-243.7	-1,431.9	1,172.1	1,155.0	17.15	68.353				
4,400.0	4,384.0	4,564.5	4,532.0	9.9	12.0	39.26	-249.7	-1,420.5	1,153.7	1,136.1	17.55	65.737				
4,500.0	4,483.6	4,662.8	4,629.4	10.1	12.3	39.23	-255.7	-1,409.1	1,135.2	1,117.3	17.95	63.238				
4,600.0	4,583.2	4,761.1	4,726.9	10.4	12.6	39.20	-261.7	-1,397.7	1,116.8	1,098.4	18.35	60.847				
4,700.0	4,682.8	4,859.4	4,824.3	10.6	12.9	39.17	-267.6	-1,386.3	1,098.3	1,079.6	18.76	58.559				
4,800.0	4,782.4	4,957.6	4,921.7	10.8	13.2	39.14	-273.6	-1,374.9	1,079.9	1,060.7	19.16	56.367				
4,900.0	4,882.0	5,055.9	5,019.2	11.1	13.5	39.11	-279.6	-1,363.4	1,061.4	1,041.8	19.56	54.264				
5,000.0	4,981.6	5,154.2	5,116.6	11.3	13.7	39.08	-285.6	-1,352.0	1,043.0	1,023.0	19.96	52.246				
5,100.0	5,081.2	5,252.5	5,214.0	11.6	14.0	39.04	-291.6	-1,340.6	1,024.5	1,004.1	20.36	50.308				
5,200.0	5,180.8	5,342.3	5,303.1	11.8	14.3	39.01	-297.0	-1,330.4	1,006.3	985.6	20.75	48.506				
5,300.0	5,280.4	5,427.8	5,388.0	12.0	14.5	39.02	-301.5	-1,321.8	989.3	968.2	21.11	46.861				
5,400.0	5,380.0	5,513.6	5,473.5	12.3	14.7	39.07	-305.5	-1,314.2	973.7	952.2	21.47	45.343				
5,500.0	5,479.6	5,600.0	5,559.5	12.5	14.9	39.15	-308.8	-1,307.8	959.3	937.4	21.83	43.945				
5,600.0	5,579.2	5,686.3	5,645.6	12.7	15.0	39.28	-311.6	-1,302.5	946.2	924.0	22.18	42.665				
5,700.0	5,678.8	5,773.0	5,732.2	13.0	15.2	39.45	-313.8	-1,298.3	934.5	911.9	22.52	41.492				
5,763.5	5,742.0	5,828.2	5,787.4	13.1	15.3	39.57	-314.9	-1,296.2	927.7	905.0	22.74	40.801				
5,800.0	5,778.4	5,860.0	5,819.1	13.2	15.3	39.60	-315.4	-1,295.3	924.2	901.4	22.87	40.408				
5,900.0	5,878.2	5,947.3	5,906.4	13.4	15.4	39.66	-316.4	-1,293.4	917.5	894.3	23.22	39.521				
6,000.0	5,978.1	6,034.9	5,994.0	13.5	15.6	39.70	-316.7	-1,292.7	914.8	891.3	23.53	38.886				
6,021.9	6,000.0	6,055.9	6,015.0	13.5	15.6	-90.11	-316.7	-1,292.7	914.7	891.1	23.60	38.767				
6,100.0	6,078.1	6,134.1	6,093.1	13.7	15.7	-90.11	-316.7	-1,292.7	914.7	890.9	23.84	38.372				
6,200.0	6,178.1	6,234.1	6,193.1	13.8	15.8	-90.11	-316.7	-1,292.7	914.7	890.6	24.15	37.877				
6,300.0	6,278.1	6,334.1	6,293.1	13.9	15.9	-90.11	-316.7	-1,292.7	914.7	890.3	24.46	37.392				
6,377.9	6,356.0	6,412.0	6,371.0	14.0	16.0	-90.11	-316.7	-1,292.7	914.7	890.0	24.71	37.023 CC				
6,400.0	6,378.1	6,434.1	6,393.1	14.1	16.0	-90.23	-316.7	-1,292.7	914.7	890.0	24.77	36.932				
6,450.0	6,428.0	6,483.9	6,443.0	14.1	16.1	-90.48	-316.7	-1,292.7	914.8	889.9	24.88	36.760				
6,500.0	6,477.2	6,533.1	6,492.2	14.1	16.2	-90.99	-316.7	-1,292.7	914.9	889.9	24.98	36.628				
6,550.0	6,525.6	6,581.5	6,540.6	14.1	16.2	-91.73	-316.7	-1,292.7	915.2	890.1	25.05	36.532				
6,600.0	6,572.6	6,628.5	6,587.6	14.0	16.3	-92.65	-316.7	-1,292.7	915.9	890.8	25.11	36.473				
6,650.0	6,618.0	6,677.6	6,636.7	14.0	16.3	-93.76	-315.8	-1,292.7	917.1	892.0	25.15	36.471				
6,700.0	6,661.4	6,730.2	6,689.0	13.9	16.3	-94.92	-310.4	-1,292.7	918.8	893.6	25.14	36.543				
6,750.0	6,702.5	6,785.2	6,742.8	13.8	16.3	-96.07	-299.7	-1,292.7	920.9	895.8	25.10	36.688				

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 3K-20H-N264 - 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)				
6,800.0	6,741.0	6,842.7	6,797.9	13.8	16.3	-97.20	-282.9	-1,292.7	923.3	898.3	25.02	36.897		
6,850.0	6,776.5	6,903.2	6,853.6	13.8	16.3	-98.32	-259.5	-1,292.7	926.1	901.2	24.92	37.156		
6,900.0	6,808.8	6,966.8	6,909.2	13.8	16.2	-99.40	-228.7	-1,292.7	929.0	904.2	24.81	37.444		
6,950.0	6,837.7	7,033.7	6,963.6	13.8	16.2	-100.44	-189.8	-1,292.7	932.1	907.4	24.71	37.720		
7,000.0	6,862.9	7,104.0	7,015.5	13.8	16.1	-101.41	-142.4	-1,292.7	935.1	910.4	24.65	37.932		
7,050.0	6,884.3	7,177.9	7,063.4	14.0	16.1	-102.28	-86.3	-1,292.7	937.9	913.2	24.68	38.003		
7,100.0	6,901.6	7,255.0	7,105.2	14.1	16.2	-103.04	-21.5	-1,292.7	940.4	915.6	24.85	37.851		
7,150.0	6,914.8	7,335.0	7,138.9	14.3	16.4	-103.64	50.9	-1,292.7	942.5	917.3	25.20	37.400		
7,200.0	6,923.7	7,417.2	7,162.8	14.6	16.7	-104.05	129.6	-1,292.7	943.9	918.2	25.78	36.612		
7,250.0	6,928.3	7,501.0	7,175.3	14.9	17.1	-104.26	212.3	-1,292.7	944.7	918.1	26.60	35.512		
7,277.9	6,929.0	7,546.7	7,177.0	15.1	17.4	-104.28	258.0	-1,292.7	944.8	917.7	27.15	34.795		
7,300.0	6,929.0	7,568.9	7,177.0	15.2	17.5	-104.28	280.1	-1,292.7	944.9	917.4	27.51	34.346		
7,400.0	6,929.0	7,668.9	7,177.0	16.1	18.3	-104.27	380.1	-1,292.7	945.0	915.7	29.29	32.260		
7,500.0	6,929.0	7,768.9	7,177.0	17.0	19.1	-104.27	480.1	-1,292.7	945.2	913.9	31.34	30.162		
7,600.0	6,929.0	7,868.9	7,177.0	18.1	20.1	-104.27	580.1	-1,292.7	945.3	911.7	33.60	28.135		
7,700.0	6,929.0	7,968.9	7,177.0	19.3	21.2	-104.27	680.1	-1,292.7	945.5	909.5	36.04	26.232		
7,800.0	6,929.0	8,068.9	7,177.0	20.6	22.4	-104.26	780.1	-1,292.7	945.7	907.0	38.63	24.478		
7,900.0	6,929.0	8,168.9	7,177.0	21.9	23.7	-104.26	880.1	-1,292.7	945.8	904.5	41.34	22.879		
8,000.0	6,929.0	8,268.9	7,177.0	23.3	25.0	-104.26	980.1	-1,292.7	946.0	901.8	44.14	21.430		
8,100.0	6,929.0	8,368.9	7,177.0	24.8	26.4	-104.26	1,080.1	-1,292.6	946.1	899.1	47.02	20.120		
8,200.0	6,929.0	8,468.9	7,177.0	26.2	27.8	-104.25	1,180.1	-1,292.6	946.3	896.3	49.97	18.936		
8,300.0	6,929.0	8,568.9	7,177.0	27.7	29.2	-104.25	1,280.1	-1,292.6	946.4	893.5	52.97	17.866		
8,400.0	6,929.0	8,668.9	7,177.0	29.3	30.7	-104.25	1,380.1	-1,292.6	946.6	890.6	56.02	16.897		
8,500.0	6,929.0	8,768.9	7,177.0	30.8	32.2	-104.25	1,480.1	-1,292.6	946.7	887.6	59.11	16.017		
8,600.0	6,929.0	8,868.9	7,177.0	32.4	33.7	-104.24	1,580.1	-1,292.6	946.9	884.7	62.23	15.216		
8,700.0	6,929.0	8,968.9	7,177.0	34.0	35.3	-104.24	1,680.1	-1,292.6	947.1	881.7	65.38	14.486		
8,800.0	6,929.0	9,068.9	7,177.0	35.6	36.8	-104.24	1,780.1	-1,292.6	947.2	878.7	68.55	13.818		
8,900.0	6,929.0	9,168.9	7,177.0	37.2	38.4	-104.24	1,880.1	-1,292.6	947.4	875.6	71.74	13.205		
9,000.0	6,929.0	9,268.9	7,177.0	38.9	40.0	-104.24	1,980.1	-1,292.6	947.5	872.6	74.95	12.641		
9,100.0	6,929.0	9,368.9	7,177.0	40.5	41.6	-104.23	2,080.1	-1,292.6	947.7	869.5	78.18	12.121		
9,200.0	6,929.0	9,468.9	7,177.0	42.2	43.3	-104.23	2,180.1	-1,292.6	947.8	866.4	81.43	11.641		
9,300.0	6,929.0	9,568.9	7,177.0	43.8	44.9	-104.23	2,280.1	-1,292.6	948.0	863.3	84.68	11.195		
9,400.0	6,929.0	9,668.9	7,177.0	45.5	46.5	-104.23	2,380.1	-1,292.6	948.2	860.2	87.95	10.781		
9,500.0	6,929.0	9,768.9	7,177.0	47.2	48.2	-104.22	2,480.1	-1,292.5	948.3	857.1	91.22	10.395		
9,600.0	6,929.0	9,868.9	7,177.0	48.9	49.8	-104.22	2,580.1	-1,292.5	948.5	854.0	94.51	10.036		
9,700.0	6,929.0	9,968.9	7,177.0	50.5	51.5	-104.22	2,680.1	-1,292.5	948.6	850.8	97.80	9.699		
9,800.0	6,929.0	10,068.9	7,177.0	52.2	53.2	-104.22	2,780.1	-1,292.5	948.8	847.7	101.10	9.384		
9,900.0	6,929.0	10,168.9	7,177.0	53.9	54.8	-104.21	2,880.1	-1,292.5	948.9	844.5	104.41	9.089		
10,000.0	6,929.0	10,268.9	7,177.0	55.6	56.5	-104.21	2,980.1	-1,292.5	949.1	841.4	107.72	8.810		
10,100.0	6,929.0	10,368.9	7,177.0	57.3	58.2	-104.21	3,080.1	-1,292.5	949.2	838.2	111.04	8.548		
10,200.0	6,929.0	10,468.9	7,177.0	59.0	59.9	-104.21	3,180.1	-1,292.5	949.4	835.0	114.37	8.301		
10,300.0	6,929.0	10,568.9	7,177.0	60.7	61.6	-104.20	3,280.1	-1,292.5	949.6	831.9	117.69	8.068		
10,400.0	6,929.0	10,668.9	7,177.0	62.4	63.3	-104.20	3,380.1	-1,292.5	949.7	828.7	121.03	7.847		
10,500.0	6,929.0	10,768.9	7,177.0	64.2	65.0	-104.20	3,480.1	-1,292.5	949.9	825.5	124.36	7.638		
10,600.0	6,929.0	10,868.9	7,177.0	65.9	66.7	-104.20	3,580.1	-1,292.5	950.0	822.3	127.70	7.439		
10,700.0	6,929.0	10,968.9	7,177.0	67.6	68.4	-104.19	3,680.1	-1,292.5	950.2	819.1	131.05	7.251		
10,800.0	6,929.0	11,068.9	7,177.0	69.3	70.1	-104.19	3,780.1	-1,292.5	950.3	815.9	134.39	7.071		
10,900.0	6,929.0	11,168.9	7,177.0	71.0	71.8	-104.19	3,880.1	-1,292.4	950.5	812.7	137.74	6.900		
11,000.0	6,929.0	11,268.9	7,177.0	72.7	73.5	-104.19	3,980.1	-1,292.4	950.6	809.5	141.10	6.738		
11,100.0	6,929.0	11,368.9	7,177.0	74.5	75.2	-104.19	4,080.1	-1,292.4	950.8	806.4	144.45	6.582		
11,200.0	6,929.0	11,468.9	7,177.0	76.2	76.9	-104.18	4,180.1	-1,292.4	951.0	803.1	147.81	6.434		
11,300.0	6,929.0	11,568.9	7,177.0	77.9	78.7	-104.18	4,280.1	-1,292.4	951.1	799.9	151.17	6.292		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 3K-20H-N264 - 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						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	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
11,400.0	6,929.0	11,668.9	7,177.0	79.6	80.4	-104.18	4,380.1	-1,292.4	951.3	796.7	154.53	6.156	
11,508.6	6,929.0	11,773.8	7,177.0	81.5	82.2	-104.18	4,485.1	-1,292.4	951.4	793.3	158.12	6.017 ES, SF	



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 3L-20H-N264 - 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				
1,800.0	1,794.6	2,055.6	2,036.2	3.8	5.8	39.46	-104.2	-1,624.7	1,546.8	1,539.5	7.28	212.471				
1,900.0	1,894.2	2,153.3	2,132.7	4.0	6.2	39.46	-109.7	-1,610.3	1,525.2	1,517.6	7.67	198.744				
2,000.0	1,993.8	2,250.9	2,229.1	4.3	6.5	39.46	-115.2	-1,596.0	1,503.7	1,495.6	8.07	186.357				
2,100.0	2,093.4	2,348.6	2,325.5	4.5	6.8	39.46	-120.7	-1,581.6	1,482.2	1,473.7	8.46	175.121				
2,200.0	2,193.0	2,446.2	2,422.0	4.7	7.1	39.45	-126.2	-1,567.2	1,460.6	1,451.8	8.86	164.886				
2,300.0	2,292.6	2,543.9	2,518.4	5.0	7.4	39.45	-131.6	-1,552.8	1,439.1	1,429.9	9.25	155.522				
2,400.0	2,392.2	2,641.6	2,614.8	5.2	7.8	39.45	-137.1	-1,538.4	1,417.6	1,407.9	9.65	146.923				
2,500.0	2,491.8	2,739.2	2,711.3	5.4	8.1	39.44	-142.6	-1,524.1	1,396.1	1,386.0	10.04	139.000				
2,600.0	2,591.4	2,836.9	2,807.7	5.7	8.4	39.44	-148.1	-1,509.7	1,374.5	1,364.1	10.44	131.676				
2,700.0	2,690.9	2,934.5	2,904.1	5.9	8.7	39.44	-153.6	-1,495.3	1,353.0	1,342.2	10.83	124.885				
2,800.0	2,790.5	3,032.2	3,000.6	6.2	9.0	39.43	-159.1	-1,480.9	1,331.5	1,320.2	11.23	118.572				
2,900.0	2,890.1	3,129.8	3,097.0	6.4	9.4	39.43	-164.6	-1,466.6	1,309.9	1,298.3	11.62	112.687				
3,000.0	2,989.7	3,227.5	3,193.4	6.6	9.7	39.43	-170.0	-1,452.2	1,288.4	1,276.4	12.02	107.189				
3,100.0	3,089.3	3,325.1	3,289.9	6.9	10.0	39.42	-175.5	-1,437.8	1,266.9	1,254.5	12.42	102.041				
3,200.0	3,188.9	3,422.8	3,386.3	7.1	10.3	39.42	-181.0	-1,423.4	1,245.4	1,232.5	12.81	97.211				
3,300.0	3,288.5	3,520.5	3,482.8	7.3	10.6	39.41	-186.5	-1,409.1	1,223.8	1,210.6	13.21	92.669				
3,400.0	3,388.1	3,618.1	3,579.2	7.6	11.0	39.41	-192.0	-1,394.7	1,202.3	1,188.7	13.60	88.392				
3,500.0	3,487.7	3,715.8	3,675.6	7.8	11.3	39.40	-197.5	-1,380.3	1,180.8	1,166.8	14.00	84.356				
3,600.0	3,587.3	3,813.4	3,772.1	8.0	11.6	39.40	-202.9	-1,365.9	1,159.2	1,144.9	14.39	80.541				
3,700.0	3,686.9	3,911.1	3,868.5	8.3	11.9	39.39	-208.4	-1,351.6	1,137.7	1,122.9	14.79	76.930				
3,800.0	3,786.5	4,008.7	3,964.9	8.5	12.2	39.39	-213.9	-1,337.2	1,116.2	1,101.0	15.18	73.508				
3,900.0	3,886.1	4,106.4	4,061.4	8.7	12.6	39.38	-219.4	-1,322.8	1,094.7	1,079.1	15.58	70.259				
4,000.0	3,985.7	4,204.0	4,157.8	9.0	12.9	39.38	-224.9	-1,308.4	1,073.1	1,057.2	15.98	67.171				
4,100.0	4,085.3	4,301.7	4,254.2	9.2	13.2	39.37	-230.4	-1,294.1	1,051.6	1,035.2	16.37	64.232				
4,200.0	4,184.9	4,399.3	4,350.7	9.4	13.5	39.37	-235.9	-1,279.7	1,030.1	1,013.3	16.77	61.432				
4,300.0	4,284.4	4,497.0	4,447.1	9.7	13.8	39.36	-241.3	-1,265.3	1,008.5	991.4	17.16	58.760				
4,400.0	4,384.0	4,594.7	4,543.5	9.9	14.2	39.36	-246.8	-1,250.9	987.0	969.5	17.56	56.209				
4,500.0	4,483.6	4,692.3	4,640.0	10.1	14.5	39.35	-252.3	-1,236.6	965.5	947.5	17.96	53.771				
4,600.0	4,583.2	4,790.0	4,736.4	10.4	14.8	39.34	-257.8	-1,222.2	944.0	925.6	18.35	51.437				
4,700.0	4,682.8	4,887.6	4,832.8	10.6	15.1	39.33	-263.3	-1,207.8	922.4	903.7	18.75	49.202				
4,800.0	4,782.4	4,985.3	4,929.3	10.8	15.4	39.33	-268.8	-1,193.4	900.9	881.8	19.14	47.060				
4,900.0	4,882.0	5,082.9	5,025.7	11.1	15.8	39.32	-274.3	-1,179.1	879.4	859.8	19.54	45.004				
5,000.0	4,981.6	5,180.6	5,122.2	11.3	16.1	39.31	-279.7	-1,164.7	857.9	837.9	19.94	43.030				
5,100.0	5,081.2	5,278.2	5,218.6	11.6	16.4	39.30	-285.2	-1,150.3	836.3	816.0	20.33	41.132				
5,200.0	5,180.8	5,375.9	5,315.0	11.8	16.7	39.29	-290.7	-1,135.9	814.8	794.1	20.73	39.307				
5,300.0	5,280.4	5,473.6	5,411.5	12.0	17.0	39.28	-296.2	-1,121.6	793.3	772.1	21.13	37.551				
5,400.0	5,380.0	5,571.2	5,507.9	12.3	17.4	39.27	-301.7	-1,107.2	771.7	750.2	21.52	35.859				
5,500.0	5,479.6	5,667.8	5,593.5	12.5	17.6	39.27	-306.4	-1,094.8	750.6	728.7	21.89	34.289				
5,600.0	5,579.2	5,737.0	5,672.0	12.7	17.8	39.33	-310.0	-1,085.3	731.8	709.6	22.24	32.912				
5,700.0	5,678.8	5,816.9	5,751.5	13.0	18.0	39.46	-312.9	-1,077.8	715.5	692.9	22.57	31.701				
5,763.5	5,742.0	5,867.9	5,802.4	13.1	18.1	39.58	-314.3	-1,074.1	706.5	683.7	22.78	31.017				
5,800.0	5,778.4	5,900.0	5,834.4	13.2	18.2	39.60	-315.0	-1,072.2	702.0	679.1	22.92	30.629				
5,900.0	5,878.2	5,978.6	5,912.9	13.4	18.3	39.63	-316.3	-1,068.9	693.2	669.9	23.26	29.808				
6,000.0	5,978.1	6,065.7	6,000.0	13.5	18.4	39.66	-316.8	-1,067.7	689.8	666.2	23.57	29.264				
6,016.9	5,995.0	6,075.7	6,010.0	13.5	18.4	39.66	-316.8	-1,067.7	689.7	666.1	23.62	29.206				
6,021.9	6,000.0	6,080.7	6,015.0	13.5	18.4	-90.15	-316.8	-1,067.7	689.7	666.1	23.64	29.179				
6,100.0	6,078.1	6,158.9	6,093.1	13.7	18.5	-90.15	-316.8	-1,067.7	689.7	665.8	23.88	28.882				
6,200.0	6,178.1	6,258.9	6,193.1	13.8	18.6	-90.15	-316.8	-1,067.7	689.7	665.5	24.19	28.510				
6,300.0	6,278.1	6,358.9	6,293.1	13.9	18.7	-90.15	-316.8	-1,067.7	689.7	665.2	24.50	28.146				
6,377.9	6,356.0	6,436.8	6,371.0	14.0	18.7	-90.15	-316.8	-1,067.7	689.7	664.9	24.75	27.868 CC				
6,400.0	6,378.1	6,458.9	6,393.2	14.1	18.8	-90.26	-316.5	-1,067.7	689.7	664.9	24.80	27.811				
6,450.0	6,428.0	6,509.1	6,443.2	14.1	18.8	-90.30	-312.9	-1,067.7	689.7	664.8	24.87	27.733				

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 3L-20H-N264 - 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)				
6,500.0	6,477.2	6,559.4	6,492.8	14.1	18.8	-90.34	-304.9	-1,067.7	689.7	664.8	24.88	27.723		
6,550.0	6,525.6	6,609.6	6,541.6	14.1	18.8	-90.38	-292.6	-1,067.7	689.7	664.9	24.84	27.771		
6,600.0	6,572.6	6,660.0	6,589.1	14.0	18.8	-90.41	-276.1	-1,067.7	689.8	665.0	24.75	27.867		
6,650.0	6,618.0	6,710.3	6,635.0	14.0	18.7	-90.44	-255.4	-1,067.7	689.8	665.2	24.64	27.997		
6,700.0	6,661.4	6,760.7	6,678.9	13.9	18.7	-90.47	-230.8	-1,067.7	689.8	665.3	24.51	28.145		
6,750.0	6,702.5	6,811.1	6,720.6	13.8	18.6	-90.49	-202.3	-1,067.7	689.9	665.5	24.38	28.292		
6,800.0	6,741.0	6,861.6	6,759.6	13.8	18.6	-90.51	-170.4	-1,067.7	689.9	665.7	24.28	28.416		
6,850.0	6,776.5	6,912.1	6,795.6	13.8	18.6	-90.53	-135.0	-1,067.7	690.0	665.8	24.22	28.494		
6,900.0	6,808.8	6,962.6	6,828.4	13.8	18.6	-90.54	-96.7	-1,067.7	690.1	665.9	24.21	28.503		
6,950.0	6,837.7	7,013.1	6,857.8	13.8	18.6	-90.55	-55.5	-1,067.7	690.1	665.9	24.28	28.423		
7,000.0	6,862.9	7,063.7	6,883.4	13.8	18.7	-90.55	-12.0	-1,067.7	690.2	665.8	24.45	28.235		
7,050.0	6,884.3	7,114.2	6,905.0	14.0	18.7	-90.55	33.7	-1,067.7	690.3	665.6	24.71	27.932		
7,100.0	6,901.6	7,164.8	6,922.6	14.1	18.9	-90.55	81.0	-1,067.7	690.4	665.3	25.09	27.513		
7,150.0	6,914.8	7,215.3	6,935.9	14.3	19.0	-90.54	129.8	-1,067.7	690.4	664.8	25.59	26.985		
7,200.0	6,923.7	7,265.9	6,944.8	14.6	19.2	-90.53	179.5	-1,067.7	690.5	664.3	26.19	26.364		
7,250.0	6,928.3	7,316.4	6,949.4	14.9	19.5	-90.51	229.8	-1,067.6	690.6	663.7	26.90	25.672		
7,277.9	6,929.0	7,344.6	6,950.0	15.1	19.6	-90.50	258.0	-1,067.6	690.6	663.3	27.34	25.264		
7,300.0	6,929.0	7,366.7	6,950.0	15.2	19.8	-90.50	280.1	-1,067.6	690.7	663.0	27.71	24.927		
7,400.0	6,929.0	7,466.7	6,950.0	16.1	20.4	-90.50	380.1	-1,067.6	690.8	661.3	29.57	23.366		
7,500.0	6,929.0	7,566.7	6,950.0	17.0	21.2	-90.50	480.1	-1,067.6	691.0	659.3	31.69	21.802		
7,600.0	6,929.0	7,666.7	6,950.0	18.1	22.1	-90.50	580.1	-1,067.6	691.1	657.1	34.05	20.298		
7,700.0	6,929.0	7,766.7	6,950.0	19.3	23.1	-90.50	680.1	-1,067.6	691.3	654.7	36.59	18.892		
7,800.0	6,929.0	7,866.7	6,950.0	20.6	24.2	-90.50	780.1	-1,067.6	691.5	652.2	39.28	17.602		
7,900.0	6,929.0	7,966.7	6,950.0	21.9	25.3	-90.50	880.1	-1,067.6	691.6	649.5	42.10	16.430		
8,000.0	6,929.0	8,066.7	6,950.0	23.3	26.6	-90.50	980.1	-1,067.6	691.8	646.8	45.01	15.371		
8,100.0	6,929.0	8,166.7	6,950.0	24.8	27.9	-90.50	1,080.1	-1,067.6	691.9	643.9	48.00	14.416		
8,200.0	6,929.0	8,266.7	6,950.0	26.2	29.2	-90.50	1,180.1	-1,067.6	692.1	641.1	51.05	13.557		
8,300.0	6,929.0	8,366.7	6,950.0	27.7	30.6	-90.50	1,280.1	-1,067.6	692.3	638.1	54.16	12.781		
8,400.0	6,929.0	8,466.7	6,950.0	29.3	32.0	-90.50	1,380.1	-1,067.6	692.4	635.1	57.32	12.080		
8,500.0	6,929.0	8,566.7	6,950.0	30.8	33.4	-90.50	1,480.1	-1,067.5	692.6	632.1	60.52	11.445		
8,600.0	6,929.0	8,666.7	6,950.0	32.4	34.9	-90.50	1,580.1	-1,067.5	692.7	629.0	63.75	10.867		
8,700.0	6,929.0	8,766.7	6,950.0	34.0	36.4	-90.50	1,680.1	-1,067.5	692.9	625.9	67.00	10.342		
8,800.0	6,929.0	8,866.7	6,950.0	35.6	37.9	-90.50	1,780.1	-1,067.5	693.1	622.8	70.28	9.861		
8,900.0	6,929.0	8,966.7	6,950.0	37.2	39.5	-90.50	1,880.1	-1,067.5	693.2	619.6	73.58	9.421		
9,000.0	6,929.0	9,066.7	6,950.0	38.9	41.0	-90.50	1,980.1	-1,067.5	693.4	616.5	76.90	9.016		
9,100.0	6,929.0	9,166.7	6,950.0	40.5	42.6	-90.50	2,080.1	-1,067.5	693.5	613.3	80.24	8.643		
9,200.0	6,929.0	9,266.7	6,950.0	42.2	44.2	-90.50	2,180.1	-1,067.5	693.7	610.1	83.59	8.299		
9,300.0	6,929.0	9,366.7	6,950.0	43.8	45.8	-90.50	2,280.1	-1,067.5	693.9	606.9	86.95	7.980		
9,400.0	6,929.0	9,466.7	6,950.0	45.5	47.4	-90.50	2,380.1	-1,067.5	694.0	603.7	90.33	7.683		
9,500.0	6,929.0	9,566.7	6,950.0	47.2	49.0	-90.50	2,480.1	-1,067.5	694.2	600.5	93.71	7.408		
9,600.0	6,929.0	9,666.7	6,950.0	48.9	50.6	-90.50	2,580.1	-1,067.5	694.3	597.2	97.10	7.151		
9,700.0	6,929.0	9,766.7	6,950.0	50.5	52.3	-90.49	2,680.1	-1,067.5	694.5	594.0	100.50	6.910		
9,800.0	6,929.0	9,866.7	6,950.0	52.2	53.9	-90.49	2,780.1	-1,067.4	694.7	590.8	103.91	6.685		
9,900.0	6,929.0	9,966.7	6,950.0	53.9	55.6	-90.49	2,880.1	-1,067.4	694.8	587.5	107.32	6.474		
10,000.0	6,929.0	10,066.7	6,950.0	55.6	57.2	-90.49	2,980.1	-1,067.4	695.0	584.2	110.74	6.276		
10,100.0	6,929.0	10,166.7	6,950.0	57.3	58.9	-90.49	3,080.1	-1,067.4	695.1	581.0	114.17	6.089		
10,200.0	6,929.0	10,266.7	6,950.0	59.0	60.5	-90.49	3,180.1	-1,067.4	695.3	577.7	117.60	5.912		
10,300.0	6,929.0	10,366.7	6,950.0	60.7	62.2	-90.49	3,280.1	-1,067.4	695.5	574.4	121.03	5.746		
10,400.0	6,929.0	10,466.7	6,950.0	62.4	63.9	-90.49	3,380.1	-1,067.4	695.6	571.2	124.47	5.589		
10,500.0	6,929.0	10,566.7	6,950.0	64.2	65.6	-90.49	3,480.1	-1,067.4	695.8	567.9	127.92	5.439		
10,600.0	6,929.0	10,666.7	6,950.0	65.9	67.3	-90.49	3,580.1	-1,067.4	695.9	564.6	131.36	5.298		
10,700.0	6,929.0	10,766.7	6,950.0	67.6	69.0	-90.49	3,680.1	-1,067.4	696.1	561.3	134.81	5.164		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 3L-20H-N264 - 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		
10,800.0	6,929.0	10,866.7	6,950.0	69.3	70.6	-90.49	3,780.1	-1,067.4	696.3	558.0	138.26	5.036		
10,900.0	6,929.0	10,966.7	6,950.0	71.0	72.3	-90.49	3,880.1	-1,067.4	696.4	554.7	141.72	4.914		
11,000.0	6,929.0	11,066.7	6,950.0	72.7	74.0	-90.49	3,980.1	-1,067.4	696.6	551.4	145.17	4.798		
11,100.0	6,929.0	11,166.7	6,950.0	74.5	75.7	-90.49	4,080.1	-1,067.3	696.7	548.1	148.63	4.688		
11,200.0	6,929.0	11,266.7	6,950.0	76.2	77.4	-90.49	4,180.1	-1,067.3	696.9	544.8	152.10	4.582		
11,300.0	6,929.0	11,366.7	6,950.0	77.9	79.1	-90.49	4,280.1	-1,067.3	697.1	541.5	155.56	4.481		
11,400.0	6,929.0	11,466.7	6,950.0	79.6	80.8	-90.49	4,380.1	-1,067.3	697.2	538.2	159.03	4.384		
11,508.6	6,929.0	11,572.7	6,950.0	81.5	82.7	-90.49	4,486.1	-1,067.3	697.4	534.7	162.75	4.285 ES, SF		



