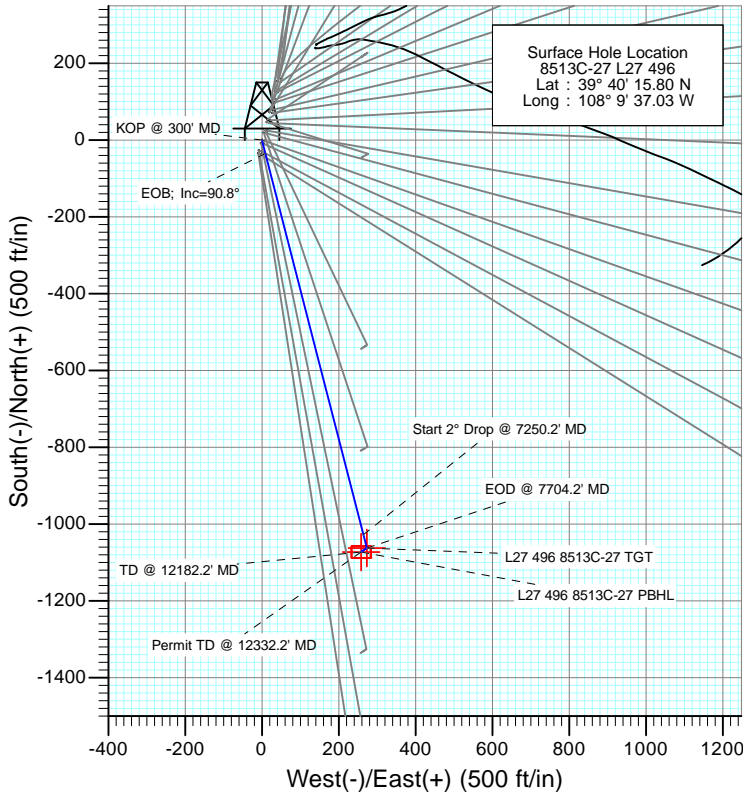
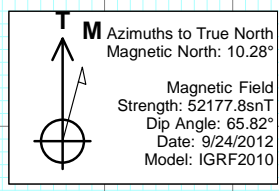


SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	754.0	9.08	165.58	752.1	-34.8	8.9	2.00	165.58	35.9	
4	7250.2	9.08	165.58	7166.9	-1027.7	264.2	0.00	0.00	1061.0	
5	7704.2	0.00	0.00	7619.0	-1062.5	273.1	2.00	180.00	1096.9	L27 496 8513C-27 TGT
6	7797.7	0.23	236.31	7712.5	-1062.6	272.9	0.25	236.31	1097.0	
7	12182.2	0.23	236.31	12097.0	-1072.5	258.1	0.00	0.00	1103.1	L27 496 8513C-27 PBHL
8	12332.2	0.23	236.31	12247.0	-1072.9	257.5	0.00	0.00	1103.3	



DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
L27 496 8513C-27 TGT	-1062.5	273.1	1679207.95	2251486.63	39° 40' 5.30 N	108° 9' 33.54 W
L27 496 8513C-27 PBHL	-1072.5	258.1	1679198.37	2251471.29	39° 40' 5.20 N	108° 9' 33.73 W

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1063.0	1068.8	A_GROOVE_TVD
1217.0	1224.8	B_GROOVE_TVD
1253.0	1261.3	B_GROOVE_BASE_TVD
2181.0	2201.0	GARDEN_GULCH_TVD
3175.0	3207.6	WASATCH_FM_TVD
5381.0	5441.6	WASATCH_G_TVD
7579.0	7664.2	WILLIAMS_FORK_TVD
7619.0	7704.2	TOG_TVD
10778.0	10863.2	CAMEO_TVD
11220.0	11305.2	ROLLINS_TVD
11455.0	11540.2	COZZETTE_TVD
11640.0	11725.2	CORCORAN_TVD
11947.0	12032.2	UPPER_SEGO_TVD
12097.0	12182.2	SEGO_BASE_TARGET_TVD



