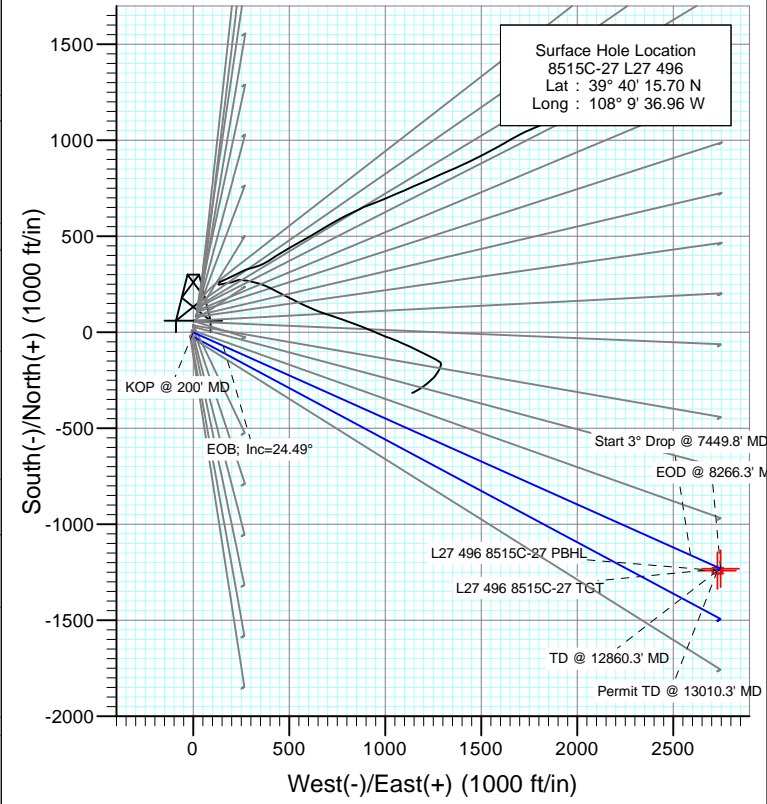


SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	1016.5	24.49	114.14	991.8	-70.3	156.8	3.00	114.14	171.9	
4	7449.8	24.49	114.14	6846.2	-1161.1	2590.9	0.00	0.00	2839.1	
5	8266.3	0.00	0.00	7638.0	-1231.4	2747.7	3.00	180.00	3011.0	L27 496 8515C-27 TGT
6	8365.7	0.25	239.66	7737.5	-1231.5	2747.5	0.25	239.66	3010.8	
7	12860.3	0.25	239.66	12232.0	-1241.4	2730.7	0.00	0.00	2999.6	L27 496 8515C-27 PBHL
8	13010.3	0.25	239.66	12382.0	-1241.7	2730.1	0.00	0.00	2999.2	



DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
L27 496 8515C-27 TGT	-1231.4	2747.7	1678956.40	2253960.40	39° 40' 3.53 N	108° 9' 1.82 W
L27 496 8515C-27 PBHL	-1241.4	2730.7	1678946.94	2253943.09	39° 40' 3.43 N	108° 9' 2.04 W

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1076.0	1109.0	A_GROOVE_TVD
1226.0	1273.8	B_GROOVE_TVD
1246.0	1295.8	B_GROOVE_BASE_TVD
2200.0	2344.1	GARDEN_GULCH_TVD
3209.0	3452.9	WASATCH_FM_TVD
5433.0	5896.9	WASATCH_G_TVD
7598.0	8226.3	WILLIAMS_FORK_TVD
7638.0	8266.3	TOG_TVD
11017.0	11645.3	CAMEO_TVD
11363.0	11991.3	ROLLINS_TVD
11604.0	12232.3	COZZETTE_TVD
11792.0	12420.3	CORCORAN_TVD
12082.0	12710.3	UPPER_SEGO_TVD
12232.0	12860.3	SEGO_BASE_TARGET_TVD

