



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site:	S22-T2N-R68W (Jillson-East Rinn)	North Reference:	True
Well:	Jillson-East Rinn 3D-22H-M268	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		S22-T2N-R68W (Jillson-East Rinn)			
Site Position:		Northing:	1,289,542.88 ft	Latitude:	40.127030
From:	Lat/Long	Easting:	3,144,231.14 ft	Longitude:	-104.984230
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.33 °

Well	Jillson-East Rinn 3D-22H-M268					
Well Position	+N/-S	0.0 ft	Northing:	1,286,201.41 ft	Latitude:	40.117910
	+E/-W	0.0 ft	Easting:	3,140,899.95 ft	Longitude:	-104.996210
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,950.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/9/2013	8.69	66.71	52,739

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	0.00

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	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
985.5	4.85	129.95	984.9	-13.2	15.8	1.00	1.00	0.00	129.95	
6,991.3	4.85	129.95	6,969.2	-339.5	405.4	0.00	0.00	0.00	0.00	
7,922.5	90.00	0.00	7,572.0	232.6	444.7	10.00	9.14	-13.96	-129.85	
15,292.5	90.00	0.00	7,572.0	7,602.6	444.7	0.00	0.00	0.00	0.00	Jillson-East Rinn 3D-2

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Site:	S22-T2N-R68W (Jillson-East Rinn)	North Reference:	True
Well:	Jillson-East Rinn 3D-22H-M268	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	
325.0	0.00	0.00	325.0	0.0	0.0	0.0	0.00	0.00	Fox Hills - BASE
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	KOP @ 500'
600.0	1.00	129.95	600.0	-0.6	0.7	-0.6	1.00	1.00	
700.0	2.00	129.95	700.0	-2.2	2.7	-2.2	1.00	1.00	
800.0	3.00	129.95	799.9	-5.0	6.0	-5.0	1.00	1.00	
900.0	4.00	129.95	899.7	-9.0	10.7	-9.0	1.00	1.00	
985.5	4.85	129.95	984.9	-13.2	15.8	-13.2	1.00	1.00	EOB; Inc=4.85°
1,000.0	4.85	129.95	999.4	-14.0	16.7	-14.0	0.00	0.00	
1,100.0	4.85	129.95	1,099.0	-19.4	23.2	-19.4	0.00	0.00	
1,200.0	4.85	129.95	1,198.6	-24.9	29.7	-24.9	0.00	0.00	
1,300.0	4.85	129.95	1,298.3	-30.3	36.2	-30.3	0.00	0.00	
1,400.0	4.85	129.95	1,397.9	-35.7	42.7	-35.7	0.00	0.00	
1,500.0	4.85	129.95	1,497.6	-41.2	49.1	-41.2	0.00	0.00	
1,600.0	4.85	129.95	1,597.2	-46.6	55.6	-46.6	0.00	0.00	
1,700.0	4.85	129.95	1,696.9	-52.0	62.1	-52.0	0.00	0.00	
1,800.0	4.85	129.95	1,796.5	-57.5	68.6	-57.5	0.00	0.00	
1,900.0	4.85	129.95	1,896.1	-62.9	75.1	-62.9	0.00	0.00	
2,000.0	4.85	129.95	1,995.8	-68.3	81.6	-68.3	0.00	0.00	
2,100.0	4.85	129.95	2,095.4	-73.8	88.1	-73.8	0.00	0.00	
2,200.0	4.85	129.95	2,195.1	-79.2	94.6	-79.2	0.00	0.00	
2,300.0	4.85	129.95	2,294.7	-84.6	101.0	-84.6	0.00	0.00	
2,400.0	4.85	129.95	2,394.3	-90.1	107.5	-90.1	0.00	0.00	
2,500.0	4.85	129.95	2,494.0	-95.5	114.0	-95.5	0.00	0.00	
2,600.0	4.85	129.95	2,593.6	-100.9	120.5	-100.9	0.00	0.00	
2,700.0	4.85	129.95	2,693.3	-106.4	127.0	-106.4	0.00	0.00	
2,800.0	4.85	129.95	2,792.9	-111.8	133.5	-111.8	0.00	0.00	
2,900.0	4.85	129.95	2,892.6	-117.2	140.0	-117.2	0.00	0.00	
3,000.0	4.85	129.95	2,992.2	-122.7	146.5	-122.7	0.00	0.00	
3,100.0	4.85	129.95	3,091.8	-128.1	152.9	-128.1	0.00	0.00	
3,200.0	4.85	129.95	3,191.5	-133.5	159.4	-133.5	0.00	0.00	
3,300.0	4.85	129.95	3,291.1	-139.0	165.9	-139.0	0.00	0.00	
3,400.0	4.85	129.95	3,390.8	-144.4	172.4	-144.4	0.00	0.00	
3,500.0	4.85	129.95	3,490.4	-149.8	178.9	-149.8	0.00	0.00	
3,600.0	4.85	129.95	3,590.0	-155.3	185.4	-155.3	0.00	0.00	
3,700.0	4.85	129.95	3,689.7	-160.7	191.9	-160.7	0.00	0.00	
3,800.0	4.85	129.95	3,789.3	-166.1	198.4	-166.1	0.00	0.00	
3,900.0	4.85	129.95	3,889.0	-171.6	204.9	-171.6	0.00	0.00	
4,000.0	4.85	129.95	3,988.6	-177.0	211.3	-177.0	0.00	0.00	
4,100.0	4.85	129.95	4,088.2	-182.4	217.8	-182.4	0.00	0.00	
4,200.0	4.85	129.95	4,187.9	-187.9	224.3	-187.9	0.00	0.00	
4,300.0	4.85	129.95	4,287.5	-193.3	230.8	-193.3	0.00	0.00	
4,352.7	4.85	129.95	4,340.0	-196.2	234.2	-196.2	0.00	0.00	Sussex
4,400.0	4.85	129.95	4,387.2	-198.7	237.3	-198.7	0.00	0.00	
4,500.0	4.85	129.95	4,486.8	-204.2	243.8	-204.2	0.00	0.00	
4,600.0	4.85	129.95	4,586.5	-209.6	250.3	-209.6	0.00	0.00	
4,632.7	4.85	129.95	4,619.0	-211.4	252.4	-211.4	0.00	0.00	Sussex Marker
4,700.0	4.85	129.95	4,686.1	-215.0	256.8	-215.0	0.00	0.00	

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Well:	Jillson-East Rinn 3D-22H-M268	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	4.85	129.95	4,785.7	-220.5	263.2	-220.5	0.00	0.00	
4,900.0	4.85	129.95	4,885.4	-225.9	269.7	-225.9	0.00	0.00	
4,900.6	4.85	129.95	4,886.0	-225.9	269.8	-225.9	0.00	0.00	Shannon
5,000.0	4.85	129.95	4,985.0	-231.3	276.2	-231.3	0.00	0.00	
5,100.0	4.85	129.95	5,084.7	-236.8	282.7	-236.8	0.00	0.00	
5,200.0	4.85	129.95	5,184.3	-242.2	289.2	-242.2	0.00	0.00	
5,300.0	4.85	129.95	5,283.9	-247.6	295.7	-247.6	0.00	0.00	
5,400.0	4.85	129.95	5,383.6	-253.1	302.2	-253.1	0.00	0.00	
5,500.0	4.85	129.95	5,483.2	-258.5	308.7	-258.5	0.00	0.00	
5,600.0	4.85	129.95	5,582.9	-263.9	315.1	-263.9	0.00	0.00	
5,700.0	4.85	129.95	5,682.5	-269.4	321.6	-269.4	0.00	0.00	
5,800.0	4.85	129.95	5,782.1	-274.8	328.1	-274.8	0.00	0.00	
5,900.0	4.85	129.95	5,881.8	-280.2	334.6	-280.2	0.00	0.00	
6,000.0	4.85	129.95	5,981.4	-285.7	341.1	-285.7	0.00	0.00	
6,100.0	4.85	129.95	6,081.1	-291.1	347.6	-291.1	0.00	0.00	
6,200.0	4.85	129.95	6,180.7	-296.6	354.1	-296.6	0.00	0.00	
6,300.0	4.85	129.95	6,280.4	-302.0	360.6	-302.0	0.00	0.00	
6,400.0	4.85	129.95	6,380.0	-307.4	367.1	-307.4	0.00	0.00	
6,500.0	4.85	129.95	6,479.6	-312.9	373.5	-312.9	0.00	0.00	
6,520.4	4.85	129.95	6,500.0	-314.0	374.9	-314.0	0.00	0.00	Teepee Buttes (*if present)
6,600.0	4.85	129.95	6,579.3	-318.3	380.0	-318.3	0.00	0.00	
6,700.0	4.85	129.95	6,678.9	-323.7	386.5	-323.7	0.00	0.00	
6,800.0	4.85	129.95	6,778.6	-329.2	393.0	-329.2	0.00	0.00	
6,900.0	4.85	129.95	6,878.2	-334.6	399.5	-334.6	0.00	0.00	
6,991.3	4.85	129.95	6,969.2	-339.5	405.4	-339.5	0.00	0.00	Start build/turn @ 6991' MD
7,000.0	4.35	121.12	6,977.8	-340.0	406.0	-340.0	10.00	-5.82	
7,100.0	8.60	25.51	7,077.4	-335.2	412.5	-335.2	10.00	4.25	
7,200.0	18.13	11.47	7,174.6	-313.1	418.8	-313.1	10.00	9.53	
7,219.5	20.04	10.28	7,193.0	-306.9	420.0	-306.9	10.00	9.80	Sharon Springs
7,300.0	27.98	7.04	7,266.5	-274.5	424.8	-274.5	10.00	9.87	
7,310.8	29.05	6.73	7,276.0	-269.4	425.4	-269.4	10.00	9.91	Niobrara
7,387.0	36.62	5.03	7,340.0	-228.3	429.6	-228.3	10.00	9.93	B Chalk
7,400.0	37.91	4.80	7,350.3	-220.4	430.2	-220.4	10.00	9.94	
7,421.5	40.04	4.44	7,367.0	-207.0	431.3	-207.0	10.00	9.95	B Marl
7,500.0	47.86	3.38	7,423.5	-152.6	435.0	-152.6	10.00	9.96	
7,506.8	48.54	3.30	7,428.0	-147.6	435.3	-147.6	10.00	9.96	C Chalk
7,541.2	51.97	2.92	7,450.0	-121.2	436.7	-121.2	10.00	9.96	C Marl
7,600.0	57.83	2.35	7,483.8	-73.1	438.9	-73.1	10.00	9.97	
7,700.0	67.80	1.52	7,529.4	15.6	441.9	15.6	10.00	9.97	
7,736.0	71.40	1.26	7,542.0	49.4	442.7	49.4	10.00	9.98	Ft. Hayes
7,800.0	77.78	0.81	7,559.0	111.0	443.8	111.0	10.00	9.98	
7,815.1	79.29	0.71	7,562.0	125.9	444.0	125.9	10.00	9.98	Codell
7,900.0	87.76	0.15	7,571.6	210.1	444.6	210.1	10.00	9.98	
7,922.5	90.00	0.00	7,572.0	232.6	444.7	232.6	10.00	9.98	LP @ 7572' TVD; 90°
8,000.0	90.00	0.00	7,572.0	310.1	444.7	310.1	0.00	0.00	
8,100.0	90.00	0.00	7,572.0	410.1	444.7	410.1	0.00	0.00	
8,200.0	90.00	0.00	7,572.0	510.1	444.7	510.1	0.00	0.00	
8,300.0	90.00	0.00	7,572.0	610.1	444.7	610.1	0.00	0.00	
8,400.0	90.00	0.00	7,572.0	710.1	444.7	710.1	0.00	0.00	
8,500.0	90.00	0.00	7,572.0	810.1	444.7	810.1	0.00	0.00	
8,600.0	90.00	0.00	7,572.0	910.1	444.7	910.1	0.00	0.00	
8,700.0	90.00	0.00	7,572.0	1,010.1	444.7	1,010.1	0.00	0.00	

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Wellbore:	Hz		
Design:	Plan #1		

