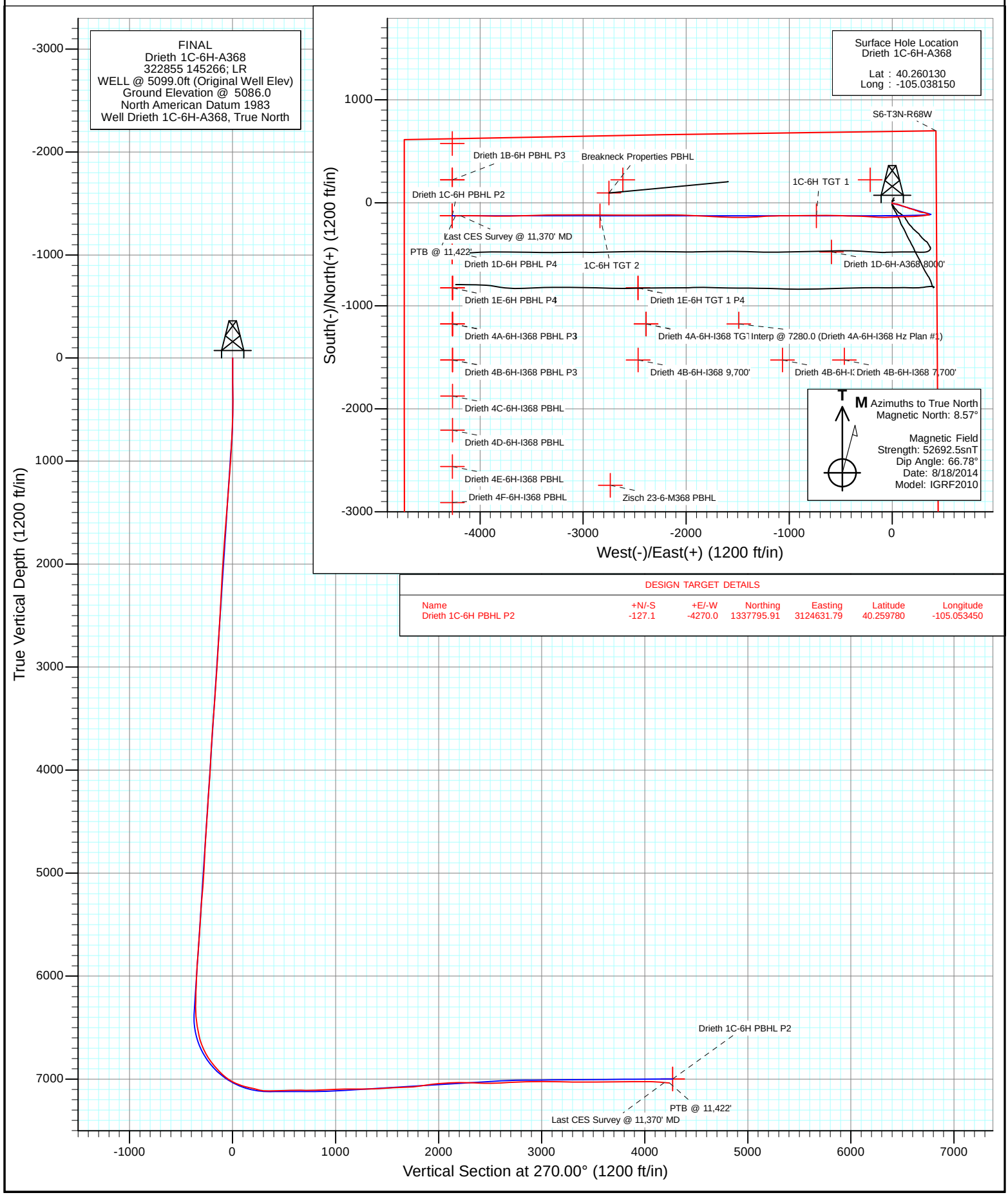
Project: DJ Wattenberg
Site: S6-T3N-R68W (Zisch/Drieth)
Well: Drieth 1C-6H-A368
Wellbore: Hz
Design: FINAL



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Drieth 1C-6H PBHL P2	-127.1	-4270.0	1337795.91	3124631.79	40.259780	-105.053450

