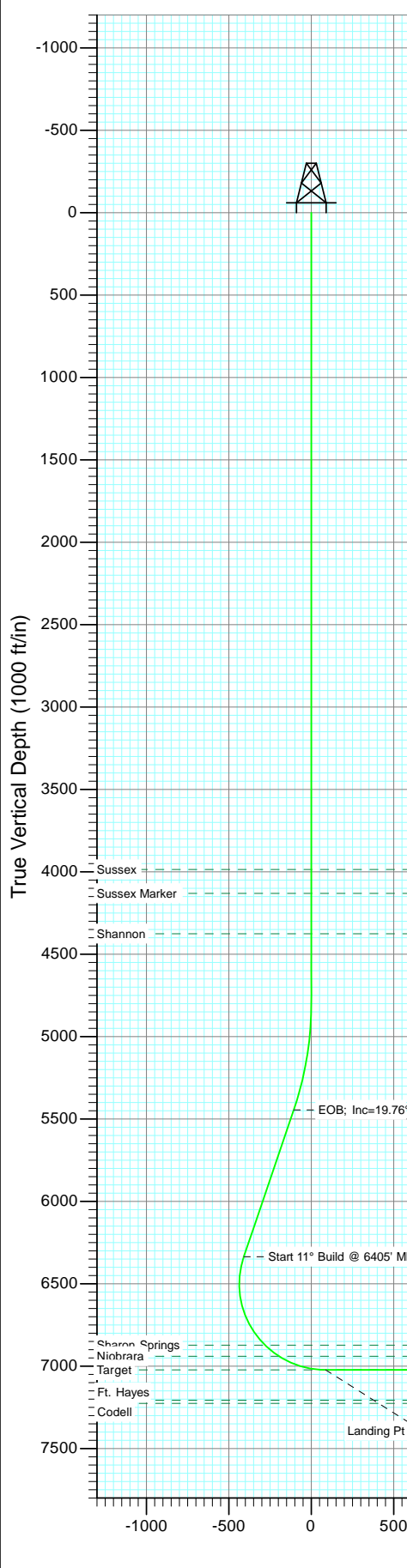
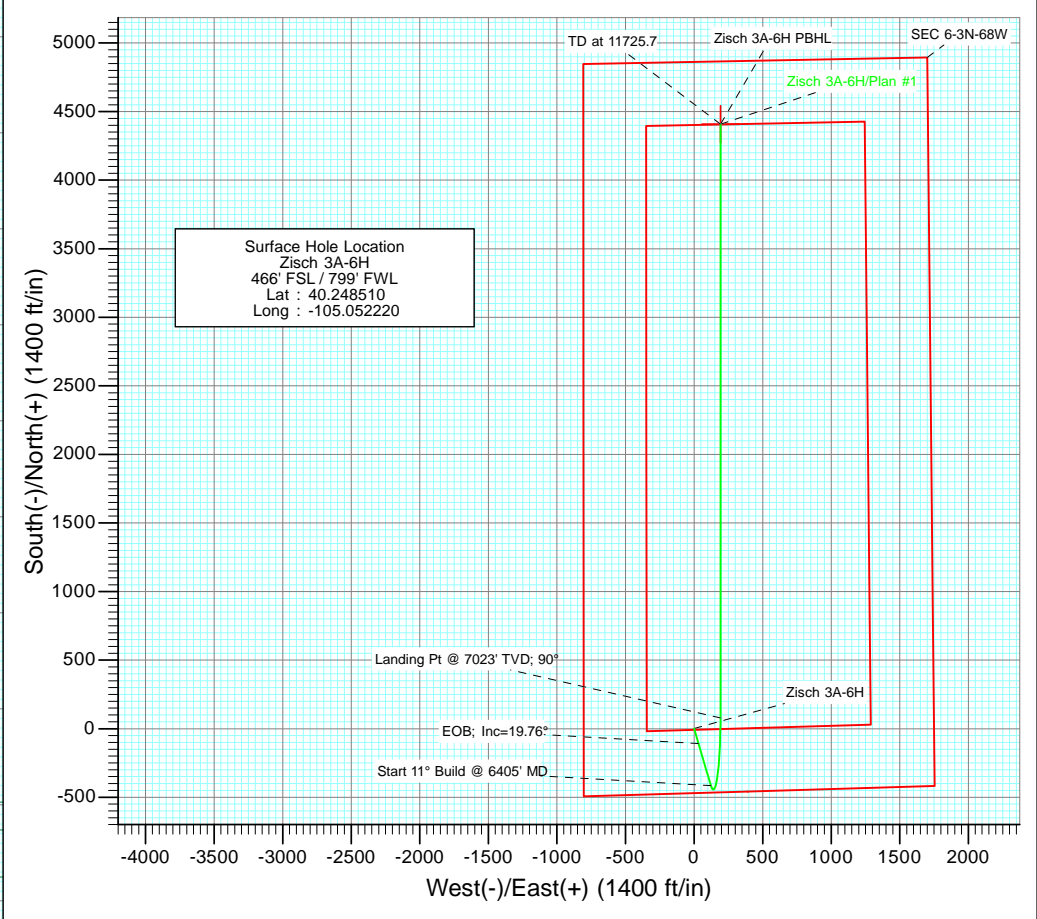