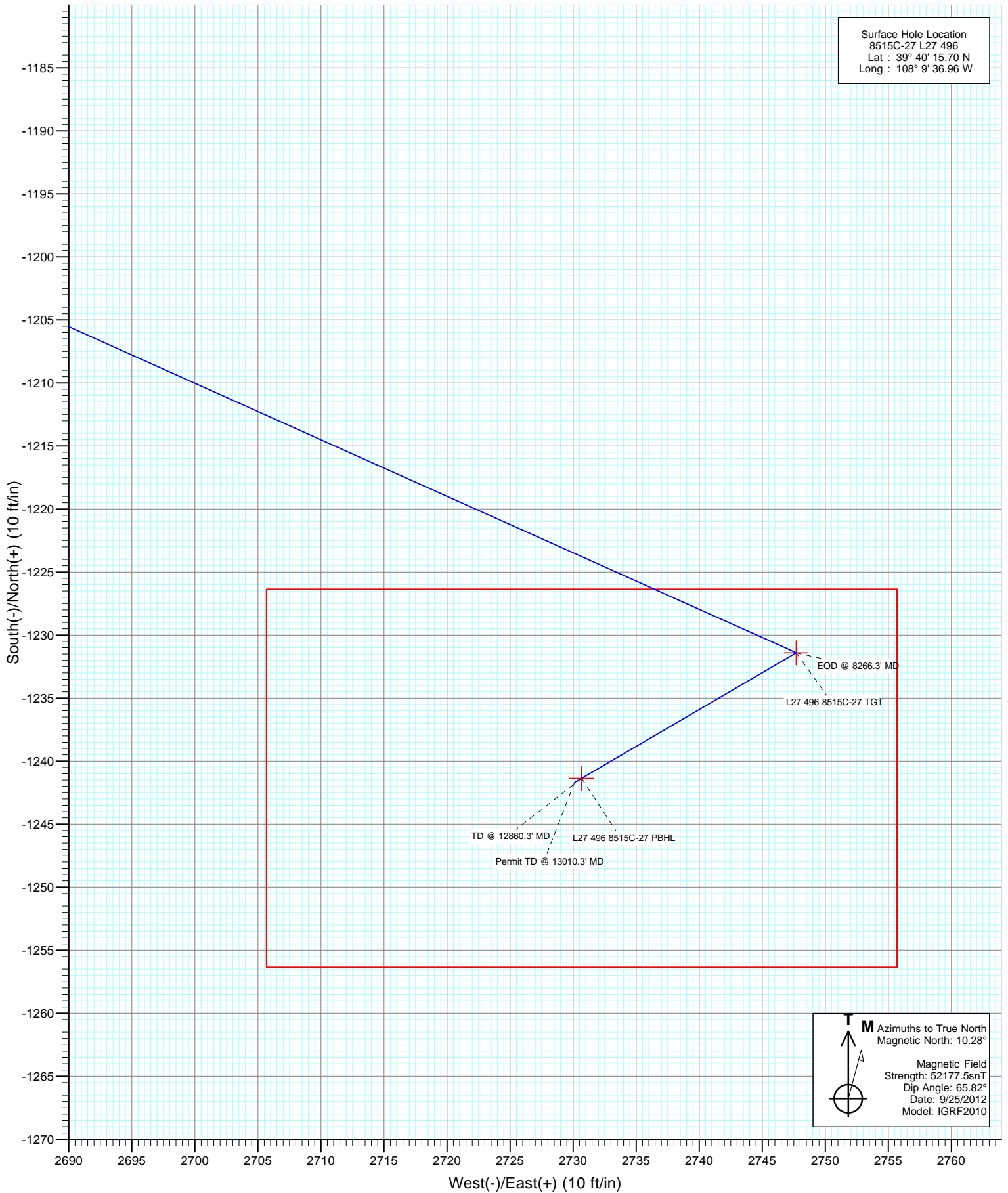
M Azimuths to True North
 Magnetic North: 10.28°
 Magnetic Field
 Strength: 52177.5snT
 Dip Angle: 65.82°
 Date: 9/25/2012
 Model: IGRF2010

