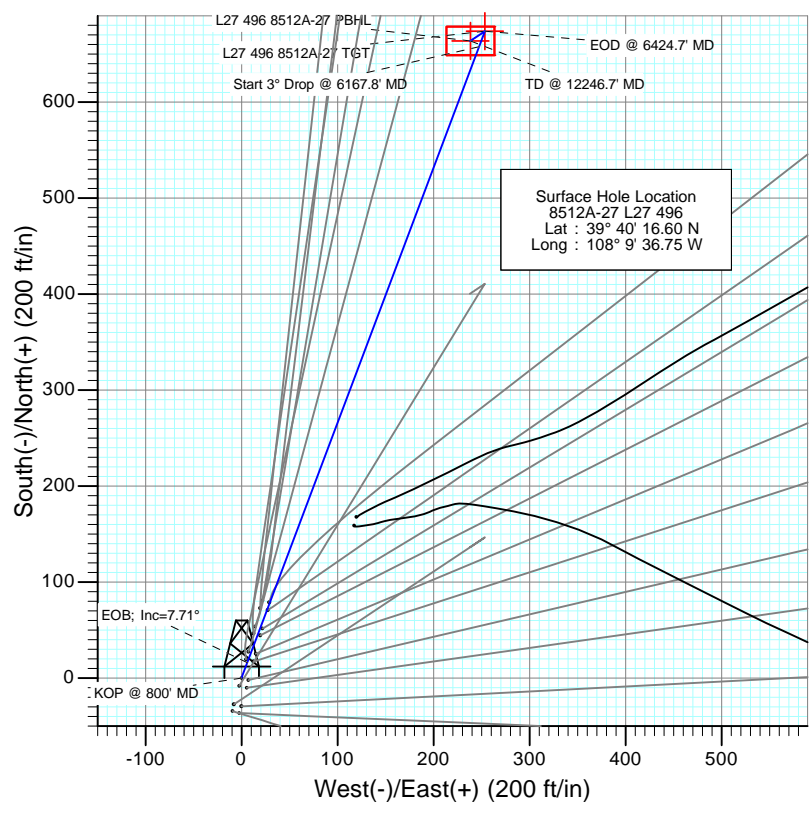


Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1056.9	7.71	20.62	1056.1	16.1	6.1	3.00	20.62	17.3	
4	6167.8	7.71	20.62	6120.9	657.7	247.4	0.00	0.00	702.6	
5	6424.7	0.00	0.00	6377.0	673.8	253.5	3.00	180.00	719.8	
6	6496.2	0.18	236.28	6448.5	673.7	253.4	0.25	236.28	719.7	
7	12246.7	0.18	236.28	12199.0	663.8	238.5	0.00	0.00	705.3	L27 496 8512A-27 PBHL
8	12396.7	0.18	236.28	12349.0	663.5	238.1	0.00	0.00	704.9	



Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
L27 496 8512A-27 TGT	673.8	253.5	1681024.35	2251542.1339°	40° 23.26 N	108° 9' 33.51 W
L27 496 8512A-27 PBHL	663.8	238.5	1681014.78	2251526.8339°	40° 23.16 N	108° 9' 33.70 W

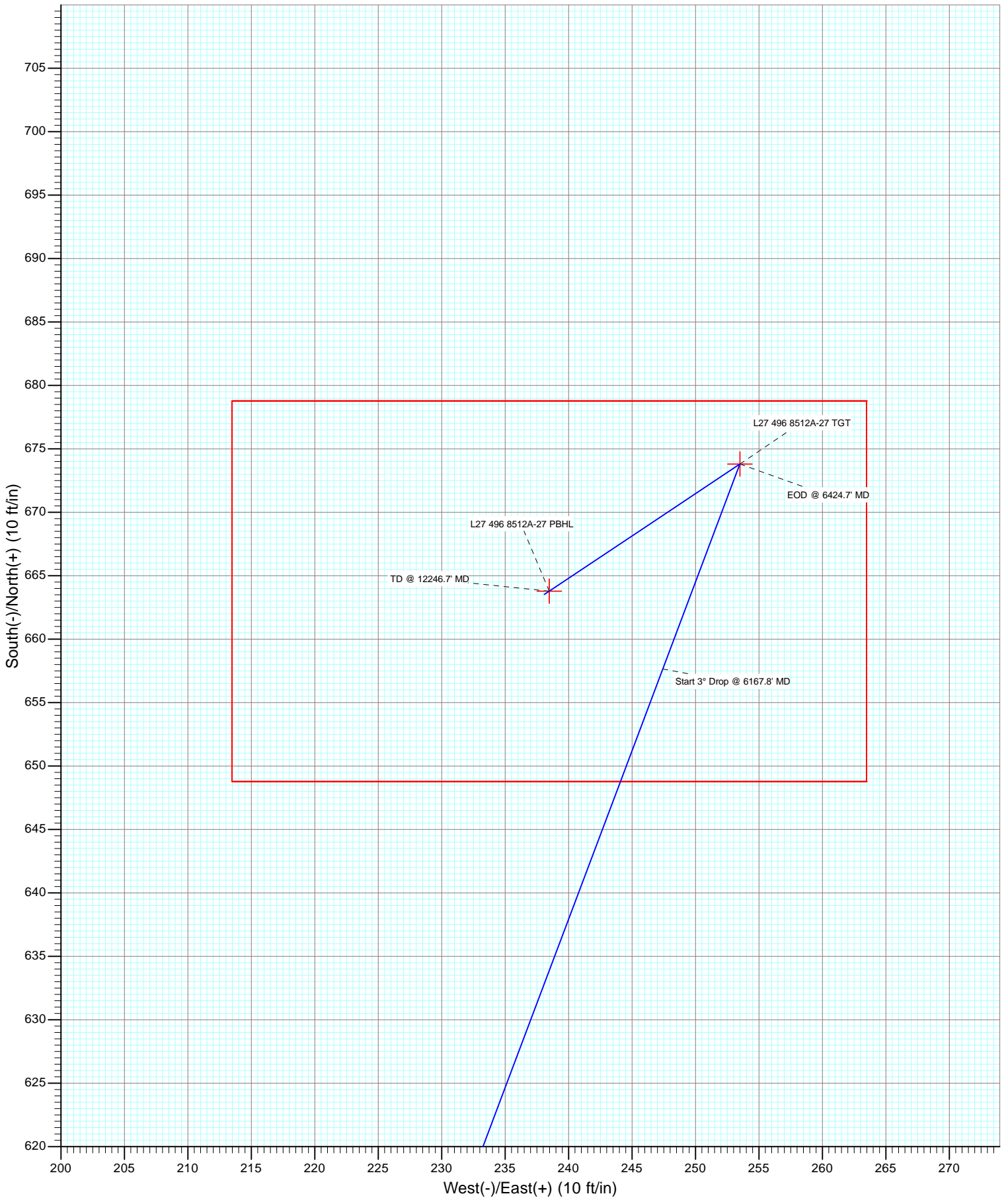
**M** Azimuths to True North  
 Magnetic North: 10.28°  
 Magnetic Field  
 Strength: 52177.9snT  
 Dip Angle: 65.82°  
 Date: 9/24/2012  
 Model: IGRF2010

TVDPath	MDPath	Formation
1107.0	1108.2	A_GROOVE_TVD
1263.0	1265.7	B_GROOVE_TVD
1300.0	1303.0	B_GROOVE_BASE_TVD
2230.0	2241.5	GARDEN_GULCH_TVD
3226.0	3246.6	WASATCH_FM_TVD
5442.0	5482.8	WASATCH_G_TVD
7637.0	7684.7	WILLIAMS_FORK_TVD
7677.0	7724.7	TOG_TVD
10869.0	10916.7	CAMEO_TVD
11313.0	11360.7	ROLLINS_TVD
11565.0	11612.7	COZZETTE_TVD
11748.0	11795.7	CORCORAN_TVD
12049.0	12096.7	UPPER_SEGO_TVD
12199.0	12246.7	SEGO_BASE_TARGET_TVD

Plan #1  
 8512A-27 L27 496  
 12xxx; LR  
 Well @ 8136.0ft (Rig)  
 Ground Elevation @ 8104.0  
 North American Datum 1983  