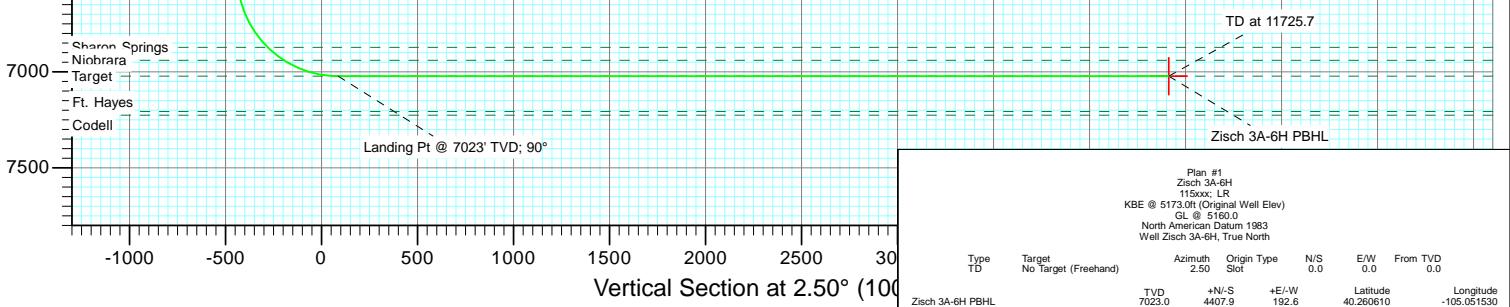
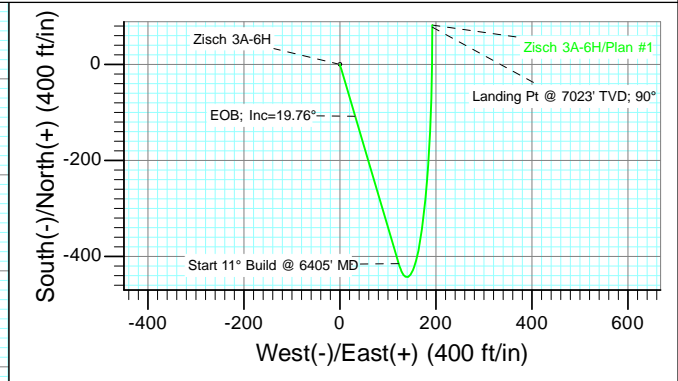
Project: DJ Wattenberg
 Site: SWSW S6-T3N-R68W (Zisch)
 Well: Zisch 3A-6H
 Wellbore: HZ
 Design: Plan #1



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4800.0	0.00	0.00	4800.0	0.0	0.0	0.00	0.00	0.0	
3	5458.7	19.76	163.53	5445.7	-107.9	31.9	3.00	163.53	-106.4	
4	6405.5	19.76	163.53	6336.8	-414.9	122.7	0.00	0.00	-409.1	
5	7395.7	90.00	0.00	7023.0	77.9	192.6	11.00	-162.56	86.2	
6	11725.7	90.00	0.00	7023.0	4407.9	192.6	0.00	0.00	4412.1	Zisch 3A-6H PBHL



