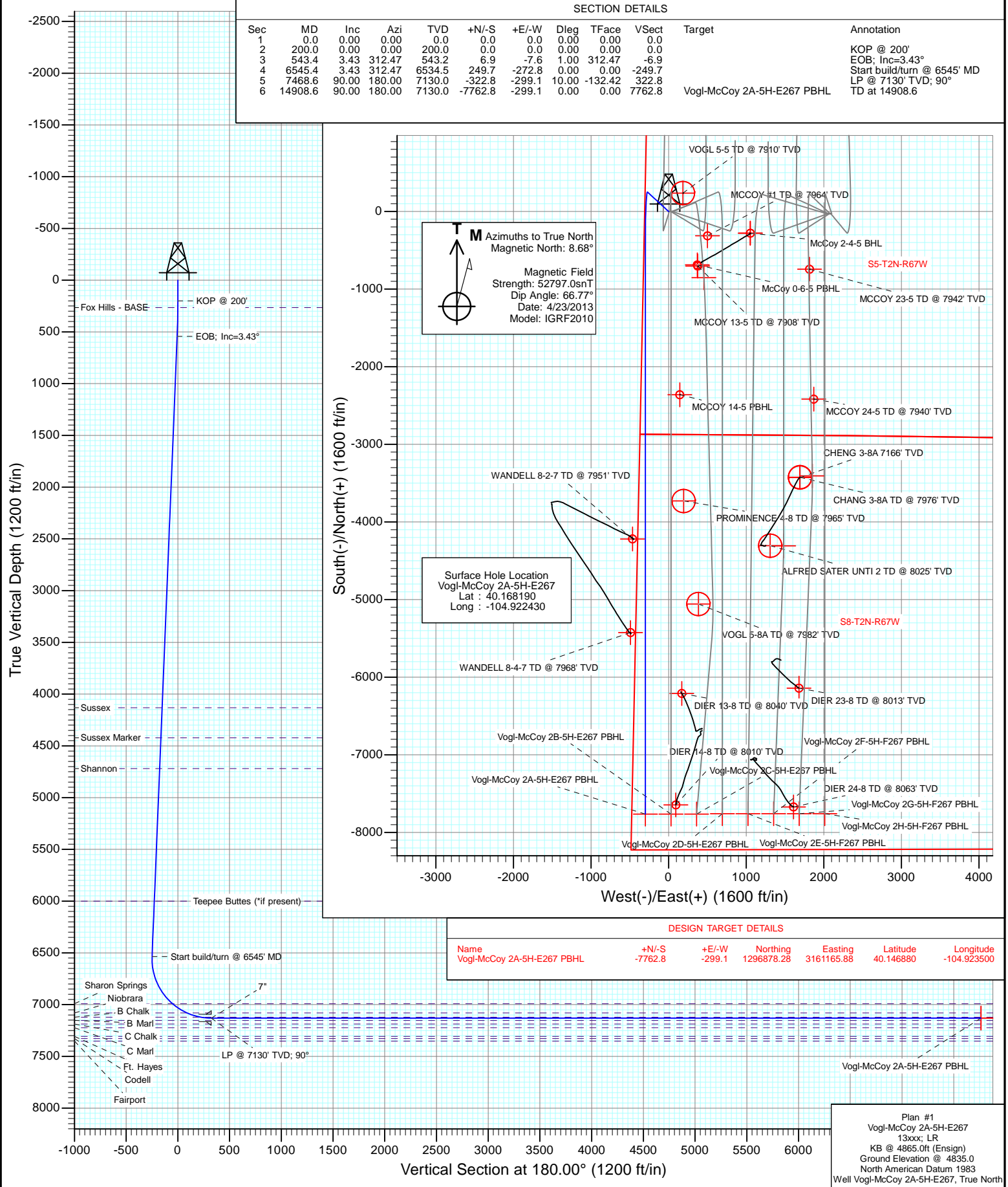




Project: DJ Wattenberg
Site: S5-T2N-R67W (Vogl-McCoy)
Well: Vogl-McCoy 2A-5H-E267
Wellbore: Hz
Design: Plan #1



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 4865.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	KB @ 4865.0ft (Ensign)
Site:	S5-T2N-R67W (Vogl-McCoy)	North Reference:	True
Well:	Vogl-McCoy 2A-5H-E267	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		S5-T2N-R67W (Vogl-McCoy)			
Site Position:		Northing:	1,303,967.76 ft	Latitude:	40.166330
From:	Lat/Long	Easting:	3,161,787.74 ft	Longitude:	-104.921110
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.37 °

Well	Vogl-McCoy 2A-5H-E267					
Well Position	+N/-S	0.0 ft	Northing:	1,304,642.89 ft	Latitude:	40.168190
	+E/-W	0.0 ft	Easting:	3,161,414.43 ft	Longitude:	-104.922430
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,835.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/23/2013	8.68	66.77	52,797

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	180.00	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
543.4	3.43	312.47	543.2	6.9	-7.6	1.00	1.00	0.00	312.47	
6,545.4	3.43	312.47	6,534.5	249.7	-272.8	0.00	0.00	0.00	0.00	
7,468.6	90.00	180.00	7,130.0	-322.8	-299.1	10.00	9.38	-14.35	-132.42	
14,908.6	90.00	180.00	7,130.0	-7,762.8	-299.1	0.00	0.00	0.00	0.00	Vogl-McCoy 2A-5H-E:

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 4865.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	KB @ 4865.0ft (Ensign)
Site:	S5-T2N-R67W (Vogl-McCoy)	North Reference:	True
Well:	Vogl-McCoy 2A-5H-E267	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	KOP @ 200'
265.0	0.65	312.47	265.0	0.2	-0.3	-0.2	1.00	1.00	Fox Hills - BASE
300.0	1.00	312.47	300.0	0.6	-0.6	-0.6	1.00	1.00	
400.0	2.00	312.47	400.0	2.4	-2.6	-2.4	1.00	1.00	
500.0	3.00	312.47	499.9	5.3	-5.8	-5.3	1.00	1.00	
543.4	3.43	312.47	543.2	6.9	-7.6	-6.9	1.00	1.00	EOB; Inc=3.43°
600.0	3.43	312.47	599.7	9.2	-10.1	-9.2	0.00	0.00	
700.0	3.43	312.47	699.5	13.3	-14.5	-13.3	0.00	0.00	
800.0	3.43	312.47	799.3	17.3	-18.9	-17.3	0.00	0.00	
900.0	3.43	312.47	899.2	21.4	-23.3	-21.4	0.00	0.00	
1,000.0	3.43	312.47	999.0	25.4	-27.8	-25.4	0.00	0.00	
1,100.0	3.43	312.47	1,098.8	29.5	-32.2	-29.5	0.00	0.00	
1,200.0	3.43	312.47	1,198.6	33.5	-36.6	-33.5	0.00	0.00	
1,300.0	3.43	312.47	1,298.4	37.5	-41.0	-37.5	0.00	0.00	
1,400.0	3.43	312.47	1,398.3	41.6	-45.4	-41.6	0.00	0.00	
1,500.0	3.43	312.47	1,498.1	45.6	-49.9	-45.6	0.00	0.00	
1,600.0	3.43	312.47	1,597.9	49.7	-54.3	-49.7	0.00	0.00	
1,700.0	3.43	312.47	1,697.7	53.7	-58.7	-53.7	0.00	0.00	
1,800.0	3.43	312.47	1,797.5	57.8	-63.1	-57.8	0.00	0.00	
1,900.0	3.43	312.47	1,897.4	61.8	-67.5	-61.8	0.00	0.00	
2,000.0	3.43	312.47	1,997.2	65.8	-71.9	-65.8	0.00	0.00	
2,100.0	3.43	312.47	2,097.0	69.9	-76.4	-69.9	0.00	0.00	
2,200.0	3.43	312.47	2,196.8	73.9	-80.8	-73.9	0.00	0.00	
2,300.0	3.43	312.47	2,296.6	78.0	-85.2	-78.0	0.00	0.00	
2,400.0	3.43	312.47	2,396.5	82.0	-89.6	-82.0	0.00	0.00	
2,500.0	3.43	312.47	2,496.3	86.1	-94.0	-86.1	0.00	0.00	
2,600.0	3.43	312.47	2,596.1	90.1	-98.4	-90.1	0.00	0.00	
2,700.0	3.43	312.47	2,695.9	94.2	-102.9	-94.2	0.00	0.00	
2,800.0	3.43	312.47	2,795.7	98.2	-107.3	-98.2	0.00	0.00	
2,900.0	3.43	312.47	2,895.6	102.2	-111.7	-102.2	0.00	0.00	
3,000.0	3.43	312.47	2,995.4	106.3	-116.1	-106.3	0.00	0.00	
3,100.0	3.43	312.47	3,095.2	110.3	-120.5	-110.3	0.00	0.00	
3,200.0	3.43	312.47	3,195.0	114.4	-125.0	-114.4	0.00	0.00	
3,300.0	3.43	312.47	3,294.8	118.4	-129.4	-118.4	0.00	0.00	
3,400.0	3.43	312.47	3,394.7	122.5	-133.8	-122.5	0.00	0.00	
3,500.0	3.43	312.47	3,494.5	126.5	-138.2	-126.5	0.00	0.00	
3,600.0	3.43	312.47	3,594.3	130.6	-142.6	-130.6	0.00	0.00	
3,700.0	3.43	312.47	3,694.1	134.6	-147.0	-134.6	0.00	0.00	
3,800.0	3.43	312.47	3,793.9	138.6	-151.5	-138.6	0.00	0.00	
3,900.0	3.43	312.47	3,893.8	142.7	-155.9	-142.7	0.00	0.00	
4,000.0	3.43	312.47	3,993.6	146.7	-160.3	-146.7	0.00	0.00	
4,100.0	3.43	312.47	4,093.4	150.8	-164.7	-150.8	0.00	0.00	
4,137.7	3.43	312.47	4,131.0	152.3	-166.4	-152.3	0.00	0.00	Sussex
4,200.0	3.43	312.47	4,193.2	154.8	-169.1	-154.8	0.00	0.00	
4,300.0	3.43	312.47	4,293.1	158.9	-173.6	-158.9	0.00	0.00	
4,400.0	3.43	312.47	4,392.9	162.9	-178.0	-162.9	0.00	0.00	
4,429.2	3.43	312.47	4,422.0	164.1	-179.3	-164.1	0.00	0.00	Sussex Marker
4,500.0	3.43	312.47	4,492.7	166.9	-182.4	-166.9	0.00	0.00	
4,600.0	3.43	312.47	4,592.5	171.0	-186.8	-171.0	0.00	0.00	
4,700.0	3.43	312.47	4,692.3	175.0	-191.2	-175.0	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 4865.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	KB @ 4865.0ft (Ensign)
Site:	S5-T2N-R67W (Vogl-McCoy)	North Reference:	True
Well:	Vogl-McCoy 2A-5H-E267	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
4,726.7	3.43	312.47	4,719.0	176.1	-192.4	-176.1	0.00	0.00	Shannon
4,800.0	3.43	312.47	4,792.2	179.1	-195.6	-179.1	0.00	0.00	
4,900.0	3.43	312.47	4,892.0	183.1	-200.1	-183.1	0.00	0.00	
5,000.0	3.43	312.47	4,991.8	187.2	-204.5	-187.2	0.00	0.00	
5,100.0	3.43	312.47	5,091.6	191.2	-208.9	-191.2	0.00	0.00	
5,200.0	3.43	312.47	5,191.4	195.3	-213.3	-195.3	0.00	0.00	
5,300.0	3.43	312.47	5,291.3	199.3	-217.7	-199.3	0.00	0.00	
5,400.0	3.43	312.47	5,391.1	203.3	-222.2	-203.3	0.00	0.00	
5,500.0	3.43	312.47	5,490.9	207.4	-226.6	-207.4	0.00	0.00	
5,600.0	3.43	312.47	5,590.7	211.4	-231.0	-211.4	0.00	0.00	
5,700.0	3.43	312.47	5,690.5	215.5	-235.4	-215.5	0.00	0.00	
5,800.0	3.43	312.47	5,790.4	219.5	-239.8	-219.5	0.00	0.00	
5,900.0	3.43	312.47	5,890.2	223.6	-244.2	-223.6	0.00	0.00	
6,000.0	3.43	312.47	5,990.0	227.6	-248.7	-227.6	0.00	0.00	
6,010.0	3.43	312.47	6,000.0	228.0	-249.1	-228.0	0.00	0.00	Teepee Buttes (*if present)
6,100.0	3.43	312.47	6,089.8	231.7	-253.1	-231.7	0.00	0.00	
6,200.0	3.43	312.47	6,189.6	235.7	-257.5	-235.7	0.00	0.00	
6,300.0	3.43	312.47	6,289.5	239.7	-261.9	-239.7	0.00	0.00	
6,400.0	3.43	312.47	6,389.3	243.8	-266.3	-243.8	0.00	0.00	
6,500.0	3.43	312.47	6,489.1	247.8	-270.8	-247.8	0.00	0.00	
6,545.4	3.43	312.47	6,534.5	249.7	-272.8	-249.7	0.00	0.00	Start build/turn @ 6545' MD
6,600.0	4.03	218.88	6,588.9	249.3	-275.2	-249.3	10.00	1.10	
6,700.0	13.38	190.73	6,687.7	235.1	-279.5	-235.1	10.00	9.34	
6,800.0	23.27	185.91	6,782.5	204.0	-283.7	-204.0	10.00	9.89	
6,900.0	33.22	183.87	6,870.5	156.9	-287.6	-156.9	10.00	9.95	
7,000.0	43.20	182.70	6,949.0	95.3	-291.1	-95.3	10.00	9.97	
7,060.8	49.26	182.18	6,991.0	51.4	-293.0	-51.4	10.00	9.98	Sharon Springs
7,100.0	53.18	181.90	7,015.6	20.9	-294.1	-20.9	10.00	9.98	
7,200.0	63.17	181.28	7,068.2	-63.9	-296.4	63.9	10.00	9.99	
7,227.4	65.90	181.13	7,080.0	-88.6	-296.9	88.6	10.00	9.99	Niobrara
7,300.0	73.16	180.77	7,105.4	-156.6	-298.0	156.6	10.00	9.99	
7,361.4	79.28	180.48	7,120.0	-216.2	-298.7	216.2	10.00	9.99	B Chalk
7,400.0	83.15	180.30	7,125.9	-254.4	-298.9	254.4	10.00	9.99	
7,468.6	90.00	180.00	7,130.0	-322.8	-299.1	322.8	10.00	9.99	LP @ 7130' TVD; 90° - 7"
7,500.0	90.00	180.00	7,130.0	-354.2	-299.1	354.2	0.00	0.00	
7,600.0	90.00	180.00	7,130.0	-454.2	-299.1	454.2	0.00	0.00	
7,700.0	90.00	180.00	7,130.0	-554.2	-299.1	554.2	0.00	0.00	
7,800.0	90.00	180.00	7,130.0	-654.2	-299.1	654.2	0.00	0.00	
7,900.0	90.00	180.00	7,130.0	-754.2	-299.1	754.2	0.00	0.00	
8,000.0	90.00	180.00	7,130.0	-854.2	-299.1	854.2	0.00	0.00	
8,100.0	90.00	180.00	7,130.0	-954.2	-299.1	954.2	0.00	0.00	
8,200.0	90.00	180.00	7,130.0	-1,054.2	-299.1	1,054.2	0.00	0.00	
8,300.0	90.00	180.00	7,130.0	-1,154.2	-299.1	1,154.2	0.00	0.00	
8,400.0	90.00	180.00	7,130.0	-1,254.2	-299.1	1,254.2	0.00	0.00	
8,500.0	90.00	180.00	7,130.0	-1,354.2	-299.1	1,354.2	0.00	0.00	
8,600.0	90.00	180.00	7,130.0	-1,454.2	-299.1	1,454.2	0.00	0.00	
8,700.0	90.00	180.00	7,130.0	-1,554.2	-299.1	1,554.2	0.00	0.00	
8,800.0	90.00	180.00	7,130.0	-1,654.2	-299.1	1,654.2	0.00	0.00	
8,900.0	90.00	180.00	7,130.0	-1,754.2	-299.1	1,754.2	0.00	0.00	
9,000.0	90.00	180.00	7,130.0	-1,854.2	-299.1	1,854.2	0.00	0.00	
9,100.0	90.00	180.00	7,130.0	-1,954.2	-299.1	1,954.2	0.00	0.00	
9,200.0	90.00	180.00	7,130.0	-2,054.2	-299.1	2,054.2	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 4865.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	KB @ 4865.0ft (Ensign)
Site:	S5-T2N-R67W (Vogl-McCoy)	North Reference:	True
Well:	Vogl-McCoy 2A-5H-E267	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
9,300.0	90.00	180.00	7,130.0	-2,154.2	-299.1	2,154.2	0.00	0.00	
9,400.0	90.00	180.00	7,130.0	-2,254.2	-299.1	2,254.2	0.00	0.00	
9,500.0	90.00	180.00	7,130.0	-2,354.2	-299.1	2,354.2	0.00	0.00	
9,600.0	90.00	180.00	7,130.0	-2,454.2	-299.1	2,454.2	0.00	0.00	
9,700.0	90.00	180.00	7,130.0	-2,554.2	-299.1	2,554.2	0.00	0.00	
9,800.0	90.00	180.00	7,130.0	-2,654.2	-299.1	2,654.2	0.00	0.00	
9,900.0	90.00	180.00	7,130.0	-2,754.2	-299.1	2,754.2	0.00	0.00	
10,000.0	90.00	180.00	7,130.0	-2,854.2	-299.1	2,854.2	0.00	0.00	
10,100.0	90.00	180.00	7,130.0	-2,954.2	-299.1	2,954.2	0.00	0.00	
10,200.0	90.00	180.00	7,130.0	-3,054.2	-299.1	3,054.2	0.00	0.00	
10,300.0	90.00	180.00	7,130.0	-3,154.2	-299.1	3,154.2	0.00	0.00	
10,400.0	90.00	180.00	7,130.0	-3,254.2	-299.1	3,254.2	0.00	0.00	
10,500.0	90.00	180.00	7,130.0	-3,354.2	-299.1	3,354.2	0.00	0.00	
10,600.0	90.00	180.00	7,130.0	-3,454.2	-299.1	3,454.2	0.00	0.00	
10,700.0	90.00	180.00	7,130.0	-3,554.2	-299.1	3,554.2	0.00	0.00	
10,800.0	90.00	180.00	7,130.0	-3,654.2	-299.1	3,654.2	0.00	0.00	
10,900.0	90.00	180.00	7,130.0	-3,754.2	-299.1	3,754.2	0.00	0.00	
11,000.0	90.00	180.00	7,130.0	-3,854.2	-299.1	3,854.2	0.00	0.00	
11,100.0	90.00	180.00	7,130.0	-3,954.2	-299.1	3,954.2	0.00	0.00	
11,200.0	90.00	180.00	7,130.0	-4,054.2	-299.1	4,054.2	0.00	0.00	
11,300.0	90.00	180.00	7,130.0	-4,154.2	-299.1	4,154.2	0.00	0.00	
11,400.0	90.00	180.00	7,130.0	-4,254.2	-299.1	4,254.2	0.00	0.00	
11,500.0	90.00	180.00	7,130.0	-4,354.2	-299.1	4,354.2	0.00	0.00	
11,600.0	90.00	180.00	7,130.0	-4,454.2	-299.1	4,454.2	0.00	0.00	
11,700.0	90.00	180.00	7,130.0	-4,554.2	-299.1	4,554.2	0.00	0.00	
11,800.0	90.00	180.00	7,130.0	-4,654.2	-299.1	4,654.2	0.00	0.00	
11,900.0	90.00	180.00	7,130.0	-4,754.2	-299.1	4,754.2	0.00	0.00	
12,000.0	90.00	180.00	7,130.0	-4,854.2	-299.1	4,854.2	0.00	0.00	
12,100.0	90.00	180.00	7,130.0	-4,954.2	-299.1	4,954.2	0.00	0.00	
12,200.0	90.00	180.00	7,130.0	-5,054.2	-299.1	5,054.2	0.00	0.00	
12,300.0	90.00	180.00	7,130.0	-5,154.2	-299.1	5,154.2	0.00	0.00	
12,400.0	90.00	180.00	7,130.0	-5,254.2	-299.1	5,254.2	0.00	0.00	
12,500.0	90.00	180.00	7,130.0	-5,354.2	-299.1	5,354.2	0.00	0.00	
12,600.0	90.00	180.00	7,130.0	-5,454.2	-299.1	5,454.2	0.00	0.00	
12,700.0	90.00	180.00	7,130.0	-5,554.2	-299.1	5,554.2	0.00	0.00	
12,800.0	90.00	180.00	7,130.0	-5,654.2	-299.1	5,654.2	0.00	0.00	
12,900.0	90.00	180.00	7,130.0	-5,754.2	-299.1	5,754.2	0.00	0.00	
13,000.0	90.00	180.00	7,130.0	-5,854.2	-299.1	5,854.2	0.00	0.00	
13,100.0	90.00	180.00	7,130.0	-5,954.2	-299.1	5,954.2	0.00	0.00	
13,200.0	90.00	180.00	7,130.0	-6,054.2	-299.1	6,054.2	0.00	0.00	
13,300.0	90.00	180.00	7,130.0	-6,154.2	-299.1	6,154.2	0.00	0.00	
13,400.0	90.00	180.00	7,130.0	-6,254.2	-299.1	6,254.2	0.00	0.00	
13,500.0	90.00	180.00	7,130.0	-6,354.2	-299.1	6,354.2	0.00	0.00	
13,600.0	90.00	180.00	7,130.0	-6,454.2	-299.1	6,454.2	0.00	0.00	
13,700.0	90.00	180.00	7,130.0	-6,554.2	-299.1	6,554.2	0.00	0.00	
13,800.0	90.00	180.00	7,130.0	-6,654.2	-299.1	6,654.2	0.00	0.00	
13,900.0	90.00	180.00	7,130.0	-6,754.2	-299.1	6,754.2	0.00	0.00	
14,000.0	90.00	180.00	7,130.0	-6,854.2	-299.1	6,854.2	0.00	0.00	
14,100.0	90.00	180.00	7,130.0	-6,954.2	-299.1	6,954.2	0.00	0.00	
14,200.0	90.00	180.00	7,130.0	-7,054.2	-299.1	7,054.2	0.00	0.00	
14,300.0	90.00	180.00	7,130.0	-7,154.2	-299.1	7,154.2	0.00	0.00	
14,400.0	90.00	180.00	7,130.0	-7,254.2	-299.1	7,254.2	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 4865.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	KB @ 4865.0ft (Ensign)
Site:	S5-T2N-R67W (Vogl-McCoy)	North Reference:	True
Well:	Vogl-McCoy 2A-5H-E267	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
14,500.0	90.00	180.00	7,130.0	-7,354.2	-299.1	7,354.2	0.00	0.00	
14,600.0	90.00	180.00	7,130.0	-7,454.2	-299.1	7,454.2	0.00	0.00	
14,700.0	90.00	180.00	7,130.0	-7,554.2	-299.1	7,554.2	0.00	0.00	
14,800.0	90.00	180.00	7,130.0	-7,654.2	-299.1	7,654.2	0.00	0.00	
14,900.0	90.00	180.00	7,130.0	-7,754.2	-299.1	7,754.2	0.00	0.00	
14,908.6	90.00	180.00	7,130.0	-7,762.8	-299.1	7,762.8	0.00	0.00	TD at 14908.6 - Vogl-McCoy 2A-5H-E267 PBHL

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Vogl-McCoy 2A-5H-E267	0.00	0.00	7,130.0	-7,762.8	-299.1	1,296,878.28	3,161,165.88	40.146880	-104.923500
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
7,468.6	7,130.0	7"	0.000	0.000	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
265.0	265.0	Fox Hills - BASE			
4,137.7	4,131.0	Sussex			
4,429.2	4,422.0	Sussex Marker			
4,726.7	4,719.0	Shannon			
6,010.0	6,000.0	Teepee Buttes (*if present)			
7,060.8	6,991.0	Sharon Springs			
7,227.4	7,080.0	Niobrara			
7,361.4	7,120.0	B Chalk			

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
200.0	200.0	0.0	0.0	KOP @ 200'
543.4	543.2	6.9	-7.6	EOB; Inc=3.43°
6,545.4	6,534.5	249.7	-272.8	Start build/turn @ 6545' MD
7,468.6	7,130.0	-322.8	-299.1	LP @ 7130' TVD; 90°
14,908.6	7,130.0	-7,762.8	-299.1	TD at 14908.6

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S5-T2N-R67W (Vogl-McCoy)