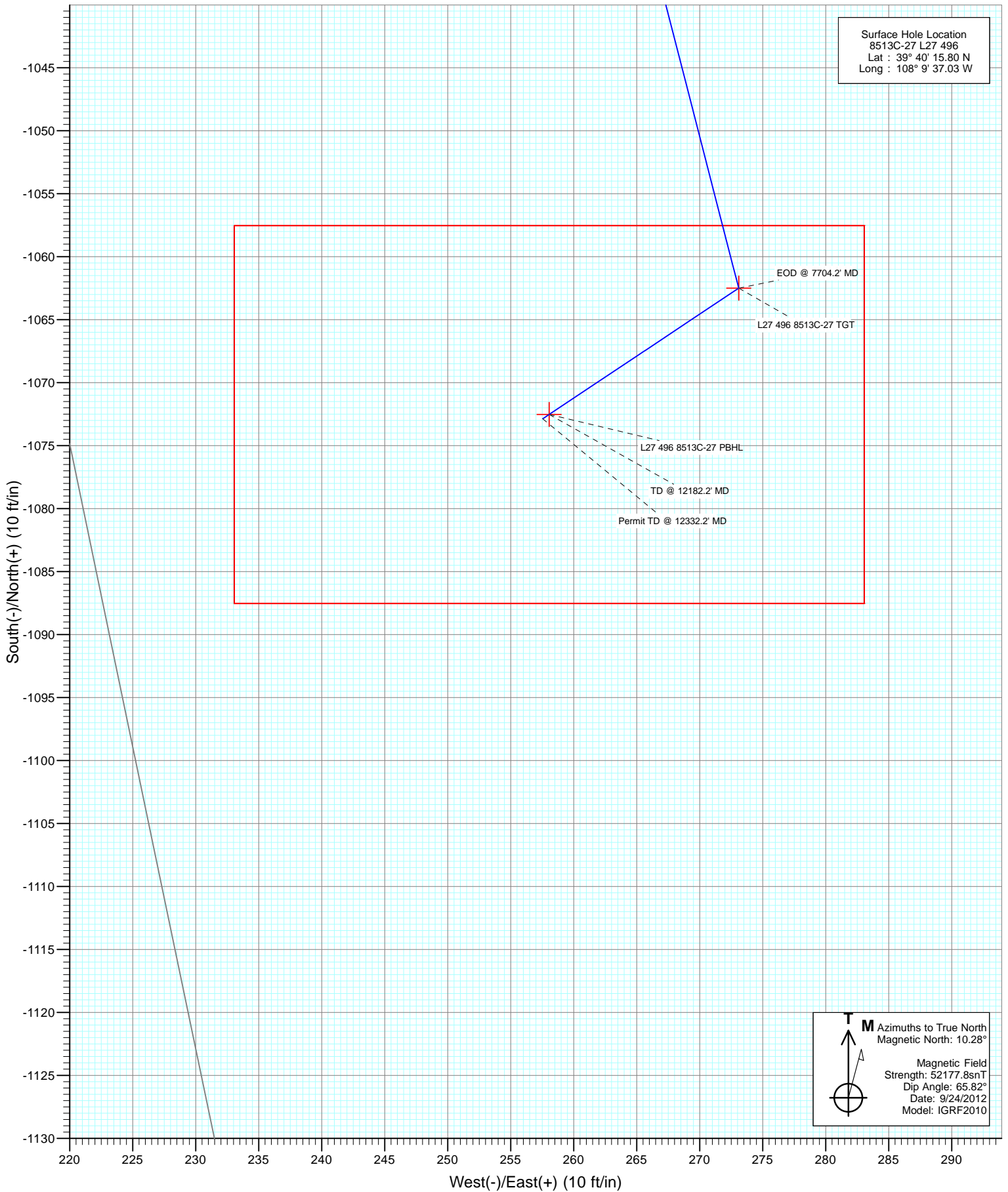
Plan #1
 8513C-27 L27 496
 12xxx; LR
 Well @ 8136.0ft (Rig)
 Ground Elevation @ 8104.0
 North American Datum 1983
 Well 8513C-27 L27 496, True North



Project: Story Gulch
Site: S27-T4S-R96W (L27 496)
Well: 8513C-27 L27 496
Wellbore: DD
Design: Plan #1



