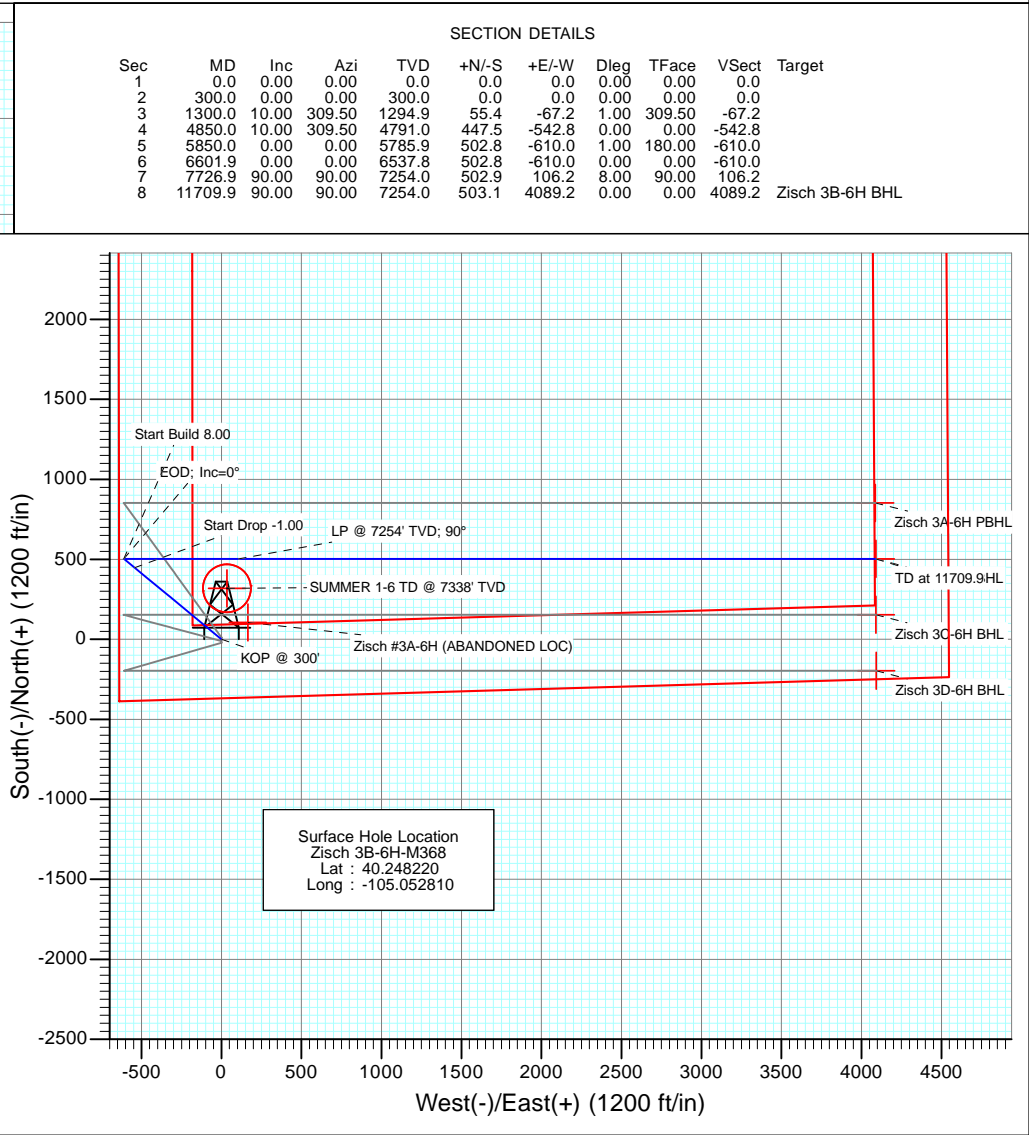
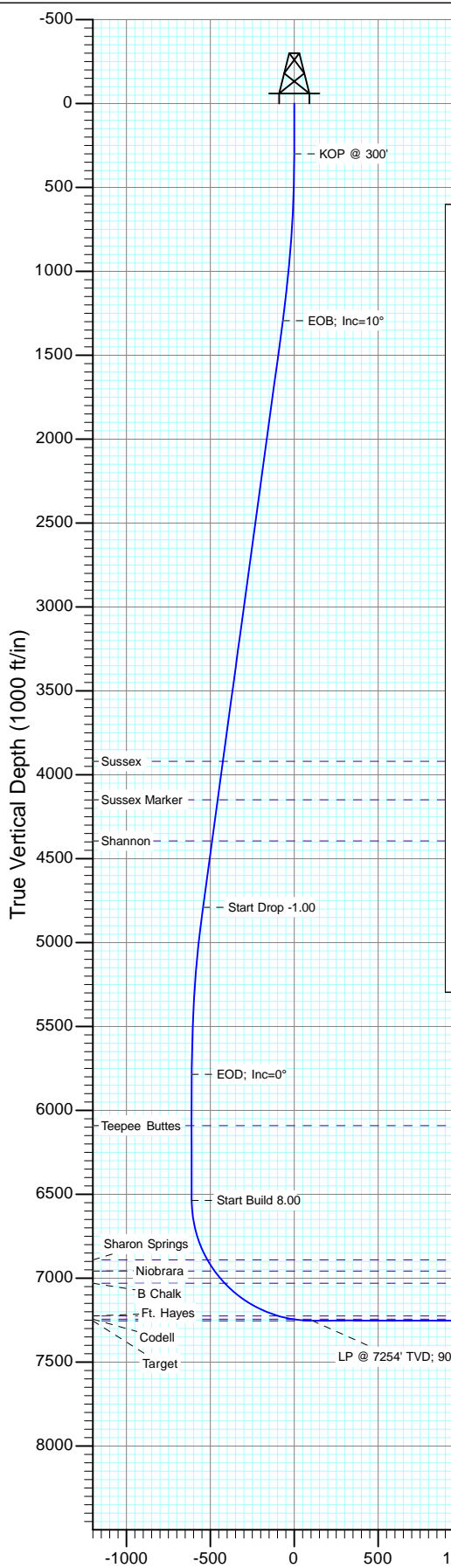




Project: DJ Wattenberg
 Site: S6-T3N-R68W (Zisch)
 Well: Zisch 3B-6H-M368
 Wellbore: HZ
 Design: Plan #1



DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Zisch 3B-6H BHL	503.1	4089.2	1334109.35	3128918.25	40.249600	-105.038160

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3920.0	3965.6	Sussex
4149.0	4198.1	Sussex Marker
4394.0	4446.9	Shannon
6091.0	6155.1	Teepee Buttes
6891.0	6971.2	Sharon Springs
6958.0	7050.9	Niobrara
7030.0	7144.5	B Chalk
7225.0	7522.4	Ft. Hayes
7244.0	7607.1	Codell
7254.0	7726.9	Target

M Azimuths to True North
 Magnetic North: 8.72°
 Magnetic Field
 Strength: 52861.6snT
 Dip Angle: 66.83°
 Date: 3/14/2013
 Model: IGRF200510

Plan #1
 Zisch 3B-6H-M368
 WELL @ 5177.0ft (Original Well Elev)
 Ground Elevation @ 5164.0
 North American Datum 1983
 Well Zisch 3B-6H-M368, True North

Vertical Section at 90.00° (1000 ft/in)

Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well Zisch 3B-6H-M368
Company: EnCana Oil & Gas (USA) Inc	TVD Reference: WELL @ 5177.0ft (Original Well Elev)
Project: DJ Wattenberg	MD Reference: WELL @ 5177.0ft (Original Well Elev)
Site: S6-T3N-R68W (Zisch)	North Reference: True
Well: Zisch 3B-6H-M368	Survey Calculation Method: Minimum Curvature
Wellbore: HZ	
Design: Plan #1	

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

Site 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 3B-6H-M368				
Well Position	+N/-S 0.0 ft	Northing: 1,333,585.66 ft	Latitude: 40.248220	
	+E/-W 0.0 ft	Easting: 3,124,831.61 ft	Longitude: -105.052810	
Position Uncertainty	0.0 ft	Wellhead Elevation: ft	Ground Level: 5,164.0 ft	

Wellbore HZ					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	3/14/2013	8.72	66.83	52,862

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

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	
1,300.0	10.00	309.50	1,294.9	55.4	-67.2	1.00	1.00	0.00	309.50	
4,850.0	10.00	309.50	4,791.0	447.5	-542.8	0.00	0.00	0.00	0.00	
5,850.0	0.00	0.00	5,785.9	502.8	-610.0	1.00	-1.00	0.00	180.00	
6,601.9	0.00	0.00	6,537.8	502.8	-610.0	0.00	0.00	0.00	0.00	
7,726.9	90.00	90.00	7,254.0	502.9	106.2	8.00	8.00	0.00	90.00	
11,709.9	90.00	90.00	7,254.0	503.1	4,089.2	0.00	0.00	0.00	0.00	Zisch 3B-6H BHL

