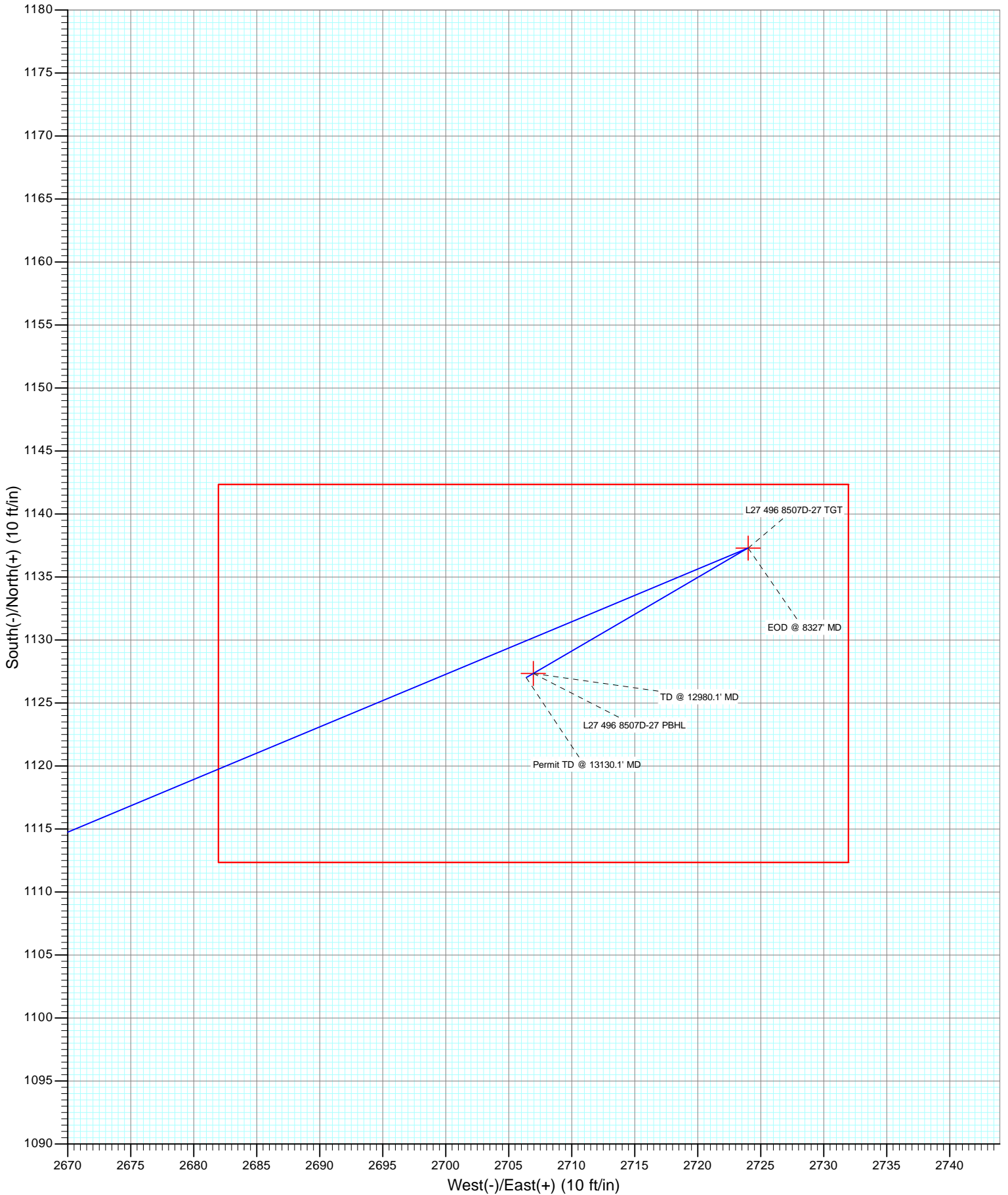


**M** Azimuths to True North  
 Magnetic North: 10.28°  
 Magnetic Field Strength: 52177.7snT  
 Dip Angle: 65.82°  
 Date: 9/25/2012  
 Model: IGRF2010

Plan #1  
 8507D-27 L27 496  
 12xxx; LR  
 WELL @ 8136.0ft (Original Well Elev)  
 Ground Elevation @ 8104.0  
 North American Datum 1983  
 Well 8507D-27 L27 496, True North



