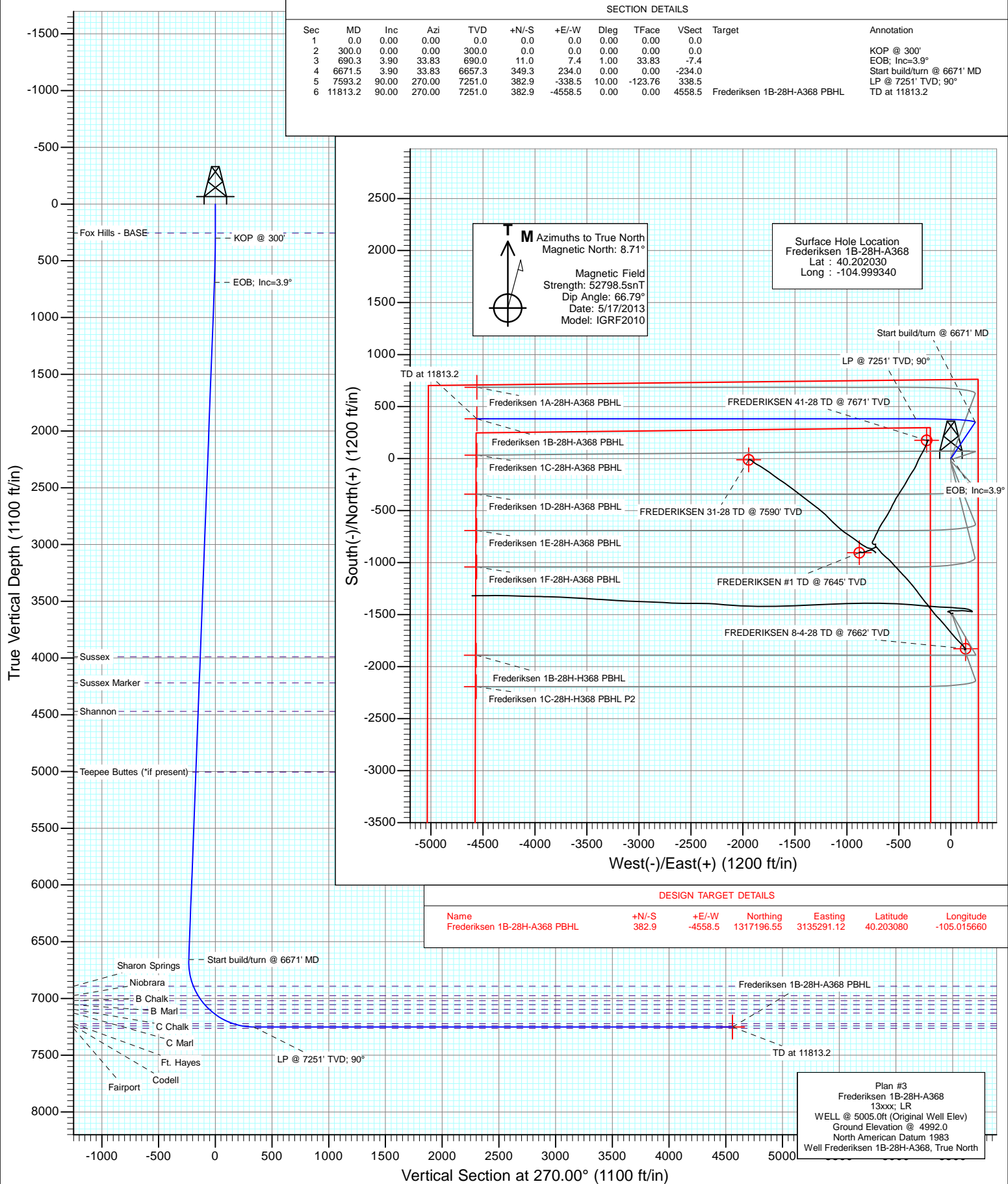




Project: DJ Wattenberg  
Site: S28-T3N-R68W (Frederiksen)  
Well: Frederiksen 1B-28H-A368  
Wellbore: Hz  
Design: Plan #3



## Planning Report

**Database:** USA EDM 5000 Multi Users DB  
**Company:** EnCana Oil & Gas (USA) Inc  
**Project:** DJ Wattenberg  
**Site:** S28-T3N-R68W (Frederiksen)  
**Well:** Frederiksen 1B-28H-A368  
**Wellbore:** Hz  
**Design:** Plan #3

**Local Co-ordinate Reference:** Well Frederiksen 1B-28H-A368  
**TVD Reference:** WELL @ 5005.0ft (Original Well Elev)  
**MD Reference:** WELL @ 5005.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

**Project** DJ Wattenberg

**Map System:** US State Plane 1983  
**Geo Datum:** North American Datum 1983  
**Map Zone:** Colorado Northern Zone

**System Datum:** Mean Sea Level

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

<b>Site Position:</b>	<b>Northing:</b>	1,315,349.57 ft	<b>Latitude:</b>	40.197940
<b>From:</b> Lat/Long	<b>Easting:</b>	3,139,876.89 ft	<b>Longitude:</b>	-104.999280
<b>Position Uncertainty:</b> 0.0 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.32 °

**Well** Frederiksen 1B-28H-A368

<b>Well Position</b>	+N/-S	0.0 ft	<b>Northing:</b>	1,316,839.37 ft	<b>Latitude:</b>	40.202030
	+E/-W	0.0 ft	<b>Easting:</b>	3,139,851.71 ft	<b>Longitude:</b>	-104.999340
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	4,992.0 ft

**Wellbore** Hz

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/17/2013	8.71	66.79	52,799

**Design** Plan #3

**Audit Notes:**

**Version:** Phase: PLAN Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	270.00

**Plan Sections**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
690.3	3.90	33.83	690.0	11.0	7.4	1.00	1.00	0.00	33.83	
6,671.5	3.90	33.83	6,657.3	349.3	234.0	0.00	0.00	0.00	0.00	
7,593.2	90.00	270.00	7,251.0	382.9	-338.5	10.00	9.34	-13.43	-123.76	
11,813.2	90.00	270.00	7,251.0	382.9	-4,558.5	0.00	0.00	0.00	0.00	Frederiksen 1B-28H-4

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1B-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 1B-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #3		

## 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	
255.0	0.00	0.00	255.0	0.0	0.0	0.0	0.00	0.00	Fox Hills - BASE
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300'
400.0	1.00	33.83	400.0	0.7	0.5	-0.5	1.00	1.00	
500.0	2.00	33.83	500.0	2.9	1.9	-1.9	1.00	1.00	
600.0	3.00	33.83	599.9	6.5	4.4	-4.4	1.00	1.00	
690.3	3.90	33.83	690.0	11.0	7.4	-7.4	1.00	1.00	EOB; Inc=3.9°
700.0	3.90	33.83	699.7	11.6	7.8	-7.8	0.00	0.00	
800.0	3.90	33.83	799.4	17.2	11.6	-11.6	0.00	0.00	
900.0	3.90	33.83	899.2	22.9	15.3	-15.3	0.00	0.00	
1,000.0	3.90	33.83	999.0	28.6	19.1	-19.1	0.00	0.00	
1,100.0	3.90	33.83	1,098.7	34.2	22.9	-22.9	0.00	0.00	
1,200.0	3.90	33.83	1,198.5	39.9	26.7	-26.7	0.00	0.00	
1,300.0	3.90	33.83	1,298.3	45.5	30.5	-30.5	0.00	0.00	
1,400.0	3.90	33.83	1,398.1	51.2	34.3	-34.3	0.00	0.00	
1,500.0	3.90	33.83	1,497.8	56.8	38.1	-38.1	0.00	0.00	
1,600.0	3.90	33.83	1,597.6	62.5	41.9	-41.9	0.00	0.00	
1,700.0	3.90	33.83	1,697.4	68.1	45.7	-45.7	0.00	0.00	
1,800.0	3.90	33.83	1,797.1	73.8	49.4	-49.4	0.00	0.00	
1,900.0	3.90	33.83	1,896.9	79.4	53.2	-53.2	0.00	0.00	
2,000.0	3.90	33.83	1,996.7	85.1	57.0	-57.0	0.00	0.00	
2,100.0	3.90	33.83	2,096.4	90.8	60.8	-60.8	0.00	0.00	
2,200.0	3.90	33.83	2,196.2	96.4	64.6	-64.6	0.00	0.00	
2,300.0	3.90	33.83	2,296.0	102.1	68.4	-68.4	0.00	0.00	
2,400.0	3.90	33.83	2,395.7	107.7	72.2	-72.2	0.00	0.00	
2,500.0	3.90	33.83	2,495.5	113.4	76.0	-76.0	0.00	0.00	
2,600.0	3.90	33.83	2,595.3	119.0	79.8	-79.8	0.00	0.00	
2,700.0	3.90	33.83	2,695.0	124.7	83.6	-83.6	0.00	0.00	
2,800.0	3.90	33.83	2,794.8	130.3	87.3	-87.3	0.00	0.00	
2,900.0	3.90	33.83	2,894.6	136.0	91.1	-91.1	0.00	0.00	
3,000.0	3.90	33.83	2,994.3	141.7	94.9	-94.9	0.00	0.00	
3,100.0	3.90	33.83	3,094.1	147.3	98.7	-98.7	0.00	0.00	
3,200.0	3.90	33.83	3,193.9	153.0	102.5	-102.5	0.00	0.00	
3,300.0	3.90	33.83	3,293.6	158.6	106.3	-106.3	0.00	0.00	
3,400.0	3.90	33.83	3,393.4	164.3	110.1	-110.1	0.00	0.00	
3,500.0	3.90	33.83	3,493.2	169.9	113.9	-113.9	0.00	0.00	
3,600.0	3.90	33.83	3,592.9	175.6	117.7	-117.7	0.00	0.00	
3,700.0	3.90	33.83	3,692.7	181.2	121.4	-121.4	0.00	0.00	
3,800.0	3.90	33.83	3,792.5	186.9	125.2	-125.2	0.00	0.00	
3,900.0	3.90	33.83	3,892.3	192.5	129.0	-129.0	0.00	0.00	
3,997.0	3.90	33.83	3,989.0	198.0	132.7	-132.7	0.00	0.00	Sussex
4,000.0	3.90	33.83	3,992.0	198.2	132.8	-132.8	0.00	0.00	
4,100.0	3.90	33.83	4,091.8	203.9	136.6	-136.6	0.00	0.00	
4,200.0	3.90	33.83	4,191.6	209.5	140.4	-140.4	0.00	0.00	
4,227.5	3.90	33.83	4,219.0	211.1	141.4	-141.4	0.00	0.00	Sussex Marker
4,300.0	3.90	33.83	4,291.3	215.2	144.2	-144.2	0.00	0.00	
4,400.0	3.90	33.83	4,391.1	220.8	148.0	-148.0	0.00	0.00	
4,479.1	3.90	33.83	4,470.0	225.3	151.0	-151.0	0.00	0.00	Shannon
4,500.0	3.90	33.83	4,490.9	226.5	151.8	-151.8	0.00	0.00	
4,600.0	3.90	33.83	4,590.6	232.1	155.6	-155.6	0.00	0.00	

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1B-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 1B-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #3		

