



## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1A-28H-A368
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site:</b>	S28-T3N-R68W (Frederiksen)	<b>North Reference:</b>	True
<b>Well:</b>	Frederiksen 1A-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 1A-28H-A368					
Well Position	+N/-S	0.0 ft	Northing:	1,316,682.84 ft	Latitude:	40.201600
	+E/-W	0.0 ft	Easting:	3,139,872.15 ft	Longitude:	-104.999270
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,992.0 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	
972.4	7.72	15.67	970.0	50.0	14.0	1.00	1.00	0.00	15.67	
6,497.7	7.72	15.67	6,445.2	765.0	214.6	0.00	0.00	0.00	0.00	
7,418.5	90.00	270.00	7,034.0	841.9	-358.0	10.00	8.94	-11.48	-105.53	
11,638.5	90.00	270.00	7,034.0	841.9	-4,578.0	0.00	0.00	0.00	0.00	Frederiksen 1A-28H-4

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<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site:</b>	S28-T3N-R68W (Frederiksen)	<b>North Reference:</b>	True
<b>Well:</b>	Frederiksen 1A-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'
255.0	0.55	15.67	255.0	0.3	0.1	-0.1	1.00	1.00	Fox Hills - BASE
300.0	1.00	15.67	300.0	0.8	0.2	-0.2	1.00	1.00	
400.0	2.00	15.67	400.0	3.4	0.9	-0.9	1.00	1.00	
500.0	3.00	15.67	499.9	7.6	2.1	-2.1	1.00	1.00	
600.0	4.00	15.67	599.7	13.4	3.8	-3.8	1.00	1.00	
700.0	5.00	15.67	699.4	21.0	5.9	-5.9	1.00	1.00	
800.0	6.00	15.67	798.9	30.2	8.5	-8.5	1.00	1.00	
900.0	7.00	15.67	898.3	41.1	11.5	-11.5	1.00	1.00	
972.4	7.72	15.67	970.0	50.0	14.0	-14.0	1.00	1.00	EOB; Inc=7.72°
1,000.0	7.72	15.67	997.4	53.6	15.0	-15.0	0.00	0.00	
1,100.0	7.72	15.67	1,096.5	66.6	18.7	-18.7	0.00	0.00	
1,200.0	7.72	15.67	1,195.6	79.5	22.3	-22.3	0.00	0.00	
1,300.0	7.72	15.67	1,294.7	92.4	25.9	-25.9	0.00	0.00	
1,400.0	7.72	15.67	1,393.8	105.4	29.6	-29.6	0.00	0.00	
1,500.0	7.72	15.67	1,492.9	118.3	33.2	-33.2	0.00	0.00	
1,600.0	7.72	15.67	1,592.0	131.3	36.8	-36.8	0.00	0.00	
1,700.0	7.72	15.67	1,691.1	144.2	40.4	-40.4	0.00	0.00	
1,800.0	7.72	15.67	1,790.2	157.1	44.1	-44.1	0.00	0.00	
1,900.0	7.72	15.67	1,889.2	170.1	47.7	-47.7	0.00	0.00	
2,000.0	7.72	15.67	1,988.3	183.0	51.3	-51.3	0.00	0.00	
2,100.0	7.72	15.67	2,087.4	196.0	55.0	-55.0	0.00	0.00	
2,200.0	7.72	15.67	2,186.5	208.9	58.6	-58.6	0.00	0.00	
2,300.0	7.72	15.67	2,285.6	221.8	62.2	-62.2	0.00	0.00	
2,400.0	7.72	15.67	2,384.7	234.8	65.9	-65.9	0.00	0.00	
2,500.0	7.72	15.67	2,483.8	247.7	69.5	-69.5	0.00	0.00	
2,600.0	7.72	15.67	2,582.9	260.7	73.1	-73.1	0.00	0.00	
2,700.0	7.72	15.67	2,682.0	273.6	76.7	-76.7	0.00	0.00	
2,800.0	7.72	15.67	2,781.1	286.5	80.4	-80.4	0.00	0.00	
2,900.0	7.72	15.67	2,880.2	299.5	84.0	-84.0	0.00	0.00	
3,000.0	7.72	15.67	2,979.3	312.4	87.6	-87.6	0.00	0.00	
3,100.0	7.72	15.67	3,078.4	325.4	91.3	-91.3	0.00	0.00	
3,200.0	7.72	15.67	3,177.5	338.3	94.9	-94.9	0.00	0.00	
3,300.0	7.72	15.67	3,276.5	351.3	98.5	-98.5	0.00	0.00	
3,400.0	7.72	15.67	3,375.6	364.2	102.2	-102.2	0.00	0.00	
3,500.0	7.72	15.67	3,474.7	377.1	105.8	-105.8	0.00	0.00	
3,600.0	7.72	15.67	3,573.8	390.1	109.4	-109.4	0.00	0.00	
3,700.0	7.72	15.67	3,672.9	403.0	113.0	-113.0	0.00	0.00	
3,800.0	7.72	15.67	3,772.0	416.0	116.7	-116.7	0.00	0.00	
3,900.0	7.72	15.67	3,871.1	428.9	120.3	-120.3	0.00	0.00	
4,000.0	7.72	15.67	3,970.2	441.8	123.9	-123.9	0.00	0.00	
4,019.0	7.72	15.67	3,989.0	444.3	124.6	-124.6	0.00	0.00	Sussex
4,100.0	7.72	15.67	4,069.3	454.8	127.6	-127.6	0.00	0.00	
4,200.0	7.72	15.67	4,168.4	467.7	131.2	-131.2	0.00	0.00	
4,251.1	7.72	15.67	4,219.0	474.3	133.0	-133.0	0.00	0.00	Sussex Marker
4,300.0	7.72	15.67	4,267.5	480.7	134.8	-134.8	0.00	0.00	
4,400.0	7.72	15.67	4,366.6	493.6	138.4	-138.4	0.00	0.00	
4,500.0	7.72	15.67	4,465.7	506.5	142.1	-142.1	0.00	0.00	
4,504.4	7.72	15.67	4,470.0	507.1	142.2	-142.2	0.00	0.00	Shannon
4,600.0	7.72	15.67	4,564.8	519.5	145.7	-145.7	0.00	0.00	