 Well 8512A-27 L27 496, True North



Project: Story Gulch  
Site: S27-T4S-R96W (L27 496)  
Well: 8512A-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 8512A-27 L27 496
<b>Company:</b> EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b> Well @ 8136.0ft (Rig)
<b>Project:</b> Story Gulch	<b>MD Reference:</b> Well @ 8136.0ft (Rig)
<b>Site:</b> S27-T4S-R96W (L27 496)	<b>North Reference:</b> True
<b>Well:</b> 8512A-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> 8512A-27 L27 496					
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,680,358.26 ft	<b>Latitude:</b> 39° 40' 16.60 N
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	2,251,269.01 ft	<b>Longitude:</b> 108° 9' 36.75 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	9/24/2012	(°) 10.28	(°) 65.82	(nT) 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	19.76

<b>Plan Sections</b>										
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	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,056.9	7.71	20.62	1,056.1	16.1	6.1	3.00	3.00	0.00	20.62	
6,167.8	7.71	20.62	6,120.9	657.7	247.4	0.00	0.00	0.00	0.00	
6,424.7	0.00	0.00	6,377.0	673.8	253.5	3.00	-3.00	0.00	180.00	
6,496.2	0.18	236.28	6,448.5	673.7	253.4	0.25	0.25	-173.04	236.28	
12,246.7	0.18	236.28	12,199.0	663.8	238.5	0.00	0.00	0.00	0.00	L27 496 8512A-27 PE
12,396.7	0.18	236.28	12,349.0	663.5	238.1	0.00	0.00	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 8512A-27 L27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	Well @ 8136.0ft (Rig)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	Well @ 8136.0ft (Rig)
