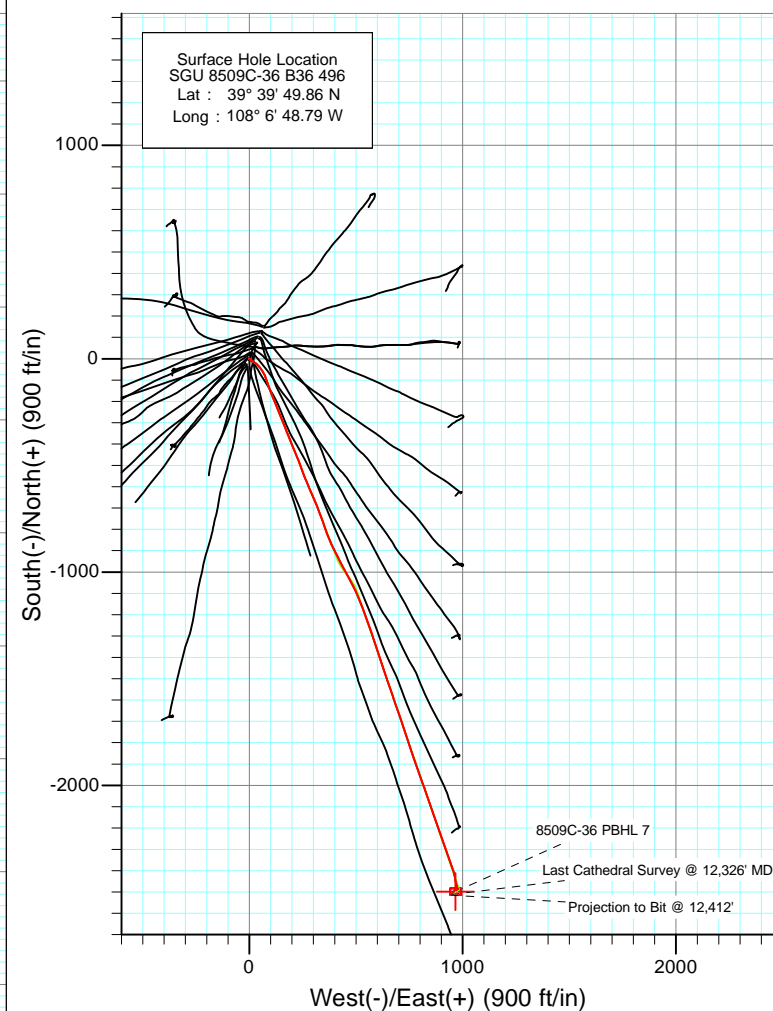
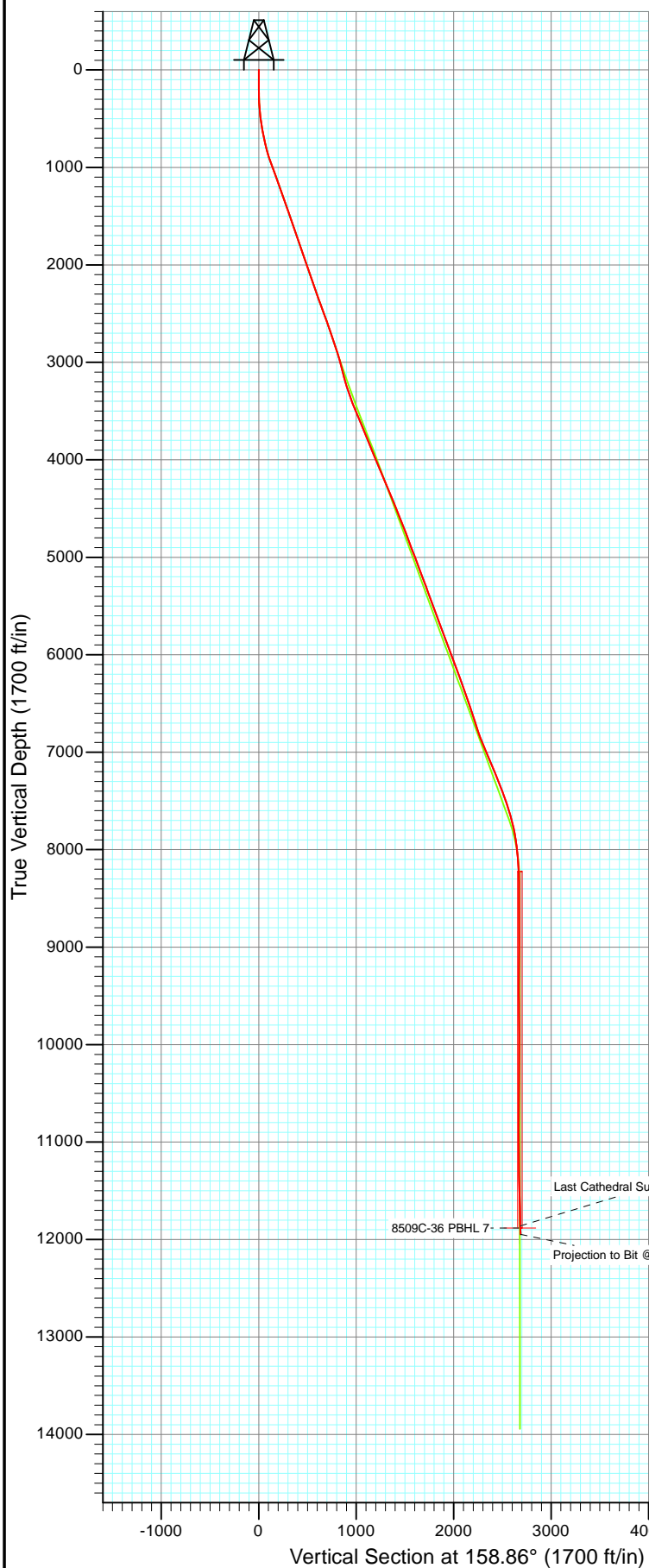




