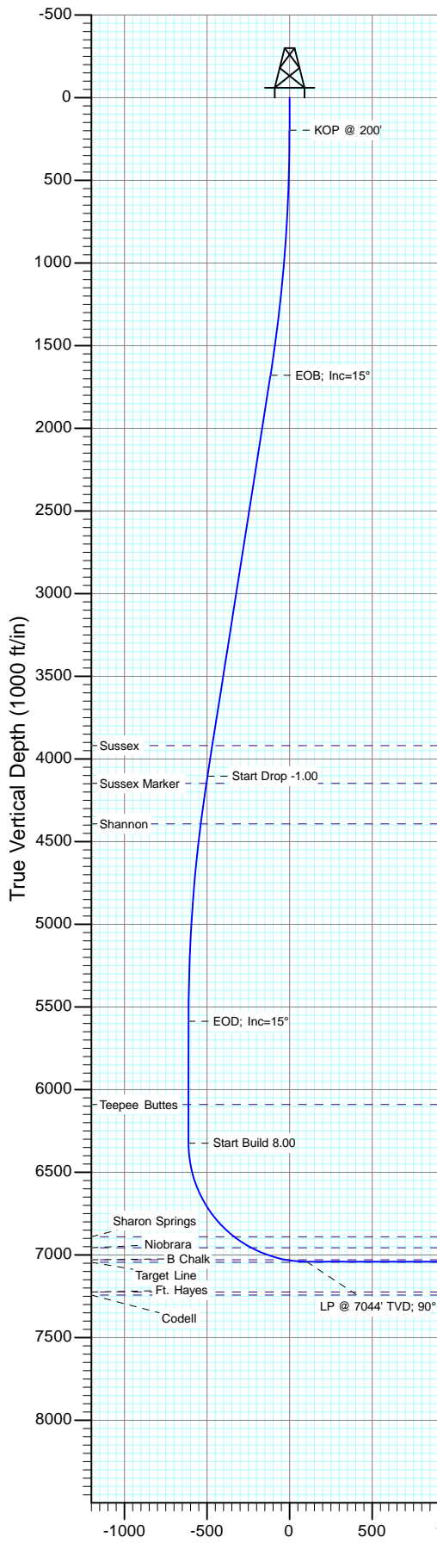
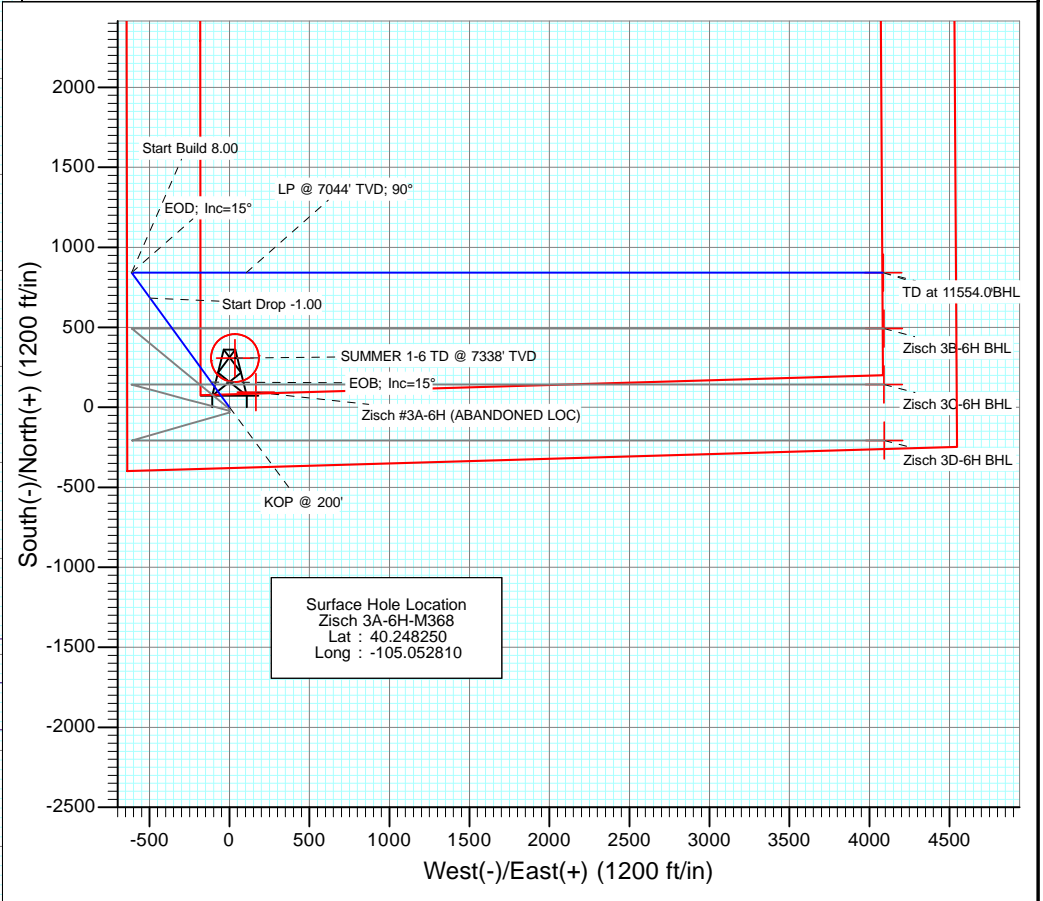




Project: DJ Wattenberg  
Site: S6-T3N-R68W (Zisch)  
Well: Zisch 3A-6H-M368  
Wellbore: HZ  
Design: Plan #1

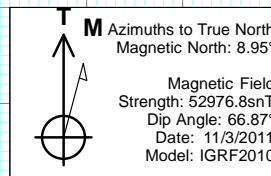


SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	197.0	0.00	0.00	197.0	0.0	0.0	0.00	0.00	0.0	
3	1697.0	15.00	324.00	1679.9	157.9	-114.8	1.00	324.00	-114.8	
4	4207.0	15.00	324.00	4104.4	683.5	-496.6	0.00	0.00	-496.6	
5	5707.0	0.00	0.00	5587.3	841.5	-611.4	1.00	180.00	-611.4	
6	6444.5	0.00	0.00	6324.8	841.5	-611.4	0.00	0.00	-611.4	
7	7569.5	90.00	90.00	7041.0	841.5	104.8	8.00	90.00	104.8	
8	11551.0	90.00	90.00	7041.0	841.9	4086.4	0.00	0.00	4086.4	Zisch 3A-6H PBHL



DESIGN TARGET DETAILS					
Name	+N/-S	+E/-W	Northing	Easting	Latitude
Zisch 3A-6H PBHL	841.9	4086.4	1334459.05	3128913.64	40.250560

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3919.0	4015.1	Sussex
4148.0	4252.1	Sussex Marker
4393.0	4503.9	Shannon
6090.0	6209.7	Teepee Buttes
6890.0	7095.8	Sharon Springs
6957.0	7219.1	Niobrara
7029.0	7438.2	B Chalk



Plan #1  
Zisch 3A-6H-M368  
115xxx; LR  
KBE @ 5173.0ft (Original Well Elev)  
Ground Elevation @ 5163.0  
North American Datum 1983  
Well Zisch 3A-6H-M368, True North

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Zisch 3A-6H-M368
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5176.0ft (Ensign)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5176.0ft (Ensign)
<b>Site:</b>	S6-T3N-R68W (Zisch)	<b>North Reference:</b>	True
<b>Well:</b>	Zisch 3A-6H-M368	<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		S6-T3N-R68W (Zisch)			
Site Position:		Northing:	1,333,692.15 ft	Latitude:	40.248510
From:	Lat/Long	Easting:	3,124,995.76 ft	Longitude:	-105.052220
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.29 °