Vogl-McCoy 2A-5H-E267

Hz

Plan #1

Anticollision Report

22 May, 2013

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	5/22/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	14,908.5	Plan #1 (Hz)	MWD	Geolink MWD	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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						
S5-T2N-R67W (Vogl-McCoy)						
ALFRED SATER UNIT 2 (EXISTING) - KMG WELL - NO						Out of range
CHENG 3-8A (EXISTING) - KMG WELL - SURVEYS						Out of range
DIER 13-8 (EXISTING) - ENCANA WELL - SURVEYS	13,570.8	7,319.2	573.7	446.6	4.512	CC
DIER 13-8 (EXISTING) - ENCANA WELL - SURVEYS	13,600.0	7,308.1	574.4	446.5	4.491	ES, SF
DIER 14-8 (EXISTING) - ENCANA WELL - SURVEYS	14,741.6	7,359.0	401.4	245.6	2.577	CC, ES, SF
DIER 23-8 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
DIER 24-8 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
DIER 4-8 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
GEIST 0-2-32 (EXISTING) - ENCANA WELL - NO SURV						Out of range
GEIST 11-32 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
GEIST 12-32 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
GEIST 2-0-32 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
GEIST 21-32 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
GEIST 22-32 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
GEIST 2-4-32 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
GEIST 4-2-32 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
GEIST A UNIT #1 (EXISTING) - ENCANA WELL - SURV						Out of range
MCCOY #1 (EXISTING) - ENCANA WELL - NO SURVEY	200.0	214.0	591.6	590.9	906.288	CC, ES
MCCOY #1 (EXISTING) - ENCANA WELL - NO SURVEY	7,800.0	7,144.0	869.8	839.3	28.570	SF
MCCOY 0-6-5 (EXISTING) - ENCANA WELL - NO SURV	7,834.3	7,223.0	668.0	637.0	21.526	CC, ES
MCCOY 0-6-5 (EXISTING) - ENCANA WELL - NO SURV	8,000.0	7,223.0	688.3	655.0	20.681	SF
MCCOY 13-5 (EXISTING) - ENCANA WELL - NO SURV	7,849.6	7,122.0	674.2	643.1	21.705	CC, ES
MCCOY 13-5 (EXISTING) - ENCANA WELL - NO SURV	8,100.0	7,122.0	719.2	684.6	20.822	SF
MCCOY 14-5 (EXISTING) - ENCANA WELL - NO SURV	9,507.1	7,134.0	442.5	385.3	7.733	CC, ES
MCCOY 14-5 (EXISTING) - ENCANA WELL - NO SURV	9,600.0	7,134.0	452.2	393.4	7.690	SF
MCCOY 23-5 (EXISTING) - ENCANA WELL - NO SURV						Out of range
MCCOY 24-5 (EXISTING) - ENCANA WELL - NO SURV						Out of range
MCCOY 2-4-5 (EXISTING) - ENCANA WELL - SURVEYS	232.5	235.9	785.4	784.6	1,037.165	CC, ES
MCCOY 2-4-5 (EXISTING) - ENCANA WELL - SURVEYS	2,900.0	2,858.4	994.7	982.8	83.216	SF
NELSON 23-32 (EXISTING) - ENCANA WELL - NO SUR						Out of range
NELSON 4-32 (EXISTING) - ENCANA WELL - NO SURV						Out of range
NELSON 4-6-32 (EXISTING) - ENCANA WELL - PLAN O						Out of range
OWNES BROTHERS 13-32 (EXISTING) - ENCANA WE						Out of range
PROMINENCE 4-8 (EXISTING) - KMG WELL - NO SUR	10,876.0	7,155.0	492.0	411.3	6.099	CC, ES
PROMINENCE 4-8 (EXISTING) - KMG WELL - NO SUR	10,900.0	7,155.0	492.6	411.5	6.075	SF
ROBERT NELSON 14-32 (EXISTING) - ENCANA WELL						Out of range
ROBERT NELSON 24-32 (EXISTING) - ENCANA WELL						Out of range
ROBERT NELSON 2-8-32 (EXISTING) - ENCANA WELL						Out of range
VOGL 21-5X (EXISTING) - KMG WELL - NO SURVEYS						Out of range
VOGL 31-5 (EXISTING) - KMG WELL - NO SURVEYS	6,600.0	6,753.1	873.3	847.7	34.114	CC, ES, SF
VOGL 4-5A (EXISTING) - KMG WELL - NO SURVEYS						Out of range
VOGL 5-5 (EXISTING) - KMG WELL - NO SURVEYS	769.4	743.7	299.2	296.5	112.066	CC
VOGL 5-5 (EXISTING) - KMG WELL - NO SURVEYS	1,100.0	1,073.8	299.9	295.9	76.700	ES
VOGL 5-5 (EXISTING) - KMG WELL - NO SURVEYS	6,700.0	6,662.7	464.0	440.1	19.389	SF
VOGL 5-8A (EXISTING) - KMG WELL - NO SURVEYS	12,203.1	7,165.0	682.3	578.7	6.582	CC, ES
VOGL 5-8A (EXISTING) - KMG WELL - NO SURVEYS	12,300.0	7,165.0	689.2	583.8	6.541	SF
Vogl-Geist 2A-5H-E267 - Hz - Plan #1	200.0	201.0	8.4	7.8	14.087	CC, ES
Vogl-Geist 2A-5H-E267 - Hz - Plan #1	400.0	401.0	11.2	9.9	8.660	SF
Vogl-Geist 2B-5H-E267 - Hz - Plan #1	200.0	201.0	27.9	27.4	46.956	CC, ES
Vogl-Geist 2B-5H-E267 - Hz - Plan #1	700.0	700.0	45.3	43.0	19.303	SF
Vogl-Geist 2C-5H-E267 - Hz - Plan #1	200.0	201.0	47.5	46.9	79.826	CC, ES
Vogl-Geist 2C-5H-E267 - Hz - Plan #1	700.0	695.5	77.2	74.8	32.914	SF
Vogl-Geist 2D-5H-F267 - Hz - Plan #1						Out of range

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 Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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	Offset Measured Depth	Distance Between Centres		Separation Factor	Warning
Offset Well - Wellbore - Design	(ft)	(ft)	(ft)	Ellipses (ft)		
S5-T2N-R67W (Vogl-McCoy)						
Vogl-Geist 2E-5H-F267 - Hz - Plan #1						Out of range
Vogl-Geist 2F-5H-F267 - Hz - Plan #1						Out of range
Vogl-McCoy 2B-5H-E267 - Hz - Plan #1	200.0	200.0	19.6	19.0	32.966	CC, ES
Vogl-McCoy 2B-5H-E267 - Hz - Plan #1	14,908.6	15,117.3	390.0	154.3	1.655	SF
Vogl-McCoy 2C-5H-E267 - Hz - Plan #1	200.0	201.0	39.1	38.5	65.739	CC, ES
Vogl-McCoy 2C-5H-E267 - Hz - Plan #1	14,908.6	14,787.9	659.7	382.9	2.383	SF
Vogl-McCoy 2D-5H-E267 - Hz - Plan #1	166.3	167.3	58.7	58.2	122.873	CC
Vogl-McCoy 2D-5H-E267 - Hz - Plan #1	200.0	201.0	58.7	58.1	98.610	ES
Vogl-McCoy 2D-5H-E267 - Hz - Plan #1	6,500.0	6,438.8	881.8	857.7	36.724	SF
Vogl-McCoy 2E-5H-F267 - Hz - Plan #1						Out of range
Vogl-McCoy 2F-5H-F267 - Hz - Plan #1						Out of range
Vogl-McCoy 2G-5H-F267 - Hz - Plan #1						Out of range
Vogl-McCoy 2H-5H-F267 - Hz - Plan #1						Out of range
WANDELL 8-2-7 (EXISTING) - ENCANA WELL - SURVE	11,366.8	7,324.6	159.0	67.0	1.729	CC, ES, SF
WANDELL 8-4-7 (EXISTING) - ENCANA WELL - SURVE	12,577.2	7,563.2	192.7	62.7	1.482	Level 3, CC, ES, SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - DIER 13-8 (EXISTING) - ENCANA WELL - SURVEYS												Offset Site Error:	0.0 ft
Survey Program: 690-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)					
12,700.0	7,130.0	7,583.2	7,517.5	100.0	14.9	-121.76	-6,327.3	229.2	991.8	893.2	98.65	10.054	
12,800.0	7,130.0	7,564.1	7,499.6	101.7	14.9	-120.21	-6,333.2	231.8	915.7	814.1	101.55	9.017	
12,900.0	7,130.0	7,542.4	7,479.3	103.4	14.8	-118.41	-6,340.5	234.8	843.9	739.2	104.63	8.065	
13,000.0	7,130.0	7,529.2	7,467.1	105.2	14.7	-117.31	-6,345.1	236.6	777.5	670.4	107.11	7.259	
13,100.0	7,130.0	7,508.0	7,447.7	106.9	14.6	-115.51	-6,353.0	239.8	718.1	608.0	110.14	6.520	
13,200.0	7,130.0	7,471.3	7,414.2	108.7	14.4	-112.33	-6,367.1	245.5	666.7	552.6	114.11	5.843	
13,300.0	7,130.0	7,431.7	7,378.1	110.4	14.2	-108.81	-6,382.0	251.6	624.8	506.8	118.05	5.293	
13,400.0	7,130.0	7,392.5	7,342.4	112.1	14.1	-105.26	-6,396.9	257.6	594.5	472.8	121.67	4.886	
13,500.0	7,130.0	7,352.7	7,306.2	113.9	13.9	-101.62	-6,412.4	263.5	577.3	452.4	124.94	4.621	
13,570.8	7,130.0	7,319.2	7,275.5	115.1	13.8	-98.52	-6,425.1	268.3	573.7	446.6	127.14	4.512 CC	
13,600.0	7,130.0	7,308.1	7,265.3	115.6	13.7	-97.49	-6,429.2	269.8	574.4	446.5	127.90	4.491 ES, SF	
13,700.0	7,130.0	7,270.6	7,230.7	117.4	13.6	-94.00	-6,442.5	274.9	586.1	455.9	130.23	4.501	
13,800.0	7,130.0	7,236.5	7,199.0	119.1	13.4	-90.84	-6,454.2	279.3	612.1	480.0	132.13	4.633	
13,900.0	7,130.0	7,203.4	7,168.1	120.9	13.3	-87.79	-6,465.4	283.7	650.8	517.2	133.67	4.869	
14,000.0	7,130.0	7,169.1	7,136.1	122.6	13.2	-84.70	-6,476.8	288.1	700.2	565.3	134.85	5.192	
14,100.0	7,130.0	7,115.4	7,086.4	124.3	13.0	-80.06	-6,495.9	295.0	757.5	622.5	135.02	5.611	
14,200.0	7,130.0	7,073.5	7,048.0	126.1	12.8	-76.62	-6,511.9	300.4	820.9	685.9	135.02	6.080	
14,300.0	7,130.0	7,039.6	7,016.9	127.8	12.7	-73.96	-6,524.6	304.7	889.4	754.3	135.05	6.585	
14,400.0	7,130.0	7,008.1	6,987.7	129.6	12.6	-71.54	-6,536.0	308.3	962.2	827.3	134.97	7.129	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - DIER 14-8 (EXISTING) - ENCANA WELL - SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 735-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		
13,900.0	7,130.0	7,248.8	7,089.9	120.9	20.9	-76.11	-7,582.1	105.8	927.0	790.1	136.86	6.773		
14,000.0	7,130.0	7,265.4	7,106.3	122.6	21.0	-78.30	-7,584.3	105.2	838.8	699.0	139.75	6.002		
14,100.0	7,130.0	7,280.0	7,120.7	124.3	21.0	-80.26	-7,586.3	104.6	753.2	610.8	142.38	5.290		
14,200.0	7,130.0	7,293.9	7,134.5	126.1	21.0	-82.17	-7,588.1	104.2	671.3	526.5	144.86	4.634		
14,300.0	7,130.0	7,308.2	7,148.7	127.8	21.1	-84.15	-7,589.9	103.7	594.8	447.5	147.22	4.040		
14,400.0	7,130.0	7,321.7	7,162.1	129.6	21.1	-86.03	-7,591.5	103.2	525.8	376.4	149.40	3.519		
14,500.0	7,130.0	7,333.7	7,174.0	131.3	21.1	-87.72	-7,592.9	102.9	467.8	316.4	151.42	3.090		
14,600.0	7,130.0	7,344.7	7,184.9	133.1	21.2	-89.27	-7,594.2	102.6	425.4	272.1	153.30	2.775		
14,700.0	7,130.0	7,355.2	7,195.3	134.8	21.2	-90.76	-7,595.4	102.3	403.6	248.5	155.08	2.602		
14,741.6	7,130.0	7,359.0	7,199.1	135.5	21.2	-91.30	-7,595.8	102.2	401.4	245.6	155.79	2.577	CC, ES, SF	
14,800.0	7,130.0	7,365.6	7,205.7	136.6	21.2	-92.24	-7,596.5	102.0	405.6	248.8	156.76	2.587		
14,900.0	7,130.0	7,375.7	7,215.7	138.3	21.3	-93.67	-7,597.6	101.8	431.2	272.9	158.34	2.723		
14,908.6	7,130.0	7,376.5	7,216.5	138.5	21.3	-93.79	-7,597.7	101.8	434.4	275.9	158.47	2.741		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - MCCOY #1 (EXISTING) - ENCANA WELL - NO SURVEYS													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	14.0	14.0	0.0	0.0	122.06	-314.0	501.4	591.6					
100.0	100.0	114.0	114.0	0.1	0.2	122.06	-314.0	501.4	591.6	591.3	0.30	1,947.998		
200.0	200.0	214.0	214.0	0.3	0.4	122.06	-314.0	501.4	591.6	590.9	0.65	906.288 CC, ES		
300.0	300.0	314.0	314.0	0.5	0.5	169.60	-314.0	501.4	592.4	591.4	1.00	591.403		
400.0	400.0	414.0	414.0	0.7	0.7	169.65	-314.0	501.4	595.0	593.7	1.35	440.556		
500.0	499.9	513.9	513.9	0.8	0.9	169.71	-314.0	501.4	599.3	597.6	1.70	352.691		
600.0	599.7	613.7	613.7	1.0	1.1	169.81	-314.0	501.4	605.0	603.0	2.05	295.404		
700.0	699.5	713.5	713.5	1.2	1.2	169.91	-314.0	501.4	610.9	608.5	2.40	254.814		
800.0	799.3	813.3	813.3	1.4	1.4	170.00	-314.0	501.4	616.8	614.1	2.75	224.550		
900.0	899.2	913.2	913.2	1.6	1.6	170.10	-314.0	501.4	622.7	619.6	3.10	201.116		
1,000.0	999.0	1,013.0	1,013.0	1.8	1.8	170.19	-314.0	501.4	628.6	625.2	3.45	182.436		
1,100.0	1,098.8	1,112.8	1,112.8	2.0	1.9	170.29	-314.0	501.4	634.5	630.7	3.80	167.196		
1,200.0	1,198.6	1,212.6	1,212.6	2.2	2.1	170.38	-314.0	501.4	640.4	636.3	4.14	154.527		
1,300.0	1,298.4	1,312.4	1,312.4	2.4	2.3	170.46	-314.0	501.4	646.3	641.9	4.49	143.829		
1,400.0	1,398.3	1,412.3	1,412.3	2.6	2.4	170.55	-314.0	501.4	652.3	647.4	4.84	134.675		
1,500.0	1,498.1	1,512.1	1,512.1	2.8	2.6	170.64	-314.0	501.4	658.2	653.0	5.19	126.753		
1,600.0	1,597.9	1,611.9	1,611.9	3.0	2.8	170.72	-314.0	501.4	664.1	658.5	5.54	119.831		
1,700.0	1,697.7	1,711.7	1,711.7	3.3	3.0	170.80	-314.0	501.4	670.0	664.1	5.89	113.730		
1,800.0	1,797.5	1,811.5	1,811.5	3.5	3.1	170.89	-314.0	501.4	675.9	669.7	6.24	108.313		
1,900.0	1,897.4	1,911.4	1,911.4	3.7	3.3	170.97	-314.0	501.4	681.8	675.2	6.59	103.471		
2,000.0	1,997.2	2,011.2	2,011.2	3.9	3.5	171.04	-314.0	501.4	687.7	680.8	6.94	99.116		
2,100.0	2,097.0	2,111.0	2,111.0	4.1	3.7	171.12	-314.0	501.4	693.6	686.4	7.29	95.179		
2,200.0	2,196.8	2,210.8	2,210.8	4.3	3.8	171.20	-314.0	501.4	699.6	691.9	7.64	91.603		
2,300.0	2,296.6	2,310.6	2,310.6	4.5	4.0	171.27	-314.0	501.4	705.5	697.5	7.99	88.339		
2,400.0	2,396.5	2,410.5	2,410.5	4.7	4.2	171.34	-314.0	501.4	711.4	703.1	8.34	85.349		
2,500.0	2,496.3	2,510.3	2,510.3	4.9	4.4	171.42	-314.0	501.4	717.3	708.6	8.68	82.600		
2,600.0	2,596.1	2,610.1	2,610.1	5.1	4.5	171.49	-314.0	501.4	723.3	714.2	9.03	80.064		
2,700.0	2,695.9	2,709.9	2,709.9	5.3	4.7	171.56	-314.0	501.4	729.2	719.8	9.38	77.717		
2,800.0	2,795.7	2,809.7	2,809.7	5.5	4.9	171.62	-314.0	501.4	735.1	725.4	9.73	75.538		
2,900.0	2,895.6	2,909.6	2,909.6	5.7	5.1	171.69	-314.0	501.4	741.0	730.9	10.08	73.510		
3,000.0	2,995.4	3,009.4	3,009.4	5.9	5.2	171.76	-314.0	501.4	747.0	736.5	10.43	71.619		
3,100.0	3,095.2	3,109.2	3,109.2	6.1	5.4	171.82	-314.0	501.4	752.9	742.1	10.78	69.850		
3,200.0	3,195.0	3,209.0	3,209.0	6.3	5.6	171.89	-314.0	501.4	758.8	747.7	11.13	68.192		
3,300.0	3,294.8	3,308.8	3,308.8	6.5	5.8	171.95	-314.0	501.4	764.7	753.3	11.48	66.635		
3,400.0	3,394.7	3,408.7	3,408.7	6.7	5.9	172.01	-314.0	501.4	770.7	758.8	11.83	65.170		
3,500.0	3,494.5	3,508.5	3,508.5	6.9	6.1	172.08	-314.0	501.4	776.6	764.4	12.17	63.789		
3,600.0	3,594.3	3,608.3	3,608.3	7.1	6.3	172.14	-314.0	501.4	782.5	770.0	12.52	62.486		
3,700.0	3,694.1	3,708.1	3,708.1	7.3	6.5	172.20	-314.0	501.4	788.5	775.6	12.87	61.253		
3,800.0	3,793.9	3,807.9	3,807.9	7.5	6.6	172.25	-314.0	501.4	794.4	781.2	13.22	60.085		
3,900.0	3,893.8	3,907.8	3,907.8	7.7	6.8	172.31	-314.0	501.4	800.3	786.8	13.57	58.978		
4,000.0	3,993.6	4,007.6	4,007.6	7.9	7.0	172.37	-314.0	501.4	806.3	792.4	13.92	57.926		
4,100.0	4,093.4	4,107.4	4,107.4	8.1	7.2	172.42	-314.0	501.4	812.2	797.9	14.27	56.926		
4,200.0	4,193.2	4,207.2	4,207.2	8.3	7.3	172.48	-314.0	501.4	818.2	803.5	14.62	55.973		
4,300.0	4,293.1	4,307.1	4,307.1	8.5	7.5	172.53	-314.0	501.4	824.1	809.1	14.97	55.065		
4,400.0	4,392.9	4,406.9	4,406.9	8.7	7.7	172.59	-314.0	501.4	830.0	814.7	15.31	54.199		
4,500.0	4,492.7	4,506.7	4,506.7	8.9	7.8	172.64	-314.0	501.4	836.0	820.3	15.66	53.371		
4,600.0	4,592.5	4,606.5	4,606.5	9.1	8.0	172.69	-314.0	501.4	841.9	825.9	16.01	52.579		
4,700.0	4,692.3	4,706.3	4,706.3	9.3	8.2	172.75	-314.0	501.4	847.9	831.5	16.36	51.821		
4,800.0	4,792.2	4,806.2	4,806.2	9.6	8.4	172.80	-314.0	501.4	853.8	837.1	16.71	51.095		
4,900.0	4,892.0	4,906.0	4,906.0	9.8	8.5	172.85	-314.0	501.4	859.7	842.7	17.06	50.398		
5,000.0	4,991.8	5,005.8	5,005.8	10.0	8.7	172.90	-314.0	501.4	865.7	848.3	17.41	49.730		
5,100.0	5,091.6	5,105.6	5,105.6	10.2	8.9	172.94	-314.0	501.4	871.6	853.9	17.76	49.088		

