



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site:	S29-T1N-R68W (Pratt/Waste Connections)	North Reference:	True
Well:	Pratt 4B-29H-P168	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	S29-T1N-R68W (Pratt/Waste Connections)				
Site Position:		Northing:	1,249,256.24 ft	Latitude:	40.016600
From:	Lat/Long	Easting:	3,133,726.79 ft	Longitude:	-105.022570
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.31 °

Well	Pratt 4B-29H-P168					
Well Position	+N/-S	0.0 ft	Northing:	1,249,256.31 ft	Latitude:	40.016600
	+E/-W	0.0 ft	Easting:	3,133,738.00 ft	Longitude:	-105.022530
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,176.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/23/2013	8.71	66.63	52,695

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	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,360.4	10.60	235.80	1,354.3	-55.0	-80.9	1.00	1.00	0.00	235.80	
7,073.8	10.60	235.80	6,970.2	-646.0	-950.4	0.00	0.00	0.00	0.00	
8,033.2	90.00	0.00	7,595.0	-76.1	-1,047.2	10.00	8.28	12.95	123.75	
16,768.2	90.00	0.00	7,595.0	8,658.9	-1,047.2	0.00	0.00	0.00	0.00	Pratt 4B-29H-P168 PI

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Site:	S29-T1N-R68W (Pratt/Waste Connections)	North Reference:	True
Well:	Pratt 4B-29H-P168	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	KOP @ 300'
400.0	1.00	235.80	400.0	-0.5	-0.7	-0.5	1.00	1.00	
500.0	2.00	235.80	500.0	-2.0	-2.9	-2.0	1.00	1.00	
600.0	3.00	235.80	599.9	-4.4	-6.5	-4.4	1.00	1.00	
700.0	4.00	235.80	699.7	-7.8	-11.5	-7.8	1.00	1.00	
789.6	4.90	235.80	789.0	-11.8	-17.3	-11.8	1.00	1.00	Fox Hills - BASE
800.0	5.00	235.80	799.4	-12.3	-18.0	-12.3	1.00	1.00	
900.0	6.00	235.80	898.9	-17.6	-26.0	-17.6	1.00	1.00	
1,000.0	7.00	235.80	998.3	-24.0	-35.3	-24.0	1.00	1.00	
1,100.0	8.00	235.80	1,097.4	-31.3	-46.1	-31.3	1.00	1.00	
1,200.0	9.00	235.80	1,196.3	-39.7	-58.3	-39.7	1.00	1.00	
1,300.0	10.00	235.80	1,294.9	-48.9	-72.0	-48.9	1.00	1.00	
1,360.4	10.60	235.80	1,354.3	-55.0	-80.9	-55.0	1.00	1.00	EOB; Inc=10.6°
1,400.0	10.60	235.80	1,393.3	-59.1	-86.9	-59.1	0.00	0.00	
1,500.0	10.60	235.80	1,491.6	-69.4	-102.2	-69.4	0.00	0.00	
1,600.0	10.60	235.80	1,589.9	-79.8	-117.4	-79.8	0.00	0.00	
1,700.0	10.60	235.80	1,688.2	-90.1	-132.6	-90.1	0.00	0.00	
1,800.0	10.60	235.80	1,786.5	-100.5	-147.8	-100.5	0.00	0.00	
1,900.0	10.60	235.80	1,884.7	-110.8	-163.0	-110.8	0.00	0.00	
2,000.0	10.60	235.80	1,983.0	-121.2	-178.3	-121.2	0.00	0.00	
2,100.0	10.60	235.80	2,081.3	-131.5	-193.5	-131.5	0.00	0.00	
2,200.0	10.60	235.80	2,179.6	-141.9	-208.7	-141.9	0.00	0.00	
2,300.0	10.60	235.80	2,277.9	-152.2	-223.9	-152.2	0.00	0.00	
2,400.0	10.60	235.80	2,376.2	-162.5	-239.1	-162.5	0.00	0.00	
2,500.0	10.60	235.80	2,474.5	-172.9	-254.4	-172.9	0.00	0.00	
2,600.0	10.60	235.80	2,572.8	-183.2	-269.6	-183.2	0.00	0.00	
2,700.0	10.60	235.80	2,671.1	-193.6	-284.8	-193.6	0.00	0.00	
2,800.0	10.60	235.80	2,769.4	-203.9	-300.0	-203.9	0.00	0.00	
2,900.0	10.60	235.80	2,867.7	-214.3	-315.2	-214.3	0.00	0.00	
3,000.0	10.60	235.80	2,966.0	-224.6	-330.4	-224.6	0.00	0.00	
3,100.0	10.60	235.80	3,064.3	-235.0	-345.7	-235.0	0.00	0.00	
3,200.0	10.60	235.80	3,162.5	-245.3	-360.9	-245.3	0.00	0.00	
3,300.0	10.60	235.80	3,260.8	-255.6	-376.1	-255.6	0.00	0.00	
3,400.0	10.60	235.80	3,359.1	-266.0	-391.3	-266.0	0.00	0.00	
3,500.0	10.60	235.80	3,457.4	-276.3	-406.5	-276.3	0.00	0.00	
3,600.0	10.60	235.80	3,555.7	-286.7	-421.8	-286.7	0.00	0.00	
3,700.0	10.60	235.80	3,654.0	-297.0	-437.0	-297.0	0.00	0.00	
3,800.0	10.60	235.80	3,752.3	-307.4	-452.2	-307.4	0.00	0.00	
3,900.0	10.60	235.80	3,850.6	-317.7	-467.4	-317.7	0.00	0.00	
4,000.0	10.60	235.80	3,948.9	-328.1	-482.6	-328.1	0.00	0.00	
4,100.0	10.60	235.80	4,047.2	-338.4	-497.8	-338.4	0.00	0.00	
4,200.0	10.60	235.80	4,145.5	-348.7	-513.1	-348.7	0.00	0.00	
4,300.0	10.60	235.80	4,243.8	-359.1	-528.3	-359.1	0.00	0.00	
4,400.0	10.60	235.80	4,342.1	-369.4	-543.5	-369.4	0.00	0.00	
4,500.0	10.60	235.80	4,440.3	-379.8	-558.7	-379.8	0.00	0.00	
4,600.0	10.60	235.80	4,538.6	-390.1	-573.9	-390.1	0.00	0.00	
4,700.0	10.60	235.80	4,636.9	-400.5	-589.2	-400.5	0.00	0.00	
4,800.0	10.60	235.80	4,735.2	-410.8	-604.4	-410.8	0.00	0.00	
4,831.3	10.60	235.80	4,766.0	-414.0	-609.1	-414.0	0.00	0.00	Sussex

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Well:	Pratt 4B-29H-P168	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
4,900.0	10.60	235.80	4,833.5	-421.2	-619.6	-421.2	0.00	0.00	
5,000.0	10.60	235.80	4,931.8	-431.5	-634.8	-431.5	0.00	0.00	
5,100.0	10.60	235.80	5,030.1	-441.8	-650.0	-441.8	0.00	0.00	
5,149.8	10.60	235.80	5,079.0	-447.0	-657.6	-447.0	0.00	0.00	Sussex Marker
5,200.0	10.60	235.80	5,128.4	-452.2	-665.3	-452.2	0.00	0.00	
5,300.0	10.60	235.80	5,226.7	-462.5	-680.5	-462.5	0.00	0.00	
5,400.0	10.60	235.80	5,325.0	-472.9	-695.7	-472.9	0.00	0.00	
5,500.0	10.60	235.80	5,423.3	-483.2	-710.9	-483.2	0.00	0.00	
5,520.1	10.60	235.80	5,443.0	-485.3	-714.0	-485.3	0.00	0.00	Shannon
5,600.0	10.60	235.80	5,521.6	-493.6	-726.1	-493.6	0.00	0.00	
5,700.0	10.60	235.80	5,619.9	-503.9	-741.3	-503.9	0.00	0.00	
5,800.0	10.60	235.80	5,718.1	-514.2	-756.6	-514.2	0.00	0.00	
5,900.0	10.60	235.80	5,816.4	-524.6	-771.8	-524.6	0.00	0.00	
6,000.0	10.60	235.80	5,914.7	-534.9	-787.0	-534.9	0.00	0.00	
6,100.0	10.60	235.80	6,013.0	-545.3	-802.2	-545.3	0.00	0.00	
6,200.0	10.60	235.80	6,111.3	-555.6	-817.4	-555.6	0.00	0.00	
6,300.0	10.60	235.80	6,209.6	-566.0	-832.7	-566.0	0.00	0.00	
6,400.0	10.60	235.80	6,307.9	-576.3	-847.9	-576.3	0.00	0.00	
6,500.0	10.60	235.80	6,406.2	-586.7	-863.1	-586.7	0.00	0.00	
6,595.4	10.60	235.80	6,500.0	-596.5	-877.6	-596.5	0.00	0.00	Teepee Buttes (*if present)
6,600.0	10.60	235.80	6,504.5	-597.0	-878.3	-597.0	0.00	0.00	
6,700.0	10.60	235.80	6,602.8	-607.3	-893.5	-607.3	0.00	0.00	
6,800.0	10.60	235.80	6,701.1	-617.7	-908.7	-617.7	0.00	0.00	
6,900.0	10.60	235.80	6,799.4	-628.0	-924.0	-628.0	0.00	0.00	
7,000.0	10.60	235.80	6,897.7	-638.4	-939.2	-638.4	0.00	0.00	
7,073.8	10.60	235.80	6,970.2	-646.0	-950.4	-646.0	0.00	0.00	Start build/turn @ 7073' MD
7,100.0	9.40	249.24	6,996.0	-648.1	-954.4	-648.1	10.00	-4.59	
7,200.0	11.03	307.43	7,094.7	-645.2	-969.7	-645.2	10.00	1.63	
7,300.0	18.80	332.95	7,191.3	-625.0	-984.7	-625.0	10.00	7.77	
7,400.0	27.99	343.07	7,283.0	-588.1	-998.9	-588.1	10.00	9.19	
7,500.0	37.58	348.39	7,367.0	-535.6	-1,011.9	-535.6	10.00	9.58	
7,600.0	47.31	351.79	7,440.7	-469.2	-1,023.3	-469.2	10.00	9.74	
7,700.0	57.12	354.26	7,501.9	-390.9	-1,032.7	-390.9	10.00	9.81	
7,795.6	66.53	356.15	7,547.0	-307.0	-1,039.7	-307.0	10.00	9.85	Sharon Springs
7,800.0	66.97	356.23	7,548.7	-302.9	-1,040.0	-302.9	10.00	9.86	
7,900.0	76.84	357.93	7,579.8	-208.1	-1,044.8	-208.1	10.00	9.87	
7,901.0	76.94	357.94	7,580.0	-207.1	-1,044.8	-207.1	10.00	9.88	Niobrara
8,000.0	86.72	359.49	7,594.0	-109.3	-1,047.0	-109.3	10.00	9.88	
8,033.2	90.00	0.00	7,595.0	-76.1	-1,047.2	-76.1	10.00	9.88	LP @ 7595' TVD; 90°
8,100.0	90.00	0.00	7,595.0	-9.3	-1,047.2	-9.3	0.00	0.00	
8,200.0	90.00	0.00	7,595.0	90.7	-1,047.2	90.7	0.00	0.00	
8,300.0	90.00	0.00	7,595.0	190.7	-1,047.2	190.7	0.00	0.00	
8,400.0	90.00	0.00	7,595.0	290.7	-1,047.2	290.7	0.00	0.00	
8,500.0	90.00	0.00	7,595.0	390.7	-1,047.2	390.7	0.00	0.00	
8,600.0	90.00	0.00	7,595.0	490.7	-1,047.2	490.7	0.00	0.00	
8,700.0	90.00	0.00	7,595.0	590.7	-1,047.2	590.7	0.00	0.00	
8,800.0	90.00	0.00	7,595.0	690.7	-1,047.2	690.7	0.00	0.00	
8,900.0	90.00	0.00	7,595.0	790.7	-1,047.2	790.7	0.00	0.00	
9,000.0	90.00	0.00	7,595.0	890.7	-1,047.2	890.7	0.00	0.00	
9,100.0	90.00	0.00	7,595.0	990.7	-1,047.2	990.7	0.00	0.00	
9,200.0	90.00	0.00	7,595.0	1,090.7	-1,047.2	1,090.7	0.00	0.00	
9,300.0	90.00	0.00	7,595.0	1,190.7	-1,047.2	1,190.7	0.00	0.00	