Well	Zisch 3A-6H-M368					
Well Position	+N/-S	0.0 ft	Northing:	1,333,596.60 ft	Latitude:	40.248250
	+E/-W	0.0 ft	Easting:	3,124,831.55 ft	Longitude:	-105.052810
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,163.0 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</b>
			(°)	(°)	(nT)
	IGRF2010	11/3/2011	8.95	66.87	52,977

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	3.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	3.0	0.0	0.0	90.00

<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
3.0	0.00	0.00	3.0	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	
1,700.0	15.00	324.00	1,682.9	157.9	-114.8	1.00	1.00	0.00	324.00	
4,210.0	15.00	324.00	4,107.4	683.5	-496.6	0.00	0.00	0.00	0.00	
5,710.0	0.00	0.00	5,590.3	841.5	-611.4	1.00	-1.00	0.00	180.00	
6,447.5	0.00	0.00	6,327.8	841.5	-611.4	0.00	0.00	0.00	0.00	
7,572.5	90.00	90.00	7,044.0	841.5	104.8	8.00	8.00	0.00	90.00	
11,554.0	90.00	90.00	7,044.0	841.9	4,086.4	0.00	0.00	0.00	0.00	Zisch 3A-6H PBHL

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Zisch 3A-6H-M368
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5176.0ft (Ensign)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5176.0ft (Ensign)
<b>Site:</b>	S6-T3N-R68W (Zisch)	<b>North Reference:</b>	True
<b>Well:</b>	Zisch 3A-6H-M368	<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
3.0	0.00	0.00	3.0	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'
300.0	1.00	324.00	300.0	0.7	-0.5	-0.5	1.00	1.00	
400.0	2.00	324.00	400.0	2.8	-2.1	-2.1	1.00	1.00	
500.0	3.00	324.00	499.9	6.4	-4.6	-4.6	1.00	1.00	
600.0	4.00	324.00	599.7	11.3	-8.2	-8.2	1.00	1.00	
700.0	5.00	324.00	699.4	17.6	-12.8	-12.8	1.00	1.00	
800.0	6.00	324.00	798.9	25.4	-18.4	-18.4	1.00	1.00	
900.0	7.00	324.00	898.3	34.6	-25.1	-25.1	1.00	1.00	
1,000.0	8.00	324.00	997.4	45.1	-32.8	-32.8	1.00	1.00	
1,100.0	9.00	324.00	1,096.3	57.1	-41.5	-41.5	1.00	1.00	
1,200.0	10.00	324.00	1,194.9	70.4	-51.2	-51.2	1.00	1.00	
1,300.0	11.00	324.00	1,293.3	85.2	-61.9	-61.9	1.00	1.00	
1,400.0	12.00	324.00	1,391.2	101.3	-73.6	-73.6	1.00	1.00	
1,500.0	13.00	324.00	1,488.9	118.8	-86.3	-86.3	1.00	1.00	
1,600.0	14.00	324.00	1,586.1	137.7	-100.0	-100.0	1.00	1.00	
1,700.0	15.00	324.00	1,682.9	157.9	-114.8	-114.8	1.00	1.00	EOB; Inc=15°
1,800.0	15.00	324.00	1,779.5	178.9	-130.0	-130.0	0.00	0.00	
1,900.0	15.00	324.00	1,876.1	199.8	-145.2	-145.2	0.00	0.00	
2,000.0	15.00	324.00	1,972.7	220.8	-160.4	-160.4	0.00	0.00	
2,100.0	15.00	324.00	2,069.3	241.7	-175.6	-175.6	0.00	0.00	
2,200.0	15.00	324.00	2,165.9	262.6	-190.8	-190.8	0.00	0.00	
2,300.0	15.00	324.00	2,262.5	283.6	-206.0	-206.0	0.00	0.00	
2,400.0	15.00	324.00	2,359.1	304.5	-221.2	-221.2	0.00	0.00	
2,500.0	15.00	324.00	2,455.7	325.5	-236.5	-236.5	0.00	0.00	
2,600.0	15.00	324.00	2,552.3	346.4	-251.7	-251.7	0.00	0.00	
2,700.0	15.00	324.00	2,648.8	367.3	-266.9	-266.9	0.00	0.00	
2,800.0	15.00	324.00	2,745.4	388.3	-282.1	-282.1	0.00	0.00	
2,900.0	15.00	324.00	2,842.0	409.2	-297.3	-297.3	0.00	0.00	
3,000.0	15.00	324.00	2,938.6	430.2	-312.5	-312.5	0.00	0.00	
3,100.0	15.00	324.00	3,035.2	451.1	-327.7	-327.7	0.00	0.00	
3,200.0	15.00	324.00	3,131.8	472.0	-342.9	-342.9	0.00	0.00	
3,300.0	15.00	324.00	3,228.4	493.0	-358.2	-358.2	0.00	0.00	
3,400.0	15.00	324.00	3,325.0	513.9	-373.4	-373.4	0.00	0.00	
3,500.0	15.00	324.00	3,421.6	534.8	-388.6	-388.6	0.00	0.00	
3,600.0	15.00	324.00	3,518.2	555.8	-403.8	-403.8	0.00	0.00	
3,700.0	15.00	324.00	3,614.8	576.7	-419.0	-419.0	0.00	0.00	
3,800.0	15.00	324.00	3,711.4	597.7	-434.2	-434.2	0.00	0.00	
3,900.0	15.00	324.00	3,808.0	618.6	-449.4	-449.4	0.00	0.00	
4,000.0	15.00	324.00	3,904.6	639.5	-464.7	-464.7	0.00	0.00	
4,018.1	15.00	324.00	3,922.0	643.3	-467.4	-467.4	0.00	0.00	Sussex
4,100.0	15.00	324.00	4,001.1	660.5	-479.9	-479.9	0.00	0.00	
4,200.0	15.00	324.00	4,097.7	681.4	-495.1	-495.1	0.00	0.00	
4,210.0	15.00	324.00	4,107.4	683.5	-496.6	-496.6	0.00	0.00	Start Drop -1.00
4,255.1	14.55	324.00	4,151.0	692.8	-503.4	-503.4	1.00	-1.00	Sussex Marker
4,300.0	14.10	324.00	4,194.5	701.8	-509.9	-509.9	1.00	-1.00	
4,400.0	13.10	324.00	4,291.7	720.8	-523.7	-523.7	1.00	-1.00	
4,500.0	12.10	324.00	4,389.3	738.5	-536.5	-536.5	1.00	-1.00	
4,506.9	12.03	324.00	4,396.0	739.6	-537.4	-537.4	1.00	-1.00	Shannon
4,600.0	11.10	324.00	4,487.3	754.7	-548.4	-548.4	1.00	-1.00	
4,700.0	10.10	324.00	4,585.5	769.6	-559.2	-559.2	1.00	-1.00	