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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
8,800.0	90.00	0.00	7,572.0	1,110.1	444.7	1,110.1	0.00	0.00	
8,900.0	90.00	0.00	7,572.0	1,210.1	444.7	1,210.1	0.00	0.00	
9,000.0	90.00	0.00	7,572.0	1,310.1	444.7	1,310.1	0.00	0.00	
9,100.0	90.00	0.00	7,572.0	1,410.1	444.7	1,410.1	0.00	0.00	
9,200.0	90.00	0.00	7,572.0	1,510.1	444.7	1,510.1	0.00	0.00	
9,300.0	90.00	0.00	7,572.0	1,610.1	444.7	1,610.1	0.00	0.00	
9,400.0	90.00	0.00	7,572.0	1,710.1	444.7	1,710.1	0.00	0.00	
9,500.0	90.00	0.00	7,572.0	1,810.1	444.7	1,810.1	0.00	0.00	
9,600.0	90.00	0.00	7,572.0	1,910.1	444.7	1,910.1	0.00	0.00	
9,700.0	90.00	0.00	7,572.0	2,010.1	444.7	2,010.1	0.00	0.00	
9,800.0	90.00	0.00	7,572.0	2,110.1	444.7	2,110.1	0.00	0.00	
9,900.0	90.00	0.00	7,572.0	2,210.1	444.7	2,210.1	0.00	0.00	
10,000.0	90.00	0.00	7,572.0	2,310.1	444.7	2,310.1	0.00	0.00	
10,100.0	90.00	0.00	7,572.0	2,410.1	444.7	2,410.1	0.00	0.00	
10,200.0	90.00	0.00	7,572.0	2,510.1	444.7	2,510.1	0.00	0.00	
10,300.0	90.00	0.00	7,572.0	2,610.1	444.7	2,610.1	0.00	0.00	
10,400.0	90.00	0.00	7,572.0	2,710.1	444.7	2,710.1	0.00	0.00	
10,500.0	90.00	0.00	7,572.0	2,810.1	444.7	2,810.1	0.00	0.00	
10,600.0	90.00	0.00	7,572.0	2,910.1	444.7	2,910.1	0.00	0.00	
10,700.0	90.00	0.00	7,572.0	3,010.1	444.7	3,010.1	0.00	0.00	
10,800.0	90.00	0.00	7,572.0	3,110.1	444.7	3,110.1	0.00	0.00	
10,900.0	90.00	0.00	7,572.0	3,210.1	444.7	3,210.1	0.00	0.00	
11,000.0	90.00	0.00	7,572.0	3,310.1	444.7	3,310.1	0.00	0.00	
11,100.0	90.00	0.00	7,572.0	3,410.1	444.7	3,410.1	0.00	0.00	
11,200.0	90.00	0.00	7,572.0	3,510.1	444.7	3,510.1	0.00	0.00	
11,300.0	90.00	0.00	7,572.0	3,610.1	444.7	3,610.1	0.00	0.00	
11,400.0	90.00	0.00	7,572.0	3,710.1	444.7	3,710.1	0.00	0.00	
11,500.0	90.00	0.00	7,572.0	3,810.1	444.7	3,810.1	0.00	0.00	
11,600.0	90.00	0.00	7,572.0	3,910.1	444.7	3,910.1	0.00	0.00	
11,700.0	90.00	0.00	7,572.0	4,010.1	444.7	4,010.1	0.00	0.00	
11,800.0	90.00	0.00	7,572.0	4,110.1	444.7	4,110.1	0.00	0.00	
11,900.0	90.00	0.00	7,572.0	4,210.1	444.7	4,210.1	0.00	0.00	
12,000.0	90.00	0.00	7,572.0	4,310.1	444.7	4,310.1	0.00	0.00	
12,100.0	90.00	0.00	7,572.0	4,410.1	444.7	4,410.1	0.00	0.00	
12,200.0	90.00	0.00	7,572.0	4,510.1	444.7	4,510.1	0.00	0.00	
12,300.0	90.00	0.00	7,572.0	4,610.1	444.7	4,610.1	0.00	0.00	
12,400.0	90.00	0.00	7,572.0	4,710.1	444.7	4,710.1	0.00	0.00	
12,500.0	90.00	0.00	7,572.0	4,810.1	444.7	4,810.1	0.00	0.00	
12,600.0	90.00	0.00	7,572.0	4,910.1	444.7	4,910.1	0.00	0.00	
12,700.0	90.00	0.00	7,572.0	5,010.1	444.7	5,010.1	0.00	0.00	
12,800.0	90.00	0.00	7,572.0	5,110.1	444.7	5,110.1	0.00	0.00	
12,900.0	90.00	0.00	7,572.0	5,210.1	444.7	5,210.1	0.00	0.00	
13,000.0	90.00	0.00	7,572.0	5,310.1	444.7	5,310.1	0.00	0.00	
13,100.0	90.00	0.00	7,572.0	5,410.1	444.7	5,410.1	0.00	0.00	
13,200.0	90.00	0.00	7,572.0	5,510.1	444.7	5,510.1	0.00	0.00	
13,300.0	90.00	0.00	7,572.0	5,610.1	444.7	5,610.1	0.00	0.00	
13,400.0	90.00	0.00	7,572.0	5,710.1	444.7	5,710.1	0.00	0.00	
13,500.0	90.00	0.00	7,572.0	5,810.1	444.7	5,810.1	0.00	0.00	
13,600.0	90.00	0.00	7,572.0	5,910.1	444.7	5,910.1	0.00	0.00	
13,700.0	90.00	0.00	7,572.0	6,010.1	444.7	6,010.1	0.00	0.00	
13,800.0	90.00	0.00	7,572.0	6,110.1	444.7	6,110.1	0.00	0.00	
13,900.0	90.00	0.00	7,572.0	6,210.1	444.7	6,210.1	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site:	S22-T2N-R68W (Jillson-East Rinn)	North Reference:	True
Well:	Jillson-East Rinn 3D-22H-M268	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
14,000.0	90.00	0.00	7,572.0	6,310.1	444.7	6,310.1	0.00	0.00	
14,100.0	90.00	0.00	7,572.0	6,410.1	444.7	6,410.1	0.00	0.00	
14,200.0	90.00	0.00	7,572.0	6,510.1	444.7	6,510.1	0.00	0.00	
14,300.0	90.00	0.00	7,572.0	6,610.1	444.7	6,610.1	0.00	0.00	
14,400.0	90.00	0.00	7,572.0	6,710.1	444.7	6,710.1	0.00	0.00	
14,500.0	90.00	0.00	7,572.0	6,810.1	444.7	6,810.1	0.00	0.00	
14,600.0	90.00	0.00	7,572.0	6,910.1	444.7	6,910.1	0.00	0.00	
14,700.0	90.00	0.00	7,572.0	7,010.1	444.7	7,010.1	0.00	0.00	
14,800.0	90.00	0.00	7,572.0	7,110.1	444.7	7,110.1	0.00	0.00	
14,900.0	90.00	0.00	7,572.0	7,210.1	444.7	7,210.1	0.00	0.00	
15,000.0	90.00	0.00	7,572.0	7,310.1	444.7	7,310.1	0.00	0.00	
15,100.0	90.00	0.00	7,572.0	7,410.1	444.7	7,410.1	0.00	0.00	
15,200.0	90.00	0.00	7,572.0	7,510.1	444.7	7,510.1	0.00	0.00	
15,292.5	90.00	0.00	7,572.0	7,602.6	444.7	7,602.6	0.00	0.00	TD at 15292.5 - Jillson-East Rinn 3D-22H-M268

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									
Jillson-East Rinn 3D-22H-M268	0.00	0.00	7,572.0	7,602.6	444.7	1,293,806.38	3,141,301.42	40.138780	-104.994620
- plan hits target center									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
325.0	325.0	Fox Hills - BASE			
4,352.7	4,340.0	Sussex			
4,632.7	4,619.0	Sussex Marker			
4,900.6	4,886.0	Shannon			
6,520.4	6,500.0	Teepee Buttes (*if present)			
7,219.5	7,193.0	Sharon Springs			
7,310.8	7,276.0	Niobrara			
7,387.0	7,340.0	B Chalk			
7,421.5	7,367.0	B Marl			
7,506.8	7,428.0	C Chalk			
7,541.2	7,450.0	C Marl			
7,736.0	7,542.0	Ft. Hayes			
7,815.1	7,562.0	Codell			

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site:	S22-T2N-R68W (Jillson-East Rinn)	North Reference:	True
Well:	Jillson-East Rinn 3D-22H-M268	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
500.0	500.0	0.0	0.0	KOP @ 500'
985.5	984.9	-13.2	15.8	EOB; Inc=4.85°
6,991.3	6,969.2	-339.5	405.4	Start build/turn @ 6991' MD
7,922.5	7,572.0	232.6	444.7	LP @ 7572' TVD; 90°
15,292.5	7,572.0	7,602.6	444.7	TD at 15292.5

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S22-T2N-R68W (Jillson-East Rinn)

Jillson-East Rinn 3D-22H-M268

Hz

Plan #1

Anticollision Report

10 July, 2013

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	7/10/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	15,292.5	Plan #1 (Hz)	Geolink MWD	Geolink MWD	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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)	Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S22-T2N-R68W (Jillson-East Rinn)						
ANDERSON 23-22 (EXISTING) - ENCANA WELL - NO S						Out of range
ANDERSON 31-22 (EXISTING) - KERR-MCGEE WELL						Out of range
BLISS 41-21 (EXISTING) - KPK WELL - SURVEYS						Out of range
EARL ANDERSON 1 (EXISTING) - KPK WELL - NO SUR						Out of range
EARL ANDERSON 2 (EXISTING) - KPK WELL - NO SUR						Out of range
EARL ANDERSON B 1 (EXISTING) - KPK WELL - NO S						Out of range
EAST RINN 13-15 (EXISTING) - ENCANA WELL - SURV						Out of range
EAST RINN 15-12 (EXISTING) AL - VESSELS WELL - N						Out of range
EAST RINN 15-14 (EXISTING) AL - VESSELS WELL - N						Out of range
EAST RINN 23-15 (EXISTING) - ENCANA WELL - SURV						Out of range
EAST RINN 24-15 (EXISTING) - ENCANA WELL - SURV						Out of range
EAST RINN 2-4-15 (EXISTING) - ENCANA WELL - SUR	15,253.6	7,643.4	210.9	62.0	1.416	Level 3, CC, ES, SF
EAST RINN 2-8-15 (EXISTING) - ENCANA WELL - SUR	12,752.7	8,078.6	91.8	-41.8	0.687	Level 1, CC, ES, SF
EAST RINN 3-6-15 (EXISTING) - ENCANA WELL - SUR						Out of range
EAST RINN H UNIT 1 (EXISTING) - ENCANA WELL - N	13,630.2	7,474.0	259.2	139.4	2.163	CC, ES, SF
HALEY 1-22 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
Haley 31-22 - DD - Plan #1						Out of range
Haley 4-2-22 - DD - Plan #1						Out of range
Haley 8-4-22 - DD - Plan #1						Out of range
JILLSON 0-6-22 (EXISTING) - ENCANA WELL - SURVE						Out of range
JILLSON 11-22 (EXISTING) - ENCANA WELL - NO SUR						Out of range
JILLSON 1-22 (EXISTING) - ENCANA WELL - NO SURV	11,651.5	7,493.0	486.9	401.4	5.693	CC, ES
JILLSON 1-22 (EXISTING) - ENCANA WELL - NO SURV	11,700.0	7,493.0	489.3	402.9	5.666	SF
JILLSON 12-22 (EXISTING) - ENCANA WELL - NO SUR	10,400.9	7,501.0	458.0	393.8	7.141	CC, ES
JILLSON 12-22 (EXISTING) - ENCANA WELL - NO SUR	10,500.0	7,501.0	468.6	402.8	7.120	SF
JILLSON 14-22 (EXISTING) - ENCANA WELL - NO SUR	500.0	475.0	259.0	257.4	156.217	CC, ES
JILLSON 14-22 (EXISTING) - ENCANA WELL - NO SUR	8,000.0	7,547.0	433.6	405.4	15.350	SF
JILLSON 21-22 (EXISTING) - ENCANA WELL - NO SUR						Out of range
JILLSON 22-22 (EXISTING) - ENCANA WELL - NO SUR						Out of range
JILLSON 2-8-22 (EXISTING) - ENCANA WELL - SURVE	7,376.5	7,455.9	77.3	44.2	2.335	CC, ES, SF
JILLSON 3 (EXISTING) - FOUNDATION WELL - NO SU	500.0	471.0	275.7	274.0	166.948	CC, ES
JILLSON 3 (EXISTING) - FOUNDATION WELL - NO SU	3,600.0	3,561.0	493.9	481.3	39.222	SF
JILLSON 4-6-22 (EXISTING) - ENCANA WELL - SURVE						Out of range
JILLSON 4-8-22 (EXISTING) - ENCANA WELL - SURVE						Out of range
JILLSON 6 (EXISTING) - FOUNDATION WELL - NO SU						Out of range
JILLSON GAS UNIT 1 (EXISTING) - ENCANA WELL - N	8,312.1	7,559.0	472.5	441.0	14.989	CC, ES
JILLSON GAS UNIT 1 (EXISTING) - ENCANA WELL - N	8,400.0	7,559.0	480.6	448.0	14.736	SF
Jillson-East Rinn 3A-22H-M268 - Hz - Plan #1	200.0	199.0	27.8	27.2	45.702	CC, ES
Jillson-East Rinn 3A-22H-M268 - Hz - Plan #1	600.0	597.0	39.3	37.3	19.523	SF
Jillson-East Rinn 3B-22H-M268 - Hz - Plan #1	300.0	299.0	19.6	18.6	20.435	CC, ES
Jillson-East Rinn 3B-22H-M268 - Hz - Plan #1	600.0	598.3	24.6	22.6	12.242	SF
Jillson-East Rinn 3C-22H-M268 - Hz - Plan #1	500.0	500.0	8.3	6.6	4.982	CC, ES
Jillson-East Rinn 3C-22H-M268 - Hz - Plan #1	15,292.5	15,038.7	371.8	152.5	1.696	SF
Jillson-East Rinn 3E-22H-N268 - Hz - Plan #1	7,276.6	7,271.7	360.2	333.4	13.448	CC
Jillson-East Rinn 3E-22H-N268 - Hz - Plan #1	15,292.5	15,100.9	374.3	153.8	1.697	ES, SF
Jillson-East Rinn 3F-22H-N268 - Hz - Plan #1						Out of range
Jillson-East Rinn 3G-22H-N268 - Hz - Plan #1						Out of range
Jillson-East Rinn 3H-22H-N268 - Hz - Plan #1						Out of range
NYGREN 12-22 (EXISTING) - KERR-MCGEE WELL - N	9,307.3	7,517.0	388.9	342.9	8.452	CC, ES
NYGREN 12-22 (EXISTING) - KERR-MCGEE WELL - N	9,400.0	7,517.0	399.8	352.3	8.415	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 Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - EAST RINN 2-4-15 (EXISTING) - ENCANA WELL - SURVEYS										Offset Site Error:		0.0 ft	
Survey Program: 106-Geolink MWD										Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	Offset Wellbore Centre +E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis		Separation Factor
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)			
14,900.0	7,572.0	7,644.9	7,489.4	129.1	23.8	91.08	7,563.7	655.6	411.8	269.0	142.74	2.885	
15,000.0	7,572.0	7,644.5	7,488.9	130.9	23.8	90.96	7,563.7	655.6	329.9	185.4	144.49	2.283	
15,100.0	7,572.0	7,644.0	7,488.5	132.6	23.8	90.84	7,563.7	655.6	260.9	114.7	146.24	1.784	
15,200.0	7,572.0	7,643.6	7,488.0	134.3	23.8	90.72	7,563.7	655.6	217.6	69.6	147.98	1.471	Level 3
15,253.6	7,572.0	7,643.4	7,487.8	135.3	23.8	90.65	7,563.7	655.6	210.9	62.0	148.92	1.416	Level 3, CC, ES, SF
15,292.5	7,572.0	7,643.2	7,487.6	136.0	23.8	90.61	7,563.7	655.6	214.5	64.9	149.60	1.434	Level 3

