

# **EnCana Oil & Gas (USA) Inc**

**North Piceance**

**H04 596 Pad**

**UWF15A-03 H04 596 (was 10D-03)**

**DD**

**PLAN #4**

## **Anticollision Report**

**19 September, 2016**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PLAN #4		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	Systematic Ellipse
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 1,500.00usft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	9/19/2016		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	12,882.41	PLAN #4 (DD)	MWD+HDGM	OWSG MWD + HDGM

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<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

### Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
H04 596 Pad						
CP01B-04 H04 ST1 (EXISTING) - Existing - SURVEYS	597.00	598.61	136.39	133.41	45.750	CC
CP01B-04 H04 ST1 (EXISTING) - Existing - SURVEYS	600.00	601.54	136.39	133.39	45.499	ES
CP01B-04 H04 ST1 (EXISTING) - Existing - SURVEYS	900.00	888.14	164.06	159.21	33.868	SF
CP01B-04 H04 ST1 (EXISTING) - Existing Gyro - GYRO	578.10	584.46	136.18	133.81	57.463	CC
CP01B-04 H04 ST1 (EXISTING) - Existing Gyro - GYRO	600.00	606.22	136.23	133.76	55.088	ES
CP01B-04 H04 ST1 (EXISTING) - Existing Gyro - GYRO	900.00	893.45	164.15	160.14	40.914	SF
CP05B-03 H04 (EXISTING) - Existing - SURVEYS	418.93	416.75	159.39	157.42	80.928	CC, ES
CP05B-03 H04 (EXISTING) - Existing - SURVEYS	1,200.00	1,185.24	212.63	205.70	30.685	SF
CP05B-03 H04 (EXISTING) - Existing Gyro - GYRO	373.67	376.18	159.35	157.94	112.868	CC
CP05B-03 H04 (EXISTING) - Existing Gyro - GYRO	400.00	402.48	159.37	157.84	104.263	ES
CP05B-03 H04 (EXISTING) - Existing Gyro - GYRO	1,200.00	1,189.51	212.57	206.69	36.142	SF
CP08D-04 H04 (EXISTING) - Existing - SURVEYS	368.15	365.58	148.71	147.03	88.273	CC
CP08D-04 H04 (EXISTING) - Existing - SURVEYS	400.00	397.41	148.74	146.89	80.321	ES
CP08D-04 H04 (EXISTING) - Existing - SURVEYS	1,000.00	982.04	189.33	183.93	35.098	SF
CP08D-04 H04 (EXISTING) - Existing Gyro - GYRO	420.35	423.34	147.22	145.60	91.340	CC, ES
CP08D-04 H04 (EXISTING) - Existing Gyro - GYRO	1,000.00	987.43	189.30	184.75	41.631	SF
CP09B-04 K04 (EXISTING) - Existing - GYROS						Out of range
CP12D-03 H04 (EXISTING) - Existing - SURVEYS	0.00	0.00	170.22			
CP12D-03 H04 (EXISTING) - Existing - SURVEYS	200.00	195.41	170.80	170.01	214.984	ES
CP12D-03 H04 (EXISTING) - Existing - SURVEYS	1,200.00	1,169.61	252.34	245.24	35.561	SF
CP12D-03 H04 (EXISTING) - Existing Gyro - GYRO	0.00	1.00	170.17			
CP12D-03 H04 (EXISTING) - Existing Gyro - GYRO	200.00	200.00	170.61	169.97	267.031	ES
CP12D-03 H04 (EXISTING) - Existing Gyro - GYRO	1,200.00	1,172.77	253.95	247.97	42.453	SF
UWF02A-09 H04 596 - DD - Plan #2	103.89	103.89	81.15	80.89	314.834	CC
UWF02A-09 H04 596 - DD - Plan #2	200.00	199.18	81.40	80.62	104.553	ES
UWF02A-09 H04 596 - DD - Plan #2	600.00	579.01	126.21	122.58	34.724	SF
UWF02B-09 H04 596 - DD - Plan #2	300.00	300.00	90.46	89.16	69.422	CC, ES
UWF02B-09 H04 596 - DD - Plan #2	1,000.00	1,003.58	124.58	119.06	22.546	SF
UWF02C-04 H04 596 - DD - Plan #2	300.00	300.00	139.72	138.42	107.227	CC, ES
UWF02C-04 H04 596 - DD - Plan #2	800.00	755.09	204.51	199.90	44.337	SF
UWF02D-04 H04 596 - DD - Plan #2	116.67	116.67	139.48	139.15	428.030	CC
UWF02D-04 H04 596 - DD - Plan #2	200.00	200.00	139.48	138.71	181.132	ES
UWF02D-04 H04 596 - DD - Plan #2	700.00	663.50	193.63	189.49	46.778	SF
UWF02E-04 H04 596 - DD - Plan #2	386.44	386.42	119.54	117.78	68.043	CC
UWF02E-04 H04 596 - DD - Plan #2	500.00	499.10	120.05	117.69	50.852	ES
UWF02E-04 H04 596 - DD - Plan #2	800.00	772.37	163.65	159.27	37.322	SF
UWF04A-10 H04 596 - DD - Plan #2	203.46	203.46	79.95	79.16	101.403	CC
UWF04A-10 H04 596 - DD - Plan #2	300.00	298.41	80.45	79.13	60.942	ES
UWF04A-10 H04 596 - DD - Plan #2	4,200.00	3,855.33	1,471.44	1,406.61	22.700	SF
UWF04B-04 H04 596 - DD - Plan #2	424.49	423.82	129.04	127.09	65.910	CC, ES
UWF04B-04 H04 596 - DD - Plan #2	800.00	770.21	173.13	168.75	39.533	SF
UWF04B-10 H04 596 - DD - Plan #2	116.67	116.67	90.32	90.00	277.188	CC
UWF04B-10 H04 596 - DD - Plan #2	200.00	200.00	90.32	89.55	117.300	ES
UWF04B-10 H04 596 - DD - Plan #2	4,000.00	3,627.48	1,468.08	1,406.68	23.908	SF
UWF04C-04 H04 596 - DD - Plan #2	510.46	516.71	119.05	116.30	43.216	CC, ES
UWF04C-04 H04 596 - DD - Plan #2	700.00	689.93	141.44	137.11	32.670	SF
UWF04C-10 H04 596 - DD - Plan #2	103.42	103.42	99.94	99.68	391.553	CC
UWF04C-10 H04 596 - DD - Plan #2	200.00	197.96	100.45	99.64	125.087	ES
UWF04C-10 H04 596 - DD - Plan #2	3,800.00	3,400.77	1,458.28	1,400.71	25.331	SF
UWF04D-03 H04 596 - DD - Plan #2	116.67	116.67	119.94	119.61	368.072	CC
UWF04D-03 H04 596 - DD - Plan #2	200.00	200.00	119.94	119.17	155.760	ES
UWF04D-03 H04 596 - DD - Plan #2	1,435.17	1,360.44	367.92	356.51	32.242	SF
UWF04D-10 H04 596 - DD - Plan #2	103.33	103.33	101.02	100.76	396.468	CC, ES

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

### Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
H04 596 Pad						
UWF04D-10 H04 596 - DD - Plan #2	3,500.00	3,183.96	1,477.36	1,426.73	29.181	SF
UWF04E-03 H04 596 - DD - Plan #2	300.00	300.00	109.36	108.06	83.927	CC, ES
UWF04E-03 H04 596 - DD - Plan #2	1,300.00	1,255.06	277.30	267.79	29.162	SF
UWF04E-04 H04 596 - DD - Plan #2	365.90	365.94	110.14	108.49	66.619	CC
UWF04E-04 H04 596 - DD - Plan #2	400.00	399.90	110.18	108.35	60.065	ES
UWF04E-04 H04 596 - DD - Plan #2	700.00	684.09	137.67	133.82	35.769	SF
UWF05A-03 H04 596 - DD - Plan #2	116.67	116.67	99.95	99.63	306.742	CC
UWF05A-03 H04 596 - DD - Plan #2	200.00	200.00	99.95	99.18	129.806	ES
UWF05A-03 H04 596 - DD - Plan #2	1,300.00	1,263.64	245.58	235.73	24.943	SF
UWF05A-04 H04 596 - DD - Plan #2	373.60	373.74	90.23	88.54	53.248	CC
UWF05A-04 H04 596 - DD - Plan #2	400.00	400.07	90.26	88.43	49.198	ES
UWF05A-04 H04 596 - DD - Plan #2	700.00	684.75	121.54	117.68	31.444	SF
UWF05B-03 H04 596 - DD - Plan #3	300.00	300.00	89.37	88.06	68.584	CC, ES
UWF05B-03 H04 596 - DD - Plan #3	1,200.00	1,180.55	180.78	172.43	21.652	SF
UWF05C-03 H04 596 - DD - Plan #2	300.00	300.00	69.38	68.07	53.243	CC
UWF05C-03 H04 596 - DD - Plan #2	400.00	398.97	69.86	68.02	37.976	ES
UWF05C-03 H04 596 - DD - Plan #2	1,100.00	1,091.22	119.28	111.89	16.152	SF
UWF05D-03 H04 596 - DD - Plan #2	530.15	529.76	48.15	45.56	18.550	CC
UWF05D-03 H04 596 - DD - Plan #2	600.00	599.30	48.55	45.51	15.928	ES
UWF05D-03 H04 596 - DD - Plan #2	1,000.00	997.40	66.32	59.92	10.352	SF
UWF05E-03 H04 596 - DD - Plan #2	999.31	997.37	25.71	18.93	3.794	CC
UWF05E-03 H04 596 - DD - Plan #2	1,000.00	998.06	25.71	18.93	3.790	ES, SF
UWF06B-04 H04 596 - DD - Plan #2	333.01	333.25	70.19	68.69	46.742	CC, ES
UWF06B-04 H04 596 - DD - Plan #2	600.00	589.90	93.46	90.05	27.415	SF
UWF06E-04 H04 596 (was 07E-04) - DD - Plan #3	412.10	413.54	47.44	45.46	23.970	CC, ES
UWF06E-04 H04 596 (was 07E-04) - DD - Plan #3	500.00	499.60	51.12	48.58	20.119	SF
UWF07A-04 H04 596 - DD - Plan #2	300.00	300.00	99.65	98.35	76.478	CC
UWF07A-04 H04 596 - DD - Plan #2	400.00	399.95	99.69	97.86	54.536	ES
UWF07A-04 H04 596 - DD - Plan #2	700.00	686.57	125.21	121.58	34.448	SF
UWF07B-03 H04 596 - DD - Plan #2	116.67	116.67	79.97	79.64	245.398	CC
UWF07B-03 H04 596 - DD - Plan #2	200.00	200.00	79.97	79.20	103.847	ES
UWF07B-03 H04 596 - DD - Plan #2	7,200.00	7,013.98	1,484.42	1,339.93	10.273	SF
UWF07B-04 H04 596 - DD - Plan #3	300.00	300.00	79.80	78.50	61.241	CC
UWF07B-04 H04 596 - DD - Plan #3	400.00	399.46	80.07	78.24	43.779	ES
UWF07B-04 H04 596 - DD - Plan #3	700.00	693.82	95.95	92.46	27.494	SF
UWF07C-03 H04 596 - DD - Plan #2	116.67	116.67	59.98	59.65	184.055	CC
UWF07C-03 H04 596 - DD - Plan #2	200.00	200.00	59.98	59.21	77.888	ES
UWF07C-03 H04 596 - DD - Plan #2	8,000.00	7,876.29	1,405.33	1,241.07	8.556	SF
UWF07C-04 H04 596 - DD - Plan #2	381.58	381.91	59.93	58.19	34.477	CC
UWF07C-04 H04 596 - DD - Plan #2	400.00	400.31	59.95	58.12	32.654	ES
UWF07C-04 H04 596 - DD - Plan #2	600.00	594.63	74.07	70.96	23.809	SF
UWF07E-03 H04 596 - DD - Plan #2	300.00	300.00	40.50	39.20	31.084	CC
UWF07E-03 H04 596 - DD - Plan #2	400.00	399.95	40.94	39.11	22.396	ES
UWF07E-03 H04 596 - DD - Plan #2	8,000.00	7,992.78	971.42	803.56	5.787	SF
UWF10A-03 H04 596 - DD - Plan #2	116.67	116.67	19.99	19.66	61.343	CC
UWF10A-03 H04 596 - DD - Plan #2	300.00	299.82	20.38	19.06	15.467	ES
UWF10A-03 H04 596 - DD - Plan #2	8,064.68	8,033.61	725.18	555.40	4.271	SF
UWF10A-04 H04 596 - DD - Plan #2	378.59	379.44	28.86	27.08	16.242	CC, ES
UWF10A-04 H04 596 - DD - Plan #2	500.00	498.51	37.37	34.77	14.337	SF
UWF10B-03 H04 596 - DD - Plan #2	300.00	300.00	21.60	20.30	16.578	CC, ES
UWF10B-03 H04 596 - DD - Plan #2	8,300.00	8,375.16	490.22	314.19	2.785	SF
UWF10C-03 H04 596 - DD - Plan #2	101.83	101.83	9.61	9.37	38.954	CC
UWF10C-03 H04 596 - DD - Plan #2	200.00	199.95	9.74	8.96	12.582	ES

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

### Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
H04 596 Pad						
UWF10C-03 H04 596 - DD - Plan #2	8,600.00	8,616.86	245.86	66.56	1.371	Level 3, SF
UWF10C-04 H04 596 - DD - Plan #2	203.33	203.33	14.38	13.59	18.251	CC
UWF10C-04 H04 596 - DD - Plan #2	300.00	299.80	14.73	13.41	11.221	ES
UWF10C-04 H04 596 - DD - Plan #2	400.00	399.19	19.57	17.68	10.368	SF
UWF10E-04 H04 596 - DD - Plan #2	300.00	300.00	22.73	21.43	17.443	CC, ES
UWF10E-04 H04 596 - DD - Plan #2	400.00	398.62	26.75	24.84	13.957	SF
UWF12A-03 H04 596 - DD - Plan #3	403.11	403.06	29.26	27.42	15.866	CC, ES
UWF12A-03 H04 596 - DD - Plan #3	800.00	803.04	47.64	43.32	11.031	SF
UWF12B-03 H04 596 - DD - Plan #2	300.00	300.00	14.04	12.74	10.774	CC, ES
UWF12B-03 H04 596 - DD - Plan #2	600.00	601.63	24.08	20.99	7.788	SF
UWF12C-03 H04 596 - DD - Plan #2	300.00	300.00	10.38	9.08	7.968	CC
UWF12C-03 H04 596 - DD - Plan #2	400.00	399.95	10.84	9.01	5.931	ES, SF
UWF12E-03 H04 596 - DD - Plan #2	300.00	300.00	19.99	18.68	15.337	CC
UWF12E-03 H04 596 - DD - Plan #2	400.00	399.95	20.42	18.59	11.171	ES
UWF12E-03 H04 596 - DD - Plan #2	500.00	499.63	23.49	21.13	9.961	SF
UWF13A-03 H04 596 - DD - Plan #2	300.00	300.00	30.37	29.07	23.309	CC
UWF13A-03 H04 596 - DD - Plan #2	400.00	399.95	30.71	28.88	16.798	ES
UWF13A-03 H04 596 - DD - Plan #2	600.00	598.52	39.76	36.85	13.665	SF
UWF13B-03 H04 596 - DD - Plan #3	300.00	300.00	39.97	38.67	30.678	CC
UWF13B-03 H04 596 - DD - Plan #3	400.00	399.95	40.33	38.50	22.061	ES
UWF13B-03 H04 596 - DD - Plan #3	600.00	597.60	49.56	46.64	16.922	SF
UWF13C-03 H04 596 - DD - PLAN #4	300.00	300.00	50.18	48.51	29.976	CC
UWF13C-03 H04 596 - DD - PLAN #4	400.00	399.95	50.49	48.11	21.190	ES
UWF13C-03 H04 596 - DD - PLAN #4	700.00	693.48	72.77	68.10	15.576	SF
UWF13D-03 H04 596 - DD - Plan #2	300.00	300.00	59.97	58.66	46.022	CC
UWF13D-03 H04 596 - DD - Plan #2	300.00	300.00	59.97	58.66	46.021	ES
UWF13D-03 H04 596 - DD - Plan #2	4,600.00	4,307.23	1,467.74	1,398.00	21.047	SF
UWF13E-03 H04 596 - DD - Plan #2	300.00	300.00	70.34	69.03	53.978	CC, ES
UWF13E-03 H04 596 - DD - Plan #2	4,400.00	4,081.45	1,471.34	1,403.67	21.744	SF
UWF14C-04 H04 596 (was 15C-04) - DD - Plan #3	300.00	300.00	50.87	49.57	39.040	CC, ES
UWF14C-04 H04 596 (was 15C-04) - DD - Plan #3	600.00	595.32	64.59	61.63	21.807	SF
UWF15A-04 H04 596 - DD - Plan #3	300.00	300.00	31.87	30.56	24.456	CC, ES
UWF15A-04 H04 596 - DD - Plan #3	500.00	499.63	37.42	35.06	15.860	SF
UWF15B-03 H04 596 (was 10E-03) - DD - Plan #3	300.00	300.00	9.60	8.30	7.369	CC, ES
UWF15B-03 H04 596 (was 10E-03) - DD - Plan #3	2,000.00	2,007.80	116.08	88.56	4.219	SF
UWF15B-04 H04 596 - DD - Plan #2	203.48	203.48	41.71	40.92	52.894	CC, ES
UWF15B-04 H04 596 - DD - Plan #2	500.00	492.72	61.49	58.78	22.695	SF
UWF15D-04 H04 596 - DD - Plan #3	300.00	300.00	61.36	60.05	47.089	CC, ES
UWF15D-04 H04 596 - DD - Plan #3	600.00	586.09	92.80	89.51	28.242	SF
UWF15E-04 H04 596 - DD - Plan #3	104.45	104.45	70.61	70.35	270.796	CC
UWF15E-04 H04 596 - DD - Plan #3	200.00	198.63	71.00	70.20	88.661	ES
UWF15E-04 H04 596 - DD - Plan #3	500.00	484.00	102.40	99.46	34.774	SF
WF03D B04 (EXISTING) - Existing - SURVEYS						Out of range
WF04D B04 (EXISTING) - Existing - SURVEYS						Out of range
WF10D O03 (EXISTING) - Existing - SURVEYS	8,220.58	7,149.20	279.57	176.21	2.705	CC, ES, SF

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - CP01B-04 H04 ST1 (EXISTING) - Existing - SURVEYS													Offset Site Error:	0.00 usft
Survey Program: 1-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Between Centres (usft)	Between Ellipses (usft)						
0.00	0.00	0.00	0.00	0.00	0.00	-164.47	-135.08	-37.55	140.23					
100.00	100.00	96.31	96.31	0.12	0.14	-164.80	-135.51	-36.81	140.43	140.16	0.27	524.210		
200.00	200.00	196.76	196.75	0.48	0.31	-164.84	-136.04	-36.86	140.95	140.15	0.79	177.814		
300.00	300.00	298.53	298.51	0.84	0.49	-164.41	-135.30	-37.74	140.48	139.14	1.33	105.244		
400.00	399.95	401.33	401.27	1.19	0.68	97.70	-132.63	-39.40	138.75	136.85	1.89	73.229		
500.00	499.63	500.89	500.72	1.55	0.86	102.32	-128.62	-41.47	137.02	134.60	2.42	56.621		
597.00	595.81	598.61	598.26	1.91	1.06	105.05	-123.42	-44.12	136.39	133.41	2.98	45.750 CC		
600.00	598.78	601.54	601.19	1.92	1.06	105.21	-123.24	-44.21	136.39	133.39	3.00	45.499 ES		
700.00	697.11	698.59	697.99	2.32	1.26	112.36	-117.03	-47.40	138.80	135.22	3.58	38.769		
800.00	794.38	794.07	793.22	2.77	1.46	121.34	-111.01	-50.81	147.51	143.31	4.20	35.118		
900.00	890.30	888.14	886.95	3.28	1.67	130.88	-104.18	-54.77	164.06	159.21	4.84	33.868 SF		
1,000.00	984.62	980.10	978.47	3.86	1.89	139.77	-96.31	-59.21	189.42	183.95	5.47	34.603		
1,100.00	1,077.08	1,072.26	1,070.23	4.52	2.09	147.19	-88.52	-62.76	222.52	216.45	6.08	36.622		
1,200.00	1,167.42	1,160.59	1,158.22	5.29	2.30	152.87	-81.29	-65.32	262.38	255.72	6.66	39.418		
1,300.00	1,255.40	1,241.00	1,238.20	6.18	2.50	157.23	-73.53	-68.27	309.57	302.36	7.21	42.943		
1,400.00	1,340.78	1,319.67	1,316.33	7.19	2.70	160.83	-65.05	-71.93	363.69	355.95	7.74	46.973		
1,435.17	1,370.15	1,346.75	1,343.21	7.57	2.77	161.89	-62.14	-73.26	384.12	376.19	7.93	48.414		
1,500.00	1,423.95	1,396.39	1,392.51	8.31	2.90	164.16	-56.86	-75.77	422.70	414.44	8.26	51.175		
1,600.00	1,506.93	1,472.77	1,468.36	9.46	3.10	166.98	-48.86	-79.82	483.10	474.34	8.76	55.159		
1,700.00	1,589.92	1,548.21	1,543.25	10.64	3.31	169.20	-40.69	-83.98	544.35	535.09	9.26	58.798		
1,800.00	1,672.90	1,622.17	1,616.57	11.83	3.51	171.03	-32.11	-88.29	606.44	596.68	9.75	62.168		
1,900.00	1,755.89	1,699.87	1,693.65	13.03	3.72	172.56	-23.49	-93.07	669.00	658.73	10.27	65.146		
2,000.00	1,838.87	1,780.59	1,773.82	14.24	3.92	173.78	-15.52	-98.07	731.57	720.76	10.81	67.666		
2,100.00	1,921.85	1,854.49	1,847.24	15.46	4.12	174.71	-8.42	-102.52	794.11	782.80	11.32	70.175		
2,200.00	2,004.84	1,920.92	1,913.18	16.68	4.30	175.44	-1.81	-107.07	857.48	845.70	11.78	72.815		
2,300.00	2,087.82	1,986.00	1,977.63	17.90	4.50	176.10	5.41	-112.50	922.24	910.01	12.23	75.403		
2,400.00	2,170.81	2,053.24	2,044.12	19.13	4.70	176.72	13.27	-118.69	987.87	975.17	12.70	77.783		
2,500.00	2,253.79	2,125.93	2,116.03	20.36	4.91	177.29	21.42	-125.57	1,053.67	1,040.46	13.20	79.795		
2,600.00	2,336.78	2,194.31	2,183.68	21.59	5.12	177.72	28.65	-132.42	1,119.75	1,106.07	13.68	81.844		
2,700.00	2,419.76	2,256.87	2,245.49	22.82	5.31	178.08	35.48	-139.21	1,186.55	1,172.43	14.12	84.043		
2,800.00	2,502.75	2,323.36	2,311.12	24.06	5.52	178.43	42.84	-146.91	1,253.93	1,239.35	14.58	85.997		
2,900.00	2,585.73	2,388.59	2,375.48	25.29	5.72	178.69	49.56	-155.12	1,321.83	1,306.80	15.03	87.938		
3,000.00	2,668.72	2,457.99	2,443.96	26.53	5.94	178.90	55.90	-164.47	1,390.05	1,374.54	15.51	89.632		
3,100.00	2,751.70	2,500.99	2,486.36	27.77	6.07	178.99	59.47	-170.67	1,458.88	1,443.09	15.79	92.408		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - CP01B-04 H04 ST1 (EXISTING) - Existing Gyro - GYRO													Offset Site Error: 0.00 usft	
Survey Program: 100-Gyro													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	2.03	2.03	0.00	0.00	-164.47	-135.08	-37.55	140.20					
100.00	100.00	103.19	103.19	0.12	0.07	-164.39	-134.57	-37.61	139.73	139.52	0.22	648.888		
163.72	163.72	165.72	165.72	0.35	0.13	-164.27	-134.24	-37.80	139.46	138.99	0.47	294.199		
200.00	200.00	201.38	201.37	0.48	0.16	-164.19	-134.27	-38.01	139.55	138.91	0.64	219.031		
300.00	300.00	303.03	303.01	0.84	0.25	-163.65	-133.78	-39.26	139.43	138.34	1.09	128.350		
400.00	399.95	405.91	405.85	1.19	0.34	98.52	-131.24	-41.06	137.93	136.37	1.55	88.788		
500.00	499.63	505.85	505.69	1.55	0.43	103.13	-127.41	-43.07	136.52	134.52	1.99	68.439		
578.10	577.12	584.46	584.17	1.84	0.51	104.88	-123.44	-45.17	136.18	133.81	2.37	57.463 CC		
600.00	598.78	606.22	605.88	1.92	0.54	106.02	-122.12	-45.86	136.23	133.76	2.47	55.088 ES		
700.00	697.11	703.83	703.25	2.32	0.64	113.12	-115.96	-48.90	138.94	135.98	2.96	46.934		
800.00	794.38	799.76	798.89	2.77	0.74	122.26	-109.25	-52.23	147.51	144.03	3.48	42.385		
900.00	890.30	893.45	892.23	3.28	0.84	131.75	-102.06	-56.01	164.15	160.14	4.01	40.914 SF		
1,000.00	984.62	985.39	983.80	3.86	0.95	140.30	-94.77	-59.84	189.54	185.00	4.54	41.789		
1,100.00	1,077.08	1,075.94	1,073.98	4.52	1.05	147.42	-87.49	-63.43	223.03	217.99	5.04	44.262		
1,200.00	1,167.42	1,165.07	1,162.74	5.29	1.16	153.15	-80.08	-66.43	263.43	257.90	5.53	47.627		
1,300.00	1,255.40	1,247.43	1,244.69	6.18	1.26	157.58	-72.16	-69.02	310.29	304.29	6.00	51.719		
1,400.00	1,340.78	1,324.28	1,321.06	7.19	1.35	160.94	-64.33	-72.48	364.32	357.88	6.45	56.512		
1,435.17	1,370.15	1,351.46	1,348.05	7.57	1.39	161.98	-61.51	-73.83	384.78	378.17	6.61	58.200		
1,500.00	1,423.95	1,400.00	1,396.26	8.31	1.45	164.19	-56.43	-76.31	423.38	416.50	6.88	61.511		
1,600.00	1,506.93	1,476.16	1,471.89	9.46	1.55	167.00	-48.41	-80.46	483.93	476.63	7.30	66.287		
1,700.00	1,589.92	1,551.72	1,546.88	10.64	1.66	169.21	-40.30	-84.89	545.44	537.71	7.72	70.643		
1,800.00	1,672.90	1,628.49	1,623.03	11.83	1.76	171.07	-31.62	-89.45	607.55	599.40	8.15	74.560		
1,900.00	1,755.89	1,707.52	1,701.52	13.03	1.86	172.52	-23.77	-94.25	669.82	661.23	8.59	77.957		
2,000.00	1,838.87	1,782.49	1,776.01	14.24	1.96	173.61	-16.84	-98.99	732.33	723.31	9.02	81.157		
2,100.00	1,921.85	1,855.43	1,848.46	15.46	2.05	174.51	-9.98	-103.88	795.30	785.86	9.45	84.175		
2,200.00	2,004.84	1,924.69	1,917.21	16.68	2.15	175.26	-3.31	-108.93	858.89	849.03	9.86	87.130		
2,300.00	2,087.82	1,988.47	1,980.41	17.90	2.24	175.91	3.62	-114.14	923.49	913.25	10.24	90.191		
2,400.00	2,170.81	2,060.83	2,052.00	19.13	2.35	176.58	11.92	-120.59	988.87	978.20	10.67	92.702		
2,500.00	2,253.79	2,131.95	2,122.41	20.36	2.45	177.11	19.39	-127.29	1,054.44	1,043.35	11.09	95.072		
2,600.00	2,336.78	2,200.00	2,189.74	21.59	2.55	177.53	26.32	-134.25	1,120.55	1,109.05	11.50	97.453		
2,700.00	2,419.76	2,260.98	2,250.01	22.82	2.65	177.87	32.65	-141.01	1,187.35	1,175.48	11.87	100.066		
2,800.00	2,502.75	2,325.80	2,313.98	24.06	2.75	178.20	39.65	-148.76	1,254.89	1,242.64	12.26	102.397		
2,900.00	2,585.73	2,396.61	2,383.86	25.29	2.86	178.50	46.94	-157.62	1,322.72	1,310.04	12.68	104.302		
3,000.00	2,668.72	2,459.94	2,446.34	26.53	2.96	178.70	52.90	-166.05	1,390.90	1,377.84	13.06	106.508		
3,100.00	2,751.70	2,500.00	2,485.84	27.77	3.02	178.80	56.35	-171.76	1,459.81	1,446.52	13.29	109.835		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - CP05B-03 H04 (EXISTING) - Existing - SURVEYS													Offset Site Error: 0.00 usft	
Survey Program: 37-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-164.29	-154.40	-43.43	160.42					
100.00	100.00	97.32	97.32	0.12	0.14	-164.34	-154.44	-43.30	160.39	160.13	0.26	612.712		
200.00	200.00	197.88	197.88	0.48	0.32	-164.47	-154.13	-42.85	159.98	159.18	0.80	200.658		
300.00	300.00	297.55	297.52	0.84	0.49	-165.16	-154.35	-40.90	159.67	158.34	1.33	119.951		
400.00	399.95	398.00	397.89	1.19	0.68	94.33	-154.91	-36.85	159.41	157.55	1.87	85.341		
418.93	418.86	416.75	416.62	1.26	0.71	94.42	-155.02	-36.01	159.39	157.42	1.97	80.928 CC, ES		
500.00	499.63	496.12	495.91	1.55	0.86	95.51	-155.91	-32.63	159.96	157.56	2.41	66.509		
600.00	598.78	596.10	595.79	1.92	1.05	94.00	-157.49	-28.28	161.19	158.22	2.97	54.277		
700.00	697.11	695.76	695.32	2.32	1.25	96.35	-159.00	-23.54	162.51	158.95	3.57	45.570		
800.00	794.38	796.36	795.78	2.77	1.44	101.32	-159.54	-18.19	164.22	160.01	4.21	39.013		
900.00	890.30	894.20	893.48	3.28	1.63	108.05	-159.51	-12.87	168.51	163.63	4.88	34.550		
1,000.00	984.62	991.22	990.36	3.86	1.82	116.28	-157.99	-7.95	176.95	171.39	5.56	31.822		
1,100.00	1,077.08	1,087.01	1,086.01	4.52	2.01	124.87	-156.05	-3.19	192.10	185.86	6.24	30.778		
1,200.00	1,167.42	1,185.24	1,183.92	5.29	2.22	133.25	-153.05	4.07	212.63	205.70	6.93	30.685 SF		
1,300.00	1,255.40	1,276.38	1,274.66	6.18	2.43	140.39	-149.30	11.83	239.89	232.35	7.54	31.816		
1,400.00	1,340.78	1,363.37	1,361.26	7.19	2.62	146.43	-145.29	18.85	275.30	267.19	8.11	33.954		
1,435.17	1,370.15	1,393.52	1,391.28	7.57	2.69	148.33	-143.74	21.19	289.59	281.28	8.31	34.853		
1,500.00	1,423.95	1,449.35	1,446.87	8.31	2.81	152.10	-140.70	25.49	317.38	308.72	8.66	36.640		
1,600.00	1,506.93	1,537.65	1,534.70	9.46	3.02	157.05	-135.27	32.71	361.78	352.57	9.21	39.277		
1,700.00	1,589.92	1,626.16	1,622.64	10.64	3.24	161.07	-129.16	40.71	407.22	397.46	9.76	41.704		
1,800.00	1,672.90	1,708.47	1,704.38	11.83	3.44	164.17	-122.95	48.12	454.06	443.78	10.29	44.141		
1,900.00	1,755.89	1,788.17	1,783.57	13.03	3.63	166.67	-116.71	54.56	502.68	491.88	10.80	46.534		
2,000.00	1,838.87	1,868.47	1,863.42	14.24	3.82	168.76	-110.40	60.23	552.87	541.54	11.34	48.773		
2,100.00	1,921.85	1,951.58	1,946.08	15.46	4.01	170.60	-103.70	65.64	604.10	592.20	11.90	50.754		
2,200.00	2,004.84	2,030.43	2,024.51	16.68	4.20	172.10	-97.21	70.64	655.93	643.48	12.45	52.697		
2,300.00	2,087.82	2,104.00	2,097.75	17.90	4.36	173.27	-91.34	74.24	709.19	696.24	12.96	54.735		
2,400.00	2,170.81	2,185.73	2,179.20	19.13	4.53	174.34	-85.27	77.40	763.38	749.85	13.53	56.414		
2,500.00	2,253.79	2,275.07	2,268.23	20.36	4.73	175.36	-78.77	81.01	817.57	803.38	14.18	57.653		
2,600.00	2,336.78	2,360.17	2,352.97	21.59	4.92	176.24	-72.20	85.10	871.39	856.59	14.80	58.888		
2,700.00	2,419.76	2,449.53	2,441.97	22.82	5.12	177.04	-65.56	89.56	925.14	909.68	15.46	59.843		
2,800.00	2,502.75	2,535.78	2,527.78	24.06	5.33	177.79	-58.44	94.66	978.46	962.36	16.11	60.749		
2,900.00	2,585.73	2,626.28	2,617.74	25.29	5.56	178.54	-50.47	100.37	1,031.76	1,014.96	16.80	61.423		
3,000.00	2,668.72	2,722.32	2,713.11	26.53	5.81	179.28	-41.71	107.61	1,084.25	1,066.71	17.54	61.803		
3,100.00	2,751.70	2,820.25	2,810.25	27.77	6.08	179.99	-32.72	116.12	1,135.96	1,117.65	18.31	62.042		
3,200.00	2,834.69	2,915.52	2,904.71	29.01	6.35	-179.39	-24.48	125.36	1,186.78	1,167.72	19.07	62.243		
3,300.00	2,917.67	3,002.44	2,990.72	30.25	6.61	-178.81	-16.05	134.58	1,237.29	1,217.52	19.77	62.577		
3,400.00	3,000.66	3,083.31	3,070.72	31.49	6.84	-178.30	-7.82	143.18	1,288.04	1,267.60	20.44	63.027		
3,500.00	3,083.64	3,161.95	3,148.52	32.73	7.08	-177.83	0.38	151.18	1,339.30	1,318.21	21.09	63.516		
3,600.00	3,166.63	3,243.13	3,228.86	33.97	7.31	-177.39	8.89	159.12	1,390.95	1,369.19	21.76	63.925		
3,700.00	3,249.61	3,326.89	3,311.78	35.21	7.55	-176.97	17.56	167.10	1,442.82	1,420.37	22.46	64.253		
3,800.00	3,332.60	3,402.66	3,386.86	36.45	7.76	-176.63	25.16	173.94	1,495.04	1,471.96	23.08	64.780		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - CP05B-03 H04 (EXISTING) - Existing Gyro - GYRO													Offset Site Error:	0.00 usft
Survey Program: 100-Gyro													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor		
0.00	0.00	2.01	2.01	0.00	0.00	-164.29	-154.40	-43.43	160.39					
100.00	100.00	102.58	102.58	0.12	0.07	-164.35	-154.26	-43.22	160.20	160.00	0.20	820.256		
200.00	200.00	202.61	202.60	0.48	0.16	-164.53	-154.04	-42.62	159.83	159.19	0.64	250.605		
300.00	300.00	302.54	302.51	0.84	0.25	-165.30	-154.24	-40.47	159.47	158.38	1.09	146.906		
373.67	373.65	376.18	376.10	1.10	0.32	94.22	-154.72	-37.72	159.35	157.94	1.41	112.868 CC		
400.00	399.95	402.48	402.38	1.19	0.34	94.25	-154.92	-36.64	159.37	157.84	1.53	104.263 ES		
500.00	499.63	501.24	501.05	1.55	0.43	95.51	-156.04	-32.65	160.09	158.12	1.98	81.052		
600.00	598.78	600.93	600.63	1.92	0.53	94.04	-157.58	-28.46	161.33	158.88	2.44	65.996		
700.00	697.11	702.75	702.33	2.32	0.63	96.52	-158.46	-23.39	161.99	159.04	2.95	54.858		
800.00	794.38	801.24	800.67	2.77	0.72	101.46	-158.54	-18.12	163.32	159.83	3.49	46.766		
900.00	890.30	900.40	899.70	3.28	0.82	108.55	-157.73	-12.95	167.20	163.12	4.08	41.004		
1,000.00	984.62	995.82	994.98	3.86	0.91	116.76	-156.04	-8.26	175.83	171.16	4.67	37.646		
1,100.00	1,077.08	1,091.29	1,090.31	4.52	1.01	125.32	-154.05	-3.39	191.12	185.85	5.27	36.244		
1,200.00	1,167.42	1,189.51	1,188.26	5.29	1.11	133.78	-150.99	3.14	212.57	206.69	5.88	36.142 SF		
1,300.00	1,255.40	1,279.62	1,278.00	6.18	1.21	140.87	-147.08	10.26	240.63	234.22	6.41	37.532		
1,400.00	1,340.78	1,367.70	1,365.74	7.19	1.31	146.94	-142.99	16.92	276.78	269.87	6.91	40.036		
1,435.17	1,370.15	1,398.20	1,396.11	7.57	1.34	148.83	-141.47	19.26	291.21	284.12	7.09	41.073		
1,500.00	1,423.95	1,455.05	1,452.70	8.31	1.41	152.59	-138.41	23.73	319.06	311.66	7.40	43.122		
1,600.00	1,506.93	1,543.11	1,540.29	9.46	1.51	157.45	-132.98	31.11	363.46	355.60	7.86	46.238		
1,700.00	1,589.92	1,629.11	1,625.73	10.64	1.62	161.28	-127.23	38.86	409.05	400.75	8.31	49.236		
1,800.00	1,672.90	1,709.82	1,705.94	11.83	1.71	164.29	-121.16	45.59	456.55	447.82	8.73	52.308		
1,900.00	1,755.89	1,792.93	1,788.56	13.03	1.81	166.85	-114.78	51.95	505.57	496.40	9.17	55.120		
2,000.00	1,838.87	1,871.43	1,866.64	14.24	1.90	168.86	-108.80	57.39	555.90	546.30	9.60	57.901		
2,100.00	1,921.85	1,951.92	1,946.74	15.46	1.99	170.60	-102.49	62.15	607.60	597.55	10.05	60.456		
2,200.00	2,004.84	2,031.51	2,025.99	16.68	2.08	172.03	-96.53	66.45	660.04	649.54	10.51	62.831		
2,300.00	2,087.82	2,107.07	2,101.24	17.90	2.16	173.22	-90.51	69.79	713.67	702.73	10.94	65.225		
2,400.00	2,170.81	2,189.16	2,183.02	19.13	2.25	174.32	-84.17	72.86	768.02	756.60	11.43	67.221		
2,500.00	2,253.79	2,277.20	2,270.75	20.36	2.35	175.33	-77.54	76.29	822.38	810.43	11.96	68.767		
2,600.00	2,336.78	2,365.63	2,358.79	21.59	2.45	176.25	-70.49	80.46	876.35	863.85	12.50	70.118		
2,700.00	2,419.76	2,452.68	2,445.48	22.82	2.55	177.04	-63.91	84.90	930.03	916.99	13.04	71.337		
2,800.00	2,502.75	2,539.78	2,532.13	24.06	2.65	177.80	-56.58	89.87	983.58	970.00	13.58	72.416		
2,900.00	2,585.73	2,630.72	2,622.54	25.29	2.77	178.54	-48.66	95.60	1,036.85	1,022.69	14.16	73.225		
3,000.00	2,668.72	2,727.80	2,718.96	26.53	2.89	179.28	-39.96	102.84	1,089.37	1,074.59	14.78	73.681		
3,100.00	2,751.70	2,824.67	2,815.07	27.77	3.02	179.97	-31.35	111.27	1,140.97	1,125.56	15.41	74.019		
3,200.00	2,834.69	2,914.93	2,904.58	29.01	3.15	-179.45	-23.38	119.79	1,192.05	1,176.05	16.01	74.472		
3,300.00	2,917.67	2,999.99	2,988.84	30.25	3.27	-178.90	-15.31	128.16	1,243.10	1,226.53	16.57	75.005		
3,400.00	3,000.66	3,083.76	3,071.77	31.49	3.39	-178.38	-6.91	136.52	1,294.29	1,277.16	17.14	75.529		
3,500.00	3,083.64	3,163.60	3,150.81	32.73	3.51	-177.92	1.18	144.34	1,345.75	1,328.07	17.68	76.131		
3,600.00	3,166.63	3,244.72	3,231.14	33.97	3.62	-177.49	9.50	151.96	1,397.63	1,379.40	18.23	76.671		
3,700.00	3,249.61	3,326.44	3,312.09	35.21	3.74	-177.09	17.85	159.47	1,449.71	1,430.93	18.79	77.166		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - CP08D-04 H04 (EXISTING) - Existing - SURVEYS													Offset Site Error: 0.00 usft	
Survey Program: 17-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-165.49	-144.93	-37.52	149.74					
100.00	100.00	97.44	97.44	0.12	0.14	-165.50	-144.65	-37.41	149.41	149.15	0.26	566.757		
200.00	200.00	197.44	197.44	0.48	0.32	-165.53	-144.38	-37.27	149.12	148.32	0.79	187.731		
300.00	300.00	297.45	297.45	0.84	0.49	-165.56	-144.12	-37.10	148.82	147.49	1.33	112.147		
368.15	368.13	365.58	365.58	1.08	0.61	94.88	-143.94	-36.97	148.71	147.03	1.68	88.273 CC		
400.00	399.95	397.41	397.41	1.19	0.66	95.40	-143.86	-36.91	148.74	146.89	1.85	80.321 ES		
500.00	499.63	497.11	497.11	1.55	0.84	98.31	-143.60	-36.69	149.37	146.99	2.38	62.755		
600.00	598.78	596.43	596.43	1.92	1.01	98.62	-143.30	-36.38	150.80	147.87	2.93	51.497		
700.00	697.11	693.78	693.78	2.32	1.18	102.74	-143.34	-36.20	154.13	150.63	3.50	44.024		
800.00	794.38	791.76	791.76	2.77	1.35	109.19	-143.26	-36.17	160.58	156.47	4.11	39.075		
900.00	890.30	887.40	887.40	3.28	1.52	116.64	-143.14	-36.17	171.88	167.14	4.74	36.230		
1,000.00	984.62	982.04	982.04	3.86	1.68	124.32	-142.92	-36.14	189.33	183.93	5.39	35.098 SF		
1,100.00	1,077.08	1,074.17	1,074.17	4.52	1.85	131.34	-142.92	-35.92	213.67	207.63	6.04	35.376		
1,200.00	1,167.42	1,163.02	1,163.01	5.29	2.00	137.25	-143.58	-35.97	245.48	238.81	6.67	36.806		
1,300.00	1,255.40	1,250.61	1,250.59	6.18	2.15	142.21	-144.66	-36.21	284.19	276.90	7.29	38.993		
1,400.00	1,340.78	1,334.72	1,334.69	7.19	2.30	146.19	-145.81	-36.67	329.27	321.39	7.89	41.741		
1,435.17	1,370.15	1,363.87	1,363.84	7.57	2.35	147.42	-146.20	-36.90	346.57	338.46	8.10	42.772		
1,500.00	1,423.95	1,417.24	1,417.21	8.31	2.44	150.14	-146.83	-37.36	379.46	370.98	8.47	44.782		
1,600.00	1,506.93	1,498.32	1,498.28	9.46	2.59	153.56	-147.57	-38.24	431.47	422.45	9.02	47.821		
1,700.00	1,589.92	1,581.16	1,581.11	10.64	2.73	156.38	-148.02	-39.36	484.68	475.11	9.57	50.630		
1,800.00	1,672.90	1,664.82	1,664.77	11.83	2.88	158.72	-148.27	-40.24	538.38	528.25	10.13	53.172		
1,900.00	1,755.89	1,748.73	1,748.67	13.03	3.02	160.62	-148.64	-41.00	592.46	581.78	10.68	55.473		
2,000.00	1,838.87	1,833.55	1,833.49	14.24	3.17	162.25	-148.91	-41.46	646.65	635.41	11.24	57.525		
2,100.00	1,921.85	1,916.48	1,916.42	15.46	3.32	163.64	-148.73	-41.70	701.00	689.21	11.79	59.462		
2,200.00	2,004.84	1,994.99	1,994.92	16.68	3.45	164.79	-148.30	-42.18	755.90	743.59	12.31	61.411		
2,300.00	2,087.82	2,080.25	2,080.19	17.90	3.60	165.89	-147.78	-42.74	811.06	798.18	12.87	62.999		
2,400.00	2,170.81	2,165.90	2,165.83	19.13	3.75	166.84	-147.30	-43.00	866.10	852.65	13.44	64.418		
2,500.00	2,253.79	2,248.79	2,248.72	20.36	3.90	167.64	-147.14	-43.11	921.07	907.07	14.00	65.783		
2,600.00	2,336.78	2,333.05	2,332.98	21.59	4.04	168.33	-147.37	-43.37	976.23	961.66	14.57	66.993		
2,700.00	2,419.76	2,420.17	2,420.10	22.82	4.20	168.98	-147.44	-43.24	1,031.13	1,015.97	15.16	68.007		
2,800.00	2,502.75	2,506.25	2,506.18	24.06	4.35	169.55	-147.53	-42.88	1,085.90	1,070.15	15.75	68.959		
2,900.00	2,585.73	2,591.10	2,591.03	25.29	4.49	170.05	-147.97	-42.28	1,140.41	1,124.08	16.33	69.848		
3,000.00	2,668.72	2,658.92	2,658.84	26.53	4.61	170.41	-148.28	-42.30	1,195.58	1,178.79	16.79	71.198		
3,100.00	2,751.70	2,736.00	2,735.92	27.77	4.75	170.79	-148.38	-43.02	1,251.59	1,234.27	17.32	72.257		
3,200.00	2,834.69	2,816.01	2,815.93	29.01	4.89	171.16	-148.34	-43.94	1,307.85	1,289.98	17.87	73.183		
3,300.00	2,917.67	2,896.44	2,896.34	30.25	5.03	171.50	-148.30	-44.99	1,364.27	1,345.84	18.42	74.045		
3,400.00	3,000.66	2,975.94	2,975.84	31.49	5.17	171.81	-148.28	-46.15	1,420.84	1,401.87	18.97	74.886		
3,500.00	3,083.64	3,053.23	3,053.12	32.73	5.30	172.08	-148.37	-47.53	1,477.67	1,458.16	19.51	75.746		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - CP08D-04 H04 (EXISTING) - Existing Gyro - GYRO													Offset Site Error: 0.00 usft	
Survey Program: 100-Gyro													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	2.02	2.02	0.00	0.00	-165.49	-144.93	-37.52	149.71					
100.00	100.00	102.91	102.91	0.12	0.07	-165.51	-144.63	-37.38	149.39	149.19	0.20	732.639		
200.00	200.00	203.24	203.24	0.48	0.16	-165.42	-143.87	-37.42	148.66	148.02	0.64	231.177		
300.00	300.00	303.23	303.22	0.84	0.25	-165.21	-142.93	-37.73	147.83	146.75	1.09	136.116		
400.00	399.95	403.18	403.17	1.19	0.33	96.03	-141.98	-38.03	147.24	145.72	1.52	96.696		
420.35	420.27	423.34	423.32	1.26	0.35	96.51	-141.81	-38.08	147.22	145.60	1.61	91.340	CC, ES	
500.00	499.63	502.12	502.10	1.55	0.42	99.08	-141.40	-38.06	147.72	145.76	1.96	75.313		
600.00	598.78	601.13	601.11	1.92	0.51	99.39	-141.23	-37.76	149.46	147.04	2.42	61.700		
700.00	697.11	699.40	699.38	2.32	0.59	103.67	-141.03	-37.68	152.87	149.96	2.91	52.517		
800.00	794.38	797.03	797.02	2.77	0.68	110.24	-140.60	-37.80	159.51	156.08	3.43	46.463		
900.00	890.30	892.06	892.04	3.28	0.76	117.67	-140.32	-37.93	171.27	167.29	3.98	43.019		
1,000.00	984.62	987.43	987.41	3.86	0.84	125.28	-140.29	-37.85	189.30	184.75	4.55	41.631	SF	
1,100.00	1,077.08	1,080.09	1,080.07	4.52	0.92	132.22	-140.26	-37.36	213.82	208.71	5.11	41.838		
1,200.00	1,167.42	1,168.70	1,168.67	5.29	1.00	138.05	-140.64	-37.06	245.58	239.92	5.66	43.403		
1,300.00	1,255.40	1,255.44	1,255.41	6.18	1.08	142.88	-141.62	-37.33	284.63	278.44	6.19	45.947		
1,400.00	1,340.78	1,339.98	1,339.94	7.19	1.15	146.81	-142.73	-37.80	329.98	323.26	6.72	49.101		
1,435.17	1,370.15	1,368.92	1,368.88	7.57	1.18	148.00	-143.14	-38.02	347.34	340.44	6.91	50.281		
1,500.00	1,423.95	1,421.90	1,421.85	8.31	1.22	150.63	-143.89	-38.49	380.39	373.16	7.23	52.612		
1,600.00	1,506.93	1,503.33	1,503.28	9.46	1.29	153.99	-144.73	-39.43	432.63	424.92	7.71	56.112		
1,700.00	1,589.92	1,586.72	1,586.65	10.64	1.37	156.77	-145.28	-40.44	485.83	477.64	8.19	59.311		
1,800.00	1,672.90	1,670.05	1,669.98	11.83	1.44	159.03	-145.69	-41.29	539.58	530.91	8.67	62.235		
1,900.00	1,755.89	1,754.60	1,754.52	13.03	1.51	160.93	-146.04	-41.97	593.66	584.50	9.16	64.844		
2,000.00	1,838.87	1,838.86	1,838.79	14.24	1.59	162.53	-146.16	-42.31	647.81	638.17	9.64	67.210		
2,100.00	1,921.85	1,920.84	1,920.77	15.46	1.66	163.89	-145.85	-42.55	702.23	692.12	10.11	69.468		
2,200.00	2,004.84	2,000.07	1,999.99	16.68	1.73	165.04	-145.42	-43.02	757.17	746.60	10.56	71.671		
2,300.00	2,087.82	2,085.14	2,085.06	17.90	1.80	166.11	-144.91	-43.58	812.37	801.31	11.06	73.482		
2,400.00	2,170.81	2,171.10	2,171.01	19.13	1.88	167.05	-144.46	-43.85	867.45	855.89	11.55	75.079		
2,500.00	2,253.79	2,254.07	2,253.99	20.36	1.95	167.83	-144.37	-43.95	922.43	910.39	12.04	76.617		
2,600.00	2,336.78	2,338.91	2,338.83	21.59	2.02	168.51	-144.59	-44.17	977.58	965.04	12.54	77.955		
2,700.00	2,419.76	2,427.21	2,427.12	22.82	2.10	169.15	-144.77	-43.92	1,032.37	1,019.31	13.06	79.035		
2,800.00	2,502.75	2,511.95	2,511.86	24.06	2.17	169.70	-145.09	-43.48	1,087.02	1,073.45	13.57	80.130		
2,900.00	2,585.73	2,596.98	2,596.89	25.29	2.25	170.19	-145.48	-42.94	1,141.61	1,127.54	14.07	81.123		
3,000.00	2,668.72	2,666.89	2,666.80	26.53	2.31	170.56	-145.73	-42.81	1,196.65	1,182.16	14.49	82.577		
3,100.00	2,751.70	2,741.36	2,741.27	27.77	2.37	170.92	-145.87	-43.45	1,252.60	1,237.66	14.94	83.854		
3,200.00	2,834.69	2,821.01	2,820.91	29.01	2.44	171.27	-146.03	-44.38	1,308.84	1,293.43	15.42	84.897		
3,300.00	2,917.67	2,899.99	2,899.89	30.25	2.51	171.60	-146.12	-45.49	1,365.32	1,349.43	15.89	85.908		
3,400.00	3,000.66	2,980.05	2,979.93	31.49	2.58	171.90	-146.20	-46.78	1,421.99	1,405.61	16.38	86.832		
3,500.00	3,083.64	3,059.62	3,059.49	32.73	2.65	172.17	-146.33	-48.19	1,478.81	1,461.95	16.86	87.720		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - CP12D-03 H04 (EXISTING) - Existing - SURVEYS												Offset Site Error:	0.00 usft
Survey Program: 17-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-164.43	-163.93	-45.68	170.22				
100.00	100.00	95.23	95.22	0.12	0.14	-164.69	-164.34	-45.01	170.40	170.13	0.27	642.843	
200.00	200.00	195.41	195.40	0.48	0.31	-165.14	-165.09	-43.80	170.80	170.01	0.79	214.984 ES	
300.00	300.00	294.24	294.20	0.84	0.49	-165.79	-166.14	-42.06	171.39	170.06	1.33	128.445	
400.00	399.95	391.66	391.57	1.19	0.67	94.05	-168.47	-39.73	173.32	171.44	1.88	92.246	
500.00	499.63	490.26	490.07	1.55	0.86	95.40	-172.08	-37.31	176.88	174.46	2.42	73.168	
600.00	598.78	588.93	588.63	1.92	1.05	93.90	-176.11	-35.19	181.14	178.17	2.97	60.953	
700.00	697.11	686.64	686.24	2.32	1.23	96.04	-180.47	-33.50	186.30	182.74	3.56	52.380	
800.00	794.38	784.78	784.24	2.77	1.42	100.24	-185.12	-31.73	193.20	189.01	4.18	46.199	
900.00	890.30	882.36	881.70	3.28	1.61	105.71	-189.70	-29.71	202.73	197.87	4.86	41.740	
1,000.00	984.62	981.92	981.13	3.86	1.80	112.08	-193.58	-26.61	215.14	209.55	5.59	38.503	
1,100.00	1,077.08	1,080.12	1,079.19	4.52	2.00	118.71	-196.30	-22.07	231.00	224.65	6.35	36.357	
1,200.00	1,167.42	1,169.61	1,168.52	5.29	2.17	124.65	-198.55	-17.35	252.34	245.24	7.10	35.561 SF	
1,300.00	1,255.40	1,254.91	1,253.64	6.18	2.35	129.69	-202.84	-13.74	282.05	274.23	7.82	36.066	
1,400.00	1,340.78	1,340.29	1,338.83	7.19	2.52	134.25	-207.80	-11.05	319.15	310.61	8.53	37.397	
1,435.17	1,370.15	1,370.82	1,369.29	7.57	2.59	135.75	-209.61	-10.18	333.73	324.94	8.79	37.973	
1,500.00	1,423.95	1,426.82	1,425.17	8.31	2.70	139.01	-212.86	-8.53	361.74	352.50	9.23	39.172	
1,600.00	1,506.93	1,513.77	1,511.91	9.46	2.89	143.15	-218.30	-5.68	406.39	396.48	9.91	41.011	
1,700.00	1,589.92	1,603.47	1,601.29	10.64	3.09	146.46	-224.87	-2.05	451.97	441.37	10.60	42.645	
1,800.00	1,672.90	1,695.42	1,692.85	11.83	3.30	149.18	-231.87	2.59	497.67	486.38	11.29	44.078	
1,900.00	1,755.89	1,782.32	1,779.41	13.03	3.50	151.39	-237.92	7.49	543.51	531.57	11.93	45.547	
2,000.00	1,838.87	1,871.82	1,868.55	14.24	3.70	153.32	-244.08	12.54	589.91	577.32	12.59	46.869	
2,100.00	1,921.85	1,957.36	1,953.71	15.46	3.90	154.88	-250.26	17.67	636.43	623.21	13.22	48.158	
2,200.00	2,004.84	2,043.53	2,039.49	16.68	4.10	156.19	-257.01	22.41	683.72	669.87	13.85	49.354	
2,300.00	2,087.82	2,133.87	2,129.40	17.90	4.32	157.39	-264.08	27.64	731.03	716.50	14.52	50.339	
2,400.00	2,170.81	2,225.94	2,220.91	19.13	4.56	158.36	-272.41	33.40	778.07	762.85	15.22	51.106	
2,500.00	2,253.79	2,319.68	2,313.93	20.36	4.81	159.15	-282.07	39.85	824.65	808.69	15.96	51.669	
2,600.00	2,336.78	2,415.38	2,408.70	21.59	5.09	159.77	-293.28	47.03	870.69	853.96	16.74	52.027	
2,700.00	2,419.76	2,517.11	2,509.15	22.82	5.41	160.24	-306.77	55.78	915.72	898.13	17.59	52.062	
2,800.00	2,502.75	2,621.49	2,611.67	24.06	5.78	160.50	-323.41	66.04	959.48	940.95	18.52	51.804	
2,900.00	2,585.73	2,738.87	2,725.98	25.29	6.26	160.50	-346.35	79.55	1,001.49	981.84	19.65	50.975	
3,000.00	2,668.72	2,895.43	2,875.87	26.53	7.04	160.08	-384.23	104.02	1,039.33	1,018.09	21.25	48.921	
3,100.00	2,751.70	3,052.85	3,022.79	27.77	7.99	159.31	-429.56	137.56	1,071.33	1,048.34	22.99	46.596	
3,200.00	2,834.69	3,158.14	3,119.55	29.01	8.67	158.71	-462.06	163.42	1,100.02	1,075.71	24.31	45.246	
3,300.00	2,917.67	3,245.52	3,199.98	30.25	9.24	158.27	-488.60	184.91	1,128.83	1,103.36	25.47	44.323	
3,400.00	3,000.66	3,331.99	3,279.92	31.49	9.79	157.88	-514.21	205.66	1,158.34	1,131.73	26.61	43.533	
3,500.00	3,083.64	3,412.33	3,354.72	32.73	10.28	157.60	-536.87	224.24	1,188.86	1,161.20	27.65	42.991	
3,600.00	3,166.63	3,524.93	3,460.01	33.97	10.98	157.30	-567.20	250.19	1,219.57	1,190.57	29.00	42.055	
3,700.00	3,249.61	3,614.99	3,544.05	35.21	11.55	157.07	-591.47	271.60	1,249.56	1,219.42	30.14	41.458	
3,800.00	3,332.60	3,707.34	3,630.30	36.45	12.13	156.84	-616.37	293.26	1,279.88	1,248.57	31.31	40.877	
3,900.00	3,415.58	3,814.66	3,730.20	37.70	12.84	156.55	-646.17	318.72	1,309.92	1,277.25	32.67	40.091	
4,000.00	3,498.57	3,917.07	3,824.90	38.94	13.54	156.22	-676.05	343.76	1,339.21	1,305.17	34.04	39.341	
4,100.00	3,581.55	4,008.02	3,908.74	40.18	14.17	155.89	-703.43	365.99	1,368.52	1,333.20	35.32	38.749	
4,200.00	3,664.54	4,097.87	3,991.74	41.42	14.77	155.60	-730.12	387.68	1,398.18	1,361.61	36.57	38.234	
4,300.00	3,747.52	4,181.99	4,069.82	42.67	15.33	155.38	-754.37	407.48	1,428.49	1,390.75	37.74	37.855	
4,400.00	3,830.51	4,288.66	4,168.72	43.91	16.06	155.09	-785.40	432.66	1,458.74	1,419.56	39.18	37.232	
4,500.00	3,913.49	4,379.07	4,252.38	45.16	16.67	154.84	-812.08	454.19	1,488.82	1,448.36	40.45	36.804	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - CP12D-03 H04 (EXISTING) - Existing Gyro - GYRO												Offset Site Error:	0.00 usft
Survey Program: 100-Gyro												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	1.00	1.00	0.00	0.00	-164.43	-163.93	-45.68	170.17				
100.00	100.00	100.87	100.87	0.12	0.07	-164.69	-164.17	-44.95	170.21	170.02	0.19	896.159	
200.00	200.00	200.00	199.98	0.48	0.16	-165.20	-164.95	-43.59	170.61	169.97	0.64	267.031 ES	
300.00	300.00	299.24	299.20	0.84	0.25	-165.82	-166.26	-42.00	171.49	170.41	1.09	157.581	
400.00	399.95	396.51	396.42	1.19	0.34	94.17	-168.56	-40.14	173.51	171.97	1.54	112.349	
500.00	499.63	495.24	495.08	1.55	0.43	95.76	-171.98	-38.44	177.09	175.10	1.99	89.003	
600.00	598.78	593.93	593.68	1.92	0.52	94.45	-175.82	-36.96	181.44	178.99	2.45	74.009	
700.00	697.11	692.75	692.41	2.32	0.61	96.74	-179.83	-35.47	186.46	183.52	2.94	63.439	
800.00	794.38	790.92	790.49	2.77	0.71	101.06	-183.76	-33.83	193.01	189.54	3.47	55.630	
900.00	890.30	888.18	887.64	3.28	0.80	106.52	-187.78	-31.60	202.29	198.24	4.05	49.954	
1,000.00	984.62	986.07	985.41	3.86	0.89	112.73	-191.60	-28.62	215.08	210.41	4.67	46.010	
1,100.00	1,077.08	1,084.95	1,084.18	4.52	0.99	119.45	-194.26	-24.57	231.66	226.32	5.34	43.389	
1,200.00	1,167.42	1,172.77	1,171.87	5.29	1.07	125.23	-196.56	-20.50	253.95	247.97	5.98	42.453 SF	
1,300.00	1,255.40	1,259.06	1,258.01	6.18	1.16	130.37	-200.62	-17.59	284.59	277.97	6.62	43.000	
1,400.00	1,340.78	1,345.47	1,344.26	7.19	1.25	134.96	-205.28	-15.21	322.24	315.00	7.25	44.463	
1,435.17	1,370.15	1,375.78	1,374.51	7.57	1.28	136.42	-206.99	-14.38	336.94	329.47	7.47	45.101	
1,500.00	1,423.95	1,431.47	1,430.08	8.31	1.34	139.59	-210.21	-12.78	365.18	357.32	7.86	46.447	
1,600.00	1,506.93	1,518.20	1,516.60	9.46	1.43	143.64	-215.66	-10.06	410.20	401.75	8.45	48.551	
1,700.00	1,589.92	1,607.48	1,605.59	10.64	1.53	146.89	-222.00	-6.67	456.12	447.08	9.04	50.457	
1,800.00	1,672.90	1,699.42	1,697.19	11.83	1.63	149.63	-228.47	-2.29	502.16	492.53	9.63	52.129	
1,900.00	1,755.89	1,790.83	1,788.28	13.03	1.73	151.96	-234.24	2.90	548.06	537.85	10.21	53.691	
2,000.00	1,838.87	1,875.71	1,872.85	14.24	1.82	153.82	-239.30	7.96	594.27	583.54	10.74	55.352	
2,100.00	1,921.85	1,960.97	1,957.81	15.46	1.92	155.40	-244.69	12.70	641.30	630.04	11.27	56.915	
2,200.00	2,004.84	2,047.40	2,043.89	16.68	2.02	156.73	-250.88	17.37	688.80	676.99	11.81	58.310	
2,300.00	2,087.82	2,136.66	2,132.76	17.90	2.12	157.89	-257.68	22.23	736.51	724.13	12.38	59.495	
2,400.00	2,170.81	2,230.14	2,225.75	19.13	2.24	158.90	-265.43	27.90	783.85	770.86	12.98	60.382	
2,500.00	2,253.79	2,323.97	2,318.85	20.36	2.37	159.65	-275.15	34.23	830.61	817.00	13.61	61.021	
2,600.00	2,336.78	2,418.59	2,412.51	21.59	2.50	160.19	-286.66	41.07	876.93	862.66	14.27	61.452	
2,700.00	2,419.76	2,523.08	2,515.58	22.82	2.67	160.59	-301.44	49.92	922.02	907.00	15.02	61.374	
2,800.00	2,502.75	2,629.24	2,619.65	24.06	2.86	160.74	-319.70	60.10	965.95	950.12	15.83	61.007	
2,900.00	2,585.73	2,771.51	2,757.67	25.29	3.17	160.65	-348.81	78.43	1,006.65	989.69	16.95	59.374	
3,000.00	2,668.72	2,913.72	2,893.27	26.53	3.52	160.25	-383.65	103.28	1,042.67	1,024.53	18.14	57.475	
3,100.00	2,751.70	3,066.82	3,035.79	27.77	3.99	159.53	-427.17	138.29	1,072.75	1,053.26	19.49	55.045	
3,200.00	2,834.69	3,164.89	3,126.11	29.01	4.29	159.02	-456.48	162.83	1,101.04	1,080.58	20.46	53.807	
3,300.00	2,917.67	3,259.79	3,213.55	30.25	4.59	158.56	-484.79	186.42	1,129.56	1,108.14	21.42	52.727	
3,400.00	3,000.66	3,346.89	3,294.10	31.49	4.86	158.20	-509.92	208.04	1,158.29	1,135.98	22.32	51.899	
3,500.00	3,083.64	3,429.09	3,370.59	32.73	5.11	157.92	-532.86	227.53	1,188.19	1,165.02	23.17	51.291	
3,600.00	3,166.63	3,521.21	3,456.80	33.97	5.39	157.68	-557.38	248.77	1,218.84	1,194.77	24.07	50.636	
3,700.00	3,249.61	3,625.53	3,554.36	35.21	5.71	157.44	-584.80	273.53	1,248.85	1,223.78	25.07	49.815	
3,800.00	3,332.60	3,709.25	3,632.77	36.45	5.96	157.26	-606.72	293.04	1,279.31	1,253.40	25.92	49.362	
3,900.00	3,415.58	3,820.60	3,736.61	37.70	6.32	156.97	-637.17	319.28	1,309.48	1,282.47	27.01	48.475	
4,000.00	3,498.57	3,922.14	3,830.57	38.94	6.65	156.63	-666.71	343.97	1,338.87	1,310.79	28.07	47.689	
4,100.00	3,581.55	4,015.40	3,916.77	40.18	6.96	156.33	-694.00	366.78	1,368.14	1,339.07	29.07	47.057	
4,200.00	3,664.54	4,100.36	3,995.54	41.42	7.23	156.08	-718.47	387.16	1,397.93	1,367.93	30.00	46.598	
4,300.00	3,747.52	4,199.99	4,088.01	42.67	7.56	155.81	-747.01	410.89	1,427.93	1,396.88	31.05	45.987	
4,400.00	3,830.51	4,287.00	4,168.67	43.91	7.85	155.57	-772.28	431.49	1,458.07	1,426.06	32.01	45.551	
4,500.00	3,913.49	4,388.89	4,263.25	45.16	8.18	155.31	-801.64	455.47	1,488.38	1,455.30	33.09	44.985	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF02A-09 H04 596 - DD - Plan #2													Offset Site Error: 0.00 usft	
Survey Program: O-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-157.32	-74.88	-31.29	81.15					
100.00	100.00	100.00	100.00	0.12	0.12	-157.32	-74.88	-31.29	81.15	80.91	0.24	342.367		
103.89	103.89	103.89	103.89	0.13	0.12	-157.32	-74.88	-31.29	81.15	80.89	0.26	314.834	CC	
200.00	200.00	199.18	199.18	0.48	0.29	-156.91	-74.88	-31.92	81.40	80.62	0.78	104.553	ES	
300.00	300.00	297.29	297.14	0.84	0.49	-153.72	-74.88	-36.97	83.55	82.18	1.38	60.698		
400.00	399.95	394.26	393.59	1.19	0.74	113.39	-74.87	-46.89	89.59	87.53	2.06	43.551		
500.00	499.63	488.59	486.82	1.55	1.04	123.62	-74.87	-61.22	103.04	100.21	2.84	36.313		
600.00	598.78	579.01	575.41	1.92	1.41	129.38	-74.87	-79.27	126.21	122.58	3.63	34.724	SF	
700.00	697.11	664.50	658.30	2.32	1.83	135.60	-74.87	-100.17	159.77	155.42	4.36	36.667		
800.00	794.38	744.26	734.72	2.77	2.28	140.54	-74.87	-123.00	203.39	198.41	4.98	40.822		
900.00	890.30	817.74	804.22	3.28	2.75	144.05	-74.87	-146.84	256.07	250.55	5.52	46.367		
1,000.00	984.62	884.64	866.66	3.86	3.22	146.39	-74.87	-170.85	316.68	310.68	6.00	52.805		
1,100.00	1,077.08	944.85	922.10	4.52	3.69	147.79	-74.87	-194.32	384.18	377.76	6.42	59.855		
1,200.00	1,167.42	1,000.00	972.21	5.29	4.14	148.53	-74.87	-217.34	457.64	450.86	6.79	67.429		
1,300.00	1,255.40	1,045.55	1,013.09	6.18	4.55	148.46	-74.87	-237.44	536.22	529.09	7.13	75.172		
1,400.00	1,340.78	1,086.51	1,049.43	7.19	4.92	147.86	-74.87	-256.34	619.18	611.74	7.44	83.267		
1,435.17	1,370.15	1,100.00	1,061.30	7.57	5.05	147.52	-74.87	-262.73	649.26	641.72	7.54	86.107		
1,500.00	1,423.95	1,122.32	1,080.86	8.31	5.27	148.68	-74.87	-273.50	705.39	697.69	7.71	91.527		
1,600.00	1,506.93	1,155.65	1,109.82	9.46	5.61	150.19	-74.87	-290.00	792.90	784.96	7.95	99.777		
1,700.00	1,589.92	1,200.00	1,147.90	10.64	6.06	151.87	-74.87	-312.72	881.54	873.35	8.20	107.534		
1,800.00	1,672.90	1,200.00	1,147.90	11.83	6.06	151.87	-74.87	-312.72	970.96	962.62	8.34	116.410		
1,900.00	1,755.89	1,243.90	1,185.06	13.03	6.55	153.23	-74.87	-336.09	1,060.86	1,052.27	8.58	123.591		
2,000.00	1,838.87	1,269.91	1,206.83	14.24	6.85	153.93	-74.87	-350.34	1,151.62	1,142.85	8.77	131.303		
2,100.00	1,921.85	1,300.00	1,231.75	15.46	7.18	154.66	-74.87	-367.18	1,243.01	1,234.04	8.97	138.573		
2,200.00	2,004.84	1,317.62	1,246.23	16.68	7.39	155.04	-74.87	-377.23	1,334.89	1,325.78	9.11	146.509		
2,300.00	2,087.82	1,339.53	1,264.10	17.90	7.65	155.48	-74.87	-389.91	1,427.28	1,418.01	9.27	154.025		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF02B-09 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-158.17	-83.97	-33.64	90.46				
100.00	100.00	100.00	100.00	0.12	0.12	-158.17	-83.97	-33.64	90.46	90.22	0.24	381.641	
200.00	200.00	200.00	200.00	0.48	0.29	-158.17	-83.97	-33.64	90.46	89.69	0.77	117.474	
300.00	300.00	300.00	300.00	0.84	0.47	-158.17	-83.97	-33.64	90.46	89.16	1.30	69.422 CC, ES	
400.00	399.95	399.95	399.95	1.19	0.64	103.42	-83.97	-33.64	91.03	89.20	1.83	49.797	
500.00	499.63	499.63	499.63	1.55	0.81	108.05	-83.97	-33.64	93.17	90.81	2.36	39.527	
600.00	598.78	598.78	598.78	1.92	0.99	110.80	-83.97	-33.64	97.44	94.53	2.90	33.549	
700.00	697.11	700.93	700.89	2.32	1.17	116.93	-83.97	-30.97	103.15	99.64	3.50	29.459	
800.00	794.38	803.90	803.51	2.77	1.38	123.68	-83.97	-22.76	109.07	104.89	4.18	26.093	
900.00	890.30	907.57	906.25	3.28	1.63	130.71	-83.97	-8.92	115.32	110.39	4.93	23.396	
1,000.00	984.62	1,003.58	1,000.92	3.86	1.89	137.13	-85.09	6.93	124.58	119.06	5.53	22.546 SF	
1,100.00	1,077.08	1,095.83	1,092.09	4.52	2.14	142.39	-89.93	20.12	142.82	136.71	6.10	23.396	
1,200.00	1,167.42	1,186.15	1,181.36	5.29	2.38	146.12	-98.38	30.82	169.62	162.89	6.72	25.227	
1,300.00	1,255.40	1,273.83	1,267.86	6.18	2.61	148.41	-110.08	39.09	204.17	196.78	7.39	27.635	
1,400.00	1,340.78	1,358.29	1,350.84	7.19	2.85	149.59	-124.57	45.08	245.75	237.65	8.10	30.336	
1,435.17	1,370.15	1,387.13	1,379.07	7.57	2.94	149.80	-130.24	46.68	261.94	253.58	8.36	31.315	
1,500.00	1,423.95	1,439.48	1,430.15	8.31	3.11	150.57	-141.46	48.99	292.99	284.13	8.86	33.063	
1,600.00	1,506.93	1,518.62	1,506.88	9.46	3.38	151.04	-160.70	51.04	342.67	333.01	9.66	35.466	
1,700.00	1,589.92	1,600.00	1,585.06	10.64	3.69	150.94	-183.28	51.36	394.42	383.85	10.57	37.309	
1,800.00	1,672.90	1,670.42	1,652.01	11.83	4.00	150.52	-205.10	50.15	448.07	436.64	11.43	39.193	
1,900.00	1,755.89	1,742.81	1,720.03	13.03	4.35	149.87	-229.69	47.48	503.67	491.29	12.38	40.677	
2,000.00	1,838.87	1,812.72	1,784.89	14.24	4.73	149.08	-255.48	43.53	561.15	547.79	13.35	42.025	
2,100.00	1,921.85	1,880.12	1,846.54	15.46	5.14	148.23	-282.21	38.45	620.48	606.14	14.35	43.248	
2,200.00	2,004.84	1,944.96	1,904.98	16.68	5.57	147.34	-309.64	32.40	681.63	666.29	15.35	44.411	
2,300.00	2,087.82	2,000.00	1,953.86	17.90	5.95	146.54	-334.20	26.37	744.60	728.41	16.19	45.980	
2,400.00	2,170.81	2,067.02	2,012.42	19.13	6.47	145.54	-365.68	17.92	809.20	791.88	17.32	46.711	
2,500.00	2,253.79	2,124.31	2,061.59	20.36	6.94	144.67	-393.92	9.74	875.51	857.23	18.29	47.879	
2,600.00	2,336.78	2,179.16	2,107.86	21.59	7.41	143.83	-422.09	1.10	943.42	924.20	19.23	49.071	
2,700.00	2,419.76	2,231.65	2,151.35	22.82	7.89	143.02	-450.05	-7.91	1,012.87	992.73	20.14	50.298	
2,800.00	2,502.75	2,281.86	2,192.21	24.06	8.37	142.24	-477.70	-17.20	1,083.78	1,062.77	21.02	51.565	
2,900.00	2,585.73	2,329.85	2,230.57	25.29	8.85	141.50	-504.95	-26.69	1,156.10	1,134.22	21.88	52.849	
3,000.00	2,668.72	2,375.73	2,266.56	26.53	9.32	140.79	-531.71	-36.31	1,229.74	1,207.05	22.69	54.205	
3,100.00	2,751.70	2,433.35	2,311.10	27.77	9.93	139.93	-566.03	-48.92	1,304.43	1,280.65	23.78	54.865	
3,200.00	2,834.69	2,498.13	2,361.13	29.01	10.61	139.06	-604.64	-63.14	1,379.34	1,354.30	25.04	55.095	
3,300.00	2,917.67	2,562.90	2,411.15	30.25	11.31	138.27	-643.26	-77.35	1,454.38	1,428.08	26.30	55.303	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF02C-04 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	15.59	134.58	37.55	139.72				
100.00	100.00	100.00	100.00	0.12	0.12	15.59	134.58	37.55	139.72	139.48	0.24	589.475	
200.00	200.00	200.00	200.00	0.48	0.29	15.59	134.58	37.55	139.72	138.95	0.77	181.448	
300.00	300.00	300.00	300.00	0.84	0.47	15.59	134.58	37.55	139.72	138.42	1.30	107.227 CC, ES	
400.00	399.95	396.24	396.20	1.19	0.64	-86.25	136.31	35.85	140.81	138.96	1.85	76.110	
500.00	499.63	491.12	490.80	1.55	0.84	-91.46	141.41	30.86	144.96	142.50	2.46	58.930	
600.00	598.78	583.33	582.30	1.92	1.09	-103.44	149.57	22.87	155.12	151.96	3.15	49.181	
700.00	697.11	671.65	669.31	2.32	1.38	-113.91	160.33	12.32	174.46	170.57	3.90	44.783	
800.00	794.38	755.09	750.79	2.77	1.72	-122.77	173.13	-0.21	204.51	199.90	4.61	44.337 SF	
900.00	890.30	835.01	828.07	3.28	2.08	-129.95	187.70	-14.48	245.21	239.99	5.22	46.952	
1,000.00	984.62	917.98	908.03	3.86	2.47	-135.90	203.50	-29.96	293.57	287.89	5.68	51.670	
1,100.00	1,077.08	997.93	985.09	4.52	2.86	-140.40	218.73	-44.88	347.81	341.68	6.13	56.759	
1,200.00	1,167.42	1,074.67	1,059.05	5.29	3.23	-143.82	233.34	-59.19	407.30	400.72	6.58	61.931	
1,300.00	1,255.40	1,147.97	1,129.69	6.18	3.59	-146.42	247.31	-72.87	471.54	464.51	7.03	67.071	
1,400.00	1,340.78	1,217.63	1,196.83	7.19	3.94	-148.38	260.57	-85.86	540.13	532.65	7.49	72.125	
1,435.17	1,370.15	1,241.23	1,219.58	7.57	4.05	-148.93	265.07	-90.27	565.23	557.57	7.66	73.805	
1,500.00	1,423.95	1,284.29	1,261.08	8.31	4.27	-150.62	273.27	-98.30	612.07	604.12	7.95	77.011	
1,600.00	1,506.93	1,350.71	1,325.10	9.46	4.60	-152.79	285.92	-110.69	684.77	676.37	8.40	81.565	
1,700.00	1,589.92	1,417.12	1,389.11	10.64	4.93	-154.56	298.57	-123.08	757.87	749.02	8.85	85.635	
1,800.00	1,672.90	1,483.54	1,453.13	11.83	5.26	-156.04	311.22	-135.47	831.26	821.95	9.31	89.275	
1,900.00	1,755.89	1,549.96	1,517.14	13.03	5.59	-157.29	323.87	-147.86	904.88	895.10	9.78	92.539	
2,000.00	1,838.87	1,616.38	1,581.16	14.24	5.92	-158.35	336.52	-160.26	978.66	968.41	10.25	95.476	
2,100.00	1,921.85	1,682.80	1,645.17	15.46	6.25	-159.27	349.18	-172.65	1,052.59	1,041.86	10.73	98.123	
2,200.00	2,004.84	1,749.22	1,709.19	16.68	6.59	-160.07	361.83	-185.04	1,126.62	1,115.42	11.21	100.519	
2,300.00	2,087.82	1,815.64	1,773.21	17.90	6.92	-160.77	374.48	-197.43	1,200.75	1,189.06	11.69	102.693	
2,400.00	2,170.81	1,882.06	1,837.22	19.13	7.25	-161.40	387.13	-209.82	1,274.95	1,262.77	12.18	104.672	
2,500.00	2,253.79	1,948.48	1,901.24	20.36	7.58	-161.95	399.78	-222.21	1,349.21	1,336.53	12.67	106.479	
2,600.00	2,336.78	2,014.90	1,965.25	21.59	7.92	-162.45	412.43	-234.61	1,423.52	1,410.35	13.16	108.134	
2,700.00	2,419.76	2,081.32	2,029.27	22.82	8.25	-162.90	425.08	-247.00	1,497.87	1,484.21	13.66	109.653	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF02D-04 H04 596 - DD - Plan #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	11.65	136.61	28.16	139.48					
100.00	100.00	100.00	100.00	0.12	0.12	11.65	136.61	28.16	139.48	139.24	0.24	588.448		
116.67	116.67	116.67	116.67	0.18	0.15	11.65	136.61	28.16	139.48	139.15	0.33	428.030	CC	
200.00	200.00	200.00	200.00	0.48	0.29	11.65	136.61	28.16	139.48	138.71	0.77	181.132	ES	
300.00	300.00	296.66	296.62	0.84	0.47	10.76	138.15	26.26	140.66	139.33	1.33	105.556		
400.00	399.95	392.56	392.23	1.19	0.68	-92.65	142.73	20.64	144.52	142.57	1.95	74.179		
500.00	499.63	486.36	485.29	1.55	0.94	-98.92	150.13	11.54	152.63	149.98	2.64	57.759		
600.00	598.78	576.79	574.35	1.92	1.26	-111.17	159.99	-0.58	168.12	164.71	3.41	49.368		
700.00	697.11	663.50	658.97	2.32	1.61	-121.19	171.91	-15.23	193.63	189.49	4.14	46.778	SF	
800.00	794.38	752.96	745.93	2.77	2.00	-129.65	185.18	-31.55	227.82	223.15	4.67	48.812		
900.00	890.30	839.98	830.51	3.28	2.38	-136.23	198.10	-47.42	268.88	263.73	5.14	52.268		
1,000.00	984.62	924.31	912.47	3.86	2.75	-141.34	210.61	-62.80	316.15	310.55	5.60	56.466		
1,100.00	1,077.08	1,005.72	991.60	4.52	3.11	-145.31	222.69	-77.65	369.08	363.03	6.05	61.023		
1,200.00	1,167.42	1,083.99	1,067.68	5.29	3.46	-148.41	234.30	-91.92	427.17	420.67	6.50	65.726		
1,300.00	1,255.40	1,158.90	1,140.49	6.18	3.79	-150.82	245.42	-105.58	490.01	483.06	6.95	70.471		
1,400.00	1,340.78	1,230.25	1,209.84	7.19	4.11	-152.68	256.01	-118.60	557.26	549.85	7.41	75.214		
1,435.17	1,370.15	1,254.46	1,233.37	7.57	4.22	-153.22	259.60	-123.01	581.89	574.32	7.58	76.799		
1,500.00	1,423.95	1,298.66	1,276.32	8.31	4.42	-154.73	266.16	-131.07	627.88	620.01	7.86	79.866		
1,600.00	1,506.93	1,366.83	1,342.58	9.46	4.73	-156.70	276.27	-143.51	699.18	690.88	8.30	84.229		
1,700.00	1,589.92	1,435.00	1,408.84	10.64	5.03	-158.31	286.39	-155.94	770.84	762.09	8.75	88.126		
1,800.00	1,672.90	1,503.16	1,475.10	11.83	5.34	-159.67	296.50	-168.37	842.76	833.56	9.20	91.614		
1,900.00	1,755.89	1,571.33	1,541.35	13.03	5.65	-160.81	306.62	-180.80	914.87	905.21	9.66	94.744		
2,000.00	1,838.87	1,639.50	1,607.61	14.24	5.95	-161.79	316.73	-193.24	987.14	977.02	10.12	97.562		
2,100.00	1,921.85	1,707.67	1,673.87	15.46	6.26	-162.64	326.84	-205.67	1,059.53	1,048.94	10.58	100.105		
2,200.00	2,004.84	1,775.84	1,740.13	16.68	6.57	-163.39	336.96	-218.10	1,132.02	1,120.97	11.05	102.408		
2,300.00	2,087.82	1,844.01	1,806.38	17.90	6.87	-164.04	347.07	-230.53	1,204.59	1,193.06	11.53	104.500		
2,400.00	2,170.81	1,912.18	1,872.64	19.13	7.18	-164.63	357.19	-242.97	1,277.23	1,265.23	12.00	106.407		
2,500.00	2,253.79	1,980.34	1,938.90	20.36	7.49	-165.15	367.30	-255.40	1,349.93	1,337.45	12.48	108.148		
2,600.00	2,336.78	2,048.51	2,005.16	21.59	7.80	-165.62	377.42	-267.83	1,422.67	1,409.71	12.96	109.745		
2,700.00	2,419.76	2,116.68	2,071.42	22.82	8.10	-166.04	387.53	-280.26	1,495.46	1,482.01	13.45	111.212		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF02E-04 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	10.94	117.38	22.68	119.56				
100.00	100.00	100.00	100.00	0.12	0.12	10.94	117.38	22.68	119.56	119.32	0.24	504.403	
200.00	200.00	200.00	200.00	0.48	0.29	10.94	117.38	22.68	119.56	118.79	0.77	155.262	
300.00	300.00	300.00	300.00	0.84	0.47	10.94	117.38	22.68	119.56	118.25	1.30	91.753	
386.44	386.42	386.42	386.42	1.14	0.62	-90.00	117.38	22.68	119.54	117.78	1.76	68.043 CC	
400.00	399.95	399.95	399.95	1.19	0.64	-90.32	117.38	22.68	119.54	117.71	1.83	65.396	
500.00	499.63	499.10	499.06	1.55	0.82	-95.24	117.83	20.15	120.05	117.69	2.36	50.852 ES	
600.00	598.78	595.87	595.53	1.92	1.02	-108.76	119.13	12.80	124.26	121.31	2.95	42.169	
700.00	697.11	686.38	685.34	2.32	1.25	-121.56	122.10	2.07	137.66	134.02	3.65	37.747	
800.00	794.38	772.37	770.14	2.77	1.52	-132.51	127.62	-10.99	163.65	159.27	4.38	37.322 SF	
900.00	890.30	856.07	852.09	3.28	1.81	-141.16	135.33	-26.17	201.69	196.68	5.01	40.227	
1,000.00	984.62	941.32	935.42	3.86	2.13	-147.82	143.66	-42.13	247.78	242.27	5.51	44.979	
1,100.00	1,077.08	1,023.72	1,015.96	4.52	2.44	-152.67	151.72	-57.57	300.06	294.08	5.97	50.219	
1,200.00	1,167.42	1,103.04	1,093.49	5.29	2.75	-156.27	159.47	-72.42	357.75	351.32	6.43	55.658	
1,300.00	1,255.40	1,179.07	1,167.80	6.18	3.05	-158.98	166.91	-86.66	420.31	413.43	6.87	61.151	
1,400.00	1,340.78	1,251.59	1,238.69	7.19	3.34	-161.03	174.00	-100.25	487.31	479.99	7.31	66.648	
1,435.17	1,370.15	1,276.23	1,262.77	7.57	3.44	-161.63	176.40	-104.86	511.86	504.39	7.47	68.501	
1,500.00	1,423.95	1,321.22	1,306.74	8.31	3.62	-162.97	180.80	-113.29	557.66	549.92	7.74	72.037	
1,600.00	1,506.93	1,390.61	1,374.57	9.46	3.90	-164.67	187.59	-126.28	628.56	620.40	8.16	77.066	
1,700.00	1,589.92	1,460.01	1,442.40	10.64	4.18	-166.03	194.37	-139.28	699.68	691.10	8.58	81.557	
1,800.00	1,672.90	1,529.40	1,510.22	11.83	4.46	-167.14	201.15	-152.28	770.97	761.96	9.01	85.577	
1,900.00	1,755.89	1,598.79	1,578.05	13.03	4.74	-168.07	207.94	-165.27	842.38	832.93	9.45	89.184	
2,000.00	1,838.87	1,668.19	1,645.88	14.24	5.03	-168.86	214.72	-178.27	913.88	903.99	9.89	92.425	
2,100.00	1,921.85	1,737.58	1,713.71	15.46	5.31	-169.53	221.50	-191.27	985.46	975.12	10.34	95.349	
2,200.00	2,004.84	1,806.97	1,781.53	16.68	5.59	-170.12	228.29	-204.26	1,057.09	1,046.30	10.79	97.995	
2,300.00	2,087.82	1,876.37	1,849.36	17.90	5.88	-170.63	235.07	-217.26	1,128.77	1,117.53	11.24	100.395	
2,400.00	2,170.81	1,945.76	1,917.19	19.13	6.16	-171.07	241.85	-230.26	1,200.49	1,188.79	11.70	102.580	
2,500.00	2,253.79	2,015.15	1,985.02	20.36	6.45	-171.47	248.64	-243.25	1,272.24	1,260.08	12.17	104.576	
2,600.00	2,336.78	2,084.55	2,052.84	21.59	6.73	-171.83	255.42	-256.25	1,344.02	1,331.39	12.63	106.402	
2,700.00	2,419.76	2,153.94	2,120.67	22.82	7.01	-172.15	262.20	-269.25	1,415.82	1,402.72	13.10	108.080	
2,800.00	2,502.75	2,223.33	2,188.50	24.06	7.30	-172.44	268.99	-282.24	1,487.64	1,474.07	13.57	109.624	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF04A-10 H04 596 - DD - Plan #2													Offset Site Error: 0.00 usft			
Survey Program: 0-MWD															Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor				
0.00	0.00	0.00	0.00	0.00	0.00	-164.10	-76.89	-21.90	79.95							
100.00	100.00	100.00	100.00	0.12	0.12	-164.10	-76.89	-21.90	79.95	79.72	0.24	337.317				
200.00	200.00	200.00	200.00	0.48	0.29	-164.10	-76.89	-21.90	79.95	79.18	0.77	103.831				
203.46	203.46	203.46	203.46	0.49	0.30	-164.10	-76.89	-21.90	79.95	79.16	0.79	101.403 CC				
300.00	300.00	298.41	298.41	0.84	0.46	-164.38	-77.46	-21.66	80.45	79.13	1.32	60.942 ES				
400.00	399.95	395.05	394.91	1.19	0.65	95.14	-81.96	-19.75	84.66	82.72	1.94	43.558				
500.00	499.63	491.17	490.53	1.55	0.88	95.81	-90.89	-15.96	93.31	90.71	2.60	35.845				
600.00	598.78	586.53	584.79	1.92	1.17	92.80	-104.12	-10.35	105.81	102.52	3.30	32.103				
700.00	697.11	681.01	677.36	2.32	1.54	92.39	-121.48	-2.99	121.61	117.58	4.04	30.128				
800.00	794.38	774.43	767.86	2.77	1.97	92.94	-142.76	6.04	140.76	135.91	4.85	29.028				
900.00	890.30	866.66	856.00	3.28	2.48	93.83	-167.75	16.64	163.26	157.50	5.76	28.367				
1,000.00	984.62	957.58	941.50	3.86	3.05	94.75	-196.18	28.71	189.07	182.30	6.77	27.916				
1,100.00	1,077.08	1,047.08	1,024.14	4.52	3.69	95.58	-227.80	42.12	218.12	210.21	7.92	27.557				
1,200.00	1,167.42	1,135.08	1,103.73	5.29	4.38	96.25	-262.33	56.77	250.31	241.12	9.19	27.231				
1,300.00	1,255.40	1,221.51	1,180.15	6.18	5.12	96.75	-299.50	72.54	285.52	274.91	10.61	26.910				
1,400.00	1,340.78	1,306.35	1,253.31	7.19	5.90	97.06	-339.04	89.31	323.60	311.44	12.17	26.595				
1,435.17	1,370.15	1,337.89	1,280.09	7.57	6.20	97.20	-354.37	95.82	337.58	324.81	12.76	26.447				
1,500.00	1,423.95	1,396.92	1,330.22	8.31	6.76	98.41	-383.06	107.99	363.50	349.60	13.90	26.147				
1,600.00	1,506.93	1,487.97	1,407.54	9.46	7.61	99.98	-427.32	126.77	403.71	388.02	15.70	25.722				
1,700.00	1,589.92	1,579.02	1,484.87	10.64	8.47	101.26	-471.59	145.55	444.13	426.61	17.52	25.350				
1,800.00	1,672.90	1,670.07	1,562.19	11.83	9.34	102.33	-515.85	164.32	484.71	465.34	19.37	25.029				
1,900.00	1,755.89	1,761.13	1,639.51	13.03	10.20	103.23	-560.11	183.10	525.40	504.18	21.23	24.753				
2,000.00	1,838.87	1,852.18	1,716.83	14.24	11.07	104.01	-604.37	201.88	566.19	543.09	23.10	24.515				
2,100.00	1,921.85	1,943.23	1,794.16	15.46	11.93	104.68	-648.64	220.66	607.06	582.08	24.97	24.308				
2,200.00	2,004.84	2,034.28	1,871.48	16.68	12.80	105.27	-692.90	239.44	647.98	621.13	26.86	24.128				
2,300.00	2,087.82	2,125.34	1,948.80	17.90	13.67	105.78	-737.16	258.22	688.96	660.21	28.74	23.970				
2,400.00	2,170.81	2,216.39	2,026.12	19.13	14.54	106.24	-781.42	276.99	729.98	699.34	30.63	23.830				
2,500.00	2,253.79	2,307.44	2,103.45	20.36	15.41	106.65	-825.68	295.77	771.03	738.50	32.52	23.706				
2,600.00	2,336.78	2,398.49	2,180.77	21.59	16.27	107.02	-869.95	314.55	812.11	777.69	34.42	23.595				
2,700.00	2,419.76	2,489.55	2,258.09	22.82	17.14	107.36	-914.21	333.33	853.22	816.90	36.31	23.495				
2,800.00	2,502.75	2,580.60	2,335.41	24.06	18.01	107.66	-958.47	352.11	894.35	856.14	38.21	23.406				
2,900.00	2,585.73	2,671.65	2,412.74	25.29	18.88	107.94	-1,002.73	370.89	935.50	895.39	40.11	23.324				
3,000.00	2,668.72	2,762.70	2,490.06	26.53	19.75	108.19	-1,047.00	389.66	976.66	934.65	42.01	23.250				
3,100.00	2,751.70	2,853.76	2,567.38	27.77	20.62	108.42	-1,091.26	408.44	1,017.84	973.94	43.91	23.182				
3,200.00	2,834.69	2,944.81	2,644.70	29.01	21.49	108.64	-1,135.52	427.22	1,059.03	1,013.23	45.81	23.120				
3,300.00	2,917.67	3,035.86	2,722.03	30.25	22.36	108.84	-1,179.78	446.00	1,100.24	1,052.53	47.71	23.063				
3,400.00	3,000.66	3,126.91	2,799.35	31.49	23.23	109.02	-1,224.05	464.78	1,141.45	1,091.85	49.61	23.010				
3,500.00	3,083.64	3,217.97	2,876.67	32.73	24.10	109.19	-1,268.31	483.56	1,182.68	1,131.17	51.51	22.961				
3,600.00	3,166.63	3,309.02	2,953.99	33.97	24.97	109.35	-1,312.57	502.34	1,223.91	1,170.50	53.41	22.916				
3,700.00	3,249.61	3,400.07	3,031.32	35.21	25.84	109.50	-1,356.83	521.11	1,265.15	1,209.84	55.31	22.873				
3,800.00	3,332.60	3,491.12	3,108.64	36.45	26.71	109.64	-1,401.10	539.89	1,306.39	1,249.18	57.21	22.834				
3,900.00	3,415.58	3,582.18	3,185.96	37.70	27.58	109.77	-1,445.36	558.67	1,347.65	1,288.53	59.11	22.797				
4,000.00	3,498.57	3,673.23	3,263.28	38.94	28.45	109.90	-1,489.62	577.45	1,388.90	1,327.89	61.02	22.763				
4,100.00	3,581.55	3,764.28	3,340.61	40.18	29.33	110.02	-1,533.88	596.23	1,430.17	1,367.25	62.92	22.730				
4,200.00	3,664.54	3,855.33	3,417.93	41.42	30.20	110.13	-1,578.14	615.01	1,471.44	1,406.61	64.82	22.700 SF				

