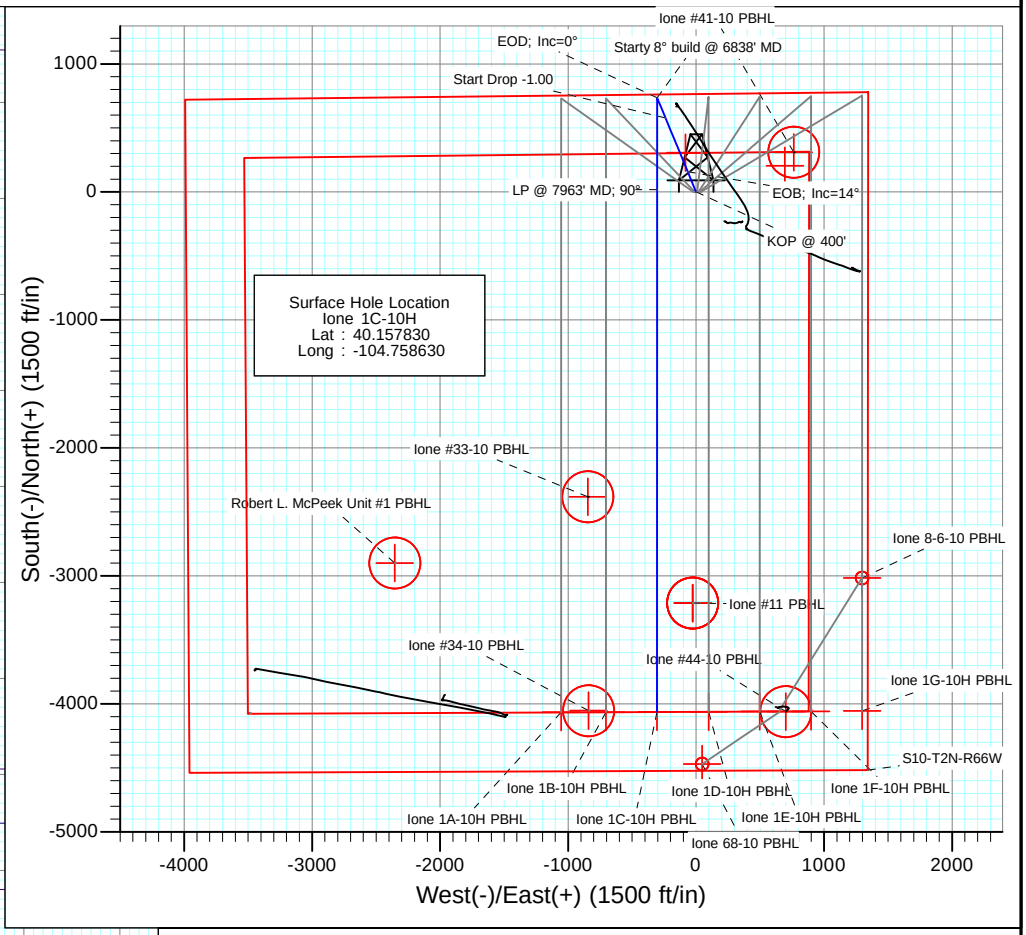
Project: DJ Wattenberg
Site: S10-T2N-R66W (Ione)
Well: Ione 1C-10H
Wellbore: Hz
Design: Plan #1

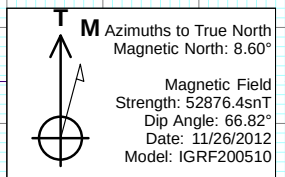
SECTION DETAILS

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	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	1800.0	14.00	337.50	1786.1	157.2	-65.1	1.00	337.50	-157.2	
4	3680.0	14.00	337.50	3610.3	577.4	-239.2	0.00	0.00	-577.4	
5	5080.0	0.00	0.00	4996.4	734.7	-304.3	1.00	180.00	-734.7	
6	6838.4	0.00	0.00	6754.8	734.7	-304.3	0.00	0.00	-734.7	
7	7963.4	90.00	180.00	7471.0	18.5	-304.4	8.00	180.00	-18.5	
8	12043.6	90.00	180.00	7471.0	-4061.7	-304.7	0.00	0.00	4061.7	Ione 1C-10H PBHL



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Ione 1C-10H PBHL	-4061.7	-304.7	1297145.37	3206950.05	40.146680	-104.759720



Azimuths to True North
Magnetic North: 8.60°

Magnetic Field
Strength: 52876.4snT
Dip Angle: 66.82°
Date: 11/26/2012
Model: IGRF200510

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
727.0	727.2	Base of Fox Hills
4472.0	4554.9	Sussex
4754.0	4837.6	Sussex Marker
5099.0	5182.6	Shannon
6282.0	6365.6	Teepee Buttes
7128.0	7231.0	Sharon Springs
7190.0	7306.2	Niobrara
7232.0	7360.7	B Chalk
7441.0	7755.4	Ft. Hayes
7466.0	7878.7	Codell

Plan #1
Ione 1C-10H
12xxx; LR
WELL @ 5012.0ft (Original Well Elev)
Ground Elevation @ 4999.0
North American Datum 1983
Well Ione 1C-10H, True North

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site:	S10-T2N-R66W (Ione)	**North Reference:**	True
Well:	Ione 1C-10H	**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	S10-T2N-R66W (Ione)				
Site Position:		**Northing:**	1,297,164.02 ft	**Latitude:**	40.146710
From:	Lat/Long	**Easting:**	3,207,875.24 ft	**Longitude:**	-104.756410
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.48 °

Well	Ione 1C-10H				
Well Position	**+N/-S**	0.0 ft	**Northing:**	1,301,209.48 ft	**Latitude:**	40.157830
	+E/-W	0.0 ft	**Easting:**	3,207,220.79 ft	**Longitude:**	-104.758630
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,999.0 ft

Wellbore	Hz			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	11/26/2012	8.60	66.82	52,876

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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,800.0	14.00	337.50	1,786.1	157.2	-65.1	1.00	1.00	0.00	337.50	
3,680.0	14.00	337.50	3,610.3	577.4	-239.2	0.00	0.00	0.00	0.00	
5,080.0	0.00	0.00	4,996.4	734.7	-304.3	1.00	-1.00	0.00	180.00	
6,838.4	0.00	0.00	6,754.8	734.7	-304.3	0.00	0.00	0.00	0.00	
7,963.4	90.00	180.00	7,471.0	18.5	-304.4	8.00	8.00	0.00	180.00	
12,043.6	90.00	180.00	7,471.0	-4,061.7	-304.7	0.00	0.00	0.00	0.00	Ione 1C-10H PBHL

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site:	S10-T2N-R66W (Ione)	**North Reference:**	True
Well:	Ione 1C-10H	**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	KOP @ 400'
500.0	1.00	337.50	500.0	0.8	-0.3	-0.8	1.00	1.00	
600.0	2.00	337.50	600.0	3.2	-1.3	-3.2	1.00	1.00	
700.0	3.00	337.50	699.9	7.3	-3.0	-7.3	1.00	1.00	
727.2	3.27	337.50	727.0	8.6	-3.6	-8.6	1.00	1.00	Base of Fox Hills
800.0	4.00	337.50	799.7	12.9	-5.3	-12.9	1.00	1.00	
900.0	5.00	337.50	899.4	20.1	-8.3	-20.1	1.00	1.00	
1,000.0	6.00	337.50	998.9	29.0	-12.0	-29.0	1.00	1.00	
1,100.0	7.00	337.50	1,098.3	39.5	-16.3	-39.5	1.00	1.00	
1,200.0	8.00	337.50	1,197.4	51.5	-21.3	-51.5	1.00	1.00	
1,300.0	9.00	337.50	1,296.3	65.2	-27.0	-65.2	1.00	1.00	
1,400.0	10.00	337.50	1,394.9	80.4	-33.3	-80.4	1.00	1.00	
1,500.0	11.00	337.50	1,493.3	97.3	-40.3	-97.3	1.00	1.00	
1,600.0	12.00	337.50	1,591.2	115.7	-47.9	-115.7	1.00	1.00	
1,700.0	13.00	337.50	1,688.9	135.7	-56.2	-135.7	1.00	1.00	
1,800.0	14.00	337.50	1,786.1	157.2	-65.1	-157.2	1.00	1.00	EOB; Inc=14°
1,900.0	14.00	337.50	1,883.1	179.6	-74.4	-179.6	0.00	0.00	
2,000.0	14.00	337.50	1,980.2	201.9	-83.6	-201.9	0.00	0.00	
2,100.0	14.00	337.50	2,077.2	224.3	-92.9	-224.3	0.00	0.00	
2,200.0	14.00	337.50	2,174.2	246.6	-102.2	-246.6	0.00	0.00	
2,300.0	14.00	337.50	2,271.3	269.0	-111.4	-269.0	0.00	0.00	
2,400.0	14.00	337.50	2,368.3	291.3	-120.7	-291.3	0.00	0.00	
2,500.0	14.00	337.50	2,465.3	313.7	-129.9	-313.7	0.00	0.00	
2,600.0	14.00	337.50	2,562.3	336.0	-139.2	-336.0	0.00	0.00	
2,700.0	14.00	337.50	2,659.4	358.4	-148.5	-358.4	0.00	0.00	
2,800.0	14.00	337.50	2,756.4	380.7	-157.7	-380.7	0.00	0.00	
2,900.0	14.00	337.50	2,853.4	403.1	-167.0	-403.1	0.00	0.00	
3,000.0	14.00	337.50	2,950.5	425.4	-176.2	-425.4	0.00	0.00	
3,100.0	14.00	337.50	3,047.5	447.8	-185.5	-447.8	0.00	0.00	
3,200.0	14.00	337.50	3,144.5	470.1	-194.7	-470.1	0.00	0.00	
3,300.0	14.00	337.50	3,241.6	492.5	-204.0	-492.5	0.00	0.00	
3,400.0	14.00	337.50	3,338.6	514.8	-213.3	-514.8	0.00	0.00	
3,500.0	14.00	337.50	3,435.6	537.2	-222.5	-537.2	0.00	0.00	
3,600.0	14.00	337.50	3,532.6	559.5	-231.8	-559.5	0.00	0.00	
3,680.0	14.00	337.50	3,610.3	577.4	-239.2	-577.4	0.00	0.00	Start Drop -1.00
3,700.0	13.80	337.50	3,629.7	581.9	-241.0	-581.9	1.00	-1.00	
3,800.0	12.80	337.50	3,727.0	603.1	-249.8	-603.1	1.00	-1.00	
3,900.0	11.80	337.50	3,824.7	622.8	-258.0	-622.8	1.00	-1.00	
4,000.0	10.80	337.50	3,922.8	640.9	-265.5	-640.9	1.00	-1.00	
4,100.0	9.80	337.50	4,021.1	657.4	-272.3	-657.4	1.00	-1.00	
4,200.0	8.80	337.50	4,119.8	672.4	-278.5	-672.4	1.00	-1.00	
4,300.0	7.80	337.50	4,218.8	685.7	-284.0	-685.7	1.00	-1.00	
4,400.0	6.80	337.50	4,318.0	697.4	-288.9	-697.4	1.00	-1.00	
4,500.0	5.80	337.50	4,417.4	707.6	-293.1	-707.6	1.00	-1.00	
4,554.9	5.25	337.50	4,472.0	712.5	-295.1	-712.5	1.00	-1.00	Sussex
4,600.0	4.80	337.50	4,516.9	716.1	-296.6	-716.1	1.00	-1.00	
4,700.0	3.80	337.50	4,616.7	723.0	-299.5	-723.0	1.00	-1.00	
4,800.0	2.80	337.50	4,716.5	728.3	-301.7	-728.3	1.00	-1.00	

