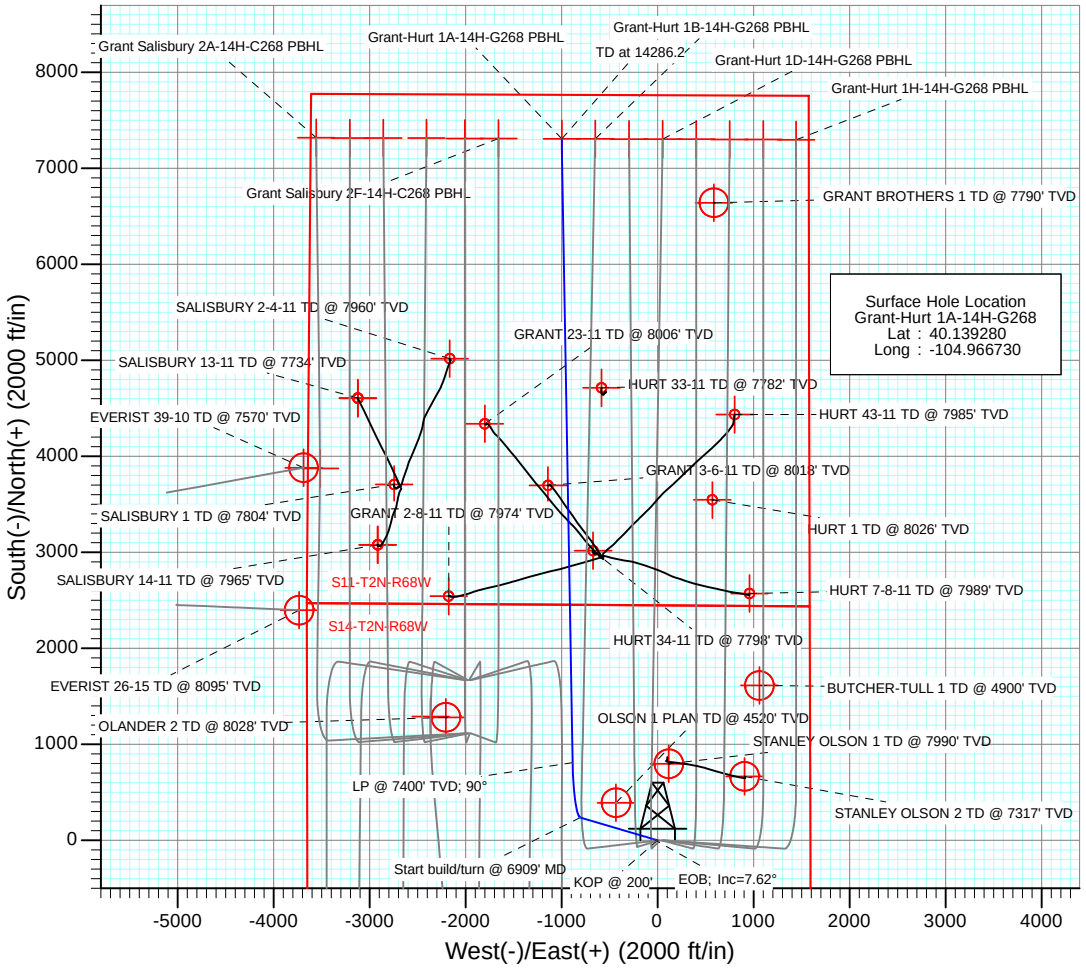
encana natural gas

Project: DJ Wattenberg
Site: S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)
Well: Grant-Hurt 1A-14H-G268
Wellbore: Hz
Design: Plan #1

CATHEDRAL

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	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	961.8	7.62	286.43	959.6	14.3	-48.5	1.00	286.43	14.3	
4	6909.0	7.62	286.43	6854.2	237.3	-804.7	0.00	0.00	237.3	
5	7786.2	90.00	359.00	7400.0	808.5	-884.4	10.00	72.72	808.5	
6	14286.2	90.00	359.00	7400.0	7307.5	-997.8	0.00	0.00	7307.5	Grant-Hurt 1A-14H-G268 PBHL



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Grant-Hurt 1A-14H-G268 PBHL	7307.5	-997.8	1301335.55	3148056.05	40.159340	-104.970300

T M Azimuths to True North
Magnetic North: 8.68°

Magnetic Field
Strength: 52758.8snT
Dip Angle: 66.74°
Date: 6/24/2013
Model: IGRF2010

Plan #1
Grant-Hurt 1A-14H-G268
13xxx; LR
WELL @ 4913.0ft (Original Well Elev)
Ground Elevation @ 4888.0
North American Datum 1983
Well Grant-Hurt 1A-14H-G268, True North

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
263.0	263.0	Fox Hills - BASE
4026.0	4055.6	Sussex
4180.0	4210.9	Sussex Marker
4716.0	4751.7	Shannon
6000.0	6047.1	Teepee Buttes (*if present)
7059.0	7122.0	Sharon Springs
7118.0	7188.7	Niobrara
7170.0	7251.6	B Chalk
7194.0	7282.3	B Marl
7246.0	7354.3	C Chalk
7271.0	7392.5	C Marl
7370.0	7599.2	Ft. Hayes
7390.0	7678.6	Codell

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**North Reference:**	True
Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)

Site Position:		**Northing:**	1,295,686.81 ft	**Latitude:**	40.143850
From:	Lat/Long	**Easting:**	3,147,060.98 ft	**Longitude:**	-104.973980
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.34 °

Well Grant-Hurt 1A-14H-G268

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,294,034.17 ft	**Latitude:**	40.139280
	+E/-W	0.0 ft	**Easting:**	3,149,097.79 ft	**Longitude:**	-104.966730
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,888.0 ft

Wellbore Hz

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/24/2013	8.68	66.74	52,759

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	0.00

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
961.8	7.62	286.43	959.6	14.3	-48.5	1.00	1.00	0.00	286.43	
6,909.0	7.62	286.43	6,854.2	237.3	-804.7	0.00	0.00	0.00	0.00	
7,786.2	90.00	359.00	7,400.0	808.5	-884.4	10.00	9.39	8.27	72.72	
14,286.2	90.00	359.00	7,400.0	7,307.5	-997.8	0.00	0.00	0.00	0.00	Grant-Hurt 1A-14H-G

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Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**North Reference:**	True
Well:	Grant-Hurt 1A-14H-G268	**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	KOP @ 200'
263.0	0.63	286.43	263.0	0.1	-0.3	0.1	1.00	1.00	Fox Hills - BASE
300.0	1.00	286.43	300.0	0.2	-0.8	0.2	1.00	1.00	
400.0	2.00	286.43	400.0	1.0	-3.3	1.0	1.00	1.00	
500.0	3.00	286.43	499.9	2.2	-7.5	2.2	1.00	1.00	
600.0	4.00	286.43	599.7	3.9	-13.4	3.9	1.00	1.00	
700.0	5.00	286.43	699.4	6.2	-20.9	6.2	1.00	1.00	
800.0	6.00	286.43	798.9	8.9	-30.1	8.9	1.00	1.00	
900.0	7.00	286.43	898.3	12.1	-41.0	12.1	1.00	1.00	
961.8	7.62	286.43	959.6	14.3	-48.5	14.3	1.00	1.00	EOB; Inc=7.62°
1,000.0	7.62	286.43	997.4	15.7	-53.4	15.7	0.00	0.00	
1,100.0	7.62	286.43	1,096.5	19.5	-66.1	19.5	0.00	0.00	
1,200.0	7.62	286.43	1,195.7	23.2	-78.8	23.2	0.00	0.00	
1,300.0	7.62	286.43	1,294.8	27.0	-91.5	27.0	0.00	0.00	
1,400.0	7.62	286.43	1,393.9	30.7	-104.2	30.7	0.00	0.00	
1,500.0	7.62	286.43	1,493.0	34.5	-116.9	34.5	0.00	0.00	
1,600.0	7.62	286.43	1,592.1	38.2	-129.7	38.2	0.00	0.00	
1,700.0	7.62	286.43	1,691.2	42.0	-142.4	42.0	0.00	0.00	
1,800.0	7.62	286.43	1,790.4	45.7	-155.1	45.7	0.00	0.00	
1,900.0	7.62	286.43	1,889.5	49.5	-167.8	49.5	0.00	0.00	
2,000.0	7.62	286.43	1,988.6	53.2	-180.5	53.2	0.00	0.00	
2,100.0	7.62	286.43	2,087.7	57.0	-193.2	57.0	0.00	0.00	
2,200.0	7.62	286.43	2,186.8	60.7	-206.0	60.7	0.00	0.00	
2,300.0	7.62	286.43	2,285.9	64.5	-218.7	64.5	0.00	0.00	
2,400.0	7.62	286.43	2,385.1	68.2	-231.4	68.2	0.00	0.00	
2,500.0	7.62	286.43	2,484.2	72.0	-244.1	72.0	0.00	0.00	
2,600.0	7.62	286.43	2,583.3	75.7	-256.8	75.7	0.00	0.00	
2,700.0	7.62	286.43	2,682.4	79.5	-269.5	79.5	0.00	0.00	
2,800.0	7.62	286.43	2,781.5	83.2	-282.2	83.2	0.00	0.00	
2,900.0	7.62	286.43	2,880.6	87.0	-295.0	87.0	0.00	0.00	
3,000.0	7.62	286.43	2,979.8	90.7	-307.7	90.7	0.00	0.00	
3,100.0	7.62	286.43	3,078.9	94.5	-320.4	94.5	0.00	0.00	
3,200.0	7.62	286.43	3,178.0	98.2	-333.1	98.2	0.00	0.00	
3,300.0	7.62	286.43	3,277.1	102.0	-345.8	102.0	0.00	0.00	
3,400.0	7.62	286.43	3,376.2	105.7	-358.5	105.7	0.00	0.00	
3,500.0	7.62	286.43	3,475.4	109.5	-371.3	109.5	0.00	0.00	
3,600.0	7.62	286.43	3,574.5	113.2	-384.0	113.2	0.00	0.00	
3,700.0	7.62	286.43	3,673.6	117.0	-396.7	117.0	0.00	0.00	
3,800.0	7.62	286.43	3,772.7	120.7	-409.4	120.7	0.00	0.00	
3,900.0	7.62	286.43	3,871.8	124.5	-422.1	124.5	0.00	0.00	
4,000.0	7.62	286.43	3,970.9	128.2	-434.8	128.2	0.00	0.00	
4,055.6	7.62	286.43	4,026.0	130.3	-441.9	130.3	0.00	0.00	Sussex
4,100.0	7.62	286.43	4,070.1	132.0	-447.6	132.0	0.00	0.00	
4,200.0	7.62	286.43	4,169.2	135.7	-460.3	135.7	0.00	0.00	
4,210.9	7.62	286.43	4,180.0	136.1	-461.7	136.1	0.00	0.00	Sussex Marker
4,300.0	7.62	286.43	4,268.3	139.5	-473.0	139.5	0.00	0.00	
4,400.0	7.62	286.43	4,367.4	143.2	-485.7	143.2	0.00	0.00	
4,500.0	7.62	286.43	4,466.5	147.0	-498.4	147.0	0.00	0.00	
4,600.0	7.62	286.43	4,565.6	150.7	-511.1	150.7	0.00	0.00	
4,700.0	7.62	286.43	4,664.8	154.5	-523.9	154.5	0.00	0.00	