Project: DJ Wattenberg
Site: S6-T3N-R68W (Zisch/Drieth)
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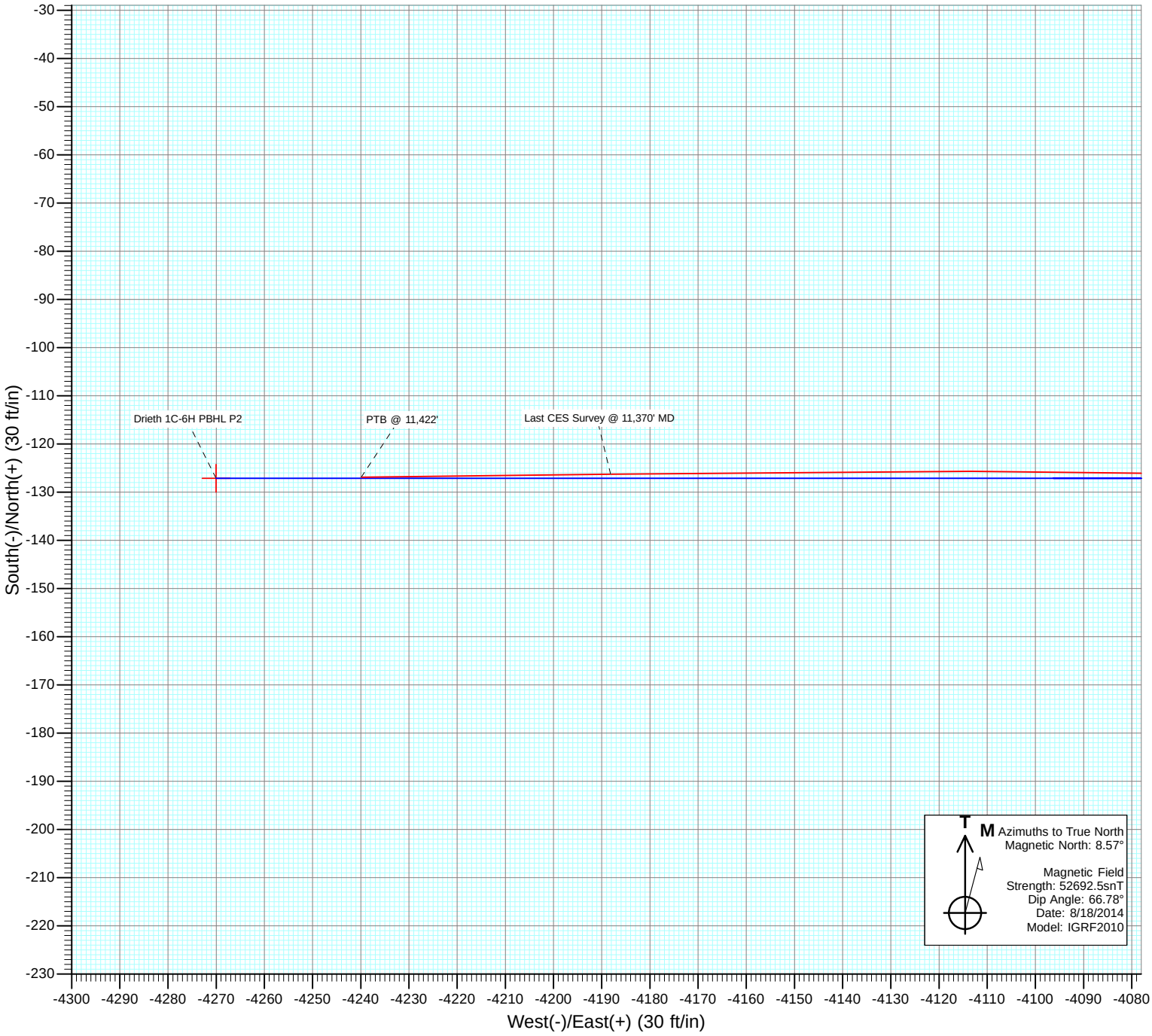
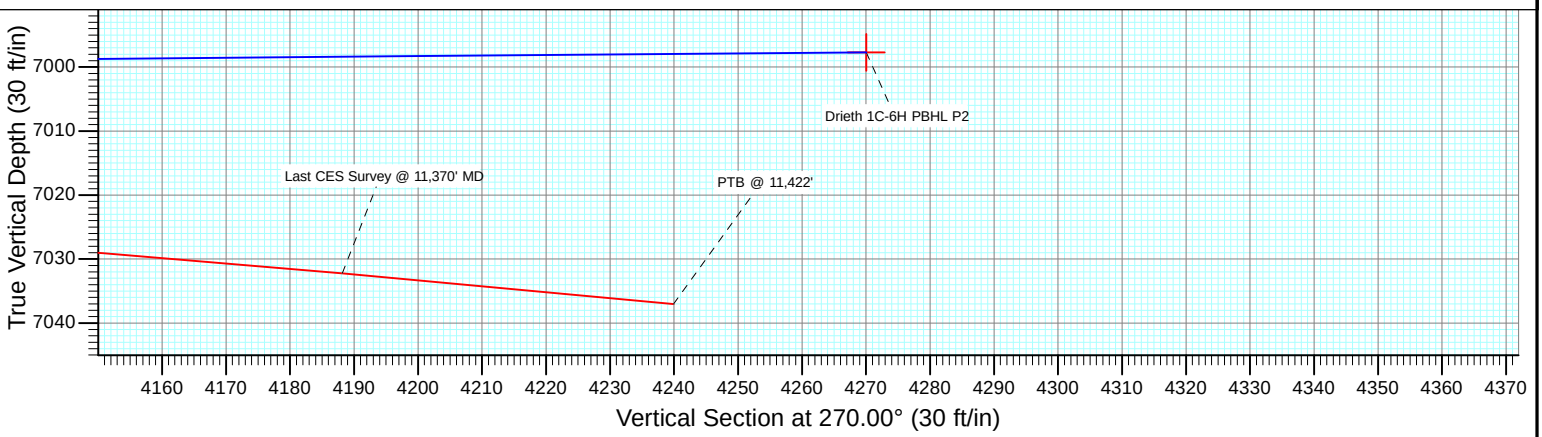
Wellbore: Hz
Design: FINAL





Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Drieth 1C-6H-A368
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Site:	S6-T3N-R68W (Zisch/Drieth)	**MD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Well:	Drieth 1C-6H-A368	**North Reference:**	True
Wellbore:	Hz	**Survey Calculation Method:**	Minimum Curvature
Design:	FINAL	**Database:**	USA EDM 5000 Multi Users DB

Project DJ Wattenberg

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

Site S6-T3N-R68W (Zisch/Drieth)

Site Position:		**Northing:**	1,333,692.14 ft	**Latitude:**	40.248510
From:	Lat/Long	**Easting:**	3,124,995.76 ft	**Longitude:**	-105.052220
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.29 °

Well Drieth 1C-6H-A368

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,337,945.25 ft	**Latitude:**	40.260130
	+E/-W	0.0 ft	**Easting:**	3,128,901.07 ft	**Longitude:**	-105.038150
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,086.0 ft

Wellbore Hz

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/18/2014	8.57	66.78	52,692

Design FINAL

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	270.00

Survey Program **Date** 9/23/2014

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
143.0	11,422.0	Survey #1 (Hz)	Geolink MWD	Geolink MWD