T M
 Azimuths to True North
 Magnetic North: 8.95°
 Magnetic Field
 Strength: 52977.0snT
 Dip Angle: 66.87°
 Date: 11/3/2011
 Model: IGRF2010



Type	Target	Azimuth	Origin	N/S	E/W	From				
TD	No Target (Freehand)	2.50	Slot	0.0	0.0	TVD				
Zisch 3A-6H PBHL		7023.0	+N/-S	4407.9	+E/-W	192.6	Latitude	40.260610	Longitude	-105.051530

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Zisch 3A-6H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 5173.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	KBE @ 5173.0ft (Original Well Elev)
Site:	SWSW S6-T3N-R68W (Zisch)	North Reference:	True
Well:	Zisch 3A-6H	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 SWSW 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						
Well Position	+N/-S	0.0 ft	Northing:	1,333,692.15 ft	Latitude:	40.248510
	+E/-W	0.0 ft	Easting:	3,124,995.76 ft	Longitude:	-105.052220
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,160.0 ft

Wellbore HZ					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	11/3/2011	8.95	66.87	52,977

Design Plan #1				
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	2.50

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	
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,458.7	19.76	163.53	5,445.7	-107.9	31.9	3.00	3.00	0.00	163.53	
6,405.5	19.76	163.53	6,336.8	-414.9	122.7	0.00	0.00	0.00	0.00	
7,395.7	90.00	0.00	7,023.0	77.9	192.6	11.00	7.09	-16.52	-162.56	
11,725.7	90.00	0.00	7,023.0	4,407.9	192.6	0.00	0.00	0.00	0.00	Zisch 3A-6H PBHL

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Zisch 3A-6H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 5173.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	KBE @ 5173.0ft (Original Well Elev)
Site:	SWSW S6-T3N-R68W (Zisch)	North Reference:	True
Well:	Zisch 3A-6H	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	Zisch 3A-6H Section Line
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	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	
3,986.0	0.00	0.00	3,986.0	0.0	0.0	0.0	0.00	0.00	Sussex
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	
4,131.0	0.00	0.00	4,131.0	0.0	0.0	0.0	0.00	0.00	Sussex Marker
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	
4,376.0	0.00	0.00	4,376.0	0.0	0.0	0.0	0.00	0.00	Shannon
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	KOP @ 4800'