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Project:	DJ Wattenberg	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
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Well:	Pratt 4B-29H-P168	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
9,400.0	90.00	0.00	7,595.0	1,290.7	-1,047.2	1,290.7	0.00	0.00	
9,500.0	90.00	0.00	7,595.0	1,390.7	-1,047.2	1,390.7	0.00	0.00	
9,600.0	90.00	0.00	7,595.0	1,490.7	-1,047.2	1,490.7	0.00	0.00	
9,700.0	90.00	0.00	7,595.0	1,590.7	-1,047.2	1,590.7	0.00	0.00	
9,800.0	90.00	0.00	7,595.0	1,690.7	-1,047.2	1,690.7	0.00	0.00	
9,900.0	90.00	0.00	7,595.0	1,790.7	-1,047.2	1,790.7	0.00	0.00	
10,000.0	90.00	0.00	7,595.0	1,890.7	-1,047.2	1,890.7	0.00	0.00	
10,100.0	90.00	0.00	7,595.0	1,990.7	-1,047.2	1,990.7	0.00	0.00	
10,200.0	90.00	0.00	7,595.0	2,090.7	-1,047.2	2,090.7	0.00	0.00	
10,300.0	90.00	0.00	7,595.0	2,190.7	-1,047.2	2,190.7	0.00	0.00	
10,400.0	90.00	0.00	7,595.0	2,290.7	-1,047.2	2,290.7	0.00	0.00	
10,500.0	90.00	0.00	7,595.0	2,390.7	-1,047.2	2,390.7	0.00	0.00	
10,600.0	90.00	0.00	7,595.0	2,490.7	-1,047.2	2,490.7	0.00	0.00	
10,700.0	90.00	0.00	7,595.0	2,590.7	-1,047.2	2,590.7	0.00	0.00	
10,800.0	90.00	0.00	7,595.0	2,690.7	-1,047.2	2,690.7	0.00	0.00	
10,900.0	90.00	0.00	7,595.0	2,790.7	-1,047.2	2,790.7	0.00	0.00	
11,000.0	90.00	0.00	7,595.0	2,890.7	-1,047.2	2,890.7	0.00	0.00	
11,100.0	90.00	0.00	7,595.0	2,990.7	-1,047.2	2,990.7	0.00	0.00	
11,200.0	90.00	0.00	7,595.0	3,090.7	-1,047.2	3,090.7	0.00	0.00	
11,300.0	90.00	0.00	7,595.0	3,190.7	-1,047.2	3,190.7	0.00	0.00	
11,400.0	90.00	0.00	7,595.0	3,290.7	-1,047.2	3,290.7	0.00	0.00	
11,500.0	90.00	0.00	7,595.0	3,390.7	-1,047.2	3,390.7	0.00	0.00	
11,600.0	90.00	0.00	7,595.0	3,490.7	-1,047.2	3,490.7	0.00	0.00	
11,700.0	90.00	0.00	7,595.0	3,590.7	-1,047.2	3,590.7	0.00	0.00	
11,800.0	90.00	0.00	7,595.0	3,690.7	-1,047.2	3,690.7	0.00	0.00	
11,900.0	90.00	0.00	7,595.0	3,790.7	-1,047.2	3,790.7	0.00	0.00	
12,000.0	90.00	0.00	7,595.0	3,890.7	-1,047.2	3,890.7	0.00	0.00	
12,100.0	90.00	0.00	7,595.0	3,990.7	-1,047.2	3,990.7	0.00	0.00	
12,200.0	90.00	0.00	7,595.0	4,090.7	-1,047.2	4,090.7	0.00	0.00	
12,300.0	90.00	0.00	7,595.0	4,190.7	-1,047.2	4,190.7	0.00	0.00	
12,400.0	90.00	0.00	7,595.0	4,290.7	-1,047.2	4,290.7	0.00	0.00	
12,500.0	90.00	0.00	7,595.0	4,390.7	-1,047.2	4,390.7	0.00	0.00	
12,600.0	90.00	0.00	7,595.0	4,490.7	-1,047.2	4,490.7	0.00	0.00	
12,700.0	90.00	0.00	7,595.0	4,590.7	-1,047.2	4,590.7	0.00	0.00	
12,800.0	90.00	0.00	7,595.0	4,690.7	-1,047.2	4,690.7	0.00	0.00	
12,900.0	90.00	0.00	7,595.0	4,790.7	-1,047.2	4,790.7	0.00	0.00	
13,000.0	90.00	0.00	7,595.0	4,890.7	-1,047.2	4,890.7	0.00	0.00	
13,100.0	90.00	0.00	7,595.0	4,990.7	-1,047.2	4,990.7	0.00	0.00	
13,200.0	90.00	0.00	7,595.0	5,090.7	-1,047.2	5,090.7	0.00	0.00	
13,300.0	90.00	0.00	7,595.0	5,190.7	-1,047.2	5,190.7	0.00	0.00	
13,400.0	90.00	0.00	7,595.0	5,290.7	-1,047.2	5,290.7	0.00	0.00	
13,500.0	90.00	0.00	7,595.0	5,390.7	-1,047.2	5,390.7	0.00	0.00	
13,600.0	90.00	0.00	7,595.0	5,490.7	-1,047.2	5,490.7	0.00	0.00	
13,700.0	90.00	0.00	7,595.0	5,590.7	-1,047.2	5,590.7	0.00	0.00	
13,800.0	90.00	0.00	7,595.0	5,690.7	-1,047.2	5,690.7	0.00	0.00	
13,900.0	90.00	0.00	7,595.0	5,790.7	-1,047.2	5,790.7	0.00	0.00	
14,000.0	90.00	0.00	7,595.0	5,890.7	-1,047.2	5,890.7	0.00	0.00	
14,100.0	90.00	0.00	7,595.0	5,990.7	-1,047.2	5,990.7	0.00	0.00	
14,200.0	90.00	0.00	7,595.0	6,090.7	-1,047.2	6,090.7	0.00	0.00	
14,300.0	90.00	0.00	7,595.0	6,190.7	-1,047.2	6,190.7	0.00	0.00	
14,400.0	90.00	0.00	7,595.0	6,290.7	-1,047.2	6,290.7	0.00	0.00	
14,500.0	90.00	0.00	7,595.0	6,390.7	-1,047.2	6,390.7	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site:	S29-T1N-R68W (Pratt/Waste Connections)	North Reference:	True
Well:	Pratt 4B-29H-P168	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
14,600.0	90.00	0.00	7,595.0	6,490.7	-1,047.2	6,490.7	0.00	0.00	
14,700.0	90.00	0.00	7,595.0	6,590.7	-1,047.2	6,590.7	0.00	0.00	
14,800.0	90.00	0.00	7,595.0	6,690.7	-1,047.2	6,690.7	0.00	0.00	
14,900.0	90.00	0.00	7,595.0	6,790.7	-1,047.2	6,790.7	0.00	0.00	
15,000.0	90.00	0.00	7,595.0	6,890.7	-1,047.2	6,890.7	0.00	0.00	
15,100.0	90.00	0.00	7,595.0	6,990.7	-1,047.2	6,990.7	0.00	0.00	
15,200.0	90.00	0.00	7,595.0	7,090.7	-1,047.2	7,090.7	0.00	0.00	
15,300.0	90.00	0.00	7,595.0	7,190.7	-1,047.2	7,190.7	0.00	0.00	
15,400.0	90.00	0.00	7,595.0	7,290.7	-1,047.2	7,290.7	0.00	0.00	
15,500.0	90.00	0.00	7,595.0	7,390.7	-1,047.2	7,390.7	0.00	0.00	
15,600.0	90.00	0.00	7,595.0	7,490.7	-1,047.2	7,490.7	0.00	0.00	
15,700.0	90.00	0.00	7,595.0	7,590.7	-1,047.2	7,590.7	0.00	0.00	
15,800.0	90.00	0.00	7,595.0	7,690.7	-1,047.2	7,690.7	0.00	0.00	
15,900.0	90.00	0.00	7,595.0	7,790.7	-1,047.2	7,790.7	0.00	0.00	
16,000.0	90.00	0.00	7,595.0	7,890.7	-1,047.2	7,890.7	0.00	0.00	
16,100.0	90.00	0.00	7,595.0	7,990.7	-1,047.2	7,990.7	0.00	0.00	
16,200.0	90.00	0.00	7,595.0	8,090.7	-1,047.2	8,090.7	0.00	0.00	
16,300.0	90.00	0.00	7,595.0	8,190.7	-1,047.2	8,190.7	0.00	0.00	
16,400.0	90.00	0.00	7,595.0	8,290.7	-1,047.2	8,290.7	0.00	0.00	
16,500.0	90.00	0.00	7,595.0	8,390.7	-1,047.2	8,390.7	0.00	0.00	
16,600.0	90.00	0.00	7,595.0	8,490.7	-1,047.2	8,490.7	0.00	0.00	
16,700.0	90.00	0.00	7,595.0	8,590.7	-1,047.2	8,590.7	0.00	0.00	
16,768.2	90.00	0.00	7,595.0	8,658.9	-1,047.2	8,658.9	0.00	0.00	TD at 16768.2 - Pratt 4B-29H-P168 PBHL

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Pratt 4B-29H-P168 PBH - plan hits target center - Point	0.00	0.00	7,595.0	8,658.9	-1,047.2	1,257,909.41	3,132,644.23	40.040370	-105.026270

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
789.6	789.0	Fox Hills - BASE			
4,831.3	4,766.0	Sussex			
5,149.8	5,079.0	Sussex Marker			
5,520.1	5,443.0	Shannon			
6,595.4	6,500.0	Teepee Buttes (*if present)			
7,795.6	7,547.0	Sharon Springs			
7,901.0	7,580.0	Niobrara			

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site:	S29-T1N-R68W (Pratt/Waste Connections)	North Reference:	True
Well:	Pratt 4B-29H-P168	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)	
300.0	300.0	0.0	0.0	KOP @ 300'
1,360.4	1,354.3	-55.0	-80.9	EOB; Inc=10.6°
7,073.8	6,970.2	-646.0	-950.4	Start build/turn @ 7073' MD
8,033.2	7,595.0	-76.1	-1,047.2	LP @ 7595' TVD; 90°
16,768.2	7,595.0	8,658.9	-1,047.2	TD at 16768.2

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S29-T1N-R68W (Pratt/Waste Connections)

Pratt 4B-29H-P168

Hz

Plan #1

Anticollision Report

31 May, 2013

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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	5/30/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	16,768.2	Plan #1 (Hz)	MWD	Geolink MWD	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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						
S29-T1N-R68W (Pratt/Waste Connections)						
COSTIGAN 0-6-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 0-8-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 13-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 14-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 23-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 24-20 (EXISTING) - ENCANA WELL - ENCA						Out of range
COSTIGAN 33-20 (EXISTING) - ENCANA WELL - ENCA	14,727.5	7,824.3	228.9	87.3	1.617	CC, ES, SF
COSTIGAN 34-20 (EXISTING) - ENCANA WELL - PLAN	13,251.5	7,722.9	103.2	-5.6	0.948	Level 1, CC, ES, SF
COSTIGAN 43-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 4-6-20 (EXISTING) - ENCANA WELL - PLAN	14,032.5	7,713.4	453.8	332.7	3.749	CC, ES, SF
COSTIGAN 6-8-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 8-6-20 (EXISTING) - ENCANA WELL - SUR						Out of range
COSTIGAN 8-8-20 (EXISTING) - ENCANA WELL - SUR						Out of range
COSTIGAN E UNIT 1 (EXISTING) - ENCANA WELL - NO						Out of range
COSTIGAN H UNIT 1 (EXISTING) - VESSELS WELL - N						Out of range
EDWARD P COSTIGAN 1 (EXISTING) - ENCANA WELL						Out of range
M E DRIER 1 (EXISTING) - SYNERGY WELL - NO SUR						Out of range
PRATT 0-2-29 (EXISTING) - ENCANA WELL - SURVEY						Out of range
PRATT 1 (EXISTING) - SYNERGY WELL - NO SURVEY						Out of range
PRATT 12-29 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
PRATT 2 (EXISTING) - SYNERGY WELL - NO SURVEY						Out of range
PRATT 2-0-29 (EXISTING) - ENCANA WELL - SURVEY						Out of range
PRATT 21-29 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
PRATT 22-29 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
PRATT 2-4-29 (EXISTING) - ENCANA WELL - PLAN ON						Out of range
PRATT 29-3 (EXISTING) - SYNERGY WELL - NO SURV	300.0	288.0	314.5	313.5	313.364	CC, ES
PRATT 29-3 (EXISTING) - SYNERGY WELL - NO SURV	2,000.0	1,971.0	495.5	488.2	68.095	SF
PRATT 4-2-29 (EXISTING) - ENCANA WELL - SURVEY	11,407.5	8,052.0	471.6	388.5	5.674	CC, ES
PRATT 4-2-29 (EXISTING) - ENCANA WELL - SURVEY	11,500.0	8,057.4	480.6	395.8	5.671	SF
Pratt 4C-29H-P168 - Hz - Plan #1	300.0	300.0	8.4	7.4	8.387	CC, ES
Pratt 4C-29H-P168 - Hz - Plan #1	600.0	600.2	13.2	11.1	6.404	SF
Pratt 4D-29H-P168 - Hz - Plan #1	300.0	300.0	19.6	18.6	19.570	CC, ES
Pratt 4D-29H-P168 - Hz - Plan #1	800.0	800.7	34.1	31.3	12.315	SF
Pratt 4E-29H-P168 - Hz - Plan #1	300.0	300.0	28.0	27.0	27.958	CC, ES
Pratt 4E-29H-P168 - Hz - Plan #1	700.0	699.7	40.3	37.9	16.792	SF
Pratt 4F-29H-P168 - Hz - Plan #1	300.0	300.0	39.2	38.2	39.141	CC, ES
Pratt 4F-29H-P168 - Hz - Plan #1	700.0	698.9	52.8	50.4	21.969	SF
Pratt 4G-29H-P168 - Hz - Plan #1	300.0	300.0	47.6	46.6	47.528	CC, ES
Pratt 4G-29H-P168 - Hz - Plan #1	700.0	697.3	65.2	62.8	27.097	SF
PRATT F UNIT 1 (EXISTING) - ENCANA WELL - NO SU						Out of range
SRC PRATT 13-29D (EXISTING) - SYNERGY WELL - S						Out of range
SRC PRATT 14-29D (EXISTING) - SYNERGY WELL - S						Out of range
SRC PRATT 24-29 PD (EXISTING) - SYNERGY WELL -						Out of range
SRC PRATT 29HD (EXISTING) - SYNERGY WELL - PL						Out of range
SRC PRATT 29LD (EXISTING) - SYNERGY WELL - PLA						Out of range
SRC PRATT 29PD (EXISTING) - SYNERGY WELL - SU	659.4	677.1	311.9	309.2	119.040	CC
SRC PRATT 29PD (EXISTING) - SYNERGY WELL - SU	8,800.0	7,803.0	322.8	288.1	9.319	ES, SF
SRC PRATT 29QD (EXISTING) - SYNERGY WELL - PL	7,530.5	7,632.8	451.8	411.3	11.148	CC, ES, SF
SRC PRATT 29SD (EXISTING) - SYNERGY WELL - SU						Out of range
SRC PRATT 29TD (EXISTING) - SYNERGY WELL - SU	0.0	3.0	301.3			
SRC PRATT 29TD (EXISTING) - SYNERGY WELL - SU	300.0	302.9	301.3	300.3	293.576	ES
SRC PRATT 29TD (EXISTING) - SYNERGY WELL - SU	4,300.0	4,343.2	495.2	468.7	18.696	SF
SRC PRATT 29XD (EXISTING) - SYNERGY WELL - PLA	200.0	190.0	300.1	299.4	456.090	CC, ES