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
143.0	0.80	196.00	143.0	-1.0	-0.3	0.3	0.56	0.56	
235.0	0.90	198.50	235.0	-2.3	-0.7	0.7	0.12	0.11	
326.0	1.10	228.70	326.0	-3.5	-1.6	1.6	0.61	0.22	
418.0	0.40	222.90	418.0	-4.3	-2.4	2.4	0.76	-0.76	
510.0	1.00	150.80	510.0	-5.3	-2.3	2.3	1.04	0.65	
601.0	1.20	113.50	600.9	-6.3	-1.0	1.0	0.80	0.22	
692.0	2.80	100.70	691.9	-7.1	2.0	-2.0	1.81	1.76	
812.0	4.20	96.60	811.7	-8.2	9.3	-9.3	1.18	1.17	
916.0	4.10	97.10	915.4	-9.1	16.8	-16.8	0.10	-0.10	
1,008.0	3.70	114.70	1,007.2	-10.7	22.7	-22.7	1.37	-0.43	
1,099.0	2.80	106.00	1,098.0	-12.6	27.5	-27.5	1.13	-0.99	
1,191.0	4.40	88.10	1,189.8	-13.1	33.2	-33.2	2.11	1.74	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Drieth 1C-6H-A368
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Site:	S6-T3N-R68W (Zisch/Drieth)	**MD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Well:	Drieth 1C-6H-A368	**North Reference:**	True
Wellbore:	Hz	**Survey Calculation Method:**	Minimum Curvature
Design:	FINAL	**Database:**	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
1,282.0	3.60	88.60	1,280.6	-12.9	39.6	-39.6	0.88	-0.88	
1,375.0	5.10	99.00	1,373.4	-13.5	46.6	-46.6	1.82	1.61	
1,466.0	4.80	107.40	1,464.0	-15.2	54.2	-54.2	0.86	-0.33	
1,558.0	5.00	111.60	1,555.7	-17.9	61.6	-61.6	0.45	0.22	
1,649.0	4.40	101.90	1,646.4	-20.0	68.7	-68.7	1.09	-0.66	
1,741.0	4.80	116.10	1,738.1	-22.5	75.6	-75.6	1.31	0.43	
1,833.0	4.50	105.50	1,829.8	-25.1	82.5	-82.5	0.99	-0.33	
1,925.0	4.00	107.40	1,921.5	-27.0	89.1	-89.1	0.56	-0.54	
2,016.0	4.20	112.50	2,012.3	-29.3	95.2	-95.2	0.46	0.22	
2,108.0	3.60	105.90	2,104.1	-31.3	101.1	-101.1	0.81	-0.65	
2,200.0	3.30	111.40	2,195.9	-33.1	106.3	-106.3	0.49	-0.33	
2,291.0	3.00	107.20	2,286.8	-34.8	111.0	-111.0	0.42	-0.33	
2,383.0	3.60	117.50	2,378.6	-36.8	115.9	-115.9	0.91	0.65	
2,478.0	3.00	110.80	2,473.5	-39.1	120.9	-120.9	0.75	-0.63	
2,573.0	2.50	101.20	2,568.4	-40.4	125.2	-125.2	0.71	-0.53	
2,667.0	4.00	110.70	2,662.2	-41.9	130.3	-130.3	1.69	1.60	
2,761.0	3.10	103.10	2,756.0	-43.6	135.8	-135.8	1.08	-0.96	
2,856.0	4.00	93.50	2,850.8	-44.4	141.7	-141.7	1.13	0.95	
2,951.0	5.30	123.10	2,945.5	-47.0	148.6	-148.6	2.83	1.37	
3,045.0	4.50	117.90	3,039.2	-51.1	155.5	-155.5	0.97	-0.85	
3,140.0	3.30	109.00	3,134.0	-53.8	161.4	-161.4	1.41	-1.26	
3,234.0	3.60	110.10	3,227.8	-55.7	166.7	-166.7	0.33	0.32	
3,329.0	4.60	95.20	3,322.6	-57.0	173.3	-173.3	1.53	1.05	
3,424.0	4.70	108.90	3,417.3	-58.6	180.8	-180.8	1.17	0.11	
3,518.0	4.50	108.90	3,511.0	-61.1	187.9	-187.9	0.21	-0.21	
3,613.0	4.00	105.20	3,605.7	-63.2	194.7	-194.7	0.60	-0.53	
3,707.0	3.80	104.00	3,699.5	-64.8	200.9	-200.9	0.23	-0.21	
3,802.0	3.10	101.20	3,794.3	-66.0	206.4	-206.4	0.76	-0.74	
3,897.0	3.10	95.10	3,889.2	-66.8	211.5	-211.5	0.35	0.00	
3,991.0	4.20	123.50	3,983.0	-68.9	216.9	-216.9	2.22	1.17	
4,086.0	3.40	117.60	4,077.8	-72.1	222.3	-222.3	0.94	-0.84	
4,181.0	4.70	107.40	4,172.5	-74.6	228.5	-228.5	1.56	1.37	
4,275.0	4.10	107.30	4,266.3	-76.7	235.4	-235.4	0.64	-0.64	
4,370.0	3.50	103.00	4,361.1	-78.4	241.5	-241.5	0.70	-0.63	
4,464.0	4.60	115.30	4,454.8	-80.6	247.7	-247.7	1.48	1.17	
4,559.0	4.10	113.50	4,549.5	-83.6	254.2	-254.2	0.55	-0.53	
4,653.0	3.80	110.00	4,643.3	-86.0	260.2	-260.2	0.41	-0.32	
4,747.0	3.40	109.90	4,737.1	-88.0	265.8	-265.8	0.43	-0.43	
4,842.0	2.80	108.70	4,832.0	-89.7	270.6	-270.6	0.64	-0.63	
4,937.0	3.30	89.90	4,926.9	-90.5	275.6	-275.6	1.17	0.53	
5,031.0	4.20	104.00	5,020.7	-91.3	281.6	-281.6	1.36	0.96	
5,126.0	3.50	97.20	5,115.4	-92.5	287.9	-287.9	0.88	-0.74	
5,220.0	5.20	103.20	5,209.2	-93.9	294.9	-294.9	1.87	1.81	
5,315.0	4.20	97.30	5,303.9	-95.3	302.5	-302.5	1.17	-1.05	
5,409.0	3.40	91.20	5,397.6	-95.8	308.7	-308.7	0.95	-0.85	
5,504.0	4.20	106.70	5,492.4	-96.8	314.9	-314.9	1.36	0.84	
5,598.0	3.60	97.30	5,586.2	-98.2	321.1	-321.1	0.93	-0.64	
5,693.0	5.50	117.60	5,680.9	-100.7	328.1	-328.1	2.59	2.00	
5,787.0	4.70	115.10	5,774.6	-104.4	335.6	-335.6	0.88	-0.85	
5,882.0	4.00	112.50	5,869.3	-107.3	342.1	-342.1	0.77	-0.74	
5,977.0	3.20	110.30	5,964.1	-109.5	347.7	-347.7	0.85	-0.84	
6,071.0	3.00	128.20	6,058.0	-111.9	352.1	-352.1	1.05	-0.21	
6,166.0	2.00	124.60	6,152.9	-114.4	355.4	-355.4	1.07	-1.05	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Drieth 1C-6H-A368
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Site:	S6-T3N-R68W (Zisch/Drieth)	**MD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Well:	Drieth 1C-6H-A368	**North Reference:**	True
Wellbore:	Hz	**Survey Calculation Method:**	Minimum Curvature
Design:	FINAL	**Database:**	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
6,260.0	1.20	122.00	6,246.8	-115.9	357.6	-357.6	0.85	-0.85	
6,307.0	0.90	127.00	6,293.8	-116.4	358.3	-358.3	0.67	-0.64	
6,355.0	0.90	215.60	6,341.8	-116.9	358.4	-358.4	2.62	0.00	
6,402.0	6.20	261.20	6,388.7	-117.6	355.7	-355.7	11.93	11.28	
6,450.0	8.60	265.30	6,436.3	-118.3	349.5	-349.5	5.12	5.00	
6,497.0	8.40	262.00	6,482.8	-119.0	342.6	-342.6	1.12	-0.43	
6,544.0	9.80	261.20	6,529.2	-120.1	335.3	-335.3	2.99	2.98	
6,591.0	12.10	263.30	6,575.3	-121.3	326.4	-326.4	4.97	4.89	
6,639.0	17.00	261.70	6,621.8	-122.9	314.5	-314.5	10.24	10.21	
6,686.0	20.90	260.50	6,666.2	-125.3	299.4	-299.4	8.34	8.30	
6,733.0	25.20	261.50	6,709.5	-128.2	281.2	-281.2	9.19	9.15	
6,780.0	28.20	264.80	6,751.5	-130.6	260.3	-260.3	7.12	6.38	
6,828.0	33.10	269.10	6,792.7	-131.9	235.8	-235.8	11.18	10.21	
6,875.0	35.50	270.20	6,831.6	-132.0	209.4	-209.4	5.27	5.11	
6,923.0	40.20	267.20	6,869.5	-132.7	179.9	-179.9	10.51	9.79	
6,970.0	43.40	267.50	6,904.5	-134.2	148.6	-148.6	6.82	6.81	
7,017.0	46.00	268.40	6,937.9	-135.4	115.6	-115.6	5.69	5.53	
7,064.0	49.00	269.10	6,969.7	-136.1	81.0	-81.0	6.48	6.38	
7,112.0	55.90	267.80	6,998.9	-137.2	42.9	-42.9	14.53	14.37	
7,159.0	61.10	267.00	7,023.4	-139.0	2.9	-2.9	11.16	11.06	
7,207.0	67.20	269.00	7,044.4	-140.5	-40.2	40.2	13.25	12.71	
7,254.0	71.70	269.70	7,060.9	-141.0	-84.2	84.2	9.68	9.57	
7,301.0	75.20	271.70	7,074.2	-140.4	-129.3	129.3	8.49	7.45	
7,348.0	76.80	273.60	7,085.6	-138.3	-174.8	174.8	5.19	3.40	
7,396.0	76.80	273.60	7,096.6	-135.4	-221.4	221.4	0.00	0.00	
7,443.0	76.80	274.10	7,107.3	-132.3	-267.1	267.1	1.04	0.00	
7,490.0	86.10	271.30	7,114.3	-130.1	-313.5	313.5	20.64	19.79	
7,535.0	92.20	271.10	7,115.0	-129.2	-358.4	358.4	13.56	13.56	
7,605.0	92.70	272.00	7,112.0	-127.3	-428.3	428.3	1.47	0.71	
7,700.0	91.00	271.30	7,108.9	-124.6	-523.3	523.3	1.94	-1.79	
7,795.0	89.40	270.70	7,108.6	-122.9	-618.2	618.2	1.80	-1.68	
7,890.0	90.20	270.00	7,108.9	-122.3	-713.2	713.2	1.12	0.84	
7,984.0	92.30	269.00	7,106.8	-123.1	-807.2	807.2	2.47	2.23	
8,079.0	92.30	268.60	7,103.0	-125.1	-902.1	902.1	0.42	0.00	
8,173.0	92.40	269.90	7,099.2	-126.4	-996.0	996.0	1.39	0.11	
8,268.0	90.80	269.30	7,096.5	-127.0	-1,091.0	1,091.0	1.80	-1.68	
8,363.0	89.70	268.10	7,096.1	-129.2	-1,185.9	1,185.9	1.71	-1.16	
8,457.0	90.20	265.90	7,096.2	-134.1	-1,279.8	1,279.8	2.40	0.53	
8,552.0	92.30	267.40	7,094.1	-139.6	-1,374.6	1,374.6	2.72	2.21	
8,647.0	94.00	270.00	7,088.9	-141.8	-1,469.4	1,469.4	3.27	1.79	
8,742.0	92.80	270.90	7,083.3	-141.0	-1,564.3	1,564.3	1.58	-1.26	
8,836.0	92.00	272.60	7,079.3	-138.2	-1,658.1	1,658.1	2.00	-0.85	
8,931.0	94.40	273.20	7,074.0	-133.4	-1,752.9	1,752.9	2.60	2.53	
8,994.0	97.80	272.80	7,067.3	-130.1	-1,815.4	1,815.4	5.43	5.40	
9,057.0	98.50	273.40	7,058.4	-126.7	-1,877.7	1,877.7	1.46	1.11	
9,120.0	97.40	273.00	7,049.7	-123.2	-1,940.0	1,940.0	1.86	-1.75	
9,183.0	94.90	272.00	7,042.9	-120.5	-2,002.5	2,002.5	4.27	-3.97	
9,246.0	92.90	270.80	7,038.7	-119.0	-2,065.4	2,065.4	3.70	-3.17	
9,309.0	92.80	270.70	7,035.5	-118.2	-2,128.3	2,128.3	0.22	-0.16	
9,404.0	90.30	269.10	7,033.0	-118.3	-2,223.2	2,223.2	3.12	-2.63	
9,499.0	87.30	268.90	7,034.9	-120.0	-2,318.2	2,318.2	3.16	-3.16	
9,593.0	88.30	270.50	7,038.5	-120.5	-2,412.1	2,412.1	2.01	1.06	
9,688.0	90.30	269.70	7,039.7	-120.3	-2,507.1	2,507.1	2.27	2.11	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Drieth 1C-6H-A368
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Site:	S6-T3N-R68W (Zisch/Drieth)	**MD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Well:	Drieth 1C-6H-A368	**North Reference:**	True
Wellbore:	Hz	**Survey Calculation Method:**	Minimum Curvature
Design:	FINAL	**Database:**	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
9,782.0	92.70	270.70	7,037.2	-120.0	-2,601.1	2,601.1	2.77	2.55	
9,877.0	93.90	270.20	7,031.8	-119.2	-2,695.9	2,695.9	1.37	1.26	
9,972.0	92.70	270.30	7,026.3	-118.8	-2,790.7	2,790.7	1.27	-1.26	
10,066.0	90.30	270.80	7,023.9	-117.9	-2,884.7	2,884.7	2.61	-2.55	
10,161.0	90.00	270.00	7,023.6	-117.3	-2,979.7	2,979.7	0.90	-0.32	
10,255.0	89.40	269.80	7,024.1	-117.4	-3,073.7	3,073.7	0.67	-0.64	
10,350.0	89.50	269.90	7,025.0	-117.7	-3,168.7	3,168.7	0.15	0.11	
10,444.0	88.40	269.60	7,026.7	-118.1	-3,262.7	3,262.7	1.21	-1.17	
10,539.0	90.70	268.60	7,027.5	-119.6	-3,357.7	3,357.7	2.64	2.42	
10,634.0	90.50	268.70	7,026.5	-121.8	-3,452.6	3,452.6	0.24	-0.21	
10,728.0	89.70	267.80	7,026.3	-124.7	-3,546.6	3,546.6	1.28	-0.85	
10,823.0	89.90	269.00	7,026.6	-127.3	-3,641.5	3,641.5	1.28	0.21	
10,917.0	90.00	269.60	7,026.7	-128.5	-3,735.5	3,735.5	0.65	0.11	
11,012.0	91.00	270.30	7,025.9	-128.6	-3,830.5	3,830.5	1.28	1.05	
11,106.0	92.00	270.30	7,023.4	-128.1	-3,924.5	3,924.5	1.06	1.06	
11,201.0	88.80	271.40	7,022.8	-126.7	-4,019.5	4,019.5	3.56	-3.37	
11,295.0	86.60	269.80	7,026.5	-125.7	-4,113.4	4,113.4	2.89	-2.34	
11,370.0	84.70	269.30	7,032.2	-126.3	-4,188.1	4,188.1	2.62	-2.53	**Last CES Survey @ 11,370' MD**
11,422.0	84.70	269.30	7,037.0	-126.9	-4,239.9	4,239.9	0.00	0.00	**PTB @ 11,422'**