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4A-20H-O264 - 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	-90.10	0.0	-15.1	15.1					
100.0	100.0	101.0	101.0	0.1	0.1	-90.10	0.0	-15.1	15.1	14.9	0.25	61.368		
166.3	166.3	167.3	167.3	0.2	0.2	-90.10	0.0	-15.1	15.1	14.6	0.48	31.619 CC		
200.0	200.0	201.0	201.0	0.3	0.3	-90.10	0.0	-15.1	15.1	14.5	0.60	25.375 ES		
300.0	300.0	300.5	300.4	0.5	0.5	-92.28	-0.7	-16.7	16.8	15.8	0.94	17.752		
400.0	400.0	400.0	399.8	0.6	0.7	35.66	-2.6	-21.6	20.3	19.0	1.29	15.714		
500.0	499.8	499.0	498.4	0.8	0.9	36.72	-5.7	-29.6	24.4	22.8	1.65	14.761		
558.3	558.0	556.8	555.8	1.0	1.1	38.14	-8.1	-35.8	27.0	25.1	1.87	14.429		
600.0	599.5	598.0	596.7	1.1	1.2	39.04	-10.1	-40.8	29.2	27.2	2.03	14.389		
700.0	699.1	697.1	694.6	1.3	1.5	39.44	-15.6	-54.9	36.6	34.2	2.42	15.136		
800.0	798.7	796.7	793.0	1.5	1.8	39.38	-21.4	-69.8	44.6	41.8	2.81	15.879		
900.0	898.3	896.4	891.4	1.7	2.1	39.34	-27.2	-84.6	52.6	49.4	3.20	16.427		
1,000.0	997.9	996.1	989.8	2.0	2.4	39.32	-33.0	-99.4	60.6	57.0	3.60	16.847		
1,100.0	1,097.4	1,095.8	1,088.2	2.2	2.7	39.30	-38.8	-114.3	68.6	64.6	4.00	17.179		
1,200.0	1,197.0	1,195.5	1,186.6	2.4	3.1	39.28	-44.6	-129.1	76.6	72.2	4.39	17.447		
1,300.0	1,296.6	1,295.1	1,285.0	2.6	3.4	39.27	-50.4	-144.0	84.6	79.9	4.79	17.668		
1,400.0	1,396.2	1,394.8	1,383.4	2.9	3.7	39.26	-56.2	-158.8	92.7	87.5	5.19	17.854		
1,500.0	1,495.8	1,494.5	1,481.8	3.1	4.0	39.25	-62.1	-173.6	100.7	95.1	5.59	18.011		
1,600.0	1,595.4	1,594.2	1,580.2	3.3	4.4	39.24	-67.9	-188.5	108.7	102.7	5.99	18.147		
1,700.0	1,695.0	1,693.9	1,678.6	3.6	4.7	39.23	-73.7	-203.3	116.7	110.3	6.39	18.265		
1,800.0	1,794.6	1,793.5	1,777.0	3.8	5.0	39.23	-79.5	-218.1	124.7	117.9	6.79	18.368		
1,900.0	1,894.2	1,893.2	1,875.4	4.0	5.4	39.22	-85.3	-233.0	132.7	125.5	7.19	18.460		
2,000.0	1,993.8	1,992.9	1,973.8	4.3	5.7	39.22	-91.1	-247.8	140.7	133.1	7.59	18.541		
2,100.0	2,093.4	2,092.6	2,072.2	4.5	6.0	39.21	-96.9	-262.6	148.7	140.7	7.99	18.614		
2,200.0	2,193.0	2,192.3	2,170.6	4.7	6.3	39.21	-102.7	-277.5	156.7	148.3	8.39	18.680		
2,300.0	2,292.6	2,291.9	2,269.0	5.0	6.7	39.20	-108.5	-292.3	164.7	155.9	8.79	18.740		
2,400.0	2,392.2	2,391.6	2,367.4	5.2	7.0	39.20	-114.3	-307.1	172.7	163.5	9.19	18.794		
2,500.0	2,491.8	2,491.3	2,465.8	5.4	7.3	39.20	-120.1	-322.0	180.7	171.1	9.59	18.843		
2,600.0	2,591.4	2,591.0	2,564.2	5.7	7.7	39.20	-125.9	-336.8	188.7	178.7	9.99	18.889		
2,700.0	2,690.9	2,690.6	2,662.6	5.9	8.0	39.19	-131.7	-351.6	196.7	186.4	10.39	18.931		
2,800.0	2,790.5	2,790.3	2,761.0	6.2	8.3	39.19	-137.5	-366.5	204.8	194.0	10.79	18.969		
2,900.0	2,890.1	2,890.0	2,859.4	6.4	8.7	39.19	-143.3	-381.3	212.8	201.6	11.19	19.005		
3,000.0	2,989.7	2,989.7	2,957.8	6.6	9.0	39.19	-149.1	-396.2	220.8	209.2	11.60	19.038		
3,100.0	3,089.3	3,089.4	3,056.2	6.9	9.3	39.19	-154.9	-411.0	228.8	216.8	12.00	19.069		
3,200.0	3,188.9	3,189.0	3,154.6	7.1	9.6	39.18	-160.7	-425.8	236.8	224.4	12.40	19.098		
3,300.0	3,288.5	3,288.7	3,253.0	7.3	10.0	39.18	-166.5	-440.7	244.8	232.0	12.80	19.125		
3,400.0	3,388.1	3,388.4	3,351.4	7.6	10.3	39.18	-172.4	-455.5	252.8	239.6	13.20	19.151		
3,500.0	3,487.7	3,488.1	3,449.8	7.8	10.6	39.18	-178.2	-470.3	260.8	247.2	13.60	19.175		
3,600.0	3,587.3	3,587.8	3,548.1	8.0	11.0	39.18	-184.0	-485.2	268.8	254.8	14.00	19.197		
3,700.0	3,686.9	3,687.4	3,646.5	8.3	11.3	39.18	-189.8	-500.0	276.8	262.4	14.40	19.218		
3,800.0	3,786.5	3,787.1	3,744.9	8.5	11.6	39.18	-195.6	-514.8	284.8	270.0	14.81	19.238		
3,900.0	3,886.1	3,886.8	3,843.3	8.7	12.0	39.18	-201.4	-529.7	292.8	277.6	15.21	19.257		
4,000.0	3,985.7	3,986.5	3,941.7	9.0	12.3	39.17	-207.2	-544.5	300.8	285.2	15.61	19.275		
4,100.0	4,085.3	4,086.2	4,040.1	9.2	12.6	39.17	-213.0	-559.3	308.8	292.8	16.01	19.292		
4,200.0	4,184.9	4,185.8	4,138.5	9.4	12.9	39.17	-218.8	-574.2	316.9	300.4	16.41	19.308		
4,300.0	4,284.4	4,285.5	4,236.9	9.7	13.3	39.17	-224.6	-589.0	324.9	308.0	16.81	19.324		
4,400.0	4,384.0	4,385.2	4,335.3	9.9	13.6	39.17	-230.4	-603.9	332.9	315.7	17.21	19.338		
4,500.0	4,483.6	4,484.9	4,433.7	10.1	13.9	39.17	-236.2	-618.7	340.9	323.3	17.61	19.352		
4,600.0	4,583.2	4,584.5	4,532.1	10.4	14.3	39.17	-242.0	-633.5	348.9	330.9	18.02	19.366		
4,700.0	4,682.8	4,684.2	4,630.5	10.6	14.6	39.17	-247.8	-648.4	356.9	338.5	18.42	19.378		
4,800.0	4,782.4	4,783.9	4,728.9	10.8	14.9	39.17	-253.6	-663.2	364.9	346.1	18.82	19.391		
4,900.0	4,882.0	4,883.6	4,827.3	11.1	15.3	39.17	-259.4	-678.0	372.9	353.7	19.22	19.402		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4A-20H-O264 - 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			
5,000.0	4,981.6	4,983.3	4,925.7	11.3	15.6	39.17	-265.2	-692.9	380.9	361.3	19.62	19.413			
5,100.0	5,081.2	5,082.9	5,024.1	11.6	15.9	39.17	-271.0	-707.7	388.9	368.9	20.02	19.424			
5,200.0	5,180.8	5,182.6	5,122.5	11.8	16.2	39.17	-276.8	-722.5	396.9	376.5	20.42	19.434			
5,300.0	5,280.4	5,282.3	5,220.9	12.0	16.6	39.17	-282.7	-737.4	404.9	384.1	20.83	19.444			
5,400.0	5,380.0	5,382.0	5,319.3	12.3	16.9	39.16	-288.5	-752.2	412.9	391.7	21.23	19.454			
5,500.0	5,479.6	5,481.7	5,417.7	12.5	17.2	39.16	-294.3	-767.0	420.9	399.3	21.63	19.463			
5,600.0	5,579.2	5,581.3	5,516.1	12.7	17.6	39.16	-300.1	-781.9	429.0	406.9	22.03	19.472			
5,700.0	5,678.8	5,693.2	5,626.7	13.0	17.9	39.22	-306.1	-797.4	435.9	413.5	22.46	19.412			
5,763.5	5,742.0	5,767.2	5,700.2	13.1	18.1	39.37	-309.3	-805.5	438.5	415.7	22.74	19.279			
5,800.0	5,778.4	5,809.7	5,742.5	13.2	18.2	39.48	-310.8	-809.3	439.5	416.5	22.90	19.186			
5,900.0	5,878.2	5,926.4	5,858.9	13.4	18.4	39.71	-313.8	-816.9	441.3	418.0	23.29	18.945			
6,000.0	5,978.1	6,043.2	5,975.6	13.5	18.5	39.80	-315.0	-820.0	442.1	418.5	23.63	18.712			
6,021.9	6,000.0	6,068.5	6,001.0	13.5	18.5	-90.00	-315.0	-820.1	442.1	418.4	23.68	18.673			
6,100.0	6,078.1	6,146.7	6,079.1	13.7	18.6	-90.00	-315.0	-820.1	442.1	418.2	23.92	18.484			
6,200.0	6,178.1	6,246.7	6,179.1	13.8	18.7	-90.00	-315.0	-820.1	442.1	417.9	24.23	18.247			
6,300.0	6,278.1	6,346.7	6,279.1	13.9	18.8	-90.00	-315.0	-820.1	442.1	417.6	24.54	18.015			
6,377.9	6,356.0	6,424.6	6,357.0	14.0	18.9	-90.00	-315.0	-820.1	442.1	417.3	24.78	17.838			
6,400.0	6,378.1	6,446.7	6,379.1	14.1	18.9	-90.15	-315.0	-820.1	442.1	417.2	24.85	17.788			
6,450.0	6,428.0	6,496.5	6,429.0	14.1	19.0	-90.68	-315.0	-820.1	442.1	417.3	24.88	17.772			
6,500.0	6,477.2	6,546.4	6,478.9	14.1	19.0	-91.66	-314.2	-820.1	442.3	417.5	24.79	17.839			
6,550.0	6,525.6	6,597.2	6,529.4	14.1	19.0	-92.68	-309.4	-820.1	442.6	418.0	24.66	17.951			
6,600.0	6,572.6	6,648.8	6,580.1	14.0	19.0	-93.68	-299.8	-820.1	443.1	418.6	24.49	18.090			
6,650.0	6,618.0	6,701.1	6,630.4	14.0	19.0	-94.66	-285.6	-820.1	443.7	419.3	24.32	18.243			
6,700.0	6,661.4	6,754.2	6,679.9	13.9	19.0	-95.61	-266.5	-820.1	444.4	420.2	24.15	18.399			
6,750.0	6,702.5	6,808.1	6,728.1	13.8	18.9	-96.53	-242.5	-820.1	445.2	421.2	24.01	18.545			
6,800.0	6,741.0	6,862.8	6,774.5	13.8	18.9	-97.39	-213.6	-820.1	446.0	422.2	23.90	18.666			
6,850.0	6,776.5	6,918.2	6,818.6	13.8	18.8	-98.20	-179.9	-820.1	447.0	423.1	23.84	18.749			
6,900.0	6,808.8	6,974.4	6,859.7	13.8	18.8	-98.94	-141.6	-820.1	447.9	424.1	23.85	18.782			
6,950.0	6,837.7	7,031.3	6,897.3	13.8	18.8	-99.61	-99.0	-820.1	448.8	424.9	23.93	18.756			
7,000.0	6,862.9	7,088.8	6,930.8	13.8	18.8	-100.19	-52.2	-820.1	449.7	425.6	24.10	18.662			
7,050.0	6,884.3	7,147.0	6,959.7	14.0	18.9	-100.70	-1.8	-820.1	450.5	426.2	24.35	18.503			
7,100.0	6,901.6	7,205.6	6,983.6	14.1	19.0	-101.10	51.7	-820.1	451.2	426.5	24.70	18.265			
7,150.0	6,914.8	7,264.6	7,002.0	14.3	19.1	-101.41	107.7	-820.1	451.8	426.6	25.16	17.959			
7,200.0	6,923.7	7,323.9	7,014.5	14.6	19.3	-101.62	165.6	-820.1	452.2	426.5	25.70	17.594			
7,250.0	6,928.3	7,383.4	7,021.0	14.9	19.6	-101.72	224.8	-820.1	452.4	426.1	26.33	17.181			
7,277.9	6,929.0	7,416.6	7,022.0	15.1	19.8	-101.73	258.0	-820.1	452.5	425.8	26.72	16.935			
7,300.0	6,929.0	7,438.7	7,022.0	15.2	19.9	-101.73	280.1	-820.1	452.6	425.5	27.09	16.708			
7,400.0	6,929.0	7,538.7	7,022.0	16.1	20.5	-101.73	380.1	-820.1	452.7	423.8	28.89	15.672			
7,500.0	6,929.0	7,638.7	7,022.0	17.0	21.3	-101.72	480.1	-820.1	452.9	421.9	30.96	14.629			
7,600.0	6,929.0	7,738.7	7,022.0	18.1	22.2	-101.72	580.1	-820.1	453.0	419.8	33.26	13.623			
7,700.0	6,929.0	7,838.7	7,022.0	19.3	23.1	-101.71	680.1	-820.1	453.2	417.5	35.74	12.682			
7,800.0	6,929.0	7,938.7	7,022.0	20.6	24.2	-101.71	780.1	-820.1	453.4	415.0	38.37	11.817			
7,900.0	6,929.0	8,038.7	7,022.0	21.9	25.4	-101.70	880.1	-820.1	453.5	412.4	41.12	11.031			
8,000.0	6,929.0	8,138.7	7,022.0	23.3	26.6	-101.70	980.1	-820.1	453.7	409.7	43.96	10.320			
8,100.0	6,929.0	8,238.7	7,022.0	24.8	27.8	-101.69	1,080.1	-820.1	453.9	407.0	46.89	9.680			
8,200.0	6,929.0	8,338.7	7,022.0	26.2	29.2	-101.69	1,180.1	-820.1	454.0	404.2	49.88	9.103			
8,300.0	6,929.0	8,438.7	7,022.0	27.7	30.5	-101.69	1,280.1	-820.1	454.2	401.3	52.92	8.582			
8,400.0	6,929.0	8,538.7	7,022.0	29.3	31.9	-101.68	1,380.1	-820.1	454.4	398.4	56.01	8.112			
8,500.0	6,929.0	8,638.7	7,022.0	30.8	33.4	-101.68	1,480.1	-820.1	454.5	395.4	59.14	7.685			
8,600.0	6,929.0	8,738.7	7,022.0	32.4	34.8	-101.67	1,580.1	-820.1	454.7	392.4	62.30	7.298			
8,700.0	6,929.0	8,838.7	7,022.0	34.0	36.3	-101.67	1,680.1	-820.1	454.9	389.4	65.49	6.945			
8,800.0	6,929.0	8,938.7	7,022.0	35.6	37.8	-101.66	1,780.1	-820.1	455.0	386.3	68.71	6.623			

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4A-20H-O264 - 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		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
8,900.0	6,929.0	9,038.7	7,022.0	37.2	39.4	-101.66	1,880.1	-820.1	455.2	383.3	71.94	6.327		
9,000.0	6,929.0	9,138.7	7,022.0	38.9	40.9	-101.66	1,980.1	-820.1	455.4	380.2	75.19	6.056		
9,100.0	6,929.0	9,238.7	7,022.0	40.5	42.5	-101.65	2,080.1	-820.1	455.5	377.1	78.46	5.806		
9,200.0	6,929.0	9,338.7	7,022.0	42.2	44.1	-101.65	2,180.1	-820.1	455.7	373.9	81.74	5.575		
9,300.0	6,929.0	9,438.7	7,022.0	43.8	45.7	-101.64	2,280.1	-820.1	455.9	370.8	85.04	5.360		
9,400.0	6,929.0	9,538.7	7,022.0	45.5	47.3	-101.64	2,380.1	-820.1	456.0	367.7	88.35	5.162		
9,500.0	6,929.0	9,638.7	7,022.0	47.2	48.9	-101.63	2,480.1	-820.1	456.2	364.5	91.66	4.977		
9,600.0	6,929.0	9,738.7	7,022.0	48.9	50.5	-101.63	2,580.1	-820.1	456.3	361.4	94.99	4.804		
9,700.0	6,929.0	9,838.7	7,022.0	50.5	52.1	-101.63	2,680.1	-820.1	456.5	358.2	98.32	4.643		
9,800.0	6,929.0	9,938.7	7,022.0	52.2	53.8	-101.62	2,780.1	-820.1	456.7	355.0	101.66	4.492		
9,900.0	6,929.0	10,038.7	7,022.0	53.9	55.4	-101.62	2,880.1	-820.1	456.8	351.8	105.00	4.351		
10,000.0	6,929.0	10,138.7	7,022.0	55.6	57.1	-101.61	2,980.1	-820.1	457.0	348.7	108.35	4.218		
10,100.0	6,929.0	10,238.7	7,022.0	57.3	58.7	-101.61	3,080.1	-820.1	457.2	345.5	111.71	4.092		
10,200.0	6,929.0	10,338.7	7,022.0	59.0	60.4	-101.61	3,180.1	-820.1	457.3	342.3	115.07	3.974		
10,300.0	6,929.0	10,438.7	7,022.0	60.7	62.1	-101.60	3,280.1	-820.1	457.5	339.1	118.44	3.863		
10,400.0	6,929.0	10,538.7	7,022.0	62.4	63.8	-101.60	3,380.1	-820.1	457.7	335.9	121.81	3.757		
10,500.0	6,929.0	10,638.7	7,022.0	64.2	65.4	-101.59	3,480.1	-820.1	457.8	332.6	125.19	3.657		
10,600.0	6,929.0	10,738.7	7,022.0	65.9	67.1	-101.59	3,580.1	-820.1	458.0	329.4	128.56	3.562		
10,700.0	6,929.0	10,838.7	7,022.0	67.6	68.8	-101.58	3,680.1	-820.1	458.2	326.2	131.95	3.472		
10,800.0	6,929.0	10,938.7	7,022.0	69.3	70.5	-101.58	3,780.1	-820.1	458.3	323.0	135.33	3.387		
10,900.0	6,929.0	11,038.7	7,022.0	71.0	72.2	-101.58	3,880.1	-820.1	458.5	319.8	138.72	3.305		
11,000.0	6,929.0	11,138.7	7,022.0	72.7	73.9	-101.57	3,980.1	-820.1	458.7	316.5	142.11	3.228		
11,100.0	6,929.0	11,238.7	7,022.0	74.5	75.6	-101.57	4,080.1	-820.1	458.8	313.3	145.50	3.153		
11,200.0	6,929.0	11,338.7	7,022.0	76.2	77.3	-101.56	4,180.1	-820.1	459.0	310.1	148.89	3.083		
11,300.0	6,929.0	11,438.7	7,022.0	77.9	79.0	-101.56	4,280.1	-820.1	459.1	306.9	152.29	3.015		
11,400.0	6,929.0	11,538.7	7,022.0	79.6	80.7	-101.55	4,380.1	-820.1	459.3	303.6	155.69	2.950		
11,508.6	6,929.0	11,645.9	7,022.0	81.5	82.5	-101.55	4,487.2	-820.1	459.5	300.1	159.36	2.883 SF		



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4B-20H-O264 - 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		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	1.0	1.0	0.0	0.0	-90.10	0.0	-7.6	7.6					
100.0	100.0	101.0	101.0	0.1	0.1	-90.10	0.0	-7.6	7.6	7.3	0.25	30.684		
200.0	200.0	201.0	201.0	0.3	0.3	-90.10	0.0	-7.6	7.6	7.0	0.60	12.688		
232.4	232.4	233.4	233.4	0.4	0.4	-90.10	0.0	-7.6	7.6	6.8	0.71	10.659 CC, ES		
300.0	300.0	300.9	300.9	0.5	0.5	-91.63	-0.2	-7.9	8.0	7.0	0.94	8.425		
400.0	400.0	400.6	400.5	0.6	0.7	35.26	-1.9	-11.0	9.7	8.4	1.29	7.522		
500.0	499.8	500.2	499.9	0.8	0.9	36.27	-5.2	-17.2	11.9	10.2	1.65	7.177		
558.3	558.0	558.3	557.7	1.0	1.0	37.91	-7.8	-22.2	13.3	11.4	1.87	7.087		
600.0	599.5	599.8	598.9	1.1	1.1	38.64	-10.1	-26.3	14.6	12.6	2.03	7.183		
700.0	699.1	699.7	698.1	1.3	1.4	38.76	-15.9	-37.1	18.5	16.1	2.42	7.647		
800.0	798.7	799.6	797.2	1.5	1.6	38.85	-21.7	-47.9	22.4	19.6	2.81	7.971		
900.0	898.3	899.5	896.4	1.7	1.9	38.90	-27.5	-58.7	26.3	23.1	3.20	8.208		
1,000.0	997.9	999.5	995.6	2.0	2.2	38.95	-33.2	-69.5	30.2	26.6	3.60	8.390		
1,100.0	1,097.4	1,099.4	1,094.7	2.2	2.4	38.98	-39.0	-80.3	34.1	30.1	4.00	8.532		
1,200.0	1,197.0	1,199.3	1,193.9	2.4	2.7	39.01	-44.8	-91.1	38.0	33.6	4.39	8.647		
1,300.0	1,296.6	1,299.2	1,293.1	2.6	3.0	39.03	-50.6	-101.9	41.9	37.1	4.79	8.741		
1,400.0	1,396.2	1,399.1	1,392.3	2.9	3.2	39.04	-56.4	-112.7	45.8	40.6	5.19	8.821		
1,500.0	1,495.8	1,499.1	1,491.4	3.1	3.5	39.06	-62.2	-123.5	49.7	44.1	5.59	8.888		
1,600.0	1,595.4	1,599.0	1,590.6	3.3	3.8	39.07	-68.0	-134.3	53.6	47.6	5.99	8.945		
1,700.0	1,695.0	1,698.9	1,689.8	3.6	4.1	39.08	-73.8	-145.1	57.5	51.1	6.39	8.995		
1,800.0	1,794.6	1,798.8	1,788.9	3.8	4.3	39.09	-79.5	-155.9	61.4	54.6	6.79	9.039		
1,900.0	1,894.2	1,898.8	1,888.1	4.0	4.6	39.10	-85.3	-166.7	65.3	58.1	7.19	9.078		
2,000.0	1,993.8	1,998.7	1,987.3	4.3	4.9	39.11	-91.1	-177.5	69.2	61.6	7.59	9.112		
2,100.0	2,093.4	2,098.6	2,086.4	4.5	5.2	39.12	-96.9	-188.3	73.1	65.1	7.99	9.143		
2,200.0	2,193.0	2,198.5	2,185.6	4.7	5.4	39.12	-102.7	-199.1	77.0	68.6	8.40	9.170		
2,300.0	2,292.6	2,298.5	2,284.8	5.0	5.7	39.13	-108.5	-209.8	80.9	72.1	8.80	9.195		
2,400.0	2,392.2	2,398.4	2,384.0	5.2	6.0	39.13	-114.3	-220.6	84.8	75.6	9.20	9.218		
2,500.0	2,491.8	2,498.3	2,483.1	5.4	6.3	39.14	-120.1	-231.4	88.7	79.1	9.60	9.239		
2,600.0	2,591.4	2,598.2	2,582.3	5.7	6.5	39.14	-125.8	-242.2	92.6	82.6	10.00	9.258		
2,700.0	2,690.9	2,698.2	2,681.5	5.9	6.8	39.14	-131.6	-253.0	96.5	86.1	10.40	9.276		
2,800.0	2,790.5	2,798.1	2,780.6	6.2	7.1	39.15	-137.4	-263.8	100.4	89.6	10.80	9.292		
2,900.0	2,890.1	2,898.0	2,879.8	6.4	7.4	39.15	-143.2	-274.6	104.3	93.1	11.21	9.307		
3,000.0	2,989.7	2,997.9	2,979.0	6.6	7.7	39.15	-149.0	-285.4	108.2	96.6	11.61	9.321		
3,100.0	3,089.3	3,097.9	3,078.1	6.9	7.9	39.16	-154.8	-296.2	112.1	100.1	12.01	9.334		
3,200.0	3,188.9	3,197.8	3,177.3	7.1	8.2	39.16	-160.6	-307.0	116.0	103.6	12.41	9.346		
3,300.0	3,288.5	3,297.7	3,276.5	7.3	8.5	39.16	-166.4	-317.8	119.9	107.1	12.81	9.357		
3,400.0	3,388.1	3,397.6	3,375.7	7.6	8.8	39.16	-172.1	-328.6	123.8	110.6	13.21	9.368		
3,500.0	3,487.7	3,497.5	3,474.8	7.8	9.0	39.17	-177.9	-339.4	127.7	114.1	13.62	9.378		
3,600.0	3,587.3	3,597.5	3,574.0	8.0	9.3	39.17	-183.7	-350.2	131.6	117.6	14.02	9.387		
3,700.0	3,686.9	3,697.4	3,673.2	8.3	9.6	39.17	-189.5	-361.0	135.5	121.1	14.42	9.396		
3,800.0	3,786.5	3,797.3	3,772.3	8.5	9.9	39.17	-195.3	-371.8	139.4	124.6	14.82	9.404		
3,900.0	3,886.1	3,897.2	3,871.5	8.7	10.1	39.17	-201.1	-382.6	143.3	128.1	15.22	9.412		
4,000.0	3,985.7	3,997.2	3,970.7	9.0	10.4	39.18	-206.9	-393.4	147.2	131.5	15.62	9.420		
4,100.0	4,085.3	4,097.1	4,069.9	9.2	10.7	39.18	-212.7	-404.1	151.1	135.0	16.03	9.427		
4,200.0	4,184.9	4,197.0	4,169.0	9.4	11.0	39.18	-218.4	-414.9	155.0	138.5	16.43	9.433		
4,300.0	4,284.4	4,296.9	4,268.2	9.7	11.2	39.18	-224.2	-425.7	158.9	142.0	16.83	9.440		
4,400.0	4,384.0	4,396.9	4,367.4	9.9	11.5	39.18	-230.0	-436.5	162.8	145.5	17.23	9.446		
4,500.0	4,483.6	4,496.8	4,466.5	10.1	11.8	39.18	-235.8	-447.3	166.7	149.0	17.63	9.452		
4,600.0	4,583.2	4,596.7	4,565.7	10.4	12.1	39.18	-241.6	-458.1	170.6	152.5	18.04	9.457		
4,700.0	4,682.8	4,696.6	4,664.9	10.6	12.4	39.18	-247.4	-468.9	174.5	156.0	18.44	9.463		
4,800.0	4,782.4	4,796.6	4,764.0	10.8	12.6	39.19	-253.2	-479.7	178.4	159.5	18.84	9.468		
4,900.0	4,882.0	4,896.5	4,863.2	11.1	12.9	39.19	-259.0	-490.5	182.3	163.0	19.24	9.473		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4B-20H-O264 - 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							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.0	4,981.6	4,996.4	4,962.4	11.3	13.2	39.19	-264.7	-501.3	186.2	166.5	19.64	9.477	
5,100.0	5,081.2	5,096.3	5,061.6	11.6	13.5	39.19	-270.5	-512.1	190.1	170.0	20.05	9.482	
5,200.0	5,180.8	5,196.3	5,160.7	11.8	13.7	39.19	-276.3	-522.9	194.0	173.5	20.45	9.486	
5,300.0	5,280.4	5,296.2	5,259.9	12.0	14.0	39.19	-282.1	-533.7	197.9	177.0	20.85	9.490	
5,400.0	5,380.0	5,396.1	5,359.1	12.3	14.3	39.19	-287.9	-544.5	201.8	180.5	21.25	9.494	
5,500.0	5,479.6	5,496.0	5,458.2	12.5	14.6	39.19	-293.7	-555.3	205.7	184.0	21.65	9.498	
5,600.0	5,579.2	5,596.0	5,557.4	12.7	14.8	39.19	-299.5	-566.1	209.6	187.5	22.06	9.501	
5,700.0	5,678.8	5,696.4	5,657.1	13.0	15.1	39.19	-305.3	-576.9	213.4	191.0	22.46	9.504	
5,763.5	5,742.0	5,764.4	5,724.7	13.1	15.3	39.32	-308.7	-583.4	215.1	192.4	22.73	9.463	
5,800.0	5,778.4	5,803.5	5,763.6	13.2	15.4	39.45	-310.4	-586.4	215.6	192.7	22.89	9.420	
5,900.0	5,878.2	5,910.6	5,870.6	13.4	15.5	39.69	-313.6	-592.5	216.6	193.4	23.27	9.310	
6,000.0	5,978.1	6,017.8	5,977.7	13.5	15.7	39.80	-315.0	-595.0	217.0	193.5	23.59	9.201	
6,021.9	6,000.0	6,041.1	6,001.0	13.5	15.7	-90.00	-315.0	-595.1	217.1	193.4	23.64	9.181	
6,100.0	6,078.1	6,119.3	6,079.1	13.7	15.8	-90.00	-315.0	-595.1	217.1	193.2	23.88	9.088	
6,200.0	6,178.1	6,219.3	6,179.1	13.8	15.9	-90.00	-315.0	-595.1	217.1	192.9	24.19	8.971	
6,300.0	6,278.1	6,319.3	6,279.1	13.9	16.0	-90.00	-315.0	-595.1	217.1	192.5	24.51	8.857	
6,377.9	6,356.0	6,397.2	6,357.0	14.0	16.1	-90.00	-315.0	-595.1	217.1	192.3	24.75	8.770	
6,400.0	6,378.1	6,419.3	6,379.1	14.1	16.2	-90.21	-315.0	-595.1	217.1	192.2	24.81	8.749	
6,450.0	6,428.0	6,469.1	6,429.0	14.1	16.2	-91.29	-315.0	-595.1	217.1	192.3	24.78	8.762	
6,500.0	6,477.2	6,518.3	6,478.2	14.1	16.3	-93.44	-315.0	-595.1	217.5	192.9	24.59	8.844	
6,550.0	6,525.6	6,566.7	6,526.6	14.1	16.3	-96.54	-315.0	-595.1	218.6	194.3	24.28	9.003	
6,600.0	6,572.6	6,613.8	6,573.6	14.0	16.4	-100.37	-315.0	-595.1	221.2	197.3	23.92	9.251	
6,650.0	6,618.0	6,663.7	6,623.5	14.0	16.4	-104.82	-313.5	-595.1	225.9	202.3	23.51	9.605	
6,700.0	6,661.4	6,716.3	6,675.8	13.9	16.5	-109.18	-307.3	-595.1	232.0	208.9	23.16	10.020	
6,750.0	6,702.5	6,771.3	6,729.5	13.8	16.5	-113.30	-295.7	-595.1	239.5	216.6	22.84	10.485	
6,800.0	6,741.0	6,828.7	6,784.1	13.8	16.4	-117.15	-278.2	-595.1	248.0	225.4	22.55	10.995	
6,850.0	6,776.5	6,888.8	6,839.2	13.8	16.4	-120.70	-254.1	-595.1	257.2	234.9	22.28	11.542	
6,900.0	6,808.8	6,951.9	6,893.9	13.8	16.3	-123.92	-222.7	-595.1	266.7	244.7	22.02	12.114	
6,950.0	6,837.7	7,018.1	6,947.2	13.8	16.2	-126.79	-183.5	-595.1	276.2	254.5	21.77	12.691	
7,000.0	6,862.9	7,087.6	6,997.9	13.8	16.2	-129.30	-136.2	-595.1	285.3	263.8	21.53	13.253	
7,050.0	6,884.3	7,160.2	7,044.4	14.0	16.2	-131.44	-80.4	-595.1	293.7	272.3	21.34	13.763	
7,100.0	6,901.6	7,235.8	7,084.9	14.1	16.3	-133.18	-16.6	-595.1	300.9	279.7	21.21	14.188	
7,150.0	6,914.8	7,314.1	7,117.6	14.3	16.4	-134.50	54.4	-595.0	306.7	285.5	21.18	14.484	
7,200.0	6,923.7	7,394.5	7,140.8	14.6	16.7	-135.39	131.3	-595.0	310.8	289.5	21.27	14.610	
7,250.0	6,928.3	7,476.3	7,153.2	14.9	17.1	-135.85	212.1	-595.0	312.9	291.4	21.52	14.542	
7,277.9	6,929.0	7,522.2	7,155.0	15.1	17.3	-135.90	258.0	-595.0	313.3	291.6	21.72	14.421	
7,300.0	6,929.0	7,544.3	7,155.0	15.2	17.5	-135.90	280.1	-595.0	313.3	291.3	22.00	14.244	
7,400.0	6,929.0	7,644.3	7,155.0	16.1	18.2	-135.88	380.1	-595.0	313.4	290.1	23.33	13.436	
7,500.0	6,929.0	7,744.3	7,155.0	17.0	19.1	-135.86	480.1	-595.0	313.6	288.7	24.83	12.629	
7,600.0	6,929.0	7,844.3	7,155.0	18.1	20.1	-135.83	580.1	-595.0	313.7	287.2	26.47	11.849	
7,700.0	6,929.0	7,944.3	7,155.0	19.3	21.1	-135.81	680.1	-595.0	313.8	285.5	28.24	11.112	
7,800.0	6,929.0	8,044.3	7,155.0	20.6	22.3	-135.79	780.1	-595.0	313.9	283.8	30.10	10.427	
7,900.0	6,929.0	8,144.3	7,155.0	21.9	23.6	-135.77	880.1	-595.0	314.0	282.0	32.05	9.797	
8,000.0	6,929.0	8,244.3	7,155.0	23.3	24.9	-135.75	980.1	-595.0	314.1	280.1	34.07	9.220	
8,100.0	6,929.0	8,344.3	7,155.0	24.8	26.2	-135.72	1,080.1	-595.0	314.3	278.1	36.15	8.694	
8,200.0	6,929.0	8,444.3	7,155.0	26.2	27.6	-135.70	1,180.1	-595.0	314.4	276.1	38.27	8.214	
8,300.0	6,929.0	8,544.3	7,155.0	27.7	29.1	-135.68	1,280.1	-595.0	314.5	274.0	40.44	7.777	
8,400.0	6,929.0	8,644.3	7,155.0	29.3	30.5	-135.66	1,380.1	-595.0	314.6	272.0	42.64	7.378	
8,500.0	6,929.0	8,744.3	7,155.0	30.8	32.0	-135.64	1,480.1	-595.0	314.7	269.8	44.87	7.014	
8,600.0	6,929.0	8,844.3	7,155.0	32.4	33.6	-135.61	1,580.1	-595.0	314.8	267.7	47.13	6.680	
8,700.0	6,929.0	8,944.3	7,155.0	34.0	35.1	-135.59	1,680.1	-595.0	315.0	265.5	49.41	6.374	
8,800.0	6,929.0	9,044.3	7,155.0	35.6	36.7	-135.57	1,780.1	-595.0	315.1	263.4	51.72	6.092	