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<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site:</b>	S28-T3N-R68W (Frederiksen)	<b>North Reference:</b>	True
<b>Well:</b>	Frederiksen 1A-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	7.72	15.67	4,663.8	532.4	149.3	-149.3	0.00	0.00	
4,800.0	7.72	15.67	4,762.9	545.4	153.0	-153.0	0.00	0.00	
4,900.0	7.72	15.67	4,862.0	558.3	156.6	-156.6	0.00	0.00	
5,000.0	7.72	15.67	4,961.1	571.2	160.2	-160.2	0.00	0.00	
5,044.3	7.72	15.67	5,005.0	577.0	161.8	-161.8	0.00	0.00	Teepee Buttes (*if present)
5,100.0	7.72	15.67	5,060.2	584.2	163.9	-163.9	0.00	0.00	
5,200.0	7.72	15.67	5,159.3	597.1	167.5	-167.5	0.00	0.00	
5,300.0	7.72	15.67	5,258.4	610.1	171.1	-171.1	0.00	0.00	
5,400.0	7.72	15.67	5,357.5	623.0	174.7	-174.7	0.00	0.00	
5,500.0	7.72	15.67	5,456.6	635.9	178.4	-178.4	0.00	0.00	
5,600.0	7.72	15.67	5,555.7	648.9	182.0	-182.0	0.00	0.00	
5,700.0	7.72	15.67	5,654.8	661.8	185.6	-185.6	0.00	0.00	
5,800.0	7.72	15.67	5,753.9	674.8	189.3	-189.3	0.00	0.00	
5,900.0	7.72	15.67	5,853.0	687.7	192.9	-192.9	0.00	0.00	
6,000.0	7.72	15.67	5,952.1	700.6	196.5	-196.5	0.00	0.00	
6,100.0	7.72	15.67	6,051.1	713.6	200.1	-200.1	0.00	0.00	
6,200.0	7.72	15.67	6,150.2	726.5	203.8	-203.8	0.00	0.00	
6,300.0	7.72	15.67	6,249.3	739.5	207.4	-207.4	0.00	0.00	
6,400.0	7.72	15.67	6,348.4	752.4	211.0	-211.0	0.00	0.00	
6,497.7	7.72	15.67	6,445.2	765.0	214.6	-214.6	0.00	0.00	Start build/turn @ 6497' MD
6,500.0	7.67	14.01	6,447.5	765.3	214.7	-214.7	10.00	-2.54	
6,600.0	11.02	312.12	6,546.4	778.3	209.2	-209.2	10.00	3.35	
6,700.0	19.57	291.56	6,642.8	790.8	186.5	-186.5	10.00	8.55	
6,800.0	29.04	283.60	6,733.9	802.7	147.2	-147.2	10.00	9.47	
6,900.0	38.76	279.36	6,816.8	813.6	92.6	-92.6	10.00	9.72	
7,000.0	48.58	276.62	6,889.1	823.0	24.3	-24.3	10.00	9.82	
7,004.5	49.02	276.51	6,892.0	823.4	20.9	-20.9	10.00	9.85	Sharon Springs
7,100.0	58.45	274.60	6,948.5	830.8	-55.6	55.6	10.00	9.87	
7,155.1	63.90	273.67	6,975.0	834.2	-103.7	103.7	10.00	9.89	Niobrara
7,200.0	68.34	272.97	6,993.2	836.6	-144.7	144.7	10.00	9.90	
7,286.6	76.92	271.74	7,019.0	840.0	-227.2	227.2	10.00	9.91	B Chalk
7,300.0	78.25	271.56	7,021.9	840.3	-240.3	240.3	10.00	9.91	
7,400.0	88.16	270.24	7,033.7	841.9	-339.5	339.5	10.00	9.91	
7,418.5	90.00	270.00	7,034.0	841.9	-358.0	358.0	10.00	9.92	LP @ 7034' TVD; 90°
7,500.0	90.00	270.00	7,034.0	841.9	-439.5	439.5	0.00	0.00	
7,600.0	90.00	270.00	7,034.0	841.9	-539.5	539.5	0.00	0.00	
7,700.0	90.00	270.00	7,034.0	841.9	-639.5	639.5	0.00	0.00	
7,800.0	90.00	270.00	7,034.0	841.9	-739.5	739.5	0.00	0.00	
7,900.0	90.00	270.00	7,034.0	841.9	-839.5	839.5	0.00	0.00	
8,000.0	90.00	270.00	7,034.0	841.9	-939.5	939.5	0.00	0.00	
8,100.0	90.00	270.00	7,034.0	841.9	-1,039.5	1,039.5	0.00	0.00	
8,200.0	90.00	270.00	7,034.0	841.9	-1,139.5	1,139.5	0.00	0.00	
8,300.0	90.00	270.00	7,034.0	841.9	-1,239.5	1,239.5	0.00	0.00	
8,400.0	90.00	270.00	7,034.0	841.9	-1,339.5	1,339.5	0.00	0.00	
8,500.0	90.00	270.00	7,034.0	841.9	-1,439.5	1,439.5	0.00	0.00	
8,600.0	90.00	270.00	7,034.0	841.9	-1,539.5	1,539.5	0.00	0.00	
8,700.0	90.00	270.00	7,034.0	841.9	-1,639.5	1,639.5	0.00	0.00	
8,800.0	90.00	270.00	7,034.0	841.9	-1,739.5	1,739.5	0.00	0.00	
8,900.0	90.00	270.00	7,034.0	841.9	-1,839.5	1,839.5	0.00	0.00	
9,000.0	90.00	270.00	7,034.0	841.9	-1,939.5	1,939.5	0.00	0.00	
9,100.0	90.00	270.00	7,034.0	841.9	-2,039.5	2,039.5	0.00	0.00	
9,200.0	90.00	270.00	7,034.0	841.9	-2,139.5	2,139.5	0.00	0.00	

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<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5005.0ft (Original Well Elev)
<b>Site:</b>	S28-T3N-R68W (Frederiksen)	<b>North Reference:</b>	True
<b>Well:</b>	Frederiksen 1A-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
9,300.0	90.00	270.00	7,034.0	841.9	-2,239.5	2,239.5	0.00	0.00	
9,400.0	90.00	270.00	7,034.0	841.9	-2,339.5	2,339.5	0.00	0.00	
9,500.0	90.00	270.00	7,034.0	841.9	-2,439.5	2,439.5	0.00	0.00	
9,600.0	90.00	270.00	7,034.0	841.9	-2,539.5	2,539.5	0.00	0.00	
9,700.0	90.00	270.00	7,034.0	841.9	-2,639.5	2,639.5	0.00	0.00	
9,800.0	90.00	270.00	7,034.0	841.9	-2,739.5	2,739.5	0.00	0.00	
9,900.0	90.00	270.00	7,034.0	841.9	-2,839.5	2,839.5	0.00	0.00	
10,000.0	90.00	270.00	7,034.0	841.9	-2,939.5	2,939.5	0.00	0.00	
10,100.0	90.00	270.00	7,034.0	841.9	-3,039.5	3,039.5	0.00	0.00	
10,200.0	90.00	270.00	7,034.0	841.9	-3,139.5	3,139.5	0.00	0.00	
10,300.0	90.00	270.00	7,034.0	841.9	-3,239.5	3,239.5	0.00	0.00	
10,400.0	90.00	270.00	7,034.0	841.9	-3,339.5	3,339.5	0.00	0.00	
10,500.0	90.00	270.00	7,034.0	841.9	-3,439.5	3,439.5	0.00	0.00	
10,600.0	90.00	270.00	7,034.0	841.9	-3,539.5	3,539.5	0.00	0.00	
10,700.0	90.00	270.00	7,034.0	841.9	-3,639.5	3,639.5	0.00	0.00	
10,800.0	90.00	270.00	7,034.0	841.9	-3,739.5	3,739.5	0.00	0.00	
10,900.0	90.00	270.00	7,034.0	841.9	-3,839.5	3,839.5	0.00	0.00	
11,000.0	90.00	270.00	7,034.0	841.9	-3,939.5	3,939.5	0.00	0.00	
11,100.0	90.00	270.00	7,034.0	841.9	-4,039.5	4,039.5	0.00	0.00	
11,200.0	90.00	270.00	7,034.0	841.9	-4,139.5	4,139.5	0.00	0.00	
11,300.0	90.00	270.00	7,034.0	841.9	-4,239.5	4,239.5	0.00	0.00	
11,400.0	90.00	270.00	7,034.0	841.9	-4,339.5	4,339.5	0.00	0.00	
11,500.0	90.00	270.00	7,034.0	841.9	-4,439.5	4,439.5	0.00	0.00	
11,600.0	90.00	270.00	7,034.0	841.9	-4,539.5	4,539.5	0.00	0.00	
11,638.5	90.00	270.00	7,034.0	841.9	-4,578.0	4,578.0	0.00	0.00	TD at 11638.5 - Frederiksen 1A-28H-A368 PBH