<b>Site:</b>	S27-T4S-R96W (L27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8512A-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
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	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	KOP @ 800' MD
900.0	3.00	20.62	900.0	2.4	0.9	2.6	3.00	3.00	
1,000.0	6.00	20.62	999.6	9.8	3.7	10.5	3.00	3.00	
1,056.9	7.71	20.62	1,056.1	16.1	6.1	17.3	3.00	3.00	EOB; Inc=7.71°
1,100.0	7.71	20.62	1,098.8	21.6	8.1	23.0	0.00	0.00	
1,108.2	7.71	20.62	1,107.0	22.6	8.5	24.1	0.00	0.00	A_GROOVE_TVD
1,200.0	7.71	20.62	1,197.9	34.1	12.8	36.4	0.00	0.00	
1,265.7	7.71	20.62	1,263.0	42.4	15.9	45.2	0.00	0.00	B_GROOVE_TVD
1,300.0	7.71	20.62	1,297.0	46.7	17.6	49.8	0.00	0.00	
1,303.0	7.71	20.62	1,300.0	47.0	17.7	50.2	0.00	0.00	B_GROOVE_BASE_TVD
1,400.0	7.71	20.62	1,396.1	59.2	22.3	63.3	0.00	0.00	
1,500.0	7.71	20.62	1,495.2	71.8	27.0	76.7	0.00	0.00	
1,600.0	7.71	20.62	1,594.3	84.3	31.7	90.1	0.00	0.00	
1,700.0	7.71	20.62	1,693.4	96.9	36.4	103.5	0.00	0.00	
1,800.0	7.71	20.62	1,792.5	109.4	41.2	116.9	0.00	0.00	
1,900.0	7.71	20.62	1,891.6	122.0	45.9	130.3	0.00	0.00	
2,000.0	7.71	20.62	1,990.7	134.5	50.6	143.7	0.00	0.00	
2,100.0	7.71	20.62	2,089.8	147.1	55.3	157.1	0.00	0.00	
2,200.0	7.71	20.62	2,188.9	159.6	60.1	170.5	0.00	0.00	
2,241.5	7.71	20.62	2,230.0	164.8	62.0	176.1	0.00	0.00	GARDEN_GULCH_TVD.