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4B-20H-O264 - 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)				
8,900.0	6,929.0	9,144.3	7,155.0	37.2	38.2	-135.55	1,880.1	-595.0	315.2	261.2	54.04	5.833		
9,000.0	6,929.0	9,244.3	7,155.0	38.9	39.8	-135.53	1,980.1	-595.0	315.3	258.9	56.37	5.593		
9,100.0	6,929.0	9,344.3	7,155.0	40.5	41.5	-135.51	2,080.1	-595.0	315.4	256.7	58.73	5.371		
9,200.0	6,929.0	9,444.3	7,155.0	42.2	43.1	-135.48	2,180.1	-595.0	315.5	254.5	61.09	5.165		
9,300.0	6,929.0	9,544.3	7,155.0	43.8	44.7	-135.46	2,280.1	-595.0	315.7	252.2	63.46	4.974		
9,400.0	6,929.0	9,644.3	7,155.0	45.5	46.3	-135.44	2,380.1	-595.0	315.8	249.9	65.85	4.795		
9,500.0	6,929.0	9,744.3	7,155.0	47.2	48.0	-135.42	2,480.1	-595.0	315.9	247.6	68.25	4.629		
9,600.0	6,929.0	9,844.3	7,155.0	48.9	49.6	-135.40	2,580.1	-595.0	316.0	245.4	70.65	4.473		
9,700.0	6,929.0	9,944.3	7,155.0	50.5	51.3	-135.38	2,680.1	-595.0	316.1	243.1	73.06	4.327		
9,800.0	6,929.0	10,044.3	7,155.0	52.2	53.0	-135.35	2,780.1	-595.0	316.2	240.8	75.49	4.190		
9,900.0	6,929.0	10,144.3	7,155.0	53.9	54.6	-135.33	2,880.1	-595.0	316.4	238.5	77.91	4.061		
10,000.0	6,929.0	10,244.3	7,155.0	55.6	56.3	-135.31	2,980.1	-595.0	316.5	236.1	80.35	3.939		
10,100.0	6,929.0	10,344.3	7,155.0	57.3	58.0	-135.29	3,080.1	-595.0	316.6	233.8	82.79	3.824		
10,200.0	6,929.0	10,444.3	7,155.0	59.0	59.7	-135.27	3,180.1	-595.0	316.7	231.5	85.23	3.716		
10,300.0	6,929.0	10,544.3	7,155.0	60.7	61.4	-135.25	3,280.1	-595.0	316.8	229.2	87.69	3.613		
10,400.0	6,929.0	10,644.3	7,155.0	62.4	63.1	-135.23	3,380.1	-595.0	317.0	226.8	90.14	3.516		
10,500.0	6,929.0	10,744.3	7,155.0	64.2	64.8	-135.20	3,480.1	-595.0	317.1	224.5	92.60	3.424		
10,600.0	6,929.0	10,844.3	7,155.0	65.9	66.5	-135.18	3,580.1	-595.0	317.2	222.1	95.07	3.336		
10,700.0	6,929.0	10,944.3	7,155.0	67.6	68.2	-135.16	3,680.1	-595.0	317.3	219.8	97.54	3.253		
10,800.0	6,929.0	11,044.3	7,155.0	69.3	69.9	-135.14	3,780.1	-595.0	317.4	217.4	100.02	3.174		
10,900.0	6,929.0	11,144.3	7,155.0	71.0	71.6	-135.12	3,880.1	-595.0	317.5	215.0	102.50	3.098		
11,000.0	6,929.0	11,244.3	7,155.0	72.7	73.3	-135.10	3,980.1	-595.0	317.7	212.7	104.98	3.026		
11,100.0	6,929.0	11,344.3	7,155.0	74.5	75.0	-135.08	4,080.1	-595.0	317.8	210.3	107.47	2.957		
11,200.0	6,929.0	11,444.3	7,155.0	76.2	76.7	-135.05	4,180.1	-595.0	317.9	207.9	109.96	2.891		
11,300.0	6,929.0	11,544.3	7,155.0	77.9	78.4	-135.03	4,280.1	-595.0	318.0	205.6	112.45	2.828		
11,400.0	6,929.0	11,644.3	7,155.0	79.6	80.2	-135.01	4,380.1	-595.0	318.1	203.2	114.95	2.768		
11,508.6	6,929.0	11,752.2	7,155.0	81.5	82.0	-134.99	4,488.0	-595.0	318.3	200.6	117.65	2.705 SF		



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4D-20H-O264 - HZ - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.90	0.0	7.6	7.6					
100.0	100.0	100.0	100.0	0.1	0.1	89.90	0.0	7.6	7.6	7.3	0.24	30.903		
200.0	200.0	200.0	200.0	0.3	0.3	89.90	0.0	7.6	7.6	7.0	0.59	12.725		
300.0	300.0	300.0	300.0	0.5	0.5	89.90	0.0	7.6	7.6	6.6	0.94	8.012 CC, ES		
400.0	400.0	400.0	400.0	0.6	0.6	-146.08	-0.2	7.5	8.9	7.6	1.29	6.890		
500.0	499.8	500.0	500.0	0.8	0.8	-151.58	-1.9	7.2	12.8	11.2	1.64	7.808		
558.3	558.0	558.3	558.2	1.0	0.9	-153.37	-3.7	6.9	16.3	14.5	1.85	8.794		
600.0	599.5	599.9	599.8	1.1	1.0	-153.81	-5.4	6.7	19.0	17.0	2.00	9.487		
700.0	699.1	699.8	699.6	1.3	1.2	-151.90	-10.5	5.8	25.1	22.7	2.38	10.537		
800.0	798.7	799.7	799.3	1.5	1.4	-149.38	-16.4	4.8	30.9	28.1	2.76	11.173		
900.0	898.3	899.5	898.9	1.7	1.6	-147.65	-22.3	3.8	36.7	33.6	3.15	11.648		
1,000.0	997.9	999.3	998.6	2.0	1.8	-146.40	-28.3	2.8	42.6	39.0	3.55	12.012		
1,100.0	1,097.4	1,099.1	1,098.2	2.2	2.0	-145.46	-34.2	1.8	48.5	44.5	3.94	12.300		
1,200.0	1,197.0	1,199.0	1,197.8	2.4	2.2	-144.72	-40.1	0.9	54.4	50.0	4.34	12.532		
1,300.0	1,296.6	1,298.8	1,297.5	2.6	2.4	-144.12	-46.0	-0.1	60.3	55.5	4.74	12.723		
1,400.0	1,396.2	1,398.6	1,397.1	2.9	2.6	-143.63	-51.9	-1.1	66.2	61.0	5.14	12.883		
1,500.0	1,495.8	1,498.4	1,496.8	3.1	2.8	-143.22	-57.8	-2.1	72.1	66.6	5.54	13.018		
1,600.0	1,595.4	1,598.3	1,596.4	3.3	3.0	-142.87	-63.8	-3.1	78.0	72.1	5.94	13.134		
1,700.0	1,695.0	1,698.1	1,696.1	3.6	3.2	-142.58	-69.7	-4.1	83.9	77.6	6.34	13.234		
1,800.0	1,794.6	1,797.9	1,795.7	3.8	3.4	-142.32	-75.6	-5.1	89.8	83.1	6.74	13.322		
1,900.0	1,894.2	1,897.7	1,895.3	4.0	3.6	-142.09	-81.5	-6.1	95.8	88.6	7.15	13.400		
2,000.0	1,993.8	1,997.5	1,995.0	4.3	3.8	-141.89	-87.4	-7.0	101.7	94.1	7.55	13.469		
2,100.0	2,093.4	2,097.4	2,094.6	4.5	4.0	-141.71	-93.3	-8.0	107.6	99.7	7.95	13.531		
2,200.0	2,193.0	2,197.2	2,194.3	4.7	4.2	-141.55	-99.3	-9.0	113.5	105.2	8.36	13.586		
2,300.0	2,292.6	2,297.0	2,293.9	5.0	4.4	-141.41	-105.2	-10.0	119.5	110.7	8.76	13.636		
2,400.0	2,392.2	2,396.8	2,393.6	5.2	4.6	-141.28	-111.1	-11.0	125.4	116.2	9.16	13.682		
2,500.0	2,491.8	2,496.7	2,493.2	5.4	4.8	-141.16	-117.0	-12.0	131.3	121.7	9.57	13.723		
2,600.0	2,591.4	2,596.5	2,592.8	5.7	5.0	-141.05	-122.9	-13.0	137.2	127.3	9.97	13.761		
2,700.0	2,690.9	2,696.3	2,692.5	5.9	5.2	-140.95	-128.8	-14.0	143.2	132.8	10.38	13.796		
2,800.0	2,790.5	2,796.1	2,792.1	6.2	5.4	-140.86	-134.8	-15.0	149.1	138.3	10.78	13.828		
2,900.0	2,890.1	2,896.0	2,891.8	6.4	5.6	-140.77	-140.7	-15.9	155.0	143.8	11.19	13.858		
3,000.0	2,989.7	2,995.8	2,991.4	6.6	5.8	-140.70	-146.6	-16.9	161.0	149.4	11.59	13.886		
3,100.0	3,089.3	3,095.6	3,091.1	6.9	6.0	-140.62	-152.5	-17.9	166.9	154.9	12.00	13.912		
3,200.0	3,188.9	3,195.4	3,190.7	7.1	6.2	-140.56	-158.4	-18.9	172.8	160.4	12.40	13.936		
3,300.0	3,288.5	3,295.3	3,290.4	7.3	6.4	-140.49	-164.3	-19.9	178.7	165.9	12.81	13.958		
3,400.0	3,388.1	3,395.1	3,390.0	7.6	6.6	-140.43	-170.3	-20.9	184.7	171.5	13.21	13.979		
3,500.0	3,487.7	3,494.9	3,489.6	7.8	6.8	-140.38	-176.2	-21.9	190.6	177.0	13.62	13.999		
3,600.0	3,587.3	3,594.7	3,589.3	8.0	7.0	-140.33	-182.1	-22.9	196.5	182.5	14.02	14.017		
3,700.0	3,686.9	3,694.6	3,688.9	8.3	7.2	-140.28	-188.0	-23.8	202.5	188.0	14.43	14.035		
3,800.0	3,786.5	3,794.4	3,788.6	8.5	7.4	-140.23	-193.9	-24.8	208.4	193.6	14.83	14.051		
3,900.0	3,886.1	3,894.2	3,888.2	8.7	7.6	-140.19	-199.8	-25.8	214.3	199.1	15.24	14.067		
4,000.0	3,985.7	3,994.0	3,987.9	9.0	7.8	-140.15	-205.7	-26.8	220.3	204.6	15.64	14.082		
4,100.0	4,085.3	4,093.8	4,087.5	9.2	8.0	-140.11	-211.7	-27.8	226.2	210.1	16.05	14.096		
4,200.0	4,184.9	4,193.7	4,187.1	9.4	8.2	-140.07	-217.6	-28.8	232.1	215.7	16.45	14.109		
4,300.0	4,284.4	4,293.5	4,286.8	9.7	8.4	-140.03	-223.5	-29.8	238.0	221.2	16.86	14.122		
4,400.0	4,384.0	4,393.3	4,386.4	9.9	8.7	-140.00	-229.4	-30.8	244.0	226.7	17.26	14.134		
4,500.0	4,483.6	4,493.1	4,486.1	10.1	8.9	-139.97	-235.3	-31.7	249.9	232.2	17.67	14.145		
4,600.0	4,583.2	4,593.0	4,585.7	10.4	9.1	-139.94	-241.2	-32.7	255.8	237.8	18.07	14.156		
4,700.0	4,682.8	4,692.8	4,685.4	10.6	9.3	-139.91	-247.2	-33.7	261.8	243.3	18.48	14.167		
4,800.0	4,782.4	4,792.6	4,785.0	10.8	9.5	-139.88	-253.1	-34.7	267.7	248.8	18.88	14.176		
4,900.0	4,882.0	4,892.4	4,884.6	11.1	9.7	-139.85	-259.0	-35.7	273.6	254.3	19.29	14.186		
5,000.0	4,981.6	4,992.3	4,984.3	11.3	9.9	-139.83	-264.9	-36.7	279.6	259.9	19.69	14.195		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4D-20H-O264 - 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	5,081.2	5,092.1	5,083.9	11.6	10.1	-139.80	-270.8	-37.7	285.5	265.4	20.10	14.204		
5,200.0	5,180.8	5,191.9	5,183.6	11.8	10.3	-139.78	-276.7	-38.7	291.4	270.9	20.51	14.212		
5,300.0	5,280.4	5,291.7	5,283.2	12.0	10.5	-139.76	-282.7	-39.7	297.4	276.4	20.91	14.221		
5,400.0	5,380.0	5,391.6	5,382.9	12.3	10.7	-139.74	-288.6	-40.6	303.3	282.0	21.32	14.228		
5,500.0	5,479.6	5,491.4	5,482.5	12.5	10.9	-139.72	-294.5	-41.6	309.2	287.5	21.72	14.236		
5,600.0	5,579.2	5,591.2	5,582.2	12.7	11.1	-139.70	-300.4	-42.6	315.2	293.0	22.13	14.243		
5,700.0	5,678.8	5,690.8	5,681.6	13.0	11.3	-139.69	-306.3	-43.6	321.1	298.6	22.53	14.252		
5,763.5	5,742.0	5,753.6	5,744.3	13.1	11.4	-139.78	-309.4	-44.1	325.0	302.2	22.77	14.272		
5,800.0	5,778.4	5,789.7	5,780.4	13.2	11.5	-139.89	-310.8	-44.4	327.1	304.2	22.90	14.280		
5,900.0	5,878.2	5,888.7	5,879.3	13.4	11.6	-140.11	-313.7	-44.8	331.2	307.9	23.24	14.249		
6,000.0	5,978.1	5,987.8	5,978.4	13.5	11.8	-140.19	-314.9	-45.0	332.9	309.3	23.54	14.139		
6,021.9	6,000.0	6,009.4	6,000.0	13.5	11.8	90.00	-315.0	-45.0	333.0	309.3	23.60	14.106		
6,100.0	6,078.1	6,087.5	6,078.1	13.7	12.0	90.00	-315.0	-45.0	333.0	309.1	23.84	13.963		
6,200.0	6,178.1	6,187.5	6,178.1	13.8	12.1	90.00	-315.0	-45.0	333.0	308.8	24.15	13.784		
6,300.0	6,278.1	6,287.5	6,278.1	13.9	12.3	90.00	-315.0	-45.0	333.0	308.5	24.47	13.609		
6,377.9	6,356.0	6,365.4	6,356.0	14.0	12.4	90.00	-315.0	-45.0	333.0	308.2	24.71	13.475		
6,400.0	6,378.1	6,387.5	6,378.1	14.1	12.4	89.98	-315.0	-45.0	333.0	308.2	24.78	13.435		
6,403.5	6,381.6	6,391.0	6,381.6	14.1	12.4	90.00	-315.0	-45.0	333.0	308.2	24.79	13.430		
6,450.0	6,428.0	6,437.4	6,428.0	14.1	12.5	90.68	-315.0	-45.0	333.0	308.0	24.93	13.356		
6,500.0	6,477.2	6,487.2	6,477.8	14.1	12.6	91.98	-314.3	-45.0	333.2	308.1	25.06	13.292		
6,550.0	6,525.6	6,538.0	6,528.4	14.1	12.6	93.36	-309.5	-45.0	333.5	308.4	25.13	13.273		
6,600.0	6,572.6	6,589.6	6,579.0	14.0	12.6	94.71	-300.0	-45.0	334.1	309.0	25.13	13.296		
6,650.0	6,618.0	6,641.9	6,629.4	14.0	12.6	96.03	-285.9	-45.0	334.8	309.7	25.06	13.360		
6,700.0	6,661.4	6,695.0	6,679.0	13.9	12.5	97.31	-266.8	-45.0	335.7	310.7	24.94	13.458		
6,750.0	6,702.5	6,749.0	6,727.3	13.8	12.4	98.54	-242.9	-45.0	336.6	311.9	24.78	13.584		
6,800.0	6,741.0	6,803.7	6,773.8	13.8	12.4	99.70	-214.1	-45.0	337.7	313.1	24.60	13.727		
6,850.0	6,776.5	6,859.2	6,817.9	13.8	12.3	100.79	-180.5	-45.0	338.8	314.4	24.42	13.873		
6,900.0	6,808.8	6,915.4	6,859.1	13.8	12.2	101.79	-142.2	-45.0	339.9	315.6	24.27	14.005		
6,950.0	6,837.7	6,972.4	6,896.8	13.8	12.2	102.70	-99.5	-45.0	341.0	316.8	24.18	14.103		
7,000.0	6,862.9	7,030.0	6,930.4	13.8	12.3	103.49	-52.7	-45.0	342.0	317.8	24.17	14.148		
7,050.0	6,884.3	7,088.2	6,959.5	14.0	12.4	104.17	-2.3	-45.0	342.9	318.6	24.29	14.119		
7,100.0	6,901.6	7,147.0	6,983.4	14.1	12.5	104.73	51.3	-45.0	343.7	319.1	24.54	14.007		
7,150.0	6,914.8	7,206.1	7,001.9	14.3	12.8	105.16	107.4	-45.0	344.2	319.3	24.95	13.799		
7,200.0	6,923.7	7,265.5	7,014.5	14.6	13.1	105.46	165.4	-45.0	344.6	319.1	25.52	13.502		
7,250.0	6,928.3	7,325.1	7,021.0	14.9	13.5	105.62	224.7	-45.0	344.8	318.5	26.26	13.129		
7,277.9	6,929.0	7,358.4	7,022.0	15.1	13.7	105.65	258.0	-45.0	344.8	318.0	26.73	12.898		
7,300.0	6,929.0	7,380.5	7,022.0	15.2	13.9	105.65	280.1	-45.0	344.7	317.7	27.08	12.730		
7,400.0	6,929.0	7,480.5	7,022.0	16.1	14.8	105.66	380.1	-45.0	344.6	315.7	28.84	11.948		
7,500.0	6,929.0	7,580.5	7,022.0	17.0	15.9	105.67	480.1	-45.0	344.4	313.6	30.86	11.160		
7,600.0	6,929.0	7,680.5	7,022.0	18.1	17.1	105.67	580.1	-45.0	344.3	311.2	33.10	10.399		
7,700.0	6,929.0	7,780.5	7,022.0	19.3	18.3	105.68	680.1	-45.0	344.1	308.6	35.53	9.685		
7,800.0	6,929.0	7,880.5	7,022.0	20.6	19.6	105.69	780.1	-45.0	343.9	305.8	38.10	9.028		
7,900.0	6,929.0	7,980.5	7,022.0	21.9	21.0	105.70	880.1	-45.0	343.8	303.0	40.78	8.429		
8,000.0	6,929.0	8,080.5	7,022.0	23.3	22.5	105.70	980.1	-45.0	343.6	300.0	43.57	7.887		
8,100.0	6,929.0	8,180.5	7,022.0	24.8	24.0	105.71	1,080.1	-45.0	343.4	297.0	46.43	7.397		
8,200.0	6,929.0	8,280.5	7,022.0	26.2	25.5	105.72	1,180.1	-45.0	343.3	293.9	49.36	6.955		
8,300.0	6,929.0	8,380.5	7,022.0	27.7	27.1	105.73	1,280.1	-45.0	343.1	290.8	52.34	6.556		
8,400.0	6,929.0	8,480.5	7,022.0	29.3	28.6	105.73	1,380.1	-45.0	343.0	287.6	55.36	6.195		
8,500.0	6,929.0	8,580.5	7,022.0	30.8	30.2	105.74	1,480.1	-45.0	342.8	284.4	58.43	5.867		
8,600.0	6,929.0	8,680.5	7,022.0	32.4	31.8	105.75	1,580.1	-45.0	342.6	281.1	61.53	5.569		
8,700.0	6,929.0	8,780.5	7,022.0	34.0	33.5	105.76	1,680.1	-45.0	342.5	277.8	64.65	5.297		
8,800.0	6,929.0	8,880.5	7,022.0	35.6	35.1	105.76	1,780.1	-45.0	342.3	274.5	67.80	5.049		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4D-20H-O264 - 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)				
8,900.0	6,929.0	8,980.5	7,022.0	37.2	36.7	105.77	1,880.1	-45.0	342.2	271.2	70.97	4.821		
9,000.0	6,929.0	9,080.5	7,022.0	38.9	38.4	105.78	1,980.1	-45.0	342.0	267.8	74.16	4.612		
9,100.0	6,929.0	9,180.5	7,022.0	40.5	40.1	105.79	2,080.1	-45.0	341.8	264.5	77.36	4.419		
9,200.0	6,929.0	9,280.5	7,022.0	42.2	41.7	105.79	2,180.1	-45.0	341.7	261.1	80.58	4.240		
9,300.0	6,929.0	9,380.5	7,022.0	43.8	43.4	105.80	2,280.1	-45.0	341.5	257.7	83.81	4.075		
9,400.0	6,929.0	9,480.5	7,022.0	45.5	45.1	105.81	2,380.1	-45.0	341.4	254.3	87.05	3.922		
9,500.0	6,929.0	9,580.5	7,022.0	47.2	46.8	105.82	2,480.1	-45.0	341.2	250.9	90.30	3.779		
9,600.0	6,929.0	9,680.5	7,022.0	48.9	48.5	105.82	2,580.1	-45.0	341.0	247.5	93.55	3.645		
9,700.0	6,929.0	9,780.5	7,022.0	50.5	50.2	105.83	2,680.1	-45.0	340.9	244.1	96.82	3.521		
9,800.0	6,929.0	9,880.5	7,022.0	52.2	51.9	105.84	2,780.1	-45.0	340.7	240.6	100.09	3.404		
9,900.0	6,929.0	9,980.5	7,022.0	53.9	53.6	105.85	2,880.1	-45.0	340.6	237.2	103.37	3.294		
10,000.0	6,929.0	10,080.5	7,022.0	55.6	55.3	105.86	2,980.1	-45.0	340.4	233.7	106.65	3.192		
10,100.0	6,929.0	10,180.5	7,022.0	57.3	57.0	105.86	3,080.1	-45.0	340.2	230.3	109.94	3.095		
10,200.0	6,929.0	10,280.5	7,022.0	59.0	58.7	105.87	3,180.1	-45.0	340.1	226.8	113.24	3.003		
10,300.0	6,929.0	10,380.5	7,022.0	60.7	60.4	105.88	3,280.1	-45.0	339.9	223.4	116.54	2.917		
10,400.0	6,929.0	10,480.5	7,022.0	62.4	62.2	105.89	3,380.1	-45.0	339.7	219.9	119.84	2.835		
10,500.0	6,929.0	10,580.5	7,022.0	64.2	63.9	105.89	3,480.1	-45.0	339.6	216.4	123.14	2.758		
10,600.0	6,929.0	10,680.5	7,022.0	65.9	65.6	105.90	3,580.1	-45.0	339.4	213.0	126.45	2.684		
10,700.0	6,929.0	10,780.5	7,022.0	67.6	67.3	105.91	3,680.1	-45.0	339.3	209.5	129.77	2.614		
10,800.0	6,929.0	10,880.5	7,022.0	69.3	69.1	105.92	3,780.1	-45.0	339.1	206.0	133.08	2.548		
10,900.0	6,929.0	10,980.5	7,022.0	71.0	70.8	105.93	3,880.1	-45.0	338.9	202.5	136.40	2.485		
11,000.0	6,929.0	11,080.5	7,022.0	72.7	72.5	105.93	3,980.1	-45.0	338.8	199.1	139.72	2.425		
11,100.0	6,929.0	11,180.5	7,022.0	74.5	74.2	105.94	4,080.1	-45.0	338.6	195.6	143.04	2.367		
11,200.0	6,929.0	11,280.5	7,022.0	76.2	76.0	105.95	4,180.1	-45.0	338.5	192.1	146.36	2.313		
11,300.0	6,929.0	11,380.5	7,022.0	77.9	77.7	105.96	4,280.1	-45.0	338.3	188.6	149.69	2.260		
11,400.0	6,929.0	11,480.5	7,022.0	79.6	79.4	105.96	4,380.1	-45.0	338.1	185.1	153.01	2.210		
11,508.6	6,929.0	11,589.1	7,022.0	81.5	81.3	105.97	4,488.7	-45.0	338.0	181.3	156.63	2.158 SF		