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
Drieth 1C-6H PBHL P2	0.00	0.00	6,997.7	-127.1	-4,270.0	1,337,795.91	3,124,631.79	40.259780	-105.053450
- actual wellpath misses target center by 49.5ft at 11422.0ft MD (7037.0 TVD, -126.9 N, -4239.9 E)									
- Point									
1C-6H TGT 2	0.00	0.00	7,009.7	-127.1	-2,836.7	1,337,803.38	3,126,065.07	40.259781	-105.048314
- actual wellpath misses target center by 17.2ft at 10018.3ft MD (7024.6 TVD, -118.5 N, -2837.0 E)									
- Point									
1C-6H TGT 1	0.00	0.00	7,120.0	-127.0	-736.7	1,337,814.41	3,128,165.04	40.259781	-105.040790
- actual wellpath misses target center by 12.2ft at 7913.3ft MD (7108.7 TVD, -122.4 N, -736.5 E)									
- Point									
Drieth 1C-6H PBHL	0.00	0.00	7,036.0	-127.1	-4,270.0	1,337,795.89	3,124,631.76	40.259780	-105.053450
- actual wellpath misses target center by 30.1ft at 11422.0ft MD (7037.0 TVD, -126.9 N, -4239.9 E)									
- Point									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
11,370.0	7,032.2	-126.3	-4,188.1	Last CES Survey @ 11,370' MD
11,422.0	7,037.0	-126.9	-4,239.9	PTB @ 11,422'