### 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									
Frederiksen 1A-28H-A368	0.00	0.00	7,034.0	841.9	-4,578.0	1,317,498.90	3,135,289.47	40.203910	-105.015660
- plan hits target center									
- Point									

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
255.0	255.0	Fox Hills - BASE			
4,019.0	3,989.0	Sussex			
4,251.1	4,219.0	Sussex Marker			
4,504.4	4,470.0	Shannon			
5,044.3	5,005.0	Teepee Buttes (*if present)			
7,004.5	6,892.0	Sharon Springs			
7,155.1	6,975.0	Niobrara			
7,286.6	7,019.0	B Chalk			

## Planning Report

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

### Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP @ 200'
972.4	970.0	50.0	14.0	EOB; Inc=7.72°
6,497.7	6,445.2	765.0	214.6	Start build/turn @ 6497' MD
7,418.5	7,034.0	841.9	-358.0	LP @ 7034' TVD; 90°
11,638.5	7,034.0	841.9	-4,578.0	TD at 11638.5

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

**DJ Wattenberg**

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

**Frederiksen 1A-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 1A-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 1A-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	11,638.5	Plan #1 (Hz)	MWD	Geolink MWD

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
S28-T3N-R68W (Frederiksen)						
FREDERIKSEN #1 (Existing) - DD - GYRO						Out of range
FREDERIKSEN 1A-28H (Existing) - Hz - Hz						Out of range
Frederiksen 1B-28H-A368 - Hz - Plan #1	200.0	200.0	7.3	6.6	11.161	CC, ES
Frederiksen 1B-28H-A368 - Hz - Plan #1	11,638.5	11,823.7	372.2	181.6	1.953	SF
Frederiksen 1B-28H-H368 - Hz - Plan #1						Out of range
Frederiksen 1C-28H-A368 - Hz - Plan #1	200.0	200.0	18.2	17.6	27.904	CC, ES
Frederiksen 1C-28H-A368 - Hz - Plan #1	700.0	700.8	33.5	31.1	13.923	SF
Frederiksen 1C-28H-H368 - Hz - Plan #1						Out of range
Frederiksen 1D-28H-A368 - Hz - Plan #1	200.0	200.0	29.1	28.5	44.646	CC, ES
Frederiksen 1D-28H-A368 - Hz - Plan #1	600.0	599.7	42.7	40.7	20.876	SF
Frederiksen 1E-28H-A368 - Hz - Plan #1	200.0	200.0	40.1	39.4	61.388	CC, ES
Frederiksen 1E-28H-A368 - Hz - Plan #1	600.0	598.0	56.7	54.6	27.689	SF
Frederiksen 1F-28H-A368 - Hz - Plan #1	200.0	200.0	47.4	46.7	72.549	CC, ES
Frederiksen 1F-28H-A368 - Hz - Plan #1	600.0	595.1	74.1	72.0	36.248	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 1A-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 1A-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		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-7.3	0.0	7.3					
100.0	100.0	100.0	100.0	0.2	0.2	180.00	-7.3	0.0	7.3	7.0	0.30	23.991		
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-7.3	0.0	7.3	6.6	0.65	11.161 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	165.99	-7.3	0.0	8.1	7.1	1.00	8.115		
400.0	400.0	400.1	400.1	0.7	0.7	167.80	-6.5	0.3	9.9	8.5	1.35	7.300		
500.0	499.9	500.3	500.2	0.9	0.9	167.96	-4.1	1.4	11.7	10.0	1.70	6.855		
600.0	599.7	600.5	600.3	1.1	1.0	167.13	-0.1	3.1	13.5	11.5	2.05	6.588		
700.0	699.4	700.7	700.4	1.3	1.2	165.67	5.6	5.5	15.5	13.0	2.41	6.418		
800.0	798.9	800.9	800.3	1.5	1.5	163.81	12.8	8.7	17.5	14.7	2.77	6.307		
900.0	898.3	900.9	899.9	1.8	1.7	162.63	20.9	12.1	20.3	17.1	3.13	6.461		
1,000.0	997.4	1,000.8	999.4	2.0	1.9	162.96	29.1	15.6	24.6	21.1	3.50	7.044		
1,100.0	1,096.5	1,100.7	1,098.9	2.3	2.1	163.45	37.2	19.1	29.5	25.6	3.86	7.629		