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 Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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
S29-T1N-R68W (Pratt/Waste Connections)						
SRC PRATT 29XD (EXISTING) - SYNERGY WELL - PLA	1,200.0	1,102.6	478.7	474.3	108.919	SF
SRC PRATT 31-29D (EXISTING) - SYNERGY WELL - S	12,123.4	7,818.8	264.5	168.1	2.744	CC, ES, SF
SRC PRATT 32-29D (EXISTING) - SYNERGY WELL - S	10,761.7	7,741.3	291.2	226.5	4.500	CC, ES
SRC PRATT 32-29D (EXISTING) - SYNERGY WELL - S	10,800.0	7,741.5	293.7	228.3	4.494	SF
SRC PRATT 33-29PD (EXISTING) - SYNERGY WELL -	9,450.6	7,762.6	301.2	250.0	5.884	CC, ES
SRC PRATT 33-29PD (EXISTING) - SYNERGY WELL -	9,500.0	7,763.2	305.2	253.2	5.876	SF
SRC PRATT 34-29D (EXISTING) - SYNERGY WELL - S	397.6	391.4	320.7	319.4	235.931	CC
SRC PRATT 34-29D (EXISTING) - SYNERGY WELL - S	400.0	393.7	320.7	319.3	234.534	ES
SRC PRATT 34-29D (EXISTING) - SYNERGY WELL - S	8,157.6	7,656.2	381.5	353.2	13.467	SF
SRC PRATT 41-29D (EXISTING) - SYNERGY WELL - S						Out of range
SRC PRATT 42-29D (EXISTING) - SYNERGY WELL - S						Out of range
SRC PRATT 43-29D (EXISTING) - SYNERGY WELL - S	0.0	4.0	316.0			
SRC PRATT 43-29D (EXISTING) - SYNERGY WELL - S	200.0	203.3	316.2	315.5	478.652	ES
SRC PRATT 43-29D (EXISTING) - SYNERGY WELL - S	1,100.0	998.5	468.5	464.8	124.730	SF
SRC PRATT 44-29D (EXISTING) - SYNERGY WELL - P	300.0	292.0	297.4	296.4	294.331	CC, ES
SRC PRATT 44-29D (EXISTING) - SYNERGY WELL - P	1,800.0	1,760.0	482.7	476.1	73.039	SF
Waste Connections 3A-29H-M168 - Hz - Plan #1						Out of range
Waste Connections 3B-29H-M168 - Hz - Plan #1						Out of range
Waste Connections 3C-29H-M168 - Hz - Plan #1						Out of range
Waste Connections 3D-29H-M168 - Hz - Plan #1						Out of range
Waste Connections 3E-29H-M168 - Hz - Plan #1						Out of range
Waste Connections 3F-29H-M168 - Hz - Plan #1						Out of range
Waste Connections 3G-29H-M168 - Hz - Plan #1						Out of range
WILLIAM H PELTIER 1 (EXISTING) - VESSELS WELL -						Out of range
WILLIAM H PELTIER 2 (EXISTING) - ENCANA WELL - P						Out of range
WILLIAM H PELTIER 2 (EXISTING) - ENCANA WELL - S						Out of range
WILLIAM PELTIER 11-20 (EXISTING) - ENCANA WELL						Out of range
WILLIAM PELTIER 12-20 (EXISTING) - ENCANA WELL						Out of range
WILLIAM PELTIER 12-20 (EXISTING) - ENCANA WELL						Out of range
WILLIAM PELTIER 1A-20H (EXISTING) - ENCANA WEL	16,700.0	9,793.2	167.7	119.9	3.510	SF
WILLIAM PELTIER 1A-20H (EXISTING) - ENCANA WEL	16,768.2	9,777.3	150.1	108.2	3.588	CC, ES
WILLIAM PELTIER 2-0-20 (EXISTING) - ENCANA WELL						Out of range
WILLIAM PELTIER 22-20 (EXISTING) - ENCANA WELL						Out of range
WILLIAM PELTIER 2-4-20 (EXISTING) - ENCANA WELL						Out of range
WILLIAM PELTIER 4-2-20 (EXISTING) - ENCANA WELL	16,764.5	7,902.5	439.6	267.7	2.557	CC
WILLIAM PELTIER 4-2-20 (EXISTING) - ENCANA WELL	16,768.2	7,902.5	439.6	267.6	2.556	ES, SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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													S29-T1N-R68W (Pratt/Waste Connections) - COSTIGAN 33-20 (EXISTING) - ENCANA WELL - ENCAN		Offset Site Error:		0.0 ft	
Survey Program: 949-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					
14,300.0	7,595.0	7,829.9	7,632.6	112.8	28.4	91.89	6,618.1	-818.3	484.9	350.8	134.10	3.616						
14,400.0	7,595.0	7,828.6	7,631.3	114.5	28.4	91.57	6,618.1	-818.3	399.5	263.7	135.85	2.941						
14,500.0	7,595.0	7,827.3	7,630.0	116.2	28.4	91.25	6,618.1	-818.3	322.7	185.1	137.60	2.345						
14,600.0	7,595.0	7,826.0	7,628.7	117.9	28.4	90.92	6,618.2	-818.3	262.0	122.6	139.35	1.880						
14,700.0	7,595.0	7,824.7	7,627.4	119.6	28.4	90.60	6,618.2	-818.3	230.5	89.4	141.10	1.634						
14,727.5	7,595.0	7,824.3	7,627.0	120.1	28.4	90.51	6,618.2	-818.3	228.9	87.3	141.58	1.617	CC, ES, SF					
14,800.0	7,595.0	7,823.4	7,626.1	121.4	28.4	90.28	6,618.2	-818.3	240.1	97.2	142.84	1.681						
14,900.0	7,595.0	7,822.1	7,624.8	123.1	28.4	89.95	6,618.2	-818.3	286.6	142.0	144.58	1.982						
15,000.0	7,595.0	7,820.8	7,623.5	124.8	28.4	89.63	6,618.2	-818.3	355.8	209.5	146.31	2.432						
15,100.0	7,595.0	7,819.5	7,622.2	126.5	28.4	89.31	6,618.3	-818.3	437.1	289.1	148.04	2.953						

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - COSTIGAN 34-20 (EXISTING) - ENCANA WELL - PLAN O													Offset Site Error:	0.0 ft
Survey Program: 0-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		
12,800.0	7,595.0	7,722.9	7,618.0	87.2	24.4	90.00	5,142.2	-944.0	463.2	362.2	100.97	4.587		
12,900.0	7,595.0	7,722.9	7,618.0	88.9	24.4	90.00	5,142.2	-944.0	366.4	263.6	102.70	3.567		
13,000.0	7,595.0	7,722.9	7,618.0	90.6	24.4	90.00	5,142.2	-944.0	271.9	167.4	104.44	2.603		
13,100.0	7,595.0	7,722.9	7,618.0	92.3	24.4	90.00	5,142.2	-944.0	183.3	77.1	106.17	1.727		
13,200.0	7,595.0	7,722.9	7,618.0	94.0	24.4	90.00	5,142.2	-944.0	115.3	7.4	107.90	1.069 Level 2		
13,251.5	7,595.0	7,722.9	7,618.0	94.8	24.4	90.00	5,142.2	-944.0	103.2	-5.6	108.79	0.948 Level 1, CC, ES, SF		
13,300.0	7,595.0	7,722.9	7,618.0	95.7	24.4	90.00	5,142.2	-944.0	114.0	4.4	109.64	1.040 Level 2		
13,400.0	7,595.0	7,722.9	7,618.0	97.4	24.4	90.00	5,142.2	-944.0	180.8	69.4	111.37	1.624		
13,500.0	7,595.0	7,722.9	7,618.0	99.1	24.4	90.00	5,142.2	-944.0	269.1	155.9	113.11	2.379		
13,600.0	7,595.0	7,722.9	7,618.0	100.8	24.4	90.00	5,142.2	-944.0	363.4	248.6	114.84	3.165		
13,700.0	7,595.0	7,722.9	7,618.0	102.5	24.4	90.00	5,142.2	-944.0	460.2	343.6	116.58	3.948		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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													S29-T1N-R68W (Pratt/Waste Connections) - COSTIGAN 4-6-20 (EXISTING) - ENCANA WELL - PLAN		Offset Site Error:		0.0 ft	
Survey Program:													0-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)								
13,900.0	7,595.0	7,713.4	7,493.0	105.9	31.9	-90.00	5,923.2	-1,500.9	472.7	354.0	118.73	3.981						
14,000.0	7,595.0	7,713.4	7,493.0	107.6	31.9	-90.00	5,923.2	-1,500.9	454.9	334.4	120.47	3.776						
14,032.5	7,595.0	7,713.4	7,493.0	108.2	31.9	-90.00	5,923.2	-1,500.9	453.8	332.7	121.04	3.749	CC, ES, SF					
14,100.0	7,595.0	7,713.4	7,493.0	109.3	31.9	-90.00	5,923.2	-1,500.9	458.7	336.5	122.21	3.754						
14,200.0	7,595.0	7,713.4	7,493.0	111.0	31.9	-90.00	5,923.2	-1,500.9	483.7	359.7	123.95	3.902						