Project: Story Gulch  
Site: S27-T4S-R96W (L27 496)  
Well: 8507D-27 L27 496  
Wellbore: DD  
Design: Plan #1



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8507D-27 L27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 8136.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	WELL @ 8136.0ft (Original Well Elev)
<b>Site:</b>	S27-T4S-R96W (L27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8507D-27 L27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

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

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

<b>Well</b>	8507D-27 L27 496					
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,680,383.12 ft	<b>Latitude:</b>	39° 40' 16.85 N
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	2,251,284.60 ft	<b>Longitude:</b>	108° 9' 36.56 W
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	8,104.0 ft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
	IGRF2010	9/25/2012	(°)	(°)	(nT)
			10.28	65.82	52,178

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	67.39

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
989.4	23.68	67.34	967.1	62.0	148.4	3.00	3.00	0.00	67.34	
7,537.6	23.68	67.34	6,963.9	1,075.3	2,575.6	0.00	0.00	0.00	0.00	
8,327.0	0.00	0.00	7,731.0	1,137.3	2,724.0	3.00	-3.00	0.00	180.00	L27 496 8507D-27 TC
8,425.3	0.25	239.71	7,829.3	1,137.2	2,723.8	0.25	0.25	-122.40	239.71	
12,980.1	0.25	239.71	12,384.0	1,127.3	2,707.0	0.00	0.00	0.00	0.00	L27 496 8507D-27 PE
13,130.1	0.25	239.71	12,534.0	1,127.0	2,706.4	0.00	0.00	0.00	0.00	