1,200.0	1,195.6	1,200.6	1,198.4	2.6	2.3	163.80	45.3	22.6	34.3	30.1	4.23	8.112		
1,300.0	1,294.7	1,300.5	1,297.9	2.9	2.6	164.07	53.4	26.1	39.1	34.5	4.59	8.518		
1,400.0	1,393.8	1,400.4	1,397.4	3.2	2.8	164.28	61.6	29.6	44.0	39.0	4.96	8.864		
1,500.0	1,492.9	1,500.2	1,496.8	3.4	3.0	164.44	69.7	33.1	48.8	43.5	5.33	9.162		
1,600.0	1,592.0	1,600.1	1,596.3	3.7	3.2	164.58	77.8	36.6	53.6	47.9	5.69	9.421		
1,700.0	1,691.1	1,700.0	1,695.8	4.0	3.5	164.69	85.9	40.1	58.5	52.4	6.06	9.649		
1,800.0	1,790.2	1,799.9	1,795.3	4.3	3.7	164.79	94.1	43.6	63.3	56.9	6.43	9.851		
1,900.0	1,889.2	1,899.8	1,894.8	4.6	3.9	164.87	102.2	47.1	68.1	61.3	6.79	10.031		
2,000.0	1,988.3	1,999.6	1,994.3	4.9	4.2	164.94	110.3	50.6	73.0	65.8	7.16	10.192		
2,100.0	2,087.4	2,099.5	2,093.8	5.2	4.4	165.00	118.4	54.1	77.8	70.3	7.53	10.338		
2,200.0	2,186.5	2,199.4	2,193.3	5.5	4.6	165.06	126.6	57.6	82.6	74.7	7.89	10.470		
2,300.0	2,285.6	2,299.3	2,292.8	5.7	4.9	165.11	134.7	61.1	87.5	79.2	8.26	10.590		
2,400.0	2,384.7	2,399.2	2,392.3	6.0	5.1	165.15	142.8	64.6	92.3	83.7	8.63	10.700		
2,500.0	2,483.8	2,499.1	2,491.8	6.3	5.3	165.19	150.9	68.1	97.1	88.1	8.99	10.801		
2,600.0	2,582.9	2,598.9	2,591.2	6.6	5.6	165.23	159.1	71.6	102.0	92.6	9.36	10.894		
2,700.0	2,682.0	2,698.8	2,690.7	6.9	5.8	165.26	167.2	75.1	106.8	97.1	9.73	10.980		
2,800.0	2,781.1	2,798.7	2,790.2	7.2	6.0	165.29	175.3	78.6	111.6	101.5	10.09	11.060		
2,900.0	2,880.2	2,898.6	2,889.7	7.5	6.3	165.32	183.4	82.1	116.5	106.0	10.46	11.134		
3,000.0	2,979.3	2,998.5	2,989.2	7.8	6.5	165.34	191.6	85.6	121.3	110.5	10.83	11.203		
3,100.0	3,078.4	3,098.4	3,088.7	8.1	6.7	165.37	199.7	89.1	126.1	114.9	11.19	11.267		
3,200.0	3,177.5	3,198.2	3,188.2	8.4	6.9	165.39	207.8	92.6	131.0	119.4	11.56	11.328		
3,300.0	3,276.5	3,298.1	3,287.7	8.7	7.2	165.41	215.9	96.1	135.8	123.9	11.93	11.384		
3,400.0	3,375.6	3,398.0	3,387.2	8.9	7.4	165.43	224.1	99.5	140.6	128.3	12.30	11.438		
3,500.0	3,474.7	3,497.9	3,486.7	9.2	7.6	165.45	232.2	103.0	145.5	132.8	12.66	11.488		
3,600.0	3,573.8	3,597.8	3,586.2	9.5	7.9	165.46	240.3	106.5	150.3	137.3	13.03	11.535		
3,700.0	3,672.9	3,697.7	3,685.6	9.8	8.1	165.48	248.4	110.0	155.1	141.7	13.40	11.580		
3,800.0	3,772.0	3,797.5	3,785.1	10.1	8.3	165.49	256.6	113.5	160.0	146.2	13.76	11.622		
3,900.0	3,871.1	3,897.4	3,884.6	10.4	8.6	165.50	264.7	117.0	164.8	150.7	14.13	11.662		
4,000.0	3,970.2	3,997.3	3,984.1	10.7	8.8	165.52	272.8	120.5	169.6	155.1	14.50	11.700		
4,100.0	4,069.3	4,097.2	4,083.6	11.0	9.0	165.53	280.9	124.0	174.5	159.6	14.87	11.736		
4,200.0	4,168.4	4,197.1	4,183.1	11.3	9.3	165.54	289.0	127.5	179.3	164.1	15.23	11.771		
4,300.0	4,267.5	4,297.0	4,282.6	11.6	9.5	165.55	297.2	131.0	184.1	168.5	15.60	11.804		
4,400.0	4,366.6	4,396.8	4,382.1	11.9	9.7	165.56	305.3	134.5	189.0	173.0	15.97	11.835		
4,500.0	4,465.7	4,496.7	4,481.6	12.2	10.0	165.57	313.4	138.0	193.8	177.5	16.33	11.865		
4,600.0	4,564.8	4,596.6	4,581.1	12.5	10.2	165.58	321.5	141.5	198.6	181.9	16.70	11.893		
4,700.0	4,663.8	4,696.5	4,680.6	12.7	10.4	165.59	329.7	145.0	203.5	186.4	17.07	11.921		
4,800.0	4,762.9	4,796.4	4,780.0	13.0	10.7	165.60	337.8	148.5	208.3	190.9	17.44	11.947		
4,900.0	4,862.0	4,896.3	4,879.5	13.3	10.9	165.61	345.9	152.0	213.1	195.3	17.80	11.972		
5,000.0	4,961.1	4,996.1	4,979.0	13.6	11.1	165.61	354.0	155.5	218.0	199.8	18.17	11.996		
5,100.0	5,060.2	5,096.0	5,078.5	13.9	11.4	165.62	362.2	159.0	222.8	204.3	18.54	12.019		