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF04B-04 H04 596 - DD - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	15.79	124.45	35.20	129.34					
100.00	100.00	100.00	100.00	0.12	0.12	15.79	124.45	35.20	129.34	129.10	0.24	545.665		
200.00	200.00	200.00	200.00	0.48	0.29	15.79	124.45	35.20	129.34	128.57	0.77	167.963		
300.00	300.00	300.00	300.00	0.84	0.47	15.79	124.45	35.20	129.34	128.03	1.30	99.258		
400.00	399.95	399.95	399.95	1.19	0.64	-85.37	124.45	35.20	129.10	127.27	1.83	70.624		
424.49	424.40	423.82	423.82	1.28	0.68	-86.05	124.54	35.08	129.04	127.09	1.96	65.910 CC, ES		
500.00	499.63	496.91	496.87	1.55	0.81	-89.71	125.86	33.19	129.74	127.38	2.37	54.814		
600.00	598.78	591.68	591.36	1.92	1.01	-102.02	129.97	27.33	134.91	131.94	2.98	45.336		
700.00	697.11	682.92	681.88	2.32	1.24	-113.86	136.45	18.07	148.53	144.86	3.67	40.469		
800.00	794.38	770.21	767.90	2.77	1.51	-124.64	144.86	5.85	173.13	168.75	4.38	39.533 SF		
900.00	890.30	852.77	848.57	3.28	1.83	-133.70	153.96	-9.10	208.94	203.88	5.05	41.363		
1,000.00	984.62	928.87	922.24	3.86	2.17	-140.73	163.15	-25.85	255.41	249.76	5.66	45.159		
1,100.00	1,077.08	1,000.00	990.36	4.52	2.54	-146.12	172.42	-44.06	311.43	305.26	6.17	50.463		
1,200.00	1,167.42	1,060.38	1,047.58	5.29	2.91	-149.78	180.79	-61.44	375.64	368.99	6.65	56.456		
1,300.00	1,255.40	1,115.66	1,099.41	6.18	3.26	-152.49	188.87	-78.88	446.85	439.79	7.05	63.348		
1,400.00	1,340.78	1,164.15	1,144.40	7.19	3.60	-154.31	196.26	-95.37	523.96	516.56	7.40	70.795		
1,435.17	1,370.15	1,179.64	1,158.68	7.57	3.71	-154.78	198.68	-100.87	552.31	544.79	7.52	73.476		
1,500.00	1,423.95	1,200.00	1,177.37	8.31	3.86	-155.97	201.91	-108.27	605.53	597.84	7.69	78.721		
1,600.00	1,506.93	1,246.55	1,219.78	9.46	4.24	-158.36	209.47	-125.91	688.83	680.88	7.95	86.689		
1,700.00	1,589.92	1,283.70	1,253.28	10.64	4.54	-159.98	215.69	-140.71	773.56	765.39	8.17	94.664		
1,800.00	1,672.90	1,318.52	1,284.40	11.83	4.84	-161.32	221.66	-155.14	859.48	851.10	8.38	102.572		
1,900.00	1,755.89	1,351.20	1,313.33	13.03	5.14	-162.44	227.40	-169.19	946.45	937.88	8.57	110.433		
2,000.00	1,838.87	1,381.90	1,340.29	14.24	5.42	-163.40	232.90	-182.83	1,034.34	1,025.59	8.74	118.290		
2,100.00	1,921.85	1,400.00	1,356.06	15.46	5.59	-163.92	236.18	-191.07	1,123.13	1,114.27	8.86	126.740		
2,200.00	2,004.84	1,438.03	1,388.94	16.68	5.97	-164.92	243.21	-208.84	1,212.49	1,203.44	9.05	133.925		
2,300.00	2,087.82	1,463.72	1,410.93	17.90	6.24	-165.55	248.05	-221.21	1,302.61	1,293.42	9.19	141.740		
2,400.00	2,170.81	1,500.00	1,441.68	19.13	6.61	-166.36	255.00	-239.17	1,393.41	1,384.04	9.37	148.684		
2,500.00	2,253.79	1,500.00	1,441.68	20.36	6.61	-166.36	255.00	-239.17	1,484.66	1,475.28	9.38	158.323		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF04B-10 H04 596 - DD - Plan #2													Offset Site Error: 0.00 usft	
Survey Program: O-MWD		Offset Well Error: 0.00 usft												
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-164.43	-87.01	-24.25	90.32					
100.00	100.00	100.00	100.00	0.12	0.12	-164.43	-87.01	-24.25	90.32	90.09	0.24	381.073		
116.67	116.67	116.67	116.67	0.18	0.15	-164.43	-87.01	-24.25	90.32	90.00	0.33	277.188 CC		
200.00	200.00	200.00	200.00	0.48	0.29	-164.43	-87.01	-24.25	90.32	89.55	0.77	117.300 ES		
300.00	300.00	296.28	296.24	0.84	0.47	-165.34	-89.26	-23.36	92.35	90.97	1.38	66.952		
400.00	399.95	392.17	391.85	1.19	0.68	93.44	-95.99	-20.70	98.67	96.62	2.05	48.224		
500.00	499.63	487.36	486.28	1.55	0.95	93.43	-107.08	-16.32	109.39	106.66	2.73	40.019		
600.00	598.78	581.62	579.09	1.92	1.28	89.84	-122.35	-10.28	123.86	120.42	3.45	35.935		
700.00	697.11	674.84	669.96	2.32	1.68	88.95	-141.62	-2.66	141.50	137.30	4.20	33.680		
800.00	794.38	766.84	758.56	2.77	2.15	89.17	-164.67	6.44	162.34	157.32	5.02	32.339		
900.00	890.30	857.51	844.60	3.28	2.69	89.84	-191.23	16.94	186.41	180.49	5.92	31.467		
1,000.00	984.62	946.72	927.84	3.86	3.29	90.65	-221.05	28.73	213.68	206.75	6.93	30.827		
1,100.00	1,077.08	1,034.37	1,008.08	4.52	3.94	91.45	-253.83	41.68	244.10	236.04	8.06	30.296		
1,200.00	1,167.42	1,120.41	1,085.19	5.29	4.64	92.14	-289.31	55.70	277.58	268.27	9.31	29.810		
1,300.00	1,255.40	1,204.76	1,159.05	6.18	5.39	92.69	-327.19	70.68	314.02	303.32	10.70	29.341		
1,400.00	1,340.78	1,287.41	1,229.60	7.19	6.19	93.08	-367.21	86.50	353.29	341.05	12.24	28.860		
1,435.17	1,370.15	1,316.07	1,253.62	7.57	6.47	93.18	-381.75	92.24	367.74	354.94	12.81	28.710		
1,500.00	1,423.95	1,374.10	1,301.97	8.31	7.04	94.38	-411.61	104.04	394.83	380.90	13.94	28.334		
1,600.00	1,506.93	1,464.24	1,377.05	9.46	7.93	95.96	-457.98	122.37	436.86	421.14	15.72	27.786		
1,700.00	1,589.92	1,554.37	1,452.14	10.64	8.82	97.26	-504.36	140.70	479.12	461.58	17.55	27.305		
1,800.00	1,672.90	1,644.51	1,527.22	11.83	9.72	98.36	-550.74	159.03	521.56	502.16	19.40	26.888		
1,900.00	1,755.89	1,734.64	1,602.30	13.03	10.61	99.29	-597.11	177.36	564.12	542.86	21.27	26.528		
2,000.00	1,838.87	1,824.78	1,677.39	14.24	11.51	100.09	-643.49	195.69	606.79	583.65	23.15	26.217		
2,100.00	1,921.85	1,914.91	1,752.47	15.46	12.41	100.78	-689.87	214.02	649.55	624.51	25.03	25.946		
2,200.00	2,004.84	2,005.05	1,827.55	16.68	13.30	101.39	-736.24	232.35	692.37	665.44	26.93	25.710		
2,300.00	2,087.82	2,095.18	1,902.64	17.90	14.20	101.93	-782.62	250.68	735.25	706.42	28.83	25.502		
2,400.00	2,170.81	2,185.32	1,977.72	19.13	15.10	102.41	-829.00	269.01	778.18	747.44	30.74	25.318		
2,500.00	2,253.79	2,275.45	2,052.80	20.36	16.00	102.84	-875.37	287.34	821.15	788.50	32.64	25.155		
2,600.00	2,336.78	2,365.59	2,127.89	21.59	16.90	103.23	-921.75	305.67	864.15	829.60	34.55	25.009		
2,700.00	2,419.76	2,455.72	2,202.97	22.82	17.80	103.58	-968.13	324.00	907.18	870.72	36.47	24.877		
2,800.00	2,502.75	2,545.86	2,278.05	24.06	18.70	103.90	-1,014.50	342.32	950.24	911.86	38.38	24.759		
2,900.00	2,585.73	2,635.99	2,353.14	25.29	19.60	104.19	-1,060.88	360.65	993.32	953.02	40.30	24.651		
3,000.00	2,668.72	2,726.13	2,428.22	26.53	20.50	104.45	-1,107.26	378.98	1,036.42	994.21	42.21	24.553		
3,100.00	2,751.70	2,816.26	2,503.30	27.77	21.40	104.70	-1,153.63	397.31	1,079.53	1,035.40	44.13	24.463		
3,200.00	2,834.69	2,906.40	2,578.39	29.01	22.30	104.93	-1,200.01	415.64	1,122.66	1,076.62	46.05	24.381		
3,300.00	2,917.67	2,996.53	2,653.47	30.25	23.20	105.14	-1,246.39	433.97	1,165.80	1,117.84	47.96	24.305		
3,400.00	3,000.66	3,086.67	2,728.55	31.49	24.10	105.33	-1,292.77	452.30	1,208.96	1,159.08	49.88	24.236		
3,500.00	3,083.64	3,176.80	2,803.64	32.73	25.00	105.51	-1,339.14	470.63	1,252.13	1,200.32	51.80	24.171		
3,600.00	3,166.63	3,266.94	2,878.72	33.97	25.91	105.68	-1,385.52	488.96	1,295.30	1,241.58	53.72	24.111		
3,700.00	3,249.61	3,357.07	2,953.80	35.21	26.81	105.84	-1,431.90	507.29	1,338.49	1,282.84	55.64	24.055		
3,800.00	3,332.60	3,447.21	3,028.89	36.45	27.71	105.99	-1,478.27	525.62	1,381.68	1,324.11	57.56	24.003		
3,900.00	3,415.58	3,537.34	3,103.97	37.70	28.61	106.13	-1,524.65	543.95	1,424.88	1,365.39	59.48	23.954		
4,000.00	3,498.57	3,627.48	3,179.05	38.94	29.51	106.26	-1,571.03	562.28	1,468.08	1,406.68	61.40	23.908 SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF04C-04 H04 596 - DD - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor		
0.00	0.00	0.00	0.00	0.00	0.00	11.45	127.50	25.81	130.09					
100.00	100.00	100.00	100.00	0.12	0.12	11.45	127.50	25.81	130.09	129.85	0.24	548.824		
200.00	200.00	201.83	201.82	0.48	0.30	11.18	127.26	25.15	129.73	128.94	0.79	163.821		
300.00	300.00	305.18	305.01	0.84	0.51	9.02	125.34	19.89	127.01	125.60	1.41	89.987		
400.00	399.95	407.28	406.50	1.19	0.77	-96.88	121.58	9.55	122.41	120.37	2.04	60.063		
500.00	499.63	506.54	504.47	1.55	1.11	-107.71	116.15	-5.37	119.10	116.42	2.68	44.452		
510.46	510.04	516.71	514.46	1.59	1.15	-109.76	115.49	-7.17	119.05	116.30	2.75	43.216 CC, ES		
600.00	598.78	601.70	597.50	1.92	1.51	-126.55	109.31	-24.15	123.35	119.92	3.43	36.007		
700.00	697.11	689.93	682.81	2.32	1.93	-143.00	101.94	-45.39	141.44	137.11	4.33	32.670 SF		
800.00	794.38	770.93	760.46	2.77	2.38	-155.18	96.73	-67.82	175.99	170.76	5.23	33.660		
900.00	890.30	846.29	832.06	3.28	2.83	-163.49	93.65	-91.13	223.94	217.99	5.95	37.656		
1,000.00	984.62	915.52	897.17	3.86	3.27	-169.01	92.33	-114.58	282.07	275.55	6.52	43.274		
1,100.00	1,077.08	978.31	955.62	4.52	3.71	-172.73	92.39	-137.51	348.23	341.24	6.99	49.837		
1,200.00	1,167.42	1,034.57	1,007.45	5.29	4.13	-175.31	93.45	-159.39	420.96	413.58	7.38	57.031		
1,300.00	1,255.40	1,084.37	1,052.85	6.18	4.52	-177.18	95.19	-179.77	499.19	491.47	7.72	64.681		
1,400.00	1,340.78	1,127.89	1,092.13	7.19	4.89	-178.60	97.32	-198.36	582.06	574.06	8.00	72.761		
1,435.17	1,370.15	1,141.74	1,104.56	7.57	5.01	-179.03	98.12	-204.43	612.17	604.07	8.10	75.621		
1,500.00	1,423.95	1,166.09	1,126.31	8.31	5.22	-179.52	99.67	-215.28	668.31	660.07	8.24	81.116		
1,600.00	1,506.93	1,200.00	1,156.38	9.46	5.51	179.91	102.11	-230.74	755.69	747.25	8.44	89.524		
1,700.00	1,589.92	1,235.17	1,187.31	10.64	5.85	179.43	105.01	-247.24	843.92	835.30	8.62	97.883		
1,800.00	1,672.90	1,266.62	1,214.73	11.83	6.15	179.09	107.92	-262.37	932.92	924.12	8.79	106.093		
1,900.00	1,755.89	1,300.00	1,243.57	13.03	6.46	178.79	111.33	-278.81	1,022.62	1,013.65	8.97	113.990		
2,000.00	1,838.87	1,324.14	1,264.26	14.24	6.72	178.61	114.00	-290.95	1,112.94	1,103.86	9.08	122.564		
2,100.00	1,921.85	1,350.48	1,286.68	15.46	6.99	178.45	117.11	-304.43	1,203.85	1,194.62	9.23	130.417		
2,200.00	2,004.84	1,375.37	1,307.69	16.68	7.25	178.31	120.24	-317.40	1,295.29	1,285.91	9.37	138.167		
2,300.00	2,087.82	1,400.00	1,328.33	17.90	7.51	178.21	123.52	-330.44	1,387.21	1,377.73	9.48	146.280		
2,400.00	2,170.81	1,400.00	1,328.33	19.13	7.51	178.21	123.52	-330.44	1,479.85	1,470.36	9.48	156.049		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF04C-10 H04 596 - DD - Plan #2													Offset Site Error: 0.00 usft	
Survey Program: O-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-164.10	-96.11	-27.38	99.94					
100.00	100.00	100.00	100.00	0.12	0.12	-164.10	-96.11	-27.38	99.94	99.70	0.24	421.633		
103.42	103.42	103.42	103.42	0.13	0.12	-164.10	-96.11	-27.38	99.94	99.68	0.26	391.553	CC	
200.00	200.00	197.96	197.96	0.48	0.29	-164.30	-96.68	-27.17	100.45	99.64	0.80	125.087	ES	
300.00	300.00	293.65	293.51	0.84	0.48	-165.85	-101.18	-25.50	104.55	103.07	1.48	70.829		
400.00	399.95	388.73	388.11	1.19	0.72	92.42	-110.09	-22.21	113.03	110.85	2.17	52.051		
500.00	499.63	482.94	481.26	1.55	1.02	91.92	-123.27	-17.34	125.90	123.03	2.88	43.766		
600.00	598.78	576.07	572.54	1.92	1.39	87.87	-140.51	-10.96	142.45	138.85	3.60	39.553		
700.00	697.11	668.00	661.67	2.32	1.83	86.59	-161.60	-3.16	162.04	157.68	4.36	37.152		
800.00	794.38	758.58	748.33	2.77	2.33	86.48	-186.29	5.97	184.71	179.53	5.18	35.660		
900.00	890.30	847.69	832.27	3.28	2.89	86.91	-214.32	16.33	210.47	204.39	6.08	34.638		
1,000.00	984.62	935.21	913.28	3.86	3.51	87.55	-245.39	27.82	239.30	232.23	7.07	33.851		
1,100.00	1,077.08	1,021.07	991.18	4.52	4.18	88.23	-279.22	40.33	271.16	262.99	8.17	33.174		
1,200.00	1,167.42	1,105.20	1,065.87	5.29	4.89	88.86	-315.52	53.76	305.98	296.58	9.40	32.543		
1,300.00	1,255.40	1,187.55	1,137.27	6.18	5.66	89.39	-354.01	67.99	343.66	332.89	10.77	31.910		
1,400.00	1,340.78	1,268.12	1,205.33	7.19	6.46	89.78	-394.43	82.94	384.09	371.81	12.28	31.282		
1,435.17	1,370.15	1,300.00	1,231.75	7.57	6.78	89.98	-411.16	89.12	398.96	386.09	12.87	30.997		
1,500.00	1,423.95	1,350.09	1,272.76	8.31	7.29	91.03	-438.14	99.10	427.08	413.16	13.92	30.690		
1,600.00	1,506.93	1,439.25	1,345.59	9.46	8.21	92.60	-486.39	116.94	470.97	455.29	15.68	30.028		
1,700.00	1,589.92	1,528.41	1,418.41	10.64	9.13	93.91	-534.63	134.78	515.10	497.61	17.50	29.441		
1,800.00	1,672.90	1,617.57	1,491.24	11.83	10.05	95.01	-582.88	152.63	559.42	540.08	19.34	28.930		
1,900.00	1,755.89	1,706.73	1,564.07	13.03	10.97	95.95	-631.12	170.47	603.88	582.68	21.20	28.487		
2,000.00	1,838.87	1,795.89	1,636.89	14.24	11.90	96.77	-679.36	188.31	648.45	625.38	23.08	28.102		
2,100.00	1,921.85	1,885.05	1,709.72	15.46	12.82	97.48	-727.61	206.15	693.12	668.16	24.96	27.766		
2,200.00	2,004.84	1,974.21	1,782.55	16.68	13.75	98.10	-775.85	223.99	737.86	711.00	26.86	27.472		
2,300.00	2,087.82	2,063.37	1,855.37	17.90	14.67	98.65	-824.10	241.83	782.66	753.90	28.76	27.213		
2,400.00	2,170.81	2,152.53	1,928.20	19.13	15.60	99.14	-872.34	259.67	827.52	796.85	30.67	26.983		
2,500.00	2,253.79	2,241.69	2,001.02	20.36	16.52	99.59	-920.58	277.51	872.42	839.84	32.58	26.779		
2,600.00	2,336.78	2,330.85	2,073.85	21.59	17.45	99.99	-968.83	295.35	917.36	882.87	34.49	26.596		
2,700.00	2,419.76	2,420.01	2,146.68	22.82	18.38	100.35	-1,017.07	313.19	962.33	925.92	36.41	26.431		
2,800.00	2,502.75	2,509.17	2,219.50	24.06	19.30	100.68	-1,065.32	331.03	1,007.33	969.00	38.33	26.282		
2,900.00	2,585.73	2,598.33	2,292.33	25.29	20.23	100.98	-1,113.56	348.87	1,052.35	1,012.10	40.25	26.147		
3,000.00	2,668.72	2,687.49	2,365.16	26.53	21.16	101.26	-1,161.80	366.71	1,097.39	1,055.22	42.17	26.024		
3,100.00	2,751.70	2,776.65	2,437.98	27.77	22.09	101.51	-1,210.05	384.55	1,142.45	1,098.36	44.09	25.912		
3,200.00	2,834.69	2,865.81	2,510.81	29.01	23.01	101.75	-1,258.29	402.39	1,187.53	1,141.52	46.01	25.808		
3,300.00	2,917.67	2,954.97	2,583.64	30.25	23.94	101.97	-1,306.54	420.23	1,232.63	1,184.69	47.94	25.713		
3,400.00	3,000.66	3,044.13	2,656.46	31.49	24.87	102.17	-1,354.78	438.08	1,277.74	1,227.87	49.86	25.625		
3,500.00	3,083.64	3,133.29	2,729.29	32.73	25.80	102.36	-1,403.02	455.92	1,322.86	1,271.07	51.79	25.543		
3,600.00	3,166.63	3,222.45	2,802.11	33.97	26.72	102.54	-1,451.27	473.76	1,367.99	1,314.27	53.71	25.468		
3,700.00	3,249.61	3,311.61	2,874.94	35.21	27.65	102.70	-1,499.51	491.60	1,413.13	1,357.49	55.64	25.397		
3,800.00	3,332.60	3,400.77	2,947.77	36.45	28.58	102.86	-1,547.76	509.44	1,458.28	1,400.71	57.57	25.331	SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF04D-03 H04 596 - DD - Plan #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	15.90	115.35	32.85	119.94					
100.00	100.00	100.00	100.00	0.12	0.12	15.90	115.35	32.85	119.94	119.70	0.24	506.020		
116.67	116.67	116.67	116.67	0.18	0.15	15.90	115.35	32.85	119.94	119.61	0.33	368.072 CC		
200.00	200.00	200.00	200.00	0.48	0.29	15.90	115.35	32.85	119.94	119.17	0.77	155.760 ES		
300.00	300.00	296.63	296.59	0.84	0.46	16.90	115.72	35.16	120.99	119.65	1.34	90.326		
400.00	399.95	391.32	391.03	1.19	0.66	-81.85	118.73	41.19	125.60	123.61	2.00	62.925		
500.00	499.63	485.54	484.56	1.55	0.92	-81.66	124.74	50.71	133.70	131.02	2.69	49.770		
600.00	598.78	578.97	576.67	1.92	1.24	-86.78	133.64	63.62	145.85	142.44	3.41	42.774		
700.00	697.11	671.23	666.75	2.32	1.62	-90.23	145.29	79.70	162.66	158.49	4.17	38.989		
800.00	794.38	767.27	759.77	2.77	2.05	-93.42	159.51	98.89	183.10	178.24	4.87	37.625		
900.00	890.30	864.17	853.60	3.28	2.50	-97.08	173.93	118.34	204.95	199.32	5.63	36.416		
1,000.00	984.62	960.14	946.53	3.86	2.94	-101.02	188.21	137.60	228.69	222.18	6.51	35.148		
1,100.00	1,077.08	1,054.91	1,038.29	4.52	3.39	-105.08	202.31	156.62	254.94	247.44	7.50	33.999		
1,200.00	1,167.42	1,148.22	1,128.64	5.29	3.83	-109.09	216.20	175.35	284.28	275.69	8.59	33.097		
1,300.00	1,255.40	1,239.81	1,217.32	6.18	4.26	-112.92	229.83	193.73	317.18	307.42	9.76	32.512		
1,400.00	1,340.78	1,329.43	1,304.11	7.19	4.68	-116.47	243.17	211.72	353.99	343.02	10.97	32.260		
1,435.17	1,370.15	1,360.44	1,334.13	7.57	4.83	-117.65	247.78	217.95	367.92	356.51	11.41	32.242 SF		
1,500.00	1,423.95	1,417.34	1,389.23	8.31	5.10	-120.21	256.25	229.37	394.43	382.23	12.21	32.312		
1,600.00	1,506.93	1,505.11	1,474.21	9.46	5.52	-123.59	269.31	246.98	436.51	423.10	13.41	32.557		
1,700.00	1,589.92	1,592.88	1,559.19	10.64	5.93	-126.40	282.37	264.60	479.68	465.10	14.58	32.895		
1,800.00	1,672.90	1,680.65	1,644.18	11.83	6.35	-128.77	295.43	282.22	523.68	507.95	15.73	33.282		
1,900.00	1,755.89	1,768.41	1,729.16	13.03	6.77	-130.78	308.49	299.83	568.32	551.45	16.87	33.688		
2,000.00	1,838.87	1,856.18	1,814.15	14.24	7.19	-132.50	321.56	317.45	613.45	595.46	17.99	34.097		
2,100.00	1,921.85	1,943.95	1,899.13	15.46	7.60	-133.99	334.62	335.07	658.98	639.88	19.10	34.500		
2,200.00	2,004.84	2,031.72	1,984.11	16.68	8.02	-135.30	347.68	352.68	704.82	684.62	20.20	34.889		
2,300.00	2,087.82	2,119.48	2,069.10	17.90	8.44	-136.45	360.74	370.30	750.93	729.63	21.30	35.263		
2,400.00	2,170.81	2,207.25	2,154.08	19.13	8.86	-137.46	373.80	387.92	797.25	774.86	22.38	35.619		
2,500.00	2,253.79	2,295.02	2,239.06	20.36	9.28	-138.37	386.86	405.53	843.74	820.28	23.47	35.957		
2,600.00	2,336.78	2,382.79	2,324.05	21.59	9.69	-139.19	399.92	423.15	890.40	865.85	24.54	36.278		
2,700.00	2,419.76	2,470.55	2,409.03	22.82	10.11	-139.92	412.99	440.77	937.17	911.56	25.62	36.582		
2,800.00	2,502.75	2,558.32	2,494.01	24.06	10.53	-140.59	426.05	458.38	984.06	957.37	26.69	36.870		
2,900.00	2,585.73	2,646.09	2,579.00	25.29	10.95	-141.19	439.11	476.00	1,031.05	1,003.29	27.76	37.142		
3,000.00	2,668.72	2,733.86	2,663.98	26.53	11.37	-141.74	452.17	493.62	1,078.12	1,049.29	28.83	37.399		
3,100.00	2,751.70	2,821.62	2,748.96	27.77	11.79	-142.25	465.23	511.23	1,125.26	1,095.36	29.89	37.643		
3,200.00	2,834.69	2,909.39	2,833.95	29.01	12.21	-142.72	478.29	528.85	1,172.46	1,141.50	30.96	37.874		
3,300.00	2,917.67	2,997.16	2,918.93	30.25	12.63	-143.15	491.35	546.47	1,219.72	1,187.70	32.02	38.093		
3,400.00	3,000.66	3,084.93	3,003.92	31.49	13.04	-143.55	504.41	564.08	1,267.03	1,233.95	33.08	38.301		
3,500.00	3,083.64	3,172.69	3,088.90	32.73	13.46	-143.92	517.48	581.70	1,314.38	1,280.24	34.14	38.498		
3,600.00	3,166.63	3,260.46	3,173.88	33.97	13.88	-144.26	530.54	599.31	1,361.78	1,326.58	35.20	38.686		
3,700.00	3,249.61	3,348.23	3,258.87	35.21	14.30	-144.59	543.60	616.93	1,409.21	1,372.95	36.26	38.864		
3,800.00	3,332.60	3,436.00	3,343.85	36.45	14.72	-144.89	556.66	634.55	1,456.67	1,419.35	37.32	39.034		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF04D-10 H04 596 - DD - Plan #2													Offset Site Error: 0.00 usft			
Survey Program: O-MWD															Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning			
0.00	0.00	0.00	0.00	0.00	0.00	-158.66	-94.09	-36.76	101.02							
100.00	100.00	100.00	100.00	0.12	0.12	-158.66	-94.09	-36.76	101.02	100.78	0.24	426.193				
103.33	103.33	103.33	103.33	0.13	0.12	-158.66	-94.09	-36.76	101.02	100.76	0.25	396.468	CC, ES			
200.00	200.00	197.51	197.50	0.48	0.29	-158.61	-94.60	-37.06	101.63	100.82	0.82	124.257				
300.00	300.00	292.28	292.15	0.84	0.48	-158.23	-98.68	-39.41	106.55	105.02	1.53	69.626				
400.00	399.95	386.22	385.61	1.19	0.71	103.32	-106.73	-44.06	116.94	114.69	2.25	52.075				
500.00	499.63	478.39	476.78	1.55	1.01	106.57	-118.48	-50.85	133.69	130.74	2.95	45.322				
600.00	598.78	568.09	564.76	1.92	1.36	106.03	-133.56	-59.55	156.79	153.15	3.63	43.147				
700.00	697.11	654.78	648.92	2.32	1.77	107.64	-151.52	-69.92	186.11	181.81	4.30	43.282				
800.00	794.38	737.94	728.70	2.77	2.22	109.67	-171.85	-81.66	221.82	216.85	4.97	44.673				
900.00	890.30	817.28	803.79	3.28	2.69	111.49	-194.02	-94.46	263.81	258.17	5.64	46.748				
1,000.00	984.62	906.21	887.19	3.86	3.24	113.24	-221.70	-108.06	309.83	303.59	6.25	49.603				
1,100.00	1,077.08	995.64	970.62	4.52	3.82	114.29	-252.14	-118.50	357.57	350.57	7.01	51.034				
1,200.00	1,167.42	1,085.68	1,053.98	5.29	4.42	114.85	-285.38	-125.74	406.70	398.76	7.95	51.179				
1,300.00	1,255.40	1,176.43	1,137.16	6.18	5.04	115.06	-321.42	-129.67	456.99	447.91	9.07	50.363				
1,400.00	1,340.78	1,268.01	1,220.06	7.19	5.71	115.00	-360.30	-130.21	508.22	497.83	10.40	48.882				
1,435.17	1,370.15	1,300.44	1,249.14	7.57	5.95	114.93	-374.66	-129.58	526.44	515.54	10.90	48.286				
1,500.00	1,423.95	1,360.92	1,302.92	8.31	6.42	115.83	-402.24	-127.24	559.88	547.97	11.91	47.018				
1,600.00	1,506.93	1,456.38	1,386.50	9.46	7.19	116.65	-447.82	-120.51	610.46	596.90	13.55	45.038				
1,700.00	1,589.92	1,554.12	1,470.27	10.64	8.04	116.87	-497.00	-109.77	659.64	644.31	15.33	43.025				
1,800.00	1,672.90	1,653.70	1,553.49	11.83	8.95	116.63	-549.58	-94.86	707.34	690.11	17.23	41.048				
1,900.00	1,755.89	1,754.61	1,635.41	13.03	9.93	115.98	-605.28	-75.69	753.55	734.30	19.25	39.144				
2,000.00	1,838.87	1,851.61	1,711.80	14.24	10.92	115.08	-660.85	-53.66	798.46	777.18	21.29	37.513				
2,100.00	1,921.85	1,940.43	1,781.23	15.46	11.84	114.27	-712.15	-32.74	843.21	820.05	23.15	36.416				
2,200.00	2,004.84	2,029.26	1,850.65	16.68	12.78	113.55	-763.46	-11.81	888.08	862.98	25.10	35.385				
2,300.00	2,087.82	2,118.08	1,920.07	17.90	13.73	112.89	-814.76	9.12	933.05	906.01	27.04	34.506				
2,400.00	2,170.81	2,206.90	1,989.50	19.13	14.68	112.29	-866.06	30.04	978.11	949.12	28.99	33.742				
2,500.00	2,253.79	2,295.73	2,058.92	20.36	15.64	111.75	-917.36	50.97	1,023.25	992.31	30.94	33.071				
2,600.00	2,336.78	2,384.55	2,128.35	21.59	16.61	111.25	-968.66	71.89	1,068.46	1,035.56	32.90	32.478				
2,700.00	2,419.76	2,473.37	2,197.77	22.82	17.58	110.79	-1,019.97	92.82	1,113.72	1,078.86	34.86	31.950				
2,800.00	2,502.75	2,562.20	2,267.20	24.06	18.55	110.36	-1,071.27	113.75	1,159.04	1,122.22	36.82	31.477				
2,900.00	2,585.73	2,651.02	2,336.62	25.29	19.53	109.97	-1,122.57	134.67	1,204.41	1,165.62	38.79	31.050				
3,000.00	2,668.72	2,739.84	2,406.04	26.53	20.51	109.61	-1,173.87	155.60	1,249.82	1,209.06	40.76	30.664				
3,100.00	2,751.70	2,828.67	2,475.47	27.77	21.49	109.27	-1,225.18	176.53	1,295.27	1,252.54	42.73	30.313				
3,200.00	2,834.69	2,917.49	2,544.89	29.01	22.48	108.95	-1,276.48	197.45	1,340.75	1,296.05	44.70	29.993				
3,300.00	2,917.67	3,006.31	2,614.32	30.25	23.46	108.66	-1,327.78	218.38	1,386.26	1,339.58	46.68	29.700				
3,400.00	3,000.66	3,095.14	2,683.74	31.49	24.45	108.38	-1,379.08	239.30	1,431.80	1,383.14	48.65	29.430				
3,500.00	3,083.64	3,183.96	2,753.16	32.73	25.44	108.12	-1,430.39	260.23	1,477.36	1,426.73	50.63	29.181	SF			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF04E-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor	
0.00	0.00	0.00	0.00	0.00	0.00	15.77	105.24	29.72	109.36				
100.00	100.00	100.00	100.00	0.12	0.12	15.77	105.24	29.72	109.36	109.12	0.24	461.384	
200.00	200.00	200.00	200.00	0.48	0.29	15.77	105.24	29.72	109.36	108.59	0.77	142.020	
300.00	300.00	300.00	300.00	0.84	0.47	15.77	105.24	29.72	109.36	108.06	1.30	83.927 CC, ES	
400.00	399.95	396.09	396.05	1.19	0.64	-84.59	106.42	31.84	110.87	109.01	1.87	59.414	
500.00	499.63	492.03	491.70	1.55	0.84	-85.61	109.93	38.16	115.44	112.95	2.48	46.523	
600.00	598.78	587.59	586.50	1.92	1.10	-91.56	115.74	48.62	123.72	120.57	3.15	39.329	
700.00	697.11	682.49	679.94	2.32	1.42	-95.46	123.78	63.09	136.38	132.51	3.87	35.222	
800.00	794.38	777.72	772.80	2.77	1.80	-98.51	134.01	81.52	153.31	148.68	4.64	33.054	
900.00	890.30	875.43	867.81	3.28	2.21	-102.00	145.10	101.48	172.61	167.18	5.43	31.765	
1,000.00	984.62	972.28	961.97	3.86	2.63	-106.00	156.09	121.26	194.06	187.73	6.33	30.652	
1,100.00	1,077.08	1,068.01	1,055.05	4.52	3.04	-110.22	166.95	140.82	218.28	210.96	7.32	29.809	
1,200.00	1,167.42	1,162.35	1,146.78	5.29	3.46	-114.44	177.66	160.09	245.87	237.48	8.39	29.305	
1,300.00	1,255.40	1,255.06	1,236.92	6.18	3.87	-118.46	188.18	179.03	277.30	267.79	9.51	29.162 SF	
1,400.00	1,340.78	1,345.86	1,325.21	7.19	4.27	-122.19	198.48	197.58	312.91	302.26	10.65	29.368	
1,435.17	1,370.15	1,377.30	1,355.78	7.57	4.41	-123.41	202.05	204.01	326.47	315.41	11.06	29.510	
1,500.00	1,423.95	1,435.00	1,411.89	8.31	4.67	-125.98	208.60	215.79	352.29	340.50	11.80	29.856	
1,600.00	1,506.93	1,524.01	1,498.43	9.46	5.07	-129.30	218.70	233.98	393.16	380.25	12.91	30.456	
1,700.00	1,589.92	1,613.01	1,584.97	10.64	5.46	-132.02	228.80	252.16	434.96	420.96	13.99	31.081	
1,800.00	1,672.90	1,702.02	1,671.51	11.83	5.86	-134.28	238.90	270.34	477.45	462.39	15.06	31.701	
1,900.00	1,755.89	1,791.02	1,758.05	13.03	6.26	-136.17	249.00	288.52	520.47	504.36	16.11	32.300	
2,000.00	1,838.87	1,880.03	1,844.59	14.24	6.66	-137.78	259.10	306.71	563.89	546.74	17.16	32.870	
2,100.00	1,921.85	1,969.03	1,931.13	15.46	7.06	-139.16	269.20	324.89	607.63	589.44	18.19	33.408	
2,200.00	2,004.84	2,058.04	2,017.67	16.68	7.46	-140.36	279.30	343.07	651.63	632.41	19.21	33.912	
2,300.00	2,087.82	2,147.04	2,104.21	17.90	7.86	-141.42	289.40	361.26	695.82	675.59	20.24	34.385	
2,400.00	2,170.81	2,236.05	2,190.75	19.13	8.26	-142.34	299.50	379.44	740.19	718.94	21.25	34.827	
2,500.00	2,253.79	2,325.05	2,277.29	20.36	8.66	-143.17	309.60	397.62	784.70	762.43	22.27	35.239	
2,600.00	2,336.78	2,414.06	2,363.83	21.59	9.06	-143.90	319.70	415.80	829.32	806.04	23.28	35.626	
2,700.00	2,419.76	2,503.06	2,450.37	22.82	9.46	-144.56	329.80	433.99	874.04	849.76	24.29	35.987	
2,800.00	2,502.75	2,592.06	2,536.91	24.06	9.86	-145.16	339.90	452.17	918.85	893.56	25.30	36.325	
2,900.00	2,585.73	2,681.07	2,623.45	25.29	10.26	-145.70	350.00	470.35	963.73	937.43	26.30	36.643	
3,000.00	2,668.72	2,770.07	2,709.99	26.53	10.66	-146.20	360.10	488.53	1,008.68	981.37	27.31	36.941	
3,100.00	2,751.70	2,859.08	2,796.53	27.77	11.06	-146.65	370.20	506.72	1,053.68	1,025.37	28.31	37.221	
3,200.00	2,834.69	2,948.08	2,883.07	29.01	11.47	-147.06	380.30	524.90	1,098.73	1,069.41	29.31	37.485	
3,300.00	2,917.67	3,037.09	2,969.61	30.25	11.87	-147.45	390.40	543.08	1,143.82	1,113.50	30.31	37.733	
3,400.00	3,000.66	3,126.09	3,056.15	31.49	12.27	-147.80	400.50	561.27	1,188.95	1,157.63	31.31	37.968	
3,500.00	3,083.64	3,215.10	3,142.69	32.73	12.67	-148.13	410.60	579.45	1,234.11	1,201.79	32.31	38.190	
3,600.00	3,166.63	3,304.10	3,229.23	33.97	13.07	-148.44	420.70	597.63	1,279.30	1,245.99	33.31	38.400	
3,700.00	3,249.61	3,393.11	3,315.77	35.21	13.47	-148.72	430.80	615.81	1,324.52	1,290.21	34.31	38.600	
3,800.00	3,332.60	3,482.11	3,402.31	36.45	13.87	-148.99	440.90	634.00	1,369.76	1,334.45	35.31	38.789	
3,900.00	3,415.58	3,571.11	3,488.85	37.70	14.27	-149.23	451.00	652.18	1,415.03	1,378.72	36.31	38.968	
4,000.00	3,498.57	3,660.12	3,575.39	38.94	14.67	-149.47	461.10	670.36	1,460.32	1,423.01	37.31	39.139	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF04E-04 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	10.64	108.27	20.34	110.17				
100.00	100.00	100.00	100.00	0.12	0.12	10.64	108.27	20.34	110.17	109.93	0.24	464.791	
200.00	200.00	200.00	200.00	0.48	0.29	10.64	108.27	20.34	110.17	109.40	0.77	143.069	
300.00	300.00	300.00	300.00	0.84	0.47	10.64	108.27	20.34	110.17	108.86	1.30	84.547	
365.90	365.89	365.94	365.93	1.07	0.59	-90.55	108.45	19.21	110.14	108.49	1.65	66.619 CC	
400.00	399.95	399.90	399.85	1.19	0.65	-92.08	108.68	17.76	110.18	108.35	1.83	60.065 ES	
500.00	499.63	498.18	497.82	1.55	0.86	-99.91	109.87	10.19	111.70	109.29	2.40	46.460	
600.00	598.78	593.33	592.18	1.92	1.11	-115.82	111.76	-1.87	119.23	116.16	3.08	38.758	
700.00	697.11	684.09	681.50	2.32	1.43	-130.24	114.24	-17.69	137.67	133.82	3.85	35.769 SF	
800.00	794.38	769.39	764.68	2.77	1.79	-142.03	117.16	-36.36	168.95	164.33	4.62	36.582	
900.00	890.30	848.48	840.97	3.28	2.19	-150.84	120.39	-56.94	212.40	207.10	5.30	40.043	
1,000.00	984.62	920.85	909.98	3.86	2.60	-157.17	123.77	-78.48	266.30	260.40	5.89	45.203	
1,100.00	1,077.08	986.28	971.61	4.52	3.02	-161.69	127.17	-100.17	328.90	322.51	6.39	51.443	
1,200.00	1,167.42	1,044.72	1,025.99	5.29	3.44	-164.96	130.48	-121.30	398.80	391.97	6.83	58.424	
1,300.00	1,255.40	1,100.00	1,076.81	6.18	3.85	-167.52	133.85	-142.79	474.83	467.65	7.18	66.117	
1,400.00	1,340.78	1,141.26	1,114.32	7.19	4.20	-169.08	136.51	-159.77	555.97	548.47	7.50	74.089	
1,435.17	1,370.15	1,155.56	1,127.23	7.57	4.32	-169.58	137.46	-165.84	585.58	577.97	7.61	76.959	
1,500.00	1,423.95	1,180.65	1,149.78	8.31	4.53	-170.66	139.17	-176.72	640.90	633.13	7.77	82.531	
1,600.00	1,506.93	1,217.26	1,182.40	9.46	4.86	-172.04	141.74	-193.12	727.18	719.19	7.99	91.049	
1,700.00	1,589.92	1,251.52	1,212.64	10.64	5.18	-173.15	144.23	-209.03	814.49	806.30	8.19	99.429	
1,800.00	1,672.90	1,283.63	1,240.72	11.83	5.49	-174.07	146.65	-224.42	902.72	894.34	8.38	107.735	
1,900.00	1,755.89	1,300.00	1,254.93	13.03	5.64	-174.50	147.90	-232.45	991.90	983.39	8.50	116.628	
2,000.00	1,838.87	1,342.09	1,291.15	14.24	6.09	-175.50	151.23	-253.64	1,081.52	1,072.80	8.72	124.091	
2,100.00	1,921.85	1,368.76	1,313.84	15.46	6.37	-176.06	153.39	-267.46	1,171.94	1,163.07	8.86	132.204	
2,200.00	2,004.84	1,400.00	1,340.18	16.68	6.70	-176.67	156.00	-284.06	1,262.98	1,253.95	9.03	139.865	
2,300.00	2,087.82	1,417.62	1,354.91	17.90	6.90	-176.99	157.49	-293.61	1,354.51	1,345.38	9.13	148.357	
2,400.00	2,170.81	1,440.04	1,373.53	19.13	7.15	-177.38	159.43	-305.95	1,446.57	1,437.32	9.25	156.404	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF05A-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	15.90	96.13	27.38	99.95				
100.00	100.00	100.00	100.00	0.12	0.12	15.90	96.13	27.38	99.95	99.72	0.24	421.704	
116.67	116.67	116.67	116.67	0.18	0.15	15.90	96.13	27.38	99.95	99.63	0.33	306.742 CC	
200.00	200.00	200.00	200.00	0.48	0.29	15.90	96.13	27.38	99.95	99.18	0.77	129.806 ES	
300.00	300.00	296.91	296.87	0.84	0.47	17.02	96.99	29.68	101.48	100.13	1.35	75.173	
400.00	399.95	393.50	393.17	1.19	0.68	-81.06	99.55	36.56	105.84	103.85	1.98	53.380	
500.00	499.63	489.72	488.61	1.55	0.95	-79.86	103.78	47.93	112.65	109.99	2.66	42.349	
600.00	598.78	585.42	582.81	1.92	1.30	-83.79	109.65	63.70	122.41	119.01	3.39	36.062	
700.00	697.11	683.41	678.55	2.32	1.68	-86.46	116.93	83.25	134.87	130.79	4.08	33.034	
800.00	794.38	782.33	775.16	2.77	2.08	-90.04	124.35	103.19	147.94	143.13	4.81	30.754	
900.00	890.30	880.72	871.25	3.28	2.48	-94.54	131.74	123.01	162.04	156.41	5.64	28.735	
1,000.00	984.62	978.31	966.56	3.86	2.89	-99.69	139.06	142.68	178.00	171.43	6.58	27.065	
1,100.00	1,077.08	1,074.84	1,060.83	4.52	3.29	-105.18	146.30	162.13	196.72	189.11	7.61	25.848	
1,200.00	1,167.42	1,170.04	1,153.80	5.29	3.68	-110.69	153.44	181.31	219.02	210.31	8.71	25.140	
1,300.00	1,255.40	1,263.64	1,245.21	6.18	4.07	-115.96	160.46	200.18	245.58	235.73	9.85	24.943 SF	
1,400.00	1,340.78	1,355.40	1,334.83	7.19	4.45	-120.83	167.35	218.67	276.85	265.87	10.98	25.216	
1,435.17	1,370.15	1,387.19	1,365.87	7.57	4.59	-122.42	169.73	225.07	289.02	277.64	11.38	25.406	
1,500.00	1,423.95	1,445.53	1,422.85	8.31	4.83	-125.54	174.11	236.83	312.46	300.37	12.08	25.859	
1,600.00	1,506.93	1,535.53	1,510.74	9.46	5.21	-129.56	180.86	254.96	350.01	336.88	13.13	26.655	
1,700.00	1,589.92	1,625.53	1,598.63	10.64	5.59	-132.82	187.61	273.10	388.82	374.68	14.14	27.496	
1,800.00	1,672.90	1,715.52	1,686.52	11.83	5.96	-135.51	194.36	291.23	428.56	413.43	15.12	28.336	
1,900.00	1,755.89	1,805.52	1,774.42	13.03	6.34	-137.76	201.11	309.37	468.98	452.89	16.09	29.150	
2,000.00	1,838.87	1,895.52	1,862.31	14.24	6.72	-139.65	207.86	327.51	509.93	492.89	17.04	29.928	
2,100.00	1,921.85	1,985.51	1,950.20	15.46	7.09	-141.27	214.62	345.64	551.28	533.30	17.98	30.662	
2,200.00	2,004.84	2,075.51	2,038.09	16.68	7.47	-142.67	221.37	363.78	592.95	574.04	18.91	31.353	
2,300.00	2,087.82	2,165.51	2,125.98	17.90	7.85	-143.89	228.12	381.91	634.88	615.04	19.84	32.000	
2,400.00	2,170.81	2,255.51	2,213.87	19.13	8.23	-144.95	234.87	400.05	677.02	656.26	20.76	32.606	
2,500.00	2,253.79	2,345.50	2,301.77	20.36	8.61	-145.90	241.62	418.18	719.34	697.65	21.68	33.173	
2,600.00	2,336.78	2,435.50	2,389.66	21.59	8.98	-146.74	248.37	436.32	761.80	739.19	22.60	33.704	
2,700.00	2,419.76	2,525.50	2,477.55	22.82	9.36	-147.49	255.13	454.45	804.38	780.86	23.52	34.201	
2,800.00	2,502.75	2,615.49	2,565.44	24.06	9.74	-148.17	261.88	472.59	847.06	822.63	24.43	34.667	
2,900.00	2,585.73	2,705.49	2,653.33	25.29	10.12	-148.78	268.63	490.72	889.83	864.49	25.35	35.104	
3,000.00	2,668.72	2,795.49	2,741.23	26.53	10.50	-149.34	275.38	508.86	932.68	906.42	26.26	35.515	
3,100.00	2,751.70	2,885.48	2,829.12	27.77	10.87	-149.85	282.13	527.00	975.60	948.42	27.17	35.902	
3,200.00	2,834.69	2,975.48	2,917.01	29.01	11.25	-150.31	288.88	545.13	1,018.57	990.48	28.09	36.266	
3,300.00	2,917.67	3,065.48	3,004.90	30.25	11.63	-150.74	295.63	563.27	1,061.59	1,032.59	29.00	36.609	
3,400.00	3,000.66	3,155.48	3,092.79	31.49	12.01	-151.14	302.39	581.40	1,104.66	1,074.75	29.91	36.933	
3,500.00	3,083.64	3,245.47	3,180.68	32.73	12.39	-151.50	309.14	599.54	1,147.77	1,116.95	30.82	37.240	
3,600.00	3,166.63	3,335.47	3,268.58	33.97	12.77	-151.84	315.89	617.67	1,190.91	1,159.18	31.73	37.530	
3,700.00	3,249.61	3,425.47	3,356.47	35.21	13.14	-152.16	322.64	635.81	1,234.09	1,201.44	32.64	37.805	
3,800.00	3,332.60	3,515.46	3,444.36	36.45	13.52	-152.45	329.39	653.94	1,277.29	1,243.74	33.55	38.067	
3,900.00	3,415.58	3,605.46	3,532.25	37.70	13.90	-152.73	336.14	672.08	1,320.52	1,286.06	34.46	38.315	
4,000.00	3,498.57	3,695.46	3,620.14	38.94	14.28	-152.98	342.90	690.21	1,363.77	1,328.40	35.38	38.551	
4,100.00	3,581.55	3,785.45	3,708.04	40.18	14.66	-153.23	349.65	708.35	1,407.05	1,370.76	36.29	38.776	
4,200.00	3,664.54	3,875.45	3,795.93	41.42	15.04	-153.45	356.40	726.48	1,450.34	1,413.14	37.20	38.991	
4,300.00	3,747.52	3,965.45	3,883.82	42.67	15.41	-153.67	363.15	744.62	1,493.65	1,455.54	38.11	39.195	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF05A-04 H04 596 - DD - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.00	0.00	0.00	0.00	0.00	0.00	9.48	89.04	14.86	90.28					
100.00	100.00	100.00	100.00	0.12	0.12	9.48	89.04	14.86	90.28	90.04	0.24	380.873		
200.00	200.00	200.00	200.00	0.48	0.29	9.48	89.04	14.86	90.28	89.51	0.77	117.238		
300.00	300.00	300.00	300.00	0.84	0.47	9.48	89.04	14.86	90.28	88.97	1.30	69.282		
373.60	373.58	373.74	373.72	1.10	0.60	-92.33	89.18	13.44	90.23	88.54	1.69	53.248 CC		
400.00	399.95	400.07	400.02	1.19	0.65	-93.84	89.29	12.25	90.26	88.43	1.83	49.198 ES		
500.00	499.63	498.51	498.15	1.55	0.86	-103.39	90.01	4.60	92.01	89.61	2.41	38.258		
600.00	598.78	593.83	592.67	1.92	1.12	-121.41	91.15	-7.60	100.77	97.68	3.09	32.643		
700.00	697.11	684.75	682.15	2.32	1.43	-137.18	92.65	-23.59	121.54	117.68	3.87	31.444 SF		
800.00	794.38	770.24	765.50	2.77	1.79	-149.26	94.42	-42.49	155.49	150.87	4.62	33.652		
900.00	890.30	849.53	841.98	3.28	2.19	-157.79	96.37	-63.31	201.21	195.92	5.29	38.059		
1,000.00	984.62	922.14	911.19	3.86	2.61	-163.71	98.41	-85.14	256.78	250.92	5.86	43.808		
1,100.00	1,077.08	987.81	973.04	4.52	3.03	-167.87	100.47	-107.12	320.57	314.21	6.36	50.407		
1,200.00	1,167.42	1,046.52	1,027.65	5.29	3.45	-170.88	102.48	-128.56	391.28	384.48	6.79	57.594		
1,300.00	1,255.40	1,100.00	1,076.81	6.18	3.85	-173.20	104.44	-149.53	467.85	460.69	7.16	65.344		
1,400.00	1,340.78	1,143.64	1,116.47	7.19	4.22	-174.87	106.14	-167.66	549.39	541.91	7.49	73.395		
1,435.17	1,370.15	1,158.05	1,129.47	7.57	4.34	-175.39	106.72	-173.84	579.10	571.51	7.59	76.264		
1,500.00	1,423.95	1,183.34	1,152.18	8.31	4.55	-176.23	107.76	-184.93	634.57	626.82	7.76	81.818		
1,600.00	1,506.93	1,220.25	1,185.05	9.46	4.89	-177.31	109.32	-201.64	721.03	713.04	7.99	90.271		
1,700.00	1,589.92	1,254.80	1,215.52	10.64	5.22	-178.18	110.84	-217.86	808.45	800.25	8.20	98.559		
1,800.00	1,672.90	1,300.00	1,254.93	11.83	5.65	-179.17	112.91	-239.89	896.88	888.44	8.44	106.254		
1,900.00	1,755.89	1,317.60	1,270.13	13.03	5.83	-179.52	113.74	-248.73	985.83	977.24	8.59	114.812		
2,000.00	1,838.87	1,346.19	1,294.64	14.24	6.14	179.96	115.11	-263.37	1,075.62	1,066.86	8.76	122.792		
2,100.00	1,921.85	1,373.10	1,317.52	15.46	6.42	179.50	116.43	-277.49	1,166.04	1,157.12	8.92	130.730		
2,200.00	2,004.84	1,400.00	1,340.18	16.68	6.71	179.08	117.78	-291.91	1,257.06	1,247.98	9.07	138.523		
2,300.00	2,087.82	1,422.44	1,358.93	17.90	6.96	178.75	118.93	-304.19	1,348.60	1,339.39	9.21	146.490		
2,400.00	2,170.81	1,451.74	1,383.19	19.13	7.28	178.35	120.46	-320.55	1,440.66	1,431.29	9.37	153.728		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF05B-03 H04 596 - DD - Plan #3												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor	
0.00	0.00	0.00	0.00	0.00	0.00	15.74	86.01	24.25	89.37				
100.00	100.00	100.00	100.00	0.12	0.12	15.74	86.01	24.25	89.37	89.13	0.24	377.033	
200.00	200.00	200.00	200.00	0.48	0.29	15.74	86.01	24.25	89.37	88.60	0.77	116.056	
300.00	300.00	300.00	300.00	0.84	0.47	15.74	86.01	24.25	89.37	88.06	1.30	68.584 CC, ES	
400.00	399.95	397.93	397.89	1.19	0.64	-84.43	86.49	26.71	90.26	88.41	1.85	48.860	
500.00	499.63	495.81	495.47	1.55	0.85	-84.91	87.93	34.09	92.94	90.51	2.43	38.170	
600.00	598.78	593.56	592.41	1.92	1.11	-90.08	90.32	46.35	98.03	94.94	3.09	31.726	
700.00	697.11	691.08	688.35	2.32	1.45	-93.13	93.64	63.41	106.13	102.30	3.83	27.728	
800.00	794.38	790.45	785.66	2.77	1.81	-96.50	97.49	83.19	116.26	111.66	4.59	25.322	
900.00	890.30	889.35	882.51	3.28	2.19	-101.28	101.32	102.87	127.89	122.45	5.44	23.527	
1,000.00	984.62	987.52	978.63	3.86	2.56	-106.98	105.12	122.41	141.90	135.54	6.36	22.307	
1,100.00	1,077.08	1,084.67	1,073.77	4.52	2.94	-113.10	108.89	141.74	159.25	151.91	7.34	21.684	
1,200.00	1,167.42	1,180.55	1,167.65	5.29	3.32	-119.17	112.60	160.82	180.78	172.43	8.35	21.652 SF	
1,300.00	1,255.40	1,274.88	1,260.03	6.18	3.69	-124.84	116.26	179.60	207.09	197.74	9.34	22.162	
1,400.00	1,340.78	1,367.42	1,350.65	7.19	4.05	-129.90	119.84	198.01	238.51	228.21	10.31	23.138	
1,435.17	1,370.15	1,399.50	1,382.06	7.57	4.18	-131.53	121.08	204.40	250.81	240.17	10.64	23.570	
1,500.00	1,423.95	1,458.38	1,439.71	8.31	4.41	-134.58	123.37	216.11	274.43	263.20	11.23	24.436	
1,600.00	1,506.93	1,549.20	1,528.65	9.46	4.77	-138.40	126.88	234.19	311.99	299.88	12.11	25.767	
1,700.00	1,589.92	1,640.02	1,617.58	10.64	5.14	-141.42	130.40	252.26	350.52	337.56	12.96	27.040	
1,800.00	1,672.90	1,730.84	1,706.51	11.83	5.50	-143.86	133.92	270.34	389.74	375.93	13.80	28.233	
1,900.00	1,755.89	1,821.66	1,795.45	13.03	5.86	-145.85	137.44	288.41	429.45	414.82	14.64	29.341	
2,000.00	1,838.87	1,912.48	1,884.38	14.24	6.22	-147.51	140.96	306.48	469.54	454.08	15.46	30.365	
2,100.00	1,921.85	2,003.30	1,973.32	15.46	6.58	-148.91	144.48	324.56	509.91	493.62	16.29	31.308	
2,200.00	2,004.84	2,094.12	2,062.25	16.68	6.94	-150.11	148.00	342.63	550.50	533.39	17.11	32.176	
2,300.00	2,087.82	2,184.94	2,151.19	17.90	7.31	-151.15	151.51	360.71	591.27	573.34	17.93	32.977	
2,400.00	2,170.81	2,275.76	2,240.12	19.13	7.67	-152.05	155.03	378.78	632.18	613.43	18.75	33.717	
2,500.00	2,253.79	2,366.58	2,329.05	20.36	8.03	-152.85	158.55	396.85	673.20	653.63	19.57	34.400	
2,600.00	2,336.78	2,457.40	2,417.99	21.59	8.40	-153.55	162.07	414.93	714.32	693.94	20.39	35.033	
2,700.00	2,419.76	2,548.22	2,506.92	22.82	8.76	-154.18	165.59	433.00	755.53	734.32	21.21	35.621	
2,800.00	2,502.75	2,639.04	2,595.86	24.06	9.12	-154.74	169.11	451.08	796.80	774.77	22.03	36.167	
2,900.00	2,585.73	2,729.86	2,684.79	25.29	9.48	-155.25	172.63	469.15	838.12	815.27	22.85	36.676	
3,000.00	2,668.72	2,820.68	2,773.73	26.53	9.85	-155.71	176.14	487.23	879.50	855.83	23.67	37.152	
3,100.00	2,751.70	2,911.50	2,862.66	27.77	10.21	-156.13	179.66	505.30	920.92	896.43	24.49	37.597	
3,200.00	2,834.69	3,002.32	2,951.59	29.01	10.57	-156.51	183.18	523.37	962.38	937.06	25.32	38.013	
3,300.00	2,917.67	3,093.14	3,040.53	30.25	10.94	-156.86	186.70	541.45	1,003.87	977.73	26.14	38.404	
3,400.00	3,000.66	3,183.96	3,129.46	31.49	11.30	-157.18	190.22	559.52	1,045.39	1,018.43	26.96	38.772	
3,500.00	3,083.64	3,274.78	3,218.40	32.73	11.66	-157.48	193.74	577.60	1,086.93	1,059.15	27.79	39.119	
3,600.00	3,166.63	3,365.60	3,307.33	33.97	12.03	-157.76	197.26	595.67	1,128.50	1,099.89	28.61	39.445	
3,700.00	3,249.61	3,456.42	3,396.26	35.21	12.39	-158.02	200.77	613.74	1,170.09	1,140.66	29.43	39.754	
3,800.00	3,332.60	3,547.24	3,485.20	36.45	12.75	-158.26	204.29	631.82	1,211.70	1,181.44	30.26	40.046	
3,900.00	3,415.58	3,638.06	3,574.13	37.70	13.12	-158.48	207.81	649.89	1,253.32	1,222.24	31.08	40.323	
4,000.00	3,498.57	3,728.88	3,663.07	38.94	13.48	-158.69	211.33	667.97	1,294.96	1,263.05	31.91	40.586	
4,100.00	3,581.55	3,819.71	3,752.00	40.18	13.85	-158.89	214.85	686.04	1,336.61	1,303.87	32.73	40.835	
4,200.00	3,664.54	3,910.53	3,840.94	41.42	14.21	-159.07	218.37	704.11	1,378.27	1,344.71	33.56	41.072	
4,300.00	3,747.52	4,001.35	3,929.87	42.67	14.57	-159.25	221.89	722.19	1,419.94	1,385.56	34.38	41.298	
4,400.00	3,830.51	4,092.17	4,018.80	43.91	14.94	-159.41	225.41	740.26	1,461.63	1,426.42	35.21	41.513	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF05C-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	15.70	66.79	18.77	69.38				
100.00	100.00	100.00	100.00	0.12	0.12	15.70	66.79	18.77	69.38	69.14	0.24	292.700	
200.00	200.00	200.00	200.00	0.48	0.29	15.70	66.79	18.77	69.38	68.61	0.77	90.097	
300.00	300.00	300.00	300.00	0.84	0.47	15.70	66.79	18.77	69.38	68.07	1.30	53.243 CC	
400.00	399.95	398.97	398.93	1.19	0.65	-84.38	66.83	21.34	69.86	68.02	1.84	37.976 ES	
500.00	499.63	497.93	497.58	1.55	0.86	-84.63	66.94	29.02	71.29	68.88	2.41	29.521	
600.00	598.78	596.85	595.66	1.92	1.12	-89.44	67.14	41.79	74.30	71.23	3.07	24.239	
700.00	697.11	695.66	692.83	2.32	1.47	-92.06	67.41	59.61	79.48	75.66	3.82	20.833	
800.00	794.38	795.35	790.37	2.77	1.84	-95.40	67.72	80.20	86.23	81.61	4.61	18.690	
900.00	890.30	894.70	887.58	3.28	2.22	-101.01	68.03	100.72	94.37	88.88	5.49	17.200	
1,000.00	984.62	993.41	984.17	3.86	2.61	-108.15	68.33	121.11	104.98	98.55	6.42	16.341	
1,100.00	1,077.08	1,091.22	1,079.87	4.52	3.00	-115.92	68.64	141.31	119.28	111.89	7.38	16.152 SF	
1,200.00	1,167.42	1,187.86	1,174.42	5.29	3.38	-123.50	68.94	161.27	138.30	129.99	8.32	16.626	
1,300.00	1,255.40	1,283.07	1,267.58	6.18	3.76	-130.35	69.24	180.93	162.68	153.48	9.20	17.691	
1,400.00	1,340.78	1,376.57	1,359.06	7.19	4.14	-136.21	69.53	200.25	192.63	182.62	10.01	19.242	
1,435.17	1,370.15	1,409.01	1,390.80	7.57	4.27	-138.03	69.63	206.95	204.50	194.21	10.29	19.876	
1,500.00	1,423.95	1,468.57	1,449.07	8.31	4.51	-141.26	69.82	219.25	227.33	216.56	10.78	21.093	
1,600.00	1,506.93	1,560.44	1,538.96	9.46	4.88	-145.16	70.10	238.22	263.55	252.04	11.51	22.890	
1,700.00	1,589.92	1,652.30	1,628.85	10.64	5.25	-148.13	70.39	257.20	300.60	288.36	12.24	24.553	
1,800.00	1,672.90	1,744.17	1,718.73	11.83	5.62	-150.45	70.67	276.17	338.21	325.24	12.97	26.075	
1,900.00	1,755.89	1,836.04	1,808.62	13.03	5.99	-152.32	70.96	295.15	376.20	362.50	13.70	27.462	
2,000.00	1,838.87	1,927.91	1,898.51	14.24	6.36	-153.84	71.25	314.12	414.47	400.04	14.43	28.724	
2,100.00	1,921.85	2,019.78	1,988.40	15.46	6.74	-155.11	71.53	333.10	452.96	437.79	15.16	29.872	
2,200.00	2,004.84	2,111.65	2,078.28	16.68	7.11	-156.18	71.82	352.07	491.60	475.70	15.90	30.920	
2,300.00	2,087.82	2,203.52	2,168.17	17.90	7.48	-157.10	72.11	371.05	530.37	513.74	16.64	31.877	
2,400.00	2,170.81	2,295.38	2,258.06	19.13	7.86	-157.89	72.39	390.02	569.25	551.87	17.38	32.754	
2,500.00	2,253.79	2,387.25	2,347.94	20.36	8.23	-158.58	72.68	409.00	608.20	590.07	18.12	33.560	
2,600.00	2,336.78	2,479.12	2,437.83	21.59	8.60	-159.19	72.97	427.97	647.22	628.35	18.87	34.302	
2,700.00	2,419.76	2,570.99	2,527.72	22.82	8.97	-159.73	73.25	446.95	686.29	666.67	19.62	34.988	
2,800.00	2,502.75	2,662.86	2,617.60	24.06	9.35	-160.21	73.54	465.93	725.41	705.05	20.36	35.622	
2,900.00	2,585.73	2,754.73	2,707.49	25.29	9.72	-160.64	73.83	484.90	764.57	743.45	21.11	36.210	
3,000.00	2,668.72	2,846.59	2,797.38	26.53	10.09	-161.03	74.11	503.88	803.76	781.89	21.87	36.758	
3,100.00	2,751.70	2,938.46	2,887.27	27.77	10.47	-161.38	74.40	522.85	842.98	820.36	22.62	37.268	
3,200.00	2,834.69	3,030.33	2,977.15	29.01	10.84	-161.71	74.69	541.83	882.23	858.85	23.37	37.745	
3,300.00	2,917.67	3,122.20	3,067.04	30.25	11.22	-162.00	74.97	560.80	921.49	897.36	24.13	38.191	
3,400.00	3,000.66	3,214.07	3,156.93	31.49	11.59	-162.27	75.26	579.78	960.78	935.90	24.88	38.610	
3,500.00	3,083.64	3,305.94	3,246.81	32.73	11.96	-162.52	75.54	598.75	1,000.08	974.44	25.64	39.003	
3,600.00	3,166.63	3,397.81	3,336.70	33.97	12.34	-162.75	75.83	617.73	1,039.40	1,013.00	26.40	39.373	
3,700.00	3,249.61	3,489.67	3,426.59	35.21	12.71	-162.97	76.12	636.70	1,078.73	1,051.57	27.16	39.722	
3,800.00	3,332.60	3,581.54	3,516.47	36.45	13.08	-163.17	76.40	655.68	1,118.07	1,090.16	27.92	40.051	
3,900.00	3,415.58	3,673.41	3,606.36	37.70	13.46	-163.35	76.69	674.65	1,157.43	1,128.75	28.68	40.362	
4,000.00	3,498.57	3,765.28	3,696.25	38.94	13.83	-163.52	76.98	693.63	1,196.79	1,167.36	29.44	40.657	
4,100.00	3,581.55	3,857.15	3,786.14	40.18	14.21	-163.69	77.26	712.60	1,236.16	1,205.97	30.20	40.937	
4,200.00	3,664.54	3,949.02	3,876.02	41.42	14.58	-163.84	77.55	731.58	1,275.54	1,244.59	30.96	41.203	
4,300.00	3,747.52	4,040.88	3,965.91	42.67	14.95	-163.98	77.84	750.55	1,314.93	1,283.21	31.72	41.455	
4,400.00	3,830.51	4,132.75	4,055.80	43.91	15.33	-164.12	78.12	769.53	1,354.32	1,321.84	32.48	41.696	
4,500.00	3,913.49	4,224.62	4,145.68	45.16	15.70	-164.24	78.41	788.50	1,393.72	1,360.48	33.24	41.925	
4,600.00	3,996.48	4,316.49	4,235.57	46.40	16.08	-164.36	78.70	807.48	1,433.13	1,399.12	34.01	42.143	
4,700.00	4,079.46	4,408.36	4,325.46	47.64	16.45	-164.48	78.98	826.45	1,472.54	1,437.77	34.77	42.352	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF05D-03 H04 596 - DD - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	15.62	47.56	13.30	49.39					
100.00	100.00	100.00	100.00	0.12	0.12	15.62	47.56	13.30	49.39	49.15	0.24	208.367		
200.00	200.00	200.00	200.00	0.48	0.29	15.62	47.56	13.30	49.39	48.62	0.77	64.138		
300.00	300.00	300.00	300.00	0.84	0.47	15.62	47.56	13.30	49.39	48.09	1.30	37.903		
400.00	399.95	400.00	399.95	1.19	0.65	-84.38	46.67	15.76	48.93	47.10	1.83	26.673		
500.00	499.63	499.74	499.38	1.55	0.86	-84.43	44.64	23.25	48.23	45.83	2.40	20.083		
530.15	529.59	529.76	529.21	1.66	0.94	-86.20	43.94	26.52	48.15	45.56	2.60	18.550 CC		
600.00	598.78	599.30	598.09	1.92	1.13	-88.98	42.14	35.87	48.55	45.51	3.05	15.928 ES		
700.00	697.11	698.83	695.97	2.32	1.48	-91.32	39.16	53.59	50.52	46.71	3.81	13.266		
800.00	794.38	798.70	793.62	2.77	1.86	-95.07	35.90	74.31	53.80	49.17	4.63	11.624		
900.00	890.30	898.33	891.02	3.28	2.25	-103.01	32.65	95.00	58.54	53.03	5.51	10.625		
1,000.00	984.62	997.40	987.88	3.86	2.64	-113.55	29.42	115.58	66.32	59.92	6.41	10.352 SF		
1,100.00	1,077.08	1,095.65	1,083.93	4.52	3.03	-124.58	26.21	135.98	78.85	71.61	7.24	10.897		
1,200.00	1,167.42	1,192.80	1,178.91	5.29	3.43	-134.39	23.04	156.15	97.17	89.22	7.96	12.214		
1,300.00	1,255.40	1,288.58	1,272.56	6.18	3.82	-142.29	19.91	176.05	121.58	112.99	8.59	14.152		
1,400.00	1,340.78	1,382.75	1,364.62	7.19	4.20	-148.37	16.84	195.60	151.92	142.73	9.19	16.539		
1,435.17	1,370.15	1,415.43	1,396.57	7.57	4.33	-150.13	15.77	202.39	163.94	154.54	9.39	17.450		
1,500.00	1,423.95	1,475.46	1,455.25	8.31	4.58	-153.04	13.81	214.85	186.95	177.18	9.77	19.134		
1,600.00	1,506.93	1,568.04	1,545.77	9.46	4.96	-156.36	10.79	234.08	223.06	212.70	10.36	21.523		
1,700.00	1,589.92	1,660.63	1,636.29	10.64	5.34	-158.76	7.77	253.31	259.65	248.68	10.98	23.658		
1,800.00	1,672.90	1,753.22	1,726.81	11.83	5.72	-160.57	4.75	272.53	296.54	284.94	11.60	25.561		
1,900.00	1,755.89	1,845.81	1,817.33	13.03	6.10	-161.98		291.76	333.63	321.39	12.24	27.261		
2,000.00	1,838.87	1,938.39	1,907.85	14.24	6.48	-163.11	-1.30	310.99	370.86	357.98	12.88	28.783		
2,100.00	1,921.85	2,030.98	1,998.37	15.46	6.86	-164.03	-4.32	330.21	408.19	394.66	13.54	30.151		
2,200.00	2,004.84	2,123.57	2,088.88	16.68	7.24	-164.80	-7.34	349.44	445.60	431.40	14.20	31.385		
2,300.00	2,087.82	2,216.15	2,179.40	17.90	7.62	-165.45	-10.36	368.67	483.07	468.21	14.86	32.503		
2,400.00	2,170.81	2,308.74	2,269.92	19.13	8.00	-166.00	-13.38	387.89	520.58	505.05	15.53	33.519		
2,500.00	2,253.79	2,401.33	2,360.44	20.36	8.38	-166.49	-16.40	407.12	558.13	541.93	16.20	34.446		
2,600.00	2,336.78	2,493.92	2,450.96	21.59	8.76	-166.91	-19.43	426.35	595.71	578.83	16.88	35.294		
2,700.00	2,419.76	2,586.50	2,541.48	22.82	9.15	-167.28	-22.45	445.57	633.31	615.75	17.56	36.073		
2,800.00	2,502.75	2,679.09	2,631.99	24.06	9.53	-167.61	-25.47	464.80	670.93	652.70	18.24	36.791		
2,900.00	2,585.73	2,771.68	2,722.51	25.29	9.91	-167.90	-28.49	484.03	708.57	689.66	18.92	37.454		
3,000.00	2,668.72	2,864.27	2,813.03	26.53	10.29	-168.17	-31.51	503.25	746.23	726.63	19.60	38.068		
3,100.00	2,751.70	2,956.85	2,903.55	27.77	10.67	-168.41	-34.54	522.48	783.90	763.61	20.29	38.638		
3,200.00	2,834.69	3,049.44	2,994.07	29.01	11.06	-168.62	-37.56	541.71	821.57	800.60	20.97	39.170		
3,300.00	2,917.67	3,142.03	3,084.59	30.25	11.44	-168.82	-40.58	560.93	859.26	837.60	21.66	39.665		
3,400.00	3,000.66	3,234.61	3,175.11	31.49	11.82	-169.01	-43.60	580.16	896.96	874.60	22.35	40.129		
3,500.00	3,083.64	3,327.20	3,265.62	32.73	12.20	-169.17	-46.62	599.39	934.66	911.62	23.04	40.563		
3,600.00	3,166.63	3,419.79	3,356.14	33.97	12.58	-169.33	-49.64	618.62	972.37	948.63	23.73	40.971		
3,700.00	3,249.61	3,512.38	3,446.66	35.21	12.97	-169.47	-52.67	637.84	1,010.08	985.66	24.42	41.355		
3,800.00	3,332.60	3,604.96	3,537.18	36.45	13.35	-169.60	-55.69	657.07	1,047.80	1,022.68	25.12	41.716		
3,900.00	3,415.58	3,697.55	3,627.70	37.70	13.73	-169.73	-58.71	676.30	1,085.52	1,059.71	25.81	42.057		
4,000.00	3,498.57	3,790.14	3,718.22	38.94	14.11	-169.84	-61.73	695.52	1,123.25	1,096.75	26.50	42.380		
4,100.00	3,581.55	3,882.73	3,808.74	40.18	14.50	-169.95	-64.75	714.75	1,160.98	1,133.78	27.20	42.685		
4,200.00	3,664.54	3,975.31	3,899.25	41.42	14.88	-170.05	-67.78	733.98	1,198.72	1,170.82	27.89	42.975		
4,300.00	3,747.52	4,067.90	3,989.77	42.67	15.26	-170.14	-70.80	753.20	1,236.45	1,207.87	28.59	43.249		
4,400.00	3,830.51	4,160.49	4,080.29	43.91	15.64	-170.23	-73.82	772.43	1,274.19	1,244.91	29.28	43.510		
4,500.00	3,913.49	4,253.08	4,170.81	45.16	16.02	-170.32	-76.84	791.66	1,311.94	1,281.96	29.98	43.759		
4,600.00	3,996.48	4,345.66	4,261.33	46.40	16.41	-170.40	-79.86	810.88	1,349.68	1,319.01	30.68	43.996		
4,700.00	4,079.46	4,438.25	4,351.85	47.64	16.79	-170.47	-82.88	830.11	1,387.43	1,356.06	31.37	44.222		
4,800.00	4,162.45	4,530.84	4,442.37	48.89	17.17	-170.54	-85.91	849.34	1,425.18	1,393.11	32.07	44.437		
4,900.00	4,245.43	4,623.42	4,532.88	50.13	17.55	-170.61	-88.93	868.56	1,462.93	1,430.16	32.77	44.643		