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Well:	Grant-Hurt 1A-14H-G268	**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
4,751.7	7.62	286.43	4,716.0	156.4	-530.4	156.4	0.00	0.00	Shannon
4,800.0	7.62	286.43	4,763.9	158.2	-536.6	158.2	0.00	0.00	
4,900.0	7.62	286.43	4,863.0	162.0	-549.3	162.0	0.00	0.00	
5,000.0	7.62	286.43	4,962.1	165.7	-562.0	165.7	0.00	0.00	
5,100.0	7.62	286.43	5,061.2	169.5	-574.7	169.5	0.00	0.00	
5,200.0	7.62	286.43	5,160.3	173.2	-587.4	173.2	0.00	0.00	
5,300.0	7.62	286.43	5,259.5	177.0	-600.1	177.0	0.00	0.00	
5,400.0	7.62	286.43	5,358.6	180.7	-612.9	180.7	0.00	0.00	
5,500.0	7.62	286.43	5,457.7	184.5	-625.6	184.5	0.00	0.00	
5,600.0	7.62	286.43	5,556.8	188.2	-638.3	188.2	0.00	0.00	
5,700.0	7.62	286.43	5,655.9	192.0	-651.0	192.0	0.00	0.00	
5,800.0	7.62	286.43	5,755.1	195.7	-663.7	195.7	0.00	0.00	
5,900.0	7.62	286.43	5,854.2	199.5	-676.4	199.5	0.00	0.00	
6,000.0	7.62	286.43	5,953.3	203.2	-689.2	203.2	0.00	0.00	
6,047.1	7.62	286.43	6,000.0	205.0	-695.2	205.0	0.00	0.00	Teepee Buttes (*if present)
6,100.0	7.62	286.43	6,052.4	207.0	-701.9	207.0	0.00	0.00	
6,200.0	7.62	286.43	6,151.5	210.7	-714.6	210.7	0.00	0.00	
6,300.0	7.62	286.43	6,250.6	214.5	-727.3	214.5	0.00	0.00	
6,400.0	7.62	286.43	6,349.8	218.2	-740.0	218.2	0.00	0.00	
6,500.0	7.62	286.43	6,448.9	222.0	-752.7	222.0	0.00	0.00	
6,600.0	7.62	286.43	6,548.0	225.7	-765.5	225.7	0.00	0.00	
6,700.0	7.62	286.43	6,647.1	229.5	-778.2	229.5	0.00	0.00	
6,800.0	7.62	286.43	6,746.2	233.2	-790.9	233.2	0.00	0.00	
6,900.0	7.62	286.43	6,845.3	237.0	-803.6	237.0	0.00	0.00	
6,909.0	7.62	286.43	6,854.2	237.3	-804.7	237.3	0.00	0.00	Start build/turn @ 6909' MD
7,000.0	13.48	326.83	6,943.8	247.9	-816.4	247.9	10.00	6.44	
7,100.0	22.53	341.08	7,038.8	275.9	-829.0	275.9	10.00	9.05	
7,122.0	24.61	342.83	7,059.0	284.2	-831.7	284.2	10.00	9.48	Sharon Springs
7,188.7	31.03	346.75	7,118.0	314.3	-839.8	314.3	10.00	9.62	Niobrara
7,200.0	32.13	347.28	7,127.6	320.0	-841.1	320.0	10.00	9.70	
7,251.6	37.15	349.30	7,170.0	348.7	-847.0	348.7	10.00	9.75	B Chalk
7,282.3	40.16	350.30	7,194.0	367.6	-850.4	367.6	10.00	9.79	B Marl
7,300.0	41.90	350.82	7,207.4	379.1	-852.3	379.1	10.00	9.81	
7,354.3	47.24	352.22	7,246.0	416.7	-857.9	416.7	10.00	9.84	C Chalk
7,392.5	51.00	353.07	7,271.0	445.4	-861.6	445.4	10.00	9.86	C Marl
7,400.0	51.75	353.23	7,275.7	451.2	-862.3	451.2	10.00	9.87	
7,500.0	61.63	355.05	7,330.6	534.3	-870.7	534.3	10.00	9.88	
7,599.2	71.46	356.55	7,370.0	624.9	-877.3	624.9	10.00	9.90	Ft. Hayes
7,600.0	71.54	356.56	7,370.3	625.7	-877.4	625.7	10.00	9.91	
7,678.6	79.32	357.62	7,390.0	701.5	-881.2	701.5	10.00	9.91	Codell
7,700.0	81.45	357.90	7,393.6	722.7	-882.1	722.7	10.00	9.92	
7,786.2	90.00	359.00	7,400.0	808.5	-884.4	808.5	10.00	9.92	LP @ 7400' TVD; 90°
7,800.0	90.00	359.00	7,400.0	822.3	-884.6	822.3	0.00	0.00	
7,900.0	90.00	359.00	7,400.0	922.3	-886.4	922.3	0.00	0.00	
8,000.0	90.00	359.00	7,400.0	1,022.3	-888.1	1,022.3	0.00	0.00	
8,100.0	90.00	359.00	7,400.0	1,122.3	-889.8	1,122.3	0.00	0.00	
8,200.0	90.00	359.00	7,400.0	1,222.2	-891.6	1,222.2	0.00	0.00	
8,300.0	90.00	359.00	7,400.0	1,322.2	-893.3	1,322.2	0.00	0.00	
8,400.0	90.00	359.00	7,400.0	1,422.2	-895.1	1,422.2	0.00	0.00	
8,500.0	90.00	359.00	7,400.0	1,522.2	-896.8	1,522.2	0.00	0.00	
8,600.0	90.00	359.00	7,400.0	1,622.2	-898.6	1,622.2	0.00	0.00	
8,700.0	90.00	359.00	7,400.0	1,722.2	-900.3	1,722.2	0.00	0.00	

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Well:	Grant-Hurt 1A-14H-G268	**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
8,800.0	90.00	359.00	7,400.0	1,822.1	-902.1	1,822.1	0.00	0.00	
8,900.0	90.00	359.00	7,400.0	1,922.1	-903.8	1,922.1	0.00	0.00	
9,000.0	90.00	359.00	7,400.0	2,022.1	-905.6	2,022.1	0.00	0.00	
9,100.0	90.00	359.00	7,400.0	2,122.1	-907.3	2,122.1	0.00	0.00	
9,200.0	90.00	359.00	7,400.0	2,222.1	-909.0	2,222.1	0.00	0.00	
9,300.0	90.00	359.00	7,400.0	2,322.1	-910.8	2,322.1	0.00	0.00	
9,400.0	90.00	359.00	7,400.0	2,422.1	-912.5	2,422.1	0.00	0.00	
9,500.0	90.00	359.00	7,400.0	2,522.0	-914.3	2,522.0	0.00	0.00	
9,600.0	90.00	359.00	7,400.0	2,622.0	-916.0	2,622.0	0.00	0.00	
9,700.0	90.00	359.00	7,400.0	2,722.0	-917.8	2,722.0	0.00	0.00	
9,800.0	90.00	359.00	7,400.0	2,822.0	-919.5	2,822.0	0.00	0.00	
9,900.0	90.00	359.00	7,400.0	2,922.0	-921.3	2,922.0	0.00	0.00	
10,000.0	90.00	359.00	7,400.0	3,022.0	-923.0	3,022.0	0.00	0.00	
10,100.0	90.00	359.00	7,400.0	3,122.0	-924.8	3,122.0	0.00	0.00	
10,200.0	90.00	359.00	7,400.0	3,221.9	-926.5	3,221.9	0.00	0.00	
10,300.0	90.00	359.00	7,400.0	3,321.9	-928.2	3,321.9	0.00	0.00	
10,400.0	90.00	359.00	7,400.0	3,421.9	-930.0	3,421.9	0.00	0.00	
10,500.0	90.00	359.00	7,400.0	3,521.9	-931.7	3,521.9	0.00	0.00	
10,600.0	90.00	359.00	7,400.0	3,621.9	-933.5	3,621.9	0.00	0.00	
10,700.0	90.00	359.00	7,400.0	3,721.9	-935.2	3,721.9	0.00	0.00	
10,800.0	90.00	359.00	7,400.0	3,821.8	-937.0	3,821.8	0.00	0.00	
10,900.0	90.00	359.00	7,400.0	3,921.8	-938.7	3,921.8	0.00	0.00	
11,000.0	90.00	359.00	7,400.0	4,021.8	-940.5	4,021.8	0.00	0.00	
11,100.0	90.00	359.00	7,400.0	4,121.8	-942.2	4,121.8	0.00	0.00	
11,200.0	90.00	359.00	7,400.0	4,221.8	-944.0	4,221.8	0.00	0.00	
11,300.0	90.00	359.00	7,400.0	4,321.8	-945.7	4,321.8	0.00	0.00	
11,400.0	90.00	359.00	7,400.0	4,421.8	-947.4	4,421.8	0.00	0.00	
11,500.0	90.00	359.00	7,400.0	4,521.7	-949.2	4,521.7	0.00	0.00	
11,600.0	90.00	359.00	7,400.0	4,621.7	-950.9	4,621.7	0.00	0.00	
11,700.0	90.00	359.00	7,400.0	4,721.7	-952.7	4,721.7	0.00	0.00	
11,800.0	90.00	359.00	7,400.0	4,821.7	-954.4	4,821.7	0.00	0.00	
11,900.0	90.00	359.00	7,400.0	4,921.7	-956.2	4,921.7	0.00	0.00	
12,000.0	90.00	359.00	7,400.0	5,021.7	-957.9	5,021.7	0.00	0.00	
12,100.0	90.00	359.00	7,400.0	5,121.6	-959.7	5,121.6	0.00	0.00	
12,200.0	90.00	359.00	7,400.0	5,221.6	-961.4	5,221.6	0.00	0.00	
12,300.0	90.00	359.00	7,400.0	5,321.6	-963.1	5,321.6	0.00	0.00	
12,400.0	90.00	359.00	7,400.0	5,421.6	-964.9	5,421.6	0.00	0.00	
12,500.0	90.00	359.00	7,400.0	5,521.6	-966.6	5,521.6	0.00	0.00	
12,600.0	90.00	359.00	7,400.0	5,621.6	-968.4	5,621.6	0.00	0.00	
12,700.0	90.00	359.00	7,400.0	5,721.6	-970.1	5,721.6	0.00	0.00	
12,800.0	90.00	359.00	7,400.0	5,821.5	-971.9	5,821.5	0.00	0.00	
12,900.0	90.00	359.00	7,400.0	5,921.5	-973.6	5,921.5	0.00	0.00	
13,000.0	90.00	359.00	7,400.0	6,021.5	-975.4	6,021.5	0.00	0.00	
13,100.0	90.00	359.00	7,400.0	6,121.5	-977.1	6,121.5	0.00	0.00	
13,200.0	90.00	359.00	7,400.0	6,221.5	-978.9	6,221.5	0.00	0.00	
13,300.0	90.00	359.00	7,400.0	6,321.5	-980.6	6,321.5	0.00	0.00	
13,400.0	90.00	359.00	7,400.0	6,421.4	-982.3	6,421.4	0.00	0.00	
13,500.0	90.00	359.00	7,400.0	6,521.4	-984.1	6,521.4	0.00	0.00	
13,600.0	90.00	359.00	7,400.0	6,621.4	-985.8	6,621.4	0.00	0.00	
13,700.0	90.00	359.00	7,400.0	6,721.4	-987.6	6,721.4	0.00	0.00	
13,800.0	90.00	359.00	7,400.0	6,821.4	-989.3	6,821.4	0.00	0.00	
13,900.0	90.00	359.00	7,400.0	6,921.4	-991.1	6,921.4	0.00	0.00	

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**North Reference:**	True
Well:	Grant-Hurt 1A-14H-G268	**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
14,000.0	90.00	359.00	7,400.0	7,021.4	-992.8	7,021.4	0.00	0.00	
14,100.0	90.00	359.00	7,400.0	7,121.3	-994.6	7,121.3	0.00	0.00	
14,200.0	90.00	359.00	7,400.0	7,221.3	-996.3	7,221.3	0.00	0.00	
14,286.2	90.00	359.00	7,400.0	7,307.5	-997.8	7,307.5	0.00	0.00	TD at 14286.2 - Grant-Hurt 1A-14H-G268 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
Grant-Hurt 1A-14H-G26	0.00	0.00	7,400.0	7,307.5	-997.8	1,301,335.55	3,148,056.05	40.159340	-104.970300
- plan hits target center									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
263.0	263.0	Fox Hills - BASE			
4,055.6	4,026.0	Sussex			
4,210.9	4,180.0	Sussex Marker			
4,751.7	4,716.0	Shannon			
6,047.1	6,000.0	Teepee Buttes (*if present)			
7,122.0	7,059.0	Sharon Springs			
7,188.7	7,118.0	Niobrara			
7,251.6	7,170.0	B Chalk			
7,282.3	7,194.0	B Marl			
7,354.3	7,246.0	C Chalk			
7,392.5	7,271.0	C Marl			
7,599.2	7,370.0	Ft. Hayes			
7,678.6	7,390.0	Codell			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
200.0	200.0	0.0	0.0	KOP @ 200'
961.8	959.6	14.3	-48.5	EOB; Inc=7.62°
6,909.0	6,854.2	237.3	-804.7	Start build/turn @ 6909' MD
7,786.2	7,400.0	808.5	-884.4	LP @ 7400' TVD; 90°
14,286.2	7,400.0	7,307.5	-997.8	TD at 14286.2

EnCana Oil & Gas (USA) Inc

DJ Wattenberg
S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)
Grant-Hurt 1A-14H-G268
Hz
Plan #1

Anticollision Report

09 July, 2013

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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** 7/9/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	14,286.2	Plan #1 (Hz)	Geolink MWD	Geolink MWD