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - EAST RINN 2-8-15 (EXISTING) - ENCANA WELL - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 136-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		
12,300.0	7,572.0	8,070.3	7,476.8	84.0	47.1	84.64	5,062.7	536.5	461.9	336.7	125.17	3.690		
12,400.0	7,572.0	8,072.2	7,478.7	85.7	47.1	85.80	5,062.7	536.5	364.4	237.3	127.11	2.867		
12,500.0	7,572.0	8,074.0	7,480.5	87.5	47.1	86.95	5,062.7	536.5	268.8	139.8	129.00	2.084		
12,600.0	7,572.0	8,075.8	7,482.3	89.2	47.1	88.09	5,062.8	536.5	178.2	47.3	130.85	1.362 Level 3		
12,700.0	7,572.0	8,077.7	7,484.1	90.9	47.1	89.22	5,062.8	536.5	105.9	-26.8	132.65	0.798 Level 1		
12,752.7	7,572.0	8,078.6	7,485.1	91.8	47.1	89.81	5,062.8	536.5	91.8	-41.8	133.58	0.687 Level 1, CC, ES, SF		
12,800.0	7,572.0	8,079.5	7,485.9	92.7	47.1	90.34	5,062.8	536.5	103.3	-31.1	134.40	0.768 Level 1		
12,900.0	7,572.0	8,081.2	7,487.7	94.4	47.1	91.45	5,062.9	536.5	173.5	37.4	136.11	1.275 Level 3		
13,000.0	7,572.0	8,083.0	7,489.5	96.1	47.1	92.54	5,062.9	536.5	263.8	126.0	137.76	1.915		
13,100.0	7,572.0	8,084.7	7,491.2	97.8	47.1	93.62	5,062.9	536.5	359.2	219.8	139.37	2.577		
13,200.0	7,572.0	8,086.4	7,492.9	99.6	47.1	94.69	5,063.0	536.5	456.5	315.6	140.93	3.239		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - EAST RINN H UNIT 1 (EXISTING) - ENCANA WELL - NO SURVE													Offset Site Error:	0.0 ft
Survey Program: 8264-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	Offset Wellbore Centre +E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)				
13,300.0	7,572.0	7,474.0	7,474.0	101.3	13.0	-90.00	5,940.3	185.5	419.8	305.7	114.05	3.681	CC, ES, SF	
13,400.0	7,572.0	7,474.0	7,474.0	103.0	13.0	-90.00	5,940.3	185.5	346.7	230.9	115.79	2.994		
13,500.0	7,572.0	7,474.0	7,474.0	104.8	13.0	-90.00	5,940.3	185.5	290.0	172.5	117.53	2.468		
13,600.0	7,572.0	7,474.0	7,474.0	106.5	13.0	-90.00	5,940.3	185.5	260.9	141.6	119.27	2.188		
13,630.2	7,572.0	7,474.0	7,474.0	107.0	13.0	-90.00	5,940.3	185.5	259.2	139.4	119.80	2.163		
13,700.0	7,572.0	7,474.0	7,474.0	108.3	13.0	-90.00	5,940.3	185.5	268.4	147.4	121.01	2.218		
13,800.0	7,572.0	7,474.0	7,474.0	110.0	13.0	-90.00	5,940.3	185.5	309.8	187.1	122.75	2.524		
13,900.0	7,572.0	7,474.0	7,474.0	111.7	13.0	-90.00	5,940.3	185.5	374.1	249.6	124.49	3.005		
14,000.0	7,572.0	7,474.0	7,474.0	113.5	13.0	-90.00	5,940.3	185.5	451.5	325.3	126.24	3.577		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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

S22-T2N-R68W (Jillson-East Rinn) - JILLSON 1-22 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 8376-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
11,600.0	7,572.0	7,493.0	7,493.0	72.0	13.1	90.00	3,961.6	931.6	489.6	405.0	84.63	5.785		
11,651.5	7,572.0	7,493.0	7,493.0	72.9	13.1	90.00	3,961.6	931.6	486.9	401.4	85.52	5.693 CC, ES		
11,700.0	7,572.0	7,493.0	7,493.0	73.7	13.1	90.00	3,961.6	931.6	489.3	402.9	86.36	5.666 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - JILLSON 12-22 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 8074-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	7,572.0	7,501.0	7,501.0	49.9	13.1	-90.00	2,711.0	-13.3	468.9	406.5	62.42	7.513		
10,400.0	7,572.0	7,501.0	7,501.0	51.6	13.1	-90.00	2,711.0	-13.3	458.0	393.8	64.11	7.143		
10,400.9	7,572.0	7,501.0	7,501.0	51.6	13.1	-90.00	2,711.0	-13.3	458.0	393.8	64.13	7.141 CC, ES		
10,500.0	7,572.0	7,501.0	7,501.0	53.3	13.1	-90.00	2,711.0	-13.3	468.6	402.8	65.81	7.120 SF		
10,600.0	7,572.0	7,501.0	7,501.0	55.0	13.1	-90.00	2,711.0	-13.3	499.4	431.9	67.51	7.397		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - JILLSON 14-22 (EXISTING) - ENCANA WELL - NO SURVEYS														Offset Site Error:	0.0 ft
Survey Program: 8164-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	3.12	258.7	14.1	260.3						
100.0	100.0	75.0	75.0	0.1	0.1	3.12	258.7	14.1	259.0	258.8	0.26	988.740			
200.0	200.0	175.0	175.0	0.3	0.3	3.12	258.7	14.1	259.0	258.4	0.61	423.931			
300.0	300.0	275.0	275.0	0.5	0.5	3.12	258.7	14.1	259.0	258.1	0.96	269.806			
400.0	400.0	375.0	375.0	0.7	0.7	3.12	258.7	14.1	259.0	257.7	1.31	197.869			
500.0	500.0	475.0	475.0	0.8	0.8	3.12	258.7	14.1	259.0	257.4	1.66	156.217 CC, ES			
600.0	600.0	575.0	575.0	1.0	1.0	-126.97	258.7	14.1	259.6	257.6	2.01	129.299			
700.0	700.0	675.0	675.0	1.2	1.2	-127.42	258.7	14.1	261.2	258.8	2.36	110.742			
800.0	799.9	774.9	774.9	1.4	1.4	-128.15	258.7	14.1	263.8	261.1	2.71	97.281			
900.0	899.7	874.7	874.7	1.6	1.5	-129.15	258.7	14.1	267.6	264.6	3.07	87.166			
1,000.0	999.4	974.4	974.4	1.8	1.7	-130.39	258.7	14.1	272.7	269.2	3.43	79.391			
1,100.0	1,099.0	1,074.0	1,074.0	2.0	1.9	-131.71	258.7	14.1	278.2	274.4	3.80	73.201			
1,200.0	1,198.6	1,173.6	1,173.6	2.2	2.0	-132.99	258.7	14.1	283.9	279.8	4.17	68.122			
1,300.0	1,298.3	1,273.3	1,273.3	2.4	2.2	-134.21	258.7	14.1	289.8	285.3	4.54	63.894			
1,400.0	1,397.9	1,372.9	1,372.9	2.6	2.4	-135.38	258.7	14.1	295.8	290.9	4.90	60.330			
1,500.0	1,497.6	1,472.6	1,472.6	2.8	2.6	-136.51	258.7	14.1	301.9	296.6	5.27	57.293			
1,600.0	1,597.2	1,572.2	1,572.2	3.1	2.7	-137.59	258.7	14.1	308.1	302.4	5.63	54.679			
1,700.0	1,696.9	1,671.9	1,671.9	3.3	2.9	-138.63	258.7	14.1	314.4	308.4	6.00	52.409			
1,800.0	1,796.5	1,771.5	1,771.5	3.5	3.1	-139.63	258.7	14.1	320.8	314.4	6.36	50.422			
1,900.0	1,896.1	1,871.1	1,871.1	3.7	3.3	-140.58	258.7	14.1	327.3	320.6	6.72	48.672			
2,000.0	1,995.8	1,970.8	1,970.8	4.0	3.4	-141.51	258.7	14.1	333.9	326.8	7.09	47.119			
2,100.0	2,095.4	2,070.4	2,070.4	4.2	3.6	-142.39	258.7	14.1	340.6	333.1	7.45	45.735			
2,200.0	2,195.1	2,170.1	2,170.1	4.4	3.8	-143.24	258.7	14.1	347.3	339.5	7.81	44.493			
2,300.0	2,294.7	2,269.7	2,269.7	4.6	4.0	-144.06	258.7	14.1	354.1	346.0	8.16	43.375			
2,400.0	2,394.3	2,369.3	2,369.3	4.9	4.1	-144.85	258.7	14.1	361.0	352.5	8.52	42.363			
2,500.0	2,494.0	2,469.0	2,469.0	5.1	4.3	-145.61	258.7	14.1	368.0	359.1	8.88	41.444			
2,600.0	2,593.6	2,568.6	2,568.6	5.3	4.5	-146.33	258.7	14.1	375.0	365.8	9.24	40.606			
2,700.0	2,693.3	2,668.3	2,668.3	5.5	4.7	-147.04	258.7	14.1	382.1	372.5	9.59	39.840			
2,800.0	2,792.9	2,767.9	2,767.9	5.8	4.8	-147.71	258.7	14.1	389.2	379.3	9.95	39.136			
2,900.0	2,892.6	2,867.6	2,867.6	6.0	5.0	-148.37	258.7	14.1	396.4	386.1	10.30	38.488			
3,000.0	2,992.2	2,967.2	2,967.2	6.2	5.2	-149.00	258.7	14.1	403.6	393.0	10.65	37.890			
3,100.0	3,091.8	3,066.8	3,066.8	6.4	5.4	-149.60	258.7	14.1	410.9	399.9	11.01	37.337			
3,200.0	3,191.5	3,166.5	3,166.5	6.7	5.5	-150.19	258.7	14.1	418.3	406.9	11.36	36.823			
3,300.0	3,291.1	3,266.1	3,266.1	6.9	5.7	-150.76	258.7	14.1	425.6	413.9	11.71	36.346			
3,400.0	3,390.8	3,365.8	3,365.8	7.1	5.9	-151.30	258.7	14.1	433.0	421.0	12.06	35.901			
3,500.0	3,490.4	3,465.4	3,465.4	7.4	6.0	-151.83	258.7	14.1	440.5	428.1	12.41	35.485			
3,600.0	3,590.0	3,565.0	3,565.0	7.6	6.2	-152.34	258.7	14.1	448.0	435.2	12.76	35.096			
3,700.0	3,689.7	3,664.7	3,664.7	7.8	6.4	-152.84	258.7	14.1	455.5	442.4	13.11	34.732			
3,800.0	3,789.3	3,764.3	3,764.3	8.0	6.6	-153.31	258.7	14.1	463.0	449.6	13.46	34.389			
3,900.0	3,889.0	3,864.0	3,864.0	8.3	6.7	-153.78	258.7	14.1	470.6	456.8	13.81	34.067			
4,000.0	3,988.6	3,963.6	3,963.6	8.5	6.9	-154.22	258.7	14.1	478.2	464.1	14.16	33.764			
4,100.0	4,088.2	4,063.2	4,063.2	8.7	7.1	-154.66	258.7	14.1	485.9	471.4	14.51	33.478			
4,200.0	4,187.9	4,162.9	4,162.9	8.9	7.3	-155.08	258.7	14.1	493.5	478.7	14.86	33.207			
7,700.0	7,529.4	7,504.4	7,504.4	15.5	13.1	-78.61	258.7	14.1	492.0	465.8	26.17	18.797			
7,800.0	7,559.0	7,534.0	7,534.0	15.8	13.1	-86.03	258.7	14.1	454.4	427.5	26.87	16.907			
7,900.0	7,571.6	7,546.6	7,546.6	16.3	13.2	-89.75	258.7	14.1	433.3	405.8	27.50	15.755			
7,948.0	7,573.0	7,548.0	7,548.0	16.6	13.2	-90.00	258.7	14.1	430.6	402.8	27.86	15.455			
8,000.0	7,572.0	7,547.0	7,547.0	17.0	13.2	-90.00	258.7	14.1	433.6	405.4	28.25	15.350 SF			
8,100.0	7,572.0	7,547.0	7,547.0	17.8	13.2	-90.00	258.7	14.1	456.4	427.3	29.16	15.654			
8,200.0	7,572.0	7,547.0	7,547.0	18.7	13.2	-90.00	258.7	14.1	498.6	468.4	30.20	16.511			

