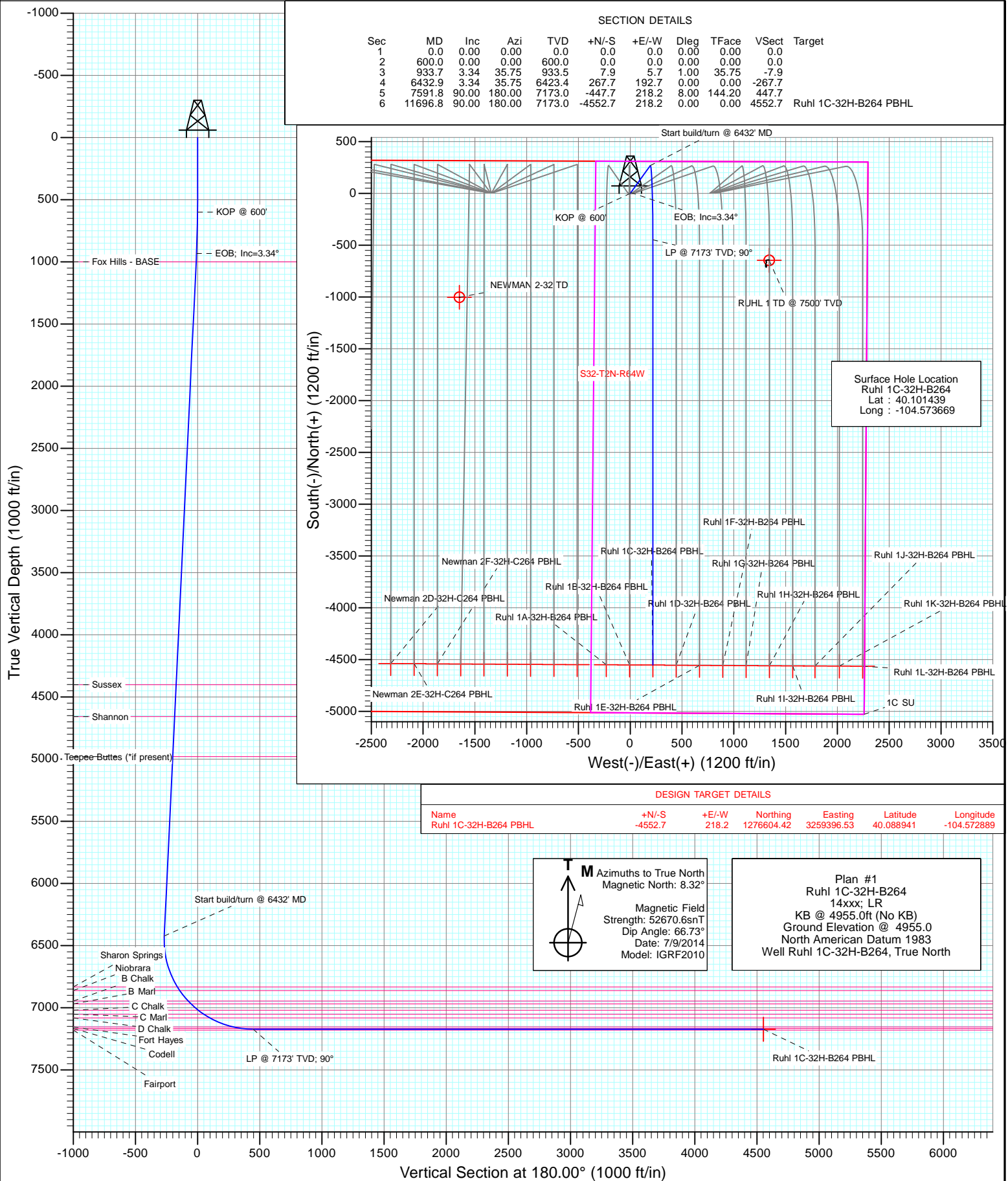




Project: DJ Wattenberg
Site: S32-T2N-R64W (Newman/Ruhl)
Well: Ruhl 1C-32H-B264
Wellbore: Hz
Design: Plan #1



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 4955.0ft (No KB)
Project:	DJ Wattenberg	MD Reference:	KB @ 4955.0ft (No KB)
Site:	S32-T2N-R64W (Newman)	North Reference:	True
Well:	Ruhl 1C-32H-B264	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

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

Site		S32-T2N-R64W (Newman)			
Site Position:		Northing:	1,281,150.66 ft	Latitude:	40.101468
From:	Lat/Long	Easting:	3,257,734.55 ft	Longitude:	-104.578660
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.60 °

Well	Ruhl 1C-32H-B264					
Well Position	+N/-S	0.0 ft	Northing:	1,281,154.61 ft	Latitude:	40.101439
	+E/-W	0.0 ft	Easting:	3,259,130.75 ft	Longitude:	-104.573669
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,955.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/9/2014	8.32	66.73	52,671

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	180.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
933.7	3.34	35.75	933.5	7.9	5.7	1.00	1.00	0.00	35.75	
6,432.9	3.34	35.75	6,423.4	267.7	192.7	0.00	0.00	0.00	0.00	
7,591.8	90.00	180.00	7,173.0	-447.7	218.2	8.00	7.48	12.45	144.20	
11,696.8	90.00	180.00	7,173.0	-4,552.7	218.2	0.00	0.00	0.00	0.00	Ruhl 1C-32H-B264 PI

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 4955.0ft (No KB)
Project:	DJ Wattenberg	MD Reference:	KB @ 4955.0ft (No KB)
Site:	S32-T2N-R64W (Newman)	North Reference:	True
Well:	Ruhl 1C-32H-B264	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

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	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	KOP @ 600'
700.0	1.00	35.75	700.0	0.7	0.5	-0.7	1.00	1.00	
800.0	2.00	35.75	800.0	2.8	2.0	-2.8	1.00	1.00	
900.0	3.00	35.75	899.9	6.4	4.6	-6.4	1.00	1.00	
933.7	3.34	35.75	933.5	7.9	5.7	-7.9	1.00	1.00	EOB; Inc=3.34°
1,000.0	3.34	35.75	999.7	11.0	7.9	-11.0	0.00	0.00	
1,000.3	3.34	35.75	1,000.0	11.0	7.9	-11.0	0.00	0.00	Fox Hills - BASE
1,100.0	3.34	35.75	1,099.5	15.7	11.3	-15.7	0.00	0.00	
1,200.0	3.34	35.75	1,199.4	20.5	14.7	-20.5	0.00	0.00	
1,300.0	3.34	35.75	1,299.2	25.2	18.1	-25.2	0.00	0.00	
1,400.0	3.34	35.75	1,399.0	29.9	21.5	-29.9	0.00	0.00	
1,500.0	3.34	35.75	1,498.9	34.6	24.9	-34.6	0.00	0.00	
1,600.0	3.34	35.75	1,598.7	39.4	28.3	-39.4	0.00	0.00	
1,700.0	3.34	35.75	1,698.5	44.1	31.7	-44.1	0.00	0.00	
1,800.0	3.34	35.75	1,798.3	48.8	35.1	-48.8	0.00	0.00	
1,900.0	3.34	35.75	1,898.2	53.5	38.5	-53.5	0.00	0.00	
2,000.0	3.34	35.75	1,998.0	58.3	41.9	-58.3	0.00	0.00	
2,100.0	3.34	35.75	2,097.8	63.0	45.3	-63.0	0.00	0.00	
2,200.0	3.34	35.75	2,197.7	67.7	48.7	-67.7	0.00	0.00	
2,300.0	3.34	35.75	2,297.5	72.4	52.1	-72.4	0.00	0.00	
2,400.0	3.34	35.75	2,397.3	77.2	55.5	-77.2	0.00	0.00	
2,500.0	3.34	35.75	2,497.2	81.9	58.9	-81.9	0.00	0.00	
2,600.0	3.34	35.75	2,597.0	86.6	62.3	-86.6	0.00	0.00	
2,700.0	3.34	35.75	2,696.8	91.3	65.7	-91.3	0.00	0.00	
2,800.0	3.34	35.75	2,796.6	96.0	69.1	-96.0	0.00	0.00	
2,900.0	3.34	35.75	2,896.5	100.8	72.5	-100.8	0.00	0.00	
3,000.0	3.34	35.75	2,996.3	105.5	75.9	-105.5	0.00	0.00	
3,100.0	3.34	35.75	3,096.1	110.2	79.3	-110.2	0.00	0.00	
3,200.0	3.34	35.75	3,196.0	114.9	82.8	-114.9	0.00	0.00	
3,300.0	3.34	35.75	3,295.8	119.7	86.2	-119.7	0.00	0.00	
3,400.0	3.34	35.75	3,395.6	124.4	89.6	-124.4	0.00	0.00	
3,500.0	3.34	35.75	3,495.5	129.1	93.0	-129.1	0.00	0.00	
3,600.0	3.34	35.75	3,595.3	133.8	96.4	-133.8	0.00	0.00	
3,700.0	3.34	35.75	3,695.1	138.6	99.8	-138.6	0.00	0.00	
3,800.0	3.34	35.75	3,795.0	143.3	103.2	-143.3	0.00	0.00	
3,900.0	3.34	35.75	3,894.8	148.0	106.6	-148.0	0.00	0.00	
4,000.0	3.34	35.75	3,994.6	152.7	110.0	-152.7	0.00	0.00	
4,100.0	3.34	35.75	4,094.4	157.5	113.4	-157.5	0.00	0.00	
4,200.0	3.34	35.75	4,194.3	162.2	116.8	-162.2	0.00	0.00	
4,300.0	3.34	35.75	4,294.1	166.9	120.2	-166.9	0.00	0.00	
4,400.0	3.34	35.75	4,393.9	171.6	123.6	-171.6	0.00	0.00	
4,408.1	3.34	35.75	4,402.0	172.0	123.8	-172.0	0.00	0.00	Sussex
4,500.0	3.34	35.75	4,493.8	176.4	127.0	-176.4	0.00	0.00	
4,600.0	3.34	35.75	4,593.6	181.1	130.4	-181.1	0.00	0.00	
4,664.5	3.34	35.75	4,658.0	184.1	132.6	-184.1	0.00	0.00	Shannon
4,700.0	3.34	35.75	4,693.4	185.8	133.8	-185.8	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 4955.0ft (No KB)
Project:	DJ Wattenberg	MD Reference:	KB @ 4955.0ft (No KB)
Site:	S32-T2N-R64W (Newman)	North Reference:	True
Well:	Ruhl 1C-32H-B264	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

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	3.34	35.75	4,793.3	190.5	137.2	-190.5	0.00	0.00	
4,900.0	3.34	35.75	4,893.1	195.3	140.6	-195.3	0.00	0.00	
4,987.1	3.34	35.75	4,980.0	199.4	143.5	-199.4	0.00	0.00	Teepee Buttes (*if present)
5,000.0	3.34	35.75	4,992.9	200.0	144.0	-200.0	0.00	0.00	
5,100.0	3.34	35.75	5,092.7	204.7	147.4	-204.7	0.00	0.00	
5,200.0	3.34	35.75	5,192.6	209.4	150.8	-209.4	0.00	0.00	
5,300.0	3.34	35.75	5,292.4	214.2	154.2	-214.2	0.00	0.00	
5,400.0	3.34	35.75	5,392.2	218.9	157.6	-218.9	0.00	0.00	
5,500.0	3.34	35.75	5,492.1	223.6	161.0	-223.6	0.00	0.00	
5,600.0	3.34	35.75	5,591.9	228.3	164.4	-228.3	0.00	0.00	
5,700.0	3.34	35.75	5,691.7	233.0	167.8	-233.0	0.00	0.00	
5,800.0	3.34	35.75	5,791.6	237.8	171.2	-237.8	0.00	0.00	
5,900.0	3.34	35.75	5,891.4	242.5	174.6	-242.5	0.00	0.00	
6,000.0	3.34	35.75	5,991.2	247.2	178.0	-247.2	0.00	0.00	
6,100.0	3.34	35.75	6,091.1	251.9	181.4	-251.9	0.00	0.00	
6,200.0	3.34	35.75	6,190.9	256.7	184.8	-256.7	0.00	0.00	
6,300.0	3.34	35.75	6,290.7	261.4	188.2	-261.4	0.00	0.00	
6,400.0	3.34	35.75	6,390.5	266.1	191.6	-266.1	0.00	0.00	
6,432.9	3.34	35.75	6,423.4	267.7	192.7	-267.7	0.00	0.00	Start build/turn @ 6432' MD
6,500.0	3.30	143.75	6,490.4	267.7	195.0	-267.7	8.00	-0.06	
6,600.0	10.83	169.75	6,589.6	256.1	198.4	-256.1	8.00	7.54	
6,700.0	18.76	174.24	6,686.2	230.8	201.7	-230.8	8.00	7.92	
6,800.0	26.73	176.12	6,778.4	192.3	204.8	-192.3	8.00	7.97	
6,862.6	31.72	176.84	6,833.0	161.8	206.7	-161.8	8.00	7.98	Sharon Springs
6,897.2	34.49	177.16	6,862.0	143.0	207.6	-143.0	8.00	7.98	Niobrara
6,900.0	34.71	177.18	6,864.3	141.4	207.7	-141.4	8.00	7.99	
7,000.0	42.69	177.88	6,942.3	79.0	210.4	-79.0	8.00	7.99	
7,005.1	43.10	177.91	6,946.0	75.5	210.5	-75.5	8.00	7.99	B Chalk
7,037.3	45.68	178.09	6,969.0	53.0	211.3	-53.0	8.00	7.99	B Marl
7,100.0	50.69	178.40	7,010.8	6.3	212.7	-6.3	8.00	7.99	
7,114.7	51.86	178.47	7,020.0	-5.2	213.0	5.2	8.00	7.99	C Chalk
7,169.2	56.22	178.69	7,052.0	-49.3	214.1	49.3	8.00	7.99	C Marl
7,200.0	58.68	178.81	7,068.6	-75.2	214.7	75.2	8.00	7.99	
7,226.7	60.81	178.91	7,082.0	-98.3	215.1	98.3	8.00	7.99	D Chalk
7,300.0	66.67	179.16	7,114.4	-164.0	216.2	164.0	8.00	7.99	
7,400.0	74.67	179.46	7,147.5	-258.2	217.4	258.2	8.00	7.99	
7,426.4	76.78	179.54	7,154.0	-283.8	217.6	283.8	8.00	8.00	Fort Hayes
7,499.0	82.58	179.75	7,167.0	-355.2	218.0	355.2	8.00	8.00	Codell
7,500.0	82.66	179.75	7,167.1	-356.2	218.0	356.2	8.00	8.00	
7,591.8	90.00	180.00	7,173.0	-447.7	218.2	447.7	8.00	8.00	LP @ 7173' TVD; 90°
7,600.0	90.00	180.00	7,173.0	-456.0	218.2	456.0	0.00	0.00	
7,700.0	90.00	180.00	7,173.0	-556.0	218.2	556.0	0.00	0.00	
7,800.0	90.00	180.00	7,173.0	-656.0	218.2	656.0	0.00	0.00	
7,900.0	90.00	180.00	7,173.0	-756.0	218.2	756.0	0.00	0.00	
8,000.0	90.00	180.00	7,173.0	-856.0	218.2	856.0	0.00	0.00	
8,100.0	90.00	180.00	7,173.0	-956.0	218.2	956.0	0.00	0.00	
8,200.0	90.00	180.00	7,173.0	-1,056.0	218.2	1,056.0	0.00	0.00	
8,300.0	90.00	180.00	7,173.0	-1,156.0	218.2	1,156.0	0.00	0.00	
8,400.0	90.00	180.00	7,173.0	-1,256.0	218.2	1,256.0	0.00	0.00	
8,500.0	90.00	180.00	7,173.0	-1,356.0	218.2	1,356.0	0.00	0.00	
8,600.0	90.00	180.00	7,173.0	-1,456.0	218.2	1,456.0	0.00	0.00	
8,700.0	90.00	180.00	7,173.0	-1,556.0	218.2	1,556.0	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 4955.0ft (No KB)
Project:	DJ Wattenberg	MD Reference:	KB @ 4955.0ft (No KB)
Site:	S32-T2N-R64W (Newman)	North Reference:	True
Well:	Ruhl 1C-32H-B264	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
8,800.0	90.00	180.00	7,173.0	-1,656.0	218.2	1,656.0	0.00	0.00	
8,900.0	90.00	180.00	7,173.0	-1,756.0	218.2	1,756.0	0.00	0.00	
9,000.0	90.00	180.00	7,173.0	-1,856.0	218.2	1,856.0	0.00	0.00	
9,100.0	90.00	180.00	7,173.0	-1,956.0	218.2	1,956.0	0.00	0.00	
9,200.0	90.00	180.00	7,173.0	-2,056.0	218.2	2,056.0	0.00	0.00	
9,300.0	90.00	180.00	7,173.0	-2,156.0	218.2	2,156.0	0.00	0.00	
9,400.0	90.00	180.00	7,173.0	-2,256.0	218.2	2,256.0	0.00	0.00	
9,500.0	90.00	180.00	7,173.0	-2,356.0	218.2	2,356.0	0.00	0.00	
9,600.0	90.00	180.00	7,173.0	-2,456.0	218.2	2,456.0	0.00	0.00	
9,700.0	90.00	180.00	7,173.0	-2,556.0	218.2	2,556.0	0.00	0.00	
9,800.0	90.00	180.00	7,173.0	-2,656.0	218.2	2,656.0	0.00	0.00	
9,900.0	90.00	180.00	7,173.0	-2,756.0	218.2	2,756.0	0.00	0.00	
10,000.0	90.00	180.00	7,173.0	-2,856.0	218.2	2,856.0	0.00	0.00	
10,100.0	90.00	180.00	7,173.0	-2,956.0	218.2	2,956.0	0.00	0.00	
10,200.0	90.00	180.00	7,173.0	-3,056.0	218.2	3,056.0	0.00	0.00	
10,300.0	90.00	180.00	7,173.0	-3,156.0	218.2	3,156.0	0.00	0.00	
10,400.0	90.00	180.00	7,173.0	-3,256.0	218.2	3,256.0	0.00	0.00	
10,500.0	90.00	180.00	7,173.0	-3,356.0	218.2	3,356.0	0.00	0.00	
10,600.0	90.00	180.00	7,173.0	-3,456.0	218.2	3,456.0	0.00	0.00	
10,700.0	90.00	180.00	7,173.0	-3,556.0	218.2	3,556.0	0.00	0.00	
10,800.0	90.00	180.00	7,173.0	-3,656.0	218.2	3,656.0	0.00	0.00	
10,900.0	90.00	180.00	7,173.0	-3,756.0	218.2	3,756.0	0.00	0.00	
11,000.0	90.00	180.00	7,173.0	-3,856.0	218.2	3,856.0	0.00	0.00	
11,100.0	90.00	180.00	7,173.0	-3,956.0	218.2	3,956.0	0.00	0.00	
11,200.0	90.00	180.00	7,173.0	-4,056.0	218.2	4,056.0	0.00	0.00	
11,300.0	90.00	180.00	7,173.0	-4,156.0	218.2	4,156.0	0.00	0.00	
11,400.0	90.00	180.00	7,173.0	-4,256.0	218.2	4,256.0	0.00	0.00	
11,500.0	90.00	180.00	7,173.0	-4,356.0	218.2	4,356.0	0.00	0.00	
11,600.0	90.00	180.00	7,173.0	-4,456.0	218.2	4,456.0	0.00	0.00	
11,696.8	90.00	180.00	7,173.0	-4,552.7	218.2	4,552.7	0.00	0.00	TD at 11696.8

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									
Ruhl 1C-32H-B264 PBH	0.00	0.00	7,173.0	-4,552.7	218.2	1,276,604.42	3,259,396.53	40.088941	-104.572889
- plan hits target center									
- Point									

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 4955.0ft (No KB)
Project:	DJ Wattenberg	MD Reference:	KB @ 4955.0ft (No KB)
Site:	S32-T2N-R64W (Newman)	North Reference:	True
Well:	Ruhl 1C-32H-B264	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,000.3	1,000.0	Fox Hills - BASE				
4,408.1	4,402.0	Sussex				
4,664.5	4,658.0	Shannon				
4,987.1	4,980.0	Teepee Buttes (*if present)				
6,862.6	6,833.0	Sharon Springs				
6,897.2	6,862.0	Niobrara				
7,005.1	6,946.0	B Chalk				
7,037.3	6,969.0	B Marl				
7,114.7	7,020.0	C Chalk				
7,169.2	7,052.0	C Marl				
7,226.7	7,082.0	D Chalk				
7,426.4	7,154.0	Fort Hayes				
7,499.0	7,167.0	Codell				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
600.0	600.0	0.0	0.0	KOP @ 600'	
933.7	933.5	7.9	5.7	EOB; Inc=3.34°	
6,432.9	6,423.4	267.7	192.7	Start build/turn @ 6432' MD	
7,591.8	7,173.0	-447.7	218.2	LP @ 7173' TVD; 90°	
11,696.8	7,173.0	-4,552.7	218.2	TD at 11696.8	

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S32-T2N-R64W (Newman)