## 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	3.90	33.83	4,690.4	237.8	159.3	-159.3	0.00	0.00	
4,800.0	3.90	33.83	4,790.2	243.4	163.1	-163.1	0.00	0.00	
4,900.0	3.90	33.83	4,889.9	249.1	166.9	-166.9	0.00	0.00	
5,000.0	3.90	33.83	4,989.7	254.8	170.7	-170.7	0.00	0.00	
5,015.3	3.90	33.83	5,005.0	255.6	171.3	-171.3	0.00	0.00	Teepee Buttes (*if present)
5,100.0	3.90	33.83	5,089.5	260.4	174.5	-174.5	0.00	0.00	
5,200.0	3.90	33.83	5,189.2	266.1	178.3	-178.3	0.00	0.00	
5,300.0	3.90	33.83	5,289.0	271.7	182.1	-182.1	0.00	0.00	
5,400.0	3.90	33.83	5,388.8	277.4	185.9	-185.9	0.00	0.00	
5,500.0	3.90	33.83	5,488.5	283.0	189.7	-189.7	0.00	0.00	
5,600.0	3.90	33.83	5,588.3	288.7	193.4	-193.4	0.00	0.00	
5,700.0	3.90	33.83	5,688.1	294.3	197.2	-197.2	0.00	0.00	
5,800.0	3.90	33.83	5,787.8	300.0	201.0	-201.0	0.00	0.00	
5,900.0	3.90	33.83	5,887.6	305.6	204.8	-204.8	0.00	0.00	
6,000.0	3.90	33.83	5,987.4	311.3	208.6	-208.6	0.00	0.00	
6,100.0	3.90	33.83	6,087.1	317.0	212.4	-212.4	0.00	0.00	
6,200.0	3.90	33.83	6,186.9	322.6	216.2	-216.2	0.00	0.00	
6,300.0	3.90	33.83	6,286.7	328.3	220.0	-220.0	0.00	0.00	
6,400.0	3.90	33.83	6,386.5	333.9	223.8	-223.8	0.00	0.00	
6,500.0	3.90	33.83	6,486.2	339.6	227.5	-227.5	0.00	0.00	
6,600.0	3.90	33.83	6,586.0	345.2	231.3	-231.3	0.00	0.00	
6,671.5	3.90	33.83	6,657.3	349.3	234.0	-234.0	0.00	0.00	Start build/turn @ 6671' MD
6,700.0	3.32	348.11	6,685.8	350.9	234.4	-234.4	10.00	-2.06	
6,800.0	11.16	286.70	6,785.0	356.5	224.5	-224.5	10.00	7.84	
6,900.0	20.92	278.53	6,881.0	362.0	197.5	-197.5	10.00	9.77	
6,911.8	22.09	278.03	6,892.0	362.6	193.2	-193.2	10.00	9.88	Sharon Springs
7,000.0	30.84	275.45	6,970.9	367.0	154.2	-154.2	10.00	9.92	
7,004.8	31.32	275.35	6,975.0	367.3	151.8	-151.8	10.00	9.94	Niobrara
7,057.9	36.60	274.38	7,019.0	369.8	122.2	-122.2	10.00	9.95	B Chalk
7,100.0	40.79	273.77	7,051.9	371.6	96.0	-96.0	10.00	9.96	
7,104.2	41.20	273.71	7,055.0	371.8	93.3	-93.3	10.00	9.96	B Marl
7,159.8	46.75	273.06	7,095.0	374.1	54.7	-54.7	10.00	9.97	C Chalk
7,200.0	50.76	272.65	7,121.5	375.6	24.5	-24.5	10.00	9.97	
7,210.4	51.79	272.56	7,128.0	376.0	16.5	-16.5	10.00	9.97	C Marl
7,300.0	60.73	271.82	7,177.7	378.8	-58.0	58.0	10.00	9.98	
7,400.0	70.71	271.14	7,218.8	381.1	-149.0	149.0	10.00	9.98	
7,410.0	71.71	271.07	7,222.0	381.3	-158.4	158.4	10.00	9.98	Ft. Hayes
7,485.9	79.29	270.61	7,241.0	382.4	-231.8	231.8	10.00	9.98	Codell
7,500.0	80.70	270.53	7,243.5	382.5	-245.7	245.7	10.00	9.98	
7,593.2	90.00	270.00	7,251.0	382.9	-338.5	338.5	10.00	9.98	LP @ 7251' TVD; 90°
7,600.0	90.00	270.00	7,251.0	382.9	-345.3	345.3	0.00	0.00	
7,700.0	90.00	270.00	7,251.0	382.9	-445.3	445.3	0.00	0.00	
7,800.0	90.00	270.00	7,251.0	382.9	-545.3	545.3	0.00	0.00	
7,900.0	90.00	270.00	7,251.0	382.9	-645.3	645.3	0.00	0.00	
8,000.0	90.00	270.00	7,251.0	382.9	-745.3	745.3	0.00	0.00	
8,100.0	90.00	270.00	7,251.0	382.9	-845.3	845.3	0.00	0.00	
8,200.0	90.00	270.00	7,251.0	382.9	-945.3	945.3	0.00	0.00	
8,300.0	90.00	270.00	7,251.0	382.9	-1,045.3	1,045.3	0.00	0.00	
8,400.0	90.00	270.00	7,251.0	382.9	-1,145.3	1,145.3	0.00	0.00	
8,500.0	90.00	270.00	7,251.0	382.9	-1,245.3	1,245.3	0.00	0.00	
8,600.0	90.00	270.00	7,251.0	382.9	-1,345.3	1,345.3	0.00	0.00	
8,700.0	90.00	270.00	7,251.0	382.9	-1,445.3	1,445.3	0.00	0.00	

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1B-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 1B-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #3		

### 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	382.9	-1,545.3	1,545.3	0.00	0.00	
8,900.0	90.00	270.00	7,251.0	382.9	-1,645.3	1,645.3	0.00	0.00	
9,000.0	90.00	270.00	7,251.0	382.9	-1,745.3	1,745.3	0.00	0.00	
9,100.0	90.00	270.00	7,251.0	382.9	-1,845.3	1,845.3	0.00	0.00	
9,200.0	90.00	270.00	7,251.0	382.9	-1,945.3	1,945.3	0.00	0.00	
9,300.0	90.00	270.00	7,251.0	382.9	-2,045.3	2,045.3	0.00	0.00	
9,400.0	90.00	270.00	7,251.0	382.9	-2,145.3	2,145.3	0.00	0.00	
9,500.0	90.00	270.00	7,251.0	382.9	-2,245.3	2,245.3	0.00	0.00	
9,600.0	90.00	270.00	7,251.0	382.9	-2,345.3	2,345.3	0.00	0.00	
9,700.0	90.00	270.00	7,251.0	382.9	-2,445.3	2,445.3	0.00	0.00	
9,800.0	90.00	270.00	7,251.0	382.9	-2,545.3	2,545.3	0.00	0.00	
9,900.0	90.00	270.00	7,251.0	382.9	-2,645.3	2,645.3	0.00	0.00	
10,000.0	90.00	270.00	7,251.0	382.9	-2,745.3	2,745.3	0.00	0.00	
10,100.0	90.00	270.00	7,251.0	382.9	-2,845.3	2,845.3	0.00	0.00	
10,200.0	90.00	270.00	7,251.0	382.9	-2,945.3	2,945.3	0.00	0.00	
10,300.0	90.00	270.00	7,251.0	382.9	-3,045.3	3,045.3	0.00	0.00	
10,400.0	90.00	270.00	7,251.0	382.9	-3,145.3	3,145.3	0.00	0.00	
10,500.0	90.00	270.00	7,251.0	382.9	-3,245.3	3,245.3	0.00	0.00	
10,600.0	90.00	270.00	7,251.0	382.9	-3,345.3	3,345.3	0.00	0.00	
10,700.0	90.00	270.00	7,251.0	382.9	-3,445.3	3,445.3	0.00	0.00	
10,800.0	90.00	270.00	7,251.0	382.9	-3,545.3	3,545.3	0.00	0.00	
10,900.0	90.00	270.00	7,251.0	382.9	-3,645.3	3,645.3	0.00	0.00	
11,000.0	90.00	270.00	7,251.0	382.9	-3,745.3	3,745.3	0.00	0.00	
11,100.0	90.00	270.00	7,251.0	382.9	-3,845.3	3,845.3	0.00	0.00	
11,200.0	90.00	270.00	7,251.0	382.9	-3,945.3	3,945.3	0.00	0.00	
11,300.0	90.00	270.00	7,251.0	382.9	-4,045.3	4,045.3	0.00	0.00	
11,400.0	90.00	270.00	7,251.0	382.9	-4,145.3	4,145.3	0.00	0.00	
11,500.0	90.00	270.00	7,251.0	382.9	-4,245.3	4,245.3	0.00	0.00	
11,600.0	90.00	270.00	7,251.0	382.9	-4,345.3	4,345.3	0.00	0.00	
11,700.0	90.00	270.00	7,251.0	382.9	-4,445.3	4,445.3	0.00	0.00	
11,800.0	90.00	270.00	7,251.0	382.9	-4,545.3	4,545.3	0.00	0.00	
11,813.2	90.00	270.00	7,251.0	382.9	-4,558.5	4,558.5	0.00	0.00	TD at 11813.2

### Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Frederiksen 1B-28H-A368 - plan hits target center - Point	0.00	0.00	7,251.0	382.9	-4,558.5	1,317,196.55	3,135,291.12	40.203080	-105.015660

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1B-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 1B-28H-A368	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #3		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
255.0	255.0	Fox Hills - BASE				
3,997.0	3,989.0	Sussex				
4,227.5	4,219.0	Sussex Marker				
4,479.1	4,470.0	Shannon				
5,015.3	5,005.0	Teepee Buttes (*if present)				
6,911.8	6,892.0	Sharon Springs				
7,004.8	6,975.0	Niobrara				
7,057.9	7,019.0	B Chalk				
7,104.2	7,055.0	B Marl				
7,159.8	7,095.0	C Chalk				
7,210.4	7,128.0	C Marl				
7,410.0	7,222.0	Ft. Hayes				
7,485.9	7,241.0	Codell				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
300.0	300.0	0.0	0.0	KOP @ 300'	
690.3	690.0	11.0	7.4	EOB; Inc=3.9°	
6,671.5	6,657.3	349.3	234.0	Start build/turn @ 6671' MD	
7,593.2	7,251.0	382.9	-338.5	LP @ 7251' TVD; 90°	
11,813.2	7,251.0	382.9	-4,558.5	TD at 11813.2	

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

**DJ Wattenberg**

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

**Frederiksen 1B-28H-A368**

**Hz**

**Plan #3**

## **Anticollision Report**

**16 September, 2013**

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1B-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 1B-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