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - PRATT 29-3 (EXISTING) - SYNERGY WELL - NO SURVE														Offset Site Error:	0.0 ft
Survey Program: 8615-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	13.39	306.0	72.8	314.8						
100.0	100.0	88.0	88.0	0.2	0.2	13.39	306.0	72.8	314.5	314.2	0.31	1,029.155			
200.0	200.0	188.0	188.0	0.3	0.3	13.39	306.0	72.8	314.5	313.9	0.65	480.440			
300.0	300.0	288.0	288.0	0.5	0.5	13.39	306.0	72.8	314.5	313.5	1.00	313.364 CC, ES			
400.0	400.0	388.0	388.0	0.7	0.7	137.69	306.0	72.8	315.2	313.8	1.35	232.944			
500.0	500.0	488.0	488.0	0.9	0.9	138.00	306.0	72.8	317.1	315.4	1.70	186.141			
600.0	599.9	587.9	587.9	1.0	1.0	138.50	306.0	72.8	320.4	318.3	2.06	155.751			
700.0	699.7	687.7	687.7	1.2	1.2	139.18	306.0	72.8	325.0	322.6	2.41	134.613			
800.0	799.4	787.4	787.4	1.4	1.4	140.03	306.0	72.8	331.0	328.2	2.78	119.222			
900.0	898.9	886.9	886.9	1.7	1.5	141.02	306.0	72.8	338.4	335.2	3.14	107.663			
1,000.0	998.3	986.3	986.3	1.9	1.7	142.14	306.0	72.8	347.3	343.8	3.51	98.803			
1,100.0	1,097.4	1,085.4	1,085.4	2.2	1.9	143.36	306.0	72.8	357.7	353.8	3.89	91.927			
1,200.0	1,196.3	1,184.3	1,184.3	2.5	2.1	144.65	306.0	72.8	369.7	365.4	4.27	86.560			
1,300.0	1,294.9	1,282.9	1,282.9	2.8	2.2	145.99	306.0	72.8	383.3	378.7	4.65	82.374			
1,400.0	1,393.3	1,381.3	1,381.3	3.1	2.4	147.39	306.0	72.8	398.5	393.5	5.04	79.122			
1,500.0	1,491.6	1,479.6	1,479.6	3.5	2.6	148.76	306.0	72.8	414.2	408.8	5.42	76.440			
1,600.0	1,589.9	1,577.9	1,577.9	3.8	2.8	150.02	306.0	72.8	430.1	424.3	5.80	74.195			
1,700.0	1,688.2	1,676.2	1,676.2	4.2	2.9	151.20	306.0	72.8	446.2	440.1	6.17	72.299			
1,800.0	1,786.5	1,774.5	1,774.5	4.5	3.1	152.29	306.0	72.8	462.5	456.0	6.54	70.683			
1,900.0	1,884.7	1,872.7	1,872.7	4.9	3.3	153.31	306.0	72.8	478.9	472.0	6.91	69.296			
2,000.0	1,983.0	1,971.0	1,971.0	5.3	3.4	154.27	306.0	72.8	495.5	488.2	7.28	68.095 SF			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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												Offset Site Error:	0.0 ft
S29-T1N-R68W (Pratt/Waste Connections) - PRATT 4-2-29 (EXISTING) - ENCANA WELL - SURVEYS												Offset Well Error:	0.0 ft
Survey Program: 193-MWD													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	+E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)			
11,300.0	7,595.0	8,045.5	7,507.4	62.2	45.5	-86.65	3,297.8	-1,518.0	483.7	402.5	81.21	5.956	
11,400.0	7,595.0	8,051.5	7,513.4	63.8	45.5	-87.38	3,298.1	-1,518.3	471.7	388.7	82.99	5.684	
11,407.5	7,595.0	8,052.0	7,513.8	64.0	45.5	-87.43	3,298.1	-1,518.3	471.6	388.5	83.12	5.674 CC, ES	
11,500.0	7,595.0	8,057.4	7,519.3	65.5	45.5	-88.09	3,298.4	-1,518.6	480.6	395.8	84.75	5.671 SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - Pratt 4C-29H-P168 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.06	0.0	8.4	8.4					
100.0	100.0	100.0	100.0	0.2	0.2	90.06	0.0	8.4	8.4	8.1	0.30	27.669		
200.0	200.0	200.0	200.0	0.3	0.3	90.06	0.0	8.4	8.4	7.7	0.65	12.873		
300.0	300.0	300.0	300.0	0.5	0.5	90.06	0.0	8.4	8.4	7.4	1.00	8.387 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-148.82	0.0	8.4	9.1	7.8	1.35	6.763		
500.0	500.0	500.1	500.1	0.9	0.9	-152.15	-0.8	7.9	10.9	9.2	1.70	6.409		
600.0	599.9	600.2	600.1	1.0	1.0	-151.99	-3.0	6.6	13.2	11.1	2.05	6.404 SF		
700.0	699.7	700.3	700.2	1.2	1.2	-149.83	-6.7	4.3	15.9	13.5	2.42	6.582		
800.0	799.4	800.4	800.1	1.4	1.4	-146.71	-12.0	1.1	19.2	16.4	2.79	6.869		
900.0	898.9	900.5	899.9	1.7	1.6	-143.25	-18.7	-3.0	23.0	19.8	3.19	7.221		
1,000.0	998.3	1,000.6	999.5	1.9	1.8	-139.82	-26.9	-8.0	27.5	23.9	3.62	7.605		
1,100.0	1,097.4	1,100.5	1,098.8	2.2	2.1	-137.16	-36.2	-13.7	32.8	28.8	4.08	8.051		
1,200.0	1,196.3	1,200.3	1,198.0	2.5	2.3	-136.85	-45.7	-19.4	39.4	34.9	4.54	8.672		
1,300.0	1,294.9	1,300.0	1,297.1	2.8	2.6	-138.06	-55.2	-25.2	47.3	42.2	5.01	9.438		
1,400.0	1,393.3	1,399.6	1,396.0	3.1	2.8	-140.01	-64.6	-31.0	56.3	50.9	5.46	10.317		
1,500.0	1,491.6	1,499.1	1,494.9	3.5	3.1	-141.62	-74.1	-36.7	65.7	59.8	5.91	11.110		
1,600.0	1,589.9	1,598.7	1,593.9	3.8	3.3	-142.82	-83.5	-42.5	75.1	68.8	6.37	11.792		
1,700.0	1,688.2	1,698.2	1,692.8	4.2	3.6	-143.75	-93.0	-48.2	84.6	77.7	6.83	12.385		
1,800.0	1,786.5	1,797.7	1,791.7	4.5	3.8	-144.50	-102.4	-54.0	94.0	86.7	7.29	12.904		
1,900.0	1,884.7	1,897.3	1,890.7	4.9	4.1	-145.11	-111.8	-59.7	103.5	95.8	7.75	13.361		
2,000.0	1,983.0	1,996.8	1,989.6	5.3	4.3	-145.62	-121.3	-65.5	113.0	104.8	8.21	13.767		
2,100.0	2,081.3	2,096.4	2,088.5	5.6	4.6	-146.05	-130.7	-71.2	122.5	113.8	8.67	14.129		
2,200.0	2,179.6	2,195.9	2,187.4	6.0	4.8	-146.42	-140.2	-77.0	132.0	122.8	9.13	14.455		
2,300.0	2,277.9	2,295.5	2,286.4	6.3	5.1	-146.74	-149.6	-82.7	141.5	131.9	9.59	14.749		
2,400.0	2,376.2	2,395.0	2,385.3	6.7	5.3	-147.01	-159.1	-88.5	151.0	140.9	10.05	15.015		
2,500.0	2,474.5	2,494.6	2,484.2	7.1	5.6	-147.26	-168.5	-94.2	160.5	150.0	10.52	15.258		
2,600.0	2,572.8	2,594.1	2,583.2	7.4	5.9	-147.48	-178.0	-100.0	170.0	159.0	10.98	15.481		
2,700.0	2,671.1	2,693.7	2,682.1	7.8	6.1	-147.67	-187.4	-105.7	179.5	168.0	11.44	15.685		
2,800.0	2,769.4	2,793.2	2,781.0	8.2	6.4	-147.85	-196.9	-111.5	189.0	177.1	11.91	15.873		
2,900.0	2,867.7	2,892.7	2,879.9	8.5	6.6	-148.00	-206.3	-117.3	198.5	186.1	12.37	16.047		
3,000.0	2,966.0	2,992.3	2,978.9	8.9	6.9	-148.15	-215.7	-123.0	208.0	195.2	12.84	16.208		
3,100.0	3,064.3	3,091.8	3,077.8	9.3	7.1	-148.28	-225.2	-128.8	217.5	204.2	13.30	16.357		
3,200.0	3,162.5	3,191.4	3,176.7	9.6	7.4	-148.40	-234.6	-134.5	227.1	213.3	13.76	16.497		
3,300.0	3,260.8	3,290.9	3,275.7	10.0	7.7	-148.51	-244.1	-140.3	236.6	222.4	14.23	16.627		
3,400.0	3,359.1	3,390.5	3,374.6	10.4	7.9	-148.61	-253.5	-146.0	246.1	231.4	14.69	16.749		
3,500.0	3,457.4	3,490.0	3,473.5	10.7	8.2	-148.71	-263.0	-151.8	255.6	240.5	15.16	16.863		
3,600.0	3,555.7	3,589.6	3,572.4	11.1	8.4	-148.79	-272.4	-157.5	265.1	249.5	15.62	16.971		
3,700.0	3,654.0	3,689.1	3,671.4	11.5	8.7	-148.88	-281.9	-163.3	274.7	258.6	16.09	17.072		
3,800.0	3,752.3	3,788.6	3,770.3	11.8	8.9	-148.95	-291.3	-169.0	284.2	267.6	16.55	17.167		
3,900.0	3,850.6	3,888.2	3,869.2	12.2	9.2	-149.02	-300.8	-174.8	293.7	276.7	17.02	17.258		
4,000.0	3,948.9	3,987.7	3,968.2	12.6	9.5	-149.09	-310.2	-180.5	303.2	285.7	17.48	17.343		
4,100.0	4,047.2	4,087.3	4,067.1	12.9	9.7	-149.15	-319.6	-186.3	312.8	294.8	17.95	17.424		
4,200.0	4,145.5	4,186.8	4,166.0	13.3	10.0	-149.21	-329.1	-192.0	322.3	303.9	18.42	17.500		
4,300.0	4,243.8	4,286.4	4,264.9	13.7	10.2	-149.27	-338.5	-197.8	331.8	312.9	18.88	17.573		
4,400.0	4,342.1	4,385.9	4,363.9	14.0	10.5	-149.32	-348.0	-203.6	341.3	322.0	19.35	17.643		
4,500.0	4,440.3	4,485.5	4,462.8	14.4	10.8	-149.37	-357.4	-209.3	350.9	331.0	19.81	17.709		
4,600.0	4,538.6	4,585.0	4,561.7	14.8	11.0	-149.42	-366.9	-215.1	360.4	340.1	20.28	17.772		
4,700.0	4,636.9	4,684.5	4,660.7	15.1	11.3	-149.46	-376.3	-220.8	369.9	349.2	20.74	17.832		
4,800.0	4,735.2	4,784.1	4,759.6	15.5	11.5	-149.50	-385.8	-226.6	379.4	358.2	21.21	17.889		
4,900.0	4,833.5	4,883.6	4,858.5	15.9	11.8	-149.54	-395.2	-232.3	389.0	367.3	21.68	17.944		
5,000.0	4,931.8	4,983.2	4,957.4	16.2	12.1	-149.58	-404.7	-238.1	398.5	376.3	22.14	17.997		
5,100.0	5,030.1	5,082.7	5,056.4	16.6	12.3	-149.62	-414.1	-243.8	408.0	385.4	22.61	18.047		

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 Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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											S29-T1N-R68W (Pratt/Waste Connections) - Pratt 4C-29H-P168 - Hz - Plan #1			Offset Site Error:		0.0 ft
Survey Program:											0-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	5,128.4	5,182.3	5,155.3	17.0	12.6	-149.65	-423.5	-249.6	417.5	394.5	23.07	18.096				
5,300.0	5,226.7	5,281.8	5,254.2	17.3	12.8	-149.69	-433.0	-255.3	427.1	403.5	23.54	18.142				
5,400.0	5,325.0	5,381.4	5,353.2	17.7	13.1	-149.72	-442.4	-261.1	436.6	412.6	24.01	18.187				
5,500.0	5,423.3	5,480.9	5,452.1	18.1	13.4	-149.75	-451.9	-266.8	446.1	421.6	24.47	18.230				
5,600.0	5,521.6	5,580.5	5,551.0	18.4	13.6	-149.78	-461.3	-272.6	455.6	430.7	24.94	18.271				
5,700.0	5,619.9	5,680.0	5,649.9	18.8	13.9	-149.81	-470.8	-278.3	465.2	439.8	25.40	18.311				
5,800.0	5,718.1	5,779.5	5,748.9	19.2	14.1	-149.83	-480.2	-284.1	474.7	448.8	25.87	18.349				
5,900.0	5,816.4	5,879.1	5,847.8	19.5	14.4	-149.86	-489.7	-289.8	484.2	457.9	26.34	18.386				
6,000.0	5,914.7	5,978.6	5,946.7	19.9	14.7	-149.88	-499.1	-295.6	493.7	466.9	26.80	18.422				