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 Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - JILLSON 2-8-22 (EXISTING) - ENCANA WELL - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 73-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		
3,300.0	3,291.1	3,471.6	3,375.5	6.9	14.4	-46.90	-85.1	655.1	498.4	479.4	18.99	26.250		
3,400.0	3,390.8	3,567.8	3,468.0	7.1	14.9	-44.95	-108.3	643.0	477.3	457.5	19.76	24.151		
3,500.0	3,490.4	3,669.6	3,566.1	7.4	15.4	-42.84	-131.9	629.4	456.2	435.7	20.56	22.188		
3,600.0	3,590.0	3,763.3	3,656.6	7.6	15.8	-40.86	-152.5	616.4	435.2	413.9	21.30	20.434		
3,700.0	3,689.7	3,845.9	3,736.7	7.8	16.2	-39.06	-170.1	606.8	417.0	395.0	21.96	18.988		
3,800.0	3,789.3	3,947.5	3,835.7	8.0	16.6	-36.95	-189.7	595.8	400.2	377.5	22.67	17.650		
3,900.0	3,889.0	4,040.0	3,926.6	8.3	17.0	-35.30	-204.8	586.3	384.2	361.0	23.27	16.513		
4,000.0	3,988.6	4,134.4	4,019.7	8.5	17.2	-33.89	-217.7	578.1	369.9	346.1	23.82	15.531		
4,100.0	4,088.2	4,231.3	4,115.6	8.7	17.5	-32.63	-229.3	570.5	356.4	332.1	24.34	14.645		
4,200.0	4,187.9	4,328.8	4,212.3	8.9	17.8	-31.49	-239.7	563.5	343.6	318.8	24.82	13.843		
4,300.0	4,287.5	4,429.7	4,312.6	9.2	18.0	-30.62	-248.2	556.7	331.0	305.7	25.26	13.101		
4,400.0	4,387.2	4,526.3	4,408.8	9.4	18.2	-30.16	-253.9	550.2	318.2	292.5	25.64	12.411		
4,500.0	4,486.8	4,623.6	4,505.9	9.6	18.4	-29.97	-258.2	545.0	306.3	280.3	25.99	11.784		
4,600.0	4,586.5	4,722.8	4,604.9	9.9	18.5	-29.82	-262.3	539.9	294.7	268.3	26.33	11.190		
4,700.0	4,686.1	4,817.2	4,699.2	10.1	18.6	-30.00	-264.8	536.3	284.0	257.4	26.62	10.670		
4,800.0	4,785.7	4,914.5	4,796.4	10.3	18.7	-30.55	-265.9	534.1	274.6	247.8	26.86	10.224		
4,900.0	4,885.4	5,012.8	4,894.7	10.5	18.8	-31.47	-265.7	532.7	266.0	238.9	27.08	9.823		
5,000.0	4,985.0	5,112.8	4,994.7	10.8	18.9	-32.62	-264.8	531.5	257.5	230.2	27.28	9.438		
5,100.0	5,084.7	5,212.6	5,094.5	11.0	18.9	-33.93	-263.5	530.2	248.9	221.4	27.48	9.059		
5,200.0	5,184.3	5,312.4	5,194.2	11.2	19.0	-35.31	-262.2	528.7	240.4	212.7	27.67	8.688		
5,300.0	5,283.9	5,411.1	5,292.9	11.5	19.1	-36.78	-261.0	527.3	232.0	204.2	27.84	8.334		
5,400.0	5,383.6	5,509.8	5,391.6	11.7	19.2	-38.45	-259.4	526.3	224.3	196.3	28.00	8.010		
5,500.0	5,483.2	5,610.0	5,491.8	11.9	19.2	-40.28	-257.8	525.3	216.7	188.5	28.14	7.699		
5,600.0	5,582.9	5,710.0	5,591.7	12.1	19.3	-42.22	-256.2	524.0	209.0	180.7	28.27	7.392		
5,700.0	5,682.5	5,809.6	5,691.4	12.4	19.4	-44.27	-254.7	522.5	201.4	173.0	28.39	7.094		
5,800.0	5,782.1	5,909.5	5,791.3	12.6	19.5	-46.44	-253.4	520.9	194.0	165.5	28.50	6.806		
5,900.0	5,881.8	6,009.7	5,891.4	12.8	19.6	-48.63	-252.7	519.0	186.5	157.9	28.61	6.519		
6,000.0	5,981.4	6,108.8	5,990.5	13.1	19.7	-50.90	-252.2	517.0	179.1	150.4	28.69	6.243		
6,100.0	6,081.1	6,207.9	6,089.6	13.3	19.8	-53.43	-251.4	515.3	172.3	143.6	28.75	5.995		
6,200.0	6,180.7	6,306.9	6,188.6	13.5	19.9	-56.22	-250.4	513.7	166.1	137.4	28.76	5.776		
6,300.0	6,280.4	6,406.0	6,287.7	13.7	20.0	-59.27	-249.2	512.3	160.6	131.9	28.75	5.587		
6,400.0	6,380.0	6,505.3	6,386.9	14.0	20.1	-62.41	-248.2	511.1	155.8	127.1	28.73	5.423		
6,500.0	6,479.6	6,604.7	6,486.3	14.2	20.1	-65.59	-247.5	510.3	151.6	122.8	28.70	5.280		
6,600.0	6,579.3	6,704.0	6,585.6	14.4	20.2	-68.97	-246.7	509.5	147.9	119.3	28.66	5.162		
6,700.0	6,678.9	6,803.4	6,685.0	14.7	20.3	-72.54	-245.8	508.8	145.0	116.4	28.61	5.068		
6,800.0	6,778.6	6,902.9	6,784.5	14.9	20.4	-76.20	-244.9	508.1	142.7	114.1	28.56	4.995		
6,900.0	6,878.2	7,002.7	6,884.3	15.1	20.5	-79.91	-244.1	507.6	140.9	112.4	28.55	4.935		
7,000.0	6,977.8	7,102.3	6,983.9	15.3	20.6	-74.79	-243.7	507.0	139.6	111.0	28.57	4.886		
7,100.0	7,077.4	7,201.7	7,083.3	15.5	20.7	20.34	-243.2	506.5	131.6	103.1	28.50	4.616		
7,200.0	7,174.6	7,298.8	7,180.4	15.5	20.8	41.05	-242.6	506.2	112.3	83.4	28.92	3.883		
7,300.0	7,266.5	7,390.8	7,272.4	15.4	20.9	64.03	-242.0	506.0	87.5	56.5	31.03	2.819		
7,376.5	7,331.5	7,455.9	7,337.5	15.4	21.0	90.05	-241.5	506.0	77.3	44.2	33.11	2.335 CC, ES, SF		
7,400.0	7,350.3	7,474.8	7,356.4	15.4	21.0	98.51	-241.4	506.0	78.6	45.3	33.29	2.361		
7,500.0	7,423.5	7,548.5	7,430.1	15.3	21.1	126.67	-240.8	506.1	113.3	82.0	31.24	3.626		
7,600.0	7,483.8	7,609.5	7,491.0	15.3	21.1	140.08	-240.3	506.2	180.2	152.1	28.08	6.417		
7,700.0	7,529.4	7,655.7	7,537.2	15.5	21.2	143.87	-240.0	506.3	263.6	237.5	26.07	10.113		
7,800.0	7,559.0	7,685.8	7,567.4	15.8	21.2	138.52	-239.7	506.4	356.3	329.8	26.53	13.429		
7,900.0	7,571.6	7,699.1	7,580.6	16.3	21.2	108.16	-239.6	506.5	454.0	421.2	32.79	13.845		