Project: Story Gulch
 Site: S36-T4S-R96W (B36 496)
 Well: SGU 8509C-36 B36 496
 Wellbore: DD
 Design: FINAL



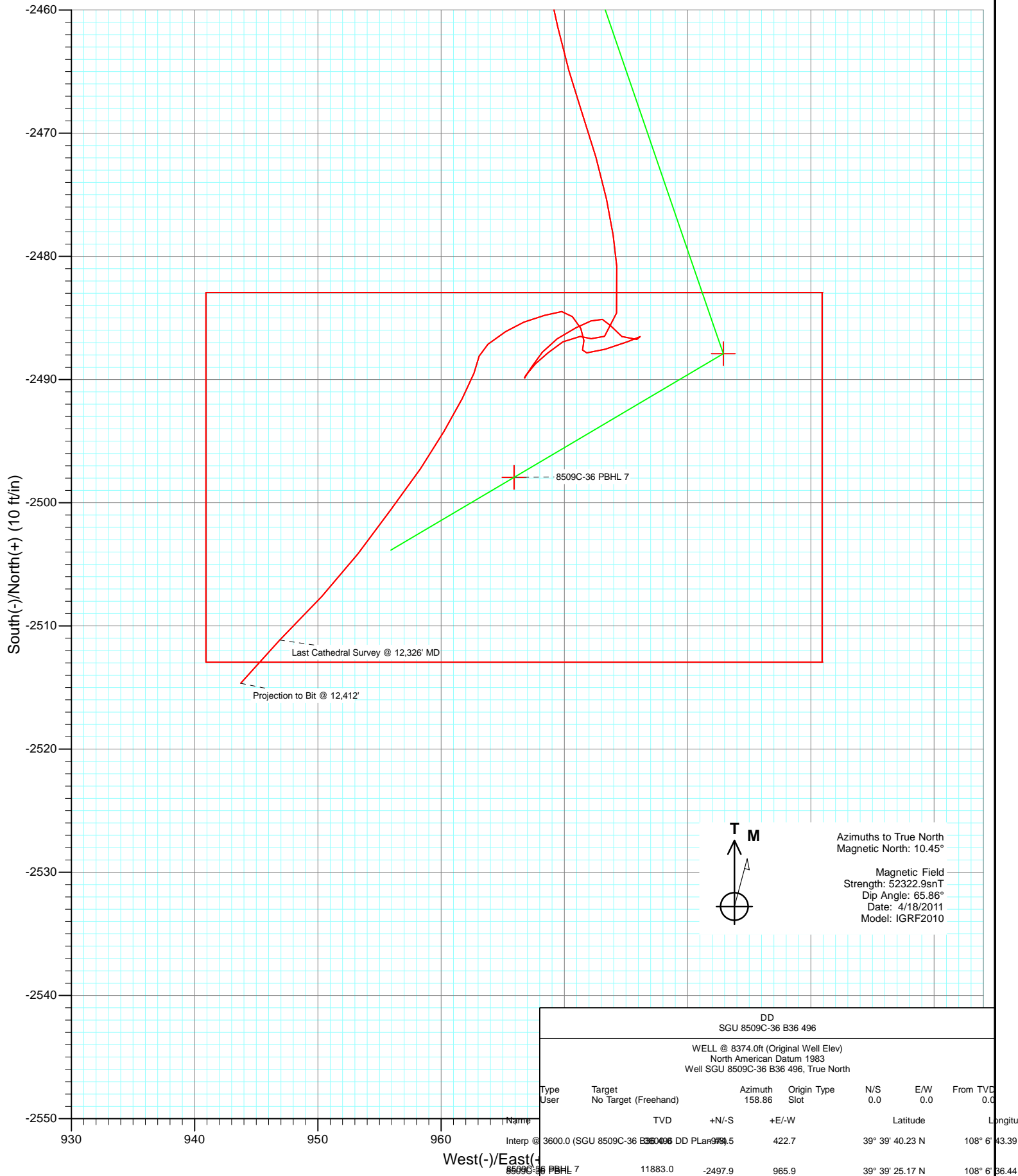
Azimuths to True North
 Magnetic North: 10.45°

Magnetic Field
 Strength: 52322.9nT
 Dip Angle: 65.86°
 Date: 4/18/2011
 Model: IGRF2010

DD SGU 8509C-36 B36 496						
WELL @ 8374.0ft (Original Well Elev) North American Datum 1983 Well SGU 8509C-36 B36 496, True North						
Type	Target	Azimuth	Origin	Type	N/S	E/W
User	No Target (Freehand)	158.86	Slot		0.0	0.0
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	From TVD
						0.0
8509C-36 PBHL 7	11883.0	-2497.9	965.9	39° 39' 25.17 N	108° 6' 36.44 W	



Project: Story Gulch
Site: S36-T4S-R96W (B36 496)
Well: SGU 8509C-36 B36 496
Wellbore: DD
Design: FINAL



Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well SGU 8509C-36 B36 496
Project:	Story Gulch	TVD Reference:	WELL @ 8374.0ft (Original Well Elev)
Site:	S36-T4S-R96W (B36 496)	MD Reference:	WELL @ 8374.0ft (Original Well Elev)
Well:	SGU 8509C-36 B36 496	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 US Multi Users DB

Project	Story Gulch		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		S36-T4S-R96W (B36 496)			
Site Position:		Northing:	1,677,422.27 ft	Latitude:	39° 39' 51.36 N
From:	Lat/Long	Easting:	2,264,394.80 ft	Longitude:	108° 6' 47.88 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.65 °