Ruhl 1C-32H-B264

Hz

Plan #1

Anticollision Report

09 July, 2014

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	7/9/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,696.2	Plan #1 (Hz)	Geolink MWD	Geolink MWD	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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						
S32-T2N-R64W (Newman)						
LAND USX Y31-01 (EXISTING) - EXISTING - NOBLE W						Out of range
NEWMAN 2-32 (EXISTING) - EXISTING - ENCANA WE						Out of range
Newman 2A-32H-C264 - Hz - Plan #1						Out of range
Newman 2B-32H-C264 - Hz - Plan #1						Out of range
Newman 2C-32H-C264 - Hz - Plan #1						Out of range
Newman 2D-32H-C264 - Hz - Plan #1						Out of range
Newman 2E-32H-C264 - Hz - Plan #1						Out of range
Newman 2F-32H-C264 - Hz - Plan #1						Out of range
Newman 2G-32H-C264 - Hz - Plan #1						Out of range
Newman 2H-32H-C264 - Hz - Plan #1						Out of range
Newman 2I-32H-C264 - Hz - Plan #1						Out of range
Newman 2J-32H-C264 - Hz - Plan #1						Out of range
Newman 2K-32H-C264 - Hz - Plan #1	5,744.2	5,834.4	910.5	888.2	40.852	CC
Newman 2K-32H-C264 - Hz - Plan #1	11,696.8	11,576.8	986.4	826.5	6.171	ES, SF
Newman 2L-32H-C264 - Hz - Plan #1	5,764.9	5,877.6	686.1	663.5	30.364	CC
Newman 2L-32H-C264 - Hz - Plan #1	11,696.8	11,829.1	730.4	565.5	4.429	ES, SF
RUHL 1 (EXISTING) - EXISTING - ENCANA WELL						Out of range
Ruhl 1A-32H-B264 - Hz - Plan #1	200.0	200.0	20.1	19.4	28.850	CC, ES
Ruhl 1A-32H-B264 - Hz - Plan #1	11,696.8	11,568.2	468.0	309.2	2.947	SF
Ruhl 1B-32H-B264 - Hz - Plan #1	600.0	600.0	10.1	8.0	4.808	CC, ES
Ruhl 1B-32H-B264 - Hz - Plan #1	11,696.8	11,480.8	310.0	187.8	2.537	SF
Ruhl 1D-32H-B264 - Hz - Plan #1	400.0	400.0	10.1	8.7	7.213	CC, ES
Ruhl 1D-32H-B264 - Hz - Plan #1	11,696.8	11,578.0	258.8	114.4	1.792	SF
Ruhl 1E-32H-B264 - Hz - Plan #1	333.4	333.4	19.9	18.7	17.068	CC
Ruhl 1E-32H-B264 - Hz - Plan #1	400.0	399.8	20.1	18.7	14.370	ES
Ruhl 1E-32H-B264 - Hz - Plan #1	11,696.8	11,510.2	497.8	348.0	3.323	SF
Ruhl 1F-32H-B264 - Hz - Plan #1	200.0	200.0	29.9	29.2	42.877	CC, ES
Ruhl 1F-32H-B264 - Hz - Plan #1	11,696.8	11,743.9	674.9	510.0	4.093	SF
Ruhl 1G-32H-B264 - Hz - Plan #1	433.3	433.3	772.1	770.6	510.424	CC
Ruhl 1G-32H-B264 - Hz - Plan #1	11,696.8	11,571.6	908.9	745.5	5.564	ES, SF
Ruhl 1H-32H-B264 - Hz - Plan #1	400.0	400.0	782.2	780.8	560.176	CC, ES
Ruhl 1H-32H-B264 - Hz - Plan #1	4,600.0	4,523.7	996.9	979.8	58.127	SF
Ruhl 1I-32H-B264 - Hz - Plan #1	333.3	333.3	792.2	791.1	680.864	CC
Ruhl 1I-32H-B264 - Hz - Plan #1	400.0	394.3	792.4	791.0	571.610	ES
Ruhl 1I-32H-B264 - Hz - Plan #1	3,100.0	2,995.6	991.7	980.4	87.743	SF
Ruhl 1J-32H-B264 - Hz - Plan #1	300.0	300.0	802.3	801.2	766.134	CC, ES
Ruhl 1J-32H-B264 - Hz - Plan #1	2,400.0	2,262.4	989.8	981.2	115.686	SF
Ruhl 1K-32H-B264 - Hz - Plan #1	233.3	233.3	812.1	811.3	997.050	CC
Ruhl 1K-32H-B264 - Hz - Plan #1	300.0	293.9	812.3	811.2	783.566	ES
Ruhl 1K-32H-B264 - Hz - Plan #1	2,100.0	1,923.8	998.1	990.7	136.184	SF
Ruhl 1L-32H-B264 - Hz - Plan #1	200.0	200.0	822.2	821.5	1,177.648	CC, ES
Ruhl 1L-32H-B264 - Hz - Plan #1	1,900.0	1,696.8	994.7	988.2	152.880	SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Newman 2K-32H-C264 - 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		
4,400.0	4,393.9	4,569.3	4,537.9	8.5	11.9	-123.20	220.4	-865.1	996.4	979.2	17.21	57.882		
4,500.0	4,493.8	4,669.0	4,636.7	8.7	12.2	-123.14	225.8	-853.5	988.1	970.5	17.62	56.095		
4,600.0	4,593.6	4,768.6	4,735.5	8.9	12.5	-123.08	231.2	-841.8	979.9	961.9	18.02	54.388		
4,700.0	4,693.4	4,868.3	4,834.3	9.1	12.8	-123.02	236.5	-830.2	971.6	953.2	18.42	52.753		
4,800.0	4,793.3	4,967.9	4,933.2	9.3	13.1	-122.95	241.9	-818.5	963.3	944.5	18.82	51.187		
4,900.0	4,893.1	5,067.6	5,032.0	9.5	13.4	-122.88	247.3	-806.8	955.1	935.8	19.22	49.686		
5,000.0	4,992.9	5,167.2	5,130.8	9.8	13.6	-122.82	252.7	-795.2	946.8	927.2	19.62	48.245		
5,100.0	5,092.7	5,266.9	5,229.6	10.0	13.9	-122.75	258.1	-783.5	938.5	918.5	20.03	46.861		
5,200.0	5,192.6	5,358.1	5,320.1	10.2	14.2	-122.69	262.9	-773.1	930.6	910.2	20.41	45.596		
5,300.0	5,292.4	5,445.4	5,406.9	10.4	14.4	-122.68	266.9	-764.3	923.9	903.1	20.77	44.474		
5,400.0	5,392.2	5,532.9	5,493.9	10.6	14.6	-122.70	270.4	-756.7	918.5	897.4	21.13	43.472		
5,500.0	5,492.1	5,620.4	5,581.2	10.8	14.8	-122.76	273.4	-750.3	914.5	893.1	21.48	42.583		
5,600.0	5,591.9	5,708.0	5,668.6	11.0	14.9	-122.86	275.8	-745.1	911.9	890.1	21.82	41.801		
5,700.0	5,691.7	5,800.0	5,760.5	11.2	15.1	-123.01	277.7	-740.9	910.6	888.5	22.15	41.109		
5,744.2	5,735.9	5,834.4	5,794.8	11.3	15.2	-123.08	278.3	-739.7	910.5	888.2	22.29	40.852 CC		
5,800.0	5,791.6	5,883.2	5,843.6	11.4	15.2	-123.18	278.9	-738.3	910.7	888.2	22.47	40.538		
5,900.0	5,891.4	5,970.7	5,931.1	11.6	15.3	-123.40	279.6	-736.8	912.1	889.4	22.78	40.046		
6,000.0	5,991.2	6,060.8	6,021.2	11.8	15.5	-123.66	279.8	-736.4	914.9	891.9	23.09	39.629		
6,100.0	6,091.1	6,160.6	6,121.1	12.0	15.6	-123.97	279.8	-736.4	918.2	894.8	23.41	39.223		
6,200.0	6,190.9	6,260.5	6,220.9	12.2	15.7	-124.27	279.8	-736.4	921.5	897.7	23.73	38.827		
6,300.0	6,290.7	6,360.3	6,320.7	12.4	15.8	-124.56	279.8	-736.4	924.7	900.7	24.06	38.440		
6,400.0	6,390.5	6,461.0	6,421.4	12.6	15.9	-124.94	278.5	-736.4	928.0	903.7	24.36	38.103		
6,500.0	6,490.4	6,560.3	6,519.3	12.7	15.9	125.93	263.4	-736.4	931.4	906.9	24.44	38.106		
6,600.0	6,589.6	6,655.6	6,609.7	12.8	15.9	98.57	233.1	-736.4	935.1	910.7	24.36	38.388		
6,700.0	6,686.2	6,747.1	6,690.5	12.8	15.9	92.61	190.4	-736.4	939.3	915.0	24.22	38.780		
6,800.0	6,778.4	6,834.8	6,760.6	12.8	15.8	89.20	137.8	-736.4	944.0	919.8	24.13	39.122		
6,900.0	6,864.3	6,919.0	6,819.6	12.8	15.8	86.59	78.0	-736.4	949.2	925.0	24.16	39.280		
7,000.0	6,942.3	7,000.0	6,867.5	12.8	15.9	84.34	12.7	-736.4	954.9	930.5	24.37	39.177		
7,100.0	7,010.8	7,077.8	6,904.5	12.9	16.1	82.33	-55.7	-736.4	960.9	936.1	24.80	38.737		
7,200.0	7,068.6	7,150.0	6,930.2	13.2	16.3	80.55	-123.1	-736.4	967.1	941.6	25.43	38.035		
7,300.0	7,114.4	7,226.3	6,947.9	13.7	16.7	78.84	-197.3	-736.4	973.3	947.0	26.30	37.009		
7,400.0	7,147.5	7,300.0	6,955.6	14.3	17.1	77.30	-270.5	-736.4	979.3	952.0	27.33	35.830		
7,500.0	7,167.1	7,385.7	6,956.0	15.2	17.8	75.96	-356.2	-736.4	984.4	955.8	28.65	34.359		
7,600.0	7,173.0	7,485.4	6,956.0	16.1	18.6	75.49	-455.9	-736.4	986.1	955.7	30.36	32.483		
7,700.0	7,173.0	7,585.4	6,956.0	17.2	19.6	75.49	-555.9	-736.4	986.1	953.5	32.59	30.259		
7,800.0	7,173.0	7,685.4	6,956.0	18.5	20.7	75.49	-655.9	-736.4	986.1	951.1	35.01	28.168		
7,900.0	7,173.0	7,785.4	6,956.0	19.7	21.9	75.49	-755.9	-736.4	986.1	948.5	37.58	26.240		
8,000.0	7,173.0	7,885.4	6,956.0	21.1	23.1	75.49	-855.9	-736.5	986.1	945.9	40.27	24.485		
8,100.0	7,173.0	7,985.4	6,956.0	22.5	24.4	75.49	-955.9	-736.5	986.1	943.1	43.07	22.897		
8,200.0	7,173.0	8,085.4	6,956.0	24.0	25.8	75.49	-1,055.9	-736.5	986.1	940.2	45.94	21.464		
8,300.0	7,173.0	8,185.4	6,956.0	25.5	27.2	75.49	-1,155.9	-736.5	986.1	937.3	48.89	20.172		
8,400.0	7,173.0	8,285.4	6,956.0	27.0	28.6	75.49	-1,255.9	-736.5	986.1	934.3	51.88	19.007		
8,500.0	7,173.0	8,385.4	6,956.0	28.5	30.1	75.49	-1,355.9	-736.5	986.2	931.2	54.93	17.953		
8,600.0	7,173.0	8,485.4	6,956.0	30.1	31.6	75.49	-1,455.9	-736.5	986.2	928.1	58.01	16.999		
8,700.0	7,173.0	8,585.4	6,956.0	31.7	33.1	75.49	-1,555.9	-736.5	986.2	925.0	61.13	16.132		
8,800.0	7,173.0	8,685.4	6,956.0	33.3	34.7	75.50	-1,655.9	-736.5	986.2	921.9	64.28	15.343		
8,900.0	7,173.0	8,785.4	6,956.0	34.9	36.2	75.50	-1,755.9	-736.5	986.2	918.7	67.45	14.622		
9,000.0	7,173.0	8,885.4	6,956.0	36.6	37.8	75.50	-1,855.9	-736.5	986.2	915.5	70.64	13.961		
9,100.0	7,173.0	8,985.4	6,956.0	38.2	39.4	75.50	-1,955.9	-736.5	986.2	912.3	73.85	13.354		
9,200.0	7,173.0	9,085.4	6,956.0	39.9	41.0	75.50	-2,055.9	-736.5	986.2	909.1	77.07	12.796		
9,300.0	7,173.0	9,185.4	6,956.0	41.5	42.7	75.50	-2,155.9	-736.5	986.2	905.9	80.31	12.279		
9,400.0	7,173.0	9,285.4	6,956.0	43.2	44.3	75.50	-2,255.9	-736.5	986.2	902.6	83.57	11.802		

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Newman 2K-32H-C264 - 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)				
9,500.0	7,173.0	9,385.4	6,956.0	44.9	45.9	75.50	-2,355.9	-736.5	986.2	899.4	86.83	11.358		
9,600.0	7,173.0	9,485.4	6,956.0	46.6	47.6	75.50	-2,455.9	-736.6	986.2	896.1	90.10	10.945		
9,700.0	7,173.0	9,585.4	6,956.0	48.2	49.3	75.50	-2,555.9	-736.6	986.2	892.8	93.39	10.561		
9,800.0	7,173.0	9,685.4	6,956.0	49.9	50.9	75.50	-2,655.9	-736.6	986.2	889.6	96.68	10.201		
9,900.0	7,173.0	9,785.4	6,956.0	51.6	52.6	75.50	-2,755.9	-736.6	986.2	886.3	99.97	9.865		
10,000.0	7,173.0	9,885.4	6,956.0	53.3	54.3	75.50	-2,855.9	-736.6	986.2	883.0	103.28	9.549		
10,100.0	7,173.0	9,985.4	6,956.0	55.0	55.9	75.50	-2,955.9	-736.6	986.3	879.7	106.59	9.253		
10,200.0	7,173.0	10,085.4	6,956.0	56.7	57.6	75.50	-3,055.9	-736.6	986.3	876.4	109.90	8.974		
10,300.0	7,173.0	10,185.4	6,956.0	58.5	59.3	75.50	-3,155.9	-736.6	986.3	873.0	113.22	8.711		
10,400.0	7,173.0	10,285.4	6,956.0	60.2	61.0	75.50	-3,255.9	-736.6	986.3	869.7	116.55	8.462		
10,500.0	7,173.0	10,385.4	6,956.0	61.9	62.7	75.50	-3,355.9	-736.6	986.3	866.4	119.88	8.227		
10,600.0	7,173.0	10,485.4	6,956.0	63.6	64.4	75.50	-3,455.9	-736.6	986.3	863.1	123.21	8.005		
10,700.0	7,173.0	10,585.4	6,956.0	65.3	66.1	75.50	-3,555.9	-736.6	986.3	859.7	126.55	7.794		
10,800.0	7,173.0	10,685.4	6,956.0	67.0	67.8	75.50	-3,655.9	-736.6	986.3	856.4	129.88	7.594		
10,900.0	7,173.0	10,785.4	6,956.0	68.8	69.5	75.50	-3,755.9	-736.6	986.3	853.1	133.23	7.403		
11,000.0	7,173.0	10,885.4	6,956.0	70.5	71.2	75.50	-3,855.9	-736.6	986.3	849.7	136.57	7.222		
11,100.0	7,173.0	10,985.4	6,956.0	72.2	72.9	75.50	-3,955.9	-736.6	986.3	846.4	139.92	7.049		
11,200.0	7,173.0	11,085.4	6,956.0	73.9	74.6	75.50	-4,055.9	-736.7	986.3	843.0	143.27	6.884		
11,300.0	7,173.0	11,185.4	6,956.0	75.7	76.4	75.50	-4,155.9	-736.7	986.3	839.7	146.62	6.727		
11,400.0	7,173.0	11,285.4	6,956.0	77.4	78.1	75.50	-4,255.9	-736.7	986.3	836.4	149.98	6.577		
11,500.0	7,173.0	11,385.4	6,956.0	79.1	79.8	75.50	-4,355.9	-736.7	986.3	833.0	153.33	6.433		
11,600.0	7,173.0	11,485.4	6,956.0	80.8	81.5	75.50	-4,455.9	-736.7	986.3	829.7	156.69	6.295		
11,656.5	7,173.0	11,541.9	6,956.0	81.8	82.5	75.50	-4,512.4	-736.7	986.3	827.8	158.59	6.220		
11,696.8	7,173.0	11,576.8	6,956.0	82.5	83.1	75.50	-4,547.3	-736.7	986.4	826.5	159.85	6.171 ES, SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Newman 2L-32H-C264 - 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		
3,000.0	2,996.3	3,225.5	3,189.5	5.7	9.6	-123.67	148.2	-901.6	992.0	980.2	11.80	84.052		
3,100.0	3,096.1	3,324.6	3,287.1	5.9	10.0	-123.59	153.7	-885.1	978.7	966.5	12.20	80.196		
3,200.0	3,196.0	3,423.7	3,384.7	6.1	10.3	-123.50	159.3	-868.5	965.4	952.8	12.61	76.581		
3,300.0	3,295.8	3,522.8	3,482.2	6.3	10.7	-123.41	164.9	-852.0	952.2	939.2	13.01	73.186		
3,400.0	3,395.6	3,621.9	3,579.8	6.5	11.0	-123.32	170.4	-835.5	938.9	925.5	13.41	69.990		
3,500.0	3,495.5	3,721.0	3,677.3	6.7	11.4	-123.23	176.0	-818.9	925.6	911.8	13.82	66.978		
3,600.0	3,595.3	3,820.1	3,774.9	6.9	11.7	-123.13	181.6	-802.4	912.4	898.1	14.23	64.133		
3,700.0	3,695.1	3,919.2	3,872.4	7.1	12.1	-123.03	187.1	-785.9	899.1	884.5	14.63	61.443		
3,800.0	3,795.0	4,018.3	3,970.0	7.3	12.4	-122.93	192.7	-769.3	885.8	870.8	15.04	58.894		
3,900.0	3,894.8	4,117.4	4,067.6	7.5	12.8	-122.83	198.3	-752.8	872.6	857.1	15.45	56.477		
4,000.0	3,994.6	4,216.5	4,165.1	7.7	13.1	-122.72	203.8	-736.3	859.3	843.5	15.86	54.181		
4,100.0	4,094.4	4,315.6	4,262.7	7.9	13.5	-122.61	209.4	-719.7	846.1	829.8	16.27	51.997		
4,200.0	4,194.3	4,414.7	4,360.2	8.1	13.8	-122.49	214.9	-703.2	832.8	816.1	16.68	49.918		
4,300.0	4,294.1	4,513.8	4,457.8	8.3	14.2	-122.37	220.5	-686.7	819.6	802.5	17.10	47.935		
4,400.0	4,393.9	4,612.9	4,555.3	8.5	14.5	-122.25	226.1	-670.1	806.3	788.8	17.51	46.044		
4,500.0	4,493.8	4,712.0	4,652.9	8.7	14.9	-122.12	231.6	-653.6	793.1	775.2	17.93	44.237		
4,600.0	4,593.6	4,811.1	4,750.5	8.9	15.3	-121.99	237.2	-637.1	779.9	761.5	18.35	42.509		
4,700.0	4,693.4	4,910.2	4,848.0	9.1	15.6	-121.86	242.8	-620.5	766.6	747.9	18.77	40.854		
4,800.0	4,793.3	5,009.3	4,945.6	9.3	16.0	-121.72	248.3	-604.0	753.4	734.2	19.19	39.269		
4,900.0	4,893.1	5,100.0	5,034.9	9.5	16.3	-121.59	253.4	-589.0	740.4	720.8	19.59	37.801		
5,000.0	4,992.9	5,191.7	5,125.3	9.8	16.6	-121.49	258.1	-575.1	728.6	708.6	19.98	36.470		
5,100.0	5,092.7	5,280.8	5,213.5	10.0	16.8	-121.44	262.2	-562.8	718.3	697.9	20.36	35.287		
5,200.0	5,192.6	5,370.1	5,302.1	10.2	17.1	-121.44	265.9	-551.9	709.4	688.6	20.72	34.232		
5,300.0	5,292.4	5,459.7	5,391.1	10.4	17.3	-121.47	269.1	-542.2	701.9	680.8	21.08	33.298		
5,400.0	5,392.2	5,549.4	5,480.4	10.6	17.5	-121.56	271.9	-533.8	695.8	674.4	21.43	32.478		
5,500.0	5,492.1	5,639.3	5,569.9	10.8	17.7	-121.69	274.3	-526.8	691.3	669.5	21.76	31.767		
5,600.0	5,591.9	5,729.2	5,659.6	11.0	17.8	-121.86	276.3	-521.0	688.1	666.0	22.08	31.158		
5,700.0	5,691.7	5,819.2	5,749.5	11.2	18.0	-122.09	277.7	-516.6	686.4	664.0	22.40	30.646		
5,764.9	5,756.5	5,877.6	5,807.9	11.3	18.1	-122.25	278.5	-514.5	686.1	663.5	22.60	30.364	CC	
5,800.0	5,791.6	5,909.1	5,839.4	11.4	18.1	-122.35	278.8	-513.6	686.2	663.5	22.70	30.227		
5,900.0	5,891.4	6,000.0	5,930.2	11.6	18.2	-122.67	279.3	-511.8	687.5	664.5	23.00	29.893		
6,000.0	5,991.2	6,091.0	6,021.2	11.8	18.3	-123.03	279.5	-511.4	690.2	666.9	23.28	29.640		
6,100.0	6,091.1	6,190.8	6,121.1	12.0	18.4	-123.43	279.5	-511.4	693.4	669.8	23.58	29.401		
6,200.0	6,190.9	6,290.7	6,220.9	12.2	18.5	-123.83	279.5	-511.4	696.6	672.7	23.88	29.168		
6,300.0	6,290.7	6,390.5	6,320.7	12.4	18.6	-124.22	279.5	-511.4	699.8	675.7	24.18	28.938		
6,400.0	6,390.5	6,490.3	6,420.5	12.6	18.7	-124.62	279.5	-511.4	703.1	678.7	24.49	28.714		
6,500.0	6,490.4	6,590.2	6,520.4	12.7	18.8	127.16	279.5	-511.4	706.5	681.7	24.77	28.524		
6,600.0	6,589.6	6,690.0	6,620.3	12.8	18.9	101.92	279.3	-511.4	710.2	685.1	25.06	28.337		
6,700.0	6,686.2	6,794.6	6,723.9	12.8	19.0	98.39	266.8	-511.4	714.0	688.8	25.19	28.340		
6,800.0	6,778.4	6,901.9	6,826.2	12.8	19.0	97.13	234.7	-511.4	717.7	692.6	25.12	28.567		
6,900.0	6,864.3	7,011.0	6,922.1	12.8	18.9	96.31	183.1	-511.4	720.9	696.0	24.95	28.892		
7,000.0	6,942.3	7,120.5	7,006.8	12.8	18.9	95.46	114.0	-511.4	723.5	698.6	24.85	29.118		
7,100.0	7,010.8	7,229.1	7,076.4	12.9	18.9	94.42	30.8	-511.4	725.4	700.5	24.99	29.026		
7,200.0	7,068.6	7,335.6	7,128.2	13.2	19.1	93.15	-62.1	-511.5	726.9	701.3	25.54	28.457		
7,300.0	7,114.4	7,439.0	7,161.2	13.7	19.5	91.67	-159.9	-511.5	727.9	701.4	26.54	27.431		
7,400.0	7,147.5	7,538.6	7,175.9	14.3	19.9	90.02	-258.3	-511.5	728.8	700.9	27.92	26.101		
7,500.0	7,167.1	7,636.5	7,177.0	15.2	20.5	88.46	-356.2	-511.5	729.8	700.2	29.62	24.639		
7,600.0	7,173.0	7,736.3	7,177.0	16.1	21.3	87.96	-455.9	-511.5	730.2	698.6	31.57	23.130		
7,700.0	7,173.0	7,836.3	7,177.0	17.2	22.1	87.96	-555.9	-511.5	730.2	696.3	33.84	21.576		
7,800.0	7,173.0	7,936.3	7,177.0	18.5	23.1	87.96	-655.9	-511.5	730.2	693.9	36.31	20.109		
7,900.0	7,173.0	8,036.3	7,177.0	19.7	24.1	87.96	-755.9	-511.5	730.2	691.3	38.94	18.751		
8,000.0	7,173.0	8,136.3	7,177.0	21.1	25.3	87.96	-855.9	-511.5	730.2	688.5	41.70	17.510		