# Cathedral Energy Services

## Planning Report

**Database:** USA EDM 5000 Multi Users DB  
**Company:** EnCana Oil & Gas (USA) Inc  
**Project:** Story Gulch  
**Site:** S27-T4S-R96W (L27 496)  
**Well:** 8507D-27 L27 496  
**Wellbore:** DD  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well 8507D-27 L27 496  
**TVD Reference:** WELL @ 8136.0ft (Original Well Elev)  
**MD Reference:** WELL @ 8136.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200' MD
300.0	3.00	67.34	300.0	1.0	2.4	2.6	3.00	3.00	
400.0	6.00	67.34	399.6	4.0	9.7	10.5	3.00	3.00	
500.0	9.00	67.34	498.8	9.1	21.7	23.5	3.00	3.00	
600.0	12.00	67.34	597.1	16.1	38.5	41.7	3.00	3.00	
700.0	15.00	67.34	694.3	25.1	60.1	65.1	3.00	3.00	
800.0	18.00	67.34	790.2	36.0	86.3	93.5	3.00	3.00	
900.0	21.00	67.34	884.4	48.9	117.1	126.9	3.00	3.00	
989.4	23.68	67.34	967.1	62.0	148.4	160.8	3.00	3.00	EOB; Inc=23.68°
1,000.0	23.68	67.34	976.8	63.6	152.3	165.1	0.00	0.00	
1,100.0	23.68	67.34	1,068.4	79.1	189.4	205.3	0.00	0.00	
1,176.0	23.68	67.34	1,138.0	90.8	217.6	235.8	0.00	0.00	A_GROOVE_TVD
1,200.0	23.68	67.34	1,160.0	94.6	226.5	245.4	0.00	0.00	
1,300.0	23.68	67.34	1,251.6	110.0	263.5	285.6	0.00	0.00	
1,343.1	23.68	67.34	1,291.0	116.7	279.5	302.9	0.00	0.00	B_GROOVE_TVD
1,356.2	23.68	67.34	1,303.0	118.7	284.4	308.2	0.00	0.00	B_GROOVE_BASE_TVD
1,400.0	23.68	67.34	1,343.1	125.5	300.6	325.8	0.00	0.00	
1,500.0	23.68	67.34	1,434.7	141.0	337.7	365.9	0.00	0.00	
1,600.0	23.68	67.34	1,526.3	156.5	374.7	406.1	0.00	0.00	
1,700.0	23.68	67.34	1,617.9	171.9	411.8	446.3	0.00	0.00	
1,800.0	23.68	67.34	1,709.4	187.4	448.9	486.4	0.00	0.00	
1,900.0	23.68	67.34	1,801.0	202.9	485.9	526.6	0.00	0.00	
2,000.0	23.68	67.34	1,892.6	218.4	523.0	566.8	0.00	0.00	
2,100.0	23.68	67.34	1,984.2	233.8	560.1	606.9	0.00	0.00	
2,200.0	23.68	67.34	2,075.8	249.3	597.1	647.1	0.00	0.00	
2,300.0	23.68	67.34	2,167.3	264.8	634.2	687.3	0.00	0.00	
2,396.8	23.68	67.34	2,256.0	279.8	670.1	726.1	0.00	0.00	GARDEN_GULCH_TVD.
2,400.0	23.68	67.34	2,258.9	280.3	671.3	727.4	0.00	0.00	
2,500.0	23.68	67.34	2,350.5	295.7	708.3	767.6	0.00	0.00	
2,600.0	23.68	67.34	2,442.1	311.2	745.4	807.8	0.00	0.00	
2,700.0	23.68	67.34	2,533.7	326.7	782.5	847.9	0.00	0.00	
2,800.0	23.68	67.34	2,625.2	342.2	819.5	888.1	0.00	0.00	
2,900.0	23.68	67.34	2,716.8	357.6	856.6	928.3	0.00	0.00	
3,000.0	23.68	67.34	2,808.4	373.1	893.7	968.4	0.00	0.00	
3,100.0	23.68	67.34	2,900.0	388.6	930.7	1,008.6	0.00	0.00	
3,200.0	23.68	67.34	2,991.5	404.1	967.8	1,048.8	0.00	0.00	
3,300.0	23.68	67.34	3,083.1	419.5	1,004.9	1,088.9	0.00	0.00	
3,400.0	23.68	67.34	3,174.7	435.0	1,041.9	1,129.1	0.00	0.00	
3,474.6	23.68	67.34	3,243.0	446.6	1,069.6	1,159.0	0.00	0.00	WASATCH_FM_TVD
3,500.0	23.68	67.34	3,266.3	450.5	1,079.0	1,169.3	0.00	0.00	
3,600.0	23.68	67.34	3,357.9	466.0	1,116.1	1,209.4	0.00	0.00	
3,700.0	23.68	67.34	3,449.4	481.4	1,153.1	1,249.6	0.00	0.00	
3,800.0	23.68	67.34	3,541.0	496.9	1,190.2	1,289.8	0.00	0.00	
3,900.0	23.68	67.34	3,632.6	512.4	1,227.3	1,329.9	0.00	0.00	
4,000.0	23.68	67.34	3,724.2	527.9	1,264.3	1,370.1	0.00	0.00	
4,100.0	23.68	67.34	3,815.8	543.3	1,301.4	1,410.3	0.00	0.00	
4,200.0	23.68	67.34	3,907.3	558.8	1,338.5	1,450.4	0.00	0.00	
4,300.0	23.68	67.34	3,998.9	574.3	1,375.5	1,490.6	0.00	0.00	
4,400.0	23.68	67.34	4,090.5	589.8	1,412.6	1,530.8	0.00	0.00	
4,500.0	23.68	67.34	4,182.1	605.2	1,449.7	1,570.9	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8507D-27 L27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 8136.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	WELL @ 8136.0ft (Original Well Elev)