Well	SGU 8509C-36 B36 496					
Well Position	+N/-S	0.0 ft	Northing:	1,677,272.34 ft	Latitude:	39° 39' 49.86 N
	+E/-W	0.0 ft	Easting:	2,264,319.07 ft	Longitude:	108° 6' 48.79 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,352.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/18/2011	10.45	65.86	52,323

Design	DD				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	158.86	

Survey Program	Date	4/29/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
173.0	12,412.0	Survey #1 (DD)	MWD	Geolink MWD	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00		
173.0	0.50	165.00	173.0	-0.7	0.2	0.8	0.29	0.29		
204.0	1.10	148.60	204.0	-1.1	0.4	1.2	2.05	1.94		
235.0	1.10	149.40	235.0	-1.6	0.7	1.8	0.05	0.00		
265.0	1.20	132.40	265.0	-2.1	1.1	2.3	1.18	0.33		
296.0	1.70	126.70	296.0	-2.6	1.7	3.0	1.68	1.61		
326.0	3.20	121.00	325.9	-3.3	2.8	4.0	5.06	5.00		
357.0	4.20	121.60	356.9	-4.3	4.5	5.6	3.23	3.23		
387.0	4.80	123.40	386.8	-5.6	6.4	7.5	2.05	2.00		
418.0	6.30	127.00	417.6	-7.3	8.9	10.0	4.96	4.84		
449.0	7.30	124.30	448.4	-9.5	11.9	13.1	3.39	3.23		
510.0	9.00	123.00	508.8	-14.2	19.1	20.2	2.80	2.79		
573.0	10.70	126.30	570.9	-20.4	27.9	29.1	2.84	2.70		