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



## Cathedral Energy Services

### Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF05E-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	15.90	38.44	10.95	39.97				
100.00	100.00	100.00	100.00	0.12	0.12	15.90	38.44	10.95	39.97	39.73	0.24	168.614	
200.00	200.00	200.00	200.00	0.48	0.29	15.90	38.44	10.95	39.97	39.20	0.77	51.902	
300.00	300.00	300.17	300.15	0.84	0.47	18.31	37.77	12.50	39.78	38.47	1.31	30.420	
400.00	399.95	400.15	399.89	1.19	0.68	-75.54	35.06	18.74	39.02	37.16	1.87	20.908	
500.00	499.63	500.00	499.00	1.55	0.95	-68.81	30.29	29.75	37.55	35.05	2.49	15.061	
600.00	598.78	599.38	596.89	1.92	1.29	-65.81	23.51	45.41	36.07	32.83	3.24	11.140	
700.00	697.11	698.98	694.11	2.32	1.69	-61.00	14.92	65.25	35.04	31.00	4.05	8.663	
800.00	794.38	798.94	791.53	2.77	2.10	-61.92	6.02	85.80	32.58	27.74	4.85	6.722	
900.00	890.30	898.72	888.78	3.28	2.52	-72.08	-2.86	106.32	28.47	22.71	5.76	4.941	
999.31	983.97	997.37	984.92	3.85	2.94	-95.95	-11.65	126.60	25.71	18.93	6.78	3.794 CC	
1,000.00	984.62	998.06	985.59	3.86	2.95	-96.17	-11.71	126.74	25.71	18.93	6.78	3.790 ES, SF	
1,100.00	1,077.08	1,096.68	1,081.71	4.52	3.37	-128.31	-20.49	147.01	30.97	23.71	7.25	4.269	
1,200.00	1,167.42	1,194.32	1,176.86	5.29	3.79	-150.25	-29.18	167.08	47.00	39.67	7.32	6.417	
1,300.00	1,255.40	1,290.69	1,270.78	6.18	4.20	-161.65	-37.76	186.90	71.16	63.56	7.60	9.363	
1,400.00	1,340.78	1,385.55	1,363.23	7.19	4.61	-167.76	-46.21	206.40	101.57	93.52	8.05	12.619	
1,435.17	1,370.15	1,418.50	1,395.34	7.57	4.76	-169.23	-49.14	213.17	113.59	105.36	8.23	13.794	
1,500.00	1,423.95	1,479.03	1,454.34	8.31	5.02	-171.27	-54.53	225.61	136.43	127.85	8.58	15.901	
1,600.00	1,506.93	1,572.40	1,545.33	9.46	5.42	-173.35	-62.84	244.81	171.86	162.72	9.14	18.800	
1,700.00	1,589.92	1,665.77	1,636.33	10.64	5.83	-174.72	-71.15	264.00	207.43	197.70	9.73	21.325	
1,800.00	1,672.90	1,759.14	1,727.32	11.83	6.23	-175.69	-79.47	283.20	243.06	232.73	10.33	23.538	
1,900.00	1,755.89	1,852.50	1,818.31	13.03	6.64	-176.41	-87.78	302.39	278.74	267.80	10.94	25.487	
2,000.00	1,838.87	1,945.87	1,909.31	14.24	7.04	-176.97	-96.09	321.59	314.45	302.90	11.55	27.215	
2,100.00	1,921.85	2,039.24	2,000.30	15.46	7.45	-177.41	-104.40	340.78	350.18	338.00	12.18	28.755	
2,200.00	2,004.84	2,132.61	2,091.30	16.68	7.85	-177.77	-112.72	359.98	385.93	373.12	12.81	30.134	
2,300.00	2,087.82	2,225.97	2,182.29	17.90	8.26	-178.07	-121.03	379.17	421.68	408.24	13.44	31.375	
2,400.00	2,170.81	2,319.34	2,273.29	19.13	8.67	-178.33	-129.34	398.36	457.45	443.37	14.08	32.497	
2,500.00	2,253.79	2,412.71	2,364.28	20.36	9.07	-178.54	-137.65	417.56	493.22	478.51	14.72	33.516	
2,600.00	2,336.78	2,506.08	2,455.28	21.59	9.48	-178.73	-145.97	436.75	529.00	513.64	15.36	34.445	
2,700.00	2,419.76	2,599.45	2,546.27	22.82	9.88	-178.89	-154.28	455.95	564.78	548.78	16.00	35.295	
2,800.00	2,502.75	2,692.81	2,637.27	24.06	10.29	-179.04	-162.59	475.14	600.57	583.92	16.65	36.075	
2,900.00	2,585.73	2,786.18	2,728.26	25.29	10.70	-179.17	-170.90	494.34	636.35	619.06	17.30	36.794	
3,000.00	2,668.72	2,879.55	2,819.26	26.53	11.10	-179.28	-179.22	513.53	672.14	654.20	17.94	37.458	
3,100.00	2,751.70	2,972.92	2,910.25	27.77	11.51	-179.38	-187.53	532.72	707.94	689.34	18.59	38.074	
3,200.00	2,834.69	3,066.28	3,001.24	29.01	11.91	-179.48	-195.84	551.92	743.73	724.49	19.25	38.645	
3,300.00	2,917.67	3,159.65	3,092.24	30.25	12.32	-179.56	-204.15	571.11	779.53	759.63	19.90	39.177	
3,400.00	3,000.66	3,253.02	3,183.23	31.49	12.73	-179.64	-212.47	590.31	815.32	794.77	20.55	39.674	
3,500.00	3,083.64	3,346.39	3,274.23	32.73	13.13	-179.71	-220.78	609.50	851.12	829.92	21.20	40.139	
3,600.00	3,166.63	3,439.76	3,365.22	33.97	13.54	-179.77	-229.09	628.70	886.92	865.06	21.86	40.575	
3,700.00	3,249.61	3,533.12	3,456.22	35.21	13.95	-179.83	-237.40	647.89	922.72	900.21	22.51	40.984	
3,800.00	3,332.60	3,626.49	3,547.21	36.45	14.35	-179.89	-245.72	667.09	958.52	935.35	23.17	41.369	
3,900.00	3,415.58	3,719.86	3,638.21	37.70	14.76	-179.94	-254.03	686.28	994.33	970.50	23.83	41.731	
4,000.00	3,498.57	3,813.23	3,729.20	38.94	15.17	-179.99	-262.34	705.47	1,030.13	1,005.65	24.48	42.074	
4,100.00	3,581.55	3,906.59	3,820.20	40.18	15.57	-179.97	-270.66	724.67	1,065.93	1,040.79	25.14	42.398	
4,200.00	3,664.54	3,999.96	3,911.19	41.42	15.98	-179.93	-278.97	743.86	1,101.74	1,075.94	25.80	42.704	
4,300.00	3,747.52	4,093.33	4,002.19	42.67	16.39	-179.89	-287.28	763.06	1,137.54	1,111.08	26.46	42.995	
4,400.00	3,830.51	4,186.70	4,093.18	43.91	16.79	-179.85	-295.59	782.25	1,173.35	1,146.23	27.12	43.271	
4,500.00	3,913.49	4,280.07	4,184.18	45.16	17.20	-179.82	-303.91	801.45	1,209.15	1,181.38	27.77	43.534	
4,600.00	3,996.48	4,373.43	4,275.17	46.40	17.60	-179.78	-312.22	820.64	1,244.96	1,216.52	28.43	43.784	
4,700.00	4,079.46	4,466.80	4,366.16	47.64	18.01	-179.75	-320.53	839.84	1,280.76	1,251.67	29.09	44.022	
4,800.00	4,162.45	4,560.17	4,457.16	48.89	18.42	-179.72	-328.84	859.03	1,316.57	1,286.81	29.75	44.249	
4,900.00	4,245.43	4,653.54	4,548.15	50.13	18.82	-179.70	-337.16	878.22	1,352.37	1,321.96	30.41	44.466	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> H04 596 Pad - UWF05E-03 H04 596 - DD - Plan #2													<b>Offset Site Error:</b> 0.00 usft
Survey Program: 0-MWD													<b>Offset Well Error:</b> 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
5,000.00	4,328.42	4,746.90	4,639.15	51.38	19.23	179.67	-345.47	897.42	1,388.18	1,357.11	31.07	44.673	
5,100.00	4,411.40	4,840.27	4,730.14	52.62	19.64	179.65	-353.78	916.61	1,423.99	1,392.25	31.73	44.872	
5,200.00	4,494.39	4,933.64	4,821.14	53.87	20.04	179.62	-362.09	935.81	1,459.79	1,427.40	32.40	45.062	
5,300.00	4,577.37	5,027.01	4,912.13	55.11	20.45	179.60	-370.41	955.00	1,495.60	1,462.55	33.06	45.244	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF06B-04 H04 596 - DD - Plan #2													Offset Site Error: 0.00 usft
Survey Program: 0-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	7.66	69.83	9.39	70.46				
100.00	100.00	100.00	100.00	0.12	0.12	7.66	69.83	9.39	70.46	70.22	0.24	297.255	
200.00	200.00	200.00	200.00	0.48	0.29	7.66	69.83	9.39	70.46	69.69	0.77	91.499	
300.00	300.00	300.27	300.22	0.84	0.48	5.52	69.92	6.76	70.25	68.94	1.31	53.504	
333.01	333.01	333.25	333.14	0.95	0.55	-96.36	70.00	4.74	70.19	68.69	1.50	46.742 CC, ES	
400.00	399.95	399.67	399.31	1.19	0.70	-102.88	70.21	-1.03	70.76	68.87	1.89	37.507	
500.00	499.63	496.67	495.48	1.55	0.97	-117.83	70.66	-13.59	76.43	73.85	2.58	29.668	
600.00	598.78	589.90	587.19	1.92	1.31	-138.43	71.27	-30.25	93.46	90.05	3.41	27.415 SF	
700.00	697.11	678.20	673.22	2.32	1.71	-153.19	71.99	-50.13	124.18	119.97	4.22	29.429	
800.00	794.38	760.70	752.68	2.77	2.15	-162.93	72.79	-72.27	167.01	162.09	4.92	33.927	
900.00	890.30	836.77	825.03	3.28	2.60	-169.33	73.64	-95.72	219.82	214.29	5.53	39.774	
1,000.00	984.62	906.05	890.08	3.86	3.06	-173.68	74.51	-119.56	280.96	274.91	6.05	46.433	
1,100.00	1,077.08	968.41	947.85	4.52	3.53	-176.78	75.36	-143.02	349.19	342.67	6.51	53.608	
1,200.00	1,167.42	1,023.90	998.58	5.29	3.97	-179.11	76.17	-165.47	423.47	416.55	6.92	61.230	
1,300.00	1,255.40	1,072.69	1,042.64	6.18	4.39	179.03	76.93	-186.43	502.94	495.68	7.27	69.221	
1,400.00	1,340.78	1,115.08	1,080.47	7.19	4.77	177.44	77.63	-205.53	586.84	579.27	7.57	77.565	
1,435.17	1,370.15	1,128.53	1,092.38	7.57	4.90	176.91	77.85	-211.77	617.27	609.60	7.67	80.492	
1,500.00	1,423.95	1,152.11	1,113.16	8.31	5.13	176.46	78.26	-222.91	673.96	666.14	7.82	86.139	
1,600.00	1,506.93	1,186.53	1,143.24	9.46	5.46	175.86	78.86	-239.63	762.15	754.10	8.04	94.752	
1,700.00	1,589.92	1,224.00	1,175.68	10.64	5.82	175.30	79.54	-258.37	851.08	842.82	8.26	103.042	
1,800.00	1,672.90	1,269.22	1,214.76	11.83	6.26	174.73	80.37	-281.10	940.18	931.68	8.50	110.624	
1,900.00	1,755.89	1,314.44	1,253.85	13.03	6.71	174.27	81.19	-303.84	1,029.30	1,020.55	8.75	117.653	
2,000.00	1,838.87	1,359.67	1,292.93	14.24	7.15	173.87	82.02	-326.57	1,118.42	1,109.42	9.01	124.158	
2,100.00	1,921.85	1,404.89	1,332.02	15.46	7.59	173.53	82.84	-349.30	1,207.56	1,198.28	9.28	130.172	
2,200.00	2,004.84	1,450.11	1,371.10	16.68	8.04	173.24	83.67	-372.03	1,296.71	1,287.15	9.55	135.728	
2,300.00	2,087.82	1,495.33	1,410.18	17.90	8.49	172.99	84.49	-394.77	1,385.86	1,376.02	9.84	140.859	
2,400.00	2,170.81	1,540.55	1,449.27	19.13	8.93	172.76	85.32	-417.50	1,475.01	1,464.88	10.13	145.597	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF06E-04 H04 596 (was 07E-04) - DD - Plan #3												Offset Site Error: 0.00 usft			
Survey Program: 0-MWD														Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	4.42	50.59	3.91	50.74						
100.00	100.00	100.00	100.00	0.12	0.12	4.42	50.59	3.91	50.74	50.50	0.24	214.061			
200.00	200.00	200.00	200.00	0.48	0.29	4.42	50.59	3.91	50.74	49.97	0.77	65.891			
300.00	300.00	301.18	301.14	0.84	0.48	1.69	49.50	1.46	49.53	48.19	1.34	36.991			
400.00	399.95	401.53	401.16	1.19	0.70	-110.21	46.27	-5.80	47.48	45.58	1.91	24.901			
412.10	412.03	413.54	413.10	1.23	0.74	-112.48	45.74	-6.99	47.44	45.46	1.98	23.970 CC, ES			
500.00	499.63	499.60	498.37	1.55	0.98	-132.71	41.06	-17.52	51.12	48.58	2.54	20.119 SF			
600.00	598.78	594.15	591.36	1.92	1.32	-159.26	34.12	-33.12	68.60	65.22	3.39	20.261			
700.00	697.11	687.56	682.79	2.32	1.68	-174.95	26.35	-50.58	98.86	94.82	4.05	24.425			
800.00	794.38	779.21	772.50	2.77	2.04	176.79	18.73	-67.72	136.68	132.08	4.61	29.679			
900.00	890.30	868.86	860.25	3.28	2.39	172.14	11.27	-84.47	180.11	174.97	5.14	35.047			
1,000.00	984.62	956.25	945.80	3.86	2.73	169.33	4.01	-100.81	228.38	222.71	5.67	40.248			
1,100.00	1,077.08	1,041.15	1,028.90	4.52	3.07	167.54	-3.05	-116.68	281.11	274.89	6.22	45.209			
1,200.00	1,167.42	1,123.32	1,109.33	5.29	3.40	166.32	-9.88	-132.04	338.06	331.29	6.77	49.931			
1,300.00	1,255.40	1,202.54	1,186.88	6.18	3.71	165.43	-16.47	-146.85	399.07	391.74	7.33	54.439			
1,400.00	1,340.78	1,278.59	1,261.32	7.19	4.02	164.73	-22.79	-161.07	463.96	456.06	7.90	58.764			
1,435.17	1,370.15	1,304.55	1,286.73	7.57	4.12	164.51	-24.95	-165.92	487.67	479.57	8.10	60.187			
1,500.00	1,423.95	1,352.00	1,333.18	8.31	4.31	164.77	-28.90	-174.80	531.81	523.35	8.46	62.863			
1,600.00	1,506.93	1,425.20	1,404.83	9.46	4.60	165.10	-34.98	-188.48	599.90	590.88	9.01	66.548			
1,700.00	1,589.92	1,498.40	1,476.48	10.64	4.90	165.36	-41.07	-202.16	668.00	658.42	9.58	69.725			
1,800.00	1,672.90	1,571.60	1,548.13	11.83	5.19	165.58	-47.16	-215.85	736.10	725.95	10.16	72.483			
1,900.00	1,755.89	1,644.80	1,619.78	13.03	5.48	165.76	-53.24	-229.53	804.21	793.47	10.74	74.892			
2,000.00	1,838.87	1,718.00	1,691.43	14.24	5.78	165.91	-59.33	-243.22	872.33	861.00	11.33	77.010			
2,100.00	1,921.85	1,791.19	1,763.08	15.46	6.07	166.03	-65.42	-256.90	940.44	928.52	11.92	78.883			
2,200.00	2,004.84	1,864.39	1,834.73	16.68	6.37	166.14	-71.50	-270.58	1,008.56	996.04	12.52	80.549			
2,300.00	2,087.82	1,937.59	1,906.38	17.90	6.66	166.24	-77.59	-284.27	1,076.68	1,063.56	13.12	82.039			
2,400.00	2,170.81	2,010.79	1,978.03	19.13	6.95	166.33	-83.68	-297.95	1,144.80	1,131.07	13.73	83.377			
2,500.00	2,253.79	2,083.99	2,049.68	20.36	7.25	166.40	-89.76	-311.64	1,212.92	1,198.58	14.34	84.585			
2,600.00	2,336.78	2,157.19	2,121.33	21.59	7.54	166.47	-95.85	-325.32	1,281.05	1,266.10	14.95	85.680			
2,700.00	2,419.76	2,230.38	2,192.98	22.82	7.84	166.53	-101.94	-339.01	1,349.17	1,333.61	15.57	86.677			
2,800.00	2,502.75	2,303.58	2,264.63	24.06	8.13	166.59	-108.02	-352.69	1,417.30	1,401.12	16.18	87.588			
2,900.00	2,585.73	2,376.78	2,336.28	25.29	8.43	166.64	-114.11	-366.37	1,485.42	1,468.62	16.80	88.423			

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF07A-04 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	9.94	98.16	17.21	99.65				
100.00	100.00	100.00	100.00	0.12	0.12	9.94	98.16	17.21	99.65	99.42	0.24	420.431	
200.00	200.00	200.00	200.00	0.48	0.29	9.94	98.16	17.21	99.65	98.88	0.77	129.414	
300.00	300.00	300.00	300.00	0.84	0.47	9.94	98.16	17.21	99.65	98.35	1.30	76.478 CC	
300.27	300.27	300.27	300.27	0.84	0.47	-90.06	98.16	17.21	99.65	98.35	1.30	76.394	
400.00	399.95	399.95	399.95	1.19	0.64	-91.56	98.16	17.21	99.69	97.86	1.83	54.536 ES	
500.00	499.63	496.23	496.19	1.55	0.81	-96.84	99.87	15.49	101.88	99.49	2.38	42.762	
600.00	598.78	593.17	592.87	1.92	1.01	-110.81	103.77	9.66	109.42	106.44	2.97	36.816	
700.00	697.11	686.57	685.59	2.32	1.24	-124.44	108.17	-0.54	125.21	121.58	3.63	34.448 SF	
800.00	794.38	775.12	772.92	2.77	1.52	-136.39	112.92	-14.36	152.11	147.78	4.33	35.123	
900.00	890.30	862.02	858.08	3.28	1.82	-145.96	117.98	-30.91	189.98	185.06	4.92	38.607	
1,000.00	984.62	947.73	942.03	3.86	2.13	-152.91	123.00	-47.42	235.61	230.18	5.43	43.406	
1,100.00	1,077.08	1,030.64	1,023.24	4.52	2.43	-157.89	127.86	-63.40	287.55	281.64	5.91	48.690	
1,200.00	1,167.42	1,110.52	1,101.49	5.29	2.73	-161.53	132.54	-78.79	344.94	338.57	6.37	54.168	
1,300.00	1,255.40	1,187.15	1,176.55	6.18	3.03	-164.25	137.03	-93.55	407.20	400.38	6.82	59.706	
1,400.00	1,340.78	1,260.33	1,248.23	7.19	3.31	-166.31	141.32	-107.65	473.90	466.64	7.26	65.247	
1,435.17	1,370.15	1,285.21	1,272.59	7.57	3.40	-166.92	142.78	-112.44	498.35	490.92	7.43	67.114	
1,500.00	1,423.95	1,330.64	1,317.10	8.31	3.58	-168.11	145.44	-121.20	543.93	536.24	7.70	70.678	
1,600.00	1,506.93	1,400.72	1,385.74	9.46	3.85	-169.61	149.55	-134.70	614.44	606.33	8.11	75.732	
1,700.00	1,589.92	1,470.80	1,454.39	10.64	4.12	-170.80	153.65	-148.20	685.12	676.58	8.54	80.232	
1,800.00	1,672.90	1,540.88	1,523.03	11.83	4.40	-171.77	157.76	-161.71	755.92	746.95	8.97	84.248	
1,900.00	1,755.89	1,610.96	1,591.68	13.03	4.67	-172.58	161.87	-175.21	826.82	817.41	9.41	87.841	
2,000.00	1,838.87	1,681.04	1,660.32	14.24	4.95	-173.26	165.97	-188.71	897.78	887.92	9.86	91.064	
2,100.00	1,921.85	1,751.12	1,728.97	15.46	5.22	-173.85	170.08	-202.21	968.80	958.49	10.31	93.964	
2,200.00	2,004.84	1,821.21	1,797.61	16.68	5.50	-174.35	174.18	-215.72	1,039.86	1,029.10	10.77	96.583	
2,300.00	2,087.82	1,891.29	1,866.26	17.90	5.77	-174.79	178.29	-229.22	1,110.96	1,099.73	11.23	98.955	
2,400.00	2,170.81	1,961.37	1,934.90	19.13	6.05	-175.18	182.40	-242.72	1,182.08	1,170.39	11.69	101.111	
2,500.00	2,253.79	2,031.45	2,003.55	20.36	6.33	-175.52	186.50	-256.22	1,253.23	1,241.07	12.16	103.076	
2,600.00	2,336.78	2,101.53	2,072.19	21.59	6.60	-175.83	190.61	-269.73	1,324.40	1,311.77	12.63	104.874	
2,700.00	2,419.76	2,171.61	2,140.84	22.82	6.88	-176.10	194.72	-283.23	1,395.59	1,382.49	13.10	106.522	
2,800.00	2,502.75	2,241.69	2,209.48	24.06	7.16	-176.35	198.82	-296.73	1,466.79	1,453.21	13.58	108.038	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF07B-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor	
0.00	0.00	0.00	0.00	0.00	0.00	15.90	76.91	21.90	79.97				
100.00	100.00	100.00	100.00	0.12	0.12	15.90	76.91	21.90	79.97	79.73	0.24	337.370	
116.67	116.67	116.67	116.67	0.18	0.15	15.90	76.91	21.90	79.97	79.64	0.33	245.398 CC	
200.00	200.00	200.00	200.00	0.48	0.29	15.90	76.91	21.90	79.97	79.20	0.77	103.847 ES	
300.00	300.00	298.64	298.60	0.84	0.47	17.62	76.99	24.45	80.79	79.47	1.32	61.047	
400.00	399.95	396.98	396.63	1.19	0.69	-79.13	77.25	32.05	83.17	81.25	1.92	43.250	
500.00	499.63	495.04	493.87	1.55	0.97	-76.33	77.68	44.63	86.79	84.20	2.59	33.503	
600.00	598.78	592.79	590.02	1.92	1.33	-78.52	78.28	62.13	92.14	88.80	3.34	27.562	
700.00	697.11	690.14	684.78	2.32	1.76	-79.11	79.04	84.41	99.73	95.54	4.19	23.822	
800.00	794.38	787.03	777.83	2.77	2.29	-79.37	79.96	111.36	109.45	104.32	5.13	21.336	
900.00	890.30	883.41	868.92	3.28	2.91	-79.65	81.03	142.81	121.23	115.04	6.19	19.588	
1,000.00	984.62	979.23	957.79	3.86	3.61	-80.04	82.25	178.58	134.99	127.61	7.38	18.288	
1,100.00	1,077.08	1,074.45	1,044.21	4.52	4.41	-80.51	83.61	218.50	150.69	141.96	8.73	17.265	
1,200.00	1,167.42	1,169.01	1,127.97	5.29	5.29	-81.04	85.10	262.36	168.28	158.04	10.25	16.422	
1,300.00	1,255.40	1,262.91	1,208.88	6.18	6.26	-81.58	86.73	309.95	187.72	175.76	11.96	15.696	
1,400.00	1,340.78	1,358.56	1,289.19	7.19	7.29	-82.31	88.50	361.88	208.65	194.79	13.85	15.061	
1,435.17	1,370.15	1,392.87	1,317.90	7.57	7.66	-82.80	89.14	380.65	216.01	201.44	14.57	14.822	
1,500.00	1,423.95	1,456.08	1,370.80	8.31	8.34	-84.03	90.31	415.24	229.61	213.67	15.94	14.403	
1,600.00	1,506.93	1,553.59	1,452.39	9.46	9.40	-85.66	92.13	468.60	250.76	232.66	18.10	13.857	
1,700.00	1,589.92	1,651.10	1,533.98	10.64	10.47	-87.04	93.95	521.96	272.08	251.79	20.29	13.412	
1,800.00	1,672.90	1,748.60	1,615.57	11.83	11.53	-88.22	95.77	575.32	293.52	271.02	22.50	13.046	
1,900.00	1,755.89	1,846.11	1,697.16	13.03	12.60	-89.24	97.59	628.68	315.07	290.34	24.73	12.742	
2,000.00	1,838.87	1,943.62	1,778.75	14.24	13.67	-90.13	99.41	682.04	336.70	309.74	26.97	12.486	
2,100.00	1,921.85	2,041.12	1,860.34	15.46	14.74	-90.92	101.23	735.40	358.40	329.19	29.21	12.269	
2,200.00	2,004.84	2,138.63	1,941.93	16.68	15.81	-91.61	103.05	788.76	380.16	348.70	31.46	12.083	
2,300.00	2,087.82	2,236.14	2,023.53	17.90	16.88	-92.23	104.86	842.11	401.96	368.25	33.72	11.922	
2,400.00	2,170.81	2,333.65	2,105.12	19.13	17.96	-92.78	106.68	895.47	423.81	387.83	35.97	11.782	
2,500.00	2,253.79	2,431.15	2,186.71	20.36	19.03	-93.28	108.50	948.83	445.68	407.45	38.23	11.658	
2,600.00	2,336.78	2,528.66	2,268.30	21.59	20.10	-93.73	110.32	1,002.19	467.59	427.10	40.49	11.548	
2,700.00	2,419.76	2,626.17	2,349.89	22.82	21.17	-94.15	112.14	1,055.55	489.53	446.77	42.75	11.451	
2,800.00	2,502.75	2,723.67	2,431.48	24.06	22.25	-94.52	113.96	1,108.91	511.48	466.47	45.01	11.363	
2,900.00	2,585.73	2,821.18	2,513.07	25.29	23.32	-94.87	115.78	1,162.27	533.45	486.18	47.27	11.285	
3,000.00	2,668.72	2,918.69	2,594.67	26.53	24.39	-95.19	117.60	1,215.63	555.45	505.91	49.53	11.213	
3,100.00	2,751.70	3,016.19	2,676.26	27.77	25.47	-95.48	119.41	1,268.99	577.45	525.66	51.80	11.148	
3,200.00	2,834.69	3,113.70	2,757.85	29.01	26.54	-95.76	121.23	1,322.34	599.47	545.41	54.06	11.089	
3,300.00	2,917.67	3,211.21	2,839.44	30.25	27.62	-96.01	123.05	1,375.70	621.50	565.18	56.32	11.035	
3,400.00	3,000.66	3,308.72	2,921.03	31.49	28.69	-96.25	124.87	1,429.06	643.55	584.96	58.58	10.985	
3,500.00	3,083.64	3,406.22	3,002.62	32.73	29.77	-96.47	126.69	1,482.42	665.60	604.75	60.85	10.939	
3,600.00	3,166.63	3,503.73	3,084.21	33.97	30.84	-96.68	128.51	1,535.78	687.66	624.55	63.11	10.897	
3,700.00	3,249.61	3,601.24	3,165.81	35.21	31.91	-96.87	130.33	1,589.14	709.73	644.36	65.37	10.857	
3,800.00	3,332.60	3,698.74	3,247.40	36.45	32.99	-97.05	132.14	1,642.50	731.81	664.18	67.63	10.820	
3,900.00	3,415.58	3,796.25	3,328.99	37.70	34.06	-97.22	133.96	1,695.86	753.89	684.00	69.89	10.786	
4,000.00	3,498.57	3,893.76	3,410.58	38.94	35.14	-97.38	135.78	1,749.22	775.98	703.83	72.16	10.754	
4,100.00	3,581.55	3,991.27	3,492.17	40.18	36.21	-97.54	137.60	1,802.57	798.08	723.66	74.42	10.724	
4,200.00	3,664.54	4,088.77	3,573.76	41.42	37.29	-97.68	139.42	1,855.93	820.18	743.50	76.68	10.696	
4,300.00	3,747.52	4,186.28	3,655.35	42.67	38.36	-97.82	141.24	1,909.29	842.28	763.34	78.94	10.670	
4,400.00	3,830.51	4,283.79	3,736.94	43.91	39.44	-97.95	143.06	1,962.65	864.39	783.19	81.20	10.645	
4,500.00	3,913.49	4,381.29	3,818.54	45.16	40.51	-98.07	144.88	2,016.01	886.50	803.04	83.46	10.622	
4,600.00	3,996.48	4,478.80	3,900.13	46.40	41.59	-98.19	146.69	2,069.37	908.62	822.90	85.72	10.599	
4,700.00	4,079.46	4,576.31	3,981.72	47.64	42.66	-98.30	148.51	2,122.73	930.74	842.75	87.99	10.578	
4,800.00	4,162.45	4,673.81	4,063.31	48.89	43.74	-98.41	150.33	2,176.09	952.86	862.62	90.25	10.558	
4,900.00	4,245.43	4,771.32	4,144.90	50.13	44.81	-98.51	152.15	2,229.45	974.99	882.48	92.51	10.540	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF07B-03 H04 596 - DD - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
5,000.00	4,328.42	4,868.83	4,226.49	51.38	45.89	-98.61	153.97	2,282.80	997.12	902.35	94.77	10.522		
5,100.00	4,411.40	4,966.34	4,308.08	52.62	46.97	-98.70	155.79	2,336.16	1,019.25	922.22	97.03	10.505		
5,200.00	4,494.39	5,063.84	4,389.68	53.87	48.04	-98.79	157.61	2,389.52	1,041.39	942.10	99.29	10.488		
5,300.00	4,577.37	5,161.35	4,471.27	55.11	49.12	-98.87	159.43	2,442.88	1,063.52	961.97	101.55	10.473		
5,400.00	4,660.36	5,258.86	4,552.86	56.36	50.19	-98.96	161.24	2,496.24	1,085.66	981.85	103.81	10.458		
5,500.00	4,743.34	5,356.36	4,634.45	57.60	51.27	-99.03	163.06	2,549.60	1,107.80	1,001.73	106.07	10.444		
5,600.00	4,826.33	5,453.87	4,716.04	58.85	52.34	-99.11	164.88	2,602.96	1,129.94	1,021.61	108.33	10.430		
5,700.00	4,909.31	5,551.38	4,797.63	60.09	53.42	-99.18	166.70	2,656.32	1,152.09	1,041.50	110.59	10.417		
5,800.00	4,992.30	5,648.89	4,879.22	61.34	54.49	-99.25	168.52	2,709.67	1,174.24	1,061.38	112.85	10.405		
5,900.00	5,075.28	5,746.39	4,960.82	62.58	55.57	-99.32	170.34	2,763.03	1,196.38	1,081.27	115.11	10.393		
6,000.00	5,158.27	5,843.90	5,042.41	63.83	56.64	-99.39	172.16	2,816.39	1,218.53	1,101.16	117.37	10.382		
6,100.00	5,241.25	5,941.41	5,124.00	65.08	57.72	-99.45	173.98	2,869.75	1,240.68	1,121.05	119.63	10.371		
6,200.00	5,324.24	6,038.91	5,205.59	66.32	58.79	-99.51	175.79	2,923.11	1,262.84	1,140.94	121.89	10.360		
6,300.00	5,407.22	6,136.42	5,287.18	67.57	59.87	-99.57	177.61	2,976.47	1,284.99	1,160.84	124.15	10.350		
6,400.00	5,490.21	6,233.93	5,368.77	68.81	60.94	-99.62	179.43	3,029.83	1,307.14	1,180.73	126.41	10.340		
6,500.00	5,573.19	6,331.43	5,450.36	70.06	62.02	-99.68	181.25	3,083.19	1,329.30	1,200.63	128.67	10.331		
6,600.00	5,656.18	6,428.94	5,531.95	71.30	63.10	-99.73	183.07	3,136.55	1,351.46	1,220.52	130.93	10.322		
6,700.00	5,739.16	6,526.45	5,613.55	72.55	64.17	-99.78	184.89	3,189.90	1,373.61	1,240.42	133.19	10.313		
6,800.00	5,822.15	6,623.96	5,695.14	73.80	65.25	-99.83	186.71	3,243.26	1,395.77	1,260.32	135.45	10.305		
6,900.00	5,905.13	6,721.46	5,776.73	75.04	66.32	-99.88	188.53	3,296.62	1,417.93	1,280.22	137.71	10.296		
7,000.00	5,988.12	6,818.97	5,858.32	76.29	67.40	-99.92	190.34	3,349.98	1,440.09	1,300.12	139.97	10.288		
7,100.00	6,071.10	6,916.48	5,939.91	77.54	68.47	-99.97	192.16	3,403.34	1,462.26	1,320.02	142.23	10.281		
7,200.00	6,154.09	7,013.98	6,021.50	78.78	69.55	-100.01	193.98	3,456.70	1,484.42	1,339.93	144.49	10.273 SF		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF07B-04 H04 596 - DD - Plan #3													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor		
0.00	0.00	0.00	0.00	0.00	0.00	8.46	78.93	11.73	79.80					
100.00	100.00	100.00	100.00	0.12	0.12	8.46	78.93	11.73	79.80	79.56	0.24	336.666		
200.00	200.00	200.00	200.00	0.48	0.29	8.46	78.93	11.73	79.80	79.03	0.77	103.630		
300.00	300.00	300.00	300.00	0.84	0.47	8.46	78.93	11.73	79.80	78.50	1.30	61.241 CC		
301.94	301.94	301.94	301.94	0.84	0.47	-91.55	78.93	11.73	79.80	78.49	1.31	60.765		
400.00	399.95	399.46	399.45	1.19	0.64	-92.95	79.01	12.37	80.07	78.24	1.83	43.779 ES		
500.00	499.63	498.91	498.82	1.55	0.82	-95.73	79.60	16.25	81.64	79.28	2.36	34.559		
600.00	598.78	597.73	597.63	1.92	0.99	-108.64	80.57	16.31	85.51	82.60	2.91	29.416		
700.00	697.11	693.82	693.58	2.32	1.16	-123.38	81.82	11.47	95.95	92.46	3.49	27.494 SF		
800.00	794.38	785.83	785.11	2.77	1.35	-137.42	83.32	2.34	116.99	112.86	4.12	28.386		
900.00	890.30	872.67	871.00	3.28	1.58	-148.61	84.99	-10.31	150.05	145.28	4.76	31.497		
1,000.00	984.62	956.41	953.28	3.86	1.82	-156.89	86.81	-25.81	194.01	188.68	5.34	36.358		
1,100.00	1,077.08	1,040.00	1,035.30	4.52	2.10	-162.72	88.66	-41.81	245.22	239.39	5.84	42.025		
1,200.00	1,167.42	1,120.64	1,114.42	5.29	2.37	-166.75	90.45	-57.25	302.04	295.72	6.31	47.835		
1,300.00	1,255.40	1,198.09	1,190.42	6.18	2.64	-169.65	92.17	-72.08	363.76	356.98	6.78	53.641		
1,400.00	1,340.78	1,272.16	1,263.10	7.19	2.90	-171.80	93.81	-86.26	429.91	422.67	7.24	59.388		
1,435.17	1,370.15	1,297.36	1,287.83	7.57	2.99	-172.42	94.37	-91.09	454.16	446.76	7.41	61.321		
1,500.00	1,423.95	1,343.41	1,333.02	8.31	3.16	-173.47	95.39	-99.90	499.37	491.68	7.69	64.969		
1,600.00	1,506.93	1,414.44	1,402.71	9.46	3.42	-174.75	96.96	-113.50	569.23	561.11	8.12	70.114		
1,700.00	1,589.92	1,485.47	1,472.41	10.64	3.68	-175.76	98.53	-127.10	639.21	630.65	8.56	74.668		
1,800.00	1,672.90	1,556.49	1,542.11	11.83	3.94	-176.57	100.11	-140.70	709.27	700.26	9.01	78.710		
1,900.00	1,755.89	1,627.52	1,611.80	13.03	4.20	-177.24	101.68	-154.29	779.39	769.92	9.47	82.310		
2,000.00	1,838.87	1,698.55	1,681.50	14.24	4.47	-177.79	103.26	-167.89	849.55	839.62	9.93	85.525		
2,100.00	1,921.85	1,769.58	1,751.20	15.46	4.73	-178.26	104.83	-181.49	919.75	909.35	10.40	88.408		
2,200.00	2,004.84	1,840.61	1,820.89	16.68	5.00	-178.67	106.40	-195.09	989.98	979.10	10.88	91.002		
2,300.00	2,087.82	1,911.63	1,890.59	17.90	5.27	-179.02	107.98	-208.69	1,060.23	1,048.87	11.36	93.345		
2,400.00	2,170.81	1,982.66	1,960.28	19.13	5.53	-179.33	109.55	-222.29	1,130.49	1,118.65	11.84	95.468		
2,500.00	2,253.79	2,053.69	2,029.98	20.36	5.80	-179.60	111.12	-235.88	1,200.78	1,188.45	12.33	97.399		
2,600.00	2,336.78	2,124.72	2,099.68	21.59	6.07	-179.84	112.70	-249.48	1,271.07	1,258.25	12.82	99.161		
2,700.00	2,419.76	2,195.74	2,169.37	22.82	6.34	-179.94	114.27	-263.08	1,341.37	1,328.06	13.31	100.774		
2,800.00	2,502.75	2,266.77	2,239.07	24.06	6.61	-179.74	115.85	-276.68	1,411.69	1,397.88	13.81	102.254		
2,900.00	2,585.73	2,337.80	2,308.76	25.29	6.88	-179.57	117.42	-290.28	1,482.01	1,467.70	14.30	103.618		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF07C-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor	
0.00	0.00	0.00	0.00	0.00	0.00	15.90	57.68	16.43	59.98				
100.00	100.00	100.00	100.00	0.12	0.12	15.90	57.68	16.43	59.98	59.74	0.24	253.036	
116.67	116.67	116.67	116.67	0.18	0.15	15.90	57.68	16.43	59.98	59.65	0.33	184.055 CC	
200.00	200.00	200.00	200.00	0.48	0.29	15.90	57.68	16.43	59.98	59.21	0.77	77.888 ES	
300.00	300.00	299.14	299.09	0.84	0.47	18.25	57.61	19.00	60.67	59.35	1.32	45.935	
400.00	399.95	397.97	397.61	1.19	0.69	-77.30	57.41	26.67	62.72	60.80	1.92	32.674	
500.00	499.63	496.52	495.33	1.55	0.97	-73.42	57.06	39.39	65.81	63.22	2.59	25.392	
600.00	598.78	594.78	591.98	1.92	1.33	-74.74	56.59	57.07	70.43	67.08	3.35	21.009	
700.00	697.11	692.68	687.24	2.32	1.78	-74.71	55.98	79.60	77.04	72.83	4.20	18.332	
800.00	794.38	790.19	780.84	2.77	2.31	-74.60	55.24	106.86	85.50	80.35	5.15	16.606	
900.00	890.30	887.25	872.51	3.28	2.93	-74.71	54.39	138.70	95.71	89.51	6.21	15.423	
1,000.00	984.62	983.82	962.00	3.86	3.65	-75.06	53.41	174.97	107.62	100.23	7.39	14.554	
1,100.00	1,077.08	1,079.88	1,049.09	4.52	4.45	-75.59	52.32	215.48	121.17	112.44	8.74	13.868	
1,200.00	1,167.42	1,175.41	1,133.55	5.29	5.35	-76.24	51.11	260.05	136.34	126.08	10.26	13.294	
1,300.00	1,255.40	1,270.36	1,215.20	6.18	6.34	-76.95	49.81	308.49	153.07	141.10	11.97	12.785	
1,400.00	1,340.78	1,367.16	1,296.37	7.19	7.38	-77.96	48.39	361.22	170.93	157.06	13.87	12.321	
1,435.17	1,370.15	1,401.71	1,325.26	7.57	7.76	-78.61	47.88	380.15	177.11	162.51	14.60	12.131	
1,500.00	1,423.95	1,465.36	1,378.50	8.31	8.45	-80.07	46.94	415.03	188.49	172.51	15.99	11.790	
1,600.00	1,506.93	1,563.55	1,460.62	9.46	9.52	-82.01	45.48	468.84	206.25	188.08	18.17	11.348	
1,700.00	1,589.92	1,661.74	1,542.75	10.64	10.59	-83.65	44.03	522.64	224.20	203.80	20.40	10.991	
1,800.00	1,672.90	1,759.93	1,624.87	11.83	11.67	-85.04	42.58	576.45	242.31	219.66	22.65	10.699	
1,900.00	1,755.89	1,858.12	1,706.99	13.03	12.74	-86.23	41.13	630.25	260.53	235.62	24.91	10.458	
2,000.00	1,838.87	1,956.31	1,789.11	14.24	13.82	-87.27	39.68	684.05	278.85	251.66	27.19	10.257	
2,100.00	1,921.85	2,054.50	1,871.24	15.46	14.90	-88.19	38.23	737.86	297.24	267.78	29.47	10.088	
2,200.00	2,004.84	2,152.69	1,953.36	16.68	15.98	-88.99	36.78	791.66	315.70	283.95	31.75	9.943	
2,300.00	2,087.82	2,250.88	2,035.48	17.90	17.06	-89.71	35.33	845.47	334.22	300.18	34.04	9.819	
2,400.00	2,170.81	2,349.07	2,117.61	19.13	18.14	-90.35	33.88	899.27	352.78	316.45	36.33	9.711	
2,500.00	2,253.79	2,447.26	2,199.73	20.36	19.22	-90.93	32.43	953.08	371.37	332.76	38.62	9.617	
2,600.00	2,336.78	2,545.45	2,281.85	21.59	20.31	-91.45	30.98	1,006.88	390.01	349.10	40.91	9.534	
2,700.00	2,419.76	2,643.64	2,363.98	22.82	21.39	-91.93	29.53	1,060.69	408.66	365.47	43.20	9.460	
2,800.00	2,502.75	2,741.83	2,446.10	24.06	22.47	-92.36	28.08	1,114.49	427.35	381.86	45.49	9.394	
2,900.00	2,585.73	2,840.02	2,528.22	25.29	23.55	-92.76	26.63	1,168.30	446.06	398.27	47.78	9.335	
3,000.00	2,668.72	2,938.21	2,610.34	26.53	24.64	-93.12	25.18	1,222.10	464.78	414.71	50.07	9.282	
3,100.00	2,751.70	3,036.40	2,692.47	27.77	25.72	-93.46	23.72	1,275.91	483.52	431.16	52.37	9.233	
3,200.00	2,834.69	3,134.59	2,774.59	29.01	26.80	-93.77	22.27	1,329.71	502.28	447.62	54.66	9.190	
3,300.00	2,917.67	3,232.78	2,856.71	30.25	27.89	-94.06	20.82	1,383.51	521.05	464.10	56.95	9.149	
3,400.00	3,000.66	3,330.97	2,938.84	31.49	28.97	-94.33	19.37	1,437.32	539.83	480.59	59.24	9.113	
3,500.00	3,083.64	3,429.16	3,020.96	32.73	30.05	-94.58	17.92	1,491.12	558.62	497.09	61.53	9.079	
3,600.00	3,166.63	3,527.35	3,103.08	33.97	31.14	-94.82	16.47	1,544.93	577.43	513.61	63.82	9.048	
3,700.00	3,249.61	3,625.54	3,185.21	35.21	32.22	-95.04	15.02	1,598.73	596.24	530.13	66.11	9.019	
3,800.00	3,332.60	3,723.73	3,267.33	36.45	33.30	-95.24	13.57	1,652.54	615.06	546.66	68.40	8.992	
3,900.00	3,415.58	3,821.92	3,349.45	37.70	34.39	-95.44	12.12	1,706.34	633.88	563.19	70.69	8.967	
4,000.00	3,498.57	3,920.11	3,431.58	38.94	35.47	-95.62	10.67	1,760.15	652.72	579.74	72.98	8.944	
4,100.00	3,581.55	4,018.30	3,513.70	40.18	36.56	-95.79	9.22	1,813.95	671.56	596.29	75.27	8.922	
4,200.00	3,664.54	4,116.49	3,595.82	41.42	37.64	-95.96	7.77	1,867.76	690.40	612.84	77.56	8.902	
4,300.00	3,747.52	4,214.68	3,677.94	42.67	38.72	-96.11	6.32	1,921.56	709.25	629.41	79.85	8.883	
4,400.00	3,830.51	4,312.87	3,760.07	43.91	39.81	-96.26	4.87	1,975.37	728.11	645.97	82.13	8.865	
4,500.00	3,913.49	4,411.06	3,842.19	45.16	40.89	-96.40	3.42	2,029.17	746.96	662.54	84.42	8.848	
4,600.00	3,996.48	4,509.25	3,924.31	46.40	41.98	-96.53	1.96	2,082.97	765.83	679.12	86.71	8.832	
4,700.00	4,079.46	4,607.44	4,006.44	47.64	43.06	-96.66	0.51	2,136.78	784.69	695.70	89.00	8.817	
4,800.00	4,162.45	4,705.63	4,088.56	48.89	44.14	-96.78	-0.94	2,190.58	803.56	712.28	91.29	8.803	
4,900.00	4,245.43	4,803.82	4,170.68	50.13	45.23	-96.89	-2.39	2,244.39	822.44	728.87	93.57	8.789	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF07C-03 H04 596 - DD - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
5,000.00	4,328.42	4,902.01	4,252.81	51.38	46.31	-97.00	-3.84	2,298.19	841.32	745.45	95.86	8.776		
5,100.00	4,411.40	5,000.20	4,334.93	52.62	47.40	-97.11	-5.29	2,352.00	860.19	762.05	98.15	8.764		
5,200.00	4,494.39	5,098.39	4,417.05	53.87	48.48	-97.21	-6.74	2,405.80	879.08	778.64	100.43	8.753		
5,300.00	4,577.37	5,196.58	4,499.18	55.11	49.57	-97.30	-8.19	2,459.61	897.96	795.24	102.72	8.742		
5,400.00	4,660.36	5,294.77	4,581.30	56.36	50.65	-97.39	-9.64	2,513.41	916.85	811.84	105.01	8.731		
5,500.00	4,743.34	5,392.96	4,663.42	57.60	51.73	-97.48	-11.09	2,567.22	935.74	828.44	107.29	8.721		
5,600.00	4,826.33	5,491.15	4,745.54	58.85	52.82	-97.57	-12.54	2,621.02	954.63	845.05	109.58	8.712		
5,700.00	4,909.31	5,589.34	4,827.67	60.09	53.90	-97.65	-13.99	2,674.83	973.52	861.65	111.87	8.702		
5,800.00	4,992.30	5,687.53	4,909.79	61.34	54.99	-97.73	-15.44	2,728.63	992.42	878.26	114.15	8.694		
5,900.00	5,075.28	5,785.72	4,991.91	62.58	56.07	-97.80	-16.89	2,782.43	1,011.31	894.87	116.44	8.685		
6,000.00	5,158.27	5,883.91	5,074.04	63.83	57.16	-97.87	-18.34	2,836.24	1,030.21	911.49	118.73	8.677		
6,100.00	5,241.25	5,982.10	5,156.16	65.08	58.24	-97.95	-19.80	2,890.04	1,049.11	928.10	121.01	8.669		
6,200.00	5,324.24	6,080.29	5,238.28	66.32	59.33	-98.01	-21.25	2,943.85	1,068.01	944.71	123.30	8.662		
6,300.00	5,407.22	6,178.47	5,320.41	67.57	60.41	-98.08	-22.70	2,997.65	1,086.92	961.33	125.58	8.655		
6,400.00	5,490.21	6,276.66	5,402.53	68.81	61.49	-98.14	-24.15	3,051.46	1,105.82	977.95	127.87	8.648		
6,500.00	5,573.19	6,374.85	5,484.65	70.06	62.58	-98.20	-25.60	3,105.26	1,124.72	994.57	130.16	8.641		
6,600.00	5,656.18	6,473.04	5,566.77	71.30	63.66	-98.26	-27.05	3,159.07	1,143.63	1,011.19	132.44	8.635		
6,700.00	5,739.16	6,571.23	5,648.90	72.55	64.75	-98.32	-28.50	3,212.87	1,162.54	1,027.81	134.73	8.629		
6,800.00	5,822.15	6,669.42	5,731.02	73.80	65.83	-98.37	-29.95	3,266.68	1,181.45	1,044.43	137.01	8.623		
6,900.00	5,905.13	6,767.61	5,813.14	75.04	66.92	-98.43	-31.40	3,320.48	1,200.36	1,061.06	139.30	8.617		
7,000.00	5,988.12	6,865.80	5,895.27	76.29	68.00	-98.48	-32.85	3,374.28	1,219.27	1,077.68	141.58	8.612		
7,100.00	6,071.10	6,963.99	5,977.39	77.54	69.09	-98.53	-34.30	3,428.09	1,238.18	1,094.31	143.87	8.606		
7,200.00	6,154.09	7,062.18	6,059.51	78.78	70.17	-98.58	-35.75	3,481.89	1,257.09	1,110.94	146.15	8.601		
7,300.00	6,237.07	7,160.37	6,141.64	80.03	71.26	-98.62	-37.20	3,535.70	1,276.00	1,127.57	148.44	8.596		
7,400.00	6,320.06	7,258.56	6,223.76	81.27	72.34	-98.67	-38.65	3,589.50	1,294.92	1,144.19	150.72	8.591		
7,500.00	6,403.04	7,356.75	6,305.88	82.52	73.42	-98.71	-40.10	3,643.31	1,313.83	1,160.82	153.01	8.587		
7,600.00	6,486.03	7,454.94	6,388.01	83.77	74.51	-98.76	-41.56	3,697.11	1,332.75	1,177.46	155.29	8.582		
7,700.00	6,569.01	7,553.26	6,470.24	85.01	75.59	-98.80	-43.01	3,750.99	1,351.67	1,194.08	157.58	8.578		
7,800.00	6,652.00	7,661.67	6,562.59	86.26	76.67	-98.88	-44.54	3,807.72	1,370.21	1,210.24	159.97	8.565		
7,900.00	6,734.98	7,769.58	6,657.56	87.51	77.62	-99.40	-45.92	3,858.90	1,388.06	1,225.85	162.20	8.558		
8,000.00	6,817.97	7,876.29	6,754.18	88.75	78.44	-100.06	-47.14	3,904.16	1,405.33	1,241.07	164.26	8.556 SF		
8,064.68	6,871.64	7,944.39	6,817.09	89.56	78.90	-100.59	-47.84	3,930.19	1,416.28	1,250.80	165.48	8.559		
8,100.00	6,901.13	7,981.28	6,851.55	89.99	79.14	-101.08	-48.19	3,943.36	1,422.14	1,256.03	166.11	8.562		
8,200.00	6,986.52	8,085.14	6,949.86	91.12	79.71	-102.42	-49.10	3,976.81	1,437.91	1,270.23	167.68	8.575		
8,300.00	7,074.51	8,188.10	7,048.97	92.13	80.18	-103.70	-49.85	4,004.66	1,452.41	1,283.45	168.96	8.596		
8,400.00	7,164.86	8,290.15	7,148.54	93.00	80.54	-104.92	-50.45	4,026.95	1,465.60	1,295.62	169.97	8.623		
8,500.00	7,257.33	8,391.26	7,248.23	93.75	80.81	-106.09	-50.90	4,043.76	1,477.43	1,306.71	170.72	8.654		
8,600.00	7,351.67	8,491.43	7,347.73	94.39	80.98	-107.19	-51.21	4,055.20	1,487.89	1,316.67	171.22	8.690		
8,700.00	7,447.61	8,590.64	7,446.73	94.92	81.07	-108.25	-51.38	4,061.36	1,496.94	1,325.44	171.49	8.729		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF07C-04 H04 596 - DD - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	5.98	59.70	6.26	60.03					
100.00	100.00	100.00	100.00	0.12	0.12	5.98	59.70	6.26	60.03	59.79	0.24	253.260		
200.00	200.00	200.00	200.00	0.48	0.29	5.98	59.70	6.26	60.03	59.26	0.77	77.957		
300.00	300.00	300.00	300.00	0.84	0.47	5.98	59.70	6.26	60.03	58.73	1.30	46.069		
381.58	381.56	381.91	381.88	1.12	0.61	-97.34	59.56	4.51	59.93	58.19	1.74	34.477 CC		
400.00	399.95	400.31	400.26	1.19	0.65	-98.99	59.49	3.63	59.95	58.12	1.84	32.654 ES		
500.00	499.63	499.01	498.65	1.55	0.86	-113.12	58.87	-4.07	62.37	59.96	2.41	25.913		
600.00	598.78	594.63	593.46	1.92	1.12	-135.86	57.87	-16.35	74.07	70.96	3.11	23.809 SF		
700.00	697.11	687.14	684.56	2.32	1.41	-153.33	56.57	-32.41	99.18	95.34	3.84	25.853		
800.00	794.38	778.81	774.67	2.77	1.73	-164.32	55.21	-49.19	134.23	129.82	4.41	30.460		
900.00	890.30	868.35	862.68	3.28	2.04	-171.02	53.88	-65.57	176.20	171.28	4.92	35.789		
1,000.00	984.62	955.50	948.36	3.86	2.35	-175.33	52.59	-81.51	223.84	218.42	5.42	41.284		
1,100.00	1,077.08	1,040.04	1,031.46	4.52	2.65	-178.23	51.34	-96.98	276.48	270.56	5.91	46.744		
1,200.00	1,167.42	1,121.72	1,111.75	5.29	2.94	179.72	50.13	-111.93	333.72	327.32	6.41	52.099		
1,300.00	1,255.40	1,200.34	1,189.03	6.18	3.23	178.21	48.97	-126.31	395.28	388.39	6.89	57.334		
1,400.00	1,340.78	1,275.66	1,263.07	7.19	3.50	177.05	47.85	-140.09	460.92	453.54	7.38	62.458		
1,435.17	1,370.15	1,301.33	1,288.30	7.57	3.60	176.69	47.47	-144.79	484.94	477.38	7.56	64.160		
1,500.00	1,423.95	1,348.24	1,334.42	8.31	3.77	176.41	46.77	-153.37	529.64	521.78	7.86	67.392		
1,600.00	1,506.93	1,420.61	1,405.56	9.46	4.03	176.05	45.70	-166.61	598.61	590.29	8.33	71.892		
1,700.00	1,589.92	1,492.97	1,476.69	10.64	4.30	175.77	44.63	-179.85	667.59	658.79	8.80	75.820		
1,800.00	1,672.90	1,565.33	1,547.83	11.83	4.56	175.54	43.56	-193.09	736.58	727.29	9.29	79.265		
1,900.00	1,755.89	1,637.70	1,618.96	13.03	4.83	175.35	42.48	-206.33	805.57	795.79	9.79	82.300		
2,000.00	1,838.87	1,710.06	1,690.10	14.24	5.09	175.19	41.41	-219.57	874.57	864.28	10.29	84.988		
2,100.00	1,921.85	1,782.43	1,761.23	15.46	5.36	175.05	40.34	-232.81	943.57	932.77	10.80	87.380		
2,200.00	2,004.84	1,854.79	1,832.37	16.68	5.62	174.93	39.27	-246.05	1,012.57	1,001.26	11.31	89.518		
2,300.00	2,087.82	1,927.16	1,903.50	17.90	5.89	174.83	38.20	-259.29	1,081.57	1,069.75	11.83	91.438		
2,400.00	2,170.81	1,999.52	1,974.64	19.13	6.15	174.74	37.12	-272.53	1,150.58	1,138.23	12.35	93.169		
2,500.00	2,253.79	2,071.89	2,045.77	20.36	6.42	174.66	36.05	-285.77	1,219.59	1,206.71	12.87	94.737		
2,600.00	2,336.78	2,144.25	2,116.91	21.59	6.69	174.59	34.98	-299.01	1,288.59	1,275.19	13.40	96.163		
2,700.00	2,419.76	2,216.62	2,188.04	22.82	6.95	174.52	33.91	-312.25	1,357.60	1,343.67	13.93	97.463		
2,800.00	2,502.75	2,288.98	2,259.18	24.06	7.22	174.47	32.83	-325.49	1,426.61	1,412.15	14.46	98.653		
2,900.00	2,585.73	2,361.35	2,330.31	25.29	7.49	174.41	31.76	-338.73	1,495.62	1,480.63	14.99	99.747		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF07E-03 H04 596 - DD - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	2.21	40.47	1.56	40.50	40.27	0.24	170.881		
100.00	100.00	100.00	100.00	0.12	0.12	2.21	40.47	1.56	40.50	39.73	0.77	52.600		
200.00	200.00	200.00	200.00	0.48	0.29	2.21	40.47	1.56	40.50	39.20	1.30	31.084 CC		
300.00	300.00	300.00	300.00	0.84	0.47	2.21	40.47	1.56	40.50	39.11	1.83	22.396 ES		
400.00	399.95	399.95	399.95	1.19	0.64	-101.40	40.47	1.56	40.94	39.11	1.83	22.396 ES		
500.00	499.63	498.49	498.45	1.55	0.82	-108.55	42.10	3.51	44.46	42.08	2.38	18.698		
600.00	598.78	597.96	597.62	1.92	1.01	-118.73	46.53	9.54	52.95	50.01	2.94	18.027		
700.00	697.11	698.91	697.87	2.32	1.26	-124.52	50.40	20.65	63.17	59.60	3.57	17.708		
800.00	794.38	800.25	797.85	2.77	1.56	-127.89	53.01	36.97	74.21	69.89	4.32	17.187		
900.00	890.30	901.98	897.25	3.28	1.95	-129.82	54.33	58.52	85.92	80.73	5.19	16.550		
1,000.00	984.62	1,004.09	995.77	3.86	2.43	-130.81	54.36	85.28	98.23	92.03	6.19	15.856		
1,100.00	1,077.08	1,106.56	1,093.11	4.52	3.02	-131.18	53.07	117.25	111.07	103.73	7.34	15.135		
1,200.00	1,167.42	1,209.40	1,188.97	5.29	3.72	-131.11	50.46	154.37	124.42	115.78	8.64	14.404		
1,300.00	1,255.40	1,312.59	1,283.03	6.18	4.53	-130.74	46.52	196.59	138.25	128.14	10.11	13.676		
1,400.00	1,340.78	1,416.13	1,374.99	7.19	5.46	-130.14	41.24	243.83	152.53	140.75	11.78	12.947		
1,435.17	1,370.15	1,452.62	1,406.78	7.57	5.82	-129.89	39.07	261.63	157.66	145.24	12.42	12.691		
1,500.00	1,423.95	1,520.07	1,464.62	8.31	6.50	-129.18	34.63	296.04	166.52	152.86	13.66	12.189		
1,600.00	1,506.93	1,624.40	1,551.58	9.46	7.65	-126.95	26.70	353.10	177.82	162.03	15.79	11.264		
1,700.00	1,589.92	1,723.59	1,632.73	10.64	8.77	-124.37	18.53	409.55	187.94	169.96	17.99	10.449		
1,800.00	1,672.90	1,822.73	1,713.84	11.83	9.90	-122.06	10.36	465.98	198.41	178.15	20.26	9.793		
1,900.00	1,755.89	1,921.88	1,794.95	13.03	11.03	-119.97	2.20	522.41	209.17	186.58	22.59	9.261		
2,000.00	1,838.87	2,021.03	1,876.06	14.24	12.17	-118.10	-5.97	578.84	220.17	195.23	24.95	8.826		
2,100.00	1,921.85	2,120.17	1,957.17	15.46	13.32	-116.40	-14.13	635.27	231.39	204.06	27.33	8.465		
2,200.00	2,004.84	2,219.32	2,038.28	16.68	14.46	-114.86	-22.30	691.69	242.79	213.05	29.74	8.165		
2,300.00	2,087.82	2,318.46	2,119.40	17.90	15.61	-113.46	-30.46	748.12	254.35	222.20	32.15	7.911		
2,400.00	2,170.81	2,417.61	2,200.51	19.13	16.76	-112.18	-38.63	804.55	266.04	231.47	34.57	7.695		
2,500.00	2,253.79	2,516.75	2,281.62	20.36	17.91	-111.01	-46.80	860.98	277.86	240.86	37.00	7.510		
2,600.00	2,336.78	2,615.90	2,362.73	21.59	19.06	-109.93	-54.96	917.41	289.78	250.35	39.43	7.350		
2,700.00	2,419.76	2,715.04	2,443.84	22.82	20.21	-108.94	-63.13	973.84	301.79	259.93	41.86	7.210		
2,800.00	2,502.75	2,814.19	2,524.95	24.06	21.36	-108.03	-71.29	1,030.26	313.89	269.60	44.29	7.088		
2,900.00	2,585.73	2,913.34	2,606.06	25.29	22.52	-107.18	-79.46	1,086.69	326.06	279.34	46.71	6.980		
3,000.00	2,668.72	3,012.48	2,687.17	26.53	23.67	-106.40	-87.62	1,143.12	338.29	289.15	49.14	6.884		
3,100.00	2,751.70	3,111.63	2,768.29	27.77	24.82	-105.67	-95.79	1,199.55	350.58	299.02	51.56	6.799		
3,200.00	2,834.69	3,210.77	2,849.40	29.01	25.98	-104.99	-103.96	1,255.98	362.93	308.94	53.99	6.722		
3,300.00	2,917.67	3,309.92	2,930.51	30.25	27.13	-104.35	-112.12	1,312.41	375.32	318.91	56.41	6.654		
3,400.00	3,000.66	3,409.06	3,011.62	31.49	28.29	-103.75	-120.29	1,368.83	387.75	328.93	58.83	6.592		
3,500.00	3,083.64	3,508.21	3,092.73	32.73	29.44	-103.19	-128.45	1,425.26	400.23	338.99	61.24	6.535		
3,600.00	3,166.63	3,607.36	3,173.84	33.97	30.60	-102.67	-136.62	1,481.69	412.74	349.08	63.66	6.484		
3,700.00	3,249.61	3,706.50	3,254.95	35.21	31.75	-102.18	-144.78	1,538.12	425.28	359.21	66.07	6.437		
3,800.00	3,332.60	3,805.65	3,336.06	36.45	32.91	-101.71	-152.95	1,594.55	437.85	369.37	68.48	6.394		
3,900.00	3,415.58	3,904.79	3,417.17	37.70	34.06	-101.27	-161.12	1,650.98	450.45	379.56	70.89	6.355		
4,000.00	3,498.57	4,003.94	3,498.29	38.94	35.22	-100.85	-169.28	1,707.40	463.07	389.78	73.29	6.318		
4,100.00	3,581.55	4,103.08	3,579.40	40.18	36.38	-100.46	-177.45	1,763.83	475.71	400.02	75.69	6.285		
4,200.00	3,664.54	4,202.23	3,660.51	41.42	37.53	-100.09	-185.61	1,820.26	488.38	410.28	78.10	6.253		
4,300.00	3,747.52	4,301.37	3,741.62	42.67	38.69	-99.73	-193.78	1,876.69	501.06	420.57	80.50	6.225		
4,400.00	3,830.51	4,400.52	3,822.73	43.91	39.85	-99.40	-201.94	1,933.12	513.77	430.87	82.90	6.198		
4,500.00	3,913.49	4,499.67	3,903.84	45.16	41.00	-99.07	-210.11	1,989.55	526.49	441.19	85.29	6.173		
4,600.00	3,996.48	4,598.81	3,984.95	46.40	42.16	-98.77	-218.28	2,045.97	539.22	451.53	87.69	6.149		
4,700.00	4,079.46	4,697.96	4,066.06	47.64	43.32	-98.48	-226.44	2,102.40	551.97	461.89	90.08	6.127		
4,800.00	4,162.45	4,797.10	4,147.18	48.89	44.47	-98.20	-234.61	2,158.83	564.73	472.26	92.48	6.107		
4,900.00	4,245.43	4,896.25	4,228.29	50.13	45.63	-97.93	-242.77	2,215.26	577.51	482.64	94.87	6.088		
5,000.00	4,328.42	4,995.39	4,309.40	51.38	46.79	-97.68	-250.94	2,271.69	590.30	493.04	97.26	6.069		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF07E-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	4,411.40	5,094.54	4,390.51	52.62	47.94	-97.43	-259.10	2,328.12	603.10	503.45	99.65	6.052	
5,200.00	4,494.39	5,193.69	4,471.62	53.87	49.10	-97.20	-267.27	2,384.54	615.90	513.87	102.04	6.036	
5,300.00	4,577.37	5,292.83	4,552.73	55.11	50.26	-96.98	-275.44	2,440.97	628.72	524.30	104.42	6.021	
5,400.00	4,660.36	5,391.98	4,633.84	56.36	51.41	-96.76	-283.60	2,497.40	641.55	534.74	106.81	6.007	
5,500.00	4,743.34	5,491.12	4,714.95	57.60	52.57	-96.55	-291.77	2,553.83	654.39	545.19	109.19	5.993	
5,600.00	4,826.33	5,590.27	4,796.06	58.85	53.73	-96.36	-299.93	2,610.26	667.23	555.65	111.58	5.980	
5,700.00	4,909.31	5,689.41	4,877.18	60.09	54.89	-96.16	-308.10	2,666.69	680.08	566.12	113.96	5.968	
5,800.00	4,992.30	5,788.56	4,958.29	61.34	56.04	-95.98	-316.26	2,723.11	692.94	576.60	116.34	5.956	
5,900.00	5,075.28	5,887.71	5,039.40	62.58	57.20	-95.80	-324.43	2,779.54	705.81	587.08	118.73	5.945	
6,000.00	5,158.27	5,986.85	5,120.51	63.83	58.36	-95.63	-332.60	2,835.97	718.68	597.57	121.11	5.934	
6,100.00	5,241.25	6,086.00	5,201.62	65.08	59.51	-95.47	-340.76	2,892.40	731.56	608.07	123.49	5.924	
6,200.00	5,324.24	6,185.14	5,282.73	66.32	60.67	-95.31	-348.93	2,948.83	744.44	618.58	125.87	5.915	
6,300.00	5,407.22	6,284.29	5,363.84	67.57	61.83	-95.15	-357.09	3,005.26	757.33	629.09	128.24	5.905	
6,400.00	5,490.21	6,383.43	5,444.95	68.81	62.99	-95.00	-365.26	3,061.68	770.23	639.60	130.62	5.897	
6,500.00	5,573.19	6,482.58	5,526.07	70.06	64.14	-94.86	-373.42	3,118.11	783.13	650.12	133.00	5.888	
6,600.00	5,656.18	6,581.72	5,607.18	71.30	65.30	-94.72	-381.59	3,174.54	796.03	660.65	135.38	5.880	
6,700.00	5,739.16	6,680.87	5,688.29	72.55	66.46	-94.59	-389.75	3,230.97	808.94	671.18	137.75	5.872	
6,800.00	5,822.15	6,780.02	5,789.40	73.80	67.62	-94.46	-397.92	3,287.40	821.85	681.72	140.13	5.865	
6,900.00	5,905.13	6,879.16	5,850.51	75.04	68.77	-94.33	-406.09	3,343.83	834.77	692.26	142.51	5.858	
7,000.00	5,988.12	6,978.31	5,931.62	76.29	69.93	-94.21	-414.25	3,400.25	847.69	702.81	144.88	5.851	
7,100.00	6,071.10	7,077.45	6,012.73	77.54	71.09	-94.09	-422.42	3,456.68	860.61	713.36	147.25	5.844	
7,200.00	6,154.09	7,176.60	6,093.84	78.78	72.25	-93.97	-430.58	3,513.11	873.54	723.91	149.63	5.838	
7,300.00	6,237.07	7,275.74	6,174.95	80.03	73.40	-93.86	-438.75	3,569.54	886.47	734.47	152.00	5.832	
7,400.00	6,320.06	7,374.89	6,256.07	81.27	74.56	-93.75	-446.91	3,625.97	899.41	745.03	154.37	5.826	
7,500.00	6,403.04	7,474.04	6,337.18	82.52	75.72	-93.65	-455.08	3,682.40	912.35	755.60	156.75	5.820	
7,600.00	6,486.03	7,575.79	6,420.69	83.77	76.88	-93.57	-463.41	3,739.93	925.23	766.08	159.15	5.814	
7,700.00	6,569.01	7,681.44	6,510.03	85.01	77.95	-93.78	-471.48	3,795.71	937.55	776.02	161.54	5.804	
7,800.00	6,652.00	7,786.56	6,601.89	86.26	78.90	-94.34	-478.79	3,846.27	949.24	785.44	163.80	5.795	
7,900.00	6,734.98	7,890.54	6,695.37	87.51	79.73	-95.22	-485.31	3,891.29	960.45	794.53	165.93	5.788	
8,000.00	6,817.97	7,992.78	6,789.58	88.75	80.43	-96.38	-491.00	3,930.59	971.42	803.56	167.86	5.787 SF	
8,064.68	6,871.64	8,057.75	6,850.49	89.56	80.82	-97.27	-494.23	3,952.94	978.53	809.54	168.99	5.791	
8,100.00	6,901.13	8,092.87	6,883.73	89.99	81.02	-97.89	-495.86	3,964.17	982.41	812.85	169.56	5.794	
8,200.00	6,986.52	8,191.53	6,978.15	91.12	81.50	-99.61	-499.95	3,992.45	993.13	822.20	170.93	5.810	
8,300.00	7,074.51	8,289.07	7,072.82	92.13	81.88	-101.28	-503.30	4,015.63	1,003.41	831.43	171.98	5.835	
8,400.00	7,164.86	8,385.53	7,167.50	93.00	82.17	-102.88	-505.94	4,033.82	1,013.19	840.49	172.70	5.867	
8,500.00	7,257.33	8,480.92	7,261.93	93.75	82.37	-104.42	-507.86	4,047.14	1,022.44	849.31	173.14	5.905	
8,600.00	7,351.67	8,575.30	7,355.90	94.39	82.50	-105.89	-509.10	4,055.70	1,031.11	857.81	173.30	5.950	
8,700.00	7,447.61	8,668.68	7,449.19	94.92	82.55	-107.31	-509.67	4,059.64	1,039.15	865.94	173.21	5.999	
8,800.00	7,544.90	8,764.53	7,545.04	95.35	82.58	-108.66	-509.72	4,059.95	1,046.42	873.45	172.98	6.049	
8,900.00	7,643.26	8,863.11	7,643.61	95.69	82.61	-109.75	-509.74	4,059.92	1,052.40	879.64	172.76	6.092	
9,000.00	7,742.42	8,962.49	7,743.00	95.95	82.64	-110.52	-509.79	4,059.85	1,056.80	884.18	172.62	6.122	
9,100.00	7,842.12	9,062.40	7,842.91	96.14	82.68	-110.99	-509.85	4,059.76	1,059.43	886.86	172.57	6.139	
9,195.23	7,937.31	9,157.80	7,938.31	96.27	82.71	0.18	-509.93	4,059.64	1,060.21	887.57	172.64	6.141	
9,200.00	7,942.08	9,162.58	7,943.09	96.27	82.71	122.19	-509.93	4,059.63	1,060.20	887.56	172.65	6.141	
9,205.57	7,947.65	9,168.16	7,948.67	96.27	82.71	122.19	-509.94	4,059.62	1,060.20	887.55	172.65	6.141	
9,229.92	7,972.00	9,192.57	7,973.08	96.30	82.72	122.19	-509.96	4,059.59	1,060.23	887.54	172.69	6.140	
9,300.00	8,042.08	9,262.80	8,043.31	96.36	82.74	122.21	-510.04	4,059.47	1,060.38	887.59	172.78	6.137	
9,400.00	8,142.08	9,363.02	8,143.53	96.45	82.77	122.23	-510.16	4,059.29	1,060.58	887.65	172.92	6.133	
9,500.00	8,242.08	9,463.24	8,243.75	96.54	82.80	122.24	-510.31	4,059.07	1,060.75	887.69	173.06	6.129	
9,600.00	8,342.07	9,563.46	8,343.96	96.64	82.83	122.26	-510.48	4,058.82	1,060.91	887.70	173.20	6.125	
9,700.00	8,442.07	9,663.68	8,444.18	96.73	82.86	122.27	-510.67	4,058.53	1,061.04	887.70	173.34	6.121	
9,800.00	8,542.07	9,763.90	8,544.40	96.83	82.90	122.28	-510.87	4,058.22	1,061.16	887.67	173.48	6.117	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF07E-03 H04 596 - DD - Plan #2													Offset Site Error: 0.00 usft		
Survey Program: O-MWD														Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor			
9,900.00	8,642.07	9,864.12	8,644.62	96.92	82.93	122.29	-511.10	4,057.88	1,061.25	887.63	173.62	6.112			
10,000.00	8,742.07	9,964.34	8,744.84	97.02	82.96	122.30	-511.35	4,057.51	1,061.32	887.56	173.76	6.108			
10,100.00	8,842.07	10,064.56	8,845.06	97.12	82.99	122.30	-511.62	4,057.10	1,061.37	887.47	173.90	6.103			
10,200.00	8,942.06	10,164.78	8,945.28	97.22	83.02	122.31	-511.91	4,056.66	1,061.40	887.36	174.04	6.099			
10,300.00	9,042.06	10,265.00	9,045.50	97.32	83.05	122.31	-512.23	4,056.20	1,061.41	887.23	174.18	6.094			
10,400.00	9,142.06	10,365.22	9,145.72	97.43	83.08	122.31	-512.56	4,055.70	1,061.40	887.08	174.32	6.089			
10,500.00	9,242.06	10,465.43	9,245.92	97.53	83.11	122.31	-512.91	4,055.17	1,061.37	886.91	174.46	6.084			
10,600.00	9,342.06	10,565.43	9,345.92	97.64	83.14	122.31	-513.27	4,054.63	1,061.33	886.73	174.60	6.079			
10,700.00	9,442.05	10,665.43	9,445.92	97.74	83.17	122.31	-513.63	4,054.09	1,061.29	886.55	174.74	6.073			
10,800.00	9,542.05	10,765.43	9,545.92	97.85	83.21	122.30	-514.00	4,053.55	1,061.25	886.36	174.89	6.068			
10,900.00	9,642.05	10,865.43	9,645.91	97.96	83.24	122.30	-514.36	4,053.01	1,061.21	886.18	175.03	6.063			
11,000.00	9,742.05	10,965.43	9,745.91	98.07	83.27	122.30	-514.72	4,052.46	1,061.17	885.99	175.18	6.058			
11,100.00	9,842.05	11,065.43	9,845.91	98.18	83.30	122.30	-515.08	4,051.92	1,061.13	885.80	175.33	6.052			
11,200.00	9,942.05	11,165.43	9,945.91	98.29	83.34	122.30	-515.44	4,051.38	1,061.09	885.61	175.48	6.047			
11,300.00	10,042.04	11,265.43	10,045.90	98.41	83.37	122.30	-515.80	4,050.84	1,061.05	885.42	175.63	6.041			
11,400.00	10,142.04	11,365.43	10,145.90	98.52	83.40	122.30	-516.16	4,050.30	1,061.01	885.22	175.78	6.036			
11,500.00	10,242.04	11,465.43	10,245.90	98.64	83.44	122.29	-516.52	4,049.76	1,060.97	885.03	175.94	6.030			
11,600.00	10,342.04	11,565.43	10,345.90	98.75	83.47	122.29	-516.89	4,049.22	1,060.93	884.83	176.09	6.025			
11,700.00	10,442.04	11,665.43	10,445.90	98.87	83.51	122.29	-517.25	4,048.68	1,060.89	884.63	176.25	6.019			
11,800.00	10,542.03	11,765.43	10,545.89	98.99	83.54	122.29	-517.61	4,048.14	1,060.85	884.43	176.41	6.013			
11,900.00	10,642.03	11,865.43	10,645.89	99.11	83.58	122.29	-517.97	4,047.59	1,060.80	884.23	176.57	6.008			
12,000.00	10,742.03	11,965.43	10,745.89	99.24	83.62	122.29	-518.33	4,047.05	1,060.76	884.03	176.74	6.002			
12,100.00	10,842.03	12,065.43	10,845.89	99.36	83.65	122.28	-518.69	4,046.51	1,060.72	883.82	176.90	5.996			
12,200.00	10,942.03	12,165.43	10,945.89	99.48	83.69	122.28	-519.05	4,045.97	1,060.68	883.62	177.07	5.990			
12,300.00	11,042.03	12,265.43	11,045.88	99.61	83.73	122.28	-519.41	4,045.43	1,060.64	883.41	177.23	5.984			
12,327.95	11,069.98	12,293.38	11,073.84	99.64	83.74	122.28	-519.52	4,045.28	1,060.63	883.35	177.28	5.983			
12,400.00	11,142.02	12,365.43	11,145.88	99.73	83.76	122.28	-519.78	4,044.89	1,060.60	883.20	177.40	5.978			
12,500.00	11,242.02	12,465.43	11,245.88	99.86	83.80	122.28	-520.14	4,044.35	1,060.56	882.99	177.57	5.973			
12,600.00	11,342.02	12,565.43	11,345.88	99.99	83.84	122.28	-520.50	4,043.81	1,060.52	882.78	177.75	5.967			
12,700.00	11,442.02	12,665.43	11,445.88	100.12	83.88	122.28	-520.86	4,043.27	1,060.48	882.56	177.92	5.960			
12,800.00	11,542.02	12,765.43	11,545.87	100.25	83.92	122.27	-521.22	4,042.72	1,060.44	882.35	178.09	5.954			
12,882.41	11,624.42	12,847.83	11,628.28	100.36	83.95	122.27	-521.52	4,042.28	1,060.41	882.17	178.24	5.949			
12,882.93	11,624.95	12,848.36	11,628.81	100.36	83.95	122.27	-521.52	4,042.28	1,060.41	882.17	178.24	5.949			