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Zisch 3A-6H-M368
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5176.0ft (Ensign)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5176.0ft (Ensign)
<b>Site:</b>	S6-T3N-R68W (Zisch)	<b>North Reference:</b>	True
<b>Well:</b>	Zisch 3A-6H-M368	<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
4,800.0	9.10	324.00	4,684.1	783.1	-569.0	-569.0	1.00	-1.00	
4,900.0	8.10	324.00	4,783.0	795.2	-577.8	-577.8	1.00	-1.00	
5,000.0	7.10	324.00	4,882.1	805.9	-585.5	-585.5	1.00	-1.00	
5,100.0	6.10	324.00	4,981.5	815.2	-592.3	-592.3	1.00	-1.00	
5,200.0	5.10	324.00	5,081.0	823.1	-598.0	-598.0	1.00	-1.00	
5,300.0	4.10	324.00	5,180.7	829.6	-602.7	-602.7	1.00	-1.00	
5,400.0	3.10	324.00	5,280.5	834.7	-606.4	-606.4	1.00	-1.00	
5,500.0	2.10	324.00	5,380.4	838.3	-609.1	-609.1	1.00	-1.00	
5,600.0	1.10	324.00	5,480.3	840.6	-610.7	-610.7	1.00	-1.00	
5,700.0	0.10	324.00	5,580.3	841.4	-611.3	-611.3	1.00	-1.00	
5,710.0	0.00	0.00	5,590.3	841.5	-611.4	-611.4	1.00	-1.00	EOD; Inc=15°
5,800.0	0.00	0.00	5,680.3	841.5	-611.4	-611.4	0.00	0.00	
5,900.0	0.00	0.00	5,780.3	841.5	-611.4	-611.4	0.00	0.00	
6,000.0	0.00	0.00	5,880.3	841.5	-611.4	-611.4	0.00	0.00	
6,100.0	0.00	0.00	5,980.3	841.5	-611.4	-611.4	0.00	0.00	
6,200.0	0.00	0.00	6,080.3	841.5	-611.4	-611.4	0.00	0.00	
6,212.7	0.00	0.00	6,093.0	841.5	-611.4	-611.4	0.00	0.00	Teepee Buttes
6,300.0	0.00	0.00	6,180.3	841.5	-611.4	-611.4	0.00	0.00	
6,400.0	0.00	0.00	6,280.3	841.5	-611.4	-611.4	0.00	0.00	
6,447.5	0.00	0.00	6,327.8	841.5	-611.4	-611.4	0.00	0.00	Start Build 8.00
6,500.0	4.20	90.00	6,380.3	841.5	-609.4	-609.4	8.00	8.00	
6,600.0	12.20	90.00	6,479.2	841.5	-595.2	-595.2	8.00	8.00	
6,700.0	20.20	90.00	6,575.1	841.5	-567.3	-567.3	8.00	8.00	
6,800.0	28.20	90.00	6,666.3	841.5	-526.3	-526.3	8.00	8.00	
6,900.0	36.20	90.00	6,750.8	841.5	-473.1	-473.1	8.00	8.00	
7,000.0	44.20	90.00	6,827.1	841.5	-408.6	-408.6	8.00	8.00	
7,098.8	52.11	90.00	6,893.0	841.5	-335.0	-335.0	8.00	8.00	Sharon Springs
7,100.0	52.20	90.00	6,893.7	841.5	-334.1	-334.1	8.00	8.00	
7,200.0	60.20	90.00	6,949.3	841.5	-251.1	-251.1	8.00	8.00	
7,222.1	61.97	90.00	6,960.0	841.5	-231.7	-231.7	8.00	8.00	Niobrara
7,300.0	68.20	90.00	6,992.8	841.5	-161.1	-161.1	8.00	8.00	
7,400.0	76.20	90.00	7,023.3	841.5	-66.0	-66.0	8.00	8.00	
7,441.2	79.50	90.00	7,032.0	841.5	-25.7	-25.7	8.00	8.00	B Chalk
7,500.0	84.20	90.00	7,040.3	841.5	32.5	32.5	8.00	8.00	
7,572.5	90.00	90.00	7,044.0	841.5	104.8	104.8	8.00	8.00	LP @ 7044' TVD; 90°
7,600.0	90.00	90.00	7,044.0	841.5	132.4	132.4	0.00	0.00	
7,700.0	90.00	90.00	7,044.0	841.5	232.4	232.4	0.00	0.00	
7,800.0	90.00	90.00	7,044.0	841.5	332.4	332.4	0.00	0.00	
7,900.0	90.00	90.00	7,044.0	841.5	432.4	432.4	0.00	0.00	
8,000.0	90.00	90.00	7,044.0	841.6	532.4	532.4	0.00	0.00	
8,100.0	90.00	90.00	7,044.0	841.6	632.4	632.4	0.00	0.00	
8,200.0	90.00	90.00	7,044.0	841.6	732.4	732.4	0.00	0.00	
8,300.0	90.00	90.00	7,044.0	841.6	832.4	832.4	0.00	0.00	
8,400.0	90.00	90.00	7,044.0	841.6	932.4	932.4	0.00	0.00	
8,500.0	90.00	90.00	7,044.0	841.6	1,032.4	1,032.4	0.00	0.00	
8,600.0	90.00	90.00	7,044.0	841.6	1,132.4	1,132.4	0.00	0.00	
8,700.0	90.00	90.00	7,044.0	841.6	1,232.4	1,232.4	0.00	0.00	
8,800.0	90.00	90.00	7,044.0	841.6	1,332.4	1,332.4	0.00	0.00	
8,900.0	90.00	90.00	7,044.0	841.6	1,432.4	1,432.4	0.00	0.00	
9,000.0	90.00	90.00	7,044.0	841.6	1,532.4	1,532.4	0.00	0.00	
9,100.0	90.00	90.00	7,044.0	841.6	1,632.4	1,632.4	0.00	0.00	
9,200.0	90.00	90.00	7,044.0	841.7	1,732.4	1,732.4	0.00	0.00	

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Zisch 3A-6H-M368
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5176.0ft (Ensign)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5176.0ft (Ensign)
<b>Site:</b>	S6-T3N-R68W (Zisch)	<b>North Reference:</b>	True
<b>Well:</b>	Zisch 3A-6H-M368	<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	90.00	7,044.0	841.7	1,832.4	1,832.4	0.00	0.00	
9,400.0	90.00	90.00	7,044.0	841.7	1,932.4	1,932.4	0.00	0.00	
9,500.0	90.00	90.00	7,044.0	841.7	2,032.4	2,032.4	0.00	0.00	
9,600.0	90.00	90.00	7,044.0	841.7	2,132.4	2,132.4	0.00	0.00	
9,700.0	90.00	90.00	7,044.0	841.7	2,232.4	2,232.4	0.00	0.00	
9,800.0	90.00	90.00	7,044.0	841.7	2,332.4	2,332.4	0.00	0.00	
9,900.0	90.00	90.00	7,044.0	841.7	2,432.4	2,432.4	0.00	0.00	
10,000.0	90.00	90.00	7,044.0	841.7	2,532.4	2,532.4	0.00	0.00	
10,100.0	90.00	90.00	7,044.0	841.7	2,632.4	2,632.4	0.00	0.00	
10,200.0	90.00	90.00	7,044.0	841.7	2,732.4	2,732.4	0.00	0.00	
10,300.0	90.00	90.00	7,044.0	841.7	2,832.4	2,832.4	0.00	0.00	
10,400.0	90.00	90.00	7,044.0	841.8	2,932.4	2,932.4	0.00	0.00	
10,500.0	90.00	90.00	7,044.0	841.8	3,032.4	3,032.4	0.00	0.00	
10,600.0	90.00	90.00	7,044.0	841.8	3,132.4	3,132.4	0.00	0.00	
10,700.0	90.00	90.00	7,044.0	841.8	3,232.4	3,232.4	0.00	0.00	
10,800.0	90.00	90.00	7,044.0	841.8	3,332.4	3,332.4	0.00	0.00	
10,900.0	90.00	90.00	7,044.0	841.8	3,432.4	3,432.4	0.00	0.00	
11,000.0	90.00	90.00	7,044.0	841.8	3,532.4	3,532.4	0.00	0.00	
11,100.0	90.00	90.00	7,044.0	841.8	3,632.4	3,632.4	0.00	0.00	
11,200.0	90.00	90.00	7,044.0	841.8	3,732.4	3,732.4	0.00	0.00	
11,300.0	90.00	90.00	7,044.0	841.8	3,832.4	3,832.4	0.00	0.00	
11,400.0	90.00	90.00	7,044.0	841.8	3,932.4	3,932.4	0.00	0.00	
11,500.0	90.00	90.00	7,044.0	841.8	4,032.4	4,032.4	0.00	0.00	
11,554.0	90.00	90.00	7,044.0	841.9	4,086.4	4,086.4	0.00	0.00	TD at 11554.0