2,300.0	7.71	20.62	2,288.0	172.2	64.8	183.9	0.00	0.00	
2,400.0	7.71	20.62	2,387.1	184.7	69.5	197.3	0.00	0.00	
2,500.0	7.71	20.62	2,486.2	197.3	74.2	210.8	0.00	0.00	
2,600.0	7.71	20.62	2,585.3	209.8	78.9	224.2	0.00	0.00	
2,700.0	7.71	20.62	2,684.4	222.4	83.7	237.6	0.00	0.00	
2,800.0	7.71	20.62	2,783.5	234.9	88.4	251.0	0.00	0.00	
2,900.0	7.71	20.62	2,882.6	247.5	93.1	264.4	0.00	0.00	
3,000.0	7.71	20.62	2,981.7	260.0	97.8	277.8	0.00	0.00	
3,100.0	7.71	20.62	3,080.8	272.6	102.6	291.2	0.00	0.00	
3,200.0	7.71	20.62	3,179.9	285.1	107.3	304.6	0.00	0.00	
3,246.6	7.71	20.62	3,226.0	291.0	109.5	310.9	0.00	0.00	WASATCH_FM_TVD
3,300.0	7.71	20.62	3,279.0	297.7	112.0	318.0	0.00	0.00	
3,400.0	7.71	20.62	3,378.1	310.2	116.7	331.4	0.00	0.00	
3,500.0	7.71	20.62	3,477.2	322.8	121.4	344.9	0.00	0.00	
3,600.0	7.71	20.62	3,576.3	335.4	126.2	358.3	0.00	0.00	
3,700.0	7.71	20.62	3,675.4	347.9	130.9	371.7	0.00	0.00	
3,800.0	7.71	20.62	3,774.4	360.5	135.6	385.1	0.00	0.00	
3,900.0	7.71	20.62	3,873.5	373.0	140.3	398.5	0.00	0.00	
4,000.0	7.71	20.62	3,972.6	385.6	145.1	411.9	0.00	0.00	
4,100.0	7.71	20.62	4,071.7	398.1	149.8	425.3	0.00	0.00	
4,200.0	7.71	20.62	4,170.8	410.7	154.5	438.7	0.00	0.00	
4,300.0	7.71	20.62	4,269.9	423.2	159.2	452.1	0.00	0.00	
4,400.0	7.71	20.62	4,369.0	435.8	163.9	465.5	0.00	0.00	
4,500.0	7.71	20.62	4,468.1	448.3	168.7	478.9	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 8512A-27 L27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	Well @ 8136.0ft (Rig)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	Well @ 8136.0ft (Rig)
<b>Site:</b>	S27-T4S-R96W (L27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8512A-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	7.71	20.62	4,567.2	460.9	173.4	492.4	0.00	0.00	
4,700.0	7.71	20.62	4,666.3	473.4	178.1	505.8	0.00	0.00	
4,800.0	7.71	20.62	4,765.4	486.0	182.8	519.2	0.00	0.00	
4,900.0	7.71	20.62	4,864.5	498.5	187.6	532.6	0.00	0.00	
5,000.0	7.71	20.62	4,963.6	511.1	192.3	546.0	0.00	0.00	
5,100.0	7.71	20.62	5,062.7	523.6	197.0	559.4	0.00	0.00	
5,200.0	7.71	20.62	5,161.8	536.2	201.7	572.8	0.00	0.00	
5,300.0	7.71	20.62	5,260.9	548.7	206.4	586.2	0.00	0.00	
5,400.0	7.71	20.62	5,360.0	561.3	211.2	599.6	0.00	0.00	
5,482.8	7.71	20.62	5,442.0	571.7	215.1	610.7	0.00	0.00	WASATCH_G_TVD
5,500.0	7.71	20.62	5,459.1	573.8	215.9	613.0	0.00	0.00	
