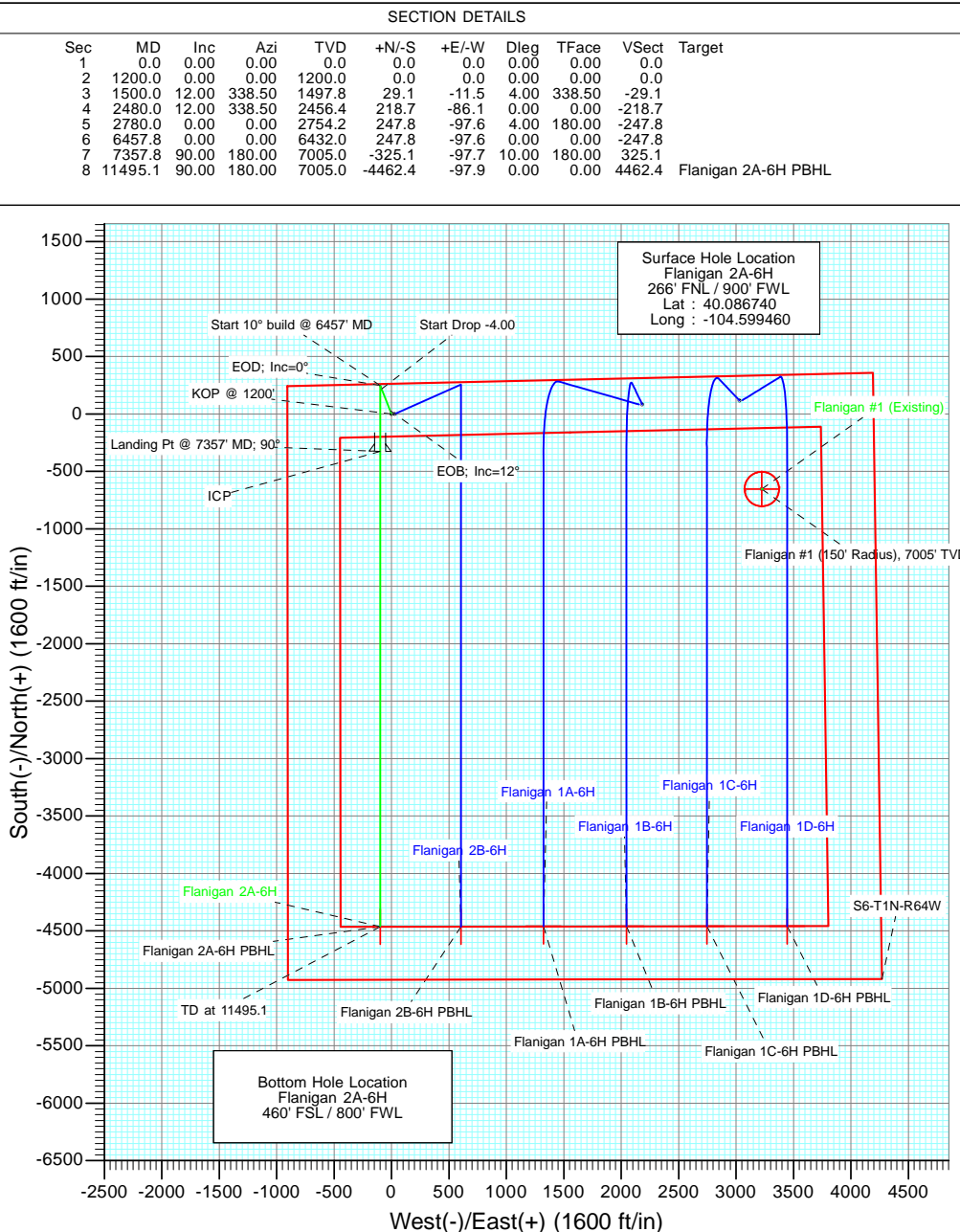
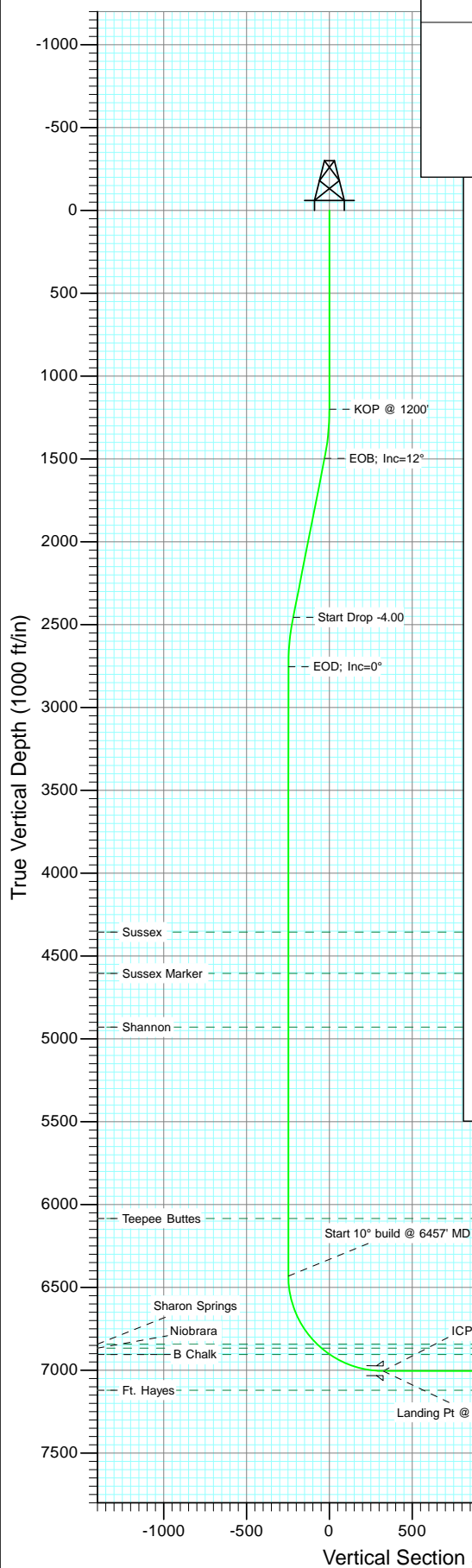