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 1A-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 1A-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		
5,200.0	5,159.3	5,195.9	5,178.0	14.2	11.6	165.63	370.3	162.5	227.6	208.7	18.91	12.042		
5,300.0	5,258.4	5,295.8	5,277.5	14.5	11.8	165.63	378.4	166.0	232.5	213.2	19.27	12.063		
5,400.0	5,357.5	5,395.7	5,377.0	14.8	12.1	165.64	386.5	169.5	237.3	217.7	19.64	12.084		
5,500.0	5,456.6	5,495.6	5,476.5	15.1	12.3	165.65	394.7	173.0	242.2	222.1	20.01	12.103		
5,600.0	5,555.7	5,595.4	5,576.0	15.4	12.5	165.65	402.8	176.5	247.0	226.6	20.37	12.122		
5,700.0	5,654.8	5,695.3	5,675.5	15.7	12.8	165.66	410.9	180.0	251.8	231.1	20.74	12.141		
5,800.0	5,753.9	5,795.2	5,775.0	16.0	13.0	165.66	419.0	183.5	256.7	235.5	21.11	12.159		
5,900.0	5,853.0	5,895.1	5,874.4	16.2	13.2	165.67	427.2	187.0	261.5	240.0	21.48	12.176		
6,000.0	5,952.1	5,995.0	5,973.9	16.5	13.5	165.68	435.3	190.4	266.3	244.5	21.84	12.192		
6,100.0	6,051.1	6,094.9	6,073.4	16.8	13.7	165.68	443.4	193.9	271.2	248.9	22.21	12.209		
6,200.0	6,150.2	6,194.7	6,172.9	17.1	13.9	165.68	451.5	197.4	276.0	253.4	22.58	12.224		
6,300.0	6,249.3	6,294.6	6,272.4	17.4	14.2	165.69	459.7	200.9	280.8	257.9	22.94	12.239		
6,400.0	6,348.4	6,394.5	6,371.9	17.7	14.4	165.69	467.8	204.4	285.7	262.3	23.31	12.254		
6,500.0	6,447.5	6,494.4	6,471.4	18.0	14.6	167.35	475.9	207.9	290.5	266.8	23.68	12.268		
6,600.0	6,546.4	6,593.7	6,570.3	18.2	14.9	-132.69	484.0	211.4	295.2	271.1	24.12	12.239		
6,700.0	6,642.8	6,690.4	6,666.6	18.4	15.1	-116.98	491.8	214.7	301.3	276.5	24.79	12.151		
6,800.0	6,733.9	6,792.6	6,768.1	18.6	15.3	-115.01	500.1	208.0	310.5	285.2	25.31	12.269		
6,900.0	6,816.8	6,902.1	6,873.7	18.7	15.4	-116.41	508.8	180.9	322.4	297.1	25.35	12.717		
7,000.0	6,889.1	7,019.8	6,979.2	18.9	15.5	-118.82	517.4	129.9	335.7	310.7	24.96	13.449		
7,100.0	6,948.5	7,146.8	7,078.8	19.2	15.6	-121.34	525.5	52.0	348.9	324.5	24.47	14.260		
7,200.0	6,993.2	7,282.9	7,163.7	19.6	15.9	-123.50	532.4	-53.7	360.4	335.9	24.52	14.699		
7,300.0	7,021.9	7,426.9	7,224.0	20.2	16.7	-125.00	537.4	-183.9	368.5	342.7	25.84	14.261		
7,400.0	7,033.7	7,575.9	7,250.3	21.1	18.3	-125.65	539.5	-330.2	372.1	343.2	28.84	12.901		
7,500.0	7,034.0	7,685.2	7,251.0	22.2	19.9	-125.67	539.6	-439.5	372.2	340.4	31.80	11.702		
7,600.0	7,034.0	7,785.2	7,251.0	23.6	21.6	-125.67	539.6	-539.5	372.2	337.4	34.77	10.703		
7,700.0	7,034.0	7,885.2	7,251.0	25.1	23.4	-125.67	539.6	-639.5	372.2	334.2	37.94	9.810		
7,800.0	7,034.0	7,985.2	7,251.0	26.9	25.4	-125.67	539.6	-739.5	372.2	330.9	41.25	9.021		
7,900.0	7,034.0	8,085.2	7,251.0	28.8	27.4	-125.67	539.6	-839.5	372.2	327.5	44.69	8.328		
8,000.0	7,034.0	8,185.2	7,251.0	30.8	29.6	-125.67	539.6	-939.5	372.2	324.0	48.21	7.719		
8,100.0	7,034.0	8,285.2	7,251.0	32.8	31.7	-125.67	539.6	-1,039.5	372.2	320.4	51.81	7.183		
8,200.0	7,034.0	8,385.2	7,251.0	35.0	34.0	-125.67	539.6	-1,139.5	372.2	316.7	55.47	6.710		
8,300.0	7,034.0	8,485.2	7,251.0	37.1	36.2	-125.67	539.6	-1,239.5	372.2	313.0	59.17	6.289		
8,400.0	7,034.0	8,585.2	7,251.0	39.4	38.5	-125.67	539.6	-1,339.5	372.2	309.2	62.92	5.915		
8,500.0	7,034.0	8,685.2	7,251.0	41.6	40.8	-125.67	539.6	-1,439.5	372.2	305.5	66.70	5.580		
8,600.0	7,034.0	8,785.2	7,251.0	43.9	43.1	-125.67	539.6	-1,539.5	372.2	301.7	70.50	5.279		
8,700.0	7,034.0	8,885.2	7,251.0	46.2	45.4	-125.67	539.6	-1,639.5	372.2	297.8	74.33	5.007		
8,800.0	7,034.0	8,985.2	7,251.0	48.5	47.8	-125.67	539.6	-1,739.5	372.2	294.0	78.18	4.760		
8,900.0	7,034.0	9,085.2	7,251.0	50.8	50.2	-125.67	539.6	-1,839.5	372.2	290.1	82.04	4.536		
9,000.0	7,034.0	9,185.2	7,251.0	53.2	52.5	-125.67	539.6	-1,939.5	372.2	286.2	85.92	4.331		
9,100.0	7,034.0	9,285.2	7,251.0	55.5	54.9	-125.67	539.6	-2,039.5	372.2	282.3	89.82	4.144		
9,200.0	7,034.0	9,385.2	7,251.0	57.9	57.3	-125.67	539.6	-2,139.5	372.2	278.4	93.72	3.971		
9,300.0	7,034.0	9,485.2	7,251.0	60.2	59.7	-125.67	539.6	-2,239.5	372.2	274.5	97.64	3.812		
9,400.0	7,034.0	9,585.2	7,251.0	62.6	62.1	-125.67	539.6	-2,339.5	372.2	270.6	101.56	3.664		
9,500.0	7,034.0	9,685.2	7,251.0	65.0	64.5	-125.67	539.6	-2,439.5	372.2	266.7	105.49	3.528		
9,600.0	7,034.0	9,785.2	7,251.0	67.4	66.9	-125.67	539.6	-2,539.5	372.2	262.7	109.43	3.401		
9,700.0	7,034.0	9,885.2	7,251.0	69.8	69.4	-125.67	539.6	-2,639.5	372.2	258.8	113.38	3.283		
9,800.0	7,034.0	9,985.2	7,251.0	72.2	71.8	-125.67	539.6	-2,739.5	372.2	254.8	117.33	3.172		
9,900.0	7,034.0	10,085.2	7,251.0	74.6	74.2	-125.67	539.6	-2,839.5	372.2	250.9	121.28	3.069		
10,000.0	7,034.0	10,185.2	7,251.0	77.0	76.6	-125.67	539.6	-2,939.5	372.2	246.9	125.24	2.972		
10,100.0	7,034.0	10,285.2	7,251.0	79.5	79.1	-125.67	539.6	-3,039.5	372.2	243.0	129.20	2.880		
10,200.0	7,034.0	10,385.2	7,251.0	81.9	81.5	-125.67	539.6	-3,139.5	372.2	239.0	133.17	2.795		
10,300.0	7,034.0	10,485.2	7,251.0	84.3	83.9	-125.67	539.6	-3,239.5	372.2	235.0	137.14	2.714		