Surface Hole Location
8513C-27 L27 496
Lat : 39° 40' 15.80 N
Long : 108° 9' 37.03 W



Cathedral Energy Services

Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well 8513C-27 L27 496
Company: EnCana Oil & Gas (USA) Inc	TVD Reference: Well @ 8136.0ft (Rig)
Project: Story Gulch	MD Reference: Well @ 8136.0ft (Rig)
Site: S27-T4S-R96W (L27 496)	North Reference: True
Well: 8513C-27 L27 496	Survey Calculation Method: Minimum Curvature
Wellbore: DD	
Design: Plan #1	

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 S27-T4S-R96W (L27 496)					
Site Position:		Northing:	1,680,404.44 ft	Latitude:	39° 40' 17.06 N
From:	Lat/Long	Easting:	2,251,282.88 ft	Longitude:	108° 9' 36.59 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.68 °

Well 8513C-27 L27 496					
Well Position	+N/-S	0.0 ft	Northing:	1,680,277.99 ft	Latitude: 39° 40' 15.80 N
	+E/-W	0.0 ft	Easting:	2,251,244.76 ft	Longitude: 108° 9' 37.03 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level: 8,104.0 ft

Wellbore DD					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	9/24/2012	(°) 10.28	(°) 65.82	(nT) 52,178