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site:	S6-T3N-R68W (Zisch)	North Reference:	True
Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300'
400.0	1.00	309.50	400.0	0.6	-0.7	-0.7	1.00	1.00	
500.0	2.00	309.50	500.0	2.2	-2.7	-2.7	1.00	1.00	
600.0	3.00	309.50	599.9	5.0	-6.1	-6.1	1.00	1.00	
700.0	4.00	309.50	699.7	8.9	-10.8	-10.8	1.00	1.00	
800.0	5.00	309.50	799.4	13.9	-16.8	-16.8	1.00	1.00	
900.0	6.00	309.50	898.9	20.0	-24.2	-24.2	1.00	1.00	
1,000.0	7.00	309.50	998.3	27.2	-33.0	-33.0	1.00	1.00	
1,100.0	8.00	309.50	1,097.4	35.5	-43.0	-43.0	1.00	1.00	
1,200.0	9.00	309.50	1,196.3	44.9	-54.4	-54.4	1.00	1.00	
1,300.0	10.00	309.50	1,294.9	55.4	-67.2	-67.2	1.00	1.00	EOB; Inc=10°
1,400.0	10.00	309.50	1,393.4	66.4	-80.6	-80.6	0.00	0.00	
1,500.0	10.00	309.50	1,491.9	77.5	-94.0	-94.0	0.00	0.00	
1,600.0	10.00	309.50	1,590.4	88.5	-107.4	-107.4	0.00	0.00	
1,700.0	10.00	309.50	1,688.9	99.5	-120.8	-120.8	0.00	0.00	
1,800.0	10.00	309.50	1,787.3	110.6	-134.2	-134.2	0.00	0.00	
1,900.0	10.00	309.50	1,885.8	121.6	-147.6	-147.6	0.00	0.00	
2,000.0	10.00	309.50	1,984.3	132.7	-161.0	-161.0	0.00	0.00	
2,100.0	10.00	309.50	2,082.8	143.7	-174.4	-174.4	0.00	0.00	
2,200.0	10.00	309.50	2,181.3	154.8	-187.8	-187.8	0.00	0.00	
2,300.0	10.00	309.50	2,279.7	165.8	-201.2	-201.2	0.00	0.00	
2,400.0	10.00	309.50	2,378.2	176.9	-214.6	-214.6	0.00	0.00	
2,500.0	10.00	309.50	2,476.7	187.9	-228.0	-228.0	0.00	0.00	
2,600.0	10.00	309.50	2,575.2	199.0	-241.4	-241.4	0.00	0.00	
2,700.0	10.00	309.50	2,673.7	210.0	-254.8	-254.8	0.00	0.00	
2,800.0	10.00	309.50	2,772.1	221.0	-268.2	-268.2	0.00	0.00	
2,900.0	10.00	309.50	2,870.6	232.1	-281.6	-281.6	0.00	0.00	
3,000.0	10.00	309.50	2,969.1	243.1	-295.0	-295.0	0.00	0.00	
3,100.0	10.00	309.50	3,067.6	254.2	-308.4	-308.4	0.00	0.00	
3,200.0	10.00	309.50	3,166.1	265.2	-321.7	-321.7	0.00	0.00	
3,300.0	10.00	309.50	3,264.5	276.3	-335.1	-335.1	0.00	0.00	
3,400.0	10.00	309.50	3,363.0	287.3	-348.5	-348.5	0.00	0.00	
3,500.0	10.00	309.50	3,461.5	298.4	-361.9	-361.9	0.00	0.00	
3,600.0	10.00	309.50	3,560.0	309.4	-375.3	-375.3	0.00	0.00	
3,700.0	10.00	309.50	3,658.5	320.5	-388.7	-388.7	0.00	0.00	
3,800.0	10.00	309.50	3,757.0	331.5	-402.1	-402.1	0.00	0.00	
3,900.0	10.00	309.50	3,855.4	342.5	-415.5	-415.5	0.00	0.00	
3,965.6	10.00	309.50	3,920.0	349.8	-424.3	-424.3	0.00	0.00	Sussex
4,000.0	10.00	309.50	3,953.9	353.6	-428.9	-428.9	0.00	0.00	
4,100.0	10.00	309.50	4,052.4	364.6	-442.3	-442.3	0.00	0.00	
4,198.1	10.00	309.50	4,149.0	375.5	-455.5	-455.5	0.00	0.00	Sussex Marker
4,200.0	10.00	309.50	4,150.9	375.7	-455.7	-455.7	0.00	0.00	
4,300.0	10.00	309.50	4,249.4	386.7	-469.1	-469.1	0.00	0.00	
4,400.0	10.00	309.50	4,347.8	397.8	-482.5	-482.5	0.00	0.00	
4,446.9	10.00	309.50	4,394.0	403.0	-488.8	-488.8	0.00	0.00	Shannon
4,500.0	10.00	309.50	4,446.3	408.8	-495.9	-495.9	0.00	0.00	
4,600.0	10.00	309.50	4,544.8	419.9	-509.3	-509.3	0.00	0.00	
4,700.0	10.00	309.50	4,643.3	430.9	-522.7	-522.7	0.00	0.00	
4,800.0	10.00	309.50	4,741.8	442.0	-536.1	-536.1	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site:	S6-T3N-R68W (Zisch)	North Reference:	True
Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,850.0	10.00	309.50	4,791.0	447.5	-542.8	-542.8	0.00	0.00	Start Drop -1.00
4,900.0	9.50	309.50	4,840.3	452.9	-549.4	-549.4	1.00	-1.00	
5,000.0	8.50	309.50	4,939.0	462.8	-561.4	-561.4	1.00	-1.00	
5,100.0	7.50	309.50	5,038.1	471.7	-572.2	-572.2	1.00	-1.00	
5,200.0	6.50	309.50	5,137.3	479.4	-581.6	-581.6	1.00	-1.00	
5,300.0	5.50	309.50	5,236.8	486.1	-589.6	-589.6	1.00	-1.00	
5,400.0	4.50	309.50	5,336.4	491.6	-596.4	-596.4	1.00	-1.00	
5,500.0	3.50	309.50	5,436.1	496.0	-601.8	-601.8	1.00	-1.00	
5,600.0	2.50	309.50	5,536.0	499.4	-605.8	-605.8	1.00	-1.00	
5,700.0	1.50	309.50	5,635.9	501.6	-608.5	-608.5	1.00	-1.00	
5,800.0	0.50	309.50	5,735.9	502.7	-609.8	-609.8	1.00	-1.00	
5,850.0	0.00	0.00	5,785.9	502.8	-610.0	-610.0	1.00	-1.00	EOD; Inc=0°
5,900.0	0.00	0.00	5,835.9	502.8	-610.0	-610.0	0.00	0.00	
6,000.0	0.00	0.00	5,935.9	502.8	-610.0	-610.0	0.00	0.00	
6,100.0	0.00	0.00	6,035.9	502.8	-610.0	-610.0	0.00	0.00	
6,155.1	0.00	0.00	6,091.0	502.8	-610.0	-610.0	0.00	0.00	Teepee Buttes
6,200.0	0.00	0.00	6,135.9	502.8	-610.0	-610.0	0.00	0.00	
6,300.0	0.00	0.00	6,235.9	502.8	-610.0	-610.0	0.00	0.00	
6,400.0	0.00	0.00	6,335.9	502.8	-610.0	-610.0	0.00	0.00	
6,500.0	0.00	0.00	6,435.9	502.8	-610.0	-610.0	0.00	0.00	
6,600.0	0.00	0.00	6,535.9	502.8	-610.0	-610.0	0.00	0.00	
6,601.9	0.00	0.00	6,537.8	502.8	-610.0	-610.0	0.00	0.00	Start Build 8.00
6,700.0	7.85	90.00	6,635.6	502.8	-603.3	-603.3	8.00	8.00	
6,800.0	15.85	90.00	6,733.4	502.8	-582.8	-582.8	8.00	8.00	
6,900.0	23.85	90.00	6,827.4	502.8	-548.8	-548.8	8.00	8.00	
6,971.2	29.55	90.00	6,891.0	502.9	-516.9	-516.9	8.00	8.00	Sharon Springs
7,000.0	31.85	90.00	6,915.7	502.9	-502.2	-502.2	8.00	8.00	
7,050.9	35.92	90.00	6,958.0	502.9	-473.8	-473.8	8.00	8.00	Niobrara
7,100.0	39.85	90.00	6,996.7	502.9	-443.6	-443.6	8.00	8.00	
7,144.5	43.41	90.00	7,030.0	502.9	-414.1	-414.1	8.00	8.00	B Chalk
7,200.0	47.85	90.00	7,068.8	502.9	-374.4	-374.4	8.00	8.00	
7,300.0	55.85	90.00	7,130.5	502.9	-295.8	-295.8	8.00	8.00	
7,400.0	63.85	90.00	7,180.7	502.9	-209.4	-209.4	8.00	8.00	
7,500.0	71.85	90.00	7,218.4	502.9	-116.9	-116.9	8.00	8.00	
7,522.4	73.64	90.00	7,225.0	502.9	-95.5	-95.5	8.00	8.00	Ft. Hayes
7,600.0	79.85	90.00	7,242.8	502.9	-20.0	-20.0	8.00	8.00	
7,607.1	80.41	90.00	7,244.0	502.9	-13.1	-13.1	8.00	8.00	Codell
7,700.0	87.85	90.00	7,253.5	502.9	79.3	79.3	8.00	8.00	
7,726.9	90.00	90.00	7,254.0	502.9	106.2	106.2	8.00	8.00	LP @ 7254' TVD; 90° - Target
7,800.0	90.00	90.00	7,254.0	502.9	179.3	179.3	0.00	0.00	
7,900.0	90.00	90.00	7,254.0	502.9	279.3	279.3	0.00	0.00	
8,000.0	90.00	90.00	7,254.0	502.9	379.3	379.3	0.00	0.00	
8,100.0	90.00	90.00	7,254.0	502.9	479.3	479.3	0.00	0.00	
8,200.0	90.00	90.00	7,254.0	502.9	579.3	579.3	0.00	0.00	
8,300.0	90.00	90.00	7,254.0	502.9	679.3	679.3	0.00	0.00	
8,400.0	90.00	90.00	7,254.0	502.9	779.3	779.3	0.00	0.00	
8,500.0	90.00	90.00	7,254.0	502.9	879.3	879.3	0.00	0.00	
8,600.0	90.00	90.00	7,254.0	502.9	979.3	979.3	0.00	0.00	
8,700.0	90.00	90.00	7,254.0	502.9	1,079.3	1,079.3	0.00	0.00	
8,800.0	90.00	90.00	7,254.0	502.9	1,179.3	1,179.3	0.00	0.00	
8,900.0	90.00	90.00	7,254.0	502.9	1,279.3	1,279.3	0.00	0.00	
9,000.0	90.00	90.00	7,254.0	502.9	1,379.3	1,379.3	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site:	S6-T3N-R68W (Zisch)	North Reference:	True
Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,100.0	90.00	90.00	7,254.0	502.9	1,479.3	1,479.3	0.00	0.00	
9,200.0	90.00	90.00	7,254.0	503.0	1,579.3	1,579.3	0.00	0.00	
9,300.0	90.00	90.00	7,254.0	503.0	1,679.3	1,679.3	0.00	0.00	
9,400.0	90.00	90.00	7,254.0	503.0	1,779.3	1,779.3	0.00	0.00	
9,500.0	90.00	90.00	7,254.0	503.0	1,879.3	1,879.3	0.00	0.00	
9,600.0	90.00	90.00	7,254.0	503.0	1,979.3	1,979.3	0.00	0.00	
9,700.0	90.00	90.00	7,254.0	503.0	2,079.3	2,079.3	0.00	0.00	
9,800.0	90.00	90.00	7,254.0	503.0	2,179.3	2,179.3	0.00	0.00	
9,900.0	90.00	90.00	7,254.0	503.0	2,279.3	2,279.3	0.00	0.00	
10,000.0	90.00	90.00	7,254.0	503.0	2,379.3	2,379.3	0.00	0.00	
10,100.0	90.00	90.00	7,254.0	503.0	2,479.3	2,479.3	0.00	0.00	
10,200.0	90.00	90.00	7,254.0	503.0	2,579.3	2,579.3	0.00	0.00	
10,300.0	90.00	90.00	7,254.0	503.0	2,679.3	2,679.3	0.00	0.00	
10,400.0	90.00	90.00	7,254.0	503.0	2,779.3	2,779.3	0.00	0.00	
10,500.0	90.00	90.00	7,254.0	503.0	2,879.3	2,879.3	0.00	0.00	
10,600.0	90.00	90.00	7,254.0	503.0	2,979.3	2,979.3	0.00	0.00	
10,700.0	90.00	90.00	7,254.0	503.0	3,079.3	3,079.3	0.00	0.00	
10,800.0	90.00	90.00	7,254.0	503.0	3,179.3	3,179.3	0.00	0.00	
10,900.0	90.00	90.00	7,254.0	503.0	3,279.3	3,279.3	0.00	0.00	
11,000.0	90.00	90.00	7,254.0	503.0	3,379.3	3,379.3	0.00	0.00	
11,100.0	90.00	90.00	7,254.0	503.0	3,479.3	3,479.3	0.00	0.00	
11,200.0	90.00	90.00	7,254.0	503.0	3,579.3	3,579.3	0.00	0.00	
11,300.0	90.00	90.00	7,254.0	503.1	3,679.3	3,679.3	0.00	0.00	
11,400.0	90.00	90.00	7,254.0	503.1	3,779.3	3,779.3	0.00	0.00	
11,500.0	90.00	90.00	7,254.0	503.1	3,879.3	3,879.3	0.00	0.00	
11,600.0	90.00	90.00	7,254.0	503.1	3,979.3	3,979.3	0.00	0.00	
11,700.0	90.00	90.00	7,254.0	503.1	4,079.3	4,079.3	0.00	0.00	
11,709.9	90.00	90.00	7,254.0	503.1	4,089.2	4,089.2	0.00	0.00	TD at 11709.9