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site:	S10-T2N-R66W (Ione)	**North Reference:**	True
Well:	Ione 1C-10H	**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
4,837.6	2.42	337.50	4,754.0	729.9	-302.3	-729.9	1.00	-1.00	Sussex Marker
4,900.0	1.80	337.50	4,816.4	732.1	-303.2	-732.1	1.00	-1.00	
5,000.0	0.80	337.50	4,916.4	734.2	-304.1	-734.2	1.00	-1.00	
5,080.0	0.00	0.00	4,996.4	734.7	-304.3	-734.7	1.00	-1.00	EOD; Inc=0°
5,100.0	0.00	0.00	5,016.4	734.7	-304.3	-734.7	0.00	0.00	
5,182.6	0.00	0.00	5,099.0	734.7	-304.3	-734.7	0.00	0.00	Shannon
5,200.0	0.00	0.00	5,116.4	734.7	-304.3	-734.7	0.00	0.00	
5,300.0	0.00	0.00	5,216.4	734.7	-304.3	-734.7	0.00	0.00	
5,400.0	0.00	0.00	5,316.4	734.7	-304.3	-734.7	0.00	0.00	
5,500.0	0.00	0.00	5,416.4	734.7	-304.3	-734.7	0.00	0.00	
5,600.0	0.00	0.00	5,516.4	734.7	-304.3	-734.7	0.00	0.00	
5,700.0	0.00	0.00	5,616.4	734.7	-304.3	-734.7	0.00	0.00	
5,800.0	0.00	0.00	5,716.4	734.7	-304.3	-734.7	0.00	0.00	
5,900.0	0.00	0.00	5,816.4	734.7	-304.3	-734.7	0.00	0.00	
6,000.0	0.00	0.00	5,916.4	734.7	-304.3	-734.7	0.00	0.00	
6,100.0	0.00	0.00	6,016.4	734.7	-304.3	-734.7	0.00	0.00	
6,200.0	0.00	0.00	6,116.4	734.7	-304.3	-734.7	0.00	0.00	
6,300.0	0.00	0.00	6,216.4	734.7	-304.3	-734.7	0.00	0.00	
6,365.6	0.00	0.00	6,282.0	734.7	-304.3	-734.7	0.00	0.00	Teepee Buttes
6,400.0	0.00	0.00	6,316.4	734.7	-304.3	-734.7	0.00	0.00	
6,500.0	0.00	0.00	6,416.4	734.7	-304.3	-734.7	0.00	0.00	
6,600.0	0.00	0.00	6,516.4	734.7	-304.3	-734.7	0.00	0.00	
6,700.0	0.00	0.00	6,616.4	734.7	-304.3	-734.7	0.00	0.00	
6,800.0	0.00	0.00	6,716.4	734.7	-304.3	-734.7	0.00	0.00	
6,838.4	0.00	0.00	6,754.8	734.7	-304.3	-734.7	0.00	0.00	Starty 8° build @ 6838' MD
6,900.0	4.93	180.00	6,816.3	732.0	-304.3	-732.0	8.00	8.00	
7,000.0	12.93	180.00	6,915.0	716.5	-304.3	-716.5	8.00	8.00	
7,100.0	20.93	180.00	7,010.6	687.4	-304.3	-687.4	8.00	8.00	
7,200.0	28.93	180.00	7,101.2	645.3	-304.3	-645.3	8.00	8.00	
7,231.0	31.40	180.00	7,128.0	629.8	-304.3	-629.8	8.00	8.00	Sharon Springs
7,300.0	36.93	180.00	7,185.1	591.0	-304.3	-591.0	8.00	8.00	
7,306.2	37.42	180.00	7,190.0	587.3	-304.3	-587.3	8.00	8.00	Niobrara
7,360.7	41.78	180.00	7,232.0	552.5	-304.3	-552.5	8.00	8.00	B Chalk
7,400.0	44.93	180.00	7,260.6	525.6	-304.3	-525.6	8.00	8.00	
7,500.0	52.93	180.00	7,326.2	450.2	-304.3	-450.2	8.00	8.00	
7,600.0	60.93	180.00	7,380.8	366.5	-304.3	-366.5	8.00	8.00	
7,700.0	68.93	180.00	7,423.1	276.0	-304.3	-276.0	8.00	8.00	
7,755.4	73.36	180.00	7,441.0	223.6	-304.4	-223.6	8.00	8.00	Ft. Hayes
7,800.0	76.93	180.00	7,452.4	180.5	-304.4	-180.5	8.00	8.00	
7,878.7	83.23	180.00	7,466.0	103.0	-304.4	-103.0	8.00	8.00	Codell
7,900.0	84.93	180.00	7,468.2	81.8	-304.4	-81.8	8.00	8.00	
7,963.4	90.00	180.00	7,471.0	18.5	-304.4	-18.5	8.00	8.00	LP @ 7963' MD; 90°
8,000.0	90.00	180.00	7,471.0	-18.1	-304.4	18.1	0.00	0.00	
8,100.0	90.00	180.00	7,471.0	-118.1	-304.4	118.1	0.00	0.00	
8,200.0	90.00	180.00	7,471.0	-218.1	-304.4	218.1	0.00	0.00	
8,300.0	90.00	180.00	7,471.0	-318.1	-304.4	318.1	0.00	0.00	
8,400.0	90.00	180.00	7,471.0	-418.1	-304.4	418.1	0.00	0.00	
8,500.0	90.00	180.00	7,471.0	-518.1	-304.4	518.1	0.00	0.00	
8,600.0	90.00	180.00	7,471.0	-618.1	-304.4	618.1	0.00	0.00	
8,700.0	90.00	180.00	7,471.0	-718.1	-304.4	718.1	0.00	0.00	
8,800.0	90.00	180.00	7,471.0	-818.1	-304.4	818.1	0.00	0.00	
8,900.0	90.00	180.00	7,471.0	-918.1	-304.4	918.1	0.00	0.00	

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Project:	DJ Wattenberg	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site:	S10-T2N-R66W (Ione)	**North Reference:**	True
Well:	Ione 1C-10H	**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
9,000.0	90.00	180.00	7,471.0	-1,018.1	-304.5	1,018.1	0.00	0.00	
9,100.0	90.00	180.00	7,471.0	-1,118.1	-304.5	1,118.1	0.00	0.00	
9,200.0	90.00	180.00	7,471.0	-1,218.1	-304.5	1,218.1	0.00	0.00	
9,300.0	90.00	180.00	7,471.0	-1,318.1	-304.5	1,318.1	0.00	0.00	
9,400.0	90.00	180.00	7,471.0	-1,418.1	-304.5	1,418.1	0.00	0.00	
9,500.0	90.00	180.00	7,471.0	-1,518.1	-304.5	1,518.1	0.00	0.00	
9,600.0	90.00	180.00	7,471.0	-1,618.1	-304.5	1,618.1	0.00	0.00	
9,700.0	90.00	180.00	7,471.0	-1,718.1	-304.5	1,718.1	0.00	0.00	
9,800.0	90.00	180.00	7,471.0	-1,818.1	-304.5	1,818.1	0.00	0.00	
9,900.0	90.00	180.00	7,471.0	-1,918.1	-304.5	1,918.1	0.00	0.00	
10,000.0	90.00	180.00	7,471.0	-2,018.1	-304.5	2,018.1	0.00	0.00	
10,100.0	90.00	180.00	7,471.0	-2,118.1	-304.5	2,118.1	0.00	0.00	
10,200.0	90.00	180.00	7,471.0	-2,218.1	-304.6	2,218.1	0.00	0.00	
10,300.0	90.00	180.00	7,471.0	-2,318.1	-304.6	2,318.1	0.00	0.00	
10,400.0	90.00	180.00	7,471.0	-2,418.1	-304.6	2,418.1	0.00	0.00	
10,500.0	90.00	180.00	7,471.0	-2,518.1	-304.6	2,518.1	0.00	0.00	
10,600.0	90.00	180.00	7,471.0	-2,618.1	-304.6	2,618.1	0.00	0.00	
10,700.0	90.00	180.00	7,471.0	-2,718.1	-304.6	2,718.1	0.00	0.00	
10,800.0	90.00	180.00	7,471.0	-2,818.1	-304.6	2,818.1	0.00	0.00	
10,900.0	90.00	180.00	7,471.0	-2,918.1	-304.6	2,918.1	0.00	0.00	
11,000.0	90.00	180.00	7,471.0	-3,018.1	-304.6	3,018.1	0.00	0.00	
11,100.0	90.00	180.00	7,471.0	-3,118.1	-304.6	3,118.1	0.00	0.00	
11,200.0	90.00	180.00	7,471.0	-3,218.1	-304.6	3,218.1	0.00	0.00	
11,300.0	90.00	180.00	7,471.0	-3,318.1	-304.6	3,318.1	0.00	0.00	
11,400.0	90.00	180.00	7,471.0	-3,418.1	-304.7	3,418.1	0.00	0.00	
11,500.0	90.00	180.00	7,471.0	-3,518.1	-304.7	3,518.1	0.00	0.00	
11,600.0	90.00	180.00	7,471.0	-3,618.1	-304.7	3,618.1	0.00	0.00	
11,700.0	90.00	180.00	7,471.0	-3,718.1	-304.7	3,718.1	0.00	0.00	
11,800.0	90.00	180.00	7,471.0	-3,818.1	-304.7	3,818.1	0.00	0.00	
11,900.0	90.00	180.00	7,471.0	-3,918.1	-304.7	3,918.1	0.00	0.00	
12,000.0	90.00	180.00	7,471.0	-4,018.1	-304.7	4,018.1	0.00	0.00	
12,043.6	90.00	180.00	7,471.0	-4,061.7	-304.7	4,061.7	0.00	0.00	TD at 12043.6 - Ione 1C-10H PBHL

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Ione 1C-10H PBHL - plan hits target center - Point	0.00	0.00	7,471.0	-4,061.7	-304.7	1,297,145.37	3,206,950.05	40.146680	-104.759720

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site:	S10-T2N-R66W (Ione)	**North Reference:**	True
Well:	Ione 1C-10H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
727.2	727.0	Base of Fox Hills			
4,554.9	4,472.0	Sussex			
4,837.6	4,754.0	Sussex Marker			
5,182.6	5,099.0	Shannon			
6,365.6	6,282.0	Teepee Buttes			
7,231.0	7,128.0	Sharon Springs			
7,306.2	7,190.0	Niobrara			
7,360.7	7,232.0	B Chalk			
7,755.4	7,441.0	Ft. Hayes			
7,878.7	7,466.0	Codell			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
400.0	400.0	0.0	0.0	KOP @ 400'
1,800.0	1,786.1	157.2	-65.1	EOB; Inc=14°
3,680.0	3,610.3	577.4	-239.2	Start Drop -1.00
5,080.0	4,996.4	734.7	-304.3	EOD; Inc=0°
6,838.4	6,754.8	734.7	-304.3	Starty 8° build @ 6838' MD
7,963.4	7,471.0	18.5	-304.4	LP @ 7963' MD; 90°
12,043.6	7,471.0	-4,061.7	-304.7	TD at 12043.6

EnCana Oil & Gas (USA) Inc

DJ Wattenberg
S10-T2N-R66W (Ione)
Ione 1C-10H
Hz
Plan #1

Anticollision Report

26 November, 2012

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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** 11/26/2012

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	12,043.6	Plan #1 (Hz)	MWD	Geolink MWD

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
S10-T2N-R66W (Ione)						
HSR McPeek 13-10A (Existing) - Existing - Existing						Out of range
Ione #11 (Existing) - Existing - Existing	11,194.1	7,471.0	277.8	205.0	3.816	CC
Ione #11 (Existing) - Existing - Existing	11,200.0	7,471.0	277.9	205.0	3.811	ES, SF
Ione #2 (Exsiting) - Hz - Hz	100.0	88.6	428.6	428.4	1,869.812	CC
Ione #2 (Exsiting) - Hz - Hz	406.9	396.3	428.9	427.9	414.343	ES
Ione #2 (Exsiting) - Hz - Hz	1,400.0	1,386.1	499.2	495.4	132.787	SF
Ione #33-10 (Existing) - Existing - Existing						Out of range
Ione #34-10 (Existing) - Existing - Existing						Out of range
Ione #41-10 (Existing) - Existing - Existing						Out of range
Ione #44-10 (Existing) - Existing - Existing						Out of range
Ione #8-2-10 (Exsiting) - Existing - Existing	124.9	129.9	488.5	488.0	1,155.011	CC, ES
Ione #8-2-10 (Exsiting) - Existing - Existing	400.0	367.0	498.0	496.6	372.920	SF
Ione 1A-10H - Hz - Plan #1	200.0	200.0	22.4	21.7	34.256	CC, ES
Ione 1A-10H - Hz - Plan #1	900.0	895.9	48.9	45.7	15.301	SF
Ione 1B-10H - Hz - Plan #1	300.0	300.0	11.2	10.2	11.160	CC, ES
Ione 1B-10H - Hz - Plan #1	12,043.6	11,847.1	458.2	327.2	3.497	SF
Ione 1D-10H - Hz - Plan #1	400.0	400.0	8.4	7.0	6.207	CC, ES
Ione 1D-10H - Hz - Plan #1	12,043.6	11,816.8	460.7	329.6	3.516	SF
Ione 1E-10H - Hz - Plan #1	400.0	400.0	19.6	18.2	14.483	CC, ES
Ione 1E-10H - Hz - Plan #1	700.0	699.3	26.8	24.4	11.088	SF
Ione 1F-10H - Hz - Plan #1	300.0	300.0	28.0	26.9	27.900	CC, ES
Ione 1F-10H - Hz - Plan #1	600.0	598.6	35.3	33.2	17.150	SF
Ione 1G-10H - Hz - Plan #1	200.0	200.0	39.1	38.5	59.947	CC, ES
Ione 1G-10H - Hz - Plan #1	700.0	695.8	60.8	58.4	25.131	SF
Ione 4-2-10 (Existing) - Existing - Existing	400.0	384.0	484.7	483.3	360.139	CC, ES
Ione 4-2-10 (Existing) - Existing - Existing	800.0	783.7	496.6	493.9	180.746	SF
Ione 6-0-10 (Existing) - Existing - Existing	4,827.5	4,910.3	150.7	128.7	6.873	CC
Ione 6-0-10 (Existing) - Existing - Existing	7,157.1	7,227.1	154.2	126.8	5.624	ES
Ione 6-0-10 (Existing) - Existing - Existing	7,200.0	7,265.2	155.5	127.6	5.583	SF
Ione 6-8-10 (Existing) - DD - Plan #1						Out of range
Ione 8-6-10 (Existing) - DD - Plan #1						Out of range
McPeek #14-10 (Existing) - Existing - Existing						Out of range
McPeek #24-10 (Existing) - Existing - Existing						Out of range
Robert L. McPeek Unit #1 (Existing) - Existing - Existing						Out of range