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 Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - MCCOY #1 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance			Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)				Between Ellipses (ft)	
5,200.0	5,191.4	5,205.4	5,205.4	10.4	9.1	172.99	-314.0	501.4	877.6	859.5	18.11	48.470		
5,300.0	5,291.3	5,305.3	5,305.3	10.6	9.2	173.04	-314.0	501.4	883.5	865.1	18.45	47.876		
5,400.0	5,391.1	5,405.1	5,405.1	10.8	9.4	173.09	-314.0	501.4	889.5	870.7	18.80	47.305		
5,500.0	5,490.9	5,504.9	5,504.9	11.0	9.6	173.13	-314.0	501.4	895.4	876.3	19.15	46.754		
5,600.0	5,590.7	5,604.7	5,604.7	11.2	9.8	173.18	-314.0	501.4	901.4	881.9	19.50	46.222		
5,700.0	5,690.5	5,704.5	5,704.5	11.4	9.9	173.22	-314.0	501.4	907.3	887.5	19.85	45.710		
5,800.0	5,790.4	5,804.4	5,804.4	11.6	10.1	173.27	-314.0	501.4	913.2	893.0	20.20	45.215		
5,900.0	5,890.2	5,904.2	5,904.2	11.8	10.3	173.31	-314.0	501.4	919.2	898.6	20.55	44.737		
6,000.0	5,990.0	6,004.0	6,004.0	12.0	10.5	173.35	-314.0	501.4	925.1	904.2	20.90	44.275		
6,100.0	6,089.8	6,103.8	6,103.8	12.2	10.6	173.40	-314.0	501.4	931.1	909.9	21.24	43.828		
6,200.0	6,189.6	6,203.6	6,203.6	12.4	10.8	173.44	-314.0	501.4	937.0	915.5	21.59	43.396		
6,300.0	6,289.5	6,303.5	6,303.5	12.6	11.0	173.48	-314.0	501.4	943.0	921.1	21.94	42.977		
6,400.0	6,389.3	6,403.3	6,403.3	12.8	11.2	173.52	-314.0	501.4	948.9	926.7	22.29	42.572		
6,500.0	6,489.1	6,503.1	6,503.1	13.0	11.3	173.56	-314.0	501.4	954.9	932.3	22.64	42.179		
6,600.0	6,588.9	6,602.9	6,602.9	13.2	11.5	-92.92	-314.0	501.4	959.3	936.3	22.99	41.733		
6,700.0	6,687.7	6,701.7	6,701.7	13.3	11.7	-66.20	-314.0	501.4	954.7	931.4	23.22	41.113		
6,800.0	6,782.5	6,796.5	6,796.5	13.3	11.8	-64.43	-314.0	501.4	940.6	917.3	23.36	40.261		
6,900.0	6,870.5	6,884.5	6,884.5	13.3	12.0	-66.95	-314.0	501.4	918.9	895.3	23.53	39.047		
7,000.0	6,949.0	6,963.0	6,963.0	13.3	12.1	-71.53	-314.0	501.4	891.9	868.1	23.83	37.422		
7,100.0	7,015.6	7,029.6	7,029.6	13.4	12.3	-77.09	-314.0	501.4	863.0	838.8	24.29	35.530		
7,200.0	7,068.2	7,082.2	7,082.2	13.6	12.3	-82.57	-314.0	501.4	836.0	811.2	24.85	33.647		
7,300.0	7,105.4	7,119.4	7,119.4	14.1	12.4	-86.96	-314.0	501.4	814.7	789.3	25.47	31.987		
7,400.0	7,125.9	7,139.9	7,139.9	14.7	12.4	-89.53	-314.0	501.4	802.5	776.3	26.20	30.636		
7,458.1	7,130.8	7,144.8	7,144.8	15.2	12.5	-90.00	-314.0	501.4	800.5	773.8	26.70	29.980		
7,500.0	7,130.0	7,144.0	7,144.0	15.5	12.5	-90.00	-314.0	501.4	801.5	774.4	27.06	29.622		
7,600.0	7,130.0	7,144.0	7,144.0	16.5	12.5	-90.00	-314.0	501.4	812.7	784.6	28.07	28.950		
7,700.0	7,130.0	7,144.0	7,144.0	17.6	12.5	-90.00	-314.0	501.4	835.7	806.5	29.21	28.614		
7,800.0	7,130.0	7,144.0	7,144.0	18.7	12.5	-90.00	-314.0	501.4	869.8	839.3	30.44	28.570 SF		
7,900.0	7,130.0	7,144.0	7,144.0	20.0	12.5	-90.00	-314.0	501.4	913.5	881.8	31.76	28.763		
8,000.0	7,130.0	7,144.0	7,144.0	21.3	12.5	-90.00	-314.0	501.4	965.7	932.6	33.14	29.139		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - MCCOY 0-6-5 (EXISTING) - ENCANA WELL - NO SURVEYS													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	93.0	93.0	0.0	0.1	151.82	-688.5	368.9	781.1					
100.0	100.0	193.0	193.0	0.1	0.3	151.82	-688.5	368.9	781.1	780.7	0.44	1,768.923		
200.0	200.0	293.0	293.0	0.3	0.5	151.82	-688.5	368.9	781.1	780.3	0.79	987.942		
300.0	300.0	393.0	393.0	0.5	0.7	-160.67	-688.5	368.9	781.9	780.8	1.14	686.075		
400.0	400.0	493.0	493.0	0.7	0.8	-160.72	-688.5	368.9	784.4	782.9	1.49	526.807		
500.0	499.9	592.9	592.9	0.8	1.0	-160.82	-688.5	368.9	788.5	786.7	1.84	428.856		
600.0	599.7	692.7	692.7	1.0	1.2	-160.95	-688.5	368.9	794.0	791.8	2.19	362.706		
700.0	699.5	792.5	792.5	1.2	1.4	-161.09	-688.5	368.9	799.7	797.1	2.54	314.798		
800.0	799.3	892.3	892.3	1.4	1.5	-161.22	-688.5	368.9	805.4	802.5	2.89	278.518		
900.0	899.2	992.2	992.2	1.6	1.7	-161.36	-688.5	368.9	811.0	807.8	3.24	250.096		
1,000.0	999.0	1,092.0	1,092.0	1.8	1.9	-161.50	-688.5	368.9	816.7	813.1	3.59	227.231		
1,100.0	1,098.8	1,191.8	1,191.8	2.0	2.1	-161.63	-688.5	368.9	822.4	818.4	3.95	208.440		
1,200.0	1,198.6	1,291.6	1,291.6	2.2	2.2	-161.76	-688.5	368.9	828.1	823.8	4.30	192.724		
1,300.0	1,298.4	1,391.4	1,391.4	2.4	2.4	-161.89	-688.5	368.9	833.8	829.1	4.65	179.386		
1,400.0	1,398.3	1,491.3	1,491.3	2.6	2.6	-162.01	-688.5	368.9	839.5	834.5	5.00	167.924		
1,500.0	1,498.1	1,591.1	1,591.1	2.8	2.8	-162.14	-688.5	368.9	845.2	839.8	5.35	157.970		
1,600.0	1,597.9	1,690.9	1,690.9	3.0	2.9	-162.26	-688.5	368.9	850.9	845.2	5.70	149.243		
1,700.0	1,697.7	1,790.7	1,790.7	3.3	3.1	-162.38	-688.5	368.9	856.6	850.5	6.05	141.531		
1,800.0	1,797.5	1,890.5	1,890.5	3.5	3.3	-162.51	-688.5	368.9	862.3	855.9	6.40	134.666		
1,900.0	1,897.4	1,990.4	1,990.4	3.7	3.5	-162.62	-688.5	368.9	868.0	861.2	6.75	128.516		
2,000.0	1,997.2	2,090.2	2,090.2	3.9	3.6	-162.74	-688.5	368.9	873.7	866.6	7.10	122.975		
2,100.0	2,097.0	2,190.0	2,190.0	4.1	3.8	-162.86	-688.5	368.9	879.4	872.0	7.46	117.956		
2,200.0	2,196.8	2,289.8	2,289.8	4.3	4.0	-162.97	-688.5	368.9	885.2	877.4	7.81	113.390		
2,300.0	2,296.6	2,389.6	2,389.6	4.5	4.2	-163.08	-688.5	368.9	890.9	882.7	8.16	109.218		
2,400.0	2,396.5	2,489.5	2,489.5	4.7	4.3	-163.20	-688.5	368.9	896.6	888.1	8.51	105.391		
2,500.0	2,496.3	2,589.3	2,589.3	4.9	4.5	-163.31	-688.5	368.9	902.4	893.5	8.86	101.868		
2,600.0	2,596.1	2,689.1	2,689.1	5.1	4.7	-163.41	-688.5	368.9	908.1	898.9	9.21	98.613		
2,700.0	2,695.9	2,788.9	2,788.9	5.3	4.9	-163.52	-688.5	368.9	913.8	904.3	9.56	95.599		
2,800.0	2,795.7	2,888.7	2,888.7	5.5	5.0	-163.63	-688.5	368.9	919.6	909.7	9.91	92.798		
2,900.0	2,895.6	2,988.6	2,988.6	5.7	5.2	-163.73	-688.5	368.9	925.3	915.1	10.26	90.189		
3,000.0	2,995.4	3,088.4	3,088.4	5.9	5.4	-163.83	-688.5	368.9	931.1	920.5	10.61	87.754		
3,100.0	3,095.2	3,188.2	3,188.2	6.1	5.5	-163.94	-688.5	368.9	936.8	925.9	10.96	85.474		
3,200.0	3,195.0	3,288.0	3,288.0	6.3	5.7	-164.04	-688.5	368.9	942.6	931.3	11.31	83.337		
3,300.0	3,294.8	3,387.8	3,387.8	6.5	5.9	-164.14	-688.5	368.9	948.4	936.7	11.66	81.328		
3,400.0	3,394.7	3,487.7	3,487.7	6.7	6.1	-164.24	-688.5	368.9	954.1	942.1	12.01	79.437		
3,500.0	3,494.5	3,587.5	3,587.5	6.9	6.2	-164.33	-688.5	368.9	959.9	947.5	12.36	77.653		
3,600.0	3,594.3	3,687.3	3,687.3	7.1	6.4	-164.43	-688.5	368.9	965.7	953.0	12.71	75.969		
3,700.0	3,694.1	3,787.1	3,787.1	7.3	6.6	-164.52	-688.5	368.9	971.4	958.4	13.06	74.375		
3,800.0	3,793.9	3,886.9	3,886.9	7.5	6.8	-164.62	-688.5	368.9	977.2	963.8	13.41	72.864		
3,900.0	3,893.8	3,986.8	3,986.8	7.7	6.9	-164.71	-688.5	368.9	983.0	969.2	13.76	71.431		
4,000.0	3,993.6	4,086.6	4,086.6	7.9	7.1	-164.80	-688.5	368.9	988.8	974.7	14.11	70.069		
4,100.0	4,093.4	4,186.4	4,186.4	8.1	7.3	-164.89	-688.5	368.9	994.5	980.1	14.46	68.774		
7,100.0	7,015.6	7,108.6	7,108.6	13.4	12.4	-59.03	-688.5	368.9	970.9	947.7	23.28	41.701		
7,200.0	7,068.2	7,161.2	7,161.2	13.6	12.5	-67.95	-688.5	368.9	912.5	888.3	24.17	37.752		
7,300.0	7,105.4	7,198.4	7,198.4	14.1	12.5	-77.33	-688.5	368.9	853.0	827.8	25.26	33.764		
7,400.0	7,125.9	7,218.9	7,218.9	14.7	12.6	-85.62	-688.5	368.9	796.5	770.3	26.28	30.314		
7,500.0	7,130.0	7,223.0	7,223.0	15.5	12.6	-90.00	-688.5	368.9	747.0	719.8	27.20	27.468		
7,600.0	7,130.0	7,223.0	7,223.0	16.5	12.6	-90.00	-688.5	368.9	707.9	679.7	28.21	25.095		
7,700.0	7,130.0	7,223.0	7,223.0	17.6	12.6	-90.00	-688.5	368.9	681.4	652.0	29.35	23.219		
7,800.0	7,130.0	7,223.0	7,223.0	18.7	12.6	-90.00	-688.5	368.9	668.9	638.3	30.58	21.873		
7,834.3	7,130.0	7,223.0	7,223.0	19.2	12.6	-90.00	-688.5	368.9	668.0	637.0	31.03	21.526 CC, ES		
7,900.0	7,130.0	7,223.0	7,223.0	20.0	12.6	-90.00	-688.5	368.9	671.2	639.3	31.90	21.043		

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 Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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												S5-T2N-R67W (Vogl-McCoy) - MCCOY 0-6-5 (EXISTING) - ENCANA WELL - NO SURVEYS		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 +N/-S	+E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor							
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)									
8,000.0	7,130.0	7,223.0	7,223.0	21.3	12.6	-90.00	-688.5	368.9	688.3	655.0	33.28	20.681 SF							
8,100.0	7,130.0	7,223.0	7,223.0	22.7	12.6	-90.00	-688.5	368.9	718.9	684.2	34.71	20.710							
8,200.0	7,130.0	7,223.0	7,223.0	24.2	12.6	-90.00	-688.5	368.9	761.6	725.4	36.19	21.043							
8,300.0	7,130.0	7,223.0	7,223.0	25.7	12.6	-90.00	-688.5	368.9	814.3	776.6	37.70	21.598							
8,400.0	7,130.0	7,223.0	7,223.0	27.2	12.6	-90.00	-688.5	368.9	875.4	836.1	39.25	22.304							
8,500.0	7,130.0	7,223.0	7,223.0	28.7	12.6	-90.00	-688.5	368.9	943.1	902.3	40.81	23.107							

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - MCCOY 13-5 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 7908-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	151.95	-703.8	375.1	797.5					
100.0	100.0	92.0	92.0	0.1	0.2	151.95	-703.8	375.1	797.5	797.2	0.28	2,822.580		
200.0	200.0	192.0	192.0	0.3	0.3	151.95	-703.8	375.1	797.5	796.9	0.63	1,263.084		
300.0	300.0	292.0	292.0	0.5	0.5	-160.54	-703.8	375.1	798.3	797.3	0.98	814.398		
400.0	400.0	392.0	392.0	0.7	0.7	-160.59	-703.8	375.1	800.8	799.5	1.33	602.393		
500.0	499.9	491.9	491.9	0.8	0.9	-160.68	-703.8	375.1	804.9	803.2	1.68	479.422		
600.0	599.7	591.7	591.7	1.0	1.0	-160.81	-703.8	375.1	810.4	808.4	2.03	399.358		
700.0	699.5	691.5	691.5	1.2	1.2	-160.95	-703.8	375.1	816.1	813.7	2.38	342.850		
800.0	799.3	791.3	791.3	1.4	1.4	-161.09	-703.8	375.1	821.7	819.0	2.73	300.855		
900.0	899.2	891.2	891.2	1.6	1.6	-161.22	-703.8	375.1	827.4	824.3	3.08	268.424		
1,000.0	999.0	991.0	991.0	1.8	1.7	-161.35	-703.8	375.1	833.1	829.6	3.43	242.626		
1,100.0	1,098.8	1,090.8	1,090.8	2.0	1.9	-161.48	-703.8	375.1	838.7	835.0	3.78	221.618		
1,200.0	1,198.6	1,190.6	1,190.6	2.2	2.1	-161.61	-703.8	375.1	844.4	840.3	4.14	204.179		
1,300.0	1,298.4	1,290.4	1,290.4	2.4	2.2	-161.74	-703.8	375.1	850.1	845.6	4.49	189.472		
1,400.0	1,398.3	1,390.3	1,390.3	2.6	2.4	-161.87	-703.8	375.1	855.8	851.0	4.84	176.902		
1,500.0	1,498.1	1,490.1	1,490.1	2.8	2.6	-161.99	-703.8	375.1	861.5	856.3	5.19	166.035		
1,600.0	1,597.9	1,589.9	1,589.9	3.0	2.8	-162.11	-703.8	375.1	867.2	861.7	5.54	156.547		
1,700.0	1,697.7	1,689.7	1,689.7	3.3	2.9	-162.23	-703.8	375.1	872.9	867.0	5.89	148.191		
1,800.0	1,797.5	1,789.5	1,789.5	3.5	3.1	-162.35	-703.8	375.1	878.6	872.4	6.24	140.777		
1,900.0	1,897.4	1,889.4	1,889.4	3.7	3.3	-162.47	-703.8	375.1	884.3	877.7	6.59	134.153		
2,000.0	1,997.2	1,989.2	1,989.2	3.9	3.5	-162.59	-703.8	375.1	890.0	883.1	6.94	128.200		
2,100.0	2,097.0	2,089.0	2,089.0	4.1	3.6	-162.70	-703.8	375.1	895.8	888.5	7.29	122.821		
2,200.0	2,196.8	2,188.8	2,188.8	4.3	3.8	-162.81	-703.8	375.1	901.5	893.8	7.64	117.937		
2,300.0	2,296.6	2,288.6	2,288.6	4.5	4.0	-162.93	-703.8	375.1	907.2	899.2	7.99	113.482		
2,400.0	2,396.5	2,388.5	2,388.5	4.7	4.2	-163.04	-703.8	375.1	912.9	904.6	8.34	109.403		
2,500.0	2,496.3	2,488.3	2,488.3	4.9	4.3	-163.14	-703.8	375.1	918.7	910.0	8.70	105.653		
2,600.0	2,596.1	2,588.1	2,588.1	5.1	4.5	-163.25	-703.8	375.1	924.4	915.3	9.05	102.195		
2,700.0	2,695.9	2,687.9	2,687.9	5.3	4.7	-163.36	-703.8	375.1	930.1	920.7	9.40	98.996		
2,800.0	2,795.7	2,787.7	2,787.7	5.5	4.9	-163.46	-703.8	375.1	935.9	926.1	9.75	96.027		
2,900.0	2,895.6	2,887.6	2,887.6	5.7	5.0	-163.57	-703.8	375.1	941.6	931.5	10.10	93.265		
3,000.0	2,995.4	2,987.4	2,987.4	5.9	5.2	-163.67	-703.8	375.1	947.4	936.9	10.45	90.689		
3,100.0	3,095.2	3,087.2	3,087.2	6.1	5.4	-163.77	-703.8	375.1	953.1	942.3	10.80	88.281		
3,200.0	3,195.0	3,187.0	3,187.0	6.3	5.6	-163.87	-703.8	375.1	958.9	947.7	11.15	86.024		
3,300.0	3,294.8	3,286.8	3,286.8	6.5	5.7	-163.97	-703.8	375.1	964.6	953.1	11.50	83.906		
3,400.0	3,394.7	3,386.7	3,386.7	6.7	5.9	-164.07	-703.8	375.1	970.4	958.5	11.85	81.913		
3,500.0	3,494.5	3,486.5	3,486.5	6.9	6.1	-164.16	-703.8	375.1	976.1	963.9	12.20	80.035		
3,600.0	3,594.3	3,586.3	3,586.3	7.1	6.3	-164.26	-703.8	375.1	981.9	969.4	12.55	78.263		
3,700.0	3,694.1	3,686.1	3,686.1	7.3	6.4	-164.35	-703.8	375.1	987.7	974.8	12.90	76.587		
3,800.0	3,793.9	3,785.9	3,785.9	7.5	6.6	-164.45	-703.8	375.1	993.4	980.2	13.25	75.000		
3,900.0	3,893.8	3,885.8	3,885.8	7.7	6.8	-164.54	-703.8	375.1	999.2	985.6	13.60	73.495		
7,100.0	7,015.6	7,007.6	7,007.6	13.4	12.2	-58.73	-703.8	375.1	986.3	963.2	23.09	42.709		
7,200.0	7,068.2	7,060.2	7,060.2	13.6	12.3	-67.64	-703.8	375.1	927.5	903.5	23.98	38.679		
7,300.0	7,105.4	7,097.4	7,097.4	14.1	12.4	-77.09	-703.8	375.1	867.4	842.3	25.08	34.588		
7,400.0	7,125.9	7,117.9	7,117.9	14.7	12.4	-85.50	-703.8	375.1	810.1	784.0	26.10	31.039		
7,500.0	7,130.0	7,122.0	7,122.0	15.5	12.4	-90.00	-703.8	375.1	759.4	732.4	27.02	28.105		
7,600.0	7,130.0	7,122.0	7,122.0	16.5	12.4	-90.00	-703.8	375.1	718.9	690.9	28.03	25.643		
7,700.0	7,130.0	7,122.0	7,122.0	17.6	12.4	-90.00	-703.8	375.1	690.6	661.4	29.17	23.673		
7,800.0	7,130.0	7,122.0	7,122.0	18.7	12.4	-90.00	-703.8	375.1	676.0	645.6	30.41	22.231		
7,849.6	7,130.0	7,122.0	7,122.0	19.4	12.4	-90.00	-703.8	375.1	674.2	643.1	31.06	21.705 CC, ES		
7,900.0	7,130.0	7,122.0	7,122.0	20.0	12.4	-90.00	-703.8	375.1	676.1	644.3	31.72	21.311		
8,000.0	7,130.0	7,122.0	7,122.0	21.3	12.4	-90.00	-703.8	375.1	690.7	657.6	33.11	20.865		
8,100.0	7,130.0	7,122.0	7,122.0	22.7	12.4	-90.00	-703.8	375.1	719.2	684.6	34.54	20.822 SF		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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													S5-T2N-R67W (Vogl-McCoy) - MCCOY 13-5 (EXISTING) - ENCANA WELL - NO SURVEYS		Offset Site Error:		0.0 ft
Survey Program: 7908-MWD													Offset Well Error:		0.0 ft		
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
8,200.0	7,130.0	7,122.0	7,122.0	24.2	12.4	-90.00	-703.8	375.1	759.8	723.8	36.02	21.096					
8,300.0	7,130.0	7,122.0	7,122.0	25.7	12.4	-90.00	-703.8	375.1	810.8	773.3	37.53	21.604					
8,400.0	7,130.0	7,122.0	7,122.0	27.2	12.4	-90.00	-703.8	375.1	870.3	831.2	39.07	22.274					
8,500.0	7,130.0	7,122.0	7,122.0	28.7	12.4	-90.00	-703.8	375.1	936.8	896.1	40.64	23.050					