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well SGU 8509C-36 B36 496
Project:	Story Gulch	TVD Reference:	WELL @ 8374.0ft (Original Well Elev)
Site:	S36-T4S-R96W (B36 496)	MD Reference:	WELL @ 8374.0ft (Original Well Elev)
Well:	SGU 8509C-36 B36 496	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 US Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
637.0	11.70	133.00	633.7	-28.3	37.5	39.9	2.56	1.56	
700.0	12.90	139.10	695.2	-38.0	46.7	52.3	2.81	1.90	
764.0	14.40	144.50	757.4	-49.9	56.0	66.7	3.07	2.34	
827.0	15.50	150.70	818.3	-63.6	64.7	82.7	3.08	1.75	
890.0	16.40	156.90	878.9	-79.1	72.3	99.9	3.06	1.43	
985.0	19.40	161.00	969.2	-106.4	82.7	129.1	3.42	3.16	
1,080.0	19.90	161.80	1,058.7	-136.7	92.9	161.0	0.60	0.53	
1,175.0	20.30	157.40	1,147.9	-167.2	104.3	193.6	1.65	0.42	
1,270.0	20.30	157.30	1,237.0	-197.7	117.0	226.5	0.04	0.00	
1,365.0	19.90	158.20	1,326.2	-227.9	129.3	259.2	0.53	-0.42	
1,460.0	19.50	157.90	1,415.7	-257.6	141.3	291.2	0.43	-0.42	
1,555.0	19.20	158.50	1,505.3	-286.8	153.0	322.7	0.38	-0.32	
1,650.0	18.20	158.70	1,595.3	-315.2	164.1	353.1	1.05	-1.05	
1,746.0	18.90	157.30	1,686.3	-343.5	175.6	383.7	0.86	0.73	
1,841.0	19.00	159.00	1,776.2	-372.1	187.0	414.5	0.59	0.11	
1,936.0	19.40	157.60	1,865.9	-401.1	198.6	445.8	0.64	0.42	
2,031.0	18.50	157.10	1,955.7	-429.6	210.5	476.6	0.96	-0.95	
2,126.0	18.70	156.90	2,045.8	-457.5	222.3	506.9	0.22	0.21	
2,221.0	19.10	160.40	2,135.7	-486.1	233.5	537.6	1.27	0.42	
2,316.0	19.40	160.20	2,225.3	-515.6	244.1	568.9	0.32	0.32	
2,412.0	20.70	158.70	2,315.5	-546.4	255.6	601.9	1.46	1.35	
2,507.0	19.50	156.80	2,404.7	-576.7	268.0	634.5	1.44	-1.26	
2,602.0	19.60	156.00	2,494.3	-605.8	280.7	666.2	0.30	0.11	
2,697.0	20.00	157.20	2,583.6	-635.3	293.5	698.4	0.60	0.42	
2,793.0	18.90	156.90	2,674.2	-664.8	305.9	730.4	1.15	-1.15	
2,888.0	19.00	158.20	2,764.0	-693.3	317.7	761.2	0.46	0.11	
2,990.0	18.30	159.30	2,860.7	-723.7	329.5	793.8	0.77	-0.69	
3,082.0	16.20	159.70	2,948.5	-749.2	339.1	821.1	2.29	-2.28	
3,173.0	14.10	162.80	3,036.4	-771.7	346.8	844.8	2.47	-2.31	
3,265.0	13.70	159.30	3,125.7	-792.6	354.0	866.9	1.01	-0.43	
3,356.0	16.70	159.30	3,213.5	-814.9	362.4	890.8	3.30	3.30	
3,448.0	19.60	158.60	3,300.9	-841.7	372.7	919.4	3.16	3.15	
3,540.0	20.30	155.80	3,387.4	-870.6	384.9	950.8	1.29	0.76	
3,631.0	21.80	154.40	3,472.3	-900.2	398.6	983.4	1.74	1.65	
3,723.0	23.50	151.40	3,557.2	-931.7	414.8	1,018.6	2.23	1.85	
3,815.0	23.00	151.30	3,641.7	-963.6	432.2	1,054.6	0.55	-0.54	
3,906.0	21.90	152.00	3,725.8	-994.2	448.7	1,089.1	1.24	-1.21	
3,998.0	23.80	153.00	3,810.6	-1,025.9	465.2	1,124.6	2.11	2.07	
4,089.0	21.00	151.70	3,894.7	-1,056.6	481.3	1,159.1	3.12	-3.08	
4,181.0	21.40	153.70	3,980.5	-1,086.2	496.5	1,192.1	0.90	0.43	
4,272.0	23.10	158.50	4,064.7	-1,117.7	510.4	1,226.5	2.73	1.87	
4,364.0	23.20	159.20	4,149.3	-1,151.4	523.5	1,262.7	0.32	0.11	
4,455.0	23.60	158.90	4,232.8	-1,185.1	536.4	1,298.8	0.46	0.44	
4,547.0	22.70	159.20	4,317.4	-1,218.9	549.3	1,335.0	0.99	-0.98	
4,639.0	22.80	161.60	4,402.3	-1,252.4	561.3	1,370.6	1.01	0.11	
4,730.0	22.10	160.80	4,486.4	-1,285.3	572.5	1,405.3	0.84	-0.77	
4,821.0	21.40	161.70	4,570.9	-1,317.3	583.3	1,439.0	0.85	-0.77	
4,913.0	21.10	161.40	4,656.6	-1,348.9	593.8	1,472.3	0.35	-0.33	
5,005.0	20.90	160.70	4,742.5	-1,380.1	604.6	1,505.2	0.35	-0.22	
5,096.0	20.80	163.40	4,827.6	-1,410.9	614.5	1,537.6	1.06	-0.11	
5,188.0	20.90	162.80	4,913.5	-1,442.2	624.1	1,570.2	0.26	0.11	
5,280.0	20.90	161.50	4,999.5	-1,473.4	634.1	1,603.0	0.50	0.00	
5,371.0	20.20	161.40	5,084.7	-1,503.7	644.3	1,634.9	0.77	-0.77	