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF10A-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor	
0.00	0.00	0.00	0.00	0.00	0.00	15.90	19.22	5.48	19.99				
100.00	100.00	100.00	100.00	0.12	0.12	15.90	19.22	5.48	19.99	19.75	0.24	84.334	
116.67	116.67	116.67	116.67	0.18	0.15	15.90	19.22	5.48	19.99	19.66	0.33	61.343 CC	
200.00	200.00	200.00	200.00	0.48	0.29	15.90	19.22	5.48	19.99	19.22	0.77	25.959	
300.00	300.00	299.82	299.78	0.84	0.47	23.23	18.72	8.03	20.38	19.06	1.32	15.467 ES	
400.00	399.95	399.33	398.96	1.19	0.70	-63.38	17.22	15.67	22.02	20.08	1.94	11.356	
500.00	499.63	498.56	497.35	1.55	0.98	-52.28	14.74	28.33	24.58	21.92	2.67	9.218	
600.00	598.78	597.53	594.67	1.92	1.34	-48.67	11.29	45.93	28.25	24.79	3.46	8.158	
700.00	697.11	696.22	690.66	2.32	1.79	-46.17	6.88	68.38	33.11	28.82	4.29	7.718	
800.00	794.38	794.61	785.05	2.77	2.33	-45.22	1.55	95.58	38.85	33.70	5.15	7.539	
900.00	890.30	892.70	877.62	3.28	2.97	-45.46	-4.69	127.40	45.32	39.24	6.08	7.458	
1,000.00	984.62	990.48	968.10	3.86	3.69	-46.48	-11.82	163.73	52.47	45.38	7.09	7.396	
1,100.00	1,077.08	1,087.94	1,056.29	4.52	4.51	-47.98	-19.80	204.40	60.30	52.06	8.24	7.316	
1,200.00	1,167.42	1,185.06	1,141.96	5.29	5.43	-49.77	-28.60	249.28	68.82	59.27	9.55	7.204	
1,300.00	1,255.40	1,281.86	1,224.92	6.18	6.44	-51.68	-38.20	298.20	78.05	66.99	11.06	7.058	
1,400.00	1,340.78	1,379.71	1,306.40	7.19	7.51	-53.89	-48.63	351.37	87.66	74.90	12.76	6.871	
1,435.17	1,370.15	1,414.71	1,335.40	7.57	7.90	-55.11	-52.40	370.60	90.58	77.14	13.44	6.740	
1,500.00	1,423.95	1,479.22	1,388.84	8.31	8.62	-57.46	-59.36	406.05	95.77	80.99	14.78	6.478	
1,600.00	1,506.93	1,578.72	1,471.28	9.46	9.72	-60.63	-70.09	460.74	104.05	87.09	16.96	6.136	
1,700.00	1,589.92	1,678.23	1,553.71	10.64	10.84	-63.32	-80.81	515.42	112.61	93.39	19.22	5.860	
1,800.00	1,672.90	1,777.73	1,636.15	11.83	11.95	-65.64	-91.54	570.10	121.37	99.85	21.52	5.639	
1,900.00	1,755.89	1,877.23	1,718.59	13.03	13.06	-67.63	-102.27	624.78	130.31	106.44	23.87	5.460	
2,000.00	1,838.87	1,976.74	1,801.02	14.24	14.18	-69.37	-112.99	679.47	139.38	113.15	26.23	5.314	
2,100.00	1,921.85	2,076.24	1,883.46	15.46	15.30	-70.90	-123.72	734.15	148.56	119.96	28.61	5.193	
2,200.00	2,004.84	2,175.75	1,969.90	16.68	16.42	-72.25	-134.45	788.83	157.84	126.85	30.99	5.093	
2,300.00	2,087.82	2,275.25	2,048.33	17.90	17.53	-73.44	-145.18	843.51	167.19	133.81	33.38	5.009	
2,400.00	2,170.81	2,374.75	2,130.77	19.13	18.65	-74.51	-155.90	898.20	176.61	140.84	35.77	4.937	
2,500.00	2,253.79	2,474.26	2,213.21	20.36	19.77	-75.48	-166.63	952.88	186.08	147.92	38.16	4.876	
2,600.00	2,336.78	2,573.76	2,295.64	21.59	20.89	-76.35	-177.36	1,007.56	195.60	155.05	40.56	4.823	
2,700.00	2,419.76	2,673.27	2,378.08	22.82	22.01	-77.13	-188.09	1,062.24	205.16	162.22	42.95	4.777	
2,800.00	2,502.75	2,772.77	2,460.52	24.06	23.14	-77.85	-198.81	1,116.93	214.76	169.42	45.34	4.737	
2,900.00	2,585.73	2,872.27	2,542.95	25.29	24.26	-78.51	-209.54	1,171.61	224.38	176.66	47.73	4.701	
3,000.00	2,668.72	2,971.78	2,625.39	26.53	25.38	-79.11	-220.27	1,226.29	234.04	183.92	50.12	4.670	
3,100.00	2,751.70	3,071.28	2,707.83	27.77	26.50	-79.66	-230.99	1,280.97	243.71	191.21	52.50	4.642	
3,200.00	2,834.69	3,170.79	2,790.26	29.01	27.62	-80.18	-241.72	1,335.66	253.41	198.52	54.89	4.617	
3,300.00	2,917.67	3,270.29	2,872.70	30.25	28.74	-80.65	-252.45	1,390.34	263.13	205.85	57.27	4.594	
3,400.00	3,000.66	3,369.80	2,955.14	31.49	29.86	-81.09	-263.18	1,445.02	272.86	213.20	59.66	4.574	
3,500.00	3,083.64	3,469.30	3,037.58	32.73	30.99	-81.50	-273.90	1,499.71	282.61	220.57	62.04	4.555	
3,600.00	3,166.63	3,568.80	3,120.01	33.97	32.11	-81.88	-284.63	1,554.39	292.37	227.95	64.42	4.538	
3,700.00	3,249.61	3,668.31	3,202.45	35.21	33.23	-82.24	-295.36	1,609.07	302.14	235.34	66.80	4.523	
3,800.00	3,332.60	3,767.81	3,284.89	36.45	34.35	-82.58	-306.09	1,663.75	311.92	242.74	69.18	4.509	
3,900.00	3,415.58	3,867.32	3,367.32	37.70	35.47	-82.89	-316.81	1,718.44	321.72	250.16	71.56	4.496	
4,000.00	3,498.57	3,966.82	3,449.76	38.94	36.60	-83.19	-327.54	1,773.12	331.52	257.59	73.94	4.484	
4,100.00	3,581.55	4,066.32	3,532.20	40.18	37.72	-83.47	-338.27	1,827.80	341.33	265.02	76.31	4.473	
4,200.00	3,664.54	4,165.83	3,614.63	41.42	38.84	-83.73	-348.99	1,882.48	351.15	272.46	78.69	4.463	
4,300.00	3,747.52	4,265.33	3,697.07	42.67	39.96	-83.98	-359.72	1,937.17	360.98	279.92	81.06	4.453	
4,400.00	3,830.51	4,364.84	3,779.51	43.91	41.09	-84.22	-370.45	1,991.85	370.81	287.37	83.44	4.444	
4,500.00	3,913.49	4,464.34	3,861.94	45.16	42.21	-84.44	-381.18	2,046.53	380.65	294.84	85.81	4.436	
4,600.00	3,996.48	4,563.84	3,944.38	46.40	43.33	-84.66	-391.90	2,101.21	390.49	302.31	88.18	4.428	
4,700.00	4,079.46	4,663.35	4,026.82	47.64	44.45	-84.86	-402.63	2,155.90	400.34	309.79	90.55	4.421	
4,800.00	4,162.45	4,762.85	4,109.25	48.89	45.58	-85.05	-413.36	2,210.58	410.19	317.27	92.92	4.414	
4,900.00	4,245.43	4,862.36	4,191.69	50.13	46.70	-85.24	-424.09	2,265.26	420.05	324.76	95.30	4.408	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF10A-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.00	4,328.42	4,961.86	4,274.13	51.38	47.82	-85.41	-434.81	2,319.94	429.91	332.25	97.67	4.402	
5,100.00	4,411.40	5,061.37	4,356.56	52.62	48.94	-85.58	-445.54	2,374.63	439.78	339.74	100.04	4.396	
5,200.00	4,494.39	5,160.87	4,439.00	53.87	50.07	-85.74	-456.27	2,429.31	449.65	347.24	102.40	4.391	
5,300.00	4,577.37	5,260.37	4,521.44	55.11	51.19	-85.89	-466.99	2,483.99	459.52	354.75	104.77	4.386	
5,400.00	4,660.36	5,359.88	4,603.87	56.36	52.31	-86.04	-477.72	2,538.67	469.40	362.26	107.14	4.381	
5,500.00	4,743.34	5,459.38	4,686.31	57.60	53.44	-86.18	-488.45	2,593.36	479.28	369.77	109.51	4.377	
5,600.00	4,826.33	5,558.89	4,768.75	58.85	54.56	-86.31	-499.18	2,648.04	489.16	377.28	111.88	4.372	
5,700.00	4,909.31	5,658.39	4,851.18	60.09	55.68	-86.44	-509.90	2,702.72	499.04	384.80	114.24	4.368	
5,800.00	4,992.30	5,757.89	4,933.62	61.34	56.80	-86.57	-520.63	2,757.41	508.93	392.32	116.61	4.364	
5,900.00	5,075.28	5,857.40	5,016.06	62.58	57.93	-86.69	-531.36	2,812.09	518.82	399.84	118.98	4.361	
6,000.00	5,158.27	5,956.90	5,098.49	63.83	59.05	-86.80	-542.09	2,866.77	528.71	407.36	121.34	4.357	
6,100.00	5,241.25	6,056.41	5,180.93	65.08	60.17	-86.91	-552.81	2,921.45	538.60	414.89	123.71	4.354	
6,200.00	5,324.24	6,155.91	5,263.37	66.32	61.30	-87.02	-563.54	2,976.14	548.50	422.42	126.08	4.351	
6,300.00	5,407.22	6,255.41	5,345.80	67.57	62.42	-87.12	-574.27	3,030.82	558.39	429.95	128.44	4.347	
6,400.00	5,490.21	6,354.92	5,428.24	68.81	63.54	-87.22	-584.99	3,085.50	568.29	437.48	130.81	4.345	
6,500.00	5,573.19	6,454.42	5,510.68	70.06	64.66	-87.32	-595.72	3,140.18	578.19	445.02	133.17	4.342	
6,600.00	5,656.18	6,553.93	5,593.11	71.30	65.79	-87.41	-606.45	3,194.87	588.09	452.56	135.54	4.339	
6,700.00	5,739.16	6,653.43	5,675.55	72.55	66.91	-87.50	-617.18	3,249.55	598.00	460.10	137.90	4.336	
6,800.00	5,822.15	6,752.94	5,757.99	73.80	68.03	-87.59	-627.90	3,304.23	607.90	467.64	140.26	4.334	
6,900.00	5,905.13	6,852.44	5,840.42	75.04	69.16	-87.67	-638.63	3,358.91	617.81	475.18	142.63	4.332	
7,000.00	5,988.12	6,951.94	5,922.86	76.29	70.28	-87.76	-649.36	3,413.60	627.71	482.72	144.99	4.329	
7,100.00	6,071.10	7,051.45	6,005.30	77.54	71.40	-87.83	-660.08	3,468.28	637.62	490.27	147.36	4.327	
7,200.00	6,154.09	7,150.95	6,087.73	78.78	72.53	-87.91	-670.81	3,522.96	647.53	497.81	149.72	4.325	
7,300.00	6,237.07	7,250.46	6,170.17	80.03	73.65	-87.99	-681.54	3,577.64	657.44	505.36	152.08	4.323	
7,400.00	6,320.06	7,349.96	6,252.61	81.27	74.77	-88.06	-692.27	3,632.33	667.35	512.91	154.45	4.321	
7,500.00	6,403.04	7,449.46	6,335.04	82.52	75.89	-88.13	-702.99	3,687.01	677.27	520.46	156.81	4.319	
7,600.00	6,486.03	7,549.55	6,417.98	83.77	77.02	-88.20	-713.78	3,742.00	687.18	528.00	159.18	4.317	
7,700.00	6,569.01	7,655.79	6,507.87	85.01	78.09	-88.55	-724.67	3,797.53	696.52	534.89	161.64	4.309	
7,800.00	6,652.00	7,761.44	6,600.25	86.26	79.04	-89.36	-734.54	3,847.80	704.99	540.94	164.05	4.297	
7,900.00	6,734.98	7,865.86	6,694.20	87.51	79.87	-90.59	-743.30	3,892.49	712.81	546.44	166.37	4.285	
8,000.00	6,817.97	7,968.46	6,788.81	88.75	80.57	-92.21	-750.94	3,931.43	720.30	551.78	168.52	4.274	
8,064.68	6,871.64	8,033.61	6,849.93	89.56	80.97	-93.45	-755.28	3,953.55	725.18	555.40	169.78	4.271 SF	
8,100.00	6,901.13	8,068.82	6,883.27	89.99	81.16	-94.23	-757.46	3,964.64	727.88	557.47	170.41	4.271	
8,200.00	6,986.52	8,167.66	6,977.92	91.12	81.64	-96.41	-762.93	3,992.55	735.59	563.70	171.89	4.279	
8,300.00	7,074.51	8,265.31	7,072.75	92.13	82.02	-98.52	-767.41	4,015.37	743.33	570.38	172.95	4.298	
8,400.00	7,164.86	8,361.80	7,167.50	93.00	82.31	-100.56	-770.91	4,033.21	751.06	577.44	173.62	4.326	
8,500.00	7,257.33	8,457.17	7,261.94	93.75	82.51	-102.53	-773.46	4,046.21	758.70	584.79	173.91	4.363	
8,600.00	7,351.67	8,551.48	7,355.86	94.39	82.63	-104.43	-775.09	4,054.51	766.22	592.35	173.87	4.407	
8,700.00	7,447.61	8,644.75	7,449.04	94.92	82.69	-106.26	-775.82	4,058.22	773.55	600.03	173.52	4.458	
8,800.00	7,544.90	8,740.72	7,545.01	95.35	82.72	-108.00	-775.87	4,058.46	780.48	607.50	172.99	4.512	
8,900.00	7,643.26	8,839.24	7,643.53	95.69	82.75	-109.40	-775.89	4,058.43	786.31	613.80	172.50	4.558	
9,000.00	7,742.42	8,938.57	7,742.86	95.95	82.78	-110.40	-775.94	4,058.36	790.65	618.50	172.15	4.593	
9,100.00	7,842.12	9,038.43	7,842.72	96.14	82.82	-110.99	-776.00	4,058.26	793.28	621.31	171.97	4.613	
9,195.23	7,937.31	9,133.77	7,938.06	96.27	82.85	0.13	-776.08	4,058.14	794.05	622.05	172.00	4.617	
9,200.00	7,942.08	9,138.55	7,942.84	96.27	82.85	122.14	-776.08	4,058.14	794.05	622.04	172.00	4.616	
9,205.63	7,947.71	9,144.18	7,948.47	96.27	82.85	122.14	-776.09	4,058.13	794.05	622.04	172.01	4.616	
9,229.92	7,972.00	9,168.52	7,972.81	96.30	82.86	122.15	-776.11	4,058.09	794.07	622.03	172.05	4.616	
9,300.00	8,042.08	9,238.71	8,043.00	96.36	82.88	122.17	-776.19	4,057.98	794.22	622.08	172.15	4.614	
9,400.00	8,142.08	9,338.87	8,143.16	96.45	82.91	122.19	-776.32	4,057.79	794.42	622.13	172.29	4.611	
9,500.00	8,242.08	9,439.04	8,243.33	96.54	82.94	122.21	-776.46	4,057.57	794.60	622.16	172.44	4.608	
9,600.00	8,342.07	9,539.20	8,343.49	96.64	82.97	122.23	-776.63	4,057.31	794.75	622.17	172.58	4.605	
9,700.00	8,442.07	9,639.37	8,443.66	96.73	83.00	122.25	-776.82	4,057.03	794.89	622.16	172.73	4.602	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF10A-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
9,800.00	8,542.07	9,739.53	8,543.82	96.83	83.04	122.26	-777.03	4,056.72	795.00	622.13	172.87	4.599	
9,900.00	8,642.07	9,839.69	8,643.98	96.92	83.07	122.27	-777.26	4,056.37	795.09	622.08	173.01	4.596	
10,000.00	8,742.07	9,939.86	8,744.15	97.02	83.10	122.28	-777.50	4,056.00	795.16	622.01	173.16	4.592	
10,100.00	8,842.07	10,040.02	8,844.31	97.12	83.13	122.29	-777.77	4,055.59	795.22	621.92	173.30	4.589	
10,200.00	8,942.06	10,140.19	8,944.47	97.22	83.16	122.29	-778.07	4,055.15	795.25	621.81	173.44	4.585	
10,300.00	9,042.06	10,240.35	9,044.64	97.32	83.19	122.30	-778.38	4,054.68	795.26	621.68	173.58	4.582	
10,400.00	9,142.06	10,340.52	9,144.80	97.43	83.22	122.30	-778.71	4,054.18	795.25	621.53	173.72	4.578	
10,500.00	9,242.06	10,440.67	9,244.94	97.53	83.25	122.30	-779.06	4,053.65	795.22	621.36	173.86	4.574	
10,600.00	9,342.06	10,540.67	9,344.94	97.64	83.28	122.30	-779.42	4,053.11	795.18	621.18	174.00	4.570	
10,700.00	9,442.05	10,640.67	9,444.94	97.74	83.32	122.29	-779.78	4,052.56	795.14	621.00	174.14	4.566	
10,800.00	9,542.05	10,740.67	9,544.94	97.85	83.35	122.29	-780.14	4,052.02	795.10	620.81	174.28	4.562	
10,900.00	9,642.05	10,840.67	9,644.94	97.96	83.38	122.29	-780.50	4,051.48	795.06	620.63	174.43	4.558	
11,000.00	9,742.05	10,940.67	9,744.93	98.07	83.41	122.29	-780.86	4,050.93	795.02	620.44	174.58	4.554	
11,100.00	9,842.05	11,040.67	9,844.93	98.18	83.45	122.29	-781.22	4,050.39	794.98	620.25	174.72	4.550	
11,200.00	9,942.05	11,140.67	9,944.93	98.29	83.48	122.28	-781.58	4,049.85	794.94	620.07	174.87	4.546	
11,300.00	10,042.04	11,240.67	10,044.93	98.41	83.51	122.28	-781.94	4,049.31	794.90	619.87	175.02	4.542	
11,400.00	10,142.04	11,340.67	10,144.93	98.52	83.55	122.28	-782.30	4,048.76	794.86	619.68	175.18	4.537	
11,500.00	10,242.04	11,440.67	10,244.92	98.64	83.58	122.28	-782.66	4,048.22	794.82	619.49	175.33	4.533	
11,600.00	10,342.04	11,540.67	10,344.92	98.75	83.62	122.27	-783.03	4,047.68	794.78	619.29	175.49	4.529	
11,700.00	10,442.04	11,640.67	10,444.92	98.87	83.65	122.27	-783.39	4,047.13	794.74	619.10	175.65	4.525	
11,800.00	10,542.03	11,740.67	10,544.92	98.99	83.69	122.27	-783.75	4,046.59	794.70	618.90	175.80	4.520	
11,900.00	10,642.03	11,840.67	10,644.91	99.11	83.72	122.27	-784.11	4,046.05	794.66	618.70	175.97	4.516	
12,000.00	10,742.03	11,940.67	10,744.91	99.24	83.76	122.27	-784.47	4,045.50	794.62	618.50	176.13	4.512	
12,100.00	10,842.03	12,040.67	10,844.91	99.36	83.80	122.26	-784.83	4,044.96	794.58	618.29	176.29	4.507	
12,200.00	10,942.03	12,140.67	10,944.91	99.48	83.83	122.26	-785.19	4,044.42	794.54	618.09	176.46	4.503	
12,300.00	11,042.03	12,240.67	11,044.91	99.61	83.87	122.26	-785.55	4,043.88	794.50	617.88	176.62	4.498	
12,327.95	11,069.98	12,268.62	11,072.86	99.64	83.88	122.26	-785.65	4,043.72	794.49	617.82	176.67	4.497	
12,400.00	11,142.02	12,340.67	11,144.90	99.73	83.91	122.26	-785.91	4,043.33	794.46	617.67	176.79	4.494	
12,500.00	11,242.02	12,440.67	11,244.90	99.86	83.95	122.26	-786.27	4,042.79	794.43	617.46	176.96	4.489	
12,600.00	11,342.02	12,540.67	11,344.90	99.99	83.98	122.25	-786.63	4,042.25	794.39	617.25	177.13	4.485	
12,700.00	11,442.02	12,640.67	11,444.90	100.12	84.02	122.25	-786.99	4,041.70	794.35	617.04	177.31	4.480	
12,800.00	11,542.02	12,740.67	11,544.90	100.25	84.06	122.25	-787.35	4,041.16	794.31	616.83	177.48	4.475	
12,882.41	11,624.42	12,823.07	11,627.30	100.36	84.09	122.25	-787.65	4,040.71	794.27	616.65	177.63	4.472	
12,882.93	11,624.95	12,823.60	11,627.83	100.36	84.09	122.25	-787.65	4,040.71	794.27	616.65	177.63	4.472	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF10A-04 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-2.85	31.37	-1.56	31.41				
100.00	100.00	100.00	100.00	0.12	0.12	-2.85	31.37	-1.56	31.41	31.17	0.24	132.517	
200.00	200.00	200.00	200.00	0.48	0.29	-2.85	31.37	-1.56	31.41	30.64	0.77	40.790	
300.00	300.00	300.75	300.71	0.84	0.48	-7.20	29.90	-3.78	30.15	28.81	1.34	22.516	
378.59	378.57	379.44	379.18	1.11	0.65	-120.68	26.72	-8.59	28.86	27.08	1.78	16.242 CC, ES	
400.00	399.95	400.70	400.33	1.19	0.70	-126.42	25.55	-10.35	29.04	27.15	1.89	15.357	
500.00	499.63	498.51	497.29	1.55	0.98	-156.71	18.51	-20.97	37.37	34.77	2.61	14.337 SF	
600.00	598.78	593.02	590.25	1.92	1.32	178.80	9.11	-35.15	60.35	56.89	3.47	17.414	
700.00	697.11	685.95	681.01	2.32	1.69	167.27	-1.92	-51.81	93.91	89.81	4.10	22.912	
800.00	794.38	777.75	770.63	2.77	2.06	162.08	-12.90	-68.38	133.07	128.43	4.64	28.680	
900.00	890.30	867.65	858.40	3.28	2.43	159.53	-23.65	-84.60	176.76	171.57	5.19	34.083	
1,000.00	984.62	955.40	944.07	3.86	2.79	158.20	-34.15	-100.44	224.69	218.94	5.75	39.066	
1,100.00	1,077.08	1,040.77	1,027.41	4.52	3.15	157.48	-44.36	-115.85	276.71	270.37	6.34	43.663	
1,200.00	1,167.42	1,123.52	1,108.19	5.29	3.49	157.07	-54.25	-130.78	332.72	325.78	6.94	47.931	
1,300.00	1,255.40	1,203.41	1,186.20	6.18	3.82	156.80	-63.81	-145.20	392.62	385.06	7.56	51.928	
1,400.00	1,340.78	1,280.24	1,261.20	7.19	4.15	156.57	-73.00	-159.07	456.31	448.12	8.19	55.707	
1,435.17	1,370.15	1,306.50	1,286.83	7.57	4.26	156.49	-76.14	-163.81	479.58	471.16	8.42	56.942	
1,500.00	1,423.95	1,354.51	1,333.71	8.31	4.46	157.18	-81.88	-172.47	522.92	514.09	8.83	59.249	
1,600.00	1,506.93	1,428.57	1,406.01	9.46	4.77	158.03	-90.74	-185.84	589.83	580.38	9.45	62.410	
1,700.00	1,589.92	1,502.63	1,478.32	10.64	5.08	158.71	-99.60	-199.21	656.79	646.71	10.09	65.123	
1,800.00	1,672.90	1,576.69	1,550.62	11.83	5.39	159.27	-108.45	-212.58	723.80	713.08	10.73	67.469	
1,900.00	1,755.89	1,650.75	1,622.92	13.03	5.70	159.73	-117.31	-225.94	790.84	779.47	11.38	69.515	
2,000.00	1,838.87	1,724.81	1,695.23	14.24	6.01	160.12	-126.17	-239.31	857.91	845.88	12.03	71.310	
2,100.00	1,921.85	1,798.87	1,767.53	15.46	6.32	160.45	-135.03	-252.68	924.99	912.30	12.69	72.896	
2,200.00	2,004.84	1,872.93	1,839.83	16.68	6.63	160.74	-143.88	-266.04	992.09	978.74	13.35	74.305	
2,300.00	2,087.82	1,946.99	1,912.14	17.90	6.95	160.99	-152.74	-279.41	1,059.20	1,045.19	14.02	75.565	
2,400.00	2,170.81	2,021.05	1,984.44	19.13	7.26	161.22	-161.60	-292.78	1,126.32	1,111.64	14.69	76.698	
2,500.00	2,253.79	2,095.11	2,056.74	20.36	7.57	161.41	-170.46	-306.15	1,193.45	1,178.10	15.36	77.720	
2,600.00	2,336.78	2,169.17	2,129.05	21.59	7.88	161.59	-179.31	-319.51	1,260.59	1,244.56	16.03	78.647	
2,700.00	2,419.76	2,243.23	2,201.35	22.82	8.19	161.75	-188.17	-332.88	1,327.73	1,311.03	16.70	79.491	
2,800.00	2,502.75	2,317.29	2,273.66	24.06	8.50	161.89	-197.03	-346.25	1,394.88	1,377.50	17.38	80.263	
2,900.00	2,585.73	2,391.35	2,345.96	25.29	8.82	162.02	-205.89	-359.61	1,462.03	1,443.97	18.06	80.972	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF10B-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-10.43	21.24	-3.91	21.60	21.36	0.24	91.134	
100.00	100.00	100.00	100.00	0.12	0.12	-10.43	21.24	-3.91	21.60	20.83	0.77	28.052	
200.00	200.00	200.00	200.00	0.48	0.29	-10.43	21.24	-3.91	21.60	20.30	1.30	16.578	CC, ES
300.00	300.00	300.00	300.00	0.84	0.47	-10.43	21.24	-3.91	22.65	20.82	1.83	12.388	
400.00	399.95	399.95	399.95	1.19	0.64	-116.62	21.24	-3.91	27.09	24.73	2.36	11.486	
500.00	499.63	499.63	499.63	1.55	0.81	-131.49	21.24	-3.91	37.35	34.44	2.90	12.869	
600.00	598.78	598.78	598.78	1.92	0.99	-150.25	21.24	-3.91	51.61	48.13	3.49	14.803	
700.00	697.11	699.67	699.62	2.32	1.17	-160.74	20.59	-1.40	66.57	62.44	4.14	16.084	
800.00	794.38	801.44	801.07	2.77	1.37	-166.01	18.56	6.36	81.77	76.93	4.84	16.911	
900.00	890.30	904.08	902.79	3.28	1.62	-168.79	15.14	19.46	97.00	91.44	5.56	17.445	
1,000.00	984.62	1,007.58	1,004.50	3.86	1.95	-170.21	10.29	38.01	112.19	105.88	6.31	17.781	
1,100.00	1,077.08	1,111.96	1,105.85	4.52	2.38	-170.79	4.00	62.08	127.28	120.20	7.08	17.970	
1,200.00	1,167.42	1,217.19	1,206.51	5.29	2.92	-170.82	-3.75	91.74	142.23	134.35	7.89	18.036	
1,300.00	1,255.40	1,323.29	1,306.13	6.18	3.58	-170.47	-12.97	127.03	157.03	148.30	8.73	17.988	
1,400.00	1,340.78	1,430.24	1,404.34	7.19	4.37	-169.84	-23.66	167.96	162.19	153.15	9.04	17.940	
1,435.17	1,370.15	1,468.06	1,438.48	7.57	4.68	-169.56	-27.77	183.69	176.57	160.94	9.63	17.714	
1,500.00	1,423.95	1,538.17	1,500.89	8.31	5.29	-168.85	-35.84	214.59	179.10	168.49	10.61	16.880	
1,600.00	1,506.93	1,647.25	1,595.55	9.46	6.35	-167.38	-49.54	267.00	182.34	170.62	11.72	15.552	
1,700.00	1,589.92	1,756.83	1,687.38	10.64	7.54	-165.38	-64.65	324.83	180.79	167.80	12.99	13.915	
1,800.00	1,672.90	1,862.88	1,773.03	11.83	8.77	-162.85	-80.45	385.31	178.47	164.08	14.39	12.405	
1,900.00	1,755.89	1,962.52	1,852.77	13.03	9.95	-160.27	-95.55	443.12	176.51	160.53	15.98	11.043	
2,000.00	1,838.87	2,062.17	1,932.52	14.24	11.14	-157.63	-110.66	500.93	174.94	157.16	17.78	9.837	
2,100.00	1,921.85	2,161.81	2,012.26	15.46	12.33	-154.93	-125.76	558.74	173.77	153.99	19.79	8.783	
2,200.00	2,004.84	2,261.45	2,092.00	16.68	13.53	-152.19	-140.86	616.54	173.01	151.03	21.98	7.871	
2,300.00	2,087.82	2,361.09	2,171.74	17.90	14.74	-149.42	-155.97	674.35	172.65	148.30	24.35	7.089	
2,400.00	2,170.81	2,460.74	2,251.49	19.13	15.94	-146.64	-171.07	732.16	172.62	147.37	25.26	6.835	
2,436.34	2,200.97	2,496.95	2,280.47	19.58	16.38	-145.62	-176.56	753.17	172.71	145.82	26.89	6.423	
2,500.00	2,253.79	2,560.38	2,331.23	20.36	17.15	-143.85	-186.18	789.97	173.18	143.60	29.57	5.856	
2,600.00	2,336.78	2,660.02	2,410.97	21.59	18.35	-141.06	-201.28	847.77	174.05	141.68	32.38	5.376	
2,700.00	2,419.76	2,759.67	2,490.71	22.82	19.56	-138.30	-216.38	905.58	175.33	140.05	35.29	4.969	
2,800.00	2,502.75	2,859.31	2,570.46	24.06	20.77	-135.57	-231.49	963.39	177.01	138.73	38.28	4.625	
2,900.00	2,585.73	2,958.95	2,650.20	25.29	21.99	-132.89	-246.59	1,021.20	179.06	137.74	41.32	4.333	
3,000.00	2,668.72	3,058.59	2,729.94	26.53	23.20	-130.26	-261.69	1,079.00	181.49	137.08	44.41	4.086	
3,100.00	2,751.70	3,158.24	2,809.68	27.77	24.41	-127.70	-276.80	1,136.81	184.27	136.75	47.52	3.877	
3,200.00	2,834.69	3,257.88	2,889.43	29.01	25.62	-125.21	-291.90	1,194.62	187.40	136.75	50.64	3.700	
3,300.00	2,917.67	3,357.52	2,969.17	30.25	26.84	-122.79	-307.01	1,252.43	190.84	137.08	53.76	3.550	
3,400.00	3,000.66	3,457.17	3,048.91	31.49	28.05	-120.46	-322.11	1,310.23	194.59	137.74	56.85	3.423	
3,500.00	3,083.64	3,556.81	3,128.65	32.73	29.26	-118.22	-337.21	1,368.04	198.63	138.71	59.92	3.315	
3,600.00	3,166.63	3,656.45	3,208.40	33.97	30.48	-116.06	-352.32	1,425.85	202.94	139.98	62.96	3.223	
3,700.00	3,249.61	3,756.09	3,288.14	35.21	31.69	-113.99	-367.42	1,483.66	207.50	141.55	65.95	3.146	
3,800.00	3,332.60	3,855.74	3,367.88	36.45	32.91	-112.01	-382.52	1,541.47	212.30	143.39	68.91	3.081	
3,900.00	3,415.58	3,955.38	3,447.62	37.70	34.12	-110.12	-397.63	1,599.27	217.33	145.50	71.82	3.026	
4,000.00	3,498.57	4,055.02	3,527.37	38.94	35.34	-108.31	-412.73	1,657.08	222.56	147.86	74.69	2.980	
4,100.00	3,581.55	4,154.67	3,607.11	40.18	36.56	-106.59	-427.83	1,714.89	227.98	150.46	77.52	2.941	
4,200.00	3,664.54	4,254.31	3,686.85	41.42	37.77	-104.94	-442.94	1,772.70	233.58	153.29	80.30	2.909	
4,300.00	3,747.52	4,353.95	3,766.59	42.67	38.99	-103.37	-458.04	1,830.50	239.35	156.32	83.03	2.883	
4,400.00	3,830.51	4,453.59	3,846.34	43.91	40.20	-101.88	-473.15	1,888.31	245.28	159.55	85.73	2.861	
4,500.00	3,913.49	4,553.24	3,926.08	45.16	41.42	-100.46	-488.25	1,946.12	251.35	162.97	88.38	2.844	
4,600.00	3,996.48	4,652.88	4,005.82	46.40	42.64	-99.10	-503.35	2,003.93	257.55	166.56	90.99	2.830	
4,700.00	4,079.46	4,752.52	4,085.56	47.64	43.85	-97.81	-518.46	2,061.73	263.88	170.31	93.57	2.820	
4,800.00	4,162.45	4,852.17	4,165.31	48.89	45.07	-96.58	-533.56	2,119.54	270.32	174.20	96.12	2.812	
4,900.00	4,245.43	4,951.81	4,245.05	50.13	46.28	-95.41	-548.66	2,177.35					