<b>Site:</b>	S27-T4S-R96W (L27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8507D-27 L27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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	23.68	67.34	4,273.6	620.7	1,486.7	1,611.1	0.00	0.00	
4,700.0	23.68	67.34	4,365.2	636.2	1,523.8	1,651.3	0.00	0.00	
4,800.0	23.68	67.34	4,456.8	651.7	1,560.9	1,691.4	0.00	0.00	
4,900.0	23.68	67.34	4,548.4	667.1	1,597.9	1,731.6	0.00	0.00	
5,000.0	23.68	67.34	4,640.0	682.6	1,635.0	1,771.8	0.00	0.00	
5,100.0	23.68	67.34	4,731.5	698.1	1,672.1	1,811.9	0.00	0.00	
5,200.0	23.68	67.34	4,823.1	713.6	1,709.1	1,852.1	0.00	0.00	
5,300.0	23.68	67.34	4,914.7	729.1	1,746.2	1,892.3	0.00	0.00	
5,400.0	23.68	67.34	5,006.3	744.5	1,783.2	1,932.4	0.00	0.00	
5,500.0	23.68	67.34	5,097.9	760.0	1,820.3	1,972.6	0.00	0.00	
5,600.0	23.68	67.34	5,189.4	775.5	1,857.4	2,012.8	0.00	0.00	
5,700.0	23.68	67.34	5,281.0	791.0	1,894.4	2,052.9	0.00	0.00	
5,800.0	23.68	67.34	5,372.6	806.4	1,931.5	2,093.1	0.00	0.00	
5,900.0	23.68	67.34	5,464.2	821.9	1,968.6	2,133.3	0.00	0.00	
5,927.1	23.68	67.34	5,489.0	826.1	1,978.6	2,144.2	0.00	0.00	WASATCH_G_TVD
6,000.0	23.68	67.34	5,555.7	837.4	2,005.6	2,173.4	0.00	0.00	
6,100.0	23.68	67.34	5,647.3	852.9	2,042.7	2,213.6	0.00	0.00	
6,200.0	23.68	67.34	5,738.9	868.3	2,079.8	2,253.8	0.00	0.00	
6,300.0	23.68	67.34	5,830.5	883.8	2,116.8	2,293.9	0.00	0.00	
6,400.0	23.68	67.34	5,922.1	899.3	2,153.9	2,334.1	0.00	0.00	
6,500.0	23.68	67.34	6,013.6	914.8	2,191.0	2,374.3	0.00	0.00	
6,600.0	23.68	67.34	6,105.2	930.2	2,228.0	2,414.4	0.00	0.00	
6,700.0	23.68	67.34	6,196.8	945.7	2,265.1	2,454.6	0.00	0.00	
6,800.0	23.68	67.34	6,288.4	961.2	2,302.2	2,494.8	0.00	0.00	
6,900.0	23.68	67.34	6,380.0	976.7	2,339.2	2,534.9	0.00	0.00	
7,000.0	23.68	67.34	6,471.5	992.1	2,376.3	2,575.1	0.00	0.00	
7,100.0	23.68	67.34	6,563.1	1,007.6	2,413.4	2,615.3	0.00	0.00	
7,200.0	23.68	67.34	6,654.7	1,023.1	2,450.4	2,655.4	0.00	0.00	
7,300.0	23.68	67.34	6,746.3	1,038.6	2,487.5	2,695.6	0.00	0.00	
7,400.0	23.68	67.34	6,837.8	1,054.0	2,524.6	2,735.8	0.00	0.00	
7,500.0	23.68	67.34	6,929.4	1,069.5	2,561.6	2,775.9	0.00	0.00	
7,537.6	23.68	67.34	6,963.9	1,075.3	2,575.6	2,791.0	0.00	0.00	Start 3° Drop @ 7537.6' MD
7,600.0	21.81	67.34	7,021.4	1,084.6	2,597.8	2,815.2	3.00	-3.00	
7,700.0	18.81	67.34	7,115.2	1,098.0	2,629.9	2,849.9	3.00	-3.00	
7,800.0	15.81	67.34	7,210.6	1,109.5	2,657.3	2,879.6	3.00	-3.00	
7,900.0	12.81	67.34	7,307.5	1,119.0	2,680.1	2,904.3	3.00	-3.00	
8,000.0	9.81	67.34	7,405.6	1,126.5	2,698.2	2,924.0	3.00	-3.00	
8,100.0	6.81	67.34	7,504.5	1,132.1	2,711.6	2,938.4	3.00	-3.00	
8,200.0	3.81	67.34	7,604.1	1,135.7	2,720.1	2,947.7	3.00	-3.00	
8,287.0	1.20	67.34	7,691.0	1,137.1	2,723.6	2,951.5	3.00	-3.00	WILLIAMS_FORK_TVD
8,300.0	0.81	67.34	7,704.0	1,137.2	2,723.8	2,951.7	3.00	-3.00	
8,327.0	0.00	0.00	7,731.0	1,137.3	2,724.0	2,951.9	3.00	-3.00	EOD @ 8327' MD - TOG TVD
8,400.0	0.18	239.71	7,804.0	1,137.2	2,723.9	2,951.8	0.25	0.25	
8,425.3	0.25	239.71	7,829.3	1,137.2	2,723.8	2,951.7	0.25	0.25	
8,500.0	0.25	239.71	7,904.0	1,137.0	2,723.5	2,951.4	0.00	0.00	
8,600.0	0.25	239.71	8,004.0	1,136.8	2,723.2	2,950.9	0.00	0.00	
8,700.0	0.25	239.71	8,104.0	1,136.6	2,722.8	2,950.5	0.00	0.00	
8,800.0	0.25	239.71	8,204.0	1,136.4	2,722.4	2,950.1	0.00	0.00	
8,900.0	0.25	239.71	8,304.0	1,136.2	2,722.1	2,949.7	0.00	0.00	
9,000.0	0.25	239.71	8,404.0	1,136.0	2,721.7	2,949.2	0.00	0.00	
9,100.0	0.25	239.71	8,504.0	1,135.7	2,721.3	2,948.8	0.00	0.00	
9,200.0	0.25	239.71	8,604.0	1,135.5	2,720.9	2,948.4	0.00	0.00	