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 Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - JILLSON 3 (EXISTING) - FOUNDATION WELL - NO SURVEYS														Offset Site Error:	0.0 ft
Survey Program: 5039-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-15.27	265.9	-72.6	277.2						
100.0	100.0	71.0	71.0	0.1	0.1	-15.27	265.9	-72.6	275.7	275.4	0.26	1,081.016			
200.0	200.0	171.0	171.0	0.3	0.3	-15.27	265.9	-72.6	275.7	275.1	0.60	456.358			
300.0	300.0	271.0	271.0	0.5	0.5	-15.27	265.9	-72.6	275.7	274.7	0.95	289.229			
400.0	400.0	371.0	371.0	0.7	0.6	-15.27	265.9	-72.6	275.7	274.4	1.30	211.700			
500.0	500.0	471.0	471.0	0.8	0.8	-15.27	265.9	-72.6	275.7	274.0	1.65	166.948	CC, ES		
600.0	600.0	571.0	571.0	1.0	1.0	-145.31	265.9	-72.6	276.4	274.4	2.00	138.173			
700.0	700.0	671.0	671.0	1.2	1.2	-145.61	265.9	-72.6	278.5	276.2	2.35	118.538			
800.0	799.9	770.9	770.9	1.4	1.3	-146.09	265.9	-72.6	282.2	279.5	2.70	104.480			
900.0	899.7	870.7	870.7	1.6	1.5	-146.74	265.9	-72.6	287.2	284.2	3.05	94.079			
1,000.0	999.4	970.4	970.4	1.8	1.7	-147.54	265.9	-72.6	293.8	290.4	3.41	86.211			
1,100.0	1,099.0	1,070.0	1,070.0	2.0	1.9	-148.41	265.9	-72.6	301.0	297.2	3.77	79.940			
1,200.0	1,198.6	1,169.6	1,169.6	2.2	2.0	-149.23	265.9	-72.6	308.3	304.1	4.12	74.766			
1,300.0	1,298.3	1,269.3	1,269.3	2.4	2.2	-150.02	265.9	-72.6	315.6	311.1	4.48	70.432			
1,400.0	1,397.9	1,368.9	1,368.9	2.6	2.4	-150.77	265.9	-72.6	322.9	318.1	4.84	66.754			
1,500.0	1,497.6	1,468.6	1,468.6	2.8	2.6	-151.48	265.9	-72.6	330.3	325.2	5.19	63.597			
1,600.0	1,597.2	1,568.2	1,568.2	3.1	2.7	-152.17	265.9	-72.6	337.8	332.3	5.55	60.859			
1,700.0	1,696.9	1,667.9	1,667.9	3.3	2.9	-152.82	265.9	-72.6	345.3	339.4	5.91	58.464			
1,800.0	1,796.5	1,767.5	1,767.5	3.5	3.1	-153.45	265.9	-72.6	352.9	346.6	6.26	56.353			
1,900.0	1,896.1	1,867.1	1,867.1	3.7	3.3	-154.05	265.9	-72.6	360.5	353.9	6.62	54.478			
2,000.0	1,995.8	1,966.8	1,966.8	4.0	3.4	-154.63	265.9	-72.6	368.1	361.1	6.97	52.804			
2,100.0	2,095.4	2,066.4	2,066.4	4.2	3.6	-155.18	265.9	-72.6	375.8	368.5	7.33	51.299			
2,200.0	2,195.1	2,166.1	2,166.1	4.4	3.8	-155.71	265.9	-72.6	383.5	375.8	7.68	49.941			
2,300.0	2,294.7	2,265.7	2,265.7	4.6	4.0	-156.22	265.9	-72.6	391.2	383.2	8.03	48.708			
2,400.0	2,394.3	2,365.3	2,365.3	4.9	4.1	-156.71	265.9	-72.6	399.0	390.6	8.38	47.586			
2,500.0	2,494.0	2,465.0	2,465.0	5.1	4.3	-157.18	265.9	-72.6	406.8	398.0	8.74	46.559			
2,600.0	2,593.6	2,564.6	2,564.6	5.3	4.5	-157.63	265.9	-72.6	414.6	405.5	9.09	45.616			
2,700.0	2,693.3	2,664.3	2,664.3	5.5	4.7	-158.07	265.9	-72.6	422.4	413.0	9.44	44.748			
2,800.0	2,792.9	2,763.9	2,763.9	5.8	4.8	-158.49	265.9	-72.6	430.3	420.5	9.79	43.945			
2,900.0	2,892.6	2,863.6	2,863.6	6.0	5.0	-158.90	265.9	-72.6	438.2	428.0	10.14	43.202			
3,000.0	2,992.2	2,963.2	2,963.2	6.2	5.2	-159.29	265.9	-72.6	446.1	435.6	10.49	42.512			
3,100.0	3,091.8	3,062.8	3,062.8	6.4	5.3	-159.66	265.9	-72.6	454.0	443.2	10.84	41.869			
3,200.0	3,191.5	3,162.5	3,162.5	6.7	5.5	-160.03	265.9	-72.6	462.0	450.8	11.19	41.269			
3,300.0	3,291.1	3,262.1	3,262.1	6.9	5.7	-160.38	265.9	-72.6	469.9	458.4	11.54	40.707			
3,400.0	3,390.8	3,361.8	3,361.8	7.1	5.9	-160.72	265.9	-72.6	477.9	466.0	11.89	40.181			
3,500.0	3,490.4	3,461.4	3,461.4	7.4	6.0	-161.05	265.9	-72.6	485.9	473.7	12.24	39.687			
3,600.0	3,590.0	3,561.0	3,561.0	7.6	6.2	-161.37	265.9	-72.6	493.9	481.3	12.59	39.222	SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - JILLSON GAS UNIT 1 (EXISTING) - ENCANA WELL - NO SURVE												Offset Site Error:	0.0 ft
Survey Program: 8140-Geolink MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
8,200.0	7,572.0	7,559.0	7,559.0	18.7	13.2	90.00	622.2	917.1	485.6	455.4	30.22	16.069	
8,300.0	7,572.0	7,559.0	7,559.0	19.8	13.2	90.00	622.2	917.1	472.6	441.3	31.37	15.066	
8,312.1	7,572.0	7,559.0	7,559.0	19.9	13.2	90.00	622.2	917.1	472.5	441.0	31.52	14.989 CC, ES	
8,400.0	7,572.0	7,559.0	7,559.0	20.9	13.2	90.00	622.2	917.1	480.6	448.0	32.61	14.736 SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3A-22H-M268 - 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	-89.95	0.0	-27.8	27.9					
100.0	100.0	99.0	99.0	0.1	0.1	-89.95	0.0	-27.8	27.8	27.6	0.26	106.867		
200.0	200.0	199.0	199.0	0.3	0.3	-89.95	0.0	-27.8	27.8	27.2	0.61	45.702 CC, ES		
300.0	300.0	298.7	298.6	0.5	0.5	-91.17	-0.6	-28.4	28.4	27.5	0.96	29.673		
400.0	400.0	398.2	398.2	0.7	0.7	-94.57	-2.4	-30.2	30.4	29.0	1.31	23.133		
500.0	500.0	497.7	497.6	0.8	0.8	-99.35	-5.5	-33.3	33.7	32.1	1.67	20.166		
600.0	600.0	597.0	596.7	1.0	1.0	126.45	-9.8	-37.5	39.3	37.3	2.01	19.523 SF		
700.0	700.0	696.4	695.8	1.2	1.2	124.17	-15.0	-42.7	47.3	44.9	2.37	19.941		
800.0	799.9	796.0	795.1	1.4	1.5	123.95	-20.4	-48.1	56.4	53.6	2.73	20.619		
900.0	899.7	895.5	894.3	1.6	1.7	125.01	-25.8	-53.4	66.4	63.3	3.10	21.397		
1,000.0	999.4	994.8	993.4	1.8	1.9	126.82	-31.2	-58.7	77.5	74.0	3.48	22.248		
1,100.0	1,099.0	1,094.1	1,092.4	2.0	2.1	128.56	-36.6	-64.0	89.1	85.2	3.87	23.017		
1,200.0	1,198.6	1,193.4	1,191.4	2.2	2.3	129.90	-42.0	-69.3	100.7	96.4	4.26	23.648		
1,300.0	1,298.3	1,292.7	1,290.4	2.4	2.5	130.96	-47.4	-74.7	112.3	107.7	4.65	24.175		
1,400.0	1,397.9	1,392.0	1,389.4	2.6	2.7	131.82	-52.8	-80.0	124.0	119.0	5.04	24.622		
1,500.0	1,497.6	1,491.3	1,488.4	2.8	3.0	132.53	-58.2	-85.3	135.8	130.3	5.43	25.005		
1,600.0	1,597.2	1,590.6	1,587.4	3.1	3.2	133.13	-63.5	-90.6	147.5	141.7	5.82	25.336		
1,700.0	1,696.9	1,689.9	1,686.4	3.3	3.4	133.64	-68.9	-95.9	159.2	153.0	6.21	25.626		
1,800.0	1,796.5	1,789.2	1,785.5	3.5	3.6	134.08	-74.3	-101.3	171.0	164.4	6.61	25.882		
1,900.0	1,896.1	1,888.5	1,884.5	3.7	3.8	134.46	-79.7	-106.6	182.7	175.7	7.00	26.109		
2,000.0	1,995.8	1,987.8	1,983.5	4.0	4.0	134.80	-85.1	-111.9	194.5	187.1	7.39	26.312		
2,100.0	2,095.4	2,087.1	2,082.5	4.2	4.3	135.10	-90.5	-117.2	206.3	198.5	7.79	26.494		
2,200.0	2,195.1	2,186.4	2,181.5	4.4	4.5	135.37	-95.8	-122.5	218.1	209.9	8.18	26.659		
2,300.0	2,294.7	2,285.7	2,280.5	4.6	4.7	135.61	-101.2	-127.8	229.9	221.3	8.57	26.809		
2,400.0	2,394.3	2,385.0	2,379.5	4.9	4.9	135.82	-106.6	-133.2	241.7	232.7	8.97	26.946		
2,500.0	2,494.0	2,484.3	2,478.5	5.1	5.1	136.02	-112.0	-138.5	253.4	244.1	9.36	27.071		
2,600.0	2,593.6	2,583.6	2,577.5	5.3	5.4	136.20	-117.4	-143.8	265.2	255.5	9.76	27.186		
2,700.0	2,693.3	2,682.9	2,676.5	5.5	5.6	136.36	-122.8	-149.1	277.0	266.9	10.15	27.293		
2,800.0	2,792.9	2,782.2	2,775.6	5.8	5.8	136.51	-128.2	-154.4	288.8	278.3	10.55	27.391		
2,900.0	2,892.6	2,881.5	2,874.6	6.0	6.0	136.65	-133.5	-159.7	300.6	289.7	10.94	27.482		
3,000.0	2,992.2	2,980.8	2,973.6	6.2	6.2	136.78	-138.9	-165.1	312.4	301.1	11.33	27.567		
3,100.0	3,091.8	3,080.1	3,072.6	6.4	6.4	136.89	-144.3	-170.4	324.3	312.5	11.73	27.646		
3,200.0	3,191.5	3,179.4	3,171.6	6.7	6.7	137.00	-149.7	-175.7	336.1	323.9	12.12	27.720		
3,300.0	3,291.1	3,278.7	3,270.6	6.9	6.9	137.11	-155.1	-181.0	347.9	335.3	12.52	27.789		
3,400.0	3,390.8	3,378.0	3,369.6	7.1	7.1	137.20	-160.5	-186.3	359.7	346.8	12.91	27.855		
3,500.0	3,490.4	3,477.3	3,468.6	7.4	7.3	137.29	-165.8	-191.7	371.5	358.2	13.31	27.916		
3,600.0	3,590.0	3,576.6	3,567.6	7.6	7.5	137.38	-171.2	-197.0	383.3	369.6	13.70	27.973		
3,700.0	3,689.7	3,675.9	3,666.6	7.8	7.7	137.46	-176.6	-202.3	395.1	381.0	14.10	28.028		
3,800.0	3,789.3	3,775.2	3,765.7	8.0	8.0	137.53	-182.0	-207.6	406.9	392.4	14.49	28.079		
3,900.0	3,889.0	3,874.5	3,864.7	8.3	8.2	137.60	-187.4	-212.9	418.7	403.8	14.89	28.128		
4,000.0	3,988.6	3,973.8	3,963.7	8.5	8.4	137.67	-192.8	-218.2	430.5	415.3	15.28	28.174		
4,100.0	4,088.2	4,073.1	4,062.7	8.7	8.6	137.73	-198.1	-223.6	442.4	426.7	15.68	28.218		
4,200.0	4,187.9	4,172.4	4,161.7	8.9	8.8	137.79	-203.5	-228.9	454.2	438.1	16.07	28.260		
4,300.0	4,287.5	4,271.7	4,260.7	9.2	9.1	137.85	-208.9	-234.2	466.0	449.5	16.47	28.300		
4,400.0	4,387.2	4,371.0	4,359.7	9.4	9.3	137.90	-214.3	-239.5	477.8	460.9	16.86	28.338		
4,500.0	4,486.8	4,470.3	4,458.7	9.6	9.5	137.95	-219.7	-244.8	489.6	472.4	17.26	28.374		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3B-22H-M268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-89.95	0.0	-19.6	19.6					
100.0	100.0	99.0	99.0	0.1	0.1	-89.95	0.0	-19.6	19.6	19.3	0.26	75.167		
200.0	200.0	199.0	199.0	0.3	0.3	-89.95	0.0	-19.6	19.6	19.0	0.61	32.145		
300.0	300.0	299.0	299.0	0.5	0.5	-89.95	0.0	-19.6	19.6	18.6	0.96	20.435 CC, ES		
400.0	400.0	398.8	398.8	0.7	0.7	-92.12	-0.7	-20.0	20.0	18.7	1.31	15.284		
500.0	500.0	498.6	498.6	0.8	0.8	-98.18	-3.0	-21.2	21.4	19.7	1.66	12.877		
600.0	600.0	598.3	598.1	1.0	1.0	125.15	-6.9	-23.1	24.6	22.6	2.01	12.242 SF		
700.0	700.0	698.0	697.7	1.2	1.2	120.99	-12.0	-25.8	30.1	27.8	2.37	12.709		
800.0	799.9	797.7	797.3	1.4	1.4	120.31	-17.3	-28.5	36.7	34.0	2.74	13.423		
900.0	899.7	897.5	896.8	1.6	1.6	121.77	-22.7	-31.3	44.2	41.1	3.11	14.217		
1,000.0	999.4	997.1	996.2	1.8	1.8	124.39	-28.0	-34.0	52.6	49.2	3.49	15.081		
1,100.0	1,099.0	1,096.6	1,095.6	2.0	2.0	126.80	-33.3	-36.7	61.6	57.7	3.88	15.875		
1,200.0	1,198.6	1,196.2	1,195.0	2.2	2.2	128.60	-38.6	-39.5	70.6	66.3	4.27	16.536		
1,300.0	1,298.3	1,295.8	1,294.4	2.4	2.4	129.99	-43.9	-42.2	79.6	74.9	4.66	17.094		
1,400.0	1,397.9	1,395.4	1,393.8	2.6	2.6	131.09	-49.2	-45.0	88.7	83.6	5.05	17.569		
1,500.0	1,497.6	1,494.9	1,493.2	2.8	2.8	131.99	-54.5	-47.7	97.8	92.4	5.44	17.979		
1,600.0	1,597.2	1,594.5	1,592.6	3.1	3.0	132.74	-59.8	-50.4	106.9	101.1	5.83	18.336		
1,700.0	1,696.9	1,694.1	1,692.0	3.3	3.2	133.37	-65.1	-53.2	116.1	109.9	6.22	18.649		
1,800.0	1,796.5	1,793.7	1,791.4	3.5	3.4	133.91	-70.4	-55.9	125.2	118.6	6.62	18.926		
1,900.0	1,896.1	1,893.2	1,890.8	3.7	3.6	134.37	-75.7	-58.6	134.4	127.4	7.01	19.173		
2,000.0	1,995.8	1,992.8	1,990.2	4.0	3.8	134.78	-81.0	-61.4	143.6	136.2	7.40	19.394		
2,100.0	2,095.4	2,092.4	2,089.6	4.2	4.0	135.13	-86.3	-64.1	152.8	145.0	7.80	19.593		
2,200.0	2,195.1	2,191.9	2,189.0	4.4	4.2	135.45	-91.6	-66.8	161.9	153.8	8.19	19.773		
2,300.0	2,294.7	2,291.5	2,288.4	4.6	4.4	135.73	-96.9	-69.6	171.1	162.6	8.58	19.937		
2,400.0	2,394.3	2,391.1	2,387.7	4.9	4.6	135.98	-102.2	-72.3	180.3	171.4	8.98	20.086		
2,500.0	2,494.0	2,490.7	2,487.1	5.1	4.8	136.21	-107.5	-75.0	189.5	180.2	9.37	20.223		
2,600.0	2,593.6	2,590.2	2,586.5	5.3	5.0	136.42	-112.8	-77.8	198.7	189.0	9.77	20.350		
2,700.0	2,693.3	2,689.8	2,685.9	5.5	5.2	136.61	-118.1	-80.5	207.9	197.8	10.16	20.466		
2,800.0	2,792.9	2,789.4	2,785.3	5.8	5.4	136.78	-123.4	-83.2	217.1	206.6	10.55	20.574		
2,900.0	2,892.6	2,889.0	2,884.7	6.0	5.6	136.94	-128.7	-86.0	226.4	215.4	10.95	20.674		
3,000.0	2,992.2	2,988.5	2,984.1	6.2	5.8	137.09	-134.0	-88.7	235.6	224.2	11.34	20.768		
3,100.0	3,091.8	3,088.1	3,083.5	6.4	6.0	137.22	-139.3	-91.5	244.8	233.0	11.74	20.855		
3,200.0	3,191.5	3,187.7	3,182.9	6.7	6.2	137.35	-144.6	-94.2	254.0	241.9	12.13	20.936		
3,300.0	3,291.1	3,287.3	3,282.3	6.9	6.4	137.46	-149.9	-96.9	263.2	250.7	12.53	21.013		
3,400.0	3,390.8	3,386.8	3,381.7	7.1	6.6	137.57	-155.2	-99.7	272.4	259.5	12.92	21.084		
3,500.0	3,490.4	3,486.4	3,481.1	7.4	6.8	137.67	-160.5	-102.4	281.6	268.3	13.31	21.152		
3,600.0	3,590.0	3,586.0	3,580.5	7.6	7.0	137.77	-165.8	-105.1	290.8	277.1	13.71	21.216		
3,700.0	3,689.7	3,685.5	3,679.9	7.8	7.2	137.86	-171.1	-107.9	300.1	286.0	14.10	21.276		
3,800.0	3,789.3	3,785.1	3,779.3	8.0	7.4	137.94	-176.4	-110.6	309.3	294.8	14.50	21.333		
3,900.0	3,889.0	3,884.7	3,878.7	8.3	7.6	138.02	-181.8	-113.3	318.5	303.6	14.89	21.387		
4,000.0	3,988.6	3,984.3	3,978.1	8.5	7.8	138.10	-187.1	-116.1	327.7	312.4	15.29	21.438		
4,100.0	4,088.2	4,083.8	4,077.5	8.7	8.1	138.17	-192.4	-118.8	336.9	321.2	15.68	21.486		
4,200.0	4,187.9	4,183.4	4,176.8	8.9	8.3	138.24	-197.7	-121.5	346.1	330.1	16.08	21.532		
4,300.0	4,287.5	4,283.0	4,276.2	9.2	8.5	138.30	-203.0	-124.3	355.4	338.9	16.47	21.576		
4,400.0	4,387.2	4,382.6	4,375.6	9.4	8.7	138.36	-208.3	-127.0	364.6	347.7	16.86	21.618		
4,500.0	4,486.8	4,482.1	4,475.0	9.6	8.9	138.42	-213.6	-129.8	373.8	356.5	17.26	21.658		
4,600.0	4,586.5	4,581.7	4,574.4	9.9	9.1	138.47	-218.9	-132.5	383.0	365.4	17.65	21.696		
4,700.0	4,686.1	4,681.3	4,673.8	10.1	9.3	138.52	-224.2	-135.2	392.2	374.2	18.05	21.733		
4,800.0	4,785.7	4,780.9	4,773.2	10.3	9.5	138.57	-229.5	-138.0	401.5	383.0	18.44	21.768		
4,900.0	4,885.4	4,880.4	4,872.6	10.5	9.7	138.62	-234.8	-140.7	410.7	391.9	18.84	21.801		
5,000.0	4,985.0	4,980.0	4,972.0	10.8	9.9	138.67	-240.1	-143.4	419.9	400.7	19.23	21.834		
5,100.0	5,084.7	5,079.6	5,071.4	11.0	10.1	138.71	-245.4	-146.2	429.1	409.5	19.63	21.864		