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF10B-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.00	4,328.42	5,051.45	4,324.79	51.38	47.50	-94.29	-563.77	2,235.16	276.87	178.24	98.63	2.807	
5,100.00	4,411.40	5,151.09	4,404.53	52.62	48.72	-93.23	-578.87	2,292.96	283.52	182.41	101.11	2.804	
5,200.00	4,494.39	5,250.74	4,484.28	53.87	49.93	-92.21	-593.97	2,350.77	290.26	186.71	103.56	2.803	
5,300.00	4,577.37	5,350.38	4,564.02	55.11	51.15	-91.24	-609.08	2,408.58	297.10	191.11	105.98	2.803	
5,400.00	4,660.36	5,450.02	4,643.76	56.36	52.37	-90.32	-624.18	2,466.39	304.01	195.62	108.38	2.805	
5,500.00	4,743.34	5,549.67	4,723.50	57.60	53.59	-89.43	-639.29	2,524.19	310.99	200.23	110.76	2.808	
5,600.00	4,826.33	5,649.31	4,803.25	58.85	54.80	-88.59	-654.39	2,582.00	318.05	204.94	113.11	2.812	
5,700.00	4,909.31	5,748.95	4,882.99	60.09	56.02	-87.78	-669.49	2,639.81	325.18	209.73	115.45	2.817	
5,800.00	4,992.30	5,848.60	4,962.73	61.34	57.24	-87.00	-684.60	2,697.62	332.36	214.60	117.76	2.822	
5,900.00	5,075.28	5,948.24	5,042.47	62.58	58.45	-86.26	-699.70	2,755.42	339.61	219.55	120.06	2.829	
6,000.00	5,158.27	6,047.88	5,122.22	63.83	59.67	-85.55	-714.80	2,813.23	346.90	224.56	122.34	2.836	
6,100.00	5,241.25	6,147.52	5,201.96	65.08	60.89	-84.87	-729.91	2,871.04	354.25	229.65	124.61	2.843	
6,200.00	5,324.24	6,247.17	5,281.70	66.32	62.11	-84.22	-745.01	2,928.85	361.65	234.79	126.86	2.851	
6,300.00	5,407.22	6,346.81	5,361.44	67.57	63.32	-83.59	-760.11	2,986.65	369.09	239.99	129.10	2.859	
6,400.00	5,490.21	6,446.45	5,441.19	68.81	64.54	-82.99	-775.22	3,044.46	376.58	245.25	131.32	2.868	
6,500.00	5,573.19	6,546.10	5,520.93	70.06	65.76	-82.41	-790.32	3,102.27	384.10	250.56	133.54	2.876	
6,600.00	5,656.18	6,645.74	5,600.67	71.30	66.97	-81.86	-805.43	3,160.08	391.66	255.92	135.74	2.885	
6,700.00	5,739.16	6,745.38	5,680.41	72.55	68.19	-81.32	-820.53	3,217.89	399.26	261.33	137.93	2.895	
6,800.00	5,822.15	6,845.02	5,760.16	73.80	69.41	-80.81	-835.63	3,275.69	406.89	266.77	140.12	2.904	
6,900.00	5,905.13	6,944.67	5,839.90	75.04	70.63	-80.31	-850.74	3,333.50	414.55	272.26	142.29	2.913	
7,000.00	5,988.12	7,044.31	5,919.64	76.29	71.84	-79.83	-865.84	3,391.31	422.24	277.78	144.46	2.923	
7,100.00	6,071.10	7,143.95	5,999.38	77.54	73.06	-79.37	-880.94	3,449.12	429.96	283.35	146.61	2.933	
7,200.00	6,154.09	7,243.60	6,079.13	78.78	74.28	-78.92	-896.05	3,506.92	437.71	288.94	148.77	2.942	
7,300.00	6,237.07	7,343.24	6,158.87	80.03	75.50	-78.50	-911.15	3,564.73	445.48	294.57	150.91	2.952	
7,400.00	6,320.06	7,442.88	6,238.61	81.27	76.71	-78.08	-926.25	3,622.54	453.27	300.23	153.05	2.962	
7,500.00	6,403.04	7,542.52	6,318.35	82.52	77.93	-77.68	-941.36	3,680.35	461.09	305.91	155.18	2.971	
7,600.00	6,486.03	7,649.19	6,405.03	83.77	79.14	-77.53	-957.07	3,740.48	468.29	310.75	157.55	2.972	
7,700.00	6,569.01	7,757.07	6,496.05	85.01	80.24	-78.07	-971.70	3,796.48	473.79	313.56	160.23	2.957	
7,800.00	6,652.00	7,864.34	6,589.65	86.26	81.21	-79.28	-984.94	3,847.15	477.71	314.55	163.15	2.928	
7,900.00	6,734.98	7,970.34	6,684.88	87.51	82.05	-81.14	-996.69	3,892.14	480.38	314.16	166.23	2.890	
8,000.00	6,817.97	8,074.44	6,780.79	88.75	82.77	-83.59	-1,006.92	3,931.29	482.33	313.02	169.30	2.849	
8,064.68	6,871.64	8,140.50	6,842.73	89.56	83.16	-85.47	-1,012.72	3,953.49	483.50	312.30	171.20	2.824	
8,100.00	6,901.13	8,176.19	6,876.52	89.99	83.36	-86.57	-1,015.63	3,964.62	484.22	312.05	172.17	2.813	
8,200.00	6,986.52	8,276.33	6,972.39	91.12	83.84	-89.66	-1,022.93	3,992.55	486.82	312.39	174.43	2.791	
8,300.00	7,074.51	8,375.16	7,068.37	92.13	84.22	-92.70	-1,028.88	4,015.32	490.22	314.19	176.03	2.785 SF	
8,400.00	7,164.86	8,472.75	7,164.21	93.00	84.51	-95.66	-1,033.51	4,033.05	494.37	317.38	176.98	2.793	
8,500.00	7,257.33	8,569.13	7,259.67	93.75	84.71	-98.55	-1,036.87	4,045.90	499.20	321.88	177.32	2.815	
8,600.00	7,351.67	8,664.37	7,354.52	94.39	84.83	-101.34	-1,038.98	4,054.00	504.65	327.56	177.09	2.850	
8,700.00	7,447.61	8,758.50	7,448.57	94.92	84.89	-104.05	-1,039.90	4,057.50	510.64	334.29	176.35	2.896	
8,800.00	7,544.90	8,854.90	7,544.98	95.35	84.92	-106.61	-1,039.95	4,057.67	516.87	341.58	175.28	2.949	
8,900.00	7,643.26	8,953.37	7,643.45	95.69	84.95	-108.64	-1,039.98	4,057.64	522.36	348.08	174.29	2.997	
9,000.00	7,742.42	9,052.65	7,742.72	95.95	84.98	-110.07	-1,040.02	4,057.57	526.59	353.08	173.52	3.035	
9,100.00	7,842.12	9,152.45	7,842.53	96.14	85.01	-110.93	-1,040.08	4,057.47	529.19	356.12	173.07	3.058	
9,195.23	7,937.31	9,247.75	7,937.82	96.27	85.04	0.11	-1,040.17	4,057.35	529.96	356.95	173.01	3.063	
9,200.00	7,942.08	9,252.52	7,942.59	96.27	85.04	122.13	-1,040.17	4,057.34	529.96	356.94	173.02	3.063	
9,205.77	7,947.85	9,258.29	7,948.37	96.28	85.04	122.13	-1,040.18	4,057.33	529.96	356.94	173.02	3.063	
9,229.92	7,972.00	9,282.47	7,972.55	96.30	85.05	122.13	-1,040.20	4,057.30	529.99	356.93	173.06	3.062	
9,300.00	8,042.08	9,352.63	8,042.70	96.36	85.07	122.16	-1,040.28	4,057.18	530.13	356.96	173.17	3.061	
9,400.00	8,142.08	9,452.74	8,142.81	96.45	85.10	122.19	-1,040.41	4,056.99	530.33	357.00	173.33	3.060	
9,500.00	8,242.08	9,552.85	8,242.92	96.54	85.13	122.22	-1,040.55	4,056.77	530.50	357.02	173.49	3.058	
9,600.00	8,342.07	9,652.96	8,343.03	96.64	85.16	122.25	-1,040.72	4,056.52	530.66	357.02	173.64	3.056	
9,700.00	8,442.07	9,753.07	8,443.14	96.73	85.19	122.28	-1,040.91	4,056.23	530.79	357.00	173.79	3.054	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF10B-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
9,800.00	8,542.07	9,853.18	8,543.25	96.83	85.23	122.30	-1,041.12	4,055.92	530.90	356.96	173.94	3.052	
9,900.00	8,642.07	9,953.29	8,643.36	96.92	85.26	122.31	-1,041.35	4,055.57	530.99	356.90	174.09	3.050	
10,000.00	8,742.07	10,053.40	8,743.47	97.02	85.29	122.33	-1,041.60	4,055.19	531.06	356.83	174.24	3.048	
10,100.00	8,842.07	10,153.51	8,843.58	97.12	85.32	122.34	-1,041.87	4,054.79	531.11	356.73	174.39	3.046	
10,200.00	8,942.06	10,253.62	8,943.68	97.22	85.35	122.35	-1,042.17	4,054.35	531.14	356.61	174.53	3.043	
10,300.00	9,042.06	10,353.73	9,043.79	97.32	85.38	122.35	-1,042.48	4,053.88	531.15	356.48	174.67	3.041	
10,400.00	9,142.06	10,453.84	9,143.90	97.43	85.41	122.36	-1,042.81	4,053.38	531.14	356.33	174.81	3.038	
10,500.00	9,242.06	10,553.93	9,243.99	97.53	85.44	122.35	-1,043.17	4,052.84	531.11	356.16	174.95	3.036	
10,600.00	9,342.06	10,653.93	9,343.99	97.64	85.47	122.35	-1,043.53	4,052.30	531.07	355.98	175.09	3.033	
10,700.00	9,442.05	10,753.93	9,443.99	97.74	85.50	122.35	-1,043.89	4,051.76	531.03	355.80	175.23	3.030	
10,800.00	9,542.05	10,853.93	9,543.99	97.85	85.54	122.34	-1,044.25	4,051.22	530.99	355.61	175.37	3.028	
10,900.00	9,642.05	10,953.93	9,643.98	97.96	85.57	122.34	-1,044.61	4,050.68	530.95	355.43	175.52	3.025	
11,000.00	9,742.05	11,053.93	9,743.98	98.07	85.60	122.34	-1,044.97	4,050.14	530.91	355.24	175.66	3.022	
11,100.00	9,842.05	11,153.93	9,843.98	98.18	85.63	122.34	-1,045.33	4,049.59	530.87	355.06	175.81	3.020	
11,200.00	9,942.05	11,253.93	9,943.98	98.29	85.67	122.33	-1,045.69	4,049.05	530.83	354.87	175.96	3.017	
11,300.00	10,042.04	11,353.93	10,043.98	98.41	85.70	122.33	-1,046.06	4,048.51	530.79	354.68	176.11	3.014	
11,400.00	10,142.04	11,453.93	10,143.97	98.52	85.74	122.33	-1,046.42	4,047.97	530.74	354.49	176.26	3.011	
11,500.00	10,242.04	11,553.93	10,243.97	98.64	85.77	122.32	-1,046.78	4,047.43	530.70	354.29	176.41	3.008	
11,600.00	10,342.04	11,653.93	10,343.97	98.75	85.80	122.32	-1,047.14	4,046.88	530.66	354.10	176.57	3.005	
11,700.00	10,442.04	11,753.93	10,443.97	98.87	85.84	122.32	-1,047.50	4,046.34	530.62	353.90	176.72	3.003	
11,800.00	10,542.03	11,853.93	10,543.96	98.99	85.87	122.31	-1,047.86	4,045.80	530.58	353.70	176.88	3.000	
11,900.00	10,642.03	11,953.93	10,643.96	99.11	85.91	122.31	-1,048.22	4,045.26	530.54	353.50	177.04	2.997	
12,000.00	10,742.03	12,053.93	10,743.96	99.24	85.95	122.31	-1,048.58	4,044.72	530.50	353.30	177.20	2.994	
12,100.00	10,842.03	12,153.93	10,843.96	99.36	85.98	122.30	-1,048.94	4,044.17	530.46	353.10	177.37	2.991	
12,200.00	10,942.03	12,253.93	10,943.96	99.48	86.02	122.30	-1,049.30	4,043.63	530.42	352.89	177.53	2.988	
12,300.00	11,042.03	12,353.93	11,043.95	99.61	86.06	122.30	-1,049.67	4,043.09	530.38	352.69	177.70	2.985	
12,327.95	11,069.98	12,381.88	11,071.91	99.64	86.07	122.30	-1,049.77	4,042.94	530.37	352.63	177.74	2.984	
12,400.00	11,142.02	12,453.93	11,143.95	99.73	86.09	122.30	-1,050.03	4,042.55	530.34	352.48	177.86	2.982	
12,500.00	11,242.02	12,553.93	11,243.95	99.86	86.13	122.29	-1,050.39	4,042.01	530.30	352.27	178.03	2.979	
12,600.00	11,342.02	12,653.93	11,343.95	99.99	86.17	122.29	-1,050.75	4,041.47	530.26	352.06	178.20	2.976	
12,700.00	11,442.02	12,753.93	11,443.95	100.12	86.21	122.29	-1,051.11	4,040.92	530.22	351.85	178.38	2.973	
12,800.00	11,542.02	12,853.93	11,543.94	100.25	86.25	122.28	-1,051.47	4,040.38	530.18	351.63	178.55	2.969	
12,882.41	11,624.42	12,936.34	11,626.35	100.36	86.28	122.28	-1,051.77	4,039.94	530.15	351.46	178.69	2.967	
12,882.93	11,624.95	12,936.86	11,626.88	100.36	86.28	122.28	-1,051.77	4,039.93	530.15	351.45	178.69	2.967	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF10C-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	19.00	9.09	3.13	9.61				
100.00	100.00	100.00	100.00	0.12	0.12	19.00	9.09	3.13	9.61	9.38	0.24	40.555	
101.83	101.83	101.83	101.83	0.13	0.12	19.00	9.09	3.13	9.61	9.37	0.25	38.954 CC	
200.00	200.00	199.95	199.94	0.48	0.29	22.80	8.98	3.77	9.74	8.96	0.77	12.582 ES	
300.00	300.00	299.57	299.42	0.84	0.49	47.77	8.07	8.89	12.03	10.60	1.43	8.418	
400.00	399.95	398.69	397.98	1.19	0.75	-32.10	6.28	19.05	17.91	15.69	2.22	8.083	
500.00	499.63	497.42	495.50	1.55	1.07	-22.53	3.61	34.16	24.81	21.84	2.98	8.339	
600.00	598.78	595.86	591.83	1.92	1.47	-21.62	-0.52	53.98	32.04	28.33	3.71	8.644	
700.00	697.11	693.93	686.64	2.32	1.97	-20.80	-6.43	78.30	39.45	35.01	4.44	8.894	
800.00	794.38	791.63	779.70	2.77	2.55	-20.31	-14.07	107.00	46.92	41.75	5.17	9.078	
900.00	890.30	888.97	870.80	3.28	3.22	-20.10	-23.41	139.96	54.38	48.47	5.91	9.200	
1,000.00	984.62	985.96	959.73	3.86	3.99	-20.10	-34.41	177.06	61.79	55.12	6.67	9.261	
1,100.00	1,077.08	1,082.61	1,046.29	4.52	4.84	-20.25	-47.02	218.15	69.13	61.67	7.46	9.265	
1,200.00	1,167.42	1,178.94	1,130.28	5.29	5.79	-20.52	-61.20	263.10	76.37	68.08	8.29	9.213	
1,300.00	1,255.40	1,274.95	1,211.54	6.18	6.82	-20.87	-76.89	311.76	83.49	74.33	9.17	9.107	
1,400.00	1,340.78	1,372.93	1,292.16	7.19	7.92	-21.49	-94.23	364.68	89.80	79.75	10.05	8.936	
1,435.17	1,370.15	1,408.07	1,320.97	7.57	8.32	-21.97	-100.50	383.79	91.05	80.67	10.39	8.767	
1,500.00	1,423.95	1,472.86	1,374.09	8.31	9.06	-22.88	-112.07	419.03	92.84	81.78	11.06	8.392	
1,600.00	1,506.93	1,572.80	1,456.03	9.46	10.19	-24.22	-129.92	473.40	95.65	83.45	12.20	7.843	
1,700.00	1,589.92	1,672.73	1,537.97	10.64	11.33	-25.48	-147.77	527.76	98.50	85.08	13.42	7.337	
1,800.00	1,672.90	1,772.67	1,619.90	11.83	12.47	-26.67	-165.61	582.12	101.40	86.66	14.74	6.879	
1,900.00	1,755.89	1,872.61	1,701.84	13.03	13.61	-27.79	-183.46	636.48	104.34	88.21	16.13	6.467	
2,000.00	1,838.87	1,972.54	1,783.78	14.24	14.76	-28.85	-201.30	690.84	107.32	89.72	17.60	6.099	
2,100.00	1,921.85	2,072.48	1,865.71	15.46	15.90	-29.86	-219.15	745.20	110.33	91.21	19.12	5.771	
2,200.00	2,004.84	2,172.42	1,947.65	16.68	17.05	-30.81	-237.00	799.56	113.37	92.68	20.70	5.478	
2,300.00	2,087.82	2,272.35	2,029.59	17.90	18.19	-31.71	-254.84	853.92	116.45	94.13	22.32	5.217	
2,400.00	2,170.81	2,372.29	2,111.53	19.13	19.34	-32.56	-272.69	908.28	119.55	95.56	23.99	4.983	
2,500.00	2,253.79	2,472.23	2,193.46	20.36	20.49	-33.37	-290.53	962.65	122.67	96.98	25.70	4.774	
2,600.00	2,336.78	2,572.16	2,275.40	21.59	21.63	-34.14	-308.38	1,017.01	125.82	98.39	27.44	4.586	
2,700.00	2,419.76	2,672.10	2,357.34	22.82	22.78	-34.87	-326.23	1,071.37	129.00	99.79	29.21	4.416	
2,800.00	2,502.75	2,772.04	2,439.27	24.06	23.93	-35.57	-344.07	1,125.73	132.19	101.18	31.01	4.263	
2,900.00	2,585.73	2,871.97	2,521.21	25.29	25.08	-36.23	-361.92	1,180.09	135.40	102.56	32.83	4.124	
3,000.00	2,668.72	2,971.91	2,603.15	26.53	26.22	-36.87	-379.76	1,234.45	138.62	103.95	34.68	3.997	
3,100.00	2,751.70	3,071.85	2,685.08	27.77	27.37	-37.47	-397.61	1,288.81	141.87	105.32	36.55	3.882	
3,200.00	2,834.69	3,171.78	2,767.02	29.01	28.52	-38.05	-415.46	1,343.17	145.13	106.70	38.43	3.776	
3,300.00	2,917.67	3,271.72	2,848.96	30.25	29.67	-38.60	-433.30	1,397.54	148.40	108.07	40.33	3.679	
3,400.00	3,000.66	3,371.65	2,930.90	31.49	30.82	-39.13	-451.15	1,451.90	151.68	109.43	42.25	3.590	
3,500.00	3,083.64	3,471.59	3,012.83	32.73	31.97	-39.64	-468.99	1,506.26	154.98	110.80	44.18	3.508	
3,600.00	3,166.63	3,571.53	3,094.77	33.97	33.12	-40.12	-486.84	1,560.62	158.29	112.17	46.12	3.432	
3,700.00	3,249.61	3,671.46	3,176.71	35.21	34.27	-40.58	-504.69	1,614.98	161.61	113.53	48.08	3.361	
3,800.00	3,332.60	3,771.40	3,258.64	36.45	35.41	-41.03	-522.53	1,669.34	164.94	114.90	50.04	3.296	
3,900.00	3,415.58	3,871.34	3,340.58	37.70	36.56	-41.46	-540.38	1,723.70	168.28	116.26	52.02	3.235	
4,000.00	3,498.57	3,971.27	3,422.52	38.94	37.71	-41.87	-558.23	1,778.06	171.63	117.63	54.00	3.178	
4,100.00	3,581.55	4,071.21	3,504.45	40.18	38.86	-42.27	-576.07	1,832.43	174.99	118.99	56.00	3.125	
4,200.00	3,664.54	4,171.15	3,586.39	41.42	40.01	-42.65	-593.92	1,886.79	178.36	120.36	58.00	3.075	
4,300.00	3,747.52	4,271.08	3,668.33	42.67	41.16	-43.01	-611.76	1,941.15	181.73	121.72	60.00	3.029	
4,400.00	3,830.51	4,371.02	3,750.27	43.91	42.31	-43.37	-629.61	1,995.51	185.11	123.09	62.02	2.985	
4,500.00	3,913.49	4,470.96	3,832.20	45.16	43.46	-43.71	-647.46	2,049.87	188.50	124.46	64.04	2.943	
4,600.00	3,996.48	4,570.89	3,914.14	46.40	44.61	-44.04	-665.30	2,104.23	191.89	125.83	66.06	2.905	
4,700.00	4,079.46	4,670.83	3,996.08	47.64	45.76	-44.35	-683.15	2,158.59	195.29	127.19	68.10	2.868	
4,800.00	4,162.45	4,770.76	4,078.01	48.89	46.91	-44.66	-700.99	2,212.95	198.70	128.56	70.13	2.833	
4,900.00	4,245.43	4,870.70	4,159.95	50.13	48.06	-44.96	-718.84	2,267.31	202.11	129.94	72.17	2.800	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF10C-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.00	4,328.42	4,970.64	4,241.89	51.38	49.21	-45.24	-736.69	2,321.68	205.52	131.31	74.22	2.769	
5,100.00	4,411.40	5,070.57	4,323.82	52.62	50.36	-45.52	-754.53	2,376.04	208.94	132.68	76.26	2.740	
5,200.00	4,494.39	5,170.51	4,405.76	53.87	51.51	-45.79	-772.38	2,430.40	212.37	134.05	78.32	2.712	
5,300.00	4,577.37	5,270.45	4,487.70	55.11	52.66	-46.05	-790.22	2,484.76	215.80	135.43	80.37	2.685	
5,400.00	4,660.36	5,370.38	4,569.64	56.36	53.80	-46.30	-808.07	2,539.12	219.23	136.81	82.43	2.660	
5,500.00	4,743.34	5,470.32	4,651.57	57.60	54.95	-46.54	-825.92	2,593.48	222.67	138.18	84.49	2.635	
5,600.00	4,826.33	5,570.26	4,733.51	58.85	56.10	-46.78	-843.76	2,647.84	226.12	139.56	86.56	2.612	
5,700.00	4,909.31	5,670.19	4,815.45	60.09	57.25	-47.01	-861.61	2,702.20	229.56	140.94	88.62	2.590	
5,800.00	4,992.30	5,770.13	4,897.38	61.34	58.40	-47.23	-879.45	2,756.57	233.01	142.32	90.69	2.569	
5,900.00	5,075.28	5,870.07	4,979.32	62.58	59.55	-47.44	-897.30	2,810.93	236.47	143.70	92.76	2.549	
6,000.00	5,158.27	5,970.00	5,061.26	63.83	60.70	-47.65	-915.15	2,865.29	239.92	145.08	94.84	2.530	
6,100.00	5,241.25	6,069.94	5,143.19	65.08	61.85	-47.86	-932.99	2,919.65	243.38	146.47	96.91	2.511	
6,200.00	5,324.24	6,169.88	5,225.13	66.32	63.00	-48.06	-950.84	2,974.01	246.85	147.85	98.99	2.494	
6,300.00	5,407.22	6,269.81	5,307.07	67.57	64.15	-48.25	-968.69	3,028.37	250.31	149.24	101.07	2.477	
6,400.00	5,490.21	6,369.75	5,389.01	68.81	65.30	-48.43	-986.53	3,082.73	253.78	150.62	103.15	2.460	
6,500.00	5,573.19	6,469.68	5,470.94	70.06	66.45	-48.62	-1,004.38	3,137.09	257.25	152.01	105.24	2.444	
6,600.00	5,656.18	6,569.62	5,552.88	71.30	67.60	-48.79	-1,022.22	3,191.46	260.72	153.40	107.32	2.429	
6,700.00	5,739.16	6,669.56	5,634.82	72.55	68.75	-48.97	-1,040.07	3,245.82	264.20	154.79	109.41	2.415	
6,800.00	5,822.15	6,769.49	5,716.75	73.80	69.90	-49.13	-1,057.92	3,300.18	267.68	156.18	111.50	2.401	
6,900.00	5,905.13	6,869.43	5,798.69	75.04	71.05	-49.30	-1,075.76	3,354.54	271.16	157.57	113.59	2.387	
7,000.00	5,988.12	6,969.37	5,880.63	76.29	72.20	-49.46	-1,093.61	3,408.90	274.64	158.96	115.68	2.374	
7,100.00	6,071.10	7,069.30	5,962.56	77.54	73.35	-49.61	-1,111.45	3,463.26	278.13	160.36	117.77	2.362	
7,200.00	6,154.09	7,169.24	6,044.50	78.78	74.50	-49.77	-1,129.30	3,517.62	281.61	161.75	119.86	2.349	
7,300.00	6,237.07	7,269.18	6,126.44	80.03	75.65	-49.91	-1,147.15	3,571.98	285.10	163.15	121.95	2.338	
7,400.00	6,320.06	7,369.11	6,208.38	81.27	76.80	-50.06	-1,164.99	3,626.35	288.59	164.54	124.05	2.326	
7,500.00	6,403.04	7,469.05	6,290.31	82.52	77.95	-50.20	-1,182.84	3,680.71	292.08	165.94	126.15	2.315	
7,600.00	6,486.03	7,570.22	6,373.28	83.77	79.11	-50.34	-1,200.89	3,735.71	295.55	167.29	128.27	2.304	
7,700.00	6,569.01	7,681.72	6,466.89	85.01	80.26	-51.06	-1,219.78	3,793.24	296.69	165.42	131.27	2.260	
7,800.00	6,652.00	7,792.63	6,563.34	86.26	81.28	-52.71	-1,236.85	3,845.22	294.08	158.59	135.49	2.170	
7,900.00	6,734.98	7,902.20	6,661.60	87.51	82.16	-55.36	-1,251.96	3,891.27	288.13	147.17	140.97	2.044	
8,000.00	6,817.97	8,009.76	6,760.60	88.75	82.90	-59.10	-1,265.07	3,931.19	279.52	131.85	147.67	1.893	
8,064.68	6,871.64	8,077.97	6,824.54	89.56	83.30	-62.14	-1,272.47	3,953.74	272.99	120.38	152.60	1.789	
8,100.00	6,901.13	8,114.80	6,859.41	89.99	83.51	-63.86	-1,276.17	3,965.01	269.39	114.01	155.38	1.734	
8,200.00	6,986.52	8,218.04	6,958.29	91.12	84.00	-68.97	-1,285.42	3,993.17	260.42	97.63	162.78	1.600	
8,300.00	7,074.51	8,319.82	7,057.20	92.13	84.39	-74.37	-1,292.88	4,015.92	253.40	84.19	169.22	1.497 Level 3	
8,400.00	7,164.86	8,420.17	7,155.84	93.00	84.68	-80.00	-1,298.63	4,033.42	248.56	74.25	174.31	1.426 Level 3	
8,500.00	7,257.33	8,519.17	7,253.95	93.75	84.88	-85.76	-1,302.71	4,045.84	246.03	68.29	177.74	1.384 Level 3	
8,556.81	7,310.71	8,574.82	7,309.37	94.12	84.95	-89.05	-1,304.30	4,050.69	245.64	66.80	178.84	1.374 Level 3	
8,600.00	7,351.67	8,616.86	7,351.32	94.39	85.00	-91.54	-1,305.17	4,053.34	245.86	66.56	179.30	1.371 Level 3, SF	
8,700.00	7,447.61	8,713.30	7,447.70	94.92	85.04	-97.24	-1,306.07	4,056.10	248.04	69.05	178.98	1.386 Level 3	
8,800.00	7,544.90	8,810.55	7,544.95	95.35	85.07	-102.44	-1,306.09	4,056.11	252.07	74.85	177.22	1.422 Level 3	
8,900.00	7,643.26	8,908.96	7,643.37	95.69	85.10	-106.44	-1,306.12	4,056.07	256.59	81.55	175.04	1.466 Level 3	
9,000.00	7,742.42	9,008.18	7,742.58	95.95	85.13	-109.25	-1,306.17	4,055.99	260.50	87.36	173.14	1.505	
9,100.00	7,842.12	9,107.93	7,842.33	96.14	85.16	-110.90	-1,306.23	4,055.89	263.04	91.12	171.92	1.530	
9,195.23	7,937.31	9,203.17	7,937.57	96.27	85.19	-0.11	-1,306.32	4,055.76	263.81	92.22	171.59	1.537	
9,200.00	7,942.08	9,207.94	7,942.34	96.27	85.19	121.90	-1,306.32	4,055.76	263.81	92.21	171.60	1.537	
9,206.19	7,948.27	9,214.14	7,948.54	96.28	85.20	121.90	-1,306.33	4,055.75	263.81	92.20	171.60	1.537	
9,229.92	7,972.00	9,237.88	7,972.28	96.30	85.20	121.90	-1,306.36	4,055.71	263.83	92.19	171.64	1.537	
9,300.00	8,042.08	9,308.00	8,042.40	96.36	85.22	121.96	-1,306.44	4,055.59	263.98	92.19	171.78	1.537	
9,400.00	8,142.08	9,408.05	8,142.45	96.45	85.26	122.03	-1,306.57	4,055.39	264.17	92.19	171.98	1.536	
9,500.00	8,242.08	9,508.10	8,242.51	96.54	85.29	122.09	-1,306.72	4,055.17	264.34	92.17	172.17	1.535	
9,600.00	8,342.07	9,608.16	8,342.56	96.64	85.32	122.14	-1,306.89	4,054.91	264.48	92.14	172.35	1.535	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF10C-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
9,700.00	8,442.07	9,708.21	8,442.61	96.73	85.35	122.19	-1,307.08	4,054.62	264.61	92.09	172.53	1.534	
9,800.00	8,542.07	9,808.27	8,542.67	96.83	85.38	122.23	-1,307.30	4,054.30	264.72	92.02	172.70	1.533	
9,900.00	8,642.07	9,908.32	8,642.72	96.92	85.41	122.27	-1,307.53	4,053.94	264.81	91.94	172.86	1.532	
10,000.00	8,742.07	10,008.38	8,742.77	97.02	85.44	122.30	-1,307.79	4,053.56	264.88	91.85	173.03	1.531	
10,100.00	8,842.07	10,108.43	8,842.83	97.12	85.47	122.32	-1,308.06	4,053.15	264.92	91.74	173.18	1.530	
10,200.00	8,942.06	10,208.49	8,942.88	97.22	85.50	122.33	-1,308.36	4,052.70	264.95	91.61	173.33	1.529	
10,300.00	9,042.06	10,308.54	9,042.94	97.32	85.53	122.34	-1,308.67	4,052.23	264.95	91.47	173.48	1.527	
10,400.00	9,142.06	10,408.60	9,142.99	97.43	85.56	122.34	-1,309.01	4,051.72	264.93	91.31	173.62	1.526	
10,500.00	9,242.06	10,508.63	9,243.02	97.53	85.60	122.34	-1,309.37	4,051.18	264.90	91.14	173.76	1.525	
10,600.00	9,342.06	10,608.63	9,343.02	97.64	85.63	122.33	-1,309.73	4,050.64	264.86	90.97	173.89	1.523	
10,700.00	9,442.05	10,708.63	9,443.02	97.74	85.66	122.32	-1,310.09	4,050.10	264.82	90.79	174.03	1.522	
10,800.00	9,542.05	10,808.63	9,543.02	97.85	85.69	122.32	-1,310.45	4,049.56	264.78	90.61	174.17	1.520	
10,900.00	9,642.05	10,908.63	9,643.01	97.96	85.72	122.31	-1,310.81	4,049.02	264.74	90.43	174.31	1.519	
11,000.00	9,742.05	11,008.63	9,743.01	98.07	85.76	122.31	-1,311.17	4,048.47	264.70	90.24	174.45	1.517	
11,100.00	9,842.05	11,108.63	9,843.01	98.18	85.79	122.30	-1,311.53	4,047.93	264.66	90.06	174.60	1.516	
11,200.00	9,942.05	11,208.63	9,943.01	98.29	85.82	122.29	-1,311.90	4,047.39	264.62	89.87	174.74	1.514	
11,300.00	10,042.04	11,308.63	10,043.01	98.41	85.86	122.29	-1,312.26	4,046.85	264.58	89.69	174.89	1.513	
11,400.00	10,142.04	11,408.63	10,143.00	98.52	85.89	122.28	-1,312.62	4,046.31	264.54	89.50	175.04	1.511	
11,500.00	10,242.04	11,508.63	10,243.00	98.64	85.92	122.28	-1,312.98	4,045.76	264.50	89.31	175.19	1.510	
11,600.00	10,342.04	11,608.63	10,343.00	98.75	85.96	122.27	-1,313.34	4,045.22	264.46	89.11	175.34	1.508	
11,700.00	10,442.04	11,708.63	10,443.00	98.87	85.99	122.26	-1,313.70	4,044.68	264.42	88.92	175.50	1.507	
11,800.00	10,542.03	11,808.63	10,542.99	98.99	86.03	122.26	-1,314.06	4,044.14	264.38	88.73	175.65	1.505	
11,900.00	10,642.03	11,908.63	10,642.99	99.11	86.07	122.25	-1,314.42	4,043.60	264.34	88.53	175.81	1.504	
12,000.00	10,742.03	12,008.63	10,742.99	99.24	86.10	122.24	-1,314.78	4,043.05	264.30	88.33	175.97	1.502	
12,100.00	10,842.03	12,108.63	10,842.99	99.36	86.14	122.24	-1,315.14	4,042.51	264.26	88.13	176.13	1.500	
12,200.00	10,942.03	12,208.63	10,942.99	99.48	86.17	122.23	-1,315.50	4,041.97	264.22	87.93	176.29	1.499 Level 3	
12,300.00	11,042.03	12,308.63	11,042.98	99.61	86.21	122.23	-1,315.87	4,041.43	264.18	87.72	176.45	1.497 Level 3	
12,327.95	11,069.98	12,336.59	11,070.94	99.64	86.22	122.22	-1,315.97	4,041.28	264.17	87.67	176.50	1.497 Level 3	
12,400.00	11,142.02	12,408.63	11,142.98	99.73	86.25	122.22	-1,316.23	4,040.89	264.14	87.52	176.62	1.496 Level 3	
12,500.00	11,242.02	12,508.63	11,242.98	99.86	86.29	122.21	-1,316.59	4,040.34	264.10	87.31	176.78	1.494 Level 3	
12,600.00	11,342.02	12,608.63	11,342.98	99.99	86.33	122.21	-1,316.95	4,039.80	264.06	87.11	176.95	1.492 Level 3	
12,700.00	11,442.02	12,708.63	11,442.98	100.12	86.36	122.20	-1,317.31	4,039.26	264.02	86.90	177.12	1.491 Level 3	
12,800.00	11,542.02	12,808.63	11,542.97	100.25	86.40	122.20	-1,317.67	4,038.72	263.98	86.69	177.29	1.489 Level 3	
12,882.41	11,624.42	12,891.04	11,625.38	100.36	86.43	122.19	-1,317.97	4,038.27	263.94	86.51	177.43	1.488 Level 3	
12,882.93	11,624.95	12,891.57	11,625.91	100.36	86.44	122.19	-1,317.97	4,038.27	263.94	86.51	177.43	1.488 Level 3	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF10C-04 H04 596 - DD - Plan #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-119.49	-7.08	-12.52	14.38					
100.00	100.00	100.00	100.00	0.12	0.12	-119.49	-7.08	-12.52	14.38	14.14	0.24	60.662		
200.00	200.00	200.00	200.00	0.48	0.29	-119.49	-7.08	-12.52	14.38	13.61	0.77	18.673		
203.33	203.33	203.33	203.33	0.49	0.30	-119.49	-7.08	-12.52	14.38	13.59	0.79	18.251 CC		
300.00	300.00	299.80	299.79	0.84	0.47	-119.57	-7.27	-12.81	14.73	13.41	1.31	11.221 ES		
400.00	399.95	399.19	399.15	1.19	0.64	144.72	-8.77	-15.12	19.57	17.68	1.89	10.368 SF		
500.00	499.63	497.71	497.52	1.55	0.84	151.37	-11.74	-19.70	31.67	29.19	2.48	12.775		
600.00	598.78	594.71	594.17	1.92	1.05	151.80	-16.11	-26.42	50.91	47.84	3.07	16.577		
700.00	697.11	689.58	688.48	2.32	1.28	152.97	-21.75	-35.12	76.97	73.31	3.66	21.022		
800.00	794.38	781.79	779.84	2.77	1.54	153.90	-28.55	-45.57	109.70	105.45	4.25	25.794		
900.00	890.30	870.82	867.72	3.28	1.83	154.50	-36.32	-57.54	148.89	144.05	4.85	30.717		
1,000.00	984.62	956.24	951.67	3.86	2.13	154.82	-44.89	-70.73	194.27	188.82	5.44	35.683		
1,100.00	1,077.08	1,037.65	1,031.32	4.52	2.45	154.91	-54.07	-84.87	245.53	239.48	6.04	40.625		
1,200.00	1,167.42	1,114.76	1,106.38	5.29	2.78	154.80	-63.67	-99.66	302.35	295.70	6.64	45.510		
1,300.00	1,255.40	1,187.32	1,176.66	6.18	3.12	154.52	-73.51	-114.81	364.38	357.14	7.24	50.303		
1,400.00	1,340.78	1,255.15	1,242.00	7.19	3.46	154.05	-83.41	-130.05	431.27	423.43	7.84	54.991		
1,435.17	1,370.15	1,277.85	1,263.80	7.57	3.58	153.85	-86.87	-135.38	455.89	447.83	8.06	56.575		
1,500.00	1,423.95	1,318.78	1,302.98	8.31	3.80	154.43	-93.30	-145.29	501.99	493.56	8.43	59.537		
1,600.00	1,506.93	1,380.47	1,361.79	9.46	4.14	155.06	-103.46	-160.93	573.97	564.96	9.00	63.744		
1,700.00	1,589.92	1,440.46	1,418.65	10.64	4.50	155.48	-113.86	-176.95	646.93	637.35	9.58	67.532		
1,800.00	1,672.90	1,500.00	1,474.77	11.83	4.87	155.75	-124.70	-193.63	720.81	710.65	10.16	70.953		
1,900.00	1,755.89	1,592.61	1,561.88	13.03	5.43	155.88	-143.63	-218.71	794.04	782.99	11.05	71.866		
2,000.00	1,838.87	1,694.48	1,657.72	14.24	6.04	155.64	-168.29	-242.81	864.75	852.65	12.11	71.420		
2,100.00	1,921.85	1,772.65	1,731.18	15.46	6.51	155.33	-189.22	-259.43	933.69	920.70	12.99	71.898		
2,200.00	2,004.84	1,845.05	1,799.22	16.68	6.95	155.08	-208.66	-274.78	1,002.59	988.77	13.82	72.536		
2,300.00	2,087.82	1,917.46	1,867.26	17.90	7.39	154.86	-228.10	-290.12	1,071.50	1,056.83	14.67	73.055		
2,400.00	2,170.81	1,989.87	1,935.30	19.13	7.83	154.67	-247.54	-305.47	1,140.42	1,124.90	15.52	73.477		
2,500.00	2,253.79	2,062.28	2,003.34	20.36	8.28	154.50	-266.98	-320.82	1,209.34	1,192.96	16.38	73.823		
2,600.00	2,336.78	2,134.69	2,071.38	21.59	8.73	154.35	-286.43	-336.16	1,278.27	1,261.02	17.25	74.110		
2,700.00	2,419.76	2,207.10	2,139.42	22.82	9.17	154.21	-305.87	-351.51	1,347.20	1,329.08	18.12	74.350		
2,800.00	2,502.75	2,279.51	2,207.46	24.06	9.62	154.09	-325.31	-366.85	1,416.14	1,397.14	19.00	74.548		
2,900.00	2,585.73	2,351.92	2,275.50	25.29	10.07	153.98	-344.75	-382.20	1,485.08	1,465.20	19.88	74.715		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													H04 596 Pad - UWF10E-04 H04 596 - DD - Plan #2		Offset Site Error:		0.00 usft
Survey Program: O-MWD													Offset Well Error:		0.00 usft		
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor					
0.00	0.00	0.00	0.00	0.00	0.00	-139.16	-17.20	-14.86	22.73								
100.00	100.00	100.00	100.00	0.12	0.12	-139.16	-17.20	-14.86	22.73	22.49	0.24	95.893					
200.00	200.00	200.00	200.00	0.48	0.29	-139.16	-17.20	-14.86	22.73	21.96	0.77	29.517					
300.00	300.00	300.00	300.00	0.84	0.47	-139.16	-17.20	-14.86	22.73	21.43	1.30	17.443	CC, ES				
400.00	399.95	398.62	398.57	1.19	0.64	126.24	-18.88	-16.77	26.75	24.84	1.92	13.957	SF				
500.00	499.63	495.95	495.61	1.55	0.85	135.45	-23.84	-22.40	39.63	37.02	2.61	15.192					
600.00	598.78	590.88	589.75	1.92	1.11	137.75	-31.82	-31.45	61.49	58.19	3.30	18.635					
700.00	697.11	682.48	679.93	2.32	1.42	139.77	-42.44	-43.50	91.72	87.74	3.98	23.067					
800.00	794.38	769.97	765.25	2.77	1.79	140.95	-55.24	-58.02	129.88	125.24	4.65	27.959					
900.00	890.30	852.73	845.05	3.28	2.20	141.49	-69.72	-74.44	175.46	170.15	5.31	33.038					
1,000.00	984.62	930.30	918.92	3.86	2.63	141.57	-85.36	-92.17	227.90	221.93	5.97	38.184					
1,100.00	1,077.08	1,007.10	991.20	4.52	3.09	141.43	-102.51	-111.63	286.29	279.71	6.58	43.489					
1,200.00	1,167.42	1,085.08	1,064.48	5.29	3.57	141.40	-120.15	-131.64	348.32	341.12	7.20	48.397					
1,300.00	1,255.40	1,160.18	1,135.05	6.18	4.04	141.33	-137.13	-150.91	413.60	405.75	7.85	52.661					
1,400.00	1,340.78	1,232.19	1,202.72	7.19	4.49	141.18	-153.42	-169.38	482.06	473.52	8.55	56.406					
1,435.17	1,370.15	1,256.74	1,225.79	7.57	4.64	141.10	-158.98	-175.68	506.88	498.08	8.80	57.580					
1,500.00	1,423.95	1,310.21	1,276.06	8.31	4.97	142.40	-171.39	-189.02	552.77	543.45	9.31	59.342					
1,600.00	1,506.93	1,401.22	1,361.69	9.46	5.53	143.83	-194.71	-209.13	621.88	611.64	10.24	60.755					
1,700.00	1,589.92	1,491.92	1,446.97	10.64	6.07	144.57	-220.61	-225.91	688.67	677.43	11.24	61.247					
1,800.00	1,672.90	1,566.82	1,517.36	11.83	6.53	144.99	-242.67	-238.95	754.80	742.64	12.16	62.080					
1,900.00	1,755.89	1,641.73	1,587.75	13.03	6.98	145.35	-264.72	-251.98	820.95	807.86	13.09	62.739					
2,000.00	1,838.87	1,716.64	1,658.14	14.24	7.44	145.65	-286.78	-265.02	887.11	873.09	14.02	63.268					
2,100.00	1,921.85	1,791.54	1,728.52	15.46	7.90	145.90	-308.83	-278.05	953.29	938.32	14.97	63.696					
2,200.00	2,004.84	1,866.45	1,798.91	16.68	8.37	146.13	-330.89	-291.09	1,019.48	1,003.56	15.92	64.047					
2,300.00	2,087.82	1,941.36	1,869.30	17.90	8.83	146.33	-352.95	-304.12	1,085.67	1,068.79	16.87	64.339					
2,400.00	2,170.81	2,016.27	1,939.69	19.13	9.29	146.50	-375.00	-317.16	1,151.87	1,134.03	17.84	64.584					
2,500.00	2,253.79	2,091.17	2,010.08	20.36	9.76	146.66	-397.06	-330.19	1,218.07	1,199.27	18.80	64.791					
2,600.00	2,336.78	2,166.08	2,080.47	21.59	10.22	146.80	-419.12	-343.23	1,284.28	1,264.51	19.77	64.967					
2,700.00	2,419.76	2,240.99	2,150.86	22.82	10.69	146.92	-441.17	-356.26	1,350.50	1,329.76	20.74	65.119					
2,800.00	2,502.75	2,315.89	2,221.25	24.06	11.15	147.04	-463.23	-369.30	1,416.71	1,395.00	21.71	65.251					
2,900.00	2,585.73	2,390.80	2,291.64	25.29	11.62	147.14	-485.28	-382.33	1,482.93	1,460.25	22.69	65.365					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF12A-03 H04 596 - DD - Plan #3												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	15.43	28.34	7.82	29.40				
100.00	100.00	100.00	100.00	0.12	0.12	15.43	28.34	7.82	29.40	29.16	0.24	124.017	
200.00	200.00	200.00	200.00	0.48	0.29	15.43	28.34	7.82	29.40	28.63	0.77	38.174	
300.00	300.00	300.00	300.00	0.84	0.47	15.43	28.34	7.82	29.40	28.09	1.30	22.559	
400.00	399.95	399.95	399.95	1.19	0.64	-89.68	28.34	7.82	29.26	27.44	1.83	16.009	
403.11	403.06	403.06	403.06	1.20	0.65	-90.00	28.34	7.82	29.26	27.42	1.84	15.866 CC, ES	
500.00	499.63	499.63	499.63	1.55	0.81	-104.63	28.34	7.82	30.25	27.90	2.36	12.840	
600.00	598.78	600.28	600.24	1.92	0.99	-126.72	26.93	10.05	34.18	31.24	2.94	11.634	
700.00	697.11	701.42	701.05	2.32	1.20	-143.04	22.68	16.80	40.18	36.57	3.61	11.138	
800.00	794.38	803.04	801.77	2.77	1.46	-155.31	15.56	28.13	47.64	43.32	4.32	11.031 SF	
900.00	890.30	905.14	902.11	3.28	1.79	-164.79	5.54	44.06	56.13	51.10	5.04	11.146	
1,000.00	984.62	1,006.73	1,000.86	3.86	2.20	-172.30	-7.15	64.22	65.61	59.91	5.70	11.516	
1,100.00	1,077.08	1,105.53	1,096.57	4.52	2.62	-177.85	-20.22	84.98	79.59	73.35	6.24	12.757	
1,200.00	1,167.42	1,203.46	1,191.43	5.29	3.05	178.46	-33.16	105.56	99.14	92.32	6.82	14.532	
1,300.00	1,255.40	1,300.25	1,285.19	6.18	3.48	176.18	-45.96	125.90	123.97	116.53	7.44	16.666	
1,400.00	1,340.78	1,395.64	1,377.59	7.19	3.92	174.83	-58.57	145.94	153.88	145.80	8.08	19.056	
1,435.17	1,370.15	1,428.80	1,409.72	7.57	4.07	174.50	-62.96	152.90	165.57	157.27	8.31	19.931	
1,500.00	1,423.95	1,489.74	1,468.74	8.31	4.35	174.22	-71.01	165.71	187.69	178.97	8.72	21.518	
1,600.00	1,506.93	1,583.73	1,559.79	9.46	4.78	173.90	-83.44	185.46	221.82	212.45	9.37	23.670	
1,700.00	1,589.92	1,677.72	1,650.84	10.64	5.22	173.66	-95.86	205.20	255.95	245.92	10.03	25.512	
1,800.00	1,672.90	1,771.71	1,741.89	11.83	5.66	173.48	-108.29	224.95	290.08	279.38	10.70	27.102	
1,900.00	1,755.89	1,865.70	1,832.94	13.03	6.10	173.34	-120.72	244.70	324.22	312.84	11.38	28.484	
2,000.00	1,838.87	1,959.69	1,923.99	14.24	6.54	173.22	-133.14	264.45	358.36	346.29	12.07	29.695	
2,100.00	1,921.85	2,053.68	2,015.03	15.46	6.98	173.13	-145.57	284.20	392.49	379.73	12.76	30.761	
2,200.00	2,004.84	2,147.67	2,106.08	16.68	7.42	173.05	-158.00	303.95	426.63	413.18	13.46	31.707	
2,300.00	2,087.82	2,241.66	2,197.13	17.90	7.86	172.98	-170.42	323.69	460.77	446.61	14.16	32.551	
2,400.00	2,170.81	2,335.65	2,288.18	19.13	8.31	172.92	-182.85	343.44	494.91	480.05	14.86	33.307	
2,500.00	2,253.79	2,429.64	2,379.23	20.36	8.75	172.87	-195.28	363.19	529.05	513.48	15.57	33.989	
2,600.00	2,336.78	2,523.63	2,470.28	21.59	9.20	172.82	-207.70	382.94	563.19	546.92	16.27	34.606	
2,700.00	2,419.76	2,617.63	2,561.33	22.82	9.64	172.78	-220.13	402.69	597.33	580.35	16.99	35.167	
2,800.00	2,502.75	2,711.62	2,652.37	24.06	10.08	172.75	-232.55	422.44	631.47	613.77	17.70	35.678	
2,900.00	2,585.73	2,805.61	2,743.42	25.29	10.53	172.72	-244.98	442.18	665.61	647.20	18.41	36.147	
3,000.00	2,668.72	2,899.60	2,834.47	26.53	10.97	172.69	-257.41	461.93	699.75	680.62	19.13	36.578	
3,100.00	2,751.70	2,993.59	2,925.52	27.77	11.42	172.66	-269.83	481.68	733.90	714.05	19.85	36.975	
3,200.00	2,834.69	3,087.58	3,016.57	29.01	11.87	172.64	-282.26	501.43	768.04	747.47	20.57	37.342	
3,300.00	2,917.67	3,181.57	3,107.62	30.25	12.31	172.62	-294.69	521.18	802.18	780.89	21.29	37.683	
3,400.00	3,000.66	3,275.56	3,198.67	31.49	12.76	172.60	-307.11	540.93	836.32	814.31	22.01	37.999	
3,500.00	3,083.64	3,369.55	3,289.72	32.73	13.20	172.58	-319.54	560.67	870.46	847.73	22.73	38.294	
3,600.00	3,166.63	3,463.54	3,380.76	33.97	13.65	172.56	-331.97	580.42	904.60	881.15	23.45	38.570	
3,700.00	3,249.61	3,557.53	3,471.81	35.21	14.09	172.54	-344.39	600.17	938.75	914.57	24.18	38.827	
3,800.00	3,332.60	3,651.52	3,562.86	36.45	14.54	172.53	-356.82	619.92	972.89	947.99	24.90	39.069	
3,900.00	3,415.58	3,745.52	3,653.91	37.70	14.99	172.52	-369.24	639.67	1,007.03	981.40	25.63	39.297	
4,000.00	3,498.57	3,839.51	3,744.96	38.94	15.43	172.50	-381.67	659.42	1,041.17	1,014.82	26.35	39.510	
4,100.00	3,581.55	3,933.50	3,836.01	40.18	15.88	172.49	-394.10	679.17	1,075.31	1,048.24	27.08	39.712	
4,200.00	3,664.54	4,027.49	3,927.06	41.42	16.32	172.48	-406.52	698.91	1,109.46	1,081.65	27.80	39.903	
4,300.00	3,747.52	4,121.48	4,018.10	42.67	16.77	172.47	-418.95	718.66	1,143.60	1,115.07	28.53	40.083	
4,400.00	3,830.51	4,215.47	4,109.15	43.91	17.22	172.46	-431.38	738.41	1,177.74	1,148.48	29.26	40.253	
4,500.00	3,913.49	4,309.46	4,200.20	45.16	17.66	172.45	-443.80	758.16	1,211.88	1,181.90	29.99	40.415	
4,600.00	3,996.48	4,403.45	4,291.25	46.40	18.11	172.44	-456.23	777.91	1,246.03	1,215.31	30.71	40.569	
4,700.00	4,079.46	4,497.44	4,382.30	47.64	18.56	172.43	-468.66	797.66	1,280.17	1,248.73	31.44	40.715	
4,800.00	4,162.45	4,591.43	4,473.35	48.89	19.00	172.42	-481.08	817.40	1,314.31	1,282.14	32.17	40.855	
4,900.00	4,245.43	4,685.42	4,564.40	50.13	19.45	172.42	-493.51	837.15	1,348.45	1,315.55	32.90	40.987	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> H04 596 Pad - UWF12A-03 H04 596 - DD - Plan #3													<b>Offset Site Error:</b> 0.00 usft
Survey Program: 0-MWD													<b>Offset Well Error:</b> 0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.00	4,328.42	4,779.41	4,655.45	51.38	19.90	172.41	-505.94	856.90	1,382.59	1,348.97	33.63	41.114	
5,100.00	4,411.40	4,873.40	4,746.49	52.62	20.34	172.40	-518.36	876.65	1,416.74	1,382.38	34.36	41.235	
5,200.00	4,494.39	4,967.40	4,837.54	53.87	20.79	172.40	-530.79	896.40	1,450.88	1,415.79	35.09	41.351	
5,300.00	4,577.37	5,061.39	4,928.59	55.11	21.24	172.39	-543.21	916.15	1,485.02	1,449.20	35.82	41.461	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF12B-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-30.10	12.15	-7.04	14.04				
100.00	100.00	100.00	100.00	0.12	0.12	-30.10	12.15	-7.04	14.04	13.80	0.24	59.230	
200.00	200.00	200.00	200.00	0.48	0.29	-30.10	12.15	-7.04	14.04	13.27	0.77	18.232	
300.00	300.00	300.00	300.00	0.84	0.47	-30.10	12.15	-7.04	14.04	12.74	1.30	10.774 CC, ES	
400.00	399.95	399.95	399.95	1.19	0.64	-137.31	12.15	-7.04	15.85	14.02	1.83	8.668	
500.00	499.63	500.72	500.67	1.55	0.82	-151.06	10.51	-4.95	19.64	17.21	2.42	8.101	
600.00	598.78	601.63	601.25	1.92	1.03	-169.13	5.61	1.34	24.08	20.99	3.09	7.788 SF	
700.00	697.11	702.67	701.40	2.32	1.30	177.06	-2.58	11.83	29.73	25.96	3.77	7.884	
800.00	794.38	803.81	800.81	2.77	1.64	166.11	-14.02	26.49	36.67	32.20	4.48	8.192	
900.00	890.30	905.03	899.17	3.28	2.07	157.30	-28.69	45.30	44.94	39.68	5.26	8.542	
1,000.00	984.62	1,004.75	995.14	3.86	2.54	151.42	-45.32	66.62	55.62	49.58	6.04	9.209	
1,100.00	1,077.08	1,103.57	1,090.23	4.52	3.01	149.72	-61.88	87.85	70.78	63.93	6.86	10.322	
1,200.00	1,167.42	1,201.63	1,184.58	5.29	3.50	150.29	-78.32	108.91	90.26	82.58	7.68	11.751	
1,300.00	1,255.40	1,298.65	1,277.93	6.18	3.98	151.86	-94.57	129.74	114.13	105.65	8.49	13.449	
1,400.00	1,340.78	1,394.37	1,370.03	7.19	4.46	153.73	-110.61	150.30	142.54	133.27	9.27	15.382	
1,435.17	1,370.15	1,427.67	1,402.07	7.57	4.63	154.39	-116.19	157.46	153.62	144.08	9.54	16.104	
1,500.00	1,423.95	1,488.88	1,460.96	8.31	4.94	155.83	-126.45	170.60	174.63	164.60	10.03	17.412	
1,600.00	1,506.93	1,583.29	1,551.80	9.46	5.42	157.49	-142.27	190.88	207.18	196.39	10.79	19.194	
1,700.00	1,589.92	1,677.70	1,642.64	10.64	5.90	158.69	-158.09	211.15	239.85	228.28	11.57	20.729	