Design Plan #1				
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	166.47

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
754.0	9.08	165.58	752.1	-34.8	8.9	2.00	2.00	0.00	165.58	
7,250.2	9.08	165.58	7,166.9	-1,027.7	264.2	0.00	0.00	0.00	0.00	
7,704.2	0.00	0.00	7,619.0	-1,062.5	273.1	2.00	-2.00	0.00	180.00	L27 496 8513C-27 TC
7,797.7	0.23	236.31	7,712.5	-1,062.6	272.9	0.25	0.25	-132.24	236.31	
12,182.2	0.23	236.31	12,097.0	-1,072.5	258.1	0.00	0.00	0.00	0.00	L27 496 8513C-27 PE
12,332.2	0.23	236.31	12,247.0	-1,072.9	257.5	0.00	0.00	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 8513C-27 L27 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	Well @ 8136.0ft (Rig)
Project:	Story Gulch	MD Reference:	Well @ 8136.0ft (Rig)
Site:	S27-T4S-R96W (L27 496)	North Reference:	True
Well:	8513C-27 L27 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300' MD
400.0	2.00	165.58	400.0	-1.7	0.4	1.7	2.00	2.00	
500.0	4.00	165.58	499.8	-6.8	1.7	7.0	2.00	2.00	
600.0	6.00	165.58	599.5	-15.2	3.9	15.7	2.00	2.00	
700.0	8.00	165.58	698.7	-27.0	6.9	27.9	2.00	2.00	
754.0	9.08	165.58	752.1	-34.8	8.9	35.9	2.00	2.00	EOB; Inc=90.8°
800.0	9.08	165.58	797.5	-41.8	10.7	43.2	0.00	0.00	
900.0	9.08	165.58	896.3	-57.1	14.7	58.9	0.00	0.00	
1,000.0	9.08	165.58	995.0	-72.4	18.6	74.7	0.00	0.00	
1,068.8	9.08	165.58	1,063.0	-82.9	21.3	85.6	0.00	0.00	A_GROOVE_TVD
1,100.0	9.08	165.58	1,093.8	-87.7	22.5	90.5	0.00	0.00	
1,200.0	9.08	165.58	1,192.5	-102.9	26.5	106.3	0.00	0.00	
1,224.8	9.08	165.58	1,217.0	-106.7	27.4	110.2	0.00	0.00	B_GROOVE_TVD
1,261.3	9.08	165.58	1,253.0	-112.3	28.9	115.9	0.00	0.00	B_GROOVE_BASE_TVD
1,300.0	9.08	165.58	1,291.3	-118.2	30.4	122.1	0.00	0.00	
1,400.0	9.08	165.58	1,390.0	-133.5	34.3	137.8	0.00	0.00	
1,500.0	9.08	165.58	1,488.8	-148.8	38.2	153.6	0.00	0.00	
1,600.0	9.08	165.58	1,587.5	-164.1	42.2	169.4	0.00	0.00	
1,700.0	9.08	165.58	1,686.2	-179.4	46.1	185.2	0.00	0.00	
1,800.0	9.08	165.58	1,785.0	-194.7	50.0	201.0	0.00	0.00	
1,900.0	9.08	165.58	1,883.7	-209.9	54.0	216.7	0.00	0.00	
2,000.0	9.08	165.58	1,982.5	-225.2	57.9	232.5	0.00	0.00	
2,100.0	9.08	165.58	2,081.2	-240.5	61.8	248.3	0.00	0.00	
2,200.0	9.08	165.58	2,180.0	-255.8	65.7	264.1	0.00	0.00	
2,201.0	9.08	165.58	2,181.0	-256.0	65.8	264.2	0.00	0.00	GARDEN_GULCH_TVD.
2,300.0	9.08	165.58	2,278.7	-271.1	69.7	279.9	0.00	0.00	
2,400.0	9.08	165.58	2,377.5	-286.4	73.6	295.6	0.00	0.00	
2,500.0	9.08	165.58	2,476.2	-301.6	77.5	311.4	0.00	0.00	
2,600.0	9.08	165.58	2,575.0	-316.9	81.5	327.2	0.00	0.00	
2,700.0	9.08	165.58	2,673.7	-332.2	85.4	343.0	0.00	0.00	
2,800.0	9.08	165.58	2,772.5	-347.5	89.3	358.8	0.00	0.00	
2,900.0	9.08	165.58	2,871.2	-362.8	93.2	374.5	0.00	0.00	
3,000.0	9.08	165.58	2,970.0	-378.1	97.2	390.3	0.00	0.00	
3,100.0	9.08	165.58	3,068.7	-393.4	101.1	406.1	0.00	0.00	
3,200.0	9.08	165.58	3,167.4	-408.6	105.0	421.9	0.00	0.00	
3,207.6	9.08	165.58	3,175.0	-409.8	105.3	423.1	0.00	0.00	WASATCH_FM_TVD
3,300.0	9.08	165.58	3,266.2	-423.9	109.0	437.7	0.00	0.00	
3,400.0	9.08	165.58	3,364.9	-439.2	112.9	453.4	0.00	0.00	
3,500.0	9.08	165.58	3,463.7	-454.5	116.8	469.2	0.00	0.00	
3,600.0	9.08	165.58	3,562.4	-469.8	120.8	485.0	0.00	0.00	
3,700.0	9.08	165.58	3,661.2	-485.1	124.7	500.8	0.00	0.00	
3,800.0	9.08	165.58	3,759.9	-500.4	128.6	516.6	0.00	0.00	
3,900.0	9.08	165.58	3,858.7	-515.6	132.5	532.3	0.00	0.00	
4,000.0	9.08	165.58	3,957.4	-530.9	136.5	548.1	0.00	0.00	