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - Pratt 4D-29H-P168 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	90.05	0.0	19.6	19.6					
100.0	100.0	100.0	100.0	0.2	0.2	90.05	0.0	19.6	19.6	19.3	0.30	64.560		
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	19.6	19.6	19.0	0.65	30.036		
300.0	300.0	300.0	300.0	0.5	0.5	90.05	0.0	19.6	19.6	18.6	1.00	19.570 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-147.13	0.0	19.6	20.3	19.0	1.35	15.051		
500.0	500.0	500.0	500.0	0.9	0.8	-150.72	0.0	19.6	22.6	20.9	1.70	13.276		
600.0	599.9	600.2	600.1	1.0	1.0	-153.84	-0.8	19.2	25.9	23.9	2.05	12.630		
700.0	699.7	700.4	700.3	1.2	1.2	-155.02	-3.1	17.8	29.8	27.3	2.41	12.370		
800.0	799.4	800.7	800.5	1.4	1.4	-154.85	-6.9	15.6	34.1	31.3	2.77	12.315 SF		
900.0	898.9	900.9	900.6	1.7	1.6	-153.79	-12.2	12.5	38.8	35.7	3.14	12.379		
1,000.0	998.3	1,000.9	1,000.3	1.9	1.8	-152.58	-18.8	8.6	44.3	40.8	3.52	12.595		
1,100.0	1,097.4	1,100.7	1,099.8	2.2	2.0	-152.47	-25.3	4.8	51.3	47.4	3.91	13.137		
1,200.0	1,196.3	1,200.3	1,199.1	2.5	2.2	-153.14	-31.9	0.9	59.9	55.6	4.29	13.938		
1,300.0	1,294.9	1,299.8	1,298.3	2.8	2.4	-154.27	-38.5	-2.9	70.0	65.3	4.68	14.946		
1,400.0	1,393.3	1,399.1	1,397.3	3.1	2.6	-155.59	-45.0	-6.7	81.5	76.5	5.07	16.098		
1,500.0	1,491.6	1,498.4	1,496.3	3.5	2.8	-156.69	-51.6	-10.6	93.4	88.0	5.45	17.140		
1,600.0	1,589.9	1,597.7	1,595.3	3.8	3.0	-157.54	-58.1	-14.4	105.4	99.5	5.84	18.047		
1,700.0	1,688.2	1,696.9	1,694.3	4.2	3.2	-158.21	-64.7	-18.2	117.3	111.1	6.23	18.844		
1,800.0	1,786.5	1,796.2	1,793.3	4.5	3.5	-158.76	-71.2	-22.1	129.3	122.7	6.61	19.548		
1,900.0	1,884.7	1,895.5	1,892.2	4.9	3.7	-159.22	-77.8	-25.9	141.3	134.3	7.00	20.176		
2,000.0	1,983.0	1,994.8	1,991.2	5.3	3.9	-159.60	-84.3	-29.7	153.3	145.9	7.39	20.738		
2,100.0	2,081.3	2,094.0	2,090.2	5.6	4.1	-159.93	-90.9	-33.6	165.2	157.5	7.78	21.244		
2,200.0	2,179.6	2,193.3	2,189.2	6.0	4.3	-160.22	-97.4	-37.4	177.2	169.1	8.17	21.703		
2,300.0	2,277.9	2,292.6	2,288.2	6.3	4.5	-160.46	-104.0	-41.2	189.2	180.7	8.55	22.120		
2,400.0	2,376.2	2,391.9	2,387.2	6.7	4.7	-160.68	-110.5	-45.1	201.2	192.3	8.94	22.501		
2,500.0	2,474.5	2,491.1	2,486.1	7.1	5.0	-160.88	-117.1	-48.9	213.2	203.9	9.33	22.850		
2,600.0	2,572.8	2,590.4	2,585.1	7.4	5.2	-161.05	-123.6	-52.7	225.2	215.5	9.72	23.172		
2,700.0	2,671.1	2,689.7	2,684.1	7.8	5.4	-161.21	-130.2	-56.6	237.2	227.1	10.11	23.468		
2,800.0	2,769.4	2,789.0	2,783.1	8.2	5.6	-161.35	-136.7	-60.4	249.2	238.7	10.50	23.743		
2,900.0	2,867.7	2,888.2	2,882.1	8.5	5.8	-161.48	-143.3	-64.2	261.2	250.4	10.89	23.998		
3,000.0	2,966.0	2,987.5	2,981.1	8.9	6.0	-161.59	-149.8	-68.1	273.3	262.0	11.27	24.236		
3,100.0	3,064.3	3,086.8	3,080.1	9.3	6.3	-161.70	-156.4	-71.9	285.3	273.6	11.66	24.458		
3,200.0	3,162.5	3,186.0	3,179.0	9.6	6.5	-161.80	-162.9	-75.7	297.3	285.2	12.05	24.665		
3,300.0	3,260.8	3,285.3	3,278.0	10.0	6.7	-161.89	-169.5	-79.6	309.3	296.8	12.44	24.860		
3,400.0	3,359.1	3,384.6	3,377.0	10.4	6.9	-161.97	-176.0	-83.4	321.3	308.5	12.83	25.042		
3,500.0	3,457.4	3,483.9	3,476.0	10.7	7.1	-162.05	-182.6	-87.2	333.3	320.1	13.22	25.214		
3,600.0	3,555.7	3,583.1	3,575.0	11.1	7.3	-162.12	-189.1	-91.1	345.3	331.7	13.61	25.376		
3,700.0	3,654.0	3,682.4	3,674.0	11.5	7.6	-162.19	-195.7	-94.9	357.3	343.3	14.00	25.529		
3,800.0	3,752.3	3,781.7	3,772.9	11.8	7.8	-162.26	-202.2	-98.7	369.4	355.0	14.39	25.674		
3,900.0	3,850.6	3,881.0	3,871.9	12.2	8.0	-162.31	-208.8	-102.6	381.4	366.6	14.78	25.811		
4,000.0	3,948.9	3,980.2	3,970.9	12.6	8.2	-162.37	-215.3	-106.4	393.4	378.2	15.16	25.941		
4,100.0	4,047.2	4,079.5	4,069.9	12.9	8.4	-162.42	-221.9	-110.2	405.4	389.8	15.55	26.065		
4,200.0	4,145.5	4,178.8	4,168.9	13.3	8.6	-162.47	-228.4	-114.1	417.4	401.5	15.94	26.182		
4,300.0	4,243.8	4,278.1	4,267.9	13.7	8.9	-162.52	-235.0	-117.9	429.4	413.1	16.33	26.294		
4,400.0	4,342.1	4,377.3	4,366.8	14.0	9.1	-162.56	-241.5	-121.7	441.4	424.7	16.72	26.401		
4,500.0	4,440.3	4,476.6	4,465.8	14.4	9.3	-162.60	-248.1	-125.6	453.5	436.4	17.11	26.503		
4,600.0	4,538.6	4,575.9	4,564.8	14.8	9.5	-162.64	-254.6	-129.4	465.5	448.0	17.50	26.600		
4,700.0	4,636.9	4,675.2	4,663.8	15.1	9.7	-162.68	-261.2	-133.2	477.5	459.6	17.89	26.693		
4,800.0	4,735.2	4,774.4	4,762.8	15.5	10.0	-162.72	-267.7	-137.0	489.5	471.2	18.28	26.782		