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well SGU 8509C-36 B36 496
Project:	Story Gulch	TVD Reference:	WELL @ 8374.0ft (Original Well Elev)
Site:	S36-T4S-R96W (B36 496)	MD Reference:	WELL @ 8374.0ft (Original Well Elev)
Well:	SGU 8509C-36 B36 496	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 US Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
5,463.0	20.70	159.60	5,170.9	-1,534.0	655.0	1,667.0	0.87	0.54	
5,555.0	20.90	159.80	5,256.9	-1,564.7	666.3	1,699.7	0.23	0.22	
5,647.0	19.90	162.30	5,343.1	-1,595.0	676.8	1,731.7	1.44	-1.09	
5,738.0	20.20	159.30	5,428.6	-1,624.4	687.0	1,762.9	1.18	0.33	
5,830.0	20.40	162.30	5,514.9	-1,654.6	697.5	1,794.8	1.15	0.22	
5,922.0	20.20	162.20	5,601.2	-1,685.0	707.3	1,826.6	0.22	-0.22	
6,014.0	20.60	161.80	5,687.4	-1,715.5	717.2	1,858.7	0.46	0.43	
6,106.0	20.60	159.20	5,773.5	-1,746.0	728.0	1,891.0	0.99	0.00	
6,197.0	20.00	163.10	5,858.9	-1,775.8	738.2	1,922.5	1.63	-0.66	
6,289.0	20.10	162.00	5,945.3	-1,805.9	747.6	1,954.0	0.42	0.11	
6,381.0	20.60	159.70	6,031.6	-1,836.1	758.1	1,986.0	1.03	0.54	
6,472.0	20.70	161.40	6,116.7	-1,866.4	768.8	2,018.1	0.67	0.11	
6,564.0	20.60	162.10	6,202.8	-1,897.2	779.0	2,050.5	0.29	-0.11	
6,655.0	20.50	160.00	6,288.0	-1,927.4	789.3	2,082.4	0.82	-0.11	
6,747.0	19.20	160.30	6,374.6	-1,956.8	800.0	2,113.6	1.42	-1.41	
6,839.0	18.40	159.50	6,461.7	-1,984.6	810.1	2,143.2	0.91	-0.87	
6,930.0	18.60	159.60	6,548.0	-2,011.7	820.2	2,172.1	0.22	0.22	
7,022.0	17.40	162.60	6,635.5	-2,038.6	829.5	2,200.5	1.65	-1.30	
7,113.0	17.90	159.80	6,722.2	-2,064.7	838.4	2,228.1	1.08	0.55	
7,205.0	20.20	160.60	6,809.1	-2,092.9	848.5	2,258.1	2.52	2.50	
7,296.0	21.80	161.60	6,894.1	-2,123.8	859.1	2,290.7	1.80	1.76	
7,387.0	22.90	161.60	6,978.2	-2,156.6	870.0	2,325.2	1.21	1.21	
7,479.0	23.40	160.70	7,062.8	-2,190.8	881.7	2,361.4	0.67	0.54	