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 Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3B-22H-M268 - 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	5,184.3	5,179.1	5,170.8	11.2	10.3	138.75	-250.7	-148.9	438.4	418.3	20.02	21.894		
5,300.0	5,283.9	5,278.7	5,270.2	11.5	10.5	138.79	-256.0	-151.6	447.6	427.2	20.42	21.923		
5,400.0	5,383.6	5,378.3	5,369.6	11.7	10.7	138.83	-261.3	-154.4	456.8	436.0	20.81	21.950		
5,500.0	5,483.2	5,477.9	5,469.0	11.9	10.9	138.86	-266.6	-157.1	466.0	444.8	21.21	21.977		
5,600.0	5,582.9	5,577.4	5,568.4	12.1	11.1	138.90	-271.9	-159.8	475.2	453.6	21.60	22.002		
5,700.0	5,682.5	5,677.0	5,667.8	12.4	11.3	138.93	-277.2	-162.6	484.5	462.5	21.99	22.027		
5,800.0	5,782.1	5,776.6	5,767.2	12.6	11.5	138.97	-282.5	-165.3	493.7	471.3	22.39	22.050		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3C-22H-M268 - 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	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.95	0.0	-8.3	8.3					
100.0	100.0	100.0	100.0	0.1	0.1	-89.95	0.0	-8.3	8.3	8.0	0.26	31.555		
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-8.3	8.3	7.7	0.61	13.523		
300.0	300.0	300.0	300.0	0.5	0.5	-89.95	0.0	-8.3	8.3	7.3	0.96	8.606		
400.0	400.0	400.0	400.0	0.7	0.7	-89.95	0.0	-8.3	8.3	7.0	1.31	6.311		
500.0	500.0	500.0	500.0	0.8	0.8	-89.95	0.0	-8.3	8.3	6.6	1.66	4.982 CC, ES		
600.0	600.0	600.0	600.0	1.0	1.0	143.69	0.0	-8.3	8.9	6.9	2.01	4.458		
700.0	700.0	700.1	700.1	1.2	1.2	148.38	-0.7	-7.8	10.6	8.2	2.36	4.477		
800.0	799.9	800.2	800.2	1.4	1.4	150.07	-2.9	-6.3	12.5	9.8	2.71	4.610		
900.0	899.7	900.4	900.2	1.6	1.5	149.82	-6.5	-3.8	14.7	11.6	3.07	4.800		
1,000.0	999.4	1,000.5	1,000.2	1.8	1.7	148.38	-11.5	-0.3	17.2	13.8	3.43	5.019		
1,100.0	1,099.0	1,100.5	1,099.9	2.0	1.9	146.81	-17.1	3.5	19.8	16.0	3.80	5.206		
1,200.0	1,198.6	1,200.4	1,199.6	2.2	2.1	145.60	-22.7	7.4	22.4	18.2	4.18	5.355		
1,300.0	1,298.3	1,300.4	1,299.4	2.4	2.3	144.64	-28.3	11.3	25.0	20.4	4.57	5.477		
1,400.0	1,397.9	1,400.4	1,399.1	2.6	2.5	143.87	-33.9	15.1	27.6	22.7	4.95	5.577		
1,500.0	1,497.6	1,500.3	1,498.8	2.8	2.7	143.22	-39.5	19.0	30.2	24.9	5.34	5.661		
1,600.0	1,597.2	1,600.3	1,598.6	3.1	2.9	142.68	-45.1	22.8	32.8	27.1	5.73	5.732		
1,700.0	1,696.9	1,700.2	1,698.3	3.3	3.1	142.22	-50.7	26.7	35.5	29.3	6.12	5.793		
1,800.0	1,796.5	1,800.2	1,798.0	3.5	3.3	141.83	-56.3	30.6	38.1	31.6	6.52	5.845		
1,900.0	1,896.1	1,900.2	1,897.8	3.7	3.5	141.48	-61.9	34.4	40.7	33.8	6.91	5.891		
2,000.0	1,995.8	2,000.1	1,997.5	4.0	3.8	141.18	-67.5	38.3	43.3	36.0	7.31	5.931		
2,100.0	2,095.4	2,100.1	2,097.2	4.2	4.0	140.91	-73.1	42.2	46.0	38.3	7.70	5.967		
2,200.0	2,195.1	2,200.1	2,197.0	4.4	4.2	140.67	-78.7	46.0	48.6	40.5	8.10	5.998		
2,300.0	2,294.7	2,300.0	2,296.7	4.6	4.4	140.45	-84.3	49.9	51.2	42.7	8.50	6.027		
2,400.0	2,394.3	2,400.0	2,396.4	4.9	4.6	140.26	-89.9	53.7	53.8	44.9	8.90	6.052		
2,500.0	2,494.0	2,500.0	2,496.2	5.1	4.8	140.08	-95.5	57.6	56.5	47.2	9.29	6.075		
2,600.0	2,593.6	2,599.9	2,595.9	5.3	5.0	139.92	-101.1	61.5	59.1	49.4	9.69	6.096		
2,700.0	2,693.3	2,699.9	2,695.6	5.5	5.2	139.77	-106.7	65.3	61.7	51.6	10.09	6.115		
2,800.0	2,792.9	2,799.9	2,795.4	5.8	5.4	139.64	-112.3	69.2	64.3	53.9	10.49	6.132		
2,900.0	2,892.6	2,899.8	2,895.1	6.0	5.6	139.51	-117.9	73.0	67.0	56.1	10.89	6.149		
3,000.0	2,992.2	2,999.8	2,994.8	6.2	5.8	139.40	-123.5	76.9	69.6	58.3	11.29	6.163		
3,100.0	3,091.8	3,099.8	3,094.6	6.4	6.1	139.29	-129.1	80.8	72.2	60.5	11.69	6.177		
3,200.0	3,191.5	3,199.7	3,194.3	6.7	6.3	139.19	-134.7	84.6	74.9	62.8	12.10	6.190		
3,300.0	3,291.1	3,299.7	3,294.0	6.9	6.5	139.10	-140.3	88.5	77.5	65.0	12.50	6.201		
3,400.0	3,390.8	3,399.7	3,393.8	7.1	6.7	139.01	-145.9	92.4	80.1	67.2	12.90	6.212		
3,500.0	3,490.4	3,499.6	3,493.5	7.4	6.9	138.93	-151.5	96.2	82.8	69.5	13.30	6.223		
3,600.0	3,590.0	3,599.6	3,593.2	7.6	7.1	138.86	-157.1	100.1	85.4	71.7	13.70	6.232		
3,700.0	3,689.7	3,699.6	3,693.0	7.8	7.3	138.78	-162.7	103.9	88.0	73.9	14.10	6.241		
3,800.0	3,789.3	3,799.5	3,792.7	8.0	7.5	138.72	-168.3	107.8	90.7	76.1	14.51	6.249		
3,900.0	3,889.0	3,899.5	3,892.4	8.3	7.7	138.65	-173.9	111.7	93.3	78.4	14.91	6.257		
4,000.0	3,988.6	3,999.5	3,992.2	8.5	7.9	138.59	-179.5	115.5	95.9	80.6	15.31	6.265		
4,100.0	4,088.2	4,099.4	4,091.9	8.7	8.2	138.54	-185.1	119.4	98.5	82.8	15.71	6.272		
4,200.0	4,187.9	4,199.4	4,191.6	8.9	8.4	138.48	-190.7	123.2	101.2	85.1	16.11	6.279		
4,300.0	4,287.5	4,299.3	4,291.4	9.2	8.6	138.43	-196.3	127.1	103.8	87.3	16.52	6.285		
4,400.0	4,387.2	4,399.3	4,391.1	9.4	8.8	138.38	-201.9	131.0	106.4	89.5	16.92	6.291		
4,500.0	4,486.8	4,499.3	4,490.8	9.6	9.0	138.34	-207.5	134.8	109.1	91.7	17.32	6.297		
4,600.0	4,586.5	4,599.2	4,590.6	9.9	9.2	138.29	-213.1	138.7	111.7	94.0	17.72	6.302		
4,700.0	4,686.1	4,699.2	4,690.3	10.1	9.4	138.25	-218.7	142.6	114.3	96.2	18.13	6.307		
4,800.0	4,785.7	4,799.2	4,790.0	10.3	9.6	138.21	-224.3	146.4	117.0	98.4	18.53	6.312		
4,900.0	4,885.4	4,899.1	4,889.8	10.5	9.8	138.17	-229.9	150.3	119.6	100.7	18.93	6.317		
5,000.0	4,985.0	4,999.1	4,989.5	10.8	10.0	138.14	-235.5	154.1	122.2	102.9	19.34	6.321		
5,100.0	5,084.7	5,099.1	5,089.2	11.0	10.3	138.10	-241.1	158.0	124.9	105.1	19.74	6.326		

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 Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3C-22H-M268 - 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	5,184.3	5,199.0	5,189.0	11.2	10.5	138.07	-246.7	161.9	127.5	107.4	20.14	6.330		
5,300.0	5,283.9	5,299.0	5,288.7	11.5	10.7	138.03	-252.3	165.7	130.1	109.6	20.55	6.334		
5,400.0	5,383.6	5,399.0	5,388.4	11.7	10.9	138.00	-257.9	169.6	132.8	111.8	20.95	6.338		
5,500.0	5,483.2	5,498.9	5,488.2	11.9	11.1	137.97	-263.5	173.5	135.4	114.0	21.35	6.341		
5,600.0	5,582.9	5,598.9	5,587.9	12.1	11.3	137.94	-269.1	177.3	138.0	116.3	21.75	6.345		
5,700.0	5,682.5	5,698.9	5,687.6	12.4	11.5	137.92	-274.7	181.2	140.7	118.5	22.16	6.348		
5,800.0	5,782.1	5,798.8	5,787.4	12.6	11.7	137.89	-280.3	185.0	143.3	120.7	22.56	6.351		
5,900.0	5,881.8	5,898.8	5,887.1	12.8	11.9	137.86	-285.9	188.9	145.9	123.0	22.96	6.354		
6,000.0	5,981.4	5,998.8	5,986.8	13.1	12.2	137.84	-291.5	192.8	148.6	125.2	23.37	6.357		
6,100.0	6,081.1	6,098.7	6,086.6	13.3	12.4	137.82	-297.1	196.6	151.2	127.4	23.77	6.360		
6,200.0	6,180.7	6,198.7	6,186.3	13.5	12.6	137.79	-302.7	200.5	153.8	129.6	24.17	6.363		
6,300.0	6,280.4	6,298.7	6,286.1	13.7	12.8	137.77	-308.3	204.3	156.5	131.9	24.58	6.366		
6,400.0	6,380.0	6,398.6	6,385.8	14.0	13.0	137.75	-313.9	208.2	159.1	134.1	24.98	6.368		
6,500.0	6,479.6	6,498.6	6,485.5	14.2	13.2	137.73	-319.5	212.1	161.7	136.3	25.38	6.371		
6,600.0	6,579.3	6,598.5	6,585.3	14.4	13.4	137.71	-325.1	215.9	164.3	138.6	25.79	6.373		
6,700.0	6,678.9	6,698.5	6,685.0	14.7	13.6	137.69	-330.7	219.8	167.0	140.8	26.19	6.375		
6,800.0	6,778.6	6,798.9	6,785.2	14.9	13.8	138.14	-334.9	223.7	169.6	143.0	26.53	6.390		
6,900.0	6,878.2	6,897.5	6,883.1	15.1	13.9	143.19	-325.1	227.5	172.4	146.0	26.35	6.541		
7,000.0	6,977.8	6,988.5	6,970.8	15.3	13.9	161.22	-301.3	230.9	179.5	153.7	25.75	6.969		
7,100.0	7,077.4	7,072.9	7,047.8	15.5	13.8	-93.26	-267.1	233.8	193.4	168.3	25.18	7.683		
7,200.0	7,174.6	7,150.0	7,113.0	15.5	13.7	-71.50	-226.2	236.4	211.2	186.4	24.86	8.496		
7,300.0	7,266.5	7,232.1	7,175.8	15.4	13.6	-60.62	-173.5	238.8	230.2	205.6	24.60	9.359		
7,400.0	7,350.3	7,308.1	7,226.8	15.4	13.6	-53.77	-117.1	240.8	248.7	224.5	24.23	10.265		
7,500.0	7,423.5	7,382.6	7,268.9	15.3	13.6	-49.05	-55.9	242.4	265.2	241.5	23.70	11.190		
7,600.0	7,483.8	7,450.0	7,300.0	15.3	13.7	-45.88	3.9	243.6	279.0	256.0	23.07	12.097		
7,700.0	7,529.4	7,528.1	7,327.0	15.5	13.9	-43.61	77.1	244.6	289.3	266.7	22.53	12.838		
7,800.0	7,559.0	7,600.0	7,342.8	15.8	14.3	-42.35	147.2	245.3	295.8	273.6	22.22	13.314		
7,900.0	7,571.6	7,671.3	7,349.7	16.3	14.7	-41.89	218.1	245.5	298.2	276.0	22.29	13.383		
8,000.0	7,572.0	7,763.3	7,350.0	17.0	15.4	-41.89	310.1	245.5	298.2	275.0	23.23	12.836		
8,100.0	7,572.0	7,863.3	7,350.0	17.8	16.3	-41.89	410.1	245.5	298.2	273.7	24.51	12.167		
8,200.0	7,572.0	7,963.3	7,350.0	18.7	17.3	-41.89	510.1	245.5	298.2	272.3	25.94	11.497		
8,300.0	7,572.0	8,063.3	7,350.0	19.8	18.4	-41.89	610.1	245.5	298.2	270.7	27.50	10.846		
8,400.0	7,572.0	8,163.3	7,350.0	20.9	19.6	-41.89	710.1	245.5	298.2	269.1	29.16	10.226		
8,500.0	7,572.0	8,263.3	7,350.0	22.2	20.9	-41.89	810.1	245.5	298.2	267.3	30.92	9.645		
8,600.0	7,572.0	8,363.3	7,350.0	23.5	22.3	-41.89	910.1	245.5	298.2	265.5	32.75	9.105		
8,700.0	7,572.0	8,463.3	7,350.0	24.8	23.7	-41.89	1,010.1	245.5	298.2	263.6	34.65	8.607		
8,800.0	7,572.0	8,563.3	7,350.0	26.2	25.2	-41.89	1,110.1	245.5	298.2	261.6	36.60	8.148		
8,900.0	7,572.0	8,663.3	7,350.0	27.6	26.7	-41.89	1,210.1	245.5	298.2	259.6	38.60	7.727		
9,000.0	7,572.0	8,763.3	7,350.0	29.1	28.2	-41.89	1,310.1	245.5	298.2	257.6	40.63	7.340		
9,100.0	7,572.0	8,863.3	7,350.0	30.6	29.7	-41.89	1,410.1	245.5	298.2	255.5	42.70	6.984		
9,200.0	7,572.0	8,963.3	7,350.0	32.1	31.3	-41.89	1,510.1	245.5	298.2	253.4	44.80	6.657		
9,300.0	7,572.0	9,063.3	7,350.0	33.7	32.9	-41.89	1,610.1	245.5	298.2	251.3	46.92	6.356		
9,400.0	7,572.0	9,163.3	7,350.0	35.3	34.5	-41.89	1,710.1	245.5	298.2	249.2	49.07	6.078		
9,500.0	7,572.0	9,263.3	7,350.0	36.8	36.1	-41.89	1,810.1	245.5	298.2	247.0	51.23	5.821		
9,600.0	7,572.0	9,363.3	7,350.0	38.5	37.7	-41.89	1,910.1	245.5	298.2	244.8	53.41	5.584		
9,700.0	7,572.0	9,463.3	7,350.0	40.1	39.4	-41.89	2,010.1	245.5	298.2	242.6	55.60	5.363		
9,800.0	7,572.0	9,563.3	7,350.0	41.7	41.0	-41.89	2,110.1	245.5	298.2	240.4	57.81	5.158		
9,900.0	7,572.0	9,663.3	7,350.0	43.3	42.7	-41.89	2,210.1	245.5	298.2	238.2	60.03	4.968		
10,000.0	7,572.0	9,763.3	7,350.0	45.0	44.3	-41.89	2,310.1	245.5	298.2	236.0	62.26	4.790		
10,100.0	7,572.0	9,863.3	7,350.0	46.6	46.0	-41.89	2,410.1	245.5	298.2	233.7	64.50	4.624		
10,200.0	7,572.0	9,963.3	7,350.0	48.3	47.7	-41.89	2,510.1	245.5	298.2	231.5	66.75	4.468		
10,300.0	7,572.0	10,063.3	7,350.0	49.9	49.4	-41.89	2,610.1	245.5	298.2	229.2	69.00	4.322		