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 Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - Pratt 4E-29H-P168 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.05	0.0	28.0	28.0					
100.0	100.0	100.0	100.0	0.2	0.2	90.05	0.0	28.0	28.0	27.7	0.30	92.228		
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	28.0	28.0	27.4	0.65	42.908		
300.0	300.0	300.0	300.0	0.5	0.5	90.05	0.0	28.0	28.0	27.0	1.00	27.958 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-146.72	0.0	28.0	28.7	27.4	1.35	21.269		
500.0	500.0	500.0	500.0	0.9	0.8	-149.37	0.0	28.0	31.0	29.3	1.70	18.202		
600.0	599.9	599.9	599.9	1.0	1.0	-153.01	0.0	28.0	34.8	32.7	2.05	16.958		
700.0	699.7	699.7	699.7	1.2	1.2	-156.93	0.0	28.0	40.3	37.9	2.40	16.792 SF		
800.0	799.4	799.4	799.4	1.4	1.4	-160.60	0.0	28.0	47.6	44.9	2.75	17.323		
900.0	898.9	898.9	898.9	1.7	1.5	-163.79	0.0	28.0	56.8	53.7	3.10	18.330		
1,000.0	998.3	998.3	998.3	1.9	1.7	-166.44	0.0	28.0	67.7	64.3	3.44	19.671		
1,100.0	1,097.4	1,097.4	1,097.4	2.2	1.9	-168.59	0.0	28.0	80.5	76.7	3.79	21.254		
1,200.0	1,196.3	1,196.3	1,196.3	2.5	2.1	-170.33	0.0	28.0	95.0	90.9	4.13	23.018		
1,300.0	1,294.9	1,294.9	1,294.9	2.8	2.2	-171.73	0.0	28.0	111.3	106.9	4.47	24.920		
1,400.0	1,393.3	1,393.3	1,393.3	3.1	2.4	-172.87	0.0	28.0	129.2	124.4	4.81	26.885		
1,500.0	1,491.6	1,491.6	1,491.6	3.5	2.6	-173.76	0.0	28.0	147.5	142.4	5.15	28.634		
1,600.0	1,589.9	1,589.9	1,589.9	3.8	2.8	-174.45	0.0	28.0	165.8	160.3	5.50	30.169		
1,700.0	1,688.2	1,688.2	1,688.2	4.2	2.9	-175.00	0.0	28.0	184.2	178.3	5.84	31.526		
1,800.0	1,786.5	1,786.5	1,786.5	4.5	3.1	-175.46	0.0	28.0	202.5	196.3	6.19	32.734		
1,900.0	1,884.7	1,884.7	1,884.7	4.9	3.3	-175.84	0.0	28.0	220.9	214.3	6.53	33.816		
2,000.0	1,983.0	1,983.0	1,983.0	5.3	3.4	-176.16	0.0	28.0	239.2	232.3	6.88	34.791		
2,100.0	2,081.3	2,082.1	2,082.1	5.6	3.6	-176.30	-0.6	28.2	257.5	250.2	7.22	35.646		
2,200.0	2,179.6	2,181.4	2,181.4	6.0	3.8	-176.08	-2.7	28.9	275.4	267.8	7.57	36.362		
2,300.0	2,277.9	2,280.8	2,280.7	6.3	4.0	-175.55	-6.5	30.2	292.9	285.0	7.93	36.951		
2,400.0	2,376.2	2,380.1	2,379.9	6.7	4.1	-174.76	-12.0	32.1	310.2	301.9	8.29	37.422		
2,500.0	2,474.5	2,479.5	2,478.9	7.1	4.3	-173.75	-19.0	34.5	327.3	318.6	8.66	37.781		
2,600.0	2,572.8	2,578.7	2,577.7	7.4	4.5	-172.56	-27.7	37.4	344.2	335.1	9.05	38.031		
2,700.0	2,671.1	2,677.7	2,676.1	7.8	4.7	-171.21	-37.9	40.9	361.0	351.6	9.46	38.176		
2,800.0	2,769.4	2,776.4	2,774.0	8.2	4.9	-169.74	-49.7	44.9	377.9	368.0	9.88	38.232		
2,900.0	2,867.7	2,874.4	2,871.2	8.5	5.1	-168.31	-61.9	49.1	394.9	384.6	10.33	38.245		
3,000.0	2,966.0	2,972.5	2,968.5	8.9	5.4	-167.01	-74.1	53.2	412.1	401.4	10.78	38.237		
3,100.0	3,064.3	3,070.6	3,065.7	9.3	5.6	-165.81	-86.4	57.4	429.6	418.3	11.24	38.212		
3,200.0	3,162.5	3,168.7	3,162.9	9.6	5.8	-164.70	-98.6	61.6	447.2	435.5	11.71	38.175		
3,300.0	3,260.8	3,266.8	3,260.1	10.0	6.1	-163.68	-110.8	65.7	465.0	452.8	12.19	38.129		
3,400.0	3,359.1	3,364.9	3,357.4	10.4	6.3	-162.73	-123.0	69.9	482.9	470.2	12.68	38.078		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - Pratt 4F-29H-P168 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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	90.05	0.0	39.2	39.2					
100.0	100.0	100.0	100.0	0.2	0.2	90.05	0.0	39.2	39.2	38.9	0.30	129.120		
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	39.2	39.2	38.6	0.65	60.072		
300.0	300.0	300.0	300.0	0.5	0.5	90.05	0.0	39.2	39.2	38.2	1.00	39.141	CC, ES	
400.0	400.0	400.0	400.0	0.7	0.7	-146.45	0.0	39.2	39.9	38.6	1.35	29.561		
500.0	500.0	500.0	500.0	0.9	0.8	-148.40	0.0	39.2	42.1	40.4	1.70	24.778		
600.0	599.9	599.5	599.5	1.0	1.0	-150.27	-0.8	39.7	46.3	44.3	2.05	22.579		
700.0	699.7	698.9	698.8	1.2	1.2	-151.03	-2.9	41.1	52.8	50.4	2.41	21.969	SF	
800.0	799.4	798.0	797.9	1.4	1.4	-150.94	-6.6	43.4	61.7	58.9	2.77	22.299		
900.0	898.9	896.9	896.5	1.7	1.6	-150.32	-11.6	46.6	72.9	69.7	3.14	23.211		
1,000.0	998.3	995.3	994.7	1.9	1.8	-149.41	-18.1	50.7	86.3	82.8	3.53	24.489		
1,100.0	1,097.4	1,093.2	1,092.2	2.2	2.0	-148.40	-25.9	55.7	102.1	98.2	3.93	25.988		
1,200.0	1,196.3	1,190.6	1,189.0	2.5	2.2	-147.37	-35.1	61.6	120.2	115.9	4.36	27.611		
1,300.0	1,294.9	1,288.3	1,285.9	2.8	2.5	-146.54	-45.3	68.1	140.4	135.6	4.80	29.274		
1,400.0	1,393.3	1,385.9	1,382.8	3.1	2.7	-146.24	-55.5	74.6	162.0	156.7	5.25	30.843		
1,500.0	1,491.6	1,483.5	1,479.6	3.5	3.0	-146.12	-65.7	81.2	183.8	178.1	5.72	32.154		
1,600.0	1,589.9	1,581.1	1,576.4	3.8	3.2	-146.03	-75.9	87.7	205.6	199.4	6.18	33.241		
1,700.0	1,688.2	1,678.7	1,673.3	4.2	3.5	-145.95	-86.2	94.2	227.4	220.7	6.66	34.154		
1,800.0	1,786.5	1,776.3	1,770.1	4.5	3.7	-145.89	-96.4	100.8	249.2	242.0	7.13	34.930		
1,900.0	1,884.7	1,873.9	1,866.9	4.9	4.0	-145.84	-106.6	107.3	271.0	263.4	7.61	35.596		
2,000.0	1,983.0	1,971.5	1,963.8	5.3	4.3	-145.79	-116.8	113.8	292.8	284.7	8.09	36.174		
2,100.0	2,081.3	2,069.1	2,060.6	5.6	4.5	-145.76	-127.1	120.4	314.6	306.0	8.58	36.679		
2,200.0	2,179.6	2,166.7	2,157.5	6.0	4.8	-145.72	-137.3	126.9	336.4	327.3	9.06	37.124		
2,300.0	2,277.9	2,264.3	2,254.3	6.3	5.0	-145.69	-147.5	133.4	358.2	348.6	9.55	37.518		
2,400.0	2,376.2	2,361.9	2,351.1	6.7	5.3	-145.67	-157.7	140.0	380.0	369.9	10.03	37.871		
2,500.0	2,474.5	2,459.5	2,448.0	7.1	5.6	-145.64	-168.0	146.5	401.8	391.2	10.52	38.187		
2,600.0	2,572.8	2,557.1	2,544.8	7.4	5.8	-145.62	-178.2	153.0	423.6	412.6	11.01	38.472		
2,700.0	2,671.1	2,654.7	2,641.7	7.8	6.1	-145.61	-188.4	159.6	445.4	433.9	11.50	38.731		
2,800.0	2,769.4	2,752.3	2,738.5	8.2	6.4	-145.59	-198.6	166.1	467.2	455.2	11.99	38.967		
2,900.0	2,867.7	2,849.9	2,835.3	8.5	6.7	-145.57	-208.9	172.6	489.0	476.5	12.48	39.182		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - Pratt 4G-29H-P168 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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	47.6	47.6					
100.0	100.0	100.0	100.0	0.2	0.2	90.05	0.0	47.6	47.6	47.3	0.30	156.788		
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	47.6	47.6	47.0	0.65	72.944		
300.0	300.0	300.0	300.0	0.5	0.5	90.05	0.0	47.6	47.6	46.6	1.00	47.528 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-146.32	0.0	47.6	48.3	47.0	1.35	35.780		
500.0	500.0	499.3	499.3	0.9	0.8	-147.30	-0.6	48.3	51.2	49.5	1.70	30.112		
600.0	599.9	598.4	598.4	1.0	1.0	-147.93	-2.2	50.3	56.8	54.8	2.05	27.702		
700.0	699.7	697.3	697.2	1.2	1.2	-148.22	-4.9	53.6	65.2	62.8	2.41	27.097 SF		
800.0	799.4	795.8	795.4	1.4	1.4	-148.24	-8.7	58.2	76.4	73.6	2.77	27.576		
900.0	898.9	893.7	893.1	1.7	1.6	-148.08	-13.5	64.1	90.3	87.2	3.14	28.734		
1,000.0	998.3	991.1	990.0	1.9	1.8	-147.83	-19.3	71.2	106.9	103.4	3.53	30.324		
1,100.0	1,097.4	1,087.7	1,086.1	2.2	2.1	-147.52	-26.2	79.5	126.2	122.3	3.92	32.186		
1,200.0	1,196.3	1,183.6	1,181.1	2.5	2.3	-147.20	-33.9	89.0	148.2	143.9	4.33	34.209		
1,300.0	1,294.9	1,278.8	1,275.4	2.8	2.6	-146.88	-42.6	99.7	172.9	168.1	4.76	36.326		
1,400.0	1,393.3	1,375.3	1,370.8	3.1	2.8	-146.80	-51.8	110.8	199.2	194.0	5.20	38.313		
1,500.0	1,491.6	1,471.7	1,466.1	3.5	3.1	-146.86	-60.9	122.0	225.8	220.1	5.65	39.972		
1,600.0	1,589.9	1,568.1	1,561.4	3.8	3.4	-146.91	-70.1	133.2	252.4	246.3	6.10	41.355		
1,700.0	1,688.2	1,664.5	1,656.7	4.2	3.7	-146.94	-79.2	144.4	279.0	272.4	6.56	42.524		
1,800.0	1,786.5	1,760.9	1,752.0	4.5	4.0	-146.97	-88.4	155.6	305.6	298.5	7.02	43.523		
1,900.0	1,884.7	1,857.3	1,847.3	4.9	4.3	-147.00	-97.5	166.7	332.2	324.7	7.48	44.385		
2,000.0	1,983.0	1,953.7	1,942.7	5.3	4.6	-147.02	-106.7	177.9	358.7	350.8	7.95	45.135		
2,100.0	2,081.3	2,050.1	2,038.0	5.6	4.9	-147.04	-115.8	189.1	385.3	376.9	8.41	45.794		
2,200.0	2,179.6	2,146.5	2,133.3	6.0	5.2	-147.06	-125.0	200.3	411.9	403.0	8.88	46.377		
2,300.0	2,277.9	2,242.9	2,228.6	6.3	5.5	-147.07	-134.1	211.4	438.5	429.2	9.35	46.896		
2,400.0	2,376.2	2,339.3	2,323.9	6.7	5.8	-147.09	-143.3	222.6	465.1	455.3	9.82	47.360		
2,500.0	2,474.5	2,435.7	2,419.2	7.1	6.1	-147.10	-152.4	233.8	491.7	481.4	10.29	47.779		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 29PD (EXISTING) - SYNERGY WELL - SUR														Offset Site Error:	0.0 ft
Survey Program: 218-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	4.1	4.1	0.0	0.0	3.25	328.3	18.7	328.8						
100.0	100.0	107.8	107.8	0.2	0.2	3.35	327.6	19.2	328.2	327.9	0.33	996.807			
200.0	200.0	211.4	211.3	0.3	0.4	3.63	325.8	20.7	326.5	325.9	0.67	484.241			
300.0	300.0	317.4	317.3	0.5	0.6	3.63	322.4	20.4	323.3	322.3	1.04	309.551			
400.0	400.0	421.5	421.1	0.7	0.8	126.94	317.8	14.3	319.1	317.7	1.40	227.510			
500.0	500.0	522.8	521.6	0.9	1.0	125.37	312.5	3.1	315.0	313.1	1.82	173.091			
600.0	599.9	620.2	617.6	1.0	1.3	123.23	307.6	-12.2	312.3	310.0	2.30	135.677			
659.4	659.2	677.1	673.5	1.2	1.5	121.75	305.1	-23.0	311.9	309.2	2.62	119.040 CC			
700.0	699.7	715.3	710.8	1.2	1.7	120.67	303.6	-30.9	312.1	309.3	2.86	109.308			
800.0	799.4	806.5	799.6	1.4	2.1	117.95	301.1	-51.6	315.1	311.7	3.46	91.111			
900.0	898.9	894.9	885.3	1.7	2.4	115.28	301.4	-73.7	323.1	319.0	4.09	79.022			
1,000.0	998.3	991.3	978.4	1.9	2.9	112.73	303.2	-98.1	334.0	329.3	4.77	70.088			
1,100.0	1,097.4	1,086.9	1,070.9	2.2	3.3	110.63	305.6	-122.2	346.8	341.3	5.46	63.507			
1,200.0	1,196.3	1,180.0	1,160.6	2.5	3.8	108.78	308.8	-146.9	361.7	355.6	6.18	58.540			
1,300.0	1,294.9	1,269.5	1,246.5	2.8	4.2	107.23	313.2	-171.6	379.2	372.3	6.91	54.915			
1,400.0	1,393.3	1,356.8	1,329.8	3.1	4.7	105.99	319.8	-196.9	400.2	392.6	7.63	52.442			
1,500.0	1,491.6	1,453.4	1,421.9	3.5	5.2	104.97	328.1	-224.9	422.5	414.1	8.42	50.199			
1,600.0	1,589.9	1,550.1	1,514.0	3.8	5.8	104.04	336.6	-252.9	445.1	435.9	9.19	48.429			
1,700.0	1,688.2	1,651.3	1,610.5	4.2	6.3	103.16	345.3	-282.3	467.7	457.7	9.98	46.847			
1,800.0	1,786.5	1,758.3	1,712.8	4.5	6.9	102.34	352.9	-312.6	488.6	477.8	10.80	45.240			
8,500.0	7,595.0	7,795.2	7,594.7	24.8	29.1	-89.23	683.9	-1,369.9	436.0	404.6	31.40	13.885			
8,600.0	7,595.0	7,797.0	7,596.5	25.4	29.1	-89.56	683.9	-1,369.8	376.1	343.8	32.38	11.617			
8,700.0	7,595.0	7,798.8	7,598.3	26.2	29.1	-89.88	684.0	-1,369.8	335.9	302.4	33.47	10.037			
8,793.4	7,595.0	7,803.0	7,602.5	27.0	29.2	-90.62	684.0	-1,369.8	322.7	288.1	34.56	9.338			
8,800.0	7,595.0	7,803.0	7,602.5	27.0	29.2	-90.62	684.0	-1,369.8	322.8	288.1	34.64	9.319 ES, SF			
8,900.0	7,595.0	7,803.0	7,602.5	27.9	29.2	-90.62	684.0	-1,369.8	339.8	303.9	35.91	9.464			
9,000.0	7,595.0	7,804.4	7,603.9	29.0	29.2	-90.87	684.1	-1,369.8	383.2	345.9	37.24	10.290			
9,100.0	7,595.0	7,806.2	7,605.7	30.0	29.2	-91.20	684.1	-1,369.8	445.1	406.5	38.62	11.527			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 29QD (EXISTING) - SYNERGY WELL - PLA												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
7,200.0	7,094.7	7,336.8	7,047.7	24.2	33.9	-32.48	-598.6	-1,459.9	492.4	454.2	38.15	12.908	
7,300.0	7,191.3	7,433.4	7,144.3	24.2	33.9	-61.11	-598.6	-1,459.9	475.9	437.1	38.80	12.268	
7,400.0	7,283.0	7,525.1	7,236.0	24.2	34.0	-76.12	-598.6	-1,459.9	461.1	421.5	39.65	11.630	
7,500.0	7,367.0	7,609.1	7,320.0	24.1	34.0	-87.13	-598.6	-1,459.9	452.4	412.0	40.39	11.201	
7,530.5	7,390.7	7,632.8	7,343.7	24.0	34.1	-90.00	-598.6	-1,459.9	451.8	411.3	40.53	11.148	CC, ES, SF
7,600.0	7,440.7	7,682.8	7,393.7	23.9	34.1	-95.64	-598.6	-1,459.9	455.3	414.8	40.59	11.219	
7,700.0	7,501.9	7,744.0	7,454.9	23.6	34.1	-101.29	-598.6	-1,459.9	474.9	434.9	40.02	11.868	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 29TD (EXISTING) - SYNERGY WELL - SUR														Offset Site Error:	0.0 ft
Survey Program: 1020-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor			
0.0	0.0	3.0	3.0	0.0	0.0	21.61	280.1	110.9	301.3						
100.0	100.0	103.0	103.0	0.2	0.2	21.63	280.1	111.0	301.3	300.9	0.33	911.742			
200.0	200.0	203.0	203.0	0.3	0.4	21.68	280.0	111.3	301.3	300.6	0.68	444.130			
300.0	300.0	302.9	302.9	0.5	0.5	21.77	279.8	111.8	301.3	300.3	1.03	293.576 ES			
400.0	400.0	402.9	402.9	0.7	0.7	146.19	279.6	112.4	302.0	300.7	1.38	218.477			
500.0	500.0	502.8	502.8	0.9	0.9	146.61	279.3	113.2	304.3	302.5	1.73	175.539			
600.0	599.9	602.7	602.7	1.0	1.1	147.23	278.9	114.2	308.0	305.9	2.09	147.664			
700.0	699.7	702.4	702.4	1.2	1.2	148.03	278.5	115.3	313.2	310.8	2.44	128.363			
800.0	799.4	802.0	801.9	1.4	1.4	148.99	278.0	116.6	320.0	317.2	2.80	114.423			
900.0	898.9	901.3	901.3	1.7	1.6	150.09	277.5	118.1	328.4	325.3	3.16	104.077			
1,000.0	998.3	1,000.5	1,000.4	1.9	1.8	151.29	276.9	119.8	338.5	335.0	3.52	96.271			
1,100.0	1,097.4	1,109.3	1,109.2	2.2	1.9	152.68	275.1	121.1	349.2	345.3	3.90	89.629			
1,200.0	1,196.3	1,227.2	1,226.9	2.5	2.2	154.15	269.3	119.4	357.5	353.2	4.29	83.284			
1,300.0	1,294.9	1,344.0	1,343.0	2.8	2.4	156.04	256.8	116.5	362.0	357.3	4.70	77.073			
1,400.0	1,393.3	1,456.2	1,454.0	3.1	2.7	158.25	240.3	113.2	364.7	359.6	5.10	71.556			
1,500.0	1,491.6	1,568.5	1,564.2	3.5	3.0	160.58	219.9	108.0	364.4	358.9	5.51	66.138			
1,600.0	1,589.9	1,674.3	1,667.5	3.8	3.4	163.07	197.4	103.0	361.9	355.9	5.92	61.099			
1,700.0	1,688.2	1,783.1	1,773.1	4.2	3.8	165.63	172.4	95.9	357.6	351.2	6.35	56.316			
1,800.0	1,786.5	1,881.3	1,868.1	4.5	4.2	168.18	148.1	89.6	352.6	345.8	6.78	51.971			
1,900.0	1,884.7	1,975.7	1,959.4	4.9	4.5	170.84	124.9	84.7	349.4	342.2	7.23	48.298			
2,000.0	1,983.0	2,076.5	2,056.9	5.3	5.0	173.81	99.5	79.9	347.0	339.3	7.74	44.823			
2,100.0	2,081.3	2,173.7	2,150.7	5.6	5.4	176.86	74.4	75.8	345.4	337.1	8.28	41.707			
2,151.0	2,131.4	2,222.6	2,197.9	5.8	5.6	178.39	61.9	73.8	345.2	336.6	8.57	40.289			
2,200.0	2,179.6	2,270.6	2,244.3	6.0	5.8	179.87	49.8	71.9	345.3	336.5	8.85	39.011			
2,300.0	2,277.9	2,368.3	2,339.0	6.3	6.3	-177.27	25.8	67.4	346.3	336.9	9.45	36.636			
2,400.0	2,376.2	2,466.7	2,434.4	6.7	6.7	-174.46	2.2	63.1	348.6	338.5	10.09	34.539			
2,500.0	2,474.5	2,567.3	2,531.7	7.1	7.2	-171.54	-22.7	58.4	351.1	340.3	10.80	32.521			
2,600.0	2,572.8	2,666.5	2,627.7	7.4	7.6	-168.67	-47.6	53.7	354.4	342.8	11.53	30.733			
2,700.0	2,671.1	2,764.5	2,722.6	7.8	8.0	-166.07	-71.3	48.3	358.1	345.9	12.27	29.198			
2,800.0	2,769.4	2,860.6	2,815.9	8.2	8.5	-163.66	-93.9	43.3	363.2	350.1	13.02	27.894			
2,900.0	2,867.7	2,964.9	2,916.9	8.5	9.0	-160.97	-119.3	38.2	368.9	355.0	13.87	26.593			
3,000.0	2,966.0	3,065.1	3,013.6	8.9	9.4	-158.35	-144.8	31.9	373.7	359.0	14.75	25.340			
3,100.0	3,064.3	3,160.4	3,105.5	9.3	9.9	-155.88	-169.3	26.4	379.7	364.1	15.62	24.316			
3,200.0	3,162.5	3,264.3	3,205.9	9.6	10.4	-153.41	-195.1	20.0	386.3	369.8	16.53	23.370			
3,300.0	3,260.8	3,362.0	3,300.5	10.0	10.8	-151.26	-218.9	13.2	392.8	375.4	17.41	22.562			
3,400.0	3,359.1	3,457.7	3,392.8	10.4	11.3	-149.03	-243.4	7.2	400.3	382.0	18.34	21.825			
3,500.0	3,457.4	3,557.5	3,488.7	10.7	11.8	-146.65	-269.9	1.1	408.6	389.3	19.32	21.153			
3,600.0	3,555.7	3,649.5	3,577.6	11.1	12.2	-144.69	-293.4	-4.0	418.3	398.0	20.21	20.699			
3,700.0	3,654.0	3,750.3	3,675.2	11.5	12.7	-142.81	-317.8	-9.0	428.8	407.7	21.12	20.304			
3,800.0	3,752.3	3,852.6	3,774.3	11.8	13.2	-140.97	-342.8	-14.9	439.1	417.1	22.06	19.907			
3,900.0	3,850.6	3,953.8	3,872.1	12.2	13.7	-139.16	-368.0	-21.6	449.0	426.0	23.00	19.518			
4,000.0	3,948.9	4,050.3	3,965.2	12.6	14.1	-137.45	-392.4	-28.1	459.3	435.3	23.92	19.199			
4,100.0	4,047.2	4,145.8	4,057.5	12.9	14.6	-135.87	-416.4	-33.9	470.5	445.7	24.82	18.960			
4,200.0	4,145.5	4,242.6	4,151.1	13.3	15.0	-134.42	-440.2	-39.1	482.7	457.1	25.69	18.794			
4,300.0	4,243.8	4,343.2	4,249.2	13.7	15.4	-133.32	-462.2	-44.0	495.2	468.7	26.48	18.696 SF			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 29XD (EXISTING) - SYNERGY WELL - PLAN														Offset Site Error:	0.0 ft
Survey Program: 0-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	22.90	276.4	116.8	300.3						
100.0	100.0	90.0	90.0	0.2	0.2	22.90	276.4	116.8	300.1	299.8	0.31	971.382			
200.0	200.0	190.0	190.0	0.3	0.3	22.90	276.4	116.8	300.1	299.4	0.66	456.090 CC, ES			
300.0	300.0	284.0	284.0	0.5	0.5	23.07	276.9	117.9	301.0	300.0	1.00	301.229			
400.0	400.0	377.0	376.9	0.7	0.7	147.92	278.3	121.9	304.9	303.5	1.34	226.896			
500.0	500.0	469.5	469.1	0.9	0.9	149.07	280.8	128.7	312.6	310.9	1.70	183.856			
600.0	599.9	561.0	560.1	1.0	1.1	150.64	284.3	138.1	324.3	322.2	2.07	156.690			
700.0	699.7	651.2	649.3	1.2	1.4	152.52	288.7	150.1	340.1	337.7	2.45	138.794			
800.0	799.4	739.8	736.6	1.4	1.7	154.58	293.9	164.4	360.3	357.5	2.84	126.890			
900.0	898.9	826.4	821.4	1.7	2.0	156.73	300.0	180.8	385.0	381.7	3.23	119.220			
1,000.0	998.3	916.1	908.8	1.9	2.4	158.98	307.0	200.0	413.8	410.2	3.62	114.194			
1,100.0	1,097.4	1,009.7	999.8	2.2	2.8	161.12	314.5	220.2	445.2	441.2	4.02	110.855			
1,200.0	1,196.3	1,102.6	1,090.2	2.5	3.2	163.03	321.9	240.4	478.7	474.3	4.39	108.919 SF			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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													S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 31-29D (EXISTING) - SYNERGY WELL - SU		Offset Site Error:		0.0 ft
Survey Program: 248-MWD															Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance										
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning				
11,700.0	7,595.0	7,808.5	7,619.7	68.8	27.8	87.55	4,013.8	-782.7	499.1	410.1	89.00	5.608					
11,800.0	7,595.0	7,810.9	7,622.2	70.4	27.8	88.08	4,013.9	-782.6	417.7	327.0	90.76	4.603					
11,900.0	7,595.0	7,813.4	7,624.6	72.1	27.8	88.61	4,013.9	-782.6	346.2	253.7	92.51	3.742					
12,000.0	7,595.0	7,815.8	7,627.0	73.7	27.8	89.14	4,014.0	-782.6	291.9	197.6	94.25	3.097					
12,100.0	7,595.0	7,818.2	7,629.4	75.4	27.8	89.66	4,014.1	-782.6	265.6	169.6	96.00	2.767					
12,123.4	7,595.0	7,818.8	7,630.0	75.8	27.8	89.78	4,014.1	-782.6	264.5	168.1	96.40	2.744	CC, ES, SF				
12,200.0	7,595.0	7,820.6	7,631.8	77.1	27.8	90.17	4,014.1	-782.6	275.4	177.7	97.73	2.818					
12,300.0	7,595.0	7,822.9	7,634.1	78.8	27.8	90.68	4,014.2	-782.6	318.0	218.6	99.46	3.198					
12,400.0	7,595.0	7,825.2	7,636.5	80.4	27.8	91.18	4,014.2	-782.6	382.7	281.5	101.18	3.782					
12,500.0	7,595.0	7,827.5	7,638.8	82.1	27.8	91.68	4,014.3	-782.6	460.1	357.2	102.90	4.472					