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - MCCOY 14-5 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 7950-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
8,700.0	7,130.0	7,134.0	7,134.0	31.9	12.4	-90.00	-2,361.3	143.4	920.4	876.6	43.86	20.988		
8,800.0	7,130.0	7,134.0	7,134.0	33.5	12.4	-90.00	-2,361.3	143.4	834.1	788.6	45.48	18.342		
8,900.0	7,130.0	7,134.0	7,134.0	35.1	12.4	-90.00	-2,361.3	143.4	751.2	704.1	47.11	15.946		
9,000.0	7,130.0	7,134.0	7,134.0	36.7	12.4	-90.00	-2,361.3	143.4	673.0	624.2	48.76	13.804		
9,100.0	7,130.0	7,134.0	7,134.0	38.3	12.4	-90.00	-2,361.3	143.4	601.3	550.8	50.41	11.927		
9,200.0	7,130.0	7,134.0	7,134.0	40.0	12.4	-90.00	-2,361.3	143.4	538.6	486.5	52.07	10.343		
9,300.0	7,130.0	7,134.0	7,134.0	41.6	12.4	-90.00	-2,361.3	143.4	488.6	434.8	53.74	9.090		
9,400.0	7,130.0	7,134.0	7,134.0	43.3	12.4	-90.00	-2,361.3	143.4	455.3	399.8	55.42	8.215		
9,500.0	7,130.0	7,134.0	7,134.0	45.0	12.4	-90.00	-2,361.3	143.4	442.6	385.4	57.10	7.750		
9,507.1	7,130.0	7,134.0	7,134.0	45.1	12.4	-90.00	-2,361.3	143.4	442.5	385.3	57.22	7.733 CC, ES		
9,600.0	7,130.0	7,134.0	7,134.0	46.7	12.4	-90.00	-2,361.3	143.4	452.2	393.4	58.79	7.690 SF		
9,700.0	7,130.0	7,134.0	7,134.0	48.3	12.4	-90.00	-2,361.3	143.4	482.7	422.2	60.49	7.981		
9,800.0	7,130.0	7,134.0	7,134.0	50.0	12.4	-90.00	-2,361.3	143.4	530.7	468.5	62.18	8.534		
9,900.0	7,130.0	7,134.0	7,134.0	51.7	12.4	-90.00	-2,361.3	143.4	591.8	527.9	63.89	9.263		
10,000.0	7,130.0	7,134.0	7,134.0	53.4	12.4	-90.00	-2,361.3	143.4	662.4	596.8	65.59	10.099		
10,100.0	7,130.0	7,134.0	7,134.0	55.1	12.4	-90.00	-2,361.3	143.4	739.8	672.5	67.30	10.994		
10,200.0	7,130.0	7,134.0	7,134.0	56.8	12.4	-90.00	-2,361.3	143.4	822.2	753.2	69.01	11.914		
10,300.0	7,130.0	7,134.0	7,134.0	58.5	12.4	-90.00	-2,361.3	143.4	908.0	837.3	70.72	12.840		
10,400.0	7,130.0	7,134.0	7,134.0	60.2	12.4	-90.00	-2,361.3	143.4	996.6	924.1	72.44	13.757		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - MCCOY 2-4-5 (EXISTING) - ENCANA WELL - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 718-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
0.0	0.0	0.0	0.0	0.0	0.0	147.52	-663.0	422.0	785.9					
100.0	100.0	100.9	100.9	0.1	0.2	147.52	-662.9	422.0	785.8	785.5	0.30	2,661.793		
200.0	200.0	202.7	202.7	0.3	0.4	147.51	-662.5	421.9	785.4	784.8	0.64	1,218.659		
232.5	232.5	235.9	235.9	0.4	0.4	-164.96	-662.3	421.8	785.4	784.6	0.76	1,037.165 CC, ES		
300.0	300.0	304.6	304.6	0.5	0.5	-164.99	-661.9	421.7	785.7	784.7	0.99	791.736		
400.0	400.0	406.4	406.4	0.7	0.7	-165.05	-661.1	421.5	787.4	786.0	1.34	587.107		
500.0	499.9	508.2	508.2	0.8	0.9	-165.15	-660.0	421.2	790.5	788.9	1.69	467.773		
600.0	599.7	610.0	610.0	1.0	1.1	-165.28	-658.6	420.8	794.9	792.8	2.04	389.743		
700.0	699.5	711.8	711.7	1.2	1.2	-165.43	-657.1	420.3	799.1	796.8	2.39	334.431		
800.0	799.3	805.1	805.1	1.4	1.4	-165.61	-655.5	420.7	803.8	801.0	2.73	294.422		
900.0	899.2	902.6	902.5	1.6	1.6	-165.92	-653.3	422.7	808.8	805.8	3.08	262.530		
1,000.0	999.0	997.8	997.5	1.8	1.8	-166.38	-650.3	426.8	814.4	811.0	3.44	237.011		
1,100.0	1,098.8	1,090.0	1,089.5	2.0	1.9	-166.95	-646.7	432.8	820.7	816.9	3.80	216.158		
1,200.0	1,198.6	1,187.9	1,186.9	2.2	2.1	-167.72	-642.3	441.5	827.9	823.7	4.19	197.810		
1,300.0	1,298.4	1,284.2	1,282.5	2.4	2.4	-168.60	-636.5	451.8	835.1	830.5	4.59	181.942		
1,400.0	1,398.3	1,380.4	1,377.8	2.6	2.6	-169.59	-630.2	463.7	843.1	838.1	5.01	168.177		
1,500.0	1,498.1	1,479.2	1,475.3	2.8	2.9	-170.67	-622.9	477.0	851.5	846.0	5.46	155.861		
1,600.0	1,597.9	1,580.0	1,574.8	3.0	3.2	-171.85	-614.6	491.5	860.0	854.0	5.94	144.880		
1,700.0	1,697.7	1,683.0	1,676.3	3.3	3.5	-173.05	-605.4	506.3	868.4	862.0	6.42	135.261		
1,800.0	1,797.5	1,779.2	1,771.1	3.5	3.8	-174.11	-597.1	519.5	876.9	870.0	6.88	127.498		
1,900.0	1,897.4	1,872.7	1,863.6	3.7	4.1	-175.07	-589.8	532.1	886.1	878.8	7.32	120.979		
2,000.0	1,997.2	1,963.6	1,953.3	3.9	4.4	-175.96	-583.4	544.5	896.3	888.5	7.77	115.384		
2,100.0	2,097.0	2,056.3	2,044.9	4.1	4.6	-176.90	-576.9	558.2	907.6	899.4	8.22	110.405		
2,200.0	2,196.8	2,158.6	2,145.8	4.3	5.0	-177.89	-570.1	573.1	919.2	910.5	8.69	105.737		
2,300.0	2,296.6	2,269.0	2,254.9	4.5	5.3	-178.89	-562.6	588.0	930.1	921.0	9.18	101.273		
2,400.0	2,396.5	2,361.5	2,346.4	4.7	5.6	-179.73	-555.7	600.6	941.0	931.4	9.63	97.685		
2,500.0	2,496.3	2,467.7	2,451.2	4.9	5.9	179.28	-547.2	615.5	952.0	941.9	10.13	94.011		
2,600.0	2,596.1	2,573.0	2,555.0	5.1	6.3	178.30	-537.8	629.6	962.3	951.7	10.62	90.639		
2,700.0	2,695.9	2,668.5	2,649.4	5.3	6.6	177.45	-529.5	642.1	972.6	961.6	11.07	87.879		
2,800.0	2,795.7	2,765.5	2,745.3	5.5	6.9	176.67	-522.0	654.4	983.5	972.0	11.51	85.420		
2,900.0	2,895.6	2,858.4	2,837.2	5.7	7.2	175.95	-515.2	666.1	994.7	982.8	11.95	83.216 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - PROMINENCE 4-8 (EXISTING) - KMG WELL - NO SURVEYS													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		
10,100.0	7,130.0	7,155.0	7,155.0	55.1	12.5	-90.00	-3,730.3	192.9	918.8	851.5	67.33	13.646		
10,200.0	7,130.0	7,155.0	7,155.0	56.8	12.5	-90.00	-3,730.3	192.9	836.1	767.1	69.04	12.110		
10,300.0	7,130.0	7,155.0	7,155.0	58.5	12.5	-90.00	-3,730.3	192.9	757.5	686.8	70.76	10.706		
10,400.0	7,130.0	7,155.0	7,155.0	60.2	12.5	-90.00	-3,730.3	192.9	684.6	612.1	72.47	9.446		
10,500.0	7,130.0	7,155.0	7,155.0	61.9	12.5	-90.00	-3,730.3	192.9	619.2	545.0	74.19	8.347		
10,600.0	7,130.0	7,155.0	7,155.0	63.7	12.5	-90.00	-3,730.3	192.9	564.1	488.2	75.91	7.432		
10,700.0	7,130.0	7,155.0	7,155.0	65.4	12.5	-90.00	-3,730.3	192.9	522.5	444.9	77.63	6.731		
10,800.0	7,130.0	7,155.0	7,155.0	67.1	12.5	-90.00	-3,730.3	192.9	497.8	418.5	79.35	6.273		
10,876.0	7,130.0	7,155.0	7,155.0	68.4	12.5	-90.00	-3,730.3	192.9	492.0	411.3	80.67	6.099 CC, ES		
10,900.0	7,130.0	7,155.0	7,155.0	68.8	12.5	-90.00	-3,730.3	192.9	492.6	411.5	81.08	6.075 SF		
11,000.0	7,130.0	7,155.0	7,155.0	70.5	12.5	-90.00	-3,730.3	192.9	507.4	424.5	82.81	6.127		
11,100.0	7,130.0	7,155.0	7,155.0	72.3	12.5	-90.00	-3,730.3	192.9	540.6	456.0	84.53	6.395		
11,200.0	7,130.0	7,155.0	7,155.0	74.0	12.5	-90.00	-3,730.3	192.9	589.1	502.8	86.26	6.829		
11,300.0	7,130.0	7,155.0	7,155.0	75.7	12.5	-90.00	-3,730.3	192.9	649.4	561.5	87.99	7.381		
11,400.0	7,130.0	7,155.0	7,155.0	77.4	12.5	-90.00	-3,730.3	192.9	718.7	629.0	89.72	8.011		
11,500.0	7,130.0	7,155.0	7,155.0	79.2	12.5	-90.00	-3,730.3	192.9	794.6	703.1	91.46	8.688		
11,600.0	7,130.0	7,155.0	7,155.0	80.9	12.5	-90.00	-3,730.3	192.9	875.3	782.1	93.19	9.393		
11,700.0	7,130.0	7,155.0	7,155.0	82.6	12.5	-90.00	-3,730.3	192.9	959.7	864.7	94.92	10.110		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - VOGL 31-5 (EXISTING) - KMG WELL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 500-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)						
4,200.0	4,193.2	4,507.1	4,308.4	8.3	24.7	43.99	1,129.1	-236.5	988.1	969.3	18.79	52.596		
4,300.0	4,293.1	4,600.0	4,400.9	8.5	24.7	44.07	1,121.9	-238.6	975.7	956.6	19.07	51.177		
4,400.0	4,392.9	4,600.0	4,400.9	8.7	24.7	44.07	1,121.9	-238.6	961.8	942.6	19.25	49.954		
4,500.0	4,492.7	4,656.8	4,457.7	8.9	24.8	44.21	1,121.9	-238.6	956.6	937.1	19.49	49.088		
4,600.0	4,592.5	4,756.6	4,557.5	9.1	24.8	44.47	1,121.9	-238.6	952.3	932.5	19.75	48.207		
4,700.0	4,692.3	4,856.4	4,657.3	9.3	24.9	44.72	1,121.9	-238.6	948.0	928.0	20.02	47.346		
4,800.0	4,792.2	4,956.3	4,757.2	9.6	25.0	44.97	1,121.9	-238.6	943.8	923.5	20.29	46.504		
4,900.0	4,892.0	5,056.1	4,857.0	9.8	25.1	45.23	1,121.9	-238.6	939.5	919.0	20.57	45.682		
5,000.0	4,991.8	5,155.9	4,956.8	10.0	25.1	45.49	1,121.9	-238.6	935.3	914.5	20.84	44.877		
5,100.0	5,091.6	5,255.7	5,056.6	10.2	25.2	45.76	1,121.9	-238.6	931.1	910.0	21.12	44.090		
5,200.0	5,191.4	5,355.5	5,156.4	10.4	25.3	46.02	1,121.9	-238.6	926.9	905.5	21.40	43.321		
5,300.0	5,291.3	5,455.4	5,256.3	10.6	25.4	46.29	1,121.9	-238.6	922.8	901.1	21.68	42.568		
5,400.0	5,391.1	5,555.2	5,356.1	10.8	25.4	46.56	1,121.9	-238.6	918.7	896.7	21.96	41.832		
5,500.0	5,490.9	5,655.0	5,455.9	11.0	25.5	46.83	1,121.9	-238.6	914.5	892.3	22.25	41.112		
5,600.0	5,590.7	5,754.8	5,555.7	11.2	25.6	47.10	1,121.9	-238.6	910.5	887.9	22.53	40.408		
5,700.0	5,690.5	5,854.6	5,655.5	11.4	25.7	47.38	1,121.9	-238.6	906.4	883.6	22.82	39.719		
5,800.0	5,790.4	5,954.5	5,755.4	11.6	25.7	47.66	1,121.9	-238.6	902.3	879.2	23.11	39.045		
5,900.0	5,890.2	6,054.3	5,855.2	11.8	25.8	47.94	1,121.9	-238.6	898.3	874.9	23.40	38.386		
6,000.0	5,990.0	6,154.1	5,955.0	12.0	25.9	48.23	1,121.9	-238.6	894.3	870.6	23.70	37.740		
6,100.0	6,089.8	6,253.9	6,054.8	12.2	25.9	48.51	1,121.9	-238.6	890.3	866.3	23.99	37.109		
6,200.0	6,189.6	6,353.8	6,154.6	12.4	26.0	48.80	1,121.9	-238.6	886.4	862.1	24.29	36.491		
6,300.0	6,289.5	6,453.6	6,254.5	12.6	26.1	49.10	1,121.9	-238.6	882.4	857.8	24.59	35.886		
6,400.0	6,389.3	6,553.4	6,354.3	12.8	26.2	49.39	1,121.9	-238.6	878.5	853.6	24.89	35.294		
6,500.0	6,489.1	6,653.2	6,454.1	13.0	26.2	49.69	1,121.9	-238.6	874.6	849.4	25.19	34.715		
6,569.5	6,558.5	6,722.6	6,523.5	13.1	26.3	122.48	1,121.9	-238.6	874.2	848.7	25.50	34.289		
6,600.0	6,588.9	6,753.1	6,553.9	13.2	26.3	143.45	1,121.9	-238.6	873.3	847.7	25.60	34.114 CC, ES, SF		
6,700.0	6,687.7	6,851.8	6,652.7	13.3	26.4	171.70	1,121.9	-238.6	887.7	862.0	25.64	34.616		
6,800.0	6,782.5	6,946.6	6,747.5	13.3	26.5	176.64	1,121.9	-238.6	918.9	893.8	25.11	36.598		
6,900.0	6,870.5	7,034.6	6,835.5	13.3	26.5	178.85	1,121.9	-238.6	966.2	942.1	24.04	40.196		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - VOGL 5-5 (EXISTING) - KMG WELL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 7910-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	37.92	236.8	184.4	301.2					
100.0	100.0	75.0	75.0	0.1	0.1	37.92	236.8	184.4	300.1	299.9	0.25	1,185.082		
200.0	200.0	175.0	175.0	0.3	0.3	37.92	236.8	184.4	300.1	299.5	0.60	498.306		
300.0	300.0	275.0	275.0	0.5	0.5	85.61	236.8	184.4	300.1	299.1	0.95	315.088		
400.0	400.0	375.0	375.0	0.7	0.7	86.12	236.8	184.4	299.9	298.6	1.31	229.485		
500.0	499.9	474.9	474.9	0.8	0.8	86.95	236.8	184.4	299.6	298.0	1.67	179.487		
600.0	599.7	574.7	574.7	1.0	1.0	88.06	236.8	184.4	299.4	297.3	2.04	146.845		
700.0	699.5	674.5	674.5	1.2	1.2	89.21	236.8	184.4	299.2	296.8	2.41	124.122		
769.4	768.7	743.7	743.7	1.4	1.3	90.00	236.8	184.4	299.2	296.5	2.67	112.066 CC		
800.0	799.3	774.3	774.3	1.4	1.4	90.35	236.8	184.4	299.2	296.4	2.78	107.458		
900.0	899.2	874.2	874.2	1.6	1.5	91.50	236.8	184.4	299.3	296.1	3.16	94.747		
1,000.0	999.0	974.0	974.0	1.8	1.7	92.64	236.8	184.4	299.5	296.0	3.53	84.752		
1,100.0	1,098.8	1,073.8	1,073.8	2.0	1.9	93.78	236.8	184.4	299.9	295.9	3.91	76.700 ES		
1,200.0	1,198.6	1,173.6	1,173.6	2.2	2.0	94.92	236.8	184.4	300.3	296.0	4.28	70.086		
1,300.0	1,298.4	1,273.4	1,273.4	2.4	2.2	96.05	236.8	184.4	300.9	296.2	4.66	64.563		
1,400.0	1,398.3	1,373.3	1,373.3	2.6	2.4	97.18	236.8	184.4	301.6	296.5	5.04	59.890		
1,500.0	1,498.1	1,473.1	1,473.1	2.8	2.6	98.31	236.8	184.4	302.4	297.0	5.41	55.889		
1,600.0	1,597.9	1,572.9	1,572.9	3.0	2.7	99.42	236.8	184.4	303.3	297.5	5.79	52.430		
1,700.0	1,697.7	1,672.7	1,672.7	3.3	2.9	100.53	236.8	184.4	304.3	298.2	6.16	49.414		
1,800.0	1,797.5	1,772.5	1,772.5	3.5	3.1	101.64	236.8	184.4	305.5	299.0	6.53	46.764		
1,900.0	1,897.4	1,872.4	1,872.4	3.7	3.3	102.73	236.8	184.4	306.8	299.9	6.91	44.421		
2,000.0	1,997.2	1,972.2	1,972.2	3.9	3.4	103.82	236.8	184.4	308.1	300.9	7.28	42.337		
2,100.0	2,097.0	2,072.0	2,072.0	4.1	3.6	104.89	236.8	184.4	309.6	302.0	7.65	40.474		
2,200.0	2,196.8	2,171.8	2,171.8	4.3	3.8	105.95	236.8	184.4	311.2	303.2	8.02	38.800		
2,300.0	2,296.6	2,271.6	2,271.6	4.5	4.0	107.01	236.8	184.4	312.9	304.5	8.39	37.290		
2,400.0	2,396.5	2,371.5	2,371.5	4.7	4.1	108.05	236.8	184.4	314.7	306.0	8.76	35.922		
2,500.0	2,496.3	2,471.3	2,471.3	4.9	4.3	109.08	236.8	184.4	316.6	307.5	9.13	34.680		
2,600.0	2,596.1	2,571.1	2,571.1	5.1	4.5	110.09	236.8	184.4	318.7	309.2	9.50	33.548		
2,700.0	2,695.9	2,670.9	2,670.9	5.3	4.7	111.10	236.8	184.4	320.8	310.9	9.87	32.512		
2,800.0	2,795.7	2,770.7	2,770.7	5.5	4.8	112.09	236.8	184.4	323.0	312.7	10.23	31.563		
2,900.0	2,895.6	2,870.6	2,870.6	5.7	5.0	113.06	236.8	184.4	325.3	314.7	10.60	30.691		
3,000.0	2,995.4	2,970.4	2,970.4	5.9	5.2	114.02	236.8	184.4	327.7	316.7	10.96	29.888		
3,100.0	3,095.2	3,070.2	3,070.2	6.1	5.4	114.97	236.8	184.4	330.2	318.8	11.33	29.147		
3,200.0	3,195.0	3,170.0	3,170.0	6.3	5.5	115.91	236.8	184.4	332.7	321.0	11.69	28.462		
3,300.0	3,294.8	3,269.8	3,269.8	6.5	5.7	116.82	236.8	184.4	335.4	323.3	12.05	27.826		
3,400.0	3,394.7	3,369.7	3,369.7	6.7	5.9	117.73	236.8	184.4	338.2	325.7	12.42	27.237		
3,500.0	3,494.5	3,469.5	3,469.5	6.9	6.1	118.62	236.8	184.4	341.0	328.2	12.78	26.689		
3,600.0	3,594.3	3,569.3	3,569.3	7.1	6.2	119.49	236.8	184.4	343.9	330.8	13.14	26.179		
3,700.0	3,694.1	3,669.1	3,669.1	7.3	6.4	120.35	236.8	184.4	346.9	333.4	13.50	25.703		
3,800.0	3,793.9	3,768.9	3,768.9	7.5	6.6	121.20	236.8	184.4	350.0	336.1	13.85	25.259		
3,900.0	3,893.8	3,868.8	3,868.8	7.7	6.8	122.03	236.8	184.4	353.1	338.9	14.21	24.844		
4,000.0	3,993.6	3,968.6	3,968.6	7.9	6.9	122.84	236.8	184.4	356.3	341.7	14.57	24.456		
4,100.0	4,093.4	4,068.4	4,068.4	8.1	7.1	123.64	236.8	184.4	359.6	344.7	14.93	24.092		
4,200.0	4,193.2	4,168.2	4,168.2	8.3	7.3	124.43	236.8	184.4	363.0	347.7	15.28	23.750		
4,300.0	4,293.1	4,268.1	4,268.1	8.5	7.4	125.20	236.8	184.4	366.4	350.7	15.64	23.429		
4,400.0	4,392.9	4,367.9	4,367.9	8.7	7.6	125.96	236.8	184.4	369.9	353.9	15.99	23.128		
4,500.0	4,492.7	4,467.7	4,467.7	8.9	7.8	126.70	236.8	184.4	373.4	357.1	16.35	22.844		
4,600.0	4,592.5	4,567.5	4,567.5	9.1	8.0	127.43	236.8	184.4	377.0	360.3	16.70	22.576		
4,700.0	4,692.3	4,667.3	4,667.3	9.3	8.1	128.15	236.8	184.4	380.7	363.7	17.05	22.324		
4,800.0	4,792.2	4,767.2	4,767.2	9.6	8.3	128.85	236.8	184.4	384.4	367.0	17.41	22.087		
4,900.0	4,892.0	4,867.0	4,867.0	9.8	8.5	129.54	236.8	184.4	388.2	370.5	17.76	21.862		
5,000.0	4,991.8	4,966.8	4,966.8	10.0	8.7	130.21	236.8	184.4	392.1	374.0	18.11	21.650		

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 Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - VOGL 5-5 (EXISTING) - KMG WELL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 7910-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
5,100.0	5,091.6	5,066.6	5,066.6	10.2	8.8	130.87	236.8	184.4	396.0	377.5	18.46	21.449		
5,200.0	5,191.4	5,166.4	5,166.4	10.4	9.0	131.52	236.8	184.4	399.9	381.1	18.81	21.259		
5,300.0	5,291.3	5,266.3	5,266.3	10.6	9.2	132.15	236.8	184.4	403.9	384.8	19.16	21.079		
5,400.0	5,391.1	5,366.1	5,366.1	10.8	9.4	132.78	236.8	184.4	408.0	388.5	19.51	20.908		
5,500.0	5,490.9	5,465.9	5,465.9	11.0	9.5	133.39	236.8	184.4	412.1	392.2	19.86	20.746		
5,600.0	5,590.7	5,565.7	5,565.7	11.2	9.7	133.99	236.8	184.4	416.2	396.0	20.21	20.593		
5,700.0	5,690.5	5,665.5	5,665.5	11.4	9.9	134.57	236.8	184.4	420.4	399.8	20.56	20.447		
5,800.0	5,790.4	5,765.4	5,765.4	11.6	10.1	135.15	236.8	184.4	424.6	403.7	20.91	20.308		
5,900.0	5,890.2	5,865.2	5,865.2	11.8	10.2	135.71	236.8	184.4	428.9	407.6	21.26	20.176		
6,000.0	5,990.0	5,965.0	5,965.0	12.0	10.4	136.27	236.8	184.4	433.2	411.6	21.61	20.051		
6,100.0	6,089.8	6,064.8	6,064.8	12.2	10.6	136.81	236.8	184.4	437.6	415.6	21.95	19.931		
6,200.0	6,189.6	6,164.6	6,164.6	12.4	10.8	137.34	236.8	184.4	441.9	419.6	22.30	19.817		
6,300.0	6,289.5	6,264.5	6,264.5	12.6	10.9	137.86	236.8	184.4	446.4	423.7	22.65	19.709		
6,400.0	6,389.3	6,364.3	6,364.3	12.8	11.1	138.37	236.8	184.4	450.8	427.8	23.00	19.605		
6,500.0	6,489.1	6,464.1	6,464.1	13.0	11.3	138.87	236.8	184.4	455.3	432.0	23.34	19.507		
6,600.0	6,588.9	6,563.9	6,563.9	13.2	11.5	-127.26	236.8	184.4	459.8	436.1	23.66	19.430		
6,700.0	6,687.7	6,662.7	6,662.7	13.3	11.6	-100.64	236.8	184.4	464.0	440.1	23.93	19.389 SF		
6,800.0	6,782.5	6,757.5	6,757.5	13.3	11.8	-99.12	236.8	184.4	469.3	445.2	24.14	19.445		
6,900.0	6,870.5	6,845.5	6,845.5	13.3	11.9	-101.33	236.8	184.4	478.8	454.5	24.24	19.749		
7,000.0	6,949.0	6,924.0	6,924.0	13.3	12.1	-104.30	236.8	184.4	496.2	471.9	24.24	20.471		
7,100.0	7,015.6	6,990.6	6,990.6	13.4	12.2	-106.42	236.8	184.4	525.0	500.7	24.21	21.681		
7,200.0	7,068.2	7,043.2	7,043.2	13.6	12.3	-106.52	236.8	184.4	567.1	542.7	24.39	23.255		
7,300.0	7,105.4	7,080.4	7,080.4	14.1	12.4	-103.65	236.8	184.4	622.5	597.5	25.00	24.904		
7,400.0	7,125.9	7,100.9	7,100.9	14.7	12.4	-96.99	236.8	184.4	689.1	663.1	26.03	26.475		
7,500.0	7,130.0	7,105.0	7,105.0	15.5	12.4	-90.00	236.8	184.4	763.6	736.6	27.01	28.275		
7,600.0	7,130.0	7,105.0	7,105.0	16.5	12.4	-90.00	236.8	184.4	843.4	815.4	28.02	30.099		
7,700.0	7,130.0	7,105.0	7,105.0	17.6	12.4	-90.00	236.8	184.4	927.1	897.9	29.16	31.797		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - VOGL 5-8A (EXISTING) - KMG WELL - NO SURVEYS													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		
11,500.0	7,130.0	7,165.0	7,165.0	79.2	12.5	-90.00	-5,057.3	383.2	979.8	888.3	91.47	10.711		
11,600.0	7,130.0	7,165.0	7,165.0	80.9	12.5	-90.00	-5,057.3	383.2	910.7	817.5	93.21	9.771		
11,700.0	7,130.0	7,165.0	7,165.0	82.6	12.5	-90.00	-5,057.3	383.2	847.8	752.8	94.94	8.930		
11,800.0	7,130.0	7,165.0	7,165.0	84.4	12.5	-90.00	-5,057.3	383.2	792.5	695.8	96.67	8.198		
11,900.0	7,130.0	7,165.0	7,165.0	86.1	12.5	-90.00	-5,057.3	383.2	746.6	648.2	98.41	7.587		
12,000.0	7,130.0	7,165.0	7,165.0	87.8	12.5	-90.00	-5,057.3	383.2	711.9	611.8	100.15	7.109		
12,100.0	7,130.0	7,165.0	7,165.0	89.6	12.5	-90.00	-5,057.3	383.2	690.1	588.2	101.88	6.773		
12,200.0	7,130.0	7,165.0	7,165.0	91.3	12.5	-90.00	-5,057.3	383.2	682.3	578.7	103.62	6.585		
12,203.1	7,130.0	7,165.0	7,165.0	91.3	12.5	-90.00	-5,057.3	383.2	682.3	578.7	103.68	6.582 CC, ES		
12,300.0	7,130.0	7,165.0	7,165.0	93.0	12.5	-90.00	-5,057.3	383.2	689.2	583.8	105.36	6.541 SF		
12,400.0	7,130.0	7,165.0	7,165.0	94.8	12.5	-90.00	-5,057.3	383.2	710.2	603.1	107.10	6.631		
12,500.0	7,130.0	7,165.0	7,165.0	96.5	12.5	-90.00	-5,057.3	383.2	744.1	635.3	108.84	6.837		
12,600.0	7,130.0	7,165.0	7,165.0	98.2	12.5	-90.00	-5,057.3	383.2	789.4	678.8	110.58	7.139		
12,700.0	7,130.0	7,165.0	7,165.0	100.0	12.5	-90.00	-5,057.3	383.2	844.1	731.8	112.32	7.515		
12,800.0	7,130.0	7,165.0	7,165.0	101.7	12.5	-90.00	-5,057.3	383.2	906.6	792.5	114.06	7.948		
12,900.0	7,130.0	7,165.0	7,165.0	103.4	12.5	-90.00	-5,057.3	383.2	975.3	859.5	115.80	8.422		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - Vogl-Geist 2A-5H-E267 - 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									
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	1.0	1.0	0.0	0.0	90.06	0.0	8.4	8.4						
100.0	100.0	101.0	101.0	0.1	0.1	90.06	0.0	8.4	8.4	8.1	0.25	34.068			
200.0	200.0	201.0	201.0	0.3	0.3	90.06	0.0	8.4	8.4	7.8	0.60	14.087 CC, ES			
300.0	300.0	301.0	301.0	0.5	0.5	141.31	0.0	8.4	9.0	8.1	0.94	9.579			
400.0	400.0	401.0	401.0	0.7	0.6	149.70	0.0	8.4	11.2	9.9	1.29	8.660 SF			
500.0	499.9	500.8	500.8	0.8	0.8	164.66	-1.7	7.9	15.3	13.7	1.64	9.332			
600.0	599.7	600.4	600.3	1.0	1.0	179.05	-5.6	6.7	22.4	20.4	2.00	11.214			
700.0	699.5	700.0	699.8	1.2	1.2	-173.61	-9.6	5.5	30.3	28.0	2.35	12.905			
800.0	799.3	799.7	799.4	1.4	1.4	-169.35	-13.5	4.2	38.6	35.9	2.71	14.252			
900.0	899.2	899.3	898.9	1.6	1.6	-166.61	-17.5	3.0	47.0	43.9	3.06	15.325			
1,000.0	999.0	998.9	998.5	1.8	1.7	-164.69	-21.4	1.8	55.4	52.0	3.42	16.193			
1,100.0	1,098.8	1,098.6	1,098.0	2.0	1.9	-163.29	-25.4	0.6	63.9	60.1	3.78	16.907			
1,200.0	1,198.6	1,198.2	1,197.6	2.2	2.1	-162.21	-29.3	-0.6	72.4	68.3	4.14	17.503			
1,300.0	1,298.4	1,297.8	1,297.1	2.4	2.3	-161.36	-33.3	-1.8	81.0	76.5	4.50	18.008			
1,400.0	1,398.3	1,397.4	1,396.6	2.6	2.5	-160.68	-37.2	-3.0	89.5	84.7	4.86	18.440			
1,500.0	1,498.1	1,497.1	1,496.2	2.8	2.7	-160.11	-41.2	-4.3	98.1	92.9	5.21	18.815			
1,600.0	1,597.9	1,596.7	1,595.7	3.0	2.9	-159.64	-45.1	-5.5	106.7	101.1	5.57	19.142			
1,700.0	1,697.7	1,696.3	1,695.3	3.3	3.1	-159.23	-49.1	-6.7	115.3	109.3	5.93	19.431			
1,800.0	1,797.5	1,795.9	1,794.8	3.5	3.2	-158.88	-53.0	-7.9	123.9	117.6	6.29	19.687			
1,900.0	1,897.4	1,895.6	1,894.4	3.7	3.4	-158.58	-57.0	-9.1	132.4	125.8	6.65	19.916			
2,000.0	1,997.2	1,995.2	1,993.9	3.9	3.6	-158.31	-61.0	-10.3	141.0	134.0	7.01	20.121			
2,100.0	2,097.0	2,094.8	2,093.4	4.1	3.8	-158.08	-64.9	-11.5	149.6	142.3	7.37	20.307			
2,200.0	2,196.8	2,194.5	2,193.0	4.3	4.0	-157.87	-68.9	-12.7	158.2	150.5	7.73	20.476			
2,300.0	2,296.6	2,294.1	2,292.5	4.5	4.2	-157.68	-72.8	-14.0	166.8	158.8	8.09	20.630			
2,400.0	2,396.5	2,393.7	2,392.1	4.7	4.4	-157.51	-76.8	-15.2	175.5	167.0	8.45	20.771			
2,500.0	2,496.3	2,493.3	2,491.6	4.9	4.6	-157.35	-80.7	-16.4	184.1	175.3	8.81	20.901			
2,600.0	2,596.1	2,593.0	2,591.1	5.1	4.7	-157.21	-84.7	-17.6	192.7	183.5	9.17	21.020			
2,700.0	2,695.9	2,692.6	2,690.7	5.3	4.9	-157.09	-88.6	-18.8	201.3	191.8	9.53	21.131			
2,800.0	2,795.7	2,792.2	2,790.2	5.5	5.1	-156.97	-92.6	-20.0	209.9	200.0	9.88	21.233			
2,900.0	2,895.6	2,891.9	2,889.8	5.7	5.3	-156.86	-96.5	-21.2	218.5	208.3	10.24	21.329			
3,000.0	2,995.4	2,991.5	2,989.3	5.9	5.5	-156.76	-100.5	-22.5	227.1	216.5	10.60	21.418			
3,100.0	3,095.2	3,091.1	3,088.9	6.1	5.7	-156.67	-104.4	-23.7	235.7	224.8	10.96	21.501			
3,200.0	3,195.0	3,190.7	3,188.4	6.3	5.9	-156.58	-108.4	-24.9	244.3	233.0	11.32	21.579			
3,300.0	3,294.8	3,290.4	3,287.9	6.5	6.1	-156.50	-112.3	-26.1	252.9	241.3	11.68	21.652			
3,400.0	3,394.7	3,390.0	3,387.5	6.7	6.2	-156.42	-116.3	-27.3	261.6	249.5	12.04	21.721			
3,500.0	3,494.5	3,489.6	3,487.0	6.9	6.4	-156.35	-120.3	-28.5	270.2	257.8	12.40	21.786			
3,600.0	3,594.3	3,589.2	3,586.6	7.1	6.6	-156.29	-124.2	-29.7	278.8	266.0	12.76	21.847			
3,700.0	3,694.1	3,688.9	3,686.1	7.3	6.8	-156.22	-128.2	-31.0	287.4	274.3	13.12	21.905			
3,800.0	3,793.9	3,788.5	3,785.6	7.5	7.0	-156.17	-132.1	-32.2	296.0	282.5	13.48	21.959			
3,900.0	3,893.8	3,888.1	3,885.2	7.7	7.2	-156.11	-136.1	-33.4	304.6	290.8	13.84	22.011			
4,000.0	3,993.6	3,987.8	3,984.7	7.9	7.4	-156.06	-140.0	-34.6	313.2	299.0	14.20	22.061			
4,100.0	4,093.4	4,087.4	4,084.3	8.1	7.6	-156.01	-144.0	-35.8	321.9	307.3	14.56	22.108			
4,200.0	4,193.2	4,187.0	4,183.8	8.3	7.8	-155.96	-147.9	-37.0	330.5	315.6	14.92	22.152			
4,300.0	4,293.1	4,286.6	4,283.4	8.5	7.9	-155.92	-151.9	-38.2	339.1	323.8	15.28	22.195			
4,400.0	4,392.9	4,386.3	4,382.9	8.7	8.1	-155.88	-155.8	-39.4	347.7	332.1	15.64	22.236			
4,500.0	4,492.7	4,485.9	4,482.4	8.9	8.3	-155.84	-159.8	-40.7	356.3	340.3	16.00	22.274			
4,600.0	4,592.5	4,585.5	4,582.0	9.1	8.5	-155.80	-163.7	-41.9	364.9	348.6	16.36	22.311			
4,700.0	4,692.3	4,685.2	4,681.5	9.3	8.7	-155.76	-167.7	-43.1	373.6	356.8	16.72	22.347			
4,800.0	4,792.2	4,784.8	4,781.1	9.6	8.9	-155.73	-171.6	-44.3	382.2	365.1	17.08	22.381			
4,900.0	4,892.0	4,884.4	4,880.6	9.8	9.1	-155.69	-175.6	-45.5	390.8	373.4	17.44	22.414			
5,000.0	4,991.8	4,984.0	4,980.2	10.0	9.3	-155.66	-179.6	-46.7	399.4	381.6	17.80	22.445			
5,100.0	5,091.6	5,083.7	5,079.7	10.2	9.4	-155.63	-183.5	-47.9	408.0	389.9	18.15	22.475			

