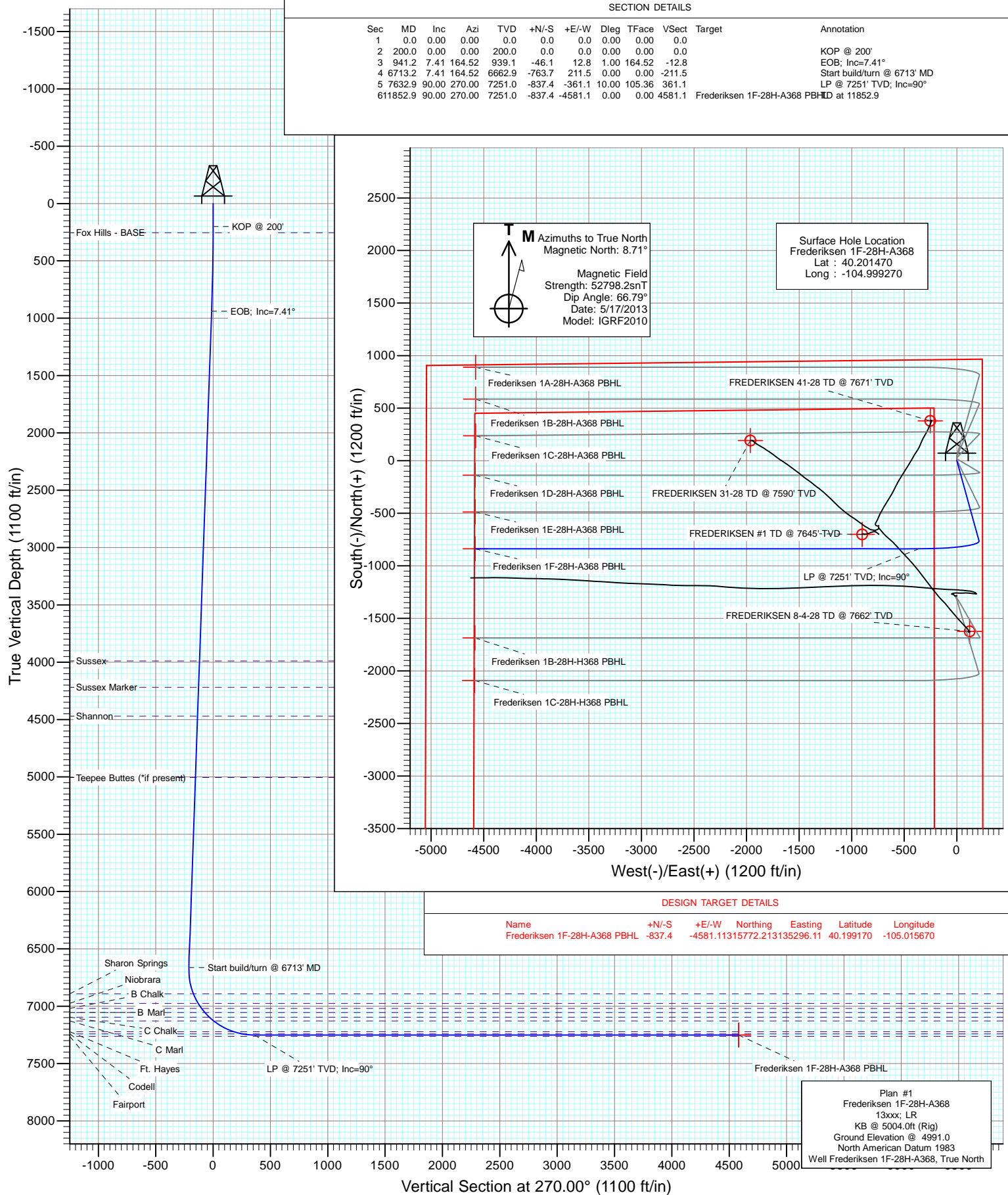




Project: DJ Wattenberg  
Site: S28-T3N-R68W (Frederiksen)  
Well: Frederiksen 1F-28H-A368  
Wellbore: Hz  
Design: Plan #1



## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5004.0ft (Rig)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5004.0ft (Rig)
<b>Site:</b>	S28-T3N-R68W (Frederiksen)	<b>North Reference:</b>	True
<b>Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

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

Site		S28-T3N-R68W (Frederiksen)			
Site Position:		Northing:	1,315,349.57 ft	Latitude:	40.197940
From:	Lat/Long	Easting:	3,139,876.89 ft	Longitude:	-104.999280
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.32 °

Well	Frederiksen 1F-28H-A368					
Well Position	+N/-S	0.0 ft	Northing:	1,316,635.48 ft	Latitude:	40.201470
	+E/-W	0.0 ft	Easting:	3,139,872.42 ft	Longitude:	-104.999270
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,991.0 ft

<b>Wellbore</b>	Hz				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	5/17/2013	8.71	66.79	52,798

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	270.00

<b>Plan Sections</b>										
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	
941.2	7.41	164.52	939.1	-46.1	12.8	1.00	1.00	0.00	164.52	
6,713.2	7.41	164.52	6,662.9	-763.7	211.5	0.00	0.00	0.00	0.00	
7,632.9	90.00	270.00	7,251.0	-837.4	-361.1	10.00	8.98	11.47	105.36	
11,852.9	90.00	270.00	7,251.0	-837.4	-4,581.1	0.00	0.00	0.00	0.00	Frederiksen 1F-28H-4

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5004.0ft (Rig)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5004.0ft (Rig)
<b>Site:</b>	S28-T3N-R68W (Frederiksen)	<b>North Reference:</b>	True
<b>Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	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'
254.0	0.54	164.52	254.0	-0.2	0.1	-0.1	1.00	1.00	Fox Hills - BASE
300.0	1.00	164.52	300.0	-0.8	0.2	-0.2	1.00	1.00	
400.0	2.00	164.52	400.0	-3.4	0.9	-0.9	1.00	1.00	
500.0	3.00	164.52	499.9	-7.6	2.1	-2.1	1.00	1.00	
600.0	4.00	164.52	599.7	-13.5	3.7	-3.7	1.00	1.00	
700.0	5.00	164.52	699.4	-21.0	5.8	-5.8	1.00	1.00	
800.0	6.00	164.52	798.9	-30.3	8.4	-8.4	1.00	1.00	
900.0	7.00	164.52	898.3	-41.2	11.4	-11.4	1.00	1.00	
941.2	7.41	164.52	939.1	-46.1	12.8	-12.8	1.00	1.00	EOB; Inc=7.41°
1,000.0	7.41	164.52	997.4	-53.5	14.8	-14.8	0.00	0.00	
1,100.0	7.41	164.52	1,096.6	-65.9	18.2	-18.2	0.00	0.00	
1,200.0	7.41	164.52	1,195.8	-78.3	21.7	-21.7	0.00	0.00	
1,300.0	7.41	164.52	1,294.9	-90.7	25.1	-25.1	0.00	0.00	
1,400.0	7.41	164.52	1,394.1	-103.2	28.6	-28.6	0.00	0.00	
1,500.0	7.41	164.52	1,493.3	-115.6	32.0	-32.0	0.00	0.00	
1,600.0	7.41	164.52	1,592.4	-128.0	35.5	-35.5	0.00	0.00	
1,700.0	7.41	164.52	1,691.6	-140.5	38.9	-38.9	0.00	0.00	
1,800.0	7.41	164.52	1,790.8	-152.9	42.3	-42.3	0.00	0.00	
1,900.0	7.41	164.52	1,889.9	-165.3	45.8	-45.8	0.00	0.00	
2,000.0	7.41	164.52	1,989.1	-177.8	49.2	-49.2	0.00	0.00	
2,100.0	7.41	164.52	2,088.3	-190.2	52.7	-52.7	0.00	0.00	
2,200.0	7.41	164.52	2,187.4	-202.6	56.1	-56.1	0.00	0.00	
2,300.0	7.41	164.52	2,286.6	-215.1	59.6	-59.6	0.00	0.00	
2,400.0	7.41	164.52	2,385.7	-227.5	63.0	-63.0	0.00	0.00	
2,500.0	7.41	164.52	2,484.9	-239.9	66.4	-66.4	0.00	0.00	
2,600.0	7.41	164.52	2,584.1	-252.4	69.9	-69.9	0.00	0.00	
2,700.0	7.41	164.52	2,683.2	-264.8	73.3	-73.3	0.00	0.00	
2,800.0	7.41	164.52	2,782.4	-277.2	76.8	-76.8	0.00	0.00	
2,900.0	7.41	164.52	2,881.6	-289.7	80.2	-80.2	0.00	0.00	
3,000.0	7.41	164.52	2,980.7	-302.1	83.7	-83.7	0.00	0.00	
3,100.0	7.41	164.52	3,079.9	-314.5	87.1	-87.1	0.00	0.00	
3,200.0	7.41	164.52	3,179.1	-326.9	90.5	-90.5	0.00	0.00	
3,300.0	7.41	164.52	3,278.2	-339.4	94.0	-94.0	0.00	0.00	
3,400.0	7.41	164.52	3,377.4	-351.8	97.4	-97.4	0.00	0.00	
3,500.0	7.41	164.52	3,476.6	-364.2	100.9	-100.9	0.00	0.00	
3,600.0	7.41	164.52	3,575.7	-376.7	104.3	-104.3	0.00	0.00	
3,700.0	7.41	164.52	3,674.9	-389.1	107.8	-107.8	0.00	0.00	
3,800.0	7.41	164.52	3,774.0	-401.5	111.2	-111.2	0.00	0.00	
3,900.0	7.41	164.52	3,873.2	-414.0	114.6	-114.6	0.00	0.00	
4,000.0	7.41	164.52	3,972.4	-426.4	118.1	-118.1	0.00	0.00	
4,016.8	7.41	164.52	3,989.0	-428.5	118.7	-118.7	0.00	0.00	Sussex
4,100.0	7.41	164.52	4,071.5	-438.8	121.5	-121.5	0.00	0.00	
4,200.0	7.41	164.52	4,170.7	-451.3	125.0	-125.0	0.00	0.00	
4,248.7	7.41	164.52	4,219.0	-457.3	126.7	-126.7	0.00	0.00	Sussex Marker
4,300.0	7.41	164.52	4,269.9	-463.7	128.4	-128.4	0.00	0.00	
4,400.0	7.41	164.52	4,369.0	-476.1	131.9	-131.9	0.00	0.00	
4,500.0	7.41	164.52	4,468.2	-488.6	135.3	-135.3	0.00	0.00	
4,501.8	7.41	164.52	4,470.0	-488.8	135.4	-135.4	0.00	0.00	Shannon
4,600.0	7.41	164.52	4,567.4	-501.0	138.8	-138.8	0.00	0.00	