Checked By: _____ Approved By: _____ Date: _____

EnCana Oil & Gas (USA) Inc

DJ Wattenberg
S6-T3N-R68W (Zisch/Drieth)
Drieth 1C-6H-A368

Hz

Design: FINAL

Survey Report - Geographic

23 September, 2014

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Drieth 1C-6H-A368
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Site:	S6-T3N-R68W (Zisch/Drieth)	**MD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Well:	Drieth 1C-6H-A368	**North Reference:**	True
Wellbore:	Hz	**Survey Calculation Method:**	Minimum Curvature
Design:	FINAL	**Database:**	USA EDM 5000 Multi Users DB

Project DJ Wattenberg

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

Site S6-T3N-R68W (Zisch/Drieth)

Site Position:		**Northing:**	1,333,692.14 ft	**Latitude:**	40.248510
From:	Lat/Long	**Easting:**	3,124,995.76 ft	**Longitude:**	-105.052220
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.29 °

Well Drieth 1C-6H-A368

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,337,945.25 ft	**Latitude:**	40.260130
	+E/-W	0.0 ft	**Easting:**	3,128,901.07 ft	**Longitude:**	-105.038150
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,086.0 ft

Wellbore Hz

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/18/2014	8.57	66.78	52,692

Design FINAL

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	270.00

Survey Program **Date** 9/23/2014

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
143.0	11,422.0	Survey #1 (Hz)	Geolink MWD	Geolink MWD

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,337,945.25	3,128,901.07	40.260130	-105.038150
143.0	0.80	196.00	143.0	-1.0	-0.3	1,337,944.29	3,128,900.80	40.260127	-105.038151
235.0	0.90	198.50	235.0	-2.3	-0.7	1,337,942.98	3,128,900.40	40.260124	-105.038153
326.0	1.10	228.70	326.0	-3.5	-1.6	1,337,941.72	3,128,899.52	40.260120	-105.038156
418.0	0.40	222.90	418.0	-4.3	-2.4	1,337,940.90	3,128,898.64	40.260118	-105.038159
510.0	1.00	150.80	510.0	-5.3	-2.3	1,337,939.97	3,128,898.82	40.260116	-105.038158
601.0	1.20	113.50	600.9	-6.3	-1.0	1,337,938.90	3,128,900.09	40.260113	-105.038154
692.0	2.80	100.70	691.9	-7.1	2.0	1,337,938.12	3,128,903.15	40.260110	-105.038143
812.0	4.20	96.60	811.7	-8.2	9.3	1,337,937.11	3,128,910.40	40.260108	-105.038117
916.0	4.10	97.10	915.4	-9.1	16.8	1,337,936.25	3,128,917.88	40.260105	-105.038090
1,008.0	3.70	114.70	1,007.2	-10.7	22.7	1,337,934.64	3,128,923.85	40.260101	-105.038069
1,099.0	2.80	106.00	1,098.0	-12.6	27.5	1,337,932.82	3,128,928.66	40.260096	-105.038052