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Newman 2L-32H-C264 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
8,100.0	7,173.0	8,236.3	7,177.0	22.5	26.5	87.96	-955.9	-511.5	730.2	685.6	44.57	16.385		
8,200.0	7,173.0	8,336.3	7,177.0	24.0	27.7	87.96	-1,055.9	-511.5	730.2	682.7	47.52	15.368		
8,300.0	7,173.0	8,436.3	7,177.0	25.5	29.0	87.96	-1,155.9	-511.5	730.2	679.7	50.54	14.449		
8,400.0	7,173.0	8,536.3	7,177.0	27.0	30.4	87.96	-1,255.9	-511.5	730.2	676.6	53.62	13.619		
8,500.0	7,173.0	8,636.3	7,177.0	28.5	31.8	87.96	-1,355.9	-511.5	730.2	673.5	56.75	12.868		
8,600.0	7,173.0	8,736.3	7,177.0	30.1	33.2	87.96	-1,455.9	-511.5	730.2	670.3	59.92	12.187		
8,700.0	7,173.0	8,836.3	7,177.0	31.7	34.7	87.96	-1,555.9	-511.5	730.2	667.1	63.13	11.568		
8,800.0	7,173.0	8,936.3	7,177.0	33.3	36.2	87.96	-1,655.9	-511.6	730.3	663.9	66.36	11.004		
8,900.0	7,173.0	9,036.3	7,177.0	34.9	37.7	87.96	-1,755.9	-511.6	730.3	660.6	69.63	10.488		
9,000.0	7,173.0	9,136.3	7,177.0	36.6	39.2	87.96	-1,855.9	-511.6	730.3	657.4	72.91	10.015		
9,100.0	7,173.0	9,236.3	7,177.0	38.2	40.7	87.96	-1,955.9	-511.6	730.3	654.1	76.22	9.581		
9,200.0	7,173.0	9,336.3	7,177.0	39.9	42.3	87.96	-2,055.9	-511.6	730.3	650.7	79.54	9.181		
9,300.0	7,173.0	9,436.3	7,177.0	41.5	43.9	87.96	-2,155.9	-511.6	730.3	647.4	82.88	8.811		
9,400.0	7,173.0	9,536.3	7,177.0	43.2	45.5	87.96	-2,255.9	-511.6	730.3	644.1	86.23	8.469		
9,500.0	7,173.0	9,636.3	7,177.0	44.9	47.1	87.96	-2,355.9	-511.6	730.3	640.7	89.59	8.151		
9,600.0	7,173.0	9,736.3	7,177.0	46.6	48.7	87.96	-2,455.9	-511.6	730.3	637.3	92.97	7.855		
9,700.0	7,173.0	9,836.3	7,177.0	48.2	50.3	87.96	-2,555.9	-511.6	730.3	634.0	96.35	7.580		
9,800.0	7,173.0	9,936.3	7,177.0	49.9	52.0	87.96	-2,655.9	-511.6	730.3	630.6	99.74	7.322		
9,900.0	7,173.0	10,036.3	7,177.0	51.6	53.6	87.96	-2,755.9	-511.6	730.3	627.2	103.14	7.081		
10,000.0	7,173.0	10,136.3	7,177.0	53.3	55.2	87.96	-2,855.9	-511.6	730.3	623.8	106.55	6.855		
10,100.0	7,173.0	10,236.3	7,177.0	55.0	56.9	87.96	-2,955.9	-511.6	730.3	620.4	109.96	6.642		
10,200.0	7,173.0	10,336.3	7,177.0	56.7	58.5	87.96	-3,055.9	-511.6	730.3	617.0	113.38	6.442		
10,300.0	7,173.0	10,436.3	7,177.0	58.5	60.2	87.96	-3,155.9	-511.6	730.3	613.5	116.80	6.253		
10,400.0	7,173.0	10,536.3	7,177.0	60.2	61.9	87.96	-3,255.9	-511.7	730.4	610.1	120.23	6.075		
10,500.0	7,173.0	10,636.3	7,177.0	61.9	63.6	87.96	-3,355.9	-511.7	730.4	606.7	123.66	5.906		
10,600.0	7,173.0	10,736.3	7,177.0	63.6	65.2	87.96	-3,455.9	-511.7	730.4	603.3	127.10	5.746		
10,700.0	7,173.0	10,836.3	7,177.0	65.3	66.9	87.96	-3,555.9	-511.7	730.4	599.8	130.54	5.595		
10,800.0	7,173.0	10,936.3	7,177.0	67.0	68.6	87.96	-3,655.9	-511.7	730.4	596.4	133.98	5.451		
10,900.0	7,173.0	11,036.3	7,177.0	68.8	70.3	87.96	-3,755.9	-511.7	730.4	593.0	137.43	5.315		
11,000.0	7,173.0	11,136.3	7,177.0	70.5	72.0	87.96	-3,855.9	-511.7	730.4	589.5	140.88	5.185		
11,100.0	7,173.0	11,236.3	7,177.0	72.2	73.7	87.96	-3,955.9	-511.7	730.4	586.1	144.33	5.061		
11,200.0	7,173.0	11,336.3	7,177.0	73.9	75.4	87.96	-4,055.9	-511.7	730.4	582.6	147.78	4.942		
11,300.0	7,173.0	11,436.3	7,177.0	75.7	77.1	87.96	-4,155.9	-511.7	730.4	579.2	151.24	4.829		
11,400.0	7,173.0	11,536.3	7,177.0	77.4	78.8	87.96	-4,255.9	-511.7	730.4	575.7	154.70	4.721		
11,500.0	7,173.0	11,636.3	7,177.0	79.1	80.5	87.96	-4,355.9	-511.7	730.4	572.3	158.16	4.618		
11,600.0	7,173.0	11,736.3	7,177.0	80.8	82.2	87.96	-4,455.9	-511.7	730.4	568.8	161.63	4.519		
11,657.0	7,173.0	11,793.2	7,177.0	81.8	83.2	87.96	-4,512.9	-511.7	730.4	566.8	163.60	4.465		
11,696.8	7,173.0	11,829.1	7,177.0	82.5	83.8	87.96	-4,548.7	-511.7	730.4	565.5	164.91	4.429 ES, SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1A-32H-B264 - 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	-89.95	0.0	-20.1	20.1					
100.0	100.0	100.0	100.0	0.2	0.2	-89.95	0.0	-20.1	20.1	19.8	0.35	57.700		
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-20.1	20.1	19.4	0.70	28.850	CC, ES	
300.0	300.0	299.6	299.5	0.5	0.5	-86.11	1.4	-21.1	21.2	20.1	1.05	20.177		
400.0	400.0	399.1	399.0	0.7	0.7	-77.20	5.4	-23.9	24.5	23.1	1.41	17.395		
500.0	500.0	499.0	498.7	0.9	0.9	-69.87	9.9	-27.0	28.8	27.1	1.78	16.239		
600.0	600.0	598.8	598.4	1.0	1.1	-64.49	14.4	-30.2	33.5	31.3	2.14	15.642		
700.0	700.0	698.7	698.1	1.2	1.3	-97.45	18.9	-33.3	38.4	35.9	2.46	15.628		
800.0	800.0	798.6	797.8	1.4	1.5	-97.56	23.3	-36.4	43.6	40.8	2.81	15.504		
900.0	899.9	898.4	897.5	1.6	1.7	-99.66	27.8	-39.5	49.1	45.9	3.18	15.450		
1,000.0	999.7	998.2	997.2	1.8	1.9	-102.76	32.3	-42.6	54.9	51.4	3.55	15.468		
1,100.0	1,099.5	1,098.0	1,096.8	2.0	2.1	-105.36	36.8	-45.8	60.9	57.0	3.93	15.508		
1,200.0	1,199.4	1,197.8	1,196.4	2.2	2.3	-107.49	41.2	-48.9	67.0	62.7	4.31	15.557		
1,300.0	1,299.2	1,297.6	1,296.1	2.3	2.5	-109.27	45.7	-52.0	73.1	68.5	4.69	15.609		
1,400.0	1,399.0	1,397.3	1,395.7	2.5	2.7	-110.77	50.2	-55.1	79.4	74.3	5.07	15.663		
1,500.0	1,498.9	1,497.1	1,495.3	2.7	2.9	-112.05	54.7	-58.2	85.6	80.2	5.45	15.715		
1,600.0	1,598.7	1,596.9	1,595.0	2.9	3.1	-113.15	59.1	-61.4	91.9	86.1	5.83	15.765		
1,700.0	1,698.5	1,696.7	1,694.6	3.1	3.3	-114.12	63.6	-64.5	98.2	92.0	6.21	15.813		
1,800.0	1,798.3	1,796.5	1,794.3	3.3	3.5	-114.96	68.1	-67.6	104.6	98.0	6.60	15.859		
1,900.0	1,898.2	1,896.3	1,893.9	3.5	3.7	-115.71	72.6	-70.7	111.0	104.0	6.98	15.901		
2,000.0	1,998.0	1,996.1	1,993.5	3.7	3.9	-116.38	77.0	-73.8	117.4	110.0	7.36	15.942		
2,100.0	2,097.8	2,095.9	2,093.2	3.9	4.1	-116.98	81.5	-76.9	123.8	116.0	7.75	15.980		
2,200.0	2,197.7	2,195.6	2,192.8	4.1	4.3	-117.52	86.0	-80.1	130.2	122.1	8.13	16.016		
2,300.0	2,297.5	2,295.4	2,292.4	4.3	4.5	-118.01	90.5	-83.2	136.6	128.1	8.51	16.049		
2,400.0	2,397.3	2,395.2	2,392.1	4.5	4.7	-118.46	94.9	-86.3	143.1	134.2	8.90	16.081		
2,500.0	2,497.2	2,495.0	2,491.7	4.7	4.9	-118.86	99.4	-89.4	149.5	140.2	9.28	16.111		
2,600.0	2,597.0	2,594.8	2,591.4	4.9	5.1	-119.24	103.9	-92.5	155.9	146.3	9.66	16.139		
2,700.0	2,696.8	2,694.6	2,691.0	5.1	5.3	-119.58	108.4	-95.7	162.4	152.4	10.05	16.166		
2,800.0	2,796.6	2,794.4	2,790.6	5.3	5.5	-119.90	112.8	-98.8	168.9	158.4	10.43	16.191		
2,900.0	2,896.5	2,894.1	2,890.3	5.5	5.7	-120.19	117.3	-101.9	175.3	164.5	10.81	16.214		
3,000.0	2,996.3	2,993.9	2,989.9	5.7	5.9	-120.46	121.8	-105.0	181.8	170.6	11.20	16.237		
3,100.0	3,096.1	3,093.7	3,089.5	5.9	6.0	-120.72	126.3	-108.1	188.3	176.7	11.58	16.258		
3,200.0	3,196.0	3,193.5	3,189.2	6.1	6.2	-120.96	130.7	-111.3	194.8	182.8	11.96	16.278		
3,300.0	3,295.8	3,293.3	3,288.8	6.3	6.4	-121.18	135.2	-114.4	201.2	188.9	12.35	16.298		
3,400.0	3,395.6	3,393.1	3,388.5	6.5	6.6	-121.39	139.7	-117.5	207.7	195.0	12.73	16.316		
3,500.0	3,495.5	3,492.9	3,488.1	6.7	6.8	-121.58	144.2	-120.6	214.2	201.1	13.12	16.333		
3,600.0	3,595.3	3,592.7	3,587.7	6.9	7.0	-121.76	148.6	-123.7	220.7	207.2	13.50	16.350		
3,700.0	3,695.1	3,692.4	3,687.4	7.1	7.2	-121.94	153.1	-126.8	227.2	213.3	13.88	16.366		
3,800.0	3,795.0	3,792.2	3,787.0	7.3	7.4	-122.10	157.6	-130.0	233.7	219.4	14.27	16.381		
3,900.0	3,894.8	3,892.0	3,886.7	7.5	7.6	-122.26	162.1	-133.1	240.2	225.5	14.65	16.395		
4,000.0	3,994.6	3,991.8	3,986.3	7.7	7.8	-122.40	166.5	-136.2	246.7	231.7	15.03	16.409		
4,100.0	4,094.4	4,091.6	4,085.9	7.9	8.0	-122.54	171.0	-139.3	253.2	237.8	15.42	16.422		
4,200.0	4,194.3	4,191.4	4,185.6	8.1	8.2	-122.68	175.5	-142.4	259.7	243.9	15.80	16.435		
4,300.0	4,294.1	4,291.2	4,285.2	8.3	8.4	-122.80	180.0	-145.6	266.2	250.0	16.18	16.447		
4,400.0	4,393.9	4,390.9	4,384.8	8.5	8.6	-122.92	184.4	-148.7	272.7	256.1	16.57	16.459		
4,500.0	4,493.8	4,490.7	4,484.5	8.7	8.8	-123.04	188.9	-151.8	279.2	262.2	16.95	16.470		
4,600.0	4,593.6	4,590.5	4,584.1	8.9	9.0	-123.15	193.4	-154.9	285.7	268.4	17.34	16.481		
4,700.0	4,693.4	4,690.3	4,683.8	9.1	9.2	-123.25	197.9	-158.0	292.2	274.5	17.72	16.491		
4,800.0	4,793.3	4,790.1	4,783.4	9.3	9.4	-123.35	202.3	-161.2	298.7	280.6	18.10	16.501		
4,900.0	4,893.1	4,889.9	4,883.0	9.5	9.6	-123.44	206.8	-164.3	305.2	286.7	18.49	16.510		
5,000.0	4,992.9	4,989.7	4,982.7	9.8	9.8	-123.54	211.3	-167.4	311.7	292.9	18.87	16.520		
5,100.0	5,092.7	5,089.5	5,082.3	10.0	10.0	-123.62	215.7	-170.5	318.2	299.0	19.25	16.529		

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1A-32H-B264 - 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)	
5,200.0	5,192.6	5,189.2	5,181.9	10.2	10.2	-123.71	220.2	-173.6	324.7	305.1	19.64	16.537		
5,300.0	5,292.4	5,289.0	5,281.6	10.4	10.4	-123.79	224.7	-176.7	331.3	311.2	20.02	16.546		
5,400.0	5,392.2	5,388.8	5,381.2	10.6	10.6	-123.87	229.2	-179.9	337.8	317.4	20.40	16.554		
5,500.0	5,492.1	5,488.6	5,480.9	10.8	10.8	-123.94	233.6	-183.0	344.3	323.5	20.79	16.561		
5,600.0	5,591.9	5,588.4	5,580.5	11.0	11.0	-124.01	238.1	-186.1	350.8	329.6	21.17	16.569		
5,700.0	5,691.7	5,688.2	5,680.1	11.2	11.2	-124.08	242.6	-189.2	357.3	335.8	21.56	16.576		
5,800.0	5,791.6	5,788.0	5,779.8	11.4	11.4	-124.15	247.1	-192.3	363.8	341.9	21.94	16.583		
5,900.0	5,891.4	5,887.7	5,879.4	11.6	11.6	-124.21	251.5	-195.5	370.3	348.0	22.32	16.590		
6,000.0	5,991.2	5,987.5	5,979.0	11.8	11.8	-124.28	256.0	-198.6	376.9	354.1	22.71	16.597		
6,100.0	6,091.1	6,087.3	6,078.7	12.0	12.0	-124.34	260.5	-201.7	383.4	360.3	23.09	16.603		
6,200.0	6,190.9	6,187.1	6,178.3	12.2	12.2	-124.40	265.0	-204.8	389.9	366.4	23.47	16.609		
6,300.0	6,290.7	6,286.9	6,278.0	12.4	12.4	-124.45	269.4	-207.9	396.4	372.5	23.86	16.615		
6,400.0	6,390.5	6,387.2	6,378.2	12.6	12.5	-125.16	269.3	-211.1	402.9	378.7	24.19	16.653		
6,500.0	6,490.4	6,485.3	6,475.2	12.7	12.6	124.46	256.0	-214.1	409.5	385.1	24.40	16.786		
6,600.0	6,589.6	6,581.2	6,567.4	12.8	12.6	95.99	230.2	-217.0	416.8	392.3	24.44	17.050		
6,700.0	6,686.2	6,675.3	6,653.8	12.8	12.6	89.20	193.1	-219.7	424.3	399.9	24.38	17.400		
6,800.0	6,778.4	6,767.8	6,733.3	12.8	12.5	85.23	146.0	-222.2	431.8	407.6	24.28	17.785		
6,900.0	6,864.3	6,858.9	6,805.0	12.8	12.6	82.32	89.9	-224.4	439.2	415.0	24.21	18.140		
7,000.0	6,942.3	6,950.0	6,869.0	12.8	12.7	80.00	25.2	-226.4	446.2	421.9	24.26	18.392		
7,100.0	7,010.8	7,037.5	6,922.3	12.9	12.9	78.16	-44.2	-228.1	452.4	427.9	24.51	18.462		
7,200.0	7,068.6	7,125.5	6,966.9	13.2	13.2	76.69	-119.9	-229.5	457.8	432.8	25.02	18.299		
7,300.0	7,114.4	7,212.8	7,001.7	13.7	13.7	75.57	-199.9	-230.6	462.2	436.4	25.85	17.882		
7,400.0	7,147.5	7,300.0	7,026.5	14.3	14.3	74.77	-283.4	-231.4	465.4	438.4	27.02	17.227		
7,500.0	7,167.1	7,386.1	7,040.9	15.2	15.1	74.29	-368.3	-231.8	467.4	438.9	28.52	16.387		
7,600.0	7,173.0	7,473.9	7,045.0	16.1	15.9	74.13	-456.0	-231.9	468.0	437.7	30.33	15.429		
7,700.0	7,173.0	7,573.9	7,045.0	17.2	17.1	74.13	-556.0	-231.9	468.0	435.5	32.54	14.385		
7,800.0	7,173.0	7,673.9	7,045.0	18.5	18.3	74.13	-656.0	-231.9	468.0	433.1	34.92	13.404		
7,900.0	7,173.0	7,773.9	7,045.0	19.7	19.6	74.13	-756.0	-231.9	468.0	430.6	37.45	12.497		
8,000.0	7,173.0	7,873.9	7,045.0	21.1	20.9	74.13	-856.0	-231.9	468.0	427.9	40.11	11.668		
8,100.0	7,173.0	7,973.9	7,045.0	22.5	22.4	74.13	-956.0	-231.9	468.0	425.2	42.87	10.917		
8,200.0	7,173.0	8,073.9	7,045.0	24.0	23.8	74.13	-1,056.0	-231.9	468.0	422.3	45.71	10.238		
8,300.0	7,173.0	8,173.9	7,045.0	25.5	25.3	74.13	-1,156.0	-231.9	468.0	419.4	48.62	9.625		
8,400.0	7,173.0	8,273.9	7,045.0	27.0	26.9	74.13	-1,256.0	-231.9	468.0	416.4	51.59	9.072		
8,500.0	7,173.0	8,373.9	7,045.0	28.5	28.4	74.13	-1,356.0	-231.9	468.0	413.4	54.61	8.571		
8,600.0	7,173.0	8,473.9	7,045.0	30.1	30.0	74.13	-1,456.0	-231.9	468.0	410.4	57.66	8.116		
8,700.0	7,173.0	8,573.9	7,045.0	31.7	31.6	74.13	-1,556.0	-231.9	468.0	407.3	60.75	7.704		
8,800.0	7,173.0	8,673.9	7,045.0	33.3	33.2	74.13	-1,656.0	-231.9	468.0	404.2	63.87	7.328		
8,900.0	7,173.0	8,773.9	7,045.0	34.9	34.8	74.13	-1,756.0	-231.9	468.0	401.0	67.01	6.984		
9,000.0	7,173.0	8,873.9	7,045.0	36.6	36.5	74.13	-1,856.0	-231.9	468.0	397.8	70.18	6.669		
9,100.0	7,173.0	8,973.9	7,045.0	38.2	38.1	74.13	-1,956.0	-231.9	468.0	394.7	73.36	6.380		
9,200.0	7,173.0	9,073.9	7,045.0	39.9	39.8	74.13	-2,056.0	-231.9	468.0	391.5	76.56	6.113		
9,300.0	7,173.0	9,173.9	7,045.0	41.5	41.4	74.13	-2,156.0	-231.9	468.0	388.2	79.78	5.867		
9,400.0	7,173.0	9,273.9	7,045.0	43.2	43.1	74.13	-2,256.0	-231.9	468.0	385.0	83.01	5.638		
9,500.0	7,173.0	9,373.9	7,045.0	44.9	44.8	74.13	-2,356.0	-231.9	468.0	381.8	86.25	5.427		
9,600.0	7,173.0	9,473.9	7,045.0	46.6	46.5	74.13	-2,456.0	-231.9	468.0	378.5	89.49	5.230		
9,700.0	7,173.0	9,573.9	7,045.0	48.2	48.2	74.13	-2,556.0	-231.9	468.0	375.3	92.75	5.046		
9,800.0	7,173.0	9,673.9	7,045.0	49.9	49.9	74.13	-2,656.0	-231.9	468.0	372.0	96.02	4.874		
9,900.0	7,173.0	9,773.9	7,045.0	51.6	51.6	74.13	-2,756.0	-231.9	468.0	368.7	99.29	4.714		
10,000.0	7,173.0	9,873.9	7,045.0	53.3	53.3	74.13	-2,856.0	-231.9	468.0	365.4	102.57	4.563		
10,100.0	7,173.0	9,973.9	7,045.0	55.0	55.0	74.13	-2,956.0	-231.9	468.0	362.2	105.86	4.421		
10,200.0	7,173.0	10,073.9	7,045.0	56.7	56.7	74.13	-3,056.0	-231.9	468.0	358.9	109.15	4.288		
10,300.0	7,173.0	10,173.9	7,045.0	58.5	58.4	74.13	-3,156.0	-231.9	468.0	355.6	112.45	4.162		