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Zisch 3B-6H BHL	0.00	0.00	7,254.0	503.1	4,089.2	1,334,109.35	3,128,918.25	40.249600	-105.038160
- hit/miss target									
- Shape									
- Point									

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site:	S6-T3N-R68W (Zisch)	North Reference:	True
Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,965.6	3,920.0	Sussex				
4,198.1	4,149.0	Sussex Marker				
4,446.9	4,394.0	Shannon				
6,155.1	6,091.0	Teepee Buttes				
6,971.2	6,891.0	Sharon Springs				
7,050.9	6,958.0	Niobrara				
7,144.5	7,030.0	B Chalk				
7,522.4	7,225.0	Ft. Hayes				
7,607.1	7,244.0	Codell				
7,726.9	7,254.0	Target		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
300.0	300.0	0.0	0.0	KOP @ 300'	
1,300.0	1,294.9	55.4	-67.2	EOB; Inc=10°	
4,850.0	4,791.0	447.5	-542.8	Start Drop -1.00	
5,850.0	5,785.9	502.8	-610.0	EOD; Inc=0°	
6,601.9	6,537.8	502.8	-610.0	Start Build 8.00	
7,726.9	7,254.0	502.9	106.2	LP @ 7254' TVD; 90°	
11,709.9	7,254.0	503.1	4,089.2	TD at 11709.9	

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S6-T3N-R68W (Zisch)

Zisch 3B-6H-M368

HZ

Plan #1

Anticollision Report

15 March, 2013

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Reference Site:	S6-T3N-R68W (Zisch)	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

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

Survey Tool Program	Date	3/15/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,709.9	Plan #1 (HZ)	MWD	Geolink MWD