4,100.0	9.08	165.58	4,056.2	-546.2	140.4	563.9	0.00	0.00	
4,200.0	9.08	165.58	4,154.9	-561.5	144.3	579.7	0.00	0.00	
4,300.0	9.08	165.58	4,253.7	-576.8	148.3	595.5	0.00	0.00	
4,400.0	9.08	165.58	4,352.4	-592.1	152.2	611.2	0.00	0.00	
4,500.0	9.08	165.58	4,451.2	-607.4	156.1	627.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 8513C-27 L27 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	Well @ 8136.0ft (Rig)
Project:	Story Gulch	MD Reference:	Well @ 8136.0ft (Rig)
Site:	S27-T4S-R96W (L27 496)	North Reference:	True
Well:	8513C-27 L27 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,600.0	9.08	165.58	4,549.9	-622.6	160.0	642.8	0.00	0.00	
4,700.0	9.08	165.58	4,648.7	-637.9	164.0	658.6	0.00	0.00	
4,800.0	9.08	165.58	4,747.4	-653.2	167.9	674.4	0.00	0.00	
4,900.0	9.08	165.58	4,846.1	-668.5	171.8	690.1	0.00	0.00	
5,000.0	9.08	165.58	4,944.9	-683.8	175.8	705.9	0.00	0.00	
5,100.0	9.08	165.58	5,043.6	-699.1	179.7	721.7	0.00	0.00	
5,200.0	9.08	165.58	5,142.4	-714.3	183.6	737.5	0.00	0.00	
5,300.0	9.08	165.58	5,241.1	-729.6	187.5	753.3	0.00	0.00	
5,400.0	9.08	165.58	5,339.9	-744.9	191.5	769.0	0.00	0.00	
5,441.6	9.08	165.58	5,381.0	-751.3	193.1	775.6	0.00	0.00	WASATCH_G_TVD
5,500.0	9.08	165.58	5,438.6	-760.2	195.4	784.8	0.00	0.00	
5,600.0	9.08	165.58	5,537.4	-775.5	199.3	800.6	0.00	0.00	
5,700.0	9.08	165.58	5,636.1	-790.8	203.3	816.4	0.00	0.00	
5,800.0	9.08	165.58	5,734.9	-806.1	207.2	832.2	0.00	0.00	
5,900.0	9.08	165.58	5,833.6	-821.3	211.1	847.9	0.00	0.00	
6,000.0	9.08	165.58	5,932.4	-836.6	215.0	863.7	0.00	0.00	
6,100.0	9.08	165.58	6,031.1	-851.9	219.0	879.5	0.00	0.00	
6,200.0	9.08	165.58	6,129.9	-867.2	222.9	895.3	0.00	0.00	
6,300.0	9.08	165.58	6,228.6	-882.5	226.8	911.1	0.00	0.00	
6,400.0	9.08	165.58	6,327.3	-897.8	230.8	926.8	0.00	0.00	
6,500.0	9.08	165.58	6,426.1	-913.1	234.7	942.6	0.00	0.00	
6,600.0	9.08	165.58	6,524.8	-928.3	238.6	958.4	0.00	0.00	
6,700.0	9.08	165.58	6,623.6	-943.6	242.5	974.2	0.00	0.00	
6,800.0	9.08	165.58	6,722.3	-958.9	246.5	990.0	0.00	0.00	
6,900.0	9.08	165.58	6,821.1	-974.2	250.4	1,005.7	0.00	0.00	
7,000.0	9.08	165.58	6,919.8	-989.5	254.3	1,021.5	0.00	0.00	
7,100.0	9.08	165.58	7,018.6	-1,004.8	258.3	1,037.3	0.00	0.00	
7,200.0	9.08	165.58	7,117.3	-1,020.1	262.2	1,053.1	0.00	0.00	
7,250.2	9.08	165.58	7,166.9	-1,027.7	264.2	1,061.0	0.00	0.00	Start 2° Drop @ 7250.2' MD
7,300.0	8.08	165.58	7,216.1	-1,034.9	266.0	1,068.4	2.00	-2.00	
7,400.0	6.08	165.58	7,315.4	-1,046.9	269.1	1,080.8	2.00	-2.00	
7,500.0	4.08	165.58	7,415.0	-1,055.4	271.3	1,089.6	2.00	-2.00	
7,600.0	2.08	165.58	7,514.8	-1,060.7	272.6	1,095.0	2.00	-2.00	
7,664.2	0.80	165.58	7,579.0	-1,062.2	273.0	1,096.6	2.00	-2.00	WILLIAMS_FORK_TVD
7,700.0	0.08	165.58	7,614.8	-1,062.5	273.1	1,096.9	2.00	-2.00	
7,704.2	0.00	0.00	7,619.0	-1,062.5	273.1	1,096.9	2.00	-2.00	EOD @ 7704.2' MD - TOG TVD
7,797.7	0.23	236.31	7,712.5	-1,062.6	272.9	1,097.0	0.25	0.25	
7,800.0	0.23	236.31	7,714.8	-1,062.6	272.9	1,097.0	0.00	0.00	
7,900.0	0.23	236.31	7,814.8	-1,062.8	272.6	1,097.1	0.00	0.00	
8,000.0	0.23	236.31	7,914.8	-1,063.1	272.3	1,097.3	0.00	0.00	
8,100.0	0.23	236.31	8,014.8	-1,063.3	271.9	1,097.4	0.00	0.00	
8,200.0	0.23	236.31	8,114.8	-1,063.5	271.6	1,097.5	0.00	0.00	
8,300.0	0.23	236.31	8,214.8	-1,063.7	271.2	1,097.7	0.00	0.00	
8,400.0	0.23	236.31	8,314.8	-1,064.0	270.9	1,097.8	0.00	0.00	