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4E-20H-O264 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program:		0-Geolink MWD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	91.52	-0.4	14.8	14.8					
100.0	100.0	100.0	100.0	0.1	0.1	91.52	-0.4	14.8	14.8	14.6	0.24	60.683	CC, ES	
200.0	200.0	200.0	200.0	0.3	0.3	91.52	-0.4	14.8	14.8	14.2	0.59	24.987		
300.0	300.0	300.0	300.0	0.5	0.5	91.52	-0.4	14.8	14.8	13.9	0.94	15.733		
400.0	400.0	400.0	400.0	0.6	0.6	-142.74	-0.4	14.8	16.2	14.9	1.29	12.520		
500.0	499.8	499.7	499.7	0.8	0.8	-149.44	-1.1	15.4	21.0	19.4	1.64	12.781		
558.3	558.0	557.7	557.7	1.0	0.9	-152.15	-2.1	16.2	25.7	23.9	1.85	13.894		
600.0	599.5	599.1	599.0	1.1	1.0	-153.31	-3.1	17.0	29.6	27.6	2.00	14.820		
700.0	699.1	698.3	698.2	1.3	1.2	-153.53	-6.4	19.8	39.6	37.2	2.36	16.748		
800.0	798.7	797.4	797.1	1.5	1.4	-151.89	-11.0	23.6	50.3	47.6	2.74	18.366		
900.0	898.3	896.4	895.8	1.7	1.6	-149.56	-16.9	28.4	61.9	58.7	3.13	19.777		
1,000.0	997.9	995.7	994.8	2.0	1.8	-147.78	-22.9	33.3	73.6	70.1	3.52	20.907		
1,100.0	1,097.4	1,095.0	1,093.8	2.2	2.0	-146.49	-29.0	38.3	85.4	81.5	3.91	21.809		
1,200.0	1,197.0	1,194.3	1,192.8	2.4	2.2	-145.51	-35.0	43.3	97.2	92.9	4.31	22.543		
1,300.0	1,296.6	1,293.6	1,291.7	2.6	2.4	-144.75	-41.1	48.3	109.0	104.3	4.71	23.151		
1,400.0	1,396.2	1,392.9	1,390.7	2.9	2.6	-144.13	-47.2	53.3	120.9	115.8	5.11	23.663		
1,500.0	1,495.8	1,492.2	1,489.7	3.1	2.8	-143.63	-53.2	58.3	132.8	127.3	5.51	24.099		
1,600.0	1,595.4	1,591.4	1,588.7	3.3	3.1	-143.21	-59.3	63.2	144.6	138.7	5.91	24.475		
1,700.0	1,695.0	1,690.7	1,687.6	3.6	3.3	-142.85	-65.3	68.2	156.5	150.2	6.31	24.803		
1,800.0	1,794.6	1,790.0	1,786.6	3.8	3.5	-142.54	-71.4	73.2	168.4	161.7	6.71	25.090		
1,900.0	1,894.2	1,889.3	1,885.6	4.0	3.7	-142.27	-77.4	78.2	180.3	173.2	7.11	25.345		
2,000.0	1,993.8	1,988.6	1,984.6	4.3	3.9	-142.04	-83.5	83.2	192.2	184.7	7.52	25.572		
2,100.0	2,093.4	2,087.9	2,083.5	4.5	4.2	-141.83	-89.6	88.1	204.1	196.2	7.92	25.775		
2,200.0	2,193.0	2,187.2	2,182.5	4.7	4.4	-141.65	-95.6	93.1	216.0	207.7	8.32	25.958		
2,300.0	2,292.6	2,286.5	2,281.5	5.0	4.6	-141.48	-101.7	98.1	227.9	219.2	8.72	26.125		
2,400.0	2,392.2	2,385.7	2,380.5	5.2	4.8	-141.33	-107.7	103.1	239.8	230.7	9.13	26.276		
2,500.0	2,491.8	2,485.0	2,479.5	5.4	5.0	-141.20	-113.8	108.1	251.7	242.2	9.53	26.414		
2,600.0	2,591.4	2,584.3	2,578.4	5.7	5.2	-141.08	-119.9	113.0	263.6	253.7	9.93	26.541		
2,700.0	2,690.9	2,683.6	2,677.4	5.9	5.5	-140.96	-125.9	118.0	275.5	265.2	10.34	26.658		
2,800.0	2,790.5	2,782.9	2,776.4	6.2	5.7	-140.86	-132.0	123.0	287.4	276.7	10.74	26.766		
2,900.0	2,890.1	2,882.2	2,875.4	6.4	5.9	-140.77	-138.0	128.0	299.3	288.2	11.14	26.866		
3,000.0	2,989.7	2,981.5	2,974.3	6.6	6.1	-140.68	-144.1	133.0	311.2	299.7	11.55	26.959		
3,100.0	3,089.3	3,080.7	3,073.3	6.9	6.3	-140.60	-150.1	137.9	323.2	311.2	11.95	27.045		
3,200.0	3,188.9	3,180.0	3,172.3	7.1	6.6	-140.53	-156.2	142.9	335.1	322.7	12.35	27.126		
3,300.0	3,288.5	3,279.3	3,271.3	7.3	6.8	-140.46	-162.3	147.9	347.0	334.2	12.76	27.202		
3,400.0	3,388.1	3,378.6	3,370.2	7.6	7.0	-140.39	-168.3	152.9	358.9	345.7	13.16	27.273		
3,500.0	3,487.7	3,477.9	3,469.2	7.8	7.2	-140.33	-174.4	157.9	370.8	357.2	13.56	27.339		
3,600.0	3,587.3	3,577.2	3,568.2	8.0	7.4	-140.27	-180.4	162.9	382.7	368.7	13.97	27.402		
3,700.0	3,686.9	3,676.5	3,667.2	8.3	7.7	-140.22	-186.5	167.8	394.6	380.3	14.37	27.461		
3,800.0	3,786.5	3,775.8	3,766.2	8.5	7.9	-140.17	-192.5	172.8	406.5	391.8	14.77	27.517		
3,900.0	3,886.1	3,875.0	3,865.1	8.7	8.1	-140.12	-198.6	177.8	418.5	403.3	15.18	27.570		
4,000.0	3,985.7	3,974.3	3,964.1	9.0	8.3	-140.08	-204.7	182.8	430.4	414.8	15.58	27.620		
4,100.0	4,085.3	4,073.6	4,063.1	9.2	8.5	-140.03	-210.7	187.8	442.3	426.3	15.99	27.668		
4,200.0	4,184.9	4,172.9	4,162.1	9.4	8.8	-139.99	-216.8	192.7	454.2	437.8	16.39	27.713		
4,300.0	4,284.4	4,272.2	4,261.0	9.7	9.0	-139.95	-222.8	197.7	466.1	449.3	16.79	27.756		
4,400.0	4,384.0	4,371.5	4,360.0	9.9	9.2	-139.92	-228.9	202.7	478.0	460.8	17.20	27.797		
4,500.0	4,483.6	4,470.8	4,459.0	10.1	9.4	-139.88	-234.9	207.7	489.9	472.3	17.60	27.836		
4,600.0	4,583.2	4,570.1	4,558.0	10.4	9.7	-139.85	-241.0	212.7	501.9	483.9	18.00	27.873		
4,700.0	4,682.8	4,669.3	4,656.9	10.6	9.9	-139.82	-247.1	217.6	513.8	495.4	18.41	27.909		
4,800.0	4,782.4	4,768.6	4,755.9	10.8	10.1	-139.79	-253.1	222.6	525.7	506.9	18.81	27.943		
4,900.0	4,882.0	4,867.9	4,854.9	11.1	10.3	-139.76	-259.2	227.6	537.6	518.4	19.22	27.976		
5,000.0	4,981.6	4,967.2	4,953.9	11.3	10.5	-139.73	-265.2	232.6	549.5	529.9	19.62	28.007		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4E-20H-O264 - 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	5,081.2	5,066.5	5,052.9	11.6	10.8	-139.71	-271.3	237.6	561.4	541.4	20.02	28.037				
5,200.0	5,180.8	5,165.8	5,151.8	11.8	11.0	-139.68	-277.4	242.5	573.4	552.9	20.43	28.066				
5,300.0	5,280.4	5,265.1	5,250.8	12.0	11.2	-139.66	-283.4	247.5	585.3	564.4	20.83	28.094				
5,400.0	5,380.0	5,364.4	5,349.8	12.3	11.4	-139.63	-289.5	252.5	597.2	575.9	21.24	28.120				
5,500.0	5,479.6	5,463.6	5,448.8	12.5	11.6	-139.61	-295.5	257.5	609.1	587.5	21.64	28.146				
5,600.0	5,579.2	5,563.0	5,547.8	12.7	11.9	-139.59	-301.6	262.5	621.0	599.0	22.04	28.171				
5,700.0	5,678.8	5,669.8	5,654.3	13.0	12.1	-139.64	-307.3	267.2	632.3	609.9	22.45	28.165				
5,763.5	5,742.0	5,737.8	5,722.2	13.1	12.2	-139.74	-310.2	269.5	638.9	616.2	22.70	28.144				
5,800.0	5,778.4	5,776.9	5,761.3	13.2	12.3	-139.85	-311.6	270.7	642.3	619.4	22.85	28.111				
5,900.0	5,878.2	5,884.4	5,868.7	13.4	12.5	-140.07	-314.2	272.9	648.9	625.7	23.22	27.948				
6,000.0	5,978.1	5,992.1	5,976.4	13.5	12.6	-140.16	-315.4	273.8	651.7	628.2	23.55	27.674				
6,021.9	6,000.0	6,015.7	6,000.0	13.5	12.6	90.03	-315.4	273.8	651.8	628.2	23.62	27.598				
6,100.0	6,078.1	6,093.8	6,078.1	13.7	12.8	90.03	-315.4	273.8	651.8	628.0	23.86	27.318				
6,200.0	6,178.1	6,193.8	6,178.1	13.8	12.9	90.03	-315.4	273.8	651.8	627.7	24.17	26.967				
6,300.0	6,278.1	6,293.8	6,278.1	13.9	13.1	90.03	-315.4	273.8	651.8	627.3	24.48	26.624				
6,377.9	6,356.0	6,371.7	6,356.0	14.0	13.2	90.03	-315.4	273.8	651.8	627.1	24.73	26.362				
6,400.0	6,378.1	6,393.8	6,378.1	14.1	13.2	89.98	-315.4	273.8	651.8	627.0	24.79	26.294				
6,406.2	6,384.4	6,400.0	6,384.4	14.1	13.2	90.00	-315.4	273.8	651.8	627.0	24.80	26.279				
6,450.0	6,428.0	6,443.6	6,428.0	14.1	13.3	90.33	-315.4	273.8	651.8	626.9	24.90	26.174				
6,500.0	6,477.2	6,492.9	6,477.2	14.1	13.3	91.05	-315.4	273.8	651.9	626.9	24.99	26.087				
6,550.0	6,525.6	6,541.2	6,525.6	14.1	13.4	92.09	-315.4	273.8	652.3	627.2	25.05	26.040				
6,600.0	6,572.6	6,588.3	6,572.6	14.0	13.5	93.40	-315.4	273.8	653.2	628.1	25.08	26.043				
6,650.0	6,618.0	6,637.3	6,621.6	14.0	13.5	94.96	-314.5	273.8	654.8	629.7	25.07	26.120				
6,700.0	6,661.4	6,689.7	6,673.8	13.9	13.6	96.58	-309.1	273.8	657.0	632.0	25.00	26.278				
6,750.0	6,702.5	6,744.5	6,727.5	13.8	13.6	98.20	-298.4	273.8	659.7	634.9	24.88	26.512				
6,800.0	6,741.0	6,801.9	6,782.3	13.8	13.5	99.79	-281.8	273.8	663.0	638.3	24.73	26.810				
6,850.0	6,776.5	6,862.1	6,837.9	13.8	13.5	101.34	-258.5	273.8	666.7	642.1	24.55	27.156				
6,900.0	6,808.8	6,925.5	6,893.3	13.8	13.4	102.85	-227.9	273.8	670.6	646.2	24.37	27.519				
6,950.0	6,837.7	6,992.2	6,947.6	13.8	13.3	104.29	-189.3	273.8	674.6	650.4	24.21	27.864				
7,000.0	6,862.9	7,062.3	6,999.5	13.8	13.3	105.63	-142.2	273.8	678.6	654.5	24.12	28.137				
7,050.0	6,884.3	7,135.9	7,047.3	14.0	13.3	106.85	-86.3	273.8	682.4	658.3	24.13	28.281				
7,100.0	6,901.6	7,212.7	7,089.2	14.1	13.3	107.89	-21.9	273.8	685.7	661.4	24.28	28.237				
7,150.0	6,914.8	7,292.5	7,123.1	14.3	13.5	108.73	50.3	273.8	688.4	663.7	24.63	27.954				
7,200.0	6,923.7	7,374.7	7,147.3	14.6	13.9	109.33	128.7	273.8	690.2	665.1	25.19	27.401				
7,250.0	6,928.3	7,458.3	7,160.1	14.9	14.3	109.64	211.3	273.8	691.2	665.2	25.98	26.608				
7,277.9	6,929.0	7,505.1	7,162.0	15.1	14.7	109.69	258.0	273.8	691.3	664.8	26.51	26.081				
7,300.0	6,929.0	7,527.2	7,162.0	15.2	14.8	109.69	280.1	273.8	691.3	664.4	26.86	25.740				
7,400.0	6,929.0	7,627.2	7,162.0	16.1	15.7	109.70	380.1	273.8	691.1	662.5	28.56	24.195				
7,500.0	6,929.0	7,727.2	7,162.0	17.0	16.7	109.70	480.1	273.8	690.9	660.4	30.53	22.628				
7,600.0	6,929.0	7,827.2	7,162.0	18.1	17.8	109.71	580.1	273.8	690.8	658.1	32.72	21.112				
7,700.0	6,929.0	7,927.2	7,162.0	19.3	19.0	109.71	680.1	273.8	690.6	655.5	35.08	19.686				
7,800.0	6,929.0	8,027.2	7,162.0	20.6	20.3	109.72	780.1	273.8	690.5	652.9	37.59	18.371				
7,900.0	6,929.0	8,127.2	7,162.0	21.9	21.7	109.72	880.1	273.8	690.3	650.1	40.21	17.170				
8,000.0	6,929.0	8,227.2	7,162.0	23.3	23.1	109.73	980.1	273.8	690.2	647.2	42.92	16.080				
8,100.0	6,929.0	8,327.2	7,162.0	24.8	24.5	109.73	1,080.1	273.8	690.0	644.3	45.71	15.095				
8,200.0	6,929.0	8,427.2	7,162.0	26.2	26.0	109.74	1,180.1	273.8	689.8	641.3	48.57	14.204				
8,300.0	6,929.0	8,527.2	7,162.0	27.7	27.6	109.74	1,280.1	273.8	689.7	638.2	51.48	13.398				
8,400.0	6,929.0	8,627.2	7,162.0	29.3	29.1	109.75	1,380.1	273.8	689.5	635.1	54.43	12.668				
8,500.0	6,929.0	8,727.2	7,162.0	30.8	30.7	109.75	1,480.1	273.8	689.4	631.9	57.42	12.005				
8,600.0	6,929.0	8,827.2	7,162.0	32.4	32.3	109.76	1,580.1	273.8	689.2	628.8	60.45	11.402				
8,700.0	6,929.0	8,927.2	7,162.0	34.0	33.9	109.76	1,680.1	273.8	689.0	625.5	63.50	10.851				
8,800.0	6,929.0	9,027.2	7,162.0	35.6	35.5	109.77	1,780.1	273.8	688.9	622.3	66.58	10.347				

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4E-20H-O264 - 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		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
8,900.0	6,929.0	9,127.2	7,162.0	37.2	37.1	109.77	1,880.1	273.8	688.7	619.1	69.67	9.885		
9,000.0	6,929.0	9,227.2	7,162.0	38.9	38.8	109.77	1,980.1	273.8	688.6	615.8	72.79	9.460		
9,100.0	6,929.0	9,327.2	7,162.0	40.5	40.4	109.78	2,080.1	273.8	688.4	612.5	75.92	9.068		
9,200.0	6,929.0	9,427.2	7,162.0	42.2	42.1	109.78	2,180.1	273.8	688.3	609.2	79.06	8.706		
9,300.0	6,929.0	9,527.2	7,162.0	43.8	43.7	109.79	2,280.1	273.8	688.1	605.9	82.22	8.369		
9,400.0	6,929.0	9,627.2	7,162.0	45.5	45.4	109.79	2,380.1	273.8	687.9	602.6	85.38	8.057		
9,500.0	6,929.0	9,727.2	7,162.0	47.2	47.1	109.80	2,480.1	273.8	687.8	599.2	88.56	7.766		
9,600.0	6,929.0	9,827.2	7,162.0	48.9	48.8	109.80	2,580.1	273.8	687.6	595.9	91.74	7.495		
9,700.0	6,929.0	9,927.2	7,162.0	50.5	50.5	109.81	2,680.1	273.8	687.5	592.5	94.94	7.241		
9,800.0	6,929.0	10,027.2	7,162.0	52.2	52.2	109.81	2,780.1	273.8	687.3	589.2	98.14	7.004		
9,900.0	6,929.0	10,127.2	7,162.0	53.9	53.9	109.82	2,880.1	273.8	687.2	585.8	101.34	6.780		
10,000.0	6,929.0	10,227.2	7,162.0	55.6	55.6	109.82	2,980.1	273.8	687.0	582.4	104.55	6.571		
10,100.0	6,929.0	10,327.2	7,162.0	57.3	57.3	109.83	3,080.1	273.8	686.8	579.1	107.77	6.373		
10,200.0	6,929.0	10,427.2	7,162.0	59.0	59.0	109.83	3,180.1	273.8	686.7	575.7	110.99	6.187		
10,300.0	6,929.0	10,527.2	7,162.0	60.7	60.7	109.84	3,280.1	273.8	686.5	572.3	114.22	6.011		
10,400.0	6,929.0	10,627.2	7,162.0	62.4	62.4	109.84	3,380.1	273.8	686.4	568.9	117.45	5.844		
10,500.0	6,929.0	10,727.2	7,162.0	64.2	64.1	109.85	3,480.1	273.8	686.2	565.5	120.68	5.686		
10,600.0	6,929.0	10,827.2	7,162.0	65.9	65.8	109.85	3,580.1	273.8	686.0	562.1	123.92	5.536		
10,700.0	6,929.0	10,927.2	7,162.0	67.6	67.6	109.86	3,680.1	273.8	685.9	558.7	127.16	5.394		
10,800.0	6,929.0	11,027.2	7,162.0	69.3	69.3	109.86	3,780.1	273.8	685.7	555.3	130.40	5.259		
10,900.0	6,929.0	11,127.2	7,162.0	71.0	71.0	109.86	3,880.1	273.8	685.6	551.9	133.65	5.130		
11,000.0	6,929.0	11,266.9	7,162.0	72.7	73.4	109.97	4,019.7	270.2	683.2	545.7	137.45	4.970		
11,100.0	6,929.0	11,417.0	7,162.0	74.5	75.9	110.43	4,169.0	255.0	673.5	532.4	141.11	4.773		
11,200.0	6,929.0	11,563.7	7,162.0	76.2	78.4	111.25	4,313.3	228.8	656.6	512.2	144.32	4.549		
11,300.0	6,929.0	11,705.4	7,162.0	77.9	80.7	112.49	4,450.4	192.8	632.8	485.8	146.94	4.306		
11,400.0	6,929.0	11,747.9	7,162.0	79.6	81.4	112.96	4,490.9	180.1	607.7	459.0	148.72	4.086		
11,508.6	6,929.0	11,747.9	7,162.0	81.5	81.4	112.96	4,490.9	180.1	597.3	446.9	150.45	3.970 SF		



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4F-20H-O264 - 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							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	90.96	-0.4	22.4	22.4					
100.0	100.0	100.0	100.0	0.1	0.1	90.96	-0.4	22.4	22.4	22.1	0.24	91.578		
200.0	200.0	200.0	200.0	0.3	0.3	90.96	-0.4	22.4	22.4	21.8	0.59	37.709		
300.0	300.0	300.0	300.0	0.5	0.5	90.96	-0.4	22.4	22.4	21.4	0.94	23.743	CC, ES	
400.0	400.0	400.0	400.0	0.6	0.6	-141.97	-0.4	22.4	23.7	22.4	1.29	18.359		
500.0	499.8	499.7	499.7	0.8	0.8	-148.19	-0.5	22.5	28.2	26.5	1.64	17.140		
558.3	558.0	557.6	557.6	1.0	0.9	-151.40	-1.0	23.2	32.7	30.9	1.85	17.699		
600.0	599.5	598.9	598.9	1.1	1.0	-153.07	-1.6	23.9	36.6	34.6	2.00	18.344		
700.0	699.1	698.0	697.9	1.3	1.2	-154.70	-3.8	26.5	46.8	44.4	2.36	19.867		
800.0	798.7	796.8	796.6	1.5	1.4	-154.35	-7.0	30.5	58.0	55.3	2.72	21.307		
900.0	898.3	895.4	894.9	1.7	1.6	-152.99	-11.4	35.7	70.2	67.1	3.10	22.669		
1,000.0	997.9	993.6	992.8	2.0	1.8	-151.12	-16.8	42.3	83.5	80.0	3.48	23.979		
1,100.0	1,097.4	1,092.4	1,091.1	2.2	2.0	-149.21	-22.9	49.8	97.7	93.8	3.88	25.203		
1,200.0	1,197.0	1,191.3	1,189.5	2.4	2.2	-147.77	-29.2	57.3	112.0	107.7	4.27	26.210		
1,300.0	1,296.6	1,290.2	1,288.0	2.6	2.4	-146.65	-35.4	64.9	126.3	121.6	4.67	27.048		
1,400.0	1,396.2	1,389.2	1,386.4	2.9	2.7	-145.76	-41.6	72.4	140.7	135.6	5.07	27.755		
1,500.0	1,495.8	1,488.1	1,484.9	3.1	2.9	-145.03	-47.8	80.0	155.1	149.6	5.47	28.360		
1,600.0	1,595.4	1,587.0	1,583.3	3.3	3.1	-144.43	-54.1	87.6	169.5	163.7	5.87	28.883		
1,700.0	1,695.0	1,686.0	1,681.8	3.6	3.4	-143.92	-60.3	95.1	184.0	177.7	6.27	29.339		
1,800.0	1,794.6	1,784.9	1,780.2	3.8	3.6	-143.49	-66.5	102.7	198.5	191.8	6.67	29.740		
1,900.0	1,894.2	1,883.9	1,878.7	4.0	3.8	-143.11	-72.7	110.2	212.9	205.8	7.07	30.095		
2,000.0	1,993.8	1,982.8	1,977.1	4.3	4.1	-142.78	-79.0	117.8	227.4	219.9	7.48	30.413		
2,100.0	2,093.4	2,081.7	2,075.6	4.5	4.3	-142.50	-85.2	125.4	241.9	234.0	7.88	30.697		
2,200.0	2,193.0	2,180.7	2,174.0	4.7	4.6	-142.24	-91.4	132.9	256.4	248.1	8.28	30.954		
2,300.0	2,292.6	2,279.6	2,272.5	5.0	4.8	-142.01	-97.6	140.5	270.9	262.2	8.68	31.188		
2,400.0	2,392.2	2,378.6	2,370.9	5.2	5.0	-141.81	-103.9	148.0	285.4	276.3	9.09	31.400		
2,500.0	2,491.8	2,477.5	2,469.4	5.4	5.3	-141.62	-110.1	155.6	299.9	290.4	9.49	31.594		
2,600.0	2,591.4	2,576.4	2,567.9	5.7	5.5	-141.45	-116.3	163.2	314.4	304.5	9.89	31.773		
2,700.0	2,690.9	2,675.4	2,666.3	5.9	5.8	-141.30	-122.5	170.7	328.9	318.6	10.30	31.937		
2,800.0	2,790.5	2,774.3	2,764.8	6.2	6.0	-141.16	-128.8	178.3	343.4	332.7	10.70	32.089		
2,900.0	2,890.1	2,873.3	2,863.2	6.4	6.2	-141.03	-135.0	185.8	357.9	346.8	11.10	32.230		
3,000.0	2,989.7	2,972.2	2,961.7	6.6	6.5	-140.91	-141.2	193.4	372.4	360.9	11.51	32.361		
3,100.0	3,089.3	3,071.1	3,060.1	6.9	6.7	-140.80	-147.5	201.0	386.9	375.0	11.91	32.483		
3,200.0	3,188.9	3,170.1	3,158.6	7.1	7.0	-140.70	-153.7	208.5	401.4	389.1	12.31	32.597		
3,300.0	3,288.5	3,269.0	3,257.0	7.3	7.2	-140.61	-159.9	216.1	415.9	403.2	12.72	32.704		
3,400.0	3,388.1	3,367.9	3,355.5	7.6	7.5	-140.52	-166.1	223.6	430.5	417.3	13.12	32.804		
3,500.0	3,487.7	3,466.9	3,453.9	7.8	7.7	-140.44	-172.4	231.2	445.0	431.4	13.53	32.898		
3,600.0	3,587.3	3,565.8	3,552.4	8.0	7.9	-140.36	-178.6	238.8	459.5	445.6	13.93	32.987		
3,700.0	3,686.9	3,664.8	3,650.8	8.3	8.2	-140.29	-184.8	246.3	474.0	459.7	14.33	33.071		
3,800.0	3,786.5	3,763.7	3,749.3	8.5	8.4	-140.22	-191.0	253.9	488.5	473.8	14.74	33.150		
3,900.0	3,886.1	3,862.6	3,847.7	8.7	8.7	-140.15	-197.3	261.4	503.0	487.9	15.14	33.225		
4,000.0	3,985.7	3,961.6	3,946.2	9.0	8.9	-140.09	-203.5	269.0	517.6	502.0	15.54	33.296		
4,100.0	4,085.3	4,060.5	4,044.6	9.2	9.1	-140.03	-209.7	276.6	532.1	516.1	15.95	33.363		
4,200.0	4,184.9	4,159.5	4,143.1	9.4	9.4	-139.98	-215.9	284.1	546.6	530.3	16.35	33.427		
4,300.0	4,284.4	4,258.4	4,241.6	9.7	9.6	-139.93	-222.2	291.7	561.1	544.4	16.76	33.488		
4,400.0	4,384.0	4,357.3	4,340.0	9.9	9.9	-139.88	-228.4	299.2	575.7	558.5	17.16	33.546		
4,500.0	4,483.6	4,456.3	4,438.5	10.1	10.1	-139.83	-234.6	306.8	590.2	572.6	17.56	33.601		
4,600.0	4,583.2	4,555.2	4,536.9	10.4	10.4	-139.79	-240.8	314.4	604.7	586.7	17.97	33.654		
4,700.0	4,682.8	4,654.1	4,635.4	10.6	10.6	-139.75	-247.1	321.9	619.2	600.8	18.37	33.705		
4,800.0	4,782.4	4,753.1	4,733.8	10.8	10.8	-139.71	-253.3	329.5	633.7	615.0	18.78	33.753		
4,900.0	4,882.0	4,852.0	4,832.3	11.1	11.1	-139.67	-259.5	337.0	648.3	629.1	19.18	33.799		
5,000.0	4,981.6	4,951.0	4,930.7	11.3	11.3	-139.63	-265.7	344.6	662.8	643.2	19.58	33.844		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4F-20H-O264 - 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									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning			
5,100.0	5,081.2	5,049.9	5,029.2	11.6	11.6	-139.59	-272.0	352.2	677.3	657.3	19.99	33.886				
5,200.0	5,180.8	5,148.8	5,127.6	11.8	11.8	-139.56	-278.2	359.7	691.8	671.4	20.39	33.927				
5,300.0	5,280.4	5,247.8	5,226.1	12.0	12.1	-139.53	-284.4	367.3	706.4	685.6	20.80	33.966				
5,400.0	5,380.0	5,346.7	5,324.5	12.3	12.3	-139.50	-290.6	374.8	720.9	699.7	21.20	34.004				
5,500.0	5,479.6	5,445.7	5,423.0	12.5	12.5	-139.47	-296.9	382.4	735.4	713.8	21.60	34.040				
5,600.0	5,579.2	5,554.7	5,531.5	12.7	12.8	-139.48	-303.2	390.1	749.3	727.3	22.02	34.030				
5,700.0	5,678.8	5,665.2	5,641.8	13.0	13.0	-139.59	-308.3	396.2	761.8	739.4	22.43	33.967				
5,763.5	5,742.0	5,735.6	5,712.1	13.1	13.1	-139.71	-310.8	399.3	768.9	746.3	22.68	33.902				
5,800.0	5,778.4	5,776.1	5,752.5	13.2	13.2	-139.83	-312.0	400.7	772.6	749.8	22.83	33.836				
5,900.0	5,878.2	5,887.5	5,863.9	13.4	13.4	-140.07	-314.3	403.6	779.8	756.6	23.22	33.587				
6,000.0	5,978.1	5,999.2	5,975.6	13.5	13.6	-140.16	-315.3	404.8	782.8	759.2	23.56	33.226				
6,021.9	6,000.0	6,023.7	6,000.0	13.5	13.6	90.03	-315.4	404.9	782.9	759.2	23.63	33.129				
6,100.0	6,078.1	6,101.8	6,078.1	13.7	13.7	90.03	-315.4	404.9	782.9	759.0	23.87	32.793				
6,200.0	6,178.1	6,201.8	6,178.1	13.8	13.8	90.03	-315.4	404.9	782.9	758.7	24.18	32.372				
6,300.0	6,278.1	6,301.8	6,278.1	13.9	14.0	90.03	-315.4	404.9	782.9	758.4	24.49	31.961				
6,377.9	6,356.0	6,379.7	6,356.0	14.0	14.1	90.03	-315.4	404.9	782.9	758.1	24.74	31.647				
6,400.0	6,378.1	6,401.8	6,378.2	14.1	14.1	89.93	-314.9	404.9	782.9	758.1	24.79	31.577				
6,450.0	6,428.0	6,451.8	6,428.0	14.1	14.1	89.92	-310.7	404.9	782.9	758.0	24.85	31.499				
6,500.0	6,477.2	6,501.9	6,477.3	14.1	14.1	89.92	-302.2	404.9	782.9	758.0	24.85	31.498				
6,550.0	6,525.6	6,551.9	6,525.6	14.1	14.1	89.91	-289.4	404.9	782.8	758.0	24.80	31.563				
6,600.0	6,572.6	6,601.9	6,572.6	14.0	14.1	89.91	-272.5	404.9	782.8	758.1	24.71	31.681				
6,650.0	6,618.0	6,651.9	6,618.0	14.0	14.0	89.91	-251.5	404.9	782.8	758.2	24.59	31.837				
6,700.0	6,661.4	6,701.8	6,661.3	13.9	13.9	89.90	-226.6	404.9	782.7	758.3	24.45	32.012				
6,750.0	6,702.5	6,751.8	6,702.4	13.8	13.9	89.90	-198.1	404.9	782.7	758.4	24.32	32.186				
6,800.0	6,741.0	6,801.8	6,740.7	13.8	13.8	89.90	-166.1	404.9	782.6	758.4	24.21	32.333				
6,850.0	6,776.5	6,851.8	6,776.2	13.8	13.8	89.90	-130.9	404.9	782.6	758.4	24.13	32.427				
6,900.0	6,808.8	6,901.7	6,808.4	13.8	13.8	89.90	-92.8	404.9	782.5	758.4	24.12	32.443				
6,950.0	6,837.7	6,951.7	6,837.2	13.8	13.8	89.90	-52.0	404.9	782.4	758.3	24.18	32.357				
7,000.0	6,862.9	7,001.6	6,862.3	13.8	13.9	89.90	-8.8	404.9	782.4	758.0	24.33	32.150				
7,050.0	6,884.3	7,051.5	6,883.6	14.0	14.0	89.91	36.3	404.9	782.3	757.7	24.59	31.813				
7,100.0	6,901.6	7,101.5	6,900.8	14.1	14.2	89.91	83.2	404.9	782.2	757.3	24.96	31.344				
7,150.0	6,914.8	7,151.4	6,913.9	14.3	14.4	89.91	131.3	404.9	782.1	756.7	25.43	30.750				
7,200.0	6,923.7	7,201.3	6,922.8	14.6	14.6	89.92	180.4	404.9	782.0	756.0	26.02	30.050				
7,250.0	6,928.3	7,251.2	6,927.3	14.9	14.9	89.92	230.1	404.9	782.0	755.2	26.72	29.266				
7,277.9	6,929.0	7,279.1	6,928.0	15.1	15.1	89.93	258.0	404.9	781.9	754.8	27.15	28.801				
7,300.0	6,929.0	7,301.2	6,928.0	15.2	15.3	89.93	280.1	404.9	781.9	754.4	27.51	28.422				
7,400.0	6,929.0	7,401.2	6,928.0	16.1	16.1	89.93	380.1	404.9	781.7	752.4	29.34	26.641				
7,500.0	6,929.0	7,501.2	6,928.0	17.0	17.1	89.93	480.1	404.9	781.5	750.1	31.46	24.842				
7,600.0	6,929.0	7,601.2	6,928.0	18.1	18.2	89.93	580.1	404.9	781.4	747.6	33.81	23.111				
7,700.0	6,929.0	7,701.2	6,928.0	19.3	19.4	89.93	680.1	404.9	781.2	744.9	36.35	21.493				
7,800.0	6,929.0	7,801.2	6,928.0	20.6	20.6	89.93	780.1	404.9	781.0	742.0	39.03	20.009				
7,900.0	6,929.0	7,901.2	6,928.0	21.9	22.0	89.93	880.1	404.9	780.9	739.0	41.84	18.661				
8,000.0	6,929.0	8,001.2	6,928.0	23.3	23.4	89.93	980.1	404.9	780.7	736.0	44.75	17.445				
8,100.0	6,929.0	8,101.2	6,928.0	24.8	24.8	89.93	1,080.1	404.9	780.5	732.8	47.74	16.349				
8,200.0	6,929.0	8,201.2	6,928.0	26.2	26.3	89.93	1,180.1	404.9	780.4	729.6	50.80	15.363				
8,300.0	6,929.0	8,301.2	6,928.0	27.7	27.8	89.93	1,280.1	404.9	780.2	726.3	53.91	14.473				
8,400.0	6,929.0	8,401.2	6,928.0	29.3	29.3	89.93	1,380.1	404.9	780.0	723.0	57.06	13.669				
8,500.0	6,929.0	8,501.2	6,928.0	30.8	30.9	89.93	1,480.1	404.9	779.9	719.6	60.26	12.942				
8,600.0	6,929.0	8,601.2	6,928.0	32.4	32.4	89.93	1,580.1	404.9	779.7	716.2	63.49	12.281				
8,700.0	6,929.0	8,701.2	6,928.0	34.0	34.0	89.93	1,680.1	404.9	779.5	712.8	66.74	11.679				
8,800.0	6,929.0	8,801.2	6,928.0	35.6	35.7	89.93	1,780.1	404.9	779.4	709.3	70.03	11.130				
8,900.0	6,929.0	8,901.2	6,928.0	37.2	37.3	89.93	1,880.1	404.9	779.2	705.9	73.33	10.626				