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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

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
S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)						
BERGER 32-23 (EXISTING) - EXISTING - NO SURVEY						Out of range
DEL CAMINO 11-14 (EXISTING) - EXISTING - NO SURV						Out of range
ELMQUIST 0-0-23 (EXISTING) - EXISTING - SURVEYS						Out of range
ELMQUIST 1 (EXISTING) - EXISTING - GYRO						Out of range
ELMQUIST 11-23 (EXISTING) - EXISTING - GYRO						Out of range
ELMQUIST 12-23 (EXISTING) - EXISTING - NO SURVE						Out of range
ELMQUIST 21-23 (EXISTING) - EXISTING - SURVEYS						Out of range
ELMQUIST 2-4-23 (EXISTING) - EXISTING - SURVEYS						Out of range
ELMQUIST 4-2-23 (EXISTING) - EXISTING - SURVEYS						Out of range
ELMQUIST 4-4-23 (EXISTING) - EXISTING - SURVEYS						Out of range
EVERIST 26-15 (EXISTING) - KMG WELL - PLAN ONLY						Out of range
EVERIST 39-10 (EXISTING) - EXISTING - NO SURVEY						Out of range
GRANT 23-11 (EXISTING) - EXISTING - SURVEYS						Out of range
GRANT 2-8-11 (EXISTING) - EXISTING - SURVEYS						Out of range
GRANT 3-6-11 (EXISTING) - EXISTING - SURVEYS	10,677.3	7,471.4	203.0	116.5	2.347	CC, ES, SF
GRANT BROTHERS 1 (EXISTING) - PDC WELL - NO S						Out of range
Grant Elmquist 2A-14H-C268 - Hz - Plan #2						Out of range
Grant Elmquist 2B-14H-C268 - Hz - Plan #2						Out of range
Grant Elmquist 2C-14H-C268 - Hz - Plan #2						Out of range
Grant Elmquist 2D-14H-C268 - Hz - Plan #2						Out of range
Grant Elmquist 2E-14H-C268 - Hz - Plan #2						Out of range
Grant Elmquist 2F-14H-C268 - Hz - Plan #2	8,459.1	7,588.5	413.4	369.2	9.355	CC
Grant Elmquist 2F-14H-C268 - Hz - Plan #2	8,500.0	7,553.0	413.7	369.1	9.276	ES
Grant Elmquist 2F-14H-C268 - Hz - Plan #2	8,600.0	7,473.5	418.7	373.1	9.184	SF
Grant Elmquist 2G-14H-C268 - Hz - Plan #2	7,300.0	8,512.7	145.6	102.4	3.373	ES, SF
Grant Elmquist 2G-14H-C268 - Hz - Plan #2	7,329.3	8,492.8	144.0	102.7	3.484	CC
Grant Salisbury 2A-14H-C268 - Hz - Plan #2						Out of range
Grant Salisbury 2B-14H-C268 - Hz - Plan #1						Out of range
Grant Salisbury 2C-14H-C268 - Hz - Plan #1						Out of range
Grant Salisbury 2D-14H-C268 - Hz - Plan #1						Out of range
Grant Salisbury 2E-14H-C268 - Hz - Plan #1						Out of range
Grant Salisbury 2F-14H-C268 - Hz - Plan #1						Out of range
Grant-Hurt 1B-14H-G268 - Hz - Plan #1	200.0	200.0	8.4	7.8	13.730	CC, ES
Grant-Hurt 1B-14H-G268 - Hz - Plan #1	14,286.2	14,371.8	412.8	190.5	1.857	SF
Grant-Hurt 1C-14H-G268 - Hz - Plan #1	200.0	200.0	19.6	19.0	32.038	CC, ES
Grant-Hurt 1C-14H-G268 - Hz - Plan #1	700.0	700.6	34.5	32.2	14.646	SF
Grant-Hurt 1D-14H-G268 - Hz - Plan #1	200.0	200.0	28.0	27.3	45.768	CC, ES
Grant-Hurt 1D-14H-G268 - Hz - Plan #1	600.0	599.7	41.5	39.5	20.704	SF
Grant-Hurt 1E-14H-G268 - Hz - Plan #1	200.0	200.0	39.1	38.5	64.075	CC, ES
Grant-Hurt 1E-14H-G268 - Hz - Plan #1	600.0	598.8	53.5	51.5	26.698	SF
Grant-Hurt 1F-14H-G268 - Hz - Plan #1	200.0	200.0	47.5	46.9	77.806	CC, ES
Grant-Hurt 1F-14H-G268 - Hz - Plan #1	600.0	597.5	64.5	62.5	32.196	SF
Grant-Hurt 1G-14H-G268 - Hz - Plan #1	200.0	200.0	58.7	58.1	96.113	CC, ES
Grant-Hurt 1G-14H-G268 - Hz - Plan #1	700.0	693.3	93.6	91.2	39.934	SF
Grant-Hurt 1H-14H-G268 - Hz - Plan #1	200.0	200.0	69.9	69.3	114.420	CC, ES
Grant-Hurt 1H-14H-G268 - Hz - Plan #1	700.0	690.4	112.4	110.1	48.079	SF
HSR-BEAR 13-14A (EXISTING) - EXISTING - SURVEYS						Out of range
HURT 1 (EXISTING) - ENCANA WELL - NO SURVEYS						Out of range
HURT 33-11 (EXISTING) - EXISTING - SURVEYS	11,661.7	7,347.3	366.2	268.4	3.745	CC, ES
HURT 33-11 (EXISTING) - EXISTING - SURVEYS	11,700.0	7,349.2	368.2	269.8	3.740	SF
HURT 34-11 (EXISTING) - EXISTING - SURVEYS	9,985.5	7,356.1	248.2	179.2	3.601	CC, ES
HURT 34-11 (EXISTING) - EXISTING - SURVEYS	10,000.0	7,356.3	248.6	179.4	3.594	SF
HURT 43-11 (EXISTING) - EXISTING - SURVEYS						Out of range

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 Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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

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
S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)						
HURT 7-8-11 (EXISTING) - EXISTING - SURVEYS						Out of range
MDM 33-14 (EXISTING) - EXISTING - NO SURVEYS						Out of range
MDM 34-14 (EXISTING) - EXISTING - NO SURVEYS						Out of range
NELSON 1 (EXISTING) - EXISTING - NO SURVEYS						Out of range
NELSON 23-23C (EXISTING) - EXISTING - NO SURVEY						Out of range
OLANDER 1 (EXISTING) - EXISTING - NO SURVEYS						Out of range
OLANDER 2 (EXISTING) - EXISTING - NO SURVEYS						Out of range
OLANDER U 14-11 (EXISTING) - EXISTING - NO SURV						Out of range
OLANDER U 14-14 (EXISTING) - EXISTING - NO SURV						Out of range
OLSON 1 (EXISTING) - PLAN ONLY - PLAN #1	4,550.5	4,493.6	253.7	233.6	12.636	CC, ES
OLSON 1 (EXISTING) - PLAN ONLY - PLAN #1	4,600.0	4,520.0	254.8	234.6	12.573	SF
SALISBURY 1 (EXISTING) - EXISTING - GYRO						Out of range
SALISBURY 13-11 (EXISTING) - EXISTING - SURVEYS						Out of range
SALISBURY 14-11 (EXISTING) - EXISTING - SURVEYS						Out of range
SALISBURY 2-4-11 (EXISTING) - EXISTING - SURVEYS						Out of range
STANLEY OLSON 1 (EXISTING) - WHITEWING WELL						Out of range
STANLEY OLSON 2 (EXISTING) - WHITEWING WELL						Out of range

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - GRANT 3-6-11 (EXISTING) - EXISTING - SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 37-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	7,400.0	7,469.2	7,363.0	63.3	21.0	-88.35	3,695.6	-1,137.7	428.4	348.4	79.96	5.358	
10,400.0	7,400.0	7,469.8	7,363.6	65.0	21.0	-88.51	3,695.6	-1,137.7	343.6	261.9	81.69	4.207	
10,500.0	7,400.0	7,470.4	7,364.2	66.6	21.0	-88.66	3,695.6	-1,137.7	269.5	186.1	83.42	3.231	
10,600.0	7,400.0	7,470.9	7,364.7	68.3	21.0	-88.82	3,695.6	-1,137.8	217.2	132.1	85.14	2.551	
10,677.3	7,400.0	7,471.4	7,365.2	69.6	21.0	-88.95	3,695.6	-1,137.8	203.0	116.5	86.48	2.347	CC, ES, SF
10,700.0	7,400.0	7,471.5	7,365.3	70.0	21.0	-88.98	3,695.6	-1,137.8	204.3	117.4	86.87	2.351	
10,800.0	7,400.0	7,472.1	7,365.8	71.7	21.0	-89.14	3,695.6	-1,137.8	237.2	148.6	88.60	2.677	
10,900.0	7,400.0	7,472.6	7,366.4	73.4	21.0	-89.30	3,695.6	-1,137.8	301.4	211.0	90.33	3.336	
11,000.0	7,400.0	7,473.2	7,367.0	75.1	21.0	-89.45	3,695.6	-1,137.8	381.3	289.2	92.06	4.141	
11,100.0	7,400.0	7,473.7	7,367.5	76.8	21.0	-89.61	3,695.6	-1,137.8	468.9	375.1	93.80	5.000	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - Grant Elmquist 2F-14H-C268 - Hz - Plan #2

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
7,400.0	7,275.7	8,608.0	7,410.0	21.6	28.5	-100.34	457.7	-1,320.9	483.6	438.9	44.73	10.812	
7,500.0	7,330.6	8,525.1	7,410.0	22.4	27.4	-98.30	540.6	-1,319.8	459.7	416.1	43.59	10.546	
7,600.0	7,370.3	8,433.8	7,410.0	23.3	26.1	-95.89	631.9	-1,318.5	445.0	402.5	42.56	10.457	
7,700.0	7,393.6	8,336.9	7,410.0	24.4	24.9	-94.18	728.8	-1,317.1	436.5	394.8	41.73	10.460	
7,800.0	7,400.0	8,237.3	7,410.0	25.5	23.6	-93.85	828.4	-1,315.7	432.1	391.0	41.16	10.500	
7,900.0	7,400.0	8,137.3	7,410.0	26.6	22.5	-93.88	928.3	-1,314.3	429.0	387.7	41.24	10.403	
8,000.0	7,400.0	8,037.4	7,410.0	27.8	21.4	-93.91	1,028.2	-1,312.9	425.8	384.4	41.43	10.278	
8,100.0	7,400.0	7,937.4	7,410.0	29.1	20.4	-93.94	1,128.2	-1,311.5	422.7	381.0	41.74	10.127	
8,200.0	7,400.0	7,837.5	7,410.0	30.4	19.5	-93.97	1,228.1	-1,310.1	419.6	377.4	42.18	9.947	
8,300.0	7,400.0	7,738.2	7,409.0	31.8	18.7	-93.86	1,327.4	-1,308.8	416.4	373.7	42.76	9.738	
8,400.0	7,400.0	7,642.2	7,395.6	33.2	18.1	-92.02	1,422.3	-1,308.8	413.9	370.3	43.60	9.494	
8,459.1	7,400.0	7,588.5	7,381.2	34.1	17.8	-90.02	1,474.0	-1,309.4	413.4	369.2	44.19	9.355	CC
8,500.0	7,400.0	7,553.0	7,369.0	34.6	17.7	-88.34	1,507.4	-1,310.1	413.7	369.1	44.60	9.276	ES
8,600.0	7,400.0	7,473.5	7,334.6	36.1	17.3	-83.62	1,578.9	-1,312.4	418.7	373.1	45.59	9.184	SF
8,700.0	7,400.0	7,400.0	7,294.3	37.6	17.1	-78.24	1,640.2	-1,315.4	431.9	385.6	46.34	9.321	
8,800.0	7,400.0	7,350.0	7,262.6	39.1	17.0	-74.19	1,678.8	-1,317.9	455.6	408.5	47.12	9.669	
8,900.0	7,400.0	7,300.0	7,227.6	40.6	16.9	-69.96	1,714.4	-1,320.8	490.5	442.9	47.64	10.296	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - Grant Elmquist 2G-14H-C268 - Hz - Plan #2