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1A-32H-B264 - 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)			
10,400.0	7,173.0	10,273.9	7,045.0	60.2	60.1	74.13	-3,256.0	-231.9	468.0	352.3	115.75	4.043	
10,500.0	7,173.0	10,373.9	7,045.0	61.9	61.8	74.13	-3,356.0	-231.9	468.0	349.0	119.05	3.931	
10,600.0	7,173.0	10,473.9	7,045.0	63.6	63.5	74.13	-3,456.0	-231.9	468.0	345.7	122.36	3.825	
10,700.0	7,173.0	10,573.9	7,045.0	65.3	65.3	74.13	-3,556.0	-231.9	468.0	342.3	125.68	3.724	
10,800.0	7,173.0	10,673.9	7,045.0	67.0	67.0	74.13	-3,656.0	-231.9	468.0	339.0	128.99	3.628	
10,900.0	7,173.0	10,773.9	7,045.0	68.8	68.7	74.13	-3,756.0	-231.9	468.0	335.7	132.31	3.537	
11,000.0	7,173.0	10,873.9	7,045.0	70.5	70.4	74.13	-3,856.0	-231.9	468.0	332.4	135.63	3.451	
11,100.0	7,173.0	10,973.9	7,045.0	72.2	72.1	74.13	-3,956.0	-231.9	468.0	329.1	138.96	3.368	
11,200.0	7,173.0	11,073.9	7,045.0	73.9	73.9	74.13	-4,056.0	-231.9	468.0	325.7	142.29	3.289	
11,300.0	7,173.0	11,173.9	7,045.0	75.7	75.6	74.13	-4,156.0	-231.9	468.0	322.4	145.62	3.214	
11,400.0	7,173.0	11,273.9	7,045.0	77.4	77.3	74.13	-4,256.0	-231.9	468.0	319.1	148.95	3.142	
11,500.0	7,173.0	11,373.9	7,045.0	79.1	79.1	74.13	-4,356.0	-231.9	468.0	315.7	152.28	3.073	
11,600.0	7,173.0	11,473.9	7,045.0	80.8	80.8	74.13	-4,456.0	-231.9	468.0	312.4	155.62	3.008	
11,658.1	7,173.0	11,532.0	7,045.0	81.9	81.8	74.13	-4,514.0	-231.9	468.0	310.5	157.55	2.971	
11,696.8	7,173.0	11,568.2	7,045.0	82.5	82.4	74.13	-4,550.2	-231.9	468.0	309.2	158.80	2.947 SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1B-32H-B264 - 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	0.0	0.0	0.0	0.0	-89.95	0.0	-10.1	10.1	10.1	0.00	N/A		
100.0	100.0	100.0	100.0	0.2	0.2	-89.95	0.0	-10.1	10.1	9.7	0.35	28.850		
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-10.1	10.1	9.4	0.70	14.425		
300.0	300.0	300.0	300.0	0.5	0.5	-89.95	0.0	-10.1	10.1	9.0	1.05	9.617		
400.0	400.0	400.0	400.0	0.7	0.7	-89.95	0.0	-10.1	10.1	8.7	1.40	7.213		
500.0	500.0	500.0	500.0	0.9	0.9	-89.95	0.0	-10.1	10.1	8.3	1.75	5.770		
600.0	600.0	600.0	600.0	1.0	1.0	-89.95	0.0	-10.1	10.1	8.0	2.09	4.808 CC, ES		
700.0	700.0	700.0	700.0	1.2	1.2	-129.53	0.0	-10.1	10.6	8.2	2.44	4.339		
800.0	800.0	800.0	800.0	1.4	1.4	-138.86	0.0	-10.1	12.4	9.6	2.79	4.452		
900.0	899.9	899.9	899.9	1.6	1.6	-149.19	0.0	-10.1	16.0	12.8	3.14	5.085		
1,000.0	999.7	999.7	999.7	1.8	1.7	-157.16	0.0	-10.1	21.1	17.6	3.49	6.044		
1,100.0	1,099.5	1,100.0	1,100.0	2.0	1.9	-158.93	1.8	-10.1	25.6	21.7	3.84	6.651		
1,200.0	1,199.4	1,200.2	1,200.1	2.2	2.1	-155.09	6.6	-10.0	28.4	24.2	4.20	6.757		
1,300.0	1,299.2	1,300.2	1,299.9	2.3	2.3	-151.26	11.8	-10.0	31.1	26.6	4.56	6.821		
1,400.0	1,399.0	1,400.1	1,399.7	2.5	2.5	-148.06	17.0	-9.9	34.0	29.1	4.93	6.892		
1,500.0	1,498.9	1,500.1	1,499.5	2.7	2.7	-145.37	22.2	-9.8	36.9	31.6	5.30	6.965		
1,600.0	1,598.7	1,600.0	1,599.3	2.9	2.8	-143.08	27.5	-9.8	40.0	34.3	5.68	7.037		
1,700.0	1,698.5	1,700.0	1,699.1	3.1	3.0	-141.11	32.7	-9.7	43.0	37.0	6.05	7.106		
1,800.0	1,798.3	1,799.9	1,798.9	3.3	3.2	-139.40	37.9	-9.7	46.1	39.7	6.43	7.172		
1,900.0	1,898.2	1,899.8	1,898.7	3.5	3.4	-137.92	43.1	-9.6	49.3	42.5	6.81	7.233		
2,000.0	1,998.0	1,999.8	1,998.5	3.7	3.6	-136.61	48.4	-9.6	52.5	45.3	7.20	7.291		
2,100.0	2,097.8	2,099.7	2,098.4	3.9	3.8	-135.45	53.6	-9.5	55.7	48.1	7.58	7.345		
2,200.0	2,197.7	2,199.7	2,198.2	4.1	4.0	-134.42	58.8	-9.5	58.9	50.9	7.97	7.395		
2,300.0	2,297.5	2,299.6	2,298.0	4.3	4.2	-133.50	64.0	-9.4	62.1	53.8	8.35	7.442		
2,400.0	2,397.3	2,399.5	2,397.8	4.5	4.4	-132.66	69.2	-9.4	65.4	56.7	8.74	7.485		
2,500.0	2,497.2	2,499.5	2,497.6	4.7	4.6	-131.91	74.5	-9.3	68.7	59.5	9.12	7.526		
2,600.0	2,597.0	2,599.4	2,597.4	4.9	4.8	-131.23	79.7	-9.3	72.0	62.4	9.51	7.564		
2,700.0	2,696.8	2,699.4	2,697.2	5.1	5.0	-130.60	84.9	-9.2	75.2	65.3	9.90	7.600		
2,800.0	2,796.6	2,799.3	2,797.0	5.3	5.1	-130.03	90.1	-9.2	78.5	68.3	10.29	7.634		
2,900.0	2,896.5	2,899.3	2,896.8	5.5	5.3	-129.50	95.4	-9.1	81.8	71.2	10.68	7.665		
3,000.0	2,996.3	2,999.2	2,996.6	5.7	5.5	-129.02	100.6	-9.1	85.2	74.1	11.07	7.695		
3,100.0	3,096.1	3,099.1	3,096.4	5.9	5.7	-128.57	105.8	-9.0	88.5	77.0	11.46	7.723		
3,200.0	3,196.0	3,199.1	3,196.2	6.1	5.9	-128.15	111.0	-9.0	91.8	79.9	11.85	7.749		
3,300.0	3,295.8	3,299.0	3,296.0	6.3	6.1	-127.76	116.3	-8.9	95.1	82.9	12.24	7.774		
3,400.0	3,395.6	3,399.0	3,395.8	6.5	6.3	-127.40	121.5	-8.9	98.5	85.8	12.63	7.797		
3,500.0	3,495.5	3,498.9	3,495.6	6.7	6.5	-127.07	126.7	-8.8	101.8	88.8	13.02	7.820		
3,600.0	3,595.3	3,598.9	3,595.4	6.9	6.7	-126.75	131.9	-8.8	105.1	91.7	13.41	7.841		
3,700.0	3,695.1	3,698.8	3,695.3	7.1	6.9	-126.45	137.2	-8.7	108.5	94.7	13.80	7.861		
3,800.0	3,795.0	3,798.7	3,795.1	7.3	7.1	-126.17	142.4	-8.6	111.8	97.6	14.19	7.880		
3,900.0	3,894.8	3,898.7	3,894.9	7.5	7.3	-125.91	147.6	-8.6	115.2	100.6	14.58	7.898		
4,000.0	3,994.6	3,998.6	3,994.7	7.7	7.5	-125.66	152.8	-8.5	118.5	103.5	14.97	7.916		
4,100.0	4,094.4	4,098.6	4,094.5	7.9	7.7	-125.43	158.0	-8.5	121.9	106.5	15.36	7.932		
4,200.0	4,194.3	4,198.5	4,194.3	8.1	7.9	-125.21	163.3	-8.4	125.2	109.5	15.75	7.948		
4,300.0	4,294.1	4,298.5	4,294.1	8.3	8.1	-125.00	168.5	-8.4	128.6	112.4	16.14	7.963		
4,400.0	4,393.9	4,398.4	4,393.9	8.5	8.3	-124.80	173.7	-8.3	131.9	115.4	16.54	7.977		
4,500.0	4,493.8	4,498.3	4,493.7	8.7	8.5	-124.61	178.9	-8.3	135.3	118.3	16.93	7.991		
4,600.0	4,593.6	4,598.3	4,593.5	8.9	8.7	-124.43	184.2	-8.2	138.6	121.3	17.32	8.004		
4,700.0	4,693.4	4,698.2	4,693.3	9.1	8.9	-124.26	189.4	-8.2	142.0	124.3	17.71	8.017		
4,800.0	4,793.3	4,798.2	4,793.1	9.3	9.1	-124.09	194.6	-8.1	145.3	127.2	18.10	8.029		
4,900.0	4,893.1	4,898.1	4,892.9	9.5	9.2	-123.94	199.8	-8.1	148.7	130.2	18.49	8.041		
5,000.0	4,992.9	4,998.1	4,992.7	9.8	9.4	-123.79	205.1	-8.0	152.1	133.2	18.89	8.052		
5,100.0	5,092.7	5,098.0	5,092.5	10.0	9.6	-123.64	210.3	-8.0	155.4	136.2	19.28	8.063		

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1B-32H-B264 - 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		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
5,200.0	5,192.6	5,197.9	5,192.3	10.2	9.8	-123.51	215.5	-7.9	158.8	139.1	19.67	8.073		
5,300.0	5,292.4	5,297.9	5,292.1	10.4	10.0	-123.37	220.7	-7.9	162.2	142.1	20.06	8.083		
5,400.0	5,392.2	5,397.8	5,392.0	10.6	10.2	-123.25	226.0	-7.8	165.5	145.1	20.45	8.093		
5,500.0	5,492.1	5,497.8	5,491.8	10.8	10.4	-123.13	231.2	-7.8	168.9	148.1	20.85	8.102		
5,600.0	5,591.9	5,597.7	5,591.6	11.0	10.6	-123.01	236.4	-7.7	172.3	151.0	21.24	8.111		
5,700.0	5,691.7	5,697.7	5,691.4	11.2	10.8	-122.90	241.6	-7.7	175.6	154.0	21.63	8.120		
5,800.0	5,791.6	5,797.6	5,791.2	11.4	11.0	-122.79	246.9	-7.6	179.0	157.0	22.02	8.129		
5,900.0	5,891.4	5,897.5	5,891.0	11.6	11.2	-122.69	252.1	-7.6	182.4	160.0	22.41	8.137		
6,000.0	5,991.2	5,997.5	5,990.8	11.8	11.4	-122.59	257.3	-7.5	185.7	162.9	22.81	8.145		
6,100.0	6,091.1	6,097.4	6,090.6	12.0	11.6	-122.49	262.5	-7.4	189.1	165.9	23.20	8.152		
6,200.0	6,190.9	6,197.4	6,190.4	12.2	11.8	-122.40	267.7	-7.4	192.5	168.9	23.59	8.160		
6,300.0	6,290.7	6,298.3	6,291.3	12.4	11.9	-123.78	268.0	-7.3	195.6	171.7	23.90	8.185		
6,400.0	6,390.5	6,396.3	6,388.3	12.6	12.0	-128.92	254.8	-7.3	199.2	175.2	24.02	8.292		
6,500.0	6,490.4	6,489.0	6,477.6	12.7	12.0	115.55	230.3	-7.2	206.1	182.1	23.97	8.597		
6,600.0	6,589.6	6,578.4	6,560.1	12.8	11.9	82.57	195.9	-7.2	216.2	192.4	23.81	9.079		
6,700.0	6,686.2	6,665.2	6,635.5	12.8	11.9	72.05	153.0	-7.2	228.6	204.9	23.63	9.672		
6,800.0	6,778.4	6,750.0	6,703.5	12.8	11.9	65.12	102.5	-7.1	242.0	218.6	23.43	10.329		
6,900.0	6,864.3	6,832.6	6,763.7	12.8	11.9	59.93	46.0	-7.1	255.7	232.4	23.23	11.006		
7,000.0	6,942.3	6,913.8	6,816.1	12.8	12.1	55.91	-16.0	-7.1	268.7	245.7	23.04	11.665		
7,100.0	7,010.8	6,993.8	6,860.5	12.9	12.3	52.80	-82.5	-7.0	280.6	257.7	22.90	12.253		
7,200.0	7,068.6	7,072.8	6,896.8	13.2	12.7	50.43	-152.6	-7.0	290.9	268.0	22.88	12.714		
7,300.0	7,114.4	7,150.0	6,924.7	13.7	13.2	48.70	-224.5	-7.0	299.2	276.2	23.02	12.995		
7,400.0	7,147.5	7,228.6	6,944.9	14.3	13.8	47.50	-300.5	-7.0	305.2	281.8	23.42	13.031		
7,500.0	7,167.1	7,305.9	6,956.6	15.2	14.5	46.81	-376.8	-7.0	308.9	284.8	24.10	12.814		
7,600.0	7,173.0	7,385.1	6,960.0	16.1	15.4	46.60	-456.0	-7.0	310.0	284.9	25.14	12.330		
7,700.0	7,173.0	7,485.1	6,960.0	17.2	16.5	46.60	-556.0	-7.0	310.0	283.2	26.81	11.561		
7,800.0	7,173.0	7,585.1	6,960.0	18.5	17.8	46.60	-656.0	-7.0	310.0	281.4	28.61	10.834		
7,900.0	7,173.0	7,685.1	6,960.0	19.7	19.1	46.60	-756.0	-7.0	310.0	279.5	30.52	10.157		
8,000.0	7,173.0	7,785.1	6,960.0	21.1	20.5	46.60	-856.0	-7.0	310.0	277.5	32.52	9.532		
8,100.0	7,173.0	7,885.1	6,960.0	22.5	21.9	46.60	-956.0	-7.0	310.0	275.4	34.59	8.961		
8,200.0	7,173.0	7,985.1	6,960.0	24.0	23.4	46.60	-1,056.0	-7.0	310.0	273.3	36.73	8.440		
8,300.0	7,173.0	8,085.1	6,960.0	25.5	25.0	46.60	-1,156.0	-7.0	310.0	271.1	38.92	7.966		
8,400.0	7,173.0	8,185.1	6,960.0	27.0	26.5	46.60	-1,256.0	-7.0	310.0	268.8	41.15	7.534		
8,500.0	7,173.0	8,285.1	6,960.0	28.5	28.1	46.60	-1,356.0	-7.0	310.0	266.6	43.41	7.140		
8,600.0	7,173.0	8,385.1	6,960.0	30.1	29.7	46.60	-1,456.0	-7.0	310.0	264.3	45.71	6.781		
8,700.0	7,173.0	8,485.1	6,960.0	31.7	31.3	46.60	-1,556.0	-7.0	310.0	262.0	48.04	6.453		
8,800.0	7,173.0	8,585.1	6,960.0	33.3	32.9	46.60	-1,656.0	-7.0	310.0	259.6	50.39	6.152		
8,900.0	7,173.0	8,685.1	6,960.0	34.9	34.6	46.60	-1,756.0	-7.0	310.0	257.2	52.75	5.876		
9,000.0	7,173.0	8,785.1	6,960.0	36.6	36.2	46.60	-1,856.0	-7.0	310.0	254.9	55.14	5.622		
9,100.0	7,173.0	8,885.1	6,960.0	38.2	37.9	46.60	-1,956.0	-7.0	310.0	252.5	57.54	5.387		
9,200.0	7,173.0	8,985.1	6,960.0	39.9	39.5	46.60	-2,056.0	-7.0	310.0	250.0	59.96	5.170		
9,300.0	7,173.0	9,085.1	6,960.0	41.5	41.2	46.60	-2,156.0	-7.0	310.0	247.6	62.38	4.969		
9,400.0	7,173.0	9,185.1	6,960.0	43.2	42.9	46.60	-2,256.0	-7.0	310.0	245.2	64.82	4.782		
9,500.0	7,173.0	9,285.1	6,960.0	44.9	44.6	46.60	-2,356.0	-7.0	310.0	242.7	67.27	4.609		
9,600.0	7,173.0	9,385.1	6,960.0	46.6	46.3	46.60	-2,456.0	-7.0	310.0	240.3	69.72	4.446		
9,700.0	7,173.0	9,485.1	6,960.0	48.2	48.0	46.60	-2,556.0	-7.0	310.0	237.8	72.18	4.295		
9,800.0	7,173.0	9,585.1	6,960.0	49.9	49.7	46.60	-2,656.0	-7.0	310.0	235.3	74.65	4.153		
9,900.0	7,173.0	9,685.1	6,960.0	51.6	51.4	46.60	-2,756.0	-7.0	310.0	232.9	77.13	4.019		
10,000.0	7,173.0	9,785.1	6,960.0	53.3	53.1	46.60	-2,856.0	-7.0	310.0	230.4	79.61	3.894		
10,100.0	7,173.0	9,885.1	6,960.0	55.0	54.8	46.60	-2,956.0	-7.0	310.0	227.9	82.09	3.776		
10,200.0	7,173.0	9,985.1	6,960.0	56.7	56.5	46.60	-3,056.0	-7.0	310.0	225.4	84.58	3.665		
10,300.0	7,173.0	10,085.1	6,960.0	58.5	58.2	46.60	-3,156.0	-7.0	310.0	222.9	87.08	3.560		

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1B-32H-B264 - 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)			
10,400.0	7,173.0	10,185.1	6,960.0	60.2	59.9	46.60	-3,256.0	-7.0	310.0	220.4	89.57	3.461	
10,500.0	7,173.0	10,285.1	6,960.0	61.9	61.7	46.60	-3,356.0	-7.0	310.0	217.9	92.08	3.367	
10,600.0	7,173.0	10,385.1	6,960.0	63.6	63.4	46.60	-3,456.0	-7.0	310.0	215.4	94.58	3.278	
10,700.0	7,173.0	10,485.1	6,960.0	65.3	65.1	46.60	-3,556.0	-7.0	310.0	212.9	97.09	3.193	
10,800.0	7,173.0	10,585.1	6,960.0	67.0	66.8	46.60	-3,656.0	-7.0	310.0	210.4	99.60	3.112	
10,900.0	7,173.0	10,685.1	6,960.0	68.8	68.5	46.60	-3,756.0	-7.0	310.0	207.9	102.11	3.036	
11,000.0	7,173.0	10,785.1	6,960.0	70.5	70.3	46.60	-3,856.0	-7.0	310.0	205.4	104.63	2.963	
11,100.0	7,173.0	10,885.1	6,960.0	72.2	72.0	46.60	-3,956.0	-7.0	310.0	202.8	107.15	2.893	
11,200.0	7,173.0	10,985.1	6,960.0	73.9	73.7	46.60	-4,056.0	-7.0	310.0	200.3	109.67	2.827	
11,300.0	7,173.0	11,085.1	6,960.0	75.7	75.5	46.60	-4,156.0	-7.0	310.0	197.8	112.19	2.763	
11,400.0	7,173.0	11,185.1	6,960.0	77.4	77.2	46.60	-4,256.0	-7.0	310.0	195.3	114.71	2.702	
11,500.0	7,173.0	11,285.1	6,960.0	79.1	78.9	46.60	-4,356.0	-7.0	310.0	192.8	117.24	2.644	
11,600.0	7,173.0	11,385.1	6,960.0	80.8	80.7	46.60	-4,456.0	-7.0	310.0	190.2	119.77	2.588	
11,658.6	7,173.0	11,443.7	6,960.0	81.9	81.7	46.60	-4,514.5	-7.0	310.0	188.7	121.25	2.557	
11,696.8	7,173.0	11,480.8	6,960.0	82.5	82.3	46.60	-4,551.6	-7.0	310.0	187.8	122.20	2.537 SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1D-32H-B264 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	90.05	0.0	10.1	10.1	10.1	0.00	N/A		
100.0	100.0	100.0	100.0	0.2	0.2	90.05	0.0	10.1	10.1	9.7	0.35	28.850		
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	10.1	10.1	9.4	0.70	14.425		
300.0	300.0	300.0	300.0	0.5	0.5	90.05	0.0	10.1	10.1	9.0	1.05	9.617		
400.0	400.0	400.0	400.0	0.7	0.7	90.05	0.0	10.1	10.1	8.7	1.40	7.213 CC, ES		
500.0	500.0	499.8	499.8	0.9	0.9	87.41	0.5	10.8	10.8	9.1	1.75	6.187		
600.0	600.0	599.6	599.6	1.0	1.1	81.30	2.0	12.9	13.1	11.0	2.09	6.248		
700.0	700.0	699.3	699.2	1.2	1.2	41.02	4.5	16.5	16.4	14.0	2.44	6.722		
800.0	800.0	799.0	798.6	1.4	1.4	39.50	7.9	21.5	20.1	17.3	2.80	7.200		
900.0	899.9	898.6	898.0	1.6	1.6	39.73	12.3	27.8	24.1	20.9	3.15	7.634		
1,000.0	999.7	998.6	997.6	1.8	1.8	41.41	17.0	34.5	27.4	23.8	3.51	7.792		
1,100.0	1,099.5	1,098.5	1,097.2	2.0	2.1	42.86	21.7	41.3	30.6	26.7	3.88	7.898		
1,200.0	1,199.4	1,198.5	1,196.8	2.2	2.3	44.02	26.4	48.0	33.9	29.6	4.24	7.984		
1,300.0	1,299.2	1,298.4	1,296.4	2.3	2.5	44.99	31.1	54.7	37.2	32.6	4.62	8.054		
1,400.0	1,399.0	1,398.4	1,396.0	2.5	2.7	45.79	35.8	61.5	40.5	35.5	4.99	8.113		
1,500.0	1,498.9	1,498.3	1,495.7	2.7	2.9	46.48	40.4	68.2	43.8	38.4	5.36	8.161		
1,600.0	1,598.7	1,598.2	1,595.3	2.9	3.1	47.06	45.1	74.9	47.1	41.3	5.74	8.203		
1,700.0	1,698.5	1,698.2	1,694.9	3.1	3.4	47.57	49.8	81.7	50.4	44.3	6.12	8.238		
1,800.0	1,798.3	1,798.1	1,794.5	3.3	3.6	48.02	54.5	88.4	53.7	47.2	6.49	8.269		
1,900.0	1,898.2	1,898.1	1,894.1	3.5	3.8	48.42	59.2	95.1	57.0	50.1	6.87	8.295		
2,000.0	1,998.0	1,998.0	1,993.7	3.7	4.0	48.77	63.9	101.9	60.3	53.1	7.25	8.319		
2,100.0	2,097.8	2,098.0	2,093.3	3.9	4.3	49.09	68.5	108.6	63.6	56.0	7.63	8.339		
2,200.0	2,197.7	2,197.9	2,192.9	4.1	4.5	49.37	73.2	115.3	67.0	59.0	8.01	8.357		
2,300.0	2,297.5	2,297.9	2,292.5	4.3	4.7	49.63	77.9	122.0	70.3	61.9	8.39	8.374		
2,400.0	2,397.3	2,397.8	2,392.1	4.5	4.9	49.86	82.6	128.8	73.6	64.8	8.78	8.388		
2,500.0	2,497.2	2,497.7	2,491.7	4.7	5.1	50.08	87.3	135.5	76.9	67.8	9.16	8.401		
2,600.0	2,597.0	2,597.7	2,591.3	4.9	5.4	50.27	92.0	142.2	80.3	70.7	9.54	8.413		
2,700.0	2,696.8	2,697.6	2,690.9	5.1	5.6	50.45	96.7	149.0	83.6	73.7	9.92	8.424		
2,800.0	2,796.6	2,797.6	2,790.5	5.3	5.8	50.62	101.3	155.7	86.9	76.6	10.31	8.434		
2,900.0	2,896.5	2,897.5	2,890.2	5.5	6.0	50.77	106.0	162.4	90.3	79.6	10.69	8.443		
3,000.0	2,996.3	2,997.5	2,989.8	5.7	6.3	50.92	110.7	169.2	93.6	82.5	11.07	8.451		
3,100.0	3,096.1	3,097.4	3,089.4	5.9	6.5	51.05	115.4	175.9	96.9	85.5	11.46	8.459		
3,200.0	3,196.0	3,197.4	3,189.0	6.1	6.7	51.18	120.1	182.6	100.2	88.4	11.84	8.466		
3,300.0	3,295.8	3,297.3	3,288.6	6.3	6.9	51.29	124.8	189.4	103.6	91.4	12.23	8.472		
3,400.0	3,395.6	3,397.2	3,388.2	6.5	7.2	51.40	129.4	196.1	106.9	94.3	12.61	8.479		
3,500.0	3,495.5	3,497.2	3,487.8	6.7	7.4	51.50	134.1	202.8	110.2	97.2	12.99	8.484		
3,600.0	3,595.3	3,597.1	3,587.4	6.9	7.6	51.60	138.8	209.5	113.6	100.2	13.38	8.489		
3,700.0	3,695.1	3,697.1	3,687.0	7.1	7.8	51.69	143.5	216.3	116.9	103.1	13.76	8.494		
3,800.0	3,795.0	3,797.0	3,786.6	7.3	8.1	51.78	148.2	223.0	120.2	106.1	14.15	8.499		
3,900.0	3,894.8	3,897.0	3,886.2	7.5	8.3	51.86	152.9	229.7	123.6	109.0	14.53	8.503		
4,000.0	3,994.6	3,996.9	3,985.8	7.7	8.5	51.94	157.5	236.5	126.9	112.0	14.92	8.507		
4,100.0	4,094.4	4,096.9	4,085.4	7.9	8.7	52.01	162.2	243.2	130.2	114.9	15.30	8.511		
4,200.0	4,194.3	4,196.8	4,185.1	8.1	9.0	52.08	166.9	249.9	133.6	117.9	15.69	8.515		
4,300.0	4,294.1	4,296.7	4,284.7	8.3	9.2	52.15	171.6	256.7	136.9	120.8	16.07	8.518		
4,400.0	4,393.9	4,396.7	4,384.3	8.5	9.4	52.21	176.3	263.4	140.2	123.8	16.46	8.521		
4,500.0	4,493.8	4,496.6	4,483.9	8.7	9.6	52.27	181.0	270.1	143.6	126.7	16.84	8.525		
4,600.0	4,593.6	4,596.6	4,583.5	8.9	9.9	52.33	185.7	276.9	146.9	129.7	17.23	8.527		
4,700.0	4,693.4	4,696.5	4,683.1	9.1	10.1	52.38	190.3	283.6	150.2	132.6	17.61	8.530		
4,800.0	4,793.3	4,796.5	4,782.7	9.3	10.3	52.44	195.0	290.3	153.6	135.6	18.00	8.533		
4,900.0	4,893.1	4,896.4	4,882.3	9.5	10.5	52.49	199.7	297.0	156.9	138.5	18.38	8.535		
5,000.0	4,992.9	4,996.4	4,981.9	9.8	10.8	52.53	204.4	303.8	160.2	141.5	18.77	8.538		
5,100.0	5,092.7	5,096.3	5,081.5	10.0	11.0	52.58	209.1	310.5	163.6	144.4	19.15	8.540		