Project: DJ Wattenberg
Site: NWNE S6-T1N-R64W (Flanigan)
Well: Flanigan 2A-6H
Wellbore: Hz
Design: Plan #1



T M
Mazimuths to True North
Magnetic North: 8.63°
Magnetic Field
Strength: 52892.6nT
Dip Angle: 66.79°
Date: 4/25/2012
Model: IGRF2010

FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	
4356.0	4381.8	Sussex	
4605.0	4630.8	Sussex Marker	
4929.0	4954.8	Shannon	
6084.0	6109.8	Teepee Buttes	
6843.0	6916.1	Sharon Springs	
6867.0	6951.7	Niobrara	
6905.0	7014.2	B Chalk	

Plan #1 Flanigan 2A-6H 12xxx LR KB=13' @ 4949.0ft (Original Well Elev) GL @ 4936.0 North American Datum 1983 Well Flanigan 2A-6H, True North									
Name	Type	Target	No Target (Freehand)	Azimuth	Origin Type	N/S	E/W	From TVD	
Flanigan 2A-6H PBHL	TVD	7005.0		+N/-S	-4462.4	+E/-W	-97.9	Latitude	40.07490
								Longitude	-104.599810

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Flanigan 2A-6H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Site:	NWNE S6-T1N-R64W (Flanigan)	North Reference:	True
Well:	Flanigan 2A-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		NWNE S6-T1N-R64W (Flanigan)			
Site Position:		Northing:	1,275,832.11 ft	Latitude:	40.086970
From:	Lat/Long	Easting:	3,254,152.25 ft	Longitude:	-104.591660
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.59 °

Well	Flanigan 2A-6H					
Well Position	+N/-S	0.0 ft	Northing:	1,275,726.06 ft	Latitude:	40.086740
	+E/-W	0.0 ft	Easting:	3,251,970.80 ft	Longitude:	-104.599460
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,936.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/25/2012	8.63	66.79	52,893

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	180.00

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	12.00	338.50	1,497.8	29.1	-11.5	4.00	4.00	0.00	338.50	
2,480.0	12.00	338.50	2,456.4	218.7	-86.1	0.00	0.00	0.00	0.00	
2,780.0	0.00	0.00	2,754.2	247.8	-97.6	4.00	-4.00	0.00	180.00	
6,457.8	0.00	0.00	6,432.0	247.8	-97.6	0.00	0.00	0.00	0.00	
7,357.8	90.00	180.00	7,005.0	-325.1	-97.7	10.00	10.00	0.00	180.00	
11,495.1	90.00	180.00	7,005.0	-4,462.4	-97.9	0.00	0.00	0.00	0.00	Flanigan 2A-6H PBHL