7,571.0	22.30	161.00	7,147.6	-2,224.6	893.4	2,397.1	1.20	-1.20	
7,662.0	21.80	160.50	7,232.0	-2,256.8	904.7	2,431.2	0.59	-0.55	
7,754.0	21.00	160.60	7,317.6	-2,288.5	915.8	2,464.8	0.87	-0.87	
7,845.0	20.50	159.60	7,402.7	-2,318.8	926.8	2,497.0	0.67	-0.55	
7,937.0	19.90	158.20	7,489.1	-2,348.5	938.2	2,528.8	0.84	-0.65	
8,028.0	18.50	161.40	7,575.0	-2,376.5	948.6	2,558.7	1.92	-1.54	
8,120.0	16.00	165.80	7,662.9	-2,402.6	956.4	2,585.9	3.06	-2.72	
8,212.0	13.10	166.50	7,751.9	-2,425.1	961.9	2,608.8	3.16	-3.15	
8,303.0	10.20	169.30	7,841.0	-2,443.0	965.8	2,626.9	3.25	-3.19	
8,395.0	8.10	168.70	7,931.8	-2,457.4	968.6	2,641.3	2.28	-2.28	
8,486.0	5.70	161.20	8,022.2	-2,468.0	971.3	2,652.2	2.81	-2.64	
8,577.0	4.00	168.10	8,112.8	-2,475.3	973.4	2,659.8	1.97	-1.87	
8,669.0	2.90	175.90	8,204.7	-2,480.8	974.3	2,665.2	1.30	-1.20	
8,760.0	1.90	186.70	8,295.6	-2,484.6	974.2	2,668.7	1.20	-1.10	
8,852.0	1.10	245.40	8,387.6	-2,486.5	973.3	2,670.1	1.77	-0.87	
8,944.0	0.40	303.60	8,479.6	-2,486.7	972.2	2,669.9	1.03	-0.76	
9,035.0	0.80	270.00	8,570.6	-2,486.5	971.3	2,669.5	0.57	0.44	
9,127.0	1.10	240.10	8,662.5	-2,486.9	969.9	2,669.4	0.62	0.33	
9,219.0	0.80	224.20	8,754.5	-2,487.8	968.7	2,669.8	0.43	-0.33	
9,304.0	1.00	232.50	8,839.5	-2,488.7	967.7	2,670.2	0.28	0.24	
9,396.0	0.60	198.80	8,931.5	-2,489.7	966.9	2,670.8	0.65	-0.43	
9,487.0	0.30	12.80	9,022.5	-2,489.9	966.8	2,671.0	0.99	-0.33	
9,579.0	1.00	38.40	9,114.5	-2,489.0	967.3	2,670.4	0.81	0.76	
9,671.0	0.90	32.70	9,206.5	-2,487.8	968.2	2,669.5	0.15	-0.11	
9,762.0	1.20	59.40	9,297.5	-2,486.7	969.4	2,669.0	0.62	0.33	
9,854.0	1.00	59.80	9,389.5	-2,485.8	970.9	2,668.7	0.22	-0.22	
9,945.0	0.70	73.10	9,480.4	-2,485.2	972.2	2,668.6	0.39	-0.33	
10,037.0	0.50	97.00	9,572.4	-2,485.1	973.1	2,668.8	0.34	-0.22	
10,129.0	0.60	151.70	9,664.4	-2,485.6	973.7	2,669.5	0.56	0.11	
10,220.0	1.10	124.40	9,755.4	-2,486.5	974.7	2,670.7	0.69	0.55	