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Summary						
Offset Well - Wellbore - Design						
S6-T3N-R68W (Zisch)						
SUMMER 6-1 (EXISTING) - EXISTING - NO SURVEYS	7,654.3	7,237.3	184.1	156.1	6.563	CC, ES, SF
Zisch 3A-6H-M368 - HZ - Plan #1	200.0	196.0	10.9	10.3	16.800	CC, ES
Zisch 3A-6H-M368 - HZ - Plan #1	11,709.9	11,551.0	407.4	220.6	2.181	SF
Zisch 3C-6H-M368 - HZ - Plan #1	300.0	300.0	10.9	9.9	10.905	CC, ES
Zisch 3C-6H-M368 - HZ - Plan #1	11,709.9	11,498.2	407.4	221.0	2.186	SF
Zisch 3D-6H-M368 - HZ - Plan #1	300.0	296.0	21.9	20.9	21.813	CC, ES
Zisch 3D-6H-M368 - HZ - Plan #1	600.0	595.8	27.6	25.5	13.422	SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Reference Site:	S6-T3N-R68W (Zisch)	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
S6-T3N-R68W (Zisch) - SUMMER 6-1 (EXISTING) - EXISTING - NO SURVEYS													Offset Well Error:	0.0 ft
Survey Program: 7351-MWD														
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	6.05	318.8	33.8	320.8					
100.0	100.0	87.0	87.0	0.2	0.2	6.05	318.8	33.8	320.5	320.2	0.30	1,056.412		
200.0	200.0	187.0	187.0	0.3	0.3	6.05	318.8	33.8	320.5	319.9	0.65	491.486		
300.0	300.0	287.0	287.0	0.5	0.5	6.05	318.8	33.8	320.5	319.5	1.00	320.237		
400.0	400.0	387.0	387.0	0.7	0.7	56.68	318.8	33.8	320.1	318.7	1.35	237.056		
500.0	500.0	487.0	487.0	0.9	0.8	57.09	318.8	33.8	318.6	316.9	1.70	187.243		
600.0	599.9	586.9	586.9	1.0	1.0	57.77	318.8	33.8	316.3	314.2	2.06	153.669		
700.0	699.7	686.7	686.7	1.2	1.2	58.74	318.8	33.8	313.1	310.6	2.42	129.225		
800.0	799.4	786.4	786.4	1.4	1.4	60.02	318.8	33.8	309.1	306.3	2.80	110.443		
900.0	898.9	885.9	885.9	1.7	1.5	61.62	318.8	33.8	304.4	301.2	3.19	95.440		
1,000.0	998.3	985.3	985.3	1.9	1.7	63.56	318.8	33.8	299.1	295.5	3.60	83.116		
1,100.0	1,097.4	1,084.4	1,084.4	2.2	1.9	65.88	318.8	33.8	293.5	289.5	4.03	72.794		
1,200.0	1,196.3	1,183.3	1,183.3	2.5	2.1	68.59	318.8	33.8	287.7	283.2	4.49	64.043		
1,300.0	1,294.9	1,281.9	1,281.9	2.8	2.2	71.73	318.8	33.8	282.1	277.1	4.98	56.586		
1,400.0	1,393.4	1,380.4	1,380.4	3.1	2.4	75.10	318.8	33.8	277.0	271.5	5.49	50.453		
1,500.0	1,491.9	1,478.9	1,478.9	3.5	2.6	78.57	318.8	33.8	273.0	267.0	6.01	45.456		
1,600.0	1,590.4	1,577.4	1,577.4	3.8	2.7	82.13	318.8	33.8	270.1	263.5	6.53	41.380		
1,700.0	1,688.9	1,675.9	1,675.9	4.1	2.9	85.75	318.8	33.8	268.2	261.2	7.05	38.058		
1,800.0	1,787.3	1,774.3	1,774.3	4.5	3.1	89.41	318.8	33.8	267.5	259.9	7.56	35.358		
1,816.2	1,803.3	1,790.3	1,790.3	4.5	3.1	90.00	318.8	33.8	267.4	259.8	7.65	34.970		
1,900.0	1,885.8	1,872.8	1,872.8	4.8	3.3	93.07	318.8	33.8	267.8	259.8	8.07	33.173		
2,000.0	1,984.3	1,971.3	1,971.3	5.2	3.4	96.70	318.8	33.8	269.3	260.8	8.57	31.419		
2,100.0	2,082.8	2,069.8	2,069.8	5.5	3.6	100.28	318.8	33.8	271.9	262.9	9.06	30.024		
2,200.0	2,181.3	2,168.3	2,168.3	5.8	3.8	103.79	318.8	33.8	275.6	266.1	9.53	28.932		
2,300.0	2,279.7	2,266.7	2,266.7	6.2	3.9	107.19	318.8	33.8	280.3	270.3	9.98	28.092		
2,400.0	2,378.2	2,365.2	2,365.2	6.5	4.1	110.47	318.8	33.8	286.0	275.6	10.41	27.465		
2,500.0	2,476.7	2,463.7	2,463.7	6.9	4.3	113.62	318.8	33.8	292.6	281.8	10.83	27.016		
2,600.0	2,575.2	2,562.2	2,562.2	7.2	4.5	116.62	318.8	33.8	300.1	288.8	11.23	26.716		
2,700.0	2,673.7	2,660.7	2,660.7	7.6	4.6	119.47	318.8	33.8	308.3	296.7	11.62	26.541		
2,800.0	2,772.1	2,759.1	2,759.1	7.9	4.8	122.17	318.8	33.8	317.3	305.4	11.99	26.468		
2,900.0	2,870.6	2,857.6	2,857.6	8.3	5.0	124.72	318.8	33.8	327.0	314.7	12.35	26.481		
3,000.0	2,969.1	2,956.1	2,956.1	8.6	5.2	127.12	318.8	33.8	337.3	324.6	12.70	26.564		
3,100.0	3,067.6	3,054.6	3,054.6	9.0	5.3	129.38	318.8	33.8	348.2	335.1	13.04	26.704		
3,200.0	3,166.1	3,153.1	3,153.1	9.3	5.5	131.50	318.8	33.8	359.5	346.2	13.37	26.891		
3,300.0	3,264.5	3,251.5	3,251.5	9.7	5.7	133.49	318.8	33.8	371.4	357.7	13.70	27.116		
3,400.0	3,363.0	3,350.0	3,350.0	10.0	5.8	135.36	318.8	33.8	383.6	369.6	14.02	27.371		
3,500.0	3,461.5	3,448.5	3,448.5	10.4	6.0	137.11	318.8	33.8	396.2	381.9	14.33	27.649		
3,600.0	3,560.0	3,547.0	3,547.0	10.7	6.2	138.76	318.8	33.8	409.2	394.6	14.64	27.945		
3,700.0	3,658.5	3,645.5	3,645.5	11.1	6.4	140.30	318.8	33.8	422.5	407.6	14.95	28.255		
3,800.0	3,757.0	3,744.0	3,744.0	11.4	6.5	141.75	318.8	33.8	436.1	420.8	15.26	28.574		
3,900.0	3,855.4	3,842.4	3,842.4	11.8	6.7	143.11	318.8	33.8	449.9	434.4	15.57	28.899		
4,000.0	3,953.9	3,940.9	3,940.9	12.1	6.9	144.39	318.8	33.8	464.0	448.2	15.88	29.229		
4,100.0	4,052.4	4,039.4	4,039.4	12.5	7.0	145.60	318.8	33.8	478.3	462.1	16.18	29.561		
4,200.0	4,150.9	4,137.9	4,137.9	12.8	7.2	146.73	318.8	33.8	492.8	476.3	16.49	29.892		
7,200.0	7,068.8	7,055.8	7,055.8	16.5	12.3	33.91	318.8	33.8	447.8	426.6	21.24	21.079		
7,300.0	7,130.5	7,117.5	7,117.5	16.2	12.4	44.86	318.8	33.8	377.6	355.7	21.89	17.248		
7,400.0	7,180.7	7,167.7	7,167.7	15.9	12.5	59.79	318.8	33.8	305.0	281.2	23.83	12.802		
7,500.0	7,218.4	7,205.4	7,205.4	15.8	12.6	75.70	318.8	33.8	237.9	211.9	25.98	9.156		
7,600.0	7,242.8	7,229.8	7,229.8	16.0	12.6	87.05	318.8	33.8	191.8	164.4	27.39	7.003		
7,654.3	7,250.3	7,237.3	7,237.3	16.3	12.6	90.00	318.8	33.8	184.1	156.1	28.05	6.563 CC, ES, SF		
7,700.0	7,253.5	7,240.5	7,240.5	16.8	12.6	90.53	318.8	33.8	189.7	161.1	28.57	6.639		
7,800.0	7,254.0	7,241.0	7,241.0	18.1	12.6	90.00	318.8	33.8	234.7	204.7	29.97	7.831		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Reference Site:	S6-T3N-R68W (Zisch)	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
S6-T3N-R68W (Zisch) - SUMMER 6-1 (EXISTING) - EXISTING - NO SURVEYS													Offset Well Error:	0.0 ft
Survey Program: 7351-MWD														
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	
7,900.0	7,254.0	7,241.0	7,241.0	19.7	12.6	90.00	318.8	33.8	306.9	275.3	31.59	9.715		
8,000.0	7,254.0	7,241.0	7,241.0	21.5	12.6	90.00	318.8	33.8	391.6	358.2	33.38	11.730		
8,100.0	7,254.0	7,241.0	7,241.0	23.4	12.6	90.00	318.8	33.8	482.1	446.8	35.30	13.657		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Reference Site:	S6-T3N-R68W (Zisch)	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S6-T3N-R68W (Zisch) - Zisch 3A-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)					
0.0	0.0	0.0	0.0	0.0	0.0	0.00	10.9	0.0	11.6						
100.0	100.0	96.0	96.0	0.2	0.2	0.00	10.9	0.0	10.9	10.6	0.30	36.138			
200.0	200.0	196.0	196.0	0.3	0.3	0.00	10.9	0.0	10.9	10.3	0.65	16.800 CC, ES			
300.0	300.0	295.8	295.8	0.5	0.5	-2.47	11.6	-0.5	11.6	10.6	1.00	11.630			
400.0	400.0	395.6	395.6	0.7	0.7	44.63	13.7	-2.0	13.2	11.9	1.35	9.806			
500.0	500.0	495.4	495.3	0.9	0.9	43.34	17.2	-4.6	15.1	13.4	1.70	8.882			
600.0	599.9	595.1	594.8	1.0	1.1	43.53	22.1	-8.1	17.3	15.2	2.06	8.376			
700.0	699.7	694.8	694.2	1.2	1.3	44.71	28.4	-12.7	19.7	17.3	2.43	8.091			
800.0	799.4	794.5	793.4	1.4	1.5	46.51	36.1	-18.3	22.4	19.6	2.82	7.931			
900.0	898.9	894.1	892.4	1.7	1.8	48.67	45.2	-24.9	25.4	22.1	3.23	7.844			
1,000.0	998.3	993.6	991.1	1.9	2.0	51.01	55.7	-32.5	28.7	25.0	3.68	7.795			
1,100.0	1,097.4	1,093.1	1,089.5	2.2	2.3	53.41	67.5	-41.1	32.3	28.2	4.17	7.764			
1,200.0	1,196.3	1,192.6	1,187.6	2.5	2.6	55.77	80.7	-50.7	36.4	31.7	4.70	7.740			
1,300.0	1,294.9	1,292.0	1,285.3	2.8	3.0	58.04	95.3	-61.3	40.8	35.5	5.29	7.715			
1,400.0	1,393.4	1,391.3	1,382.7	3.1	3.4	59.30	111.3	-72.9	46.0	40.1	5.89	7.811			
1,500.0	1,491.9	1,490.5	1,479.5	3.5	3.8	58.95	128.6	-85.5	52.5	46.0	6.48	8.102			
1,600.0	1,590.4	1,589.5	1,575.8	3.8	4.2	57.53	147.2	-99.0	60.2	53.1	7.04	8.552			
1,700.0	1,688.9	1,688.2	1,671.5	4.1	4.7	55.48	167.1	-113.4	69.2	61.6	7.57	9.148			
1,800.0	1,787.3	1,787.6	1,767.5	4.5	5.1	53.43	187.9	-128.5	79.1	71.0	8.07	9.796			
1,900.0	1,885.8	1,887.1	1,863.6	4.8	5.6	51.83	208.7	-143.7	89.0	80.4	8.58	10.377			
2,000.0	1,984.3	1,986.6	1,959.6	5.2	6.1	50.55	229.5	-158.8	99.0	89.9	9.09	10.897			
2,100.0	2,082.8	2,086.1	2,055.7	5.5	6.5	49.51	250.3	-173.9	109.1	99.5	9.60	11.365			
2,200.0	2,181.3	2,185.5	2,151.8	5.8	7.0	48.64	271.2	-189.1	119.2	109.0	10.11	11.787			
2,300.0	2,279.7	2,285.0	2,247.9	6.2	7.5	47.91	292.0	-204.2	129.3	118.6	10.62	12.169			
2,400.0	2,378.2	2,384.5	2,344.0	6.5	8.0	47.28	312.8	-219.3	139.4	128.2	11.13	12.517			
2,500.0	2,476.7	2,484.0	2,440.1	6.9	8.4	46.74	333.7	-234.5	149.5	137.9	11.65	12.835			
2,600.0	2,575.2	2,583.4	2,536.2	7.2	8.9	46.27	354.5	-249.6	159.6	147.5	12.16	13.126			
2,700.0	2,673.7	2,682.9	2,632.3	7.6	9.4	45.86	375.3	-264.7	169.8	157.1	12.68	13.393			
2,800.0	2,772.1	2,782.4	2,728.3	7.9	9.9	45.49	396.2	-279.9	180.0	166.8	13.19	13.640			
2,900.0	2,870.6	2,881.9	2,824.4	8.3	10.4	45.16	417.0	-295.0	190.1	176.4	13.71	13.868			
3,000.0	2,969.1	2,981.4	2,920.5	8.6	10.8	44.86	437.8	-310.1	200.3	186.1	14.22	14.080			
3,100.0	3,067.6	3,080.8	3,016.6	9.0	11.3	44.59	458.6	-325.3	210.5	195.7	14.74	14.277			
3,200.0	3,166.1	3,180.3	3,112.7	9.3	11.8	44.35	479.5	-340.4	220.6	205.4	15.26	14.461			
3,300.0	3,264.5	3,279.8	3,208.8	9.7	12.3	44.13	500.3	-355.5	230.8	215.1	15.78	14.632			
3,400.0	3,363.0	3,379.3	3,304.9	10.0	12.8	43.93	521.1	-370.7	241.0	224.7	16.29	14.793			
3,500.0	3,461.5	3,478.7	3,400.9	10.4	13.3	43.74	542.0	-385.8	251.2	234.4	16.81	14.944			
3,600.0	3,560.0	3,578.2	3,497.0	10.7	13.7	43.57	562.8	-400.9	261.4	244.1	17.33	15.085			
3,700.0	3,658.5	3,677.7	3,593.1	11.1	14.2	43.41	583.6	-416.1	271.6	253.7	17.85	15.219			
3,800.0	3,757.0	3,777.2	3,689.2	11.4	14.7	43.26	604.4	-431.2	281.8	263.4	18.36	15.345			
3,900.0	3,855.4	3,876.6	3,785.3	11.8	15.2	43.13	625.3	-446.3	292.0	273.1	18.88	15.464			
4,000.0	3,953.9	3,976.1	3,881.4	12.1	15.7	43.00	646.1	-461.5	302.2	282.8	19.40	15.576			
4,100.0	4,052.4	4,075.6	3,977.5	12.5	16.2	42.88	666.9	-476.6	312.4	292.5	19.92	15.683			
4,200.0	4,150.9	4,175.1	4,073.6	12.8	16.6	42.77	687.8	-491.7	322.6	302.2	20.44	15.784			
4,300.0	4,249.4	4,278.2	4,173.3	13.2	17.1	42.70	709.0	-507.2	332.4	311.5	20.97	15.854			
4,400.0	4,347.8	4,383.2	4,275.3	13.5	17.6	42.77	729.2	-521.9	340.7	319.2	21.53	15.825			
4,500.0	4,446.3	4,488.6	4,378.1	13.9	18.0	43.00	748.0	-535.5	347.4	325.3	22.13	15.702			
4,600.0	4,544.8	4,594.1	4,481.4	14.2	18.4	43.37	765.2	-548.0	352.6	329.8	22.76	15.493			
4,700.0	4,643.3	4,699.6	4,585.1	14.6	18.8	43.88	780.9	-559.4	356.1	332.7	23.42	15.204			
4,800.0	4,741.8	4,805.2	4,689.3	14.9	19.1	44.54	795.1	-569.7	358.0	333.9	24.12	14.843			
4,900.0	4,840.3	4,910.8	4,793.7	15.3	19.5	45.33	807.7	-578.9	358.6	333.8	24.85	14.432			
5,000.0	4,939.0	5,016.4	4,898.3	15.6	19.7	46.09	818.8	-586.9	358.7	333.2	25.53	14.049			
5,100.0	5,038.1	5,121.9	5,003.2	15.9	20.0	46.80	828.2	-593.8	358.6	332.4	26.18	13.695			