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Flanigan 2A-6H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Site:	NWNE S6-T1N-R64W (Flanigan)	North Reference:	True
Well:	Flanigan 2A-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	
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	KOP @ 1200'
1,300.0	4.00	338.50	1,299.9	3.2	-1.3	-3.2	4.00	4.00	
1,400.0	8.00	338.50	1,399.4	13.0	-5.1	-13.0	4.00	4.00	
1,500.0	12.00	338.50	1,497.8	29.1	-11.5	-29.1	4.00	4.00	EOB; Inc=12°
1,600.0	12.00	338.50	1,595.6	48.5	-19.1	-48.5	0.00	0.00	
1,700.0	12.00	338.50	1,693.4	67.8	-26.7	-67.8	0.00	0.00	
1,800.0	12.00	338.50	1,791.3	87.2	-34.3	-87.2	0.00	0.00	
1,900.0	12.00	338.50	1,889.1	106.5	-42.0	-106.5	0.00	0.00	
2,000.0	12.00	338.50	1,986.9	125.8	-49.6	-125.8	0.00	0.00	
2,100.0	12.00	338.50	2,084.7	145.2	-57.2	-145.2	0.00	0.00	
2,200.0	12.00	338.50	2,182.5	164.5	-64.8	-164.5	0.00	0.00	
2,300.0	12.00	338.50	2,280.3	183.9	-72.4	-183.9	0.00	0.00	
2,400.0	12.00	338.50	2,378.1	203.2	-80.1	-203.2	0.00	0.00	
2,480.0	12.00	338.50	2,456.4	218.7	-86.1	-218.7	0.00	0.00	Start Drop -4.00
2,500.0	11.20	338.50	2,476.0	222.4	-87.6	-222.4	4.00	-4.00	
2,600.0	7.20	338.50	2,574.7	237.3	-93.5	-237.3	4.00	-4.00	
2,700.0	3.20	338.50	2,674.2	245.7	-96.8	-245.7	4.00	-4.00	
2,780.0	0.00	0.00	2,754.2	247.8	-97.6	-247.8	4.00	-4.00	EOD; Inc=0°
2,800.0	0.00	0.00	2,774.2	247.8	-97.6	-247.8	0.00	0.00	
2,900.0	0.00	0.00	2,874.2	247.8	-97.6	-247.8	0.00	0.00	
3,000.0	0.00	0.00	2,974.2	247.8	-97.6	-247.8	0.00	0.00	
3,100.0	0.00	0.00	3,074.2	247.8	-97.6	-247.8	0.00	0.00	
3,200.0	0.00	0.00	3,174.2	247.8	-97.6	-247.8	0.00	0.00	
3,300.0	0.00	0.00	3,274.2	247.8	-97.6	-247.8	0.00	0.00	
3,400.0	0.00	0.00	3,374.2	247.8	-97.6	-247.8	0.00	0.00	
3,500.0	0.00	0.00	3,474.2	247.8	-97.6	-247.8	0.00	0.00	
3,600.0	0.00	0.00	3,574.2	247.8	-97.6	-247.8	0.00	0.00	
3,700.0	0.00	0.00	3,674.2	247.8	-97.6	-247.8	0.00	0.00	
3,800.0	0.00	0.00	3,774.2	247.8	-97.6	-247.8	0.00	0.00	
3,900.0	0.00	0.00	3,874.2	247.8	-97.6	-247.8	0.00	0.00	
4,000.0	0.00	0.00	3,974.2	247.8	-97.6	-247.8	0.00	0.00	
4,100.0	0.00	0.00	4,074.2	247.8	-97.6	-247.8	0.00	0.00	
4,200.0	0.00	0.00	4,174.2	247.8	-97.6	-247.8	0.00	0.00	
4,300.0	0.00	0.00	4,274.2	247.8	-97.6	-247.8	0.00	0.00	
4,381.8	0.00	0.00	4,356.0	247.8	-97.6	-247.8	0.00	0.00	Sussex
4,400.0	0.00	0.00	4,374.2	247.8	-97.6	-247.8	0.00	0.00	
4,500.0	0.00	0.00	4,474.2	247.8	-97.6	-247.8	0.00	0.00	
4,600.0	0.00	0.00	4,574.2	247.8	-97.6	-247.8	0.00	0.00	
4,630.8	0.00	0.00	4,605.0	247.8	-97.6	-247.8	0.00	0.00	Sussex Marker
4,700.0	0.00	0.00	4,674.2	247.8	-97.6	-247.8	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Flanigan 2A-6H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Site:	NWNE S6-T1N-R64W (Flanigan)	North Reference:	True
Well:	Flanigan 2A-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
4,800.0	0.00	0.00	4,774.2	247.8	-97.6	-247.8	0.00	0.00	
4,900.0	0.00	0.00	4,874.2	247.8	-97.6	-247.8	0.00	0.00	
4,954.8	0.00	0.00	4,929.0	247.8	-97.6	-247.8	0.00	0.00	Shannon
5,000.0	0.00	0.00	4,974.2	247.8	-97.6	-247.8	0.00	0.00	
5,100.0	0.00	0.00	5,074.2	247.8	-97.6	-247.8	0.00	0.00	
5,200.0	0.00	0.00	5,174.2	247.8	-97.6	-247.8	0.00	0.00	
5,300.0	0.00	0.00	5,274.2	247.8	-97.6	-247.8	0.00	0.00	
5,400.0	0.00	0.00	5,374.2	247.8	-97.6	-247.8	0.00	0.00	
5,500.0	0.00	0.00	5,474.2	247.8	-97.6	-247.8	0.00	0.00	
5,600.0	0.00	0.00	5,574.2	247.8	-97.6	-247.8	0.00	0.00	
5,700.0	0.00	0.00	5,674.2	247.8	-97.6	-247.8	0.00	0.00	
5,800.0	0.00	0.00	5,774.2	247.8	-97.6	-247.8	0.00	0.00	
5,900.0	0.00	0.00	5,874.2	247.8	-97.6	-247.8	0.00	0.00	
6,000.0	0.00	0.00	5,974.2	247.8	-97.6	-247.8	0.00	0.00	
6,100.0	0.00	0.00	6,074.2	247.8	-97.6	-247.8	0.00	0.00	
6,109.8	0.00	0.00	6,084.0	247.8	-97.6	-247.8	0.00	0.00	Teepee Buttes
6,200.0	0.00	0.00	6,174.2	247.8	-97.6	-247.8	0.00	0.00	
6,300.0	0.00	0.00	6,274.2	247.8	-97.6	-247.8	0.00	0.00	