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 1A-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 1A-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		
10,400.0	7,034.0	10,585.2	7,251.0	86.7	86.4	-125.67	539.6	-3,339.5	372.2	231.0	141.12	2.637		
10,500.0	7,034.0	10,685.2	7,251.0	89.2	88.8	-125.67	539.6	-3,439.5	372.2	227.1	145.09	2.565		
10,600.0	7,034.0	10,785.2	7,251.0	91.6	91.3	-125.67	539.6	-3,539.5	372.2	223.1	149.07	2.497		
10,700.0	7,034.0	10,885.2	7,251.0	94.0	93.7	-125.67	539.6	-3,639.5	372.2	219.1	153.06	2.432		
10,800.0	7,034.0	10,985.2	7,251.0	96.5	96.1	-125.67	539.6	-3,739.5	372.2	215.1	157.04	2.370		
10,900.0	7,034.0	11,085.2	7,251.0	98.9	98.6	-125.67	539.6	-3,839.5	372.2	211.1	161.03	2.311		
11,000.0	7,034.0	11,185.2	7,251.0	101.3	101.0	-125.67	539.6	-3,939.5	372.2	207.1	165.02	2.255		
11,100.0	7,034.0	11,285.2	7,251.0	103.8	103.5	-125.67	539.6	-4,039.5	372.2	203.2	169.01	2.202		
11,200.0	7,034.0	11,385.2	7,251.0	106.2	105.9	-125.67	539.6	-4,139.5	372.2	199.2	173.00	2.151		
11,300.0	7,034.0	11,485.2	7,251.0	108.7	108.4	-125.67	539.6	-4,239.5	372.2	195.2	176.99	2.103		
11,400.0	7,034.0	11,585.2	7,251.0	111.1	110.8	-125.67	539.6	-4,339.5	372.2	191.2	180.99	2.056		
11,500.0	7,034.0	11,685.2	7,251.0	113.6	113.3	-125.67	539.6	-4,439.5	372.2	187.2	184.99	2.012		
11,600.0	7,034.0	11,785.2	7,251.0	116.0	115.8	-125.67	539.6	-4,539.5	372.2	183.2	188.98	1.969		
11,638.5	7,034.0	11,823.7	7,251.0	117.0	116.7	-125.67	539.6	-4,578.0	372.2	181.6	190.52	1.953 SF		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1A-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 1A-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		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-18.2	0.0	18.2					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-18.2	0.0	18.2	17.9	0.30	59.977		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-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	165.04	-18.2	0.0	19.1	18.1	1.00	19.022		
400.0	400.0	400.0	400.0	0.7	0.7	166.83	-18.2	0.0	21.6	20.2	1.35	15.988		
500.0	499.9	500.2	500.2	0.9	0.9	167.77	-17.6	0.6	25.2	23.5	1.70	14.814		
600.0	599.7	600.5	600.4	1.1	1.0	166.97	-15.7	2.4	29.2	27.1	2.05	14.212		
700.0	699.4	700.8	700.7	1.3	1.2	165.06	-12.5	5.5	33.5	31.1	2.41	13.923 SF		
800.0	798.9	800.7	800.4	1.5	1.4	163.33	-8.7	9.1	38.9	36.2	2.77	14.055		
900.0	898.3	900.4	900.0	1.8	1.6	162.69	-4.8	12.8	46.0	42.9	3.13	14.684		
1,000.0	997.4	1,000.0	999.5	2.0	1.8	162.75	-1.0	16.5	54.7	51.2	3.50	15.634		
1,100.0	1,096.5	1,099.6	1,098.9	2.3	2.0	162.93	2.9	20.2	63.8	59.9	3.86	16.506		
1,200.0	1,195.6	1,199.2	1,198.4	2.6	2.2	163.06	6.7	23.8	72.9	68.6	4.23	17.224		
1,300.0	1,294.7	1,298.8	1,297.8	2.9	2.4	163.16	10.5	27.5	82.0	77.4	4.60	17.824		
1,400.0	1,393.8	1,398.4	1,397.2	3.2	2.6	163.25	14.4	31.2	91.1	86.1	4.97	18.334		
1,500.0	1,492.9	1,498.0	1,496.7	3.4	2.8	163.32	18.2	34.9	100.2	94.9	5.34	18.773		
1,600.0	1,592.0	1,597.5	1,596.1	3.7	2.9	163.37	22.0	38.5	109.3	103.6	5.71	19.153		
1,700.0	1,691.1	1,697.1	1,695.6	4.0	3.1	163.42	25.9	42.2	118.4	112.3	6.08	19.487		
1,800.0	1,790.2	1,796.7	1,795.0	4.3	3.3	163.46	29.7	45.9	127.5	121.1	6.45	19.782		
1,900.0	1,889.2	1,896.3	1,894.4	4.6	3.5	163.50	33.6	49.6	136.6	129.8	6.82	20.044		
2,000.0	1,988.3	1,995.9	1,993.9	4.9	3.7	163.53	37.4	53.2	145.8	138.6	7.19	20.279		
2,100.0	2,087.4	2,095.5	2,093.3	5.2	3.9	163.56	41.2	56.9	154.9	147.3	7.56	20.491		
2,200.0	2,186.5	2,195.0	2,192.8	5.5	4.1	163.58	45.1	60.6	164.0	156.0	7.93	20.683		
2,300.0	2,285.6	2,294.6	2,292.2	5.7	4.3	163.60	48.9	64.2	173.1	164.8	8.30	20.857		
2,400.0	2,384.7	2,394.2	2,391.7	6.0	4.5	163.62	52.7	67.9	182.2	173.5	8.67	21.016		
2,500.0	2,483.8	2,493.8	2,491.1	6.3	4.7	163.64	56.6	71.6	191.3	182.3	9.04	21.162		
2,600.0	2,582.9	2,593.4	2,590.5	6.6	4.9	163.66	60.4	75.3	200.4	191.0	9.41	21.297		
2,700.0	2,682.0	2,693.0	2,690.0	6.9	5.1	163.67	64.3	78.9	209.5	199.7	9.78	21.421		
2,800.0	2,781.1	2,792.5	2,789.4	7.2	5.3	163.69	68.1	82.6	218.6	208.5	10.15	21.536		
2,900.0	2,880.2	2,892.1	2,888.9	7.5	5.5	163.70	71.9	86.3	227.7	217.2	10.52	21.643		
3,000.0	2,979.3	2,991.7	2,988.3	7.8	5.7	163.71	75.8	90.0	236.8	225.9	10.89	21.742		
3,100.0	3,078.4	3,091.3	3,087.8	8.1	5.9	163.72	79.6	93.6	246.0	234.7	11.26	21.835		
3,200.0	3,177.5	3,190.9	3,187.2	8.4	6.1	163.73	83.4	97.3	255.1	243.4	11.63	21.922		
3,300.0	3,276.5	3,290.5	3,286.6	8.7	6.3	163.74	87.3	101.0	264.2	252.2	12.01	22.003		
3,400.0	3,375.6	3,390.1	3,386.1	8.9	6.5	163.75	91.1	104.6	273.3	260.9	12.38	22.080		
3,500.0	3,474.7	3,489.6	3,485.5	9.2	6.7	163.76	95.0	108.3	282.4	269.6	12.75	22.152		
3,600.0	3,573.8	3,589.2	3,585.0	9.5	6.9	163.77	98.8	112.0	291.5	278.4	13.12	22.220		
3,700.0	3,672.9	3,688.8	3,684.4	9.8	7.1	163.77	102.6	115.7	300.6	287.1	13.49	22.284		
3,800.0	3,772.0	3,788.4	3,783.9	10.1	7.3	163.78	106.5	119.3	309.7	295.9	13.86	22.345		
3,900.0	3,871.1	3,888.0	3,883.3	10.4	7.5	163.79	110.3	123.0	318.8	304.6	14.23	22.402		
4,000.0	3,970.2	3,987.6	3,982.7	10.7	7.7	163.79	114.1	126.7	327.9	313.3	14.60	22.457		
4,100.0	4,069.3	4,087.1	4,082.2	11.0	7.9	163.80	118.0	130.4	337.0	322.1	14.97	22.509		
4,200.0	4,168.4	4,186.7	4,181.6	11.3	8.1	163.80	121.8	134.0	346.2	330.8	15.35	22.558		
4,300.0	4,267.5	4,286.3	4,281.1	11.6	8.2	163.81	125.7	137.7	355.3	339.5	15.72	22.605		
4,400.0	4,366.6	4,385.9	4,380.5	11.9	8.4	163.81	129.5	141.4	364.4	348.3	16.09	22.650		
4,500.0	4,465.7	4,485.5	4,480.0	12.2	8.6	163.82	133.3	145.1	373.5	357.0	16.46	22.693		
4,600.0	4,564.8	4,585.1	4,579.4	12.5	8.8	163.82	137.2	148.7	382.6	365.8	16.83	22.733		
4,700.0	4,663.8	4,684.6	4,678.8	12.7	9.0	163.83	141.0	152.4	391.7	374.5	17.20	22.773		
4,800.0	4,762.9	4,784.2	4,778.3	13.0	9.2	163.83	144.8	156.1	400.8	383.2	17.57	22.810		
4,900.0	4,862.0	4,883.8	4,877.7	13.3	9.4	163.83	148.7	159.7	409.9	392.0	17.94	22.846		
5,000.0	4,961.1	4,983.4	4,977.2	13.6	9.6	163.84	152.5	163.4	419.0	400.7	18.31	22.880		
5,100.0	5,060.2	5,083.0	5,076.6	13.9	9.8	163.84	156.4	167.1	428.1	409.5	18.69	22.913		