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 32-29D (EXISTING) - SYNERGY WELL - SU													Offset Site Error: 0.0 ft
Survey Program: 154-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
10,400.0	7,595.0	7,740.0	7,625.6	47.9	20.9	89.53	2,652.4	-756.0	464.4	405.7	58.63	7.920	
10,500.0	7,595.0	7,740.3	7,626.0	49.4	20.9	89.60	2,652.4	-756.0	391.5	331.2	60.30	6.493	
10,600.0	7,595.0	7,740.7	7,626.4	51.0	20.9	89.68	2,652.4	-756.0	333.1	271.1	61.98	5.374	
10,700.0	7,595.0	7,741.1	7,626.7	52.6	20.9	89.75	2,652.4	-756.0	297.6	234.0	63.66	4.676	
10,761.7	7,595.0	7,741.3	7,627.0	53.5	20.9	89.80	2,652.4	-756.0	291.2	226.5	64.70	4.500 CC, ES	
10,800.0	7,595.0	7,741.5	7,627.1	54.2	20.9	89.83	2,652.4	-756.0	293.7	228.3	65.34	4.494 SF	
10,900.0	7,595.0	7,741.8	7,627.5	55.7	20.9	89.90	2,652.4	-756.0	322.3	255.3	67.04	4.808	
11,000.0	7,595.0	7,742.2	7,627.9	57.3	20.9	89.98	2,652.4	-756.0	376.2	307.5	68.73	5.474	
11,100.0	7,595.0	7,742.6	7,628.3	59.0	20.9	90.06	2,652.4	-756.0	446.3	375.9	70.43	6.337	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 33-29PD (EXISTING) - SYNERGY WELL - S														Offset Site Error:	0.0 ft
Survey Program: 127-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	3.0	3.0	0.0	0.0	1.46	339.9	8.7	340.0						
100.0	100.0	102.5	102.5	0.2	0.2	1.46	339.9	8.7	340.1	339.7	0.31	1,088.183			
200.0	200.0	199.5	199.5	0.3	0.3	1.43	340.4	8.5	340.5	339.9	0.65	522.273			
300.0	300.0	299.5	299.4	0.5	0.5	1.28	341.6	7.6	341.7	340.7	1.00	341.325			
400.0	400.0	400.6	400.6	0.7	0.7	125.37	342.5	6.3	343.1	341.7	1.35	253.325			
500.0	500.0	498.6	498.5	0.9	0.9	125.40	343.5	4.5	345.6	343.9	1.71	202.599			
600.0	599.9	599.0	598.9	1.0	1.0	125.33	344.8	0.8	349.3	347.3	2.07	168.509			
700.0	699.7	699.6	699.3	1.2	1.2	125.25	345.9	-4.5	353.8	351.4	2.45	144.207			
800.0	799.4	796.5	796.1	1.4	1.4	125.29	347.3	-10.2	359.7	356.8	2.84	126.669			
900.0	898.9	891.3	890.7	1.7	1.6	125.63	349.7	-14.9	367.7	364.4	3.23	113.882			
1,000.0	998.3	986.0	985.3	1.9	1.8	126.20	353.3	-19.2	378.0	374.3	3.63	104.129			
1,100.0	1,097.4	1,079.7	1,078.8	2.2	2.0	126.91	358.0	-23.4	390.6	386.6	4.04	96.625			
1,200.0	1,196.3	1,170.9	1,169.6	2.5	2.2	127.70	364.1	-27.5	406.0	401.6	4.47	90.853			
1,300.0	1,294.9	1,259.6	1,257.8	2.8	2.4	128.25	372.1	-33.6	424.6	419.7	4.92	86.240			
1,400.0	1,393.3	1,346.9	1,344.2	3.1	2.7	128.65	382.1	-41.4	446.6	441.2	5.40	82.667			
1,500.0	1,491.6	1,435.3	1,431.2	3.5	2.9	128.93	394.2	-50.7	470.7	464.8	5.90	79.725			
1,600.0	1,589.9	1,522.0	1,516.1	3.8	3.2	128.96	407.8	-61.6	496.7	490.3	6.43	77.255			
9,100.0	7,595.0	7,758.1	7,591.8	30.0	25.9	88.81	1,341.2	-746.0	462.1	416.2	45.95	10.057			
9,200.0	7,595.0	7,759.3	7,593.0	31.2	25.9	89.06	1,341.2	-746.0	391.8	344.4	47.40	8.265			
9,300.0	7,595.0	7,760.6	7,594.3	32.4	25.9	89.30	1,341.2	-746.0	336.7	287.8	48.88	6.888			
9,400.0	7,595.0	7,761.9	7,595.6	33.6	25.9	89.55	1,341.2	-746.0	305.4	255.0	50.40	6.059			
9,450.6	7,595.0	7,762.6	7,596.3	34.3	25.9	89.67	1,341.2	-746.0	301.2	250.0	51.18	5.884 CC, ES			
9,500.0	7,595.0	7,763.2	7,596.9	34.9	25.9	89.80	1,341.2	-746.0	305.2	253.2	51.94	5.876 SF			
9,600.0	7,595.0	7,764.5	7,598.3	36.3	25.9	90.05	1,341.3	-746.0	336.2	282.7	53.51	6.283			
9,700.0	7,595.0	7,765.9	7,599.6	37.6	26.0	90.30	1,341.3	-746.0	391.0	335.9	55.09	7.098			
9,800.0	7,595.0	7,767.2	7,600.9	39.0	26.0	90.56	1,341.3	-746.0	461.3	404.6	56.69	8.137			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 34-29D (EXISTING) - SYNERGY WELL - SU														Offset Site Error:	0.0 ft
Survey Program: 217-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	7.53	319.8	42.3	322.8						
100.0	100.0	90.6	90.6	0.2	0.2	7.63	319.7	42.8	322.5	322.2	0.31	1,036.392			
200.0	200.0	191.3	191.2	0.3	0.3	7.95	319.2	44.5	322.2	321.6	0.66	486.343			
300.0	300.0	294.4	294.4	0.5	0.5	8.30	318.1	46.4	321.5	320.5	1.02	316.469			
397.6	397.6	391.4	391.3	0.7	0.7	132.52	316.9	45.6	320.7	319.4	1.36	235.931 CC			
400.0	400.0	393.7	393.7	0.7	0.7	132.51	316.8	45.6	320.7	319.3	1.37	234.534 ES			
500.0	500.0	494.8	494.7	0.9	0.9	132.40	315.9	42.9	321.2	319.5	1.72	187.142			
600.0	599.9	597.1	596.9	1.0	1.1	132.32	314.5	39.0	322.3	320.2	2.08	155.213			
700.0	699.7	694.3	694.1	1.2	1.2	132.47	313.4	35.3	324.6	322.2	2.43	133.331			
800.0	799.4	793.2	792.9	1.4	1.4	133.06	312.5	33.0	328.7	325.9	2.80	117.329			
900.0	898.9	891.6	891.3	1.7	1.6	133.91	311.9	31.2	334.5	331.3	3.18	105.324			
1,000.0	998.3	991.6	991.2	1.9	1.8	134.93	311.5	29.3	341.7	338.1	3.56	95.955			
1,100.0	1,097.4	1,091.5	1,091.1	2.2	1.9	136.05	310.9	27.0	350.0	346.0	3.95	88.507			
1,200.0	1,196.3	1,190.5	1,190.1	2.5	2.1	137.28	310.4	24.8	359.8	355.4	4.35	82.643			
1,300.0	1,294.9	1,289.7	1,289.3	2.8	2.3	138.60	309.8	22.5	371.0	366.2	4.76	77.940			
1,400.0	1,393.3	1,389.0	1,388.5	3.1	2.5	140.03	309.2	20.1	383.6	378.4	5.17	74.238			
1,500.0	1,491.6	1,496.3	1,495.8	3.5	2.7	141.61	307.5	17.8	395.8	390.2	5.59	70.859			
1,600.0	1,589.9	1,604.8	1,604.1	3.8	2.9	142.66	304.0	11.4	405.5	399.5	6.02	67.365			
1,700.0	1,688.2	1,716.1	1,714.7	4.2	3.1	143.19	299.0	0.6	412.9	406.4	6.48	63.698			
1,800.0	1,786.5	1,823.0	1,820.5	4.5	3.4	143.25	292.9	-13.6	418.0	411.1	6.96	60.018			
1,900.0	1,884.7	1,931.2	1,927.2	4.9	3.7	143.05	285.6	-30.2	421.4	413.9	7.47	56.377			
2,000.0	1,983.0	2,039.4	2,033.4	5.3	4.0	142.73	276.4	-48.5	422.6	414.6	8.01	52.759			
2,100.0	2,081.3	2,146.0	2,137.5	5.6	4.4	142.12	266.5	-69.0	422.2	413.7	8.59	49.173			
2,200.0	2,179.6	2,248.9	2,237.3	6.0	4.8	141.10	256.6	-92.2	420.6	411.4	9.22	45.613			
2,300.0	2,277.9	2,353.0	2,337.8	6.3	5.3	139.83	246.4	-117.5	418.4	408.5	9.90	42.254			
2,400.0	2,376.2	2,455.6	2,436.8	6.7	5.7	138.64	235.2	-142.1	415.4	404.8	10.60	39.183			
2,500.0	2,474.5	2,557.4	2,534.9	7.1	6.2	137.49	223.4	-166.3	412.0	400.7	11.32	36.409			
2,600.0	2,572.8	2,651.6	2,625.9	7.4	6.6	136.46	212.7	-188.3	409.1	397.1	12.01	34.056			
2,700.0	2,671.1	2,746.6	2,717.9	7.8	7.0	135.42	203.2	-210.1	407.7	395.0	12.73	32.020			
2,800.0	2,769.4	2,851.7	2,819.2	8.2	7.5	134.10	192.6	-235.4	406.2	392.6	13.56	29.960			
2,900.0	2,867.7	2,951.4	2,915.4	8.5	8.0	132.80	182.1	-259.8	404.3	389.9	14.38	28.126			
3,000.0	2,966.0	3,051.1	3,011.3	8.9	8.5	131.42	171.4	-284.7	402.4	387.2	15.23	26.417			
3,064.5	3,029.3	3,112.6	3,070.4	9.1	8.8	130.49	165.1	-300.5	401.7	385.9	15.80	25.428			
3,100.0	3,064.3	3,115.0	3,072.8	9.3	8.8	130.45	164.9	-301.1	402.8	386.8	15.92	25.302			
3,200.0	3,162.5	3,163.0	3,119.9	9.6	8.7	130.21	164.7	-309.6	414.5	398.2	16.27	25.476			
3,300.0	3,260.8	3,349.0	3,301.8	10.0	9.3	130.82	178.2	-329.3	439.3	422.2	17.12	25.664			
3,400.0	3,359.1	3,454.0	3,403.4	10.4	9.8	129.71	167.9	-353.6	438.9	421.0	17.98	24.415			
3,500.0	3,457.4	3,559.2	3,504.9	10.7	10.3	128.48	157.0	-378.9	438.0	419.1	18.89	23.191			
3,600.0	3,555.7	3,659.1	3,601.3	11.1	10.8	127.33	145.5	-402.8	436.1	416.4	19.74	22.089			
3,700.0	3,654.0	3,759.1	3,698.1	11.5	11.3	126.43	134.0	-424.8	434.6	414.0	20.58	21.112			
3,800.0	3,752.3	3,861.8	3,797.3	11.8	11.8	125.34	121.9	-448.6	432.8	411.3	21.48	20.145			
3,899.7	3,850.3	3,952.8	3,885.0	12.2	12.2	124.21	111.6	-470.7	431.7	409.3	22.37	19.297			
3,900.0	3,850.6	3,953.1	3,885.2	12.2	12.2	124.21	111.6	-470.8	431.7	409.3	22.37	19.294			
4,000.0	3,948.9	4,041.8	3,970.7	12.6	12.7	122.99	103.7	-493.4	433.0	409.7	23.28	18.604			
4,100.0	4,047.2	4,145.6	4,070.7	12.9	13.2	121.54	95.3	-520.0	435.6	411.3	24.29	17.935			
4,200.0	4,145.5	4,246.2	4,167.8	13.3	13.7	120.30	86.4	-544.7	437.4	412.2	25.23	17.339			
4,300.0	4,243.8	4,334.0	4,252.9	13.7	14.1	119.40	79.4	-565.0	440.4	414.4	26.06	16.898			
4,400.0	4,342.1	4,427.0	4,343.6	14.0	14.4	118.69	74.2	-585.0	445.7	418.9	26.86	16.595			
4,500.0	4,440.3	4,527.0	4,441.4	14.4	14.8	118.18	69.9	-604.8	452.2	424.5	27.64	16.357			
4,600.0	4,538.6	4,623.2	4,536.0	14.8	15.2	117.88	66.1	-622.4	458.9	430.5	28.36	16.180			
4,700.0	4,636.9	4,715.0	4,626.6	15.1	15.4	117.88	63.9	-637.2	466.8	437.9	28.98	16.107			
4,800.0	4,735.2	4,816.4	4,727.0	15.5	15.7	118.24	62.5	-650.7	475.6	446.0	29.54	16.098			