6,400.0	0.00	0.00	6,374.2	247.8	-97.6	-247.8	0.00	0.00	
6,457.8	0.00	0.00	6,432.0	247.8	-97.6	-247.8	0.00	0.00	Start 10° build @ 6457' MD
6,500.0	4.22	180.00	6,474.2	246.3	-97.6	-246.3	10.00	10.00	
6,600.0	14.22	180.00	6,572.8	230.3	-97.6	-230.3	10.00	10.00	
6,700.0	24.22	180.00	6,667.1	197.4	-97.6	-197.4	10.00	10.00	
6,800.0	34.22	180.00	6,754.2	148.7	-97.6	-148.7	10.00	10.00	
6,900.0	44.22	180.00	6,831.6	85.5	-97.6	-85.5	10.00	10.00	
6,916.1	45.83	180.00	6,843.0	74.1	-97.6	-74.1	10.00	10.00	Sharon Springs
6,951.7	49.39	180.00	6,867.0	47.8	-97.6	-47.8	10.00	10.00	Niobrara
7,000.0	54.22	180.00	6,896.8	9.9	-97.6	-9.9	10.00	10.00	
7,014.2	55.64	180.00	6,905.0	-1.7	-97.6	1.7	10.00	10.00	B Chalk
7,100.0	64.22	180.00	6,948.0	-75.9	-97.6	75.9	10.00	10.00	
7,200.0	74.22	180.00	6,983.4	-169.3	-97.6	169.3	10.00	10.00	
7,300.0	84.22	180.00	7,002.1	-267.4	-97.7	267.4	10.00	10.00	
7,357.8	90.00	180.00	7,005.0	-325.1	-97.7	325.1	10.00	10.00	Landing Pt @ 7357' MD; 90° - ICP
7,400.0	90.00	180.00	7,005.0	-367.3	-97.7	367.3	0.01	0.01	
7,500.0	90.00	180.00	7,005.0	-467.3	-97.7	467.3	0.00	0.00	
7,600.0	90.00	180.00	7,005.0	-567.3	-97.7	567.3	0.00	0.00	
7,700.0	90.00	180.00	7,005.0	-667.3	-97.7	667.3	0.00	0.00	
7,800.0	90.00	180.00	7,005.0	-767.3	-97.7	767.3	0.00	0.00	
7,900.0	90.00	180.00	7,005.0	-867.3	-97.7	867.3	0.00	0.00	
8,000.0	90.00	180.00	7,005.0	-967.3	-97.7	967.3	0.00	0.00	
8,100.0	90.00	180.00	7,005.0	-1,067.3	-97.7	1,067.3	0.00	0.00	
8,200.0	90.00	180.00	7,005.0	-1,167.3	-97.7	1,167.3	0.00	0.00	
8,300.0	90.00	180.00	7,005.0	-1,267.3	-97.7	1,267.3	0.00	0.00	
8,400.0	90.00	180.00	7,005.0	-1,367.3	-97.7	1,367.3	0.00	0.00	
8,500.0	90.00	180.00	7,005.0	-1,467.3	-97.7	1,467.3	0.00	0.00	
8,600.0	90.00	180.00	7,005.0	-1,567.3	-97.7	1,567.3	0.00	0.00	
8,700.0	90.00	180.00	7,005.0	-1,667.3	-97.8	1,667.3	0.00	0.00	
8,800.0	90.00	180.00	7,005.0	-1,767.3	-97.8	1,767.3	0.00	0.00	
8,900.0	90.00	180.00	7,005.0	-1,867.3	-97.8	1,867.3	0.00	0.00	
9,000.0	90.00	180.00	7,005.0	-1,967.3	-97.8	1,967.3	0.00	0.00	
9,100.0	90.00	180.00	7,005.0	-2,067.3	-97.8	2,067.3	0.00	0.00	
9,200.0	90.00	180.00	7,005.0	-2,167.3	-97.8	2,167.3	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Flanigan 2A-6H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Site:	NWNE S6-T1N-R64W (Flanigan)	North Reference:	True
Well:	Flanigan 2A-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
9,300.0	90.00	180.00	7,005.0	-2,267.3	-97.8	2,267.3	0.00	0.00	
9,400.0	90.00	180.00	7,005.0	-2,367.3	-97.8	2,367.3	0.00	0.00	
9,500.0	90.00	180.00	7,005.0	-2,467.3	-97.8	2,467.3	0.00	0.00	
9,600.0	90.00	180.00	7,005.0	-2,567.3	-97.8	2,567.3	0.00	0.00	
9,700.0	90.00	180.00	7,005.0	-2,667.3	-97.8	2,667.3	0.00	0.00	
9,800.0	90.00	180.00	7,005.0	-2,767.3	-97.8	2,767.3	0.00	0.00	
9,900.0	90.00	180.00	7,005.0	-2,867.3	-97.8	2,867.3	0.00	0.00	
10,000.0	90.00	180.00	7,005.0	-2,967.3	-97.8	2,967.3	0.00	0.00	
10,100.0	90.00	180.00	7,005.0	-3,067.3	-97.8	3,067.3	0.00	0.00	
10,200.0	90.00	180.00	7,005.0	-3,167.3	-97.9	3,167.3	0.00	0.00	
10,300.0	90.00	180.00	7,005.0	-3,267.3	-97.9	3,267.3	0.00	0.00	
10,400.0	90.00	180.00	7,005.0	-3,367.3	-97.9	3,367.3	0.00	0.00	
10,500.0	90.00	180.00	7,005.0	-3,467.3	-97.9	3,467.3	0.00	0.00	
10,600.0	90.00	180.00	7,005.0	-3,567.3	-97.9	3,567.3	0.00	0.00	
10,700.0	90.00	180.00	7,005.0	-3,667.3	-97.9	3,667.3	0.00	0.00	
10,800.0	90.00	180.00	7,005.0	-3,767.3	-97.9	3,767.3	0.00	0.00	
10,900.0	90.00	180.00	7,005.0	-3,867.3	-97.9	3,867.3	0.00	0.00	
11,000.0	90.00	180.00	7,005.0	-3,967.3	-97.9	3,967.3	0.00	0.00	
11,100.0	90.00	180.00	7,005.0	-4,067.3	-97.9	4,067.3	0.00	0.00	
11,200.0	90.00	180.00	7,005.0	-4,167.3	-97.9	4,167.3	0.00	0.00	
11,300.0	90.00	180.00	7,005.0	-4,267.3	-97.9	4,267.3	0.00	0.00	
11,400.0	90.00	180.00	7,005.0	-4,367.3	-97.9	4,367.3	0.00	0.00	
11,495.1	90.00	180.00	7,005.0	-4,462.4	-97.9	4,462.4	0.00	0.00	TD at 11495.1 - Flanigan 2A-6H PBHL