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4F-20H-O264 - HZ - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Between Centres (ft)	Between Ellipses (ft)					
9,000.0	6,929.0	9,001.2	6,928.0	38.9	38.9	89.93	1,980.1	404.9	779.0	702.4	76.65	10.164	
9,100.0	6,929.0	9,101.2	6,928.0	40.5	40.6	89.93	2,080.1	404.9	778.9	698.9	79.98	9.738	
9,200.0	6,929.0	9,201.2	6,928.0	42.2	42.2	89.93	2,180.1	404.9	778.7	695.4	83.34	9.344	
9,300.0	6,929.0	9,301.2	6,928.0	43.8	43.9	89.93	2,280.1	404.9	778.5	691.8	86.70	8.980	
9,400.0	6,929.0	9,401.2	6,928.0	45.5	45.5	89.93	2,380.1	404.9	778.4	688.3	90.07	8.642	
9,500.0	6,929.0	9,501.2	6,928.0	47.2	47.2	89.93	2,480.1	404.9	778.2	684.7	93.46	8.327	
9,600.0	6,929.0	9,601.2	6,928.0	48.9	48.9	89.93	2,580.1	404.9	778.0	681.2	96.85	8.033	
9,700.0	6,929.0	9,701.2	6,928.0	50.5	50.6	89.93	2,680.1	404.9	777.9	677.6	100.25	7.759	
9,800.0	6,929.0	9,801.2	6,928.0	52.2	52.3	89.93	2,780.1	404.9	777.7	674.0	103.66	7.503	
9,900.0	6,929.0	9,901.2	6,928.0	53.9	54.0	89.93	2,880.1	404.9	777.5	670.5	107.07	7.262	
10,000.0	6,929.0	10,001.2	6,928.0	55.6	55.7	89.93	2,980.1	404.9	777.4	666.9	110.49	7.035	
10,100.0	6,929.0	10,101.2	6,928.0	57.3	57.4	89.93	3,080.1	404.9	777.2	663.3	113.92	6.822	
10,200.0	6,929.0	10,201.2	6,928.0	59.0	59.1	89.93	3,180.1	404.9	777.0	659.7	117.35	6.622	
10,300.0	6,929.0	10,301.2	6,928.0	60.7	60.8	89.93	3,280.1	404.9	776.9	656.1	120.78	6.432	
10,400.0	6,929.0	10,401.2	6,928.0	62.4	62.5	89.93	3,380.1	404.9	776.7	652.5	124.22	6.252	
10,500.0	6,929.0	10,501.2	6,928.0	64.2	64.2	89.93	3,480.1	404.9	776.5	648.9	127.66	6.083	
10,600.0	6,929.0	10,601.2	6,928.0	65.9	65.9	89.93	3,580.1	404.9	776.4	645.2	131.11	5.921	
10,700.0	6,929.0	10,701.2	6,928.0	67.6	67.6	89.93	3,680.1	404.9	776.2	641.6	134.56	5.768	
10,800.0	6,929.0	10,801.2	6,928.0	69.3	69.3	89.93	3,780.1	404.9	776.0	638.0	138.01	5.623	
10,900.0	6,929.0	10,901.2	6,928.0	71.0	71.1	89.93	3,880.1	404.9	775.8	634.4	141.47	5.484	
11,000.0	6,929.0	11,001.2	6,928.0	72.7	72.8	89.93	3,980.1	404.9	775.7	630.8	144.92	5.352	
11,100.0	6,929.0	11,101.2	6,928.0	74.5	74.5	89.93	4,080.1	404.9	775.5	627.1	148.38	5.226	
11,200.0	6,929.0	11,201.2	6,928.0	76.2	76.2	89.93	4,180.1	404.9	775.3	623.5	151.85	5.106	
11,300.0	6,929.0	11,301.2	6,928.0	77.9	77.9	89.93	4,280.1	404.9	775.2	619.9	155.31	4.991	
11,400.0	6,929.0	11,401.2	6,928.0	79.6	79.7	89.93	4,380.1	404.9	775.0	616.2	158.78	4.881	
11,508.6	6,929.0	11,509.8	6,928.0	81.5	81.6	89.93	4,488.7	404.9	774.8	612.3	162.54	4.767 SF	



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4G-20H-O264 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program:		0-Geolink MWD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.70	-0.4	29.9	29.9					
100.0	100.0	100.0	100.0	0.1	0.1	90.70	-0.4	29.9	29.9	29.7	0.24	122.478		
200.0	200.0	200.0	200.0	0.3	0.3	90.70	-0.4	29.9	29.9	29.3	0.59	50.432		
300.0	300.0	300.0	300.0	0.5	0.5	90.70	-0.4	29.9	29.9	29.0	0.94	31.754	CC, ES	
400.0	400.0	400.0	400.0	0.6	0.6	-141.56	-0.4	29.9	31.3	30.0	1.29	24.200		
500.0	499.8	499.3	499.3	0.8	0.8	-145.96	-0.8	30.7	36.2	34.6	1.64	22.039		
558.3	558.0	557.1	557.1	1.0	0.9	-148.52	-1.4	31.8	41.2	39.4	1.85	22.277		
600.0	599.5	598.3	598.2	1.1	1.0	-150.02	-2.0	33.0	45.5	43.5	2.00	22.754		
700.0	699.1	696.9	696.8	1.3	1.2	-151.89	-3.9	36.7	56.7	54.4	2.36	24.057		
800.0	798.7	795.3	795.0	1.5	1.4	-152.22	-6.7	42.0	69.3	66.6	2.72	25.459		
900.0	898.3	893.3	892.7	1.7	1.6	-151.69	-10.2	48.7	83.2	80.1	3.09	26.893		
1,000.0	997.9	991.0	989.9	2.0	1.8	-150.70	-14.5	56.9	98.4	95.0	3.47	28.343		
1,100.0	1,097.4	1,088.1	1,086.5	2.2	2.0	-149.46	-19.5	66.5	115.0	111.2	3.86	29.804		
1,200.0	1,197.0	1,184.8	1,182.3	2.4	2.3	-148.11	-25.3	77.4	133.0	128.7	4.25	31.275		
1,300.0	1,296.6	1,282.5	1,279.1	2.6	2.5	-146.82	-31.6	89.5	151.9	147.3	4.65	32.678		
1,400.0	1,396.2	1,380.6	1,376.3	2.9	2.8	-145.81	-38.0	101.7	171.0	165.9	5.05	33.866		
1,500.0	1,495.8	1,478.8	1,473.4	3.1	3.1	-145.00	-44.4	113.8	190.1	184.6	5.45	34.884		
1,600.0	1,595.4	1,576.9	1,570.6	3.3	3.4	-144.34	-50.8	126.0	209.2	203.3	5.85	35.765		
1,700.0	1,695.0	1,675.0	1,667.8	3.6	3.7	-143.79	-57.2	138.2	228.3	222.1	6.25	36.535		
1,800.0	1,794.6	1,773.2	1,764.9	3.8	3.9	-143.32	-63.6	150.3	247.5	240.8	6.65	37.213		
1,900.0	1,894.2	1,871.3	1,862.1	4.0	4.2	-142.92	-70.0	162.5	266.6	259.6	7.05	37.816		
2,000.0	1,993.8	1,969.4	1,959.3	4.3	4.5	-142.57	-76.3	174.7	285.8	278.3	7.45	38.354		
2,100.0	2,093.4	2,067.6	2,056.4	4.5	4.8	-142.27	-82.7	186.8	305.0	297.1	7.85	38.837		
2,200.0	2,193.0	2,165.7	2,153.6	4.7	5.1	-142.01	-89.1	199.0	324.2	315.9	8.25	39.274		
2,300.0	2,292.6	2,263.8	2,250.8	5.0	5.4	-141.77	-95.5	211.2	343.4	334.7	8.66	39.671		
2,400.0	2,392.2	2,362.0	2,347.9	5.2	5.7	-141.56	-101.9	223.3	362.6	353.5	9.06	40.033		
2,500.0	2,491.8	2,460.1	2,445.1	5.4	6.0	-141.37	-108.3	235.5	381.8	372.3	9.46	40.364		
2,600.0	2,591.4	2,558.2	2,542.2	5.7	6.3	-141.20	-114.6	247.6	401.0	391.1	9.86	40.668		
2,700.0	2,690.9	2,656.3	2,639.4	5.9	6.6	-141.04	-121.0	259.8	420.2	409.9	10.26	40.949		
2,800.0	2,790.5	2,754.5	2,736.6	6.2	6.8	-140.90	-127.4	272.0	439.4	428.8	10.66	41.208		
2,900.0	2,890.1	2,852.6	2,833.7	6.4	7.1	-140.77	-133.8	284.1	458.6	447.6	11.07	41.449		
3,000.0	2,989.7	2,950.7	2,930.9	6.6	7.4	-140.64	-140.2	296.3	477.9	466.4	11.47	41.673		
3,100.0	3,089.3	3,048.9	3,028.1	6.9	7.7	-140.53	-146.6	308.5	497.1	485.2	11.87	41.881		
3,200.0	3,188.9	3,147.0	3,125.2	7.1	8.0	-140.43	-153.0	320.6	516.3	504.0	12.27	42.077		
3,300.0	3,288.5	3,245.1	3,222.4	7.3	8.3	-140.34	-159.3	332.8	535.5	522.9	12.67	42.259		
3,400.0	3,388.1	3,343.3	3,319.6	7.6	8.6	-140.25	-165.7	344.9	554.8	541.7	13.07	42.431		
3,500.0	3,487.7	3,441.4	3,416.7	7.8	8.9	-140.16	-172.1	357.1	574.0	560.5	13.48	42.592		
3,600.0	3,587.3	3,539.5	3,513.9	8.0	9.2	-140.09	-178.5	369.3	593.2	579.3	13.88	42.744		
3,700.0	3,686.9	3,637.7	3,611.1	8.3	9.5	-140.01	-184.9	381.4	612.4	598.2	14.28	42.888		
3,800.0	3,786.5	3,735.8	3,708.2	8.5	9.8	-139.95	-191.3	393.6	631.7	617.0	14.68	43.024		
3,900.0	3,886.1	3,833.9	3,805.4	8.7	10.1	-139.88	-197.6	405.8	650.9	635.8	15.08	43.152		
4,000.0	3,985.7	3,932.0	3,902.5	9.0	10.4	-139.82	-204.0	417.9	670.1	654.7	15.49	43.274		
4,100.0	4,085.3	4,030.2	3,999.7	9.2	10.7	-139.76	-210.4	430.1	689.4	673.5	15.89	43.389		
4,200.0	4,184.9	4,128.3	4,096.9	9.4	11.0	-139.71	-216.8	442.2	708.6	692.3	16.29	43.499		
4,300.0	4,284.4	4,226.4	4,194.0	9.7	11.3	-139.66	-223.2	454.4	727.8	711.2	16.69	43.604		
4,400.0	4,384.0	4,324.6	4,291.2	9.9	11.6	-139.61	-229.6	466.6	747.1	730.0	17.09	43.704		
4,500.0	4,483.6	4,422.7	4,388.4	10.1	11.8	-139.57	-235.9	478.7	766.3	748.8	17.50	43.799		
4,600.0	4,583.2	4,520.8	4,485.5	10.4	12.1	-139.52	-242.3	490.9	785.6	767.7	17.90	43.890		
4,700.0	4,682.8	4,619.0	4,582.7	10.6	12.4	-139.48	-248.7	503.1	804.8	786.5	18.30	43.976		
4,800.0	4,782.4	4,717.1	4,679.9	10.8	12.7	-139.44	-255.1	515.2	824.0	805.3	18.70	44.060		
4,900.0	4,882.0	4,815.2	4,777.0	11.1	13.0	-139.40	-261.5	527.4	843.3	824.2	19.10	44.139		
5,000.0	4,981.6	4,913.4	4,874.2	11.3	13.3	-139.37	-267.9	539.5	862.5	843.0	19.51	44.216		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4G-20H-O264 - 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									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning			
5,100.0	5,081.2	5,011.5	4,971.4	11.6	13.6	-139.33	-274.3	551.7	881.7	861.8	19.91	44.289				
5,200.0	5,180.8	5,109.6	5,068.5	11.8	13.9	-139.30	-280.6	563.9	901.0	880.7	20.31	44.359				
5,300.0	5,280.4	5,207.7	5,165.7	12.0	14.2	-139.27	-287.0	576.0	920.2	899.5	20.71	44.427				
5,400.0	5,380.0	5,317.1	5,274.0	12.3	14.5	-139.25	-293.9	589.1	939.1	917.9	21.13	44.433				
5,500.0	5,479.6	5,432.6	5,388.7	12.5	14.8	-139.29	-300.2	601.1	956.3	934.7	21.56	44.352				
5,600.0	5,579.2	5,548.8	5,504.4	12.7	15.1	-139.39	-305.4	611.0	971.7	949.7	21.98	44.204				
5,700.0	5,678.8	5,665.6	5,620.8	13.0	15.3	-139.55	-309.5	618.9	985.3	962.9	22.40	43.992				
5,763.5	5,742.0	5,740.0	5,695.1	13.1	15.5	-139.69	-311.6	622.8	993.0	970.4	22.66	43.827				
5,800.0	5,778.4	5,782.8	5,737.9	13.2	15.5	-139.82	-312.6	624.7	996.9	974.1	22.82	43.689				
5,900.0	5,878.2	5,900.8	5,855.8	13.4	15.7	-140.07	-314.5	628.4	1,004.7	981.5	23.23	43.257				
6,000.0	5,978.1	6,019.1	5,974.1	13.5	15.9	-140.17	-315.3	630.0	1,007.9	984.3	23.59	42.729				
6,021.9	6,000.0	6,045.0	6,000.0	13.5	15.9	90.02	-315.4	630.0	1,008.0	984.4	23.67	42.592				
6,100.0	6,078.1	6,123.2	6,078.1	13.7	16.0	90.02	-315.4	630.0	1,008.0	984.1	23.91	42.161				
6,200.0	6,178.1	6,223.2	6,178.1	13.8	16.1	90.02	-315.4	630.0	1,008.0	983.8	24.22	41.620				
6,300.0	6,278.1	6,323.2	6,278.1	13.9	16.2	90.02	-315.4	630.0	1,008.0	983.5	24.53	41.092				
6,377.9	6,356.0	6,401.1	6,356.0	14.0	16.3	90.02	-315.4	630.0	1,008.0	983.3	24.77	40.688				
6,400.0	6,378.1	6,423.2	6,378.1	14.1	16.3	89.95	-315.4	630.0	1,008.0	983.2	24.83	40.592				
6,416.9	6,395.0	6,440.1	6,395.0	14.1	16.3	90.00	-315.4	630.0	1,008.0	983.2	24.87	40.534				
6,450.0	6,428.0	6,473.0	6,428.0	14.1	16.4	90.18	-315.4	630.0	1,008.0	983.1	24.93	40.427				
6,500.0	6,477.2	6,522.9	6,477.9	14.1	16.4	90.61	-314.6	630.0	1,008.1	983.1	24.98	40.353				
6,550.0	6,525.6	6,573.7	6,528.5	14.1	16.5	91.06	-309.7	630.0	1,008.2	983.2	24.97	40.377				
6,600.0	6,572.6	6,625.3	6,579.1	14.0	16.5	91.51	-300.2	630.0	1,008.4	983.4	24.91	40.485				
6,650.0	6,618.0	6,677.7	6,629.5	14.0	16.4	91.94	-285.9	630.0	1,008.6	983.8	24.80	40.660				
6,700.0	6,661.4	6,730.8	6,679.0	13.9	16.4	92.37	-266.7	630.0	1,008.8	984.1	24.68	40.882				
6,750.0	6,702.5	6,784.8	6,727.3	13.8	16.3	92.78	-242.7	630.0	1,009.1	984.6	24.54	41.124				
6,800.0	6,741.0	6,839.5	6,773.7	13.8	16.3	93.17	-213.8	630.0	1,009.4	985.0	24.41	41.358				
6,850.0	6,776.5	6,895.0	6,817.8	13.8	16.2	93.54	-180.1	630.0	1,009.7	985.4	24.30	41.547				
6,900.0	6,808.8	6,951.2	6,858.9	13.8	16.2	93.88	-141.8	630.0	1,010.1	985.8	24.25	41.651				
6,950.0	6,837.7	7,008.1	6,896.5	13.8	16.2	94.19	-99.1	630.0	1,010.4	986.1	24.27	41.624				
7,000.0	6,862.9	7,065.7	6,930.0	13.8	16.2	94.46	-52.3	630.0	1,010.7	986.3	24.39	41.435				
7,050.0	6,884.3	7,123.8	6,958.9	14.0	16.3	94.70	-1.9	630.0	1,010.9	986.3	24.61	41.080				
7,100.0	6,901.6	7,182.4	6,982.7	14.1	16.4	94.89	51.7	630.0	1,011.1	986.1	24.96	40.506				
7,150.0	6,914.8	7,241.5	7,001.1	14.3	16.6	95.05	107.8	630.0	1,011.2	985.8	25.44	39.751				
7,200.0	6,923.7	7,300.8	7,013.6	14.6	16.8	95.15	165.7	630.0	1,011.3	985.3	26.05	38.827				
7,250.0	6,928.3	7,360.3	7,020.1	14.9	17.1	95.21	224.8	630.0	1,011.3	984.5	26.78	37.757				
7,277.9	6,929.0	7,393.4	7,021.0	15.1	17.3	95.22	258.0	630.0	1,011.3	984.0	27.24	37.124				
7,300.0	6,929.0	7,415.5	7,021.0	15.2	17.5	95.22	280.1	630.0	1,011.2	983.6	27.61	36.627				
7,400.0	6,929.0	7,515.5	7,021.0	16.1	18.2	95.22	380.1	630.0	1,011.0	981.6	29.42	34.361				
7,500.0	6,929.0	7,615.5	7,021.0	17.0	19.1	95.22	480.1	630.0	1,010.9	979.4	31.52	32.067				
7,600.0	6,929.0	7,715.5	7,021.0	18.1	20.0	95.22	580.1	630.0	1,010.7	976.9	33.86	29.854				
7,700.0	6,929.0	7,815.5	7,021.0	19.3	21.1	95.22	680.1	630.0	1,010.5	974.2	36.37	27.783				
7,800.0	6,929.0	7,915.5	7,021.0	20.6	22.3	95.22	780.1	630.0	1,010.4	971.3	39.04	25.880				
7,900.0	6,929.0	8,015.5	7,021.0	21.9	23.5	95.23	880.1	630.0	1,010.2	968.4	41.83	24.149				
8,000.0	6,929.0	8,115.5	7,021.0	23.3	24.8	95.23	980.1	630.0	1,010.0	965.3	44.72	22.585				
8,100.0	6,929.0	8,215.5	7,021.0	24.8	26.2	95.23	1,080.1	630.0	1,009.9	962.2	47.69	21.175				
8,200.0	6,929.0	8,315.5	7,021.0	26.2	27.6	95.23	1,180.1	630.0	1,009.7	959.0	50.73	19.904				
8,300.0	6,929.0	8,415.5	7,021.0	27.7	29.0	95.23	1,280.1	630.0	1,009.5	955.7	53.82	18.757				
8,400.0	6,929.0	8,515.5	7,021.0	29.3	30.5	95.23	1,380.1	630.0	1,009.4	952.4	56.96	17.721				
8,500.0	6,929.0	8,615.5	7,021.0	30.8	32.0	95.23	1,480.1	630.0	1,009.2	949.1	60.14	16.781				
8,600.0	6,929.0	8,715.5	7,021.0	32.4	33.5	95.23	1,580.1	630.0	1,009.0	945.7	63.35	15.928				
8,700.0	6,929.0	8,815.5	7,021.0	34.0	35.1	95.23	1,680.1	630.0	1,008.9	942.3	66.59	15.151				
8,800.0	6,929.0	8,915.5	7,021.0	35.6	36.6	95.23	1,780.1	630.0	1,008.7	938.8	69.85	14.440				

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		S20-T2N-R64W (Dale) - Dale 4G-20H-O264 - 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)					
8,900.0	6,929.0	9,015.5	7,021.0	37.2	38.2	95.23	1,880.1	630.0	1,008.5	935.4	73.14	13.789			
9,000.0	6,929.0	9,115.5	7,021.0	38.9	39.8	95.23	1,980.1	630.0	1,008.4	931.9	76.44	13.191			
9,100.0	6,929.0	9,215.5	7,021.0	40.5	41.4	95.24	2,080.1	630.0	1,008.2	928.4	79.76	12.640			
9,200.0	6,929.0	9,315.5	7,021.0	42.2	43.1	95.24	2,180.1	630.0	1,008.0	924.9	83.10	12.131			
9,300.0	6,929.0	9,415.5	7,021.0	43.8	44.7	95.24	2,280.1	630.0	1,007.9	921.4	86.44	11.659			
9,400.0	6,929.0	9,515.5	7,021.0	45.5	46.3	95.24	2,380.1	630.0	1,007.7	917.9	89.80	11.221			
9,500.0	6,929.0	9,615.5	7,021.0	47.2	48.0	95.24	2,480.1	630.0	1,007.5	914.4	93.17	10.814			
9,600.0	6,929.0	9,715.5	7,021.0	48.9	49.6	95.24	2,580.1	630.0	1,007.4	910.8	96.55	10.434			
9,700.0	6,929.0	9,815.5	7,021.0	50.5	51.3	95.24	2,680.1	630.0	1,007.2	907.3	99.93	10.079			
9,800.0	6,929.0	9,915.5	7,021.0	52.2	53.0	95.24	2,780.1	630.0	1,007.0	903.7	103.32	9.746			
9,900.0	6,929.0	10,015.5	7,021.0	53.9	54.6	95.24	2,880.1	630.0	1,006.8	900.1	106.72	9.434			
10,000.0	6,929.0	10,115.5	7,021.0	55.6	56.3	95.24	2,980.1	630.0	1,006.7	896.6	110.13	9.141			
10,100.0	6,929.0	10,215.5	7,021.0	57.3	58.0	95.24	3,080.1	630.0	1,006.5	893.0	113.54	8.865			
10,200.0	6,929.0	10,315.5	7,021.0	59.0	59.7	95.25	3,180.1	630.0	1,006.3	889.4	116.95	8.605			
10,300.0	6,929.0	10,415.5	7,021.0	60.7	61.4	95.25	3,280.1	630.0	1,006.2	885.8	120.37	8.359			
10,400.0	6,929.0	10,515.5	7,021.0	62.4	63.1	95.25	3,380.1	630.0	1,006.0	882.2	123.79	8.126			
10,500.0	6,929.0	10,615.5	7,021.0	64.2	64.8	95.25	3,480.1	630.0	1,005.8	878.6	127.22	7.906			
10,600.0	6,929.0	10,715.5	7,021.0	65.9	66.5	95.25	3,580.1	630.0	1,005.7	875.0	130.65	7.697			
10,700.0	6,929.0	10,815.5	7,021.0	67.6	68.2	95.25	3,680.1	630.0	1,005.5	871.4	134.09	7.499			
10,800.0	6,929.0	10,915.5	7,021.0	69.3	69.9	95.25	3,780.1	630.0	1,005.3	867.8	137.52	7.310			
10,900.0	6,929.0	11,015.5	7,021.0	71.0	71.6	95.25	3,880.1	630.0	1,005.2	864.2	140.96	7.131			
11,000.0	6,929.0	11,115.5	7,021.0	72.7	73.3	95.25	3,980.1	630.0	1,005.0	860.6	144.40	6.960			
11,100.0	6,929.0	11,215.5	7,021.0	74.5	75.0	95.25	4,080.1	630.0	1,004.8	857.0	147.85	6.796			
11,200.0	6,929.0	11,315.5	7,021.0	76.2	76.7	95.25	4,180.1	630.0	1,004.7	853.4	151.30	6.640			
11,300.0	6,929.0	11,415.5	7,021.0	77.9	78.4	95.25	4,280.1	630.0	1,004.5	849.8	154.75	6.491			
11,400.0	6,929.0	11,515.5	7,021.0	79.6	80.1	95.26	4,380.1	630.0	1,004.3	846.1	158.20	6.349			
11,508.6	6,929.0	11,624.2	7,021.0	81.5	82.0	95.26	4,488.7	630.0	1,004.1	842.2	161.95	6.200 SF			