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Drieth 1C-6H-A368
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Site:	S6-T3N-R68W (Zisch/Drieth)	**MD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Well:	Drieth 1C-6H-A368	**North Reference:**	True
Wellbore:	Hz	**Survey Calculation Method:**	Minimum Curvature
Design:	FINAL	**Database:**	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
1,191.0	4.40	88.10	1,189.8	-13.1	33.2	1,337,932.35	3,128,934.35	40.260094	-105.038031
1,282.0	3.60	88.60	1,280.6	-12.9	39.6	1,337,932.57	3,128,940.70	40.260095	-105.038009
1,375.0	5.10	99.00	1,373.4	-13.5	46.6	1,337,932.03	3,128,947.70	40.260093	-105.037983
1,466.0	4.80	107.40	1,464.0	-15.2	54.2	1,337,930.30	3,128,955.34	40.260088	-105.037956
1,558.0	5.00	111.60	1,555.7	-17.9	61.6	1,337,927.71	3,128,962.75	40.260081	-105.037930
1,649.0	4.40	101.90	1,646.4	-20.0	68.7	1,337,925.57	3,128,969.87	40.260075	-105.037904
1,741.0	4.80	116.10	1,738.1	-22.5	75.6	1,337,923.18	3,128,976.79	40.260068	-105.037879
1,833.0	4.50	105.50	1,829.8	-25.1	82.5	1,337,920.56	3,128,983.74	40.260061	-105.037855
1,925.0	4.00	107.40	1,921.5	-27.0	89.1	1,337,918.67	3,128,990.29	40.260056	-105.037831
2,016.0	4.20	112.50	2,012.3	-29.3	95.2	1,337,916.48	3,128,996.41	40.260050	-105.037809
2,108.0	3.60	105.90	2,104.1	-31.3	101.1	1,337,914.43	3,129,002.31	40.260044	-105.037788
2,200.0	3.30	111.40	2,195.9	-33.1	106.3	1,337,912.70	3,129,007.56	40.260039	-105.037769
2,291.0	3.00	107.20	2,286.8	-34.8	111.0	1,337,911.06	3,129,012.28	40.260035	-105.037752
2,383.0	3.60	117.50	2,378.6	-36.8	115.9	1,337,909.04	3,129,017.15	40.260029	-105.037735
2,478.0	3.00	110.80	2,473.5	-39.1	120.9	1,337,906.81	3,129,022.14	40.260023	-105.037717
2,573.0	2.50	101.20	2,568.4	-40.4	125.2	1,337,905.54	3,129,026.50	40.260019	-105.037702
2,667.0	4.00	110.70	2,662.2	-41.9	130.3	1,337,904.01	3,129,031.59	40.260015	-105.037683
2,761.0	3.10	103.10	2,756.0	-43.6	135.8	1,337,902.31	3,129,037.14	40.260010	-105.037664
2,856.0	4.00	93.50	2,850.8	-44.4	141.7	1,337,901.55	3,129,042.95	40.260008	-105.037643
2,951.0	5.30	123.10	2,945.5	-47.0	148.6	1,337,898.99	3,129,049.95	40.260001	-105.037618
3,045.0	4.50	117.90	3,039.2	-51.1	155.5	1,337,894.93	3,129,056.86	40.259990	-105.037593
3,140.0	3.30	109.00	3,134.0	-53.8	161.4	1,337,892.33	3,129,062.76	40.259982	-105.037572
3,234.0	3.60	110.10	3,227.8	-55.7	166.7	1,337,890.46	3,129,068.10	40.259977	-105.037553
3,329.0	4.60	95.20	3,322.6	-57.0	173.3	1,337,889.12	3,129,074.70	40.259974	-105.037529
3,424.0	4.70	108.90	3,417.3	-58.6	180.8	1,337,887.56	3,129,082.18	40.259969	-105.037502
3,518.0	4.50	108.90	3,511.0	-61.1	187.9	1,337,885.15	3,129,089.33	40.259962	-105.037477
3,613.0	4.00	105.20	3,605.7	-63.2	194.7	1,337,883.11	3,129,096.06	40.259957	-105.037453
3,707.0	3.80	104.00	3,699.5	-64.8	200.9	1,337,881.53	3,129,102.26	40.259952	-105.037431
3,802.0	3.10	101.20	3,794.3	-66.0	206.4	1,337,880.30	3,129,107.84	40.259949	-105.037411
3,897.0	3.10	95.10	3,889.2	-66.8	211.5	1,337,879.60	3,129,112.92	40.259947	-105.037392
3,991.0	4.20	123.50	3,983.0	-68.9	216.9	1,337,877.50	3,129,118.33	40.259941	-105.037373
4,086.0	3.40	117.60	4,077.8	-72.1	222.3	1,337,874.30	3,129,123.75	40.259932	-105.037354
4,181.0	4.70	107.40	4,172.5	-74.6	228.5	1,337,871.87	3,129,129.97	40.259925	-105.037331
4,275.0	4.10	107.30	4,266.3	-76.7	235.4	1,337,869.75	3,129,136.87	40.259919	-105.037307
4,370.0	3.50	103.00	4,361.1	-78.4	241.5	1,337,868.12	3,129,142.94	40.259915	-105.037285
4,464.0	4.60	115.30	4,454.8	-80.6	247.7	1,337,865.90	3,129,149.16	40.259909	-105.037263
4,559.0	4.10	113.50	4,549.5	-83.6	254.2	1,337,862.95	3,129,155.73	40.259901	-105.037239
4,653.0	3.80	110.00	4,643.3	-86.0	260.2	1,337,860.57	3,129,161.75	40.259894	-105.037218
4,747.0	3.40	109.90	4,737.1	-88.0	265.8	1,337,858.59	3,129,167.31	40.259888	-105.037198
4,842.0	2.80	108.70	4,832.0	-89.7	270.6	1,337,856.91	3,129,172.17	40.259884	-105.037181
4,937.0	3.30	89.90	4,926.9	-90.5	275.6	1,337,856.20	3,129,177.10	40.259882	-105.037163
5,031.0	4.20	104.00	5,020.7	-91.3	281.6	1,337,855.40	3,129,183.15	40.259879	-105.037141
5,126.0	3.50	97.20	5,115.4	-92.5	287.9	1,337,854.23	3,129,189.41	40.259876	-105.037119
5,220.0	5.20	103.20	5,209.2	-93.9	294.9	1,337,852.93	3,129,196.41	40.259872	-105.037094
5,315.0	4.20	97.30	5,303.9	-95.3	302.5	1,337,851.55	3,129,204.06	40.259869	-105.037066
5,409.0	3.40	91.20	5,397.6	-95.8	308.7	1,337,851.08	3,129,210.27	40.259867	-105.037044
5,504.0	4.20	106.70	5,492.4	-96.8	314.9	1,337,850.06	3,129,216.42	40.259864	-105.037022
5,598.0	3.60	97.30	5,586.2	-98.2	321.1	1,337,848.73	3,129,222.65	40.259861	-105.037000
5,693.0	5.50	117.60	5,680.9	-100.7	328.1	1,337,846.27	3,129,229.66	40.259854	-105.036975
5,787.0	4.70	115.10	5,774.6	-104.4	335.6	1,337,842.59	3,129,237.16	40.259843	-105.036948
5,882.0	4.00	112.50	5,869.3	-107.3	342.1	1,337,839.71	3,129,243.76	40.259835	-105.036924
5,977.0	3.20	110.30	5,964.1	-109.5	347.7	1,337,837.55	3,129,249.32	40.259829	-105.036904
6,071.0	3.00	128.20	6,058.0	-111.9	352.1	1,337,835.14	3,129,253.73	40.259823	-105.036889
6,166.0	2.00	124.60	6,152.9	-114.4	355.4	1,337,832.68	3,129,257.06	40.259816	-105.036877
6,260.0	1.20	122.00	6,246.8	-115.9	357.6	1,337,831.24	3,129,259.25	40.259812	-105.036869