### 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
Zisch 3A-6H PBHL - plan hits target center - Point	0.00	0.00	7,044.0	841.9	4,086.4	1,334,459.05	3,128,913.64	40.250560	-105.038170

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,018.1	3,922.0	Sussex			
4,255.1	4,151.0	Sussex Marker			
4,506.9	4,396.0	Shannon			
6,212.7	6,093.0	Teepee Buttes			
7,098.8	6,893.0	Sharon Springs			
7,222.1	6,960.0	Niobrara			
7,441.2	7,032.0	B Chalk			

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Zisch 3A-6H-M368
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5176.0ft (Ensign)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5176.0ft (Ensign)
<b>Site:</b>	S6-T3N-R68W (Zisch)	<b>North Reference:</b>	True
<b>Well:</b>	Zisch 3A-6H-M368	<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'
1,700.0	1,682.9	157.9	-114.8	EOB; Inc=15°
4,210.0	4,107.4	683.5	-496.6	Start Drop -1.00
5,710.0	5,590.3	841.5	-611.4	EOD; Inc=15°
6,447.5	6,327.8	841.5	-611.4	Start Build 8.00
7,572.5	7,044.0	841.5	104.8	LP @ 7044' TVD; 90°
11,554.0	7,044.0	841.9	4,086.4	TD at 11554.0

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

**DJ Wattenberg**

**S6-T3N-R68W (Zisch)**

**Zisch 3A-6H-M368**

**HZ**

**Plan #1**

## **Anticollision Report**

**15 March, 2013**

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Zisch 3A-6H-M368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Reference Site:</b>	S6-T3N-R68W (Zisch)	<b>MD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Zisch 3A-6H-M368	<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>	3/15/2013		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	11,551.0	Plan #1 (HZ)	MWD	Geolink MWD

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S6-T3N-R68W (Zisch)						
SUMMER 6-1 (EXISTING) - EXISTING - NO SURVEYS	1,828.1	1,797.6	208.3	199.8	24.684	CC, ES
SUMMER 6-1 (EXISTING) - EXISTING - NO SURVEYS	2,200.0	2,156.8	229.4	219.0	22.090	SF
Zisch 3B-6H-M368 - HZ - Plan #1	100.0	104.0	10.9	10.6	34.621	CC
Zisch 3B-6H-M368 - HZ - Plan #1	200.0	204.0	10.9	10.3	16.448	ES
Zisch 3B-6H-M368 - HZ - Plan #1	11,551.0	11,707.1	407.4	220.7	2.182	SF
Zisch 3C-6H-M368 - HZ - Plan #1	100.0	104.0	21.9	21.5	69.202	CC
Zisch 3C-6H-M368 - HZ - Plan #1	200.0	204.0	21.9	21.2	32.877	ES
Zisch 3C-6H-M368 - HZ - Plan #1	600.0	604.0	33.9	31.8	16.402	SF
Zisch 3D-6H-M368 - HZ - Plan #1	100.0	100.0	32.8	32.5	103.797	CC
Zisch 3D-6H-M368 - HZ - Plan #1	200.0	200.0	32.8	32.1	49.311	ES
Zisch 3D-6H-M368 - HZ - Plan #1	700.0	699.2	52.5	50.1	21.644	SF



# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Zisch 3A-6H-M368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Reference Site:</b>	S6-T3N-R68W (Zisch)	<b>MD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Zisch 3A-6H-M368	<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 S6-T3N-R68W (Zisch) - SUMMER 6-1 (EXISTING) - EXISTING - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 7351-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	6.26	307.8	33.8	309.8					
100.0	100.0	91.0	91.0	0.2	0.2	6.26	307.8	33.8	309.7	309.3	0.32	981.109		
200.0	200.0	191.0	191.0	0.3	0.3	42.26	307.8	33.8	309.7	309.0	0.66	466.089		
300.0	300.0	291.0	291.0	0.5	0.5	42.38	307.8	33.8	309.0	308.0	1.01	304.856		
400.0	400.0	391.0	391.0	0.7	0.7	42.73	307.8	33.8	307.0	305.6	1.36	224.996		
500.0	499.9	490.9	490.9	0.9	0.9	43.32	307.8	33.8	303.8	302.1	1.72	176.699		
600.0	599.7	590.7	590.7	1.1	1.0	44.16	307.8	33.8	299.3	297.2	2.08	143.925		
700.0	699.4	690.4	690.4	1.3	1.2	45.27	307.8	33.8	293.7	291.3	2.45	119.940		
800.0	798.9	789.9	789.9	1.5	1.4	46.68	307.8	33.8	287.0	284.2	2.83	101.429		
900.0	898.2	889.2	889.2	1.8	1.5	48.43	307.8	33.8	279.3	276.1	3.23	86.577		
1,000.0	997.4	988.4	988.4	2.1	1.7	50.56	307.8	33.8	270.7	267.1	3.64	74.318		
1,100.0	1,096.3	1,087.3	1,087.3	2.3	1.9	53.13	307.8	33.8	261.5	257.4	4.09	63.997		
1,200.0	1,194.9	1,185.9	1,185.9	2.7	2.1	56.19	307.8	33.8	251.8	247.3	4.56	55.198		
1,300.0	1,293.2	1,284.2	1,284.2	3.0	2.2	59.83	307.8	33.8	242.0	237.0	5.08	47.660		
1,400.0	1,391.2	1,382.2	1,382.2	3.4	2.4	64.11	307.8	33.8	232.5	226.8	5.64	41.225		
1,500.0	1,488.8	1,479.8	1,479.8	3.8	2.6	69.09	307.8	33.8	223.7	217.4	6.25	35.798		
1,600.0	1,586.0	1,577.0	1,577.0	4.2	2.7	74.82	307.8	33.8	216.2	209.3	6.90	31.331		
1,700.0	1,682.8	1,673.8	1,673.8	4.7	2.9	81.25	307.8	33.8	210.9	203.3	7.59	27.796		
1,800.0	1,779.4	1,770.4	1,770.4	5.2	3.1	88.06	307.8	33.8	208.4	200.1	8.26	25.243		
1,828.1	1,806.6	1,797.6	1,797.6	5.3	3.1	90.00	307.8	33.8	208.3	199.8	8.44	24.684 CC, ES		
1,900.0	1,876.0	1,867.0	1,867.0	5.6	3.3	94.93	307.8	33.8	209.1	200.2	8.88	23.540		
2,000.0	1,972.6	1,963.6	1,963.6	6.1	3.4	101.66	307.8	33.8	212.9	203.5	9.45	22.535		
2,100.0	2,069.2	2,060.2	2,060.2	6.6	3.6	108.07	307.8	33.8	219.8	209.9	9.95	22.091		
2,200.0	2,165.8	2,156.8	2,156.8	7.1	3.8	114.06	307.8	33.8	229.4	219.0	10.39	22.090 SF		
2,300.0	2,262.4	2,253.4	2,253.4	7.6	3.9	119.53	307.8	33.8	241.4	230.7	10.76	22.431		
2,400.0	2,359.0	2,350.0	2,350.0	8.0	4.1	124.47	307.8	33.8	255.5	244.4	11.09	23.030		
2,500.0	2,455.6	2,446.6	2,446.6	8.5	4.3	128.89	307.8	33.8	271.3	259.9	11.39	23.819		
2,600.0	2,552.2	2,543.2	2,543.2	9.0	4.4	132.82	307.8	33.8	288.6	276.9	11.66	24.743		
2,700.0	2,648.7	2,639.7	2,639.7	9.5	4.6	136.31	307.8	33.8	307.1	295.1	11.92	25.758		
2,800.0	2,745.3	2,736.3	2,736.3	10.0	4.8	139.40	307.8	33.8	326.6	314.4	12.17	26.832		
2,900.0	2,841.9	2,832.9	2,832.9	10.4	4.9	142.15	307.8	33.8	346.9	334.5	12.42	27.940		
3,000.0	2,938.5	2,929.5	2,929.5	10.9	5.1	144.59	307.8	33.8	367.9	355.3	12.66	29.061		
3,100.0	3,035.1	3,026.1	3,026.1	11.4	5.3	146.78	307.8	33.8	389.5	376.6	12.91	30.182		
3,200.0	3,131.7	3,122.7	3,122.7	11.9	5.4	148.73	307.8	33.8	411.6	398.5	13.15	31.292		
3,300.0	3,228.3	3,219.3	3,219.3	12.4	5.6	150.49	307.8	33.8	434.2	420.7	13.41	32.384		
3,400.0	3,324.9	3,315.9	3,315.9	12.9	5.8	152.08	307.8	33.8	457.0	443.4	13.66	33.451		
3,500.0	3,421.5	3,412.5	3,412.5	13.4	5.9	153.51	307.8	33.8	480.2	466.3	13.92	34.490		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Zisch 3A-6H-M368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Reference Site:</b>	S6-T3N-R68W (Zisch)	<b>MD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Zisch 3A-6H-M368	<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 S6-T3N-R68W (Zisch) - Zisch 3B-6H-M368 - 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	4.0	4.0	0.0	0.0	180.00	-10.9	0.0	10.9					
100.0	100.0	104.0	104.0	0.2	0.2	180.00	-10.9	0.0	10.9	10.6	0.32	34.621 CC		
165.6	165.6	169.6	169.6	0.3	0.3	-144.03	-10.9	0.0	10.9	10.4	0.55	20.084		
200.0	200.0	204.0	204.0	0.3	0.3	-144.00	-10.9	0.0	10.9	10.3	0.66	16.448 ES		
300.0	300.0	304.0	304.0	0.5	0.5	-146.66	-10.9	0.0	11.7	10.7	1.01	11.533		
400.0	400.0	404.1	404.1	0.7	0.7	-149.96	-10.3	-0.7	13.3	12.0	1.37	9.756		
500.0	499.9	504.3	504.3	0.9	0.9	-151.17	-8.6	-2.8	15.2	13.5	1.72	8.856		
600.0	599.7	604.5	604.3	1.1	1.0	-150.91	-5.8	-6.2	17.4	15.3	2.08	8.363		
700.0	699.4	704.7	704.3	1.3	1.2	-149.67	-1.9	-11.0	19.8	17.4	2.45	8.086		
800.0	798.9	804.9	804.2	1.5	1.5	-147.82	3.2	-17.2	22.5	19.7	2.84	7.932		
900.0	898.2	905.1	904.0	1.8	1.7	-145.61	9.4	-24.6	25.5	22.3	3.26	7.848		
1,000.0	997.4	1,005.4	1,003.6	2.1	1.9	-143.22	16.6	-33.5	28.9	25.2	3.70	7.802		
1,100.0	1,096.3	1,105.6	1,103.0	2.3	2.2	-140.78	25.0	-43.6	32.6	28.4	4.19	7.773		
1,200.0	1,194.9	1,205.9	1,202.1	2.7	2.5	-138.38	34.5	-55.1	36.7	31.9	4.73	7.750		
1,300.0	1,293.2	1,306.1	1,301.0	3.0	2.8	-136.06	45.1	-68.0	41.1	35.8	5.32	7.727		
1,400.0	1,391.2	1,406.0	1,399.3	3.4	3.1	-134.91	56.1	-81.4	46.4	40.5	5.92	7.842		
1,500.0	1,488.8	1,505.8	1,497.6	3.8	3.5	-135.34	67.2	-94.7	53.0	46.5	6.51	8.149		
1,600.0	1,586.0	1,605.4	1,595.7	4.2	3.8	-136.81	78.2	-108.1	60.9	53.8	7.06	8.618		
1,700.0	1,682.8	1,705.0	1,693.8	4.7	4.2	-138.88	89.2	-121.4	70.0	62.4	7.58	9.234		
1,800.0	1,779.4	1,804.5	1,791.7	5.2	4.5	-140.90	100.2	-134.8	79.9	71.8	8.09	9.878		
1,900.0	1,876.0	1,903.9	1,889.7	5.6	4.8	-142.46	111.1	-148.1	89.9	81.3	8.60	10.454		
2,000.0	1,972.6	2,003.4	1,987.7	6.1	5.2	-143.72	122.1	-161.4	99.9	90.8	9.11	10.969		
2,100.0	2,069.2	2,102.9	2,085.6	6.6	5.5	-144.74	133.1	-174.7	109.9	100.3	9.62	11.433		
2,200.0	2,165.8	2,202.4	2,183.6	7.1	5.9	-145.60	144.1	-188.1	120.0	109.9	10.13	11.851		
2,300.0	2,262.4	2,301.8	2,281.6	7.6	6.2	-146.32	155.1	-201.4	130.1	119.5	10.64	12.230		
2,400.0	2,359.0	2,401.3	2,379.5	8.0	6.5	-146.94	166.1	-214.7	140.2	129.1	11.15	12.575		
2,500.0	2,455.6	2,500.8	2,477.5	8.5	6.9	-147.47	177.1	-228.1	150.4	138.7	11.66	12.890		
2,600.0	2,552.2	2,600.3	2,575.4	9.0	7.2	-147.94	188.1	-241.4	160.5	148.3	12.18	13.178		
2,700.0	2,648.7	2,699.7	2,673.4	9.5	7.6	-148.35	199.0	-254.7	170.7	158.0	12.69	13.443		
2,800.0	2,745.3	2,799.2	2,771.4	10.0	7.9	-148.72	210.0	-268.0	180.8	167.6	13.21	13.688		
2,900.0	2,841.9	2,898.7	2,869.3	10.4	8.3	-149.04	221.0	-281.4	191.0	177.3	13.73	13.914		
3,000.0	2,938.5	2,998.2	2,967.3	10.9	8.6	-149.34	232.0	-294.7	201.1	186.9	14.24	14.124		
3,100.0	3,035.1	3,097.7	3,065.3	11.4	9.0	-149.60	243.0	-308.0	211.3	196.6	14.76	14.319		
3,200.0	3,131.7	3,197.1	3,163.2	11.9	9.3	-149.84	254.0	-321.4	221.5	206.2	15.27	14.501		
3,300.0	3,228.3	3,296.6	3,261.2	12.4	9.7	-150.06	265.0	-334.7	231.7	215.9	15.79	14.672		
3,400.0	3,324.9	3,396.1	3,359.2	12.9	10.0	-150.26	276.0	-348.0	241.9	225.6	16.31	14.831		
3,500.0	3,421.5	3,495.6	3,457.1	13.4	10.4	-150.45	286.9	-361.4	252.1	235.2	16.83	14.980		
3,600.0	3,518.1	3,595.0	3,555.1	13.8	10.7	-150.62	297.9	-374.7	262.3	244.9	17.34	15.121		
3,700.0	3,614.7	3,694.5	3,653.1	14.3	11.1	-150.77	308.9	-388.0	272.5	254.6	17.86	15.253		
3,800.0	3,711.3	3,794.0	3,751.0	14.8	11.4	-150.92	319.9	-401.3	282.7	264.3	18.38	15.378		
3,900.0	3,807.9	3,893.5	3,849.0	15.3	11.8	-151.06	330.9	-414.7	292.8	273.9	18.90	15.496		
4,000.0	3,904.5	3,992.9	3,947.0	15.8	12.1	-151.18	341.9	-428.0	303.0	283.6	19.42	15.607		
4,100.0	4,001.0	4,092.4	4,044.9	16.3	12.5	-151.30	352.9	-441.3	313.2	293.3	19.94	15.713		
4,200.0	4,097.6	4,191.9	4,142.9	16.8	12.8	-151.41	363.9	-454.7	323.5	303.0	20.45	15.813		
4,300.0	4,194.4	4,291.4	4,240.9	17.2	13.2	-151.50	374.8	-468.0	333.0	312.0	20.98	15.869		
4,400.0	4,291.6	4,391.1	4,339.1	17.7	13.5	-151.44	385.9	-481.3	341.0	319.5	21.54	15.830		
4,500.0	4,389.2	4,490.9	4,437.3	18.1	13.8	-151.23	396.9	-494.7	347.5	325.4	22.13	15.704		
4,600.0	4,487.2	4,590.7	4,535.7	18.4	14.2	-150.90	407.9	-508.1	352.5	329.7	22.74	15.498		
4,700.0	4,585.5	4,690.6	4,634.0	18.8	14.6	-150.42	418.9	-521.5	356.0	332.6	23.39	15.218		
4,800.0	4,684.1	4,790.5	4,732.4	19.1	14.9	-149.81	430.0	-534.9	357.9	333.9	24.07	14.870		
4,900.0	4,783.0	4,888.7	4,829.1	19.4	15.2	-149.09	440.7	-547.9	358.6	333.8	24.77	14.476		
5,000.0	4,882.1	4,984.4	4,923.6	19.7	15.5	-148.39	450.4	-559.6	358.7	333.3	25.43	14.107		