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 Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3C-22H-M268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
10,400.0	7,572.0	10,163.3	7,350.0	51.6	51.1	-41.89	2,710.1	245.5	298.2	227.0	71.27	4.185		
10,500.0	7,572.0	10,263.3	7,350.0	53.3	52.8	-41.89	2,810.1	245.5	298.2	224.7	73.53	4.056		
10,600.0	7,572.0	10,363.3	7,350.0	55.0	54.5	-41.89	2,910.1	245.5	298.2	222.4	75.81	3.934		
10,700.0	7,572.0	10,463.3	7,350.0	56.7	56.2	-41.89	3,010.1	245.5	298.2	220.1	78.09	3.819		
10,800.0	7,572.0	10,563.3	7,350.0	58.4	57.9	-41.89	3,110.1	245.5	298.2	217.9	80.37	3.711		
10,900.0	7,572.0	10,663.3	7,350.0	60.0	59.6	-41.89	3,210.1	245.5	298.2	215.6	82.66	3.608		
11,000.0	7,572.0	10,763.3	7,350.0	61.7	61.3	-41.89	3,310.1	245.5	298.2	213.3	84.95	3.511		
11,100.0	7,572.0	10,863.3	7,350.0	63.4	63.0	-41.89	3,410.1	245.5	298.2	211.0	87.25	3.418		
11,200.0	7,572.0	10,963.3	7,350.0	65.1	64.7	-41.89	3,510.1	245.5	298.2	208.7	89.54	3.330		
11,300.0	7,572.0	11,063.3	7,350.0	66.8	66.4	-41.89	3,610.1	245.5	298.2	206.4	91.85	3.247		
11,400.0	7,572.0	11,163.3	7,350.0	68.6	68.1	-41.89	3,710.1	245.5	298.2	204.1	94.15	3.167		
11,500.0	7,572.0	11,263.3	7,350.0	70.3	69.9	-41.89	3,810.1	245.5	298.2	201.8	96.46	3.092		
11,600.0	7,572.0	11,363.3	7,350.0	72.0	71.6	-41.89	3,910.1	245.5	298.2	199.5	98.77	3.019		
11,700.0	7,572.0	11,463.3	7,350.0	73.7	73.3	-41.89	4,010.1	245.5	298.2	197.1	101.08	2.950		
11,800.0	7,572.0	11,563.3	7,350.0	75.4	75.0	-41.89	4,110.1	245.5	298.2	194.8	103.40	2.884		
11,900.0	7,572.0	11,663.3	7,350.0	77.1	76.8	-41.89	4,210.1	245.5	298.2	192.5	105.71	2.821		
12,000.0	7,572.0	11,763.3	7,350.0	78.8	78.5	-41.89	4,310.1	245.5	298.2	190.2	108.03	2.761		
12,100.0	7,572.0	11,863.3	7,350.0	80.6	80.2	-41.89	4,410.1	245.5	298.2	187.9	110.35	2.702		
12,200.0	7,572.0	11,963.3	7,350.0	82.3	81.9	-41.89	4,510.1	245.5	298.2	185.5	112.67	2.647		
12,300.0	7,572.0	12,063.3	7,350.0	84.0	83.7	-41.89	4,610.1	245.5	298.2	183.2	115.00	2.593		
12,400.0	7,572.0	12,163.3	7,350.0	85.7	85.4	-41.89	4,710.1	245.5	298.2	180.9	117.32	2.542		
12,500.0	7,572.0	12,263.3	7,350.0	87.5	87.1	-41.89	4,810.1	245.5	298.2	178.6	119.65	2.492		
12,600.0	7,572.0	12,363.3	7,350.0	89.2	88.9	-41.89	4,910.1	245.5	298.2	176.2	121.98	2.445		
12,700.0	7,572.0	12,463.3	7,350.0	90.9	90.6	-41.89	5,010.1	245.5	298.2	173.9	124.30	2.399		
12,800.0	7,572.0	12,563.3	7,350.0	92.7	92.3	-41.89	5,110.1	245.5	298.2	171.6	126.63	2.355		
12,900.0	7,572.0	12,663.3	7,350.0	94.4	94.1	-41.89	5,210.1	245.5	298.2	169.3	128.97	2.312		
13,000.0	7,572.0	12,763.3	7,350.0	96.1	95.8	-41.89	5,310.1	245.5	298.2	166.9	131.30	2.271		
13,100.0	7,572.0	12,863.3	7,350.0	97.8	97.5	-41.89	5,410.1	245.5	298.2	164.6	133.63	2.232		
13,200.0	7,572.0	12,963.3	7,350.0	99.6	99.3	-41.89	5,510.1	245.5	298.2	162.3	135.96	2.193		
13,300.0	7,572.0	13,063.3	7,350.0	101.3	101.0	-41.89	5,610.1	245.5	298.2	159.9	138.30	2.156		
13,400.0	7,572.0	13,163.3	7,350.0	103.0	102.8	-41.89	5,710.1	245.5	298.2	157.6	140.64	2.121		
13,500.0	7,572.0	13,263.3	7,350.0	104.8	104.5	-41.89	5,810.1	245.5	298.2	155.2	142.97	2.086		
13,600.0	7,572.0	13,363.3	7,350.0	106.5	106.2	-41.89	5,910.1	245.5	298.2	152.9	145.31	2.052		
13,605.0	7,572.0	13,368.3	7,350.0	106.6	106.3	-41.89	5,915.1	245.5	298.2	152.8	145.43	2.051		
13,700.0	7,572.0	13,460.8	7,350.0	108.3	107.9	-41.95	6,007.7	245.1	298.5	150.7	147.78	2.020		
13,800.0	7,572.0	13,557.4	7,350.0	110.0	109.6	-42.23	6,104.3	243.1	299.9	149.1	150.83	1.988		
13,900.0	7,572.0	13,653.9	7,350.0	111.7	111.3	-42.74	6,200.7	239.5	302.4	147.9	154.51	1.957		
14,000.0	7,572.0	13,750.3	7,350.0	113.5	113.0	-43.46	6,296.9	234.3	306.1	147.3	158.79	1.928		
14,100.0	7,572.0	13,849.0	7,350.0	115.2	114.7	-44.35	6,395.4	227.7	310.8	147.2	163.59	1.900		
14,200.0	7,572.0	13,948.8	7,350.0	116.9	116.4	-45.22	6,494.9	220.9	315.6	147.1	168.42	1.874		
14,300.0	7,572.0	14,048.5	7,350.0	118.7	118.1	-46.08	6,594.5	214.2	320.4	147.2	173.23	1.850		
14,400.0	7,572.0	14,148.3	7,350.0	120.4	119.9	-46.90	6,694.0	207.4	325.3	147.3	178.00	1.828		
14,500.0	7,572.0	14,248.1	7,350.0	122.2	121.6	-47.70	6,793.5	200.7	330.3	147.6	182.75	1.807		
14,600.0	7,572.0	14,347.9	7,350.0	123.9	123.3	-48.48	6,893.1	193.9	335.3	147.9	187.46	1.789		
14,700.0	7,572.0	14,447.6	7,350.0	125.6	125.1	-49.24	6,992.6	187.2	340.4	148.3	192.14	1.772		
14,800.0	7,572.0	14,547.4	7,350.0	127.4	126.8	-49.97	7,092.2	180.4	345.6	148.8	196.79	1.756		
14,900.0	7,572.0	14,647.2	7,350.0	129.1	128.5	-50.68	7,191.7	173.6	350.8	149.4	201.41	1.742		
15,000.0	7,572.0	14,746.9	7,350.0	130.9	130.3	-51.37	7,291.2	166.9	356.1	150.1	206.00	1.729		
15,100.0	7,572.0	14,846.7	7,350.0	132.6	132.0	-52.04	7,390.8	160.1	361.4	150.9	210.56	1.716		
15,200.0	7,572.0	14,946.5	7,350.0	134.3	133.7	-52.69	7,490.3	153.4	366.8	151.7	215.09	1.705		
15,292.5	7,572.0	15,038.7	7,350.0	136.0	135.3	-53.27	7,582.4	147.1	371.8	152.5	219.25	1.696 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 Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3E-22H-N268 - 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	
6,200.0	6,180.7	6,276.5	6,249.6	13.5	14.8	-37.45	-321.2	846.2	494.7	471.3	23.42	21.127	
6,300.0	6,280.4	6,375.3	6,347.9	13.7	15.0	-37.59	-324.7	837.3	479.2	455.4	23.80	20.137	
6,400.0	6,380.0	6,474.0	6,446.2	14.0	15.2	-37.74	-328.1	828.4	463.6	439.4	24.17	19.178	
6,500.0	6,479.6	6,572.8	6,544.5	14.2	15.5	-37.90	-331.6	819.4	448.1	423.5	24.55	18.249	
6,600.0	6,579.3	6,671.6	6,642.8	14.4	15.7	-38.08	-335.1	810.5	432.5	407.6	24.93	17.348	
6,700.0	6,678.9	6,770.4	6,741.1	14.7	16.0	-38.26	-338.6	801.6	417.0	391.7	25.31	16.474	
6,800.0	6,778.6	6,870.3	6,840.5	14.9	16.2	-38.91	-339.0	792.5	401.4	375.7	25.66	15.643	
6,900.0	6,878.2	6,967.0	6,935.6	15.1	16.3	-41.86	-324.3	783.9	385.9	360.0	25.93	14.884	
7,000.0	6,977.8	7,054.9	7,018.8	15.3	16.4	-37.90	-297.2	776.3	373.2	346.9	26.26	14.211	
7,100.0	7,077.4	7,136.0	7,091.0	15.5	16.5	52.88	-261.1	769.8	365.1	338.6	26.54	13.754	
7,200.0	7,174.6	7,213.8	7,154.9	15.5	16.6	62.17	-217.2	764.0	361.0	334.3	26.74	13.500	
7,276.6	7,245.7	7,271.7	7,198.3	15.5	16.6	62.38	-179.1	760.0	360.2	333.4	26.79	13.448 CC	
7,300.0	7,266.5	7,289.1	7,210.6	15.4	16.7	62.11	-166.8	758.9	360.3	333.5	26.78	13.454	
7,400.0	7,350.3	7,362.6	7,258.1	15.4	16.8	60.25	-111.0	754.6	361.9	335.3	26.56	13.625	
7,500.0	7,423.5	7,434.6	7,297.4	15.3	17.0	58.08	-50.7	751.0	364.8	338.7	26.13	13.962	
7,600.0	7,483.8	7,500.0	7,326.3	15.3	17.2	56.26	7.8	748.4	368.3	342.8	25.54	14.420	
7,700.0	7,529.4	7,575.9	7,351.2	15.5	17.6	54.55	79.4	746.1	371.4	346.3	25.10	14.795	
7,800.0	7,559.0	7,650.0	7,366.3	15.8	18.0	53.49	151.9	744.8	373.6	348.7	24.98	14.957	
7,900.0	7,571.6	7,715.3	7,371.8	16.3	18.4	53.11	217.0	744.2	374.6	349.3	25.35	14.779	
8,000.0	7,572.0	7,808.5	7,372.0	17.0	19.2	53.09	310.1	744.2	374.6	348.0	26.63	14.071	
8,100.0	7,572.0	7,908.5	7,372.0	17.8	20.1	53.09	410.1	744.2	374.6	346.4	28.23	13.269	
8,200.0	7,572.0	8,008.5	7,372.0	18.7	21.1	53.09	510.1	744.2	374.6	344.6	30.02	12.479	
8,300.0	7,572.0	8,108.5	7,372.0	19.8	22.2	53.09	610.1	744.2	374.6	342.7	31.95	11.724	
8,400.0	7,572.0	8,208.5	7,372.0	20.9	23.3	53.09	710.1	744.2	374.6	340.6	34.01	11.015	
8,500.0	7,572.0	8,308.5	7,372.0	22.2	24.6	53.09	810.1	744.2	374.6	338.5	36.17	10.357	
8,600.0	7,572.0	8,408.5	7,372.0	23.5	25.9	53.09	910.1	744.2	374.6	336.2	38.41	9.752	
8,700.0	7,572.0	8,508.5	7,372.0	24.8	27.3	53.09	1,010.1	744.2	374.6	333.9	40.73	9.198	
8,800.0	7,572.0	8,608.5	7,372.0	26.2	28.7	53.09	1,110.1	744.2	374.6	331.5	43.10	8.691	
8,900.0	7,572.0	8,708.5	7,372.0	27.6	30.1	53.08	1,210.1	744.2	374.6	329.1	45.53	8.228	
9,000.0	7,572.0	8,808.5	7,372.0	29.1	31.6	53.08	1,310.1	744.2	374.6	326.6	47.99	7.805	
9,100.0	7,572.0	8,908.5	7,372.0	30.6	33.1	53.08	1,410.1	744.2	374.6	324.1	50.50	7.418	
9,200.0	7,572.0	9,008.5	7,372.0	32.1	34.6	53.08	1,510.1	744.2	374.6	321.6	53.03	7.063	
9,300.0	7,572.0	9,108.5	7,372.0	33.7	36.1	53.08	1,610.1	744.2	374.6	319.0	55.59	6.738	
9,400.0	7,572.0	9,208.5	7,372.0	35.3	37.7	53.08	1,710.1	744.1	374.6	316.4	58.18	6.438	
9,500.0	7,572.0	9,308.5	7,372.0	36.8	39.3	53.08	1,810.1	744.1	374.6	313.8	60.78	6.162	
9,600.0	7,572.0	9,408.5	7,372.0	38.5	40.9	53.08	1,910.1	744.1	374.6	311.2	63.41	5.907	
9,700.0	7,572.0	9,508.5	7,372.0	40.1	42.5	53.08	2,010.1	744.1	374.6	308.5	66.05	5.671	
9,800.0	7,572.0	9,608.5	7,372.0	41.7	44.1	53.08	2,110.1	744.1	374.6	305.9	68.70	5.452	
9,900.0	7,572.0	9,708.5	7,372.0	43.3	45.7	53.08	2,210.1	744.1	374.6	303.2	71.36	5.249	
10,000.0	7,572.0	9,808.5	7,372.0	45.0	47.3	53.08	2,310.1	744.1	374.6	300.5	74.04	5.059	
10,100.0	7,572.0	9,908.5	7,372.0	46.6	49.0	53.08	2,410.1	744.1	374.6	297.8	76.73	4.882	
10,200.0	7,572.0	10,008.5	7,372.0	48.3	50.6	53.08	2,510.1	744.1	374.5	295.1	79.42	4.716	
10,300.0	7,572.0	10,108.5	7,372.0	49.9	52.3	53.08	2,610.1	744.1	374.5	292.4	82.12	4.561	
10,400.0	7,572.0	10,208.5	7,372.0	51.6	54.0	53.08	2,710.1	744.1	374.5	289.7	84.83	4.415	
10,500.0	7,572.0	10,308.5	7,372.0	53.3	55.6	53.08	2,810.1	744.1	374.5	287.0	87.55	4.278	
10,600.0	7,572.0	10,408.5	7,372.0	55.0	57.3	53.08	2,910.1	744.1	374.5	284.3	90.27	4.149	
10,700.0	7,572.0	10,508.5	7,372.0	56.7	59.0	53.08	3,010.1	744.1	374.5	281.5	93.00	4.027	
10,800.0	7,572.0	10,608.5	7,372.0	58.4	60.7	53.08	3,110.1	744.1	374.5	278.8	95.73	3.912	
10,900.0	7,572.0	10,708.5	7,372.0	60.0	62.3	53.07	3,210.1	744.1	374.5	276.0	98.47	3.803	
11,000.0	7,572.0	10,808.5	7,372.0	61.7	64.0	53.07	3,310.1	744.1	374.5	273.3	101.21	3.700	
11,100.0	7,572.0	10,908.5	7,372.0	63.4	65.7	53.07	3,410.1	744.1	374.5	270.6	103.96	3.603	
11,200.0	7,572.0	11,008.5	7,372.0	65.1	67.4	53.07	3,510.1	744.0	374.5	267.8	106.71	3.510	