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 Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - Vogl-Geist 2A-5H-E267 - 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)						
5,200.0	5,191.4	5,183.3	5,179.2	10.4	9.6	-155.60	-187.5	-49.2	416.6	398.1	18.51	22.504		
5,300.0	5,291.3	5,282.9	5,278.8	10.6	9.8	-155.57	-191.4	-50.4	425.3	406.4	18.87	22.532		
5,400.0	5,391.1	5,382.5	5,378.3	10.8	10.0	-155.55	-195.4	-51.6	433.9	414.6	19.23	22.558		
5,500.0	5,490.9	5,482.2	5,477.9	11.0	10.2	-155.52	-199.3	-52.8	442.5	422.9	19.59	22.584		
5,600.0	5,590.7	5,581.8	5,577.4	11.2	10.4	-155.50	-203.3	-54.0	451.1	431.2	19.95	22.609		
5,700.0	5,690.5	5,681.4	5,676.9	11.4	10.6	-155.47	-207.2	-55.2	459.7	439.4	20.31	22.633		
5,800.0	5,790.4	5,781.1	5,776.5	11.6	10.8	-155.45	-211.2	-56.4	468.4	447.7	20.67	22.656		
5,900.0	5,890.2	5,880.7	5,876.0	11.8	11.0	-155.43	-215.1	-57.7	477.0	455.9	21.03	22.678		
6,000.0	5,990.0	5,980.3	5,975.6	12.0	11.1	-155.40	-219.1	-58.9	485.6	464.2	21.39	22.700		
6,100.0	6,089.8	6,079.9	6,075.1	12.2	11.3	-155.38	-223.0	-60.1	494.2	472.5	21.75	22.721		
6,200.0	6,189.6	6,179.6	6,174.7	12.4	11.5	-155.36	-227.0	-61.3	502.8	480.7	22.11	22.741		
6,300.0	6,289.5	6,279.2	6,274.2	12.6	11.7	-155.34	-231.0	-62.5	511.4	489.0	22.47	22.761		
6,400.0	6,389.3	6,378.8	6,373.7	12.8	11.9	-155.33	-234.9	-63.7	520.1	497.2	22.83	22.780		
6,500.0	6,489.1	6,478.5	6,473.3	13.0	12.1	-155.31	-238.9	-64.9	528.7	505.5	23.19	22.798		
6,600.0	6,588.9	6,578.2	6,572.9	13.2	12.3	-61.84	-242.8	-66.1	534.9	511.4	23.56	22.708		
6,700.0	6,687.7	6,677.5	6,672.2	13.3	12.5	-34.99	-246.8	-67.4	526.8	503.2	23.62	22.304		
6,800.0	6,782.5	6,952.4	6,942.5	13.3	12.7	-40.73	-211.6	-69.9	493.7	470.1	23.64	20.889		
6,900.0	6,870.5	7,127.5	7,094.2	13.3	12.6	-66.74	-125.6	-70.1	420.4	396.3	24.12	17.431		
7,000.0	6,949.0	7,169.9	7,126.4	13.3	12.6	-86.91	-98.1	-70.0	342.7	317.9	24.73	13.856		
7,100.0	7,015.6	7,168.2	7,125.2	13.4	12.6	-94.87	-99.3	-70.0	276.5	251.6	24.87	11.116		
7,200.0	7,068.2	7,147.8	7,109.9	13.6	12.6	-94.17	-112.7	-70.1	235.1	209.9	25.12	9.357		
7,262.3	7,093.3	7,130.0	7,096.2	13.9	12.6	-90.51	-124.0	-70.1	227.4	202.0	25.45	8.937		
7,300.0	7,105.4	7,118.0	7,086.7	14.1	12.6	-87.32	-131.4	-70.1	230.2	204.5	25.61	8.987		
7,400.0	7,125.9	7,082.8	7,058.1	14.7	12.6	-76.23	-151.9	-70.1	260.0	234.2	25.77	10.089		
7,500.0	7,130.0	7,050.0	7,030.3	15.5	12.6	-66.27	-169.4	-70.1	311.0	285.6	25.46	12.219		
7,600.0	7,130.0	7,012.1	6,997.1	16.5	12.6	-59.69	-187.5	-70.1	376.2	350.8	25.38	14.824		
7,700.0	7,130.0	6,985.4	6,973.0	17.6	12.7	-55.40	-199.0	-70.0	451.3	425.7	25.56	17.659		
7,800.0	7,130.0	6,963.3	6,952.6	18.7	12.7	-52.11	-207.6	-69.9	532.7	506.9	25.86	20.603		
7,900.0	7,130.0	6,950.0	6,940.2	20.0	12.7	-50.24	-212.5	-69.8	618.4	592.0	26.44	23.389		
8,000.0	7,130.0	6,929.0	6,920.4	21.3	12.7	-47.45	-219.5	-69.7	707.0	680.3	26.75	26.431		
8,100.0	7,130.0	6,915.5	6,907.5	22.7	12.7	-45.76	-223.6	-69.7	797.7	770.4	27.30	29.218		
8,200.0	7,130.0	6,900.0	6,892.7	24.2	12.7	-43.93	-227.9	-69.6	890.1	862.3	27.77	32.051		
8,300.0	7,130.0	6,900.0	6,892.7	25.7	12.7	-43.93	-227.9	-69.6	983.6	954.8	28.81	34.137		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - Vogl-Geist 2B-5H-E267 - 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	1.0	1.0	0.0	0.0	90.05	0.0	27.9	27.9					
100.0	100.0	101.0	101.0	0.1	0.1	90.05	0.0	27.9	27.9	27.7	0.25	113.561		
200.0	200.0	201.0	201.0	0.3	0.3	90.05	0.0	27.9	27.9	27.4	0.60	46.956 CC, ES		
300.0	300.0	301.0	301.0	0.5	0.5	138.76	0.0	27.9	28.6	27.7	0.94	30.274		
400.0	400.0	401.0	401.0	0.7	0.6	141.98	0.0	27.9	30.6	29.3	1.30	23.632		
500.0	499.9	500.9	500.9	0.8	0.8	146.47	0.0	27.9	34.2	32.5	1.65	20.732		
600.0	599.7	600.7	600.7	1.0	1.0	151.17	0.0	27.9	39.1	37.1	2.00	19.580		
700.0	699.5	700.0	700.0	1.2	1.2	155.14	-0.5	28.7	45.3	43.0	2.35	19.303 SF		
800.0	799.3	798.6	798.5	1.4	1.3	158.45	-1.8	30.9	53.4	50.7	2.70	19.804		
900.0	899.2	897.0	896.9	1.6	1.5	161.11	-4.0	34.5	63.3	60.2	3.04	20.800		
1,000.0	999.0	995.1	994.8	1.8	1.7	163.16	-7.1	39.6	75.0	71.6	3.39	22.130		
1,100.0	1,098.8	1,092.9	1,092.3	2.0	1.9	164.74	-11.0	46.1	88.4	84.7	3.73	23.691		
1,200.0	1,198.6	1,191.9	1,190.9	2.2	2.1	165.93	-15.3	53.3	102.7	98.6	4.08	25.175		
1,300.0	1,298.4	1,290.8	1,289.5	2.4	2.3	166.84	-19.7	60.5	117.0	112.5	4.42	26.434		
1,400.0	1,398.3	1,389.8	1,388.1	2.6	2.5	167.54	-24.0	67.7	131.3	126.5	4.77	27.514		
1,500.0	1,498.1	1,488.7	1,486.7	2.8	2.7	168.11	-28.3	74.9	145.6	140.5	5.12	28.451		
1,600.0	1,597.9	1,587.7	1,585.3	3.0	3.0	168.58	-32.7	82.1	159.9	154.5	5.46	29.270		
1,700.0	1,697.7	1,686.7	1,683.9	3.3	3.2	168.97	-37.0	89.4	174.3	168.5	5.81	29.994		
1,800.0	1,797.5	1,785.6	1,782.5	3.5	3.4	169.30	-41.4	96.6	188.6	182.5	6.16	30.636		
1,900.0	1,897.4	1,884.6	1,881.1	3.7	3.6	169.58	-45.7	103.8	203.0	196.5	6.50	31.211		
2,000.0	1,997.2	1,983.5	1,979.7	3.9	3.8	169.83	-50.1	111.0	217.4	210.5	6.85	31.728		
2,100.0	2,097.0	2,082.5	2,078.3	4.1	4.1	170.04	-54.4	118.2	231.7	224.5	7.20	32.196		
2,200.0	2,196.8	2,181.4	2,176.9	4.3	4.3	170.23	-58.8	125.4	246.1	238.6	7.54	32.620		
2,300.0	2,296.6	2,280.4	2,275.5	4.5	4.5	170.40	-63.1	132.6	260.5	252.6	7.89	33.008		
2,400.0	2,396.5	2,379.4	2,374.1	4.7	4.7	170.55	-67.5	139.8	274.8	266.6	8.24	33.363		
2,500.0	2,496.3	2,478.3	2,472.7	4.9	5.0	170.69	-71.8	147.0	289.2	280.6	8.58	33.690		
2,600.0	2,596.1	2,577.3	2,571.3	5.1	5.2	170.81	-76.2	154.3	303.6	294.7	8.93	33.991		
2,700.0	2,695.9	2,676.2	2,669.9	5.3	5.4	170.92	-80.5	161.5	318.0	308.7	9.28	34.270		
2,800.0	2,795.7	2,775.2	2,768.5	5.5	5.6	171.03	-84.9	168.7	332.4	322.7	9.63	34.529		
2,900.0	2,895.6	2,874.2	2,867.1	5.7	5.8	171.12	-89.2	175.9	346.7	336.8	9.97	34.770		
3,000.0	2,995.4	2,973.1	2,965.7	5.9	6.1	171.21	-93.5	183.1	361.1	350.8	10.32	34.995		
3,100.0	3,095.2	3,072.1	3,064.3	6.1	6.3	171.29	-97.9	190.3	375.5	364.8	10.67	35.205		
3,200.0	3,195.0	3,171.0	3,162.9	6.3	6.5	171.36	-102.2	197.5	389.9	378.9	11.01	35.402		
3,300.0	3,294.8	3,270.0	3,261.5	6.5	6.7	171.43	-106.6	204.7	404.3	392.9	11.36	35.587		
3,400.0	3,394.7	3,369.0	3,360.1	6.7	7.0	171.50	-110.9	211.9	418.7	407.0	11.71	35.761		
3,500.0	3,494.5	3,467.9	3,458.7	6.9	7.2	171.56	-115.3	219.2	433.0	421.0	12.05	35.925		
3,600.0	3,594.3	3,566.9	3,557.3	7.1	7.4	171.61	-119.6	226.4	447.4	435.0	12.40	36.079		
3,700.0	3,694.1	3,665.8	3,655.9	7.3	7.7	171.66	-124.0	233.6	461.8	449.1	12.75	36.226		
3,800.0	3,793.9	3,764.8	3,754.5	7.5	7.9	171.71	-128.3	240.8	476.2	463.1	13.10	36.365		
3,900.0	3,893.8	3,863.7	3,853.1	7.7	8.1	171.76	-132.7	248.0	490.6	477.2	13.44	36.496		
4,000.0	3,993.6	3,962.7	3,951.7	7.9	8.3	171.80	-137.0	255.2	505.0	491.2	13.79	36.621		
4,100.0	4,093.4	4,061.7	4,050.3	8.1	8.6	171.84	-141.4	262.4	519.4	505.2	14.14	36.740		
4,200.0	4,193.2	4,160.6	4,148.9	8.3	8.8	171.88	-145.7	269.6	533.8	519.3	14.48	36.853		
4,300.0	4,293.1	4,259.6	4,247.5	8.5	9.0	171.92	-150.1	276.8	548.1	533.3	14.83	36.961		
4,400.0	4,392.9	4,358.5	4,346.1	8.7	9.2	171.96	-154.4	284.1	562.5	547.4	15.18	37.064		
4,500.0	4,492.7	4,457.5	4,444.7	8.9	9.5	171.99	-158.7	291.3	576.9	561.4	15.52	37.162		
4,600.0	4,592.5	4,556.5	4,543.3	9.1	9.7	172.02	-163.1	298.5	591.3	575.4	15.87	37.256		
4,700.0	4,692.3	4,655.4	4,641.9	9.3	9.9	172.05	-167.4	305.7	605.7	589.5	16.22	37.346		
4,800.0	4,792.2	4,754.4	4,740.5	9.6	10.1	172.08	-171.8	312.9	620.1	603.5	16.57	37.432		
4,900.0	4,892.0	4,853.3	4,839.1	9.8	10.4	172.11	-176.1	320.1	634.5	617.6	16.91	37.515		
5,000.0	4,991.8	4,952.3	4,937.7	10.0	10.6	172.13	-180.5	327.3	648.9	631.6	17.26	37.594		
5,100.0	5,091.6	5,051.3	5,036.3	10.2	10.8	172.16	-184.8	334.5	663.3	645.6	17.61	37.670		

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 Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - Vogl-Geist 2B-5H-E267 - 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)						
5,200.0	5,191.4	5,150.2	5,134.9	10.4	11.0	172.18	-189.2	341.7	677.6	659.7	17.95	37.744		
5,300.0	5,291.3	5,249.2	5,233.5	10.6	11.3	172.21	-193.5	349.0	692.0	673.7	18.30	37.814		
5,400.0	5,391.1	5,348.1	5,332.1	10.8	11.5	172.23	-197.9	356.2	706.4	687.8	18.65	37.882		
5,500.0	5,490.9	5,447.1	5,430.7	11.0	11.7	172.25	-202.2	363.4	720.8	701.8	18.99	37.947		
5,600.0	5,590.7	5,546.0	5,529.3	11.2	11.9	172.27	-206.6	370.6	735.2	715.9	19.34	38.010		
5,700.0	5,690.5	5,645.0	5,627.9	11.4	12.2	172.29	-210.9	377.8	749.6	729.9	19.69	38.071		
5,800.0	5,790.4	5,744.0	5,726.5	11.6	12.4	172.31	-215.3	385.0	764.0	743.9	20.04	38.130		
5,900.0	5,890.2	5,842.9	5,825.1	11.8	12.6	172.33	-219.6	392.2	778.4	758.0	20.38	38.187		
6,000.0	5,990.0	5,941.9	5,923.7	12.0	12.9	172.35	-223.9	399.4	792.8	772.0	20.73	38.241		
6,100.0	6,089.8	6,040.8	6,022.3	12.2	13.1	172.36	-228.3	406.6	807.1	786.1	21.08	38.295		
6,200.0	6,189.6	6,139.8	6,120.9	12.4	13.3	172.38	-232.6	413.9	821.5	800.1	21.42	38.346		
6,300.0	6,289.5	6,238.8	6,219.5	12.6	13.5	172.39	-237.0	421.1	835.9	814.2	21.77	38.395		
6,400.0	6,389.3	6,337.7	6,318.1	12.8	13.8	172.41	-241.3	428.3	850.3	828.2	22.12	38.444		
6,500.0	6,489.1	6,436.7	6,416.7	13.0	14.0	172.42	-245.7	435.5	864.7	842.2	22.47	38.490		
6,600.0	6,588.9	6,668.5	6,646.8	13.2	14.4	-95.43	-235.8	452.2	876.2	853.1	23.10	37.935		
6,700.0	6,687.7	7,073.6	6,978.9	13.3	14.6	-87.09	-20.2	475.7	848.4	824.1	24.39	34.792		
6,800.0	6,782.5	7,149.7	7,020.3	13.3	14.8	-91.40	43.6	478.5	814.2	789.4	24.72	32.933		
6,900.0	6,870.5	7,152.4	7,021.6	13.3	14.8	-92.44	46.0	478.6	788.7	763.9	24.71	31.919		
7,000.0	6,949.0	7,131.1	7,011.0	13.3	14.7	-91.40	27.6	477.9	774.4	749.7	24.65	31.414		
7,077.5	7,001.7	7,107.1	6,998.2	13.3	14.7	-89.56	7.2	477.0	771.1	746.5	24.68	31.244		
7,100.0	7,015.6	7,099.3	6,993.9	13.4	14.7	-88.89	0.8	476.8	771.4	746.7	24.69	31.250		
7,200.0	7,068.2	7,062.0	6,971.9	13.6	14.6	-85.30	-29.3	475.3	778.5	753.6	24.88	31.291		
7,300.0	7,105.4	7,021.5	6,946.0	14.1	14.5	-80.95	-60.3	473.5	793.9	768.7	25.18	31.525		
7,400.0	7,125.9	6,979.0	6,916.4	14.7	14.5	-76.20	-90.8	471.4	815.2	789.6	25.53	31.929		
7,500.0	7,130.0	6,935.6	6,884.1	15.5	14.5	-72.18	-119.6	469.2	840.4	814.4	25.98	32.342		
7,600.0	7,130.0	6,900.0	6,855.9	16.5	14.4	-70.25	-141.4	467.2	872.2	845.5	26.76	32.599		
7,700.0	7,130.0	6,865.2	6,827.2	17.6	14.4	-68.32	-160.8	465.2	911.7	884.1	27.61	33.026		
7,800.0	7,130.0	6,850.0	6,814.2	18.7	14.4	-67.46	-168.8	464.2	958.5	929.8	28.64	33.463		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - Vogl-Geist 2C-5H-E267 - 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	1.0	1.0	0.0	0.0	90.05	0.0	47.5	47.5					
100.0	100.0	101.0	101.0	0.1	0.1	90.05	0.0	47.5	47.5	47.3	0.25	193.053		
200.0	200.0	201.0	201.0	0.3	0.3	90.05	0.0	47.5	47.5	46.9	0.60	79.826 CC, ES		
300.0	300.0	301.0	301.0	0.5	0.5	138.28	0.0	47.5	48.2	47.2	0.94	50.982		
400.0	400.0	400.0	400.0	0.7	0.6	140.50	-0.3	48.3	51.0	49.7	1.29	39.406		
500.0	499.9	499.0	498.9	0.8	0.8	143.94	-1.2	50.8	57.0	55.3	1.65	34.628		
600.0	599.7	597.4	597.3	1.0	1.0	147.66	-2.5	54.8	66.1	64.1	2.00	33.093		
700.0	699.5	695.5	695.2	1.2	1.2	150.67	-4.4	60.4	77.2	74.8	2.34	32.914 SF		
800.0	799.3	793.2	792.6	1.4	1.4	152.97	-6.9	67.6	90.2	87.5	2.69	33.491		
900.0	899.2	890.4	889.4	1.6	1.6	154.72	-9.8	76.3	105.0	101.9	3.04	34.542		
1,000.0	999.0	987.1	985.4	1.8	1.9	156.03	-13.3	86.5	121.5	118.1	3.38	35.906		
1,100.0	1,098.8	1,084.5	1,082.0	2.0	2.1	157.04	-17.2	98.0	139.5	135.7	3.73	37.403		
1,200.0	1,198.6	1,182.8	1,179.5	2.2	2.4	157.82	-21.2	109.9	157.7	153.6	4.08	38.680		
1,300.0	1,298.4	1,281.1	1,277.1	2.4	2.6	158.43	-25.3	121.8	175.9	171.5	4.42	39.761		
1,400.0	1,398.3	1,379.4	1,374.6	2.6	2.9	158.93	-29.3	133.6	194.1	189.4	4.77	40.686		
1,500.0	1,498.1	1,477.7	1,472.1	2.8	3.2	159.35	-33.3	145.5	212.4	207.3	5.12	41.486		
1,600.0	1,597.9	1,576.0	1,569.6	3.0	3.4	159.70	-37.3	157.3	230.7	225.2	5.47	42.186		
1,700.0	1,697.7	1,674.3	1,667.1	3.3	3.7	160.00	-41.4	169.2	248.9	243.1	5.82	42.802		
1,800.0	1,797.5	1,772.6	1,764.6	3.5	4.0	160.26	-45.4	181.0	267.2	261.0	6.16	43.348		
1,900.0	1,897.4	1,870.9	1,862.1	3.7	4.3	160.48	-49.4	192.9	285.5	279.0	6.51	43.837		
2,000.0	1,997.2	1,969.2	1,959.6	3.9	4.5	160.68	-53.5	204.7	303.8	296.9	6.86	44.275		
2,100.0	2,097.0	2,067.5	2,057.1	4.1	4.8	160.85	-57.5	216.6	322.1	314.9	7.21	44.672		
2,200.0	2,196.8	2,165.9	2,154.6	4.3	5.1	161.01	-61.5	228.5	340.4	332.8	7.56	45.031		
2,300.0	2,296.6	2,264.2	2,252.1	4.5	5.4	161.15	-65.5	240.3	358.6	350.7	7.91	45.359		
2,400.0	2,396.5	2,362.5	2,349.6	4.7	5.6	161.28	-69.6	252.2	376.9	368.7	8.26	45.659		
2,500.0	2,496.3	2,460.8	2,447.2	4.9	5.9	161.39	-73.6	264.0	395.2	386.6	8.60	45.935		
2,600.0	2,596.1	2,559.1	2,544.7	5.1	6.2	161.50	-77.6	275.9	413.5	404.6	8.95	46.189		
2,700.0	2,695.9	2,657.4	2,642.2	5.3	6.5	161.59	-81.6	287.7	431.8	422.5	9.30	46.424		
2,800.0	2,795.7	2,755.7	2,739.7	5.5	6.7	161.68	-85.7	299.6	450.1	440.5	9.65	46.642		
2,900.0	2,895.6	2,854.0	2,837.2	5.7	7.0	161.76	-89.7	311.5	468.4	458.4	10.00	46.845		
3,000.0	2,995.4	2,952.3	2,934.7	5.9	7.3	161.84	-93.7	323.3	486.7	476.4	10.35	47.034		
3,100.0	3,095.2	3,050.6	3,032.2	6.1	7.6	161.91	-97.8	335.2	505.0	494.3	10.70	47.210		
3,200.0	3,195.0	3,148.9	3,129.7	6.3	7.9	161.97	-101.8	347.0	523.3	512.3	11.05	47.376		
3,300.0	3,294.8	3,247.3	3,227.2	6.5	8.1	162.03	-105.8	358.9	541.6	530.2	11.40	47.531		
3,400.0	3,394.7	3,345.6	3,324.7	6.7	8.4	162.09	-109.8	370.7	559.9	548.2	11.74	47.677		
3,500.0	3,494.5	3,443.9	3,422.2	6.9	8.7	162.14	-113.9	382.6	578.2	566.2	12.09	47.814		
3,600.0	3,594.3	3,542.2	3,519.7	7.1	9.0	162.19	-117.9	394.4	596.6	584.1	12.44	47.944		
3,700.0	3,694.1	3,640.5	3,617.3	7.3	9.2	162.24	-121.9	406.3	614.9	602.1	12.79	48.067		
3,800.0	3,793.9	3,738.8	3,714.8	7.5	9.5	162.28	-125.9	418.2	633.2	620.0	13.14	48.183		
3,900.0	3,893.8	3,837.1	3,812.3	7.7	9.8	162.32	-130.0	430.0	651.5	638.0	13.49	48.293		
4,000.0	3,993.6	3,935.4	3,909.8	7.9	10.1	162.36	-134.0	441.9	669.8	655.9	13.84	48.398		
4,100.0	4,093.4	4,033.7	4,007.3	8.1	10.4	162.40	-138.0	453.7	688.1	673.9	14.19	48.497		
4,200.0	4,193.2	4,132.0	4,104.8	8.3	10.6	162.44	-142.0	465.6	706.4	691.9	14.54	48.591		
4,300.0	4,293.1	4,230.3	4,202.3	8.5	10.9	162.47	-146.1	477.4	724.7	709.8	14.89	48.682		
4,400.0	4,392.9	4,328.7	4,299.8	8.7	11.2	162.50	-150.1	489.3	743.0	727.8	15.24	48.768		
4,500.0	4,492.7	4,427.0	4,397.3	8.9	11.5	162.53	-154.1	501.1	761.3	745.7	15.58	48.850		
4,600.0	4,592.5	4,525.3	4,494.8	9.1	11.8	162.56	-158.2	513.0	779.6	763.7	15.93	48.928		
4,700.0	4,692.3	4,623.6	4,592.3	9.3	12.0	162.59	-162.2	524.9	797.9	781.6	16.28	49.003		
4,800.0	4,792.2	4,721.9	4,689.8	9.6	12.3	162.61	-166.2	536.7	816.2	799.6	16.63	49.075		
4,900.0	4,892.0	4,820.2	4,787.4	9.8	12.6	162.64	-170.2	548.6	834.5	817.6	16.98	49.144		
5,000.0	4,991.8	4,918.5	4,884.9	10.0	12.9	162.66	-174.3	560.4	852.9	835.5	17.33	49.210		
5,100.0	5,091.6	5,016.8	4,982.4	10.2	13.1	162.69	-178.3	572.3	871.2	853.5	17.68	49.274		