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Flanigan 2A-6H PBHL	0.00	0.00	7,005.0	-4,462.4	-97.9	1,271,262.90	3,251,918.18	40.074490	-104.599810
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
7,357.8	7,005.0	ICP	0.000	0.000	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Flanigan 2A-6H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Site:	NWNE S6-T1N-R64W (Flanigan)	North Reference:	True
Well:	Flanigan 2A-6H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,381.8	4,356.0	Sussex				
4,630.8	4,605.0	Sussex Marker				
4,954.8	4,929.0	Shannon				
6,109.8	6,084.0	Teepee Buttes				
6,916.1	6,843.0	Sharon Springs				
6,951.7	6,867.0	Niobrara				
7,014.2	6,905.0	B Chalk				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,200.0	1,200.0	0.0	0.0	KOP @ 1200'	
1,500.0	1,497.8	29.1	-11.5	EOB; Inc=12°	
2,480.0	2,456.4	218.7	-86.1	Start Drop -4.00	
2,780.0	2,754.2	247.8	-97.6	EOD; Inc=0°	
6,457.8	6,432.0	247.8	-97.6	Start 10° build @ 6457' MD	
7,357.8	7,005.0	-325.1	-97.7	Landing Pt @ 7357' MD; 90°	
11,495.1	7,005.0	-4,462.4	-97.9	TD at 11495.1	