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
6,900.0	6,845.3	8,654.8	7,200.0	19.1	33.9	-21.90	237.0	-997.9	411.4	367.6	43.80	9.393	
7,000.0	6,943.8	8,643.8	7,200.0	19.4	33.7	-77.03	247.9	-997.9	320.6	272.3	48.28	6.639	
7,100.0	7,038.8	8,615.9	7,200.0	19.8	33.3	-95.08	275.9	-997.9	239.1	190.0	49.06	4.873	
7,200.0	7,127.6	8,571.7	7,200.0	20.3	32.7	-95.04	320.0	-997.9	176.2	128.8	47.43	3.716	
7,300.0	7,207.4	8,512.7	7,200.0	20.9	32.0	-83.31	379.1	-997.9	145.6	102.4	43.16	3.373	ES, SF
7,329.3	7,228.6	8,492.8	7,200.0	21.1	31.7	-78.26	398.9	-997.9	144.0	102.7	41.34	3.484	CC
7,400.0	7,275.7	8,440.5	7,200.0	21.6	31.0	-64.90	451.2	-997.9	151.6	115.4	36.17	4.190	
7,500.0	7,330.6	8,357.5	7,200.0	22.4	29.9	-48.25	534.3	-997.9	176.6	147.0	29.56	5.975	
7,600.0	7,370.3	8,266.1	7,200.0	23.3	28.8	-37.60	625.7	-997.9	202.1	176.3	25.82	7.828	
7,700.0	7,393.6	8,169.1	7,200.0	24.4	27.7	-32.15	722.7	-997.9	218.7	193.9	24.89	8.788	
7,800.0	7,400.0	8,069.4	7,200.0	25.5	26.6	-30.53	822.3	-997.9	222.9	196.8	26.09	8.545	
7,900.0	7,400.0	7,969.5	7,200.0	26.6	25.5	-30.14	922.3	-997.8	222.0	196.1	25.93	8.562	
8,000.0	7,400.0	7,869.5	7,200.0	27.8	24.5	-29.74	1,022.3	-997.8	221.1	195.3	25.82	8.565	
8,100.0	7,400.0	7,769.5	7,200.0	29.1	23.7	-29.35	1,122.3	-997.8	220.3	194.5	25.75	8.553	
8,200.0	7,400.0	7,669.5	7,200.0	30.4	22.9	-28.95	1,222.2	-997.8	219.4	193.7	25.73	8.527	
8,274.4	7,400.0	7,597.0	7,200.0	31.5	22.4	-28.66	1,294.8	-997.8	218.8	193.0	25.76	8.495	
8,300.0	7,400.0	7,576.8	7,199.6	31.8	22.3	-28.54	1,315.0	-997.9	219.0	193.2	25.80	8.491	
8,400.0	7,400.0	7,500.0	7,191.9	33.2	21.8	-27.55	1,391.3	-999.0	227.6	201.8	25.74	8.841	
8,500.0	7,400.0	7,433.9	7,177.2	34.6	21.5	-26.13	1,455.7	-1,001.1	247.9	222.3	25.57	9.694	
8,600.0	7,400.0	7,368.5	7,155.5	36.1	21.2	-24.43	1,517.2	-1,004.2	279.5	254.2	25.27	11.057	
8,700.0	7,400.0	7,300.0	7,125.5	37.6	21.0	-22.55	1,578.6	-1,008.5	321.4	296.6	24.88	12.922	
8,800.0	7,400.0	7,250.0	7,099.1	39.1	20.8	-21.21	1,620.9	-1,012.3	372.0	347.3	24.76	15.028	
8,900.0	7,400.0	7,200.0	7,069.2	40.6	20.7	-19.97	1,660.7	-1,016.5	430.4	405.7	24.65	17.459	
9,000.0	7,400.0	7,165.6	7,046.7	42.2	20.6	-19.17	1,686.6	-1,019.8	494.9	470.1	24.77	19.980	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - Grant-Hurt 1B-14H-G268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink 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	90.00	0.0	8.4	8.4				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	8.4	8.4	8.1	0.26	32.038	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	8.4	8.4	7.8	0.61	13.730	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	165.10	0.0	8.4	9.2	8.3	0.96	9.613	
400.0	400.0	400.2	400.1	0.7	0.7	169.30	-0.1	7.5	10.9	9.6	1.31	8.343	
500.0	499.9	500.3	500.3	0.8	0.8	175.51	-0.4	4.9	12.7	11.1	1.66	7.673	
600.0	599.7	600.5	600.4	1.0	1.0	-177.19	-0.9	0.6	14.8	12.8	2.01	7.361	
700.0	699.4	700.7	700.4	1.3	1.2	-169.55	-1.6	-5.5	17.3	14.9	2.37	7.296	
800.0	798.9	800.9	800.2	1.5	1.4	-162.15	-2.6	-13.3	20.3	17.6	2.75	7.397	
900.0	898.3	901.1	900.0	1.8	1.7	-155.37	-3.7	-22.9	24.0	20.9	3.16	7.600	
1,000.0	997.4	1,001.2	999.5	2.0	1.9	-149.24	-5.0	-34.2	28.3	24.7	3.62	7.823	
1,100.0	1,096.5	1,101.1	1,098.6	2.3	2.2	-143.50	-6.5	-46.5	32.6	28.5	4.12	7.902	
1,200.0	1,195.7	1,201.0	1,197.7	2.6	2.4	-139.09	-7.9	-58.8	37.1	32.4	4.64	7.982	
1,300.0	1,294.8	1,300.8	1,296.8	2.9	2.7	-135.65	-9.4	-71.2	41.7	36.5	5.18	8.061	
1,400.0	1,393.9	1,400.7	1,395.9	3.1	3.0	-132.91	-10.8	-83.5	46.5	40.8	5.72	8.134	
1,500.0	1,493.0	1,500.6	1,494.9	3.4	3.2	-130.68	-12.3	-95.8	51.4	45.1	6.26	8.202	
1,600.0	1,592.1	1,600.4	1,594.0	3.7	3.5	-128.84	-13.7	-108.2	56.3	49.5	6.81	8.265	
1,700.0	1,691.2	1,700.3	1,693.1	4.0	3.8	-127.30	-15.2	-120.5	61.3	53.9	7.36	8.322	
1,800.0	1,790.4	1,800.2	1,792.2	4.3	4.0	-125.99	-16.7	-132.8	66.3	58.3	7.91	8.374	
1,900.0	1,889.5	1,900.0	1,891.3	4.6	4.3	-124.86	-18.1	-145.2	71.3	62.8	8.47	8.422	
2,000.0	1,988.6	1,999.9	1,990.4	4.9	4.6	-123.88	-19.6	-157.5	76.4	67.3	9.02	8.465	
2,100.0	2,087.7	2,099.8	2,089.5	5.1	4.9	-123.03	-21.0	-169.8	81.5	71.9	9.58	8.505	
2,200.0	2,186.8	2,199.6	2,188.6	5.4	5.1	-122.27	-22.5	-182.2	86.6	76.4	10.13	8.542	
2,300.0	2,285.9	2,299.5	2,287.7	5.7	5.4	-121.60	-23.9	-194.5	91.7	81.0	10.69	8.576	
2,400.0	2,385.1	2,399.3	2,386.7	6.0	5.7	-121.00	-25.4	-206.9	96.8	85.5	11.25	8.607	
2,500.0	2,484.2	2,499.2	2,485.8	6.3	6.0	-120.46	-26.8	-219.2	101.9	90.1	11.80	8.636	
2,600.0	2,583.3	2,599.1	2,584.9	6.6	6.3	-119.98	-28.3	-231.5	107.1	94.7	12.36	8.662	
2,700.0	2,682.4	2,698.9	2,684.0	6.9	6.5	-119.53	-29.7	-243.9	112.2	99.3	12.92	8.687	
2,800.0	2,781.5	2,798.8	2,783.1	7.2	6.8	-119.13	-31.2	-256.2	117.4	103.9	13.47	8.711	
2,900.0	2,880.6	2,898.7	2,882.2	7.5	7.1	-118.76	-32.7	-268.5	122.5	108.5	14.03	8.732	
3,000.0	2,979.8	2,998.5	2,981.3	7.7	7.4	-118.42	-34.1	-280.9	127.7	113.1	14.59	8.752	
3,100.0	3,078.9	3,098.4	3,080.4	8.0	7.6	-118.11	-35.6	-293.2	132.9	117.7	15.15	8.771	
3,200.0	3,178.0	3,198.3	3,179.4	8.3	7.9	-117.82	-37.0	-305.5	138.0	122.3	15.71	8.789	
3,300.0	3,277.1	3,298.1	3,278.5	8.6	8.2	-117.55	-38.5	-317.9	143.2	127.0	16.26	8.806	
3,400.0	3,376.2	3,398.0	3,377.6	8.9	8.5	-117.30	-39.9	-330.2	148.4	131.6	16.82	8.822	
3,500.0	3,475.4	3,497.8	3,476.7	9.2	8.8	-117.06	-41.4	-342.5	153.6	136.2	17.38	8.837	
3,600.0	3,574.5	3,597.7	3,575.8	9.5	9.0	-116.85	-42.8	-354.9	158.8	140.8	17.94	8.851	
3,700.0	3,673.6	3,697.6	3,674.9	9.8	9.3	-116.64	-44.3	-367.2	163.9	145.5	18.50	8.864	
3,800.0	3,772.7	3,797.4	3,774.0	10.1	9.6	-116.45	-45.7	-379.5	169.1	150.1	19.05	8.877	
3,900.0	3,871.8	3,897.3	3,873.1	10.4	9.9	-116.27	-47.2	-391.9	174.3	154.7	19.61	8.888	
4,000.0	3,970.9	3,997.2	3,972.2	10.7	10.1	-116.10	-48.7	-404.2	179.5	159.3	20.17	8.900	
4,100.0	4,070.1	4,097.0	4,071.2	10.9	10.4	-115.94	-50.1	-416.5	184.7	164.0	20.73	8.911	
4,200.0	4,169.2	4,196.9	4,170.3	11.2	10.7	-115.79	-51.6	-428.9	189.9	168.6	21.29	8.921	
4,300.0	4,268.3	4,296.8	4,269.4	11.5	11.0	-115.64	-53.0	-441.2	195.1	173.3	21.85	8.931	
4,400.0	4,367.4	4,396.6	4,368.5	11.8	11.3	-115.51	-54.5	-453.6	200.3	177.9	22.40	8.940	
4,500.0	4,466.5	4,496.5	4,467.6	12.1	11.5	-115.38	-55.9	-465.9	205.5	182.5	22.96	8.949	
4,600.0	4,565.6	4,596.3	4,566.7	12.4	11.8	-115.26	-57.4	-478.2	210.7	187.2	23.52	8.958	
4,700.0	4,664.8	4,696.2	4,665.8	12.7	12.1	-115.14	-58.8	-490.6	215.9	191.8	24.08	8.966	
4,800.0	4,763.9	4,796.1	4,764.9	13.0	12.4	-115.03	-60.3	-502.9	221.1	196.5	24.64	8.974	
4,900.0	4,863.0	4,895.9	4,864.0	13.3	12.7	-114.92	-61.8	-515.2	226.3	201.1	25.20	8.981	
5,000.0	4,962.1	4,995.8	4,963.0	13.6	12.9	-114.82	-63.2	-527.6	231.5	205.7	25.76	8.989	
5,100.0	5,061.2	5,095.7	5,062.1	13.9	13.2	-114.72	-64.7	-539.9	236.7	210.4	26.31	8.996	