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 Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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													S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 34-29D (EXISTING) - SYNERGY WELL - SU		Offset Site Error:		0.0 ft	
Survey Program: 217-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					
4,900.0	4,833.5	4,922.5	4,832.5	15.9	16.0	118.98	60.1	-661.5	483.1	453.1	30.01	16.096						
5,000.0	4,931.8	5,020.3	4,930.0	16.2	16.2	119.89	57.7	-669.4	490.5	460.1	30.41	16.127						
5,100.0	5,030.1	5,121.1	5,030.5	16.6	16.4	120.92	55.6	-676.4	498.2	467.5	30.78	16.189						
7,900.0	7,579.8	7,639.7	7,547.7	23.3	18.9	78.78	48.2	-667.2	456.9	430.0	26.97	16.940						
8,000.0	7,594.0	7,654.6	7,562.5	23.3	18.9	85.47	48.2	-666.3	412.6	384.7	27.89	14.791						
8,100.0	7,595.0	7,656.0	7,563.9	23.3	18.9	86.83	48.2	-666.3	385.8	357.7	28.15	13.707						
8,157.6	7,595.0	7,656.2	7,564.1	23.4	18.9	86.86	48.2	-666.2	381.5	353.2	28.33	13.467 SF						
8,200.0	7,595.0	7,656.4	7,564.3	23.5	18.9	86.89	48.2	-666.2	383.8	355.4	28.46	13.487						
8,300.0	7,595.0	7,656.8	7,564.7	23.8	18.9	86.94	48.2	-666.2	407.2	378.2	28.97	14.055						
8,400.0	7,595.0	7,657.2	7,565.0	24.2	18.9	87.00	48.3	-666.2	452.0	422.3	29.67	15.235						

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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		S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 43-29D (EXISTING) - SYNERGY WELL - SU										Offset Site Error:		0.0 ft	
Survey Program:		211-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	4.0	4.0	0.0	0.0	10.83	310.3	59.4	316.0						
100.0	100.0	103.6	103.6	0.2	0.2	10.88	310.3	59.7	316.0	315.7	0.32	980.750			
200.0	200.0	203.3	203.3	0.3	0.3	11.04	310.3	60.6	316.2	315.5	0.66	478.652	ES		
300.0	300.0	298.8	298.7	0.5	0.5	11.29	310.9	62.1	317.1	316.1	1.00	315.793			
400.0	400.0	389.5	389.4	0.7	0.7	135.90	313.3	64.4	320.8	319.4	1.34	239.165			
500.0	500.0	481.3	481.1	0.9	0.9	136.54	318.0	67.8	328.5	326.8	1.68	195.263			
600.0	599.9	569.9	569.3	1.0	1.1	137.33	324.8	71.8	340.2	338.1	2.02	168.343			
700.0	699.7	655.0	653.8	1.2	1.3	138.22	334.1	76.7	356.7	354.3	2.36	151.305			
800.0	799.4	740.1	737.7	1.4	1.6	139.22	346.4	82.8	378.3	375.6	2.70	140.178			
900.0	898.9	823.7	819.8	1.7	1.9	140.29	360.7	90.1	404.4	401.4	3.04	132.885			
1,000.0	998.3	908.4	902.2	1.9	2.2	141.47	377.4	99.0	434.9	431.5	3.39	128.176			
1,100.0	1,097.4	998.5	989.7	2.2	2.6	142.75	396.2	109.5	468.5	464.8	3.76	124.730	SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 44-29D (EXISTING) - SYNERGY WELL - PL													Offset Site Error: 0.0 ft
Survey Program: 0-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	30.56	256.1	151.2	297.5				
100.0	100.0	92.0	92.0	0.2	0.2	30.56	256.1	151.2	297.4	297.1	0.31	952.005	
200.0	200.0	192.0	192.0	0.3	0.3	30.56	256.1	151.2	297.4	296.8	0.66	449.651	
300.0	300.0	292.0	292.0	0.5	0.5	30.56	256.1	151.2	297.4	296.4	1.01	294.331	CC, ES
400.0	400.0	392.0	392.0	0.7	0.7	154.84	256.1	151.2	298.2	296.9	1.36	219.344	
500.0	500.0	492.0	492.0	0.9	0.9	155.04	256.1	151.2	300.6	298.9	1.71	175.890	
600.0	599.9	591.9	591.9	1.0	1.0	155.37	256.1	151.2	304.6	302.5	2.06	147.907	
700.0	699.7	691.7	691.7	1.2	1.2	155.82	256.1	151.2	310.1	307.7	2.41	128.665	
800.0	799.4	791.4	791.4	1.4	1.4	156.37	256.1	151.2	317.3	314.5	2.76	114.851	
900.0	898.9	890.9	890.9	1.7	1.6	157.01	256.1	151.2	326.1	323.0	3.12	104.645	
1,000.0	998.3	990.3	990.3	1.9	1.7	157.72	256.1	151.2	336.6	333.1	3.47	96.965	
1,100.0	1,097.4	1,089.5	1,089.5	2.2	1.9	158.72	255.3	152.4	348.7	344.8	3.83	91.121	
1,200.0	1,196.3	1,188.0	1,187.9	2.5	2.1	160.27	252.5	156.3	362.5	358.4	4.18	86.669	
1,300.0	1,294.9	1,285.4	1,285.0	2.8	2.3	162.28	247.9	162.8	378.5	373.9	4.55	83.274	
1,400.0	1,393.3	1,381.4	1,380.3	3.1	2.5	164.66	241.4	171.9	396.7	391.8	4.92	80.630	
1,500.0	1,491.6	1,476.1	1,473.9	3.5	2.7	167.27	233.3	183.4	416.3	411.0	5.32	78.300	
1,600.0	1,589.9	1,569.6	1,565.9	3.8	3.0	170.03	223.5	197.3	437.3	431.6	5.73	76.308	
1,700.0	1,688.2	1,664.8	1,659.3	4.2	3.3	172.72	212.8	212.3	459.5	453.4	6.16	74.538	
1,800.0	1,786.5	1,760.0	1,752.7	4.5	3.6	175.17	202.2	227.3	482.7	476.1	6.61	73.039	SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - WILLIAM PELTIER 1A-20H (EXISTING) - ENCANA WELL													Offset Site Error: 0.0 ft
Survey Program: 911-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	
16,300.0	7,595.0	9,872.5	7,726.6	147.3	53.0	-146.05	8,648.4	-1,145.2	490.3	390.7	99.63	4.921	
16,400.0	7,595.0	9,853.1	7,727.8	149.0	52.6	-151.69	8,652.2	-1,126.2	398.1	309.6	88.47	4.500	
16,500.0	7,595.0	9,833.4	7,728.8	150.7	52.1	-157.97	8,655.9	-1,106.9	309.5	234.1	75.38	4.106	
16,600.0	7,595.0	9,814.2	7,729.6	152.5	51.7	-164.61	8,659.7	-1,088.1	228.8	167.2	61.58	3.715	
16,700.0	7,595.0	9,793.2	7,730.4	154.2	51.2	-172.21	8,664.1	-1,067.6	167.7	119.9	47.77	3.510 SF	
16,768.2	7,595.0	9,777.3	7,730.7	155.4	50.8	-178.14	8,667.5	-1,052.0	150.1	108.2	41.83	3.588 CC, ES	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 S29-T1N-R68W (Pratt/Waste Connections) - WILLIAM PELTIER 4-2-20 (EXISTING) - ENCANA WELL													Offset Site Error:	0.0 ft
Survey Program: 0-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		
16,600.0	7,595.0	7,902.5	7,498.0	152.5	42.3	-90.00	8,655.2	-1,486.8	469.4	300.3	169.06	2.776		
16,700.0	7,595.0	7,902.5	7,498.0	154.2	42.3	-90.00	8,655.2	-1,486.8	444.3	273.5	170.81	2.601		
16,764.5	7,595.0	7,902.5	7,498.0	155.3	42.3	-90.00	8,655.2	-1,486.8	439.6	267.7	171.94	2.557 CC		
16,768.2	7,595.0	7,902.5	7,498.0	155.4	42.3	-90.00	8,655.2	-1,486.8	439.6	267.6	172.00	2.556 ES, SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pratt 4B-29H-P168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5189.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5189.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Pratt 4B-29H-P168	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 @ 5189.0ft (Original Well Elev)

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Pratt 4B-29H-P168

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.31°