1,800.00	1,672.90	1,772.11	1,733.48	11.83	6.38	159.61	-173.91	231.43	272.59	260.23	12.36	22.059	
1,900.00	1,755.89	1,866.52	1,824.32	13.03	6.87	160.33	-189.73	251.71	305.37	292.22	13.15	23.220	
2,000.00	1,838.87	1,960.93	1,915.16	14.24	7.35	160.91	-205.55	271.99	338.20	324.24	13.95	24.241	
2,100.00	1,921.85	2,055.34	2,006.00	15.46	7.83	161.39	-221.37	292.26	371.04	356.29	14.76	25.143	
2,200.00	2,004.84	2,149.75	2,096.84	16.68	8.32	161.79	-237.19	312.54	403.91	388.34	15.57	25.945	
2,300.00	2,087.82	2,244.16	2,187.68	17.90	8.80	162.13	-253.01	332.82	436.79	420.41	16.38	26.663	
2,400.00	2,170.81	2,338.57	2,278.52	19.13	9.29	162.43	-268.83	353.09	469.69	452.49	17.20	27.308	
2,500.00	2,253.79	2,432.97	2,369.36	20.36	9.77	162.68	-284.65	373.37	502.59	484.57	18.02	27.892	
2,600.00	2,336.78	2,527.38	2,460.20	21.59	10.26	162.90	-300.47	393.65	535.50	516.66	18.84	28.421	
2,700.00	2,419.76	2,621.79	2,551.04	22.82	10.74	163.10	-316.29	413.92	568.42	548.75	19.67	28.903	
2,800.00	2,502.75	2,716.20	2,641.88	24.06	11.23	163.28	-332.11	434.20	601.34	580.85	20.49	29.344	
2,900.00	2,585.73	2,810.61	2,732.72	25.29	11.72	163.43	-347.93	454.48	634.27	612.95	21.32	29.749	
3,000.00	2,668.72	2,905.02	2,823.56	26.53	12.20	163.58	-363.75	474.75	667.20	645.05	22.15	30.122	
3,100.00	2,751.70	2,999.43	2,914.39	27.77	12.69	163.70	-379.57	495.03	700.14	677.15	22.98	30.466	
3,200.00	2,834.69	3,093.84	3,005.23	29.01	13.17	163.82	-395.39	515.31	733.07	709.26	23.81	30.785	
3,300.00	2,917.67	3,188.25	3,096.07	30.25	13.66	163.93	-411.21	535.58	766.01	741.37	24.65	31.082	
3,400.00	3,000.66	3,282.66	3,186.91	31.49	14.15	164.03	-427.03	555.86	798.95	773.48	25.48	31.358	
3,500.00	3,083.64	3,377.07	3,277.75	32.73	14.63	164.12	-442.85	576.14	831.90	805.59	26.31	31.615	
3,600.00	3,166.63	3,471.48	3,368.59	33.97	15.12	164.20	-458.67	596.42	864.84	837.70	27.15	31.856	
3,700.00	3,249.61	3,565.89	3,459.43	35.21	15.61	164.28	-474.49	616.69	897.79	869.81	27.98	32.082	
3,800.00	3,332.60	3,660.30	3,550.27	36.45	16.09	164.35	-490.31	636.97	930.74	901.92	28.82	32.294	
3,900.00	3,415.58	3,754.71	3,641.11	37.70	16.58	164.42	-506.13	657.25	963.69	934.03	29.66	32.494	
4,000.00	3,498.57	3,849.12	3,731.95	38.94	17.07	164.48	-521.95	677.52	996.64	966.15	30.50	32.682	
4,100.00	3,581.55	3,943.53	3,822.79	40.18	17.56	164.54	-537.77	697.80	1,029.59	998.26	31.33	32.860	
4,200.00	3,664.54	4,037.94	3,913.63	41.42	18.04	164.59	-553.59	718.08	1,062.55	1,030.38	32.17	33.027	
4,300.00	3,747.52	4,132.35	4,004.47	42.67	18.53	164.64	-569.41	738.35	1,095.50	1,062.49	33.01	33.187	
4,400.00	3,830.51	4,226.76	4,095.31	43.91	19.02	164.69	-585.23	758.63	1,128.45	1,094.61	33.85	33.337	
4,500.00	3,913.49	4,321.17	4,186.15	45.16	19.50	164.74	-601.05	778.91	1,161.41	1,126.72	34.69	33.481	
4,600.00	3,996.48	4,415.58	4,276.98	46.40	19.99	164.78	-616.87	799.18	1,194.37	1,158.84	35.53	33.617	
4,700.00	4,079.46	4,509.99	4,367.82	47.64	20.48	164.82	-632.69	819.46	1,227.32	1,190.95	36.37	33.746	
4,800.00	4,162.45	4,604.40	4,458.66	48.89	20.97	164.86	-648.51	839.74	1,260.28	1,223.07	37.21	33.870	
4,900.00	4,245.43	4,698.81	4,549.50	50.13	21.45	164.90	-664.33	860.02	1,293.24	1,255.19	38.05	33.988	
5,000.00	4,328.42	4,793.22	4,640.34	51.38	21.94	164.93	-680.15	880.29	1,326.19	1,287.30	38.89	34.101	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> H04 596 Pad - UWF12B-03 H04 596 - DD - Plan #2													<b>Offset Site Error:</b> 0.00 usft
Survey Program: 0-MWD													<b>Offset Well Error:</b> 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
5,100.00	4,411.40	4,887.63	4,731.18	52.62	22.43	164.97	-695.97	900.57	1,359.15	1,319.42	39.73	34.208	
5,200.00	4,494.39	4,982.04	4,822.02	53.87	22.91	165.00	-711.79	920.85	1,392.11	1,351.54	40.57	34.311	
5,300.00	4,577.37	5,076.45	4,912.86	55.11	23.40	165.03	-727.61	941.12	1,425.07	1,383.66	41.41	34.410	
5,400.00	4,660.36	5,170.86	5,003.70	56.36	23.89	165.06	-743.43	961.40	1,458.03	1,415.77	42.26	34.504	
5,500.00	4,743.34	5,265.27	5,094.54	57.60	24.38	165.09	-759.25	981.68	1,490.99	1,447.89	43.10	34.595	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF12C-03 H04 596 - DD - Plan #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-166.94	-10.11	-2.35	10.38					
100.00	100.00	100.00	100.00	0.12	0.12	-166.94	-10.11	-2.35	10.38	10.15	0.24	43.804		
200.00	200.00	200.00	200.00	0.48	0.29	-166.94	-10.11	-2.35	10.38	9.61	0.77	13.483		
300.00	300.00	300.00	300.00	0.84	0.47	-166.94	-10.11	-2.35	10.38	9.08	1.30	7.968 CC		
301.05	301.05	301.05	301.05	0.84	0.47	93.06	-10.11	-2.35	10.38	9.07	1.31	7.934		
400.00	399.95	399.95	399.95	1.19	0.64	106.99	-10.11	-2.35	10.84	9.01	1.83	5.931 ES, SF		
500.00	499.63	499.72	499.68	1.55	0.82	126.71	-11.91	-0.46	14.76	12.39	2.36	6.242		
600.00	598.78	599.57	599.21	1.92	1.03	129.92	-17.30	5.20	21.82	18.87	2.95	7.403		
700.00	697.11	699.47	698.24	2.32	1.29	130.05	-26.28	14.62	30.73	27.12	3.61	8.523		
800.00	794.38	799.36	796.46	2.77	1.62	128.86	-38.81	27.77	41.29	36.93	4.36	9.464		
900.00	890.30	899.21	893.54	3.28	2.04	127.18	-54.87	44.62	53.47	48.22	5.25	10.190		
1,000.00	984.62	998.77	989.06	3.86	2.54	125.50	-74.23	64.93	67.27	61.01	6.26	10.753		
1,100.00	1,077.08	1,097.41	1,083.28	4.52	3.05	126.29	-94.36	86.06	83.50	76.19	7.31	11.416		
1,200.00	1,167.42	1,195.36	1,176.85	5.29	3.57	129.03	-114.36	107.04	102.75	94.36	8.39	12.247		
1,300.00	1,255.40	1,292.36	1,269.50	6.18	4.09	132.54	-134.16	127.82	125.50	116.06	9.45	13.285		
1,400.00	1,340.78	1,388.14	1,360.99	7.19	4.60	136.18	-153.71	148.33	152.23	141.76	10.47	14.544		
1,435.17	1,370.15	1,421.48	1,392.85	7.57	4.78	137.42	-160.51	155.47	162.63	151.81	10.82	15.035		
1,500.00	1,423.95	1,482.78	1,451.39	8.31	5.12	139.93	-173.02	168.60	182.47	171.03	11.44	15.944		
1,600.00	1,506.93	1,577.32	1,541.71	9.46	5.64	142.90	-192.32	188.85	213.56	201.15	12.40	17.216		
1,700.00	1,589.92	1,671.86	1,632.02	10.64	6.15	145.11	-211.62	209.10	245.03	231.67	13.36	18.337		
1,800.00	1,672.90	1,766.41	1,722.33	11.83	6.67	146.82	-230.92	229.35	276.76	262.44	14.32	19.324		
1,900.00	1,755.89	1,860.95	1,812.64	13.03	7.19	148.18	-250.22	249.60	308.67	293.38	15.28	20.196		
2,000.00	1,838.87	1,955.49	1,902.95	14.24	7.71	149.29	-269.51	269.85	340.70	324.46	16.25	20.969		
2,100.00	1,921.85	2,050.04	1,993.26	15.46	8.24	150.20	-288.81	290.10	372.83	355.62	17.21	21.658		
2,200.00	2,004.84	2,144.58	2,083.57	16.68	8.76	150.97	-308.11	310.35	405.03	386.85	18.18	22.275		
2,300.00	2,087.82	2,239.12	2,173.88	17.90	9.28	151.63	-327.41	330.60	437.29	418.14	19.15	22.830		
2,400.00	2,170.81	2,333.67	2,264.19	19.13	9.80	152.20	-346.71	350.85	469.59	449.47	20.13	23.331		
2,500.00	2,253.79	2,428.21	2,354.50	20.36	10.33	152.69	-366.00	371.10	501.93	480.83	21.10	23.786		
2,600.00	2,336.78	2,522.76	2,444.81	21.59	10.85	153.12	-385.30	391.35	534.30	512.22	22.08	24.200		
2,700.00	2,419.76	2,617.30	2,535.12	22.82	11.37	153.51	-404.60	411.60	566.69	543.64	23.06	24.578		
2,800.00	2,502.75	2,711.84	2,625.43	24.06	11.90	153.85	-423.90	431.85	599.11	575.07	24.04	24.926		
2,900.00	2,585.73	2,806.39	2,715.74	25.29	12.42	154.16	-443.19	452.10	631.54	606.52	25.02	25.245		
3,000.00	2,668.72	2,900.93	2,806.05	26.53	12.94	154.44	-462.49	472.35	663.98	637.98	26.00	25.540		
3,100.00	2,751.70	2,995.47	2,896.37	27.77	13.47	154.69	-481.79	492.60	696.44	669.46	26.98	25.813		
3,200.00	2,834.69	3,090.02	2,986.68	29.01	13.99	154.92	-501.09	512.85	728.91	700.94	27.96	26.067		
3,300.00	2,917.67	3,184.56	3,076.99	30.25	14.52	155.13	-520.39	533.10	761.38	732.44	28.95	26.303		
3,400.00	3,000.66	3,279.10	3,167.30	31.49	15.04	155.32	-539.68	553.35	793.87	763.94	29.93	26.523		
3,500.00	3,083.64	3,373.65	3,257.61	32.73	15.57	155.50	-558.98	573.60	826.37	795.45	30.92	26.728		
3,600.00	3,166.63	3,468.19	3,347.92	33.97	16.09	155.67	-578.28	593.85	858.87	826.96	31.90	26.921		
3,700.00	3,249.61	3,562.74	3,438.23	35.21	16.62	155.82	-597.58	614.10	891.37	858.48	32.89	27.102		
3,800.00	3,332.60	3,657.28	3,528.54	36.45	17.14	155.96	-616.88	634.35	923.88	890.01	33.88	27.272		
3,900.00	3,415.58	3,751.82	3,618.85	37.70	17.67	156.09	-636.17	654.60	956.40	921.54	34.86	27.433		
4,000.00	3,498.57	3,846.37	3,709.16	38.94	18.19	156.22	-655.47	674.85	988.92	953.07	35.85	27.584		
4,100.00	3,581.55	3,940.91	3,799.47	40.18	18.72	156.33	-674.77	695.10	1,021.44	984.61	36.84	27.727		
4,200.00	3,664.54	4,035.45	3,889.78	41.42	19.24	156.44	-694.07	715.35	1,053.97	1,016.14	37.83	27.862		
4,300.00	3,747.52	4,130.00	3,980.09	42.67	19.77	156.54	-713.37	735.60	1,086.50	1,047.69	38.82	27.991		
4,400.00	3,830.51	4,224.54	4,070.40	43.91	20.29	156.64	-732.66	755.85	1,119.04	1,079.23	39.81	28.113		
4,500.00	3,913.49	4,319.08	4,160.71	45.16	20.82	156.73	-751.96	776.10	1,151.57	1,110.78	40.79	28.228		
4,600.00	3,996.48	4,413.63	4,251.03	46.40	21.34	156.81	-771.26	796.35	1,184.11	1,142.33	41.78	28.339		
4,700.00	4,079.46	4,508.17	4,341.34	47.64	21.87	156.89	-790.56	816.60	1,216.65	1,173.88	42.77	28.444		
4,800.00	4,162.45	4,602.71	4,431.65	48.89	22.39	156.97	-809.85	836.85	1,249.20	1,205.43	43.76	28.544		
4,900.00	4,245.43	4,697.26	4,521.96	50.13	22.92	157.04	-829.15	857.10	1,281.74	1,236.99	44.75	28.639		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> H04 596 Pad - UWF12C-03 H04 596 - DD - Plan #2													<b>Offset Site Error:</b>	0.00 usft
Survey Program: 0-MWD													<b>Offset Well Error:</b>	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
5,000.00	4,328.42	4,791.80	4,612.27	51.38	23.44	157.11	-848.45	877.36	1,314.29	1,268.54	45.75	28.731		
5,100.00	4,411.40	4,886.35	4,702.58	52.62	23.97	157.18	-867.75	897.61	1,346.84	1,300.10	46.74	28.818		
5,200.00	4,494.39	4,980.89	4,792.89	53.87	24.49	157.24	-887.05	917.86	1,379.39	1,331.66	47.73	28.902		
5,300.00	4,577.37	5,075.43	4,883.20	55.11	25.02	157.30	-906.34	938.11	1,411.94	1,363.22	48.72	28.982		
5,400.00	4,660.36	5,169.98	4,973.51	56.36	25.55	157.36	-925.64	958.36	1,444.49	1,394.78	49.71	29.059		
5,500.00	4,743.34	5,264.52	5,063.82	57.60	26.07	157.41	-944.94	978.61	1,477.05	1,426.35	50.70	29.133		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF12E-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-164.10	-19.22	-5.48	19.99				
100.00	100.00	100.00	100.00	0.12	0.12	-164.10	-19.22	-5.48	19.99	19.75	0.24	84.316	
200.00	200.00	200.00	200.00	0.48	0.29	-164.10	-19.22	-5.48	19.99	19.22	0.77	25.954	
300.00	300.00	300.00	300.00	0.84	0.47	-164.10	-19.22	-5.48	19.99	18.68	1.30	15.337 CC	
400.00	399.95	399.95	399.95	1.19	0.64	103.21	-19.22	-5.48	20.42	18.59	1.83	11.171 ES	
500.00	499.63	499.63	499.63	1.55	0.81	122.06	-19.22	-5.48	23.49	21.13	2.36	9.961 SF	
600.00	598.78	598.91	598.90	1.92	0.99	136.99	-19.72	-5.10	31.85	28.95	2.90	10.967	
700.00	697.11	698.38	698.23	2.32	1.17	144.29	-23.80	-1.98	44.71	41.23	3.48	12.857	
800.00	794.38	798.08	797.38	2.77	1.39	146.53	-32.01	4.28	60.31	56.20	4.11	14.680	
900.00	890.30	897.91	895.99	3.28	1.66	146.43	-44.35	13.69	78.05	73.24	4.82	16.203	
1,000.00	984.62	997.79	993.70	3.86	2.02	145.23	-60.77	26.21	97.79	92.16	5.63	17.374	
1,100.00	1,077.08	1,097.63	1,090.15	4.52	2.46	143.50	-81.22	41.81	119.49	112.92	6.57	18.193	
1,200.00	1,167.42	1,197.34	1,185.02	5.29	2.99	141.53	-105.62	60.42	143.16	135.51	7.66	18.692	
1,300.00	1,255.40	1,295.69	1,277.02	6.18	3.59	139.60	-133.25	81.49	168.95	160.08	8.87	19.041	
1,400.00	1,340.78	1,391.34	1,366.15	7.19	4.19	138.76	-160.85	102.54	198.09	187.97	10.12	19.573	
1,435.17	1,370.15	1,424.70	1,397.23	7.57	4.40	138.70	-170.47	109.88	209.20	198.63	10.57	19.790	
1,500.00	1,423.95	1,486.04	1,454.39	8.31	4.79	139.21	-188.17	123.38	230.09	218.70	11.40	20.189	
1,600.00	1,506.93	1,580.66	1,542.56	9.46	5.40	139.84	-215.47	144.20	262.35	249.66	12.69	20.676	
1,700.00	1,589.92	1,675.28	1,630.74	10.64	6.02	140.33	-242.77	165.02	294.63	280.64	14.00	21.049	
1,800.00	1,672.90	1,769.90	1,718.91	11.83	6.64	140.72	-270.07	185.84	326.93	311.61	15.32	21.342	
1,900.00	1,755.89	1,864.52	1,807.08	13.03	7.26	141.05	-297.36	206.66	359.24	342.59	16.65	21.575	
2,000.00	1,838.87	1,959.14	1,895.25	14.24	7.89	141.32	-324.66	227.48	391.55	373.56	17.99	21.766	
2,100.00	1,921.85	2,053.76	1,983.42	15.46	8.51	141.54	-351.96	248.30	423.87	404.54	19.33	21.923	
2,200.00	2,004.84	2,148.38	2,071.59	16.68	9.14	141.74	-379.26	269.12	456.20	435.52	20.68	22.055	
2,300.00	2,087.82	2,243.00	2,159.76	17.90	9.77	141.91	-406.56	289.94	488.53	466.49	22.04	22.167	
2,400.00	2,170.81	2,337.62	2,247.93	19.13	10.40	142.06	-433.86	310.76	520.87	497.47	23.40	22.262	
2,500.00	2,253.79	2,432.24	2,336.11	20.36	11.03	142.19	-461.16	331.59	553.21	528.45	24.76	22.345	
2,600.00	2,336.78	2,526.86	2,424.28	21.59	11.66	142.31	-488.46	352.41	585.55	559.43	26.12	22.417	
2,700.00	2,419.76	2,621.48	2,512.45	22.82	12.29	142.41	-515.75	373.23	617.89	590.40	27.49	22.481	
2,800.00	2,502.75	2,716.10	2,600.62	24.06	12.92	142.51	-543.05	394.05	650.23	621.38	28.85	22.537	
2,900.00	2,585.73	2,810.72	2,688.79	25.29	13.55	142.59	-570.35	414.87	682.58	652.36	30.22	22.587	
3,000.00	2,668.72	2,905.34	2,776.96	26.53	14.18	142.67	-597.65	435.69	714.92	683.33	31.59	22.632	
3,100.00	2,751.70	2,999.96	2,865.13	27.77	14.82	142.74	-624.95	456.51	747.27	714.31	32.96	22.672	
3,200.00	2,834.69	3,094.58	2,953.30	29.01	15.45	142.81	-652.25	477.33	779.62	745.29	34.33	22.708	
3,300.00	2,917.67	3,189.20	3,041.48	30.25	16.08	142.87	-679.55	498.15	811.97	776.27	35.70	22.741	
3,400.00	3,000.66	3,283.81	3,129.65	31.49	16.71	142.92	-706.85	518.97	844.32	807.24	37.08	22.772	
3,500.00	3,083.64	3,378.43	3,217.82	32.73	17.35	142.97	-734.15	539.79	876.67	838.22	38.45	22.799	
3,600.00	3,166.63	3,473.05	3,305.99	33.97	17.98	143.02	-761.44	560.61	909.02	869.20	39.83	22.824	
3,700.00	3,249.61	3,567.67	3,394.16	35.21	18.61	143.06	-788.74	581.43	941.37	900.17	41.20	22.848	
3,800.00	3,332.60	3,662.29	3,482.33	36.45	19.25	143.11	-816.04	602.25	973.73	931.15	42.58	22.869	
3,900.00	3,415.58	3,756.91	3,570.50	37.70	19.88	143.14	-843.34	623.07	1,006.08	962.12	43.95	22.889	
4,000.00	3,498.57	3,851.53	3,658.68	38.94	20.52	143.18	-870.64	643.89	1,038.43	993.10	45.33	22.908	
4,100.00	3,581.55	3,946.15	3,746.85	40.18	21.15	143.22	-897.94	664.71	1,070.78	1,024.08	46.71	22.925	
4,200.00	3,664.54	4,040.77	3,835.02	41.42	21.78	143.25	-925.24	685.53	1,103.14	1,055.05	48.09	22.941	
4,300.00	3,747.52	4,135.39	3,923.19	42.67	22.42	143.28	-952.54	706.36	1,135.49	1,086.03	49.46	22.956	
4,400.00	3,830.51	4,230.01	4,011.36	43.91	23.05	143.31	-979.84	727.18	1,167.85	1,117.01	50.84	22.971	
4,500.00	3,913.49	4,324.63	4,099.53	45.16	23.69	143.33	-1,007.13	748.00	1,200.20	1,147.98	52.22	22.984	
4,600.00	3,996.48	4,419.25	4,187.70	46.40	24.32	143.36	-1,034.43	768.82	1,232.56	1,178.96	53.60	22.996	
4,700.00	4,079.46	4,513.87	4,275.87	47.64	24.96	143.38	-1,061.73	789.64	1,264.91	1,209.93	54.98	23.008	
4,800.00	4,162.45	4,608.49	4,364.05	48.89	25.59	143.41	-1,089.03	810.46	1,297.27	1,240.91	56.36	23.019	
4,900.00	4,245.43	4,703.11	4,452.22	50.13	26.22	143.43	-1,116.33	831.28	1,329.62	1,271.89	57.73	23.030	
5,000.00	4,328.42	4,797.73	4,540.39	51.38	26.86	143.45	-1,143.63	852.10	1,361.98	1,302.86	59.11	23.040	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> H04 596 Pad - UWF12E-03 H04 596 - DD - Plan #2													<b>Offset Site Error:</b> 0.00 usft
Survey Program: 0-MWD													<b>Offset Well Error:</b> 0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.00	4,411.40	4,892.35	4,628.56	52.62	27.49	143.47	-1,170.93	872.92	1,394.33	1,333.84	60.49	23.049	
5,200.00	4,494.39	4,986.97	4,716.73	53.87	28.13	143.49	-1,198.23	893.74	1,426.69	1,364.82	61.87	23.058	
5,300.00	4,577.37	5,081.59	4,804.90	55.11	28.76	143.51	-1,225.53	914.56	1,459.04	1,395.79	63.25	23.067	
5,400.00	4,660.36	5,176.21	4,893.07	56.36	29.40	143.52	-1,252.82	935.38	1,491.40	1,426.77	64.63	23.075	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF13A-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-165.08	-29.35	-7.82	30.37				
100.00	100.00	100.00	100.00	0.12	0.12	-165.08	-29.35	-7.82	30.37	30.13	0.24	128.137	
200.00	200.00	200.00	200.00	0.48	0.29	-165.08	-29.35	-7.82	30.37	29.60	0.77	39.442	
300.00	300.00	300.00	300.00	0.84	0.47	-165.08	-29.35	-7.82	30.37	29.07	1.30	23.309 CC	
400.00	399.95	399.95	399.95	1.19	0.64	99.78	-29.35	-7.82	30.71	28.88	1.83	16.798 ES	
500.00	499.63	499.63	499.63	1.55	0.81	113.25	-29.35	-7.82	32.96	30.60	2.36	13.981	
600.00	598.78	598.52	598.47	1.92	0.99	122.78	-31.46	-6.40	39.76	36.85	2.91	13.665 SF	
700.00	697.11	697.50	697.14	2.32	1.19	129.06	-37.81	-2.13	51.04	47.54	3.50	14.589	
800.00	794.38	796.45	795.27	2.77	1.44	132.08	-48.40	4.99	65.74	61.58	4.16	15.805	
900.00	890.30	895.28	892.46	3.28	1.75	133.04	-63.17	14.92	83.31	78.39	4.92	16.926	
1,000.00	984.62	993.86	988.37	3.86	2.15	132.85	-82.04	27.61	103.50	97.69	5.81	17.816	
1,100.00	1,077.08	1,092.09	1,082.65	4.52	2.63	132.02	-104.90	42.98	126.20	119.36	6.84	18.448	
1,200.00	1,167.42	1,189.89	1,174.98	5.29	3.20	130.84	-131.63	60.95	151.35	143.32	8.03	18.843	
1,300.00	1,255.40	1,286.91	1,264.88	6.18	3.84	129.51	-161.90	81.31	178.92	169.55	9.37	19.096	
1,400.00	1,340.78	1,382.16	1,352.56	7.19	4.49	129.03	-192.79	102.08	209.29	198.51	10.77	19.426	
1,435.17	1,370.15	1,415.40	1,383.15	7.57	4.72	129.09	-203.57	109.33	220.68	209.40	11.28	19.563	
1,500.00	1,423.95	1,476.54	1,439.43	8.31	5.14	129.87	-223.39	122.65	242.04	229.83	12.22	19.813	
1,600.00	1,506.93	1,570.83	1,526.23	9.46	5.80	130.85	-253.97	143.21	275.07	261.39	13.67	20.116	
1,700.00	1,589.92	1,665.13	1,613.03	10.64	6.46	131.62	-284.54	163.77	308.15	293.00	15.15	20.345	
1,800.00	1,672.90	1,759.43	1,699.83	11.83	7.12	132.24	-315.12	184.33	341.27	324.64	16.63	20.523	
1,900.00	1,755.89	1,853.73	1,786.63	13.03	7.79	132.75	-345.70	204.90	374.41	356.30	18.12	20.664	
2,000.00	1,838.87	1,948.03	1,873.44	14.24	8.46	133.17	-376.27	225.46	407.58	387.97	19.62	20.779	
2,100.00	1,921.85	2,042.33	1,960.24	15.46	9.13	133.53	-406.85	246.02	440.77	419.66	21.12	20.873	
2,200.00	2,004.84	2,136.63	2,047.04	16.68	9.80	133.85	-437.43	266.58	473.97	451.35	22.62	20.952	
2,300.00	2,087.82	2,230.92	2,133.84	17.90	10.47	134.12	-468.00	287.14	507.18	483.06	24.13	21.019	
2,400.00	2,170.81	2,325.22	2,220.64	19.13	11.14	134.35	-498.58	307.70	540.41	514.77	25.64	21.077	
2,500.00	2,253.79	2,419.52	2,307.44	20.36	11.82	134.56	-529.16	328.26	573.63	546.48	27.15	21.126	
2,600.00	2,336.78	2,513.82	2,394.25	21.59	12.49	134.75	-559.73	348.82	606.87	578.20	28.67	21.170	
2,700.00	2,419.76	2,608.12	2,481.05	22.82	13.17	134.92	-590.31	369.38	640.11	609.92	30.18	21.208	
2,800.00	2,502.75	2,702.42	2,567.85	24.06	13.84	135.07	-620.89	389.94	673.35	641.65	31.70	21.242	
2,900.00	2,585.73	2,796.72	2,654.65	25.29	14.52	135.21	-651.46	410.50	706.60	673.38	33.22	21.272	
3,000.00	2,668.72	2,891.01	2,741.45	26.53	15.19	135.33	-682.04	431.06	739.85	705.11	34.74	21.299	
3,100.00	2,751.70	2,985.31	2,828.25	27.77	15.87	135.45	-712.62	451.62	773.10	736.84	36.26	21.323	
3,200.00	2,834.69	3,079.61	2,915.06	29.01	16.54	135.55	-743.19	472.18	806.36	768.58	37.78	21.345	
3,300.00	2,917.67	3,173.91	3,001.86	30.25	17.22	135.65	-773.77	492.74	839.61	800.32	39.30	21.365	
3,400.00	3,000.66	3,268.21	3,088.66	31.49	17.90	135.73	-804.35	513.30	872.87	832.05	40.82	21.383	
3,500.00	3,083.64	3,362.51	3,175.46	32.73	18.57	135.82	-834.92	533.86	906.14	863.79	42.34	21.400	
3,600.00	3,166.63	3,456.80	3,262.26	33.97	19.25	135.89	-865.50	554.42	939.40	895.53	43.87	21.415	
3,700.00	3,249.61	3,551.10	3,349.07	35.21	19.93	135.96	-896.08	574.98	972.66	927.28	45.39	21.430	
3,800.00	3,332.60	3,645.40	3,435.87	36.45	20.60	136.03	-926.66	595.54	1,005.93	959.02	46.91	21.443	
3,900.00	3,415.58	3,739.70	3,522.67	37.70	21.28	136.09	-957.23	616.10	1,039.20	990.76	48.44	21.455	
4,000.00	3,498.57	3,834.00	3,609.47	38.94	21.96	136.15	-987.81	636.66	1,072.46	1,022.50	49.96	21.466	
4,100.00	3,581.55	3,928.30	3,696.27	40.18	22.63	136.21	-1,018.39	657.22	1,105.73	1,054.25	51.49	21.477	
4,200.00	3,664.54	4,022.60	3,783.07	41.42	23.31	136.26	-1,048.96	677.78	1,139.00	1,085.99	53.01	21.487	
4,300.00	3,747.52	4,116.89	3,869.88	42.67	23.99	136.31	-1,079.54	698.34	1,172.27	1,117.74	54.53	21.496	
4,400.00	3,830.51	4,211.19	3,956.68	43.91	24.67	136.35	-1,110.12	718.90	1,205.55	1,149.49	56.06	21.505	
4,500.00	3,913.49	4,305.49	4,043.48	45.16	25.34	136.40	-1,140.69	739.46	1,238.82	1,181.23	57.59	21.513	
4,600.00	3,996.48	4,399.79	4,130.28	46.40	26.02	136.44	-1,171.27	760.02	1,272.09	1,212.98	59.11	21.520	
4,700.00	4,079.46	4,494.09	4,217.08	47.64	26.70	136.48	-1,201.85	780.58	1,305.36	1,244.73	60.64	21.528	
4,800.00	4,162.45	4,588.39	4,303.88	48.89	27.38	136.51	-1,232.42	801.14	1,338.64	1,276.47	62.16	21.534	
4,900.00	4,245.43	4,682.69	4,390.69	50.13	28.05	136.55	-1,263.00	821.70	1,371.91	1,308.22	63.69	21.541	
5,000.00	4,328.42	4,776.98	4,477.49	51.38	28.73	136.58	-1,293.58	842.26	1,405.19	1,339.97	65.21	21.547	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> H04 596 Pad - UWF13A-03 H04 596 - DD - Plan #2													<b>Offset Site Error:</b> 0.00 usft
Survey Program: 0-MWD													<b>Offset Well Error:</b> 0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
5,100.00	4,411.40	4,871.28	4,564.29	52.62	29.41	136.62	-1,324.15	862.82	1,438.46	1,371.72	66.74	21.553	
5,200.00	4,494.39	4,965.58	4,651.09	53.87	30.09	136.65	-1,354.73	883.38	1,471.74	1,403.47	68.27	21.558	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF13B-03 H04 596 - DD - Plan #3												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-164.10	-38.44	-10.95	39.97				
100.00	100.00	100.00	100.00	0.12	0.12	-164.10	-38.44	-10.95	39.97	39.74	0.24	168.650	
200.00	200.00	200.00	200.00	0.48	0.29	-164.10	-38.44	-10.95	39.97	39.20	0.77	51.913	
300.00	300.00	300.00	300.00	0.84	0.47	-164.10	-38.44	-10.95	39.97	38.67	1.30	30.678 CC	
400.00	399.95	399.95	399.95	1.19	0.64	99.59	-38.44	-10.95	40.33	38.50	1.83	22.061 ES	
500.00	499.63	499.10	499.09	1.55	0.81	109.21	-38.99	-10.63	42.66	40.30	2.36	18.067	
600.00	598.78	597.60	597.45	1.92	1.00	113.74	-43.33	-8.01	49.56	46.64	2.93	16.922 SF	
700.00	697.11	695.97	695.29	2.32	1.22	117.92	-52.00	-2.79	60.55	57.01	3.54	17.090	
800.00	794.38	794.09	792.23	2.77	1.50	120.57	-64.93	4.99	75.16	70.92	4.24	17.720	
900.00	890.30	891.83	887.90	3.28	1.85	121.90	-82.03	15.29	93.06	88.00	5.06	18.407	
1,000.00	984.62	989.05	981.92	3.86	2.29	122.33	-103.19	28.03	114.00	107.99	6.00	18.987	
1,100.00	1,077.08	1,085.66	1,073.99	4.52	2.81	122.17	-128.24	43.11	137.84	130.74	7.10	19.413	
1,200.00	1,167.42	1,181.56	1,163.80	5.29	3.41	121.66	-157.02	60.44	164.47	156.11	8.36	19.685	
1,300.00	1,255.40	1,276.80	1,251.22	6.18	4.09	120.91	-189.39	79.93	193.80	184.04	9.76	19.851	
1,400.00	1,340.78	1,371.40	1,337.08	7.19	4.78	120.64	-223.39	100.40	225.63	214.35	11.28	20.010	
1,435.17	1,370.15	1,404.48	1,367.11	7.57	5.02	120.76	-235.28	107.55	237.39	225.57	11.83	20.075	
1,500.00	1,423.95	1,465.33	1,422.36	8.31	5.48	121.72	-257.15	120.72	259.40	246.55	12.85	20.191	
1,600.00	1,506.93	1,559.20	1,507.56	9.46	6.18	122.92	-290.88	141.03	293.45	279.01	14.44	20.325	
1,700.00	1,589.92	1,653.07	1,592.77	10.64	6.89	123.88	-324.62	161.35	327.58	311.54	16.04	20.420	
1,800.00	1,672.90	1,746.94	1,677.98	11.83	7.59	124.65	-358.36	181.66	361.79	344.13	17.66	20.490	
1,900.00	1,755.89	1,840.80	1,763.19	13.03	8.31	125.29	-392.09	201.97	396.04	376.76	19.28	20.542	
2,000.00	1,838.87	1,934.67	1,848.40	14.24	9.02	125.83	-425.83	222.28	430.32	409.42	20.91	20.584	
2,100.00	1,921.85	2,028.54	1,933.60	15.46	9.73	126.29	-459.56	242.59	464.64	442.10	22.54	20.616	
2,200.00	2,004.84	2,122.41	2,018.81	16.68	10.45	126.68	-493.30	262.91	498.98	474.80	24.17	20.643	
2,300.00	2,087.82	2,216.27	2,104.02	17.90	11.17	127.03	-527.04	283.22	533.33	507.52	25.81	20.665	
2,400.00	2,170.81	2,310.14	2,189.23	19.13	11.88	127.33	-560.77	303.53	567.70	540.26	27.45	20.683	
2,500.00	2,253.79	2,404.01	2,274.44	20.36	12.60	127.60	-594.51	323.84	602.09	573.00	29.09	20.699	
2,600.00	2,336.78	2,497.88	2,359.64	21.59	13.32	127.84	-628.25	344.15	636.48	605.75	30.73	20.712	
2,700.00	2,419.76	2,591.74	2,444.85	22.82	14.04	128.05	-661.98	364.46	670.89	638.51	32.37	20.723	
2,800.00	2,502.75	2,685.61	2,530.06	24.06	14.76	128.24	-695.72	384.78	705.30	671.28	34.02	20.733	
2,900.00	2,585.73	2,779.48	2,615.27	25.29	15.48	128.42	-729.46	405.09	739.71	704.05	35.66	20.742	
3,000.00	2,668.72	2,873.35	2,700.48	26.53	16.19	128.58	-763.19	425.40	774.14	736.83	37.31	20.750	
3,100.00	2,751.70	2,967.21	2,785.69	27.77	16.91	128.73	-796.93	445.71	808.56	769.61	38.95	20.757	
3,200.00	2,834.69	3,061.08	2,870.89	29.01	17.63	128.86	-830.66	466.02	843.00	802.40	40.60	20.763	
3,300.00	2,917.67	3,154.95	2,956.10	30.25	18.35	128.99	-864.40	486.33	877.43	835.18	42.25	20.769	
3,400.00	3,000.66	3,248.82	3,041.31	31.49	19.07	129.10	-898.14	506.65	911.87	867.97	43.90	20.774	
3,500.00	3,083.64	3,342.68	3,126.52	32.73	19.79	129.21	-931.87	526.96	946.31	900.77	45.54	20.778	
3,600.00	3,166.63	3,436.55	3,211.73	33.97	20.52	129.31	-965.61	547.27	980.76	933.57	47.19	20.782	
3,700.00	3,249.61	3,530.42	3,296.93	35.21	21.24	129.40	-999.35	567.58	1,015.20	966.36	48.84	20.786	
3,800.00	3,332.60	3,624.29	3,382.14	36.45	21.96	129.48	-1,033.08	587.89	1,049.65	999.16	50.49	20.790	
3,900.00	3,415.58	3,718.16	3,467.35	37.70	22.68	129.56	-1,066.82	608.20	1,084.10	1,031.97	52.14	20.793	
4,000.00	3,498.57	3,812.02	3,552.56	38.94	23.40	129.64	-1,100.56	628.52	1,118.56	1,064.77	53.79	20.796	
4,100.00	3,581.55	3,905.89	3,637.77	40.18	24.12	129.71	-1,134.29	648.83	1,153.01	1,097.57	55.44	20.799	
4,200.00	3,664.54	3,999.76	3,722.97	41.42	24.84	129.78	-1,168.03	669.14	1,187.47	1,130.38	57.09	20.801	
4,300.00	3,747.52	4,093.63	3,808.18	42.67	25.56	129.84	-1,201.76	689.45	1,221.93	1,163.19	58.74	20.804	
4,400.00	3,830.51	4,187.49	3,893.39	43.91	26.28	129.90	-1,235.50	709.76	1,256.38	1,196.00	60.39	20.806	
4,500.00	3,913.49	4,281.36	3,978.60	45.16	27.00	129.96	-1,269.24	730.07	1,290.84	1,228.81	62.04	20.808	
4,600.00	3,996.48	4,375.23	4,063.81	46.40	27.72	130.01	-1,302.97	750.39	1,325.30	1,261.62	63.69	20.810	
4,700.00	4,079.46	4,469.10	4,149.02	47.64	28.45	130.06	-1,336.71	770.70	1,359.77	1,294.43	65.34	20.812	
4,800.00	4,162.45	4,562.96	4,234.22	48.89	29.17	130.11	-1,370.45	791.01	1,394.23	1,327.24	66.99	20.813	
4,900.00	4,245.43	4,656.83	4,319.43	50.13	29.89	130.16	-1,404.18	811.32	1,428.69	1,360.05	68.64	20.815	
5,000.00	4,328.42	4,750.70	4,404.64	51.38	30.61	130.20	-1,437.92	831.63	1,463.16	1,392.87	70.29	20.816	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												H04 596 Pad - UWF13B-03 H04 596 - DD - Plan #3		Offset Site Error: 0.00 usft	
Survey Program: 0-MWD														Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance					Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis		Separation Factor		
5,100.00	4,411.40	4,844.57	4,489.85	52.62	31.33	130.24	-1,471.66	851.95	1,497.62	1,425.68	71.94		20.818		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF13C-03 H04 596 - DD - PLAN #4													Offset Site Error: 0.00 usft	
Survey Program: O-MWD+HDGM													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-164.63	-48.39	-13.30	50.18					
100.00	100.00	100.00	100.00	0.12	0.12	-164.63	-48.39	-13.30	50.18	49.94	0.24	208.939		
200.00	200.00	200.00	200.00	0.48	0.48	-164.63	-48.39	-13.30	50.18	49.23	0.96	52.431		
300.00	300.00	300.00	300.00	0.84	0.84	-164.63	-48.39	-13.30	50.18	48.51	1.67	29.976 CC		
400.00	399.95	399.95	399.95	1.19	1.20	98.31	-48.39	-13.30	50.49	48.11	2.38	21.190 ES		
500.00	499.63	498.03	497.98	1.55	1.53	104.41	-50.60	-12.10	53.70	50.58	3.12	17.192		
600.00	598.78	595.92	595.57	1.92	1.87	105.80	-57.21	-8.50	61.33	57.44	3.89	15.756		
700.00	697.11	693.48	692.32	2.32	2.22	108.35	-68.16	-2.54	72.77	68.10	4.67	15.576 SF		
800.00	794.38	790.56	787.84	2.77	2.59	110.53	-83.34	5.73	87.89	82.40	5.48	16.025		
900.00	890.30	887.02	881.76	3.28	3.01	112.03	-102.64	16.23	106.48	100.12	6.36	16.737		
1,000.00	984.62	982.74	973.74	3.86	3.46	112.92	-125.87	28.87	128.39	121.06	7.33	17.519		
1,100.00	1,077.08	1,077.59	1,063.46	4.52	3.96	113.33	-152.86	43.56	153.46	145.05	8.41	18.254		
1,200.00	1,167.42	1,171.49	1,150.67	5.29	4.52	113.39	-183.40	60.18	181.55	171.93	9.61	18.884		
1,300.00	1,255.40	1,264.34	1,235.13	6.18	5.13	113.19	-217.27	78.61	212.53	201.57	10.96	19.389		
1,400.00	1,340.78	1,357.89	1,318.84	7.19	5.80	113.13	-253.97	98.58	246.03	233.57	12.46	19.752		
1,435.17	1,370.15	1,390.77	1,348.24	7.57	6.04	113.30	-266.90	105.62	258.26	245.25	13.01	19.852		
1,500.00	1,423.95	1,451.26	1,402.32	8.31	6.50	114.39	-290.70	118.57	281.08	267.03	14.05	20.006		
1,600.00	1,506.93	1,544.57	1,485.75	9.46	7.21	115.77	-327.40	138.55	316.42	300.73	15.69	20.170		
1,700.00	1,589.92	1,637.87	1,569.17	10.64	7.93	116.88	-364.11	158.53	351.89	334.53	17.35	20.276		
1,800.00	1,672.90	1,731.18	1,652.59	11.83	8.66	117.78	-400.81	178.50	387.45	368.41	19.04	20.347		
1,900.00	1,755.89	1,824.48	1,736.02	13.03	9.40	118.53	-437.52	198.48	423.08	402.33	20.74	20.395		
2,000.00	1,838.87	1,917.79	1,819.44	14.24	10.15	119.16	-474.22	218.45	458.76	436.31	22.46	20.429		
2,100.00	1,921.85	2,011.09	1,902.87	15.46	10.90	119.70	-510.92	238.43	494.49	470.31	24.18	20.454		
2,200.00	2,004.84	2,104.40	1,986.29	16.68	11.65	120.17	-547.63	258.41	530.25	504.35	25.90	20.471		
2,300.00	2,087.82	2,197.70	2,069.71	17.90	12.40	120.58	-584.33	278.38	566.04	538.40	27.63	20.484		
2,400.00	2,170.81	2,291.01	2,153.14	19.13	13.16	120.94	-621.04	298.36	601.85	572.48	29.37	20.493		
2,500.00	2,253.79	2,384.31	2,236.56	20.36	13.92	121.27	-657.74	318.33	637.68	606.57	31.11	20.500		
2,600.00	2,336.78	2,477.62	2,319.99	21.59	14.68	121.55	-694.45	338.31	673.52	640.67	32.85	20.505		
2,700.00	2,419.76	2,570.92	2,403.41	22.82	15.44	121.81	-731.15	358.28	709.38	674.79	34.59	20.508		
2,800.00	2,502.75	2,664.23	2,486.83	24.06	16.20	122.04	-767.86	378.26	745.25	708.91	36.33	20.511		
2,900.00	2,585.73	2,757.53	2,570.26	25.29	16.97	122.25	-804.56	398.24	781.12	743.04	38.08	20.512		
3,000.00	2,668.72	2,850.84	2,653.68	26.53	17.73	122.45	-841.27	418.21	817.01	777.18	39.83	20.513		
3,100.00	2,751.70	2,944.14	2,737.10	27.77	18.50	122.62	-877.97	438.19	852.91	811.33	41.58	20.514		
3,200.00	2,834.69	3,037.45	2,820.53	29.01	19.27	122.79	-914.68	458.16	888.81	845.48	43.33	20.514		
3,300.00	2,917.67	3,130.75	2,903.95	30.25	20.03	122.94	-951.38	478.14	924.71	879.64	45.08	20.514		
3,400.00	3,000.66	3,224.06	2,987.38	31.49	20.80	123.08	-988.09	498.12	960.62	913.80	46.83	20.514		
3,500.00	3,083.64	3,317.36	3,070.80	32.73	21.57	123.20	-1,024.79	518.09	996.54	947.96	48.58	20.513		
3,600.00	3,166.63	3,410.67	3,154.22	33.97	22.34	123.32	-1,061.50	538.07	1,032.46	982.13	50.33	20.513		
3,700.00	3,249.61	3,503.97	3,237.65	35.21	23.11	123.44	-1,098.20	558.04	1,068.38	1,016.30	52.09	20.512		
3,800.00	3,332.60	3,597.28	3,321.07	36.45	23.87	123.54	-1,134.91	578.02	1,104.31	1,050.47	53.84	20.511		
3,900.00	3,415.58	3,690.58	3,404.50	37.70	24.64	123.64	-1,171.61	598.00	1,140.24	1,084.65	55.59	20.510		
4,000.00	3,498.57	3,783.89	3,487.92	38.94	25.41	123.73	-1,208.31	617.97	1,176.17	1,118.83	57.35	20.510		
4,100.00	3,581.55	3,877.19	3,571.34	40.18	26.18	123.82	-1,245.02	637.95	1,212.11	1,153.01	59.10	20.509		
4,200.00	3,664.54	3,970.50	3,654.77	41.42	26.95	123.90	-1,281.72	657.92	1,248.05	1,187.19	60.86	20.508		
4,300.00	3,747.52	4,063.80	3,738.19	42.67	27.73	123.98	-1,318.43	677.90	1,283.99	1,221.37	62.61	20.507		
4,400.00	3,830.51	4,157.11	3,821.62	43.91	28.50	124.05	-1,355.13	697.88	1,319.93	1,255.56	64.37	20.506		
4,500.00	3,913.49	4,250.41	3,905.04	45.16	29.27	124.12	-1,391.84	717.85	1,355.87	1,289.75	66.12	20.505		
4,600.00	3,996.48	4,343.72	3,988.46	46.40	30.04	124.18	-1,428.54	737.83	1,391.82	1,323.94	67.88	20.504		
4,700.00	4,079.46	4,437.02	4,071.89	47.64	30.81	124.24	-1,465.25	757.80	1,427.76	1,358.13	69.64	20.503		
4,800.00	4,162.45	4,530.33	4,155.31	48.89	31.58	124.30	-1,501.95	777.78	1,463.71	1,392.32	71.39	20.502		
4,900.00	4,245.43	4,623.63	4,238.74	50.13	32.35	124.36	-1,538.66	797.75	1,499.66	1,426.51	73.15	20.501		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF13D-03 H04 596 - DD - Plan #2													Offset Site Error: 0.00 usft			
Survey Program: 0-MWD															Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning			
0.00	0.00	0.00	0.00	0.00	0.00	-164.10	-57.67	-16.43	59.97							
100.00	100.00	100.00	100.00	0.12	0.12	-164.10	-57.67	-16.43	59.97	59.73	0.24	253.001				
200.00	200.00	200.00	200.00	0.48	0.29	-164.10	-57.67	-16.43	59.97	59.20	0.77	77.877				
300.00	300.00	300.00	300.00	0.84	0.47	-164.10	-57.67	-16.43	59.97	58.66	1.30	46.022 CC				
300.00	300.00	300.00	300.00	0.84	0.47	-164.10	-57.67	-16.43	59.97	58.66	1.30	46.021 ES				
400.00	399.95	398.85	398.84	1.19	0.64	97.89	-58.23	-16.15	60.75	58.91	1.84	33.053				
500.00	499.63	496.42	496.27	1.55	0.82	101.34	-62.70	-13.93	65.61	63.19	2.43	27.042				
600.00	598.78	593.61	592.95	1.92	1.05	100.60	-71.57	-9.52	74.60	71.55	3.06	24.399				
700.00	697.11	690.27	688.47	2.32	1.33	101.79	-84.75	-2.97	87.20	83.45	3.74	23.284				
800.00	794.38	786.24	782.45	2.77	1.69	103.31	-102.10	5.65	103.38	98.86	4.52	22.879				
900.00	890.30	881.38	874.55	3.28	2.13	104.64	-123.45	16.26	123.08	117.68	5.40	22.780				
1,000.00	984.62	975.56	964.43	3.86	2.64	105.65	-148.60	28.76	146.18	139.76	6.42	22.785				
1,100.00	1,077.08	1,068.66	1,051.82	4.52	3.22	106.33	-177.34	43.04	172.54	164.97	7.57	22.801				
1,200.00	1,167.42	1,160.59	1,136.47	5.29	3.88	106.72	-209.42	58.98	202.04	193.18	8.87	22.791				
1,300.00	1,255.40	1,251.28	1,218.20	6.18	4.60	106.86	-244.61	76.47	234.55	224.24	10.31	22.742				
1,400.00	1,340.78	1,342.70	1,298.87	7.19	5.36	106.96	-283.12	95.61	269.75	257.84	11.91	22.654				
1,435.17	1,370.15	1,375.34	1,327.58	7.57	5.64	107.13	-297.02	102.52	282.52	270.02	12.50	22.596				
1,500.00	1,423.95	1,435.39	1,380.41	8.31	6.15	108.28	-322.60	115.23	306.30	292.68	13.62	22.487				
1,600.00	1,506.93	1,528.03	1,461.90	9.46	6.93	109.75	-362.06	134.84	343.14	327.77	15.37	22.326				
1,700.00	1,589.92	1,620.67	1,543.39	10.64	7.72	110.94	-401.52	154.45	380.15	363.01	17.14	22.180				
1,800.00	1,672.90	1,713.31	1,624.88	11.83	8.52	111.92	-440.98	174.06	417.27	398.35	18.92	22.052				
1,900.00	1,755.89	1,805.95	1,706.36	13.03	9.31	112.73	-480.44	193.67	454.48	433.76	20.71	21.940				
2,000.00	1,838.87	1,898.59	1,787.85	14.24	10.11	113.43	-519.90	213.28	491.75	469.24	22.51	21.843				
2,100.00	1,921.85	1,991.23	1,869.34	15.46	10.90	114.02	-559.36	232.88	529.08	504.77	24.32	21.759				
2,200.00	2,004.84	2,083.87	1,950.83	16.68	11.70	114.54	-598.82	252.49	566.46	540.34	26.12	21.685				
2,300.00	2,087.82	2,176.51	2,032.32	17.90	12.50	115.00	-638.28	272.10	603.87	575.93	27.93	21.620				
2,400.00	2,170.81	2,269.15	2,113.81	19.13	13.30	115.40	-677.74	291.71	641.30	611.56	29.74	21.562				
2,500.00	2,253.79	2,361.79	2,195.30	20.36	14.09	115.75	-717.20	311.32	678.76	647.21	31.56	21.511				
2,600.00	2,336.78	2,454.43	2,276.79	21.59	14.89	116.07	-756.66	330.93	716.25	682.88	33.37	21.465				
2,700.00	2,419.76	2,547.07	2,358.28	22.82	15.69	116.36	-796.11	350.54	753.74	718.56	35.18	21.423				
2,800.00	2,502.75	2,639.71	2,439.77	24.06	16.49	116.62	-835.57	370.15	791.26	754.26	37.00	21.386				
2,900.00	2,585.73	2,732.35	2,521.26	25.29	17.29	116.86	-875.03	389.76	828.78	789.97	38.82	21.352				
3,000.00	2,668.72	2,824.99	2,602.75	26.53	18.09	117.08	-914.49	409.37	866.32	825.69	40.63	21.321				
3,100.00	2,751.70	2,917.63	2,684.24	27.77	18.89	117.27	-953.95	428.98	903.87	861.42	42.45	21.293				
3,200.00	2,834.69	3,010.27	2,765.73	29.01	19.70	117.46	-993.41	448.59	941.42	897.16	44.27	21.267				
3,300.00	2,917.67	3,102.91	2,847.22	30.25	20.50	117.63	-1,032.87	468.20	978.99	932.90	46.08	21.243				
3,400.00	3,000.66	3,195.55	2,928.71	31.49	21.30	117.78	-1,072.33	487.80	1,016.56	968.65	47.90	21.221				
3,500.00	3,083.64	3,288.19	3,010.20	32.73	22.10	117.93	-1,111.79	507.41	1,054.13	1,004.41	49.72	21.201				
3,600.00	3,166.63	3,380.83	3,091.69	33.97	22.90	118.06	-1,151.25	527.02	1,091.72	1,040.18	51.54	21.182				
3,700.00	3,249.61	3,473.47	3,173.18	35.21	23.70	118.19	-1,190.71	546.63	1,129.30	1,075.94	53.36	21.164				
3,800.00	3,332.60	3,566.11	3,254.67	36.45	24.50	118.31	-1,230.17	566.24	1,166.89	1,111.71	55.18	21.148				
3,900.00	3,415.58	3,658.75	3,336.16	37.70	25.30	118.42	-1,269.63	585.85	1,204.49	1,147.49	57.00	21.132				
4,000.00	3,498.57	3,751.39	3,417.65	38.94	26.11	118.52	-1,309.08	605.46	1,242.09	1,183.27	58.82	21.118				
4,100.00	3,581.55	3,844.03	3,499.14	40.18	26.91	118.62	-1,348.54	625.07	1,279.69	1,219.05	60.64	21.104				
4,200.00	3,664.54	3,936.67	3,580.63	41.42	27.71	118.71	-1,388.00	644.68	1,317.29	1,254.84	62.46	21.092				
4,300.00	3,747.52	4,029.31	3,662.12	42.67	28.51	118.80	-1,427.46	664.29	1,354.90	1,290.63	64.28	21.080				
4,400.00	3,830.51	4,121.95	3,743.61	43.91	29.31	118.88	-1,466.92	683.90	1,392.51	1,326.42	66.10	21.068				
4,500.00	3,913.49	4,214.59	3,825.10	45.16	30.11	118.96	-1,506.38	703.51	1,430.12	1,362.21	67.91	21.058				
4,600.00	3,996.48	4,307.23	3,906.59	46.40	30.92	119.03	-1,545.84	723.11	1,467.74	1,398.00	69.73	21.047 SF				