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 1A-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 1A-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											
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning					
							+N/-S (ft)	+E/-W (ft)										
5,200.0	5,159.3	5,182.6	5,176.0	14.2	10.0	163.84	160.2	170.8	437.2	418.2	19.06	22.945						
5,300.0	5,258.4	5,282.2	5,275.5	14.5	10.2	163.85	164.0	174.4	446.4	426.9	19.43	22.976						
5,400.0	5,357.5	5,381.7	5,374.9	14.8	10.4	163.85	167.9	178.1	455.5	435.7	19.80	23.005						
5,500.0	5,456.6	5,481.3	5,474.4	15.1	10.6	163.85	171.7	181.8	464.6	444.4	20.17	23.033						
5,600.0	5,555.7	5,580.9	5,573.8	15.4	10.8	163.86	175.6	185.5	473.7	453.1	20.54	23.060						
5,700.0	5,654.8	5,680.5	5,673.3	15.7	11.0	163.86	179.4	189.1	482.8	461.9	20.91	23.087						
5,800.0	5,753.9	5,780.1	5,772.7	16.0	11.2	163.86	183.2	192.8	491.9	470.6	21.28	23.112						

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1A-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 1A-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	180.00	-29.1	0.0	29.1					
100.0	100.0	100.0	100.0	0.2	0.2	180.00	-29.1	0.0	29.1	28.8	0.30	95.963		
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-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	164.78	-29.1	0.0	30.0	29.0	1.00	29.930		
400.0	400.0	400.0	400.0	0.7	0.7	165.98	-29.1	0.0	32.5	31.2	1.35	24.073		
500.0	499.9	499.9	499.9	0.9	0.8	167.62	-29.1	0.0	36.8	35.1	1.70	21.632		
600.0	599.7	599.7	599.7	1.1	1.0	169.37	-29.1	0.0	42.7	40.7	2.05	20.876 SF		
700.0	699.4	699.4	699.4	1.3	1.2	171.00	-29.1	0.0	50.5	48.1	2.39	21.077		
800.0	798.9	798.9	798.9	1.5	1.4	172.42	-29.1	0.0	60.0	57.2	2.74	21.876		
900.0	898.3	898.3	898.3	1.8	1.5	173.61	-29.1	0.0	71.2	68.1	3.09	23.073		
1,000.0	997.4	997.4	997.4	2.0	1.7	174.58	-29.1	0.0	84.1	80.7	3.43	24.522		
1,100.0	1,096.5	1,096.5	1,096.5	2.3	1.9	175.33	-29.1	0.0	97.5	93.7	3.78	25.813		
1,200.0	1,195.6	1,195.6	1,195.6	2.6	2.1	175.89	-29.1	0.0	110.9	106.8	4.12	26.891		
1,300.0	1,294.7	1,294.7	1,294.7	2.9	2.2	176.34	-29.1	0.0	124.3	119.9	4.47	27.804		
1,400.0	1,393.8	1,393.8	1,393.8	3.2	2.4	176.69	-29.1	0.0	137.7	132.9	4.82	28.586		
1,500.0	1,492.9	1,492.9	1,492.9	3.4	2.6	176.99	-29.1	0.0	151.2	146.0	5.17	29.265		
1,600.0	1,592.0	1,592.0	1,592.0	3.7	2.8	177.23	-29.1	0.0	164.6	159.1	5.51	29.859		
1,700.0	1,691.1	1,691.1	1,691.1	4.0	2.9	177.44	-29.1	0.0	178.0	172.1	5.86	30.383		
1,800.0	1,790.2	1,790.2	1,790.2	4.3	3.1	177.62	-29.1	0.0	191.4	185.2	6.21	30.848		
1,900.0	1,889.2	1,889.2	1,889.2	4.6	3.3	177.78	-29.1	0.0	204.9	198.3	6.55	31.265		
2,000.0	1,988.3	1,988.3	1,988.3	4.9	3.4	177.91	-29.1	0.0	218.3	211.4	6.90	31.640		
2,100.0	2,087.4	2,087.4	2,087.4	5.2	3.6	178.04	-29.1	0.0	231.7	224.5	7.25	31.979		
2,200.0	2,186.5	2,186.5	2,186.5	5.5	3.8	178.14	-29.1	0.0	245.2	237.6	7.59	32.288		
2,300.0	2,285.6	2,285.6	2,285.6	5.7	4.0	178.24	-29.1	0.0	258.6	250.6	7.94	32.569		
2,400.0	2,384.7	2,384.7	2,384.7	6.0	4.1	178.33	-29.1	0.0	272.0	263.7	8.29	32.827		
2,500.0	2,483.8	2,483.8	2,483.8	6.3	4.3	178.41	-29.1	0.0	285.5	276.8	8.63	33.065		
2,600.0	2,582.9	2,582.9	2,582.9	6.6	4.5	178.48	-29.1	0.0	298.9	289.9	8.98	33.284		
2,700.0	2,682.0	2,682.0	2,682.0	6.9	4.7	178.54	-29.1	0.0	312.3	303.0	9.33	33.487		
2,800.0	2,781.1	2,781.1	2,781.1	7.2	4.8	178.60	-29.1	0.0	325.8	316.1	9.67	33.675		
2,900.0	2,880.2	2,880.2	2,880.2	7.5	5.0	178.66	-29.1	0.0	339.2	329.2	10.02	33.851		
3,000.0	2,979.3	2,979.3	2,979.3	7.8	5.2	178.71	-29.1	0.0	352.6	342.3	10.37	34.014		
3,100.0	3,078.4	3,078.4	3,078.4	8.1	5.4	178.76	-29.1	0.0	366.1	355.4	10.71	34.167		
3,200.0	3,177.5	3,177.5	3,177.5	8.4	5.5	178.80	-29.1	0.0	379.5	368.4	11.06	34.311		
3,300.0	3,276.5	3,276.5	3,276.5	8.7	5.7	178.84	-29.1	0.0	392.9	381.5	11.41	34.446		
3,400.0	3,375.6	3,375.6	3,375.6	8.9	5.9	178.88	-29.1	0.0	406.4	394.6	11.75	34.572		
3,500.0	3,474.7	3,474.7	3,474.7	9.2	6.0	178.92	-29.1	0.0	419.8	407.7	12.10	34.692		
3,600.0	3,573.8	3,572.3	3,572.3	9.5	6.2	178.89	-29.4	0.4	433.4	420.9	12.45	34.822		
3,700.0	3,672.9	3,669.2	3,669.2	9.8	6.4	178.67	-30.4	2.1	447.4	434.6	12.79	34.982		
3,800.0	3,772.0	3,765.9	3,765.8	10.1	6.6	178.27	-32.3	5.3	461.9	448.8	13.14	35.166		
3,900.0	3,871.1	3,862.3	3,862.1	10.4	6.7	177.70	-35.0	9.8	476.9	463.5	13.48	35.372		
4,000.0	3,970.2	3,958.4	3,958.0	10.7	6.9	176.99	-38.5	15.8	492.5	478.7	13.84	35.597		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1A-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 1A-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		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-40.1	0.0	40.1					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-40.1	0.0	40.1	39.8	0.30	131.949		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-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	164.66	-40.1	0.0	40.9	39.9	1.00	40.839		