# Cathedral Energy Services

## Planning Report

**Database:** USA EDM 5000 Multi Users DB  
**Company:** EnCana Oil & Gas (USA) Inc  
**Project:** Story Gulch  
**Site:** S27-T4S-R96W (L27 496)  
**Well:** 8507D-27 L27 496  
**Wellbore:** DD  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well 8507D-27 L27 496  
**TVD Reference:** WELL @ 8136.0ft (Original Well Elev)  
**MD Reference:** WELL @ 8136.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### 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	0.25	239.71	8,704.0	1,135.3	2,720.6	2,948.0	0.00	0.00	
9,400.0	0.25	239.71	8,804.0	1,135.1	2,720.2	2,947.5	0.00	0.00	
9,500.0	0.25	239.71	8,904.0	1,134.9	2,719.8	2,947.1	0.00	0.00	
9,600.0	0.25	239.71	9,004.0	1,134.7	2,719.5	2,946.7	0.00	0.00	
9,700.0	0.25	239.71	9,104.0	1,134.4	2,719.1	2,946.3	0.00	0.00	
9,800.0	0.25	239.71	9,204.0	1,134.2	2,718.7	2,945.8	0.00	0.00	
9,900.0	0.25	239.71	9,304.0	1,134.0	2,718.4	2,945.4	0.00	0.00	
10,000.0	0.25	239.71	9,404.0	1,133.8	2,718.0	2,945.0	0.00	0.00	
10,100.0	0.25	239.71	9,504.0	1,133.6	2,717.6	2,944.6	0.00	0.00	
10,200.0	0.25	239.71	9,604.0	1,133.4	2,717.2	2,944.1	0.00	0.00	
10,300.0	0.25	239.71	9,704.0	1,133.1	2,716.9	2,943.7	0.00	0.00	
10,400.0	0.25	239.71	9,803.9	1,132.9	2,716.5	2,943.3	0.00	0.00	
10,500.0	0.25	239.71	9,903.9	1,132.7	2,716.1	2,942.9	0.00	0.00	
10,600.0	0.25	239.71	10,003.9	1,132.5	2,715.8	2,942.4	0.00	0.00	
10,700.0	0.25	239.71	10,103.9	1,132.3	2,715.4	2,942.0	0.00	0.00	
10,800.0	0.25	239.71	10,203.9	1,132.1	2,715.0	2,941.6	0.00	0.00	
10,900.0	0.25	239.71	10,303.9	1,131.8	2,714.7	2,941.2	0.00	0.00	
11,000.0	0.25	239.71	10,403.9	1,131.6	2,714.3	2,940.7	0.00	0.00	
11,100.0	0.25	239.71	10,503.9	1,131.4	2,713.9	2,940.3	0.00	0.00	
11,200.0	0.25	239.71	10,603.9	1,131.2	2,713.5	2,939.9	0.00	0.00	
11,300.0	0.25	239.71	10,703.9	1,131.0	2,713.2	2,939.5	0.00	0.00	
11,400.0	0.25	239.71	10,803.9	1,130.8	2,712.8	2,939.0	0.00	0.00	
11,500.0	0.25	239.71	10,903.9	1,130.5	2,712.4	2,938.6	0.00	0.00	
11,600.0	0.25	239.71	11,003.9	1,130.3	2,712.1	2,938.2	0.00	0.00	
11,698.1	0.25	239.71	11,102.0	1,130.1	2,711.7	2,937.8	0.00	0.00	CAMEO_TVD
11,700.0	0.25	239.71	11,103.9	1,130.1	2,711.7	2,937.8	0.00	0.00	
11,800.0	0.25	239.71	11,203.9	1,129.9	2,711.3	2,937.3	0.00	0.00	
11,900.0	0.25	239.71	11,303.9	1,129.7	2,711.0	2,936.9	0.00	0.00	
12,000.0	0.25	239.71	11,403.9	1,129.5	2,710.6	2,936.5	0.00	0.00	
12,083.1	0.25	239.71	11,487.0	1,129.3	2,710.3	2,936.1	0.00	0.00	ROLLINS_TVD
12,100.0	0.25	239.71	11,503.9	1,129.2	2,710.2	2,936.1	0.00	0.00	
12,200.0	0.25	239.71	11,603.9	1,129.0	2,709.8	2,935.6	0.00	0.00	
12,300.0	0.25	239.71	11,703.9	1,128.8	2,709.5	2,935.2	0.00	0.00	
12,356.1	0.25	239.71	11,760.0	1,128.7	2,709.3	2,935.0	0.00	0.00	COZZETTE_TVD
12,400.0	0.25	239.71	11,803.9	1,128.6	2,709.1	2,934.8	0.00	0.00	
12,500.0	0.25	239.71	11,903.9	1,128.4	2,708.7	2,934.4	0.00	0.00	
12,541.1	0.25	239.71	11,945.0	1,128.3	2,708.6	2,934.2	0.00	0.00	CORCORAN_TVD
12,600.0	0.25	239.71	12,003.9	1,128.2	2,708.4	2,933.9	0.00	0.00	
12,700.0	0.25	239.71	12,103.9	1,127.9	2,708.0	2,933.5	0.00	0.00	
12,800.0	0.25	239.71	12,203.9	1,127.7	2,707.6	2,933.1	0.00	0.00	
12,830.1	0.25	239.71	12,234.0	1,127.7	2,707.5	2,933.0	0.00	0.00	UPPER_SEGO_TVD
12,900.0	0.25	239.71	12,303.9	1,127.5	2,707.2	2,932.7	0.00	0.00	
12,980.1	0.25	239.71	12,384.0	1,127.3	2,707.0	2,932.3	0.00	0.00	TD @ 12980.1' MD - SEGO_BASE_TARGET_1
13,000.0	0.25	239.71	12,403.9	1,127.3	2,706.9	2,932.2	0.00	0.00	
13,100.0	0.25	239.71	12,503.9	1,127.1	2,706.5	2,931.8	0.00	0.00	
13,130.1	0.25	239.71	12,534.0	1,127.0	2,706.4	2,931.7	0.00	0.00	Permit TD @ 13130.1' MD