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4H-20H-O264 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program:		0-Geolink MWD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.54	-0.4	37.5	37.5					
100.0	100.0	100.0	100.0	0.1	0.1	90.54	-0.4	37.5	37.5	37.2	0.24	153.379		
200.0	200.0	200.0	200.0	0.3	0.3	90.54	-0.4	37.5	37.5	36.9	0.59	63.156		
300.0	300.0	300.0	300.0	0.5	0.5	90.54	-0.4	37.5	37.5	36.5	0.94	39.765	CC, ES	
400.0	400.0	399.7	399.7	0.6	0.6	-141.18	-0.4	37.7	39.0	37.7	1.29	30.210		
500.0	499.8	498.8	498.8	0.8	0.8	-144.46	-1.0	39.3	44.8	43.1	1.64	27.238		
558.3	558.0	556.4	556.4	1.0	0.9	-146.59	-1.7	40.9	50.2	48.4	1.85	27.139		
600.0	599.5	597.5	597.4	1.1	1.0	-147.94	-2.3	42.5	54.9	52.9	2.00	27.423		
700.0	699.1	695.8	695.6	1.3	1.2	-149.86	-4.1	47.2	67.0	64.7	2.36	28.407		
800.0	798.7	793.8	793.3	1.5	1.4	-150.56	-6.5	53.5	80.7	78.0	2.72	29.635		
900.0	898.3	891.4	890.6	1.7	1.6	-150.51	-9.5	61.3	95.9	92.8	3.09	30.990		
1,000.0	997.9	988.5	987.2	2.0	1.8	-150.03	-13.1	70.6	112.4	108.9	3.47	32.419		
1,100.0	1,097.4	1,085.1	1,083.1	2.2	2.1	-149.30	-17.3	81.4	130.4	126.6	3.85	33.899		
1,200.0	1,197.0	1,181.1	1,178.2	2.4	2.3	-148.44	-22.0	93.6	149.9	145.6	4.23	35.417		
1,300.0	1,296.6	1,276.5	1,272.5	2.6	2.6	-147.51	-27.2	107.2	170.8	166.1	4.62	36.965		
1,400.0	1,396.2	1,371.3	1,365.9	2.9	2.9	-146.56	-33.0	122.2	193.1	188.1	5.01	38.539		
1,500.0	1,495.8	1,466.3	1,459.2	3.1	3.2	-145.61	-39.3	138.6	216.9	211.5	5.41	40.126		
1,600.0	1,595.4	1,563.2	1,554.5	3.3	3.6	-144.79	-45.9	155.6	241.1	235.3	5.81	41.532		
1,700.0	1,695.0	1,660.2	1,649.7	3.6	3.9	-144.12	-52.5	172.7	265.4	259.2	6.21	42.764		
1,800.0	1,794.6	1,757.2	1,744.9	3.8	4.3	-143.57	-59.0	189.8	289.6	283.0	6.60	43.851		
1,900.0	1,894.2	1,854.2	1,840.2	4.0	4.6	-143.10	-65.6	206.9	313.9	306.9	7.00	44.818		
2,000.0	1,993.8	1,951.2	1,935.4	4.3	5.0	-142.69	-72.2	224.0	338.2	330.8	7.40	45.682		
2,100.0	2,093.4	2,048.1	2,030.6	4.5	5.3	-142.34	-78.8	241.0	362.5	354.7	7.80	46.460		
2,200.0	2,193.0	2,145.1	2,125.9	4.7	5.7	-142.04	-85.4	258.1	386.9	378.7	8.20	47.163		
2,300.0	2,292.6	2,242.1	2,221.1	5.0	6.0	-141.77	-91.9	275.2	411.2	402.6	8.60	47.802		
2,400.0	2,392.2	2,339.1	2,316.3	5.2	6.4	-141.53	-98.5	292.3	435.6	426.6	9.00	48.385		
2,500.0	2,491.8	2,436.0	2,411.6	5.4	6.8	-141.32	-105.1	309.4	459.9	450.5	9.40	48.920		
2,600.0	2,591.4	2,533.0	2,506.8	5.7	7.1	-141.13	-111.7	326.4	484.3	474.5	9.80	49.411		
2,700.0	2,690.9	2,630.0	2,602.0	5.9	7.5	-140.95	-118.3	343.5	508.6	498.4	10.20	49.864		
2,800.0	2,790.5	2,727.0	2,697.3	6.2	7.8	-140.79	-124.8	360.6	533.0	522.4	10.60	50.284		
2,900.0	2,890.1	2,823.9	2,792.5	6.4	8.2	-140.65	-131.4	377.7	557.4	546.4	11.00	50.674		
3,000.0	2,989.7	2,920.9	2,887.7	6.6	8.6	-140.52	-138.0	394.8	581.7	570.3	11.40	51.036		
3,100.0	3,089.3	3,017.9	2,983.0	6.9	8.9	-140.40	-144.6	411.8	606.1	594.3	11.80	51.374		
3,200.0	3,188.9	3,114.9	3,078.2	7.1	9.3	-140.28	-151.2	428.9	630.5	618.3	12.20	51.690		
3,300.0	3,288.5	3,211.8	3,173.4	7.3	9.7	-140.18	-157.7	446.0	654.9	642.3	12.60	51.987		
3,400.0	3,388.1	3,308.8	3,268.7	7.6	10.0	-140.08	-164.3	463.1	679.2	666.2	13.00	52.265		
3,500.0	3,487.7	3,405.8	3,363.9	7.8	10.4	-139.99	-170.9	480.2	703.6	690.2	13.40	52.527		
3,600.0	3,587.3	3,502.8	3,459.1	8.0	10.7	-139.91	-177.5	497.2	728.0	714.2	13.79	52.773		
3,700.0	3,686.9	3,599.8	3,554.4	8.3	11.1	-139.83	-184.1	514.3	752.4	738.2	14.19	53.006		
3,800.0	3,786.5	3,696.7	3,649.6	8.5	11.5	-139.76	-190.6	531.4	776.8	762.2	14.59	53.226		
3,900.0	3,886.1	3,793.7	3,744.8	8.7	11.8	-139.69	-197.2	548.5	801.2	786.2	14.99	53.435		
4,000.0	3,985.7	3,890.7	3,840.1	9.0	12.2	-139.63	-203.8	565.6	825.5	810.2	15.39	53.633		
4,100.0	4,085.3	3,987.7	3,935.3	9.2	12.6	-139.56	-210.4	582.6	849.9	834.1	15.79	53.821		
4,200.0	4,184.9	4,084.6	4,030.5	9.4	12.9	-139.51	-217.0	599.7	874.3	858.1	16.19	53.999		
4,300.0	4,284.4	4,181.6	4,125.8	9.7	13.3	-139.45	-223.5	616.8	898.7	882.1	16.59	54.169		
4,400.0	4,384.0	4,278.6	4,221.0	9.9	13.7	-139.40	-230.1	633.9	923.1	906.1	16.99	54.332		
4,500.0	4,483.6	4,375.6	4,316.2	10.1	14.0	-139.35	-236.7	651.0	947.5	930.1	17.39	54.486		
4,600.0	4,583.2	4,472.5	4,411.5	10.4	14.4	-139.31	-243.3	668.0	971.9	954.1	17.79	54.634		
4,700.0	4,682.8	4,569.5	4,506.7	10.6	14.8	-139.26	-249.9	685.1	996.3	978.1	18.19	54.776		
4,800.0	4,782.4	4,666.5	4,601.9	10.8	15.1	-139.22	-256.4	702.2	1,020.7	1,002.1	18.59	54.911		
4,900.0	4,882.0	4,763.5	4,697.2	11.1	15.5	-139.18	-263.0	719.3	1,045.1	1,026.1	18.99	55.040		
5,000.0	4,981.6	4,860.4	4,792.4	11.3	15.8	-139.14	-269.6	736.4	1,069.5	1,050.1	19.39	55.165		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4H-20H-O264 - 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	5,081.2	4,957.4	4,887.6	11.6	16.2	-139.10	-276.2	753.4	1,093.9	1,074.1	19.79	55.284		
5,200.0	5,180.8	5,069.1	4,997.4	11.8	16.6	-139.07	-283.6	772.6	1,117.8	1,097.6	20.21	55.305		
5,300.0	5,280.4	5,188.7	5,115.3	12.0	17.0	-139.08	-290.6	791.0	1,140.0	1,119.4	20.65	55.206		
5,400.0	5,380.0	5,309.3	5,234.7	12.3	17.4	-139.14	-296.9	807.2	1,160.3	1,139.2	21.09	55.027		
5,500.0	5,479.6	5,430.8	5,355.3	12.5	17.7	-139.24	-302.3	821.1	1,178.6	1,157.0	21.52	54.771		
5,600.0	5,579.2	5,553.2	5,477.1	12.7	18.0	-139.38	-306.8	832.8	1,194.9	1,173.0	21.95	54.443		
5,700.0	5,678.8	5,676.3	5,599.7	13.0	18.2	-139.55	-310.3	842.0	1,209.3	1,186.9	22.38	54.046		
5,763.5	5,742.0	5,754.8	5,678.1	13.1	18.3	-139.69	-312.1	846.6	1,217.4	1,194.7	22.64	53.761		
5,800.0	5,778.4	5,800.0	5,723.2	13.2	18.4	-139.82	-312.9	848.8	1,221.5	1,198.7	22.82	53.535		
5,900.0	5,878.2	5,924.5	5,847.7	13.4	18.6	-140.07	-314.6	853.2	1,229.6	1,206.3	23.25	52.891		
6,000.0	5,978.1	6,049.5	5,972.7	13.5	18.7	-140.17	-315.3	855.0	1,233.0	1,209.3	23.63	52.177		
6,021.9	6,000.0	6,076.9	6,000.0	13.5	18.7	90.02	-315.4	855.1	1,233.1	1,209.4	23.72	51.994		
6,100.0	6,078.1	6,155.0	6,078.1	13.7	18.8	90.02	-315.4	855.1	1,233.1	1,209.1	23.96	51.469		
6,200.0	6,178.1	6,255.0	6,178.1	13.8	18.9	90.02	-315.4	855.1	1,233.1	1,208.8	24.27	50.810		
6,300.0	6,278.1	6,355.0	6,278.1	13.9	19.0	90.02	-315.4	855.1	1,233.1	1,208.5	24.58	50.166		
6,377.9	6,356.0	6,432.9	6,356.0	14.0	19.1	90.02	-315.4	855.1	1,233.1	1,208.3	24.82	49.674		
6,400.0	6,378.1	6,455.0	6,378.1	14.1	19.1	89.94	-315.4	855.1	1,233.1	1,208.2	24.88	49.563		
6,422.2	6,400.4	6,477.2	6,400.4	14.1	19.1	90.00	-315.4	855.1	1,233.1	1,208.2	24.92	49.474		
6,450.0	6,428.0	6,504.8	6,428.0	14.1	19.2	90.13	-315.4	855.1	1,233.1	1,208.1	24.98	49.371		
6,500.0	6,477.2	6,554.1	6,477.2	14.1	19.2	90.51	-315.4	855.1	1,233.1	1,208.1	25.03	49.266		
6,550.0	6,525.6	6,602.4	6,525.6	14.1	19.3	91.06	-315.4	855.1	1,233.3	1,208.3	25.05	49.242		
6,600.0	6,572.6	6,649.5	6,572.6	14.0	19.3	91.75	-315.4	855.1	1,233.7	1,208.7	25.03	49.292		
6,650.0	6,618.0	6,698.5	6,621.6	14.0	19.4	92.59	-314.4	855.1	1,234.6	1,209.6	24.98	49.425		
6,700.0	6,661.4	6,750.9	6,673.7	13.9	19.4	93.45	-309.1	855.1	1,235.7	1,210.8	24.89	49.653		
6,750.0	6,702.5	6,805.7	6,727.4	13.8	19.4	94.32	-298.4	855.1	1,237.2	1,212.4	24.77	49.947		
6,800.0	6,741.0	6,863.1	6,782.3	13.8	19.4	95.18	-281.8	855.1	1,238.9	1,214.3	24.64	50.278		
6,850.0	6,776.5	6,923.3	6,837.9	13.8	19.3	96.02	-258.5	855.1	1,240.8	1,216.3	24.52	50.613		
6,900.0	6,808.8	6,986.7	6,893.3	13.8	19.3	96.85	-227.9	855.1	1,242.9	1,218.5	24.42	50.907		
6,950.0	6,837.7	7,053.3	6,947.6	13.8	19.2	97.64	-189.3	855.1	1,245.1	1,220.7	24.36	51.107		
7,000.0	6,862.9	7,123.4	6,999.5	13.8	19.2	98.39	-142.2	855.1	1,247.2	1,222.8	24.39	51.136		
7,050.0	6,884.3	7,197.0	7,047.3	14.0	19.2	99.07	-86.3	855.1	1,249.2	1,224.7	24.52	50.948		
7,100.0	6,901.6	7,273.9	7,089.2	14.1	19.2	99.67	-21.9	855.1	1,251.0	1,226.2	24.81	50.429		
7,150.0	6,914.8	7,353.7	7,123.1	14.3	19.3	100.15	50.2	855.1	1,252.4	1,227.2	25.24	49.623		
7,200.0	6,923.7	7,435.9	7,147.3	14.6	19.5	100.49	128.7	855.1	1,253.4	1,227.6	25.87	48.444		
7,250.0	6,928.3	7,519.5	7,160.1	14.9	19.9	100.68	211.3	855.1	1,253.9	1,227.2	26.69	46.977		
7,277.9	6,929.0	7,566.3	7,162.0	15.1	20.1	100.71	258.0	855.1	1,254.0	1,226.7	27.22	46.073		
7,300.0	6,929.0	7,588.4	7,162.0	15.2	20.2	100.71	280.1	855.1	1,253.9	1,226.3	27.57	45.480		
7,400.0	6,929.0	7,688.4	7,162.0	16.1	20.9	100.71	380.1	855.1	1,253.8	1,224.4	29.36	42.701		
7,500.0	6,929.0	7,788.4	7,162.0	17.0	21.6	100.71	480.1	855.1	1,253.6	1,222.2	31.42	39.894		
7,600.0	6,929.0	7,888.4	7,162.0	18.1	22.5	100.71	580.1	855.1	1,253.4	1,219.7	33.71	37.180		
7,700.0	6,929.0	7,988.4	7,162.0	19.3	23.4	100.71	680.1	855.1	1,253.3	1,217.1	36.19	34.634		
7,800.0	6,929.0	8,088.4	7,162.0	20.6	24.5	100.72	780.1	855.1	1,253.1	1,214.3	38.81	32.289		
7,900.0	6,929.0	8,188.4	7,162.0	21.9	25.6	100.72	880.1	855.1	1,252.9	1,211.4	41.55	30.153		
8,000.0	6,929.0	8,288.4	7,162.0	23.3	26.8	100.72	980.1	855.1	1,252.8	1,208.4	44.39	28.220		
8,100.0	6,929.0	8,388.4	7,162.0	24.8	28.1	100.72	1,080.1	855.1	1,252.6	1,205.3	47.32	26.473		
8,200.0	6,929.0	8,488.4	7,162.0	26.2	29.4	100.72	1,180.1	855.1	1,252.4	1,202.1	50.30	24.897		
8,300.0	6,929.0	8,588.4	7,162.0	27.7	30.8	100.72	1,280.1	855.1	1,252.3	1,198.9	53.35	23.473		
8,400.0	6,929.0	8,688.4	7,162.0	29.3	32.1	100.72	1,380.1	855.1	1,252.1	1,195.7	56.44	22.185		
8,500.0	6,929.0	8,788.4	7,162.0	30.8	33.6	100.73	1,480.1	855.1	1,251.9	1,192.4	59.57	21.017		
8,600.0	6,929.0	8,888.4	7,162.0	32.4	35.0	100.73	1,580.1	855.1	1,251.8	1,189.0	62.73	19.954		
8,700.0	6,929.0	8,988.4	7,162.0	34.0	36.5	100.73	1,680.1	855.1	1,251.6	1,185.7	65.92	18.986		
8,800.0	6,929.0	9,088.4	7,162.0	35.6	38.0	100.73	1,780.1	855.1	1,251.4	1,182.3	69.14	18.100		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4H-20H-O264 - 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		
8,900.0	6,929.0	9,188.4	7,162.0	37.2	39.6	100.73	1,880.1	855.1	1,251.3	1,178.9	72.38	17.289		
9,000.0	6,929.0	9,288.4	7,162.0	38.9	41.1	100.73	1,980.1	855.1	1,251.1	1,175.5	75.63	16.542		
9,100.0	6,929.0	9,388.4	7,162.0	40.5	42.7	100.73	2,080.1	855.1	1,250.9	1,172.0	78.90	15.854		
9,200.0	6,929.0	9,488.4	7,162.0	42.2	44.2	100.74	2,180.1	855.1	1,250.8	1,168.6	82.19	15.218		
9,300.0	6,929.0	9,588.4	7,162.0	43.8	45.8	100.74	2,280.1	855.1	1,250.6	1,165.1	85.49	14.629		
9,400.0	6,929.0	9,688.4	7,162.0	45.5	47.4	100.74	2,380.1	855.1	1,250.5	1,161.7	88.80	14.082		
9,500.0	6,929.0	9,788.4	7,162.0	47.2	49.0	100.74	2,480.1	855.1	1,250.3	1,158.2	92.12	13.572		
9,600.0	6,929.0	9,888.4	7,162.0	48.9	50.7	100.74	2,580.1	855.1	1,250.1	1,154.7	95.45	13.097		
9,700.0	6,929.0	9,988.4	7,162.0	50.5	52.3	100.74	2,680.1	855.1	1,250.0	1,151.2	98.79	12.653		
9,800.0	6,929.0	10,088.4	7,162.0	52.2	53.9	100.74	2,780.1	855.1	1,249.8	1,147.7	102.13	12.237		
9,900.0	6,929.0	10,188.4	7,162.0	53.9	55.6	100.75	2,880.1	855.1	1,249.6	1,144.1	105.48	11.847		
10,000.0	6,929.0	10,288.4	7,162.0	55.6	57.2	100.75	2,980.1	855.1	1,249.5	1,140.6	108.84	11.480		
10,100.0	6,929.0	10,388.4	7,162.0	57.3	58.9	100.75	3,080.1	855.1	1,249.3	1,137.1	112.20	11.135		
10,200.0	6,929.0	10,488.4	7,162.0	59.0	60.5	100.75	3,180.1	855.1	1,249.1	1,133.6	115.57	10.809		
10,300.0	6,929.0	10,588.4	7,162.0	60.7	62.2	100.75	3,280.1	855.1	1,249.0	1,130.0	118.94	10.501		
10,400.0	6,929.0	10,688.4	7,162.0	62.4	63.9	100.75	3,380.1	855.1	1,248.8	1,126.5	122.32	10.210		
10,500.0	6,929.0	10,788.4	7,162.0	64.2	65.6	100.75	3,480.1	855.1	1,248.6	1,122.9	125.70	9.934		
10,600.0	6,929.0	10,888.4	7,162.0	65.9	67.2	100.76	3,580.1	855.1	1,248.5	1,119.4	129.08	9.672		
10,700.0	6,929.0	10,988.4	7,162.0	67.6	68.9	100.76	3,680.1	855.1	1,248.3	1,115.8	132.47	9.424		
10,800.0	6,929.0	11,088.4	7,162.0	69.3	70.6	100.76	3,780.1	855.1	1,248.1	1,112.3	135.86	9.187		
10,900.0	6,929.0	11,188.4	7,162.0	71.0	72.3	100.76	3,880.1	855.1	1,248.0	1,108.7	139.25	8.962		
11,000.0	6,929.0	11,288.4	7,162.0	72.7	74.0	100.76	3,980.1	855.1	1,247.8	1,105.2	142.64	8.748		
11,100.0	6,929.0	11,388.4	7,162.0	74.5	75.7	100.76	4,080.1	855.1	1,247.7	1,101.6	146.04	8.543		
11,200.0	6,929.0	11,488.4	7,162.0	76.2	77.4	100.76	4,180.1	855.1	1,247.5	1,098.0	149.44	8.348		
11,300.0	6,929.0	11,588.4	7,162.0	77.9	79.1	100.77	4,280.1	855.1	1,247.3	1,094.5	152.84	8.161		
11,400.0	6,929.0	11,688.4	7,162.0	79.6	80.8	100.77	4,380.1	855.1	1,247.2	1,090.9	156.24	7.982		
11,508.6	6,929.0	11,797.0	7,162.0	81.5	82.6	100.77	4,488.7	855.1	1,247.0	1,087.0	159.94	7.796 SF		



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4I-20H-O264 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program:		0-Geolink MWD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.45	-0.4	45.0	45.0					
100.0	100.0	100.0	100.0	0.1	0.1	90.45	-0.4	45.0	45.0	44.8	0.24	184.281	CC, ES	
200.0	200.0	200.0	200.0	0.3	0.3	90.45	-0.4	45.0	45.0	44.4	0.59	75.880		
300.0	300.0	300.0	300.0	0.5	0.5	90.45	-0.4	45.0	45.0	44.1	0.94	47.777		
400.0	400.0	398.4	398.4	0.6	0.6	-140.46	-0.8	46.6	48.0	46.7	1.29	37.221		
500.0	499.8	496.3	496.2	0.8	0.8	-142.14	-2.3	51.5	57.0	55.3	1.64	34.698		
558.3	558.0	552.9	552.6	1.0	1.0	-143.24	-3.6	55.7	65.0	63.1	1.85	35.102		
600.0	599.5	593.2	592.6	1.1	1.0	-143.92	-4.7	59.4	71.7	69.7	2.00	35.815		
700.0	699.1	688.9	687.7	1.3	1.3	-144.58	-8.0	70.2	90.0	87.7	2.37	38.000		
800.0	798.7	783.5	781.3	1.5	1.6	-144.39	-12.2	84.0	111.4	108.6	2.74	40.614		
900.0	898.3	876.8	872.9	1.7	1.9	-143.78	-17.2	100.4	135.7	132.6	3.12	43.487		
1,000.0	997.9	969.8	963.7	2.0	2.3	-142.98	-23.0	119.5	162.9	159.4	3.50	46.501		
1,100.0	1,097.4	1,065.8	1,057.3	2.2	2.7	-142.30	-29.2	140.0	190.9	187.0	3.89	49.029		
1,200.0	1,197.0	1,161.8	1,150.9	2.4	3.1	-141.79	-35.5	160.4	218.9	214.6	4.28	51.092		
1,300.0	1,296.6	1,257.7	1,244.4	2.6	3.5	-141.40	-41.7	180.9	246.9	242.2	4.68	52.804		
1,400.0	1,396.2	1,353.7	1,338.0	2.9	3.9	-141.09	-47.9	201.4	274.9	269.8	5.07	54.247		
1,500.0	1,495.8	1,449.7	1,431.6	3.1	4.3	-140.84	-54.2	221.9	302.9	297.5	5.46	55.481		
1,600.0	1,595.4	1,545.7	1,525.1	3.3	4.7	-140.63	-60.4	242.3	331.0	325.1	5.85	56.546		
1,700.0	1,695.0	1,641.7	1,618.7	3.6	5.1	-140.45	-66.6	262.8	359.0	352.7	6.25	57.475		
1,800.0	1,794.6	1,737.7	1,712.3	3.8	5.5	-140.30	-72.9	283.3	387.0	380.4	6.64	58.293		
1,900.0	1,894.2	1,833.7	1,805.8	4.0	5.9	-140.16	-79.1	303.7	415.1	408.0	7.03	59.018		
2,000.0	1,993.8	1,929.6	1,899.4	4.3	6.3	-140.05	-85.3	324.2	443.1	435.7	7.43	59.666		
2,100.0	2,093.4	2,025.6	1,993.0	4.5	6.7	-139.95	-91.6	344.7	471.1	463.3	7.82	60.247		
2,200.0	2,193.0	2,121.6	2,086.6	4.7	7.1	-139.86	-97.8	365.2	499.2	491.0	8.21	60.772		
2,300.0	2,292.6	2,217.6	2,180.1	5.0	7.6	-139.78	-104.0	385.6	527.2	518.6	8.61	61.249		
2,400.0	2,392.2	2,313.6	2,273.7	5.2	8.0	-139.71	-110.3	406.1	555.3	546.3	9.00	61.683		
2,500.0	2,491.8	2,409.6	2,367.3	5.4	8.4	-139.64	-116.5	426.6	583.3	573.9	9.40	62.081		
2,600.0	2,591.4	2,505.5	2,460.8	5.7	8.8	-139.58	-122.7	447.1	611.4	601.6	9.79	62.446		
2,700.0	2,690.9	2,601.5	2,554.4	5.9	9.2	-139.53	-129.0	467.5	639.4	629.2	10.18	62.783		
2,800.0	2,790.5	2,697.5	2,648.0	6.2	9.6	-139.48	-135.2	488.0	667.5	656.9	10.58	63.094		
2,900.0	2,890.1	2,793.5	2,741.5	6.4	10.1	-139.43	-141.4	508.5	695.5	684.5	10.97	63.383		
3,000.0	2,989.7	2,889.5	2,835.1	6.6	10.5	-139.39	-147.6	529.0	723.5	712.2	11.37	63.651		
3,100.0	3,089.3	2,985.5	2,928.7	6.9	10.9	-139.35	-153.9	549.4	751.6	739.8	11.76	63.902		
3,200.0	3,188.9	3,081.5	3,022.2	7.1	11.3	-139.31	-160.1	569.9	779.6	767.5	12.16	64.136		
3,300.0	3,288.5	3,177.4	3,115.8	7.3	11.7	-139.28	-166.3	590.4	807.7	795.1	12.55	64.355		
3,400.0	3,388.1	3,273.4	3,209.4	7.6	12.1	-139.25	-172.6	610.9	835.7	822.8	12.94	64.561		
3,500.0	3,487.7	3,369.4	3,302.9	7.8	12.5	-139.22	-178.8	631.3	863.8	850.4	13.34	64.754		
3,600.0	3,587.3	3,465.4	3,396.5	8.0	13.0	-139.19	-185.0	651.8	891.8	878.1	13.73	64.936		
3,700.0	3,686.9	3,561.4	3,490.1	8.3	13.4	-139.17	-191.3	672.3	919.9	905.7	14.13	65.108		
3,800.0	3,786.5	3,657.4	3,583.7	8.5	13.8	-139.14	-197.5	692.8	947.9	933.4	14.52	65.271		
3,900.0	3,886.1	3,753.4	3,677.2	8.7	14.2	-139.12	-203.7	713.2	976.0	961.1	14.92	65.425		
4,000.0	3,985.7	3,849.3	3,770.8	9.0	14.6	-139.10	-210.0	733.7	1,004.0	988.7	15.31	65.571		
4,100.0	4,085.3	3,945.3	3,864.4	9.2	15.0	-139.08	-216.2	754.2	1,032.1	1,016.4	15.71	65.709		
4,200.0	4,184.9	4,041.3	3,957.9	9.4	15.5	-139.06	-222.4	774.6	1,060.1	1,044.0	16.10	65.841		
4,300.0	4,284.4	4,137.3	4,051.5	9.7	15.9	-139.04	-228.7	795.1	1,088.2	1,071.7	16.50	65.966		
4,400.0	4,384.0	4,233.3	4,145.1	9.9	16.3	-139.02	-234.9	815.6	1,116.2	1,099.3	16.89	66.086		
4,500.0	4,483.6	4,329.3	4,238.6	10.1	16.7	-139.01	-241.1	836.1	1,144.3	1,127.0	17.29	66.200		
4,600.0	4,583.2	4,425.3	4,332.2	10.4	17.1	-138.99	-247.4	856.5	1,172.3	1,154.6	17.68	66.309		
4,700.0	4,682.8	4,521.2	4,425.8	10.6	17.5	-138.98	-253.6	877.0	1,200.4	1,182.3	18.07	66.413		
4,800.0	4,782.4	4,617.2	4,519.3	10.8	18.0	-138.96	-259.8	897.5	1,228.4	1,209.9	18.47	66.512		
4,900.0	4,882.0	4,713.2	4,612.9	11.1	18.4	-138.95	-266.1	918.0	1,256.5	1,237.6	18.86	66.608		
5,000.0	4,981.6	4,809.2	4,706.5	11.3	18.8	-138.93	-272.3	938.4	1,284.5	1,265.3	19.26	66.699		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4I-20H-O264 - 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							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	5,081.2	4,927.6	4,822.1	11.6	19.3	-138.93	-279.7	962.8	1,311.9	1,292.2	19.69	66.611	
5,200.0	5,180.8	5,051.9	4,944.1	11.8	19.7	-138.96	-286.8	986.0	1,337.3	1,317.1	20.14	66.400	
5,300.0	5,280.4	5,177.6	5,067.8	12.0	20.2	-139.02	-293.1	1,006.9	1,360.6	1,340.1	20.58	66.100	
5,400.0	5,380.0	5,304.4	5,193.2	12.3	20.6	-139.11	-298.7	1,025.3	1,382.0	1,360.9	21.03	65.715	
5,500.0	5,479.6	5,432.4	5,320.0	12.5	20.9	-139.23	-303.6	1,041.2	1,401.2	1,379.7	21.47	65.254	
5,600.0	5,579.2	5,561.3	5,448.2	12.7	21.2	-139.38	-307.6	1,054.4	1,418.3	1,396.4	21.92	64.717	
5,700.0	5,678.8	5,691.0	5,577.5	13.0	21.5	-139.56	-310.8	1,065.0	1,433.3	1,410.9	22.36	64.111	
5,763.5	5,742.0	5,773.8	5,660.1	13.1	21.6	-139.70	-312.4	1,070.3	1,441.7	1,419.0	22.63	63.693	
5,800.0	5,778.4	5,821.6	5,707.8	13.2	21.7	-139.82	-313.2	1,072.8	1,445.9	1,423.1	22.82	63.371	
5,900.0	5,878.2	5,953.0	5,839.1	13.4	21.8	-140.07	-314.7	1,077.8	1,454.3	1,431.0	23.27	62.487	
6,000.0	5,978.1	6,085.1	5,971.1	13.5	22.0	-140.18	-315.3	1,079.9	1,457.8	1,434.1	23.68	61.568	
6,021.9	6,000.0	6,114.0	6,000.0	13.5	22.0	90.01	-315.3	1,079.9	1,457.9	1,434.2	23.77	61.333	
6,100.0	6,078.1	6,192.1	6,078.1	13.7	22.0	90.01	-315.3	1,079.9	1,457.9	1,433.9	24.01	60.715	
6,200.0	6,178.1	6,292.1	6,178.1	13.8	22.1	90.01	-315.3	1,079.9	1,457.9	1,433.6	24.32	59.939	
6,300.0	6,278.1	6,392.1	6,278.1	13.9	22.2	90.01	-315.3	1,079.9	1,457.9	1,433.3	24.64	59.180	
6,377.9	6,356.0	6,470.0	6,356.0	14.0	22.3	90.01	-315.3	1,079.9	1,457.9	1,433.0	24.88	58.601	
6,400.0	6,378.1	6,492.1	6,378.2	14.1	22.3	89.92	-314.9	1,079.9	1,457.9	1,433.0	24.92	58.496	
6,450.0	6,428.0	6,542.1	6,428.0	14.1	22.3	89.91	-310.7	1,079.9	1,457.9	1,432.9	24.99	58.351	
6,500.0	6,477.2	6,592.2	6,477.3	14.1	22.3	89.91	-302.2	1,079.9	1,457.9	1,432.9	24.99	58.346	
6,550.0	6,525.6	6,642.2	6,525.6	14.1	22.3	89.91	-289.4	1,079.9	1,457.9	1,432.9	24.94	58.462	
6,600.0	6,572.6	6,692.2	6,572.6	14.0	22.3	89.91	-272.4	1,079.9	1,457.9	1,433.0	24.85	58.675	
6,650.0	6,618.0	6,742.2	6,618.0	14.0	22.2	89.91	-251.5	1,079.9	1,457.8	1,433.1	24.73	58.959	
6,700.0	6,661.4	6,792.1	6,661.3	13.9	22.2	89.91	-226.6	1,079.9	1,457.8	1,433.2	24.59	59.278	
6,750.0	6,702.5	6,842.1	6,702.3	13.8	22.2	89.91	-198.1	1,079.9	1,457.7	1,433.3	24.46	59.593	
6,800.0	6,741.0	6,892.1	6,740.7	13.8	22.1	89.91	-166.1	1,079.9	1,457.7	1,433.3	24.35	59.860	
6,850.0	6,776.5	6,942.0	6,776.2	13.8	22.1	89.92	-130.9	1,079.9	1,457.6	1,433.3	24.28	60.030	
6,900.0	6,808.8	6,992.0	6,808.4	13.8	22.1	89.92	-92.8	1,079.9	1,457.6	1,433.3	24.27	60.057	
6,950.0	6,837.7	7,041.9	6,837.2	13.8	22.1	89.92	-52.0	1,079.9	1,457.5	1,433.2	24.33	59.896	
7,000.0	6,862.9	7,091.9	6,862.3	13.8	22.2	89.93	-8.8	1,079.9	1,457.4	1,432.9	24.49	59.516	
7,050.0	6,884.3	7,141.8	6,883.5	14.0	22.2	89.93	36.3	1,079.9	1,457.3	1,432.6	24.74	58.896	
7,100.0	6,901.6	7,191.7	6,900.8	14.1	22.3	89.94	83.2	1,079.9	1,457.3	1,432.1	25.11	58.034	
7,150.0	6,914.8	7,241.7	6,913.9	14.3	22.4	89.94	131.3	1,079.9	1,457.2	1,431.6	25.59	56.946	
7,200.0	6,923.7	7,291.6	6,922.8	14.6	22.6	89.95	180.4	1,079.9	1,457.1	1,430.9	26.18	55.661	
7,250.0	6,928.3	7,341.5	6,927.3	14.9	22.8	89.96	230.1	1,079.9	1,457.0	1,430.1	26.87	54.223	
7,277.9	6,929.0	7,369.4	6,928.0	15.1	22.9	89.96	258.0	1,079.9	1,457.0	1,429.7	27.30	53.376	
7,300.0	6,929.0	7,391.5	6,928.0	15.2	23.0	89.96	280.1	1,079.9	1,456.9	1,429.3	27.66	52.678	
7,400.0	6,929.0	7,491.5	6,928.0	16.1	23.5	89.96	380.1	1,079.9	1,456.8	1,427.3	29.49	49.400	
7,500.0	6,929.0	7,591.5	6,928.0	17.0	24.2	89.96	480.1	1,079.9	1,456.6	1,425.0	31.60	46.094	
7,600.0	6,929.0	7,691.5	6,928.0	18.1	25.0	89.96	580.1	1,079.9	1,456.4	1,422.5	33.94	42.907	
7,700.0	6,929.0	7,791.5	6,928.0	19.3	25.8	89.96	680.1	1,079.9	1,456.3	1,419.8	36.47	39.925	
7,800.0	6,929.0	7,891.5	6,928.0	20.6	26.8	89.96	780.1	1,079.9	1,456.1	1,416.9	39.16	37.186	
7,900.0	6,929.0	7,991.5	6,928.0	21.9	27.8	89.96	880.1	1,079.9	1,455.9	1,414.0	41.96	34.697	
8,000.0	6,929.0	8,091.5	6,928.0	23.3	28.9	89.96	980.1	1,079.9	1,455.7	1,410.9	44.86	32.448	
8,100.0	6,929.0	8,191.5	6,928.0	24.8	30.1	89.96	1,080.1	1,079.9	1,455.6	1,407.7	47.85	30.420	
8,200.0	6,929.0	8,291.5	6,928.0	26.2	31.3	89.96	1,180.1	1,079.9	1,455.4	1,404.5	50.90	28.594	
8,300.0	6,929.0	8,391.5	6,928.0	27.7	32.6	89.96	1,280.1	1,079.9	1,455.2	1,401.2	54.01	26.946	
8,400.0	6,929.0	8,491.5	6,928.0	29.3	33.9	89.96	1,380.1	1,079.9	1,455.1	1,397.9	57.16	25.456	
8,500.0	6,929.0	8,591.5	6,928.0	30.8	35.2	89.96	1,480.1	1,079.9	1,454.9	1,394.5	60.35	24.107	
8,600.0	6,929.0	8,691.5	6,928.0	32.4	36.6	89.96	1,580.1	1,079.9	1,454.7	1,391.2	63.58	22.881	
8,700.0	6,929.0	8,791.5	6,928.0	34.0	38.0	89.96	1,680.1	1,079.9	1,454.6	1,387.7	66.83	21.764	
8,800.0	6,929.0	8,891.5	6,928.0	35.6	39.5	89.96	1,780.1	1,079.9	1,454.4	1,384.3	70.11	20.744	
8,900.0	6,929.0	8,991.5	6,928.0	37.2	41.0	89.96	1,880.1	1,079.9	1,454.2	1,380.8	73.41	19.809	