400.0	400.0	400.0	400.0	0.7	0.7	165.57	-40.1	0.0	43.4	42.1	1.35	32.161		
500.0	499.9	499.1	499.1	0.9	0.8	166.37	-40.8	0.4	48.4	46.7	1.70	28.520		
600.0	599.7	598.0	597.9	1.1	1.0	166.58	-43.2	1.5	56.7	54.6	2.05	27.689 SF		
700.0	699.4	696.4	696.3	1.3	1.2	166.39	-47.0	3.3	68.1	65.7	2.39	28.429		
800.0	798.9	794.2	793.9	1.5	1.4	165.97	-52.3	5.9	82.7	80.0	2.74	30.127		
900.0	898.3	891.7	891.1	1.8	1.6	165.46	-59.1	9.2	100.5	97.4	3.10	32.438		
1,000.0	997.4	989.1	988.2	2.0	1.8	165.13	-66.6	12.8	120.6	117.1	3.45	34.929		
1,100.0	1,096.5	1,087.0	1,085.7	2.3	2.0	164.96	-74.1	16.4	141.1	137.3	3.81	37.023		
1,200.0	1,195.6	1,184.9	1,183.2	2.6	2.2	164.84	-81.7	20.1	161.7	157.5	4.17	38.746		
1,300.0	1,294.7	1,282.7	1,280.7	2.9	2.4	164.74	-89.3	23.7	182.3	177.7	4.53	40.188		
1,400.0	1,393.8	1,380.6	1,378.2	3.2	2.7	164.67	-96.8	27.4	202.8	197.9	4.90	41.411		
1,500.0	1,492.9	1,478.5	1,475.7	3.4	2.9	164.60	-104.4	31.0	223.4	218.1	5.26	42.462		
1,600.0	1,592.0	1,576.3	1,573.2	3.7	3.1	164.55	-111.9	34.6	243.9	238.3	5.62	43.374		
1,700.0	1,691.1	1,674.2	1,670.7	4.0	3.3	164.51	-119.5	38.3	264.5	258.5	5.99	44.173		
1,800.0	1,790.2	1,772.1	1,768.2	4.3	3.5	164.47	-127.0	41.9	285.0	278.7	6.35	44.878		
1,900.0	1,889.2	1,869.9	1,865.7	4.6	3.8	164.44	-134.6	45.6	305.6	298.9	6.72	45.506		
2,000.0	1,988.3	1,967.8	1,963.2	4.9	4.0	164.41	-142.1	49.2	326.1	319.1	7.08	46.067		
2,100.0	2,087.4	2,065.6	2,060.7	5.2	4.2	164.39	-149.7	52.9	346.7	339.3	7.44	46.573		
2,200.0	2,186.5	2,163.5	2,158.2	5.5	4.4	164.36	-157.3	56.5	367.3	359.4	7.81	47.031		
2,300.0	2,285.6	2,261.4	2,255.7	5.7	4.6	164.35	-164.8	60.1	387.8	379.6	8.17	47.447		
2,400.0	2,384.7	2,359.2	2,353.2	6.0	4.9	164.33	-172.4	63.8	408.4	399.8	8.54	47.827		
2,500.0	2,483.8	2,457.1	2,450.7	6.3	5.1	164.31	-179.9	67.4	428.9	420.0	8.90	48.175		
2,600.0	2,582.9	2,555.0	2,548.2	6.6	5.3	164.30	-187.5	71.1	449.5	440.2	9.27	48.496		
2,700.0	2,682.0	2,652.8	2,645.8	6.9	5.5	164.28	-195.0	74.7	470.0	460.4	9.63	48.791		
2,800.0	2,781.1	2,750.7	2,743.3	7.2	5.8	164.27	-202.6	78.4	490.6	480.6	10.00	49.065		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1A-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 1A-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 1F-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	-180.00	-47.4	0.0	47.4					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-47.4	0.0	47.4	47.1	0.30	155.940		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-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	164.33	-48.2	0.2	49.0	48.0	1.00	49.010		
400.0	400.0	398.2	398.2	0.7	0.7	164.33	-50.7	0.9	54.1	52.7	1.35	40.093		
500.0	499.9	496.9	496.7	0.9	0.9	164.34	-54.8	2.1	62.4	60.7	1.70	36.799		
600.0	599.7	595.1	594.8	1.1	1.1	164.33	-60.5	3.6	74.1	72.0	2.04	36.248 SF		
700.0	699.4	692.6	692.0	1.3	1.3	164.32	-67.8	5.6	89.1	86.7	2.39	37.235		
800.0	798.9	789.3	788.3	1.5	1.5	164.30	-76.5	8.1	107.3	104.5	2.74	39.161		
900.0	898.3	885.1	883.5	1.8	1.7	164.28	-86.8	10.9	128.8	125.7	3.09	41.699		
1,000.0	997.4	980.9	978.5	2.0	2.0	164.28	-98.4	14.1	153.2	149.8	3.44	44.552		
1,100.0	1,096.5	1,077.7	1,074.5	2.3	2.2	164.34	-110.3	17.4	178.3	174.5	3.80	46.973		
1,200.0	1,195.6	1,174.5	1,170.5	2.6	2.5	164.38	-122.3	20.7	203.3	199.2	4.15	48.969		
1,300.0	1,294.7	1,271.3	1,266.6	2.9	2.8	164.42	-134.2	24.0	228.4	223.9	4.51	50.643		
1,400.0	1,393.8	1,368.1	1,362.6	3.2	3.0	164.45	-146.2	27.3	253.5	248.6	4.87	52.065		
1,500.0	1,492.9	1,464.9	1,458.6	3.4	3.3	164.47	-158.1	30.7	278.6	273.3	5.23	53.288		
1,600.0	1,592.0	1,561.8	1,554.6	3.7	3.6	164.49	-170.1	34.0	303.6	298.1	5.59	54.352		
1,700.0	1,691.1	1,658.6	1,650.6	4.0	3.8	164.50	-182.0	37.3	328.7	322.8	5.95	55.284		
1,800.0	1,790.2	1,755.4	1,746.6	4.3	4.1	164.52	-193.9	40.6	353.8	347.5	6.31	56.109		
1,900.0	1,889.2	1,852.2	1,842.6	4.6	4.4	164.53	-205.9	43.9	378.9	372.2	6.67	56.843		
2,000.0	1,988.3	1,949.0	1,938.6	4.9	4.7	164.54	-217.8	47.2	404.0	396.9	7.03	57.501		
2,100.0	2,087.4	2,045.8	2,034.6	5.2	4.9	164.55	-229.8	50.5	429.0	421.6	7.39	58.094		
2,200.0	2,186.5	2,142.6	2,130.6	5.5	5.2	164.56	-241.7	53.8	454.1	446.4	7.75	58.631		
2,300.0	2,285.6	2,239.4	2,226.6	5.7	5.5	164.56	-253.7	57.1	479.2	471.1	8.11	59.120		



## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1A-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 1A-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 1A-28H-A368  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.32°