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1D-32H-B264 - Hz - Plan #1												Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
5,200.0	5,192.6	5,196.2	5,181.1	10.2	11.2	52.62	213.8	317.2	166.9	147.4	19.54	8.542	
5,300.0	5,292.4	5,296.2	5,280.7	10.4	11.5	52.67	218.4	324.0	170.3	150.3	19.93	8.544	
5,400.0	5,392.2	5,396.1	5,380.3	10.6	11.7	52.71	223.1	330.7	173.6	153.3	20.31	8.546	
5,500.0	5,492.1	5,496.1	5,479.9	10.8	11.9	52.75	227.8	337.4	176.9	156.2	20.70	8.548	
5,600.0	5,591.9	5,596.0	5,579.6	11.0	12.1	52.79	232.5	344.2	180.3	159.2	21.08	8.550	
5,700.0	5,691.7	5,696.0	5,679.2	11.2	12.4	52.82	237.2	350.9	183.6	162.1	21.47	8.552	
5,800.0	5,791.6	5,795.9	5,778.8	11.4	12.6	52.86	241.9	357.6	186.9	165.1	21.85	8.553	
5,900.0	5,891.4	5,895.8	5,878.4	11.6	12.8	52.89	246.5	364.4	190.3	168.0	22.24	8.555	
6,000.0	5,991.2	5,995.8	5,978.0	11.8	13.0	52.92	251.2	371.1	193.6	171.0	22.63	8.556	
6,100.0	6,091.1	6,095.7	6,077.6	12.0	13.3	52.96	255.9	377.8	196.9	173.9	23.01	8.558	
6,200.0	6,190.9	6,195.7	6,177.2	12.2	13.5	52.99	260.6	384.5	200.3	176.9	23.40	8.559	
6,300.0	6,290.7	6,295.6	6,276.8	12.4	13.7	53.02	265.3	391.3	203.6	179.8	23.78	8.561	
6,400.0	6,390.5	6,395.7	6,376.6	12.6	13.9	54.28	265.5	398.0	206.9	182.7	24.21	8.547	
6,500.0	6,490.4	6,493.4	6,473.2	12.7	14.0	-49.47	252.6	404.5	210.8	186.1	24.70	8.536	
6,600.0	6,589.6	6,589.2	6,565.2	12.8	14.0	-71.15	227.3	410.8	215.7	190.8	24.97	8.638	
6,700.0	6,686.2	6,683.1	6,651.5	12.8	14.0	-71.69	190.7	416.6	221.4	196.4	25.02	8.848	
6,800.0	6,778.4	6,775.5	6,730.9	12.8	14.1	-70.02	144.0	422.0	227.5	202.6	24.87	9.148	
6,900.0	6,864.3	6,866.5	6,802.7	12.8	14.1	-67.97	88.3	426.8	233.7	209.1	24.58	9.507	
7,000.0	6,942.3	6,956.3	6,866.0	12.8	14.2	-65.99	24.9	431.1	239.7	215.4	24.26	9.880	
7,100.0	7,010.8	7,045.1	6,920.4	12.9	14.4	-64.24	-45.1	434.8	245.2	221.2	24.04	10.198	
7,200.0	7,068.6	7,133.1	6,965.4	13.2	14.8	-62.80	-120.6	437.8	250.0	225.9	24.07	10.386	
7,300.0	7,114.4	7,220.4	7,000.5	13.7	15.2	-61.69	-200.5	440.2	253.9	229.4	24.48	10.372	
7,400.0	7,147.5	7,307.3	7,025.6	14.3	15.8	-60.91	-283.6	441.9	256.7	231.3	25.36	10.123	
7,500.0	7,167.1	7,393.8	7,040.5	15.2	16.5	-60.47	-368.8	442.9	258.4	231.6	26.76	9.655	
7,600.0	7,173.0	7,481.2	7,045.0	16.1	17.3	-60.36	-456.0	443.2	258.8	230.2	28.62	9.042	
7,700.0	7,173.0	7,581.2	7,045.0	17.2	18.3	-60.36	-556.0	443.2	258.8	228.2	30.59	8.460	
7,800.0	7,173.0	7,681.2	7,045.0	18.5	19.4	-60.36	-656.0	443.2	258.8	226.1	32.72	7.910	
7,900.0	7,173.0	7,781.2	7,045.0	19.7	20.7	-60.36	-756.0	443.2	258.8	223.8	34.99	7.398	
8,000.0	7,173.0	7,881.2	7,045.0	21.1	22.0	-60.36	-856.0	443.2	258.8	221.5	37.36	6.927	
8,100.0	7,173.0	7,981.2	7,045.0	22.5	23.3	-60.36	-956.0	443.2	258.8	219.0	39.83	6.497	
8,200.0	7,173.0	8,081.2	7,045.0	24.0	24.7	-60.36	-1,056.0	443.2	258.8	216.4	42.38	6.107	
8,300.0	7,173.0	8,181.2	7,045.0	25.5	26.2	-60.36	-1,156.0	443.2	258.8	213.8	44.99	5.752	
8,400.0	7,173.0	8,281.2	7,045.0	27.0	27.7	-60.36	-1,256.0	443.2	258.8	211.2	47.66	5.431	
8,500.0	7,173.0	8,381.2	7,045.0	28.5	29.2	-60.36	-1,356.0	443.2	258.8	208.5	50.36	5.139	
8,600.0	7,173.0	8,481.2	7,045.0	30.1	30.7	-60.36	-1,456.0	443.2	258.8	205.7	53.11	4.873	
8,700.0	7,173.0	8,581.2	7,045.0	31.7	32.3	-60.36	-1,556.0	443.2	258.8	202.9	55.89	4.631	
8,800.0	7,173.0	8,681.2	7,045.0	33.3	33.9	-60.36	-1,656.0	443.2	258.8	200.1	58.69	4.410	
8,900.0	7,173.0	8,781.2	7,045.0	34.9	35.5	-60.36	-1,756.0	443.2	258.8	197.3	61.52	4.207	
9,000.0	7,173.0	8,881.2	7,045.0	36.6	37.1	-60.36	-1,856.0	443.2	258.8	194.4	64.37	4.021	
9,100.0	7,173.0	8,981.2	7,045.0	38.2	38.7	-60.36	-1,956.0	443.2	258.8	191.6	67.24	3.849	
9,200.0	7,173.0	9,081.2	7,045.0	39.9	40.3	-60.36	-2,056.0	443.2	258.8	188.7	70.12	3.691	
9,300.0	7,173.0	9,181.2	7,045.0	41.5	42.0	-60.36	-2,156.0	443.2	258.8	185.8	73.02	3.544	
9,400.0	7,173.0	9,281.2	7,045.0	43.2	43.6	-60.36	-2,256.0	443.2	258.8	182.9	75.93	3.409	
9,500.0	7,173.0	9,381.2	7,045.0	44.9	45.3	-60.36	-2,356.0	443.2	258.8	180.0	78.85	3.282	
9,600.0	7,173.0	9,481.2	7,045.0	46.6	46.9	-60.36	-2,456.0	443.2	258.8	177.0	81.78	3.165	
9,700.0	7,173.0	9,581.2	7,045.0	48.2	48.6	-60.36	-2,556.0	443.2	258.8	174.1	84.72	3.055	
9,800.0	7,173.0	9,681.2	7,045.0	49.9	50.3	-60.36	-2,656.0	443.2	258.8	171.1	87.67	2.952	
9,900.0	7,173.0	9,781.2	7,045.0	51.6	52.0	-60.36	-2,756.0	443.2	258.8	168.2	90.62	2.856	
10,000.0	7,173.0	9,881.2	7,045.0	53.3	53.7	-60.36	-2,856.0	443.2	258.8	165.2	93.59	2.766	
10,100.0	7,173.0	9,981.2	7,045.0	55.0	55.4	-60.36	-2,956.0	443.2	258.8	162.3	96.55	2.681	
10,200.0	7,173.0	10,081.2	7,045.0	56.7	57.1	-60.36	-3,056.0	443.2	258.8	159.3	99.52	2.601	
10,300.0	7,173.0	10,181.2	7,045.0	58.5	58.8	-60.36	-3,156.0	443.2	258.8	156.3	102.50	2.525	

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1D-32H-B264 - 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		
10,400.0	7,173.0	10,281.2	7,045.0	60.2	60.5	-60.36	-3,256.0	443.2	258.8	153.3	105.48	2.454		
10,500.0	7,173.0	10,381.2	7,045.0	61.9	62.2	-60.36	-3,356.0	443.2	258.8	150.3	108.47	2.386		
10,600.0	7,173.0	10,481.2	7,045.0	63.6	63.9	-60.36	-3,456.0	443.2	258.8	147.4	111.46	2.322		
10,700.0	7,173.0	10,581.2	7,045.0	65.3	65.6	-60.36	-3,556.0	443.2	258.8	144.4	114.45	2.261		
10,800.0	7,173.0	10,681.2	7,045.0	67.0	67.3	-60.36	-3,656.0	443.2	258.8	141.4	117.45	2.204		
10,900.0	7,173.0	10,781.2	7,045.0	68.8	69.0	-60.36	-3,756.0	443.2	258.8	138.4	120.45	2.149		
11,000.0	7,173.0	10,881.2	7,045.0	70.5	70.7	-60.36	-3,856.0	443.2	258.8	135.4	123.45	2.097		
11,100.0	7,173.0	10,981.2	7,045.0	72.2	72.4	-60.36	-3,956.0	443.2	258.8	132.4	126.45	2.047		
11,200.0	7,173.0	11,081.2	7,045.0	73.9	74.2	-60.36	-4,056.0	443.2	258.8	129.4	129.46	1.999		
11,300.0	7,173.0	11,181.2	7,045.0	75.7	75.9	-60.36	-4,156.0	443.2	258.8	126.3	132.47	1.954		
11,400.0	7,173.0	11,281.2	7,045.0	77.4	77.6	-60.36	-4,256.0	443.2	258.8	123.3	135.48	1.910		
11,500.0	7,173.0	11,381.2	7,045.0	79.1	79.3	-60.36	-4,356.0	443.2	258.8	120.3	138.49	1.869		
11,600.0	7,173.0	11,481.2	7,045.0	80.8	81.1	-60.36	-4,456.0	443.2	258.8	117.3	141.51	1.829		
11,696.8	7,173.0	11,578.0	7,045.0	82.5	82.7	-60.36	-4,552.7	443.2	258.8	114.4	144.43	1.792 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1E-32H-B264 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	91.03	-0.4	19.9	19.9	19.9	0.00	N/A		
100.0	100.0	100.0	100.0	0.2	0.2	91.03	-0.4	19.9	19.9	19.5	0.35	56.908		
200.0	200.0	200.0	200.0	0.3	0.3	91.03	-0.4	19.9	19.9	19.2	0.70	28.454		
300.0	300.0	300.0	300.0	0.5	0.5	91.03	-0.4	19.9	19.9	18.8	1.05	18.969		
333.4	333.4	333.4	333.4	0.6	0.6	91.03	-0.4	19.9	19.9	18.7	1.16	17.068 CC		
400.0	400.0	399.8	399.8	0.7	0.7	90.76	-0.3	20.1	20.1	18.7	1.40	14.370 ES		
500.0	500.0	499.5	499.5	0.9	0.9	88.77	0.5	21.6	21.6	19.9	1.74	12.405		
600.0	600.0	599.1	599.0	1.0	1.1	85.56	1.9	24.8	24.9	22.8	2.09	11.878		
700.0	700.0	698.5	698.3	1.2	1.2	47.51	4.1	29.5	29.2	26.8	2.44	11.955		
800.0	800.0	797.9	797.4	1.4	1.4	47.08	7.0	35.7	34.0	31.2	2.79	12.180		
900.0	899.9	897.1	896.3	1.6	1.7	47.83	10.6	43.5	39.3	36.2	3.15	12.484		
1,000.0	999.7	996.3	994.9	1.8	1.9	48.98	15.0	52.9	45.4	41.9	3.51	12.912		
1,100.0	1,099.5	1,096.0	1,094.0	2.0	2.1	49.61	19.7	63.1	52.2	48.3	3.88	13.450		
1,200.0	1,199.4	1,195.8	1,193.1	2.2	2.4	50.10	24.5	73.3	59.1	54.8	4.25	13.887		
1,300.0	1,299.2	1,295.5	1,292.2	2.3	2.6	50.48	29.2	83.5	65.9	61.3	4.63	14.248		
1,400.0	1,399.0	1,395.3	1,391.4	2.5	2.9	50.79	34.0	93.8	72.8	67.8	5.00	14.550		
1,500.0	1,498.9	1,495.1	1,490.5	2.7	3.1	51.05	38.7	104.0	79.6	74.2	5.38	14.807		
1,600.0	1,598.7	1,594.8	1,589.6	2.9	3.4	51.27	43.5	114.2	86.5	80.7	5.75	15.027		
1,700.0	1,698.5	1,694.6	1,688.8	3.1	3.6	51.45	48.2	124.4	93.3	87.2	6.13	15.218		
1,800.0	1,798.3	1,794.4	1,787.9	3.3	3.9	51.61	53.0	134.7	100.2	93.7	6.51	15.384		
1,900.0	1,898.2	1,894.1	1,887.0	3.5	4.2	51.75	57.7	144.9	107.0	100.1	6.89	15.532		
2,000.0	1,998.0	1,993.9	1,986.1	3.7	4.4	51.88	62.5	155.1	113.9	106.6	7.27	15.662		
2,100.0	2,097.8	2,093.7	2,085.3	3.9	4.7	51.99	67.2	165.3	120.7	113.1	7.65	15.779		
2,200.0	2,197.7	2,193.4	2,184.4	4.1	4.9	52.08	72.0	175.6	127.6	119.6	8.03	15.884		
2,300.0	2,297.5	2,293.2	2,283.5	4.3	5.2	52.17	76.7	185.8	134.4	126.0	8.41	15.978		
2,400.0	2,397.3	2,392.9	2,382.6	4.5	5.4	52.25	81.5	196.0	141.3	132.5	8.80	16.064		
2,500.0	2,497.2	2,492.7	2,481.8	4.7	5.7	52.32	86.3	206.2	148.2	139.0	9.18	16.143		
2,600.0	2,597.0	2,592.5	2,580.9	4.9	6.0	52.38	91.0	216.5	155.0	145.5	9.56	16.214		
2,700.0	2,696.8	2,692.2	2,680.0	5.1	6.2	52.44	95.8	226.7	161.9	151.9	9.94	16.280		
2,800.0	2,796.6	2,792.0	2,779.1	5.3	6.5	52.50	100.5	236.9	168.7	158.4	10.33	16.341		
2,900.0	2,896.5	2,891.8	2,878.3	5.5	6.8	52.55	105.3	247.1	175.6	164.9	10.71	16.397		
3,000.0	2,996.3	2,991.5	2,977.4	5.7	7.0	52.60	110.0	257.4	182.4	171.4	11.09	16.448		
3,100.0	3,096.1	3,091.3	3,076.5	5.9	7.3	52.64	114.8	267.6	189.3	177.8	11.48	16.497		
3,200.0	3,196.0	3,191.1	3,175.6	6.1	7.5	52.68	119.5	277.8	196.2	184.3	11.86	16.542		
3,300.0	3,295.8	3,290.8	3,274.8	6.3	7.8	52.72	124.3	288.0	203.0	190.8	12.24	16.584		
3,400.0	3,395.6	3,390.6	3,373.9	6.5	8.1	52.75	129.0	298.3	209.9	197.3	12.63	16.623		
3,500.0	3,495.5	3,490.4	3,473.0	6.7	8.3	52.79	133.8	308.5	216.7	203.7	13.01	16.660		
3,600.0	3,595.3	3,590.1	3,572.1	6.9	8.6	52.82	138.5	318.7	223.6	210.2	13.39	16.695		
3,700.0	3,695.1	3,689.9	3,671.3	7.1	8.9	52.85	143.3	328.9	230.5	216.7	13.78	16.727		
3,800.0	3,795.0	3,789.6	3,770.4	7.3	9.1	52.87	148.0	339.1	237.3	223.2	14.16	16.758		
3,900.0	3,894.8	3,889.4	3,869.5	7.5	9.4	52.90	152.8	349.4	244.2	229.6	14.55	16.787		
4,000.0	3,994.6	3,989.2	3,968.6	7.7	9.6	52.92	157.5	359.6	251.0	236.1	14.93	16.815		
4,100.0	4,094.4	4,088.9	4,067.8	7.9	9.9	52.95	162.3	369.8	257.9	242.6	15.31	16.841		
4,200.0	4,194.3	4,188.7	4,166.9	8.1	10.2	52.97	167.0	380.0	264.7	249.1	15.70	16.865		
4,300.0	4,294.1	4,288.5	4,266.0	8.3	10.4	52.99	171.8	390.3	271.6	255.5	16.08	16.889		
4,400.0	4,393.9	4,388.2	4,365.1	8.5	10.7	53.01	176.5	400.5	278.5	262.0	16.47	16.911		
4,500.0	4,493.8	4,488.0	4,464.3	8.7	11.0	53.03	181.3	410.7	285.3	268.5	16.85	16.932		
4,600.0	4,593.6	4,587.8	4,563.4	8.9	11.2	53.05	186.0	420.9	292.2	274.9	17.24	16.953		
4,700.0	4,693.4	4,687.5	4,662.5	9.1	11.5	53.06	190.8	431.2	299.0	281.4	17.62	16.972		
4,800.0	4,793.3	4,787.3	4,761.6	9.3	11.7	53.08	195.5	441.4	305.9	287.9	18.00	16.991		
4,900.0	4,893.1	4,887.1	4,860.8	9.5	12.0	53.09	200.3	451.6	312.8	294.4	18.39	17.008		
5,000.0	4,992.9	4,986.8	4,959.9	9.8	12.3	53.11	205.0	461.8	319.6	300.8	18.77	17.025		