Plan #1
 8515C-27 L27 496
 12xxx; LR
 WELL @ 8136.0ft (Original Well Elev)
 Ground Elevation @ 8104.0
 North American Datum 1983
 Well 8515C-27 L27 496, True North

Vertical Section at 114.45° (1500 ft/in)



Project: Story Gulch
Site: S27-T4S-R96W (L27 496)
Well: 8515C-27 L27 496
Wellbore: DD
Design: Plan #1



M Azimuths to True North
Magnetic North: 10.28°

Magnetic Field
Strength: 52177.5snT
Dip Angle: 65.82°
Date: 9/25/2012
Model: IGRF2010

Cathedral Energy Services

Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well 8515C-27 L27 496
Company: EnCana Oil & Gas (USA) Inc	TVD Reference: WELL @ 8136.0ft (Original Well Elev)
Project: Story Gulch	MD Reference: WELL @ 8136.0ft (Original Well Elev)
Site: S27-T4S-R96W (L27 496)	North Reference: True
Well: 8515C-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 8515C-27 L27 496					
Well Position	+N/-S 0.0 ft	Northing: 1,680,267.72 ft	Latitude: 39° 40' 15.70 N		
	+E/-W 0.0 ft	Easting: 2,251,249.93 ft	Longitude: 108° 9' 36.96 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	9/25/2012	(°) 10.28	(°) 65.82	(nT) 52,177

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	114.45

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	
1,016.5	24.49	114.14	991.8	-70.3	156.8	3.00	3.00	0.00	114.14	
7,449.8	24.49	114.14	6,846.2	-1,161.1	2,590.9	0.00	0.00	0.00	0.00	
8,266.3	0.00	0.00	7,638.0	-1,231.4	2,747.7	3.00	-3.00	0.00	180.00	L27 496 8515C-27 TC
8,365.7	0.25	239.66	7,737.5	-1,231.5	2,747.5	0.25	0.25	-120.96	239.66	
12,860.3	0.25	239.66	12,232.0	-1,241.4	2,730.7	0.00	0.00	0.00	0.00	L27 496 8515C-27 PE
13,010.3	0.25	239.66	12,382.0	-1,241.7	2,730.1	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: 8515C-27 L27 496
Wellbore: DD
Design: Plan #1