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

Survey Tool Program		Date	9/16/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,813.2	Plan #3 (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						Out of range
FREDERIKSEN 1A-28H (Existing) - Hz - Hz						Out of range
Frederiksen 1A-28H-A368 - Hz - Plan #3	200.0	200.0	7.8	7.2	11.954	CC, ES
Frederiksen 1A-28H-A368 - Hz - Plan #3	11,813.2	11,620.1	372.2	182.1	1.958	SF
Frederiksen 1B-28H-H368 - Hz - Plan #1						Out of range
Frederiksen 1C-28H-A368 - Hz - Plan #3	300.0	300.0	10.9	9.9	10.909	CC, ES
Frederiksen 1C-28H-A368 - Hz - Plan #3	11,813.2	11,586.2	411.6	213.3	2.075	SF
Frederiksen 1C-28H-H368 - Hz - Plan #2						Out of range
Frederiksen 1D-28H-A368 - Hz - Plan #3	300.0	300.0	21.9	20.9	21.817	CC, ES
Frederiksen 1D-28H-A368 - Hz - Plan #3	600.0	599.9	28.7	26.7	14.004	SF
Frederiksen 1E-28H-A368 - Hz - Plan #3	300.0	300.0	32.8	31.8	32.726	CC, ES
Frederiksen 1E-28H-A368 - Hz - Plan #3	600.0	598.6	42.6	40.6	20.801	SF
Frederiksen 1F-28H-A368 - Hz - Plan #3	200.0	199.0	40.1	39.4	61.553	CC, ES
Frederiksen 1F-28H-A368 - Hz - Plan #3	600.0	595.2	59.9	57.9	29.287	SF
FREDERIKSEN 31-28 (Existing) - DD - GYRO	9,183.3	7,439.1	394.8	330.4	6.135	CC
FREDERIKSEN 31-28 (Existing) - DD - GYRO	9,200.0	7,439.6	395.1	330.4	6.102	ES, SF
FREDERIKSEN 41-28 (Existing) - DD - GYRO	7,479.6	7,363.8	205.7	182.9	9.038	CC, ES
FREDERIKSEN 41-28 (Existing) - DD - GYRO	7,500.0	7,367.6	206.7	183.6	8.966	SF
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 1B-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 1B-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1A-28H-A368 - Hz - Plan #3														Offset Site Error:	0.0 ft
Survey Program: O-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	20.98	7.3	2.8	7.8						
100.0	100.0	100.0	100.0	0.2	0.2	20.98	7.3	2.8	7.8	7.5	0.30	25.693			
200.0	200.0	200.0	200.0	0.3	0.3	20.98	7.3	2.8	7.8	7.2	0.65	11.954 CC, ES			
300.0	300.0	299.9	299.8	0.5	0.5	20.94	8.1	3.1	8.7	7.7	1.00	8.658			
400.0	400.0	399.7	399.6	0.7	0.7	-14.05	10.5	4.0	10.4	9.1	1.35	7.731			
500.0	500.0	499.5	499.3	0.9	0.9	-16.72	14.6	5.5	12.3	10.6	1.70	7.220			
600.0	599.9	599.2	598.9	1.0	1.1	-20.29	20.3	7.7	14.2	12.2	2.05	6.930			
690.3	690.0	689.3	688.7	1.2	1.3	-23.94	26.8	10.1	16.1	13.7	2.37	6.785			
700.0	699.7	698.9	698.3	1.2	1.3	-24.33	27.6	10.4	16.3	13.9	2.40	6.778			
800.0	799.4	798.6	797.5	1.4	1.5	-27.15	36.5	13.8	19.5	16.7	2.77	7.055			
900.0	899.2	898.3	896.6	1.6	1.8	-28.28	46.7	17.6	24.1	21.0	3.13	7.699			
1,000.0	999.0	998.2	995.9	1.8	2.0	-28.99	57.1	21.5	28.8	25.3	3.49	8.237			
1,100.0	1,098.7	1,098.1	1,095.2	2.1	2.2	-29.49	67.4	25.4	33.5	29.6	3.86	8.671			
1,200.0	1,198.5	1,198.0	1,194.5	2.3	2.5	-29.88	77.7	29.2	38.2	33.9	4.23	9.029			
1,300.0	1,298.3	1,297.9	1,293.8	2.5	2.8	-30.18	88.1	33.1	42.9	38.3	4.60	9.328			
1,400.0	1,398.1	1,397.8	1,393.0	2.7	3.0	-30.42	98.4	37.0	47.6	42.6	4.96	9.581			
1,500.0	1,497.8	1,497.7	1,492.3	2.9	3.3	-30.61	108.7	40.9	52.3	46.9	5.33	9.800			
1,600.0	1,597.6	1,597.6	1,591.6	3.1	3.5	-30.78	119.0	44.7	57.0	51.3	5.70	9.989			
1,700.0	1,697.4	1,697.4	1,690.9	3.3	3.8	-30.92	129.4	48.6	61.7	55.6	6.07	10.155			
1,800.0	1,797.1	1,797.3	1,790.1	3.5	4.0	-31.04	139.7	52.5	66.4	59.9	6.44	10.301			
1,900.0	1,896.9	1,897.2	1,889.4	3.7	4.3	-31.14	150.0	56.4	71.1	64.2	6.81	10.431			
2,000.0	1,996.7	1,997.1	1,988.7	3.9	4.5	-31.23	160.4	60.2	75.7	68.6	7.18	10.548			
2,100.0	2,096.4	2,097.0	2,088.0	4.1	4.8	-31.31	170.7	64.1	80.4	72.9	7.55	10.653			
2,200.0	2,196.2	2,196.9	2,187.3	4.3	5.1	-31.38	181.0	68.0	85.1	77.2	7.92	10.748			
2,300.0	2,296.0	2,296.8	2,286.5	4.6	5.3	-31.45	191.4	71.9	89.8	81.6	8.29	10.834			
2,400.0	2,395.7	2,396.7	2,385.8	4.8	5.6	-31.51	201.7	75.7	94.5	85.9	8.66	10.913			
2,500.0	2,495.5	2,496.6	2,485.1	5.0	5.8	-31.56	212.0	79.6	99.2	90.2	9.03	10.985			
2,600.0	2,595.3	2,596.5	2,584.4	5.2	6.1	-31.61	222.3	83.5	103.9	94.5	9.41	11.052			
2,700.0	2,695.0	2,696.3	2,683.7	5.4	6.4	-31.65	232.7	87.4	108.6	98.9	9.78	11.113			
2,800.0	2,794.8	2,796.2	2,782.9	5.6	6.6	-31.69	243.0	91.2	113.3	103.2	10.15	11.170			
2,900.0	2,894.6	2,896.1	2,882.2	5.8	6.9	-31.73	253.3	95.1	118.0	107.5	10.52	11.223			
3,000.0	2,994.3	2,996.0	2,981.5	6.0	7.1	-31.76	263.7	99.0	122.7	111.9	10.89	11.272			
3,100.0	3,094.1	3,095.9	3,080.8	6.2	7.4	-31.79	274.0	102.9	127.4	116.2	11.26	11.318			
3,200.0	3,193.9	3,195.8	3,180.0	6.5	7.7	-31.82	284.3	106.7	132.1	120.5	11.63	11.360			
3,300.0	3,293.6	3,295.7	3,279.3	6.7	7.9	-31.85	294.6	110.6	136.8	124.8	12.00	11.401			
3,400.0	3,393.4	3,395.6	3,378.6	6.9	8.2	-31.87	305.0	114.5	141.5	129.2	12.37	11.438			
3,500.0	3,493.2	3,495.5	3,477.9	7.1	8.4	-31.90	315.3	118.4	146.2	133.5	12.75	11.474			
3,600.0	3,592.9	3,595.3	3,577.2	7.3	8.7	-31.92	325.6	122.2	150.9	137.8	13.12	11.508			
3,700.0	3,692.7	3,695.2	3,676.4	7.5	8.9	-31.94	336.0	126.1	155.6	142.2	13.49	11.539			
3,800.0	3,792.5	3,795.1	3,775.7	7.7	9.2	-31.96	346.3	130.0	160.3	146.5	13.86	11.569			
3,900.0	3,892.3	3,895.0	3,875.0	7.9	9.5	-31.98	356.6	133.9	165.0	150.8	14.23	11.597			
4,000.0	3,992.0	3,994.9	3,974.3	8.1	9.7	-31.99	366.9	137.7	169.7	155.1	14.60	11.624			
4,100.0	4,091.8	4,094.8	4,073.6	8.4	10.0	-32.01	377.3	141.6	174.4	159.5	14.97	11.650			
4,200.0	4,191.6	4,194.7	4,172.8	8.6	10.2	-32.03	387.6	145.5	179.1	163.8	15.35	11.674			
4,300.0	4,291.3	4,294.6	4,272.1	8.8	10.5	-32.04	397.9	149.4	183.8	168.1	15.72	11.697			
4,400.0	4,391.1	4,394.5	4,371.4	9.0	10.8	-32.06	408.3	153.2	188.5	172.5	16.09	11.719			
4,500.0	4,490.9	4,494.4	4,470.7	9.2	11.0	-32.07	418.6	157.1	193.2	176.8	16.46	11.740			
4,600.0	4,590.6	4,594.2	4,569.9	9.4	11.3	-32.08	428.9	161.0	197.9	181.1	16.83	11.761			
4,700.0	4,690.4	4,694.1	4,669.2	9.6	11.5	-32.09	439.2	164.9	202.6	185.4	17.20	11.780			
4,800.0	4,790.2	4,794.0	4,768.5	9.8	11.8	-32.11	449.6	168.8	207.3	189.8	17.57	11.798			
4,900.0	4,889.9	4,893.9	4,867.8	10.0	12.1	-32.12	459.9	172.6	212.0	194.1	17.95	11.816			
5,000.0	4,989.7	4,993.8	4,967.1	10.3	12.3	-32.13	470.2	176.5	216.7	198.4	18.32	11.833			