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



Anticollision Report

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Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4I-20H-O264 - 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		
9,000.0	6,929.0	9,091.5	6,928.0	38.9	42.4	89.96	1,980.1	1,079.9	1,454.1	1,377.3	76.73	18.950		
9,100.0	6,929.0	9,191.5	6,928.0	40.5	44.0	89.96	2,080.1	1,079.9	1,453.9	1,373.8	80.06	18.159		
9,200.0	6,929.0	9,291.5	6,928.0	42.2	45.5	89.96	2,180.1	1,079.9	1,453.7	1,370.3	83.41	17.428		
9,300.0	6,929.0	9,391.5	6,928.0	43.8	47.0	89.96	2,280.1	1,079.9	1,453.6	1,366.8	86.77	16.751		
9,400.0	6,929.0	9,491.5	6,928.0	45.5	48.6	89.96	2,380.1	1,079.9	1,453.4	1,363.2	90.15	16.122		
9,500.0	6,929.0	9,591.5	6,928.0	47.2	50.2	89.96	2,480.1	1,079.9	1,453.2	1,359.7	93.53	15.538		
9,600.0	6,929.0	9,691.5	6,928.0	48.9	51.7	89.96	2,580.1	1,079.9	1,453.0	1,356.1	96.92	14.992		
9,700.0	6,929.0	9,791.5	6,928.0	50.5	53.3	89.96	2,680.1	1,079.9	1,452.9	1,352.6	100.32	14.482		
9,800.0	6,929.0	9,891.5	6,928.0	52.2	54.9	89.96	2,780.1	1,079.9	1,452.7	1,349.0	103.73	14.005		
9,900.0	6,929.0	9,991.5	6,928.0	53.9	56.6	89.96	2,880.1	1,079.9	1,452.5	1,345.4	107.14	13.557		
10,000.0	6,929.0	10,091.5	6,928.0	55.6	58.2	89.96	2,980.1	1,079.9	1,452.4	1,341.8	110.56	13.137		
10,100.0	6,929.0	10,191.5	6,928.0	57.3	59.8	89.96	3,080.1	1,079.9	1,452.2	1,338.2	113.98	12.740		
10,200.0	6,929.0	10,291.5	6,928.0	59.0	61.4	89.96	3,180.1	1,079.9	1,452.0	1,334.6	117.41	12.367		
10,300.0	6,929.0	10,391.5	6,928.0	60.7	63.1	89.96	3,280.1	1,079.9	1,451.9	1,331.0	120.85	12.014		
10,400.0	6,929.0	10,491.5	6,928.0	62.4	64.7	89.96	3,380.1	1,079.9	1,451.7	1,327.4	124.29	11.680		
10,500.0	6,929.0	10,591.5	6,928.0	64.2	66.4	89.96	3,480.1	1,079.9	1,451.5	1,323.8	127.73	11.364		
10,600.0	6,929.0	10,691.5	6,928.0	65.9	68.1	89.96	3,580.1	1,079.9	1,451.4	1,320.2	131.17	11.064		
10,700.0	6,929.0	10,791.5	6,928.0	67.6	69.7	89.96	3,680.1	1,079.9	1,451.2	1,316.6	134.62	10.780		
10,800.0	6,929.0	10,891.5	6,928.0	69.3	71.4	89.96	3,780.1	1,079.9	1,451.0	1,313.0	138.07	10.509		
10,900.0	6,929.0	10,991.5	6,928.0	71.0	73.1	89.96	3,880.1	1,079.9	1,450.9	1,309.3	141.53	10.251		
11,000.0	6,929.0	11,091.5	6,928.0	72.7	74.7	89.96	3,980.1	1,079.9	1,450.7	1,305.7	144.99	10.006		
11,100.0	6,929.0	11,191.5	6,928.0	74.5	76.4	89.96	4,080.1	1,079.9	1,450.5	1,302.1	148.44	9.771		
11,200.0	6,929.0	11,291.5	6,928.0	76.2	78.1	89.96	4,180.1	1,079.9	1,450.4	1,298.4	151.91	9.548		
11,300.0	6,929.0	11,391.5	6,928.0	77.9	79.8	89.96	4,280.1	1,079.9	1,450.2	1,294.8	155.37	9.334		
11,400.0	6,929.0	11,491.5	6,928.0	79.6	81.5	89.96	4,380.1	1,079.9	1,450.0	1,291.2	158.84	9.129		
11,508.6	6,929.0	11,600.1	6,928.0	81.5	83.3	89.96	4,488.7	1,079.9	1,449.8	1,287.2	162.60	8.916 SF		



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4J-20H-O264 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program:		0-Geolink MWD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.80	-0.7	52.3	52.3					
100.0	100.0	99.0	99.0	0.1	0.1	90.80	-0.7	52.3	52.3	52.1	0.24	215.130		
200.0	200.0	199.0	199.0	0.3	0.3	90.80	-0.7	52.3	52.3	51.7	0.59	88.400		
234.7	234.7	233.7	233.7	0.4	0.4	90.80	-0.7	52.3	52.3	51.6	0.71	73.396 CC, ES		
300.0	300.0	298.1	298.1	0.5	0.5	90.90	-0.8	52.7	52.7	51.8	0.94	56.103		
400.0	400.0	396.2	396.1	0.6	0.6	-139.59	-1.6	55.9	57.3	56.0	1.29	44.571		
500.0	499.8	493.6	493.3	0.8	0.8	-140.95	-3.3	62.3	67.9	66.3	1.64	41.471 SF		
558.3	558.0	549.8	549.3	1.0	1.0	-141.93	-4.6	67.5	76.9	75.0	1.85	41.631		
600.0	599.5	589.7	588.9	1.1	1.1	-142.61	-5.6	71.8	84.3	82.3	2.00	42.197		
700.0	699.1	684.7	683.1	1.3	1.3	-143.45	-8.8	84.2	104.3	101.9	2.36	44.131		
800.0	798.7	778.4	775.4	1.5	1.7	-143.57	-12.6	99.4	127.4	124.6	2.73	46.593		
900.0	898.3	870.7	865.8	1.7	2.0	-143.29	-17.1	117.2	153.4	150.3	3.11	49.376		
1,000.0	997.9	961.3	954.0	2.0	2.4	-142.81	-22.2	137.5	182.4	178.9	3.48	52.387		
1,100.0	1,097.4	1,055.9	1,045.6	2.2	2.8	-142.29	-27.9	160.3	213.2	209.3	3.87	55.124		
1,200.0	1,197.0	1,151.0	1,137.7	2.4	3.3	-141.91	-33.7	183.3	243.9	239.7	4.25	57.347		
1,300.0	1,296.6	1,246.1	1,229.9	2.6	3.7	-141.60	-39.4	206.2	274.7	270.1	4.64	59.192		
1,400.0	1,396.2	1,341.3	1,322.0	2.9	4.1	-141.36	-45.2	229.2	305.5	300.5	5.03	60.747		
1,500.0	1,495.8	1,436.4	1,414.2	3.1	4.6	-141.17	-51.0	252.2	336.3	330.9	5.42	62.076		
1,600.0	1,595.4	1,531.5	1,506.3	3.3	5.0	-141.00	-56.8	275.2	367.1	361.3	5.81	63.223		
1,700.0	1,695.0	1,626.7	1,598.5	3.6	5.5	-140.87	-62.5	298.1	397.8	391.7	6.19	64.225		
1,800.0	1,794.6	1,721.8	1,690.6	3.8	5.9	-140.75	-68.3	321.1	428.6	422.1	6.58	65.106		
1,900.0	1,894.2	1,817.0	1,782.7	4.0	6.4	-140.64	-74.1	344.1	459.4	452.5	6.97	65.887		
2,000.0	1,993.8	1,912.1	1,874.9	4.3	6.8	-140.55	-79.9	367.0	490.2	482.9	7.36	66.585		
2,100.0	2,093.4	2,007.2	1,967.0	4.5	7.3	-140.48	-85.6	390.0	521.0	513.3	7.75	67.211		
2,200.0	2,193.0	2,102.4	2,059.2	4.7	7.8	-140.41	-91.4	413.0	551.8	543.7	8.14	67.777		
2,300.0	2,292.6	2,197.5	2,151.3	5.0	8.2	-140.34	-97.2	435.9	582.6	574.1	8.53	68.291		
2,400.0	2,392.2	2,292.6	2,243.5	5.2	8.7	-140.29	-103.0	458.9	613.4	604.5	8.92	68.759		
2,500.0	2,491.8	2,387.8	2,335.6	5.4	9.1	-140.24	-108.7	481.9	644.2	634.9	9.31	69.187		
2,600.0	2,591.4	2,482.9	2,427.7	5.7	9.6	-140.19	-114.5	504.8	675.0	665.3	9.70	69.581		
2,700.0	2,690.9	2,578.1	2,519.9	5.9	10.0	-140.15	-120.3	527.8	705.8	695.7	10.09	69.943		
2,800.0	2,790.5	2,673.2	2,612.0	6.2	10.5	-140.11	-126.1	550.8	736.6	726.1	10.48	70.279		
2,900.0	2,890.1	2,768.3	2,704.2	6.4	10.9	-140.07	-131.8	573.7	767.4	756.5	10.87	70.590		
3,000.0	2,989.7	2,863.5	2,796.3	6.6	11.4	-140.04	-137.6	596.7	798.2	786.9	11.26	70.880		
3,100.0	3,089.3	2,958.6	2,888.5	6.9	11.8	-140.01	-143.4	619.7	829.0	817.3	11.65	71.149		
3,200.0	3,188.9	3,053.8	2,980.6	7.1	12.3	-139.98	-149.2	642.7	859.8	847.8	12.04	71.402		
3,300.0	3,288.5	3,148.9	3,072.7	7.3	12.8	-139.95	-155.0	665.6	890.6	878.2	12.43	71.638		
3,400.0	3,388.1	3,244.0	3,164.9	7.6	13.2	-139.93	-160.7	688.6	921.4	908.6	12.82	71.860		
3,500.0	3,487.7	3,339.2	3,257.0	7.8	13.7	-139.91	-166.5	711.6	952.2	939.0	13.21	72.068		
3,600.0	3,587.3	3,434.3	3,349.2	8.0	14.1	-139.88	-172.3	734.5	983.0	969.4	13.60	72.264		
3,700.0	3,686.9	3,529.4	3,441.3	8.3	14.6	-139.86	-178.1	757.5	1,013.8	999.8	13.99	72.450		
3,800.0	3,786.5	3,624.6	3,533.5	8.5	15.0	-139.85	-183.8	780.5	1,044.6	1,030.2	14.38	72.625		
3,900.0	3,886.1	3,719.7	3,625.6	8.7	15.5	-139.83	-189.6	803.4	1,075.4	1,060.6	14.77	72.791		
4,000.0	3,985.7	3,814.9	3,717.7	9.0	15.9	-139.81	-195.4	826.4	1,106.2	1,091.0	15.16	72.948		
4,100.0	4,085.3	3,910.0	3,809.9	9.2	16.4	-139.79	-201.2	849.4	1,137.0	1,121.4	15.55	73.098		
4,200.0	4,184.9	4,005.1	3,902.0	9.4	16.9	-139.78	-206.9	872.3	1,167.8	1,151.8	15.94	73.240		
4,300.0	4,284.4	4,100.3	3,994.2	9.7	17.3	-139.76	-212.7	895.3	1,198.6	1,182.3	16.34	73.375		
4,400.0	4,384.0	4,195.4	4,086.3	9.9	17.8	-139.75	-218.5	918.3	1,229.4	1,212.7	16.73	73.504		
4,500.0	4,483.6	4,290.5	4,178.5	10.1	18.2	-139.74	-224.3	941.2	1,260.2	1,243.1	17.12	73.626		
4,600.0	4,583.2	4,385.7	4,270.6	10.4	18.7	-139.73	-230.0	964.2	1,291.0	1,273.5	17.51	73.744		
4,700.0	4,682.8	4,480.8	4,362.7	10.6	19.1	-139.71	-235.8	987.2	1,321.8	1,303.9	17.90	73.856		
4,800.0	4,782.4	4,576.0	4,454.9	10.8	19.6	-139.70	-241.6	1,010.2	1,352.6	1,334.3	18.29	73.963		
4,900.0	4,882.0	4,671.1	4,547.0	11.1	20.0	-139.69	-247.4	1,033.1	1,383.4	1,364.7	18.68	74.066		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4J-20H-O264 - 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)				
5,000.0	4,981.6	4,766.2	4,639.2	11.3	20.5	-139.68	-253.1	1,056.1	1,414.2	1,395.1	19.07	74.165		
5,100.0	5,081.2	4,861.4	4,731.3	11.6	21.0	-139.67	-258.9	1,079.1	1,445.0	1,425.5	19.46	74.260		
5,200.0	5,180.8	4,956.5	4,823.5	11.8	21.4	-139.66	-264.7	1,102.0	1,475.8	1,456.0	19.85	74.350		
5,300.0	5,280.4	5,051.7	4,915.6	12.0	21.9	-139.65	-270.5	1,125.0	1,506.6	1,486.4	20.24	74.438		
5,400.0	5,380.0	5,146.8	5,007.7	12.3	22.3	-139.64	-276.2	1,148.0	1,537.4	1,516.8	20.63	74.522		