5,600.0	7.71	20.62	5,558.2	586.4	220.6	626.4	0.00	0.00	
5,700.0	7.71	20.62	5,657.3	598.9	225.3	639.9	0.00	0.00	
5,800.0	7.71	20.62	5,756.4	611.5	230.1	653.3	0.00	0.00	
5,900.0	7.71	20.62	5,855.5	624.0	234.8	666.7	0.00	0.00	
6,000.0	7.71	20.62	5,954.6	636.6	239.5	680.1	0.00	0.00	
6,100.0	7.71	20.62	6,053.7	649.1	244.2	693.5	0.00	0.00	
6,167.8	7.71	20.62	6,120.9	657.7	247.4	702.6	0.00	0.00	Start 3° Drop @ 6167.8' MD
6,200.0	6.74	20.62	6,152.8	661.4	248.9	706.6	3.00	-3.00	
6,300.0	3.74	20.62	6,252.4	670.0	252.1	715.8	3.00	-3.00	
6,400.0	0.74	20.62	6,352.3	673.7	253.4	719.7	3.00	-3.00	
6,424.7	0.00	0.00	6,377.0	673.8	253.5	719.8	3.00	-3.00	EOD @ 6424.7' MD
6,496.2	0.18	236.28	6,448.5	673.7	253.4	719.7	0.25	0.25	
6,500.0	0.18	236.28	6,452.3	673.7	253.4	719.7	0.00	0.00	
6,600.0	0.18	236.28	6,552.3	673.6	253.1	719.5	0.00	0.00	
6,700.0	0.18	236.28	6,652.3	673.4	252.9	719.2	0.00	0.00	
6,800.0	0.18	236.28	6,752.3	673.2	252.6	719.0	0.00	0.00	
6,900.0	0.18	236.28	6,852.3	673.0	252.4	718.7	0.00	0.00	
7,000.0	0.18	236.28	6,952.3	672.9	252.1	718.5	0.00	0.00	
7,100.0	0.18	236.28	7,052.3	672.7	251.8	718.2	0.00	0.00	
7,200.0	0.18	236.28	7,152.3	672.5	251.6	718.0	0.00	0.00	
7,300.0	0.18	236.28	7,252.3	672.4	251.3	717.7	0.00	0.00	
7,400.0	0.18	236.28	7,352.3	672.2	251.1	717.5	0.00	0.00	
7,500.0	0.18	236.28	7,452.3	672.0	250.8	717.2	0.00	0.00	
7,600.0	0.18	236.28	7,552.3	671.8	250.5	717.0	0.00	0.00	
7,684.7	0.18	236.28	7,637.0	671.7	250.3	716.8	0.00	0.00	WILLIAMS_FORK_TVD
7,700.0	0.18	236.28	7,652.3	671.7	250.3	716.7	0.00	0.00	
7,724.7	0.18	236.28	7,677.0	671.6	250.2	716.7	0.00	0.00	TOG TVD
7,800.0	0.18	236.28	7,752.3	671.5	250.0	716.5	0.00	0.00	
7,900.0	0.18	236.28	7,852.3	671.3	249.8	716.2	0.00	0.00	
8,000.0	0.18	236.28	7,952.3	671.1	249.5	716.0	0.00	0.00	
8,100.0	0.18	236.28	8,052.3	671.0	249.2	715.7	0.00	0.00	
8,200.0	0.18	236.28	8,152.3	670.8	249.0	715.5	0.00	0.00	
8,300.0	0.18	236.28	8,252.3	670.6	248.7	715.2	0.00	0.00	
8,400.0	0.18	236.28	8,352.3	670.4	248.5	715.0	0.00	0.00	
8,500.0	0.18	236.28	8,452.3	670.3	248.2	714.7	0.00	0.00	
8,600.0	0.18	236.28	8,552.3	670.1	247.9	714.5	0.00	0.00	
8,700.0	0.18	236.28	8,652.3	669.9	247.7	714.2	0.00	0.00	
8,800.0	0.18	236.28	8,752.3	669.8	247.4	714.0	0.00	0.00	
8,900.0	0.18	236.28	8,852.3	669.6	247.2	713.7	0.00	0.00	