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5004.0ft (Rig)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5004.0ft (Rig)
<b>Site:</b>	S28-T3N-R68W (Frederiksen)	<b>North Reference:</b>	True
<b>Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	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
4,700.0	7.41	164.52	4,666.5	-513.4	142.2	-142.2	0.00	0.00	
4,800.0	7.41	164.52	4,765.7	-525.9	145.6	-145.6	0.00	0.00	
4,900.0	7.41	164.52	4,864.9	-538.3	149.1	-149.1	0.00	0.00	
5,000.0	7.41	164.52	4,964.0	-550.7	152.5	-152.5	0.00	0.00	
5,041.3	7.41	164.52	5,005.0	-555.9	153.9	-153.9	0.00	0.00	Teepee Buttes (*if present)
5,100.0	7.41	164.52	5,063.2	-563.1	156.0	-156.0	0.00	0.00	
5,200.0	7.41	164.52	5,162.4	-575.6	159.4	-159.4	0.00	0.00	
5,300.0	7.41	164.52	5,261.5	-588.0	162.9	-162.9	0.00	0.00	
5,400.0	7.41	164.52	5,360.7	-600.4	166.3	-166.3	0.00	0.00	
5,500.0	7.41	164.52	5,459.8	-612.9	169.7	-169.7	0.00	0.00	
5,600.0	7.41	164.52	5,559.0	-625.3	173.2	-173.2	0.00	0.00	
5,700.0	7.41	164.52	5,658.2	-637.7	176.6	-176.6	0.00	0.00	
5,800.0	7.41	164.52	5,757.3	-650.2	180.1	-180.1	0.00	0.00	
5,900.0	7.41	164.52	5,856.5	-662.6	183.5	-183.5	0.00	0.00	
6,000.0	7.41	164.52	5,955.7	-675.0	187.0	-187.0	0.00	0.00	
6,100.0	7.41	164.52	6,054.8	-687.5	190.4	-190.4	0.00	0.00	
6,200.0	7.41	164.52	6,154.0	-699.9	193.8	-193.8	0.00	0.00	
6,300.0	7.41	164.52	6,253.2	-712.3	197.3	-197.3	0.00	0.00	
6,400.0	7.41	164.52	6,352.3	-724.8	200.7	-200.7	0.00	0.00	
6,500.0	7.41	164.52	6,451.5	-737.2	204.2	-204.2	0.00	0.00	
6,600.0	7.41	164.52	6,550.7	-749.6	207.6	-207.6	0.00	0.00	
6,700.0	7.41	164.52	6,649.8	-762.1	211.1	-211.1	0.00	0.00	
6,713.2	7.41	164.52	6,662.9	-763.7	211.5	-211.5	0.00	0.00	Start build/turn @ 6713' MD
6,800.0	9.79	223.39	6,748.9	-774.5	207.9	-207.9	10.00	2.74	
6,900.0	18.13	247.49	6,845.9	-786.6	187.7	-187.7	10.00	8.34	
6,949.2	22.72	252.58	6,892.0	-792.4	171.5	-171.5	10.00	9.33	Sharon Springs
7,000.0	27.58	256.11	6,938.0	-798.2	150.7	-150.7	10.00	9.56	
7,042.6	31.70	258.29	6,975.0	-802.8	130.2	-130.2	10.00	9.68	Niobrara
7,095.9	36.89	260.39	7,019.0	-808.3	100.7	-100.7	10.00	9.75	B Chalk
7,100.0	37.30	260.53	7,022.3	-808.7	98.2	-98.2	10.00	9.79	
7,142.3	41.45	261.84	7,055.0	-812.8	71.7	-71.7	10.00	9.81	B Marl
7,198.1	46.94	263.27	7,095.0	-817.9	33.2	-33.2	10.00	9.84	C Chalk
7,200.0	47.12	263.32	7,096.3	-818.0	31.8	-31.8	10.00	9.85	
7,248.9	51.95	264.37	7,128.0	-822.0	-5.2	5.2	10.00	9.87	C Marl
7,300.0	57.00	265.33	7,157.7	-825.7	-46.6	46.6	10.00	9.88	
7,400.0	66.90	266.93	7,204.7	-831.6	-134.5	134.5	10.00	9.90	
7,449.1	71.77	267.63	7,222.0	-833.8	-180.5	180.5	10.00	9.91	Ft. Hayes
7,500.0	76.81	268.32	7,235.8	-835.5	-229.4	229.4	10.00	9.92	
7,525.3	79.32	268.65	7,241.0	-836.2	-254.1	254.1	10.00	9.92	Codell
7,600.0	86.73	269.59	7,250.1	-837.3	-328.2	328.2	10.00	9.92	
7,632.9	90.00	270.00	7,251.0	-837.4	-361.1	361.1	10.00	9.92	LP @ 7251' TVD; Inc=90°
7,700.0	90.00	270.00	7,251.0	-837.4	-428.2	428.2	0.00	0.00	
7,800.0	90.00	270.00	7,251.0	-837.4	-528.2	528.2	0.00	0.00	
7,900.0	90.00	270.00	7,251.0	-837.4	-628.2	628.2	0.00	0.00	
8,000.0	90.00	270.00	7,251.0	-837.4	-728.2	728.2	0.00	0.00	
8,100.0	90.00	270.00	7,251.0	-837.4	-828.2	828.2	0.00	0.00	
8,200.0	90.00	270.00	7,251.0	-837.4	-928.2	928.2	0.00	0.00	
8,300.0	90.00	270.00	7,251.0	-837.4	-1,028.2	1,028.2	0.00	0.00	
8,400.0	90.00	270.00	7,251.0	-837.4	-1,128.2	1,128.2	0.00	0.00	
8,500.0	90.00	270.00	7,251.0	-837.4	-1,228.2	1,228.2	0.00	0.00	
8,600.0	90.00	270.00	7,251.0	-837.4	-1,328.2	1,328.2	0.00	0.00	
8,700.0	90.00	270.00	7,251.0	-837.4	-1,428.2	1,428.2	0.00	0.00	

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5004.0ft (Rig)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5004.0ft (Rig)
<b>Site:</b>	S28-T3N-R68W (Frederiksen)	<b>North Reference:</b>	True
<b>Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
8,800.0	90.00	270.00	7,251.0	-837.4	-1,528.2	1,528.2	0.00	0.00	
8,900.0	90.00	270.00	7,251.0	-837.4	-1,628.2	1,628.2	0.00	0.00	
9,000.0	90.00	270.00	7,251.0	-837.4	-1,728.2	1,728.2	0.00	0.00	
9,100.0	90.00	270.00	7,251.0	-837.4	-1,828.2	1,828.2	0.00	0.00	
9,200.0	90.00	270.00	7,251.0	-837.4	-1,928.2	1,928.2	0.00	0.00	
9,300.0	90.00	270.00	7,251.0	-837.4	-2,028.2	2,028.2	0.00	0.00	
9,400.0	90.00	270.00	7,251.0	-837.4	-2,128.2	2,128.2	0.00	0.00	
9,500.0	90.00	270.00	7,251.0	-837.4	-2,228.2	2,228.2	0.00	0.00	
9,600.0	90.00	270.00	7,251.0	-837.4	-2,328.2	2,328.2	0.00	0.00	
9,700.0	90.00	270.00	7,251.0	-837.4	-2,428.2	2,428.2	0.00	0.00	
9,800.0	90.00	270.00	7,251.0	-837.4	-2,528.2	2,528.2	0.00	0.00	
9,900.0	90.00	270.00	7,251.0	-837.4	-2,628.2	2,628.2	0.00	0.00	
10,000.0	90.00	270.00	7,251.0	-837.4	-2,728.2	2,728.2	0.00	0.00	
10,100.0	90.00	270.00	7,251.0	-837.4	-2,828.2	2,828.2	0.00	0.00	
10,200.0	90.00	270.00	7,251.0	-837.4	-2,928.2	2,928.2	0.00	0.00	
10,300.0	90.00	270.00	7,251.0	-837.4	-3,028.2	3,028.2	0.00	0.00	
10,400.0	90.00	270.00	7,251.0	-837.4	-3,128.2	3,128.2	0.00	0.00	
10,500.0	90.00	270.00	7,251.0	-837.4	-3,228.2	3,228.2	0.00	0.00	
10,600.0	90.00	270.00	7,251.0	-837.4	-3,328.2	3,328.2	0.00	0.00	
10,700.0	90.00	270.00	7,251.0	-837.4	-3,428.2	3,428.2	0.00	0.00	
10,800.0	90.00	270.00	7,251.0	-837.4	-3,528.2	3,528.2	0.00	0.00	
10,900.0	90.00	270.00	7,251.0	-837.4	-3,628.2	3,628.2	0.00	0.00	
11,000.0	90.00	270.00	7,251.0	-837.4	-3,728.2	3,728.2	0.00	0.00	
11,100.0	90.00	270.00	7,251.0	-837.4	-3,828.2	3,828.2	0.00	0.00	
11,200.0	90.00	270.00	7,251.0	-837.4	-3,928.2	3,928.2	0.00	0.00	
11,300.0	90.00	270.00	7,251.0	-837.4	-4,028.2	4,028.2	0.00	0.00	
11,400.0	90.00	270.00	7,251.0	-837.4	-4,128.2	4,128.2	0.00	0.00	
11,500.0	90.00	270.00	7,251.0	-837.4	-4,228.2	4,228.2	0.00	0.00	
11,600.0	90.00	270.00	7,251.0	-837.4	-4,328.2	4,328.2	0.00	0.00	
11,700.0	90.00	270.00	7,251.0	-837.4	-4,428.2	4,428.2	0.00	0.00	
11,800.0	90.00	270.00	7,251.0	-837.4	-4,528.2	4,528.2	0.00	0.00	
11,852.9	90.00	270.00	7,251.0	-837.4	-4,581.1	4,581.1	0.00	0.00	TD at 11852.9 - Frederiksen 1F-28H-A368 PBH