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - Dale 4K-20H-O264 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
0.0	0.0	0.0	0.0	0.0	0.0	90.69	-0.7	59.8	59.9					
100.0	100.0	99.0	99.0	0.1	0.1	90.69	-0.7	59.8	59.9	59.6	0.24	246.186		
200.0	200.0	199.0	199.0	0.3	0.3	90.69	-0.7	59.8	59.9	59.3	0.59	101.161	CC, ES	
300.0	300.0	297.0	297.0	0.5	0.5	90.99	-1.1	61.5	61.5	60.6	0.94	65.414		
400.0	400.0	394.6	394.5	0.6	0.7	-139.26	-2.1	66.3	67.8	66.5	1.28	52.815		
500.0	499.8	491.4	490.9	0.8	0.9	-140.34	-3.8	74.3	80.1	78.5	1.64	48.976		
558.3	558.0	547.3	546.4	1.0	1.0	-141.19	-5.1	80.4	90.0	88.2	1.84	48.819	SF	
600.0	599.5	586.9	585.7	1.1	1.1	-141.83	-6.2	85.4	98.1	96.1	1.99	49.192		
700.0	699.1	681.0	678.7	1.3	1.4	-142.71	-9.2	99.2	119.7	117.4	2.36	50.770		
800.0	798.7	773.8	769.9	1.5	1.8	-142.98	-12.7	115.8	144.5	141.7	2.73	52.989		
900.0	898.3	865.0	859.0	1.7	2.1	-142.90	-16.8	135.0	172.2	169.1	3.10	55.602		
1,000.0	997.9	954.5	945.8	2.0	2.6	-142.63	-21.4	156.4	202.8	199.3	3.47	58.476		
1,100.0	1,097.4	1,042.3	1,030.2	2.2	3.0	-142.24	-26.5	180.0	236.3	232.4	3.84	61.553		
1,200.0	1,197.0	1,135.7	1,119.6	2.4	3.5	-141.85	-32.2	206.6	271.2	267.0	4.22	64.250		
1,300.0	1,296.6	1,229.4	1,209.2	2.6	4.0	-141.54	-37.9	233.2	306.2	301.6	4.61	66.487		
1,400.0	1,396.2	1,323.1	1,298.9	2.9	4.5	-141.30	-43.6	259.9	341.2	336.2	4.99	68.376		
1,500.0	1,495.8	1,416.7	1,388.5	3.1	5.0	-141.10	-49.3	286.5	376.1	370.8	5.37	69.990		
1,600.0	1,595.4	1,510.4	1,478.1	3.3	5.5	-140.94	-55.0	313.1	411.1	405.4	5.76	71.386		
1,700.0	1,695.0	1,604.1	1,567.8	3.6	6.1	-140.80	-60.7	339.7	446.1	440.0	6.14	72.605		
1,800.0	1,794.6	1,697.8	1,657.4	3.8	6.6	-140.68	-66.4	366.4	481.1	474.6	6.53	73.678		
1,900.0	1,894.2	1,791.5	1,747.0	4.0	7.1	-140.58	-72.1	393.0	516.1	509.2	6.91	74.631		
2,000.0	1,993.8	1,885.1	1,836.7	4.3	7.6	-140.49	-77.8	419.6	551.1	543.8	7.30	75.481		
2,100.0	2,093.4	1,978.8	1,926.3	4.5	8.1	-140.41	-83.5	446.3	586.0	578.4	7.69	76.246		
2,200.0	2,193.0	2,072.5	2,015.9	4.7	8.6	-140.34	-89.2	472.9	621.0	613.0	8.07	76.936		
2,300.0	2,292.6	2,166.2	2,105.5	5.0	9.2	-140.28	-94.9	499.5	656.0	647.6	8.46	77.563		
2,400.0	2,392.2	2,259.8	2,195.2	5.2	9.7	-140.23	-100.6	526.1	691.0	682.2	8.84	78.135		
2,500.0	2,491.8	2,353.5	2,284.8	5.4	10.2	-140.18	-106.3	552.8	726.0	716.8	9.23	78.659		
2,600.0	2,591.4	2,447.2	2,374.4	5.7	10.7	-140.13	-112.0	579.4	761.0	751.4	9.62	79.140		
2,700.0	2,690.9	2,540.9	2,464.1	5.9	11.2	-140.09	-117.7	606.0	796.0	786.0	10.00	79.583		
2,800.0	2,790.5	2,634.6	2,553.7	6.2	11.7	-140.05	-123.4	632.7	831.0	820.6	10.39	79.994		
2,900.0	2,890.1	2,728.2	2,643.3	6.4	12.3	-140.01	-129.1	659.3	866.0	855.2	10.77	80.375		
3,000.0	2,989.7	2,821.9	2,733.0	6.6	12.8	-139.98	-134.9	685.9	900.9	889.8	11.16	80.729		
3,100.0	3,089.3	2,915.6	2,822.6	6.9	13.3	-139.95	-140.6	712.5	935.9	924.4	11.55	81.059		
3,200.0	3,188.9	3,009.3	2,912.2	7.1	13.8	-139.92	-146.3	739.2	970.9	959.0	11.93	81.368		
3,300.0	3,288.5	3,102.9	3,001.9	7.3	14.3	-139.90	-152.0	765.8	1,005.9	993.6	12.32	81.658		
3,400.0	3,388.1	3,196.6	3,091.5	7.6	14.9	-139.87	-157.7	792.4	1,040.9	1,028.2	12.71	81.929		
3,500.0	3,487.7	3,290.3	3,181.1	7.8	15.4	-139.85	-163.4	819.1	1,075.9	1,062.8	13.09	82.185		
3,600.0	3,587.3	3,384.0	3,270.8	8.0	15.9	-139.83	-169.1	845.7	1,110.9	1,097.4	13.48	82.425		
3,700.0	3,686.9	3,477.6	3,360.4	8.3	16.4	-139.81	-174.8	872.3	1,145.9	1,132.0	13.86	82.653		
3,800.0	3,786.5	3,571.3	3,450.0	8.5	16.9	-139.79	-180.5	898.9	1,180.9	1,166.6	14.25	82.867		
3,900.0	3,886.1	3,665.0	3,539.7	8.7	17.5	-139.77	-186.2	925.6	1,215.9	1,201.2	14.64	83.071		
4,000.0	3,985.7	3,758.7	3,629.3	9.0	18.0	-139.76	-191.9	952.2	1,250.9	1,235.8	15.02	83.264		
4,100.0	4,085.3	3,852.4	3,718.9	9.2	18.5	-139.74	-197.6	978.8	1,285.9	1,270.5	15.41	83.447		
4,200.0	4,184.9	3,946.0	3,808.5	9.4	19.0	-139.73	-203.3	1,005.4	1,320.9	1,305.1	15.80	83.621		
4,300.0	4,284.4	4,039.7	3,898.2	9.7	19.5	-139.71	-209.0	1,032.1	1,355.8	1,339.7	16.18	83.787		
4,400.0	4,384.0	4,133.4	3,987.8	9.9	20.1	-139.70	-214.7	1,058.7	1,390.8	1,374.3	16.57	83.945		
4,500.0	4,483.6	4,227.1	4,077.4	10.1	20.6	-139.69	-220.4	1,085.3	1,425.8	1,408.9	16.95	84.096		
4,600.0	4,583.2	4,320.7	4,167.1	10.4	21.1	-139.67	-226.1	1,112.0	1,460.8	1,443.5	17.34	84.240		
4,700.0	4,682.8	4,414.4	4,256.7	10.6	21.6	-139.66	-231.8	1,138.6	1,495.8	1,478.1	17.73	84.378		
4,800.0	4,782.4	4,508.1	4,346.3	10.8	22.1	-139.65	-237.5	1,165.2	1,530.8	1,512.7	18.11	84.509		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - DALE 'E' UNIT 1 (EXISTING) - EXISTING - ENCANA WELL													Offset Site Error:	0.0 ft
Survey Program: 7877-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	5.83	1,301.6	132.8	1,309.9					
100.0	100.0	37.0	37.0	0.1	0.1	5.83	1,301.6	132.8	1,308.3	1,308.2	0.19	6,998.388		
200.0	200.0	137.0	137.0	0.3	0.2	5.83	1,301.6	132.8	1,308.3	1,307.8	0.54	2,440.884		
300.0	300.0	237.0	237.0	0.5	0.4	5.83	1,301.6	132.8	1,308.3	1,307.5	0.89	1,478.229		
400.0	400.0	337.0	337.0	0.6	0.6	135.67	1,301.6	132.8	1,309.6	1,308.4	1.24	1,060.166		
500.0	499.8	436.8	436.8	0.8	0.8	135.78	1,301.6	132.8	1,313.3	1,311.8	1.59	825.128		
558.3	558.0	495.0	495.0	1.0	0.9	135.87	1,301.6	132.8	1,316.7	1,314.9	1.80	729.902		
600.0	599.5	536.5	536.5	1.1	0.9	135.98	1,301.6	132.8	1,319.4	1,317.4	1.96	674.157		
700.0	699.1	636.1	636.1	1.3	1.1	136.25	1,301.6	132.8	1,325.9	1,323.6	2.33	569.721		
800.0	798.7	735.7	735.7	1.5	1.3	136.52	1,301.6	132.8	1,332.4	1,329.7	2.70	493.576		
900.0	898.3	835.3	835.3	1.7	1.5	136.79	1,301.6	132.8	1,339.0	1,335.9	3.07	435.737		
1,000.0	997.9	934.9	934.9	2.0	1.6	137.05	1,301.6	132.8	1,345.6	1,342.1	3.45	390.375		
1,100.0	1,097.4	1,034.4	1,034.4	2.2	1.8	137.31	1,301.6	132.8	1,352.2	1,348.4	3.82	353.877		
1,200.0	1,197.0	1,134.0	1,134.0	2.4	2.0	137.56	1,301.6	132.8	1,358.8	1,354.6	4.20	323.894		
1,300.0	1,296.6	1,233.6	1,233.6	2.6	2.2	137.82	1,301.6	132.8	1,365.5	1,360.9	4.57	298.835		
1,400.0	1,396.2	1,333.2	1,333.2	2.9	2.3	138.07	1,301.6	132.8	1,372.2	1,367.3	4.94	277.585		
1,500.0	1,495.8	1,432.8	1,432.8	3.1	2.5	138.32	1,301.6	132.8	1,378.9	1,373.6	5.32	259.341		
1,600.0	1,595.4	1,532.4	1,532.4	3.3	2.7	138.57	1,301.6	132.8	1,385.7	1,380.0	5.69	243.511		
1,700.0	1,695.0	1,632.0	1,632.0	3.6	2.8	138.81	1,301.6	132.8	1,392.5	1,386.4	6.06	229.647		
1,800.0	1,794.6	1,731.6	1,731.6	3.8	3.0	139.05	1,301.6	132.8	1,399.3	1,392.8	6.44	217.406		
1,900.0	1,894.2	1,831.2	1,831.2	4.0	3.2	139.29	1,301.6	132.8	1,406.1	1,399.3	6.81	206.519		
2,000.0	1,993.8	1,930.8	1,930.8	4.3	3.4	139.53	1,301.6	132.8	1,412.9	1,405.8	7.18	196.776		
2,100.0	2,093.4	2,030.4	2,030.4	4.5	3.5	139.77	1,301.6	132.8	1,419.8	1,412.3	7.55	188.005		
2,200.0	2,193.0	2,130.0	2,130.0	4.7	3.7	140.00	1,301.6	132.8	1,426.7	1,418.8	7.92	180.068		
2,300.0	2,292.6	2,229.6	2,229.6	5.0	3.9	140.23	1,301.6	132.8	1,433.6	1,425.3	8.29	172.853		
2,400.0	2,392.2	2,329.2	2,329.2	5.2	4.1	140.46	1,301.6	132.8	1,440.6	1,431.9	8.66	166.266		
2,500.0	2,491.8	2,428.8	2,428.8	5.4	4.2	140.69	1,301.6	132.8	1,447.6	1,438.5	9.03	160.228		
2,600.0	2,591.4	2,528.4	2,528.4	5.7	4.4	140.91	1,301.6	132.8	1,454.5	1,445.1	9.40	154.674		
2,700.0	2,690.9	2,627.9	2,627.9	5.9	4.6	141.13	1,301.6	132.8	1,461.6	1,451.8	9.77	149.549		
2,800.0	2,790.5	2,727.5	2,727.5	6.2	4.8	141.35	1,301.6	132.8	1,468.6	1,458.5	10.14	144.804		
2,900.0	2,890.1	2,827.1	2,827.1	6.4	4.9	141.57	1,301.6	132.8	1,475.6	1,465.1	10.51	140.399		
3,000.0	2,989.7	2,926.7	2,926.7	6.6	5.1	141.79	1,301.6	132.8	1,482.7	1,471.8	10.88	136.300		
3,100.0	3,089.3	3,026.3	3,026.3	6.9	5.3	142.00	1,301.6	132.8	1,489.8	1,478.6	11.25	132.475		
3,200.0	3,188.9	3,125.9	3,125.9	7.1	5.5	142.21	1,301.6	132.8	1,496.9	1,485.3	11.61	128.898		
3,300.0	3,288.5	3,225.5	3,225.5	7.3	5.6	142.42	1,301.6	132.8	1,504.1	1,492.1	11.98	125.546		
3,400.0	3,388.1	3,325.1	3,325.1	7.6	5.8	142.63	1,301.6	132.8	1,511.2	1,498.9	12.35	122.398		
3,500.0	3,487.7	3,424.7	3,424.7	7.8	6.0	142.84	1,301.6	132.8	1,518.4	1,505.7	12.71	119.437		
3,600.0	3,587.3	3,524.3	3,524.3	8.0	6.2	143.04	1,301.6	132.8	1,525.6	1,512.5	13.08	116.646		
3,700.0	3,686.9	3,623.9	3,623.9	8.3	6.3	143.24	1,301.6	132.8	1,532.8	1,519.4	13.44	114.012		
3,800.0	3,786.5	3,723.5	3,723.5	8.5	6.5	143.44	1,301.6	132.8	1,540.1	1,526.3	13.81	111.521		
3,900.0	3,886.1	3,823.1	3,823.1	8.7	6.7	143.64	1,301.6	132.8	1,547.3	1,533.1	14.17	109.162		
6,850.0	6,776.5	6,713.5	6,713.5	13.8	11.7	27.55	1,301.6	132.8	1,521.1	1,500.8	20.24	75.139		
6,900.0	6,808.8	6,745.8	6,745.8	13.8	11.8	30.72	1,301.6	132.8	1,485.2	1,465.2	19.95	74.451		
6,950.0	6,837.7	6,774.7	6,774.7	13.8	11.8	34.71	1,301.6	132.8	1,446.9	1,427.1	19.87	72.822		
7,000.0	6,862.9	6,799.9	6,799.9	13.8	11.9	39.72	1,301.6	132.8	1,406.6	1,386.5	20.10	69.980		
7,050.0	6,884.3	6,821.3	6,821.3	14.0	11.9	46.01	1,301.6	132.8	1,364.5	1,343.8	20.72	65.871		
7,100.0	6,901.6	6,838.6	6,838.6	14.1	11.9	53.75	1,301.6	132.8	1,321.2	1,299.4	21.72	60.821		
7,150.0	6,914.8	6,851.8	6,851.8	14.3	12.0	62.97	1,301.6	132.8	1,276.8	1,253.8	22.99	55.527		
7,200.0	6,923.7	6,860.7	6,860.7	14.6	12.0	73.34	1,301.6	132.8	1,231.8	1,207.6	24.26	50.775		
7,250.0	6,928.3	6,865.3	6,865.3	14.9	12.0	84.14	1,301.6	132.8	1,186.7	1,161.4	25.22	47.059		
7,277.9	6,929.0	6,866.0	6,866.0	15.1	12.0	90.00	1,301.6	132.8	1,161.5	1,136.0	25.55	45.460		
7,300.0	6,929.0	6,866.0	6,866.0	15.2	12.0	90.00	1,301.6	132.8	1,141.7	1,116.0	25.73	44.371		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - DALE 'E' UNIT 1 (EXISTING) - EXISTING - ENCANA WELL													Offset Site Error: 0.0 ft	
Survey Program: 7877-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
7,400.0	6,929.0	6,866.0	6,866.0	16.1	12.0	90.00	1,301.6	132.8	1,053.1	1,026.4	26.65	39.522		
7,500.0	6,929.0	6,866.0	6,866.0	17.0	12.0	90.00	1,301.6	132.8	966.7	939.0	27.70	34.895		
7,600.0	6,929.0	6,866.0	6,866.0	18.1	12.0	90.00	1,301.6	132.8	883.2	854.3	28.88	30.584		
7,700.0	6,929.0	6,866.0	6,866.0	19.3	12.0	90.00	1,301.6	132.8	803.5	773.3	30.14	26.653		
7,800.0	6,929.0	6,866.0	6,866.0	20.6	12.0	90.00	1,301.6	132.8	728.7	697.3	31.49	23.143		
7,900.0	6,929.0	6,866.0	6,866.0	21.9	12.0	90.00	1,301.6	132.8	660.7	627.9	32.89	20.088		
8,000.0	6,929.0	6,866.0	6,866.0	23.3	12.0	90.00	1,301.6	132.8	601.8	567.4	34.35	17.520		
8,100.0	6,929.0	6,866.0	6,866.0	24.8	12.0	90.00	1,301.6	132.8	554.7	518.8	35.84	15.476		
8,200.0	6,929.0	6,866.0	6,866.0	26.2	12.0	90.00	1,301.6	132.8	522.7	485.3	37.37	13.987		
8,300.0	6,929.0	6,866.0	6,866.0	27.7	12.0	90.00	1,301.6	132.8	508.6	469.7	38.92	13.067		
8,322.4	6,929.0	6,866.0	6,866.0	28.1	12.0	90.00	1,301.6	132.8	508.1	468.8	39.28	12.937	CC, ES	
8,400.0	6,929.0	6,866.0	6,866.0	29.3	12.0	90.00	1,301.6	132.8	514.0	473.5	40.50	12.692	SF	
8,500.0	6,929.0	6,866.0	6,866.0	30.8	12.0	90.00	1,301.6	132.8	538.3	496.2	42.10	12.786		
8,600.0	6,929.0	6,866.0	6,866.0	32.4	12.0	90.00	1,301.6	132.8	579.0	535.3	43.71	13.246		
8,700.0	6,929.0	6,866.0	6,866.0	34.0	12.0	90.00	1,301.6	132.8	633.1	587.7	45.34	13.963		
8,800.0	6,929.0	6,866.0	6,866.0	35.6	12.0	90.00	1,301.6	132.8	697.4	650.4	46.98	14.843		
8,900.0	6,929.0	6,866.0	6,866.0	37.2	12.0	90.00	1,301.6	132.8	769.3	720.7	48.63	15.819		
9,000.0	6,929.0	6,866.0	6,866.0	38.9	12.0	90.00	1,301.6	132.8	847.0	796.7	50.29	16.841		
9,100.0	6,929.0	6,866.0	6,866.0	40.5	12.0	90.00	1,301.6	132.8	928.9	877.0	51.96	17.877		
9,200.0	6,929.0	6,866.0	6,866.0	42.2	12.0	90.00	1,301.6	132.8	1,014.1	960.5	53.64	18.907		
9,300.0	6,929.0	6,866.0	6,866.0	43.8	12.0	90.00	1,301.6	132.8	1,101.8	1,046.5	55.32	19.918		
9,400.0	6,929.0	6,866.0	6,866.0	45.5	12.0	90.00	1,301.6	132.8	1,191.4	1,134.4	57.00	20.901		
9,500.0	6,929.0	6,866.0	6,866.0	47.2	12.0	90.00	1,301.6	132.8	1,282.6	1,223.9	58.70	21.851		
9,600.0	6,929.0	6,866.0	6,866.0	48.9	12.0	90.00	1,301.6	132.8	1,375.0	1,314.6	60.39	22.767		
9,700.0	6,929.0	6,866.0	6,866.0	50.5	12.0	90.00	1,301.6	132.8	1,468.3	1,406.3	62.09	23.648		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - FOY 'Y' 20-6 (EXISTING) - EXISTING - NOBLE WELL													Offset Site Error:	0.0 ft
Survey Program: 7721-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)				
9,000.0	6,929.0	6,859.0	6,859.0	38.9	12.0	-90.00	2,895.4	-1,606.0	1,534.6	1,484.4	50.28	30.522		
9,100.0	6,929.0	6,859.0	6,859.0	40.5	12.0	-90.00	2,895.4	-1,606.0	1,477.3	1,425.4	51.95	28.438		
9,200.0	6,929.0	6,859.0	6,859.0	42.2	12.0	-90.00	2,895.4	-1,606.0	1,424.7	1,371.1	53.62	26.569		
9,300.0	6,929.0	6,859.0	6,859.0	43.8	12.0	-90.00	2,895.4	-1,606.0	1,377.4	1,322.1	55.30	24.905		
9,400.0	6,929.0	6,859.0	6,859.0	45.5	12.0	-90.00	2,895.4	-1,606.0	1,335.9	1,278.9	56.99	23.440		
9,500.0	6,929.0	6,859.0	6,859.0	47.2	12.0	-90.00	2,895.4	-1,606.0	1,300.7	1,242.0	58.68	22.165		
9,600.0	6,929.0	6,859.0	6,859.0	48.9	12.0	-90.00	2,895.4	-1,606.0	1,272.5	1,212.1	60.38	21.075		
9,700.0	6,929.0	6,859.0	6,859.0	50.5	12.0	-90.00	2,895.4	-1,606.0	1,251.6	1,189.6	62.08	20.162		
9,800.0	6,929.0	6,859.0	6,859.0	52.2	12.0	-90.00	2,895.4	-1,606.0	1,238.5	1,174.8	63.78	19.418		
9,900.0	6,929.0	6,859.0	6,859.0	53.9	12.0	-90.00	2,895.4	-1,606.0	1,233.4	1,167.9	65.49	18.833		
9,913.2	6,929.0	6,859.0	6,859.0	54.2	12.0	-90.00	2,895.4	-1,606.0	1,233.3	1,167.6	65.72	18.767	CC, ES	
10,000.0	6,929.0	6,859.0	6,859.0	55.6	12.0	-90.00	2,895.4	-1,606.0	1,236.4	1,169.2	67.20	18.398		
10,100.0	6,929.0	6,859.0	6,859.0	57.3	12.0	-90.00	2,895.4	-1,606.0	1,247.4	1,178.5	68.91	18.101		
10,200.0	6,929.0	6,859.0	6,859.0	59.0	12.0	-90.00	2,895.4	-1,606.0	1,266.2	1,195.6	70.63	17.928		
10,300.0	6,929.0	6,859.0	6,859.0	60.7	12.0	-90.00	2,895.4	-1,606.0	1,292.6	1,220.2	72.35	17.866	SF	
10,400.0	6,929.0	6,859.0	6,859.0	62.4	12.0	-90.00	2,895.4	-1,606.0	1,325.9	1,251.9	74.07	17.902		
10,500.0	6,929.0	6,859.0	6,859.0	64.2	12.0	-90.00	2,895.4	-1,606.0	1,365.8	1,290.0	75.79	18.022		
10,600.0	6,929.0	6,859.0	6,859.0	65.9	12.0	-90.00	2,895.4	-1,606.0	1,411.7	1,334.2	77.51	18.213		
10,700.0	6,929.0	6,859.0	6,859.0	67.6	12.0	-90.00	2,895.4	-1,606.0	1,462.9	1,383.7	79.24	18.463		
10,800.0	6,929.0	6,859.0	6,859.0	69.3	12.0	-90.00	2,895.4	-1,606.0	1,519.0	1,438.1	80.96	18.763		

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



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - KELLER 20-2 (EXISTING) - EXISTING - NOBLE WELL													Offset Site Error:	0.0 ft
Survey Program: 7693-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)				
9,500.0	6,929.0	6,835.0	6,835.0	47.2	11.9	90.00	3,911.6	122.2	1,514.9	1,456.3	58.64	25.833		
9,600.0	6,929.0	6,835.0	6,835.0	48.9	11.9	90.00	3,911.6	122.2	1,420.7	1,360.4	60.34	23.546		
9,700.0	6,929.0	6,835.0	6,835.0	50.5	11.9	90.00	3,911.6	122.2	1,327.4	1,265.4	62.04	21.396		
9,800.0	6,929.0	6,835.0	6,835.0	52.2	11.9	90.00	3,911.6	122.2	1,235.1	1,171.4	63.74	19.377		
9,900.0	6,929.0	6,835.0	6,835.0	53.9	11.9	90.00	3,911.6	122.2	1,144.1	1,078.7	65.45	17.481		
10,000.0	6,929.0	6,835.0	6,835.0	55.6	11.9	90.00	3,911.6	122.2	1,054.8	987.6	67.16	15.706		
10,100.0	6,929.0	6,835.0	6,835.0	57.3	11.9	90.00	3,911.6	122.2	967.5	898.6	68.87	14.048		
10,200.0	6,929.0	6,835.0	6,835.0	59.0	11.9	90.00	3,911.6	122.2	882.9	812.4	70.59	12.508		
10,300.0	6,929.0	6,835.0	6,835.0	60.7	11.9	90.00	3,911.6	122.2	801.9	729.6	72.30	11.091		
10,400.0	6,929.0	6,835.0	6,835.0	62.4	11.9	90.00	3,911.6	122.2	725.7	651.7	74.02	9.803		
10,500.0	6,929.0	6,835.0	6,835.0	64.2	11.9	90.00	3,911.6	122.2	655.8	580.1	75.75	8.659		
10,600.0	6,929.0	6,835.0	6,835.0	65.9	11.9	90.00	3,911.6	122.2	594.7	517.2	77.47	7.676		
10,700.0	6,929.0	6,835.0	6,835.0	67.6	11.9	90.00	3,911.6	122.2	545.1	465.9	79.19	6.884		
10,800.0	6,929.0	6,835.0	6,835.0	69.3	11.9	90.00	3,911.6	122.2	510.6	429.7	80.92	6.310		
10,900.0	6,929.0	6,835.0	6,835.0	71.0	11.9	90.00	3,911.6	122.2	494.2	411.5	82.65	5.979		
10,932.4	6,929.0	6,835.0	6,835.0	71.6	11.9	90.00	3,911.6	122.2	493.1	409.9	83.21	5.926 CC, ES		
11,000.0	6,929.0	6,835.0	6,835.0	72.7	11.9	90.00	3,911.6	122.2	497.7	413.3	84.38	5.899 SF		
11,100.0	6,929.0	6,835.0	6,835.0	74.5	11.9	90.00	3,911.6	122.2	520.8	434.7	86.11	6.048		
11,200.0	6,929.0	6,835.0	6,835.0	76.2	11.9	90.00	3,911.6	122.2	561.0	473.2	87.84	6.387		
11,300.0	6,929.0	6,835.0	6,835.0	77.9	11.9	90.00	3,911.6	122.2	615.0	525.5	89.57	6.867		
11,400.0	6,929.0	6,835.0	6,835.0	79.6	11.9	90.00	3,911.6	122.2	679.5	588.2	91.30	7.443		
11,508.6	6,929.0	6,835.0	6,835.0	81.5	11.9	90.00	3,911.6	122.2	758.4	665.2	93.19	8.139		



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		S20-T2N-R64W (Dale) - RUHL 1 (EXISTING) - EXISTING - NEBRASKA WELL											Offset Site Error: 0.0 ft	
Survey Program: 7638-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
7,200.0	6,923.7	6,854.7	6,854.7	14.6	12.0	36.89	1,674.6	-222.6	1,502.3	1,483.2	19.03	78.923		
7,250.0	6,928.3	6,859.3	6,859.3	14.9	12.0	65.19	1,674.6	-222.6	1,452.8	1,429.1	23.68	61.347		
7,277.9	6,929.0	6,860.0	6,860.0	15.1	12.0	90.00	1,674.6	-222.6	1,425.0	1,399.5	25.54	55.797		
7,300.0	6,929.0	6,860.0	6,860.0	15.2	12.0	90.00	1,674.6	-222.6	1,403.1	1,377.3	25.72	54.552		
7,400.0	6,929.0	6,860.0	6,860.0	16.1	12.0	90.00	1,674.6	-222.6	1,303.7	1,277.1	26.63	48.948		
7,500.0	6,929.0	6,860.0	6,860.0	17.0	12.0	90.00	1,674.6	-222.6	1,204.4	1,176.7	27.69	43.493		
7,600.0	6,929.0	6,860.0	6,860.0	18.1	12.0	90.00	1,674.6	-222.6	1,105.3	1,076.4	28.87	38.290		
7,700.0	6,929.0	6,860.0	6,860.0	19.3	12.0	90.00	1,674.6	-222.6	1,006.4	976.2	30.13	33.396		
7,800.0	6,929.0	6,860.0	6,860.0	20.6	12.0	90.00	1,674.6	-222.6	907.6	876.2	31.48	28.834		
7,900.0	6,929.0	6,860.0	6,860.0	21.9	12.0	90.00	1,674.6	-222.6	809.2	776.3	32.88	24.610		
8,000.0	6,929.0	6,860.0	6,860.0	23.3	12.0	90.00	1,674.6	-222.6	711.2	676.9	34.34	20.714		
8,100.0	6,929.0	6,860.0	6,860.0	24.8	12.0	90.00	1,674.6	-222.6	613.9	578.1	35.83	17.135		
8,200.0	6,929.0	6,860.0	6,860.0	26.2	12.0	90.00	1,674.6	-222.6	517.6	480.3	37.36	13.856		
8,300.0	6,929.0	6,860.0	6,860.0	27.7	12.0	90.00	1,674.6	-222.6	423.1	384.2	38.91	10.872		
8,400.0	6,929.0	6,860.0	6,860.0	29.3	12.0	90.00	1,674.6	-222.6	331.7	291.2	40.49	8.192		
8,500.0	6,929.0	6,860.0	6,860.0	30.8	12.0	90.00	1,674.6	-222.6	247.1	205.0	42.09	5.872		
8,600.0	6,929.0	6,860.0	6,860.0	32.4	12.0	90.00	1,674.6	-222.6	179.2	135.5	43.70	4.100		
8,694.8	6,929.0	6,860.0	6,860.0	33.9	12.0	90.00	1,674.6	-222.6	152.1	106.8	45.25	3.361 CC, ES		
8,700.0	6,929.0	6,860.0	6,860.0	34.0	12.0	90.00	1,674.6	-222.6	152.1	106.8	45.33	3.356 SF		
8,800.0	6,929.0	6,860.0	6,860.0	35.6	12.0	90.00	1,674.6	-222.6	184.9	137.9	46.97	3.937		
8,900.0	6,929.0	6,860.0	6,860.0	37.2	12.0	90.00	1,674.6	-222.6	255.4	206.8	48.62	5.253		
9,000.0	6,929.0	6,860.0	6,860.0	38.9	12.0	90.00	1,674.6	-222.6	341.0	290.7	50.28	6.781		
9,100.0	6,929.0	6,860.0	6,860.0	40.5	12.0	90.00	1,674.6	-222.6	432.8	380.8	51.95	8.331		
9,200.0	6,929.0	6,860.0	6,860.0	42.2	12.0	90.00	1,674.6	-222.6	527.6	474.0	53.63	9.838		
9,300.0	6,929.0	6,860.0	6,860.0	43.8	12.0	90.00	1,674.6	-222.6	624.0	568.7	55.31	11.283		
9,400.0	6,929.0	6,860.0	6,860.0	45.5	12.0	90.00	1,674.6	-222.6	721.4	664.4	56.99	12.658		
9,500.0	6,929.0	6,860.0	6,860.0	47.2	12.0	90.00	1,674.6	-222.6	819.4	760.7	58.69	13.963		
9,600.0	6,929.0	6,860.0	6,860.0	48.9	12.0	90.00	1,674.6	-222.6	917.9	857.5	60.38	15.201		
9,700.0	6,929.0	6,860.0	6,860.0	50.5	12.0	90.00	1,674.6	-222.6	1,016.6	954.6	62.08	16.376		
9,800.0	6,929.0	6,860.0	6,860.0	52.2	12.0	90.00	1,674.6	-222.6	1,115.6	1,051.8	63.79	17.490		
9,900.0	6,929.0	6,860.0	6,860.0	53.9	12.0	90.00	1,674.6	-222.6	1,214.8	1,149.3	65.49	18.548		
10,000.0	6,929.0	6,860.0	6,860.0	55.6	12.0	90.00	1,674.6	-222.6	1,314.0	1,246.8	67.20	19.553		
10,100.0	6,929.0	6,860.0	6,860.0	57.3	12.0	90.00	1,674.6	-222.6	1,413.4	1,344.5	68.92	20.509		
10,200.0	6,929.0	6,860.0	6,860.0	59.0	12.0	90.00	1,674.6	-222.6	1,512.9	1,442.2	70.63	21.419		



Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Dale 4C-20H-O264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Dale 4C-20H-O264	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T2N-R64W (Dale) - STARKE 'Y' 20-03 (EXISTING) - EXISTING - NOBLE WELL													Offset Site Error: 0.0 ft
Survey Program: 7768-Geolink MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
10,400.0	6,929.0	6,845.0	6,845.0	62.4	11.9	-90.00	4,286.9	-1,625.4	1,547.3	1,473.2	74.04	20.897	
10,500.0	6,929.0	6,845.0	6,845.0	64.2	11.9	-90.00	4,286.9	-1,625.4	1,491.0	1,415.2	75.76	19.680	
10,600.0	6,929.0	6,845.0	6,845.0	65.9	11.9	-90.00	4,286.9	-1,625.4	1,439.5	1,362.0	77.49	18.577	
10,700.0	6,929.0	6,845.0	6,845.0	67.6	11.9	-90.00	4,286.9	-1,625.4	1,393.3	1,314.0	79.21	17.589	
10,800.0	6,929.0	6,845.0	6,845.0	69.3	11.9	-90.00	4,286.9	-1,625.4	1,352.9	1,271.9	80.94	16.715	
10,900.0	6,929.0	6,845.0	6,845.0	71.0	11.9	-90.00	4,286.9	-1,625.4	1,318.8	1,236.1	82.66	15.954	
11,000.0	6,929.0	6,845.0	6,845.0	72.7	11.9	-90.00	4,286.9	-1,625.4	1,291.6	1,207.2	84.39	15.305	
11,100.0	6,929.0	6,845.0	6,845.0	74.5	11.9	-90.00	4,286.9	-1,625.4	1,271.8	1,185.6	86.12	14.767	
11,200.0	6,929.0	6,845.0	6,845.0	76.2	11.9	-90.00	4,286.9	-1,625.4	1,259.5	1,171.7	87.85	14.337	
11,300.0	6,929.0	6,845.0	6,845.0	77.9	11.9	-90.00	4,286.9	-1,625.4	1,255.2	1,165.6	89.59	14.011	
11,304.7	6,929.0	6,845.0	6,845.0	78.0	11.9	-90.00	4,286.9	-1,625.4	1,255.2	1,165.5	89.67	13.998 CC, ES	
11,400.0	6,929.0	6,845.0	6,845.0	79.6	11.9	-90.00	4,286.9	-1,625.4	1,258.8	1,167.5	91.32	13.784	
11,508.6	6,929.0	6,845.0	6,845.0	81.5	11.9	-90.00	4,286.9	-1,625.4	1,271.6	1,178.4	93.20	13.643 SF	

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



Anticollision Report

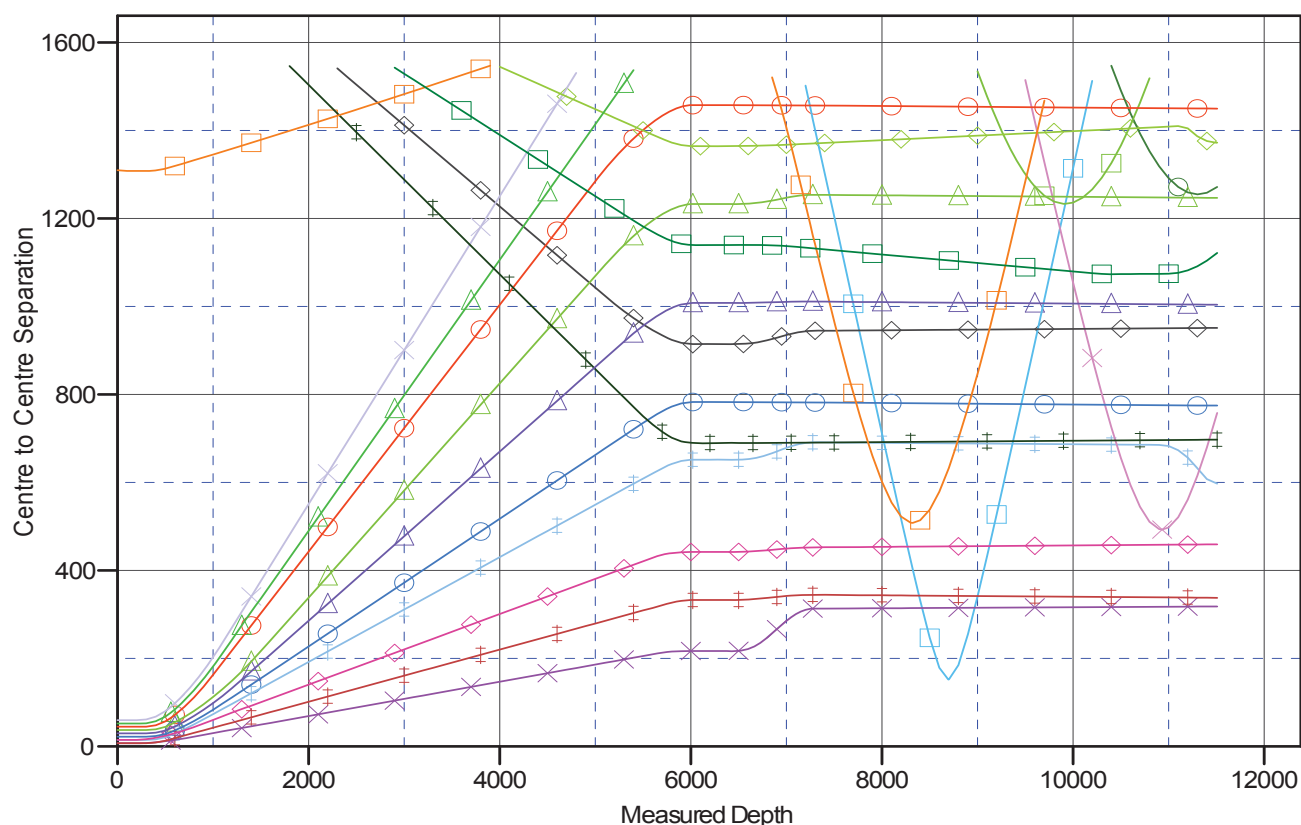
Company: EnCana Oil & Gas (USA) Inc
Project: DJ Wattenberg
Reference Site: S20-T2N-R64W (Dale)
Site Error: 0.0ft
Reference Well: Dale 4C-20H-O264
Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #1

Local Co-ordinate Reference: Well Dale 4C-20H-O264
TVD Reference: WELL @ 4988.0ft (Original Well Elev)
MD Reference: WELL @ 4988.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 4988.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Dale 4C-20H-O264
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.60°

Ladder Plot



LEGEND

Dale 4I-20H-O264, HZ, Plan #1 V0	Dale 4L-20H-N264, HZ, Plan #1 V0
Dale 4B-20H-O264, HZ, Plan #1 V0	DALE 'E' UNIT 1 (EXISTING), EXISTING
Dale 4H-20H-O264, HZ, Plan #1 V0	Dale 3J-20H-N264, HZ, Plan #1 V0
Dale 4K-20H-O264, HZ, Plan #1 V0	Dale 4G-20H-O264, HZ, Plan #1 V0
Dale 4F-20H-O264, HZ, Plan #1 V0	Dale 4D-20H-O264, HZ, Plan #1 V0
Dale 3I-20H-N264, HZ, Plan #1 V0	
Dale 4J-20H-O264, HZ, Plan #1 V0	