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 Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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													S5-T2N-R67W (Vogl-McCoy) - Vogl-Geist 2C-5H-E267 - 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											
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft) +E/-W (ft)		Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning					
5,200.0	5,191.4	5,115.1	5,079.9	10.4	13.4	162.71	-182.3	584.1	889.5	871.4	18.03	49.335						
5,300.0	5,291.3	5,213.4	5,177.4	10.6	13.7	162.73	-186.3	596.0	907.8	889.4	18.38	49.394						
5,400.0	5,391.1	5,311.7	5,274.9	10.8	14.0	162.75	-190.4	607.8	926.1	907.4	18.73	49.450						
5,500.0	5,490.9	5,410.1	5,372.4	11.0	14.3	162.77	-194.4	619.7	944.4	925.3	19.08	49.505						
5,600.0	5,590.7	5,508.4	5,469.9	11.2	14.5	162.79	-198.4	631.6	962.7	943.3	19.43	49.557						
5,700.0	5,690.5	5,606.7	5,567.4	11.4	14.8	162.81	-202.5	643.4	981.0	961.2	19.78	49.608						
5,800.0	5,790.4	5,705.0	5,664.9	11.6	15.1	162.82	-206.5	655.3	999.3	979.2	20.12	49.657						

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - Vogl-McCoy 2B-5H-E267 - 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	19.6	19.6					
100.0	100.0	100.0	100.0	0.1	0.1	90.05	0.0	19.6	19.6	19.3	0.24	80.060		
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	19.6	19.6	19.0	0.59	32.966 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	139.24	0.0	19.6	20.2	19.3	0.94	21.441		
400.0	400.0	400.0	400.0	0.7	0.6	143.63	0.0	19.6	22.3	21.0	1.29	17.212		
500.0	499.9	499.9	499.9	0.8	0.8	149.34	0.0	19.6	25.9	24.3	1.64	15.750		
600.0	599.7	599.7	599.7	1.0	1.0	154.82	0.0	19.6	31.1	29.1	2.00	15.567		
700.0	699.5	699.5	699.5	1.2	1.2	158.81	0.0	19.6	36.6	34.2	2.35	15.596		
800.0	799.3	799.3	799.3	1.4	1.3	161.75	0.0	19.6	42.2	39.5	2.69	15.669		
900.0	899.2	899.2	899.2	1.6	1.5	163.99	0.0	19.6	47.9	44.9	3.04	15.755		
1,000.0	999.0	999.0	999.0	1.8	1.7	165.76	0.0	19.6	53.7	50.3	3.39	15.842		
1,100.0	1,098.8	1,098.8	1,098.8	2.0	1.9	167.17	0.0	19.6	59.5	55.8	3.74	15.923		
1,200.0	1,198.6	1,198.6	1,198.6	2.2	2.0	168.34	0.0	19.6	65.4	61.3	4.09	15.998		
1,300.0	1,298.4	1,298.4	1,298.4	2.4	2.2	169.31	0.0	19.6	71.3	66.8	4.44	16.067		
1,400.0	1,398.3	1,398.3	1,398.3	2.6	2.4	170.14	0.0	19.6	77.2	72.4	4.78	16.129		
1,500.0	1,498.1	1,498.1	1,498.1	2.8	2.6	170.84	0.0	19.6	83.1	77.9	5.13	16.185		
1,600.0	1,597.9	1,597.9	1,597.9	3.0	2.7	171.46	0.0	19.6	89.0	83.5	5.48	16.237		
1,700.0	1,697.7	1,697.7	1,697.7	3.3	2.9	171.99	0.0	19.6	94.9	89.1	5.83	16.283		
1,800.0	1,797.5	1,797.5	1,797.5	3.5	3.1	172.47	0.0	19.6	100.9	94.7	6.18	16.326		
1,900.0	1,897.4	1,897.4	1,897.4	3.7	3.3	172.89	0.0	19.6	106.8	100.3	6.53	16.364		
2,000.0	1,997.2	1,997.2	1,997.2	3.9	3.4	173.27	0.0	19.6	112.7	105.9	6.87	16.400		
2,100.0	2,097.0	2,097.0	2,097.0	4.1	3.6	173.61	0.0	19.6	118.7	111.5	7.22	16.433		
2,200.0	2,196.8	2,196.8	2,196.8	4.3	3.8	173.91	0.0	19.6	124.6	117.1	7.57	16.463		
2,300.0	2,296.6	2,296.6	2,296.6	4.5	4.0	174.19	0.0	19.6	130.6	122.7	7.92	16.491		
2,400.0	2,396.5	2,396.5	2,396.5	4.7	4.1	174.45	0.0	19.6	136.6	128.3	8.27	16.517		
2,500.0	2,496.3	2,496.3	2,496.3	4.9	4.3	174.68	0.0	19.6	142.5	133.9	8.62	16.541		
2,600.0	2,596.1	2,596.1	2,596.1	5.1	4.5	174.89	0.0	19.6	148.5	139.5	8.97	16.563		
2,700.0	2,695.9	2,695.9	2,695.9	5.3	4.7	175.09	0.0	19.6	154.5	145.1	9.31	16.584		
2,800.0	2,795.7	2,795.7	2,795.7	5.5	4.8	175.27	0.0	19.6	160.4	150.8	9.66	16.604		
2,900.0	2,895.6	2,895.6	2,895.6	5.7	5.0	175.44	0.0	19.6	166.4	156.4	10.01	16.622		
3,000.0	2,995.4	2,995.4	2,995.4	5.9	5.2	175.60	0.0	19.6	172.4	162.0	10.36	16.639		
3,100.0	3,095.2	3,095.2	3,095.2	6.1	5.3	175.75	0.0	19.6	178.3	167.6	10.71	16.655		
3,200.0	3,195.0	3,195.0	3,195.0	6.3	5.5	175.89	0.0	19.6	184.3	173.3	11.06	16.671		
3,300.0	3,294.8	3,294.8	3,294.8	6.5	5.7	176.02	0.0	19.6	190.3	178.9	11.40	16.685		
3,400.0	3,394.7	3,394.7	3,394.7	6.7	5.9	176.14	0.0	19.6	196.3	184.5	11.75	16.699		
3,500.0	3,494.5	3,494.5	3,494.5	6.9	6.0	176.25	0.0	19.6	202.2	190.1	12.10	16.712		
3,600.0	3,594.3	3,594.3	3,594.3	7.1	6.2	176.36	0.0	19.6	208.2	195.8	12.45	16.724		
3,700.0	3,694.1	3,694.1	3,694.1	7.3	6.4	176.46	0.0	19.6	214.2	201.4	12.80	16.736		
3,800.0	3,793.9	3,793.9	3,793.9	7.5	6.6	176.56	0.0	19.6	220.2	207.0	13.15	16.747		
3,900.0	3,893.8	3,893.8	3,893.8	7.7	6.7	176.65	0.0	19.6	226.2	212.7	13.50	16.757		
4,000.0	3,993.6	3,993.6	3,993.6	7.9	6.9	176.74	0.0	19.6	232.1	218.3	13.84	16.767		
4,100.0	4,093.4	4,095.8	4,095.8	8.1	7.1	176.67	0.8	19.6	237.6	223.4	14.20	16.738		
4,200.0	4,193.2	4,198.3	4,198.2	8.3	7.3	176.25	3.4	19.7	242.1	227.5	14.55	16.635		
4,300.0	4,293.1	4,300.8	4,300.6	8.5	7.5	175.51	7.9	19.8	245.5	230.6	14.91	16.465		
4,400.0	4,392.9	4,403.2	4,402.8	8.7	7.6	174.44	14.2	20.1	247.9	232.6	15.27	16.234		
4,500.0	4,492.7	4,505.5	4,504.8	8.9	7.8	173.05	22.3	20.4	249.4	233.8	15.63	15.951		
4,600.0	4,592.5	4,607.1	4,606.0	9.1	8.0	171.35	32.1	20.7	250.1	234.1	16.01	15.625		
4,700.0	4,692.3	4,706.8	4,705.2	9.3	8.2	169.58	42.2	21.1	250.8	234.4	16.38	15.308		
4,800.0	4,792.2	4,806.5	4,804.3	9.6	8.4	167.82	52.4	21.4	251.7	234.9	16.76	15.014		
4,900.0	4,892.0	4,906.2	4,903.5	9.8	8.6	166.07	62.5	21.8	252.8	235.6	17.15	14.742		
5,000.0	4,991.8	5,005.9	5,002.7	10.0	8.8	164.35	72.7	22.2	254.2	236.6	17.54	14.490		
5,100.0	5,091.6	5,105.6	5,101.9	10.2	9.0	162.64	82.8	22.5	255.8	237.8	17.94	14.257		

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 Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - Vogl-McCoy 2B-5H-E267 - 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 Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,200.0	5,191.4	5,205.3	5,201.0	10.4	9.2	160.95	93.0	22.9	257.6	239.2	18.34	14.043		
5,300.0	5,291.3	5,305.0	5,300.2	10.6	9.4	159.29	103.1	23.3	259.6	240.9	18.75	13.845		
5,400.0	5,391.1	5,404.7	5,399.4	10.8	9.6	157.66	113.3	23.6	261.9	242.7	19.17	13.664		
5,500.0	5,490.9	5,504.4	5,498.6	11.0	9.8	156.05	123.4	24.0	264.4	244.8	19.59	13.498		
5,600.0	5,590.7	5,604.1	5,597.7	11.2	10.0	154.48	133.6	24.4	267.0	247.0	20.01	13.346		
5,700.0	5,690.5	5,703.8	5,696.9	11.4	10.2	152.94	143.8	24.7	269.9	249.5	20.44	13.207		
5,800.0	5,790.4	5,803.5	5,796.1	11.6	10.5	151.43	153.9	25.1	273.0	252.1	20.87	13.081		
5,900.0	5,890.2	5,903.2	5,895.3	11.8	10.7	149.96	164.1	25.4	276.2	254.9	21.30	12.967		
6,000.0	5,990.0	6,002.9	5,994.5	12.0	10.9	148.52	174.2	25.8	279.7	257.9	21.74	12.864		
6,100.0	6,089.8	6,102.6	6,093.6	12.2	11.1	147.12	184.4	26.2	283.3	261.1	22.18	12.771		
6,200.0	6,189.6	6,202.2	6,192.8	12.4	11.3	145.75	194.5	26.5	287.0	264.4	22.62	12.688		
6,300.0	6,289.5	6,301.9	6,292.0	12.6	11.5	144.42	204.7	26.9	291.0	267.9	23.06	12.614		
6,400.0	6,389.3	6,401.6	6,391.2	12.8	11.8	143.12	214.8	27.3	295.0	271.5	23.51	12.549		
6,500.0	6,489.1	6,501.3	6,490.3	13.0	12.0	141.87	225.0	27.6	299.3	275.3	23.96	12.492		
6,600.0	6,588.9	6,600.8	6,589.3	13.2	12.2	-126.14	235.1	28.0	303.5	279.1	24.39	12.446		
6,700.0	6,687.7	6,697.6	6,685.6	13.3	12.4	-102.14	245.0	28.3	308.1	283.3	24.77	12.439		
6,800.0	6,782.5	6,795.0	6,782.8	13.3	12.6	-103.15	249.9	28.7	315.8	290.8	24.98	12.640		
6,900.0	6,870.5	6,899.9	6,886.8	13.3	12.7	-106.78	237.1	29.1	327.1	302.2	24.91	13.130		
7,000.0	6,949.0	7,013.4	6,994.5	13.3	12.7	-110.85	202.2	29.5	341.0	316.4	24.58	13.874		
7,100.0	7,015.6	7,136.9	7,101.5	13.4	12.6	-114.71	140.9	29.9	356.0	331.9	24.12	14.756		
7,200.0	7,068.2	7,271.2	7,200.0	13.6	12.7	-118.01	50.1	30.2	370.2	346.4	23.81	15.550		
7,300.0	7,105.4	7,416.2	7,279.5	14.1	13.0	-120.50	-70.7	30.5	381.7	357.7	23.97	15.920		
7,400.0	7,125.9	7,569.5	7,327.9	14.7	13.8	-121.94	-215.7	30.7	388.5	363.6	24.95	15.574		
7,500.0	7,130.0	7,708.7	7,338.0	15.5	14.9	-122.23	-354.2	30.7	390.0	363.3	26.64	14.638		
7,600.0	7,130.0	7,808.7	7,338.0	16.5	15.9	-122.23	-454.2	30.7	390.0	361.6	28.34	13.763		
7,700.0	7,130.0	7,908.7	7,338.0	17.6	17.0	-122.23	-554.2	30.7	390.0	359.7	30.23	12.901		
7,800.0	7,130.0	8,008.7	7,338.0	18.7	18.3	-122.23	-654.2	30.7	390.0	357.7	32.28	12.080		
7,900.0	7,130.0	8,108.7	7,338.0	20.0	19.6	-122.23	-754.2	30.7	390.0	355.5	34.47	11.312		
8,000.0	7,130.0	8,208.7	7,338.0	21.3	20.9	-122.23	-854.2	30.7	390.0	353.2	36.77	10.604		
8,100.0	7,130.0	8,308.7	7,338.0	22.7	22.3	-122.23	-954.2	30.7	390.0	350.8	39.17	9.957		
8,200.0	7,130.0	8,408.7	7,338.0	24.2	23.8	-122.23	-1,054.2	30.7	390.0	348.3	41.63	9.367		
8,300.0	7,130.0	8,508.7	7,338.0	25.7	25.3	-122.23	-1,154.2	30.7	390.0	345.8	44.16	8.830		
8,400.0	7,130.0	8,608.7	7,338.0	27.2	26.8	-122.23	-1,254.2	30.7	390.0	343.2	46.74	8.343		
8,500.0	7,130.0	8,708.7	7,338.0	28.7	28.4	-122.23	-1,354.2	30.7	390.0	340.6	49.37	7.899		
8,600.0	7,130.0	8,808.7	7,338.0	30.3	30.0	-122.23	-1,454.2	30.7	390.0	337.9	52.03	7.494		
8,700.0	7,130.0	8,908.7	7,338.0	31.9	31.6	-122.23	-1,554.2	30.7	390.0	335.2	54.73	7.125		
8,800.0	7,130.0	9,008.7	7,338.0	33.5	33.2	-122.23	-1,654.2	30.7	390.0	332.5	57.45	6.788		
8,900.0	7,130.0	9,108.7	7,338.0	35.1	34.8	-122.23	-1,754.2	30.7	390.0	329.8	60.20	6.478		
9,000.0	7,130.0	9,208.7	7,338.0	36.7	36.5	-122.23	-1,854.2	30.7	390.0	327.0	62.97	6.193		
9,100.0	7,130.0	9,308.7	7,338.0	38.3	38.1	-122.23	-1,954.2	30.7	390.0	324.2	65.75	5.931		
9,200.0	7,130.0	9,408.7	7,338.0	40.0	39.8	-122.23	-2,054.2	30.7	390.0	321.4	68.56	5.688		
9,300.0	7,130.0	9,508.7	7,338.0	41.6	41.4	-122.23	-2,154.2	30.7	390.0	318.6	71.37	5.464		
9,400.0	7,130.0	9,608.7	7,338.0	43.3	43.1	-122.23	-2,254.2	30.7	390.0	315.8	74.20	5.256		
9,500.0	7,130.0	9,708.7	7,338.0	45.0	44.8	-122.23	-2,354.2	30.7	390.0	312.9	77.04	5.062		
9,600.0	7,130.0	9,808.7	7,338.0	46.7	46.5	-122.23	-2,454.2	30.7	390.0	310.1	79.89	4.881		
9,700.0	7,130.0	9,908.7	7,338.0	48.3	48.2	-122.23	-2,554.2	30.7	390.0	307.2	82.75	4.713		
9,800.0	7,130.0	10,008.7	7,338.0	50.0	49.8	-122.23	-2,654.2	30.7	390.0	304.4	85.61	4.555		
9,900.0	7,130.0	10,108.7	7,338.0	51.7	51.5	-122.23	-2,754.2	30.7	390.0	301.5	88.49	4.407		
10,000.0	7,130.0	10,208.7	7,338.0	53.4	53.2	-122.23	-2,854.2	30.7	390.0	298.6	91.36	4.268		
10,100.0	7,130.0	10,308.7	7,338.0	55.1	55.0	-122.23	-2,954.2	30.7	390.0	295.7	94.25	4.138		
10,200.0	7,130.0	10,408.7	7,338.0	56.8	56.7	-122.23	-3,054.2	30.7	390.0	292.8	97.14	4.014		
10,300.0	7,130.0	10,508.7	7,338.0	58.5	58.4	-122.23	-3,154.2	30.7	390.0	289.9	100.04	3.898		