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Frederiksen 1F-28H-A368 - hit/miss target - Shape - plan hits target center - Point	0.00	0.00	7,251.0	-837.4	-4,581.1	1,315,772.21	3,135,296.11	40.199170	-105.015670

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5004.0ft (Rig)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5004.0ft (Rig)
<b>Site:</b>	S28-T3N-R68W (Frederiksen)	<b>North Reference:</b>	True
<b>Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
254.0	254.0	Fox Hills - BASE		0.00		
4,016.8	3,989.0	Sussex				
4,248.7	4,219.0	Sussex Marker				
4,501.8	4,470.0	Shannon				
5,041.3	5,005.0	Teepee Buttes (*if present)				
6,949.2	6,892.0	Sharon Springs				
7,042.6	6,975.0	Niobrara				
7,095.9	7,019.0	B Chalk				
7,142.3	7,055.0	B Marl				
7,198.1	7,095.0	C Chalk				
7,248.9	7,128.0	C Marl				
7,449.1	7,222.0	Ft. Hayes				
7,525.3	7,241.0	Codell				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.0	200.0	0.0	0.0	KOP @ 200'	
941.2	939.1	-46.1	12.8	EOB; Inc=7.41°	
6,713.2	6,662.9	-763.7	211.5	Start build/turn @ 6713' MD	
7,632.9	7,251.0	-837.4	-361.1	LP @ 7251' TVD; Inc=90°	
11,852.9	7,251.0	-837.4	-4,581.1	TD at 11852.9	

# **EnCana Oil & Gas (USA) Inc**

**DJ Wattenberg**

**S28-T3N-R68W (Frederiksen)**

**Frederiksen 1F-28H-A368**

**Hz**

**Plan #1**

## **Anticollision Report**

**17 May, 2013**

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Reference Site:</b>	S28-T3N-R68W (Frederiksen)	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.0ft	<b>Error Model:</b>	Systematic Ellipse
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 500.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	5/17/2013		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	11,852.9	Plan #1 (Hz)	MWD	Geolink MWD

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						
S28-T3N-R68W (Frederiksen)						
FREDERIKSEN #1 (Existing) - DD - GYRO	8,165.2	7,232.3	142.1	108.0	4.173	CC, ES, SF
FREDERIKSEN 1A-28H (Existing) - Hz - Hz	7,821.2	7,577.8	396.2	359.7	10.873	CC
FREDERIKSEN 1A-28H (Existing) - Hz - Hz	11,700.0	11,454.2	406.3	252.1	2.634	ES
FREDERIKSEN 1A-28H (Existing) - Hz - Hz	11,852.9	11,599.3	412.4	254.7	2.616	SF
Frederiksen 1A-28H-A368 - Hz - Plan #1	200.0	200.0	47.4	46.7	72.549	CC, ES
Frederiksen 1A-28H-A368 - Hz - Plan #1	600.0	595.1	74.1	72.0	36.248	SF
Frederiksen 1B-28H-A368 - Hz - Plan #1	200.0	200.0	40.1	39.4	61.388	CC, ES
Frederiksen 1B-28H-A368 - Hz - Plan #1	600.0	596.9	60.7	58.6	29.640	SF
Frederiksen 1B-28H-H368 - Hz - Plan #1						Out of range
Frederiksen 1C-28H-A368 - Hz - Plan #1	200.0	200.0	29.1	28.5	44.646	CC, ES
Frederiksen 1C-28H-A368 - Hz - Plan #1	500.0	499.4	37.4	35.7	21.991	SF
Frederiksen 1C-28H-H368 - Hz - Plan #1						Out of range
Frederiksen 1D-28H-A368 - Hz - Plan #1	200.0	200.0	18.2	17.6	27.904	CC, ES
Frederiksen 1D-28H-A368 - Hz - Plan #1	500.0	499.9	25.9	24.2	15.222	SF
Frederiksen 1E-28H-A368 - Hz - Plan #1	200.0	200.0	7.3	6.6	11.161	CC, ES
Frederiksen 1E-28H-A368 - Hz - Plan #1	11,852.9	11,608.9	411.6	212.7	2.070	SF
FREDERIKSEN 31-28 (Existing) - DD - GYRO						Out of range
FREDERIKSEN 41-28 (Existing) - DD - GYRO						Out of range
FREDERIKSEN 8-4-28 (Existing) - DD - GYRO						Out of range



# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Reference Site:</b>	S28-T3N-R68W (Frederiksen)	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - FREDERIKSEN #1 (Existing) - DD - GYRO													Offset Site Error: 0.0 ft	
Survey Program: 200-Gyro													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
7,700.0	7,251.0	7,224.0	7,221.8	22.2	6.4	87.08	-695.3	-893.2	486.3	461.8	24.50	19.851		
7,800.0	7,251.0	7,225.8	7,223.6	23.5	6.4	87.81	-695.3	-893.2	391.8	365.4	26.38	14.853		
7,900.0	7,251.0	7,227.6	7,225.4	25.1	6.4	88.54	-695.3	-893.2	300.8	272.4	28.38	10.600		
8,000.0	7,251.0	7,229.4	7,227.2	26.8	6.4	89.26	-695.3	-893.3	217.9	187.4	30.46	7.151		
8,100.0	7,251.0	7,231.2	7,229.0	28.7	6.4	89.98	-695.3	-893.3	156.3	123.7	32.62	4.793		
8,165.2	7,251.0	7,232.3	7,230.1	30.0	6.4	90.45	-695.3	-893.3	142.1	108.0	34.05	4.173	CC, ES, SF	
8,200.0	7,251.0	7,233.0	7,230.7	30.7	6.4	90.70	-695.3	-893.3	146.3	111.5	34.82	4.202		
8,300.0	7,251.0	7,234.7	7,232.5	32.7	6.4	91.41	-695.4	-893.4	195.9	158.8	37.06	5.285		
8,400.0	7,251.0	7,236.5	7,234.2	34.8	6.4	92.11	-695.4	-893.4	274.5	235.1	39.33	6.979		
8,500.0	7,251.0	7,238.2	7,236.0	37.0	6.4	92.81	-695.4	-893.4	363.7	322.1	41.62	8.739		
8,600.0	7,251.0	7,239.9	7,237.7	39.2	6.4	93.51	-695.4	-893.5	457.4	413.5	43.92	10.415		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Reference Site:</b>	S28-T3N-R68W (Frederiksen)	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - FREDERIKSEN 1A-28H (Existing) - Hz - Hz													Offset Site Error: 0.0 ft			
Survey Program: 835-MWD															Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor				
6,700.0	6,649.8	6,685.0	6,653.7	18.2	11.9	23.47	-1,244.4	145.9	487.1	462.4	24.77	19.667				
6,800.0	6,748.9	6,755.2	6,718.3	18.4	12.0	-32.77	-1,239.4	118.9	473.6	448.5	25.07	18.894				
6,900.0	6,845.9	6,843.5	6,796.5	18.6	12.0	-54.10	-1,234.7	78.2	462.4	437.2	25.20	18.349				
7,000.0	6,938.0	6,922.3	6,862.9	18.8	12.1	-61.01	-1,231.5	36.0	452.0	426.9	25.09	18.013				
7,100.0	7,022.3	7,002.1	6,925.2	18.9	12.3	-64.15	-1,227.5	-13.7	440.8	415.8	24.93	17.678				
7,200.0	7,096.3	7,074.5	6,973.8	19.1	12.5	-65.81	-1,225.0	-67.2	431.9	407.0	24.92	17.331				
7,300.0	7,157.7	7,146.9	7,012.2	19.3	13.0	-66.40	-1,222.2	-128.4	424.8	399.5	25.28	16.801				
7,400.0	7,204.7	7,231.7	7,043.8	19.7	13.8	-66.16	-1,217.7	-206.8	418.3	392.0	26.30	15.903				
7,500.0	7,235.8	7,313.0	7,060.9	20.3	14.8	-65.63	-1,210.6	-285.8	410.8	382.8	27.99	14.679				
7,600.0	7,250.1	7,387.4	7,064.6	21.1	15.9	-65.11	-1,204.2	-359.9	405.0	374.7	30.27	13.379				
7,700.0	7,251.0	7,474.1	7,062.7	22.2	17.4	-64.53	-1,197.1	-446.2	398.8	365.7	33.04	12.070				
7,800.0	7,251.0	7,559.0	7,056.8	23.5	18.9	-63.44	-1,191.8	-530.7	396.3	360.4	35.81	11.065				
7,821.2	7,251.0	7,577.8	7,055.2	23.8	19.3	-63.17	-1,191.0	-549.4	396.2	359.7	36.44	10.873 CC				
7,900.0	7,251.0	7,648.4	7,048.9	25.1	20.6	-62.21	-1,188.6	-619.7	397.1	358.4	38.75	10.247				
8,000.0	7,251.0	7,746.9	7,041.6	26.8	22.6	-61.20	-1,187.4	-717.9	399.5	357.5	42.00	9.514				
8,100.0	7,251.0	7,847.0	7,036.6	28.7	24.7	-60.58	-1,187.4	-817.9	401.9	356.5	45.46	8.841				
8,200.0	7,251.0	7,941.4	7,031.9	30.7	26.8	-60.05	-1,188.2	-912.2	405.1	356.2	48.91	8.282				
8,300.0	7,251.0	8,040.3	7,026.9	32.7	29.0	-59.56	-1,189.9	-1,010.9	409.2	356.7	52.50	7.794				
8,400.0	7,251.0	8,139.6	7,023.4	34.8	31.2	-59.34	-1,192.7	-1,110.2	413.4	357.1	56.25	7.349				
8,500.0	7,251.0	8,237.3	7,020.6	37.0	33.4	-59.27	-1,196.4	-1,207.8	418.2	358.1	60.09	6.959				
8,600.0	7,251.0	8,338.4	7,018.8	39.2	35.8	-59.36	-1,200.8	-1,308.8	422.8	358.7	64.12	6.593				
8,700.0	7,251.0	8,437.2	7,016.4	41.4	38.1	-59.39	-1,205.3	-1,407.4	427.9	359.8	68.11	6.282				
8,800.0	7,251.0	8,536.3	7,014.0	43.7	40.4	-59.42	-1,209.8	-1,506.4	433.1	360.9	72.14	6.003				
8,900.0	7,251.0	8,634.4	7,014.1	46.0	43.1	-59.76	-1,214.7	-1,623.4	436.7	360.0	76.79	5.688				
9,000.0	7,251.0	8,767.4	7,019.3	48.3	45.8	-60.47	-1,216.5	-1,737.2	435.8	354.1	81.69	5.335				
9,100.0	7,251.0	8,873.6	7,025.9	50.6	48.4	-61.25	-1,216.8	-1,843.2	433.0	346.4	86.56	5.002				
9,200.0	7,251.0	8,982.5	7,033.7	52.9	51.0	-62.09	-1,215.6	-1,951.8	428.6	337.0	91.59	4.679				
9,300.0	7,251.0	9,095.8	7,041.8	55.3	53.7	-62.75	-1,210.6	-2,064.7	421.3	324.7	96.64	4.360				
9,400.0	7,251.0	9,200.3	7,049.0	57.7	56.2	-63.18	-1,203.4	-2,168.7	412.1	310.7	101.36	4.066				
9,500.0	7,251.0	9,283.3	7,050.7	60.0	58.2	-62.94	-1,196.2	-2,251.3	403.5	298.4	105.08	3.840				
9,598.4	7,251.0	9,358.9	7,045.2	62.4	60.0	-61.87	-1,190.6	-2,326.5	400.4	292.6	107.81	3.714				
9,600.0	7,251.0	9,360.1	7,045.1	62.4	60.0	-61.85	-1,190.5	-2,327.7	400.4	292.6	107.86	3.713				
9,700.0	7,251.0	9,449.2	7,036.9	64.8	62.2	-60.68	-1,188.4	-2,416.3	402.7	292.0	110.71	3.638				
9,800.0	7,251.0	9,545.4	7,028.8	67.2	64.5	-59.65	-1,187.8	-2,512.3	406.3	292.6	113.74	3.572				
9,900.0	7,251.0	9,653.8	7,022.1	69.6	67.1	-58.85	-1,188.0	-2,620.4	409.7	292.5	117.18	3.496				
10,000.0	7,251.0	9,766.7	7,014.4	72.0	69.9	-57.50	-1,182.2	-2,732.9	408.8	288.9	119.94	3.409				
10,072.9	7,251.0	9,835.2	7,009.3	73.7	71.5	-56.61	-1,178.3	-2,801.1	408.3	286.6	121.67	3.356				
10,100.0	7,251.0	9,860.3	7,007.5	74.4	72.1	-56.32	-1,177.2	-2,826.1	408.4	286.0	122.34	3.338				
10,200.0	7,251.0	9,955.6	7,000.8	76.8	74.5	-55.29	-1,174.0	-2,921.1	409.6	284.7	124.84	3.281				
10,300.0	7,251.0	10,046.7	6,991.4	79.2	76.7	-53.89	-1,170.0	-3,011.6	412.0	285.4	126.56	3.255				
10,400.0	7,251.0	10,145.8	6,979.3	81.6	79.0	-52.26	-1,166.5	-3,110.0	416.5	288.6	127.86	3.258				
10,500.0	7,251.0	10,251.6	6,965.9	84.1	81.6	-50.41	-1,161.6	-3,214.7	420.9	292.2	128.65	3.272				
10,600.0	7,251.0	10,363.4	6,953.4	86.5	84.3	-48.46	-1,154.2	-3,325.6	423.2	294.2	129.02	3.280				
10,700.0	7,251.0	10,463.6	6,945.2	88.9	86.8	-47.08	-1,148.0	-3,425.3	424.1	294.1	129.97	3.263				
10,800.0	7,251.0	10,579.2	6,941.2	91.3	89.6	-46.02	-1,140.8	-3,540.6	421.8	290.1	131.65	3.204				
10,900.0	7,251.0	10,678.1	6,939.3	93.8	92.0	-45.29	-1,135.1	-3,639.2	419.0	285.5	133.56	3.137				
11,000.0	7,251.0	10,774.1	6,937.4	96.2	94.4	-44.61	-1,130.0	-3,735.1	416.7	281.2	135.47	3.076				
11,100.0	7,251.0	10,880.9	6,935.9	98.7	97.0	-43.97	-1,125.0	-3,841.7	414.4	276.8	137.53	3.013				
11,200.0	7,251.0	10,978.7	6,937.7	101.1	99.4	-43.92	-1,122.7	-3,939.5	411.5	270.7	140.78	2.923				
11,300.0	7,251.0	11,080.0	6,940.1	103.5	101.9	-43.95	-1,120.8	-4,040.8	408.5	264.2	144.28	2.831				
11,400.0	7,251.0	11,175.2	6,941.3	106.0	104.2	-43.85	-1,118.6	-4,136.0	405.9	258.6	147.35	2.755				
11,500.0	7,251.0	11,270.5	6,940.2	108.4	106.5	-43.41	-1,115.4	-4,231.2	404.4	254.9	149.55	2.704				

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

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Reference Site:</b>	S28-T3N-R68W (Frederiksen)	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design											S28-T3N-R68W (Frederiksen) - FREDERIKSEN 1A-28H (Existing) - Hz - Hz			Offset Site Error:		0.0 ft
Survey Program: 835-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 +N/-S	Centre +E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)						
11,564.1	7,251.0	11,331.7	6,938.4	110.0	108.0	-43.02	-1,113.2	-4,292.3	404.2	253.6	150.62	2.684				
11,600.0	7,251.0	11,365.0	6,937.8	110.9	108.9	-42.89	-1,112.6	-4,325.7	404.3	252.9	151.43	2.670				
11,700.0	7,251.0	11,454.2	6,935.8	113.3	111.0	-42.76	-1,113.1	-4,414.8	406.3	252.1	154.25	2.634 ES				
11,800.0	7,251.0	11,550.9	6,931.4	115.8	113.4	-42.39	-1,113.6	-4,511.4	410.0	253.6	156.49	2.620				
11,852.9	7,251.0	11,599.3	6,929.0	117.1	114.6	-42.21	-1,114.1	-4,559.7	412.4	254.7	157.66	2.616 SF				