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF13E-03 H04 596 - DD - Plan #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-164.52	-67.78	-18.77	70.34				
100.00	100.00	100.00	100.00	0.12	0.12	-164.52	-67.78	-18.77	70.34	70.10	0.24	296.741	
200.00	200.00	200.00	200.00	0.48	0.29	-164.52	-67.78	-18.77	70.34	69.57	0.77	91.341	
300.00	300.00	300.00	300.00	0.84	0.47	-164.52	-67.78	-18.77	70.34	69.03	1.30	53.978 CC, ES	
400.00	399.95	397.20	397.16	1.19	0.64	96.16	-70.03	-17.75	72.54	70.66	1.88	38.663	
500.00	499.63	494.08	493.74	1.55	0.85	97.95	-76.74	-14.68	79.20	76.70	2.50	31.637	
600.00	598.78	590.38	589.26	1.92	1.10	95.88	-87.82	-9.61	89.82	86.65	3.17	28.334	
700.00	697.11	685.97	683.35	2.32	1.43	96.18	-103.13	-2.61	103.87	99.98	3.89	26.707	
800.00	794.38	780.68	775.62	2.77	1.83	97.22	-122.51	6.25	121.40	116.71	4.69	25.898	
900.00	890.30	874.36	865.75	3.28	2.30	98.38	-145.74	16.87	142.39	136.80	5.59	25.480	
1,000.00	984.62	966.90	953.43	3.86	2.85	99.42	-172.61	29.15	166.77	160.16	6.61	25.237	
1,100.00	1,077.08	1,058.18	1,038.42	4.52	3.46	100.26	-202.86	42.98	194.44	186.68	7.76	25.056	
1,200.00	1,167.42	1,148.11	1,120.51	5.29	4.13	100.88	-236.25	58.25	225.29	216.24	9.05	24.887	
1,300.00	1,255.40	1,236.62	1,199.52	6.18	4.87	101.27	-272.50	74.82	259.18	248.69	10.49	24.703	
1,400.00	1,340.78	1,324.95	1,276.51	7.19	5.65	101.51	-311.88	92.83	295.92	283.84	12.08	24.503	
1,435.17	1,370.15	1,357.31	1,304.50	7.57	5.94	101.68	-326.65	99.58	309.28	296.60	12.68	24.391	
1,500.00	1,423.95	1,416.88	1,356.02	8.31	6.47	102.89	-353.85	112.02	334.08	320.27	13.81	24.183	
1,600.00	1,506.93	1,508.76	1,435.48	9.46	7.29	104.43	-395.80	131.20	372.55	356.95	15.60	23.887	
1,700.00	1,589.92	1,600.65	1,514.95	10.64	8.12	105.69	-437.75	150.37	411.21	393.81	17.40	23.627	
1,800.00	1,672.90	1,692.53	1,594.41	11.83	8.95	106.73	-479.70	169.55	450.01	430.78	19.23	23.403	
1,900.00	1,755.89	1,784.41	1,673.88	13.03	9.78	107.61	-521.65	188.73	488.91	467.85	21.06	23.210	
2,000.00	1,838.87	1,876.29	1,753.34	14.24	10.61	108.36	-563.60	207.91	527.90	505.00	22.91	23.044	
2,100.00	1,921.85	1,968.17	1,832.80	15.46	11.44	109.01	-605.55	227.09	566.96	542.20	24.76	22.900	
2,200.00	2,004.84	2,060.05	1,912.27	16.68	12.28	109.57	-647.50	246.27	606.07	579.46	26.61	22.774	
2,300.00	2,087.82	2,151.93	1,991.73	17.90	13.11	110.07	-689.45	265.45	645.22	616.75	28.47	22.664	
2,400.00	2,170.81	2,243.82	2,071.20	19.13	13.94	110.50	-731.40	284.63	684.41	654.08	30.33	22.567	
2,500.00	2,253.79	2,335.70	2,150.66	20.36	14.78	110.90	-773.35	303.81	723.63	691.44	32.19	22.480	
2,600.00	2,336.78	2,427.58	2,230.13	21.59	15.61	111.25	-815.30	322.99	762.88	728.83	34.05	22.403	
2,700.00	2,419.76	2,519.46	2,309.59	22.82	16.45	111.56	-857.25	342.17	802.15	766.23	35.92	22.334	
2,800.00	2,502.75	2,611.34	2,389.05	24.06	17.29	111.85	-899.20	361.35	841.43	803.65	37.78	22.272	
2,900.00	2,585.73	2,703.22	2,468.52	25.29	18.12	112.11	-941.15	380.53	880.73	841.09	39.65	22.215	
3,000.00	2,668.72	2,795.11	2,547.98	26.53	18.96	112.35	-983.10	399.71	920.05	878.54	41.51	22.164	
3,100.00	2,751.70	2,886.99	2,627.45	27.77	19.79	112.57	-1,025.05	418.89	959.38	916.00	43.38	22.117	
3,200.00	2,834.69	2,978.87	2,706.91	29.01	20.63	112.77	-1,067.00	438.07	998.72	953.48	45.25	22.073	
3,300.00	2,917.67	3,070.75	2,786.38	30.25	21.47	112.96	-1,108.95	457.25	1,038.07	990.96	47.11	22.034	
3,400.00	3,000.66	3,162.63	2,865.84	31.49	22.30	113.13	-1,150.90	476.43	1,077.43	1,028.45	48.98	21.997	
3,500.00	3,083.64	3,254.51	2,945.30	32.73	23.14	113.29	-1,192.85	495.61	1,116.80	1,065.95	50.85	21.963	
3,600.00	3,166.63	3,346.40	3,024.77	33.97	23.98	113.44	-1,234.80	514.79	1,156.17	1,103.45	52.72	21.932	
3,700.00	3,249.61	3,438.28	3,104.23	35.21	24.81	113.58	-1,276.75	533.97	1,195.55	1,140.96	54.58	21.903	
3,800.00	3,332.60	3,530.16	3,183.70	36.45	25.65	113.72	-1,318.70	553.14	1,234.93	1,178.48	56.45	21.876	
3,900.00	3,415.58	3,622.04	3,263.16	37.70	26.49	113.84	-1,360.65	572.32	1,274.32	1,216.00	58.32	21.850	
4,000.00	3,498.57	3,713.92	3,342.63	38.94	27.32	113.96	-1,402.60	591.50	1,313.72	1,253.53	60.19	21.826	
4,100.00	3,581.55	3,805.80	3,422.09	40.18	28.16	114.06	-1,444.55	610.68	1,353.12	1,291.06	62.06	21.804	
4,200.00	3,664.54	3,897.69	3,501.55	41.42	29.00	114.17	-1,486.50	629.86	1,392.52	1,328.59	63.93	21.783	
4,300.00	3,747.52	3,989.57	3,581.02	42.67	29.83	114.26	-1,528.45	649.04	1,431.93	1,366.13	65.80	21.763	
4,400.00	3,830.51	4,081.45	3,660.48	43.91	30.67	114.36	-1,570.40	668.22	1,471.34	1,403.67	67.67	21.744 SF	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF14C-04 H04 596 (was 15C-04) - DD - Plan #3													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-153.52	-45.53	-22.68	50.87					
100.00	100.00	100.00	100.00	0.12	0.12	-153.52	-45.53	-22.68	50.87	50.63	0.24	214.618		
200.00	200.00	200.00	200.00	0.48	0.29	-153.52	-45.53	-22.68	50.87	50.10	0.77	66.062		
300.00	300.00	300.00	300.00	0.84	0.47	-153.52	-45.53	-22.68	50.87	49.57	1.30	39.040	CC, ES	
400.00	399.95	399.95	399.95	1.19	0.64	109.24	-45.53	-22.68	51.67	49.85	1.83	28.266		
500.00	499.63	498.99	498.99	1.55	0.81	116.79	-45.68	-22.72	54.91	52.55	2.36	23.256		
600.00	598.78	595.32	595.24	1.92	0.99	121.12	-49.18	-23.68	64.59	61.63	2.96	21.807	SF	
700.00	697.11	689.90	689.45	2.32	1.18	126.40	-56.96	-26.44	82.27	78.67	3.60	22.838		
800.00	794.38	782.14	780.83	2.77	1.42	130.39	-68.58	-31.09	107.92	103.66	4.26	25.320		
900.00	890.30	871.42	868.60	3.28	1.71	132.87	-83.58	-37.45	141.00	136.05	4.95	28.485		
1,000.00	984.62	957.22	952.15	3.86	2.05	134.21	-101.44	-45.25	180.95	175.27	5.67	31.887		
1,100.00	1,077.08	1,039.12	1,031.01	4.52	2.43	134.77	-121.62	-54.24	227.23	220.79	6.44	35.293		
1,200.00	1,167.42	1,116.80	1,104.87	5.29	2.85	134.78	-143.55	-64.14	279.38	272.14	7.24	38.595		
1,300.00	1,255.40	1,190.06	1,173.57	6.18	3.30	134.39	-166.68	-74.68	336.93	328.86	8.08	41.713		
1,400.00	1,340.78	1,258.77	1,237.07	7.19	3.78	133.66	-190.50	-85.63	399.45	390.50	8.95	44.610		
1,435.17	1,370.15	1,281.84	1,258.18	7.57	3.94	133.34	-198.96	-89.53	422.54	413.27	9.27	45.584		
1,500.00	1,423.95	1,323.37	1,295.88	8.31	4.25	134.01	-214.76	-96.83	465.98	456.13	9.84	47.347		
1,600.00	1,506.93	1,388.14	1,353.94	9.46	4.75	134.67	-240.79	-108.92	534.30	523.56	10.75	49.711		
1,700.00	1,589.92	1,460.60	1,418.60	10.64	5.32	135.18	-270.46	-122.70	603.12	591.37	11.76	51.306		
1,800.00	1,672.90	1,533.06	1,483.25	11.83	5.90	135.59	-300.13	-136.49	671.96	659.17	12.79	52.553		
1,900.00	1,755.89	1,605.52	1,547.91	13.03	6.47	135.92	-329.79	-150.28	740.81	726.98	13.84	53.540		
2,000.00	1,838.87	1,677.98	1,612.57	14.24	7.05	136.20	-359.46	-164.07	809.68	794.77	14.90	54.329		
2,100.00	1,921.85	1,750.44	1,677.22	15.46	7.64	136.43	-389.12	-177.85	878.55	862.57	15.98	54.971		
2,200.00	2,004.84	1,822.90	1,741.88	16.68	8.22	136.63	-418.79	-191.64	947.43	930.36	17.07	55.501		
2,300.00	2,087.82	1,895.36	1,806.53	17.90	8.81	136.80	-448.46	-205.43	1,016.31	998.14	18.17	55.942		
2,400.00	2,170.81	1,967.82	1,871.19	19.13	9.40	136.95	-478.12	-219.22	1,085.20	1,065.93	19.27	56.312		
2,500.00	2,253.79	2,040.28	1,935.84	20.36	9.98	137.09	-507.79	-233.00	1,154.09	1,133.71	20.38	56.628		
2,600.00	2,336.78	2,112.74	2,000.50	21.59	10.57	137.20	-537.45	-246.79	1,222.98	1,201.49	21.49	56.898		
2,700.00	2,419.76	2,185.20	2,065.15	22.82	11.16	137.31	-567.12	-260.58	1,291.88	1,269.27	22.61	57.132		
2,800.00	2,502.75	2,257.66	2,129.81	24.06	11.75	137.40	-596.78	-274.37	1,360.78	1,337.04	23.73	57.335		
2,900.00	2,585.73	2,330.12	2,194.47	25.29	12.34	137.49	-626.45	-288.15	1,429.68	1,404.82	24.86	57.513		
3,000.00	2,668.72	2,402.58	2,259.12	26.53	12.93	137.57	-656.12	-301.94	1,498.58	1,472.59	25.99	57.669		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF15A-04 H04 596 - DD - Plan #3												Offset Site Error: 0.00 usft			
Survey Program: O-MWD														Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	-145.63	-26.30	-17.99	31.87						
100.00	100.00	100.00	100.00	0.12	0.12	-145.63	-26.30	-17.99	31.87	31.63	0.24	134.447			
200.00	200.00	200.00	200.00	0.48	0.29	-145.63	-26.30	-17.99	31.87	31.10	0.77	41.385			
300.00	300.00	300.00	300.00	0.84	0.47	-145.63	-26.30	-17.99	31.87	30.56	1.30	24.456 CC, ES			
400.00	399.95	399.95	399.95	1.19	0.64	118.48	-26.30	-17.99	33.03	31.21	1.83	18.068			
500.00	499.63	499.63	499.63	1.55	0.81	128.97	-26.30	-17.99	37.42	35.06	2.36	15.860 SF			
600.00	598.78	596.87	596.83	1.92	0.99	135.22	-28.56	-18.95	48.30	45.36	2.94	16.437			
700.00	697.11	692.59	692.27	2.32	1.18	139.65	-35.23	-21.78	67.43	63.88	3.55	18.992			
800.00	794.38	785.69	784.63	2.77	1.41	141.79	-45.80	-26.58	94.26	90.07	4.20	22.461			
900.00	890.30	875.60	873.19	3.28	1.69	142.61	-59.63	-33.46	128.48	123.60	4.88	26.352			
1,000.00	984.62	961.76	957.29	3.86	2.01	142.67	-76.20	-42.09	169.59	164.01	5.59	30.350			
1,100.00	1,077.08	1,043.71	1,036.43	4.52	2.38	142.27	-94.93	-52.16	217.17	210.83	6.33	34.296			
1,200.00	1,167.42	1,121.12	1,110.28	5.29	2.79	141.57	-115.26	-63.30	270.74	263.64	7.10	38.118			
1,300.00	1,255.40	1,193.75	1,178.67	6.18	3.22	140.64	-136.64	-75.18	329.87	321.97	7.90	41.769			
1,400.00	1,340.78	1,262.50	1,242.51	7.19	3.66	139.53	-158.87	-87.68	394.08	385.36	8.71	45.235			
1,435.17	1,370.15	1,288.56	1,266.57	7.57	3.83	139.16	-167.59	-92.59	417.62	408.60	9.02	46.284			
1,500.00	1,423.95	1,336.27	1,310.63	8.31	4.15	139.80	-183.54	-101.59	461.36	451.77	9.59	48.104			
1,600.00	1,506.93	1,409.88	1,378.59	9.46	4.64	140.57	-208.16	-115.48	528.88	518.39	10.49	50.430			
1,700.00	1,589.92	1,483.48	1,446.55	10.64	5.14	141.16	-232.77	-129.36	596.43	585.02	11.41	52.266			
1,800.00	1,672.90	1,557.08	1,514.51	11.83	5.64	141.64	-257.38	-143.25	664.02	651.66	12.36	53.741			
1,900.00	1,755.89	1,630.68	1,582.47	13.03	6.14	142.03	-282.00	-157.13	731.63	718.31	13.32	54.944			
2,000.00	1,838.87	1,704.28	1,650.43	14.24	6.65	142.35	-306.61	-171.02	799.25	784.96	14.29	55.938			
2,100.00	1,921.85	1,777.89	1,718.39	15.46	7.16	142.62	-331.22	-184.90	866.88	851.61	15.27	56.766			
2,200.00	2,004.84	1,851.49	1,786.35	16.68	7.66	142.85	-355.84	-198.78	934.52	918.26	16.26	57.465			
2,300.00	2,087.82	1,925.09	1,854.31	17.90	8.17	143.06	-380.45	-212.67	1,002.17	984.91	17.26	58.062			
2,400.00	2,170.81	1,998.69	1,922.27	19.13	8.69	143.23	-405.07	-226.55	1,069.83	1,051.57	18.26	58.577			
2,500.00	2,253.79	2,072.29	1,990.23	20.36	9.20	143.39	-429.68	-240.44	1,137.49	1,118.22	19.27	59.022			
2,600.00	2,336.78	2,145.90	2,058.19	21.59	9.71	143.52	-454.29	-254.32	1,205.15	1,184.87	20.28	59.412			
2,700.00	2,419.76	2,219.50	2,126.15	22.82	10.22	143.65	-478.91	-268.21	1,272.82	1,251.52	21.30	59.756			
2,800.00	2,502.75	2,293.10	2,194.12	24.06	10.74	143.76	-503.52	-282.09	1,340.49	1,318.17	22.32	60.060			
2,900.00	2,585.73	2,366.70	2,262.08	25.29	11.25	143.86	-528.13	-295.97	1,408.17	1,384.82	23.34	60.331			
3,000.00	2,668.72	2,440.30	2,330.04	26.53	11.77	143.95	-552.75	-309.86	1,475.84	1,451.48	24.36	60.574			