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 Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - Vogl-McCoy 2B-5H-E267 - 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			
10,400.0	7,130.0	10,608.7	7,338.0	60.2	60.1	-122.23	-3,254.2	30.7	390.0	287.0	102.94	3.788		
10,500.0	7,130.0	10,708.7	7,338.0	61.9	61.8	-122.23	-3,354.2	30.7	390.0	284.1	105.84	3.684		
10,600.0	7,130.0	10,808.7	7,338.0	63.7	63.5	-122.23	-3,454.2	30.7	390.0	281.2	108.75	3.586		
10,700.0	7,130.0	10,908.7	7,338.0	65.4	65.2	-122.23	-3,554.2	30.7	390.0	278.3	111.66	3.492		
10,800.0	7,130.0	11,008.7	7,338.0	67.1	67.0	-122.23	-3,654.2	30.7	390.0	275.4	114.58	3.404		
10,900.0	7,130.0	11,108.7	7,338.0	68.8	68.7	-122.23	-3,754.2	30.7	390.0	272.5	117.49	3.319		
11,000.0	7,130.0	11,208.7	7,338.0	70.5	70.4	-122.23	-3,854.2	30.7	390.0	269.6	120.41	3.239		
11,100.0	7,130.0	11,308.7	7,338.0	72.3	72.1	-122.23	-3,954.2	30.7	390.0	266.6	123.34	3.162		
11,200.0	7,130.0	11,408.7	7,338.0	74.0	73.9	-122.23	-4,054.2	30.7	390.0	263.7	126.26	3.089		
11,300.0	7,130.0	11,508.7	7,338.0	75.7	75.6	-122.23	-4,154.2	30.7	390.0	260.8	129.19	3.019		
11,400.0	7,130.0	11,608.7	7,338.0	77.4	77.3	-122.23	-4,254.2	30.7	390.0	257.8	132.12	2.952		
11,500.0	7,130.0	11,708.7	7,338.0	79.2	79.0	-122.23	-4,354.2	30.7	390.0	254.9	135.05	2.888		
11,600.0	7,130.0	11,808.7	7,338.0	80.9	80.8	-122.23	-4,454.2	30.7	390.0	252.0	137.99	2.826		
11,700.0	7,130.0	11,908.7	7,338.0	82.6	82.5	-122.23	-4,554.2	30.7	390.0	249.0	140.92	2.767		
11,800.0	7,130.0	12,008.7	7,338.0	84.4	84.2	-122.23	-4,654.2	30.7	390.0	246.1	143.86	2.711		
11,900.0	7,130.0	12,108.7	7,338.0	86.1	86.0	-122.23	-4,754.2	30.7	390.0	243.2	146.80	2.656		
12,000.0	7,130.0	12,208.7	7,338.0	87.8	87.7	-122.23	-4,854.2	30.7	390.0	240.2	149.74	2.604		
12,100.0	7,130.0	12,308.7	7,338.0	89.6	89.5	-122.23	-4,954.2	30.7	390.0	237.3	152.68	2.554		
12,200.0	7,130.0	12,408.7	7,338.0	91.3	91.2	-122.23	-5,054.2	30.7	390.0	234.3	155.62	2.506		
12,300.0	7,130.0	12,508.7	7,338.0	93.0	92.9	-122.23	-5,154.2	30.7	390.0	231.4	158.57	2.459		
12,400.0	7,130.0	12,608.7	7,338.0	94.8	94.7	-122.23	-5,254.2	30.7	390.0	228.5	161.51	2.414		
12,500.0	7,130.0	12,708.7	7,338.0	96.5	96.4	-122.23	-5,354.2	30.7	390.0	225.5	164.46	2.371		
12,600.0	7,130.0	12,808.7	7,338.0	98.2	98.1	-122.23	-5,454.2	30.7	390.0	222.6	167.41	2.329		
12,700.0	7,130.0	12,908.7	7,338.0	100.0	99.9	-122.23	-5,554.2	30.7	390.0	219.6	170.35	2.289		
12,800.0	7,130.0	13,008.7	7,338.0	101.7	101.6	-122.23	-5,654.2	30.7	390.0	216.7	173.30	2.250		
12,900.0	7,130.0	13,108.7	7,338.0	103.4	103.4	-122.23	-5,754.2	30.7	390.0	213.7	176.25	2.213		
13,000.0	7,130.0	13,208.7	7,338.0	105.2	105.1	-122.23	-5,854.2	30.7	390.0	210.8	179.20	2.176		
13,100.0	7,130.0	13,308.7	7,338.0	106.9	106.8	-122.23	-5,954.2	30.7	390.0	207.8	182.15	2.141		
13,200.0	7,130.0	13,408.7	7,338.0	108.7	108.6	-122.23	-6,054.2	30.7	390.0	204.9	185.11	2.107		
13,300.0	7,130.0	13,508.7	7,338.0	110.4	110.3	-122.23	-6,154.2	30.7	390.0	201.9	188.06	2.074		
13,400.0	7,130.0	13,608.7	7,338.0	112.1	112.1	-122.23	-6,254.2	30.7	390.0	199.0	191.01	2.042		
13,500.0	7,130.0	13,708.7	7,338.0	113.9	113.8	-122.23	-6,354.2	30.7	390.0	196.0	193.97	2.011		
13,600.0	7,130.0	13,808.7	7,338.0	115.6	115.6	-122.23	-6,454.2	30.7	390.0	193.0	196.92	1.980		
13,700.0	7,130.0	13,908.7	7,338.0	117.4	117.3	-122.23	-6,554.2	30.7	390.0	190.1	199.88	1.951		
13,800.0	7,130.0	14,008.7	7,338.0	119.1	119.0	-122.23	-6,654.2	30.7	390.0	187.1	202.83	1.923		
13,900.0	7,130.0	14,108.7	7,338.0	120.9	120.8	-122.23	-6,754.2	30.7	390.0	184.2	205.79	1.895		
14,000.0	7,130.0	14,208.7	7,338.0	122.6	122.5	-122.23	-6,854.2	30.7	390.0	181.2	208.75	1.868		
14,100.0	7,130.0	14,308.7	7,338.0	124.3	124.3	-122.23	-6,954.2	30.7	390.0	178.3	211.70	1.842		
14,200.0	7,130.0	14,408.7	7,338.0	126.1	126.0	-122.23	-7,054.2	30.8	390.0	175.3	214.66	1.817		
14,300.0	7,130.0	14,508.7	7,338.0	127.8	127.8	-122.23	-7,154.2	30.8	390.0	172.4	217.62	1.792		
14,400.0	7,130.0	14,608.7	7,338.0	129.6	129.5	-122.23	-7,254.2	30.8	390.0	169.4	220.58	1.768		
14,500.0	7,130.0	14,708.7	7,338.0	131.3	131.3	-122.23	-7,354.2	30.8	390.0	166.4	223.54	1.745		
14,600.0	7,130.0	14,808.7	7,338.0	133.1	133.0	-122.23	-7,454.2	30.8	390.0	163.5	226.50	1.722		
14,700.0	7,130.0	14,908.7	7,338.0	134.8	134.8	-122.23	-7,554.2	30.8	390.0	160.5	229.46	1.700		
14,800.0	7,130.0	15,008.7	7,338.0	136.6	136.5	-122.23	-7,654.2	30.8	390.0	157.6	232.42	1.678		
14,900.0	7,130.0	15,108.7	7,338.0	138.3	138.2	-122.23	-7,754.2	30.8	390.0	154.6	235.38	1.657		
14,908.6	7,130.0	15,117.3	7,338.0	138.5	138.4	-122.23	-7,762.8	30.8	390.0	154.3	235.64	1.655 SF		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - Vogl-McCoy 2C-5H-E267 - 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	1.0	1.0	0.0	0.0	90.05	0.0	39.1	39.1						
100.0	100.0	101.0	101.0	0.1	0.1	90.05	0.0	39.1	39.1	38.9	0.25	158.985			
200.0	200.0	201.0	201.0	0.3	0.3	90.05	0.0	39.1	39.1	38.5	0.60	65.739 CC, ES			
300.0	300.0	301.0	301.0	0.5	0.5	138.42	0.0	39.1	39.8	38.8	0.94	42.106			
400.0	400.0	401.0	401.0	0.7	0.6	140.79	0.0	39.1	41.8	40.5	1.30	32.240			
500.0	499.9	500.9	500.9	0.8	0.8	144.27	0.0	39.1	45.2	43.6	1.65	27.442			
600.0	599.7	600.0	600.0	1.0	1.0	147.62	0.3	39.9	50.8	48.8	2.00	25.410			
700.0	699.5	698.9	698.8	1.2	1.2	149.45	1.2	42.4	58.2	55.8	2.35	24.717			
800.0	799.3	797.6	797.4	1.4	1.4	150.07	2.7	46.4	67.0	64.3	2.71	24.731			
900.0	899.2	896.9	896.6	1.6	1.5	150.04	4.6	51.5	76.8	73.7	3.07	25.045			
1,000.0	999.0	996.4	995.9	1.8	1.7	150.01	6.5	56.7	86.6	83.2	3.43	25.293			
1,100.0	1,098.8	1,095.9	1,095.3	2.0	1.9	149.98	8.5	61.9	96.5	92.7	3.79	25.490			
1,200.0	1,198.6	1,195.4	1,194.6	2.2	2.1	149.96	10.4	67.1	106.4	102.2	4.15	25.648			
1,300.0	1,298.4	1,294.9	1,294.0	2.4	2.3	149.95	12.3	72.3	116.2	111.7	4.51	25.780			
1,400.0	1,398.3	1,394.4	1,393.4	2.6	2.5	149.93	14.3	77.5	126.1	121.2	4.87	25.890			
1,500.0	1,498.1	1,493.9	1,492.7	2.8	2.7	149.92	16.2	82.7	135.9	130.7	5.23	25.983			
1,600.0	1,597.9	1,593.4	1,592.1	3.0	2.9	149.91	18.2	87.9	145.8	140.2	5.59	26.064			
1,700.0	1,697.7	1,693.0	1,691.4	3.3	3.1	149.90	20.1	93.1	155.6	149.7	5.96	26.134			
1,800.0	1,797.5	1,792.5	1,790.8	3.5	3.3	149.89	22.0	98.3	165.5	159.2	6.32	26.195			
1,900.0	1,897.4	1,892.0	1,890.2	3.7	3.5	149.88	24.0	103.5	175.3	168.7	6.68	26.250			
2,000.0	1,997.2	1,991.5	1,989.5	3.9	3.7	149.87	25.9	108.7	185.2	178.1	7.04	26.298			
2,100.0	2,097.0	2,091.0	2,088.9	4.1	3.9	149.87	27.8	113.9	195.0	187.6	7.40	26.342			
2,200.0	2,196.8	2,190.5	2,188.2	4.3	4.1	149.86	29.8	119.1	204.9	197.1	7.77	26.381			
2,300.0	2,296.6	2,290.0	2,287.6	4.5	4.3	149.86	31.7	124.3	214.8	206.6	8.13	26.416			
2,400.0	2,396.5	2,389.6	2,386.9	4.7	4.5	149.85	33.7	129.5	224.6	216.1	8.49	26.448			
2,500.0	2,496.3	2,489.1	2,486.3	4.9	4.7	149.85	35.6	134.7	234.5	225.6	8.86	26.478			
2,600.0	2,596.1	2,588.6	2,585.7	5.1	4.9	149.85	37.5	139.9	244.3	235.1	9.22	26.505			
2,700.0	2,695.9	2,688.1	2,685.0	5.3	5.1	149.84	39.5	145.1	254.2	244.6	9.58	26.530			
2,800.0	2,795.7	2,787.6	2,784.4	5.5	5.3	149.84	41.4	150.3	264.0	254.1	9.94	26.553			
2,900.0	2,895.6	2,887.1	2,883.7	5.7	5.5	149.84	43.4	155.5	273.9	263.6	10.31	26.574			
3,000.0	2,995.4	2,986.6	2,983.1	5.9	5.7	149.83	45.3	160.7	283.7	273.1	10.67	26.594			
3,100.0	3,095.2	3,086.1	3,082.5	6.1	5.9	149.83	47.2	165.9	293.6	282.6	11.03	26.612			
3,200.0	3,195.0	3,185.7	3,181.8	6.3	6.1	149.83	49.2	171.1	303.4	292.0	11.40	26.629			
3,300.0	3,294.8	3,285.2	3,281.2	6.5	6.2	149.83	51.1	176.3	313.3	301.5	11.76	26.645			
3,400.0	3,394.7	3,384.7	3,380.5	6.7	6.4	149.82	53.1	181.5	323.2	311.0	12.12	26.660			
3,500.0	3,494.5	3,484.2	3,479.9	6.9	6.6	149.82	55.0	186.6	333.0	320.5	12.48	26.675			
3,600.0	3,594.3	3,583.7	3,579.2	7.1	6.8	149.82	56.9	191.8	342.9	330.0	12.85	26.688			
3,700.0	3,694.1	3,683.2	3,678.6	7.3	7.0	149.82	58.9	197.0	352.7	339.5	13.21	26.701			
3,800.0	3,793.9	3,782.7	3,778.0	7.5	7.2	149.82	60.8	202.2	362.6	349.0	13.57	26.712			
3,900.0	3,893.8	3,882.3	3,877.3	7.7	7.4	149.81	62.7	207.4	372.4	358.5	13.94	26.724			
4,000.0	3,993.6	3,981.8	3,976.7	7.9	7.6	149.81	64.7	212.6	382.3	368.0	14.30	26.734			
4,100.0	4,093.4	4,081.3	4,076.0	8.1	7.8	149.81	66.6	217.8	392.1	377.5	14.66	26.744			
4,200.0	4,193.2	4,180.8	4,175.4	8.3	8.0	149.81	68.6	223.0	402.0	387.0	15.03	26.754			
4,300.0	4,293.1	4,280.3	4,274.8	8.5	8.2	149.81	70.5	228.2	411.8	396.5	15.39	26.763			
4,400.0	4,392.9	4,379.8	4,374.1	8.7	8.4	149.81	72.4	233.4	421.7	405.9	15.75	26.772			
4,500.0	4,492.7	4,479.3	4,473.5	8.9	8.6	149.81	74.4	238.6	431.5	415.4	16.11	26.780			
4,600.0	4,592.5	4,578.8	4,572.8	9.1	8.8	149.81	76.3	243.8	441.4	424.9	16.48	26.788			
4,700.0	4,692.3	4,678.4	4,672.2	9.3	9.0	149.80	78.3	249.0	451.3	434.4	16.84	26.796			
4,800.0	4,792.2	4,777.9	4,771.5	9.6	9.2	149.80	80.2	254.2	461.1	443.9	17.20	26.803			
4,900.0	4,892.0	4,877.4	4,870.9	9.8	9.4	149.80	82.1	259.4	471.0	453.4	17.57	26.810			
5,000.0	4,991.8	4,976.9	4,970.3	10.0	9.6	149.80	84.1	264.6	480.8	462.9	17.93	26.817			
5,100.0	5,091.6	5,076.4	5,069.6	10.2	9.8	149.80	86.0	269.8	490.7	472.4	18.29	26.823			

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 Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - Vogl-McCoy 2C-5H-E267 - 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 Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,200.0	5,191.4	5,175.9	5,169.0	10.4	10.0	149.80	87.9	275.0	500.5	481.9	18.66	26.829		
5,300.0	5,291.3	5,275.4	5,268.3	10.6	10.2	149.80	89.9	280.2	510.4	491.4	19.02	26.835		
5,400.0	5,391.1	5,374.9	5,367.7	10.8	10.4	149.80	91.8	285.4	520.2	500.9	19.38	26.841		
5,500.0	5,490.9	5,474.5	5,467.1	11.0	10.6	149.80	93.8	290.6	530.1	510.3	19.75	26.846		
5,600.0	5,590.7	5,574.0	5,566.4	11.2	10.8	149.80	95.7	295.8	539.9	519.8	20.11	26.851		
5,700.0	5,690.5	5,673.5	5,665.8	11.4	11.0	149.80	97.6	301.0	549.8	529.3	20.47	26.856		
5,800.0	5,790.4	5,773.0	5,765.1	11.6	11.2	149.79	99.6	306.2	559.7	538.8	20.84	26.861		
5,900.0	5,890.2	5,872.5	5,864.5	11.8	11.4	149.79	101.5	311.4	569.5	548.3	21.20	26.866		
6,000.0	5,990.0	5,972.0	5,963.9	12.0	11.6	149.79	103.5	316.6	579.4	557.8	21.56	26.870		
6,100.0	6,089.8	6,071.5	6,063.2	12.2	11.8	149.79	105.4	321.8	589.2	567.3	21.92	26.875		
6,200.0	6,189.6	6,171.1	6,162.6	12.4	12.0	149.79	107.3	327.0	599.1	576.8	22.29	26.879		
6,300.0	6,289.5	6,270.6	6,261.9	12.6	12.2	149.79	109.3	332.2	608.9	586.3	22.65	26.883		
6,400.0	6,389.3	6,370.1	6,361.3	12.8	12.4	149.79	111.2	337.4	618.8	595.8	23.01	26.887		
6,500.0	6,489.1	6,469.6	6,460.6	13.0	12.6	149.79	113.1	342.6	628.6	605.3	23.38	26.891		
6,600.0	6,588.9	6,566.4	6,557.3	13.2	12.8	-116.47	115.0	347.6	638.0	614.2	23.72	26.893		
6,700.0	6,687.7	6,641.9	6,632.5	13.3	12.9	-88.41	110.4	352.0	646.2	622.3	23.91	27.027		
6,800.0	6,782.5	6,718.0	6,706.9	13.3	13.0	-83.97	95.9	357.2	654.5	630.5	23.99	27.279		
6,900.0	6,870.5	6,800.0	6,784.2	13.3	13.2	-82.68	69.3	363.4	662.7	638.7	24.04	27.572		
7,000.0	6,949.0	6,873.3	6,849.4	13.3	13.3	-82.35	36.5	369.5	670.8	646.7	24.12	27.818		
7,100.0	7,015.6	6,950.0	6,912.5	13.4	13.5	-82.66	-6.5	376.3	679.0	654.6	24.34	27.893		
7,200.0	7,068.2	7,035.9	6,975.5	13.6	13.7	-83.56	-64.1	384.3	687.1	662.2	24.84	27.663		
7,300.0	7,105.4	7,121.3	7,029.0	14.1	14.1	-84.72	-130.1	392.3	695.2	669.5	25.66	27.094		
7,400.0	7,125.9	7,210.5	7,073.6	14.7	14.6	-86.17	-206.8	400.8	703.3	676.5	26.86	26.183		
7,500.0	7,130.0	7,304.7	7,107.2	15.5	15.3	-88.08	-294.3	409.5	711.5	683.1	28.46	25.004		
7,600.0	7,130.0	7,407.0	7,126.9	16.5	16.3	-89.67	-394.1	418.4	720.0	689.6	30.43	23.661		
7,700.0	7,130.0	7,510.4	7,130.0	17.6	17.3	-89.92	-497.1	426.6	728.0	695.3	32.69	22.272		
7,800.0	7,130.0	7,610.1	7,130.0	18.7	18.5	-89.92	-596.5	434.5	735.9	700.7	35.11	20.956		
7,900.0	7,130.0	7,709.8	7,130.0	20.0	19.7	-89.92	-695.9	442.3	743.7	706.0	37.71	19.722		
8,000.0	7,130.0	7,809.5	7,130.0	21.3	21.0	-89.92	-795.2	450.1	751.6	711.1	40.44	18.583		
8,100.0	7,130.0	7,915.6	7,130.0	22.7	22.5	-89.92	-901.1	458.2	759.2	715.8	43.38	17.501		
8,200.0	7,130.0	8,030.7	7,130.0	24.2	24.1	-89.93	-1,016.0	465.1	765.2	718.7	46.55	16.439		
8,300.0	7,130.0	8,146.1	7,130.0	25.7	25.8	-89.93	-1,131.3	469.7	769.2	719.4	49.80	15.445		
8,400.0	7,130.0	8,248.9	7,130.0	27.2	27.4	-89.93	-1,234.0	472.5	771.9	718.9	52.93	14.582		
8,500.0	7,130.0	8,348.8	7,130.0	28.7	28.9	-89.93	-1,333.9	475.1	774.5	718.4	56.07	13.814		
8,600.0	7,130.0	8,448.8	7,130.0	30.3	30.4	-89.93	-1,433.9	477.7	777.1	717.8	59.24	13.117		
8,700.0	7,130.0	8,548.8	7,130.0	31.9	32.0	-89.93	-1,533.8	480.3	779.7	717.3	62.45	12.485		
8,800.0	7,130.0	8,648.7	7,130.0	33.5	33.6	-89.93	-1,633.7	482.9	782.3	716.6	65.70	11.908		
8,900.0	7,130.0	8,748.7	7,130.0	35.1	35.2	-89.93	-1,733.7	485.6	784.9	716.0	68.96	11.382		
9,000.0	7,130.0	8,848.7	7,130.0	36.7	36.8	-89.93	-1,833.6	488.2	787.6	715.3	72.25	10.900		
9,100.0	7,130.0	8,948.6	7,130.0	38.3	38.4	-89.93	-1,933.5	490.8	790.2	714.6	75.56	10.457		
9,200.0	7,130.0	9,048.6	7,130.0	40.0	40.1	-89.93	-2,033.5	493.4	792.8	713.9	78.89	10.049		
9,300.0	7,130.0	9,148.6	7,130.0	41.6	41.7	-89.93	-2,133.4	496.0	795.4	713.2	82.23	9.673		
9,400.0	7,130.0	9,248.5	7,130.0	43.3	43.4	-89.93	-2,233.3	498.6	798.0	712.4	85.59	9.324		
9,500.0	7,130.0	9,348.5	7,130.0	45.0	45.0	-89.93	-2,333.3	501.3	800.7	711.7	88.96	9.001		
9,600.0	7,130.0	9,448.5	7,130.0	46.7	46.7	-89.93	-2,433.2	503.9	803.3	710.9	92.33	8.700		
9,700.0	7,130.0	9,548.4	7,130.0	48.3	48.4	-89.93	-2,533.1	506.5	805.9	710.2	95.72	8.419		
9,800.0	7,130.0	9,648.4	7,130.0	50.0	50.1	-89.93	-2,633.0	509.1	808.5	709.4	99.12	8.157		
9,900.0	7,130.0	9,748.4	7,130.0	51.7	51.7	-89.93	-2,733.0	511.7	811.1	708.6	102.52	7.912		
10,000.0	7,130.0	9,848.3	7,130.0	53.4	53.4	-89.93	-2,832.9	514.3	813.7	707.8	105.93	7.682		
10,100.0	7,130.0	9,948.3	7,130.0	55.1	55.1	-89.93	-2,932.8	517.0	816.4	707.0	109.34	7.466		
10,200.0	7,130.0	10,048.3	7,130.0	56.8	56.8	-89.93	-3,032.8	519.6	819.0	706.2	112.77	7.263		
10,300.0	7,130.0	10,148.2	7,130.0	58.5	58.5	-89.93	-3,132.7	522.2	821.6	705.4	116.19	7.071		