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 Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3E-22H-N268 - 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)				Between Centres (ft)	Between Ellipses (ft)	
11,300.0	7,572.0	11,108.5	7,372.0	66.8	69.1	53.07	3,610.1	744.0	374.5	265.0	109.46	3.421		
11,400.0	7,572.0	11,208.5	7,372.0	68.6	70.8	53.07	3,710.1	744.0	374.5	262.3	112.21	3.337		
11,500.0	7,572.0	11,308.5	7,372.0	70.3	72.5	53.07	3,810.1	744.0	374.5	259.5	114.97	3.257		
11,600.0	7,572.0	11,408.5	7,372.0	72.0	74.2	53.07	3,910.1	744.0	374.5	256.8	117.73	3.181		
11,700.0	7,572.0	11,508.5	7,372.0	73.7	76.0	53.07	4,010.1	744.0	374.5	254.0	120.49	3.108		
11,800.0	7,572.0	11,608.5	7,372.0	75.4	77.7	53.07	4,110.1	744.0	374.5	251.2	123.26	3.038		
11,900.0	7,572.0	11,708.5	7,372.0	77.1	79.4	53.07	4,210.1	744.0	374.5	248.4	126.03	2.971		
12,000.0	7,572.0	11,808.5	7,372.0	78.8	81.1	53.07	4,310.1	744.0	374.5	245.7	128.80	2.907		
12,100.0	7,572.0	11,908.5	7,372.0	80.6	82.8	53.07	4,410.1	744.0	374.5	242.9	131.57	2.846		
12,200.0	7,572.0	12,008.5	7,372.0	82.3	84.5	53.07	4,510.1	744.0	374.5	240.1	134.34	2.787		
12,300.0	7,572.0	12,108.5	7,372.0	84.0	86.2	53.07	4,610.1	744.0	374.5	237.3	137.11	2.731		
12,400.0	7,572.0	12,208.5	7,372.0	85.7	88.0	53.07	4,710.1	744.0	374.5	234.6	139.89	2.677		
12,500.0	7,572.0	12,308.5	7,372.0	87.5	89.7	53.07	4,810.1	744.0	374.4	231.8	142.67	2.625		
12,600.0	7,572.0	12,408.5	7,372.0	89.2	91.4	53.07	4,910.1	744.0	374.4	229.0	145.45	2.574		
12,700.0	7,572.0	12,508.5	7,372.0	90.9	93.1	53.07	5,010.1	744.0	374.4	226.2	148.23	2.526		
12,800.0	7,572.0	12,608.5	7,372.0	92.7	94.9	53.07	5,110.1	744.0	374.4	223.4	151.01	2.480		
12,900.0	7,572.0	12,708.5	7,372.0	94.4	96.6	53.06	5,210.1	744.0	374.4	220.6	153.79	2.435		
13,000.0	7,572.0	12,808.5	7,372.0	96.1	98.3	53.06	5,310.1	743.9	374.4	217.9	156.57	2.391		
13,100.0	7,572.0	12,908.5	7,372.0	97.8	100.0	53.06	5,410.1	743.9	374.4	215.1	159.36	2.350		
13,200.0	7,572.0	13,008.5	7,372.0	99.6	101.8	53.06	5,510.1	743.9	374.4	212.3	162.14	2.309		
13,300.0	7,572.0	13,108.5	7,372.0	101.3	103.5	53.06	5,610.1	743.9	374.4	209.5	164.93	2.270		
13,400.0	7,572.0	13,208.5	7,372.0	103.0	105.2	53.06	5,710.1	743.9	374.4	206.7	167.71	2.232		
13,500.0	7,572.0	13,308.5	7,372.0	104.8	107.0	53.06	5,810.1	743.9	374.4	203.9	170.50	2.196		
13,600.0	7,572.0	13,408.5	7,372.0	106.5	108.7	53.06	5,910.1	743.9	374.4	201.1	173.29	2.161		
13,700.0	7,572.0	13,508.5	7,372.0	108.3	110.4	53.06	6,010.1	743.9	374.4	198.3	176.08	2.126		
13,800.0	7,572.0	13,608.5	7,372.0	110.0	112.2	53.06	6,110.1	743.9	374.4	195.5	178.87	2.093		
13,900.0	7,572.0	13,708.5	7,372.0	111.7	113.9	53.06	6,210.1	743.9	374.4	192.7	181.66	2.061		
14,000.0	7,572.0	13,808.5	7,372.0	113.5	115.6	53.06	6,310.1	743.9	374.4	189.9	184.45	2.030		
14,100.0	7,572.0	13,908.5	7,372.0	115.2	117.4	53.06	6,410.1	743.9	374.4	187.1	187.24	1.999		
14,200.0	7,572.0	14,008.5	7,372.0	116.9	119.1	53.06	6,510.1	743.9	374.4	184.3	190.04	1.970		
14,300.0	7,572.0	14,108.5	7,372.0	118.7	120.8	53.06	6,610.1	743.9	374.4	181.5	192.83	1.941		
14,400.0	7,572.0	14,208.5	7,372.0	120.4	122.6	53.06	6,710.1	743.9	374.4	178.7	195.62	1.914		
14,500.0	7,572.0	14,308.5	7,372.0	122.2	124.3	53.06	6,810.1	743.9	374.4	175.9	198.42	1.887		
14,600.0	7,572.0	14,408.5	7,372.0	123.9	126.1	53.06	6,910.1	743.9	374.4	173.1	201.21	1.861		
14,700.0	7,572.0	14,508.5	7,372.0	125.6	127.8	53.06	7,010.1	743.9	374.4	170.3	204.01	1.835		
14,800.0	7,572.0	14,608.5	7,372.0	127.4	129.5	53.05	7,110.1	743.8	374.3	167.5	206.80	1.810		
14,900.0	7,572.0	14,708.5	7,372.0	129.1	131.3	53.05	7,210.1	743.8	374.3	164.7	209.60	1.786		
15,000.0	7,572.0	14,808.5	7,372.0	130.9	133.0	53.05	7,310.1	743.8	374.3	161.9	212.39	1.762		
15,100.0	7,572.0	14,908.5	7,372.0	132.6	134.8	53.05	7,410.1	743.8	374.3	159.1	215.19	1.740		
15,200.0	7,572.0	15,008.5	7,372.0	134.3	136.5	53.05	7,510.1	743.8	374.3	156.3	217.99	1.717		
15,292.5	7,572.0	15,100.9	7,372.0	136.0	138.1	53.05	7,602.6	743.8	374.3	153.8	220.57	1.697 ES, SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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													S22-T2N-R68W (Jillson-East Rinn) - NYGREN 12-22 (EXISTING) - KERR-MCGEE WELL - NO SURVE		Offset Site Error:		0.0 ft
Survey Program:													7710-Geolink MWD		Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor					
9,000.0	7,572.0	7,517.0	7,517.0	29.1	13.1	-90.00	1,617.4	55.8	495.7	454.5	41.16	12.041					
9,100.0	7,572.0	7,517.0	7,517.0	30.6	13.1	-90.00	1,617.4	55.8	440.7	398.0	42.72	10.316					
9,200.0	7,572.0	7,517.0	7,517.0	32.1	13.1	-90.00	1,617.4	55.8	403.4	359.1	44.30	9.107					
9,300.0	7,572.0	7,517.0	7,517.0	33.7	13.1	-90.00	1,617.4	55.8	389.0	343.1	45.90	8.475					
9,307.3	7,572.0	7,517.0	7,517.0	33.8	13.1	-90.00	1,617.4	55.8	388.9	342.9	46.01	8.452 CC, ES					
9,400.0	7,572.0	7,517.0	7,517.0	35.3	13.1	-90.00	1,617.4	55.8	399.8	352.3	47.51	8.415 SF					
9,500.0	7,572.0	7,517.0	7,517.0	36.8	13.1	-90.00	1,617.4	55.8	434.0	384.9	49.13	8.833					
9,600.0	7,572.0	7,517.0	7,517.0	38.5	13.1	-90.00	1,617.4	55.8	486.7	435.9	50.77	9.587					

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Jillson-East Rinn 3D-22H-M268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Jillson-East Rinn 3D-22H-M268	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 WELL @ 4975.0ft (Original Well Elev)

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Jillson-East Rinn 3D-22H-M268

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.33°