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione #11 (Existing) - Existing - Existing

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
10,800.0	7,471.0	7,471.0	7,471.0	53.3	13.0	-90.00	-3,212.2	-26.8	482.2	416.1	66.11	7.294	
10,900.0	7,471.0	7,471.0	7,471.0	55.0	13.0	-90.00	-3,212.2	-26.8	404.6	336.8	67.80	5.967	
11,000.0	7,471.0	7,471.0	7,471.0	56.7	13.0	-90.00	-3,212.2	-26.8	338.9	269.4	69.50	4.876	
11,100.0	7,471.0	7,471.0	7,471.0	58.4	13.0	-90.00	-3,212.2	-26.8	293.3	222.1	71.20	4.119	
11,194.1	7,471.0	7,471.0	7,471.0	60.0	13.0	-90.00	-3,212.2	-26.8	277.8	205.0	72.81	3.816	CC
11,200.0	7,471.0	7,471.0	7,471.0	60.1	13.0	-90.00	-3,212.2	-26.8	277.9	205.0	72.91	3.811	ES, SF
11,300.0	7,471.0	7,471.0	7,471.0	61.8	13.0	-90.00	-3,212.2	-26.8	297.3	222.7	74.62	3.984	
11,400.0	7,471.0	7,471.0	7,471.0	63.5	13.0	-90.00	-3,212.2	-26.8	345.8	269.5	76.33	4.530	
11,500.0	7,471.0	7,471.0	7,471.0	65.2	13.0	-90.00	-3,212.2	-26.8	413.2	335.2	78.04	5.295	
11,600.0	7,471.0	7,471.0	7,471.0	66.9	13.0	-90.00	-3,212.2	-26.8	491.9	412.1	79.76	6.167	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione #2 (Exsiting) - Hz - Hz

Offset Site Error: 0.0 ft

Survey Program: 100-Gyro

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	122.44	-229.8	361.7	428.7				
100.0	100.0	88.6	88.6	0.2	0.1	122.46	-230.0	361.6	428.6	428.4	0.23	1,869.812	CC
200.0	200.0	188.7	188.7	0.3	0.2	122.55	-230.7	361.3	428.7	428.2	0.49	872.444	
300.0	300.0	287.9	287.9	0.5	0.3	122.71	-231.7	360.8	428.8	428.1	0.75	569.482	
400.0	400.0	389.3	389.3	0.7	0.3	122.89	-232.9	360.2	429.0	427.9	1.02	421.911	
406.9	406.9	396.3	396.3	0.7	0.3	145.40	-233.0	360.1	428.9	427.9	1.04	414.343	ES
500.0	500.0	488.3	488.3	0.9	0.4	145.63	-234.0	359.5	429.7	428.4	1.28	336.015	
600.0	600.0	589.4	589.4	1.0	0.5	145.98	-235.1	358.9	431.9	430.4	1.54	279.876	
700.0	699.9	690.7	690.6	1.2	0.6	146.45	-236.0	358.0	435.3	433.5	1.81	240.568	
800.0	799.7	791.2	791.2	1.4	0.7	146.99	-236.5	357.0	439.9	437.8	2.08	211.747	
900.0	899.4	891.7	891.7	1.6	0.8	147.61	-236.8	356.0	445.9	443.5	2.35	189.812	
1,000.0	998.9	991.1	991.0	1.8	0.9	148.33	-237.1	354.9	453.3	450.6	2.62	172.777	
1,100.0	1,098.3	1,090.4	1,090.3	2.1	1.0	149.12	-237.4	353.9	462.3	459.4	2.90	159.313	
1,200.0	1,197.4	1,189.4	1,189.3	2.3	1.0	149.95	-237.5	353.0	472.9	469.7	3.18	148.531	
1,300.0	1,296.3	1,288.6	1,288.5	2.6	1.1	150.83	-237.5	352.2	485.2	481.7	3.47	139.805	
1,400.0	1,394.9	1,386.1	1,386.0	2.9	1.2	151.74	-237.7	351.4	499.2	495.4	3.76	132.787	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione #8-2-10 (Exsiting) - Existing - Existing