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 Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - Grant-Hurt 1B-14H-G268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
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	
5,200.0	5,160.3	5,195.5	5,161.2	14.1	13.5	-114.63	-66.1	-552.2	241.9	215.0	26.87	9.002	
5,300.0	5,259.5	5,295.4	5,260.3	14.4	13.8	-114.54	-67.6	-564.6	247.1	219.7	27.43	9.009	
5,400.0	5,358.6	5,395.3	5,359.4	14.7	14.1	-114.45	-69.0	-576.9	252.3	224.3	27.99	9.015	
5,500.0	5,457.7	5,495.1	5,458.5	15.0	14.3	-114.37	-70.5	-589.2	257.5	229.0	28.55	9.021	
5,600.0	5,556.8	5,595.0	5,557.6	15.3	14.6	-114.29	-71.9	-601.6	262.7	233.6	29.11	9.027	
5,700.0	5,655.9	5,694.8	5,656.7	15.6	14.9	-114.22	-73.4	-613.9	267.9	238.3	29.66	9.032	
5,800.0	5,755.1	5,794.7	5,755.7	15.9	15.2	-114.15	-74.8	-626.2	273.1	242.9	30.22	9.038	
5,900.0	5,854.2	5,894.6	5,854.8	16.2	15.4	-114.08	-76.3	-638.6	278.4	247.6	30.78	9.043	
6,000.0	5,953.3	5,994.4	5,953.9	16.5	15.7	-114.01	-77.8	-650.9	283.6	252.2	31.34	9.048	
6,100.0	6,052.4	6,094.3	6,053.0	16.8	16.0	-113.94	-79.2	-663.2	288.8	256.9	31.90	9.053	
6,200.0	6,151.5	6,194.2	6,152.1	17.1	16.3	-113.88	-80.7	-675.6	294.0	261.5	32.46	9.057	
6,300.0	6,250.6	6,294.0	6,251.2	17.3	16.6	-113.82	-82.1	-687.9	299.2	266.2	33.02	9.062	
6,400.0	6,349.8	6,393.9	6,350.3	17.6	16.8	-113.76	-83.6	-700.2	304.4	270.8	33.57	9.066	
6,500.0	6,448.9	6,493.8	6,449.4	17.9	17.1	-113.71	-85.0	-712.6	309.6	275.5	34.13	9.071	
6,600.0	6,548.0	6,593.6	6,548.5	18.2	17.4	-113.65	-86.5	-724.9	314.8	280.1	34.69	9.075	
6,700.0	6,647.1	6,749.5	6,702.7	18.5	17.8	-113.81	-79.7	-743.9	315.9	280.6	35.36	8.934	
6,800.0	6,746.2	6,949.0	6,888.8	18.8	18.3	-116.01	-13.8	-765.7	286.3	250.5	35.79	8.000	
6,900.0	6,845.3	7,097.2	7,006.4	19.1	18.7	-121.42	74.5	-778.4	230.2	194.8	35.39	6.503	
7,000.0	6,943.8	7,206.2	7,076.7	19.4	19.1	-168.98	157.5	-785.4	163.7	130.1	33.62	4.869	
7,100.0	7,038.8	7,298.4	7,123.0	19.8	19.5	162.43	236.9	-789.5	100.8	71.7	29.07	3.468	
7,200.0	7,127.6	7,380.2	7,153.1	20.3	20.0	121.61	312.9	-791.6	56.1	30.6	25.49	2.201	
7,227.8	7,150.8	7,401.6	7,159.2	20.5	20.1	106.12	333.4	-792.0	53.0	25.1	27.90	1.901	
7,300.0	7,207.4	7,455.2	7,171.0	20.9	20.5	69.97	385.6	-792.3	70.4	35.7	34.74	2.027	
7,400.0	7,275.7	7,525.6	7,179.1	21.6	21.0	43.84	455.5	-791.9	119.6	85.0	34.54	3.462	
7,500.0	7,330.6	7,602.7	7,180.0	22.4	21.6	31.90	532.6	-790.4	170.7	139.8	30.88	5.526	
7,600.0	7,370.3	7,693.9	7,180.0	23.3	22.5	26.45	623.8	-788.5	210.0	182.9	27.12	7.743	
7,700.0	7,393.6	7,790.8	7,180.0	24.4	23.4	24.41	720.7	-786.4	234.0	210.0	24.04	9.735	
7,800.0	7,400.0	7,890.4	7,180.0	25.5	24.5	24.49	820.2	-784.4	241.8	219.3	22.45	10.768	
7,900.0	7,400.0	7,990.3	7,180.0	26.6	25.7	25.31	920.1	-782.3	243.4	219.4	24.04	10.125	
8,000.0	7,400.0	8,090.2	7,180.0	27.8	26.9	26.12	1,020.0	-780.2	245.1	219.3	25.72	9.527	
8,100.0	7,400.0	8,190.1	7,180.0	29.1	28.2	26.92	1,119.9	-778.1	246.8	219.3	27.50	8.972	
8,200.0	7,400.0	8,290.1	7,180.0	30.4	29.5	27.71	1,219.8	-776.0	248.5	219.2	29.38	8.460	
8,300.0	7,400.0	8,390.0	7,180.0	31.8	30.9	28.49	1,319.7	-773.9	250.4	219.0	31.34	7.988	
8,400.0	7,400.0	8,489.9	7,180.0	33.2	32.3	29.25	1,419.6	-771.8	252.2	218.8	33.39	7.554	
8,500.0	7,400.0	8,589.8	7,180.0	34.6	33.7	30.01	1,519.5	-769.7	254.1	218.6	35.52	7.154	
8,600.0	7,400.0	8,689.8	7,180.0	36.1	35.2	30.75	1,619.4	-767.6	256.0	218.3	37.73	6.787	
8,700.0	7,400.0	8,789.7	7,180.0	37.6	36.7	31.48	1,719.3	-765.5	258.0	218.0	40.01	6.449	
8,800.0	7,400.0	8,889.6	7,180.0	39.1	38.2	32.21	1,819.2	-763.4	260.1	217.7	42.37	6.138	
8,900.0	7,400.0	8,989.5	7,180.0	40.6	39.7	32.92	1,919.1	-761.3	262.1	217.3	44.79	5.852	
9,000.0	7,400.0	9,089.5	7,180.0	42.2	41.3	33.61	2,019.1	-759.2	264.2	217.0	47.28	5.588	
9,100.0	7,400.0	9,189.4	7,180.0	43.7	42.9	34.30	2,119.0	-757.1	266.4	216.5	49.83	5.345	
9,200.0	7,400.0	9,289.3	7,180.0	45.3	44.4	34.98	2,218.9	-755.1	268.6	216.1	52.44	5.121	
9,300.0	7,400.0	9,389.2	7,180.0	46.9	46.0	35.64	2,318.8	-753.0	270.8	215.7	55.11	4.913	
9,400.0	7,400.0	9,489.2	7,180.0	48.5	47.6	36.30	2,418.7	-750.9	273.0	215.2	57.83	4.721	
9,500.0	7,400.0	9,589.1	7,180.0	50.1	49.3	36.94	2,518.6	-748.8	275.3	214.7	60.60	4.543	
9,600.0	7,400.0	9,689.0	7,180.0	51.7	50.9	37.57	2,618.5	-746.7	277.7	214.2	63.42	4.378	
9,700.0	7,400.0	9,789.0	7,180.0	53.4	52.5	38.20	2,718.4	-744.6	280.0	213.7	66.29	4.224	
9,800.0	7,400.0	9,888.9	7,180.0	55.0	54.2	38.81	2,818.3	-742.5	282.4	213.2	69.19	4.081	
9,900.0	7,400.0	9,988.8	7,180.0	56.7	55.8	39.41	2,918.2	-740.4	284.8	212.7	72.15	3.948	
10,000.0	7,400.0	10,088.7	7,180.0	58.3	57.5	40.00	3,018.1	-738.3	287.3	212.1	75.14	3.823	
10,100.0	7,400.0	10,188.7	7,180.0	60.0	59.1	40.58	3,118.0	-736.2	289.8	211.6	78.16	3.707	
10,200.0	7,400.0	10,288.6	7,180.0	61.6	60.8	41.15	3,217.9	-734.1	292.3	211.0	81.23	3.598	