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 1B-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 1B-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1A-28H-A368 - Hz - Plan #3													Offset Site Error:	0.0 ft
Survey Program: O-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		
5,100.0	5,089.5	5,093.7	5,066.3	10.5	12.6	-32.14	480.6	180.4	221.4	202.8	18.69	11.849		
5,200.0	5,189.2	5,193.6	5,165.6	10.7	12.8	-32.15	490.9	184.3	226.1	207.1	19.06	11.865		
5,300.0	5,289.0	5,293.5	5,264.9	10.9	13.1	-32.16	501.2	188.1	230.8	211.4	19.43	11.880		
5,400.0	5,388.8	5,393.4	5,364.2	11.1	13.4	-32.17	511.6	192.0	235.5	215.7	19.80	11.894		
5,500.0	5,488.5	5,493.2	5,463.4	11.3	13.6	-32.17	521.9	195.9	240.2	220.1	20.18	11.908		
5,600.0	5,588.3	5,593.1	5,562.7	11.5	13.9	-32.18	532.2	199.8	244.9	224.4	20.55	11.921		
5,700.0	5,688.1	5,693.0	5,662.0	11.7	14.1	-32.19	542.5	203.6	249.6	228.7	20.92	11.934		
5,800.0	5,787.8	5,792.9	5,761.3	11.9	14.4	-32.20	552.9	207.5	254.3	233.1	21.29	11.947		
5,900.0	5,887.6	5,892.8	5,860.6	12.1	14.7	-32.21	563.2	211.4	259.0	237.4	21.66	11.959		
6,000.0	5,987.4	5,992.7	5,959.8	12.4	14.9	-32.21	573.5	215.3	263.7	241.7	22.03	11.970		
6,100.0	6,087.1	6,092.6	6,059.1	12.6	15.2	-32.22	583.9	219.1	268.5	246.0	22.41	11.982		
6,200.0	6,186.9	6,192.5	6,158.4	12.8	15.4	-32.23	594.2	223.0	273.2	250.4	22.78	11.993		
6,300.0	6,286.7	6,292.4	6,257.7	13.0	15.7	-32.23	604.5	226.9	277.9	254.7	23.15	12.003		
6,400.0	6,386.5	6,392.2	6,357.0	13.2	16.0	-32.24	614.8	230.8	282.6	259.0	23.52	12.013		
6,500.0	6,486.2	6,492.3	6,456.4	13.4	16.2	-32.28	625.2	234.5	287.2	263.4	23.89	12.023		
6,600.0	6,586.0	6,591.9	6,555.1	13.6	16.4	-34.48	635.5	227.2	291.9	267.5	24.39	11.968		
6,671.5	6,657.3	6,659.4	6,620.6	13.8	16.5	-37.80	642.3	212.5	296.1	271.2	24.87	11.906		
6,700.0	6,685.8	6,685.4	6,645.2	13.8	16.5	6.10	644.8	204.8	298.2	273.1	25.08	11.888		
6,750.0	6,735.6	6,729.9	6,686.7	13.9	16.6	51.50	649.1	189.0	302.5	277.1	25.40	11.906		
6,800.0	6,785.0	6,773.6	6,726.0	14.0	16.6	61.50	653.2	170.4	307.3	281.7	25.64	11.984		
6,850.0	6,833.6	6,816.5	6,763.1	14.0	16.6	64.02	657.1	149.3	312.6	286.8	25.79	12.122		
6,900.0	6,881.0	6,858.6	6,797.9	14.0	16.7	64.29	660.7	125.9	318.3	292.4	25.84	12.319		
6,950.0	6,926.9	6,900.0	6,830.4	14.0	16.7	63.67	664.1	100.5	324.1	298.3	25.78	12.569		
7,000.0	6,970.9	6,940.9	6,860.6	14.0	16.8	62.69	667.2	73.1	329.9	304.3	25.64	12.867		
7,050.0	7,012.6	6,981.3	6,888.4	14.0	16.9	61.56	670.1	44.0	335.7	310.3	25.41	13.211		
7,100.0	7,051.9	7,021.2	6,913.9	14.1	16.9	60.42	672.8	13.4	341.4	316.1	25.25	13.518		
7,150.0	7,088.2	7,060.6	6,936.9	14.1	17.0	59.32	675.2	-18.5	346.8	321.8	24.95	13.898		
7,200.0	7,121.5	7,100.0	6,957.6	14.2	17.2	58.29	677.3	-51.9	351.8	327.1	24.73	14.225		
7,250.0	7,151.4	7,138.6	6,975.7	14.3	17.3	57.37	679.2	-86.0	356.4	331.8	24.62	14.476		
7,300.0	7,177.7	7,177.1	6,991.4	14.5	17.5	56.56	680.9	-121.1	360.5	335.9	24.64	14.631		
7,350.0	7,200.2	7,215.5	7,004.7	14.7	17.7	55.87	682.2	-157.0	364.0	339.2	24.84	14.658		
7,400.0	7,218.8	7,250.0	7,014.6	15.1	17.9	55.34	683.3	-190.1	367.0	341.8	25.22	14.552		
7,450.0	7,233.2	7,291.7	7,023.8	15.6	18.3	54.87	684.2	-230.7	369.3	343.4	25.91	14.253		
7,500.0	7,243.5	7,329.6	7,029.7	16.2	18.6	54.56	684.8	-268.2	370.9	344.1	26.83	13.828		
7,550.0	7,249.4	7,367.4	7,033.1	16.9	19.0	54.38	685.2	-305.8	371.9	343.9	27.98	13.290		
7,593.2	7,251.0	7,400.1	7,034.0	17.5	19.4	54.33	685.3	-338.5	372.2	343.0	29.16	12.761		
7,600.0	7,251.0	7,406.9	7,034.0	17.6	19.5	54.33	685.3	-345.3	372.2	342.8	29.35	12.681		
7,700.0	7,251.0	7,506.9	7,034.0	19.3	20.8	54.33	685.3	-445.3	372.2	340.0	32.12	11.588		
7,800.0	7,251.0	7,606.9	7,034.0	21.1	22.4	54.33	685.3	-545.3	372.2	337.0	35.13	10.593		
7,900.0	7,251.0	7,706.9	7,034.0	23.1	24.2	54.33	685.3	-645.3	372.2	333.8	38.33	9.709		
8,000.0	7,251.0	7,806.9	7,034.0	25.1	26.1	54.33	685.3	-745.3	372.2	330.5	41.68	8.930		
8,100.0	7,251.0	7,906.9	7,034.0	27.2	28.2	54.33	685.3	-845.3	372.2	327.0	45.13	8.246		
8,200.0	7,251.0	8,006.9	7,034.0	29.4	30.3	54.33	685.3	-945.3	372.2	323.5	48.68	7.646		
8,300.0	7,251.0	8,106.9	7,034.0	31.6	32.4	54.33	685.3	-1,045.3	372.2	319.9	52.29	7.117		
8,400.0	7,251.0	8,206.9	7,034.0	33.9	34.6	54.33	685.3	-1,145.3	372.2	316.2	55.96	6.650		
8,500.0	7,251.0	8,306.9	7,034.0	36.2	36.8	54.33	685.3	-1,245.3	372.2	312.5	59.68	6.236		
8,600.0	7,251.0	8,406.9	7,034.0	38.5	39.1	54.33	685.3	-1,345.3	372.2	308.7	63.43	5.867		
8,700.0	7,251.0	8,506.9	7,034.0	40.8	41.4	54.33	685.3	-1,445.3	372.2	304.9	67.22	5.537		
8,800.0	7,251.0	8,606.9	7,034.0	43.2	43.7	54.33	685.3	-1,545.3	372.2	301.1	71.03	5.240		
8,900.0	7,251.0	8,706.9	7,034.0	45.5	46.0	54.33	685.3	-1,645.3	372.2	297.3	74.87	4.971		
9,000.0	7,251.0	8,806.9	7,034.0	47.9	48.4	54.33	685.3	-1,745.3	372.2	293.4	78.72	4.728		
9,100.0	7,251.0	8,906.9	7,034.0	50.3	50.7	54.33	685.3	-1,845.3	372.2	289.6	82.59	4.506		