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1E-32H-B264 - 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	5,092.7	5,086.6	5,059.0	10.0	12.5	53.12	209.8	472.1	326.5	307.3	19.16	17.042		
5,200.0	5,192.6	5,186.3	5,158.1	10.2	12.8	53.14	214.5	482.3	333.3	313.8	19.54	17.057		
5,300.0	5,292.4	5,286.1	5,257.3	10.4	13.1	53.15	219.3	492.5	340.2	320.3	19.93	17.072		
5,400.0	5,392.2	5,385.9	5,356.4	10.6	13.3	53.16	224.0	502.7	347.1	326.7	20.31	17.087		
5,500.0	5,492.1	5,485.6	5,455.5	10.8	13.6	53.18	228.8	513.0	353.9	333.2	20.70	17.100		
5,600.0	5,591.9	5,585.4	5,554.6	11.0	13.8	53.19	233.5	523.2	360.8	339.7	21.08	17.114		
5,700.0	5,691.7	5,685.2	5,653.8	11.2	14.1	53.20	238.3	533.4	367.6	346.2	21.47	17.127		
5,800.0	5,791.6	5,784.9	5,752.9	11.4	14.4	53.21	243.0	543.6	374.5	352.6	21.85	17.139		
5,900.0	5,891.4	5,884.7	5,852.0	11.6	14.6	53.22	247.8	553.9	381.4	359.1	22.24	17.151		
6,000.0	5,991.2	5,984.5	5,951.1	11.8	14.9	53.23	252.5	564.1	388.2	365.6	22.62	17.162		
6,100.0	6,091.1	6,084.2	6,050.3	12.0	15.2	53.24	257.3	574.3	395.1	372.1	23.00	17.173		
6,200.0	6,190.9	6,184.0	6,149.4	12.2	15.4	53.25	262.0	584.5	401.9	378.5	23.39	17.184		
6,300.0	6,290.7	6,284.0	6,248.8	12.4	15.7	53.38	265.9	594.8	408.8	385.0	23.77	17.197		
6,400.0	6,390.5	6,383.0	6,346.9	12.6	15.9	55.00	258.9	604.9	415.7	391.5	24.20	17.177		
6,500.0	6,490.4	6,477.9	6,439.2	12.7	16.0	-49.65	239.5	614.4	423.5	398.8	24.66	17.174		
6,600.0	6,589.6	6,570.1	6,525.7	12.8	16.1	-72.18	209.1	623.3	432.3	407.4	24.93	17.339		
6,700.0	6,686.2	6,660.0	6,605.7	12.8	16.1	-73.47	168.9	631.6	441.8	416.8	25.00	17.673		
6,800.0	6,778.4	6,750.0	6,680.1	12.8	16.2	-72.40	118.9	639.3	451.5	426.6	24.88	18.148		
6,900.0	6,864.3	6,834.3	6,743.5	12.8	16.3	-70.91	63.9	645.8	461.0	436.3	24.64	18.710		
7,000.0	6,942.3	6,919.2	6,800.6	12.8	16.4	-69.35	1.3	651.7	470.0	445.6	24.41	19.251		
7,100.0	7,010.8	7,000.0	6,847.6	12.9	16.7	-67.97	-64.2	656.5	478.1	453.9	24.24	19.724		
7,200.0	7,068.6	7,085.9	6,889.3	13.2	17.0	-66.74	-139.1	660.8	485.1	460.7	24.36	19.913		
7,300.0	7,114.4	7,168.1	6,920.5	13.7	17.4	-65.80	-215.1	664.1	490.7	465.8	24.87	19.733		
7,400.0	7,147.5	7,250.0	6,942.8	14.3	17.9	-65.13	-293.8	666.4	494.7	468.9	25.85	19.137		
7,500.0	7,167.1	7,331.2	6,955.9	15.2	18.5	-64.76	-373.8	667.7	497.1	469.8	27.36	18.168		
7,600.0	7,173.0	7,413.5	6,960.0	16.1	19.2	-64.67	-456.0	668.1	497.8	468.5	29.32	16.979		
7,700.0	7,173.0	7,513.5	6,960.0	17.2	20.1	-64.67	-556.0	668.1	497.8	466.4	31.36	15.872		
7,800.0	7,173.0	7,613.5	6,960.0	18.5	21.1	-64.67	-656.0	668.1	497.8	464.2	33.58	14.823		
7,900.0	7,173.0	7,713.5	6,960.0	19.7	22.3	-64.67	-756.0	668.1	497.8	461.8	35.94	13.849		
8,000.0	7,173.0	7,813.5	6,960.0	21.1	23.5	-64.67	-856.0	668.1	497.8	459.3	38.42	12.955		
8,100.0	7,173.0	7,913.5	6,960.0	22.5	24.7	-64.67	-956.0	668.1	497.8	456.8	41.00	12.141		
8,200.0	7,173.0	8,013.5	6,960.0	24.0	26.1	-64.67	-1,056.0	668.1	497.8	454.1	43.65	11.403		
8,300.0	7,173.0	8,113.5	6,960.0	25.5	27.5	-64.67	-1,156.0	668.1	497.8	451.4	46.37	10.734		
8,400.0	7,173.0	8,213.5	6,960.0	27.0	28.9	-64.67	-1,256.0	668.1	497.8	448.6	49.15	10.128		
8,500.0	7,173.0	8,313.5	6,960.0	28.5	30.3	-64.67	-1,356.0	668.1	497.8	445.8	51.97	9.578		
8,600.0	7,173.0	8,413.5	6,960.0	30.1	31.8	-64.67	-1,456.0	668.1	497.8	442.9	54.83	9.079		
8,700.0	7,173.0	8,513.5	6,960.0	31.7	33.3	-64.67	-1,556.0	668.1	497.8	440.1	57.72	8.624		
8,800.0	7,173.0	8,613.5	6,960.0	33.3	34.8	-64.67	-1,656.0	668.1	497.8	437.1	60.64	8.208		
8,900.0	7,173.0	8,713.5	6,960.0	34.9	36.4	-64.67	-1,756.0	668.1	497.8	434.2	63.59	7.828		
9,000.0	7,173.0	8,813.5	6,960.0	36.6	38.0	-64.67	-1,856.0	668.1	497.8	431.2	66.55	7.479		
9,100.0	7,173.0	8,913.5	6,960.0	38.2	39.6	-64.67	-1,956.0	668.1	497.8	428.2	69.54	7.158		
9,200.0	7,173.0	9,013.5	6,960.0	39.9	41.2	-64.67	-2,056.0	668.1	497.8	425.2	72.54	6.862		
9,300.0	7,173.0	9,113.5	6,960.0	41.5	42.8	-64.67	-2,156.0	668.1	497.8	422.2	75.55	6.588		
9,400.0	7,173.0	9,213.5	6,960.0	43.2	44.4	-64.67	-2,256.0	668.1	497.8	419.2	78.58	6.334		
9,500.0	7,173.0	9,313.5	6,960.0	44.9	46.0	-64.67	-2,356.0	668.1	497.8	416.2	81.62	6.099		
9,600.0	7,173.0	9,413.5	6,960.0	46.6	47.7	-64.67	-2,456.0	668.1	497.8	413.1	84.67	5.879		
9,700.0	7,173.0	9,513.5	6,960.0	48.2	49.3	-64.67	-2,556.0	668.1	497.8	410.0	87.73	5.674		
9,800.0	7,173.0	9,613.5	6,960.0	49.9	51.0	-64.67	-2,656.0	668.1	497.8	407.0	90.79	5.482		
9,900.0	7,173.0	9,713.5	6,960.0	51.6	52.6	-64.67	-2,756.0	668.1	497.8	403.9	93.87	5.303		
10,000.0	7,173.0	9,813.5	6,960.0	53.3	54.3	-64.67	-2,856.0	668.1	497.8	400.8	96.95	5.134		
10,100.0	7,173.0	9,913.5	6,960.0	55.0	56.0	-64.67	-2,956.0	668.1	497.8	397.7	100.03	4.976		
10,200.0	7,173.0	10,013.5	6,960.0	56.7	57.6	-64.67	-3,056.0	668.1	497.8	394.6	103.12	4.827		

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1E-32H-B264 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
10,300.0	7,173.0	10,113.5	6,960.0	58.5	59.3	-64.67	-3,156.0	668.1	497.8	391.6	106.22	4.686		
10,400.0	7,173.0	10,213.5	6,960.0	60.2	61.0	-64.67	-3,256.0	668.1	497.8	388.5	109.32	4.553		
10,500.0	7,173.0	10,313.5	6,960.0	61.9	62.7	-64.67	-3,356.0	668.1	497.8	385.3	112.43	4.428		
10,600.0	7,173.0	10,413.5	6,960.0	63.6	64.4	-64.67	-3,456.0	668.1	497.8	382.2	115.53	4.308		
10,700.0	7,173.0	10,513.5	6,960.0	65.3	66.1	-64.67	-3,556.0	668.1	497.8	379.1	118.65	4.195		
10,800.0	7,173.0	10,613.5	6,960.0	67.0	67.8	-64.67	-3,656.0	668.1	497.8	376.0	121.76	4.088		
10,900.0	7,173.0	10,713.5	6,960.0	68.8	69.5	-64.67	-3,756.0	668.1	497.8	372.9	124.88	3.986		
11,000.0	7,173.0	10,813.5	6,960.0	70.5	71.2	-64.67	-3,856.0	668.1	497.8	369.8	128.00	3.889		
11,100.0	7,173.0	10,913.5	6,960.0	72.2	72.9	-64.67	-3,956.0	668.1	497.8	366.6	131.13	3.796		
11,200.0	7,173.0	11,013.5	6,960.0	73.9	74.6	-64.67	-4,056.0	668.1	497.8	363.5	134.25	3.708		
11,300.0	7,173.0	11,113.5	6,960.0	75.7	76.3	-64.67	-4,156.0	668.1	497.8	360.4	137.38	3.623		
11,400.0	7,173.0	11,213.5	6,960.0	77.4	78.0	-64.67	-4,256.0	668.1	497.8	357.3	140.51	3.543		
11,500.0	7,173.0	11,313.5	6,960.0	79.1	79.8	-64.67	-4,356.0	668.1	497.8	354.1	143.64	3.465		
11,600.0	7,173.0	11,413.5	6,960.0	80.8	81.5	-64.67	-4,456.0	668.1	497.8	351.0	146.78	3.391		
11,696.8	7,173.0	11,510.2	6,960.0	82.5	83.1	-64.67	-4,552.7	668.1	497.8	348.0	149.81	3.323 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1F-32H-B264 - 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	90.67	-0.3	29.9	29.9					
100.0	100.0	100.0	100.0	0.2	0.2	90.67	-0.3	29.9	29.9	29.6	0.35	85.754		
200.0	200.0	200.0	200.0	0.3	0.3	90.67	-0.3	29.9	29.9	29.2	0.70	42.877	CC, ES	
300.0	300.0	299.5	299.5	0.5	0.5	90.12	-0.1	30.7	30.8	29.7	1.05	29.389		
400.0	400.0	398.9	398.9	0.7	0.7	88.66	0.8	33.2	33.2	31.8	1.39	23.817		
500.0	500.0	498.3	498.1	0.9	0.9	86.65	2.2	37.3	37.4	35.6	1.74	21.427		
600.0	600.0	597.4	597.1	1.0	1.1	84.49	4.1	43.0	43.3	41.2	2.10	20.635		
700.0	700.0	696.4	695.7	1.2	1.3	47.37	6.7	50.2	50.3	47.8	2.44	20.593		
800.0	800.0	795.2	794.1	1.4	1.5	47.24	9.7	59.1	57.8	55.0	2.79	20.702		
900.0	899.9	893.8	892.1	1.6	1.8	47.91	13.3	69.6	65.8	62.7	3.15	20.916		
1,000.0	999.7	992.3	989.7	1.8	2.0	48.94	17.5	81.6	74.7	71.1	3.51	21.272		
1,100.0	1,099.5	1,091.8	1,088.3	2.0	2.3	49.69	21.9	94.6	84.2	80.3	3.88	21.724		
1,200.0	1,199.4	1,191.3	1,186.9	2.2	2.6	50.29	26.4	107.5	93.8	89.5	4.25	22.086		
1,300.0	1,299.2	1,290.9	1,285.5	2.3	2.9	50.77	30.9	120.4	103.4	98.8	4.62	22.380		
1,400.0	1,399.0	1,390.4	1,384.1	2.5	3.2	51.18	35.3	133.4	113.0	108.0	4.99	22.623		
1,500.0	1,498.9	1,489.9	1,482.7	2.7	3.5	51.52	39.8	146.3	122.6	117.2	5.37	22.826		
1,600.0	1,598.7	1,589.5	1,581.3	2.9	3.7	51.81	44.3	159.3	132.2	126.4	5.75	22.999		
1,700.0	1,698.5	1,689.0	1,679.9	3.1	4.0	52.06	48.7	172.2	141.8	135.6	6.12	23.147		
1,800.0	1,798.3	1,788.5	1,778.5	3.3	4.3	52.28	53.2	185.1	151.4	144.9	6.50	23.274		
1,900.0	1,898.2	1,888.1	1,877.1	3.5	4.6	52.47	57.6	198.1	161.0	154.1	6.88	23.386		
2,000.0	1,998.0	1,987.6	1,975.6	3.7	4.9	52.64	62.1	211.0	170.6	163.3	7.26	23.484		
2,100.0	2,097.8	2,087.2	2,074.2	3.9	5.2	52.79	66.6	224.0	180.2	172.6	7.65	23.570		
2,200.0	2,197.7	2,186.7	2,172.8	4.1	5.5	52.93	71.0	236.9	189.8	181.8	8.03	23.648		
2,300.0	2,297.5	2,286.2	2,271.4	4.3	5.8	53.06	75.5	249.8	199.4	191.0	8.41	23.717		
2,400.0	2,397.3	2,385.8	2,370.0	4.5	6.1	53.17	80.0	262.8	209.0	200.2	8.79	23.779		
2,500.0	2,497.2	2,485.3	2,468.6	4.7	6.4	53.27	84.4	275.7	218.7	209.5	9.17	23.835		
2,600.0	2,597.0	2,584.8	2,567.2	4.9	6.7	53.37	88.9	288.6	228.3	218.7	9.56	23.886		
2,700.0	2,696.8	2,684.4	2,665.8	5.1	7.0	53.45	93.3	301.6	237.9	227.9	9.94	23.933		
2,800.0	2,796.6	2,783.9	2,764.4	5.3	7.3	53.53	97.8	314.5	247.5	237.2	10.32	23.976		
2,900.0	2,896.5	2,883.4	2,863.0	5.5	7.6	53.61	102.3	327.5	257.1	246.4	10.71	24.015		
3,000.0	2,996.3	2,983.0	2,961.5	5.7	7.9	53.68	106.7	340.4	266.7	255.6	11.09	24.051		
3,100.0	3,096.1	3,082.5	3,060.1	5.9	8.2	53.74	111.2	353.3	276.3	264.9	11.47	24.085		
3,200.0	3,196.0	3,182.1	3,158.7	6.1	8.5	53.80	115.7	366.3	286.0	274.1	11.86	24.115		
3,300.0	3,295.8	3,281.6	3,257.3	6.3	8.8	53.86	120.1	379.2	295.6	283.3	12.24	24.144		
3,400.0	3,395.6	3,381.1	3,355.9	6.5	9.0	53.91	124.6	392.2	305.2	292.6	12.63	24.171		
3,500.0	3,495.5	3,480.7	3,454.5	6.7	9.3	53.96	129.0	405.1	314.8	301.8	13.01	24.196		
3,600.0	3,595.3	3,580.2	3,553.1	6.9	9.6	54.00	133.5	418.0	324.4	311.0	13.40	24.220		
3,700.0	3,695.1	3,679.7	3,651.7	7.1	9.9	54.05	138.0	431.0	334.0	320.3	13.78	24.242		
3,800.0	3,795.0	3,779.3	3,750.3	7.3	10.2	54.09	142.4	443.9	343.7	329.5	14.16	24.262		
3,900.0	3,894.8	3,878.8	3,848.9	7.5	10.5	54.13	146.9	456.8	353.3	338.7	14.55	24.282		
4,000.0	3,994.6	3,978.3	3,947.5	7.7	10.8	54.16	151.4	469.8	362.9	348.0	14.93	24.300		
4,100.0	4,094.4	4,077.9	4,046.0	7.9	11.1	54.20	155.8	482.7	372.5	357.2	15.32	24.317		
4,200.0	4,194.3	4,177.4	4,144.6	8.1	11.4	54.23	160.3	495.7	382.1	366.4	15.70	24.334		
4,300.0	4,294.1	4,276.9	4,243.2	8.3	11.7	54.26	164.7	508.6	391.8	375.7	16.09	24.349		
4,400.0	4,393.9	4,376.5	4,341.8	8.5	12.0	54.29	169.2	521.5	401.4	384.9	16.47	24.364		
4,500.0	4,493.8	4,476.0	4,440.4	8.7	12.3	54.32	173.7	534.5	411.0	394.1	16.86	24.378		
4,600.0	4,593.6	4,575.6	4,539.0	8.9	12.6	54.35	178.1	547.4	420.6	403.4	17.24	24.391		
4,700.0	4,693.4	4,675.1	4,637.6	9.1	12.9	54.37	182.6	560.4	430.2	412.6	17.63	24.404		
4,800.0	4,793.3	4,774.6	4,736.2	9.3	13.2	54.40	187.0	573.3	439.9	421.8	18.02	24.416		
4,900.0	4,893.1	4,874.2	4,834.8	9.5	13.5	54.42	191.5	586.2	449.5	431.1	18.40	24.427		
5,000.0	4,992.9	4,973.7	4,933.4	9.8	13.8	54.44	196.0	599.2	459.1	440.3	18.79	24.438		
5,100.0	5,092.7	5,073.2	5,032.0	10.0	14.1	54.47	200.4	612.1	468.7	449.5	19.17	24.449		

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1F-32H-B264 - 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		
5,200.0	5,192.6	5,172.8	5,130.5	10.2	14.4	54.49	204.9	625.0	478.3	458.8	19.56	24.459		
5,300.0	5,292.4	5,272.3	5,229.1	10.4	14.7	54.51	209.4	638.0	488.0	468.0	19.94	24.468		
5,400.0	5,392.2	5,371.8	5,327.7	10.6	15.0	54.53	213.8	650.9	497.6	477.2	20.33	24.477		
5,500.0	5,492.1	5,471.4	5,426.3	10.8	15.3	54.55	218.3	663.9	507.2	486.5	20.71	24.486		
5,600.0	5,591.9	5,570.9	5,524.9	11.0	15.6	54.56	222.7	676.8	516.8	495.7	21.10	24.495		
5,700.0	5,691.7	5,670.5	5,623.5	11.2	15.9	54.58	227.2	689.7	526.4	504.9	21.48	24.503		
5,800.0	5,791.6	5,770.0	5,722.1	11.4	16.2	54.60	231.7	702.7	536.1	514.2	21.87	24.511		
5,900.0	5,891.4	5,869.5	5,820.7	11.6	16.5	54.61	236.1	715.6	545.7	523.4	22.26	24.518		
6,000.0	5,991.2	5,969.1	5,919.3	11.8	16.8	54.63	240.6	728.5	555.3	532.7	22.64	24.526		
6,100.0	6,091.1	6,068.6	6,017.9	12.0	17.1	54.64	245.1	741.5	564.9	541.9	23.03	24.533		
6,200.0	6,190.9	6,168.1	6,116.4	12.2	17.3	54.66	249.5	754.4	574.5	551.1	23.41	24.539		
6,300.0	6,290.7	6,267.7	6,215.0	12.4	17.6	54.67	254.0	767.4	584.2	560.4	23.80	24.546		
6,400.0	6,390.5	6,367.2	6,313.6	12.6	17.9	54.69	258.4	780.3	593.8	569.6	24.18	24.552		
6,500.0	6,490.4	6,466.7	6,412.1	12.7	18.2	-53.00	262.9	793.2	603.4	578.8	24.56	24.566		
6,600.0	6,589.6	6,565.7	6,510.3	12.8	18.5	-79.17	262.9	806.1	612.9	588.2	24.73	24.786		
6,700.0	6,686.2	6,666.4	6,609.1	12.8	18.7	-83.87	249.1	819.1	622.5	597.8	24.74	25.160		
6,800.0	6,778.4	6,768.8	6,706.6	12.8	18.9	-85.93	221.0	831.9	631.8	607.2	24.66	25.623		
6,900.0	6,864.3	6,873.1	6,800.8	12.8	19.0	-87.16	178.2	844.2	640.7	616.2	24.56	26.086		
7,000.0	6,942.3	6,979.2	6,889.3	12.8	19.1	-88.00	120.9	855.9	649.0	624.4	24.56	26.429		
7,100.0	7,010.8	7,087.2	6,969.8	12.9	19.3	-88.63	49.9	866.4	656.4	631.7	24.76	26.517		
7,200.0	7,068.6	7,196.9	7,039.7	13.2	19.6	-89.10	-34.0	875.6	662.8	637.6	25.27	26.232		
7,300.0	7,114.4	7,308.1	7,096.8	13.7	19.9	-89.47	-129.0	883.1	668.0	641.8	26.18	25.513		
7,400.0	7,147.5	7,420.5	7,139.0	14.3	20.4	-89.74	-232.9	888.6	671.8	644.3	27.53	24.400		
7,500.0	7,167.1	7,533.9	7,164.8	15.2	21.1	-89.91	-343.1	892.0	674.1	644.8	29.29	23.012		
7,600.0	7,173.0	7,647.1	7,173.0	16.1	21.9	-90.00	-456.0	893.1	674.8	643.4	31.40	21.493		
7,700.0	7,173.0	7,747.1	7,173.0	17.2	22.7	-90.00	-556.0	893.1	674.8	641.2	33.68	20.038		
7,800.0	7,173.0	7,847.1	7,173.0	18.5	23.6	-90.00	-656.0	893.1	674.8	638.7	36.14	18.671		
7,900.0	7,173.0	7,947.1	7,173.0	19.7	24.7	-90.00	-756.0	893.1	674.8	636.1	38.77	17.406		
8,000.0	7,173.0	8,047.1	7,173.0	21.1	25.8	-90.00	-856.0	893.1	674.8	633.3	41.53	16.250		
8,100.0	7,173.0	8,147.1	7,173.0	22.5	26.9	-90.00	-956.0	893.1	674.8	630.5	44.39	15.202		
8,200.0	7,173.0	8,247.1	7,173.0	24.0	28.2	-90.00	-1,056.0	893.1	674.8	627.5	47.34	14.255		
8,300.0	7,173.0	8,347.1	7,173.0	25.5	29.4	-90.00	-1,156.0	893.1	674.8	624.5	50.36	13.400		
8,400.0	7,173.0	8,447.1	7,173.0	27.0	30.8	-90.00	-1,256.0	893.1	674.8	621.4	53.44	12.627		
8,500.0	7,173.0	8,547.1	7,173.0	28.5	32.1	-90.00	-1,356.0	893.1	674.8	618.3	56.58	11.928		
8,600.0	7,173.0	8,647.1	7,173.0	30.1	33.5	-90.00	-1,456.0	893.1	674.8	615.1	59.75	11.295		
8,700.0	7,173.0	8,747.1	7,173.0	31.7	35.0	-90.00	-1,556.0	893.1	674.8	611.9	62.96	10.719		
8,800.0	7,173.0	8,847.1	7,173.0	33.3	36.4	-90.00	-1,656.0	893.1	674.8	608.7	66.20	10.195		
8,900.0	7,173.0	8,947.1	7,173.0	34.9	37.9	-90.00	-1,756.0	893.1	674.8	605.4	69.46	9.715		
9,000.0	7,173.0	9,047.1	7,173.0	36.6	39.4	-90.00	-1,856.0	893.1	674.8	602.1	72.75	9.276		
9,100.0	7,173.0	9,147.1	7,173.0	38.2	41.0	-90.00	-1,956.0	893.1	674.8	598.8	76.06	8.873		
9,200.0	7,173.0	9,247.1	7,173.0	39.9	42.5	-90.00	-2,056.0	893.1	674.8	595.5	79.38	8.501		
9,300.0	7,173.0	9,347.1	7,173.0	41.5	44.1	-90.00	-2,156.0	893.1	674.8	592.1	82.72	8.158		
9,400.0	7,173.0	9,447.1	7,173.0	43.2	45.6	-90.00	-2,256.0	893.1	674.8	588.8	86.08	7.840		
9,500.0	7,173.0	9,547.1	7,173.0	44.9	47.2	-90.00	-2,356.0	893.1	674.8	585.4	89.44	7.545		
9,600.0	7,173.0	9,647.1	7,173.0	46.6	48.8	-90.00	-2,456.0	893.1	674.8	582.0	92.82	7.271		
9,700.0	7,173.0	9,747.1	7,173.0	48.2	50.4	-90.00	-2,556.0	893.1	674.8	578.6	96.20	7.015		
9,800.0	7,173.0	9,847.1	7,173.0	49.9	52.1	-90.00	-2,656.0	893.1	674.8	575.3	99.60	6.776		
9,900.0	7,173.0	9,947.1	7,173.0	51.6	53.7	-90.00	-2,756.0	893.1	674.8	571.9	103.00	6.552		
10,000.0	7,173.0	10,047.1	7,173.0	53.3	55.3	-90.00	-2,856.0	893.1	674.8	568.4	106.41	6.342		
10,100.0	7,173.0	10,147.1	7,173.0	55.0	57.0	-90.00	-2,956.0	893.1	674.8	565.0	109.82	6.145		
10,200.0	7,173.0	10,247.1	7,173.0	56.7	58.6	-90.00	-3,056.0	893.1	674.8	561.6	113.24	5.959		
10,300.0	7,173.0	10,347.1	7,173.0	58.5	60.3	-90.00	-3,156.0	893.1	674.8	558.2	116.67	5.784		