Offset Site Error: 0.0 ft

Survey Program: 93-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	5.2	5.2	0.0	0.0	126.79	-292.9	391.6	489.0				
100.0	100.0	107.4	107.4	0.2	0.2	126.71	-292.0	391.6	488.5	488.2	0.34	1,436.859	
124.9	124.9	129.9	129.9	0.2	0.2	126.68	-291.8	391.7	488.5	488.0	0.42	1,155.011	CC, ES
200.0	200.0	197.3	197.3	0.3	0.3	126.58	-291.4	392.6	489.0	488.4	0.67	725.926	
300.0	300.0	277.0	276.9	0.5	0.5	126.45	-291.8	395.1	491.9	490.9	0.99	495.941	
400.0	400.0	367.0	366.8	0.7	0.7	126.28	-293.8	400.3	498.0	496.6	1.34	372.920	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione 1A-10H - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.96	0.0	-22.4	22.4				
100.0	100.0	100.0	100.0	0.2	0.2	-89.96	0.0	-22.4	22.4	22.1	0.30	73.630	
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.0	-22.4	22.4	21.7	0.65	34.256	CC, ES
300.0	300.0	299.7	299.7	0.5	0.5	-88.71	0.5	-23.1	23.1	22.1	1.00	23.047	
400.0	400.0	399.3	399.2	0.7	0.7	-85.42	2.0	-25.2	25.3	23.9	1.35	18.730	
500.0	500.0	498.8	498.7	0.9	0.9	-60.01	4.5	-28.7	28.7	27.0	1.70	16.832	
600.0	600.0	598.3	597.9	1.0	1.1	-58.98	8.0	-33.7	32.7	30.7	2.06	15.904	
700.0	699.9	697.6	697.0	1.2	1.3	-59.27	12.5	-40.0	37.5	35.0	2.42	15.467	
800.0	799.7	796.8	795.8	1.4	1.5	-60.42	18.0	-47.7	42.8	40.0	2.80	15.305	
900.0	899.4	895.9	894.2	1.6	1.8	-62.09	24.4	-56.8	48.9	45.7	3.20	15.301	SF
1,000.0	998.9	994.9	992.4	1.8	2.0	-64.05	31.8	-67.3	55.7	52.1	3.62	15.382	
1,100.0	1,098.3	1,093.8	1,090.1	2.1	2.3	-66.13	40.2	-79.1	63.3	59.2	4.08	15.503	
1,200.0	1,197.4	1,192.4	1,187.5	2.3	2.6	-68.23	49.6	-92.3	71.7	67.1	4.59	15.634	
1,300.0	1,296.3	1,290.9	1,284.3	2.6	3.0	-70.26	59.8	-106.9	80.9	75.8	5.14	15.758	
1,400.0	1,394.9	1,389.2	1,380.7	2.9	3.4	-72.20	71.1	-122.7	91.0	85.3	5.74	15.866	
1,500.0	1,493.3	1,487.3	1,476.5	3.3	3.8	-74.02	83.2	-139.9	102.0	95.6	6.39	15.956	
1,600.0	1,591.2	1,585.2	1,571.8	3.6	4.2	-75.70	96.3	-158.4	113.8	106.7	7.10	16.026	
1,700.0	1,688.9	1,682.9	1,666.4	4.0	4.6	-77.26	110.3	-178.1	126.5	118.7	7.87	16.081	
1,800.0	1,786.1	1,781.7	1,761.8	4.5	5.1	-78.89	125.0	-199.0	139.8	131.1	8.69	16.077	
1,900.0	1,883.1	1,880.7	1,857.5	4.9	5.6	-80.66	139.9	-219.9	153.0	143.4	9.55	16.016	
2,000.0	1,980.2	1,979.7	1,953.1	5.3	6.0	-82.15	154.7	-240.8	166.3	155.9	10.42	15.961	
2,100.0	2,077.2	2,078.8	2,048.8	5.8	6.5	-83.42	169.5	-261.7	179.7	168.4	11.30	15.912	
2,200.0	2,174.2	2,177.8	2,144.4	6.2	7.0	-84.51	184.3	-282.6	193.2	181.1	12.18	15.868	
2,300.0	2,271.3	2,276.8	2,240.1	6.6	7.5	-85.46	199.1	-303.5	206.8	193.7	13.06	15.830	
2,400.0	2,368.3	2,375.8	2,335.7	7.1	7.9	-86.29	213.9	-324.5	220.4	206.5	13.95	15.797	
2,500.0	2,465.3	2,474.8	2,431.4	7.5	8.4	-87.03	228.7	-345.4	234.1	219.2	14.84	15.767	
2,600.0	2,562.3	2,573.9	2,527.0	8.0	8.9	-87.68	243.5	-366.3	247.7	232.0	15.74	15.741	
2,700.0	2,659.4	2,672.9	2,622.7	8.4	9.4	-88.27	258.3	-387.2	261.5	244.8	16.63	15.718	
2,800.0	2,756.4	2,771.9	2,718.3	8.9	9.9	-88.79	273.1	-408.1	275.2	257.7	17.53	15.697	
2,900.0	2,853.4	2,870.9	2,814.0	9.3	10.4	-89.27	288.0	-429.0	289.0	270.5	18.43	15.679	
3,000.0	2,950.5	2,970.0	2,909.6	9.8	10.8	-89.70	302.8	-449.9	302.7	283.4	19.33	15.662	
3,100.0	3,047.5	3,069.0	3,005.2	10.2	11.3	-90.10	317.6	-470.9	316.5	296.3	20.23	15.647	
3,200.0	3,144.5	3,168.0	3,100.9	10.7	11.8	-90.46	332.4	-491.8	330.3	309.2	21.13	15.633	
3,300.0	3,241.6	3,267.0	3,196.5	11.1	12.3	-90.80	347.2	-512.7	344.1	322.1	22.03	15.621	
3,400.0	3,338.6	3,366.0	3,292.2	11.6	12.8	-91.10	362.0	-533.6	358.0	335.0	22.93	15.610	
3,500.0	3,435.6	3,465.1	3,387.8	12.0	13.3	-91.39	376.8	-554.5	371.8	348.0	23.83	15.600	
3,600.0	3,532.6	3,564.1	3,483.5	12.5	13.7	-91.65	391.6	-575.4	385.7	360.9	24.74	15.590	
3,700.0	3,629.7	3,663.1	3,579.1	13.0	14.2	-91.92	406.4	-596.4	399.5	373.9	25.64	15.581	
3,800.0	3,727.0	3,762.1	3,674.8	13.4	14.7	-92.12	421.2	-617.3	413.3	386.8	26.51	15.590	
3,900.0	3,824.7	3,861.2	3,770.5	13.8	15.2	-92.08	436.1	-638.2	427.1	399.7	27.33	15.624	
4,000.0	3,922.8	3,960.2	3,866.1	14.1	15.7	-91.82	450.9	-659.1	440.8	412.7	28.11	15.681	
4,100.0	4,021.1	4,059.1	3,961.7	14.5	16.2	-91.36	465.7	-680.0	454.5	425.6	28.83	15.761	
4,200.0	4,119.8	4,158.0	4,057.2	14.8	16.7	-90.73	480.5	-700.9	468.2	438.7	29.51	15.866	
4,300.0	4,218.8	4,256.7	4,152.5	15.1	17.2	-89.93	495.2	-721.8	482.0	451.8	30.13	15.998	
4,400.0	4,318.0	4,355.3	4,247.8	15.4	17.6	-88.98	510.0	-742.6	495.9	465.2	30.69	16.160	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione 1B-10H - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.96	0.0	-11.2	11.2				
100.0	100.0	100.0	100.0	0.2	0.2	-89.96	0.0	-11.2	11.2	10.9	0.30	36.815	
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.0	-11.2	11.2	10.5	0.65	17.128	
300.0	300.0	300.0	300.0	0.5	0.5	-89.96	0.0	-11.2	11.2	10.2	1.00	11.160	CC, ES
400.0	400.0	399.9	399.9	0.7	0.7	-86.89	0.6	-11.8	11.8	10.4	1.35	8.734	
500.0	500.0	499.7	499.6	0.9	0.9	-60.06	2.5	-13.6	13.4	11.7	1.70	7.850	
600.0	600.0	599.5	599.3	1.0	1.0	-58.27	5.7	-16.6	15.4	13.4	2.06	7.507	
700.0	699.9	699.2	698.9	1.2	1.2	-58.31	10.1	-20.7	18.0	15.6	2.42	7.435	
800.0	799.7	798.9	798.2	1.4	1.4	-59.49	15.8	-26.1	21.0	18.2	2.80	7.512	
900.0	899.4	898.5	897.4	1.6	1.7	-61.33	22.7	-32.7	24.5	21.3	3.20	7.673	
1,000.0	998.9	998.1	996.3	1.8	1.9	-63.48	30.8	-40.4	28.6	25.0	3.63	7.879	
1,100.0	1,098.3	1,097.6	1,095.0	2.1	2.2	-65.72	40.2	-49.3	33.2	29.1	4.09	8.101	
1,200.0	1,197.4	1,197.0	1,193.3	2.3	2.5	-67.92	50.8	-59.4	38.3	33.7	4.60	8.323	
1,300.0	1,296.3	1,296.4	1,291.3	2.6	2.8	-70.01	62.7	-70.7	44.0	38.9	5.16	8.534	
1,400.0	1,394.9	1,395.6	1,389.0	2.9	3.1	-71.96	75.8	-83.1	50.3	44.6	5.77	8.727	
1,500.0	1,493.3	1,494.8	1,486.2	3.3	3.5	-73.75	90.0	-96.6	57.2	50.8	6.43	8.901	
1,600.0	1,591.2	1,593.9	1,582.9	3.6	3.9	-75.37	105.5	-111.3	64.7	57.6	7.15	9.054	
1,700.0	1,688.9	1,692.9	1,679.2	4.0	4.3	-76.85	122.2	-127.1	72.9	64.9	7.93	9.189	
1,800.0	1,786.1	1,791.7	1,774.9	4.5	4.8	-78.18	140.1	-144.1	81.6	72.8	8.77	9.306	
1,900.0	1,883.1	1,891.2	1,871.1	4.9	5.2	-79.34	158.8	-161.8	90.7	81.1	9.62	9.424	
2,000.0	1,980.2	1,990.8	1,967.2	5.3	5.7	-80.28	177.4	-179.6	99.8	89.3	10.49	9.516	
2,100.0	2,077.2	2,090.4	2,063.4	5.8	6.2	-81.06	196.1	-197.3	109.0	97.6	11.37	9.589	
2,200.0	2,174.2	2,190.0	2,159.6	6.2	6.6	-81.72	214.8	-215.0	118.2	105.9	12.25	9.648	
2,300.0	2,271.3	2,289.5	2,255.8	6.6	7.1	-82.29	233.5	-232.8	127.4	114.2	13.14	9.696	
2,400.0	2,368.3	2,389.1	2,351.9	7.1	7.6	-82.78	252.2	-250.5	136.6	122.6	14.03	9.736	
2,500.0	2,465.3	2,488.7	2,448.1	7.5	8.1	-83.21	270.9	-268.3	145.8	130.9	14.92	9.770	
2,600.0	2,562.3	2,588.2	2,544.3	8.0	8.6	-83.58	289.6	-286.0	155.0	139.2	15.82	9.799	
2,700.0	2,659.4	2,687.8	2,640.5	8.4	9.0	-83.92	308.3	-303.7	164.3	147.5	16.72	9.824	
2,800.0	2,756.4	2,787.4	2,736.6	8.9	9.5	-84.22	327.0	-321.5	173.5	155.9	17.62	9.845	
2,900.0	2,853.4	2,886.9	2,832.8	9.3	10.0	-84.49	345.7	-339.2	182.7	164.2	18.53	9.864	
3,000.0	2,950.5	2,986.5	2,929.0	9.8	10.5	-84.73	364.4	-357.0	192.0	172.5	19.43	9.880	
3,100.0	3,047.5	3,086.1	3,025.2	10.2	11.0	-84.95	383.1	-374.7	201.2	180.9	20.34	9.895	
3,200.0	3,144.5	3,185.6	3,121.4	10.7	11.4	-85.15	401.8	-392.4	210.5	189.2	21.24	9.908	
3,300.0	3,241.6	3,285.2	3,217.5	11.1	11.9	-85.34	420.5	-410.2	219.7	197.6	22.15	9.919	
3,400.0	3,338.6	3,384.8	3,313.7	11.6	12.4	-85.51	439.2	-427.9	229.0	205.9	23.06	9.929	
3,500.0	3,435.6	3,484.3	3,409.9	12.0	12.9	-85.66	457.8	-445.7	238.2	214.3	23.97	9.939	
3,600.0	3,532.6	3,583.9	3,506.1	12.5	13.4	-85.81	476.5	-463.4	247.5	222.6	24.88	9.947	
3,700.0	3,629.7	3,683.5	3,602.2	13.0	13.9	-85.95	495.2	-481.1	256.7	230.9	25.79	9.955	
3,800.0	3,727.0	3,783.0	3,698.4	13.4	14.4	-85.91	513.9	-498.9	266.1	239.4	26.65	9.984	
3,900.0	3,824.7	3,882.6	3,794.5	13.8	14.8	-85.51	532.6	-516.6	275.6	248.1	27.45	10.037	
4,000.0	3,922.8	3,982.0	3,890.6	14.1	15.3	-84.80	551.3	-534.3	285.2	257.0	28.19	10.117	
4,100.0	4,021.1	4,081.4	3,986.6	14.5	15.8	-83.80	569.9	-552.0	295.1	266.2	28.86	10.224	
4,200.0	4,119.8	4,180.6	4,082.4	14.8	16.3	-82.56	588.6	-569.7	305.3	275.9	29.46	10.364	
4,300.0	4,218.8	4,282.4	4,181.0	15.1	16.8	-81.18	607.1	-587.2	315.5	285.5	29.98	10.524	
4,400.0	4,318.0	4,384.5	4,280.3	15.4	17.2	-79.86	624.3	-603.6	325.3	294.9	30.44	10.688	
4,500.0	4,417.4	4,486.9	4,380.2	15.6	17.6	-78.58	640.4	-618.8	334.7	303.9	30.83	10.856	
4,600.0	4,516.9	4,589.5	4,480.8	15.8	18.0	-77.33	655.1	-632.9	343.6	312.5	31.16	11.027	