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 1B-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 1B-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1A-28H-A368 - Hz - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
9,200.0	7,251.0	9,006.9	7,034.0	52.6	53.1	54.33	685.3	-1,945.3	372.2	285.7	86.48	4.304		
9,300.0	7,251.0	9,106.9	7,034.0	55.0	55.5	54.33	685.3	-2,045.3	372.2	281.8	90.37	4.118		
9,400.0	7,251.0	9,206.9	7,034.0	57.4	57.9	54.33	685.3	-2,145.3	372.2	277.9	94.28	3.947		
9,500.0	7,251.0	9,306.9	7,034.0	59.9	60.3	54.33	685.3	-2,245.3	372.2	274.0	98.20	3.790		
9,600.0	7,251.0	9,406.9	7,034.0	62.3	62.7	54.33	685.3	-2,345.3	372.2	270.0	102.12	3.644		
9,700.0	7,251.0	9,506.9	7,034.0	64.7	65.1	54.33	685.3	-2,445.3	372.2	266.1	106.06	3.509		
9,800.0	7,251.0	9,606.9	7,034.0	67.1	67.5	54.33	685.3	-2,545.3	372.2	262.2	110.00	3.383		
9,900.0	7,251.0	9,706.9	7,034.0	69.5	69.9	54.33	685.3	-2,645.3	372.2	258.2	113.95	3.266		
10,000.0	7,251.0	9,806.9	7,034.0	72.0	72.3	54.33	685.3	-2,745.3	372.2	254.3	117.90	3.157		
10,100.0	7,251.0	9,906.9	7,034.0	74.4	74.7	54.33	685.3	-2,845.3	372.2	250.3	121.86	3.054		
10,200.0	7,251.0	10,006.9	7,034.0	76.8	77.1	54.33	685.3	-2,945.3	372.2	246.4	125.82	2.958		
10,300.0	7,251.0	10,106.9	7,034.0	79.3	79.6	54.33	685.3	-3,045.3	372.2	242.4	129.78	2.868		
10,400.0	7,251.0	10,206.9	7,034.0	81.7	82.0	54.33	685.3	-3,145.3	372.2	238.4	133.75	2.783		
10,500.0	7,251.0	10,306.9	7,034.0	84.1	84.4	54.33	685.3	-3,245.3	372.2	234.4	137.72	2.702		
10,600.0	7,251.0	10,406.9	7,034.0	86.6	86.9	54.33	685.3	-3,345.3	372.2	230.5	141.70	2.626		
10,700.0	7,251.0	10,506.9	7,034.0	89.0	89.3	54.33	685.3	-3,445.3	372.2	226.5	145.68	2.555		
10,800.0	7,251.0	10,606.9	7,034.0	91.5	91.7	54.33	685.3	-3,545.3	372.2	222.5	149.66	2.487		
10,900.0	7,251.0	10,706.9	7,034.0	93.9	94.2	54.33	685.3	-3,645.3	372.2	218.5	153.64	2.422		
11,000.0	7,251.0	10,806.9	7,034.0	96.4	96.6	54.33	685.3	-3,745.3	372.2	214.5	157.63	2.361		
11,100.0	7,251.0	10,906.9	7,034.0	98.8	99.1	54.33	685.3	-3,845.3	372.2	210.6	161.62	2.303		
11,200.0	7,251.0	11,006.9	7,034.0	101.3	101.5	54.33	685.3	-3,945.3	372.2	206.6	165.61	2.247		
11,300.0	7,251.0	11,106.9	7,034.0	103.7	104.0	54.33	685.3	-4,045.3	372.2	202.6	169.60	2.194		
11,400.0	7,251.0	11,206.9	7,034.0	106.2	106.4	54.33	685.3	-4,145.3	372.2	198.6	173.59	2.144		
11,500.0	7,251.0	11,306.9	7,034.0	108.6	108.9	54.33	685.3	-4,245.3	372.2	194.6	177.58	2.096		
11,600.0	7,251.0	11,406.9	7,034.0	111.1	111.3	54.33	685.3	-4,345.3	372.2	190.6	181.58	2.050		
11,700.0	7,251.0	11,506.9	7,034.0	113.6	113.8	54.33	685.3	-4,445.3	372.2	186.6	185.58	2.005		
11,800.0	7,251.0	11,606.9	7,034.0	116.0	116.2	54.33	685.3	-4,545.3	372.2	182.6	189.58	1.963		
11,812.8	7,251.0	11,619.7	7,034.0	116.3	116.5	54.33	685.3	-4,558.1	372.2	182.1	190.09	1.958		
11,813.2	7,251.0	11,620.1	7,034.0	116.3	116.5	54.33	685.3	-4,558.4	372.2	182.1	190.10	1.958 SF		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1B-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 1B-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1C-28H-A368 - Hz - Plan #3														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-10.9	0.0	10.9						
100.0	100.0	100.0	100.0	0.2	0.2	180.00	-10.9	0.0	10.9	10.6	0.30	35.986			
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-10.9	0.0	10.9	10.3	0.65	16.742			
300.0	300.0	300.0	300.0	0.5	0.5	180.00	-10.9	0.0	10.9	9.9	1.00	10.909 CC, ES			
400.0	400.0	400.0	400.0	0.7	0.7	148.56	-10.9	0.0	11.7	10.3	1.35	8.633			
500.0	500.0	500.1	500.1	0.9	0.9	150.86	-10.7	0.8	13.6	11.9	1.70	7.994			
600.0	599.9	600.1	600.1	1.0	1.0	149.84	-9.8	3.3	16.4	14.3	2.06	7.973			
690.3	690.0	690.4	690.3	1.2	1.2	147.92	-8.7	6.8	19.7	17.4	2.38	8.286			
700.0	699.7	700.1	700.0	1.2	1.2	147.82	-8.6	7.2	20.2	17.7	2.42	8.338			
800.0	799.4	800.0	799.8	1.4	1.4	147.04	-7.2	11.2	24.5	21.7	2.78	8.799			
900.0	899.2	899.9	899.6	1.6	1.6	146.50	-5.9	15.2	28.8	25.7	3.15	9.146			
1,000.0	999.0	999.8	999.4	1.8	1.8	146.10	-4.6	19.2	33.1	29.6	3.52	9.416			
1,100.0	1,098.7	1,099.7	1,099.2	2.1	2.0	145.79	-3.3	23.2	37.5	33.6	3.89	9.633			
1,200.0	1,198.5	1,199.6	1,199.1	2.3	2.1	145.54	-2.0	27.1	41.8	37.6	4.26	9.809			
1,300.0	1,298.3	1,299.5	1,298.9	2.5	2.3	145.34	-0.6	31.1	46.2	41.5	4.64	9.956			
1,400.0	1,398.1	1,399.4	1,398.7	2.7	2.5	145.18	0.7	35.1	50.5	45.5	5.01	10.080			
1,500.0	1,497.8	1,499.3	1,498.5	2.9	2.7	145.04	2.0	39.1	54.8	49.4	5.38	10.186			
1,600.0	1,597.6	1,599.2	1,598.3	3.1	2.9	144.92	3.3	43.1	59.2	53.4	5.76	10.278			
1,700.0	1,697.4	1,699.1	1,698.1	3.3	3.1	144.82	4.7	47.1	63.5	57.4	6.13	10.358			
1,800.0	1,797.1	1,799.1	1,798.0	3.5	3.3	144.73	6.0	51.1	67.8	61.3	6.51	10.428			
1,900.0	1,896.9	1,899.0	1,897.8	3.7	3.5	144.65	7.3	55.1	72.2	65.3	6.88	10.491			
2,000.0	1,996.7	1,998.9	1,997.6	3.9	3.6	144.58	8.6	59.1	76.5	69.3	7.26	10.546			
2,100.0	2,096.4	2,098.8	2,097.4	4.1	3.8	144.52	9.9	63.1	80.9	73.2	7.63	10.597			
2,200.0	2,196.2	2,198.7	2,197.2	4.3	4.0	144.46	11.3	67.1	85.2	77.2	8.01	10.642			
2,300.0	2,296.0	2,298.6	2,297.0	4.6	4.2	144.41	12.6	71.1	89.5	81.2	8.38	10.683			
2,400.0	2,395.7	2,398.5	2,396.9	4.8	4.4	144.37	13.9	75.1	93.9	85.1	8.76	10.720			
2,500.0	2,495.5	2,498.4	2,496.7	5.0	4.6	144.33	15.2	79.1	98.2	89.1	9.13	10.755			
2,600.0	2,595.3	2,598.3	2,596.5	5.2	4.8	144.29	16.5	83.1	102.6	93.0	9.51	10.786			
2,700.0	2,695.0	2,698.2	2,696.3	5.4	5.0	144.25	17.9	87.1	106.9	97.0	9.88	10.815			
2,800.0	2,794.8	2,798.1	2,796.1	5.6	5.2	144.22	19.2	91.1	111.2	101.0	10.26	10.842			
2,900.0	2,894.6	2,898.0	2,895.9	5.8	5.3	144.19	20.5	95.1	115.6	104.9	10.64	10.867			
3,000.0	2,994.3	2,997.9	2,995.8	6.0	5.5	144.16	21.8	99.1	119.9	108.9	11.01	10.890			
3,100.0	3,094.1	3,097.8	3,095.6	6.2	5.7	144.14	23.1	103.0	124.2	112.9	11.39	10.911			
3,200.0	3,193.9	3,197.7	3,195.4	6.5	5.9	144.11	24.5	107.0	128.6	116.8	11.76	10.932			
3,300.0	3,293.6	3,297.6	3,295.2	6.7	6.1	144.09	25.8	111.0	132.9	120.8	12.14	10.950			
3,400.0	3,393.4	3,397.5	3,395.0	6.9	6.3	144.07	27.1	115.0	137.3	124.7	12.51	10.968			
3,500.0	3,493.2	3,497.5	3,494.8	7.1	6.5	144.05	28.4	119.0	141.6	128.7	12.89	10.985			
3,600.0	3,592.9	3,597.4	3,594.7	7.3	6.7	144.03	29.8	123.0	145.9	132.7	13.27	11.001			
3,700.0	3,692.7	3,697.3	3,694.5	7.5	6.9	144.01	31.1	127.0	150.3	136.6	13.64	11.015			
3,800.0	3,792.5	3,797.2	3,794.3	7.7	7.0	144.00	32.4	131.0	154.6	140.6	14.02	11.029			
3,900.0	3,892.3	3,897.1	3,894.1	7.9	7.2	143.98	33.7	135.0	159.0	144.6	14.39	11.043			
4,000.0	3,992.0	3,997.0	3,993.9	8.1	7.4	143.97	35.0	139.0	163.3	148.5	14.77	11.055			
4,100.0	4,091.8	4,096.9	4,093.7	8.4	7.6	143.95	36.4	143.0	167.6	152.5	15.15	11.067			
4,200.0	4,191.6	4,196.8	4,193.6	8.6	7.8	143.94	37.7	147.0	172.0	156.5	15.52	11.078			
4,300.0	4,291.3	4,296.7	4,293.4	8.8	8.0	143.93	39.0	151.0	176.3	160.4	15.90	11.089			
4,400.0	4,391.1	4,396.6	4,393.2	9.0	8.2	143.91	40.3	155.0	180.7	164.4	16.28	11.099			
4,500.0	4,490.9	4,496.5	4,493.0	9.2	8.4	143.90	41.6	159.0	185.0	168.3	16.65	11.109			
4,600.0	4,590.6	4,596.4	4,592.8	9.4	8.6	143.89	43.0	163.0	189.3	172.3	17.03	11.119			
4,700.0	4,690.4	4,696.3	4,692.7	9.6	8.7	143.88	44.3	167.0	193.7	176.3	17.40	11.128			
4,800.0	4,790.2	4,796.2	4,792.5	9.8	8.9	143.87	45.6	171.0	198.0	180.2	17.78	11.136			
4,900.0	4,889.9	4,896.1	4,892.3	10.0	9.1	143.86	46.9	175.0	202.3	184.2	18.16	11.144			
5,000.0	4,989.7	4,996.0	4,992.1	10.3	9.3	143.85	48.2	178.9	206.7	188.2	18.53	11.152			

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 1B-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 1B-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1C-28H-A368 - Hz - Plan #3													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)				
5,100.0	5,089.5	5,095.9	5,091.9	10.5	9.5	143.84	49.6	182.9	211.0	192.1	18.91	11.160		
5,200.0	5,189.2	5,195.9	5,191.7	10.7	9.7	143.84	50.9	186.9	215.4	196.1	19.29	11.167		
5,300.0	5,289.0	5,295.8	5,291.6	10.9	9.9	143.83	52.2	190.9	219.7	200.0	19.66	11.174		
5,400.0	5,388.8	5,395.7	5,391.4	11.1	10.1	143.82	53.5	194.9	224.0	204.0	20.04	11.181		
5,500.0	5,488.5	5,495.6	5,491.2	11.3	10.3	143.81	54.8	198.9	228.4	208.0	20.41	11.187		
5,600.0	5,588.3	5,595.5	5,591.0	11.5	10.4	143.81	56.2	202.9	232.7	211.9	20.79	11.193		
5,700.0	5,688.1	5,695.4	5,690.8	11.7	10.6	143.80	57.5	206.9	237.1	215.9	21.17	11.199		
5,800.0	5,787.8	5,795.3	5,790.6	11.9	10.8	143.79	58.8	210.9	241.4	219.9	21.54	11.205		
5,900.0	5,887.6	5,895.2	5,890.5	12.1	11.0	143.78	60.1	214.9	245.7	223.8	21.92	11.211		
6,000.0	5,987.4	5,995.1	5,990.3	12.4	11.2	143.78	61.5	218.9	250.1	227.8	22.30	11.216		
6,100.0	6,087.1	6,095.0	6,090.1	12.6	11.4	143.77	62.8	222.9	254.4	231.7	22.67	11.221		
6,200.0	6,186.9	6,194.9	6,189.9	12.8	11.6	143.77	64.1	226.9	258.8	235.7	23.05	11.226		
6,300.0	6,286.7	6,294.8	6,289.7	13.0	11.8	143.76	65.4	230.9	263.1	239.7	23.43	11.231		
6,400.0	6,386.5	6,394.7	6,389.5	13.2	12.0	143.76	66.7	234.9	267.4	243.6	23.80	11.236		
6,500.0	6,486.2	6,495.3	6,490.1	13.4	12.1	144.25	68.0	236.5	271.7	247.6	24.13	11.260		
6,600.0	6,586.0	6,593.4	6,587.2	13.6	12.2	147.81	69.2	223.2	276.2	251.9	24.22	11.401		
6,671.5	6,657.3	6,658.8	6,650.0	13.8	12.2	151.96	69.8	205.2	281.0	256.8	24.18	11.620		
6,700.0	6,685.8	6,683.7	6,673.3	13.8	12.2	-160.35	70.1	196.5	283.7	259.5	24.15	11.747		
6,750.0	6,735.6	6,726.5	6,712.4	13.9	12.2	-108.52	70.4	179.2	289.0	265.0	24.08	12.002		
6,800.0	6,785.0	6,768.4	6,749.3	14.0	12.2	-92.45	70.7	159.4	295.3	271.2	24.04	12.285		
6,850.0	6,833.6	6,809.4	6,784.0	14.0	12.2	-84.22	71.0	137.6	302.1	278.1	24.01	12.585		
6,900.0	6,881.0	6,850.0	6,816.7	14.0	12.2	-78.63	71.2	113.5	309.4	285.4	24.00	12.895		
6,950.0	6,926.9	6,889.3	6,846.6	14.0	12.2	-74.37	71.3	88.1	317.0	293.0	24.01	13.201		
7,000.0	6,970.9	6,928.3	6,874.6	14.0	12.2	-70.88	71.5	60.9	324.6	300.5	24.04	13.500		
7,050.0	7,012.6	6,966.8	6,900.3	14.0	12.3	-67.94	71.5	32.2	332.1	308.0	24.09	13.786		
7,100.0	7,051.9	7,000.0	6,920.8	14.1	12.4	-65.59	71.6	6.1	339.5	315.4	24.14	14.066		
7,150.0	7,088.2	7,042.5	6,944.9	14.1	12.7	-63.30	71.6	-28.9	346.5	322.2	24.26	14.282		
7,200.0	7,121.5	7,079.9	6,963.9	14.2	12.9	-61.47	71.6	-61.1	353.0	328.6	24.41	14.462		
7,250.0	7,151.4	7,116.9	6,980.6	14.3	13.2	-59.91	71.5	-94.1	359.0	334.4	24.61	14.586		
7,300.0	7,177.7	7,150.0	6,993.7	14.5	13.5	-58.67	71.4	-124.5	364.4	339.6	24.85	14.662		
7,350.0	7,200.2	7,190.2	7,007.2	14.7	13.9	-57.54	71.2	-162.4	369.1	343.9	25.25	14.619		
7,400.0	7,218.8	7,226.6	7,017.1	15.1	14.4	-56.68	71.1	-197.4	373.1	347.4	25.71	14.509		
7,450.0	7,233.2	7,262.9	7,024.7	15.6	14.9	-56.04	70.8	-232.9	376.2	350.0	26.28	14.315		
7,500.0	7,243.5	7,300.0	7,030.2	16.2	15.4	-55.58	70.6	-269.6	378.6	351.6	26.98	14.034		
7,550.0	7,249.4	7,335.2	7,033.2	16.9	16.0	-55.33	70.3	-304.6	380.1	352.4	27.78	13.683		
7,593.2	7,251.0	7,366.4	7,034.0	17.5	16.5	-55.26	70.1	-335.8	380.8	352.2	28.57	13.328		
7,600.0	7,251.0	7,373.2	7,034.0	17.6	16.6	-55.26	70.0	-342.6	380.8	352.1	28.76	13.243		
7,700.0	7,251.0	7,473.2	7,034.0	19.3	18.4	-55.34	69.1	-442.6	381.5	349.9	31.65	12.053		
7,800.0	7,251.0	7,573.2	7,034.0	21.1	20.3	-55.41	68.3	-542.6	382.2	347.5	34.79	10.988		
7,900.0	7,251.0	7,673.2	7,034.0	23.1	22.3	-55.48	67.4	-642.6	383.0	344.9	38.11	10.049		
8,000.0	7,251.0	7,773.2	7,034.0	25.1	24.4	-55.56	66.5	-742.6	383.7	342.1	41.58	9.228		
8,100.0	7,251.0	7,873.2	7,034.0	27.2	26.6	-55.63	65.6	-842.6	384.4	339.2	45.16	8.512		
8,200.0	7,251.0	7,973.2	7,034.0	29.4	28.8	-55.70	64.8	-942.5	385.1	336.3	48.83	7.887		
8,300.0	7,251.0	8,073.2	7,034.0	31.6	31.0	-55.78	63.9	-1,042.5	385.8	333.3	52.58	7.338		
8,400.0	7,251.0	8,173.2	7,034.0	33.9	33.3	-55.85	63.0	-1,142.5	386.6	330.2	56.39	6.856		
8,500.0	7,251.0	8,273.2	7,034.0	36.2	35.6	-55.92	62.1	-1,242.5	387.3	327.0	60.24	6.429		
8,600.0	7,251.0	8,373.1	7,034.0	38.5	38.0	-55.99	61.3	-1,342.5	388.0	323.9	64.14	6.049		
8,700.0	7,251.0	8,473.1	7,034.0	40.8	40.3	-56.07	60.4	-1,442.5	388.7	320.7	68.08	5.710		
8,800.0	7,251.0	8,573.1	7,034.0	43.2	42.7	-56.14	59.5	-1,542.5	389.5	317.4	72.05	5.406		
8,900.0	7,251.0	8,673.1	7,034.0	45.5	45.1	-56.21	58.7	-1,642.5	390.2	314.1	76.04	5.131		
9,000.0	7,251.0	8,773.1	7,034.0	47.9	47.5	-56.28	57.8	-1,742.5	390.9	310.9	80.06	4.883		
9,100.0	7,251.0	8,873.1	7,034.0	50.3	49.9	-56.35	56.9	-1,842.5	391.6	307.5	84.10	4.657		