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well SGU 8509C-36 B36 496
Project:	Story Gulch	TVD Reference:	WELL @ 8374.0ft (Original Well Elev)
Site:	S36-T4S-R96W (B36 496)	MD Reference:	WELL @ 8374.0ft (Original Well Elev)
Well:	SGU 8509C-36 B36 496	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 US Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
10,312.0	0.70	61.50	9,847.4	-2,486.7	975.9	2,671.3	1.09	-0.43	
10,404.0	0.30	258.30	9,939.4	-2,486.5	976.2	2,671.2	1.08	-0.43	
10,495.0	1.10	245.40	10,030.4	-2,486.9	975.1	2,671.2	0.89	0.88	
10,587.0	1.30	257.00	10,122.4	-2,487.5	973.3	2,671.1	0.34	0.22	
10,678.0	0.60	262.00	10,213.4	-2,487.8	971.8	2,670.9	0.77	-0.77	
10,770.0	0.40	24.30	10,305.4	-2,487.6	971.5	2,670.6	0.96	-0.22	
10,861.0	0.60	357.70	10,396.4	-2,486.8	971.6	2,669.9	0.33	0.22	
10,953.0	0.70	335.70	10,488.4	-2,485.8	971.3	2,668.9	0.29	0.11	
11,045.0	0.80	314.00	10,580.4	-2,484.9	970.7	2,667.7	0.32	0.11	
11,136.0	0.50	266.20	10,671.4	-2,484.5	969.8	2,667.0	0.65	-0.33	
11,228.0	1.30	254.20	10,763.3	-2,484.8	968.4	2,666.8	0.89	0.87	
11,320.0	0.90	248.10	10,855.3	-2,485.3	966.7	2,666.7	0.45	-0.43	
11,411.0	1.20	238.20	10,946.3	-2,486.1	965.2	2,666.9	0.38	0.33	
11,503.0	1.00	230.20	11,038.3	-2,487.1	963.8	2,667.3	0.27	-0.22	
11,594.0	0.60	192.60	11,129.3	-2,488.1	963.1	2,668.0	0.70	-0.44	
11,686.0	1.20	199.30	11,221.3	-2,489.5	962.7	2,669.1	0.66	0.65	
11,777.0	1.70	208.70	11,312.2	-2,491.6	961.7	2,670.7	0.61	0.55	
11,869.0	2.10	209.60	11,404.2	-2,494.2	960.2	2,672.7	0.44	0.43	
11,960.0	2.40	214.30	11,495.1	-2,497.2	958.3	2,674.8	0.39	0.33	
12,052.0	2.80	217.50	11,587.0	-2,500.6	955.9	2,677.1	0.46	0.43	
12,144.0	2.70	215.50	11,678.9	-2,504.2	953.2	2,679.4	0.15	-0.11	
12,235.0	3.00	224.60	11,769.8	-2,507.6	950.3	2,681.6	0.60	0.33	
12,326.0	3.20	223.60	11,860.7	-2,511.1	946.9	2,683.6	0.23	0.22	Last Cathedral Survey @ 12,326' MD Projection to Bit @ 12,412'
12,412.0	3.10	220.20	11,946.5	-2,514.7	943.7	2,685.8	0.25	-0.12	