4,700.0	4,616.7	4,692.4	4,582.0	16.0	18.4	-76.10	668.6	-645.6	352.1	320.7	31.43	11.203	
4,800.0	4,716.5	4,795.5	4,683.7	16.2	18.7	-74.89	680.8	-657.2	360.2	328.5	31.64	11.383	
4,900.0	4,816.4	4,898.8	4,785.9	16.3	19.0	-73.69	691.7	-667.5	367.8	336.0	31.80	11.568	
5,000.0	4,916.4	5,002.4	4,888.7	16.4	19.3	-72.49	701.2	-676.6	375.0	343.1	31.89	11.759	
5,100.0	5,016.4	5,106.2	4,991.8	16.5	19.5	-93.79	709.5	-684.4	381.7	349.8	31.93	11.954	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione 1B-10H - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	5,116.4	5,210.3	5,095.5	16.6	19.7	-92.71	716.4	-691.0	387.7	355.7	31.98	12.122	
5,300.0	5,216.4	5,314.7	5,199.7	16.7	19.9	-91.87	721.9	-696.2	392.5	360.4	32.06	12.244	
5,400.0	5,316.4	5,419.4	5,304.2	16.8	20.1	-91.24	726.1	-700.2	396.2	364.0	32.16	12.317	
5,500.0	5,416.4	5,524.2	5,408.9	16.9	20.2	-90.83	728.9	-702.8	398.6	366.3	32.31	12.339	
5,600.0	5,516.4	5,629.2	5,513.9	17.0	20.3	-90.63	730.3	-704.2	399.9	367.4	32.48	12.311	
5,700.0	5,616.4	5,731.7	5,616.4	17.1	20.4	-90.61	730.4	-704.3	400.0	367.4	32.69	12.238	
5,800.0	5,716.4	5,831.7	5,716.4	17.2	20.5	-90.61	730.4	-704.3	400.0	367.1	32.90	12.158	
5,900.0	5,816.4	5,931.7	5,816.4	17.3	20.6	-90.61	730.4	-704.3	400.0	366.9	33.12	12.079	
6,000.0	5,916.4	6,031.7	5,916.4	17.4	20.7	-90.61	730.4	-704.3	400.0	366.7	33.34	12.000	
6,100.0	6,016.4	6,131.7	6,016.4	17.5	20.7	-90.61	730.4	-704.3	400.0	366.5	33.56	11.921	
6,200.0	6,116.4	6,231.7	6,116.4	17.6	20.8	-90.61	730.4	-704.3	400.0	366.3	33.78	11.842	
6,300.0	6,216.4	6,331.7	6,216.4	17.7	20.9	-90.61	730.4	-704.3	400.0	366.0	34.01	11.764	
6,400.0	6,316.4	6,431.7	6,316.4	17.8	21.0	-90.61	730.4	-704.3	400.0	365.8	34.23	11.686	
6,500.0	6,416.4	6,531.7	6,416.4	17.9	21.1	-90.61	730.4	-704.3	400.0	365.6	34.46	11.608	
6,600.0	6,516.4	6,631.7	6,516.4	18.1	21.2	-90.61	730.4	-704.3	400.0	365.4	34.69	11.531	
6,606.1	6,522.5	6,637.8	6,522.5	18.1	21.2	-90.61	730.4	-704.3	400.0	365.3	34.71	11.527	
6,700.0	6,616.4	6,730.8	6,615.3	18.2	21.2	-91.32	725.4	-704.3	400.1	365.2	34.98	11.439	
6,800.0	6,716.4	6,826.7	6,709.5	18.3	21.1	-93.84	707.8	-704.3	401.0	365.5	35.48	11.302	
6,900.0	6,816.3	6,917.2	6,795.5	18.3	20.9	82.32	679.7	-704.3	404.0	368.0	36.00	11.223	
7,000.0	6,915.0	7,004.6	6,874.5	18.2	20.6	78.53	642.6	-704.3	408.8	372.7	36.08	11.330	
7,100.0	7,010.6	7,089.6	6,946.5	18.0	20.2	75.03	597.5	-704.3	415.0	379.3	35.68	11.630	
7,200.0	7,101.2	7,172.5	7,011.0	17.6	19.9	71.87	545.6	-704.3	422.0	387.2	34.84	12.114	
7,300.0	7,185.1	7,250.0	7,065.6	17.1	19.5	69.18	490.6	-704.3	429.4	395.8	33.63	12.768	
7,400.0	7,260.6	7,333.4	7,117.4	16.6	19.1	66.71	425.2	-704.3	436.6	404.5	32.10	13.601	
7,500.0	7,326.2	7,412.0	7,158.8	16.0	18.8	64.72	358.5	-704.3	443.2	412.8	30.44	14.559	
7,600.0	7,380.8	7,489.7	7,192.4	15.5	18.6	63.14	288.5	-704.3	449.0	420.1	28.81	15.583	
7,700.0	7,423.1	7,566.7	7,218.0	15.1	18.4	61.97	215.9	-704.3	453.5	426.1	27.40	16.554	
7,800.0	7,452.4	7,643.3	7,235.6	14.9	18.2	61.18	141.4	-704.3	456.7	430.3	26.40	17.301	
7,900.0	7,468.2	7,719.6	7,245.1	14.8	18.2	60.79	65.7	-704.4	458.3	432.3	25.98	17.640	
8,000.0	7,471.0	7,803.5	7,247.0	14.9	18.3	60.75	-18.1	-704.4	458.4	432.2	26.23	17.480	
8,100.0	7,471.0	7,903.5	7,247.0	15.3	18.6	60.75	-118.1	-704.4	458.4	431.5	26.92	17.031	
8,200.0	7,471.0	8,003.5	7,247.0	15.8	19.0	60.75	-218.1	-704.4	458.4	430.5	27.93	16.414	
8,300.0	7,471.0	8,103.5	7,247.0	16.5	19.6	60.75	-318.1	-704.4	458.4	429.2	29.23	15.683	
8,400.0	7,471.0	8,203.5	7,247.0	17.4	20.3	60.75	-418.1	-704.4	458.4	427.6	30.78	14.892	
8,500.0	7,471.0	8,303.5	7,247.0	18.4	21.1	60.75	-518.1	-704.4	458.4	425.9	32.55	14.083	
8,600.0	7,471.0	8,403.5	7,247.0	19.5	22.1	60.75	-618.1	-704.4	458.4	423.9	34.50	13.287	
8,700.0	7,471.0	8,503.5	7,247.0	20.7	23.1	60.75	-718.1	-704.4	458.4	421.8	36.60	12.523	
8,800.0	7,471.0	8,603.5	7,247.0	21.9	24.2	60.75	-818.1	-704.4	458.4	419.6	38.84	11.803	
8,900.0	7,471.0	8,703.5	7,247.0	23.2	25.5	60.75	-918.1	-704.4	458.4	417.2	41.18	11.132	
9,000.0	7,471.0	8,803.5	7,247.0	24.6	26.7	60.75	-1,018.1	-704.4	458.4	414.8	43.61	10.512	
9,100.0	7,471.0	8,903.5	7,247.0	26.0	28.0	60.75	-1,118.1	-704.4	458.4	412.3	46.11	9.941	
9,200.0	7,471.0	9,003.5	7,247.0	27.5	29.4	60.75	-1,218.1	-704.4	458.4	409.7	48.68	9.416	
9,300.0	7,471.0	9,103.5	7,247.0	29.0	30.8	60.75	-1,318.1	-704.4	458.4	407.1	51.31	8.934	
9,400.0	7,471.0	9,203.5	7,247.0	30.5	32.2	60.75	-1,418.1	-704.4	458.4	404.4	53.98	8.492	
9,500.0	7,471.0	9,303.5	7,247.0	32.1	33.7	60.74	-1,518.1	-704.4	458.4	401.7	56.69	8.086	
9,600.0	7,471.0	9,403.5	7,247.0	33.6	35.2	60.74	-1,618.1	-704.4	458.4	398.9	59.43	7.712	
9,700.0	7,471.0	9,503.5	7,247.0	35.2	36.7	60.74	-1,718.1	-704.4	458.4	396.1	62.21	7.368	
9,800.0	7,471.0	9,603.5	7,247.0	36.8	38.2	60.74	-1,818.1	-704.4	458.3	393.3	65.01	7.050	
9,900.0	7,471.0	9,703.5	7,247.0	38.4	39.8	60.74	-1,918.1	-704.4	458.3	390.5	67.84	6.757	
10,000.0	7,471.0	9,803.5	7,247.0	40.0	41.4	60.74	-2,018.1	-704.4	458.3	387.7	70.68	6.485	
10,100.0	7,471.0	9,903.5	7,247.0	41.7	43.0	60.74	-2,118.1	-704.4	458.3	384.8	73.54	6.232	
10,200.0	7,471.0	10,003.5	7,247.0	43.3	44.5	60.74	-2,218.1	-704.4	458.3	381.9	76.42	5.997	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione 1B-10H - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
10,300.0	7,471.0	10,103.5	7,247.0	45.0	46.2	60.74	-2,318.1	-704.4	458.3	379.0	79.31	5.779	
10,400.0	7,471.0	10,203.5	7,247.0	46.6	47.8	60.74	-2,418.1	-704.4	458.3	376.1	82.22	5.574	
10,500.0	7,471.0	10,303.5	7,247.0	48.3	49.4	60.74	-2,518.1	-704.4	458.3	373.2	85.14	5.383	
10,600.0	7,471.0	10,403.5	7,247.0	50.0	51.0	60.74	-2,618.1	-704.4	458.3	370.2	88.06	5.204	
10,700.0	7,471.0	10,503.5	7,247.0	51.7	52.7	60.74	-2,718.1	-704.4	458.3	367.3	91.00	5.036	
10,800.0	7,471.0	10,603.5	7,247.0	53.3	54.3	60.74	-2,818.1	-704.4	458.3	364.4	93.94	4.879	
10,900.0	7,471.0	10,703.5	7,247.0	55.0	56.0	60.74	-2,918.1	-704.4	458.3	361.4	96.89	4.730	
11,000.0	7,471.0	10,803.5	7,247.0	56.7	57.7	60.74	-3,018.1	-704.4	458.3	358.4	99.85	4.590	
11,100.0	7,471.0	10,903.5	7,247.0	58.4	59.3	60.74	-3,118.1	-704.4	458.3	355.5	102.82	4.457	
11,200.0	7,471.0	11,003.5	7,247.0	60.1	61.0	60.74	-3,218.1	-704.4	458.3	352.5	105.79	4.332	
11,300.0	7,471.0	11,103.5	7,247.0	61.8	62.7	60.74	-3,318.1	-704.4	458.3	349.5	108.76	4.214	
11,400.0	7,471.0	11,203.5	7,247.0	63.5	64.3	60.74	-3,418.1	-704.5	458.3	346.5	111.74	4.101	
11,500.0	7,471.0	11,303.5	7,247.0	65.2	66.0	60.74	-3,518.1	-704.5	458.3	343.5	114.73	3.994	
11,600.0	7,471.0	11,403.5	7,247.0	66.9	67.7	60.74	-3,618.1	-704.5	458.3	340.5	117.72	3.893	
11,700.0	7,471.0	11,503.5	7,247.0	68.6	69.4	60.74	-3,718.1	-704.5	458.3	337.5	120.71	3.796	
11,800.0	7,471.0	11,603.5	7,247.0	70.4	71.1	60.74	-3,818.1	-704.5	458.3	334.5	123.71	3.704	
11,900.0	7,471.0	11,703.5	7,247.0	72.1	72.8	60.74	-3,918.1	-704.5	458.2	331.5	126.71	3.617	
12,000.0	7,471.0	11,803.5	7,247.0	73.8	74.5	60.74	-4,018.1	-704.5	458.2	328.5	129.71	3.533	
12,043.6	7,471.0	11,847.1	7,247.0	74.5	75.2	60.74	-4,061.7	-704.5	458.2	327.2	131.02	3.497	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione 1D-10H - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.06	0.0	8.4	8.4				
100.0	100.0	100.0	100.0	0.2	0.2	90.06	0.0	8.4	8.4	8.1	0.30	27.611	
200.0	200.0	200.0	200.0	0.3	0.3	90.06	0.0	8.4	8.4	7.7	0.65	12.846	
300.0	300.0	300.0	300.0	0.5	0.5	90.06	0.0	8.4	8.4	7.4	1.00	8.370	
400.0	400.0	400.0	400.0	0.7	0.7	90.06	0.0	8.4	8.4	7.0	1.35	6.207	CC, ES
500.0	500.0	500.0	500.0	0.9	0.8	117.83	0.0	8.4	8.8	7.1	1.70	5.150	
600.0	600.0	600.0	600.0	1.0	1.0	126.03	0.9	8.5	10.1	8.1	2.05	4.925	
700.0	699.9	700.0	699.9	1.2	1.2	130.31	3.5	8.8	12.4	10.0	2.41	5.149	
800.0	799.7	800.0	799.8	1.4	1.4	131.67	7.8	9.3	15.5	12.8	2.78	5.594	
900.0	899.4	900.0	899.6	1.6	1.6	131.34	13.8	10.0	19.4	16.3	3.16	6.154	
1,000.0	998.9	999.9	999.3	1.8	1.8	130.18	21.6	11.0	24.2	20.6	3.57	6.771	
1,100.0	1,098.3	1,099.9	1,098.8	2.1	2.0	128.67	31.1	12.1	29.7	25.7	4.00	7.408	
1,200.0	1,197.4	1,199.7	1,198.0	2.3	2.2	127.07	42.4	13.5	36.0	31.5	4.48	8.039	
1,300.0	1,296.3	1,299.6	1,297.0	2.6	2.5	125.51	55.3	15.0	43.2	38.2	4.99	8.646	
1,400.0	1,394.9	1,399.3	1,395.6	2.9	2.8	124.04	69.9	16.8	51.2	45.6	5.55	9.216	
1,500.0	1,493.3	1,499.0	1,493.9	3.3	3.1	122.69	86.2	18.7	60.1	53.9	6.16	9.743	