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 Zisch 3A-6H-M368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Reference Site:</b>	S6-T3N-R68W (Zisch)	<b>MD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Zisch 3A-6H-M368	<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 S6-T3N-R68W (Zisch) - Zisch 3B-6H-M368 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,100.0	4,981.5	5,080.2	5,018.4	19.9	15.8	-147.74	459.1	-570.2	358.6	332.6	26.05	13.765		
5,200.0	5,081.0	5,176.0	5,113.5	20.2	16.1	-147.12	466.7	-579.4	358.2	331.6	26.64	13.448		
5,300.0	5,180.7	5,271.9	5,208.8	20.3	16.3	-146.55	473.4	-587.5	357.5	330.4	27.18	13.153		
5,400.0	5,280.5	5,367.9	5,304.3	20.5	16.5	-146.02	479.0	-594.4	356.6	328.9	27.69	12.877		
5,500.0	5,380.4	5,463.9	5,400.1	20.6	16.7	-145.52	483.6	-600.0	355.3	327.1	28.15	12.619		
5,600.0	5,480.3	5,559.9	5,496.0	20.7	16.9	-145.06	487.2	-604.3	353.7	325.1	28.58	12.376		
5,700.0	5,580.3	5,656.0	5,592.0	20.8	17.0	-144.63	489.8	-607.5	351.7	322.8	28.96	12.147		
5,800.0	5,680.3	5,752.2	5,688.1	20.9	17.1	179.67	491.4	-609.4	350.1	318.8	31.35	11.166		
5,900.0	5,780.3	5,848.5	5,784.4	21.0	17.2	179.78	491.9	-610.0	349.5	318.0	31.55	11.078		
5,933.9	5,814.2	5,882.3	5,818.2	21.0	17.3	179.78	491.9	-610.0	349.5	317.9	31.63	11.051		
6,000.0	5,880.3	5,948.4	5,884.3	21.1	17.3	179.78	491.9	-610.0	349.5	317.8	31.78	10.997		
6,100.0	5,980.3	6,048.4	5,984.3	21.2	17.4	179.78	491.9	-610.0	349.5	317.5	32.02	10.917		
6,200.0	6,080.3	6,148.4	6,084.3	21.3	17.6	179.78	491.9	-610.0	349.5	317.3	32.26	10.837		
6,300.0	6,180.3	6,248.4	6,184.3	21.4	17.7	179.78	491.9	-610.0	349.5	317.1	32.49	10.758		
6,400.0	6,280.3	6,348.4	6,284.3	21.4	17.8	179.78	491.9	-610.0	349.5	316.8	32.73	10.679		
6,465.9	6,346.2	6,414.2	6,350.2	21.5	17.8	90.06	491.9	-610.0	349.5	318.5	31.02	11.269		
6,500.0	6,380.3	6,448.3	6,384.3	21.5	17.9	90.14	491.9	-610.0	349.5	318.4	31.11	11.235		
6,600.0	6,479.1	6,547.2	6,483.1	21.4	18.0	92.48	491.9	-610.0	349.9	318.1	31.79	11.005		
6,700.0	6,574.9	6,645.6	6,581.5	21.3	18.1	96.64	491.9	-608.7	352.1	319.5	32.64	10.787		
6,800.0	6,665.9	6,749.7	6,684.5	21.0	18.0	101.08	491.9	-594.8	356.8	323.8	32.98	10.818		
6,900.0	6,750.2	6,858.7	6,789.1	20.7	17.8	105.31	491.9	-564.5	363.4	330.8	32.60	11.148		
7,000.0	6,826.3	6,973.2	6,892.7	20.3	17.4	109.22	491.9	-515.9	371.6	340.0	31.55	11.776		
7,100.0	6,892.6	7,093.4	6,991.7	20.0	17.0	112.70	491.9	-447.8	380.4	350.4	30.01	12.677		
7,200.0	6,947.8	7,219.6	7,081.7	19.8	16.5	115.66	491.9	-359.7	389.2	360.9	28.32	13.742		
7,300.0	6,990.9	7,351.2	7,157.7	19.6	16.0	118.02	491.9	-252.5	397.0	369.9	27.01	14.696		
7,400.0	7,021.0	7,487.4	7,214.3	19.6	15.8	119.71	491.9	-128.8	402.9	376.2	26.73	15.077		
7,500.0	7,037.6	7,627.0	7,247.0	19.9	16.1	120.66	491.9	6.7	406.5	378.5	27.94	14.550		
7,600.0	7,041.0	7,756.1	7,254.0	20.5	17.5	120.87	491.9	135.4	407.3	376.9	30.41	13.393		
7,700.0	7,041.0	7,856.1	7,254.0	21.4	19.0	120.87	492.0	235.4	407.3	374.3	32.98	12.349		
7,800.0	7,041.0	7,956.1	7,254.0	22.7	20.7	120.87	492.0	335.4	407.3	371.4	35.86	11.356		
7,900.0	7,041.0	8,056.1	7,254.0	24.2	22.6	120.87	492.0	435.4	407.3	368.3	39.00	10.444		
8,000.0	7,041.0	8,156.1	7,254.0	26.0	24.5	120.87	492.0	535.4	407.3	365.0	42.33	9.622		
8,100.0	7,041.0	8,256.1	7,254.0	27.9	26.5	120.87	492.0	635.4	407.3	361.5	45.81	8.891		
8,200.0	7,041.0	8,356.1	7,254.0	29.8	28.6	120.87	492.0	735.4	407.3	357.9	49.42	8.242		
8,300.0	7,041.0	8,456.1	7,254.0	31.9	30.8	120.87	492.0	835.4	407.3	354.2	53.12	7.668		
8,400.0	7,041.0	8,556.1	7,254.0	34.0	33.0	120.87	492.0	935.4	407.3	350.4	56.89	7.159		
8,500.0	7,041.0	8,656.1	7,254.0	36.2	35.2	120.87	492.0	1,035.4	407.3	346.6	60.74	6.706		
8,600.0	7,041.0	8,756.1	7,254.0	38.4	37.5	120.87	492.0	1,135.4	407.3	342.7	64.63	6.303		
8,700.0	7,041.0	8,856.1	7,254.0	40.6	39.8	120.87	492.0	1,235.4	407.3	338.8	68.56	5.941		
8,800.0	7,041.0	8,956.1	7,254.0	42.9	42.1	120.87	492.0	1,335.4	407.3	334.8	72.53	5.616		
8,900.0	7,041.0	9,056.1	7,254.0	45.2	44.4	120.87	492.0	1,435.4	407.3	330.8	76.54	5.322		
9,000.0	7,041.0	9,156.1	7,254.0	47.5	46.7	120.87	492.0	1,535.4	407.3	326.8	80.56	5.056		
9,100.0	7,041.0	9,256.1	7,254.0	49.8	49.1	120.87	492.0	1,635.4	407.3	322.7	84.61	4.814		
9,200.0	7,041.0	9,356.1	7,254.0	52.1	51.5	120.87	492.0	1,735.4	407.3	318.7	88.68	4.593		
9,300.0	7,041.0	9,456.1	7,254.0	54.4	53.8	120.87	492.0	1,835.4	407.3	314.6	92.77	4.391		
9,400.0	7,041.0	9,556.1	7,254.0	56.8	56.2	120.87	492.0	1,935.4	407.3	310.5	96.86	4.205		
9,500.0	7,041.0	9,656.1	7,254.0	59.2	58.6	120.87	492.0	2,035.4	407.3	306.4	100.98	4.034		
9,600.0	7,041.0	9,756.1	7,254.0	61.5	61.0	120.87	492.0	2,135.4	407.3	302.2	105.10	3.876		
9,700.0	7,041.0	9,856.1	7,254.0	63.9	63.4	120.87	492.0	2,235.4	407.4	298.1	109.23	3.729		
9,800.0	7,041.0	9,956.1	7,254.0	66.3	65.8	120.87	492.1	2,335.4	407.4	294.0	113.38	3.593		
9,900.0	7,041.0	10,056.1	7,254.0	68.7	68.2	120.87	492.1	2,435.4	407.4	289.8	117.53	3.466		
10,000.0	7,041.0	10,156.1	7,254.0	71.1	70.6	120.87	492.1	2,535.4	407.4	285.7	121.68	3.348		