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Reference Site:</b>	S28-T3N-R68W (Frederiksen)	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1A-28H-A368 - 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		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	47.4	0.0	47.4					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	47.4	0.0	47.4	47.1	0.30	155.940		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	47.4	0.0	47.4	46.7	0.65	72.549 CC, ES		
300.0	300.0	299.2	299.2	0.5	0.5	-164.51	48.2	0.2	49.0	48.0	1.00	49.010		
400.0	400.0	398.2	398.2	0.7	0.7	-164.50	50.7	0.9	54.1	52.7	1.35	40.093		
500.0	499.9	496.9	496.8	0.9	0.9	-164.48	54.8	2.1	62.4	60.7	1.70	36.799		
600.0	599.7	595.1	594.8	1.1	1.1	-164.45	60.5	3.7	74.1	72.0	2.04	36.248 SF		
700.0	699.4	692.6	692.0	1.3	1.3	-164.42	67.7	5.7	89.1	86.7	2.39	37.234		
800.0	798.9	789.3	788.3	1.5	1.5	-164.39	76.5	8.2	107.3	104.5	2.74	39.161		
900.0	898.3	885.1	883.5	1.8	1.7	-164.35	86.7	11.0	128.8	125.7	3.09	41.698		
1,000.0	997.4	980.0	977.6	2.0	2.0	-164.32	98.4	14.3	153.1	149.7	3.44	44.537		
1,100.0	1,096.6	1,076.8	1,073.5	2.3	2.2	-164.27	110.9	17.8	178.3	174.5	3.80	46.983		
1,200.0	1,195.8	1,173.6	1,169.4	2.6	2.5	-164.23	123.4	21.3	203.5	199.3	4.15	49.000		
1,300.0	1,294.9	1,270.4	1,265.3	2.8	2.8	-164.20	136.0	24.9	228.6	224.1	4.51	50.690		
1,400.0	1,394.1	1,367.2	1,361.2	3.1	3.1	-164.18	148.5	28.4	253.8	248.9	4.87	52.127		
1,500.0	1,493.3	1,463.9	1,457.1	3.4	3.3	-164.16	161.0	31.9	279.0	273.7	5.23	53.363		
1,600.0	1,592.4	1,560.7	1,553.1	3.7	3.6	-164.14	173.5	35.4	304.1	298.6	5.59	54.438		
1,700.0	1,691.6	1,657.5	1,649.0	4.0	3.9	-164.13	186.1	38.9	329.3	323.4	5.95	55.380		
1,800.0	1,790.8	1,754.3	1,744.9	4.2	4.2	-164.12	198.6	42.4	354.5	348.2	6.31	56.213		
1,900.0	1,889.9	1,851.1	1,840.8	4.5	4.5	-164.11	211.1	45.9	379.6	373.0	6.67	56.955		
2,000.0	1,989.1	1,947.8	1,936.7	4.8	4.7	-164.10	223.6	49.4	404.8	397.8	7.03	57.619		
2,100.0	2,088.3	2,044.6	2,032.6	5.1	5.0	-164.09	236.2	53.0	430.0	422.6	7.39	58.218		
2,200.0	2,187.4	2,141.4	2,128.5	5.4	5.3	-164.08	248.7	56.5	455.1	447.4	7.75	58.760		
2,300.0	2,286.6	2,238.2	2,224.4	5.7	5.6	-164.08	261.2	60.0	480.3	472.2	8.11	59.254		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Reference Site:</b>	S28-T3N-R68W (Frederiksen)	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1B-28H-A368 - 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	0.00	40.1	0.0	40.1					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	40.1	0.0	40.1	39.8	0.30	131.949		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	40.1	0.0	40.1	39.4	0.65	61.388 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-164.84	40.1	0.0	40.9	39.9	1.00	40.840		
400.0	400.0	399.3	399.3	0.7	0.7	-165.27	40.9	0.3	44.2	42.9	1.35	32.774		
500.0	499.9	498.3	498.3	0.9	0.9	-165.31	43.2	1.4	50.8	49.1	1.70	29.933		
600.0	599.7	596.9	596.8	1.1	1.0	-165.08	47.1	3.0	60.7	58.6	2.05	29.640 SF		
700.0	699.4	695.0	694.7	1.3	1.2	-164.72	52.6	5.4	73.7	71.3	2.40	30.770		
800.0	798.9	792.4	791.8	1.5	1.4	-164.32	59.5	8.4	90.0	87.3	2.75	32.765		
900.0	898.3	890.4	889.4	1.8	1.6	-164.05	67.4	11.8	109.0	105.9	3.10	35.136		
1,000.0	997.4	988.3	986.9	2.0	1.9	-164.05	75.4	15.2	129.3	125.8	3.46	37.387		
1,100.0	1,096.6	1,086.2	1,084.4	2.3	2.1	-164.08	83.4	18.6	149.7	145.9	3.82	39.226		
1,200.0	1,195.8	1,184.0	1,181.9	2.6	2.3	-164.10	91.3	22.1	170.2	166.0	4.18	40.742		
1,300.0	1,294.9	1,281.9	1,279.4	2.8	2.5	-164.12	99.3	25.5	190.7	186.1	4.54	42.013		
1,400.0	1,394.1	1,379.8	1,376.9	3.1	2.7	-164.14	107.3	28.9	211.1	206.2	4.90	43.092		
1,500.0	1,493.3	1,477.7	1,474.4	3.4	3.0	-164.15	115.2	32.3	231.6	226.3	5.26	44.020		
1,600.0	1,592.4	1,575.6	1,571.9	3.7	3.2	-164.16	123.2	35.8	252.1	246.4	5.62	44.827		
1,700.0	1,691.6	1,673.5	1,669.4	4.0	3.4	-164.17	131.1	39.2	272.5	266.5	5.98	45.535		
1,800.0	1,790.8	1,771.4	1,766.9	4.2	3.6	-164.18	139.1	42.6	293.0	286.6	6.35	46.160		
1,900.0	1,889.9	1,869.2	1,864.4	4.5	3.9	-164.18	147.1	46.0	313.4	306.7	6.71	46.717		
2,000.0	1,989.1	1,967.1	1,961.9	4.8	4.1	-164.19	155.0	49.5	333.9	326.8	7.07	47.216		
2,100.0	2,088.3	2,065.0	2,059.4	5.1	4.3	-164.19	163.0	52.9	354.4	346.9	7.43	47.665		
2,200.0	2,187.4	2,162.9	2,156.9	5.4	4.5	-164.20	170.9	56.3	374.8	367.0	7.80	48.072		
2,300.0	2,286.6	2,260.8	2,254.4	5.7	4.8	-164.20	178.9	59.7	395.3	387.1	8.16	48.443		
2,400.0	2,385.7	2,358.7	2,351.9	5.9	5.0	-164.21	186.9	63.2	415.7	407.2	8.52	48.781		
2,500.0	2,484.9	2,456.5	2,449.4	6.2	5.2	-164.21	194.8	66.6	436.2	427.3	8.89	49.092		
2,600.0	2,584.1	2,554.4	2,546.9	6.5	5.5	-164.21	202.8	70.0	456.7	447.4	9.25	49.377		
2,700.0	2,683.2	2,652.3	2,644.4	6.8	5.7	-164.22	210.8	73.4	477.1	467.5	9.61	49.641		
2,800.0	2,782.4	2,750.2	2,741.9	7.1	5.9	-164.22	218.7	76.9	497.6	487.6	9.97	49.886		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Reference Site:</b>	S28-T3N-R68W (Frederiksen)	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1C-28H-A368 - 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	0.00	29.1	0.0	29.1					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	29.1	0.0	29.1	28.8	0.30	95.963		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	29.1	0.0	29.1	28.5	0.65	44.646 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-164.96	29.1	0.0	30.0	29.0	1.00	29.931		
400.0	400.0	400.0	400.0	0.7	0.7	-166.15	29.1	0.0	32.5	31.2	1.35	24.075		
500.0	499.9	499.4	499.4	0.9	0.8	-166.79	29.8	0.6	37.4	35.7	1.70	21.991 SF		
600.0	599.7	598.6	598.6	1.1	1.0	-166.17	31.6	2.4	45.1	43.1	2.05	22.019		