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8507D-27 L27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 8136.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	WELL @ 8136.0ft (Original Well Elev)
<b>Site:</b>	S27-T4S-R96W (L27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8507D-27 L27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
L27 496 8507D-27 PBHI - plan hits target center - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	12,384.0	1,127.3	2,707.0	1,681,430.72	2,254,023.40	39° 40' 27.99 N	108° 9' 1.94 W
L27 496 8507D-27 TGT - plan hits target center - Point	0.00	0.00	7,731.0	1,137.3	2,724.0	1,681,440.18	2,254,040.73	39° 40' 28.09 N	108° 9' 1.72 W

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
1,176.0	1,138.0	A_GROOVE_TVD			
1,343.1	1,291.0	B_GROOVE_TVD			
1,356.2	1,303.0	B_GROOVE_BASE_TVD			
2,396.8	2,256.0	GARDEN_GULCH_TVD.			
3,474.6	3,243.0	WASATCH_FM_TVD			
5,927.1	5,489.0	WASATCH_G_TVD			
8,287.0	7,691.0	WILLIAMS_FORK_TVD			
8,327.0	7,731.0	TOG TVD			
11,698.1	11,102.0	CAMEO_TVD			
12,083.1	11,487.0	ROLLINS_TVD			
12,356.1	11,760.0	COZZETTE_TVD			
12,541.1	11,945.0	CORCORAN_TVD			
12,830.1	12,234.0	UPPER_SEGO_TVD			
12,980.1	12,384.0	SEGO_BASE_TARGET_TVD			

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP @ 200' MD
989.4	967.1	62.0	148.4	EOB; Inc=23.68°
7,537.6	6,963.9	1,075.3	2,575.6	Start 3° Drop @ 7537.6' MD
8,327.0	7,731.0	1,137.3	2,724.0	EOD @ 8327' MD
12,980.1	12,384.0	1,137.2	2,723.8	TD @ 12980.1' MD
13,130.1	12,534.0	1,127.3	2,707.0	Permit TD @ 13130.1' MD