Local Co-ordinate Reference: Well 8515C-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	114.14	300.0	-1.1	2.4	2.6	3.00	3.00	
400.0	6.00	114.14	399.6	-4.3	9.5	10.5	3.00	3.00	
500.0	9.00	114.14	498.8	-9.6	21.5	23.5	3.00	3.00	
600.0	12.00	114.14	597.1	-17.1	38.1	41.7	3.00	3.00	
700.0	15.00	114.14	694.3	-26.6	59.4	65.1	3.00	3.00	
800.0	18.00	114.14	790.2	-38.2	85.3	93.5	3.00	3.00	
900.0	21.00	114.14	884.4	-51.9	115.8	126.9	3.00	3.00	
1,000.0	24.00	114.14	976.8	-67.5	150.7	165.1	3.00	3.00	
1,016.5	24.49	114.14	991.8	-70.3	156.8	171.9	3.00	3.00	EOB; Inc=24.49°
1,100.0	24.49	114.14	1,067.8	-84.5	188.5	206.5	0.00	0.00	
1,109.0	24.49	114.14	1,076.0	-86.0	191.8	210.2	0.00	0.00	A_GROOVE_TVD
1,200.0	24.49	114.14	1,158.8	-101.4	226.3	248.0	0.00	0.00	
1,273.8	24.49	114.14	1,226.0	-113.9	254.2	278.6	0.00	0.00	B_GROOVE_TVD
1,295.8	24.49	114.14	1,246.0	-117.7	262.5	287.7	0.00	0.00	B_GROOVE_BASE_TVD
1,300.0	24.49	114.14	1,249.8	-118.4	264.1	289.4	0.00	0.00	
1,400.0	24.49	114.14	1,340.8	-135.3	302.0	330.9	0.00	0.00	
1,500.0	24.49	114.14	1,431.8	-152.3	339.8	372.3	0.00	0.00	
1,600.0	24.49	114.14	1,522.8	-169.2	377.6	413.8	0.00	0.00	
1,700.0	24.49	114.14	1,613.8	-186.2	415.5	455.3	0.00	0.00	
1,800.0	24.49	114.14	1,704.8	-203.1	453.3	496.7	0.00	0.00	
1,900.0	24.49	114.14	1,795.8	-220.1	491.1	538.2	0.00	0.00	
2,000.0	24.49	114.14	1,886.8	-237.1	529.0	579.6	0.00	0.00	
2,100.0	24.49	114.14	1,977.8	-254.0	566.8	621.1	0.00	0.00	
2,200.0	24.49	114.14	2,068.8	-271.0	604.6	662.6	0.00	0.00	
2,300.0	24.49	114.14	2,159.8	-287.9	642.5	704.0	0.00	0.00	
2,344.1	24.49	114.14	2,200.0	-295.4	659.2	722.3	0.00	0.00	GARDEN_GULCH_TVD.
2,400.0	24.49	114.14	2,250.8	-304.9	680.3	745.5	0.00	0.00	
2,500.0	24.49	114.14	2,341.8	-321.8	718.1	786.9	0.00	0.00	
2,600.0	24.49	114.14	2,432.8	-338.8	756.0	828.4	0.00	0.00	
2,700.0	24.49	114.14	2,523.8	-355.7	793.8	869.9	0.00	0.00	
2,800.0	24.49	114.14	2,614.8	-372.7	831.6	911.3	0.00	0.00	
2,900.0	24.49	114.14	2,705.8	-389.7	869.5	952.8	0.00	0.00	
3,000.0	24.49	114.14	2,796.8	-406.6	907.3	994.2	0.00	0.00	
3,100.0	24.49	114.14	2,887.8	-423.6	945.1	1,035.7	0.00	0.00	
3,200.0	24.49	114.14	2,978.8	-440.5	983.0	1,077.2	0.00	0.00	
3,300.0	24.49	114.14	3,069.8	-457.5	1,020.8	1,118.6	0.00	0.00	
3,400.0	24.49	114.14	3,160.8	-474.4	1,058.6	1,160.1	0.00	0.00	
3,452.9	24.49	114.14	3,209.0	-483.4	1,078.7	1,182.0	0.00	0.00	WASATCH_FM_TVD
3,500.0	24.49	114.14	3,251.8	-491.4	1,096.5	1,201.5	0.00	0.00	
3,600.0	24.49	114.14	3,342.8	-508.3	1,134.3	1,243.0	0.00	0.00	
3,700.0	24.49	114.14	3,433.8	-525.3	1,172.1	1,284.5	0.00	0.00	
3,800.0	24.49	114.14	3,524.8	-542.3	1,210.0	1,325.9	0.00	0.00	
3,900.0	24.49	114.14	3,615.9	-559.2	1,247.8	1,367.4	0.00	0.00	
4,000.0	24.49	114.14	3,706.9	-576.2	1,285.6	1,408.8	0.00	0.00	
4,100.0	24.49	114.14	3,797.9	-593.1	1,323.5	1,450.3	0.00	0.00	
4,200.0	24.49	114.14	3,888.9	-610.1	1,361.3	1,491.7	0.00	0.00	
4,300.0	24.49	114.14	3,979.9	-627.0	1,399.1	1,533.2	0.00	0.00	
4,400.0	24.49	114.14	4,070.9	-644.0	1,437.0	1,574.7	0.00	0.00	
4,500.0	24.49	114.14	4,161.9	-660.9	1,474.8	1,616.1	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: 8515C-27 L27 496
Wellbore: DD
Design: Plan #1