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

NWNE S6-T1N-R64W (Flanigan)

Flanigan 2A-6H

Hz

Plan #1

Anticollision Report

25 April, 2012

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Flanigan 2A-6H
Project:	DJ Wattenberg	TVD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Reference Site:	NWNE S6-T1N-R64W (Flanigan)	MD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Flanigan 2A-6H	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 1,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	4/25/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,495.1	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						
NWNE S6-T1N-R64W (Flanigan)						
Flanigan #1 (Existing) - Existing - Existing						Out of range
Flanigan 1A-6H - Hz - Plan #1						Out of range
Flanigan 1B-6H - Hz - Plan #1						Out of range
Flanigan 1C-6H - Hz - Plan #1						Out of range
Flanigan 1D-6H - Hz - Plan #1						Out of range
Flanigan 2B-6H - Hz - Plan #1	1,200.0	1,200.0	28.0	23.8	6.753	CC, ES
Flanigan 2B-6H - Hz - Plan #1	11,495.1	11,542.0	702.4	540.8	4.345	SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Flanigan 2A-6H
Project:	DJ Wattenberg	TVD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Reference Site:	NWNE S6-T1N-R64W (Flanigan)	MD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Flanigan 2A-6H	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 NWNE S6-T1N-R64W (Flanigan) - Flanigan 2B-6H - 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	90.02	0.0	28.0	28.0					
100.0	100.0	100.0	100.0	0.2	0.2	90.02	0.0	28.0	28.0	27.7	0.30	92.133		
200.0	200.0	200.0	200.0	0.3	0.3	90.02	0.0	28.0	28.0	27.3	0.65	42.864		
300.0	300.0	300.0	300.0	0.5	0.5	90.02	0.0	28.0	28.0	27.0	1.00	27.929		
400.0	400.0	400.0	400.0	0.7	0.7	90.02	0.0	28.0	28.0	26.6	1.35	20.712		
500.0	500.0	500.0	500.0	0.8	0.8	90.02	0.0	28.0	28.0	26.3	1.70	16.459		
600.0	600.0	600.0	600.0	1.0	1.0	90.02	0.0	28.0	28.0	25.9	2.05	13.655		
700.0	700.0	700.0	700.0	1.2	1.2	90.02	0.0	28.0	28.0	25.6	2.40	11.668		
800.0	800.0	800.0	800.0	1.4	1.4	90.02	0.0	28.0	28.0	25.2	2.75	10.185		
900.0	900.0	900.0	900.0	1.5	1.5	90.02	0.0	28.0	28.0	24.9	3.10	9.037		
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	90.02	0.0	28.0	28.0	24.5	3.45	8.121		
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	90.02	0.0	28.0	28.0	24.2	3.79	7.374		
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	90.02	0.0	28.0	28.0	23.8	4.14	6.753	CC, ES	
1,300.0	1,299.9	1,298.0	1,297.9	2.2	2.2	114.57	1.4	31.0	32.4	27.9	4.49	7.222		
1,400.0	1,399.4	1,394.7	1,394.1	2.4	2.4	120.02	5.4	40.1	46.1	41.2	4.85	9.500		
1,500.0	1,497.8	1,488.9	1,486.9	2.7	2.7	124.02	11.8	54.5	69.1	63.8	5.25	13.160		
1,600.0	1,595.6	1,584.3	1,580.3	3.0	2.9	126.68	19.9	72.6	97.3	91.6	5.69	17.079		
1,700.0	1,693.4	1,680.2	1,674.1	3.3	3.2	128.13	28.0	90.8	125.6	119.4	6.17	20.350		
1,800.0	1,791.3	1,776.1	1,767.8	3.6	3.5	129.05	36.1	109.0	154.0	147.3	6.67	23.080		
1,900.0	1,889.1	1,871.9	1,861.6	4.0	3.9	129.69	44.2	127.2	182.4	175.2	7.19	25.369		
2,000.0	1,986.9	1,967.8	1,955.4	4.3	4.2	130.15	52.3	145.4	210.8	203.1	7.72	27.302		
2,100.0	2,084.7	2,063.7	2,049.2	4.7	4.6	130.50	60.4	163.6	239.2	230.9	8.26	28.946		
2,200.0	2,182.5	2,159.5	2,142.9	5.0	4.9	130.78	68.5	181.8	267.6	258.8	8.82	30.356		
2,300.0	2,280.3	2,255.4	2,236.7	5.4	5.3	131.01	76.6	200.1	296.1	286.7	9.38	31.573		
2,400.0	2,378.1	2,351.3	2,330.5	5.8	5.6	131.19	84.7	218.3	324.5	314.6	9.94	32.633		
2,500.0	2,476.0	2,447.1	2,424.3	6.2	6.0	131.50	92.8	236.5	352.9	342.3	10.52	33.528		
2,600.0	2,574.7	2,543.8	2,518.8	6.4	6.4	131.85	101.0	254.8	378.2	367.1	11.08	34.127		
2,700.0	2,674.2	2,641.3	2,614.2	6.6	6.7	131.33	109.2	273.4	399.1	387.5	11.57	34.483		
2,800.0	2,774.2	2,739.1	2,709.8	6.7	7.1	108.50	117.5	291.9	415.8	403.8	11.99	34.665		
2,900.0	2,874.2	2,836.9	2,805.5	6.9	7.5	106.65	125.8	310.5	431.5	419.1	12.39	34.821		
3,000.0	2,974.2	2,934.7	2,901.2	7.0	7.9	104.93	134.1	329.1	447.6	434.8	12.78	35.034		
3,100.0	3,074.2	3,032.5	2,996.9	7.1	8.3	103.33	142.3	347.7	464.1	450.9	13.15	35.291		
3,200.0	3,174.2	3,130.4	3,092.5	7.3	8.7	101.84	150.6	366.2	480.9	467.4	13.52	35.583		
3,300.0	3,274.2	3,228.2	3,188.2	7.4	9.1	100.45	158.9	384.8	498.0	484.2	13.87	35.902		
3,400.0	3,374.2	3,326.0	3,283.9	7.5	9.5	99.15	167.1	403.4	515.4	501.2	14.22	36.242		
3,500.0	3,474.2	3,423.8	3,379.6	7.7	9.8	97.93	175.4	422.0	533.1	518.5	14.57	36.596		
3,600.0	3,574.2	3,521.6	3,475.3	7.8	10.2	96.80	183.7	440.6	550.9	536.0	14.91	36.962		
3,700.0	3,674.2	3,619.4	3,570.9	8.0	10.6	95.73	192.0	459.1	569.0	553.8	15.24	37.334		
3,800.0	3,774.2	3,717.2	3,666.6	8.1	11.0	94.73	200.2	477.7	587.2	571.7	15.57	37.710		
3,900.0	3,874.2	3,815.1	3,762.3	8.2	11.4	93.79	208.5	496.3	605.6	589.7	15.90	38.088		
4,000.0	3,974.2	3,912.9	3,858.0	8.4	11.8	92.90	216.8	514.9	624.2	608.0	16.23	38.466		
4,100.0	4,074.2	4,010.7	3,953.6	8.5	12.2	92.07	225.0	533.4	642.9	626.3	16.55	38.842		
4,200.0	4,174.2	4,108.5	4,049.3	8.7	12.6	91.28	233.3	552.0	661.7	644.8	16.87	39.215		
4,300.0	4,274.2	4,206.3	4,145.0	8.8	13.0	90.53	241.6	570.6	680.6	663.4	17.19	39.584		
4,400.0	4,374.2	4,362.4	4,298.7	9.0	13.5	89.62	252.4	594.9	696.7	679.1	17.59	39.602		
4,500.0	4,474.2	4,538.3	4,474.2	9.1	13.7	89.29	256.5	604.1	701.8	683.7	18.00	38.978		
4,600.0	4,574.2	4,638.3	4,574.2	9.3	13.8	89.29	256.5	604.1	701.8	683.4	18.31	38.327		
4,700.0	4,674.2	4,738.3	4,674.2	9.4	13.9	89.29	256.5	604.1	701.8	683.1	18.62	37.694		
4,800.0	4,774.2	4,838.3	4,774.2	9.6	14.0	89.29	256.5	604.1	701.8	682.8	18.93	37.080		
4,900.0	4,874.2	4,938.3	4,874.2	9.7	14.1	89.29	256.5	604.1	701.8	682.5	19.24	36.482		
5,000.0	4,974.2	5,038.3	4,974.2	9.9	14.2	89.29	256.5	604.1	701.8	682.2	19.55	35.901		
5,100.0	5,074.2	5,138.3	5,074.2	10.0	14.3	89.29	256.5	604.1	701.8	681.9	19.86	35.335		