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well SGU 8509C-36 B36 496
Project:	Story Gulch	TVD Reference:	WELL @ 8374.0ft (Original Well Elev)
Site:	S36-T4S-R96W (B36 496)	MD Reference:	WELL @ 8374.0ft (Original Well Elev)
Well:	SGU 8509C-36 B36 496	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 US Multi Users DB

Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Interp @ 3319.1 (SGU 8 - survey misses target center by 23.1ft at 3670.3ft MD (3508.7 TVD, -913.5 N, 405.2 E) - Point	0.00	0.00	3,500.0	-934.4	410.3	1,676,326.57	2,264,702.32	39° 39' 40.62 N	108° 6' 43.54 W
8509C-36 TOG - survey misses target center by 9.2ft at 8787.4ft MD (8323.0 TVD, -2485.4 N, 974.1 E) - Point	0.00	0.00	8,323.0	-2,487.9	982.9	1,674,757.20	2,265,229.99	39° 39' 25.27 N	108° 6' 36.22 W
8509C-36 PBHL - survey misses target center by 27.6ft at 12408.0ft MD (11942.5 TVD, -2514.5 N, 943.9 E) - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	11,944.0	-2,497.9	965.9	1,674,747.65	2,265,212.74	39° 39' 25.17 N	108° 6' 36.44 W
Interp @ 3600.0 (SGU 8 - survey misses target center by 24.9ft at 3778.6ft MD (3608.3 TVD, -951.1 N, 425.4 E) - Point	0.00	0.00	3,600.0	-974.5	422.7	1,676,286.11	2,264,713.54	39° 39' 40.23 N	108° 6' 43.39 W
8509C-36 PBHL 7 - survey misses target center by 32.2ft at 12326.0ft MD (11860.7 TVD, -2511.1 N, 946.9 E) - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	11,883.0	-2,497.9	965.9	1,674,747.65	2,265,212.74	39° 39' 25.17 N	108° 6' 36.44 W

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
12,326.0	11,860.7	-2,511.1	946.9	Last Cathedral Survey @ 12,326' MD	
12,412.0	11,946.5	-2,514.7	943.7	Projection to Bit @ 12,412'	

Checked By: _____ Approved By: _____ Date: _____