700.0	699.4	697.4	697.3	1.3	1.2	-164.91	34.7	5.3	55.8	53.4	2.40	23.220		
800.0	798.9	796.5	796.2	1.5	1.4	-163.86	38.5	9.0	68.8	66.1	2.76	24.959		
900.0	898.3	895.4	895.0	1.8	1.6	-163.48	42.3	12.6	83.6	80.5	3.12	26.824		
1,000.0	997.4	994.1	993.5	2.0	1.8	-163.46	46.1	16.3	99.7	96.2	3.48	28.676		
1,100.0	1,096.6	1,092.8	1,092.1	2.3	2.0	-163.48	49.9	19.9	115.9	112.1	3.84	30.196		
1,200.0	1,195.8	1,191.4	1,190.6	2.6	2.2	-163.50	53.8	23.6	132.2	128.0	4.20	31.448		
1,300.0	1,294.9	1,290.1	1,289.1	2.8	2.3	-163.51	57.6	27.2	148.4	143.9	4.57	32.496		
1,400.0	1,394.1	1,388.8	1,387.7	3.1	2.5	-163.52	61.4	30.8	164.7	159.7	4.93	33.386		
1,500.0	1,493.3	1,487.5	1,486.2	3.4	2.7	-163.53	65.2	34.5	180.9	175.6	5.30	34.151		
1,600.0	1,592.4	1,586.1	1,584.7	3.7	2.9	-163.54	69.0	38.1	197.2	191.5	5.66	34.815		
1,700.0	1,691.6	1,684.8	1,683.3	4.0	3.1	-163.54	72.8	41.8	213.4	207.4	6.03	35.397		
1,800.0	1,790.8	1,783.5	1,781.8	4.2	3.3	-163.55	76.6	45.4	229.7	223.3	6.40	35.912		
1,900.0	1,889.9	1,882.1	1,880.3	4.5	3.5	-163.55	80.4	49.0	245.9	239.2	6.76	36.370		
2,000.0	1,989.1	1,980.8	1,978.9	4.8	3.7	-163.56	84.2	52.7	262.2	255.0	7.13	36.780		
2,100.0	2,088.3	2,079.5	2,077.4	5.1	3.9	-163.56	88.0	56.3	278.4	270.9	7.49	37.149		
2,200.0	2,187.4	2,178.2	2,175.9	5.4	4.1	-163.56	91.8	59.9	294.7	286.8	7.86	37.483		
2,300.0	2,286.6	2,276.8	2,274.4	5.7	4.3	-163.57	95.6	63.6	310.9	302.7	8.23	37.788		
2,400.0	2,385.7	2,375.5	2,373.0	5.9	4.5	-163.57	99.4	67.2	327.1	318.6	8.59	38.066		
2,500.0	2,484.9	2,474.2	2,471.5	6.2	4.7	-163.57	103.2	70.9	343.4	334.4	8.96	38.320		
2,600.0	2,584.1	2,572.8	2,570.0	6.5	4.9	-163.57	107.0	74.5	359.6	350.3	9.33	38.555		
2,700.0	2,683.2	2,671.5	2,668.6	6.8	5.1	-163.57	110.8	78.1	375.9	366.2	9.70	38.771		
2,800.0	2,782.4	2,770.2	2,767.1	7.1	5.3	-163.58	114.6	81.8	392.1	382.1	10.06	38.972		
2,900.0	2,881.6	2,868.9	2,865.6	7.4	5.5	-163.58	118.4	85.4	408.4	398.0	10.43	39.158		
3,000.0	2,980.7	2,967.5	2,964.2	7.6	5.6	-163.58	122.2	89.1	424.6	413.8	10.80	39.332		
3,100.0	3,079.9	3,066.2	3,062.7	7.9	5.8	-163.58	126.0	92.7	440.9	429.7	11.16	39.494		
3,200.0	3,179.1	3,164.9	3,161.2	8.2	6.0	-163.58	129.8	96.3	457.1	445.6	11.53	39.645		
3,300.0	3,278.2	3,263.5	3,259.8	8.5	6.2	-163.58	133.6	100.0	473.4	461.5	11.90	39.787		
3,400.0	3,377.4	3,362.2	3,358.3	8.8	6.4	-163.58	137.4	103.6	489.6	477.4	12.26	39.921		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Reference Site:</b>	S28-T3N-R68W (Frederiksen)	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1D-28H-A368 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	0.00	18.2	0.0	18.2					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	18.2	0.0	18.2	17.9	0.30	59.977		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	18.2	0.0	18.2	17.6	0.65	27.904 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-165.22	18.2	0.0	19.1	18.1	1.00	19.023		
400.0	400.0	400.0	400.0	0.7	0.7	-166.98	18.2	0.0	21.6	20.2	1.35	15.990		
500.0	499.9	499.9	499.9	0.9	0.8	-169.15	18.2	0.0	25.9	24.2	1.70	15.222 SF		
600.0	599.7	599.7	599.7	1.1	1.0	-171.21	18.2	0.0	31.9	29.8	2.05	15.574		
700.0	699.4	699.4	699.4	1.3	1.2	-172.93	18.2	0.0	39.7	37.3	2.39	16.563		
800.0	798.9	798.9	798.9	1.5	1.4	-174.30	18.2	0.0	49.2	46.4	2.74	17.950		
900.0	898.3	898.3	898.3	1.8	1.5	-175.35	18.2	0.0	60.5	57.4	3.08	19.600		
1,000.0	997.4	997.4	997.4	2.0	1.7	-176.16	18.2	0.0	73.2	69.7	3.43	21.332		
1,100.0	1,096.6	1,096.6	1,096.6	2.3	1.9	-176.73	18.2	0.0	86.1	82.3	3.78	22.780		
1,200.0	1,195.8	1,195.8	1,195.8	2.6	2.1	-177.16	18.2	0.0	98.9	94.8	4.12	23.986		
1,300.0	1,294.9	1,294.9	1,294.9	2.8	2.2	-177.49	18.2	0.0	111.8	107.3	4.47	25.006		
1,400.0	1,394.1	1,394.1	1,394.1	3.1	2.4	-177.75	18.2	0.0	124.7	119.9	4.82	25.880		
1,500.0	1,493.3	1,493.3	1,493.3	3.4	2.6	-177.96	18.2	0.0	137.6	132.4	5.17	26.637		
1,600.0	1,592.4	1,592.4	1,592.4	3.7	2.8	-178.13	18.2	0.0	150.5	145.0	5.51	27.299		
1,700.0	1,691.6	1,691.6	1,691.6	4.0	2.9	-178.28	18.2	0.0	163.4	157.5	5.86	27.882		
1,800.0	1,790.8	1,790.8	1,790.8	4.2	3.1	-178.41	18.2	0.0	176.3	170.1	6.21	28.401		
1,900.0	1,889.9	1,889.9	1,889.9	4.5	3.3	-178.52	18.2	0.0	189.2	182.6	6.55	28.865		
2,000.0	1,989.1	1,989.1	1,989.1	4.8	3.4	-178.61	18.2	0.0	202.1	195.2	6.90	29.282		
2,100.0	2,088.3	2,088.3	2,088.3	5.1	3.6	-178.69	18.2	0.0	215.0	207.7	7.25	29.659		
2,200.0	2,187.4	2,187.4	2,187.4	5.4	3.8	-178.77	18.2	0.0	227.9	220.3	7.59	30.002		
2,300.0	2,286.6	2,286.6	2,286.6	5.7	4.0	-178.83	18.2	0.0	240.8	232.8	7.94	30.315		
2,400.0	2,385.7	2,385.7	2,385.7	5.9	4.1	-178.89	18.2	0.0	253.7	245.4	8.29	30.602		
2,500.0	2,484.9	2,484.9	2,484.9	6.2	4.3	-178.95	18.2	0.0	266.6	257.9	8.64	30.866		
2,600.0	2,584.1	2,584.1	2,584.1	6.5	4.5	-178.99	18.2	0.0	279.5	270.5	8.98	31.109		
2,700.0	2,683.2	2,683.2	2,683.2	6.8	4.7	-179.04	18.2	0.0	292.3	283.0	9.33	31.334		
2,800.0	2,782.4	2,782.4	2,782.4	7.1	4.8	-179.08	18.2	0.0	305.2	295.6	9.68	31.544		
2,900.0	2,881.6	2,881.6	2,881.6	7.4	5.0	-179.12	18.2	0.0	318.1	308.1	10.02	31.738		
3,000.0	2,980.7	2,980.7	2,980.7	7.6	5.2	-179.15	18.2	0.0	331.0	320.7	10.37	31.920		
3,100.0	3,079.9	3,079.9	3,079.9	7.9	5.4	-179.18	18.2	0.0	343.9	333.2	10.72	32.090		
3,200.0	3,179.1	3,179.1	3,179.1	8.2	5.5	-179.21	18.2	0.0	356.8	345.8	11.06	32.249		
3,300.0	3,278.2	3,278.2	3,278.2	8.5	5.7	-179.24	18.2	0.0	369.7	358.3	11.41	32.399		
3,400.0	3,377.4	3,377.4	3,377.4	8.8	5.9	-179.27	18.2	0.0	382.6	370.9	11.76	32.540		
3,500.0	3,476.6	3,476.6	3,476.6	9.1	6.0	-179.29	18.2	0.0	395.5	383.4	12.11	32.673		
3,600.0	3,575.7	3,579.8	3,579.8	9.3	6.2	-179.26	17.9	0.5	408.1	395.6	12.46	32.749		