Local Co-ordinate Reference: Well 8515C-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
4,600.0	24.49	114.14	4,252.9	-677.9	1,512.7	1,657.6	0.00	0.00	
4,700.0	24.49	114.14	4,343.9	-694.9	1,550.5	1,699.0	0.00	0.00	
4,800.0	24.49	114.14	4,434.9	-711.8	1,588.3	1,740.5	0.00	0.00	
4,900.0	24.49	114.14	4,525.9	-728.8	1,626.2	1,782.0	0.00	0.00	
5,000.0	24.49	114.14	4,616.9	-745.7	1,664.0	1,823.4	0.00	0.00	
5,100.0	24.49	114.14	4,707.9	-762.7	1,701.8	1,864.9	0.00	0.00	
5,200.0	24.49	114.14	4,798.9	-779.6	1,739.7	1,906.3	0.00	0.00	
5,300.0	24.49	114.14	4,889.9	-796.6	1,777.5	1,947.8	0.00	0.00	
5,400.0	24.49	114.14	4,980.9	-813.6	1,815.3	1,989.3	0.00	0.00	
5,500.0	24.49	114.14	5,071.9	-830.5	1,853.2	2,030.7	0.00	0.00	
5,600.0	24.49	114.14	5,162.9	-847.5	1,891.0	2,072.2	0.00	0.00	
5,700.0	24.49	114.14	5,253.9	-864.4	1,928.8	2,113.6	0.00	0.00	
5,800.0	24.49	114.14	5,344.9	-881.4	1,966.7	2,155.1	0.00	0.00	
5,896.9	24.49	114.14	5,433.0	-897.8	2,003.3	2,195.3	0.00	0.00	WASATCH_G_TVD
5,900.0	24.49	114.14	5,435.9	-898.3	2,004.5	2,196.6	0.00	0.00	
6,000.0	24.49	114.14	5,526.9	-915.3	2,042.3	2,238.0	0.00	0.00	
6,100.0	24.49	114.14	5,617.9	-932.2	2,080.2	2,279.5	0.00	0.00	
6,200.0	24.49	114.14	5,708.9	-949.2	2,118.0	2,320.9	0.00	0.00	
6,300.0	24.49	114.14	5,799.9	-966.2	2,155.8	2,362.4	0.00	0.00	
6,400.0	24.49	114.14	5,890.9	-983.1	2,193.7	2,403.9	0.00	0.00	
6,500.0	24.49	114.14	5,981.9	-1,000.1	2,231.5	2,445.3	0.00	0.00	
6,600.0	24.49	114.14	6,072.9	-1,017.0	2,269.3	2,486.8	0.00	0.00	
6,700.0	24.49	114.14	6,163.9	-1,034.0	2,307.2	2,528.2	0.00	0.00	
6,800.0	24.49	114.14	6,254.9	-1,050.9	2,345.0	2,569.7	0.00	0.00	
6,900.0	24.49	114.14	6,345.9	-1,067.9	2,382.8	2,611.2	0.00	0.00	
7,000.0	24.49	114.14	6,436.9	-1,084.8	2,420.7	2,652.6	0.00	0.00	
7,100.0	24.49	114.14	6,527.9	-1,101.8	2,458.5	2,694.1	0.00	0.00	
7,200.0	24.49	114.14	6,618.9	-1,118.8	2,496.3	2,735.5	0.00	0.00	
7,300.0	24.49	114.14	6,709.9	-1,135.7	2,534.2	2,777.0	0.00	0.00	
7,400.0	24.49	114.14	6,800.9	-1,152.7	2,572.0	2,818.4	0.00	0.00	
7,449.8	24.49	114.14	6,846.2	-1,161.1	2,590.9	2,839.1	0.00	0.00	Start 3° Drop @ 7449.8' MD
7,500.0	22.99	114.14	6,892.1	-1,169.4	2,609.3	2,859.3	3.00	-3.00	
7,600.0	19.99	114.14	6,985.2	-1,184.4	2,642.7	2,895.9	3.00	-3.00	