8,500.0	0.23	236.31	8,414.8	-1,064.2	270.6	1,098.0	0.00	0.00	
8,600.0	0.23	236.31	8,514.8	-1,064.4	270.2	1,098.1	0.00	0.00	
8,700.0	0.23	236.31	8,614.8	-1,064.6	269.9	1,098.2	0.00	0.00	
8,800.0	0.23	236.31	8,714.8	-1,064.9	269.5	1,098.4	0.00	0.00	
8,900.0	0.23	236.31	8,814.8	-1,065.1	269.2	1,098.5	0.00	0.00	
9,000.0	0.23	236.31	8,914.8	-1,065.3	268.9	1,098.7	0.00	0.00	
9,100.0	0.23	236.31	9,014.8	-1,065.5	268.5	1,098.8	0.00	0.00	
9,200.0	0.23	236.31	9,114.8	-1,065.8	268.2	1,098.9	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 8513C-27 L27 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	Well @ 8136.0ft (Rig)
Project:	Story Gulch	MD Reference:	Well @ 8136.0ft (Rig)
Site:	S27-T4S-R96W (L27 496)	North Reference:	True
Well:	8513C-27 L27 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,300.0	0.23	236.31	9,214.8	-1,066.0	267.8	1,099.1	0.00	0.00	
9,400.0	0.23	236.31	9,314.8	-1,066.2	267.5	1,099.2	0.00	0.00	
9,500.0	0.23	236.31	9,414.8	-1,066.5	267.2	1,099.4	0.00	0.00	
9,600.0	0.23	236.31	9,514.8	-1,066.7	266.8	1,099.5	0.00	0.00	
9,700.0	0.23	236.31	9,614.8	-1,066.9	266.5	1,099.6	0.00	0.00	
9,800.0	0.23	236.31	9,714.8	-1,067.1	266.1	1,099.8	0.00	0.00	
9,900.0	0.23	236.31	9,814.8	-1,067.4	265.8	1,099.9	0.00	0.00	
10,000.0	0.23	236.31	9,914.8	-1,067.6	265.5	1,100.1	0.00	0.00	
10,100.0	0.23	236.31	10,014.8	-1,067.8	265.1	1,100.2	0.00	0.00	
10,200.0	0.23	236.31	10,114.8	-1,068.0	264.8	1,100.3	0.00	0.00	
10,300.0	0.23	236.31	10,214.8	-1,068.3	264.4	1,100.5	0.00	0.00	
10,400.0	0.23	236.31	10,314.8	-1,068.5	264.1	1,100.6	0.00	0.00	
10,500.0	0.23	236.31	10,414.8	-1,068.7	263.8	1,100.8	0.00	0.00	
10,600.0	0.23	236.31	10,514.8	-1,068.9	263.4	1,100.9	0.00	0.00	
10,700.0	0.23	236.31	10,614.8	-1,069.2	263.1	1,101.0	0.00	0.00	
10,800.0	0.23	236.31	10,714.8	-1,069.4	262.7	1,101.2	0.00	0.00	
10,863.2	0.23	236.31	10,778.0	-1,069.5	262.5	1,101.3	0.00	0.00	CAMEO_TVD
10,900.0	0.23	236.31	10,814.8	-1,069.6	262.4	1,101.3	0.00	0.00	
11,000.0	0.23	236.31	10,914.8	-1,069.9	262.1	1,101.5	0.00	0.00	
11,100.0	0.23	236.31	11,014.8	-1,070.1	261.7	1,101.6	0.00	0.00	
11,200.0	0.23	236.31	11,114.8	-1,070.3	261.4	1,101.8	0.00	0.00	
11,300.0	0.23	236.31	11,214.8	-1,070.5	261.0	1,101.9	0.00	0.00	
11,305.2	0.23	236.31	11,220.0	-1,070.5	261.0	1,101.9	0.00	0.00	ROLLINS_TVD
11,400.0	0.23	236.31	11,314.8	-1,070.8	260.7	1,102.0	0.00	0.00	
11,500.0	0.23	236.31	11,414.8	-1,071.0	260.4	1,102.2	0.00	0.00	
11,540.2	0.23	236.31	11,455.0	-1,071.1	260.2	1,102.2	0.00	0.00	COZZETTE_TVD
11,600.0	0.23	236.31	11,514.8	-1,071.2	260.0	1,102.3	0.00	0.00	
11,700.0	0.23	236.31	11,614.8	-1,071.4	259.7	1,102.5	0.00	0.00	
11,725.2	0.23	236.31	11,640.0	-1,071.5	259.6	1,102.5	0.00	0.00	CORCORAN_TVD
11,800.0	0.23	236.31	11,714.8	-1,071.7	259.3	1,102.6	0.00	0.00	
11,900.0	0.23	236.31	11,814.8	-1,071.9	259.0	1,102.7	0.00	0.00	
12,000.0	0.23	236.31	11,914.8	-1,072.1	258.7	1,102.9	0.00	0.00	
12,032.2	0.23	236.31	11,947.0	-1,072.2	258.6	1,102.9	0.00	0.00	UPPER_SEGO_TVD
12,100.0	0.23	236.31	12,014.8	-1,072.3	258.3	1,103.0	0.00	0.00	
12,182.2	0.23	236.31	12,097.0	-1,072.5	258.1	1,103.1	0.00	0.00	TD @ 12182.2' MD - SEGO_BASE_TARGET_1
12,200.0	0.23	236.31	12,114.8	-1,072.6	258.0	1,103.2	0.00	0.00	
12,300.0	0.23	236.31	12,214.8	-1,072.8	257.7	1,103.3	0.00	0.00	
12,332.2	0.23	236.31	12,247.0	-1,072.9	257.5	1,103.3	0.00	0.00	Permit TD @ 12332.2' MD