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Drieth 1C-6H-A368
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Site:	S6-T3N-R68W (Zisch/Drieth)	**MD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Well:	Drieth 1C-6H-A368	**North Reference:**	True
Wellbore:	Hz	**Survey Calculation Method:**	Minimum Curvature
Design:	FINAL	**Database:**	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
6,307.0	0.90	127.00	6,293.8	-116.4	358.3	1,337,830.76	3,129,259.96	40.259811	-105.036866
6,355.0	0.90	215.60	6,341.8	-116.9	358.4	1,337,830.22	3,129,260.05	40.259809	-105.036866
6,402.0	6.20	261.20	6,388.7	-117.6	355.7	1,337,829.52	3,129,257.33	40.259807	-105.036876
6,450.0	8.60	265.30	6,436.3	-118.3	349.5	1,337,828.80	3,129,251.19	40.259805	-105.036898
6,497.0	8.40	262.00	6,482.8	-119.0	342.6	1,337,828.00	3,129,244.29	40.259803	-105.036923
6,544.0	9.80	261.20	6,529.2	-120.1	335.3	1,337,826.87	3,129,236.95	40.259800	-105.036949
6,591.0	12.10	263.30	6,575.3	-121.3	326.4	1,337,825.64	3,129,228.11	40.259797	-105.036981
6,639.0	17.00	261.70	6,621.8	-122.9	314.5	1,337,823.97	3,129,216.17	40.259793	-105.037024
6,686.0	20.90	260.50	6,666.2	-125.3	299.4	1,337,821.52	3,129,201.11	40.259786	-105.037078
6,733.0	25.20	261.50	6,709.5	-128.2	281.2	1,337,818.56	3,129,182.95	40.259778	-105.037143
6,780.0	28.20	264.80	6,751.5	-130.6	260.3	1,337,815.96	3,129,162.00	40.259771	-105.037218
6,828.0	33.10	269.10	6,792.7	-131.9	235.8	1,337,814.60	3,129,137.59	40.259768	-105.037305
6,875.0	35.50	270.20	6,831.6	-132.0	209.4	1,337,814.31	3,129,111.11	40.259768	-105.037400
6,923.0	40.20	267.20	6,869.5	-132.7	179.9	1,337,813.45	3,129,081.68	40.259766	-105.037506
6,970.0	43.40	267.50	6,904.5	-134.2	148.6	1,337,811.84	3,129,050.40	40.259762	-105.037618
7,017.0	46.00	268.40	6,937.9	-135.4	115.6	1,337,810.49	3,129,017.37	40.259758	-105.037736
7,064.0	49.00	269.10	6,969.7	-136.1	81.0	1,337,809.56	3,128,982.74	40.259756	-105.037860
7,112.0	55.90	267.80	6,998.9	-137.2	42.9	1,337,808.31	3,128,944.73	40.259754	-105.037996
7,159.0	61.10	267.00	7,023.4	-139.0	2.9	1,337,806.28	3,128,904.72	40.259749	-105.038140
7,207.0	67.20	269.00	7,044.4	-140.5	-40.2	1,337,804.57	3,128,861.58	40.259744	-105.038294
7,254.0	71.70	269.70	7,060.9	-141.0	-84.2	1,337,803.84	3,128,817.59	40.259743	-105.038452
7,301.0	75.20	271.70	7,074.2	-140.4	-129.3	1,337,804.17	3,128,772.55	40.259745	-105.038613
7,348.0	76.80	273.60	7,085.6	-138.3	-174.8	1,337,806.04	3,128,726.99	40.259750	-105.038777
7,396.0	76.80	273.60	7,096.6	-135.4	-221.4	1,337,808.73	3,128,680.33	40.259758	-105.038944
7,443.0	76.80	274.10	7,107.3	-132.3	-267.1	1,337,811.57	3,128,634.66	40.259767	-105.039107
7,490.0	86.10	271.30	7,114.3	-130.1	-313.5	1,337,813.50	3,128,588.28	40.259773	-105.039273
7,535.0	92.20	271.10	7,115.0	-129.2	-358.4	1,337,814.21	3,128,543.31	40.259775	-105.039435
7,605.0	92.70	272.00	7,112.0	-127.3	-428.3	1,337,815.73	3,128,473.39	40.259781	-105.039685
7,700.0	91.00	271.30	7,108.9	-124.6	-523.3	1,337,817.97	3,128,378.47	40.259788	-105.040025
7,795.0	89.40	270.70	7,108.6	-122.9	-618.2	1,337,819.14	3,128,283.48	40.259793	-105.040365
7,890.0	90.20	270.00	7,108.9	-122.3	-713.2	1,337,819.22	3,128,188.48	40.259794	-105.040706
7,984.0	92.30	269.00	7,106.8	-123.1	-807.2	1,337,817.91	3,128,094.52	40.259792	-105.041043
8,079.0	92.30	268.60	7,103.0	-125.1	-902.1	1,337,815.43	3,127,999.63	40.259787	-105.041383
8,173.0	92.40	269.90	7,099.2	-126.4	-996.0	1,337,813.71	3,127,905.73	40.259783	-105.041719
8,268.0	90.80	269.30	7,096.5	-127.0	-1,091.0	1,337,812.55	3,127,810.78	40.259781	-105.042059
8,363.0	89.70	268.10	7,096.1	-129.2	-1,185.9	1,337,809.90	3,127,715.82	40.259775	-105.042400
8,457.0	90.20	265.90	7,096.2	-134.1	-1,279.8	1,337,804.50	3,127,621.98	40.259762	-105.042736
8,552.0	92.30	267.40	7,094.1	-139.6	-1,374.6	1,337,798.45	3,127,527.20	40.259747	-105.043076
8,647.0	94.00	270.00	7,088.9	-141.8	-1,469.4	1,337,795.80	3,127,432.39	40.259741	-105.043415
8,742.0	92.80	270.90	7,083.3	-141.0	-1,564.3	1,337,796.06	3,127,337.56	40.259743	-105.043755
8,836.0	92.00	272.60	7,079.3	-138.2	-1,658.1	1,337,798.44	3,127,243.68	40.259751	-105.044092
8,931.0	94.40	273.20	7,074.0	-133.4	-1,752.9	1,337,802.74	3,127,148.93	40.259764	-105.044431
8,994.0	97.80	272.80	7,067.3	-130.1	-1,815.4	1,337,805.69	3,127,086.37	40.259773	-105.044655
9,057.0	98.50	273.40	7,058.4	-126.7	-1,877.7	1,337,808.74	3,127,024.08	40.259782	-105.044878
9,120.0	97.40	273.00	7,049.7	-123.2	-1,940.0	1,337,811.90	3,126,961.77	40.259792	-105.045101
9,183.0	94.90	272.00	7,042.9	-120.5	-2,002.5	1,337,814.30	3,126,899.18	40.259799	-105.045326
9,246.0	92.90	270.80	7,038.7	-119.0	-2,065.4	1,337,815.51	3,126,836.34	40.259803	-105.045551
9,309.0	92.80	270.70	7,035.5	-118.2	-2,128.3	1,337,816.01	3,126,773.42	40.259805	-105.045776
9,404.0	90.30	269.10	7,033.0	-118.3	-2,223.2	1,337,815.35	3,126,678.47	40.259805	-105.046116
9,499.0	87.30	268.90	7,034.9	-120.0	-2,318.2	1,337,813.19	3,126,583.53	40.259800	-105.046457
9,593.0	88.30	270.50	7,038.5	-120.5	-2,412.1	1,337,812.21	3,126,489.60	40.259799	-105.046793
9,688.0	90.30	269.70	7,039.7	-120.3	-2,507.1	1,337,811.88	3,126,394.62	40.259799	-105.047134
9,782.0	92.70	270.70	7,037.2	-120.0	-2,601.1	1,337,811.72	3,126,300.66	40.259800	-105.047470
9,877.0	93.90	270.20	7,031.8	-119.2	-2,695.9	1,337,811.97	3,126,205.82	40.259802	-105.047810
9,972.0	92.70	270.30	7,026.3	-118.8	-2,790.7	1,337,811.89	3,126,110.98	40.259803	-105.048150