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 Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - Vogl-McCoy 2C-5H-E267 - 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		
10,400.0	7,130.0	10,248.2	7,130.0	60.2	60.2	-89.93	-3,232.6	524.8	824.2	704.6	119.62	6.890	
10,500.0	7,130.0	10,348.2	7,130.0	61.9	61.9	-89.93	-3,332.6	527.4	826.8	703.8	123.06	6.719	
10,600.0	7,130.0	10,448.1	7,130.0	63.7	63.6	-89.93	-3,432.5	530.0	829.4	702.9	126.50	6.557	
10,700.0	7,130.0	10,548.1	7,130.0	65.4	65.4	-89.93	-3,532.4	532.7	832.1	702.1	129.94	6.403	
10,800.0	7,130.0	10,648.1	7,130.0	67.1	67.1	-89.93	-3,632.4	535.3	834.7	701.3	133.39	6.258	
10,900.0	7,130.0	10,748.0	7,130.0	68.8	68.8	-89.93	-3,732.3	537.9	837.3	700.5	136.84	6.119	
11,000.0	7,130.0	10,848.0	7,130.0	70.5	70.5	-89.93	-3,832.2	540.5	839.9	699.6	140.29	5.987	
11,100.0	7,130.0	10,948.0	7,130.0	72.3	72.2	-89.93	-3,932.2	543.1	842.5	698.8	143.74	5.861	
11,200.0	7,130.0	11,047.9	7,130.0	74.0	73.9	-89.93	-4,032.1	545.7	845.2	698.0	147.20	5.741	
11,300.0	7,130.0	11,147.9	7,130.0	75.7	75.7	-89.93	-4,132.0	548.4	847.8	697.1	150.66	5.627	
11,400.0	7,130.0	11,247.8	7,130.0	77.4	77.4	-89.93	-4,232.0	551.0	850.4	696.3	154.12	5.518	
11,500.0	7,130.0	11,347.8	7,130.0	79.2	79.1	-89.93	-4,331.9	553.6	853.0	695.4	157.59	5.413	
11,600.0	7,130.0	11,447.8	7,130.0	80.9	80.8	-89.93	-4,431.8	556.2	855.6	694.6	161.05	5.313	
11,700.0	7,130.0	11,547.7	7,130.0	82.6	82.6	-89.93	-4,531.7	558.8	858.2	693.7	164.52	5.217	
11,800.0	7,130.0	11,647.7	7,130.0	84.4	84.3	-89.93	-4,631.7	561.4	860.9	692.9	167.99	5.124	
11,900.0	7,130.0	11,747.7	7,130.0	86.1	86.0	-89.93	-4,731.6	564.1	863.5	692.0	171.46	5.036	
12,000.0	7,130.0	11,847.6	7,130.0	87.8	87.8	-89.93	-4,831.5	566.7	866.1	691.2	174.93	4.951	
12,100.0	7,130.0	11,947.6	7,130.0	89.6	89.5	-89.93	-4,931.5	569.3	868.7	690.3	178.41	4.869	
12,200.0	7,130.0	12,062.0	7,130.0	91.3	91.5	-89.93	-5,045.9	571.5	870.7	688.5	182.13	4.780	
12,300.0	7,130.0	12,179.9	7,130.0	93.0	93.5	-89.93	-5,163.8	571.4	870.6	684.7	185.92	4.683	
12,400.0	7,130.0	12,297.8	7,130.0	94.8	95.6	-89.93	-5,281.6	568.9	868.5	678.8	189.71	4.578	
12,500.0	7,130.0	12,415.5	7,130.0	96.5	97.6	-89.93	-5,399.2	564.0	864.3	670.8	193.50	4.467	
12,600.0	7,130.0	12,533.0	7,130.0	98.2	99.6	-89.93	-5,516.5	556.7	858.1	660.8	197.28	4.349	
12,700.0	7,130.0	12,645.2	7,130.0	100.0	101.5	-89.93	-5,628.3	547.5	849.9	648.9	200.98	4.229	
12,800.0	7,130.0	12,744.9	7,130.0	101.7	103.2	-89.93	-5,727.6	538.8	841.1	636.7	204.45	4.114	
12,900.0	7,130.0	12,844.5	7,130.0	103.4	105.0	-89.93	-5,826.8	530.1	832.4	624.5	207.92	4.003	
13,000.0	7,130.0	12,944.1	7,130.0	105.2	106.7	-89.93	-5,926.1	521.4	823.7	612.3	211.40	3.896	
13,100.0	7,130.0	13,043.7	7,130.0	106.9	108.4	-89.93	-6,025.3	512.7	815.0	600.1	214.88	3.793	
13,200.0	7,130.0	13,143.3	7,130.0	108.7	110.1	-89.93	-6,124.5	504.1	806.2	587.9	218.35	3.692	
13,300.0	7,130.0	13,243.0	7,130.0	110.4	111.8	-89.93	-6,223.8	495.4	797.5	575.7	221.83	3.595	
13,400.0	7,130.0	13,342.6	7,130.0	112.1	113.6	-89.93	-6,323.0	486.7	788.8	563.5	225.31	3.501	
13,500.0	7,130.0	13,442.2	7,130.0	113.9	115.3	-89.93	-6,422.3	478.0	780.1	551.3	228.79	3.410	
13,600.0	7,130.0	13,541.8	7,130.0	115.6	117.0	-89.93	-6,521.5	469.3	771.4	539.1	232.27	3.321	
13,700.0	7,130.0	13,641.4	7,130.0	117.4	118.7	-89.92	-6,620.7	460.6	762.6	526.9	235.75	3.235	
13,800.0	7,130.0	13,741.0	7,130.0	119.1	120.4	-89.92	-6,720.0	451.9	753.9	514.7	239.23	3.151	
13,900.0	7,130.0	13,840.7	7,130.0	120.9	122.2	-89.92	-6,819.2	443.2	745.2	502.5	242.72	3.070	
14,000.0	7,130.0	13,940.3	7,130.0	122.6	123.9	-89.92	-6,918.4	434.5	736.5	490.3	246.20	2.991	
14,100.0	7,130.0	14,039.9	7,130.0	124.3	125.6	-89.92	-7,017.7	425.9	727.8	478.1	249.68	2.915	
14,200.0	7,130.0	14,139.5	7,130.0	126.1	127.4	-89.92	-7,116.9	417.2	719.0	465.9	253.16	2.840	
14,300.0	7,130.0	14,239.1	7,130.0	127.8	129.1	-89.92	-7,216.2	408.5	710.3	453.7	256.65	2.768	
14,400.0	7,130.0	14,338.8	7,130.0	129.6	130.8	-89.92	-7,315.4	399.8	701.6	441.5	260.13	2.697	
14,500.0	7,130.0	14,438.4	7,130.0	131.3	132.5	-89.92	-7,414.6	391.1	692.9	429.2	263.62	2.628	
14,600.0	7,130.0	14,538.0	7,130.0	133.1	134.3	-89.92	-7,513.9	382.4	684.1	417.0	267.10	2.561	
14,700.0	7,130.0	14,637.6	7,130.0	134.8	136.0	-89.91	-7,613.1	373.7	675.4	404.8	270.59	2.496	
14,800.0	7,130.0	14,737.2	7,130.0	136.6	137.7	-89.91	-7,712.4	365.0	666.7	392.6	274.08	2.433	
14,900.0	7,130.0	14,837.9	7,130.0	138.3	138.6	-89.91	-7,811.6	356.3	657.9	383.1	277.57	2.384	
14,908.6	7,130.0	14,878.9	7,130.0	138.5	138.6	-89.91	-7,762.8	360.6	659.7	382.9	276.86	2.383	
14,908.6	7,130.0	14,878.9	7,130.0	138.5	138.6	-89.91	-7,762.8	360.6	659.7	382.9	276.86	2.383 SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - Vogl-McCoy 2D-5H-E267 - 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	1.0	1.0	0.0	0.0	90.05	0.0	58.7	58.7					
100.0	100.0	101.0	101.0	0.1	0.1	90.05	0.0	58.7	58.7	58.4	0.25	238.477		
166.3	166.3	167.3	167.3	0.2	0.2	90.05	0.0	58.7	58.7	58.2	0.48	122.873	CC	
200.0	200.0	201.0	201.0	0.3	0.3	90.05	0.0	58.7	58.7	58.1	0.60	98.610	ES	
300.0	300.0	300.0	300.0	0.5	0.5	137.80	0.3	59.5	60.1	59.2	0.94	63.774		
400.0	400.0	399.0	398.9	0.7	0.7	138.39	1.3	61.9	64.5	63.2	1.29	49.850		
500.0	499.9	497.6	497.5	0.8	0.8	139.23	3.0	65.8	71.7	70.0	1.65	43.507		
600.0	599.7	595.9	595.6	1.0	1.0	140.06	5.4	71.2	81.6	79.6	2.01	40.654		
700.0	699.5	693.9	693.3	1.2	1.2	140.33	8.4	78.2	93.1	90.8	2.37	39.308		
800.0	799.3	791.8	790.8	1.4	1.5	140.14	12.1	86.7	106.2	103.5	2.74	38.821		
900.0	899.2	890.9	889.3	1.6	1.7	139.86	16.0	95.8	119.8	116.7	3.11	38.578		
1,000.0	999.0	989.9	987.9	1.8	1.9	139.64	19.9	105.0	133.4	129.9	3.48	38.376		
1,100.0	1,098.8	1,089.0	1,086.5	2.0	2.2	139.46	23.9	114.1	147.0	143.1	3.85	38.208		
1,200.0	1,198.6	1,188.1	1,185.0	2.2	2.4	139.31	27.8	123.2	160.6	156.4	4.22	38.065		
1,300.0	1,298.4	1,287.2	1,283.6	2.4	2.7	139.18	31.8	132.4	174.2	169.6	4.59	37.943		
1,400.0	1,398.3	1,386.2	1,382.2	2.6	2.9	139.07	35.7	141.5	187.8	182.8	4.96	37.837		
1,500.0	1,498.1	1,485.3	1,480.7	2.8	3.1	138.98	39.7	150.6	201.4	196.1	5.34	37.745		
1,600.0	1,597.9	1,584.4	1,579.3	3.0	3.4	138.90	43.6	159.8	215.0	209.3	5.71	37.664		
1,700.0	1,697.7	1,683.4	1,677.9	3.3	3.6	138.83	47.6	168.9	228.6	222.5	6.08	37.592		
1,800.0	1,797.5	1,782.5	1,776.5	3.5	3.9	138.76	51.5	178.0	242.2	235.8	6.45	37.527		
1,900.0	1,897.4	1,881.6	1,875.0	3.7	4.1	138.70	55.4	187.2	255.8	249.0	6.83	37.470		
2,000.0	1,997.2	1,980.6	1,973.6	3.9	4.4	138.65	59.4	196.3	269.4	262.2	7.20	37.418		
2,100.0	2,097.0	2,079.7	2,072.2	4.1	4.6	138.61	63.3	205.4	283.0	275.5	7.57	37.370		
2,200.0	2,196.8	2,178.8	2,170.7	4.3	4.8	138.56	67.3	214.5	296.6	288.7	7.95	37.327		
2,300.0	2,296.6	2,277.9	2,269.3	4.5	5.1	138.53	71.2	223.7	310.2	301.9	8.32	37.288		
2,400.0	2,396.5	2,376.9	2,367.9	4.7	5.3	138.49	75.2	232.8	323.9	315.2	8.69	37.252		
2,500.0	2,496.3	2,476.0	2,466.4	4.9	5.6	138.46	79.1	241.9	337.5	328.4	9.07	37.219		
2,600.0	2,596.1	2,575.1	2,565.0	5.1	5.8	138.43	83.1	251.1	351.1	341.6	9.44	37.188		
2,700.0	2,695.9	2,674.1	2,663.6	5.3	6.1	138.40	87.0	260.2	364.7	354.9	9.81	37.159		
2,800.0	2,795.7	2,773.2	2,762.1	5.5	6.3	138.37	90.9	269.3	378.3	368.1	10.19	37.133		
2,900.0	2,895.6	2,872.3	2,860.7	5.7	6.6	138.35	94.9	278.5	391.9	381.3	10.56	37.108		
3,000.0	2,995.4	2,971.3	2,959.3	5.9	6.8	138.33	98.8	287.6	405.5	394.6	10.93	37.085		
3,100.0	3,095.2	3,070.4	3,057.8	6.1	7.0	138.31	102.8	296.7	419.1	407.8	11.31	37.064		
3,200.0	3,195.0	3,169.5	3,156.4	6.3	7.3	138.29	106.7	305.9	432.7	421.0	11.68	37.043		
3,300.0	3,294.8	3,268.6	3,255.0	6.5	7.5	138.27	110.7	315.0	446.3	434.3	12.05	37.024		
3,400.0	3,394.7	3,367.6	3,353.6	6.7	7.8	138.25	114.6	324.1	459.9	447.5	12.43	37.006		
3,500.0	3,494.5	3,466.7	3,452.1	6.9	8.0	138.24	118.6	333.3	473.5	460.7	12.80	36.990		
3,600.0	3,594.3	3,565.8	3,550.7	7.1	8.3	138.22	122.5	342.4	487.1	474.0	13.18	36.974		
3,700.0	3,694.1	3,664.8	3,649.3	7.3	8.5	138.21	126.4	351.5	500.7	487.2	13.55	36.959		
3,800.0	3,793.9	3,763.9	3,747.8	7.5	8.8	138.19	130.4	360.7	514.4	500.4	13.92	36.944		
3,900.0	3,893.8	3,863.0	3,846.4	7.7	9.0	138.18	134.3	369.8	528.0	513.7	14.30	36.931		
4,000.0	3,993.6	3,962.0	3,945.0	7.9	9.2	138.17	138.3	378.9	541.6	526.9	14.67	36.918		
4,100.0	4,093.4	4,061.1	4,043.5	8.1	9.5	138.16	142.2	388.1	555.2	540.1	15.04	36.905		
4,200.0	4,193.2	4,160.2	4,142.1	8.3	9.7	138.14	146.2	397.2	568.8	553.4	15.42	36.894		
4,300.0	4,293.1	4,259.3	4,240.7	8.5	10.0	138.13	150.1	406.3	582.4	566.6	15.79	36.883		
4,400.0	4,392.9	4,358.3	4,339.2	8.7	10.2	138.12	154.1	415.4	596.0	579.8	16.16	36.872		
4,500.0	4,492.7	4,457.4	4,437.8	8.9	10.5	138.11	158.0	424.6	609.6	593.1	16.54	36.862		
4,600.0	4,592.5	4,556.5	4,536.4	9.1	10.7	138.10	161.9	433.7	623.2	606.3	16.91	36.852		
4,700.0	4,692.3	4,655.5	4,635.0	9.3	11.0	138.10	165.9	442.8	636.8	619.5	17.28	36.843		
4,800.0	4,792.2	4,754.6	4,733.5	9.6	11.2	138.09	169.8	452.0	650.4	632.8	17.66	36.834		
4,900.0	4,892.0	4,853.7	4,832.1	9.8	11.5	138.08	173.8	461.1	664.0	646.0	18.03	36.825		
5,000.0	4,991.8	4,952.7	4,930.7	10.0	11.7	138.07	177.7	470.2	677.6	659.2	18.41	36.817		

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 Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - Vogl-McCoy 2D-5H-E267 - 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)						
5,100.0	5,091.6	5,051.8	5,029.2	10.2	11.9	138.06	181.7	479.4	691.3	672.5	18.78	36.809		
5,200.0	5,191.4	5,150.9	5,127.8	10.4	12.2	138.06	185.6	488.5	704.9	685.7	19.15	36.801		
5,300.0	5,291.3	5,249.9	5,226.4	10.6	12.4	138.05	189.6	497.6	718.5	698.9	19.53	36.794		
5,400.0	5,391.1	5,349.0	5,324.9	10.8	12.7	138.04	193.5	506.8	732.1	712.2	19.90	36.787		
5,500.0	5,490.9	5,448.1	5,423.5	11.0	12.9	138.04	197.5	515.9	745.7	725.4	20.27	36.780		
5,600.0	5,590.7	5,547.2	5,522.1	11.2	13.2	138.03	201.4	525.0	759.3	738.6	20.65	36.774		
5,700.0	5,690.5	5,646.2	5,620.6	11.4	13.4	138.02	205.3	534.2	772.9	751.9	21.02	36.767		
5,800.0	5,790.4	5,745.3	5,719.2	11.6	13.7	138.02	209.3	543.3	786.5	765.1	21.39	36.761		
5,900.0	5,890.2	5,844.4	5,817.8	11.8	13.9	138.01	213.2	552.4	800.1	778.3	21.77	36.755		
6,000.0	5,990.0	5,943.4	5,916.4	12.0	14.2	138.01	217.2	561.6	813.7	791.6	22.14	36.750		
6,100.0	6,089.8	6,042.5	6,014.9	12.2	14.4	138.00	221.1	570.7	827.3	804.8	22.52	36.744		
6,200.0	6,189.6	6,141.6	6,113.5	12.4	14.6	138.00	225.1	579.8	840.9	818.0	22.89	36.739		
6,300.0	6,289.5	6,240.6	6,212.1	12.6	14.9	137.99	229.0	589.0	854.5	831.3	23.26	36.734		
6,400.0	6,389.3	6,339.7	6,310.6	12.8	15.1	137.99	233.0	598.1	868.2	844.5	23.64	36.729		
6,500.0	6,489.1	6,438.8	6,409.2	13.0	15.4	137.98	236.9	607.2	881.8	857.7	24.01	36.724 SF		
6,600.0	6,588.9	6,537.8	6,507.7	13.2	15.6	-127.98	240.8	616.3	895.3	871.0	24.37	36.733		
6,700.0	6,687.7	6,635.1	6,604.5	13.3	15.9	-99.82	244.7	625.3	908.8	884.2	24.62	36.906		
6,800.0	6,782.5	6,727.8	6,696.7	13.3	16.1	-95.85	248.4	633.9	922.8	898.0	24.76	37.271		
6,900.0	6,870.5	6,820.4	6,788.9	13.3	16.3	-95.29	250.4	642.4	938.4	913.5	24.81	37.826		
7,000.0	6,949.0	6,928.1	6,895.1	13.3	16.5	-95.95	236.3	652.2	955.4	930.6	24.79	38.547		
7,100.0	7,015.6	7,051.4	7,010.9	13.4	16.6	-97.16	196.0	663.0	972.9	948.2	24.78	39.268		
7,200.0	7,068.2	7,195.4	7,131.6	13.6	16.7	-98.71	118.9	674.1	989.6	964.6	24.93	39.700		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - WANDELL 8-2-7 (EXISTING) - ENCANA WELL - SURVEYS												Offset Site Error: 0.0 ft	
Survey Program: 75-MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
10,400.0	7,130.0	7,328.0	7,168.9	60.2	24.3	90.69	-4,221.0	-458.1	979.8	904.5	75.28	13.015	
10,500.0	7,130.0	7,327.7	7,168.6	61.9	24.3	90.56	-4,221.0	-458.1	881.3	804.3	77.00	11.445	
10,600.0	7,130.0	7,327.4	7,168.2	63.7	24.3	90.44	-4,221.0	-458.1	783.1	704.4	78.72	9.949	
10,700.0	7,130.0	7,327.0	7,167.9	65.4	24.3	90.31	-4,221.0	-458.1	685.5	605.1	80.44	8.522	
10,800.0	7,130.0	7,326.6	7,167.5	67.1	24.3	90.18	-4,221.0	-458.1	588.7	506.5	82.16	7.165	
10,900.0	7,130.0	7,326.3	7,167.2	68.8	24.3	90.06	-4,221.0	-458.1	493.2	409.3	83.88	5.879	
11,000.0	7,130.0	7,325.9	7,166.8	70.5	24.3	89.93	-4,221.0	-458.1	399.8	314.2	85.61	4.670	
11,100.0	7,130.0	7,325.6	7,166.4	72.3	24.3	89.80	-4,221.0	-458.1	310.6	223.3	87.33	3.557	
11,200.0	7,130.0	7,325.2	7,166.1	74.0	24.3	89.67	-4,221.1	-458.1	230.4	141.4	89.06	2.588	
11,300.0	7,130.0	7,324.9	7,165.7	75.7	24.3	89.54	-4,221.1	-458.1	172.4	81.7	90.78	1.899	
11,366.8	7,130.0	7,324.6	7,165.5	76.9	24.3	89.45	-4,221.1	-458.1	159.0	67.0	91.93	1.729 CC, ES, SF	
11,400.0	7,130.0	7,324.5	7,165.4	77.4	24.3	89.41	-4,221.1	-458.1	162.4	69.9	92.51	1.755	
11,500.0	7,130.0	7,324.1	7,165.0	79.2	24.3	89.27	-4,221.1	-458.1	207.4	113.1	94.23	2.200	
11,600.0	7,130.0	7,323.8	7,164.6	80.9	24.3	89.14	-4,221.1	-458.1	282.2	186.2	95.96	2.941	
11,700.0	7,130.0	7,323.4	7,164.2	82.6	24.3	89.01	-4,221.1	-458.1	369.1	271.4	97.69	3.779	
11,800.0	7,130.0	7,323.0	7,163.9	84.4	24.3	88.87	-4,221.1	-458.0	461.4	362.0	99.42	4.641	
11,900.0	7,130.0	7,322.6	7,163.5	86.1	24.3	88.73	-4,221.1	-458.0	556.3	455.2	101.14	5.500	
12,000.0	7,130.0	7,322.2	7,163.1	87.8	24.3	88.60	-4,221.1	-458.0	652.8	549.9	102.87	6.346	
12,100.0	7,130.0	7,321.9	7,162.7	89.6	24.3	88.46	-4,221.1	-458.0	750.2	645.6	104.60	7.172	
12,200.0	7,130.0	7,321.5	7,162.3	91.3	24.3	88.32	-4,221.1	-458.0	848.2	741.9	106.33	7.977	
12,300.0	7,130.0	7,321.1	7,162.0	93.0	24.3	88.18	-4,221.1	-458.0	946.6	838.5	108.05	8.760	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	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 S5-T2N-R67W (Vogl-McCoy) - WANDELL 8-4-7 (EXISTING) - ENCANA WELL - SURVEYS												Offset Site Error:	0.0 ft
Survey Program: 106-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
11,600.0	7,130.0	7,569.9	7,173.2	80.9	37.1	91.54	-5,431.4	-491.9	996.0	882.9	113.05	8.810	
11,700.0	7,130.0	7,569.2	7,172.5	82.6	37.1	91.34	-5,431.4	-491.9	898.1	783.3	114.79	7.824	
11,800.0	7,130.0	7,568.6	7,171.8	84.4	37.1	91.14	-5,431.4	-491.9	800.7	684.2	116.53	6.871	
11,900.0	7,130.0	7,567.9	7,171.2	86.1	37.1	90.94	-5,431.4	-491.8	704.1	585.8	118.27	5.953	
12,000.0	7,130.0	7,567.2	7,170.5	87.8	37.1	90.74	-5,431.4	-491.8	608.5	488.5	120.01	5.070	
12,100.0	7,130.0	7,566.5	7,169.8	89.6	37.1	90.53	-5,431.4	-491.8	514.6	392.9	121.75	4.227	
12,200.0	7,130.0	7,565.8	7,169.1	91.3	37.1	90.33	-5,431.4	-491.8	423.6	300.1	123.49	3.430	
12,300.0	7,130.0	7,565.1	7,168.4	93.0	37.1	90.13	-5,431.4	-491.8	337.6	212.4	125.23	2.696	
12,400.0	7,130.0	7,564.4	7,167.7	94.8	37.1	89.92	-5,431.4	-491.8	261.8	134.8	126.96	2.062	
12,500.0	7,130.0	7,563.7	7,167.0	96.5	37.1	89.71	-5,431.4	-491.8	207.6	78.9	128.70	1.613	
12,577.2	7,130.0	7,563.2	7,166.5	97.8	37.1	89.55	-5,431.4	-491.8	192.7	62.7	130.04	1.482	Level 3, CC, ES, SF
12,600.0	7,130.0	7,563.1	7,166.3	98.2	37.1	89.50	-5,431.4	-491.8	194.0	63.6	130.44	1.488	Level 3
12,700.0	7,130.0	7,562.3	7,165.6	100.0	37.1	89.30	-5,431.4	-491.8	228.5	96.3	132.17	1.729	
12,800.0	7,130.0	7,561.6	7,164.9	101.7	37.1	89.09	-5,431.4	-491.8	294.6	160.7	133.90	2.200	
12,900.0	7,130.0	7,560.9	7,164.2	103.4	37.1	88.87	-5,431.4	-491.8	375.9	240.3	135.63	2.772	
13,000.0	7,130.0	7,560.2	7,163.5	105.2	37.1	88.66	-5,431.4	-491.8	464.6	327.3	137.36	3.383	
13,100.0	7,130.0	7,559.5	7,162.8	106.9	37.1	88.45	-5,431.4	-491.8	557.2	418.1	139.09	4.006	
13,200.0	7,130.0	7,558.8	7,162.1	108.7	37.1	88.24	-5,431.4	-491.8	651.9	511.1	140.81	4.630	
13,300.0	7,130.0	7,558.1	7,161.3	110.4	37.1	88.02	-5,431.4	-491.8	748.0	605.5	142.54	5.248	
13,400.0	7,130.0	7,557.3	7,160.6	112.1	37.1	87.81	-5,431.4	-491.8	845.1	700.8	144.26	5.858	
13,500.0	7,130.0	7,556.6	7,159.9	113.9	37.1	87.59	-5,431.4	-491.8	942.7	796.7	145.98	6.458	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Vogl-McCoy 2A-5H-E267
Project:	DJ Wattenberg	TVD Reference:	KB @ 4865.0ft (Ensign)
Reference Site:	S5-T2N-R67W (Vogl-McCoy)	MD Reference:	KB @ 4865.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Vogl-McCoy 2A-5H-E267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 4865.0ft (Ensign)

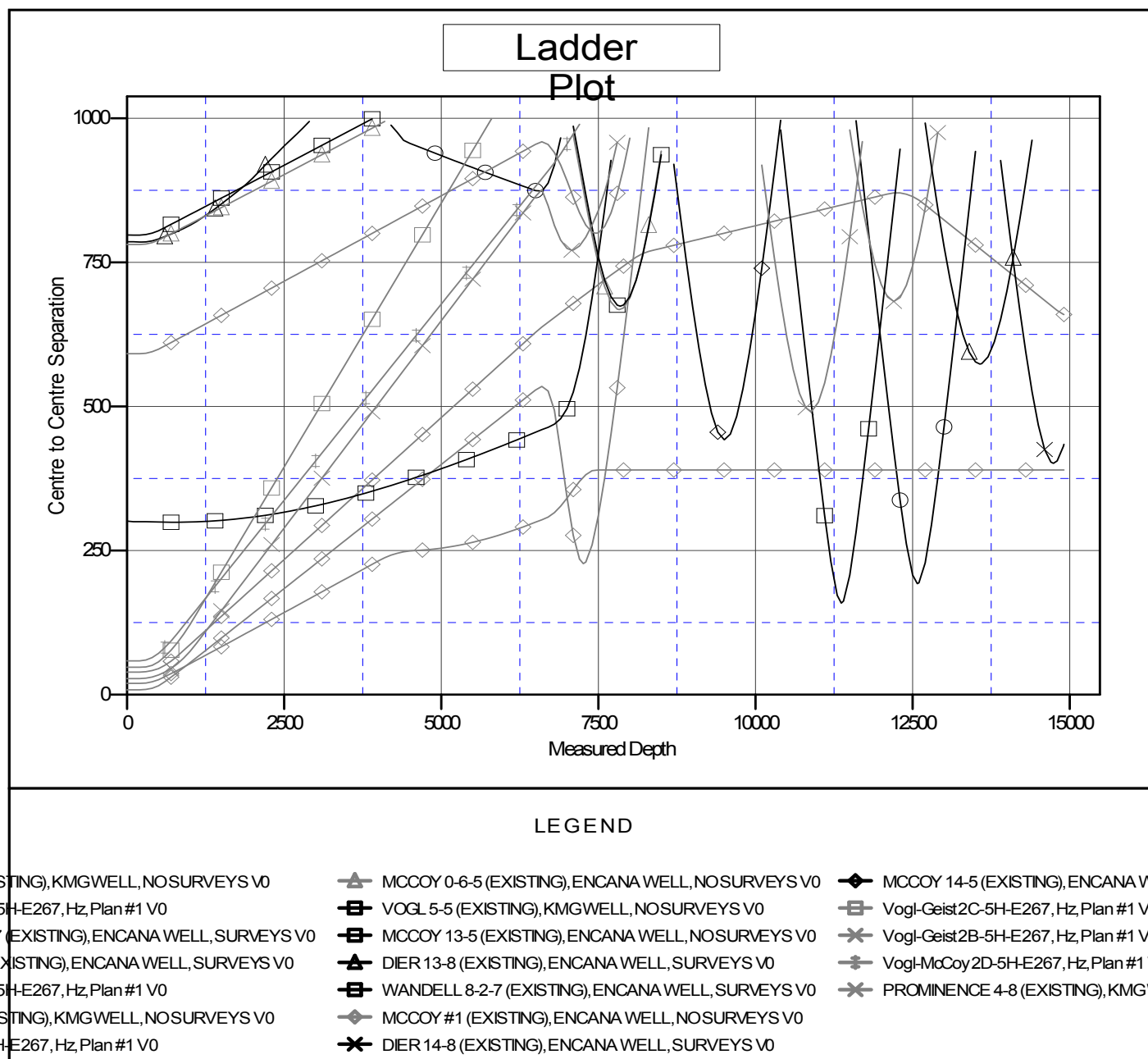
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Vogl-McCoy 2A-5H-E267

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.37°



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