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 Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - Grant-Hurt 1B-14H-G268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink 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	7,400.0	10,388.5	7,180.0	63.3	62.5	41.71	3,317.8	-732.0	294.8	210.5	84.32	3.496	
10,400.0	7,400.0	10,488.4	7,180.0	65.0	64.1	42.27	3,417.7	-729.9	297.4	209.9	87.45	3.401	
10,500.0	7,400.0	10,588.4	7,180.0	66.6	65.8	42.81	3,517.6	-727.8	300.0	209.4	90.61	3.311	
10,600.0	7,400.0	10,688.3	7,180.0	68.3	67.5	43.34	3,617.5	-725.8	302.6	208.8	93.80	3.226	
10,700.0	7,400.0	10,788.2	7,180.0	70.0	69.2	43.87	3,717.4	-723.7	305.3	208.2	97.01	3.147	
10,800.0	7,400.0	10,888.1	7,180.0	71.7	70.9	44.38	3,817.3	-721.6	307.9	207.7	100.25	3.071	
10,900.0	7,400.0	10,988.1	7,180.0	73.4	72.6	44.89	3,917.2	-719.5	310.6	207.1	103.52	3.001	
11,000.0	7,400.0	11,088.0	7,180.0	75.1	74.3	45.38	4,017.1	-717.4	313.3	206.5	106.81	2.934	
11,100.0	7,400.0	11,187.9	7,180.0	76.8	75.9	45.87	4,117.0	-715.3	316.1	206.0	110.12	2.870	
11,200.0	7,400.0	11,287.8	7,180.0	78.5	77.6	46.35	4,216.9	-713.2	318.9	205.4	113.45	2.811	
11,300.0	7,400.0	11,387.8	7,180.0	80.2	79.4	46.82	4,316.9	-711.1	321.6	204.8	116.80	2.754	
11,400.0	7,400.0	11,487.7	7,180.0	81.9	81.1	47.29	4,416.8	-709.0	324.5	204.3	120.17	2.700	
11,500.0	7,400.0	11,587.6	7,180.0	83.6	82.8	47.74	4,516.7	-706.9	327.3	203.7	123.56	2.649	
11,600.0	7,400.0	11,687.6	7,180.0	85.3	84.5	48.19	4,616.6	-704.8	330.1	203.2	126.96	2.600	
11,700.0	7,400.0	11,787.5	7,180.0	87.0	86.2	48.63	4,716.5	-702.7	333.0	202.6	130.38	2.554	
11,800.0	7,400.0	11,887.4	7,180.0	88.7	87.9	49.06	4,816.4	-700.6	335.9	202.1	133.82	2.510	
11,900.0	7,400.0	11,987.3	7,180.0	90.4	89.6	49.49	4,916.3	-698.6	338.8	201.5	137.27	2.468	
12,000.0	7,400.0	12,087.3	7,180.0	92.1	91.3	49.91	5,016.2	-696.5	341.7	201.0	140.73	2.428	
12,100.0	7,400.0	12,187.2	7,180.0	93.8	93.0	50.32	5,116.1	-694.4	344.7	200.5	144.21	2.390	
12,200.0	7,400.0	12,287.1	7,180.0	95.6	94.8	50.72	5,216.0	-692.3	347.7	200.0	147.69	2.354	
12,300.0	7,400.0	12,387.0	7,180.0	97.3	96.5	51.12	5,315.9	-690.2	350.6	199.4	151.19	2.319	
12,400.0	7,400.0	12,487.0	7,180.0	99.0	98.2	51.51	5,415.8	-688.1	353.6	198.9	154.70	2.286	
12,500.0	7,400.0	12,586.9	7,180.0	100.7	99.9	51.89	5,515.7	-686.0	356.6	198.4	158.22	2.254	
12,600.0	7,400.0	12,686.8	7,180.0	102.4	101.6	52.27	5,615.6	-683.9	359.7	197.9	161.75	2.224	
12,700.0	7,400.0	12,786.7	7,180.0	104.2	103.4	52.64	5,715.5	-681.8	362.7	197.4	165.29	2.195	
12,800.0	7,400.0	12,886.7	7,180.0	105.9	105.1	53.01	5,815.4	-679.7	365.8	196.9	168.83	2.167	
12,900.0	7,400.0	12,986.6	7,180.0	107.6	106.8	53.36	5,915.3	-677.6	368.9	196.5	172.38	2.140	
13,000.0	7,400.0	13,086.5	7,180.0	109.3	108.5	53.72	6,015.2	-675.5	371.9	196.0	175.95	2.114	
13,100.0	7,400.0	13,186.4	7,180.0	111.1	110.3	54.06	6,115.1	-673.4	375.0	195.5	179.51	2.089	
13,200.0	7,400.0	13,286.4	7,180.0	112.8	112.0	54.41	6,215.0	-671.3	378.2	195.1	183.09	2.065	
13,300.0	7,400.0	13,386.3	7,180.0	114.5	113.7	54.74	6,314.9	-669.3	381.3	194.6	186.67	2.043	
13,400.0	7,400.0	13,486.2	7,180.0	116.2	115.5	55.07	6,414.8	-667.2	384.4	194.2	190.26	2.021	
13,500.0	7,400.0	13,586.2	7,180.0	118.0	117.2	55.40	6,514.8	-665.1	387.6	193.7	193.85	1.999	
13,600.0	7,400.0	13,686.1	7,180.0	119.7	118.9	55.72	6,614.7	-663.0	390.8	193.3	197.44	1.979	
13,700.0	7,400.0	13,786.0	7,180.0	121.4	120.6	56.03	6,714.6	-660.9	393.9	192.9	201.05	1.959	
13,800.0	7,400.0	13,885.9	7,180.0	123.2	122.4	56.34	6,814.5	-658.8	397.1	192.5	204.65	1.940	
13,900.0	7,400.0	13,985.9	7,180.0	124.9	124.1	56.64	6,914.4	-656.7	400.3	192.1	208.26	1.922	
14,000.0	7,400.0	14,085.8	7,180.0	126.6	125.8	56.94	7,014.3	-654.6	403.5	191.7	211.88	1.905	
14,100.0	7,400.0	14,185.7	7,180.0	128.4	127.6	57.24	7,114.2	-652.5	406.8	191.3	215.49	1.888	
14,200.0	7,400.0	14,285.6	7,180.0	130.1	129.3	57.53	7,214.1	-650.4	410.0	190.9	219.12	1.871	
14,286.2	7,400.0	14,371.8	7,180.0	131.6	130.8	57.78	7,300.2	-648.6	412.8	190.5	222.24	1.857	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - Grant-Hurt 1C-14H-G268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink 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	90.00	0.0	19.6	19.6				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	19.6	19.6	19.3	0.26	74.755	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	19.6	19.6	19.0	0.61	32.038	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	164.26	0.0	19.6	20.4	19.4	0.96	21.262	
400.0	400.0	400.0	400.0	0.7	0.7	166.03	0.0	19.6	22.9	21.6	1.31	17.526	
500.0	499.9	500.3	500.3	0.8	0.8	168.94	-0.3	18.7	26.4	24.7	1.66	15.908	
600.0	599.7	600.7	600.6	1.0	1.0	173.07	-1.0	16.2	30.0	28.0	2.01	14.951	
700.0	699.4	700.6	700.5	1.3	1.2	177.40	-2.1	12.6	34.5	32.2	2.36	14.646	SF
800.0	798.9	800.4	800.2	1.5	1.4	-179.29	-3.2	8.9	40.9	38.2	2.71	15.110	
900.0	898.3	900.0	899.8	1.8	1.6	-176.99	-4.2	5.3	49.1	46.0	3.06	16.065	
1,000.0	997.4	999.5	999.2	2.0	1.7	-175.47	-5.3	1.7	59.0	55.6	3.41	17.303	
1,100.0	1,096.5	1,099.0	1,098.6	2.3	1.9	-174.42	-6.4	-1.9	69.2	65.4	3.76	18.389	
1,200.0	1,195.7	1,198.5	1,198.0	2.6	2.1	-173.64	-7.5	-5.6	79.4	75.3	4.12	19.288	
1,300.0	1,294.8	1,297.9	1,297.4	2.9	2.3	-173.03	-8.6	-9.2	89.7	85.2	4.48	20.044	
1,400.0	1,393.9	1,397.4	1,396.8	3.1	2.5	-172.56	-9.6	-12.8	100.0	95.1	4.83	20.688	
1,500.0	1,493.0	1,496.9	1,496.2	3.4	2.7	-172.17	-10.7	-16.5	110.2	105.0	5.19	21.243	
1,600.0	1,592.1	1,596.3	1,595.6	3.7	2.8	-171.84	-11.8	-20.1	120.5	115.0	5.55	21.726	
1,700.0	1,691.2	1,695.8	1,695.0	4.0	3.0	-171.57	-12.9	-23.7	130.8	124.9	5.91	22.149	
1,800.0	1,790.4	1,795.3	1,794.4	4.3	3.2	-171.34	-14.0	-27.3	141.1	134.8	6.26	22.524	
1,900.0	1,889.5	1,894.7	1,893.8	4.6	3.4	-171.14	-15.1	-31.0	151.4	144.7	6.62	22.858	
2,000.0	1,988.6	1,994.2	1,993.2	4.9	3.6	-170.96	-16.1	-34.6	161.6	154.7	6.98	23.157	
2,100.0	2,087.7	2,093.7	2,092.6	5.1	3.8	-170.81	-17.2	-38.2	171.9	164.6	7.34	23.427	
2,200.0	2,186.8	2,193.2	2,192.0	5.4	4.0	-170.67	-18.3	-41.8	182.2	174.5	7.70	23.671	
2,300.0	2,285.9	2,292.6	2,291.4	5.7	4.1	-170.55	-19.4	-45.5	192.5	184.5	8.06	23.893	
2,400.0	2,385.1	2,392.1	2,390.8	6.0	4.3	-170.44	-20.5	-49.1	202.8	194.4	8.42	24.096	
2,500.0	2,484.2	2,491.6	2,490.1	6.3	4.5	-170.34	-21.5	-52.7	213.1	204.3	8.78	24.283	
2,600.0	2,583.3	2,591.0	2,589.5	6.6	4.7	-170.25	-22.6	-56.4	223.4	214.2	9.13	24.454	
2,700.0	2,682.4	2,690.5	2,688.9	6.9	4.9	-170.17	-23.7	-60.0	233.7	224.2	9.49	24.613	
2,800.0	2,781.5	2,790.0	2,788.3	7.2	5.1	-170.09	-24.8	-63.6	244.0	234.1	9.85	24.760	
2,900.0	2,880.6	2,889.4	2,887.7	7.5	5.3	-170.02	-25.9	-67.2	254.3	244.0	10.21	24.896	
3,000.0	2,979.8	2,988.9	2,987.1	7.7	5.4	-169.96	-26.9	-70.9	264.5	254.0	10.57	25.023	
3,100.0	3,078.9	3,088.4	3,086.5	8.0	5.6	-169.90	-28.0	-74.5	274.8	263.9	10.93	25.142	
3,200.0	3,178.0	3,187.8	3,185.9	8.3	5.8	-169.85	-29.1	-78.1	285.1	273.8	11.29	25.253	
3,300.0	3,277.1	3,287.3	3,285.3	8.6	6.0	-169.79	-30.2	-81.7	295.4	283.8	11.65	25.357	
3,400.0	3,376.2	3,386.8	3,384.7	8.9	6.2	-169.75	-31.3	-85.4	305.7	293.7	12.01	25.454	
3,500.0	3,475.4	3,486.2	3,484.1	9.2	6.4	-169.70	-32.3	-89.0	316.0	303.6	12.37	25.546	
3,600.0	3,574.5	3,585.7	3,583.5	9.5	6.6	-169.66	-33.4	-92.6	326.3	313.6	12.73	25.633	
3,700.0	3,673.6	3,685.2	3,682.9	9.8	6.7	-169.62	-34.5	-96.2	336.6	323.5	13.09	25.715	
3,800.0	3,772.7	3,784.6	3,782.3	10.1	6.9	-169.59	-35.6	-99.9	346.9	333.4	13.45	25.793	
3,900.0	3,871.8	3,884.1	3,881.7	10.4	7.1	-169.55	-36.7	-103.5	357.2	343.4	13.81	25.866	
4,000.0	3,970.9	3,983.6	3,981.1	10.7	7.3	-169.52	-37.7	-107.1	367.5	353.3	14.17	25.936	
4,100.0	4,070.1	4,083.1	4,080.5	10.9	7.5	-169.49	-38.8	-110.8	377.8	363.2	14.53	26.002	
4,200.0	4,169.2	4,182.5	4,179.9	11.2	7.7	-169.46	-39.9	-114.4	388.1	373.2	14.89	26.065	
4,300.0	4,268.3	4,282.0	4,279.3	11.5	7.9	-169.43	-41.0	-118.0	398.4	383.1	15.25	26.125	
4,400.0	4,367.4	4,381.5	4,378.7	11.8	8.0	-169.40	-42.1	-121.6	408.7	393.0	15.61	26.183	
4,500.0	4,466.5	4,480.9	4,478.1	12.1	8.2	-169.38	-43.1	-125.3	419.0	403.0	15.97	26.237	
4,600.0	4,565.6	4,580.4	4,577.5	12.4	8.4	-169.35	-44.2	-128.9	429.2	412.9	16.33	26.290	
4,700.0	4,664.8	4,679.9	4,676.9	12.7	8.6	-169.33	-45.3	-132.5	439.5	422.9	16.69	26.340	
4,800.0	4,763.9	4,779.3	4,776.3	13.0	8.8	-169.31	-46.4	-136.1	449.8	432.8	17.05	26.387	
4,900.0	4,863.0	4,878.8	4,875.7	13.3	9.0	-169.29	-47.5	-139.8	460.1	442.7	17.41	26.433	
5,000.0	4,962.1	4,978.3	4,975.1	13.6	9.2	-169.27	-48.5	-143.4	470.4	452.7	17.77	26.477	
5,100.0	5,061.2	5,077.7	5,074.5	13.9	9.3	-169.25	-49.6	-147.0	480.7	462.6	18.13	26.520	