1,600.0	1,591.2	1,598.6	1,591.9	3.6	3.4	121.46	104.2	20.9	69.8	62.9	6.82	10.223	
1,700.0	1,688.9	1,698.1	1,689.3	4.0	3.8	120.34	123.9	23.3	80.3	72.8	7.54	10.658	
1,800.0	1,786.1	1,797.4	1,786.4	4.5	4.2	119.32	145.2	25.8	91.8	83.4	8.30	11.048	
1,900.0	1,883.1	1,896.7	1,883.1	4.9	4.5	118.53	167.4	28.5	103.6	94.5	9.09	11.397	
2,000.0	1,980.2	1,996.0	1,979.8	5.3	4.9	117.90	189.6	31.2	115.5	105.6	9.89	11.679	
2,100.0	2,077.2	2,095.3	2,076.6	5.8	5.3	117.38	211.7	33.8	127.3	116.7	10.69	11.911	
2,200.0	2,174.2	2,194.6	2,173.3	6.2	5.8	116.96	233.9	36.5	139.2	127.7	11.50	12.104	
2,300.0	2,271.3	2,293.9	2,270.1	6.6	6.2	116.60	256.1	39.1	151.1	138.8	12.32	12.267	
2,400.0	2,368.3	2,393.1	2,366.8	7.1	6.6	116.29	278.3	41.8	163.0	149.9	13.14	12.405	
2,500.0	2,465.3	2,492.4	2,463.6	7.5	7.0	116.03	300.4	44.5	174.9	161.0	13.97	12.525	
2,600.0	2,562.3	2,591.7	2,560.3	8.0	7.4	115.80	322.6	47.1	186.8	172.0	14.79	12.629	
2,700.0	2,659.4	2,691.0	2,657.0	8.4	7.8	115.59	344.8	49.8	198.7	183.1	15.62	12.720	
2,800.0	2,756.4	2,790.3	2,753.8	8.9	8.2	115.41	367.0	52.5	210.6	194.2	16.46	12.800	
2,900.0	2,853.4	2,889.6	2,850.5	9.3	8.6	115.25	389.1	55.1	222.6	205.3	17.29	12.871	
3,000.0	2,950.5	2,988.9	2,947.3	9.8	9.1	115.11	411.3	57.8	234.5	216.3	18.13	12.935	
3,100.0	3,047.5	3,088.1	3,044.0	10.2	9.5	114.98	433.5	60.5	246.4	227.4	18.96	12.993	
3,200.0	3,144.5	3,187.4	3,140.7	10.7	9.9	114.86	455.7	63.1	258.3	238.5	19.80	13.044	
3,300.0	3,241.6	3,286.7	3,237.5	11.1	10.3	114.75	477.8	65.8	270.2	249.6	20.64	13.091	
3,400.0	3,338.6	3,386.0	3,334.2	11.6	10.7	114.65	500.0	68.5	282.1	260.7	21.48	13.134	
3,500.0	3,435.6	3,485.3	3,431.0	12.0	11.2	114.56	522.2	71.1	294.1	271.7	22.32	13.173	
3,600.0	3,532.6	3,584.6	3,527.7	12.5	11.6	114.48	544.4	73.8	306.0	282.8	23.16	13.209	
3,700.0	3,629.7	3,683.9	3,624.5	13.0	12.0	114.42	566.5	76.4	317.9	293.9	24.01	13.241	
3,800.0	3,727.0	3,783.2	3,721.2	13.4	12.4	114.25	588.7	79.1	329.3	304.5	24.84	13.258	
3,900.0	3,824.7	3,882.9	3,818.5	13.8	12.8	113.90	610.6	81.7	340.0	314.3	25.64	13.258	
4,000.0	3,922.8	3,982.9	3,916.4	14.1	13.2	113.57	631.0	84.2	349.9	323.5	26.40	13.253	
4,100.0	4,021.1	4,083.1	4,014.8	14.5	13.6	113.28	649.6	86.4	358.9	331.8	27.10	13.242	
4,200.0	4,119.8	4,183.4	4,113.6	14.8	13.9	113.01	666.6	88.5	367.1	339.3	27.76	13.225	
4,300.0	4,218.8	4,283.8	4,212.8	15.1	14.2	112.78	681.9	90.3	374.4	346.0	28.36	13.202	
4,400.0	4,318.0	4,384.3	4,312.4	15.4	14.5	112.56	695.4	91.9	380.9	351.9	28.91	13.174	
4,500.0	4,417.4	4,484.9	4,412.3	15.6	14.8	112.37	707.3	93.3	386.5	357.1	29.41	13.141	
4,600.0	4,516.9	4,585.6	4,512.5	15.8	15.0	112.19	717.4	94.6	391.2	361.3	29.86	13.101	
4,700.0	4,616.7	4,686.4	4,612.9	16.0	15.2	112.03	725.7	95.6	395.1	364.8	30.26	13.056	
4,800.0	4,716.5	4,787.3	4,713.5	16.2	15.4	111.88	732.3	96.4	398.1	367.5	30.61	13.005	
4,900.0	4,816.4	4,888.2	4,814.3	16.3	15.5	111.75	737.2	96.9	400.2	369.3	30.91	12.947	
5,000.0	4,916.4	4,989.1	4,915.2	16.4	15.7	111.62	740.3	97.3	401.5	370.3	31.16	12.882	
5,100.0	5,016.4	5,090.0	5,016.1	16.5	15.8	89.01	741.6	97.5	401.8	370.5	31.37	12.809	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione 1D-10H - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	5,116.4	5,190.3	5,116.4	16.6	15.9	89.01	741.6	97.5	401.8	370.3	31.57	12.728	
5,300.0	5,216.4	5,290.3	5,216.4	16.7	16.0	89.01	741.6	97.5	401.8	370.1	31.77	12.648	
5,400.0	5,316.4	5,390.3	5,316.4	16.8	16.1	89.01	741.6	97.5	401.8	369.9	31.98	12.567	
5,500.0	5,416.4	5,490.3	5,416.4	16.9	16.2	89.01	741.6	97.5	401.8	369.7	32.18	12.486	
5,600.0	5,516.4	5,590.3	5,516.4	17.0	16.3	89.01	741.6	97.5	401.8	369.5	32.39	12.406	
5,700.0	5,616.4	5,690.3	5,616.4	17.1	16.4	89.01	741.6	97.5	401.8	369.2	32.60	12.326	
5,800.0	5,716.4	5,790.3	5,716.4	17.2	16.5	89.01	741.6	97.5	401.8	369.0	32.82	12.245	
5,900.0	5,816.4	5,890.3	5,816.4	17.3	16.6	89.01	741.6	97.5	401.8	368.8	33.03	12.165	
6,000.0	5,916.4	5,990.3	5,916.4	17.4	16.7	89.01	741.6	97.5	401.8	368.6	33.25	12.086	
6,100.0	6,016.4	6,090.3	6,016.4	17.5	16.8	89.01	741.6	97.5	401.8	368.4	33.47	12.006	
6,200.0	6,116.4	6,190.3	6,116.4	17.6	16.9	89.01	741.6	97.5	401.8	368.2	33.69	11.927	
6,300.0	6,216.4	6,290.3	6,216.4	17.7	17.0	89.01	741.6	97.5	401.8	367.9	33.92	11.848	
6,400.0	6,316.4	6,390.3	6,316.4	17.8	17.1	89.01	741.6	97.5	401.8	367.7	34.14	11.769	
6,500.0	6,416.4	6,490.3	6,416.4	17.9	17.3	89.01	741.6	97.5	401.8	367.5	34.37	11.691	
6,600.0	6,516.4	6,590.3	6,516.4	18.1	17.4	89.01	741.6	97.5	401.8	367.2	34.60	11.613	
6,700.0	6,616.4	6,690.7	6,616.6	18.2	17.4	89.74	736.5	97.5	401.8	367.1	34.70	11.580	
6,713.9	6,630.2	6,704.4	6,630.2	18.2	17.4	90.00	734.7	97.5	401.8	367.1	34.69	11.582	
6,800.0	6,716.4	6,788.0	6,712.1	18.3	17.2	92.33	718.3	97.5	402.1	367.6	34.51	11.652	
6,900.0	6,816.3	6,879.7	6,799.1	18.3	16.9	-83.77	689.5	97.5	404.4	370.4	34.01	11.889	
7,000.0	6,915.0	6,968.1	6,878.8	18.2	16.6	-79.91	651.4	97.5	408.6	375.5	33.19	12.313	
7,100.0	7,010.6	7,053.9	6,951.1	18.0	16.1	-76.31	605.3	97.5	414.4	382.3	32.14	12.895	
7,200.0	7,101.2	7,137.4	7,015.7	17.6	15.6	-73.04	552.5	97.5	421.2	390.2	30.94	13.611	
7,300.0	7,185.1	7,219.2	7,072.6	17.1	15.2	-70.13	493.8	97.5	428.4	398.7	29.69	14.430	
7,400.0	7,260.6	7,300.0	7,121.9	16.6	14.7	-67.59	429.8	97.5	435.7	407.3	28.45	15.315	
7,500.0	7,326.2	7,378.4	7,162.5	16.0	14.3	-65.49	362.8	97.5	442.6	415.3	27.32	16.200	
7,600.0	7,380.8	7,456.4	7,195.5	15.5	13.9	-63.77	292.2	97.5	448.7	422.4	26.35	17.026	
7,700.0	7,423.1	7,533.6	7,220.3	15.1	13.7	-62.45	219.1	97.5	453.7	428.1	25.63	17.699	
7,800.0	7,452.4	7,610.3	7,237.1	14.9	13.5	-61.53	144.3	97.5	457.4	432.2	25.22	18.139	
7,900.0	7,468.2	7,686.7	7,245.7	14.8	13.5	-61.00	68.5	97.5	459.6	434.4	25.15	18.276	
8,000.0	7,471.0	7,773.2	7,247.0	14.9	13.6	-60.87	-18.1	97.5	460.1	434.6	25.47	18.065	
8,100.0	7,471.0	7,873.2	7,247.0	15.3	14.0	-60.87	-118.1	97.5	460.1	433.9	26.18	17.572	
8,200.0	7,471.0	7,973.2	7,247.0	15.8	14.6	-60.87	-218.1	97.5	460.1	432.9	27.22	16.904	
8,300.0	7,471.0	8,073.2	7,247.0	16.5	15.4	-60.87	-318.1	97.6	460.2	431.6	28.55	16.116	
8,400.0	7,471.0	8,173.2	7,247.0	17.4	16.3	-60.87	-418.1	97.6	460.2	430.0	30.14	15.269	
8,500.0	7,471.0	8,273.2	7,247.0	18.4	17.3	-60.87	-518.1	97.6	460.2	428.2	31.94	14.407	
8,600.0	7,471.0	8,373.2	7,247.0	19.5	18.5	-60.87	-618.1	97.6	460.2	426.3	33.93	13.565	
8,700.0	7,471.0	8,473.2	7,247.0	20.7	19.7	-60.87	-718.1	97.6	460.2	424.1	36.06	12.761	
8,800.0	7,471.0	8,573.2	7,247.0	21.9	21.0	-60.87	-818.1	97.6	460.2	421.9	38.33	12.007	
8,900.0	7,471.0	8,673.2	7,247.0	23.2	22.4	-60.88	-918.1	97.6	460.2	419.5	40.70	11.308	
9,000.0	7,471.0	8,773.2	7,247.0	24.6	23.8	-60.88	-1,018.1	97.6	460.3	417.1	43.16	10.664	
9,100.0	7,471.0	8,873.2	7,247.0	26.0	25.3	-60.88	-1,118.1	97.6	460.3	414.6	45.69	10.073	
9,200.0	7,471.0	8,973.2	7,247.0	27.5	26.8	-60.88	-1,218.1	97.6	460.3	412.0	48.29	9.532	
9,300.0	7,471.0	9,073.2	7,247.0	29.0	28.3	-60.88	-1,318.1	97.6	460.3	409.4	50.94	9.036	
9,400.0	7,471.0	9,173.2	7,247.0	30.5	29.9	-60.88	-1,418.1	97.6	460.3	406.7	53.63	8.583	
9,500.0	7,471.0	9,273.2	7,247.0	32.1	31.4	-60.88	-1,518.1	97.6	460.3	404.0	56.37	8.167	
9,600.0	7,471.0	9,373.2	7,247.0	33.6	33.0	-60.88	-1,618.1	97.7	460.3	401.2	59.13	7.785	
9,700.0	7,471.0	9,473.2	7,247.0	35.2	34.6	-60.88	-1,718.1	97.7	460.4	398.4	61.93	7.434	
9,800.0	7,471.0	9,573.2	7,247.0	36.8	36.3	-60.88	-1,818.1	97.7	460.4	395.6	64.75	7.110	
9,900.0	7,471.0	9,673.2	7,247.0	38.4	37.9	-60.89	-1,918.1	97.7	460.4	392.8	67.59	6.811	
10,000.0	7,471.0	9,773.2	7,247.0	40.0	39.5	-60.89	-2,018.1	97.7	460.4	389.9	70.45	6.535	
10,100.0	7,471.0	9,873.2	7,247.0	41.7	41.2	-60.89	-2,118.1	97.7	460.4	387.1	73.33	6.279	
10,200.0	7,471.0	9,973.2	7,247.0	43.3	42.9	-60.89	-2,218.1	97.7	460.4	384.2	76.22	6.041	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione 1D-10H - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
10,300.0	7,471.0	10,073.2	7,247.0	45.0	44.5	-60.89	-2,318.1	97.7	460.4	381.3	79.13	5.819	
10,400.0	7,471.0	10,173.2	7,247.0	46.6	46.2	-60.89	-2,418.1	97.7	460.5	378.4	82.05	5.612	
10,500.0	7,471.0	10,273.2	7,247.0	48.3	47.9	-60.89	-2,518.1	97.7	460.5	375.5	84.98	5.419	
10,600.0	7,471.0	10,373.2	7,247.0	50.0	49.6	-60.89	-2,618.1	97.7	460.5	372.6	87.92	5.238	
10,700.0	7,471.0	10,473.2	7,247.0	51.7	51.3	-60.89	-2,718.1	97.7	460.5	369.6	90.86	5.068	
10,800.0	7,471.0	10,573.2	7,247.0	53.3	52.9	-60.89	-2,818.1	97.7	460.5	366.7	93.82	4.908	