3,700.0	3,674.9	3,684.5	3,684.5	9.6	6.4	-179.05	16.7	2.6	419.3	406.5	12.82	32.714		
3,800.0	3,774.0	3,789.5	3,789.4	9.9	6.6	-178.67	14.5	6.3	429.3	416.1	13.18	32.580		
3,900.0	3,873.2	3,894.6	3,894.3	10.2	6.8	-178.13	11.3	11.7	438.0	424.5	13.54	32.351		
4,000.0	3,972.4	3,999.8	3,999.2	10.5	7.0	-177.43	7.1	18.7	445.5	431.6	13.91	32.036		
4,100.0	4,071.5	4,099.4	4,098.4	10.8	7.2	-176.71	2.6	26.2	452.5	438.2	14.27	31.712		
4,200.0	4,170.7	4,199.0	4,197.6	11.0	7.3	-176.01	-1.8	33.6	459.5	444.8	14.63	31.402		
4,300.0	4,269.9	4,298.6	4,296.8	11.3	7.5	-175.33	-6.2	41.0	466.5	451.5	15.00	31.105		
4,400.0	4,369.0	4,398.2	4,396.1	11.6	7.7	-174.67	-10.6	48.5	473.7	458.3	15.37	30.820		
4,500.0	4,468.2	4,497.8	4,495.3	11.9	7.9	-174.03	-15.1	55.9	480.9	465.1	15.74	30.546		
4,600.0	4,567.4	4,597.4	4,594.5	12.2	8.1	-173.41	-19.5	63.3	488.1	472.0	16.12	30.283		
4,700.0	4,666.5	4,697.0	4,693.7	12.5	8.3	-172.81	-23.9	70.8	495.4	478.9	16.50	30.030		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Reference Site:</b>	S28-T3N-R68W (Frederiksen)	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1E-28H-A368 - 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	0.00	7.3	0.0	7.3					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	7.3	0.0	7.3	7.0	0.30	23.991	CC, ES	
200.0	200.0	200.0	200.0	0.3	0.3	0.00	7.3	0.0	7.3	6.6	0.65	11.161		
300.0	300.0	300.0	300.0	0.5	0.5	-166.16	7.3	0.0	8.1	7.1	1.00	8.116		
400.0	400.0	400.0	400.0	0.7	0.7	-169.51	7.3	0.0	10.7	9.3	1.35	7.915		
500.0	499.9	500.1	500.1	0.9	0.9	-171.47	6.5	0.4	14.2	12.5	1.70	8.339		
600.0	599.7	600.3	600.3	1.1	1.0	-171.67	4.1	1.5	17.7	15.7	2.05	8.654		
700.0	699.4	700.6	700.4	1.3	1.2	-170.97	0.2	3.4	21.4	19.0	2.40	8.902		
800.0	798.9	800.9	800.5	1.5	1.4	-169.79	-5.3	6.1	25.1	22.3	2.75	9.107		
900.0	898.3	901.2	900.6	1.8	1.6	-168.31	-12.4	9.5	28.9	25.8	3.11	9.284		
1,000.0	997.4	1,001.1	1,000.1	2.0	1.8	-167.25	-20.2	13.2	33.4	30.0	3.47	9.631		
1,100.0	1,096.6	1,101.0	1,099.6	2.3	2.0	-166.50	-27.9	16.9	38.2	34.3	3.84	9.944		
1,200.0	1,195.8	1,200.9	1,199.1	2.6	2.3	-165.92	-35.6	20.7	42.9	38.7	4.20	10.198		
1,300.0	1,294.9	1,300.8	1,298.6	2.8	2.5	-165.45	-43.3	24.4	47.6	43.0	4.57	10.409		
1,400.0	1,394.1	1,400.6	1,398.2	3.1	2.7	-165.07	-51.0	28.1	52.3	47.4	4.94	10.587		
1,500.0	1,493.3	1,500.5	1,497.7	3.4	2.9	-164.75	-58.7	31.8	57.1	51.8	5.31	10.738		
1,600.0	1,592.4	1,600.4	1,597.2	3.7	3.2	-164.48	-66.4	35.5	61.8	56.1	5.69	10.867		
1,700.0	1,691.6	1,700.3	1,696.7	4.0	3.4	-164.25	-74.1	39.3	66.5	60.5	6.06	10.980		
1,800.0	1,790.8	1,800.2	1,796.2	4.2	3.6	-164.05	-81.8	43.0	71.3	64.8	6.43	11.079		
1,900.0	1,889.9	1,900.1	1,895.8	4.5	3.8	-163.87	-89.6	46.7	76.0	69.2	6.81	11.167		
2,000.0	1,989.1	2,000.0	1,995.3	4.8	4.1	-163.71	-97.3	50.4	80.7	73.6	7.18	11.244		
2,100.0	2,088.3	2,099.9	2,094.8	5.1	4.3	-163.58	-105.0	54.1	85.5	77.9	7.56	11.314		
2,200.0	2,187.4	2,199.7	2,194.3	5.4	4.5	-163.45	-112.7	57.8	90.2	82.3	7.93	11.376		
2,300.0	2,286.6	2,299.6	2,293.8	5.7	4.7	-163.34	-120.4	61.6	95.0	86.7	8.31	11.433		
2,400.0	2,385.7	2,399.5	2,393.4	5.9	5.0	-163.24	-128.1	65.3	99.7	91.0	8.68	11.484		
2,500.0	2,484.9	2,499.4	2,492.9	6.2	5.2	-163.15	-135.8	69.0	104.4	95.4	9.06	11.531		
2,600.0	2,584.1	2,599.3	2,592.4	6.5	5.4	-163.06	-143.5	72.7	109.2	99.7	9.43	11.574		
2,700.0	2,683.2	2,699.2	2,691.9	6.8	5.6	-162.99	-151.2	76.4	113.9	104.1	9.81	11.614		
2,800.0	2,782.4	2,799.1	2,791.4	7.1	5.9	-162.92	-159.0	80.2	118.7	108.5	10.18	11.650		
2,900.0	2,881.6	2,899.0	2,891.0	7.4	6.1	-162.85	-166.7	83.9	123.4	112.8	10.56	11.684		
3,000.0	2,980.7	2,998.8	2,990.5	7.6	6.3	-162.79	-174.4	87.6	128.1	117.2	10.94	11.715		
3,100.0	3,079.9	3,098.7	3,090.0	7.9	6.6	-162.73	-182.1	91.3	132.9	121.6	11.31	11.744		
3,200.0	3,179.1	3,198.6	3,189.5	8.2	6.8	-162.68	-189.8	95.0	137.6	125.9	11.69	11.771		
3,300.0	3,278.2	3,298.5	3,289.0	8.5	7.0	-162.63	-197.5	98.7	142.3	130.3	12.07	11.797		
3,400.0	3,377.4	3,398.4	3,388.6	8.8	7.2	-162.59	-205.2	102.5	147.1	134.6	12.44	11.820		
3,500.0	3,476.6	3,498.3	3,488.1	9.1	7.5	-162.54	-212.9	106.2	151.8	139.0	12.82	11.843		
3,600.0	3,575.7	3,598.2	3,587.6	9.3	7.7	-162.50	-220.7	109.9	156.6	143.4	13.20	11.864		
3,700.0	3,674.9	3,698.1	3,687.1	9.6	7.9	-162.47	-228.4	113.6	161.3	147.7	13.57	11.883		
3,800.0	3,774.0	3,797.9	3,786.6	9.9	8.2	-162.43	-236.1	117.3	166.0	152.1	13.95	11.902		
3,900.0	3,873.2	3,897.8	3,886.2	10.2	8.4	-162.40	-243.8	121.1	170.8	156.5	14.33	11.920		
4,000.0	3,972.4	3,997.7	3,985.7	10.5	8.6	-162.37	-251.5	124.8	175.5	160.8	14.71	11.936		
4,100.0	4,071.5	4,097.6	4,085.2	10.8	8.8	-162.34	-259.2	128.5	180.3	165.2	15.08	11.952		
4,200.0	4,170.7	4,197.5	4,184.7	11.0	9.1	-162.31	-266.9	132.2	185.0	169.6	15.46	11.967		
4,300.0	4,269.9	4,297.4	4,284.2	11.3	9.3	-162.28	-274.6	135.9	189.8	173.9	15.84	11.982		
4,400.0	4,369.0	4,397.3	4,383.8	11.6	9.5	-162.25	-282.3	139.6	194.5	178.3	16.21	11.995		
4,500.0	4,468.2	4,497.2	4,483.3	11.9	9.8	-162.23	-290.1	143.4	199.2	182.6	16.59	12.008		
4,600.0	4,567.4	4,597.0	4,582.8	12.2	10.0	-162.21	-297.8	147.1	204.0	187.0	16.97	12.020		
4,700.0	4,666.5	4,696.9	4,682.3	12.5	10.2	-162.18	-305.5	150.8	208.7	191.4	17.35	12.032		
4,800.0	4,765.7	4,796.8	4,781.8	12.8	10.5	-162.16	-313.2	154.5	213.5	195.7	17.72	12.043		
4,900.0	4,864.9	4,896.7	4,881.4	13.0	10.7	-162.14	-320.9	158.2	218.2	200.1	18.10	12.054		
5,000.0	4,964.0	4,996.6	4,980.9	13.3	10.9	-162.12	-328.6	161.9	222.9	204.5	18.48	12.065		
5,100.0	5,063.2	5,096.5	5,080.4	13.6	11.1	-162.10	-336.3	165.7	227.7	208.8	18.86	12.074		