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Zisch 3A-6H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 5173.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	KBE @ 5173.0ft (Original Well Elev)
Site:	SWSW S6-T3N-R68W (Zisch)	North Reference:	True
Well:	Zisch 3A-6H	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
4,900.0	3.00	163.53	4,900.0	-2.5	0.7	-2.5	3.00	3.00	
5,000.0	6.00	163.53	4,999.6	-10.0	3.0	-9.9	3.00	3.00	
5,100.0	9.00	163.53	5,098.8	-22.5	6.7	-22.2	3.00	3.00	
5,200.0	12.00	163.53	5,197.1	-40.0	11.8	-39.5	3.00	3.00	
5,300.0	15.00	163.53	5,294.3	-62.4	18.5	-61.5	3.00	3.00	
5,400.0	18.00	163.53	5,390.2	-89.6	26.5	-88.4	3.00	3.00	
5,458.7	19.76	163.53	5,445.7	-107.9	31.9	-106.4	3.00	3.00	EOB; Inc=19.76°
5,500.0	19.76	163.53	5,484.6	-121.2	35.8	-119.6	0.00	0.00	
5,600.0	19.76	163.53	5,578.7	-153.7	45.4	-151.5	0.00	0.00	
5,700.0	19.76	163.53	5,672.8	-186.1	55.0	-183.5	0.00	0.00	
5,800.0	19.76	163.53	5,766.9	-218.5	64.6	-215.5	0.00	0.00	
5,900.0	19.76	163.53	5,861.0	-250.9	74.2	-247.5	0.00	0.00	
6,000.0	19.76	163.53	5,955.1	-283.4	83.8	-279.4	0.00	0.00	
6,100.0	19.76	163.53	6,049.2	-315.8	93.4	-311.4	0.00	0.00	
6,200.0	19.76	163.53	6,143.4	-348.2	103.0	-343.4	0.00	0.00	
6,300.0	19.76	163.53	6,237.5	-380.6	112.5	-375.4	0.00	0.00	
6,400.0	19.76	163.53	6,331.6	-413.1	122.1	-407.3	0.00	0.00	
6,405.5	19.76	163.53	6,336.8	-414.9	122.7	-409.1	0.00	0.00	Start 11° Build @ 6405' MD
6,500.0	10.31	145.95	6,428.0	-437.2	132.0	-431.1	11.00	-10.00	
6,600.0	6.32	66.93	6,527.2	-442.5	142.1	-435.9	11.00	-3.99	
6,700.0	14.65	22.93	6,625.5	-428.7	152.1	-421.6	11.00	8.33	
6,800.0	25.11	12.55	6,719.5	-396.2	161.6	-388.8	11.00	10.46	
6,900.0	35.88	8.09	6,805.5	-346.3	170.4	-338.6	11.00	10.77	
6,989.2	45.57	5.73	6,873.0	-288.6	177.3	-280.6	11.00	10.86	Sharon Springs
7,000.0	46.75	5.50	6,880.5	-280.9	178.1	-272.8	11.00	10.89	
7,096.8	57.31	3.75	6,940.0	-204.9	184.1	-196.6	11.00	10.91	Niobrara
7,100.0	57.66	3.70	6,941.7	-202.2	184.3	-194.0	11.00	10.92	
7,200.0	68.59	2.29	6,986.8	-113.3	188.9	-104.9	11.00	10.93	
7,300.0	79.53	1.08	7,014.3	-17.3	191.7	-8.9	11.00	10.94	
7,395.5	89.98	0.00	7,023.0	77.7	192.6	86.0	11.00	10.94	Target
7,395.7	90.00	0.00	7,023.0	77.9	192.6	86.2	11.00	10.94	Landing Pt @ 7023' TVD; 90°
7,400.0	90.00	0.00	7,023.0	82.2	192.6	90.5	0.00	0.00	
7,500.0	90.00	0.00	7,023.0	182.2	192.6	190.4	0.00	0.00	
7,600.0	90.00	0.00	7,023.0	282.2	192.6	290.3	0.00	0.00	
7,700.0	90.00	0.00	7,023.0	382.2	192.6	390.2	0.00	0.00	
7,800.0	90.00	0.00	7,023.0	482.2	192.6	490.1	0.00	0.00	
7,900.0	90.00	0.00	7,023.0	582.2	192.6	590.0	0.00	0.00	
8,000.0	90.00	0.00	7,023.0	682.2	192.6	689.9	0.00	0.00	
8,100.0	90.00	0.00	7,023.0	782.2	192.6	789.8	0.00	0.00	
8,200.0	90.00	0.00	7,023.0	882.2	192.6	889.7	0.00	0.00	
8,300.0	90.00	0.00	7,023.0	982.2	192.6	989.6	0.00	0.00	
8,400.0	90.00	0.00	7,023.0	1,082.2	192.6	1,089.5	0.00	0.00	
8,500.0	90.00	0.00	7,023.0	1,182.2	192.6	1,189.4	0.00	0.00	
8,600.0	90.00	0.00	7,023.0	1,282.2	192.6	1,289.3	0.00	0.00	
8,700.0	90.00	0.00	7,023.0	1,382.2	192.6	1,389.3	0.00	0.00	
8,800.0	90.00	0.00	7,023.0	1,482.2	192.6	1,489.2	0.00	0.00	
8,900.0	90.00	0.00	7,023.0	1,582.2	192.6	1,589.1	0.00	0.00	
9,000.0	90.00	0.00	7,023.0	1,682.2	192.6	1,689.0	0.00	0.00	
9,100.0	90.00	0.00	7,023.0	1,782.2	192.6	1,788.9	0.00	0.00	
9,200.0	90.00	0.00	7,023.0	1,882.2	192.6	1,888.8	0.00	0.00	
9,300.0	90.00	0.00	7,023.0	1,982.2	192.6	1,988.7	0.00	0.00	
9,400.0	90.00	0.00	7,023.0	2,082.2	192.6	2,088.6	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Zisch 3A-6H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 5173.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	KBE @ 5173.0ft (Original Well Elev)
Site:	SWSW S6-T3N-R68W (Zisch)	North Reference:	True
Well:	Zisch 3A-6H	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
9,500.0	90.00	0.00	7,023.0	2,182.2	192.6	2,188.5	0.00	0.00	
9,600.0	90.00	0.00	7,023.0	2,282.2	192.6	2,288.4	0.00	0.00	
9,700.0	90.00	0.00	7,023.0	2,382.2	192.6	2,388.3	0.00	0.00	
9,800.0	90.00	0.00	7,023.0	2,482.2	192.6	2,488.2	0.00	0.00	
9,900.0	90.00	0.00	7,023.0	2,582.2	192.6	2,588.1	0.00	0.00	
10,000.0	90.00	0.00	7,023.0	2,682.2	192.6	2,688.0	0.00	0.00	
10,100.0	90.00	0.00	7,023.0	2,782.2	192.6	2,787.9	0.00	0.00	
10,200.0	90.00	0.00	7,023.0	2,882.2	192.6	2,887.8	0.00	0.00	
10,300.0	90.00	0.00	7,023.0	2,982.2	192.6	2,987.7	0.00	0.00	
10,400.0	90.00	0.00	7,023.0	3,082.2	192.6	3,087.6	0.00	0.00	
10,500.0	90.00	0.00	7,023.0	3,182.2	192.6	3,187.5	0.00	0.00	
10,600.0	90.00	0.00	7,023.0	3,282.2	192.6	3,287.4	0.00	0.00	
10,700.0	90.00	0.00	7,023.0	3,382.2	192.6	3,387.3	0.00	0.00	
10,800.0	90.00	0.00	7,023.0	3,482.2	192.6	3,487.3	0.00	0.00	
10,900.0	90.00	0.00	7,023.0	3,582.2	192.6	3,587.2	0.00	0.00	
11,000.0	90.00	0.00	7,023.0	3,682.2	192.6	3,687.1	0.00	0.00	
11,100.0	90.00	0.00	7,023.0	3,782.2	192.6	3,787.0	0.00	0.00	
11,200.0	90.00	0.00	7,023.0	3,882.2	192.6	3,886.9	0.00	0.00	
11,300.0	90.00	0.00	7,023.0	3,982.2	192.6	3,986.8	0.00	0.00	
11,400.0	90.00	0.00	7,023.0	4,082.2	192.6	4,086.7	0.00	0.00	
11,500.0	90.00	0.00	7,023.0	4,182.2	192.6	4,186.6	0.00	0.00	
11,600.0	90.00	0.00	7,023.0	4,282.2	192.6	4,286.5	0.00	0.00	
11,700.0	90.00	0.00	7,023.0	4,382.2	192.6	4,386.4	0.00	0.00	
11,725.7	90.00	0.00	7,023.0	4,407.9	192.6	4,412.1	0.00	0.00	TD at 11725.7 - Zisch 3A-6H PBHL