9,000.0	0.18	236.28	8,952.3	669.4	246.9	713.5	0.00	0.00	
9,100.0	0.18	236.28	9,052.3	669.2	246.7	713.2	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 8512A-27 L27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	Well @ 8136.0ft (Rig)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	Well @ 8136.0ft (Rig)
<b>Site:</b>	S27-T4S-R96W (L27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8512A-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
9,200.0	0.18	236.28	9,152.3	669.1	246.4	713.0	0.00	0.00	
9,300.0	0.18	236.28	9,252.3	668.9	246.1	712.7	0.00	0.00	
9,400.0	0.18	236.28	9,352.3	668.7	245.9	712.5	0.00	0.00	
9,500.0	0.18	236.28	9,452.3	668.5	245.6	712.2	0.00	0.00	
9,600.0	0.18	236.28	9,552.3	668.4	245.4	712.0	0.00	0.00	
9,700.0	0.18	236.28	9,652.3	668.2	245.1	711.7	0.00	0.00	
9,800.0	0.18	236.28	9,752.3	668.0	244.8	711.5	0.00	0.00	
9,900.0	0.18	236.28	9,852.3	667.8	244.6	711.2	0.00	0.00	
10,000.0	0.18	236.28	9,952.3	667.7	244.3	711.0	0.00	0.00	
10,100.0	0.18	236.28	10,052.3	667.5	244.1	710.7	0.00	0.00	
10,200.0	0.18	236.28	10,152.3	667.3	243.8	710.5	0.00	0.00	
10,300.0	0.18	236.28	10,252.3	667.2	243.5	710.2	0.00	0.00	
10,400.0	0.18	236.28	10,352.3	667.0	243.3	710.0	0.00	0.00	
10,500.0	0.18	236.28	10,452.3	666.8	243.0	709.7	0.00	0.00	
10,600.0	0.18	236.28	10,552.3	666.6	242.8	709.5	0.00	0.00	
10,700.0	0.18	236.28	10,652.3	666.5	242.5	709.2	0.00	0.00	
10,800.0	0.18	236.28	10,752.3	666.3	242.2	709.0	0.00	0.00	
10,900.0	0.18	236.28	10,852.3	666.1	242.0	708.7	0.00	0.00	
10,916.7	0.18	236.28	10,869.0	666.1	241.9	708.7	0.00	0.00	CAMEO_TVD
11,000.0	0.18	236.28	10,952.3	665.9	241.7	708.5	0.00	0.00	
11,100.0	0.18	236.28	11,052.3	665.8	241.5	708.2	0.00	0.00	
11,200.0	0.18	236.28	11,152.3	665.6	241.2	707.9	0.00	0.00	
11,300.0	0.18	236.28	11,252.3	665.4	240.9	707.7	0.00	0.00	
11,360.7	0.18	236.28	11,313.0	665.3	240.8	707.5	0.00	0.00	ROLLINS_TVD
11,400.0	0.18	236.28	11,352.3	665.2	240.7	707.4	0.00	0.00	
11,500.0	0.18	236.28	11,452.3	665.1	240.4	707.2	0.00	0.00	
11,600.0	0.18	236.28	11,552.3	664.9	240.2	706.9	0.00	0.00	
11,612.7	0.18	236.28	11,565.0	664.9	240.1	706.9	0.00	0.00	COZZETTE_TVD
11,700.0	0.18	236.28	11,652.3	664.7	239.9	706.7	0.00	0.00	
11,795.7	0.18	236.28	11,748.0	664.6	239.7	706.5	0.00	0.00	CORCORAN_TVD
11,800.0	0.18	236.28	11,752.3	664.6	239.6	706.4	0.00	0.00	