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



# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Reference Site:</b>	S28-T3N-R68W (Frederiksen)	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1E-28H-A368 - 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	5,162.4	5,196.4	5,179.9	13.9	11.4	-162.08	-344.0	169.4	232.4	213.2	19.23	12.084		
5,300.0	5,261.5	5,296.3	5,279.4	14.2	11.6	-162.07	-351.8	173.1	237.2	217.5	19.61	12.093		
5,400.0	5,360.7	5,396.1	5,379.0	14.5	11.8	-162.05	-359.5	176.8	241.9	221.9	19.99	12.102		
5,500.0	5,459.8	5,496.0	5,478.5	14.7	12.1	-162.04	-367.2	180.5	246.6	226.3	20.37	12.110		
5,600.0	5,559.0	5,595.9	5,578.0	15.0	12.3	-162.02	-374.9	184.3	251.4	230.6	20.74	12.118		
5,700.0	5,658.2	5,695.8	5,677.5	15.3	12.5	-162.00	-382.6	188.0	256.1	235.0	21.12	12.126		
5,800.0	5,757.3	5,795.7	5,777.0	15.6	12.7	-161.99	-390.3	191.7	260.9	239.4	21.50	12.134		
5,900.0	5,856.5	5,895.6	5,876.6	15.9	13.0	-161.98	-398.0	195.4	265.6	243.7	21.88	12.141		
6,000.0	5,955.7	5,995.5	5,976.1	16.2	13.2	-161.96	-405.7	199.1	270.3	248.1	22.25	12.148		
6,100.0	6,054.8	6,095.4	6,075.6	16.5	13.4	-161.95	-413.4	202.8	275.1	252.5	22.63	12.155		
6,200.0	6,154.0	6,195.2	6,175.1	16.7	13.7	-161.94	-421.2	206.6	279.8	256.8	23.01	12.161		
6,300.0	6,253.2	6,295.1	6,274.6	17.0	13.9	-161.93	-428.9	210.3	284.6	261.2	23.39	12.168		
6,400.0	6,352.3	6,395.0	6,374.2	17.3	14.1	-161.91	-436.6	214.0	289.3	265.5	23.77	12.174		
6,500.0	6,451.5	6,495.6	6,474.4	17.6	14.3	-162.09	-444.3	216.8	294.0	269.9	24.11	12.195		
6,600.0	6,550.7	6,595.6	6,573.4	17.9	14.5	-164.85	-452.0	206.1	298.5	274.4	24.06	12.407		
6,700.0	6,649.8	6,688.1	6,662.1	18.2	14.6	-170.17	-458.9	180.9	304.9	281.1	23.78	12.821		
6,800.0	6,748.9	6,772.5	6,738.5	18.4	14.6	124.60	-464.8	145.7	316.0	292.3	23.71	13.331		
6,900.0	6,845.9	6,850.0	6,803.4	18.6	14.7	95.01	-469.8	103.9	330.4	306.4	24.08	13.721		
7,000.0	6,938.0	6,930.8	6,864.5	18.8	14.8	81.47	-474.6	51.3	346.4	321.6	24.80	13.968		
7,100.0	7,022.3	7,006.1	6,914.3	18.9	14.9	73.24	-478.4	-5.0	362.6	337.1	25.50	14.216		
7,200.0	7,096.3	7,079.7	6,955.4	19.1	15.1	67.56	-481.6	-66.0	377.6	351.5	26.13	14.452		
7,300.0	7,157.7	7,150.0	6,987.0	19.3	15.5	63.59	-484.1	-128.6	390.6	364.0	26.62	14.675		
7,400.0	7,204.7	7,223.4	7,011.7	19.7	16.1	60.78	-486.0	-197.6	400.8	373.7	27.17	14.753		
7,500.0	7,235.8	7,300.0	7,027.9	20.3	16.9	59.01	-487.2	-272.4	407.9	380.0	27.92	14.609		
7,600.0	7,250.1	7,364.4	7,033.7	21.1	17.7	58.25	-487.7	-336.5	411.3	382.4	28.83	14.264		
7,700.0	7,251.0	7,456.1	7,034.0	22.2	19.1	58.18	-487.7	-428.2	411.6	380.3	31.27	13.161		
7,800.0	7,251.0	7,556.1	7,034.0	23.5	20.9	58.18	-487.7	-528.2	411.6	377.1	34.46	11.942		
7,900.0	7,251.0	7,656.1	7,034.0	25.1	22.8	58.18	-487.7	-628.2	411.6	373.7	37.86	10.872		
8,000.0	7,251.0	7,756.1	7,034.0	26.8	24.8	58.18	-487.7	-728.2	411.6	370.2	41.40	9.942		
8,100.0	7,251.0	7,856.1	7,034.0	28.7	26.8	58.18	-487.7	-828.2	411.6	366.5	45.06	9.134		
8,200.0	7,251.0	7,956.1	7,034.0	30.7	29.0	58.18	-487.7	-928.2	411.6	362.8	48.80	8.433		
8,300.0	7,251.0	8,056.1	7,034.0	32.7	31.2	58.18	-487.7	-1,028.2	411.6	358.9	52.62	7.821		
8,400.0	7,251.0	8,156.1	7,034.0	34.8	33.4	58.18	-487.7	-1,128.2	411.6	355.1	56.50	7.285		
8,500.0	7,251.0	8,256.1	7,034.0	37.0	35.7	58.18	-487.7	-1,228.2	411.6	351.2	60.41	6.812		
8,600.0	7,251.0	8,356.1	7,034.0	39.2	38.0	58.18	-487.7	-1,328.2	411.6	347.2	64.37	6.394		
8,700.0	7,251.0	8,456.1	7,034.0	41.4	40.3	58.18	-487.7	-1,428.2	411.6	343.2	68.36	6.021		
8,800.0	7,251.0	8,556.1	7,034.0	43.7	42.6	58.18	-487.7	-1,528.2	411.6	339.2	72.37	5.687		
8,900.0	7,251.0	8,656.1	7,034.0	46.0	45.0	58.18	-487.7	-1,628.2	411.6	335.2	76.40	5.387		
9,000.0	7,251.0	8,756.1	7,034.0	48.3	47.3	58.18	-487.7	-1,728.2	411.6	331.1	80.45	5.116		
9,100.0	7,251.0	8,856.1	7,034.0	50.6	49.7	58.18	-487.7	-1,828.2	411.6	327.1	84.52	4.870		
9,200.0	7,251.0	8,956.1	7,034.0	52.9	52.1	58.18	-487.7	-1,928.2	411.6	323.0	88.60	4.645		
9,300.0	7,251.0	9,056.1	7,034.0	55.3	54.5	58.18	-487.7	-2,028.2	411.6	318.9	92.69	4.440		
9,400.0	7,251.0	9,156.1	7,034.0	57.7	56.9	58.18	-487.7	-2,128.2	411.6	314.8	96.79	4.252		
9,500.0	7,251.0	9,256.1	7,034.0	60.0	59.3	58.18	-487.7	-2,228.2	411.6	310.7	100.90	4.079		
9,600.0	7,251.0	9,356.1	7,034.0	62.4	61.7	58.18	-487.7	-2,328.2	411.6	306.5	105.02	3.919		
9,700.0	7,251.0	9,456.1	7,034.0	64.8	64.1	58.18	-487.7	-2,428.2	411.6	302.4	109.15	3.771		
9,800.0	7,251.0	9,556.1	7,034.0	67.2	66.5	58.18	-487.7	-2,528.2	411.6	298.3	113.28	3.633		
9,900.0	7,251.0	9,656.1	7,034.0	69.6	68.9	58.18	-487.7	-2,628.2	411.6	294.2	117.41	3.505		
10,000.0	7,251.0	9,756.1	7,034.0	72.0	71.4	58.18	-487.7	-2,728.2	411.6	290.0	121.56	3.386		
10,100.0	7,251.0	9,856.1	7,034.0	74.4	73.8	58.18	-487.7	-2,828.2	411.6	285.9	125.70	3.274		
10,200.0	7,251.0	9,956.1	7,034.0	76.8	76.2	58.18	-487.7	-2,928.2	411.6	281.7	129.86	3.169		
10,300.0	7,251.0	10,056.1	7,034.0	79.2	78.7	58.18	-487.7	-3,028.2	411.6	277.6	134.01	3.071		

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

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Reference Site:</b>	S28-T3N-R68W (Frederiksen)	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1E-28H-A368 - 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		
10,400.0	7,251.0	10,156.1	7,034.0	81.6	81.1	58.18	-487.7	-3,128.2	411.6	273.4	138.17	2.979		
10,500.0	7,251.0	10,256.1	7,034.0	84.1	83.5	58.18	-487.7	-3,228.2	411.6	269.2	142.33	2.892		
10,600.0	7,251.0	10,356.1	7,034.0	86.5	86.0	58.18	-487.7	-3,328.2	411.6	265.1	146.49	2.809		
10,700.0	7,251.0	10,456.1	7,034.0	88.9	88.4	58.18	-487.7	-3,428.2	411.6	260.9	150.66	2.732		
10,800.0	7,251.0	10,556.1	7,034.0	91.3	90.9	58.18	-487.7	-3,528.2	411.6	256.7	154.83	2.658		
10,900.0	7,251.0	10,656.1	7,034.0	93.8	93.3	58.18	-487.7	-3,628.2	411.6	252.6	159.00	2.588		
11,000.0	7,251.0	10,756.1	7,034.0	96.2	95.8	58.18	-487.7	-3,728.2	411.6	248.4	163.17	2.522		
11,100.0	7,251.0	10,856.1	7,034.0	98.7	98.2	58.18	-487.7	-3,828.2	411.6	244.2	167.35	2.459		
11,200.0	7,251.0	10,956.1	7,034.0	101.1	100.7	58.18	-487.7	-3,928.2	411.6	240.0	171.52	2.399		
11,300.0	7,251.0	11,056.1	7,034.0	103.5	103.1	58.18	-487.7	-4,028.2	411.6	235.9	175.70	2.342		
11,400.0	7,251.0	11,156.1	7,034.0	106.0	105.6	58.18	-487.7	-4,128.2	411.6	231.7	179.88	2.288		
11,500.0	7,251.0	11,256.1	7,034.0	108.4	108.0	58.18	-487.7	-4,228.2	411.6	227.5	184.06	2.236		
11,600.0	7,251.0	11,356.1	7,034.0	110.9	110.5	58.18	-487.7	-4,328.2	411.6	223.3	188.24	2.186		
11,700.0	7,251.0	11,456.1	7,034.0	113.3	112.9	58.18	-487.7	-4,428.2	411.6	219.1	192.43	2.139		
11,800.0	7,251.0	11,556.1	7,034.0	115.8	115.4	58.18	-487.7	-4,528.2	411.6	215.0	196.61	2.093		
11,840.3	7,251.0	11,596.3	7,034.0	116.7	116.4	58.18	-487.7	-4,568.4	411.6	213.3	198.30	2.075		
11,852.9	7,251.0	11,608.9	7,034.0	117.1	116.7	58.18	-487.7	-4,581.0	411.6	212.7	198.83	2.070 SF		

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1F-28H-A368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Reference Site:</b>	S28-T3N-R68W (Frederiksen)	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Frederiksen 1F-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5005.0ft (Original Well Elev)

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Frederiksen 1F-28H-A368

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.32°