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 1B-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 1B-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1C-28H-A368 - Hz - Plan #3													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 Depth (ft)	Vertical Depth (ft)	Measured Depth Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
9,200.0	7,251.0	8,973.1	7,034.0	52.6	52.3	-56.42	56.0	-1,942.5	392.4	304.2	88.16	4.451		
9,300.0	7,251.0	9,073.1	7,034.0	55.0	54.7	-56.49	55.2	-2,042.5	393.1	300.9	92.24	4.262		
9,400.0	7,251.0	9,173.1	7,034.0	57.4	57.1	-56.56	54.3	-2,142.5	393.8	297.5	96.33	4.088		
9,500.0	7,251.0	9,273.1	7,034.0	59.9	59.5	-56.63	53.4	-2,242.4	394.6	294.1	100.44	3.928		
9,600.0	7,251.0	9,373.1	7,034.0	62.3	61.9	-56.70	52.5	-2,342.4	395.3	290.7	104.57	3.780		
9,700.0	7,251.0	9,473.1	7,034.0	64.7	64.3	-56.77	51.7	-2,442.4	396.0	287.3	108.70	3.643		
9,800.0	7,251.0	9,573.1	7,034.0	67.1	66.8	-56.84	50.8	-2,542.4	396.7	283.9	112.85	3.516		
9,900.0	7,251.0	9,673.1	7,034.0	69.5	69.2	-56.91	49.9	-2,642.4	397.5	280.5	117.01	3.397		
10,000.0	7,251.0	9,773.1	7,034.0	72.0	71.7	-56.98	49.1	-2,742.4	398.2	277.0	121.18	3.286		
10,100.0	7,251.0	9,873.1	7,034.0	74.4	74.1	-57.05	48.2	-2,842.4	398.9	273.6	125.37	3.182		
10,200.0	7,251.0	9,973.1	7,034.0	76.8	76.5	-57.11	47.3	-2,942.4	399.7	270.1	129.56	3.085		
10,300.0	7,251.0	10,073.1	7,034.0	79.3	79.0	-57.18	46.4	-3,042.4	400.4	266.6	133.76	2.993		
10,400.0	7,251.0	10,173.1	7,034.0	81.7	81.4	-57.25	45.6	-3,142.4	401.1	263.2	137.97	2.907		
10,500.0	7,251.0	10,273.1	7,034.0	84.1	83.9	-57.32	44.7	-3,242.4	401.9	259.7	142.19	2.826		
10,600.0	7,251.0	10,373.1	7,034.0	86.6	86.3	-57.38	43.8	-3,342.4	402.6	256.2	146.42	2.750		
10,700.0	7,251.0	10,473.1	7,034.0	89.0	88.8	-57.45	43.0	-3,442.4	403.3	252.7	150.65	2.677		
10,800.0	7,251.0	10,573.1	7,034.0	91.5	91.2	-57.52	42.1	-3,542.3	404.1	249.2	154.90	2.609		
10,900.0	7,251.0	10,673.1	7,034.0	93.9	93.7	-57.58	41.2	-3,642.3	404.8	245.7	159.15	2.544		
11,000.0	7,251.0	10,773.1	7,034.0	96.4	96.1	-57.65	40.3	-3,742.3	405.5	242.1	163.41	2.482		
11,100.0	7,251.0	10,873.1	7,034.0	98.8	98.6	-57.72	39.5	-3,842.3	406.3	238.6	167.67	2.423		
11,200.0	7,251.0	10,973.0	7,034.0	101.3	101.0	-57.78	38.6	-3,942.3	407.0	235.1	171.95	2.367		
11,300.0	7,251.0	11,073.0	7,034.0	103.7	103.5	-57.85	37.7	-4,042.3	407.8	231.5	176.23	2.314		
11,400.0	7,251.0	11,173.0	7,034.0	106.2	105.9	-57.91	36.8	-4,142.3	408.5	228.0	180.52	2.263		
11,500.0	7,251.0	11,273.0	7,034.0	108.6	108.4	-57.98	36.0	-4,242.3	409.2	224.4	184.81	2.214		
11,600.0	7,251.0	11,373.0	7,034.0	111.1	110.9	-58.04	35.1	-4,342.3	410.0	220.9	189.11	2.168		
11,700.0	7,251.0	11,473.0	7,034.0	113.6	113.3	-58.11	34.2	-4,442.3	410.7	217.3	193.42	2.123		
11,800.0	7,251.0	11,573.0	7,034.0	116.0	115.8	-58.17	33.4	-4,542.3	411.5	213.7	197.73	2.081		
11,813.2	7,251.0	11,586.2	7,034.0	116.3	116.1	-58.18	33.2	-4,555.4	411.6	213.3	198.30	2.075 SF		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1B-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 1B-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1D-28H-A368 - Hz - Plan #3													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	-21.9	0.0	21.9						
100.0	100.0	100.0	100.0	0.2	0.2	180.00	-21.9	0.0	21.9	21.6	0.30	71.972			
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-21.9	0.0	21.9	21.2	0.65	33.484			
300.0	300.0	300.0	300.0	0.5	0.5	180.00	-21.9	0.0	21.9	20.9	1.00	21.817	CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	147.40	-21.9	0.0	22.6	21.2	1.35	16.719			
500.0	500.0	500.0	500.0	0.9	0.8	150.65	-21.9	0.0	24.8	23.1	1.70	14.602			
600.0	599.9	599.9	599.9	1.0	1.0	154.90	-21.9	0.0	28.7	26.7	2.05	14.004	SF		
690.3	690.0	690.0	690.0	1.2	1.2	158.80	-21.9	0.0	33.7	31.4	2.37	14.251			
700.0	699.7	699.7	699.7	1.2	1.2	159.20	-21.9	0.0	34.3	31.9	2.40	14.307			
800.0	799.4	799.4	799.4	1.4	1.4	162.60	-21.9	0.0	40.8	38.0	2.75	14.830			
900.0	899.2	899.2	899.2	1.6	1.5	165.06	-21.9	0.0	47.3	44.2	3.10	15.270			
1,000.0	999.0	999.0	999.0	1.8	1.7	166.93	-21.9	0.0	53.9	50.5	3.45	15.642			
1,100.0	1,098.7	1,098.7	1,098.7	2.1	1.9	168.39	-21.9	0.0	60.6	56.8	3.80	15.958			
1,200.0	1,198.5	1,198.5	1,198.5	2.3	2.1	169.55	-21.9	0.0	67.3	63.1	4.14	16.229			
1,300.0	1,298.3	1,298.3	1,298.3	2.5	2.2	170.51	-21.9	0.0	74.0	69.5	4.49	16.463			
1,400.0	1,398.1	1,398.1	1,398.1	2.7	2.4	171.31	-21.9	0.0	80.7	75.8	4.84	16.667			
1,500.0	1,497.8	1,497.8	1,497.8	2.9	2.6	171.98	-21.9	0.0	87.4	82.2	5.19	16.846			
1,600.0	1,597.6	1,597.6	1,597.6	3.1	2.8	172.56	-21.9	0.0	94.2	88.6	5.54	17.005			
1,700.0	1,697.4	1,697.4	1,697.4	3.3	2.9	173.06	-21.9	0.0	100.9	95.0	5.89	17.146			
1,800.0	1,797.1	1,797.1	1,797.1	3.5	3.1	173.50	-21.9	0.0	107.7	101.4	6.23	17.272			
1,900.0	1,896.9	1,896.9	1,896.9	3.7	3.3	173.88	-21.9	0.0	114.4	107.9	6.58	17.386			
2,000.0	1,996.7	1,996.7	1,996.7	3.9	3.5	174.23	-21.9	0.0	121.2	114.3	6.93	17.489			
2,100.0	2,096.4	2,096.4	2,096.4	4.1	3.6	174.53	-21.9	0.0	128.0	120.7	7.28	17.583			
2,200.0	2,196.2	2,196.2	2,196.2	4.3	3.8	174.81	-21.9	0.0	134.8	127.1	7.63	17.669			
2,300.0	2,296.0	2,296.0	2,296.0	4.6	4.0	175.06	-21.9	0.0	141.5	133.6	7.98	17.747			
2,400.0	2,395.7	2,395.7	2,395.7	4.8	4.2	175.28	-21.9	0.0	148.3	140.0	8.32	17.819			
2,500.0	2,495.5	2,495.5	2,495.5	5.0	4.3	175.49	-21.9	0.0	155.1	146.4	8.67	17.886			
2,600.0	2,595.3	2,595.3	2,595.3	5.2	4.5	175.68	-21.9	0.0	161.9	152.9	9.02	17.948			
2,700.0	2,695.0	2,695.0	2,695.0	5.4	4.7	175.85	-21.9	0.0	168.7	159.3	9.37	18.005			
2,800.0	2,794.8	2,794.8	2,794.8	5.6	4.9	176.01	-21.9	0.0	175.5	165.8	9.72	18.058			
2,900.0	2,894.6	2,894.6	2,894.6	5.8	5.0	176.16	-21.9	0.0	182.3	172.2	10.07	18.108			
3,000.0	2,994.3	2,994.3	2,994.3	6.0	5.2	176.30	-21.9	0.0	189.1	178.6	10.41	18.154			
3,100.0	3,094.1	3,094.1	3,094.1	6.2	5.4	176.43	-21.9	0.0	195.9	185.1	10.76	18.198			
3,200.0	3,193.9	3,193.9	3,193.9	6.5	5.6	176.55	-21.9	0.0	202.7	191.5	11.11	18.239			
3,300.0	3,293.6	3,293.6	3,293.6	6.7	5.7	176.66	-21.9	0.0	209.4	198.0	11.46	18.277			
3,400.0	3,393.4	3,393.4	3,393.4	6.9	5.9	176.77	-21.9	0.0	216.2	204.4	11.81	18.313			
3,500.0	3,493.2	3,493.2	3,493.2	7.1	6.1	176.87	-21.9	0.0	223.0	210.9	12.16	18.348			
3,600.0	3,592.9	3,591.8	3,591.8	7.3	6.2	176.78	-22.4	0.5	230.1	217.6	12.50	18.400			
3,700.0	3,692.7	3,690.3	3,690.3	7.5	6.4	176.31	-24.2	2.1	237.6	224.7	12.85	18.488			
3,800.0	3,792.5	3,788.6	3,788.5	7.7	6.6	175.50	-27.3	4.9	245.7	232.5	13.20	18.612			
3,900.0	3,892.3	3,886.7	3,886.4	7.9	6.8	174.38	-31.6	8.7	254.4	240.9	13.55	18.770			
4,000.0	3,992.0	3,984.5	3,983.9	8.1	6.9	173.00	-37.1	13.7	263.8	249.9	13.91	18.964			
4,100.0	4,091.8	4,082.0	4,081.0	8.4	7.1	171.39	-43.8	19.8	274.1	259.8	14.28	19.195			
4,200.0	4,191.6	4,179.1	4,177.5	8.6	7.3	169.60	-51.7	26.9	285.2	270.5	14.65	19.465			
4,300.0	4,291.3	4,276.9	4,274.5	8.8	7.5	167.68	-60.8	35.0	297.2	282.2	15.03	19.770			
4,400.0	4,391.1	4,375.6	4,372.5	9.0	7.7	165.87	-70.0	43.3	309.7	294.2	15.42	20.076			
4,500.0	4,490.9	4,474.4	4,470.5	9.2	7.9	164.20	-79.3	51.7	322.4	306.6	15.82	20.380			
4,600.0	4,590.6	4,573.2	4,568.5	9.4	8.1	162.65	-88.5	60.0	335.3	319.1	16.21	20.681			
4,700.0	4,690.4	4,671.9	4,666.4	9.6	8.3	161.22	-97.8	68.3	348.5	331.9	16.61	20.979			
4,800.0	4,790.2	4,770.7	4,764.4	9.8	8.6	159.89	-107.1	76.7	361.9	344.9	17.01	21.272			
4,900.0	4,889.9	4,869.4	4,862.4	10.0	8.8	158.66	-116.3	85.0	375.5	358.1	17.42	21.560			
5,000.0	4,989.7	4,968.2	4,960.3	10.3	9.0	157.52	-125.6	93.3	389.2	371.4	17.82	21.844			