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 Flanigan 2A-6H
Project:	DJ Wattenberg	TVD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Reference Site:	NWNE S6-T1N-R64W (Flanigan)	MD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Flanigan 2A-6H	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 NWNE S6-T1N-R64W (Flanigan) - Flanigan 2B-6H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
5,200.0	5,174.2	5,238.3	5,174.2	10.2	14.5	89.29	256.5	604.1	701.8	681.6	20.17		34.786	
5,300.0	5,274.2	5,338.3	5,274.2	10.3	14.6	89.29	256.5	604.1	701.8	681.3	20.49		34.251	
5,400.0	5,374.2	5,438.3	5,374.2	10.5	14.7	89.29	256.5	604.1	701.8	680.9	20.80		33.730	
5,500.0	5,474.2	5,538.3	5,474.2	10.7	14.8	89.29	256.5	604.1	701.8	680.6	21.12		33.224	
5,600.0	5,574.2	5,638.3	5,574.2	10.8	14.9	89.29	256.5	604.1	701.8	680.3	21.44		32.731	
5,700.0	5,674.2	5,738.3	5,674.2	11.0	15.0	89.29	256.5	604.1	701.8	680.0	21.76		32.251	
5,800.0	5,774.2	5,838.3	5,774.2	11.1	15.1	89.29	256.5	604.1	701.8	679.7	22.08		31.784	
5,900.0	5,874.2	5,938.3	5,874.2	11.3	15.3	89.29	256.5	604.1	701.8	679.4	22.40		31.328	
6,000.0	5,974.2	6,038.3	5,974.2	11.4	15.4	89.29	256.5	604.1	701.8	679.0	22.72		30.885	
6,100.0	6,074.2	6,138.3	6,074.2	11.6	15.5	89.29	256.5	604.1	701.8	678.7	23.04		30.453	
6,200.0	6,174.2	6,238.3	6,174.2	11.8	15.6	89.29	256.5	604.1	701.8	678.4	23.37		30.031	
6,300.0	6,274.2	6,338.3	6,274.2	11.9	15.7	89.29	256.5	604.1	701.8	678.1	23.69		29.621	
6,400.0	6,374.2	6,438.3	6,374.2	12.1	15.9	89.29	256.5	604.1	701.8	677.7	24.02		29.220	
6,500.0	6,474.2	6,538.9	6,474.8	12.2	16.0	-90.71	254.9	604.1	701.8	677.5	24.30		28.878	
6,600.0	6,572.8	6,640.4	6,574.8	12.3	16.0	-90.69	238.4	604.1	701.7	677.4	24.39		28.773	
6,700.0	6,667.1	6,741.9	6,670.3	12.3	16.0	-90.65	204.6	604.1	701.7	677.4	24.34		28.833	
6,800.0	6,754.2	6,843.2	6,758.3	12.2	15.9	-90.59	154.5	604.1	701.7	677.5	24.25		28.939	
6,803.5	6,757.2	6,846.8	6,761.2	12.2	15.9	-90.58	152.5	604.1	701.7	677.5	24.25		28.941	
6,900.0	6,831.6	6,944.4	6,835.9	12.2	15.9	-90.51	89.9	604.1	701.7	677.5	24.25		28.937	
7,000.0	6,896.8	7,045.3	6,900.9	12.3	16.0	-90.41	12.8	604.1	701.8	677.3	24.48		28.664	
7,100.0	6,948.0	7,146.1	6,951.3	12.6	16.2	-90.31	-74.3	604.1	701.8	676.7	25.06		28.002	
7,200.0	6,983.4	7,246.6	6,985.6	13.1	16.6	-90.19	-168.6	604.1	701.8	675.7	26.06		26.931	
7,300.0	7,002.1	7,346.9	7,002.9	13.8	17.1	-90.07	-267.3	604.1	701.8	674.3	27.48		25.541	
7,400.0	7,005.0	7,446.9	7,005.0	14.7	17.8	-90.00	-367.2	604.1	701.8	672.5	29.27		23.973	
7,500.0	7,005.0	7,546.9	7,005.0	15.7	18.7	-90.00	-467.2	604.1	701.8	670.5	31.34		22.390	
7,600.0	7,005.0	7,646.9	7,005.0	16.9	19.7	-90.00	-567.2	604.1	701.8	668.2	33.65		20.854	
7,700.0	7,005.0	7,746.9	7,005.0	18.1	20.7	-90.00	-667.2	604.2	701.8	665.7	36.16		19.411	
7,800.0	7,005.0	7,846.9	7,005.0	19.4	21.9	-90.00	-767.2	604.2	701.9	663.0	38.82		18.082	
7,900.0	7,005.0	7,946.9	7,005.0	20.8	23.1	-90.00	-867.2	604.2	701.9	660.3	41.60		16.871	
8,000.0	7,005.0	8,046.9	7,005.0	22.3	24.4	-90.00	-967.2	604.2	701.9	657.4	44.49		15.777	
8,100.0	7,005.0	8,146.9	7,005.0	23.8	25.8	-90.00	-1,067.2	604.2	701.9	654.4	47.46		14.789	
8,200.0	7,005.0	8,246.9	7,005.0	25.3	27.2	-90.00	-1,167.2	604.2	701.9	651.4	50.50		13.899	
8,300.0	7,005.0	8,346.9	7,005.0	26.8	28.7	-90.00	-1,267.2	604.2	701.9	648.3	53.60		13.096	
8,400.0	7,005.0	8,446.9	7,005.0	28.4	30.1	-90.00	-1,367.2	604.2	701.9	645.2	56.74		12.370	
8,500.0	7,005.0	8,546.9	7,005.0	30.0	31.6	-90.00	-1,467.2	604.2	702.0	642.0	59.93		11.713	
8,600.0	7,005.0	8,646.9	7,005.0	31.6	33.2	-90.00	-1,567.2	604.2	702.0	638.8	63.15		11.116	
8,700.0	7,005.0	8,746.9	7,005.0	33.2	34.7	-90.00	-1,667.2	604.2	702.0	635.6	66.40		10.572	
8,800.0	7,005.0	8,846.9	7,005.0	34.9	36.3	-90.00	-1,767.2	604.2	702.0	632.3	69.67		10.076	
8,900.0	7,005.0	8,946.9	7,005.0	36.5	37.9	-90.00	-1,867.2	604.3	702.0	629.1	72.97		9.621	
9,000.0	7,005.0	9,046.9	7,005.0	38.2	39.5	-90.00	-1,967.2	604.3	702.0	625.8	76.29		9.203	
9,100.0	7,005.0	9,146.9	7,005.0	39.8	41.1	-90.00	-2,067.2	604.3	702.1	622.4	79.62		8.818	
9,200.0	7,005.0	9,246.9	7,005.0	41.5	42.7	-90.00	-2,167.2	604.3	702.1	619.1	82.96		8.462	
9,300.0	7,005.0	9,346.9	7,005.0	43.2	44.3	-90.00	-2,267.2	604.3	702.1	615.8	86.32		8.133	
9,400.0	7,005.0	9,446.9	7,005.0	44.9	46.0	-90.00	-2,367.2	604.3	702.1	612.4	89.69		7.828	
9,500.0	7,005.0	9,546.9	7,005.0	46.5	47.6	-90.00	-2,467.2	604.3	702.1	609.0	93.07		7.544	
9,600.0	7,005.0	9,646.9	7,005.0	48.2	49.3	-90.00	-2,567.2	604.3	702.1	605.7	96.46		7.279	
9,700.0	7,005.0	9,746.9	7,005.0	49.9	51.0	-90.00	-2,667.2	604.3	702.1	602.3	99.86		7.031	
9,800.0	7,005.0	9,846.9	7,005.0	51.6	52.6	-90.00	-2,767.2	604.3	702.2	598.9	103.27		6.799	
9,900.0	7,005.0	9,946.9	7,005.0	53.3	54.3	-90.00	-2,867.2	604.3	702.2	595.5	106.68		6.582	
10,000.0	7,005.0	10,046.9	7,005.0	55.1	56.0	-90.00	-2,967.2	604.3	702.2	592.1	110.10		6.378	
10,100.0	7,005.0	10,146.9	7,005.0	56.8	57.7	-90.00	-3,067.2	604.4	702.2	588.7	113.52		6.186	
10,200.0	7,005.0	10,246.9	7,005.0	58.5	59.4	-90.00	-3,167.2	604.4	702.2	585.3	116.95		6.005	