10,900.0	7,471.0	10,673.2	7,247.0	55.0	54.6	-60.90	-2,918.1	97.8	460.5	363.7	96.78	4.758	
11,000.0	7,471.0	10,773.2	7,247.0	56.7	56.3	-60.90	-3,018.1	97.8	460.5	360.8	99.75	4.617	
11,100.0	7,471.0	10,873.2	7,247.0	58.4	58.1	-60.90	-3,118.1	97.8	460.5	357.8	102.73	4.483	
11,200.0	7,471.0	10,973.2	7,247.0	60.1	59.8	-60.90	-3,218.1	97.8	460.6	354.8	105.71	4.357	
11,300.0	7,471.0	11,073.2	7,247.0	61.8	61.5	-60.90	-3,318.1	97.8	460.6	351.9	108.70	4.237	
11,400.0	7,471.0	11,173.2	7,247.0	63.5	63.2	-60.90	-3,418.1	97.8	460.6	348.9	111.69	4.124	
11,500.0	7,471.0	11,273.2	7,247.0	65.2	64.9	-60.90	-3,518.1	97.8	460.6	345.9	114.69	4.016	
11,600.0	7,471.0	11,373.2	7,247.0	66.9	66.6	-60.90	-3,618.1	97.8	460.6	342.9	117.69	3.914	
11,700.0	7,471.0	11,473.2	7,247.0	68.6	68.3	-60.90	-3,718.1	97.8	460.6	339.9	120.69	3.817	
11,800.0	7,471.0	11,573.2	7,247.0	70.4	70.1	-60.90	-3,818.1	97.8	460.6	336.9	123.70	3.724	
11,900.0	7,471.0	11,673.2	7,247.0	72.1	71.8	-60.91	-3,918.1	97.8	460.7	334.0	126.71	3.636	
12,000.0	7,471.0	11,773.2	7,247.0	73.8	73.5	-60.91	-4,018.1	97.8	460.7	331.0	129.72	3.551	
12,043.6	7,471.0	11,816.8	7,247.0	74.5	74.2	-60.91	-4,061.7	97.8	460.7	329.6	131.03	3.516 SF	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione 1E-10H - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.05	0.0	19.6	19.6				
100.0	100.0	100.0	100.0	0.2	0.2	90.05	0.0	19.6	19.6	19.3	0.30	64.426	
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	19.6	19.6	18.9	0.65	29.974	
300.0	300.0	300.0	300.0	0.5	0.5	90.05	0.0	19.6	19.6	18.6	1.00	19.530	
400.0	400.0	400.0	400.0	0.7	0.7	90.05	0.0	19.6	19.6	18.2	1.35	14.483	CC, ES
500.0	500.0	499.8	499.8	0.9	0.9	112.75	0.7	20.0	20.4	18.7	1.70	11.979	
600.0	600.0	599.6	599.5	1.0	1.0	113.25	2.9	21.4	22.8	20.7	2.05	11.090	
700.0	699.9	699.3	699.1	1.2	1.2	113.88	6.6	23.8	26.8	24.4	2.42	11.088	SF
800.0	799.7	798.8	798.5	1.4	1.4	114.50	11.7	27.1	32.4	29.7	2.80	11.603	
900.0	899.4	898.3	897.6	1.6	1.6	115.02	18.2	31.3	39.7	36.5	3.20	12.423	
1,000.0	998.9	997.5	996.4	1.8	1.8	115.44	26.2	36.4	48.5	44.9	3.62	13.413	
1,100.0	1,098.3	1,096.5	1,094.8	2.1	2.1	115.75	35.6	42.4	59.0	54.9	4.07	14.487	
1,200.0	1,197.4	1,195.2	1,192.7	2.3	2.3	115.98	46.3	49.3	71.0	66.5	4.56	15.582	
1,300.0	1,296.3	1,293.7	1,290.0	2.6	2.6	116.14	58.5	57.1	84.6	79.6	5.08	16.661	
1,400.0	1,394.9	1,391.7	1,386.8	2.9	2.9	116.25	72.0	65.8	99.8	94.2	5.64	17.697	
1,500.0	1,493.3	1,489.5	1,482.9	3.3	3.2	116.31	86.9	75.4	116.6	110.3	6.24	18.674	
1,600.0	1,591.2	1,586.8	1,578.3	3.6	3.6	116.34	103.0	85.7	134.9	128.0	6.89	19.586	
1,700.0	1,688.9	1,683.6	1,672.9	4.0	4.0	116.35	120.5	96.9	154.7	147.1	7.57	20.430	
1,800.0	1,786.1	1,780.1	1,766.7	4.5	4.4	116.33	139.2	108.9	176.1	167.8	8.30	21.205	
1,900.0	1,883.1	1,877.3	1,861.1	4.9	4.8	116.40	158.9	121.6	198.3	189.3	9.06	21.900	
2,000.0	1,980.2	1,974.7	1,955.7	5.3	5.2	116.45	178.8	134.3	220.6	210.8	9.82	22.465	
2,100.0	2,077.2	2,072.2	2,050.3	5.8	5.6	116.49	198.6	147.1	242.9	232.3	10.59	22.932	
2,200.0	2,174.2	2,169.7	2,144.8	6.2	6.1	116.52	218.5	159.8	265.1	253.8	11.37	23.323	
2,300.0	2,271.3	2,267.2	2,239.4	6.6	6.5	116.55	238.3	172.6	287.4	275.3	12.15	23.655	
2,400.0	2,368.3	2,364.7	2,334.0	7.1	6.9	116.58	258.2	185.3	309.7	296.7	12.94	23.939	
2,500.0	2,465.3	2,462.2	2,428.6	7.5	7.4	116.60	278.0	198.1	332.0	318.2	13.73	24.185	
2,600.0	2,562.3	2,559.7	2,523.2	8.0	7.8	116.62	297.9	210.8	354.2	339.7	14.52	24.400	
2,700.0	2,659.4	2,657.2	2,617.8	8.4	8.3	116.63	317.7	223.5	376.5	361.2	15.31	24.588	
2,800.0	2,756.4	2,754.6	2,712.4	8.9	8.7	116.65	337.5	236.3	398.8	382.7	16.11	24.755	
2,900.0	2,853.4	2,852.1	2,807.0	9.3	9.1	116.66	357.4	249.0	421.1	404.2	16.91	24.904	
3,000.0	2,950.5	2,949.6	2,901.6	9.8	9.6	116.67	377.2	261.8	443.3	425.6	17.71	25.037	
3,100.0	3,047.5	3,047.1	2,996.2	10.2	10.0	116.68	397.1	274.5	465.6	447.1	18.51	25.157	
3,200.0	3,144.5	3,144.6	3,090.8	10.7	10.5	116.69	416.9	287.2	487.9	468.6	19.31	25.265	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione 1F-10H - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.05	0.0	28.0	28.0				
100.0	100.0	100.0	100.0	0.2	0.2	90.05	0.0	28.0	28.0	27.6	0.30	92.037	
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	28.0	28.0	27.3	0.65	42.820	
300.0	300.0	300.0	300.0	0.5	0.5	90.05	0.0	28.0	28.0	26.9	1.00	27.900	CC, ES
400.0	400.0	399.6	399.6	0.7	0.7	88.92	0.5	28.6	28.6	27.3	1.35	21.184	
500.0	500.0	499.2	499.1	0.9	0.9	109.83	2.2	30.6	31.0	29.3	1.70	18.199	
600.0	600.0	598.6	598.5	1.0	1.0	109.44	5.0	33.8	35.3	33.2	2.06	17.150	SF
700.0	699.9	697.9	697.6	1.2	1.2	109.93	9.0	38.4	41.5	39.1	2.42	17.154	
800.0	799.7	797.0	796.3	1.4	1.4	110.90	14.0	44.3	49.7	46.9	2.80	17.770	
900.0	899.4	895.7	894.6	1.6	1.7	112.05	20.2	51.4	59.9	56.7	3.20	18.749	
1,000.0	998.9	994.1	992.4	1.8	1.9	113.19	27.4	59.8	72.1	68.5	3.62	19.935	
1,100.0	1,098.3	1,092.1	1,089.6	2.1	2.2	114.25	35.6	69.4	86.3	82.2	4.06	21.227	
1,200.0	1,197.4	1,189.6	1,186.0	2.3	2.5	115.19	44.9	80.2	102.4	97.8	4.54	22.555	
1,300.0	1,296.3	1,286.6	1,281.7	2.6	2.8	116.00	55.2	92.2	120.5	115.4	5.05	23.872	
1,400.0	1,394.9	1,383.0	1,376.6	2.9	3.1	116.68	66.5	105.3	140.5	134.9	5.59	25.149	
1,500.0	1,493.3	1,478.8	1,470.5	3.3	3.4	117.27	78.8	119.6	162.5	156.3	6.16	26.367	
1,600.0	1,591.2	1,573.9	1,563.4	3.6	3.8	117.75	91.9	134.9	186.4	179.6	6.77	27.516	
1,700.0	1,688.9	1,668.3	1,655.3	4.0	4.2	118.16	106.0	151.2	212.2	204.8	7.42	28.591	
1,800.0	1,786.1	1,761.9	1,746.1	4.5	4.6	118.49	120.9	168.6	239.9	231.8	8.11	29.594	
1,900.0	1,883.1	1,854.8	1,835.8	4.9	5.1	118.86	136.7	186.9	269.0	260.2	8.82	30.507	
2,000.0	1,980.2	1,947.2	1,924.6	5.3	5.5	118.94	153.3	206.2	299.1	289.6	9.55	31.333	
2,100.0	2,077.2	2,040.4	2,013.8	5.8	6.0	118.81	170.9	226.7	330.2	319.9	10.29	32.081	
2,200.0	2,174.2	2,135.4	2,104.6	6.2	6.5	118.67	189.0	247.8	361.4	350.3	11.05	32.704	
2,300.0	2,271.3	2,230.4	2,195.5	6.6	7.0	118.55	207.1	268.8	392.6	380.8	11.81	33.233	
2,400.0	2,368.3	2,325.4	2,286.3	7.1	7.5	118.45	225.3	289.9	423.8	411.3	12.58	33.686	
2,500.0	2,465.3	2,420.4	2,377.2	7.5	8.1	118.37	243.4	310.9	455.1	441.7	13.35	34.078	
2,600.0	2,562.3	2,515.4	2,468.0	8.0	8.6	118.29	261.5	332.0	486.3	472.2	14.13	34.419	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione 1G-10H - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.05	0.0	39.1	39.1				
100.0	100.0	100.0	100.0	0.2	0.2	90.05	0.0	39.1	39.1	38.8	0.30	128.852	
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	39.1	39.1	38.5	0.65	59.947	CC, ES
300.0	300.0	299.4	299.4	0.5	0.5	89.41	0.4	39.9	39.9	38.9	1.00	39.823	
400.0	400.0	398.8	398.7	0.7	0.7	87.64	1.7	42.1	42.1	40.8	1.35	31.162	
500.0	500.0	498.0	497.9	0.9	0.9	108.56	3.9	45.8	46.3	44.6	1.70	27.202	
600.0	600.0	597.0	596.7	1.0	1.1	108.20	7.0	50.9	52.5	50.4	2.06	25.534	
700.0	699.9	695.8	695.2	1.2	1.3	108.73	11.0	57.5	60.8	58.4	2.42	25.131	SF
800.0	799.7	794.3	793.2	1.4	1.5	109.77	15.8	65.5	71.2	68.4	2.80	25.466	
900.0	899.4	892.3	890.6	1.6	1.7	111.05	21.4	75.0	83.8	80.6	3.19	26.245	
1,000.0	998.9	989.8	987.3	1.8	2.0	112.38	27.9	85.8	98.5	94.9	3.61	27.287	
1,100.0	1,098.3	1,086.8	1,083.3	2.1	2.3	113.65	35.2	97.9	115.3	111.2	4.05	28.475	
1,200.0	1,197.4	1,183.2	1,178.4	2.3	2.6	114.83	43.2	111.3	134.3	129.8	4.52	29.732	
1,300.0	1,296.3	1,278.9	1,272.6	2.6	2.9	115.88	52.0	126.0	155.4	150.4	5.01	31.003	
1,400.0	1,394.9	1,373.9	1,365.7	2.9	3.3	116.80	61.5	141.9	178.7	173.1	5.54	32.256	
1,500.0	1,493.3	1,468.1	1,457.7	3.3	3.7	117.61	71.8	159.0	204.0	197.9	6.10	33.468	
1,600.0	1,591.2	1,561.4	1,548.6	3.6	4.1	118.30	82.7	177.2	231.5	224.8	6.69	34.626	
1,700.0	1,688.9	1,653.7	1,638.2	4.0	4.5	118.90	94.2	196.5	261.0	253.7	7.31	35.724	
1,800.0	1,786.1	1,745.1	1,726.5	4.5	4.9	119.41	106.4	216.8	292.6	284.6	7.96	36.759	
1,900.0	1,883.1	1,835.7	1,813.6	4.9	5.4	120.01	119.1	238.1	325.8	317.1	8.64	37.706	
2,000.0	1,980.2	1,926.8	1,900.8	5.3	5.9	120.36	132.6	260.6	360.0	350.7	9.33	38.575	
2,100.0	2,077.2	2,020.6	1,990.5	5.8	6.4	120.61	146.7	284.2	394.6	384.6	10.04	39.289	
2,200.0	2,174.2	2,114.4	2,080.2	6.2	6.9	120.83	160.8	307.7	429.2	418.4	10.76	39.889	
2,300.0	2,271.3	2,208.2	2,169.9	6.6	7.4	121.01	174.9	331.2	463.7	452.3	11.48	40.397	
2,400.0	2,368.3	2,302.1	2,259.7	7.1	7.9	121.17	189.0	354.8	498.3	486.1	12.20	40.833	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione 4-2-10 (Existing) - Existing - Existing