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 1B-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 1B-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S28-T3N-R68W (Frederiksen) - Frederiksen 1D-28H-A368 - Hz - Plan #3													<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b>	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		
5,100.0	5,089.5	5,067.0	5,058.3	10.5	9.2	156.45	-134.8	101.7	403.1	384.9	18.22	22.122		
5,200.0	5,189.2	5,165.7	5,156.3	10.7	9.5	155.45	-144.1	110.0	417.1	398.5	18.63	22.394		
5,300.0	5,289.0	5,264.5	5,254.3	10.9	9.7	154.52	-153.3	118.3	431.2	412.2	19.03	22.661		
5,400.0	5,388.8	5,363.3	5,352.2	11.1	9.9	153.64	-162.6	126.6	445.4	426.0	19.43	22.921		
5,500.0	5,488.5	5,462.0	5,450.2	11.3	10.2	152.83	-171.9	135.0	459.8	439.9	19.84	23.176		
5,600.0	5,588.3	5,560.8	5,548.2	11.5	10.4	152.06	-181.1	143.3	474.2	453.9	20.24	23.426		
5,700.0	5,688.1	5,659.5	5,646.2	11.7	10.7	151.33	-190.4	151.6	488.6	468.0	20.64	23.669		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1B-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 1B-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1E-28H-A368 - Hz - Plan #3													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)				
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-32.8	0.0	32.8					
100.0	100.0	100.0	100.0	0.2	0.2	180.00	-32.8	0.0	32.8	32.5	0.30	107.958		
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-32.8	0.0	32.8	32.1	0.65	50.227		
300.0	300.0	300.0	300.0	0.5	0.5	180.00	-32.8	0.0	32.8	31.8	1.00	32.726	CC, ES	
400.0	400.0	400.0	400.0	0.7	0.7	147.00	-32.8	0.0	33.5	32.2	1.35	24.807		
500.0	500.0	499.4	499.4	0.9	0.8	148.69	-33.6	0.3	36.5	34.8	1.70	21.489		
600.0	599.9	598.6	598.5	1.0	1.0	150.27	-36.0	1.3	42.6	40.6	2.05	20.801	SF	
690.3	690.0	687.9	687.7	1.2	1.2	151.39	-39.5	2.7	50.8	48.5	2.37	21.460		
700.0	699.7	697.4	697.3	1.2	1.2	151.49	-40.0	2.8	51.8	49.4	2.40	21.579		
800.0	799.4	795.9	795.6	1.4	1.4	151.95	-45.5	5.0	63.2	60.4	2.76	22.915		
900.0	899.2	894.0	893.4	1.6	1.6	151.67	-52.6	7.8	76.1	73.0	3.12	24.409		
1,000.0	999.0	991.7	990.6	1.8	1.8	150.98	-61.2	11.2	90.5	87.0	3.48	26.008		
1,100.0	1,098.7	1,089.7	1,088.1	2.1	2.0	150.13	-71.1	15.2	106.2	102.3	3.84	27.631		
1,200.0	1,198.5	1,188.4	1,186.2	2.3	2.3	149.45	-81.4	19.2	122.1	117.9	4.21	29.007		
1,300.0	1,298.3	1,287.1	1,284.3	2.5	2.5	148.93	-91.6	23.3	138.0	133.5	4.58	30.160		
1,400.0	1,398.1	1,385.9	1,382.4	2.7	2.8	148.52	-101.9	27.3	154.0	149.1	4.95	31.140		
1,500.0	1,497.8	1,484.6	1,480.5	2.9	3.0	148.18	-112.1	31.4	170.0	164.6	5.31	31.982		
1,600.0	1,597.6	1,583.3	1,578.6	3.1	3.3	147.91	-122.3	35.4	185.9	180.2	5.68	32.715		
1,700.0	1,697.4	1,682.0	1,676.7	3.3	3.5	147.67	-132.6	39.4	201.9	195.8	6.05	33.357		
1,800.0	1,797.1	1,780.7	1,774.8	3.5	3.8	147.47	-142.8	43.5	217.8	211.4	6.42	33.925		
1,900.0	1,896.9	1,879.4	1,872.9	3.7	4.0	147.30	-153.1	47.5	233.8	227.0	6.79	34.430		
2,000.0	1,996.7	1,978.1	1,971.0	3.9	4.3	147.15	-163.3	51.6	249.8	242.6	7.16	34.883		
2,100.0	2,096.4	2,076.9	2,069.1	4.1	4.5	147.02	-173.5	55.6	265.8	258.2	7.53	35.290		
2,200.0	2,196.2	2,175.6	2,167.2	4.3	4.8	146.90	-183.8	59.7	281.7	273.8	7.90	35.660		
2,300.0	2,296.0	2,274.3	2,265.3	4.6	5.0	146.79	-194.0	63.7	297.7	289.4	8.27	35.995		
2,400.0	2,395.7	2,373.0	2,363.4	4.8	5.3	146.70	-204.2	67.8	313.7	305.0	8.64	36.302		
2,500.0	2,495.5	2,471.7	2,461.5	5.0	5.5	146.62	-214.5	71.8	329.7	320.6	9.01	36.584		
2,600.0	2,595.3	2,570.4	2,559.6	5.2	5.8	146.54	-224.7	75.9	345.6	336.2	9.38	36.843		
2,700.0	2,695.0	2,669.1	2,657.7	5.4	6.1	146.47	-235.0	79.9	361.6	351.9	9.75	37.082		
2,800.0	2,794.8	2,767.9	2,755.7	5.6	6.3	146.40	-245.2	84.0	377.6	367.5	10.12	37.304		
2,900.0	2,894.6	2,866.6	2,853.8	5.8	6.6	146.34	-255.4	88.0	393.6	383.1	10.49	37.510		
3,000.0	2,994.3	2,965.3	2,951.9	6.0	6.8	146.29	-265.7	92.1	409.5	398.7	10.86	37.701		
3,100.0	3,094.1	3,064.0	3,050.0	6.2	7.1	146.24	-275.9	96.1	425.5	414.3	11.23	37.880		
3,200.0	3,193.9	3,162.7	3,148.1	6.5	7.3	146.19	-286.2	100.2	441.5	429.9	11.60	38.048		
3,300.0	3,293.6	3,261.4	3,246.2	6.7	7.6	146.15	-296.4	104.2	457.5	445.5	11.97	38.205		
3,400.0	3,393.4	3,360.1	3,344.3	6.9	7.8	146.11	-306.6	108.2	473.5	461.1	12.34	38.352		
3,500.0	3,493.2	3,458.9	3,442.4	7.1	8.1	146.07	-316.9	112.3	489.4	476.7	12.72	38.491		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1B-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 1B-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - Frederiksen 1F-28H-A368 - Hz - Plan #3													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	99.0	99.0	0.2	0.2	180.00	-40.1	0.0	40.1	39.8	0.30	132.612		
200.0	200.0	199.0	199.0	0.3	0.3	180.00	-40.1	0.0	40.1	39.4	0.65	61.553 CC, ES		
300.0	300.0	298.3	298.3	0.5	0.5	179.71	-40.9	0.2	40.9	39.9	1.00	40.936		
400.0	400.0	397.6	397.5	0.7	0.7	145.70	-43.4	0.8	44.1	42.8	1.35	32.756		
500.0	500.0	496.6	496.4	0.9	0.9	146.17	-47.5	1.9	50.5	48.8	1.70	29.760		
600.0	599.9	595.2	594.9	1.0	1.1	147.01	-53.3	3.3	59.9	57.9	2.05	29.287 SF		
690.3	690.0	683.8	683.3	1.2	1.2	147.87	-59.9	5.0	71.2	68.8	2.37	30.087		
700.0	699.7	693.3	692.7	1.2	1.3	147.97	-60.6	5.2	72.5	70.1	2.40	30.219		
800.0	799.4	790.9	789.8	1.4	1.5	148.61	-69.6	7.5	87.3	84.6	2.76	31.692		
900.0	899.2	888.0	886.3	1.6	1.7	148.78	-80.1	10.1	103.8	100.7	3.11	33.328		
1,000.0	999.0	984.5	982.1	1.8	2.0	148.68	-92.1	13.2	121.8	118.3	3.47	35.074		
1,100.0	1,098.7	1,080.5	1,077.0	2.1	2.3	148.41	-105.5	16.6	141.4	137.6	3.83	36.896		
1,200.0	1,198.5	1,178.1	1,173.5	2.3	2.6	148.11	-120.1	20.3	161.9	157.7	4.20	38.590		
1,300.0	1,298.3	1,276.0	1,270.2	2.5	2.9	147.87	-134.8	24.0	182.5	177.9	4.56	40.008		
1,400.0	1,398.1	1,373.9	1,366.9	2.7	3.2	147.68	-149.5	27.7	203.0	198.1	4.93	41.213		
1,500.0	1,497.8	1,471.7	1,463.6	2.9	3.5	147.53	-164.1	31.4	223.5	218.2	5.29	42.249		
1,600.0	1,597.6	1,569.6	1,560.3	3.1	3.8	147.40	-178.8	35.1	244.1	238.4	5.66	43.150		
1,700.0	1,697.4	1,667.5	1,657.0	3.3	4.1	147.29	-193.4	38.8	264.6	258.6	6.02	43.940		
1,800.0	1,797.1	1,765.3	1,753.7	3.5	4.4	147.20	-208.1	42.5	285.1	278.8	6.39	44.638		
1,900.0	1,896.9	1,863.2	1,850.4	3.7	4.7	147.12	-222.7	46.3	305.7	298.9	6.75	45.260		
2,000.0	1,996.7	1,961.1	1,947.0	3.9	5.0	147.05	-237.4	50.0	326.2	319.1	7.12	45.817		
2,100.0	2,096.4	2,058.9	2,043.7	4.1	5.3	146.99	-252.1	53.7	346.8	339.3	7.49	46.319		
2,200.0	2,196.2	2,156.8	2,140.4	4.3	5.6	146.93	-266.7	57.4	367.3	359.5	7.85	46.774		
2,300.0	2,296.0	2,254.7	2,237.1	4.6	5.9	146.88	-281.4	61.1	387.9	379.6	8.22	47.187		
2,400.0	2,395.7	2,352.5	2,333.8	4.8	6.3	146.84	-296.0	64.8	408.4	399.8	8.59	47.565		
2,500.0	2,495.5	2,450.4	2,430.5	5.0	6.6	146.80	-310.7	68.5	428.9	420.0	8.95	47.912		
2,600.0	2,595.3	2,548.3	2,527.2	5.2	6.9	146.76	-325.4	72.2	449.5	440.2	9.32	48.231		
2,700.0	2,695.0	2,646.1	2,623.9	5.4	7.2	146.73	-340.0	75.9	470.0	460.3	9.69	48.526		
2,800.0	2,794.8	2,744.0	2,720.6	5.6	7.5	146.70	-354.7	79.7	490.6	480.5	10.05	48.799		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1B-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 1B-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S28-T3N-R68W (Frederiksen) - FREDERIKSEN 31-28 (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											
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)										
8,900.0	7,251.0	7,430.8	7,222.0	45.5	14.3	-88.83	-11.9	-1,928.4	485.8	428.3	57.56	8.440						
9,000.0	7,251.0	7,433.6	7,224.8	47.9	14.3	-89.25	-11.9	-1,928.5	435.2	375.3	59.95	7.259						
9,100.0	7,251.0	7,436.6	7,227.8	50.3	14.3	-89.67	-11.9	-1,928.6	403.5	341.1	62.35	6.471						
9,183.3	7,251.0	7,439.1	7,230.3	52.2	14.3	-90.04	-11.9	-1,928.6	394.8	330.4	64.35	6.135 CC						
9,200.0	7,251.0	7,439.6	7,230.8	52.6	14.3	-90.12	-11.9	-1,928.7	395.1	330.4	64.75	6.102 ES, SF						
9,300.0	7,251.0	7,442.8	7,234.0	55.0	14.3	-90.57	-11.9	-1,928.8	411.6	344.5	67.16	6.129						
9,400.0	7,251.0	7,446.0	7,237.2	57.4	14.3	-91.05	-11.8	-1,928.9	450.3	380.7	69.57	6.473						