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Drieth 1C-6H-A368
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Site:	S6-T3N-R68W (Zisch/Drieth)	**MD Reference:**	WELL @ 5099.0ft (Original Well Elev)
Well:	Drieth 1C-6H-A368	**North Reference:**	True
Wellbore:	Hz	**Survey Calculation Method:**	Minimum Curvature
Design:	FINAL	**Database:**	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
10,066.0	90.30	270.80	7,023.9	-117.9	-2,884.7	1,337,812.31	3,126,017.02	40.259806	-105.048486
10,161.0	90.00	270.00	7,023.6	-117.3	-2,979.7	1,337,812.47	3,125,922.02	40.259808	-105.048827
10,255.0	89.40	269.80	7,024.1	-117.4	-3,073.7	1,337,811.82	3,125,828.02	40.259807	-105.049164
10,350.0	89.50	269.90	7,025.0	-117.7	-3,168.7	1,337,811.08	3,125,733.03	40.259806	-105.049504
10,444.0	88.40	269.60	7,026.7	-118.1	-3,262.7	1,337,810.18	3,125,639.05	40.259805	-105.049841
10,539.0	90.70	268.60	7,027.5	-119.6	-3,357.7	1,337,808.19	3,125,544.08	40.259801	-105.050181
10,634.0	90.50	268.70	7,026.5	-121.8	-3,452.6	1,337,805.46	3,125,449.13	40.259795	-105.050521
10,728.0	89.70	267.80	7,026.3	-124.7	-3,546.6	1,337,802.10	3,125,355.19	40.259787	-105.050858
10,823.0	89.90	269.00	7,026.6	-127.3	-3,641.5	1,337,798.95	3,125,260.24	40.259780	-105.051198
10,917.0	90.00	269.60	7,026.7	-128.5	-3,735.5	1,337,797.31	3,125,166.26	40.259777	-105.051535
11,012.0	91.00	270.30	7,025.9	-128.6	-3,830.5	1,337,796.74	3,125,071.26	40.259776	-105.051875
11,106.0	92.00	270.30	7,023.4	-128.1	-3,924.5	1,337,796.74	3,124,977.30	40.259778	-105.052212
11,201.0	88.80	271.40	7,022.8	-126.7	-4,019.5	1,337,797.65	3,124,882.32	40.259781	-105.052552
11,295.0	86.60	269.80	7,026.5	-125.7	-4,113.4	1,337,798.15	3,124,788.40	40.259784	-105.052889
11,370.0	84.70	269.30	7,032.2	-126.3	-4,188.1	1,337,797.17	3,124,713.65	40.259782	-105.053157
Last CES Survey @ 11,370' MD									
11,422.0	84.70	269.30	7,037.0	-126.9	-4,239.9	1,337,796.27	3,124,661.88	40.259781	-105.053342
PTB @ 11,422'									

Design 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
Drieth 1C-6H PBHL P2	0.00	0.00	6,997.7	-127.1	-4,270.0	1,337,795.91	3,124,631.79	40.259780	-105.053450
- actual wellpath misses target center by 49.5ft at 11422.0ft MD (7037.0 TVD, -126.9 N, -4239.9 E)									
- Point									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
11,370.0	7,032.2	-126.3	-4,188.1	Last CES Survey @ 11,370' MD
11,422.0	7,037.0	-126.9	-4,239.9	PTB @ 11,422'

Checked By: _____ Approved By: _____ Date: _____