7,700.0	16.99	114.14	7,080.0	-1,197.3	2,671.7	2,927.6	3.00	-3.00	
7,800.0	13.99	114.14	7,176.4	-1,208.2	2,696.0	2,954.3	3.00	-3.00	
7,900.0	10.99	114.14	7,274.0	-1,217.1	2,715.7	2,976.0	3.00	-3.00	
8,000.0	7.99	114.14	7,372.6	-1,223.8	2,730.8	2,992.4	3.00	-3.00	
8,100.0	4.99	114.14	7,471.9	-1,228.4	2,741.1	3,003.7	3.00	-3.00	
8,200.0	1.99	114.14	7,571.8	-1,230.9	2,746.7	3,009.8	3.00	-3.00	
8,226.3	1.20	114.14	7,598.0	-1,231.2	2,747.3	3,010.6	3.00	-3.00	WILLIAMS_FORK_TVD
8,266.3	0.00	0.00	7,638.0	-1,231.4	2,747.7	3,011.0	3.00	-3.00	EOD @ 8266.3' MD - TOG TVD
8,300.0	0.08	239.66	7,671.7	-1,231.4	2,747.7	3,011.0	0.25	0.25	
8,365.7	0.25	239.66	7,737.5	-1,231.5	2,747.5	3,010.8	0.25	0.25	
8,400.0	0.25	239.66	7,771.7	-1,231.6	2,747.4	3,010.8	0.00	0.00	
8,500.0	0.25	239.66	7,871.7	-1,231.8	2,747.0	3,010.5	0.00	0.00	
8,600.0	0.25	239.66	7,971.7	-1,232.0	2,746.6	3,010.3	0.00	0.00	
8,700.0	0.25	239.66	8,071.7	-1,232.2	2,746.3	3,010.0	0.00	0.00	
8,800.0	0.25	239.66	8,171.7	-1,232.5	2,745.9	3,009.8	0.00	0.00	
8,900.0	0.25	239.66	8,271.7	-1,232.7	2,745.5	3,009.5	0.00	0.00	
9,000.0	0.25	239.66	8,371.7	-1,232.9	2,745.1	3,009.3	0.00	0.00	
9,100.0	0.25	239.66	8,471.7	-1,233.1	2,744.8	3,009.0	0.00	0.00	
9,200.0	0.25	239.66	8,571.7	-1,233.3	2,744.4	3,008.8	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 8515C-27 L27 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 8136.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	WELL @ 8136.0ft (Original Well Elev)
Site:	S27-T4S-R96W (L27 496)	North Reference:	True
Well:	8515C-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	0.25	239.66	8,671.7	-1,233.6	2,744.0	3,008.5	0.00	0.00	
9,400.0	0.25	239.66	8,771.7	-1,233.8	2,743.6	3,008.3	0.00	0.00	
9,500.0	0.25	239.66	8,871.7	-1,234.0	2,743.3	3,008.0	0.00	0.00	
9,600.0	0.25	239.66	8,971.7	-1,234.2	2,742.9	3,007.8	0.00	0.00	
9,700.0	0.25	239.66	9,071.7	-1,234.4	2,742.5	3,007.5	0.00	0.00	
9,800.0	0.25	239.66	9,171.7	-1,234.7	2,742.1	3,007.3	0.00	0.00	
9,900.0	0.25	239.66	9,271.7	-1,234.9	2,741.8	3,007.0	0.00	0.00	
10,000.0	0.25	239.66	9,371.7	-1,235.1	2,741.4	3,006.8	0.00	0.00	
10,100.0	0.25	239.66	9,471.7	-1,235.3	2,741.0	3,006.5	0.00	0.00	
10,200.0	0.25	239.66	9,571.7	-1,235.5	2,740.6	3,006.3	0.00	0.00	
10,300.0	0.25	239.66	9,671.7	-1,235.7	2,740.3	3,006.0	0.00	0.00	