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1B-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 1B-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S28-T3N-R68W (Frederiksen) - FREDERIKSEN 41-28 (Existing) - DD - GYRO													Offset Site Error:	0.0 ft
Survey Program: 200-Gyro													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
5,000.0	4,989.7	5,205.3	5,073.0	10.3	9.8	-147.85	61.2	-271.7	494.1	477.8	16.30	30.317		
5,100.0	5,089.5	5,300.0	5,164.5	10.5	10.1	-146.41	82.9	-260.4	479.4	462.6	16.81	28.522		
5,200.0	5,189.2	5,389.1	5,250.8	10.7	10.3	-144.99	102.9	-250.8	466.4	449.1	17.32	26.932		
5,300.0	5,289.0	5,477.7	5,336.9	10.9	10.5	-143.57	121.8	-242.4	455.4	437.6	17.82	25.553		
5,400.0	5,388.8	5,566.3	5,423.7	11.1	10.6	-142.31	138.5	-235.3	447.0	428.7	18.30	24.426		
5,500.0	5,488.5	5,654.8	5,510.9	11.3	10.8	-141.29	152.6	-229.5	441.1	422.4	18.73	23.550		
5,600.0	5,588.3	5,743.2	5,598.5	11.5	10.9	-140.64	163.1	-224.9	437.9	418.8	19.10	22.932		
5,672.4	5,660.5	5,807.4	5,662.5	11.7	10.9	-140.42	168.5	-222.4	437.3	417.9	19.32	22.634		
5,700.0	5,688.1	5,832.8	5,687.8	11.7	10.9	-140.38	170.2	-221.6	437.3	417.9	19.39	22.549		
5,800.0	5,787.8	5,926.1	5,780.9	11.9	11.0	-140.43	174.8	-219.2	438.7	419.1	19.65	22.330		
5,900.0	5,887.6	6,022.1	5,876.9	12.1	11.1	-140.64	178.0	-217.3	441.1	421.2	19.87	22.198		
6,000.0	5,987.4	6,114.3	5,969.1	12.4	11.1	-141.06	179.1	-216.3	445.0	424.9	20.06	22.186		
6,100.0	6,087.1	6,208.9	6,063.6	12.6	11.2	-141.60	178.9	-216.3	450.3	430.1	20.23	22.265		
6,200.0	6,186.9	6,309.3	6,164.0	12.8	11.2	-142.14	178.7	-216.7	456.1	435.7	20.40	22.360		
6,300.0	6,286.7	6,404.9	6,259.6	13.0	11.2	-142.64	178.4	-217.4	462.4	441.8	20.57	22.474		
6,400.0	6,386.5	6,502.8	6,357.5	13.2	11.3	-143.13	178.0	-218.8	469.3	448.6	20.76	22.612		
6,500.0	6,486.2	6,600.0	6,454.7	13.4	11.3	-143.59	177.5	-220.7	476.8	455.9	20.94	22.771		
6,600.0	6,586.0	6,706.2	6,560.9	13.6	11.3	-144.07	177.2	-222.4	483.9	462.7	21.13	22.903		
6,671.5	6,657.3	6,777.1	6,631.8	13.8	11.4	-144.36	177.3	-223.1	488.4	467.2	21.27	22.966		
6,700.0	6,685.8	6,805.5	6,660.2	13.8	11.4	-98.83	177.4	-223.4	489.6	468.3	21.32	22.965		
6,750.0	6,735.6	6,855.4	6,710.1	13.9	11.4	-50.92	177.5	-223.9	488.5	467.2	21.31	22.928		
6,800.0	6,785.0	6,904.9	6,759.6	14.0	11.4	-38.92	177.4	-224.4	483.4	462.2	21.16	22.842		
6,850.0	6,833.6	6,953.6	6,808.2	14.0	11.4	-34.93	177.3	-224.8	474.3	453.4	20.90	22.698		
6,900.0	6,881.0	7,001.1	6,855.8	14.0	11.5	-33.80	177.2	-225.3	461.4	440.9	20.52	22.484		
6,950.0	6,926.9	7,047.7	6,902.4	14.0	11.5	-34.27	177.1	-225.7	444.9	424.9	20.06	22.177		
7,000.0	6,970.9	7,092.3	6,947.0	14.0	11.5	-35.94	176.9	-225.9	425.1	405.5	19.55	21.741		
7,050.0	7,012.6	7,133.9	6,988.6	14.0	11.5	-38.65	176.7	-226.2	402.2	383.2	19.05	21.114		
7,100.0	7,051.9	7,173.0	7,027.6	14.1	11.5	-42.43	176.6	-226.5	376.9	358.2	18.63	20.223		
7,150.0	7,088.2	7,209.6	7,064.3	14.1	11.5	-47.40	176.7	-226.9	349.5	331.1	18.41	18.984		
7,200.0	7,121.5	7,243.6	7,098.3	14.2	11.6	-53.61	176.7	-227.2	320.8	302.4	18.50	17.347		
7,250.0	7,151.4	7,274.1	7,128.7	14.3	11.6	-60.87	176.7	-227.5	291.9	272.9	18.96	15.395		
7,300.0	7,177.7	7,300.8	7,155.5	14.5	11.6	-68.69	176.7	-227.7	263.9	244.2	19.73	13.373		
7,350.0	7,200.2	7,323.5	7,178.2	14.7	11.6	-76.31	176.7	-227.8	238.9	218.2	20.65	11.570		
7,400.0	7,218.8	7,342.3	7,197.0	15.1	11.6	-82.94	176.6	-227.9	219.2	197.7	21.53	10.183		
7,450.0	7,233.2	7,357.0	7,211.7	15.6	11.6	-87.92	176.6	-228.0	207.7	185.4	22.31	9.307		
7,479.6	7,239.8	7,363.8	7,218.5	15.9	11.6	-89.90	176.6	-228.1	205.7	182.9	22.76	9.038 CC, ES		
7,500.0	7,243.5	7,367.6	7,222.2	16.2	11.6	-90.82	176.6	-228.1	206.7	183.6	23.05	8.966 SF		
7,550.0	7,249.4	7,373.8	7,228.5	16.9	11.6	-91.45	176.6	-228.2	216.9	193.1	23.80	9.113		
7,593.2	7,251.0	7,375.7	7,230.4	17.5	11.6	-90.11	176.6	-228.2	234.0	209.5	24.50	9.551		
7,600.0	7,251.0	7,375.8	7,230.5	17.6	11.6	-90.13	176.6	-228.2	237.3	212.7	24.61	9.641		
7,700.0	7,251.0	7,376.5	7,231.2	19.3	11.6	-90.32	176.6	-228.2	299.6	273.2	26.36	11.364		
7,800.0	7,251.0	7,377.2	7,231.9	21.1	11.6	-90.52	176.6	-228.2	378.4	350.1	28.26	13.390		
7,900.0	7,251.0	7,377.9	7,232.6	23.1	11.6	-90.71	176.6	-228.2	465.4	435.1	30.27	15.376		

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Frederiksen 1B-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 1B-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 #3	<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 1B-28H-A368

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.32°