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1F-32H-B264 - 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		
10,400.0	7,173.0	10,447.1	7,173.0	60.2	61.9	-90.00	-3,256.0	893.1	674.8	554.8	120.10	5.619		
10,500.0	7,173.0	10,547.1	7,173.0	61.9	63.6	-90.00	-3,356.0	893.1	674.8	551.3	123.53	5.463		
10,600.0	7,173.0	10,647.1	7,173.0	63.6	65.3	-90.00	-3,456.0	893.1	674.8	547.9	126.97	5.315		
10,700.0	7,173.0	10,747.1	7,173.0	65.3	67.0	-90.00	-3,556.0	893.1	674.8	544.4	130.41	5.175		
10,800.0	7,173.0	10,847.1	7,173.0	67.0	68.6	-90.00	-3,656.0	893.1	674.8	541.0	133.86	5.042		
10,900.0	7,173.0	10,947.1	7,173.0	68.8	70.3	-90.00	-3,756.0	893.1	674.8	537.5	137.31	4.915		
11,000.0	7,173.0	11,047.1	7,173.0	70.5	72.0	-90.00	-3,856.0	893.1	674.8	534.1	140.76	4.794		
11,100.0	7,173.0	11,147.1	7,173.0	72.2	73.7	-90.00	-3,956.0	893.1	674.8	530.6	144.21	4.680		
11,200.0	7,173.0	11,247.1	7,173.0	73.9	75.4	-90.00	-4,056.0	893.1	674.9	527.2	147.67	4.570		
11,300.0	7,173.0	11,347.1	7,173.0	75.7	77.1	-90.00	-4,156.0	893.1	674.9	523.7	151.13	4.465		
11,400.0	7,173.0	11,447.1	7,173.0	77.4	78.8	-90.00	-4,256.0	893.1	674.9	520.3	154.59	4.365		
11,500.0	7,173.0	11,547.1	7,173.0	79.1	80.5	-90.00	-4,356.0	893.1	674.9	516.8	158.06	4.270		
11,600.0	7,173.0	11,647.1	7,173.0	80.8	82.2	-90.00	-4,456.0	893.1	674.9	513.3	161.52	4.178		
11,696.8	7,173.0	11,743.9	7,173.0	82.5	83.8	-90.00	-4,552.7	893.1	674.9	510.0	164.88	4.093 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1G-32H-B264 - Hz - Plan #1														Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)							
0.0	0.0	0.0	0.0	0.0	0.0	89.73	3.7	772.1	772.1						
100.0	100.0	100.0	100.0	0.2	0.2	89.73	3.7	772.1	772.1	0.35	2,211.858				
200.0	200.0	200.0	200.0	0.3	0.3	89.73	3.7	772.1	772.1	0.70	1,105.929				
300.0	300.0	300.0	300.0	0.5	0.5	89.73	3.7	772.1	772.1	1.05	737.286				
400.0	400.0	400.0	400.0	0.7	0.7	89.73	3.7	772.1	770.7	1.40	552.964				
433.3	433.3	433.3	433.3	0.8	0.8	89.73	3.7	772.1	770.6	1.51	510.424 CC				
500.0	500.0	495.3	495.3	0.9	0.9	89.72	3.8	772.2	770.5	1.74	444.529				
600.0	600.0	586.0	586.0	1.0	1.0	89.65	4.7	773.3	771.4	2.07	373.642				
700.0	700.0	676.6	676.6	1.2	1.2	53.79	6.6	775.5	772.9	2.41	322.367				
800.0	800.0	767.2	767.0	1.4	1.4	53.71	9.4	778.7	774.7	2.74	283.373				
900.0	899.9	857.8	857.4	1.6	1.5	53.66	13.1	783.1	779.7	3.09	252.546				
1,000.0	999.7	957.8	957.2	1.8	1.7	53.66	17.7	788.5	781.7	3.45	226.298				
1,100.0	1,099.5	1,057.7	1,056.9	2.0	1.9	53.67	22.4	793.9	783.7	3.83	204.895				
1,200.0	1,199.4	1,157.7	1,156.6	2.2	2.1	53.67	27.0	799.3	785.7	4.20	187.158				
1,300.0	1,299.2	1,257.7	1,256.3	2.3	2.3	53.68	31.6	804.7	787.7	4.57	172.244				
1,400.0	1,399.0	1,357.7	1,356.1	2.5	2.5	53.69	36.2	810.1	789.7	4.95	159.543				
1,500.0	1,498.9	1,457.7	1,455.8	2.7	2.8	53.70	40.8	815.5	791.7	5.33	148.604				
1,600.0	1,598.7	1,557.6	1,555.5	2.9	3.0	53.71	45.5	820.9	793.7	5.71	139.091				
1,700.0	1,698.5	1,657.6	1,655.2	3.1	3.2	53.72	50.1	826.3	795.7	6.09	130.745				
1,800.0	1,798.3	1,757.6	1,755.0	3.3	3.4	53.72	54.7	831.7	797.7	6.47	123.367				
1,900.0	1,898.2	1,857.6	1,854.7	3.5	3.6	53.73	59.3	837.0	799.7	6.85	116.799				
2,000.0	1,998.0	1,957.6	1,954.4	3.7	3.8	53.74	64.0	842.4	801.7	7.23	110.916				
2,100.0	2,097.8	2,057.5	2,054.2	3.9	4.0	53.75	68.6	847.8	803.7	7.61	105.616				
2,200.0	2,197.7	2,157.5	2,153.9	4.1	4.2	53.76	73.2	853.2	805.7	7.99	100.819				
2,300.0	2,297.5	2,257.5	2,253.6	4.3	4.4	53.77	77.8	858.6	807.7	8.37	96.456				
2,400.0	2,397.3	2,357.5	2,353.3	4.5	4.7	53.77	82.5	864.0	809.7	8.76	92.471				
2,500.0	2,497.2	2,457.5	2,453.1	4.7	4.9	53.78	87.1	869.4	811.7	9.14	88.817				
2,600.0	2,597.0	2,557.4	2,552.8	4.9	5.1	53.79	91.7	874.8	813.7	9.52	85.455				
2,700.0	2,696.8	2,657.4	2,652.5	5.1	5.3	53.80	96.3	880.2	815.7	9.90	82.352				
2,800.0	2,796.6	2,757.4	2,752.2	5.3	5.5	53.81	100.9	885.6	817.7	10.29	79.478				
2,900.0	2,896.5	2,857.4	2,852.0	5.5	5.7	53.81	105.6	891.0	819.7	10.67	76.810				
3,000.0	2,996.3	2,957.4	2,951.7	5.7	5.9	53.82	110.2	896.4	821.7	11.06	74.326				
3,100.0	3,096.1	3,057.3	3,051.4	5.9	6.1	53.83	114.8	901.8	823.7	11.44	72.008				
3,200.0	3,196.0	3,157.3	3,151.2	6.1	6.4	53.84	119.4	907.2	825.7	11.82	69.839				
3,300.0	3,295.8	3,257.3	3,250.9	6.3	6.6	53.84	124.1	912.6	827.7	12.21	67.807				
3,400.0	3,395.6	3,357.3	3,350.6	6.5	6.8	53.85	128.7	918.0	829.7	12.59	65.897				
3,500.0	3,495.5	3,457.3	3,450.3	6.7	7.0	53.86	133.3	923.4	831.7	12.97	64.101				
3,600.0	3,595.3	3,557.2	3,550.1	6.9	7.2	53.87	137.9	928.8	833.7	13.36	62.407				
3,700.0	3,695.1	3,657.2	3,649.8	7.1	7.4	53.88	142.6	934.2	835.7	13.74	60.808				
3,800.0	3,795.0	3,757.2	3,749.5	7.3	7.6	53.88	147.2	939.6	837.7	14.13	59.295				
3,900.0	3,894.8	3,857.2	3,849.2	7.5	7.8	53.89	151.8	945.0	839.7	14.51	57.862				
4,000.0	3,994.6	3,957.2	3,949.0	7.7	8.1	53.90	156.4	950.4	841.7	14.90	56.503				
4,100.0	4,094.4	4,057.1	4,048.7	7.9	8.3	53.91	161.0	955.8	843.7	15.28	55.212				
4,200.0	4,194.3	4,157.1	4,148.4	8.1	8.5	53.91	165.7	961.2	845.6	15.66	53.985				
4,300.0	4,294.1	4,257.1	4,248.2	8.3	8.7	53.92	170.3	966.6	847.6	16.05	52.815				
4,400.0	4,393.9	4,357.1	4,347.9	8.5	8.9	53.93	174.9	971.9	849.6	16.43	51.701				
4,500.0	4,493.8	4,457.1	4,447.6	8.7	9.1	53.93	179.5	977.3	851.6	16.82	50.637				
4,600.0	4,593.6	4,557.0	4,547.3	8.9	9.3	53.94	184.2	982.7	853.6	17.20	49.621				
4,700.0	4,693.4	4,657.0	4,647.1	9.1	9.6	53.95	188.8	988.1	855.6	17.59	48.649				
4,800.0	4,793.3	4,757.0	4,746.8	9.3	9.8	53.96	193.4	993.5	857.6	17.97	47.719				
4,900.0	4,893.1	4,857.0	4,846.5	9.5	10.0	53.96	198.0	998.9	859.6	18.36	46.827				
5,000.0	4,992.9	4,957.0	4,946.2	9.8	10.2	53.97	202.7	1,004.3	861.6	18.74	45.972				

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1G-32H-B264 - 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)						
5,100.0	5,092.7	5,056.9	5,046.0	10.0	10.4	53.98	207.3	1,009.7	863.6	844.5	19.13	45.151		
5,200.0	5,192.6	5,156.9	5,145.7	10.2	10.6	53.99	211.9	1,015.1	865.6	846.1	19.51	44.363		
5,300.0	5,292.4	5,256.9	5,245.4	10.4	10.8	53.99	216.5	1,020.5	867.6	847.7	19.90	43.605		
5,400.0	5,392.2	5,356.9	5,345.1	10.6	11.1	54.00	221.1	1,025.9	869.6	849.3	20.28	42.876		
5,500.0	5,492.1	5,456.9	5,444.9	10.8	11.3	54.01	225.8	1,031.3	871.6	850.9	20.67	42.174		
5,600.0	5,591.9	5,556.8	5,544.6	11.0	11.5	54.01	230.4	1,036.7	873.6	852.6	21.05	41.497		
5,700.0	5,691.7	5,656.8	5,644.3	11.2	11.7	54.02	235.0	1,042.1	875.6	854.2	21.44	40.845		
5,800.0	5,791.6	5,756.8	5,744.1	11.4	11.9	54.03	239.6	1,047.5	877.6	855.8	21.82	40.216		
5,900.0	5,891.4	5,856.8	5,843.8	11.6	12.1	54.03	244.3	1,052.9	879.6	857.4	22.21	39.608		
6,000.0	5,991.2	5,956.8	5,943.5	11.8	12.3	54.04	248.9	1,058.3	881.6	859.0	22.59	39.021		
6,100.0	6,091.1	6,056.7	6,043.2	12.0	12.6	54.05	253.5	1,063.7	883.6	860.6	22.98	38.454		
6,200.0	6,190.9	6,156.7	6,143.0	12.2	12.8	54.05	258.1	1,069.1	885.6	862.2	23.36	37.905		
6,300.0	6,290.7	6,256.7	6,242.7	12.4	13.0	54.06	262.8	1,074.5	887.6	863.8	23.75	37.375		
6,400.0	6,390.5	6,356.7	6,342.5	12.6	13.2	54.16	265.9	1,079.9	889.6	865.5	24.12	36.883		
6,500.0	6,490.4	6,455.4	6,440.6	12.7	13.3	-52.99	257.4	1,085.2	891.7	867.2	24.40	36.536		
6,600.0	6,589.6	6,552.7	6,535.3	12.8	13.3	-78.00	235.9	1,090.3	893.8	869.3	24.52	36.452		
6,700.0	6,686.2	6,648.6	6,624.9	12.8	13.3	-81.56	202.2	1,095.2	896.1	871.6	24.51	36.565		
6,800.0	6,778.4	6,743.3	6,708.2	12.8	13.3	-82.54	157.6	1,099.7	898.3	873.9	24.42	36.783		
6,900.0	6,864.3	6,837.0	6,784.1	12.8	13.4	-82.76	103.0	1,103.8	900.5	876.1	24.35	36.979		
7,000.0	6,942.3	6,929.7	6,851.6	12.8	13.5	-82.70	39.6	1,107.4	902.5	878.1	24.39	37.004		
7,100.0	7,010.8	7,021.6	6,909.9	12.9	13.7	-82.52	-31.3	1,110.6	904.3	879.7	24.64	36.697		
7,200.0	7,068.6	7,112.9	6,958.4	13.2	14.0	-82.32	-108.5	1,113.2	905.9	880.7	25.19	35.958		
7,300.0	7,114.4	7,203.7	6,996.5	13.7	14.4	-82.13	-190.8	1,115.3	907.1	881.0	26.10	34.750		
7,400.0	7,147.5	7,294.0	7,023.8	14.3	15.1	-81.99	-276.9	1,116.8	908.1	880.6	27.41	33.130		
7,500.0	7,167.1	7,384.2	7,040.0	15.2	15.8	-81.91	-365.5	1,117.6	908.6	879.5	29.08	31.242		
7,600.0	7,173.0	7,474.8	7,045.0	16.1	16.7	-81.90	-455.9	1,117.9	908.7	877.7	31.06	29.254		
7,700.0	7,173.0	7,574.8	7,045.0	17.2	17.8	-81.90	-555.9	1,117.9	908.7	875.4	33.33	27.264		
7,800.0	7,173.0	7,674.8	7,045.0	18.5	18.9	-81.90	-655.9	1,117.9	908.7	873.0	35.78	25.396		
7,900.0	7,173.0	7,774.8	7,045.0	19.7	20.2	-81.90	-755.9	1,117.9	908.7	870.3	38.39	23.670		
8,000.0	7,173.0	7,874.8	7,045.0	21.1	21.5	-81.90	-855.9	1,117.9	908.7	867.6	41.13	22.094		
8,100.0	7,173.0	7,974.8	7,045.0	22.5	22.9	-81.90	-955.9	1,117.9	908.7	864.8	43.97	20.666		
8,200.0	7,173.0	8,074.8	7,045.0	24.0	24.3	-81.90	-1,055.9	1,117.9	908.8	861.9	46.90	19.376		
8,300.0	7,173.0	8,174.8	7,045.0	25.5	25.8	-81.90	-1,155.9	1,117.9	908.8	858.9	49.90	18.212		
8,400.0	7,173.0	8,274.8	7,045.0	27.0	27.3	-81.90	-1,255.9	1,117.9	908.8	855.8	52.95	17.161		
8,500.0	7,173.0	8,374.8	7,045.0	28.5	28.9	-81.90	-1,355.9	1,117.9	908.8	852.7	56.06	16.211		
8,600.0	7,173.0	8,474.8	7,045.0	30.1	30.4	-81.90	-1,455.9	1,117.9	908.8	849.6	59.20	15.350		
8,700.0	7,173.0	8,574.8	7,045.0	31.7	32.0	-81.90	-1,555.9	1,117.9	908.8	846.4	62.38	14.567		
8,800.0	7,173.0	8,674.8	7,045.0	33.3	33.6	-81.90	-1,655.9	1,117.9	908.8	843.2	65.59	13.854		
8,900.0	7,173.0	8,774.8	7,045.0	34.9	35.2	-81.90	-1,755.9	1,117.9	908.8	839.9	68.83	13.203		
9,000.0	7,173.0	8,874.8	7,045.0	36.6	36.8	-81.90	-1,855.9	1,118.0	908.8	836.7	72.09	12.607		
9,100.0	7,173.0	8,974.8	7,045.0	38.2	38.5	-81.90	-1,955.9	1,118.0	908.8	833.4	75.36	12.058		
9,200.0	7,173.0	9,074.8	7,045.0	39.9	40.1	-81.90	-2,055.9	1,118.0	908.8	830.1	78.66	11.553		
9,300.0	7,173.0	9,174.8	7,045.0	41.5	41.8	-81.90	-2,155.9	1,118.0	908.8	826.8	81.97	11.087		
9,400.0	7,173.0	9,274.8	7,045.0	43.2	43.4	-81.90	-2,255.9	1,118.0	908.8	823.5	85.29	10.655		
9,500.0	7,173.0	9,374.8	7,045.0	44.9	45.1	-81.90	-2,355.9	1,118.0	908.8	820.2	88.62	10.255		
9,600.0	7,173.0	9,474.8	7,045.0	46.6	46.8	-81.90	-2,455.9	1,118.0	908.8	816.8	91.97	9.882		
9,700.0	7,173.0	9,574.8	7,045.0	48.2	48.5	-81.90	-2,555.9	1,118.0	908.8	813.5	95.32	9.534		
9,800.0	7,173.0	9,674.8	7,045.0	49.9	50.1	-81.90	-2,655.9	1,118.0	908.8	810.1	98.68	9.209		
9,900.0	7,173.0	9,774.8	7,045.0	51.6	51.8	-81.90	-2,755.9	1,118.0	908.8	806.8	102.05	8.905		
10,000.0	7,173.0	9,874.8	7,045.0	53.3	53.5	-81.90	-2,855.9	1,118.0	908.8	803.4	105.43	8.620		
10,100.0	7,173.0	9,974.8	7,045.0	55.0	55.2	-81.90	-2,955.9	1,118.0	908.8	800.0	108.81	8.352		
10,200.0	7,173.0	10,074.8	7,045.0	56.7	56.9	-81.90	-3,055.9	1,118.0	908.8	796.6	112.20	8.100		

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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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										S32-T2N-R64W (Newman) - Ruhl 1G-32H-B264 - 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)						
10,300.0	7,173.0	10,174.8	7,045.0	58.5	58.6	-81.90	-3,155.9	1,118.0	908.8	793.2	115.59	7.862				
10,400.0	7,173.0	10,274.8	7,045.0	60.2	60.3	-81.90	-3,255.9	1,118.0	908.8	789.8	118.99	7.638				
10,500.0	7,173.0	10,374.8	7,045.0	61.9	62.1	-81.90	-3,355.9	1,118.0	908.8	786.4	122.39	7.426				
10,600.0	7,173.0	10,474.8	7,045.0	63.6	63.8	-81.90	-3,455.9	1,118.0	908.8	783.0	125.79	7.225				
10,700.0	7,173.0	10,574.8	7,045.0	65.3	65.5	-81.90	-3,555.9	1,118.0	908.8	779.6	129.20	7.034				
10,800.0	7,173.0	10,674.8	7,045.0	67.0	67.2	-81.90	-3,655.9	1,118.0	908.8	776.2	132.62	6.853				
10,900.0	7,173.0	10,774.8	7,045.0	68.8	68.9	-81.90	-3,755.9	1,118.0	908.8	772.8	136.03	6.681				
11,000.0	7,173.0	10,874.8	7,045.0	70.5	70.6	-81.90	-3,855.9	1,118.0	908.8	769.4	139.45	6.517				
11,100.0	7,173.0	10,974.8	7,045.0	72.2	72.4	-81.90	-3,955.9	1,118.0	908.8	766.0	142.87	6.361				
11,200.0	7,173.0	11,074.8	7,045.0	73.9	74.1	-81.90	-4,055.9	1,118.0	908.8	762.5	146.29	6.212				
11,300.0	7,173.0	11,174.8	7,045.0	75.7	75.8	-81.90	-4,155.9	1,118.0	908.8	759.1	149.72	6.070				
11,400.0	7,173.0	11,274.8	7,045.0	77.4	77.5	-81.90	-4,255.9	1,118.0	908.9	755.7	153.15	5.934				
11,500.0	7,173.0	11,374.8	7,045.0	79.1	79.3	-81.90	-4,355.9	1,118.0	908.9	752.3	156.58	5.804				
11,600.0	7,173.0	11,474.8	7,045.0	80.8	81.0	-81.90	-4,455.9	1,118.0	908.9	748.8	160.01	5.680				
11,696.8	7,173.0	11,571.6	7,045.0	82.5	82.7	-81.90	-4,552.7	1,118.0	908.9	745.5	163.33	5.564 ES, SF				