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
L27 496 8513C-27 PBHI - hit/miss target - Shape	0.00	0.00	12,097.0	-1,072.5	258.1	1,679,198.37	2,251,471.29	39° 40' 5.20 N	108° 9' 33.73 W
- plan hits target center - Rectangle (sides W30.0 H50.0 D0.0)									
L27 496 8513C-27 TGT - plan hits target center - Point	0.00	0.00	7,619.0	-1,062.5	273.1	1,679,207.95	2,251,486.63	39° 40' 5.30 N	108° 9' 33.54 W

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 8513C-27 L27 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	Well @ 8136.0ft (Rig)
Project:	Story Gulch	MD Reference:	Well @ 8136.0ft (Rig)
Site:	S27-T4S-R96W (L27 496)	North Reference:	True
Well:	8513C-27 L27 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,068.8	1,063.0	A_GROOVE_TVD				
1,224.8	1,217.0	B_GROOVE_TVD				
1,261.3	1,253.0	B_GROOVE_BASE_TVD				
2,201.0	2,181.0	GARDEN_GULCH_TVD.				
3,207.6	3,175.0	WASATCH_FM_TVD				
5,441.6	5,381.0	WASATCH_G_TVD				
7,664.2	7,579.0	WILLIAMS_FORK_TVD				
7,704.2	7,619.0	TOG TVD				
10,863.2	10,778.0	CAMEO_TVD				
11,305.2	11,220.0	ROLLINS_TVD				
11,540.2	11,455.0	COZZETTE_TVD				
11,725.2	11,640.0	CORCORAN_TVD				
12,032.2	11,947.0	UPPER_SEGO_TVD				
12,182.2	12,097.0	SEGO_BASE_TARGET_TVD				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
300.0	300.0	0.0	0.0	KOP @ 300' MD	
754.0	752.1	-34.8	8.9	EOB; Inc=90.8°	
7,250.2	7,166.9	-1,027.7	264.2	Start 2° Drop @ 7250.2' MD	
7,704.2	7,619.0	-1,062.5	273.1	EOD @ 7704.2' MD	
12,182.2	12,097.0	-1,062.6	272.9	TD @ 12182.2' MD	
12,332.2	12,247.0	-1,072.5	258.1	Permit TD @ 12332.2' MD	