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 Zisch 3A-6H-M368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Reference Site:</b>	S6-T3N-R68W (Zisch)	<b>MD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Zisch 3A-6H-M368	<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 S6-T3N-R68W (Zisch) - Zisch 3B-6H-M368 - 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
10,100.0	7,041.0	10,256.1	7,254.0	73.5	73.0	120.87	492.1	2,635.4	407.4	281.5	125.85	3.237	
10,200.0	7,041.0	10,356.1	7,254.0	75.9	75.5	120.87	492.1	2,735.4	407.4	277.4	130.02	3.133	
10,300.0	7,041.0	10,456.1	7,254.0	78.3	77.9	120.87	492.1	2,835.4	407.4	273.2	134.19	3.036	
10,400.0	7,041.0	10,556.1	7,254.0	80.7	80.3	120.87	492.1	2,935.4	407.4	269.0	138.37	2.944	
10,500.0	7,041.0	10,656.1	7,254.0	83.1	82.8	120.87	492.1	3,035.4	407.4	264.8	142.55	2.858	
10,600.0	7,041.0	10,756.1	7,254.0	85.6	85.2	120.87	492.1	3,135.4	407.4	260.6	146.74	2.776	
10,700.0	7,041.0	10,856.1	7,254.0	88.0	87.6	120.87	492.1	3,235.4	407.4	256.4	150.93	2.699	
10,800.0	7,041.0	10,956.1	7,254.0	90.4	90.1	120.87	492.1	3,335.4	407.4	252.3	155.13	2.626	
10,900.0	7,041.0	11,056.1	7,254.0	92.8	92.5	120.87	492.1	3,435.4	407.4	248.1	159.33	2.557	
11,000.0	7,041.0	11,156.1	7,254.0	95.3	94.9	120.87	492.1	3,535.4	407.4	243.9	163.53	2.491	
11,100.0	7,041.0	11,256.1	7,254.0	97.7	97.4	120.86	492.1	3,635.4	407.4	239.7	167.73	2.429	
11,200.0	7,041.0	11,356.1	7,254.0	100.1	99.8	120.86	492.1	3,735.4	407.4	235.5	171.94	2.369	
11,300.0	7,041.0	11,456.1	7,254.0	102.6	102.3	120.86	492.1	3,835.4	407.4	231.3	176.15	2.313	
11,400.0	7,041.0	11,556.1	7,254.0	105.0	104.7	120.86	492.1	3,935.4	407.4	227.0	180.36	2.259	
11,500.0	7,041.0	11,656.1	7,254.0	107.5	107.2	120.86	492.1	4,035.4	407.4	222.8	184.57	2.207	
11,551.0	7,041.0	11,707.1	7,254.0	108.7	108.4	120.86	492.1	4,086.4	407.4	220.7	186.72	2.182 SF	