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Reference Site:	S6-T3N-R68W (Zisch)	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													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	Warning									
5,200.0	5,137.3	5,227.3	5,108.2	16.1	20.2	47.46	836.2	-599.6	358.1	331.3	26.79	13.367										
5,300.0	5,236.8	5,332.8	5,213.4	16.4	20.4	48.07	842.5	-604.2	357.3	329.9	27.35	13.062										
5,400.0	5,336.4	5,438.1	5,318.6	16.6	20.6	48.64	847.3	-607.6	356.1	328.3	27.87	12.778										
5,500.0	5,436.1	5,543.5	5,423.8	16.8	20.7	49.16	850.5	-610.0	354.7	326.3	28.34	12.512										
5,600.0	5,536.0	5,648.8	5,529.1	16.9	20.8	49.64	852.2	-611.2	352.8	324.1	28.77	12.263										
5,700.0	5,635.9	5,751.6	5,631.9	17.1	20.9	50.04	852.4	-611.4	350.8	321.7	29.15	12.033										
5,800.0	5,735.9	5,851.6	5,731.9	17.2	21.0	50.25	852.4	-611.4	349.7	320.2	29.45	11.873										
5,871.6	5,807.6	5,923.3	5,803.6	17.3	21.0	50.30	852.4	-611.4	349.4	319.8	29.64	11.790										
5,900.0	5,835.9	5,951.6	5,831.9	17.3	21.0	-0.22	852.4	-611.4	349.5	317.9	31.67	11.036										
6,000.0	5,935.9	6,051.6	5,931.9	17.4	21.1	-0.22	852.4	-611.4	349.5	317.6	31.91	10.956										
6,100.0	6,035.9	6,151.6	6,031.9	17.5	21.2	-0.22	852.4	-611.4	349.5	317.4	32.14	10.875										
6,200.0	6,135.9	6,251.6	6,131.9	17.6	21.3	-0.22	852.4	-611.4	349.5	317.2	32.38	10.796										
6,300.0	6,235.9	6,351.6	6,231.9	17.7	21.4	-0.22	852.4	-611.4	349.5	316.9	32.62	10.717										
6,400.0	6,335.9	6,451.6	6,331.9	17.8	21.5	-0.22	852.4	-611.3	349.5	316.7	32.86	10.638										
6,436.4	6,372.3	6,488.0	6,368.3	17.9	21.5	0.00	852.4	-610.0	349.5	316.7	32.89	10.628										
6,500.0	6,435.9	6,551.0	6,430.9	17.9	21.5	1.07	852.4	-603.4	349.6	316.9	32.76	10.672										
6,600.0	6,535.9	6,646.5	6,524.1	18.0	21.4	4.41	852.4	-583.1	350.7	318.5	32.13	10.913										
6,700.0	6,635.6	6,737.3	6,609.5	18.1	21.2	-81.29	852.4	-552.3	353.9	320.8	33.09	10.697										
6,800.0	6,733.4	6,825.4	6,688.0	17.9	20.9	-77.27	852.4	-512.4	359.0	325.6	33.36	10.759										
6,900.0	6,827.4	6,911.1	6,759.1	17.7	20.6	-73.58	852.4	-464.6	365.3	332.2	33.09	11.039										
7,000.0	6,915.7	6,994.9	6,822.6	17.3	20.3	-70.28	852.4	-410.0	372.3	340.0	32.29	11.530										
7,100.0	6,996.7	7,077.1	6,878.3	16.9	20.1	-67.40	852.4	-349.7	379.6	348.5	31.09	12.210										
7,200.0	7,068.8	7,157.8	6,925.9	16.5	19.8	-64.96	852.4	-284.5	386.7	357.1	29.67	13.034										
7,300.0	7,130.5	7,237.5	6,965.4	16.2	19.7	-62.95	852.4	-215.4	393.2	364.9	28.29	13.899										
7,400.0	7,180.7	7,316.3	6,996.7	15.9	19.6	-61.37	852.4	-143.1	398.7	371.5	27.27	14.624										
7,500.0	7,218.4	7,394.5	7,019.7	15.8	19.6	-60.22	852.4	-68.4	403.0	376.1	26.93	14.968										
7,600.0	7,242.8	7,472.2	7,034.4	16.0	19.8	-59.48	852.4	7.9	405.9	378.4	27.54	14.741										
7,700.0	7,253.5	7,550.0	7,040.7	16.8	20.1	-59.15	852.5	85.4	407.2	378.1	29.13	13.979										
7,800.0	7,254.0	7,643.9	7,041.0	18.1	20.8	-59.13	852.5	179.3	407.3	375.8	31.50	12.929										
7,900.0	7,254.0	7,743.9	7,041.0	19.7	21.9	-59.13	852.5	279.3	407.3	373.1	34.21	11.905										
8,000.0	7,254.0	7,843.9	7,041.0	21.5	23.3	-59.13	852.5	379.3	407.3	370.1	37.21	10.945										
8,100.0	7,254.0	7,943.9	7,041.0	23.4	25.0	-59.13	852.5	479.3	407.3	366.9	40.44	10.072										
8,200.0	7,254.0	8,043.9	7,041.0	25.4	26.8	-59.13	852.5	579.3	407.3	363.5	43.84	9.290										
8,300.0	7,254.0	8,143.9	7,041.0	27.5	28.7	-59.13	852.5	679.3	407.3	359.9	47.38	8.596										
8,400.0	7,254.0	8,243.9	7,041.0	29.6	30.7	-59.13	852.5	779.3	407.3	356.3	51.03	7.982										
8,500.0	7,254.0	8,343.9	7,041.0	31.8	32.8	-59.13	852.5	879.3	407.3	352.5	54.77	7.437										
8,600.0	7,254.0	8,443.9	7,041.0	34.0	35.0	-59.13	852.5	979.3	407.3	348.7	58.57	6.954										
8,700.0	7,254.0	8,543.9	7,041.0	36.2	37.1	-59.13	852.5	1,079.3	407.3	344.9	62.44	6.523										
8,800.0	7,254.0	8,643.9	7,041.0	38.5	39.4	-59.13	852.5	1,179.3	407.3	341.0	66.35	6.139										
8,900.0	7,254.0	8,743.9	7,041.0	40.8	41.6	-59.13	852.6	1,279.3	407.3	337.0	70.30	5.794										
9,000.0	7,254.0	8,843.9	7,041.0	43.1	43.9	-59.13	852.6	1,379.3	407.3	333.0	74.29	5.483										
9,100.0	7,254.0	8,943.9	7,041.0	45.4	46.2	-59.13	852.6	1,479.3	407.3	329.0	78.30	5.202										
9,200.0	7,254.0	9,043.9	7,041.0	47.8	48.5	-59.13	852.6	1,579.3	407.3	325.0	82.34	4.947										
9,300.0	7,254.0	9,143.9	7,041.0	50.1	50.8	-59.13	852.6	1,679.3	407.3	320.9	86.40	4.715										
9,400.0	7,254.0	9,243.9	7,041.0	52.5	53.1	-59.13	852.6	1,779.3	407.3	316.9	90.47	4.502										
9,500.0	7,254.0	9,343.9	7,041.0	54.9	55.5	-59.13	852.6	1,879.3	407.3	312.8	94.56	4.308										
9,600.0	7,254.0	9,443.9	7,041.0	57.3	57.8	-59.13	852.6	1,979.3	407.3	308.7	98.67	4.128										
9,700.0	7,254.0	9,543.9	7,041.0	59.6	60.2	-59.13	852.6	2,079.3	407.3	304.6	102.79	3.963										
9,800.0	7,254.0	9,643.9	7,041.0	62.0	62.6	-59.13	852.6	2,179.3	407.3	300.4	106.91	3.810										
9,900.0	7,254.0	9,743.9	7,041.0	64.4	65.0	-59.13	852.6	2,279.3	407.4	296.3	111.05	3.668										
10,000.0	7,254.0	9,843.9	7,041.0	66.9	67.3	-59.13	852.6	2,379.3	407.4	292.2	115.20	3.536										
10,100.0	7,254.0	9,943.9	7,041.0	69.3	69.7	-59.13	852.7	2,479.3	407.4	288.0	119.35	3.413										