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1H-32H-B264 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	89.76	3.3	782.1	782.2					
100.0	100.0	100.0	100.0	0.2	0.2	89.76	3.3	782.1	782.2	781.8	0.35	2,240.702		
200.0	200.0	200.0	200.0	0.3	0.3	89.76	3.3	782.1	782.2	781.5	0.70	1,120.351		
300.0	300.0	300.0	300.0	0.5	0.5	89.76	3.3	782.1	782.2	781.1	1.05	746.901		
400.0	400.0	400.0	400.0	0.7	0.7	89.76	3.3	782.1	782.2	780.8	1.40	560.176 CC, ES		
500.0	500.0	489.2	489.2	0.9	0.9	89.74	3.6	782.8	782.8	781.1	1.73	453.417		
600.0	600.0	578.4	578.4	1.0	1.0	89.67	4.6	784.6	784.9	782.9	2.06	381.611		
700.0	700.0	667.5	667.4	1.2	1.2	53.82	6.2	787.7	787.8	785.5	2.39	329.747		
800.0	800.0	756.6	756.3	1.4	1.3	53.77	8.5	791.9	791.1	788.4	2.72	290.446		
900.0	899.9	845.6	845.1	1.6	1.5	53.76	11.4	797.4	794.7	791.7	3.06	259.426		
1,000.0	999.7	934.5	933.8	1.8	1.7	53.79	15.0	804.1	798.9	795.5	3.41	234.378		
1,100.0	1,099.5	1,029.0	1,027.7	2.0	1.9	53.79	19.4	812.4	804.3	800.5	3.77	213.412		
1,200.0	1,199.4	1,128.8	1,127.1	2.2	2.2	53.80	24.1	821.3	809.8	805.6	4.14	195.536		
1,300.0	1,299.2	1,228.7	1,226.4	2.3	2.4	53.80	28.8	830.2	815.3	810.8	4.52	180.527		
1,400.0	1,399.0	1,328.5	1,325.7	2.5	2.6	53.80	33.6	839.0	820.8	815.9	4.89	167.762		
1,500.0	1,498.9	1,428.4	1,425.1	2.7	2.9	53.80	38.3	847.9	826.3	821.0	5.27	156.782		
1,600.0	1,598.7	1,528.2	1,524.4	2.9	3.1	53.80	43.0	856.8	831.8	826.2	5.65	147.245		
1,700.0	1,698.5	1,628.1	1,623.8	3.1	3.3	53.80	47.7	865.7	837.3	831.3	6.03	138.886		
1,800.0	1,798.3	1,727.9	1,723.1	3.3	3.6	53.80	52.5	874.6	842.8	836.4	6.41	131.504		
1,900.0	1,898.2	1,827.8	1,822.4	3.5	3.8	53.81	57.2	883.5	848.3	841.5	6.79	124.938		
2,000.0	1,998.0	1,927.6	1,921.8	3.7	4.1	53.81	61.9	892.3	853.8	846.6	7.17	119.061		
2,100.0	2,097.8	2,027.5	2,021.1	3.9	4.3	53.81	66.7	901.2	859.3	851.8	7.55	113.772		
2,200.0	2,197.7	2,127.3	2,120.5	4.1	4.5	53.81	71.4	910.1	864.8	856.9	7.94	108.987		
2,300.0	2,297.5	2,227.1	2,219.8	4.3	4.8	53.81	76.1	919.0	870.3	862.0	8.32	104.638		
2,400.0	2,397.3	2,327.0	2,319.2	4.5	5.0	53.81	80.8	927.9	875.8	867.1	8.70	100.668		
2,500.0	2,497.2	2,426.8	2,418.5	4.7	5.3	53.81	85.6	936.8	881.3	872.2	9.08	97.030		
2,600.0	2,597.0	2,526.7	2,517.8	4.9	5.5	53.81	90.3	945.6	886.8	877.4	9.47	93.684		
2,700.0	2,696.8	2,626.5	2,617.2	5.1	5.8	53.82	95.0	954.5	892.3	882.5	9.85	90.597		
2,800.0	2,796.6	2,726.4	2,716.5	5.3	6.0	53.82	99.8	963.4	897.8	887.6	10.23	87.740		
2,900.0	2,896.5	2,826.2	2,815.9	5.5	6.3	53.82	104.5	972.3	903.3	892.7	10.62	85.088		
3,000.0	2,996.3	2,926.1	2,915.2	5.7	6.5	53.82	109.2	981.2	908.8	897.8	11.00	82.620		
3,100.0	3,096.1	3,025.9	3,014.5	5.9	6.8	53.82	113.9	990.0	914.4	903.0	11.38	80.318		
3,200.0	3,196.0	3,125.8	3,113.9	6.1	7.0	53.82	118.7	998.9	919.9	908.1	11.77	78.165		
3,300.0	3,295.8	3,225.6	3,213.2	6.3	7.2	53.82	123.4	1,007.8	925.4	913.2	12.15	76.148		
3,400.0	3,395.6	3,325.5	3,312.6	6.5	7.5	53.82	128.1	1,016.7	930.9	918.3	12.54	74.254		
3,500.0	3,495.5	3,425.3	3,411.9	6.7	7.7	53.83	132.8	1,025.6	936.4	923.4	12.92	72.472		
3,600.0	3,595.3	3,525.2	3,511.2	6.9	8.0	53.83	137.6	1,034.5	941.9	928.6	13.30	70.792		
3,700.0	3,695.1	3,625.0	3,610.6	7.1	8.2	53.83	142.3	1,043.3	947.4	933.7	13.69	69.206		
3,800.0	3,795.0	3,724.9	3,709.9	7.3	8.5	53.83	147.0	1,052.2	952.9	938.8	14.07	67.707		
3,900.0	3,894.8	3,824.7	3,809.3	7.5	8.7	53.83	151.8	1,061.1	958.4	943.9	14.46	66.287		
4,000.0	3,994.6	3,924.6	3,908.6	7.7	9.0	53.83	156.5	1,070.0	963.9	949.0	14.84	64.941		
4,100.0	4,094.4	4,024.4	4,007.9	7.9	9.2	53.83	161.2	1,078.9	969.4	954.2	15.23	63.662		
4,200.0	4,194.3	4,124.3	4,107.3	8.1	9.5	53.83	165.9	1,087.8	974.9	959.3	15.61	62.446		
4,300.0	4,294.1	4,224.1	4,206.6	8.3	9.7	53.83	170.7	1,096.6	980.4	964.4	16.00	61.289		
4,400.0	4,393.9	4,324.0	4,306.0	8.5	10.0	53.84	175.4	1,105.5	985.9	969.5	16.38	60.185		
4,500.0	4,493.8	4,423.8	4,405.3	8.7	10.2	53.84	180.1	1,114.4	991.4	974.6	16.77	59.133		
4,600.0	4,593.6	4,523.7	4,504.6	8.9	10.5	53.84	184.8	1,123.3	996.9	979.8	17.15	58.127 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 Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1I-32H-B264 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	89.76	3.3	792.2	792.2					
100.0	100.0	100.0	100.0	0.2	0.2	89.76	3.3	792.2	792.2	791.9	0.35	2,269.552		
200.0	200.0	200.0	200.0	0.3	0.3	89.76	3.3	792.2	792.2	791.5	0.70	1,134.776		
300.0	300.0	300.0	300.0	0.5	0.5	89.76	3.3	792.2	792.2	791.2	1.05	756.517		
333.3	333.3	333.3	333.3	0.6	0.6	89.76	3.3	792.2	792.2	791.1	1.16	680.864 CC		
400.0	400.0	394.3	394.3	0.7	0.7	89.76	3.4	792.4	792.4	791.0	1.39	571.610 ES		
500.0	500.0	482.8	482.8	0.9	0.8	89.72	3.8	793.7	793.9	792.1	1.72	462.772		
600.0	600.0	571.2	571.2	1.0	1.0	89.65	4.8	796.2	796.7	794.7	2.04	389.653		
700.0	700.0	659.6	659.5	1.2	1.2	53.81	6.3	800.0	800.6	798.2	2.38	337.041		
800.0	800.0	747.9	747.6	1.4	1.3	53.78	8.2	805.1	804.8	802.1	2.71	297.212		
900.0	899.9	836.2	835.6	1.6	1.5	53.79	10.6	811.5	809.5	806.4	3.04	265.849		
1,000.0	999.7	924.3	923.4	1.8	1.7	53.86	13.5	819.1	814.8	811.4	3.39	240.572		
1,100.0	1,099.5	1,012.3	1,010.9	2.0	1.9	53.92	16.9	828.0	821.4	817.7	3.73	220.077		
1,200.0	1,199.4	1,102.5	1,100.4	2.2	2.2	53.95	20.8	838.3	829.5	825.4	4.09	203.027		
1,300.0	1,299.2	1,202.2	1,199.2	2.3	2.4	53.96	25.4	850.2	838.0	833.6	4.46	187.961		
1,400.0	1,399.0	1,301.8	1,298.0	2.5	2.7	53.97	29.9	862.1	846.6	841.7	4.83	175.158		
1,500.0	1,498.9	1,401.4	1,396.8	2.7	2.9	53.99	34.4	873.9	855.1	849.9	5.21	164.154		
1,600.0	1,598.7	1,501.1	1,495.7	2.9	3.2	54.00	38.9	885.8	863.6	858.0	5.59	154.601		
1,700.0	1,698.5	1,600.7	1,594.5	3.1	3.5	54.01	43.5	897.7	872.2	866.2	5.96	146.233		
1,800.0	1,798.3	1,700.3	1,693.3	3.3	3.8	54.03	48.0	909.6	880.7	874.4	6.34	138.847		
1,900.0	1,898.2	1,800.0	1,792.1	3.5	4.0	54.04	52.5	921.4	889.2	882.5	6.72	132.281		
2,000.0	1,998.0	1,899.6	1,890.9	3.7	4.3	54.05	57.0	933.3	897.8	890.7	7.10	126.407		
2,100.0	2,097.8	1,999.2	1,989.8	3.9	4.6	54.06	61.6	945.2	906.3	898.8	7.48	121.122		
2,200.0	2,197.7	2,098.9	2,088.6	4.1	4.9	54.07	66.1	957.1	914.8	907.0	7.86	116.343		
2,300.0	2,297.5	2,198.5	2,187.4	4.3	5.1	54.09	70.6	968.9	923.4	915.1	8.24	112.000		
2,400.0	2,397.3	2,298.1	2,286.2	4.5	5.4	54.10	75.1	980.8	931.9	923.3	8.63	108.037		
2,500.0	2,497.2	2,397.8	2,385.0	4.7	5.7	54.11	79.6	992.7	940.4	931.4	9.01	104.407		
2,600.0	2,597.0	2,497.4	2,483.9	4.9	6.0	54.12	84.2	1,004.6	949.0	939.6	9.39	101.069		
2,700.0	2,696.8	2,597.1	2,582.7	5.1	6.3	54.13	88.7	1,016.4	957.5	947.7	9.77	97.990		
2,800.0	2,796.6	2,696.7	2,681.5	5.3	6.5	54.14	93.2	1,028.3	966.1	955.9	10.15	95.141		
2,900.0	2,896.5	2,796.3	2,780.3	5.5	6.8	54.15	97.7	1,040.2	974.6	964.1	10.54	92.497		
3,000.0	2,996.3	2,896.0	2,879.2	5.7	7.1	54.16	102.3	1,052.1	983.1	972.2	10.92	90.037		
3,100.0	3,096.1	2,995.6	2,978.0	5.9	7.4	54.17	106.8	1,063.9	991.7	980.4	11.30	87.743 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1J-32H-B264 - 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 (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	89.76	3.3	802.3	802.3					
100.0	100.0	100.0	100.0	0.2	0.2	89.76	3.3	802.3	802.3	801.9	0.35	2,298.402		
200.0	200.0	200.0	200.0	0.3	0.3	89.76	3.3	802.3	802.3	801.6	0.70	1,149.201		
300.0	300.0	300.0	300.0	0.5	0.5	89.76	3.3	802.3	802.3	801.2	1.05	766.134 CC, ES		
400.0	400.0	388.2	388.2	0.7	0.7	89.75	3.5	802.9	803.0	801.7	1.38	583.737		
500.0	500.0	476.3	476.2	0.9	0.8	89.71	4.1	804.9	805.2	803.5	1.70	472.450		
600.0	600.0	564.3	564.2	1.0	1.0	89.64	5.1	808.1	808.9	806.9	2.03	397.793		
700.0	700.0	652.2	652.0	1.2	1.2	53.80	6.4	812.7	813.6	811.2	2.36	344.365		
800.0	800.0	740.1	739.7	1.4	1.3	53.77	8.2	818.5	818.7	816.0	2.69	303.880		
900.0	899.9	827.9	827.1	1.6	1.5	53.80	10.3	825.6	824.2	821.2	3.03	272.048		
1,000.0	999.7	915.5	914.3	1.8	1.7	53.89	12.8	833.9	830.4	827.0	3.37	246.435		
1,100.0	1,099.5	1,000.0	998.3	2.0	1.9	53.98	15.6	843.2	838.0	834.3	3.71	226.034		
1,200.0	1,199.4	1,090.3	1,087.8	2.2	2.2	54.04	19.0	854.4	847.0	843.0	4.06	208.674		
1,300.0	1,299.2	1,177.4	1,173.9	2.3	2.4	54.07	22.6	866.5	857.6	853.1	4.41	194.545		
1,400.0	1,399.0	1,269.6	1,265.1	2.5	2.7	54.08	26.8	880.5	869.4	864.6	4.77	182.314		
1,500.0	1,498.9	1,368.9	1,363.0	2.7	3.0	54.08	31.4	895.8	881.4	876.3	5.14	171.358		
1,600.0	1,598.7	1,468.2	1,461.0	2.9	3.3	54.09	36.1	911.1	893.4	887.9	5.52	161.856		
1,700.0	1,698.5	1,567.5	1,559.0	3.1	3.7	54.09	40.7	926.4	905.5	899.6	5.90	153.541		
1,800.0	1,798.3	1,666.7	1,657.0	3.3	4.0	54.10	45.3	941.7	917.5	911.3	6.28	146.207		
1,900.0	1,898.2	1,766.0	1,754.9	3.5	4.3	54.10	49.9	957.0	929.6	922.9	6.65	139.693		
2,000.0	1,998.0	1,865.3	1,852.9	3.7	4.6	54.11	54.5	972.3	941.6	934.6	7.03	133.869		
2,100.0	2,097.8	1,964.6	1,950.9	3.9	4.9	54.11	59.1	987.6	953.6	946.2	7.41	128.634		
2,200.0	2,197.7	2,063.8	2,048.9	4.1	5.3	54.12	63.7	1,002.9	965.7	957.9	7.79	123.902		
2,300.0	2,297.5	2,163.1	2,146.9	4.3	5.6	54.12	68.3	1,018.2	977.7	969.6	8.17	119.605		
2,400.0	2,397.3	2,262.4	2,244.8	4.5	5.9	54.12	72.9	1,033.5	989.8	981.2	8.56	115.686 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1K-32H-B264 - Hz - Plan #1												Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty	Separation		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor	
0.0	0.0	0.0	0.0	0.0	0.0	89.77	3.3	812.1	812.1				
100.0	100.0	100.0	100.0	0.2	0.2	89.77	3.3	812.1	812.1	811.7	0.35	2,326.450	
200.0	200.0	200.0	200.0	0.3	0.3	89.77	3.3	812.1	812.1	811.4	0.70	1,163.225	
233.3	233.3	233.3	233.3	0.4	0.4	89.77	3.3	812.1	812.1	811.3	0.81	997.050	CC
300.0	300.0	293.9	293.9	0.5	0.5	89.76	3.3	812.2	812.3	811.2	1.04	783.566	ES
400.0	400.0	381.8	381.8	0.7	0.7	89.74	3.7	813.6	813.8	812.4	1.36	596.256	
500.0	500.0	469.6	469.6	0.9	0.8	89.70	4.3	816.2	816.7	815.1	1.69	482.302	
600.0	600.0	557.3	557.2	1.0	1.0	89.63	5.3	820.1	821.2	819.2	2.02	405.974	
700.0	700.0	644.9	644.6	1.2	1.2	53.79	6.5	825.3	826.7	824.3	2.35	351.818	
800.0	800.0	732.4	731.8	1.4	1.3	53.77	8.1	831.8	832.6	829.9	2.68	310.626	
900.0	899.9	819.8	818.8	1.6	1.5	53.80	10.0	839.6	838.9	835.9	3.01	278.279	
1,000.0	999.7	907.0	905.6	1.8	1.8	53.91	12.2	848.6	846.0	842.6	3.35	252.284	
1,100.0	1,099.5	1,000.0	997.9	2.0	2.0	54.03	14.9	859.7	854.4	850.7	3.71	230.597	
1,200.0	1,199.4	1,080.9	1,078.0	2.2	2.2	54.11	17.6	870.5	864.3	860.3	4.04	214.016	
1,300.0	1,299.2	1,167.5	1,163.6	2.3	2.5	54.17	20.7	883.3	875.7	871.4	4.38	199.726	
1,400.0	1,399.0	1,253.8	1,248.7	2.5	2.8	54.21	24.1	897.3	888.6	883.8	4.73	187.764	
1,500.0	1,498.9	1,339.7	1,333.2	2.7	3.1	54.23	27.8	912.5	902.9	897.8	5.08	177.671	
1,600.0	1,598.7	1,430.2	1,421.9	2.9	3.4	54.23	32.0	929.6	918.5	913.1	5.44	168.805	
1,700.0	1,698.5	1,528.9	1,518.7	3.1	3.8	54.23	36.6	948.7	934.4	928.6	5.82	160.631	
1,800.0	1,798.3	1,627.7	1,615.4	3.3	4.1	54.23	41.3	967.7	950.3	944.1	6.19	153.426	
1,900.0	1,898.2	1,726.4	1,712.2	3.5	4.5	54.23	45.9	986.7	966.2	959.7	6.57	147.031	
2,000.0	1,998.0	1,825.1	1,809.0	3.7	4.9	54.22	50.5	1,005.7	982.2	975.2	6.95	141.318	
2,100.0	2,097.8	1,923.8	1,905.7	3.9	5.3	54.22	55.2	1,024.7	998.1	990.7	7.33	136.184	SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 S32-T2N-R64W (Newman) - Ruhl 1L-32H-B264 - 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)				
0.0	0.0	0.0	0.0	0.0	0.0	89.79	2.9	822.1	822.2					
100.0	100.0	100.0	100.0	0.2	0.2	89.79	2.9	822.1	822.2	821.8	0.35	2,355.296		
200.0	200.0	200.0	200.0	0.3	0.3	89.79	2.9	822.1	822.2	821.5	0.70	1,177.648	CC, ES	
300.0	300.0	287.7	287.7	0.5	0.5	89.79	3.1	822.8	822.9	821.9	1.03	802.199		
400.0	400.0	375.3	375.3	0.7	0.7	89.76	3.5	824.8	825.2	823.8	1.35	609.426		
500.0	500.0	462.8	462.7	0.9	0.8	89.71	4.2	828.1	828.9	827.2	1.68	492.521		
600.0	600.0	550.2	550.0	1.0	1.0	89.65	5.1	832.6	834.1	832.1	2.01	414.354		
700.0	700.0	637.5	637.1	1.2	1.2	53.81	6.3	838.5	840.4	838.0	2.34	359.600		
800.0	800.0	724.7	724.0	1.4	1.4	53.79	7.8	845.7	847.1	844.4	2.67	317.622		
900.0	899.9	811.8	810.6	1.6	1.6	53.82	9.5	854.1	854.2	851.2	3.00	284.695		
1,000.0	999.7	900.0	898.3	1.8	1.8	53.94	11.5	864.0	862.0	858.7	3.34	258.076		
1,100.0	1,099.5	985.4	982.9	2.0	2.0	54.06	13.7	874.8	871.3	867.6	3.68	236.885		
1,200.0	1,199.4	1,071.8	1,068.5	2.2	2.3	54.17	16.3	887.0	882.0	878.0	4.02	219.385		
1,300.0	1,299.2	1,158.0	1,153.5	2.3	2.6	54.25	19.0	900.4	894.2	889.9	4.36	204.887		
1,400.0	1,399.0	1,243.8	1,238.1	2.5	2.8	54.31	22.0	915.0	907.9	903.2	4.71	192.757		
1,500.0	1,498.9	1,329.3	1,322.0	2.7	3.1	54.36	25.2	930.8	923.0	918.0	5.06	182.527		
1,600.0	1,598.7	1,414.4	1,405.3	2.9	3.5	54.39	28.7	947.7	939.6	934.2	5.40	173.844		
1,700.0	1,698.5	1,500.3	1,489.2	3.1	3.8	54.40	32.5	966.1	957.6	951.8	5.76	166.368		
1,800.0	1,798.3	1,598.5	1,584.9	3.3	4.2	54.40	36.9	987.6	976.1	970.0	6.13	159.221		
1,900.0	1,898.2	1,696.8	1,680.7	3.5	4.6	54.41	41.3	1,009.1	994.7	988.2	6.51	152.880	SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Ruhl 1C-32H-B264
Project:	DJ Wattenberg	TVD Reference:	KB @ 4955.0ft (No KB)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	KB @ 4955.0ft (No KB)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ruhl 1C-32H-B264	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 Depths are relative to KB @ 4955.0ft (No KB)

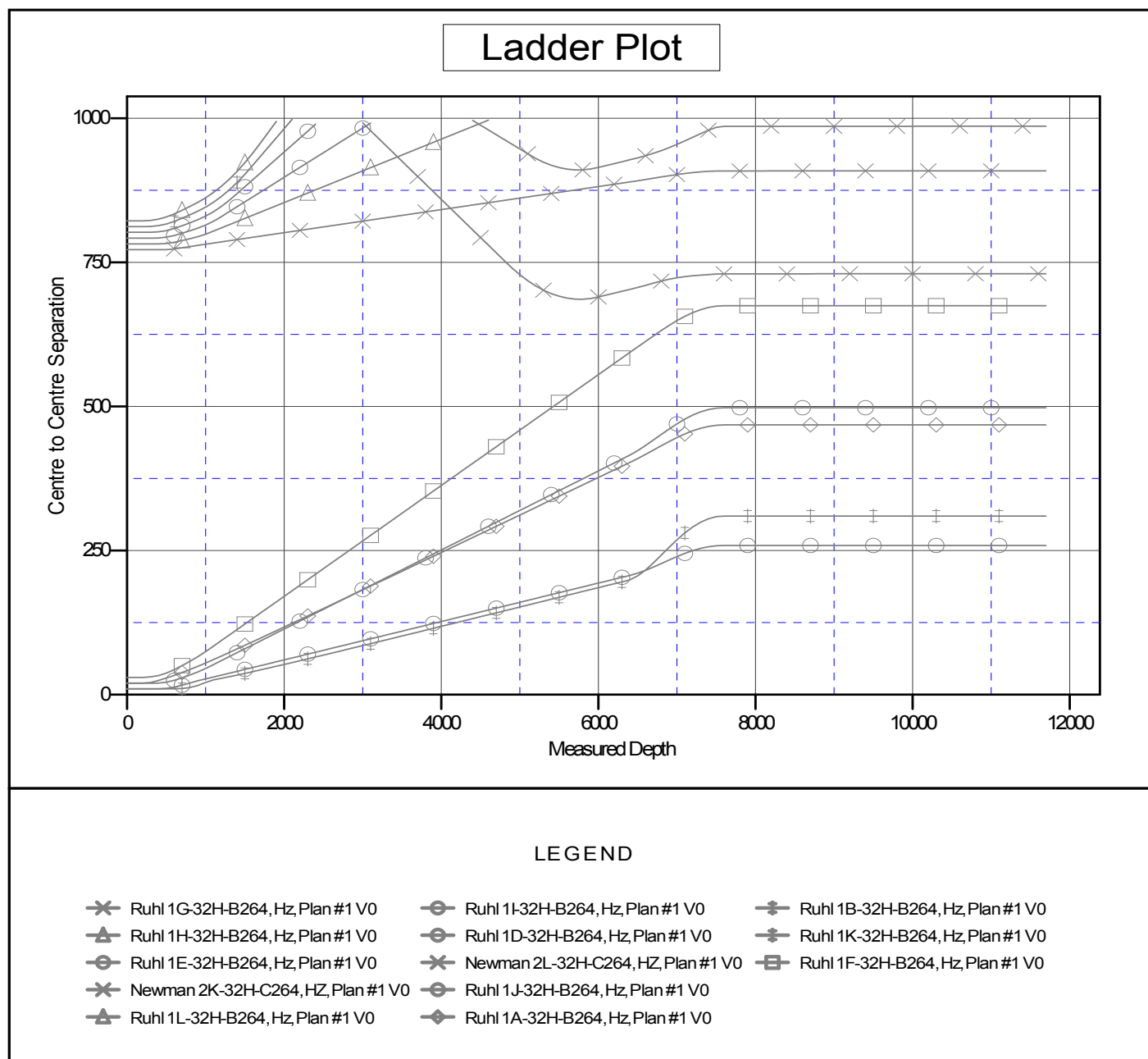
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Ruhl 1C-32H-B264

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.60°



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