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Zisch 3A-6H-M368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Reference Site:</b>	S6-T3N-R68W (Zisch)	<b>MD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Zisch 3A-6H-M368	<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 S6-T3N-R68W (Zisch) - Zisch 3C-6H-M368 - 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)				Between Centres (ft)	Between Ellipses (ft)	
0.0	0.0	4.0	4.0	0.0	0.0	180.00	-21.9	0.0	21.9					
100.0	100.0	104.0	104.0	0.2	0.2	180.00	-21.9	0.0	21.9	21.5	0.32	69.202 CC		
165.6	165.6	169.6	169.6	0.3	0.3	-144.02	-21.9	0.0	21.9	21.3	0.55	40.128		
200.0	200.0	204.0	204.0	0.3	0.3	-144.00	-21.9	0.0	21.9	21.2	0.66	32.877 ES		
300.0	300.0	304.0	304.0	0.5	0.5	-145.37	-21.9	0.0	22.6	21.6	1.01	22.299		
400.0	400.0	404.0	404.0	0.7	0.7	-148.86	-21.9	0.0	24.9	23.5	1.36	18.221		
500.0	499.9	503.9	503.9	0.9	0.9	-153.40	-21.9	0.0	28.7	27.0	1.72	16.752		
600.0	599.7	604.0	604.0	1.1	1.0	-156.60	-21.6	-0.9	33.9	31.8	2.07	16.402 SF		
700.0	699.4	704.1	704.0	1.3	1.2	-157.67	-20.9	-3.5	39.9	37.5	2.42	16.476		
800.0	798.9	804.2	804.1	1.5	1.4	-157.36	-19.8	-7.8	46.7	43.9	2.79	16.763		
900.0	898.2	904.3	904.0	1.8	1.6	-156.22	-18.2	-13.8	54.3	51.1	3.16	17.159		
1,000.0	997.4	1,004.4	1,003.8	2.1	1.8	-154.57	-16.1	-21.4	62.7	59.1	3.56	17.604		
1,100.0	1,096.3	1,104.5	1,103.3	2.3	2.0	-152.66	-13.6	-30.8	72.0	68.0	3.99	18.055		
1,200.0	1,194.9	1,204.4	1,202.6	2.7	2.3	-150.63	-10.7	-41.8	82.2	77.7	4.45	18.484		
1,300.0	1,293.2	1,304.3	1,301.7	3.0	2.5	-148.58	-7.3	-54.4	93.3	88.4	4.95	18.871		
1,400.0	1,391.2	1,404.1	1,400.3	3.4	2.8	-146.57	-3.4	-68.8	105.5	100.0	5.49	19.205		
1,500.0	1,488.8	1,503.7	1,498.6	3.8	3.1	-144.64	0.8	-84.7	118.7	112.6	6.09	19.484		
1,600.0	1,586.0	1,603.2	1,596.4	4.2	3.4	-142.80	5.5	-102.3	132.9	126.2	6.74	19.709		
1,700.0	1,682.8	1,702.5	1,693.7	4.7	3.8	-141.06	10.7	-121.4	148.2	140.7	7.45	19.887		
1,800.0	1,779.4	1,801.2	1,790.2	5.2	4.2	-139.64	16.0	-141.3	164.0	155.8	8.18	20.041		
1,900.0	1,876.0	1,899.8	1,886.7	5.6	4.5	-138.46	21.3	-161.1	179.9	171.0	8.93	20.148		
2,000.0	1,972.6	1,998.5	1,983.2	6.1	4.9	-137.48	26.6	-180.9	195.9	186.2	9.69	20.225		
2,100.0	2,069.2	2,097.1	2,079.7	6.6	5.3	-136.65	31.9	-200.7	212.0	201.5	10.45	20.280		
2,200.0	2,165.8	2,195.8	2,176.2	7.1	5.7	-135.93	37.2	-220.5	228.0	216.8	11.22	20.320		
2,300.0	2,262.4	2,294.5	2,272.7	7.6	6.1	-135.31	42.5	-240.3	244.1	232.1	12.00	20.349		
2,400.0	2,359.0	2,393.1	2,369.2	8.0	6.5	-134.77	47.8	-260.1	260.2	247.5	12.77	20.371		
2,500.0	2,455.6	2,491.8	2,465.7	8.5	6.9	-134.29	53.2	-280.0	276.4	262.8	13.56	20.386		
2,600.0	2,552.2	2,590.5	2,562.2	9.0	7.2	-133.86	58.5	-299.8	292.5	278.2	14.34	20.397		
2,700.0	2,648.7	2,689.1	2,658.8	9.5	7.6	-133.48	63.8	-319.6	308.7	293.6	15.13	20.405		
2,800.0	2,745.3	2,787.8	2,755.3	10.0	8.0	-133.13	69.1	-339.4	324.9	309.0	15.92	20.411		
2,900.0	2,841.9	2,886.5	2,851.8	10.4	8.4	-132.82	74.4	-359.2	341.1	324.4	16.71	20.414		
3,000.0	2,938.5	2,985.1	2,948.3	10.9	8.8	-132.53	79.7	-379.0	357.3	339.8	17.50	20.416		
3,100.0	3,035.1	3,083.8	3,044.8	11.4	9.2	-132.28	85.0	-398.8	373.5	355.2	18.29	20.417		
3,200.0	3,131.7	3,182.4	3,141.3	11.9	9.6	-132.04	90.3	-418.7	389.7	370.6	19.09	20.418		
3,300.0	3,228.3	3,281.1	3,237.8	12.4	10.0	-131.82	95.6	-438.5	405.9	386.1	19.88	20.417		
3,400.0	3,324.9	3,379.8	3,334.3	12.9	10.4	-131.62	100.9	-458.3	422.2	401.5	20.68	20.416		
3,500.0	3,421.5	3,478.4	3,430.8	13.4	10.8	-131.43	106.2	-478.1	438.4	416.9	21.47	20.415		
3,600.0	3,518.1	3,577.0	3,527.2	13.8	11.2	-131.26	111.5	-497.8	454.6	432.4	22.27	20.418		
3,700.0	3,614.7	3,675.2	3,623.6	14.3	11.6	-131.26	116.5	-516.3	471.0	447.9	23.01	20.468		
3,800.0	3,711.3	3,773.4	3,720.1	14.8	11.9	-131.46	121.0	-533.2	487.4	463.7	23.70	20.563		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Zisch 3A-6H-M368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Reference Site:</b>	S6-T3N-R68W (Zisch)	<b>MD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Zisch 3A-6H-M368	<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 S6-T3N-R68W (Zisch) - Zisch 3D-6H-M368 - 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	-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	0.32	103.797	CC	
165.6	165.6	165.6	165.6	0.3	0.3	-144.01	-32.8	0.0	32.8	32.3	0.55	60.180		
200.0	200.0	200.0	200.0	0.3	0.3	-144.00	-32.8	0.0	32.8	32.1	0.66	49.311	ES	
300.0	300.0	300.0	300.0	0.5	0.5	-144.93	-32.8	0.0	33.5	32.5	1.01	33.071		
400.0	400.0	400.0	400.0	0.7	0.7	-147.37	-32.8	0.0	35.8	34.4	1.36	26.207		
500.0	499.9	499.9	499.9	0.9	0.9	-150.80	-32.8	0.0	39.6	37.8	1.72	23.051		
600.0	599.7	599.6	599.6	1.1	1.0	-153.50	-33.0	-0.8	45.1	43.0	2.07	21.815		
700.0	699.4	699.2	699.2	1.3	1.2	-154.49	-33.7	-3.3	52.5	50.1	2.43	21.644	SF	
800.0	798.9	798.7	798.6	1.5	1.4	-154.29	-34.9	-7.5	61.6	58.8	2.79	22.069		
900.0	898.2	898.0	897.7	1.8	1.6	-153.37	-36.6	-13.3	72.5	69.3	3.17	22.841		
1,000.0	997.4	997.0	996.4	2.1	1.8	-152.04	-38.7	-20.7	85.1	81.5	3.57	23.811		
1,100.0	1,096.3	1,095.7	1,094.6	2.3	2.0	-150.55	-41.3	-29.7	99.5	95.5	4.00	24.882		
1,200.0	1,194.9	1,194.0	1,192.3	2.7	2.2	-149.01	-44.4	-40.4	115.8	111.3	4.45	25.988		
1,300.0	1,293.2	1,291.9	1,289.4	3.0	2.5	-147.50	-47.9	-52.5	133.9	128.9	4.94	27.084		
1,400.0	1,391.2	1,389.3	1,385.7	3.4	2.8	-146.07	-51.8	-66.2	153.9	148.4	5.47	28.141		
1,500.0	1,488.8	1,486.1	1,481.3	3.8	3.1	-144.72	-56.1	-81.4	175.7	169.7	6.03	29.141		
1,600.0	1,586.0	1,583.2	1,576.8	4.2	3.4	-143.63	-60.8	-97.6	199.3	192.7	6.62	30.118		
1,700.0	1,682.8	1,680.0	1,672.2	4.7	3.7	-143.00	-65.4	-113.7	224.2	217.0	7.22	31.071		
1,800.0	1,779.4	1,776.7	1,767.4	5.2	4.0	-142.74	-70.0	-129.9	249.8	242.0	7.83	31.908		
1,900.0	1,876.0	1,873.3	1,862.6	5.6	4.3	-142.53	-74.7	-146.0	275.4	267.0	8.45	32.598		
2,000.0	1,972.6	1,970.0	1,957.8	6.1	4.6	-142.35	-79.3	-162.1	301.0	292.0	9.07	33.175		
2,100.0	2,069.2	2,066.6	2,053.0	6.6	5.0	-142.20	-83.9	-178.3	326.6	316.9	9.70	33.662		
2,200.0	2,165.8	2,163.3	2,148.2	7.1	5.3	-142.07	-88.5	-194.4	352.3	341.9	10.34	34.078		
2,300.0	2,262.4	2,260.0	2,243.4	7.6	5.6	-141.96	-93.2	-210.5	377.9	366.9	10.97	34.436		
2,400.0	2,359.0	2,356.6	2,338.5	8.0	5.9	-141.86	-97.8	-226.7	403.5	391.9	11.61	34.748		
2,500.0	2,455.6	2,453.3	2,433.7	8.5	6.3	-141.78	-102.4	-242.8	429.1	416.8	12.25	35.022		
2,600.0	2,552.2	2,550.0	2,528.9	9.0	6.6	-141.70	-107.0	-258.9	454.7	441.8	12.89	35.264		
2,700.0	2,648.7	2,646.6	2,624.1	9.5	6.9	-141.64	-111.7	-275.1	480.3	466.8	13.54	35.478		

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Zisch 3A-6H-M368
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Reference Site:</b>	S6-T3N-R68W (Zisch)	<b>MD Reference:</b>	KBE @ 5173.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Zisch 3A-6H-M368	<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 KBE @ 5173.0ft (Original Well Elev)

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Zisch 3A-6H-M368

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.29°