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Reference Site:	S6-T3N-R68W (Zisch)	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													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		
10,200.0	7,254.0	10,043.9	7,041.0	71.7	72.1	-59.13	852.7	2,579.3	407.4	283.9	123.51	3.298			
10,300.0	7,254.0	10,143.9	7,041.0	74.1	74.5	-59.13	852.7	2,679.3	407.4	279.7	127.68	3.191			
10,400.0	7,254.0	10,243.9	7,041.0	76.5	77.0	-59.13	852.7	2,779.3	407.4	275.5	131.85	3.090			
10,500.0	7,254.0	10,343.9	7,041.0	79.0	79.4	-59.13	852.7	2,879.3	407.4	271.3	136.03	2.995			
10,600.0	7,254.0	10,443.9	7,041.0	81.4	81.8	-59.13	852.7	2,979.3	407.4	267.2	140.21	2.906			
10,700.0	7,254.0	10,543.9	7,041.0	83.8	84.2	-59.13	852.7	3,079.3	407.4	263.0	144.39	2.821			
10,800.0	7,254.0	10,643.9	7,041.0	86.3	86.6	-59.13	852.7	3,179.3	407.4	258.8	148.58	2.742			
10,900.0	7,254.0	10,743.9	7,041.0	88.7	89.1	-59.13	852.7	3,279.3	407.4	254.6	152.78	2.667			
11,000.0	7,254.0	10,843.9	7,041.0	91.1	91.5	-59.13	852.7	3,379.3	407.4	250.4	156.97	2.595			
11,100.0	7,254.0	10,943.9	7,041.0	93.6	93.9	-59.13	852.7	3,479.3	407.4	246.2	161.17	2.528			
11,200.0	7,254.0	11,043.9	7,041.0	96.0	96.3	-59.13	852.7	3,579.3	407.4	242.0	165.37	2.463			
11,300.0	7,254.0	11,143.9	7,041.0	98.5	98.8	-59.14	852.8	3,679.3	407.4	237.8	169.58	2.402			
11,400.0	7,254.0	11,243.9	7,041.0	100.9	101.2	-59.14	852.8	3,779.3	407.4	233.6	173.79	2.344			
11,500.0	7,254.0	11,343.9	7,041.0	103.4	103.7	-59.14	852.8	3,879.3	407.4	229.4	177.99	2.289			
11,600.0	7,254.0	11,443.9	7,041.0	105.8	106.1	-59.14	852.8	3,979.3	407.4	225.2	182.21	2.236			
11,700.0	7,254.0	11,543.9	7,041.0	108.3	108.5	-59.14	852.8	4,079.3	407.4	221.0	186.42	2.185			
11,700.0	7,254.0	11,543.9	7,041.0	108.3	108.5	-59.14	852.8	4,079.3	407.4	221.0	186.42	2.185			
11,709.9	7,254.0	11,551.0	7,041.0	108.5	108.7	-59.14	852.8	4,086.4	407.4	220.6	186.78	2.181 SF			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Reference Site:	S6-T3N-R68W (Zisch)	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													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	35.973			
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-10.9	0.0	10.9	10.3	0.65	16.736			
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-10.9	0.0	10.9	9.9	1.00	10.905 CC, ES			
400.0	400.0	400.0	400.0	0.7	0.7	-132.85	-10.9	0.0	11.5	10.1	1.35	8.510			
500.0	500.0	500.0	500.0	0.9	0.8	-141.06	-10.9	0.0	13.4	11.7	1.70	7.886			
600.0	599.9	600.0	600.0	1.0	1.0	-147.86	-10.7	-0.8	16.5	14.5	2.05	8.056			
700.0	699.7	700.1	700.1	1.2	1.2	-150.85	-10.0	-3.4	20.3	17.9	2.41	8.430			
800.0	799.4	800.3	800.1	1.4	1.4	-151.55	-8.9	-7.6	24.6	21.8	2.77	8.872			
900.0	898.9	900.4	900.1	1.7	1.6	-150.93	-7.3	-13.5	29.3	26.2	3.14	9.332			
1,000.0	998.3	1,000.6	1,000.0	1.9	1.8	-149.55	-5.3	-21.1	34.6	31.0	3.53	9.786			
1,100.0	1,097.4	1,100.8	1,099.7	2.2	2.0	-147.76	-2.8	-30.4	40.3	36.4	3.95	10.217			
1,200.0	1,196.3	1,201.0	1,199.3	2.5	2.2	-145.78	0.2	-41.4	46.7	42.3	4.40	10.614			
1,300.0	1,294.9	1,301.2	1,298.6	2.8	2.5	-143.72	3.6	-54.0	53.6	48.7	4.89	10.969			
1,400.0	1,393.4	1,401.4	1,397.7	3.1	2.8	-141.21	7.4	-68.4	60.4	55.0	5.42	11.140			
1,500.0	1,491.9	1,501.6	1,496.5	3.5	3.1	-137.85	11.7	-84.4	66.6	60.6	6.03	11.058			
1,600.0	1,590.4	1,601.8	1,595.0	3.8	3.4	-133.77	16.4	-102.0	72.4	65.7	6.70	10.814			
1,700.0	1,688.9	1,701.8	1,693.0	4.1	3.8	-129.09	21.6	-121.3	78.1	70.6	7.44	10.490			
1,800.0	1,787.3	1,801.4	1,790.5	4.5	4.2	-124.51	26.9	-141.3	84.0	75.8	8.22	10.225			
1,900.0	1,885.8	1,901.1	1,887.9	4.8	4.5	-120.56	32.3	-161.3	90.4	81.4	8.99	10.053			
2,000.0	1,984.3	2,000.7	1,985.3	5.2	4.9	-117.14	37.7	-181.3	97.2	87.4	9.77	9.949			
2,100.0	2,082.8	2,100.3	2,082.8	5.5	5.3	-114.18	43.0	-201.3	104.3	93.7	10.54	9.892			
2,200.0	2,181.3	2,199.9	2,180.2	5.8	5.7	-111.60	48.4	-221.3	111.6	100.3	11.30	9.871			
2,300.0	2,279.7	2,299.5	2,277.7	6.2	6.1	-109.34	53.7	-241.3	119.1	107.0	12.06	9.873			
2,400.0	2,378.2	2,399.1	2,375.1	6.5	6.5	-107.34	59.1	-261.3	126.8	113.9	12.81	9.893			
2,500.0	2,476.7	2,498.7	2,472.5	6.9	6.9	-105.58	64.5	-281.3	134.6	121.0	13.56	9.925			
2,600.0	2,575.2	2,598.4	2,570.0	7.2	7.3	-104.01	69.8	-301.4	142.5	128.2	14.30	9.965			
2,700.0	2,673.7	2,698.0	2,667.4	7.6	7.7	-102.61	75.2	-321.4	150.5	135.5	15.03	10.011			
2,800.0	2,772.1	2,797.6	2,764.8	7.9	8.1	-101.35	80.5	-341.4	158.6	142.8	15.77	10.060			
2,900.0	2,870.6	2,897.2	2,862.3	8.3	8.5	-100.21	85.9	-361.4	166.8	150.3	16.49	10.111			
3,000.0	2,969.1	2,996.8	2,959.7	8.6	8.9	-99.18	91.3	-381.4	175.0	157.8	17.22	10.163			
3,100.0	3,067.6	3,096.4	3,057.2	9.0	9.3	-98.25	96.6	-401.4	183.3	165.3	17.94	10.215			
3,200.0	3,166.1	3,196.0	3,154.6	9.3	9.7	-97.39	102.0	-421.4	191.6	172.9	18.66	10.267			
3,300.0	3,264.5	3,295.6	3,252.0	9.7	10.1	-96.60	107.3	-441.4	200.0	180.6	19.38	10.318			
3,400.0	3,363.0	3,395.3	3,349.5	10.0	10.5	-95.88	112.7	-461.4	208.3	188.3	20.09	10.369			
3,500.0	3,461.5	3,494.9	3,446.9	10.4	10.9	-95.22	118.1	-481.4	216.8	196.0	20.81	10.418			
3,600.0	3,560.0	3,595.1	3,545.0	10.7	11.3	-94.64	123.4	-501.4	225.2	203.6	21.52	10.464			
3,700.0	3,658.5	3,696.1	3,644.1	11.1	11.7	-94.45	128.4	-520.1	233.1	210.9	22.21	10.492			
3,800.0	3,757.0	3,797.2	3,743.7	11.4	12.0	-94.67	133.0	-537.1	240.4	217.5	22.90	10.497			
3,900.0	3,855.4	3,898.4	3,843.6	11.8	12.3	-95.27	137.1	-552.4	247.1	223.6	23.58	10.482			
4,000.0	3,953.9	3,999.5	3,943.7	12.1	12.6	-96.22	140.7	-566.0	253.4	229.1	24.24	10.453			
4,100.0	4,052.4	4,100.5	4,044.0	12.5	12.9	-97.51	143.9	-577.9	259.2	234.3	24.88	10.416			
4,200.0	4,150.9	4,201.4	4,144.3	12.8	13.1	-99.10	146.6	-588.1	264.6	239.1	25.49	10.379			
4,300.0	4,249.4	4,302.0	4,244.5	13.2	13.3	-100.99	148.9	-596.5	269.8	243.7	26.07	10.349			
4,400.0	4,347.8	4,402.4	4,344.6	13.5	13.5	-103.16	150.7	-603.2	275.0	248.4	26.60	10.337			
4,500.0	4,446.3	4,502.4	4,444.5	13.9	13.7	-105.59	152.1	-608.2	280.3	253.2	27.07	10.352			
4,600.0	4,544.8	4,601.9	4,544.0	14.2	13.8	-108.26	152.9	-611.6	285.8	258.4	27.47	10.404			
4,700.0	4,643.3	4,701.1	4,643.1	14.6	13.9	-111.14	153.4	-613.2	291.9	264.1	27.79	10.502			
4,800.0	4,741.8	4,799.7	4,741.8	14.9	14.0	-114.18	153.4	-613.4	298.7	270.6	28.04	10.653			
4,900.0	4,840.3	4,898.2	4,840.3	15.3	14.1	-117.11	153.4	-613.4	306.2	278.0	28.23	10.846			
5,000.0	4,939.0	4,997.0	4,939.0	15.6	14.2	-119.69	153.4	-613.4	313.7	285.3	28.38	11.053			
5,100.0	5,038.1	5,096.0	5,038.1	15.9	14.3	-121.90	153.4	-613.4	320.9	292.4	28.52	11.252			