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF15B-03 H04 596 (was 10E-03) - DD - Plan #3												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-77.86	2.02	-9.39	9.60				
100.00	100.00	100.00	100.00	0.12	0.12	-77.86	2.02	-9.39	9.60	9.36	0.24	40.508	
200.00	200.00	200.00	200.00	0.48	0.29	-77.86	2.02	-9.39	9.60	8.83	0.77	12.469	
300.00	300.00	300.00	300.00	0.84	0.47	-77.86	2.02	-9.39	9.60	8.30	1.30	7.369 CC, ES	
400.00	399.95	400.25	400.24	1.19	0.64	-179.36	1.69	-8.82	11.60	9.75	1.85	6.273	
500.00	499.63	500.82	500.66	1.55	0.83	173.28	-0.99	-4.25	14.61	12.13	2.48	5.896	
600.00	598.78	601.46	600.73	1.92	1.07	160.38	-6.33	4.88	18.28	15.15	3.13	5.834	
700.00	697.11	702.17	700.18	2.32	1.37	151.27	-14.33	18.56	22.55	18.73	3.82	5.899	
800.00	794.38	802.96	798.72	2.77	1.76	144.28	-24.97	36.76	27.42	22.83	4.59	5.977	
900.00	890.30	903.80	896.07	3.28	2.25	138.69	-38.23	59.44	32.88	27.41	5.47	6.012	
1,000.00	984.62	1,004.70	991.95	3.86	2.84	134.09	-54.08	86.54	38.91	32.41	6.50	5.984	
1,100.00	1,077.08	1,105.65	1,086.09	4.52	3.52	130.23	-72.47	117.98	45.50	37.79	7.72	5.897	
1,200.00	1,167.42	1,206.65	1,178.21	5.29	4.31	126.94	-93.35	153.69	52.63	43.50	9.13	5.764	
1,300.00	1,255.40	1,307.68	1,268.05	6.18	5.21	124.09	-116.67	193.58	60.28	49.51	10.77	5.599	
1,400.00	1,340.78	1,408.75	1,355.35	7.19	6.20	121.60	-142.37	237.52	68.42	55.78	12.64	5.414	
1,435.17	1,370.15	1,444.31	1,385.40	7.57	6.58	120.80	-151.96	253.92	71.39	58.03	13.36	5.344	
1,500.00	1,423.95	1,509.85	1,439.86	8.31	7.30	118.92	-170.37	285.40	76.53	61.76	14.78	5.179	
1,600.00	1,506.93	1,610.72	1,521.13	9.46	8.49	113.63	-200.52	336.95	83.29	66.00	17.29	4.817	
1,700.00	1,589.92	1,710.46	1,598.68	10.64	9.73	106.32	-232.19	391.10	89.80	69.78	20.02	4.486	
1,800.00	1,672.90	1,809.58	1,675.29	11.83	10.97	99.70	-263.93	445.38	97.54	74.88	22.66	4.305	
1,900.00	1,755.89	1,908.69	1,751.91	13.03	12.22	94.11	-295.67	499.65	106.38	81.23	25.15	4.229	
2,000.00	1,838.87	2,007.80	1,828.52	14.24	13.47	89.41	-327.41	553.93	116.08	88.56	27.52	4.219 SF	
2,100.00	1,921.85	2,106.91	1,905.14	15.46	14.72	85.45	-359.15	608.20	126.44	96.68	29.76	4.249	
2,200.00	2,004.84	2,206.02	1,981.75	16.68	15.97	82.10	-390.89	662.48	137.30	105.39	31.91	4.303	
2,300.00	2,087.82	2,305.13	2,058.36	17.90	17.22	79.25	-422.63	716.75	148.57	114.58	33.99	4.371	
2,400.00	2,170.81	2,404.24	2,134.98	19.13	18.48	76.80	-454.37	771.03	160.15	124.14	36.01	4.447	
2,500.00	2,253.79	2,503.35	2,211.59	20.36	19.73	74.68	-486.11	825.30	171.97	133.99	37.99	4.527	
2,600.00	2,336.78	2,602.46	2,288.21	21.59	20.99	72.84	-517.85	879.58	184.00	144.07	39.93	4.608	
2,700.00	2,419.76	2,701.57	2,364.82	22.82	22.25	71.22	-549.59	933.85	196.20	154.35	41.85	4.688	
2,800.00	2,502.75	2,800.68	2,441.43	24.06	23.51	69.80	-581.33	988.13	208.53	164.78	43.75	4.767	
2,900.00	2,585.73	2,899.79	2,518.05	25.29	24.76	68.53	-613.07	1,042.40	220.98	175.34	45.63	4.843	
3,000.00	2,668.72	2,998.90	2,594.66	26.53	26.02	67.40	-644.81	1,096.68	233.52	186.01	47.50	4.916	
3,100.00	2,751.70	3,098.01	2,671.28	27.77	27.28	66.38	-676.55	1,150.95	246.14	196.77	49.36	4.986	
3,200.00	2,834.69	3,197.12	2,747.89	29.01	28.54	65.47	-708.29	1,205.23	258.83	207.61	51.22	5.054	
3,300.00	2,917.67	3,296.23	2,824.50	30.25	29.80	64.64	-740.03	1,259.50	271.57	218.51	53.06	5.118	
3,400.00	3,000.66	3,395.34	2,901.12	31.49	31.06	63.88	-771.77	1,313.78	284.37	229.47	54.90	5.179	
3,500.00	3,083.64	3,494.46	2,977.73	32.73	32.32	63.19	-803.51	1,368.05	297.22	240.48	56.74	5.238	
3,600.00	3,166.63	3,593.57	3,054.35	33.97	33.58	62.56	-835.25	1,422.33	310.10	251.53	58.57	5.294	
3,700.00	3,249.61	3,692.68	3,130.96	35.21	34.85	61.97	-866.99	1,476.60	323.02	262.61	60.41	5.348	
3,800.00	3,332.60	3,791.79	3,207.57	36.45	36.11	61.43	-898.73	1,530.88	335.97	273.73	62.23	5.398	
3,900.00	3,415.58	3,890.90	3,284.19	37.70	37.37	60.94	-930.47	1,585.15	348.94	284.88	64.06	5.447	
4,000.00	3,498.57	3,990.01	3,360.80	38.94	38.63	60.47	-962.21	1,639.43	361.94	296.06	65.89	5.493	
4,100.00	3,581.55	4,089.12	3,437.42	40.18	39.89	60.04	-993.95	1,693.70	374.96	307.25	67.71	5.538	
4,200.00	3,664.54	4,188.23	3,514.03	41.42	41.15	59.64	-1,025.69	1,747.97	388.00	318.47	69.53	5.580	
4,300.00	3,747.52	4,287.34	3,590.65	42.67	42.41	59.26	-1,057.43	1,802.25	401.06	329.71	71.35	5.621	
4,400.00	3,830.51	4,386.45	3,667.26	43.91	43.67	58.91	-1,089.17	1,856.52	414.14	340.96	73.18	5.659	
4,500.00	3,913.49	4,485.56	3,743.87	45.16	44.94	58.58	-1,120.91	1,910.80	427.22	352.23	75.00	5.697	
4,600.00	3,996.48	4,584.67	3,820.49	46.40	46.20	58.27	-1,152.65	1,965.07	440.33	363.51	76.82	5.732	
4,700.00	4,079.46	4,683.78	3,897.10	47.64	47.46	57.98	-1,184.39	2,019.35	453.44	374.80	78.64	5.766	
4,800.00	4,162.45	4,782.89	3,973.72	48.89	48.72	57.70	-1,216.13	2,073.62	466.56	386.11	80.45	5.799	
4,900.00	4,245.43	4,882.00	4,050.33	50.13	49.98	57.44	-1,247.87	2,127.90	479.70	397.42	82.27	5.831	
5,000.00	4,328.42	4,981.11	4,126.94	51.38	51.25	57.19	-1,279.61	2,182.17	492.84	408.75	84.09	5.861	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF15B-03 H04 596 (was 10E-03) - DD - Plan #3												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.00	4,411.40	5,080.22	4,203.56	52.62	52.51	56.96	-1,311.35	2,236.45	505.99	420.08	85.91	5.890	
5,200.00	4,494.39	5,179.34	4,280.17	53.87	53.77	56.74	-1,343.09	2,290.72	519.15	431.43	87.73	5.918	
5,300.00	4,577.37	5,278.45	4,356.79	55.11	55.03	56.53	-1,374.83	2,345.00	532.32	442.78	89.55	5.945	
5,400.00	4,660.36	5,377.56	4,433.40	56.36	56.29	56.32	-1,406.57	2,399.27	545.50	454.13	91.36	5.971	
5,500.00	4,743.34	5,476.67	4,510.01	57.60	57.56	56.13	-1,438.31	2,453.55	558.68	465.50	93.18	5.996	
5,600.00	4,826.33	5,575.78	4,586.63	58.85	58.82	55.95	-1,470.05	2,507.82	571.86	476.86	95.00	6.020	
5,700.00	4,909.31	5,674.89	4,663.24	60.09	60.08	55.77	-1,501.79	2,562.10	585.06	488.24	96.82	6.043	
5,800.00	4,992.30	5,774.00	4,739.86	61.34	61.34	55.61	-1,533.54	2,616.37	598.25	499.62	98.63	6.065	
5,900.00	5,075.28	5,873.11	4,816.47	62.58	62.61	55.45	-1,565.28	2,670.65	611.45	511.00	100.45	6.087	
6,000.00	5,158.27	5,972.22	4,893.08	63.83	63.87	55.29	-1,597.02	2,724.92	624.66	522.39	102.27	6.108	
6,100.00	5,241.25	6,071.33	4,969.70	65.08	65.13	55.15	-1,628.76	2,779.20	637.87	533.78	104.09	6.128	
6,200.00	5,324.24	6,170.44	5,046.31	66.32	66.39	55.01	-1,660.50	2,833.47	651.09	545.18	105.91	6.148	
6,300.00	5,407.22	6,269.55	5,122.93	67.57	67.66	54.87	-1,692.24	2,887.75	664.30	556.58	107.72	6.167	
6,400.00	5,490.21	6,368.66	5,199.54	68.81	68.92	54.74	-1,723.98	2,942.02	677.53	567.99	109.54	6.185	
6,500.00	5,573.19	6,467.77	5,276.16	70.06	70.18	54.62	-1,755.72	2,996.30	690.75	579.39	111.36	6.203	
6,600.00	5,656.18	6,566.88	5,352.77	71.30	71.44	54.50	-1,787.46	3,050.57	703.98	590.80	113.18	6.220	
6,700.00	5,739.16	6,665.99	5,429.38	72.55	72.71	54.38	-1,819.20	3,104.85	717.21	602.22	114.99	6.237	
6,800.00	5,822.15	6,765.10	5,506.00	73.80	73.97	54.27	-1,850.94	3,159.12	730.44	613.63	116.81	6.253	
6,900.00	5,905.13	6,864.22	5,582.61	75.04	75.23	54.16	-1,882.68	3,213.39	743.68	625.05	118.63	6.269	
7,000.00	5,988.12	6,963.33	5,659.23	76.29	76.49	54.06	-1,914.42	3,267.67	756.92	636.47	120.45	6.284	
7,100.00	6,071.10	7,062.44	5,735.84	77.54	77.76	53.96	-1,946.16	3,321.94	770.16	647.90	122.26	6.299	
7,200.00	6,154.09	7,161.55	5,812.45	78.78	79.02	53.86	-1,977.90	3,376.22	783.41	659.32	124.08	6.314	
7,300.00	6,237.07	7,260.66	5,889.07	80.03	80.28	53.77	-2,009.64	3,430.49	796.65	670.75	125.90	6.328	
7,400.00	6,320.06	7,359.77	5,965.68	81.27	81.54	53.68	-2,041.38	3,484.77	809.90	682.18	127.72	6.341	
7,500.00	6,403.04	7,458.88	6,042.30	82.52	82.81	53.59	-2,073.12	3,539.04	823.15	693.61	129.54	6.355	
7,600.00	6,486.03	7,557.99	6,118.91	83.77	84.07	53.50	-2,104.86	3,593.32	836.40	705.05	131.35	6.368	
7,700.00	6,569.01	7,657.10	6,195.52	85.01	85.33	53.42	-2,136.60	3,647.59	849.65	716.48	133.17	6.380	
7,800.00	6,652.00	7,781.41	6,292.68	86.26	86.84	53.40	-2,175.74	3,714.53	862.10	726.56	135.54	6.361	
7,900.00	6,734.98	7,926.52	6,411.83	87.51	88.39	53.84	-2,217.52	3,785.96	869.85	731.20	138.65	6.274	
8,000.00	6,817.97	8,071.25	6,536.58	88.75	89.73	54.79	-2,254.52	3,849.24	872.45	730.31	142.14	6.138	
8,064.68	6,871.64	8,163.88	6,619.20	89.56	90.48	55.67	-2,275.66	3,885.38	871.50	726.90	144.60	6.027	
8,100.00	6,901.13	8,214.04	6,664.76	89.99	90.86	56.19	-2,286.25	3,903.50	870.34	724.36	145.97	5.962	
8,200.00	6,986.52	8,354.69	6,795.26	91.12	91.76	57.69	-2,312.69	3,948.71	865.95	716.23	149.72	5.784	
8,300.00	7,074.51	8,493.15	6,927.15	92.13	92.47	59.24	-2,333.92	3,985.02	860.03	706.76	153.27	5.611	
8,400.00	7,164.86	8,629.25	7,059.42	93.00	92.97	60.86	-2,350.04	4,012.57	852.73	696.11	156.62	5.445	
8,500.00	7,257.33	8,762.84	7,191.14	93.75	93.31	62.53	-2,361.19	4,031.64	844.19	684.40	159.78	5.283	
8,600.00	7,351.67	8,893.81	7,321.48	94.39	93.51	64.26	-2,367.58	4,042.57	834.56	671.79	162.77	5.127	
8,700.00	7,447.61	9,020.02	7,447.60	94.92	93.56	66.01	-2,369.47	4,045.80	824.01	658.43	165.58	4.976	
8,800.00	7,544.90	9,117.17	7,544.76	95.35	93.59	67.19	-2,369.48	4,045.79	814.63	646.48	168.15	4.845	
8,900.00	7,643.26	9,215.39	7,642.97	95.69	93.62	68.16	-2,369.51	4,045.74	807.73	637.60	170.13	4.748	
9,000.00	7,742.42	9,314.41	7,741.99	95.95	93.64	68.88	-2,369.55	4,045.67	803.05	631.50	171.55	4.681	
9,100.00	7,842.12	9,413.96	7,841.54	96.14	93.67	69.31	-2,369.62	4,045.56	800.39	627.95	172.44	4.642	
9,195.23	7,937.31	9,509.01	7,936.60	96.27	93.70	-179.22	-2,369.69	4,045.43	799.63	626.82	172.81	4.627	
9,200.00	7,942.08	9,513.77	7,941.36	96.27	93.70	-57.21	-2,369.69	4,045.43	799.64	626.82	172.82	4.627	
9,228.85	7,970.94	9,542.59	7,970.17	96.30	93.71	-57.21	-2,369.72	4,045.38	799.61	626.76	172.86	4.626	
9,229.92	7,972.00	9,543.65	7,971.24	96.30	93.71	-57.21	-2,369.72	4,045.38	799.61	626.75	172.86	4.626	
9,300.00	8,042.08	9,613.63	8,041.21	96.36	93.73	-57.23	-2,369.79	4,045.26	799.45	626.53	172.92	4.623	
9,400.00	8,142.08	9,713.48	8,141.07	96.45	93.76	-57.25	-2,369.91	4,045.07	799.24	626.22	173.02	4.619	
9,500.00	8,242.08	9,813.34	8,240.92	96.54	93.79	-57.27	-2,370.04	4,044.84	799.05	625.92	173.13	4.615	
9,600.00	8,342.07	9,913.19	8,340.78	96.64	93.82	-57.29	-2,370.19	4,044.59	798.88	625.64	173.23	4.612	
9,700.00	8,442.07	10,013.05	8,440.63	96.73	93.85	-57.31	-2,370.36	4,044.30	798.72	625.38	173.34	4.608	
9,800.00	8,542.07	10,112.91	8,540.49	96.83	93.88	-57.32	-2,370.54	4,043.99	798.58	625.12	173.46	4.604	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF15B-03 H04 596 (was 10E-03) - DD - Plan #3												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
9,900.00	8,642.07	10,212.76	8,640.34	96.92	93.91	-57.33	-2,370.75	4,043.64	798.46	624.88	173.58	4.600	
10,000.00	8,742.07	10,312.62	8,740.20	97.02	93.94	-57.34	-2,370.97	4,043.27	798.36	624.66	173.70	4.596	
10,100.00	8,842.07	10,412.47	8,840.05	97.12	93.97	-57.35	-2,371.21	4,042.86	798.28	624.45	173.83	4.592	
10,200.00	8,942.06	10,512.33	8,939.91	97.22	94.00	-57.36	-2,371.46	4,042.42	798.21	624.25	173.96	4.588	
10,300.00	9,042.06	10,612.19	9,039.76	97.32	94.03	-57.36	-2,371.74	4,041.96	798.17	624.07	174.09	4.585	
10,400.00	9,142.06	10,712.04	9,139.62	97.43	94.06	-57.36	-2,372.03	4,041.46	798.14	623.90	174.23	4.581	
10,500.00	9,242.06	10,811.90	9,239.47	97.53	94.09	-57.36	-2,372.34	4,040.94	798.13	623.75	174.38	4.577	
10,512.61	9,254.67	10,824.49	9,252.06	97.54	94.09	-57.36	-2,372.38	4,040.87	798.13	623.73	174.39	4.577	
10,600.00	9,342.06	10,911.75	9,339.32	97.64	94.12	-57.36	-2,372.66	4,040.38	798.13	623.61	174.52	4.573	
10,700.00	9,442.05	11,011.61	9,439.18	97.74	94.15	-57.35	-2,373.01	4,039.80	798.16	623.48	174.67	4.569	
10,800.00	9,542.05	11,111.47	9,539.03	97.85	94.18	-57.34	-2,373.37	4,039.18	798.20	623.37	174.83	4.566	
10,900.00	9,642.05	11,211.32	9,638.88	97.96	94.21	-57.34	-2,373.75	4,038.54	798.26	623.28	174.99	4.562	
11,000.00	9,742.05	11,311.22	9,738.78	98.07	94.24	-57.32	-2,374.15	4,037.86	798.34	623.19	175.15	4.558	
11,100.00	9,842.05	11,411.22	9,838.78	98.18	94.27	-57.31	-2,374.55	4,037.18	798.42	623.11	175.31	4.554	
11,200.00	9,942.05	11,511.22	9,938.78	98.29	94.30	-57.30	-2,374.95	4,036.50	798.50	623.03	175.48	4.550	
11,300.00	10,042.04	11,611.22	10,038.77	98.41	94.33	-57.29	-2,375.35	4,035.82	798.59	622.94	175.64	4.547	
11,400.00	10,142.04	11,711.22	10,138.77	98.52	94.37	-57.28	-2,375.75	4,035.14	798.67	622.86	175.81	4.543	
11,500.00	10,242.04	11,811.22	10,238.77	98.64	94.40	-57.26	-2,376.15	4,034.45	798.75	622.77	175.98	4.539	
11,600.00	10,342.04	11,911.22	10,338.76	98.75	94.43	-57.25	-2,376.55	4,033.77	798.83	622.68	176.15	4.535	
11,700.00	10,442.04	12,011.22	10,438.76	98.87	94.46	-57.24	-2,376.95	4,033.09	798.92	622.59	176.33	4.531	
11,800.00	10,542.03	12,111.22	10,538.76	98.99	94.50	-57.23	-2,377.36	4,032.41	799.00	622.50	176.50	4.527	
11,900.00	10,642.03	12,211.22	10,638.75	99.11	94.53	-57.22	-2,377.76	4,031.73	799.08	622.40	176.68	4.523	
12,000.00	10,742.03	12,311.22	10,738.75	99.24	94.56	-57.20	-2,378.16	4,031.04	799.16	622.31	176.86	4.519	
12,100.00	10,842.03	12,411.22	10,838.75	99.36	94.60	-57.19	-2,378.56	4,030.36	799.25	622.21	177.04	4.515	
12,200.00	10,942.03	12,511.22	10,938.74	99.48	94.63	-57.18	-2,378.96	4,029.68	799.33	622.11	177.22	4.510	
12,300.00	11,042.03	12,611.22	11,038.74	99.61	94.66	-57.17	-2,379.36	4,029.00	799.41	622.01	177.40	4.506	
12,327.95	11,069.98	12,639.18	11,066.69	99.64	94.67	-57.16	-2,379.47	4,028.81	799.43	621.98	177.45	4.505	
12,400.00	11,142.02	12,711.22	11,138.74	99.73	94.70	-57.16	-2,379.76	4,028.32	799.49	621.91	177.58	4.502	
12,500.00	11,242.02	12,811.22	11,238.73	99.86	94.73	-57.14	-2,380.16	4,027.64	799.58	621.81	177.77	4.498	
12,600.00	11,342.02	12,911.22	11,338.73	99.99	94.77	-57.13	-2,380.56	4,026.95	799.66	621.70	177.95	4.494	
12,603.12	11,345.14	12,914.34	11,341.85	99.99	94.77	-57.13	-2,380.58	4,026.93	799.66	621.70	177.96	4.493	
12,700.00	11,442.02	12,999.97	11,427.48	100.12	94.80	-57.12	-2,380.92	4,026.35	799.82	621.66	178.16	4.489	
12,800.00	11,542.02	12,999.97	11,427.48	100.25	94.80	-57.12	-2,380.92	4,026.35	807.52	630.46	177.06	4.561	
12,882.41	11,624.42	12,999.97	11,427.48	100.36	94.80	-57.12	-2,380.92	4,026.35	823.00	648.68	174.33	4.721	
12,882.93	11,624.95	12,999.97	11,427.48	100.36	94.80	-57.12	-2,380.92	4,026.35	823.13	648.80	174.33	4.722	



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF15B-04 H04 596 - DD - Plan #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-150.82	-36.42	-20.34	41.71					
100.00	100.00	100.00	100.00	0.12	0.12	-150.82	-36.42	-20.34	41.71	41.47	0.24	175.978		
200.00	200.00	200.00	200.00	0.48	0.29	-150.82	-36.42	-20.34	41.71	40.94	0.77	54.168		
203.48	203.48	203.48	203.48	0.49	0.30	-150.82	-36.42	-20.34	41.71	40.92	0.79	52.894	CC, ES	
300.00	300.00	299.07	299.06	0.84	0.46	-150.38	-36.73	-20.88	42.26	40.94	1.33	31.873		
400.00	399.95	396.75	396.61	1.19	0.65	115.41	-39.23	-25.22	47.83	45.84	1.99	24.079		
500.00	499.63	492.72	492.06	1.55	0.89	125.36	-44.12	-33.68	61.49	58.78	2.71	22.695	SF	
600.00	598.78	585.79	584.06	1.92	1.17	129.91	-51.14	-45.84	84.33	80.90	3.42	24.623		
700.00	697.11	675.02	671.52	2.32	1.52	134.29	-59.97	-61.12	116.18	112.08	4.10	28.342		
800.00	794.38	759.60	753.58	2.77	1.91	137.37	-70.21	-78.87	156.61	151.87	4.74	33.042		
900.00	890.30	838.94	829.65	3.28	2.34	139.33	-81.46	-98.36	204.92	199.57	5.36	38.264		
1,000.00	984.62	912.61	899.40	3.86	2.79	140.42	-93.32	-118.89	260.39	254.44	5.95	43.752		
1,100.00	1,077.08	980.38	962.71	4.52	3.25	140.86	-105.40	-139.82	322.31	315.77	6.53	49.332		
1,200.00	1,167.42	1,050.82	1,027.70	5.29	3.74	141.04	-119.23	-163.18	389.67	382.59	7.07	55.108		
1,300.00	1,255.40	1,131.84	1,102.49	6.18	4.30	141.01	-137.40	-188.47	459.17	451.52	7.65	60.012		
1,400.00	1,340.78	1,213.84	1,178.29	7.19	4.86	140.56	-158.35	-211.69	529.99	521.63	8.36	63.416		
1,435.17	1,370.15	1,242.95	1,205.19	7.57	5.06	140.33	-166.40	-219.35	555.18	546.53	8.65	64.192		
1,500.00	1,423.95	1,297.82	1,255.88	8.31	5.43	141.19	-182.43	-232.93	601.39	592.19	9.20	65.387		
1,600.00	1,506.93	1,386.73	1,337.82	9.46	6.02	141.98	-210.78	-252.59	671.17	661.00	10.17	65.981		
1,700.00	1,589.92	1,480.90	1,424.18	10.64	6.64	142.24	-243.92	-270.18	738.92	727.62	11.30	65.419		
1,800.00	1,672.90	1,559.57	1,495.99	11.83	7.17	142.22	-273.34	-283.04	805.23	792.89	12.34	65.254		
1,900.00	1,755.89	1,634.45	1,564.35	13.03	7.68	142.21	-301.39	-295.23	871.50	858.13	13.37	65.176		
2,000.00	1,838.87	1,709.33	1,632.70	14.24	8.20	142.19	-329.44	-307.42	937.77	923.36	14.42	65.039		
2,100.00	1,921.85	1,784.22	1,701.05	15.46	8.72	142.18	-357.49	-319.61	1,004.05	988.57	15.48	64.866		
2,200.00	2,004.84	1,859.10	1,769.41	16.68	9.25	142.17	-385.54	-331.80	1,070.32	1,053.77	16.55	64.676		
2,300.00	2,087.82	1,933.99	1,837.76	17.90	9.78	142.16	-413.59	-343.99	1,136.60	1,118.97	17.63	64.479		
2,400.00	2,170.81	2,008.87	1,906.12	19.13	10.31	142.15	-441.64	-356.18	1,202.87	1,184.16	18.71	64.281		
2,500.00	2,253.79	2,083.76	1,974.47	20.36	10.85	142.14	-469.69	-368.37	1,269.15	1,249.34	19.80	64.086		
2,600.00	2,336.78	2,158.64	2,042.83	21.59	11.38	142.13	-497.74	-380.56	1,335.42	1,314.52	20.90	63.896		
2,700.00	2,419.76	2,233.53	2,111.18	22.82	11.92	142.12	-525.78	-392.75	1,401.70	1,379.70	22.00	63.713		
2,800.00	2,502.75	2,308.41	2,179.54	24.06	12.46	142.12	-553.83	-404.94	1,467.97	1,444.87	23.10	63.538		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF15D-04 H04 596 - DD - Plan #3													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-155.12	-55.66	-25.81	61.36					
100.00	100.00	100.00	100.00	0.12	0.12	-155.12	-55.66	-25.81	61.36	61.12	0.24	258.867		
200.00	200.00	200.00	200.00	0.48	0.29	-155.12	-55.66	-25.81	61.36	60.59	0.77	79.683		
300.00	300.00	300.00	300.00	0.84	0.47	-155.12	-55.66	-25.81	61.36	60.05	1.30	47.089	CC, ES	
400.00	399.95	396.75	396.71	1.19	0.64	107.34	-57.67	-27.22	64.59	62.68	1.91	33.859		
500.00	499.63	492.43	492.10	1.55	0.84	113.33	-63.60	-31.37	74.90	72.31	2.59	28.913		
600.00	598.78	586.09	585.02	1.92	1.09	115.72	-73.18	-38.08	92.80	89.51	3.29	28.242	SF	
700.00	697.11	677.00	674.55	2.32	1.40	119.51	-86.04	-47.09	118.35	114.38	3.97	29.822		
800.00	794.38	764.48	759.92	2.77	1.76	122.77	-101.70	-58.05	151.55	146.90	4.65	32.614		
900.00	890.30	848.01	840.52	3.28	2.17	125.13	-119.63	-70.60	192.01	186.68	5.33	35.998		
1,000.00	984.62	927.15	915.94	3.86	2.60	126.65	-139.26	-84.35	239.22	233.19	6.04	39.637		
1,100.00	1,077.08	1,004.28	988.45	4.52	3.07	127.55	-160.90	-99.21	292.44	285.70	6.74	43.367		
1,200.00	1,167.42	1,081.04	1,059.72	5.29	3.60	127.80	-185.32	-113.91	349.99	342.48	7.52	46.570		
1,300.00	1,255.40	1,154.98	1,127.45	6.18	4.14	127.50	-211.58	-127.70	411.26	402.89	8.37	49.148		
1,400.00	1,340.78	1,226.06	1,191.61	7.19	4.69	126.79	-239.32	-140.60	475.94	466.64	9.29	51.211		
1,435.17	1,370.15	1,250.37	1,213.32	7.57	4.89	126.46	-249.36	-144.93	499.44	489.80	9.64	51.786		
1,500.00	1,423.95	1,295.02	1,252.87	8.31	5.26	127.28	-268.53	-152.77	543.29	533.00	10.29	52.811		
1,600.00	1,506.93	1,368.04	1,317.27	9.46	5.86	128.28	-300.52	-165.48	611.20	599.86	11.34	53.901		
1,700.00	1,589.92	1,441.06	1,381.67	10.64	6.47	129.09	-332.51	-178.19	679.19	666.77	12.42	54.679		
1,800.00	1,672.90	1,514.08	1,446.07	11.83	7.08	129.75	-364.50	-190.90	747.25	733.72	13.53	55.242		
1,900.00	1,755.89	1,587.11	1,510.47	13.03	7.69	130.31	-396.49	-203.62	815.34	800.69	14.65	55.653		
2,000.00	1,838.87	1,660.13	1,574.86	14.24	8.30	130.77	-428.48	-216.33	883.47	867.69	15.79	55.959		
2,100.00	1,921.85	1,733.15	1,639.26	15.46	8.92	131.17	-460.47	-229.04	951.63	934.70	16.94	56.190		
2,200.00	2,004.84	1,806.17	1,703.66	16.68	9.53	131.52	-492.46	-241.75	1,019.81	1,001.72	18.09	56.365		
2,300.00	2,087.82	1,879.20	1,768.06	17.90	10.15	131.82	-524.45	-254.47	1,088.01	1,068.76	19.26	56.500		
2,400.00	2,170.81	1,952.22	1,832.46	19.13	10.77	132.09	-556.44	-267.18	1,156.23	1,135.80	20.43	56.603		
2,500.00	2,253.79	2,025.24	1,896.86	20.36	11.39	132.33	-588.43	-279.89	1,224.45	1,202.85	21.60	56.684		
2,600.00	2,336.78	2,098.26	1,961.26	21.59	12.00	132.54	-620.42	-292.60	1,292.69	1,269.91	22.78	56.746		
2,700.00	2,419.76	2,171.28	2,025.66	22.82	12.62	132.74	-652.41	-305.32	1,360.93	1,336.97	23.96	56.795		
2,800.00	2,502.75	2,244.31	2,090.06	24.06	13.24	132.91	-684.40	-318.03	1,429.18	1,404.03	25.15	56.833		
2,900.00	2,585.73	2,317.33	2,154.46	25.29	13.86	133.07	-716.39	-330.74	1,497.44	1,471.10	26.33	56.862		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - UWF15E-04 H04 596 - DD - Plan #3												Offset Site Error:	0.00 usft
Survey Program: O-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-156.50	-64.75	-28.16	70.61				
100.00	100.00	100.00	100.00	0.12	0.12	-156.50	-64.75	-28.16	70.61	70.37	0.24	297.903	
104.45	104.45	104.45	104.45	0.14	0.12	-156.50	-64.75	-28.16	70.61	70.35	0.26	270.796 CC	
200.00	200.00	198.63	198.62	0.48	0.29	-156.41	-65.05	-28.41	71.00	70.20	0.80	88.661 ES	
300.00	300.00	294.98	294.87	0.84	0.48	-155.46	-68.40	-31.22	75.37	73.87	1.50	50.104	
400.00	399.95	390.46	389.90	1.19	0.71	107.53	-75.39	-37.09	85.38	83.15	2.23	38.351	
500.00	499.63	484.00	482.44	1.55	1.00	112.69	-85.75	-45.78	102.40	99.46	2.94	34.774 SF	
600.00	598.78	574.72	571.47	1.92	1.36	113.69	-99.11	-56.99	126.73	123.09	3.64	34.834	
700.00	697.11	662.00	656.24	2.32	1.77	116.25	-115.00	-70.32	158.24	153.94	4.30	36.771	
800.00	794.38	745.23	736.11	2.77	2.22	118.72	-132.90	-85.35	196.94	191.98	4.96	39.726	
900.00	890.30	823.97	810.68	3.28	2.70	120.63	-152.28	-101.60	242.51	236.89	5.62	43.188	
1,000.00	984.62	900.00	881.62	3.86	3.21	122.02	-173.21	-119.16	294.48	288.22	6.26	47.023	
1,100.00	1,077.08	966.87	943.08	4.52	3.72	122.64	-193.39	-136.10	352.30	345.33	6.98	50.500	
1,200.00	1,167.42	1,039.52	1,008.93	5.29	4.28	123.13	-217.23	-155.41	414.99	407.32	7.67	54.074	
1,300.00	1,255.40	1,116.59	1,078.29	6.18	4.89	123.24	-244.95	-174.39	480.12	471.66	8.46	56.733	
1,400.00	1,340.78	1,193.10	1,146.59	7.19	5.51	122.90	-274.89	-191.44	547.20	537.82	9.38	58.316	
1,435.17	1,370.15	1,219.89	1,170.36	7.57	5.73	122.70	-285.94	-196.98	571.22	561.47	9.75	58.602	
1,500.00	1,423.95	1,269.69	1,214.31	8.31	6.15	123.84	-307.26	-206.69	615.62	605.18	10.44	58.965	
1,600.00	1,506.93	1,348.23	1,282.94	9.46	6.82	125.03	-342.86	-220.41	683.72	672.15	11.57	59.071	
1,700.00	1,589.92	1,421.33	1,346.44	10.64	7.45	125.79	-377.09	-232.31	751.59	738.88	12.71	59.132	
1,800.00	1,672.90	1,494.44	1,409.93	11.83	8.08	126.42	-411.32	-244.21	819.52	805.65	13.87	59.088	
1,900.00	1,755.89	1,567.55	1,473.42	13.03	8.72	126.96	-445.55	-256.11	887.50	872.45	15.05	58.980	
2,000.00	1,838.87	1,640.65	1,536.92	14.24	9.36	127.42	-479.78	-268.02	955.51	939.27	16.24	58.842	
2,100.00	1,921.85	1,713.76	1,600.41	15.46	10.00	127.82	-514.01	-279.92	1,023.55	1,006.11	17.44	58.688	
2,200.00	2,004.84	1,786.87	1,663.91	16.68	10.64	128.17	-548.23	-291.82	1,091.62	1,072.97	18.65	58.527	
2,300.00	2,087.82	1,859.98	1,727.40	17.90	11.28	128.48	-582.46	-303.72	1,159.70	1,139.83	19.87	58.367	
2,400.00	2,170.81	1,933.08	1,790.89	19.13	11.93	128.76	-616.69	-315.62	1,227.80	1,206.71	21.09	58.210	
2,500.00	2,253.79	2,006.19	1,854.39	20.36	12.57	129.00	-650.92	-327.52	1,295.91	1,273.59	22.32	58.060	
2,600.00	2,336.78	2,079.30	1,917.88	21.59	13.22	129.22	-685.15	-339.42	1,364.04	1,340.49	23.55	57.916	
2,700.00	2,419.76	2,152.41	1,981.37	22.82	13.86	129.42	-719.38	-351.32	1,432.18	1,407.39	24.79	57.779	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - WF10D O03 (EXISTING) - Existing - SURVEYS													Offset Site Error: 0.00 usft	
Survey Program: 176-MWD		Offset Well Error: 0.00 usft												
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
5,800.00	4,992.30	5,213.18	5,140.62	61.34	16.99	30.68	-2,040.65	3,596.56	1,470.40	1,423.51	46.89	31.359		
5,900.00	5,075.28	5,300.69	5,226.73	62.58	17.32	31.32	-2,025.34	3,599.34	1,411.28	1,363.34	47.94	29.441		
6,000.00	5,158.27	5,387.64	5,312.09	63.83	17.65	31.97	-2,009.06	3,602.24	1,351.61	1,302.62	48.99	27.588		
6,100.00	5,241.25	5,462.65	5,385.75	65.08	17.92	32.59	-1,995.10	3,604.67	1,292.06	1,241.86	50.21	25.736		
6,200.00	5,324.24	5,544.73	5,466.41	66.32	18.23	33.34	-1,980.10	3,607.21	1,232.78	1,181.38	51.40	23.986		
6,300.00	5,407.22	5,630.58	5,550.64	67.57	18.56	34.18	-1,963.77	3,609.99	1,173.25	1,120.68	52.57	22.318		
6,400.00	5,490.21	5,705.92	5,624.53	68.81	18.84	34.99	-1,949.24	3,612.40	1,113.71	1,059.79	53.92	20.655		
6,500.00	5,573.19	5,778.85	5,696.22	70.06	19.10	35.91	-1,936.03	3,614.38	1,054.82	999.42	55.40	19.040		
6,600.00	5,656.18	5,864.37	5,780.43	71.30	19.39	37.17	-1,921.14	3,615.92	996.16	939.38	56.78	17.545		
6,700.00	5,739.16	5,943.97	5,858.84	72.55	19.66	38.56	-1,907.48	3,616.50	937.47	879.09	58.38	16.059		
6,800.00	5,822.15	6,019.62	5,933.40	73.80	19.92	40.04	-1,894.72	3,617.04	879.39	819.21	60.18	14.613		
6,900.00	5,905.13	6,095.92	6,008.62	75.04	20.18	41.71	-1,881.94	3,617.92	822.09	759.96	62.12	13.233		
7,000.00	5,988.12	6,173.31	6,084.84	76.29	20.46	43.55	-1,868.64	3,619.70	765.62	701.42	64.20	11.925		
7,100.00	6,071.10	6,251.65	6,161.83	77.54	20.75	45.53	-1,854.51	3,622.86	709.98	643.59	66.39	10.695		
7,200.00	6,154.09	6,329.91	6,238.75	78.78	21.03	47.79	-1,840.49	3,626.24	655.31	586.53	68.79	9.527		
7,300.00	6,237.07	6,408.34	6,315.89	80.03	21.31	50.44	-1,826.73	3,629.57	601.85	530.40	71.45	8.423		
7,400.00	6,320.06	6,490.10	6,396.32	81.27	21.60	53.68	-1,812.43	3,632.99	549.69	475.36	74.33	7.395		
7,500.00	6,403.04	6,570.11	6,475.00	82.52	21.89	57.41	-1,798.32	3,636.30	499.08	421.48	77.61	6.431		
7,600.00	6,486.03	6,649.35	6,552.96	83.77	22.17	61.80	-1,784.47	3,639.56	450.83	369.52	81.31	5.545		
7,700.00	6,569.01	6,728.45	6,630.82	85.01	22.45	67.00	-1,770.89	3,642.69	405.87	320.44	85.43	4.751		
7,800.00	6,652.00	6,808.13	6,709.28	86.26	22.73	73.17	-1,757.38	3,645.97	365.33	275.47	89.86	4.066		
7,900.00	6,734.98	6,888.60	6,788.52	87.51	23.01	80.44	-1,743.80	3,649.36	330.61	236.21	94.40	3.502		
8,000.00	6,817.97	6,969.49	6,868.17	88.75	23.30	88.79	-1,730.10	3,652.79	303.56	204.86	98.70	3.076		
8,064.68	6,871.64	7,021.29	6,919.17	89.56	23.48	94.62	-1,721.30	3,654.99	291.19	190.12	101.06	2.881		
8,100.00	6,901.13	7,049.69	6,947.13	89.99	23.58	97.74	-1,716.51	3,656.21	286.37	184.30	102.08	2.805		
8,200.00	6,986.52	7,131.92	7,028.14	91.12	23.86	106.81	-1,702.82	3,659.77	279.75	176.35	103.40	2.706		
8,220.58	7,004.42	7,149.20	7,045.16	91.33	23.92	108.68	-1,699.99	3,660.53	279.57	176.21	103.36	2.705 CC, ES, SF		
8,300.00	7,074.51	7,212.75	7,107.86	92.13	24.12	115.34	-1,689.90	3,663.14	282.33	179.83	102.50	2.754		
8,400.00	7,164.86	7,291.09	7,185.46	93.00	24.33	122.80	-1,679.44	3,665.08	293.61	193.74	99.87	2.940		
8,500.00	7,257.33	7,374.40	7,268.36	93.75	24.52	129.35	-1,671.19	3,665.91	310.87	214.41	96.45	3.223		
8,600.00	7,351.67	7,465.26	7,358.90	94.39	24.71	135.05	-1,663.52	3,666.06	330.04	236.92	93.12	3.544		
8,700.00	7,447.61	7,555.51	7,448.93	94.92	24.87	139.38	-1,657.39	3,665.91	348.88	258.62	90.25	3.865		
8,800.00	7,544.90	7,648.21	7,541.56	95.35	24.99	142.47	-1,653.94	3,665.38	366.46	278.28	88.19	4.156		
8,900.00	7,643.26	7,743.97	7,637.31	95.69	25.09	144.59	-1,652.41	3,664.38	381.60	294.74	86.86	4.393		
9,000.00	7,742.42	7,844.29	7,737.62	95.95	25.18	145.96	-1,652.00	3,663.67	392.76	306.54	86.22	4.555		
9,100.00	7,842.12	7,943.03	7,836.36	96.14	25.27	146.67	-1,652.16	3,663.12	399.66	313.71	85.95	4.650		
9,195.23	7,937.31	8,038.03	7,931.36	96.27	25.35	-101.81	-1,652.50	3,662.48	402.34	316.29	86.05	4.676		
9,200.00	7,942.08	8,042.80	7,936.12	96.27	25.36	20.20	-1,652.52	3,662.45	402.37	316.31	86.06	4.675		
9,229.92	7,972.00	8,072.72	7,966.05	96.30	25.38	20.19	-1,652.63	3,662.25	402.50	316.36	86.14	4.673		
9,300.00	8,042.08	8,141.27	8,034.59	96.36	25.44	20.19	-1,652.92	3,661.69	402.72	316.47	86.25	4.669		
9,400.00	8,142.08	8,238.65	8,131.96	96.45	25.52	20.17	-1,653.52	3,660.36	403.61	317.20	86.40	4.671		
9,500.00	8,242.08	8,336.78	8,230.07	96.54	25.60	20.14	-1,654.36	3,658.54	405.03	318.43	86.60	4.677		
9,600.00	8,342.07	8,438.37	8,331.63	96.64	25.68	20.08	-1,655.38	3,656.64	406.51	319.57	86.94	4.676		
9,700.00	8,442.07	8,536.95	8,430.19	96.73	25.76	20.00	-1,656.50	3,654.97	407.83	320.65	87.19	4.678		
9,800.00	8,542.07	8,634.61	8,527.82	96.83	25.83	19.90	-1,657.95	3,652.79	409.75	322.32	87.43	4.686		
9,900.00	8,642.07	8,736.26	8,629.44	96.92	25.92	19.89	-1,658.75	3,650.26	411.78	324.03	87.75	4.693		
10,000.00	8,742.07	8,836.13	8,729.27	97.02	26.02	20.01	-1,658.59	3,647.81	413.58	325.68	87.90	4.705		
10,100.00	8,842.07	8,935.98	8,829.10	97.12	26.12	20.13	-1,658.45	3,645.36	415.38	327.34	88.05	4.718		
10,200.00	8,942.06	9,035.51	8,928.59	97.22	26.22	20.23	-1,658.43	3,642.87	417.26	329.06	88.21	4.730		
10,300.00	9,042.06	9,134.83	9,027.87	97.32	26.33	20.39	-1,658.00	3,640.16	419.28	330.97	88.31	4.748		
10,400.00	9,142.06	9,234.61	9,127.61	97.43	26.44	20.59	-1,657.34	3,637.26	421.42	333.02	88.41	4.767		
10,500.00	9,242.06	9,334.66	9,227.60	97.53	26.57	20.90	-1,655.83	3,634.19	423.58	335.15	88.43	4.790		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design H04 596 Pad - WF10D O03 (EXISTING) - Existing - SURVEYS												Offset Site Error:	0.00 usft
Survey Program: 176-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis		
10,600.00	9,342.06	9,435.30	9,328.18	97.64	26.69	21.25	-1,654.03	3,631.19	425.60	337.16	88.43	4.813	
10,700.00	9,442.05	9,533.42	9,426.25	97.74	26.79	21.47	-1,653.12	3,628.21	427.85	339.41	88.45	4.837	
10,800.00	9,542.05	9,632.38	9,525.16	97.85	26.89	21.54	-1,653.39	3,625.19	430.34	341.72	88.62	4.856	
10,900.00	9,642.05	9,729.82	9,622.54	97.96	26.97	21.51	-1,654.46	3,621.77	433.42	344.60	88.82	4.880	
11,000.00	9,742.05	9,831.33	9,723.98	98.07	27.06	21.51	-1,655.33	3,618.35	436.33	347.18	89.15	4.894	
11,100.00	9,842.05	9,927.54	9,820.11	98.18	27.13	21.42	-1,656.85	3,614.83	439.65	350.30	89.34	4.921	
11,200.00	9,942.05	10,027.18	9,919.65	98.29	27.21	21.30	-1,658.80	3,610.78	443.45	353.74	89.71	4.943	
11,300.00	10,042.04	10,130.97	10,023.37	98.41	27.31	21.26	-1,660.12	3,606.90	446.79	356.62	90.17	4.955	
11,400.00	10,142.04	10,231.15	10,123.48	98.52	27.41	21.24	-1,661.15	3,603.52	449.73	359.25	90.48	4.970	
11,500.00	10,242.04	10,330.86	10,223.14	98.64	27.51	21.26	-1,661.76	3,600.25	452.51	361.77	90.74	4.987	
11,600.00	10,342.04	10,424.93	10,317.12	98.75	27.60	21.31	-1,662.40	3,596.24	456.24	365.47	90.77	5.026	
11,700.00	10,442.04	10,526.54	10,418.63	98.87	27.70	21.33	-1,663.25	3,591.74	460.19	369.08	91.10	5.051	
11,800.00	10,542.03	10,622.96	10,514.93	98.99	27.79	21.35	-1,664.17	3,587.24	464.38	373.14	91.25	5.089	
11,900.00	10,642.03	10,717.57	10,609.38	99.11	27.88	21.34	-1,665.47	3,581.93	469.59	378.25	91.34	5.141	
12,000.00	10,742.03	10,813.43	10,705.03	99.24	27.96	21.32	-1,667.02	3,575.62	475.80	384.31	91.49	5.201	
12,100.00	10,842.03	10,909.74	10,801.06	99.36	28.04	21.32	-1,668.62	3,568.56	482.75	391.10	91.65	5.267	
12,200.00	10,942.03	10,993.98	10,885.03	99.48	28.12	21.32	-1,670.03	3,562.02	490.36	399.08	91.27	5.372	
12,300.00	11,042.03	10,993.98	10,885.03	99.61	28.12	21.32	-1,670.03	3,562.02	510.59	424.96	85.63	5.963	
12,327.95	11,069.98	10,993.98	10,885.03	99.64	28.12	21.32	-1,670.03	3,562.02	519.55	435.88	83.67	6.209	
12,400.00	11,142.02	10,993.98	10,885.03	99.73	28.12	21.32	-1,670.03	3,562.02	548.59	470.34	78.25	7.011	
12,500.00	11,242.02	10,993.98	10,885.03	99.86	28.12	21.32	-1,670.03	3,562.02	601.00	530.46	70.54	8.520	
12,600.00	11,342.02	10,993.98	10,885.03	99.99	28.12	21.32	-1,670.03	3,562.02	664.41	601.00	63.41	10.478	
12,700.00	11,442.02	10,993.98	10,885.03	100.12	28.12	21.32	-1,670.03	3,562.02	736.00	678.73	57.27	12.851	
12,800.00	11,542.02	10,993.98	10,885.03	100.25	28.12	21.32	-1,670.03	3,562.02	813.60	761.40	52.20	15.587	
12,882.41	11,624.42	10,993.98	10,885.03	100.36	28.12	21.32	-1,670.03	3,562.02	880.95	832.19	48.75	18.069	
12,882.93	11,624.95	10,993.98	10,885.03	100.36	28.12	21.32	-1,670.03	3,562.02	881.39	832.80	48.58	18.142	

# Cathedral Energy Services

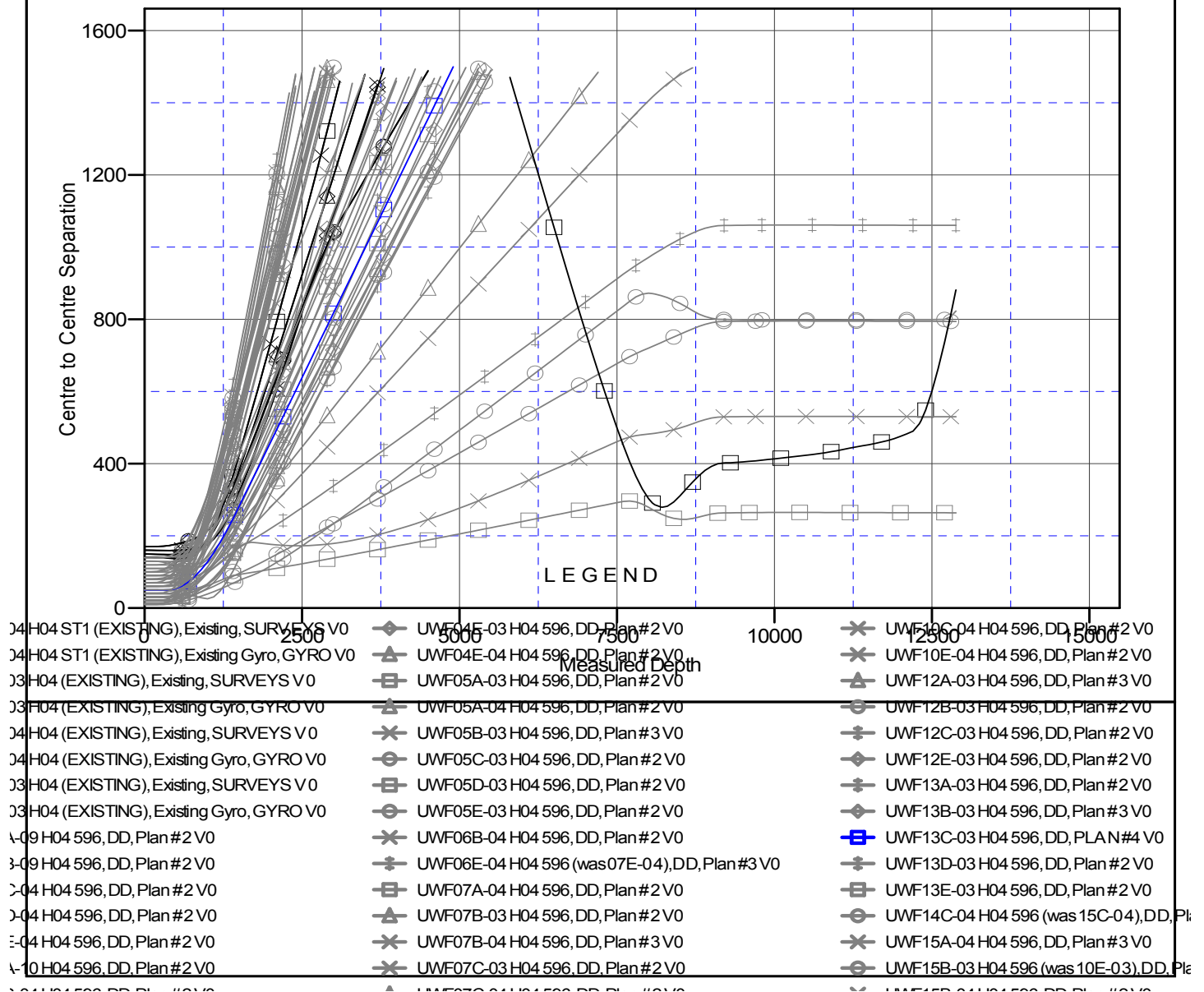
## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well UWF15A-03 H04 596 (was 10D-03)
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Reference Site:</b>	H04 596 Pad	<b>MD Reference:</b>	WELL @ 8292.98usft (Original Well Elev)
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	UWF15A-03 H04 596 (was 10D-03)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #4	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 8292.98usft (Original Well E  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: UWF15A-03 H04 596 (was 10D-03)  
Coordinate System is US State Plane 1983, Colorado Central Zone  
Grid Convergence at Surface is: -1.68°

### Ladder Plot



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