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 Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - Grant-Hurt 1C-14H-G268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink 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	5,160.3	5,177.2	5,173.9	14.1	9.5	-169.23	-50.7	-150.7	491.0	472.5	18.49	26.560	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - Grant-Hurt 1D-14H-G268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink 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	90.00	0.0	28.0	28.0				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	28.0	28.0	27.7	0.26	106.792	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	28.0	28.0	27.3	0.61	45.768	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	164.06	0.0	28.0	28.8	27.8	0.96	29.999	
400.0	400.0	400.0	400.0	0.7	0.7	165.37	0.0	28.0	31.3	30.0	1.31	23.929	
500.0	499.9	499.9	499.9	0.8	0.8	167.13	0.0	28.0	35.6	33.9	1.66	21.450	
600.0	599.7	599.7	599.7	1.0	1.0	169.00	0.0	28.0	41.5	39.5	2.01	20.704	SF
700.0	699.4	699.4	699.4	1.3	1.2	170.73	0.0	28.0	49.3	46.9	2.35	20.931	
800.0	798.9	798.9	798.9	1.5	1.4	172.22	0.0	28.0	58.7	56.0	2.70	21.758	
900.0	898.3	898.3	898.3	1.8	1.5	173.46	0.0	28.0	70.0	66.9	3.04	22.983	
1,000.0	997.4	997.4	997.4	2.0	1.7	174.47	0.0	28.0	82.8	79.4	3.39	24.437	
1,100.0	1,096.5	1,096.5	1,096.5	2.3	1.9	175.23	0.0	28.0	96.0	92.3	3.74	25.701	
1,200.0	1,195.7	1,195.7	1,195.7	2.6	2.0	175.81	0.0	28.0	109.3	105.2	4.08	26.754	
1,300.0	1,294.8	1,294.8	1,294.8	2.9	2.2	176.27	0.0	28.0	122.5	118.0	4.43	27.644	
1,400.0	1,393.9	1,393.9	1,393.9	3.1	2.4	176.63	0.0	28.0	135.7	130.9	4.78	28.407	
1,500.0	1,493.0	1,493.0	1,493.0	3.4	2.6	176.93	0.0	28.0	148.9	143.8	5.12	29.067	
1,600.0	1,592.1	1,592.1	1,592.1	3.7	2.7	177.18	0.0	28.0	162.2	156.7	5.47	29.644	
1,700.0	1,691.2	1,691.2	1,691.2	4.0	2.9	177.39	0.0	28.0	175.4	169.6	5.82	30.153	
1,800.0	1,790.4	1,790.4	1,790.4	4.3	3.1	177.58	0.0	28.0	188.7	182.5	6.16	30.605	
1,900.0	1,889.5	1,889.5	1,889.5	4.6	3.3	177.74	0.0	28.0	201.9	195.4	6.51	31.009	
2,000.0	1,988.6	1,988.6	1,988.6	4.9	3.4	177.88	0.0	28.0	215.2	208.3	6.86	31.372	
2,100.0	2,087.7	2,087.7	2,087.7	5.1	3.6	178.00	0.0	28.0	228.4	221.2	7.21	31.700	
2,200.0	2,186.8	2,186.8	2,186.8	5.4	3.8	178.11	0.0	28.0	241.7	234.1	7.55	31.999	
2,300.0	2,285.9	2,285.9	2,285.9	5.7	3.9	178.21	0.0	28.0	254.9	247.0	7.90	32.271	
2,400.0	2,385.1	2,385.1	2,385.1	6.0	4.1	178.30	0.0	28.0	268.2	259.9	8.25	32.521	
2,500.0	2,484.2	2,484.2	2,484.2	6.3	4.3	178.38	0.0	28.0	281.4	272.8	8.59	32.750	
2,600.0	2,583.3	2,583.3	2,583.3	6.6	4.5	178.45	0.0	28.0	294.7	285.7	8.94	32.962	
2,700.0	2,682.4	2,682.4	2,682.4	6.9	4.6	178.52	0.0	28.0	307.9	298.6	9.29	33.158	
2,800.0	2,781.5	2,781.5	2,781.5	7.2	4.8	178.58	0.0	28.0	321.2	311.5	9.63	33.340	
2,900.0	2,880.6	2,880.6	2,880.6	7.5	5.0	178.63	0.0	28.0	334.4	324.5	9.98	33.509	
3,000.0	2,979.8	2,979.8	2,979.8	7.7	5.2	178.69	0.0	28.0	347.7	337.4	10.33	33.667	
3,100.0	3,078.9	3,076.5	3,076.5	8.0	5.3	178.80	-0.5	28.1	361.2	350.5	10.67	33.852	
3,200.0	3,178.0	3,173.3	3,173.3	8.3	5.5	179.12	-2.5	28.6	375.5	364.5	11.01	34.096	
3,300.0	3,277.1	3,272.2	3,272.2	8.6	5.7	179.48	-4.9	29.2	390.0	378.6	11.36	34.333	
3,400.0	3,376.2	3,371.2	3,371.1	8.9	5.8	179.81	-7.4	29.8	404.5	392.8	11.71	34.556	
3,500.0	3,475.4	3,470.1	3,469.9	9.2	6.0	-179.89	-9.8	30.4	419.0	407.0	12.05	34.766	
3,600.0	3,574.5	3,569.0	3,568.8	9.5	6.2	-179.60	-12.2	31.0	433.6	421.2	12.40	34.964	
3,700.0	3,673.6	3,667.9	3,667.7	9.8	6.4	-179.33	-14.7	31.6	448.1	435.4	12.75	35.152	
3,800.0	3,772.7	3,766.8	3,766.6	10.1	6.5	-179.08	-17.1	32.2	462.7	449.6	13.10	35.328	
3,900.0	3,871.8	3,865.7	3,865.5	10.4	6.7	-178.85	-19.6	32.8	477.2	463.8	13.44	35.496	
4,000.0	3,970.9	3,964.6	3,964.4	10.7	6.9	-178.63	-22.0	33.4	491.8	478.0	13.79	35.655	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - Grant-Hurt 1E-14H-G268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink 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	90.01	0.0	39.1	39.1				
100.0	100.0	100.0	100.0	0.1	0.1	90.01	0.0	39.1	39.1	38.9	0.26	149.509	
200.0	200.0	200.0	200.0	0.3	0.3	90.01	0.0	39.1	39.1	38.5	0.61	64.075	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	163.93	0.0	39.1	40.0	39.0	0.96	41.649	
400.0	400.0	400.0	400.0	0.7	0.7	164.90	0.0	39.1	42.5	41.2	1.31	32.469	
500.0	499.9	499.9	499.9	0.8	0.8	166.28	0.0	39.1	46.7	45.1	1.66	28.184	
600.0	599.7	598.8	598.8	1.0	1.0	167.99	-0.2	40.0	53.5	51.5	2.00	26.698	SF
700.0	699.4	697.2	697.2	1.3	1.2	169.84	-0.9	42.4	63.8	61.4	2.35	27.134	
800.0	798.9	795.1	794.9	1.5	1.4	171.51	-1.9	46.5	77.5	74.8	2.69	28.763	
900.0	898.3	893.3	893.0	1.8	1.5	172.89	-3.3	51.7	94.1	91.1	3.04	31.006	
1,000.0	997.4	991.6	991.2	2.0	1.7	173.96	-4.7	57.0	112.4	109.1	3.38	33.286	
1,100.0	1,096.5	1,089.8	1,089.3	2.3	1.9	174.75	-6.1	62.3	131.1	127.4	3.72	35.222	
1,200.0	1,195.7	1,188.1	1,187.3	2.6	2.1	175.34	-7.5	67.6	149.8	145.7	4.07	36.835	
1,300.0	1,294.8	1,286.3	1,285.4	2.9	2.3	175.80	-8.8	72.9	168.5	164.1	4.41	38.199	
1,400.0	1,393.9	1,384.5	1,383.5	3.1	2.5	176.17	-10.2	78.2	187.2	182.5	4.76	39.367	
1,500.0	1,493.0	1,482.7	1,481.6	3.4	2.7	176.47	-11.6	83.5	205.9	200.8	5.10	40.380	
1,600.0	1,592.1	1,581.0	1,579.6	3.7	2.9	176.72	-13.0	88.7	224.7	219.2	5.44	41.265	
1,700.0	1,691.2	1,679.2	1,677.7	4.0	3.1	176.93	-14.4	94.0	243.4	237.6	5.79	42.045	
1,800.0	1,790.4	1,777.4	1,775.8	4.3	3.3	177.12	-15.8	99.3	262.1	256.0	6.13	42.738	
1,900.0	1,889.5	1,875.7	1,873.9	4.6	3.5	177.27	-17.2	104.6	280.9	274.4	6.48	43.358	
2,000.0	1,988.6	1,973.9	1,971.9	4.9	3.7	177.41	-18.5	109.9	299.6	292.8	6.82	43.916	
2,100.0	2,087.7	2,072.1	2,070.0	5.1	3.8	177.53	-19.9	115.2	318.3	311.2	7.17	44.420	
2,200.0	2,186.8	2,170.3	2,168.1	5.4	4.0	177.64	-21.3	120.5	337.1	329.6	7.51	44.879	
2,300.0	2,285.9	2,268.6	2,266.1	5.7	4.2	177.74	-22.7	125.7	355.8	348.0	7.86	45.297	
2,400.0	2,385.1	2,366.8	2,364.2	6.0	4.4	177.83	-24.1	131.0	374.6	366.4	8.20	45.680	
2,500.0	2,484.2	2,465.0	2,462.3	6.3	4.6	177.91	-25.5	136.3	393.3	384.8	8.54	46.032	
2,600.0	2,583.3	2,563.2	2,560.4	6.6	4.8	177.98	-26.9	141.6	412.1	403.2	8.89	46.357	
2,700.0	2,682.4	2,661.5	2,658.4	6.9	5.0	178.04	-28.2	146.9	430.8	421.6	9.23	46.658	
2,800.0	2,781.5	2,759.7	2,756.5	7.2	5.2	178.10	-29.6	152.2	449.5	440.0	9.58	46.938	
2,900.0	2,880.6	2,857.9	2,854.6	7.5	5.4	178.16	-31.0	157.5	468.3	458.4	9.92	47.198	
3,000.0	2,979.8	2,956.1	2,952.7	7.7	5.6	178.21	-32.4	162.7	487.0	476.8	10.27	47.440	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - Grant-Hurt 1F-14H-G268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink 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	90.00	0.0	47.5	47.5				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	47.5	47.5	47.3	0.26	181.547	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	47.5	47.5	46.9	0.61	77.806	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	163.87	0.0	47.5	48.4	47.4	0.96	50.386	
400.0	400.0	400.0	400.0	0.7	0.7	164.68	0.0	47.5	50.9	49.6	1.31	38.875	
500.0	499.9	498.9	498.9	0.8	0.8	165.95	-0.1	48.4	56.0	54.3	1.66	33.788	
600.0	599.7	597.5	597.5	1.0	1.0	167.47	-0.5	50.9	64.5	62.5	2.00	32.196	SF
700.0	699.4	695.6	695.4	1.3	1.2	168.95	-1.1	55.1	76.4	74.1	2.35	32.563	
800.0	798.9	792.9	792.6	1.5	1.4	170.25	-2.0	60.9	91.8	89.1	2.69	34.140	
900.0	898.3	889.4	888.8	1.8	1.6	171.31	-3.1	68.2	110.6	107.6	3.03	36.517	
1,000.0	997.4	985.3	984.3	2.0	1.8	172.16	-4.4	77.1	132.6	129.2	3.37	39.379	
1,100.0	1,096.5	1,082.6	1,081.1	2.3	2.0	172.80	-5.8	86.6	155.5	151.8	3.71	41.909	
1,200.0	1,195.7	1,180.0	1,178.0	2.6	2.2	173.28	-7.2	96.1	178.4	174.4	4.05	44.015	
1,300.0	1,294.8	1,277.3	1,274.8	2.9	2.5	173.65	-8.6	105.7	201.4	197.0	4.40	45.795	
1,400.0	1,393.9	1,374.6	1,371.7	3.1	2.7	173.95	-10.0	115.2	224.3	219.5	4.74	47.319	
1,500.0	1,493.0	1,471.9	1,468.5	3.4	2.9	174.19	-11.4	124.8	247.2	242.1	5.08	48.639	
1,600.0	1,592.1	1,569.3	1,565.4	3.7	3.1	174.39	-12.8	134.3	270.2	264.7	5.43	49.792	
1,700.0	1,691.2	1,666.6	1,662.2	4.0	3.4	174.56	-14.2	143.8	293.1	287.3	5.77	50.808	
1,800.0	1,790.4	1,763.9	1,759.1	4.3	3.6	174.70	-15.6	153.4	316.1	309.9	6.11	51.711	
1,900.0	1,889.5	1,861.3	1,855.9	4.6	3.8	174.82	-17.0	162.9	339.0	332.5	6.45	52.518	
2,000.0	1,988.6	1,958.6	1,952.8	4.9	4.1	174.93	-18.4	172.4	361.9	355.1	6.80	53.244	
2,100.0	2,087.7	2,055.9	2,049.6	5.1	4.3	175.03	-19.8	182.0	384.9	377.8	7.14	53.900	
2,200.0	2,186.8	2,153.2	2,146.5	5.4	4.6	175.11	-21.2	191.5	407.8	400.4	7.48	54.496	
2,300.0	2,285.9	2,250.6	2,243.3	5.7	4.8	175.19	-22.6	201.1	430.8	423.0	7.83	55.041	
2,400.0	2,385.1	2,347.9	2,340.2	6.0	5.0	175.26	-24.0	210.6	453.7	445.6	8.17	55.539	
2,500.0	2,484.2	2,445.2	2,437.0	6.3	5.3	175.32	-25.4	220.1	476.7	468.2	8.51	55.997	
2,600.0	2,583.3	2,542.6	2,533.9	6.6	5.5	175.38	-26.9	229.7	499.7	490.8	8.86	56.420	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - Grant-Hurt 1G-14H-G268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink 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	90.00	0.0	58.7	58.7				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	58.7	58.7	58.5	0.26	224.264	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	58.7	58.7	58.1	0.61	96.113	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	163.81	0.0	58.7	59.5	58.6	0.96	62.036	
400.0	400.0	398.9	398.9	0.7	0.7	164.52	-0.1	59.6	62.9	61.6	1.31	48.143	