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Reference Site:	S6-T3N-R68W (Zisch)	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference															
Offset				Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
5,200.0	5,137.3	5,195.3	5,137.3	16.1	14.4	-123.75	153.4	-613.4	327.5	298.9	28.65	11.433			
5,300.0	5,236.8	5,294.7	5,236.8	16.4	14.6	-125.29	153.4	-613.4	333.5	304.7	28.78	11.586			
5,400.0	5,336.4	5,394.3	5,336.4	16.6	14.7	-126.53	153.4	-613.4	338.6	309.7	28.93	11.706			
5,500.0	5,436.1	5,494.1	5,436.1	16.8	14.8	-127.50	153.4	-613.4	342.8	313.7	29.08	11.787			
5,600.0	5,536.0	5,593.9	5,536.0	16.9	14.9	-128.21	153.4	-613.4	346.0	316.8	29.26	11.828			
5,700.0	5,635.9	5,693.9	5,635.9	17.1	15.0	-128.68	153.4	-613.4	348.2	318.7	29.45	11.825			
5,800.0	5,735.9	5,793.9	5,735.9	17.2	15.1	-128.91	153.4	-613.4	349.3	319.6	29.65	11.780			
5,900.0	5,835.9	5,893.9	5,835.9	17.3	15.2	-129.44	153.4	-613.4	349.4	325.3	24.09	14.505			
6,000.0	5,935.9	5,993.9	5,935.9	17.4	15.4	-179.44	153.4	-613.4	349.4	325.0	24.39	14.325			
6,100.0	6,035.9	6,093.9	6,035.9	17.5	15.5	-179.44	153.4	-613.4	349.4	324.7	24.70	14.149			
6,200.0	6,135.9	6,193.9	6,135.9	17.6	15.6	-179.44	153.4	-613.4	349.4	324.4	25.00	13.976			
6,300.0	6,235.9	6,293.9	6,235.9	17.7	15.7	-179.44	153.4	-613.4	349.4	324.1	25.31	13.808			
6,400.0	6,335.9	6,393.9	6,336.0	17.8	15.8	-179.45	153.4	-613.4	349.4	323.8	25.61	13.642			
6,462.6	6,398.5	6,456.6	6,398.5	17.9	15.8	-180.00	153.4	-610.0	349.4	323.5	25.90	13.492			
6,500.0	6,435.9	6,493.6	6,435.2	17.9	15.8	179.25	153.4	-605.5	349.4	323.3	26.13	13.371			
6,600.0	6,535.9	6,589.3	6,528.7	18.0	15.7	175.90	153.4	-585.0	350.4	323.4	26.98	12.986			
6,700.0	6,635.6	6,680.3	6,614.2	18.1	15.4	81.59	153.4	-554.1	353.5	323.9	29.57	11.953			
6,800.0	6,733.4	6,768.6	6,692.8	17.9	15.0	77.54	153.4	-514.0	358.4	329.9	28.49	12.579			
6,900.0	6,827.4	6,854.5	6,764.0	17.7	14.6	73.82	153.4	-466.0	364.6	337.3	27.38	13.318			
7,000.0	6,915.7	6,938.4	6,827.5	17.3	14.2	70.49	153.4	-411.2	371.7	345.3	26.35	14.108			
7,100.0	6,996.7	7,020.6	6,883.1	16.9	13.9	67.59	153.4	-350.7	379.0	353.5	25.49	14.871			
7,200.0	7,068.8	7,100.0	6,929.9	16.5	13.6	65.14	153.4	-286.6	386.1	361.3	24.88	15.518			
7,300.0	7,130.5	7,181.3	6,970.1	16.2	13.5	63.07	153.4	-216.1	392.7	368.0	24.63	15.940			
7,400.0	7,180.7	7,260.1	7,001.3	15.9	13.5	61.46	153.4	-143.7	398.3	373.5	24.79	16.063			
7,500.0	7,218.4	7,338.3	7,024.1	15.8	13.9	60.27	153.4	-68.9	402.7	377.3	25.42	15.843			
7,600.0	7,242.8	7,416.1	7,038.6	16.0	14.6	59.50	153.4	7.4	405.6	379.1	26.52	15.298			
7,700.0	7,253.5	7,493.6	7,044.8	16.8	15.5	59.14	153.4	84.6	407.1	379.0	28.05	14.511			
7,800.0	7,254.0	7,588.3	7,045.0	18.1	16.9	59.12	153.4	179.3	407.2	376.8	30.35	13.418			
7,900.0	7,254.0	7,688.3	7,045.0	19.7	18.5	59.12	153.4	279.3	407.2	374.1	33.12	12.296			
8,000.0	7,254.0	7,788.3	7,045.0	21.5	20.3	59.12	153.4	379.3	407.2	371.0	36.17	11.257			
8,100.0	7,254.0	7,888.3	7,045.0	23.4	22.2	59.12	153.4	479.3	407.2	367.8	39.45	10.321			
8,200.0	7,254.0	7,988.3	7,045.0	25.4	24.2	59.12	153.4	579.3	407.2	364.3	42.91	9.491			
8,300.0	7,254.0	8,088.3	7,045.0	27.5	26.3	59.12	153.4	679.3	407.2	360.7	46.49	8.759			
8,400.0	7,254.0	8,188.3	7,045.0	29.6	28.5	59.12	153.4	779.3	407.2	357.0	50.18	8.116			
8,500.0	7,254.0	8,288.3	7,045.0	31.8	30.7	59.12	153.4	879.3	407.2	353.3	53.95	7.548			
8,600.0	7,254.0	8,388.3	7,045.0	34.0	32.9	59.12	153.4	979.3	407.2	349.4	57.79	7.047			
8,700.0	7,254.0	8,488.3	7,045.0	36.2	35.2	59.12	153.4	1,079.3	407.2	345.6	61.68	6.602			
8,800.0	7,254.0	8,588.3	7,045.0	38.5	37.5	59.12	153.4	1,179.3	407.2	341.6	65.62	6.206			
8,900.0	7,254.0	8,688.3	7,045.0	40.8	39.8	59.12	153.4	1,279.3	407.3	337.7	69.59	5.852			
9,000.0	7,254.0	8,788.3	7,045.0	43.1	42.2	59.12	153.4	1,379.3	407.3	333.7	73.60	5.533			
9,100.0	7,254.0	8,888.3	7,045.0	45.4	44.5	59.12	153.4	1,479.3	407.3	329.6	77.63	5.246			
9,200.0	7,254.0	8,988.3	7,045.0	47.8	46.9	59.12	153.4	1,579.3	407.3	325.6	81.69	4.986			
9,300.0	7,254.0	9,088.3	7,045.0	50.1	49.3	59.12	153.4	1,679.3	407.3	321.5	85.76	4.749			
9,400.0	7,254.0	9,188.3	7,045.0	52.5	51.7	59.13	153.4	1,779.3	407.3	317.4	89.85	4.533			
9,500.0	7,254.0	9,288.3	7,045.0	54.9	54.1	59.13	153.4	1,879.3	407.3	313.3	93.96	4.335			
9,600.0	7,254.0	9,388.3	7,045.0	57.3	56.5	59.13	153.4	1,979.3	407.3	309.2	98.07	4.153			
9,700.0	7,254.0	9,488.3	7,045.0	59.6	58.9	59.13	153.4	2,079.3	407.3	305.1	102.20	3.985			
9,800.0	7,254.0	9,588.3	7,045.0	62.0	61.3	59.13	153.4	2,179.3	407.3	301.0	106.34	3.830			
9,900.0	7,254.0	9,688.3	7,045.0	64.4	63.7	59.13	153.4	2,279.3	407.3	296.8	110.49	3.686			
10,000.0	7,254.0	9,788.3	7,045.0	66.9	66.1	59.13	153.4	2,379.3	407.3	292.7	114.64	3.553			
10,100.0	7,254.0	9,888.3	7,045.0	69.3	68.5	59.13	153.4	2,479.3	407.3	288.5	118.81	3.428			
10,200.0	7,254.0	9,988.3	7,045.0	71.7	71.0	59.13	153.4	2,579.3	407.3	284.3	122.97	3.312			