11,900.0	0.18	236.28	11,852.3	664.4	239.4	706.2	0.00	0.00	
12,000.0	0.18	236.28	11,952.3	664.2	239.1	705.9	0.00	0.00	
12,096.7	0.18	236.28	12,049.0	664.0	238.9	705.7	0.00	0.00	UPPER_SEGO_TVD
12,100.0	0.18	236.28	12,052.3	664.0	238.9	705.7	0.00	0.00	
12,200.0	0.18	236.28	12,152.3	663.9	238.6	705.4	0.00	0.00	
12,246.7	0.18	236.28	12,199.0	663.8	238.5	705.3	0.00	0.00	TD @ 12246.7' MD - SEGO_BASE_TARGET_1
12,300.0	0.18	236.28	12,252.3	663.7	238.3	705.2	0.00	0.00	
12,396.7	0.18	236.28	12,349.0	663.5	238.1	704.9	0.00	0.00	Permit TD @ 12396.7' MD

# Cathedral Energy Services

## Planning Report

<b>Database:</b> USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b> Well 8512A-27 L27 496
<b>Company:</b> EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b> Well @ 8136.0ft (Rig)
<b>Project:</b> Story Gulch	<b>MD Reference:</b> Well @ 8136.0ft (Rig)
<b>Site:</b> S27-T4S-R96W (L27 496)	<b>North Reference:</b> True
<b>Well:</b> 8512A-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 8512A-27 PBHI - plan hits target center - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	12,199.0	663.8	238.5	1,681,014.78	2,251,526.83	39° 40' 23.16 N	108° 9' 33.70 W
L27 496 8512A-27 TGT - plan misses target center by 3.9ft at 7724.7ft MD (7677.0 TVD, 671.6 N, 250.2 E) - Point	0.00	0.00	7,677.0	673.8	253.5	1,681,024.35	2,251,542.13	39° 40' 23.26 N	108° 9' 33.51 W

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
1,108.2	1,107.0	A_GROOVE_TVD				
1,265.7	1,263.0	B_GROOVE_TVD				
1,303.0	1,300.0	B_GROOVE_BASE_TVD				
2,241.5	2,230.0	GARDEN_GULCH_TVD.				
3,246.6	3,226.0	WASATCH_FM_TVD				
5,482.8	5,442.0	WASATCH_G_TVD				
7,684.7	7,637.0	WILLIAMS_FORK_TVD				
7,724.7	7,677.0	TOG TVD				
10,916.7	10,869.0	CAMEO_TVD				
11,360.7	11,313.0	ROLLINS_TVD				
11,612.7	11,565.0	COZZETTE_TVD				
11,795.7	11,748.0	CORCORAN_TVD				
12,096.7	12,049.0	UPPER_SEGO_TVD				
12,246.7	12,199.0	SEGO_BASE_TARGET_TVD				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S	+E/-W		
		(ft)	(ft)		
800.0	800.0	0.0	0.0	KOP @ 800' MD	
1,056.9	1,056.1	16.1	6.1	EOB; Inc=7.71°	
6,167.8	6,120.9	657.7	247.4	Start 3° Drop @ 6167.8' MD	
6,424.7	6,377.0	673.8	253.5	EOD @ 6424.7' MD	
12,246.7	12,199.0	673.7	253.4	TD @ 12246.7' MD	
12,396.7	12,349.0	663.8	238.5	Permit TD @ 12396.7' MD	