500.0	499.9	497.5	497.5	0.8	0.8	165.61	-0.3	62.1	69.7	68.1	1.65	42.159	
600.0	599.7	595.7	595.6	1.0	1.0	166.82	-0.7	66.3	79.9	77.9	2.00	39.982	
700.0	699.4	693.3	692.9	1.3	1.2	167.99	-1.2	72.1	93.6	91.2	2.34	39.934	SF
800.0	798.9	790.1	789.5	1.5	1.4	169.03	-1.9	79.6	110.6	107.9	2.68	41.199	
900.0	898.3	885.9	884.9	1.8	1.6	169.89	-2.7	88.5	131.0	128.0	3.02	43.331	
1,000.0	997.4	980.7	979.1	2.0	1.9	170.60	-3.7	98.9	154.6	151.3	3.36	46.004	
1,100.0	1,096.5	1,074.6	1,072.3	2.3	2.1	171.13	-4.7	110.8	180.2	176.5	3.70	48.703	
1,200.0	1,195.7	1,167.7	1,164.4	2.6	2.4	171.51	-5.9	124.0	207.3	203.2	4.04	51.362	
1,300.0	1,294.8	1,262.7	1,258.2	2.9	2.7	171.79	-7.3	138.7	235.6	231.2	4.37	53.843	
1,400.0	1,393.9	1,358.6	1,352.9	3.1	2.9	172.02	-8.6	153.5	263.9	259.2	4.72	55.962	
1,500.0	1,493.0	1,454.5	1,447.7	3.4	3.2	172.20	-10.0	168.4	292.3	287.2	5.06	57.795	
1,600.0	1,592.1	1,550.3	1,542.4	3.7	3.5	172.35	-11.3	183.2	320.6	315.2	5.40	59.396	
1,700.0	1,691.2	1,646.2	1,637.1	4.0	3.8	172.47	-12.7	198.0	349.0	343.3	5.74	60.807	
1,800.0	1,790.4	1,742.1	1,731.8	4.3	4.1	172.58	-14.0	212.9	377.4	371.3	6.08	62.060	
1,900.0	1,889.5	1,838.0	1,826.6	4.6	4.4	172.67	-15.4	227.7	405.7	399.3	6.42	63.179	
2,000.0	1,988.6	1,933.9	1,921.3	4.9	4.8	172.75	-16.7	242.6	434.1	427.3	6.76	64.185	
2,100.0	2,087.7	2,029.8	2,016.0	5.1	5.1	172.81	-18.1	257.4	462.5	455.4	7.10	65.095	
2,200.0	2,186.8	2,125.7	2,110.7	5.4	5.4	172.88	-19.4	272.3	490.8	483.4	7.45	65.921	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - Grant-Hurt 1H-14H-G268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink 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	90.00	0.0	69.9	69.9				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	69.9	69.9	69.6	0.26	266.981	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	69.9	69.9	69.3	0.61	114.420	CC, ES
300.0	300.0	298.8	298.8	0.5	0.5	163.81	-0.1	70.7	71.6	70.6	0.96	74.749	
400.0	400.0	397.4	397.3	0.7	0.7	164.46	-0.2	73.3	76.7	75.4	1.30	58.793	
500.0	499.9	495.6	495.5	0.8	0.8	165.37	-0.5	77.5	85.2	83.5	1.65	51.621	
600.0	599.7	593.3	593.0	1.0	1.0	166.37	-0.9	83.4	97.1	95.1	1.99	48.672	
700.0	699.4	690.4	689.8	1.3	1.2	167.34	-1.5	90.8	112.4	110.1	2.34	48.079	SF
800.0	798.9	786.5	785.5	1.5	1.5	168.21	-2.1	99.8	131.1	128.4	2.68	48.938	
900.0	898.3	881.7	880.1	1.8	1.7	168.96	-2.8	110.3	153.1	150.1	3.02	50.755	
1,000.0	997.4	975.7	973.4	2.0	2.0	169.60	-3.7	122.2	178.3	174.9	3.35	53.173	
1,100.0	1,096.5	1,068.9	1,065.6	2.3	2.2	170.09	-4.6	135.5	205.4	201.7	3.69	55.655	
1,200.0	1,195.7	1,161.1	1,156.6	2.6	2.5	170.46	-5.6	150.1	234.0	230.0	4.03	58.133	
1,300.0	1,294.8	1,252.5	1,246.6	2.9	2.8	170.72	-6.7	166.1	264.2	259.8	4.36	60.605	
1,400.0	1,393.9	1,342.9	1,335.4	3.1	3.2	170.91	-7.9	183.2	295.9	291.2	4.69	63.070	
1,500.0	1,493.0	1,433.2	1,423.7	3.4	3.5	171.04	-9.2	201.8	329.1	324.0	5.02	65.506	
1,600.0	1,592.1	1,527.3	1,515.7	3.7	3.9	171.16	-10.6	221.6	362.8	357.4	5.36	67.657	
1,700.0	1,691.2	1,621.5	1,607.7	4.0	4.3	171.25	-12.0	241.4	396.5	390.8	5.70	69.553	
1,800.0	1,790.4	1,715.6	1,699.8	4.3	4.6	171.33	-13.4	261.2	430.2	424.1	6.04	71.235	
1,900.0	1,889.5	1,809.8	1,791.8	4.6	5.0	171.39	-14.8	281.1	463.9	457.5	6.38	72.739	
2,000.0	1,988.6	1,903.9	1,883.8	4.9	5.4	171.45	-16.1	300.9	497.6	490.8	6.72	74.090	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - HURT 33-11 (EXISTING) - EXISTING - SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 100-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
11,400.0	7,400.0	7,334.8	7,333.0	81.9	12.8	87.81	4,689.2	-585.9	449.9	356.8	93.17	4.829	
11,500.0	7,400.0	7,339.5	7,337.7	83.6	12.8	88.55	4,689.4	-585.9	400.3	305.3	94.95	4.216	
11,600.0	7,400.0	7,344.3	7,342.5	85.3	12.8	89.30	4,689.6	-585.8	371.4	274.7	96.72	3.840	
11,661.7	7,400.0	7,347.3	7,345.5	86.3	12.9	89.76	4,689.8	-585.8	366.2	268.4	97.80	3.745	CC, ES
11,700.0	7,400.0	7,349.2	7,347.3	87.0	12.9	90.05	4,689.9	-585.8	368.2	269.8	98.47	3.740	SF
11,800.0	7,400.0	7,354.0	7,352.2	88.7	12.9	90.81	4,690.1	-585.8	391.4	291.2	100.21	3.906	
11,900.0	7,400.0	7,358.9	7,357.1	90.4	12.9	91.57	4,690.3	-585.8	436.8	334.9	101.93	4.285	
12,000.0	7,400.0	7,363.8	7,362.0	92.1	12.9	92.34	4,690.6	-585.8	498.3	394.7	103.64	4.808	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - HURT 34-11 (EXISTING) - EXISTING - SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 100-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
9,600.0	7,400.0	7,351.0	7,349.0	51.7	13.1	88.62	3,011.8	-674.6	458.5	396.2	62.30	7.359	
9,700.0	7,400.0	7,352.3	7,350.4	53.4	13.1	88.93	3,011.8	-674.6	378.3	314.3	64.01	5.909	
9,800.0	7,400.0	7,353.7	7,351.7	55.0	13.1	89.24	3,011.8	-674.6	309.8	244.1	65.73	4.714	
9,900.0	7,400.0	7,355.0	7,353.0	56.7	13.1	89.55	3,011.8	-674.6	262.5	195.0	67.45	3.892	
9,985.5	7,400.0	7,356.1	7,354.2	58.1	13.1	89.81	3,011.8	-674.6	248.2	179.2	68.92	3.601	CC, ES
10,000.0	7,400.0	7,356.3	7,354.4	58.3	13.1	89.85	3,011.8	-674.6	248.6	179.4	69.17	3.594	SF
10,100.0	7,400.0	7,357.6	7,355.7	60.0	13.1	90.16	3,011.9	-674.6	273.3	202.4	70.89	3.855	
10,200.0	7,400.0	7,359.0	7,357.0	61.6	13.1	90.46	3,011.9	-674.6	328.0	255.4	72.61	4.517	
10,300.0	7,400.0	7,360.3	7,358.3	63.3	13.1	90.76	3,011.9	-674.6	400.6	326.2	74.33	5.389	
10,400.0	7,400.0	7,361.6	7,359.6	65.0	13.1	91.06	3,011.9	-674.6	483.0	407.0	76.05	6.352	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt) - OLSON 1 (EXISTING) - PLAN ONLY - 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
1,300.0	1,294.8	1,271.8	1,271.8	2.9	2.2	30.76	392.0	-432.2	499.3	494.7	4.60	108.598	
1,400.0	1,393.9	1,370.9	1,370.9	3.1	2.4	31.56	392.0	-432.2	487.9	482.9	4.99	97.837	
1,500.0	1,493.0	1,470.0	1,470.0	3.4	2.5	32.39	392.0	-432.2	476.7	471.3	5.38	88.583	
1,600.0	1,592.1	1,569.1	1,569.1	3.7	2.7	33.26	392.0	-432.2	465.5	459.7	5.78	80.548	
1,700.0	1,691.2	1,668.2	1,668.2	4.0	2.9	34.18	392.0	-432.2	454.4	448.2	6.18	73.511	
1,800.0	1,790.4	1,767.4	1,767.4	4.3	3.1	35.13	392.0	-432.2	443.5	436.9	6.59	67.303	
1,900.0	1,889.5	1,866.5	1,866.5	4.6	3.2	36.14	392.0	-432.2	432.7	425.7	7.00	61.790	
2,000.0	1,988.6	1,965.6	1,965.6	4.9	3.4	37.20	392.0	-432.2	422.0	414.6	7.42	56.866	
2,100.0	2,087.7	2,064.7	2,064.7	5.1	3.6	38.31	392.0	-432.2	411.5	403.7	7.85	52.448	
2,200.0	2,186.8	2,163.8	2,163.8	5.4	3.8	39.48	392.0	-432.2	401.1	392.9	8.28	48.465	
2,300.0	2,285.9	2,262.9	2,262.9	5.7	3.9	40.71	392.0	-432.2	391.0	382.3	8.71	44.862	
2,400.0	2,385.1	2,362.1	2,362.1	6.0	4.1	42.01	392.0	-432.2	381.0	371.8	9.16	41.592	
2,500.0	2,484.2	2,461.2	2,461.2	6.3	4.3	43.37	392.0	-432.2	371.2	361.6	9.61	38.615	
2,600.0	2,583.3	2,560.3	2,560.3	6.6	4.5	44.81	392.0	-432.2	361.6	351.6	10.07	35.901	
2,700.0	2,682.4	2,659.4	2,659.4	6.9	4.6	46.32	392.0	-432.2	352.3	341.8	10.54	33.420	
2,800.0	2,781.5	2,758.5	2,758.5	7.2	4.8	47.91	392.0	-432.2	343.2	332.2	11.02	31.150	
2,900.0	2,880.6	2,857.6	2,857.6	7.5	5.0	49.59	392.0	-432.2	334.5	323.0	11.50	29.071	
3,000.0	2,979.8	2,956.8	2,956.8	7.7	5.1	51.36	392.0	-432.2	326.0	314.0	12.00	27.166	
3,100.0	3,078.9	3,055.9	3,055.9	8.0	5.3	53.21	392.0	-432.2	317.8	305.3	12.50	25.420	
3,200.0	3,178.0	3,155.0	3,155.0	8.3	5.5	55.16	392.0	-432.2	310.0	297.0	13.01	23.821	
3,300.0	3,277.1	3,254.1	3,254.1	8.6	5.7	57.21	392.0	-432.2	302.6	289.1	13.53	22.358	
3,400.0	3,376.2	3,353.2	3,353.2	8.9	5.8	59.36	392.0	-432.2	295.6	281.5	14.06	21.022	
3,500.0	3,475.4	3,452.4	3,452.4	9.2	6.0	61.61	392.0	-432.2	289.0	274.4	14.59	19.803	
3,600.0	3,574.5	3,551.5	3,551.5	9.5	6.2	63.95	392.0	-432.2	282.9	267.8	15.13	18.695	
3,700.0	3,673.6	3,650.6	3,650.6	9.8	6.4	66.39	392.0	-432.2	277.3	261.6	15.67	17.692	
3,800.0	3,772.7	3,749.7	3,749.7	10.1	6.5	68.93	392.0	-432.2	272.2	256.0	16.22	16.787	
3,900.0	3,871.8	3,848.8	3,848.8	10.4	6.7	71.56	392.0	-432.2	267.7	250.9	16.76	15.974	
4,000.0	3,970.9	3,947.9	3,947.9	10.7	6.9	74.27	392.0	-432.2	263.8	246.5	17.30	15.250	
4,100.0	4,070.1	4,047.1	4,047.1	10.9	7.0	77.06	392.0	-432.2	260.4	242.6	17.83	14.609	
4,200.0	4,169.2	4,146.2	4,146.2	11.2	7.2	79.90	392.0	-432.2	257.8	239.4	18.35	14.046	
4,300.0	4,268.3	4,245.3	4,245.3	11.5	7.4	82.80	392.0	-432.2	255.8	236.9	18.86	13.558	
4,400.0	4,367.4	4,344.4	4,344.4	11.8	7.6	85.74	392.0	-432.2	254.4	235.1	19.36	13.141	
4,500.0	4,466.5	4,443.5	4,443.5	12.1	7.7	88.70	392.0	-432.2	253.8	233.9	19.84	12.789	
4,550.5	4,516.6	4,493.6	4,493.6	12.3	7.8	90.20	392.0	-432.2	253.7	233.6	20.08	12.636	CC, ES
4,600.0	4,565.6	4,520.0	4,520.0	12.4	7.9	90.99	392.0	-432.2	254.8	234.6	20.27	12.573	SF
4,700.0	4,664.8	4,520.0	4,520.0	12.7	7.9	90.99	392.0	-432.2	282.2	261.6	20.56	13.725	
4,800.0	4,763.9	4,520.0	4,520.0	13.0	7.9	90.99	392.0	-432.2	338.1	317.3	20.85	16.216	
4,900.0	4,863.0	4,520.0	4,520.0	13.3	7.9	90.99	392.0	-432.2	411.1	390.0	21.14	19.446	
5,000.0	4,962.1	4,520.0	4,520.0	13.6	7.9	90.99	392.0	-432.2	493.6	472.2	21.43	23.034	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Grant-Hurt 1A-14H-G268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Reference Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	**MD Reference:**	WELL @ 4913.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Grant-Hurt 1A-14H-G268	**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 @ 4913.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Grant-Hurt 1A-14H-G268
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.34°