Targets									
Target Name	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	7,023.0	4,407.9	192.6	1,338,100.95	3,125,166.07	40.260610	-105.051530
Zisch 3A-6H Section Lin - plan misses target center by 7023.0ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E) - Polygon	0.00	0.00	-7,023.0	0.0	0.0	1,333,692.15	3,124,995.76	40.248510	-105.052220
Point 1			-7,023.0	-460.0	200.0	1,333,233.17	3,125,198.08		
Point 2			-7,023.0	-466.0	-100.0	1,333,225.65	3,124,898.12		

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Zisch 3A-6H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 5173.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	KBE @ 5173.0ft (Original Well Elev)
Site:	SWSW S6-T3N-R68W (Zisch)	North Reference:	True
Well:	Zisch 3A-6H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,986.0	3,986.0	Sussex				
4,131.0	4,131.0	Sussex Marker				
4,376.0	4,376.0	Shannon				
6,989.2	6,873.0	Sharon Springs				
7,096.8	6,940.0	Niobrara				
7,395.5	7,023.0	Target		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
4,800.0	4,800.0	0.0	0.0	KOP @ 4800'	
5,458.7	5,445.7	-107.9	31.9	EOB; Inc=19.76°	
6,405.5	6,336.8	-414.9	122.7	Start 11° Build @ 6405' MD	
7,395.7	7,023.0	77.9	192.6	Landing Pt @ 7023' TVD; 90°	
11,725.7	7,023.0	4,407.9	192.6	TD at 11725.7	