Offset Site Error: 0.0 ft

Survey Program: 8276-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	125.99	-284.9	392.2	485.0				
100.0	100.0	84.0	84.0	0.2	0.1	125.99	-284.9	392.2	484.7	484.4	0.30	1,622.936	
200.0	200.0	184.0	184.0	0.3	0.3	125.99	-284.9	392.2	484.7	484.0	0.65	748.309	
300.0	300.0	284.0	284.0	0.5	0.5	125.99	-284.9	392.2	484.7	483.7	1.00	486.257	
400.0	400.0	384.0	384.0	0.7	0.7	125.99	-284.9	392.2	484.7	483.3	1.35	360.139	CC, ES
500.0	500.0	484.0	484.0	0.9	0.8	148.54	-284.9	392.2	485.4	483.7	1.69	286.404	
600.0	600.0	584.0	584.0	1.0	1.0	148.69	-284.9	392.2	487.7	485.6	2.04	238.531	
700.0	699.9	683.9	683.9	1.2	1.2	148.94	-284.9	392.2	491.4	489.0	2.40	205.163	
800.0	799.7	783.7	783.7	1.4	1.4	149.27	-284.9	392.2	496.6	493.9	2.75	180.746	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione 6-0-10 (Existing) - Existing - Existing

Offset Site Error: 0.0 ft

Survey Program: 94-Gyro

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	8.1	8.1	0.0	0.0	124.92	-273.2	391.3	477.2				
100.0	100.0	117.8	117.8	0.2	0.1	124.84	-271.6	390.2	475.5	475.3	0.24	1,952.300	
200.0	200.0	211.4	211.3	0.3	0.2	124.61	-269.2	390.1	474.0	473.5	0.50	945.501	
300.0	300.0	307.2	307.1	0.5	0.3	124.18	-266.0	391.8	473.6	472.8	0.76	619.640	
303.3	303.3	310.4	310.3	0.5	0.3	124.16	-265.9	391.9	473.6	472.8	0.77	612.560	
400.0	400.0	406.2	405.9	0.7	0.4	123.43	-261.0	395.4	473.8	472.7	1.04	455.542	
500.0	500.0	513.7	512.9	0.9	0.5	144.69	-251.8	401.0	474.3	472.9	1.36	349.689	
600.0	600.0	629.1	627.0	1.0	0.7	142.95	-236.4	406.8	473.7	472.0	1.70	278.619	
700.0	699.9	751.2	747.1	1.2	0.9	140.89	-214.8	410.1	470.7	468.6	2.08	226.088	
800.0	799.7	870.8	864.1	1.4	1.1	138.79	-189.7	409.5	465.2	462.7	2.48	187.733	
900.0	899.4	990.0	980.0	1.6	1.4	136.90	-162.7	403.2	456.3	453.4	2.88	158.186	
1,000.0	998.9	1,099.8	1,086.4	1.8	1.6	135.34	-137.0	394.3	446.2	442.9	3.29	135.632	
1,100.0	1,098.3	1,215.9	1,198.4	2.1	1.9	133.94	-109.5	381.0	434.4	430.7	3.72	116.912	
1,200.0	1,197.4	1,328.2	1,305.9	2.3	2.1	132.74	-81.6	364.1	420.3	416.1	4.15	101.224	
1,300.0	1,296.3	1,428.9	1,401.9	2.6	2.4	131.85	-56.5	347.2	405.7	401.1	4.59	88.443	
1,400.0	1,394.9	1,532.6	1,500.5	2.9	2.7	131.02	-30.2	329.1	391.5	386.5	5.05	77.485	
1,500.0	1,493.3	1,634.9	1,597.5	3.3	2.9	130.25	-3.5	310.4	377.6	372.0	5.55	68.064	
1,600.0	1,591.2	1,735.4	1,692.3	3.6	3.2	129.44	24.2	291.7	364.0	357.9	6.08	59.915	
1,700.0	1,688.9	1,833.1	1,784.4	4.0	3.5	128.81	51.1	273.6	351.8	345.2	6.61	53.195	
1,800.0	1,786.1	1,930.1	1,876.4	4.5	3.8	128.61	76.2	255.6	341.1	334.0	7.14	47.749	
1,900.0	1,883.1	2,027.1	1,968.9	4.9	4.0	128.68	99.7	238.1	332.0	324.4	7.66	43.326	
2,000.0	1,980.2	2,125.7	2,062.9	5.3	4.3	128.72	123.8	220.6	323.1	314.9	8.19	39.427	
2,100.0	2,077.2	2,221.5	2,154.4	5.8	4.5	128.76	146.9	204.3	315.0	306.3	8.72	36.124	
2,200.0	2,174.2	2,318.9	2,247.8	6.2	4.8	128.88	169.8	188.8	308.2	299.0	9.24	33.339	
2,300.0	2,271.3	2,415.6	2,340.7	6.6	5.0	129.05	192.1	173.7	301.8	292.1	9.76	30.928	
2,400.0	2,368.3	2,515.2	2,436.5	7.1	5.3	129.24	214.9	159.3	296.6	286.4	10.28	28.843	
2,500.0	2,465.3	2,616.3	2,533.6	7.5	5.6	129.28	238.8	144.3	290.8	279.9	10.82	26.866	
2,600.0	2,562.3	2,713.6	2,627.4	8.0	5.8	129.64	260.4	129.5	285.1	273.8	11.31	25.212	
2,700.0	2,659.4	2,812.4	2,722.8	8.4	6.0	130.13	281.5	115.1	280.3	268.5	11.78	23.792	
2,800.0	2,756.4	2,916.2	2,822.7	8.9	6.3	130.41	305.0	100.0	275.1	262.8	12.29	22.380	
2,900.0	2,853.4	3,017.4	2,919.8	9.3	6.6	130.55	328.8	84.3	268.7	255.8	12.82	20.965	
3,000.0	2,950.5	3,119.9	3,017.8	9.8	6.8	130.38	354.5	68.1	261.5	248.1	13.40	19.519	
3,100.0	3,047.5	3,219.4	3,112.6	10.2	7.1	130.07	380.1	52.3	253.9	239.9	13.99	18.146	
3,200.0	3,144.5	3,319.3	3,207.7	10.7	7.4	129.65	406.3	36.3	246.2	231.6	14.62	16.841	
3,300.0	3,241.6	3,416.5	3,300.5	11.1	7.6	129.40	430.8	21.1	239.2	224.0	15.20	15.731	
3,400.0	3,338.6	3,516.0	3,395.9	11.6	7.9	129.49	454.4	5.8	232.8	217.0	15.74	14.789	
3,500.0	3,435.6	3,616.5	3,492.0	12.0	8.2	129.30	479.3	-9.7	226.0	209.7	16.33	13.844	
3,600.0	3,532.6	3,715.3	3,586.8	12.5	8.4	129.40	502.8	-25.1	219.5	202.6	16.85	13.022	
3,700.0	3,629.7	3,814.8	3,682.4	13.0	8.7	129.81	525.2	-40.6	213.3	195.9	17.32	12.313	
3,800.0	3,727.0	3,915.8	3,779.4	13.4	8.9	129.67	548.9	-56.2	206.1	188.2	17.87	11.535	
3,900.0	3,824.7	4,013.5	3,873.1	13.8	9.2	129.23	571.6	-71.8	197.5	179.1	18.46	10.701	
4,000.0	3,922.8	4,110.7	3,966.7	14.1	9.4	128.34	593.9	-85.6	189.6	170.5	19.11	9.920	
4,100.0	4,021.1	4,207.1	4,060.2	14.5	9.6	127.85	613.1	-99.1	181.7	162.0	19.64	9.248	
4,200.0	4,119.8	4,304.1	4,155.0	14.8	9.8	127.64	629.7	-111.4	174.7	154.6	20.10	8.692	
4,300.0	4,218.8	4,402.4	4,251.2	15.1	10.0	126.94	646.3	-122.9	167.8	147.1	20.64	8.128	
4,400.0	4,318.0	4,500.0	4,346.9	15.4	10.2	126.01	661.8	-133.7	160.8	139.6	21.20	7.585	
4,500.0	4,417.4	4,593.0	4,438.7	15.6	10.3	125.27	674.1	-142.0	155.4	133.8	21.67	7.171	
4,600.0	4,516.9	4,688.5	4,533.6	15.8	10.4	124.92	683.6	-147.3	153.2	131.1	22.03	6.951	
4,700.0	4,616.7	4,786.9	4,631.7	16.0	10.5	125.84	688.3	-152.0	151.8	129.7	22.06	6.879	
4,800.0	4,716.5	4,884.0	4,728.8	16.2	10.6	127.55	689.3	-156.2	150.8	128.8	21.91	6.881	
4,827.5	4,743.9	4,910.3	4,755.0	16.2	10.6	127.74	690.0	-156.8	150.7	128.7	21.92	6.873	CC
4,900.0	4,816.4	4,979.0	4,823.7	16.3	10.6	128.10	691.3	-157.5	151.3	129.3	21.98	6.883	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 S10-T2N-R66W (Ione) - Ione 6-0-10 (Existing) - Existing - Existing

Offset Site Error: 0.0 ft

Survey Program: 94-Gyro

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.0	4,916.4	5,076.1	4,920.8	16.4	10.6	128.81	691.0	-156.8	153.5	131.5	21.98	6.982	
5,100.0	5,016.4	5,176.3	5,021.0	16.5	10.6	107.00	689.2	-155.7	155.5	133.5	21.98	7.073	
5,200.0	5,116.4	5,276.0	5,120.6	16.6	10.7	107.52	687.4	-154.5	157.2	135.1	22.01	7.139	
5,300.0	5,216.4	5,377.1	5,221.8	16.7	10.7	107.86	686.1	-153.5	158.5	136.4	22.10	7.170	
5,400.0	5,316.4	5,476.8	5,321.5	16.8	10.7	108.01	685.3	-152.6	159.6	137.3	22.23	7.178	
5,500.0	5,416.4	5,576.3	5,420.9	16.9	10.7	108.25	684.3	-151.5	160.9	138.6	22.34	7.202	
5,600.0	5,516.4	5,676.6	5,521.2	17.0	10.8	108.53	683.0	-150.1	162.6	140.2	22.45	7.244	
5,700.0	5,616.4	5,777.8	5,622.4	17.1	10.8	108.84	681.9	-149.8	163.3	140.7	22.55	7.242	
5,800.0	5,716.4	5,877.0	5,721.6	17.2	10.8	109.32	680.4	-149.4	164.2	141.6	22.61	7.262	
5,900.0	5,816.4	5,976.0	5,820.5	17.3	10.9	109.85	678.5	-148.7	165.5	142.8	22.66	7.302	
6,000.0	5,916.4	6,073.9	5,918.5	17.4	10.9	110.51	675.9	-147.2	167.8	145.1	22.69	7.394	
6,100.0	6,016.4	6,174.0	6,018.4	17.5	10.9	111.36	672.4	-145.2	170.9	148.3	22.68	7.539	
6,200.0	6,116.4	6,277.9	6,122.3	17.6	10.9	111.94	670.1	-143.9	172.9	150.2	22.74	7.605	
6,300.0	6,216.4	6,379.0	6,223.4	17.7	11.0	111.94	670.0	-143.8	173.0	150.1	22.93	7.546	
6,400.0	6,316.4	6,479.3	6,323.7	17.8	11.0	111.86	670.3	-143.8	172.9	149.8	23.14	7.475	
6,500.0	6,416.4	6,579.5	6,423.9	17.9	11.1	111.83	670.4	-144.0	172.7	149.4	23.33	7.401	
6,600.0	6,516.4	6,680.0	6,524.4	18.1	11.1	111.87	670.5	-144.5	172.2	148.7	23.52	7.324	
6,700.0	6,616.4	6,779.7	6,624.1	18.2	11.1	112.18	669.8	-145.2	171.8	148.1	23.64	7.267	
6,800.0	6,716.4	6,880.6	6,725.0	18.3	11.2	112.50	669.2	-146.3	171.0	147.3	23.77	7.196	
6,900.0	6,816.3	6,980.4	6,824.8	18.3	11.2	-68.16	668.8	-147.4	169.1	145.1	24.04	7.036	
7,000.0	6,915.0	7,079.3	6,923.6	18.2	11.3	-73.36	668.4	-148.6	163.0	138.0	25.05	6.508	
7,100.0	7,010.6	7,174.8	7,019.1	18.0	11.3	-83.50	668.0	-149.7	155.9	129.3	26.60	5.860	
7,157.1	7,063.1	7,227.1	7,071.5	17.7	11.4	-91.20	667.8	-150.2	154.2	126.8	27.42	5.624	ES
7,200.0	7,101.2	7,265.2	7,109.6	17.6	11.4	-97.53	667.8	-150.5	155.5	127.6	27.84	5.583	SF
7,300.0	7,185.1	7,349.0	7,193.3	17.1	11.4	-112.10	667.8	-151.2	171.3	143.5	27.75	6.174	
7,400.0	7,260.6	7,424.3	7,268.7	16.6	11.5	-123.68	667.9	-151.9	208.6	182.1	26.44	7.889	
7,500.0	7,326.2	7,490.0	7,334.4	16.0	11.5	-131.03	668.0	-152.4	265.5	240.7	24.78	10.714	
7,600.0	7,380.8	7,544.5	7,388.8	15.5	11.5	-134.21	667.9	-152.8	337.4	314.0	23.39	14.426	
7,700.0	7,423.1	7,586.3	7,430.7	15.1	11.6	-133.07	667.9	-153.0	420.1	397.5	22.59	18.596	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Ione 1C-10H
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	S10-T2N-R66W (Ione)	**MD Reference:**	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Ione 1C-10H	**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 @ 5012.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Ione 1C-10H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.48°