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Reference Site:	S6-T3N-R68W (Zisch)	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
S6-T3N-R68W (Zisch) - Zisch 3C-6H-M368 - HZ - Plan #1													Offset Well Error:	0.0 ft
Survey Program: 0-MWD														
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		
10,300.0	7,254.0	10,088.3	7,045.0	74.1	73.4	59.13	153.4	2,679.3	407.3	280.2	127.15	3.204		
10,400.0	7,254.0	10,188.3	7,045.0	76.5	75.8	59.13	153.4	2,779.3	407.3	276.0	131.33	3.102		
10,500.0	7,254.0	10,288.3	7,045.0	79.0	78.3	59.13	153.4	2,879.3	407.3	271.8	135.51	3.006		
10,600.0	7,254.0	10,388.3	7,045.0	81.4	80.7	59.13	153.4	2,979.3	407.3	267.6	139.70	2.916		
10,700.0	7,254.0	10,488.3	7,045.0	83.8	83.1	59.13	153.4	3,079.3	407.4	263.5	143.89	2.831		
10,800.0	7,254.0	10,588.3	7,045.0	86.3	85.6	59.13	153.4	3,179.3	407.4	259.3	148.09	2.751		
10,900.0	7,254.0	10,688.3	7,045.0	88.7	88.0	59.13	153.4	3,279.3	407.4	255.1	152.28	2.675		
11,000.0	7,254.0	10,788.3	7,045.0	91.1	90.5	59.13	153.4	3,379.3	407.4	250.9	156.49	2.603		
11,100.0	7,254.0	10,888.3	7,045.0	93.6	92.9	59.13	153.4	3,479.3	407.4	246.7	160.69	2.535		
11,200.0	7,254.0	10,988.3	7,045.0	96.0	95.4	59.13	153.4	3,579.3	407.4	242.5	164.90	2.471		
11,300.0	7,254.0	11,088.3	7,045.0	98.5	97.8	59.13	153.4	3,679.3	407.4	238.3	169.11	2.409		
11,400.0	7,254.0	11,188.3	7,045.0	100.9	100.3	59.13	153.4	3,779.3	407.4	234.1	173.32	2.351		
11,500.0	7,254.0	11,288.3	7,045.0	103.4	102.7	59.14	153.4	3,879.3	407.4	229.9	177.53	2.295		
11,600.0	7,254.0	11,388.3	7,045.0	105.8	105.2	59.14	153.4	3,979.3	407.4	225.7	181.75	2.242		
11,700.0	7,254.0	11,488.3	7,045.0	108.3	107.6	59.14	153.4	4,079.3	407.4	221.4	185.96	2.191		
11,709.9	7,254.0	11,498.2	7,045.0	108.5	107.9	59.14	153.4	4,089.2	407.4	221.0	186.38	2.186 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Reference Site:	S6-T3N-R68W (Zisch)	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													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	-21.9	0.0	22.2						
100.0	100.0	96.0	96.0	0.2	0.2	-180.00	-21.9	0.0	21.9	21.5	0.30	71.810			
200.0	200.0	196.0	196.0	0.3	0.3	-180.00	-21.9	0.0	21.9	21.2	0.65	33.478			
300.0	300.0	296.0	296.0	0.5	0.5	-180.00	-21.9	0.0	21.9	20.9	1.00	21.813 CC, ES			
400.0	400.0	396.0	396.0	0.7	0.7	-131.22	-21.9	0.0	22.4	21.1	1.35	16.591			
500.0	500.0	496.0	496.0	0.9	0.8	-135.87	-21.9	0.0	24.2	22.5	1.70	14.233			
600.0	599.9	595.8	595.8	1.0	1.0	-140.51	-22.1	-0.8	27.6	25.5	2.05	13.422 SF			
700.0	699.7	695.7	695.6	1.2	1.2	-142.86	-22.8	-3.2	32.5	30.1	2.41	13.486			
800.0	799.4	795.4	795.3	1.4	1.4	-143.50	-24.0	-7.3	39.0	36.2	2.78	14.022			
900.0	898.9	895.1	894.8	1.7	1.6	-143.06	-25.6	-13.1	46.9	43.7	3.17	14.821			
1,000.0	998.3	994.6	994.0	1.9	1.8	-142.04	-27.7	-20.5	56.3	52.7	3.57	15.764			
1,100.0	1,097.4	1,093.9	1,092.9	2.2	2.0	-140.75	-30.3	-29.6	67.2	63.2	4.00	16.773			
1,200.0	1,196.3	1,193.0	1,191.3	2.5	2.2	-139.36	-33.4	-40.2	79.5	75.1	4.47	17.794			
1,300.0	1,294.9	1,291.9	1,289.4	2.8	2.5	-137.97	-36.9	-52.5	93.4	88.5	4.97	18.790			
1,400.0	1,393.4	1,390.5	1,386.9	3.1	2.8	-136.43	-40.9	-66.4	108.3	102.7	5.51	19.635			
1,500.0	1,491.9	1,488.9	1,484.0	3.5	3.1	-134.48	-45.3	-81.8	123.4	117.3	6.09	20.262			
1,600.0	1,590.4	1,587.6	1,581.2	3.8	3.4	-132.53	-50.0	-98.3	138.9	132.2	6.69	20.769			
1,700.0	1,688.9	1,686.3	1,678.4	4.1	3.7	-130.97	-54.8	-114.8	154.6	147.3	7.30	21.187			
1,800.0	1,787.3	1,785.0	1,775.6	4.5	4.0	-129.70	-59.5	-131.2	170.3	162.4	7.91	21.536			
1,900.0	1,885.8	1,883.7	1,872.8	4.8	4.3	-128.64	-64.2	-147.7	186.1	177.5	8.52	21.831			
2,000.0	1,984.3	1,982.3	1,970.0	5.2	4.7	-127.75	-68.9	-164.2	201.9	192.8	9.14	22.084			
2,100.0	2,082.8	2,081.0	2,067.1	5.5	5.0	-126.99	-73.7	-180.7	217.8	208.0	9.77	22.303			
2,200.0	2,181.3	2,179.7	2,164.3	5.8	5.3	-126.33	-78.4	-197.1	233.7	223.3	10.39	22.494			
2,300.0	2,279.7	2,278.4	2,261.5	6.2	5.7	-125.75	-83.1	-213.6	249.6	238.6	11.02	22.662			
2,400.0	2,378.2	2,377.1	2,358.7	6.5	6.0	-125.25	-87.8	-230.1	265.6	254.0	11.64	22.811			
2,500.0	2,476.7	2,475.8	2,455.9	6.9	6.4	-124.80	-92.6	-246.6	281.6	269.3	12.27	22.944			
2,600.0	2,575.2	2,574.5	2,553.1	7.2	6.7	-124.40	-97.3	-263.0	297.6	284.7	12.90	23.063			
2,700.0	2,673.7	2,673.2	2,650.3	7.6	7.0	-124.04	-102.0	-279.5	313.6	300.0	13.53	23.171			
2,800.0	2,772.1	2,771.9	2,747.5	7.9	7.4	-123.72	-106.7	-296.0	329.6	315.4	14.16	23.269			
2,900.0	2,870.6	2,870.6	2,844.7	8.3	7.7	-123.42	-111.4	-312.5	345.6	330.8	14.80	23.357			
3,000.0	2,969.1	2,969.3	2,941.9	8.6	8.1	-123.15	-116.2	-328.9	361.7	346.2	15.43	23.439			
3,100.0	3,067.6	3,068.0	3,039.1	9.0	8.4	-122.91	-120.9	-345.4	377.7	361.6	16.06	23.513			
3,200.0	3,166.1	3,166.7	3,136.3	9.3	8.8	-122.68	-125.6	-361.9	393.7	377.1	16.70	23.582			
3,300.0	3,264.5	3,265.4	3,233.5	9.7	9.1	-122.47	-130.3	-378.3	409.8	392.5	17.33	23.645			
3,400.0	3,363.0	3,364.0	3,330.7	10.0	9.4	-122.28	-135.1	-394.8	425.9	407.9	17.97	23.704			
3,500.0	3,461.5	3,462.7	3,427.8	10.4	9.8	-122.10	-139.8	-411.3	441.9	423.3	18.60	23.759			
3,600.0	3,560.0	3,561.4	3,525.0	10.7	10.1	-121.94	-144.5	-427.8	458.0	438.8	19.24	23.810			
3,700.0	3,658.5	3,660.1	3,622.2	11.1	10.5	-121.78	-149.2	-444.2	474.1	454.2	19.87	23.857			
3,800.0	3,757.0	3,758.8	3,719.4	11.4	10.8	-121.64	-154.0	-460.7	490.1	469.6	20.51	23.902			

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Zisch 3B-6H-M368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5177.0ft (Original Well Elev)
Reference Site:	S6-T3N-R68W (Zisch)	MD Reference:	WELL @ 5177.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Zisch 3B-6H-M368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5177.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: Zisch 3B-6H-M368
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.29°