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 Flanigan 2A-6H
Project:	DJ Wattenberg	TVD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Reference Site:	NWNE S6-T1N-R64W (Flanigan)	MD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Flanigan 2A-6H	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 NWNE S6-T1N-R64W (Flanigan) - Flanigan 2B-6H - 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		
10,300.0	7,005.0	10,346.9	7,005.0	60.2	61.0	-90.00	-3,267.2	604.4	702.2	581.9	120.38	5.833		
10,400.0	7,005.0	10,446.9	7,005.0	61.9	62.7	-90.00	-3,367.2	604.4	702.3	578.4	123.82	5.672		
10,500.0	7,005.0	10,546.9	7,005.0	63.6	64.4	-90.00	-3,467.2	604.4	702.3	575.0	127.26	5.518		
10,600.0	7,005.0	10,646.9	7,005.0	65.4	66.1	-90.00	-3,567.2	604.4	702.3	571.6	130.70	5.373		
10,700.0	7,005.0	10,746.9	7,005.0	67.1	67.8	-90.00	-3,667.2	604.4	702.3	568.1	134.15	5.235		
10,800.0	7,005.0	10,846.9	7,005.0	68.8	69.6	-90.00	-3,767.2	604.4	702.3	564.7	137.60	5.104		
10,900.0	7,005.0	10,946.9	7,005.0	70.5	71.3	-90.00	-3,867.2	604.4	702.3	561.3	141.06	4.979		
11,000.0	7,005.0	11,046.9	7,005.0	72.3	73.0	-90.00	-3,967.2	604.4	702.3	557.8	144.51	4.860		
11,100.0	7,005.0	11,146.9	7,005.0	74.0	74.7	-90.00	-4,067.2	604.4	702.4	554.4	147.97	4.747		
11,200.0	7,005.0	11,246.9	7,005.0	75.7	76.4	-90.00	-4,167.2	604.4	702.4	550.9	151.43	4.638		
11,300.0	7,005.0	11,346.9	7,005.0	77.5	78.1	-90.00	-4,267.2	604.5	702.4	547.5	154.90	4.535		
11,400.0	7,005.0	11,446.9	7,005.0	79.2	79.8	-90.00	-4,367.2	604.5	702.4	544.0	158.36	4.435		
11,495.1	7,005.0	11,542.0	7,005.0	80.8	81.5	-90.00	-4,462.3	604.5	702.4	540.8	161.66	4.345 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Flanigan 2A-6H
Project:	DJ Wattenberg	TVD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Reference Site:	NWNE S6-T1N-R64W (Flanigan)	MD Reference:	KB=13' @ 4949.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Flanigan 2A-6H	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 KB=13' @ 4949.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Flanigan 2A-6H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.58°