10,400.0	0.25	239.66	9,771.7	-1,236.0	2,739.9	3,005.8	0.00	0.00	
10,500.0	0.25	239.66	9,871.7	-1,236.2	2,739.5	3,005.5	0.00	0.00	
10,600.0	0.25	239.66	9,971.7	-1,236.4	2,739.1	3,005.3	0.00	0.00	
10,700.0	0.25	239.66	10,071.7	-1,236.6	2,738.8	3,005.0	0.00	0.00	
10,800.0	0.25	239.66	10,171.7	-1,236.8	2,738.4	3,004.8	0.00	0.00	
10,900.0	0.25	239.66	10,271.7	-1,237.1	2,738.0	3,004.5	0.00	0.00	
11,000.0	0.25	239.66	10,371.7	-1,237.3	2,737.6	3,004.3	0.00	0.00	
11,100.0	0.25	239.66	10,471.7	-1,237.5	2,737.3	3,004.0	0.00	0.00	
11,200.0	0.25	239.66	10,571.7	-1,237.7	2,736.9	3,003.8	0.00	0.00	
11,300.0	0.25	239.66	10,671.7	-1,237.9	2,736.5	3,003.5	0.00	0.00	
11,400.0	0.25	239.66	10,771.7	-1,238.2	2,736.1	3,003.3	0.00	0.00	
11,500.0	0.25	239.66	10,871.7	-1,238.4	2,735.8	3,003.0	0.00	0.00	
11,600.0	0.25	239.66	10,971.7	-1,238.6	2,735.4	3,002.7	0.00	0.00	
11,645.3	0.25	239.66	11,017.0	-1,238.7	2,735.2	3,002.6	0.00	0.00	CAMEO_TVD
11,700.0	0.25	239.66	11,071.7	-1,238.8	2,735.0	3,002.5	0.00	0.00	
11,800.0	0.25	239.66	11,171.7	-1,239.0	2,734.6	3,002.2	0.00	0.00	
11,900.0	0.25	239.66	11,271.7	-1,239.3	2,734.3	3,002.0	0.00	0.00	
11,991.3	0.25	239.66	11,363.0	-1,239.5	2,733.9	3,001.8	0.00	0.00	ROLLINS_TVD
12,000.0	0.25	239.66	11,371.7	-1,239.5	2,733.9	3,001.7	0.00	0.00	
12,100.0	0.25	239.66	11,471.7	-1,239.7	2,733.5	3,001.5	0.00	0.00	
12,200.0	0.25	239.66	11,571.7	-1,239.9	2,733.1	3,001.2	0.00	0.00	
12,232.3	0.25	239.66	11,604.0	-1,240.0	2,733.0	3,001.2	0.00	0.00	COZZETTE_TVD
12,300.0	0.25	239.66	11,671.7	-1,240.1	2,732.8	3,001.0	0.00	0.00	
12,400.0	0.25	239.66	11,771.7	-1,240.4	2,732.4	3,000.7	0.00	0.00	
12,420.3	0.25	239.66	11,792.0	-1,240.4	2,732.3	3,000.7	0.00	0.00	CORCORAN_TVD
12,500.0	0.25	239.66	11,871.7	-1,240.6	2,732.0	3,000.5	0.00	0.00	
12,600.0	0.25	239.66	11,971.7	-1,240.8	2,731.7	3,000.2	0.00	0.00	
12,700.0	0.25	239.66	12,071.7	-1,241.0	2,731.3	3,000.0	0.00	0.00	
12,710.3	0.25	239.66	12,082.0	-1,241.0	2,731.2	3,000.0	0.00	0.00	UPPER_SEGO_TVD
12,800.0	0.25	239.66	12,171.7	-1,241.2	2,730.9	2,999.7	0.00	0.00	
12,860.3	0.25	239.66	12,232.0	-1,241.4	2,730.7	2,999.6	0.00	0.00	TD @ 12860.3' MD - SEGO_BASE_TARGET_1
12,900.0	0.25	239.66	12,271.7	-1,241.4	2,730.5	2,999.5	0.00	0.00	
13,000.0	0.25	239.66	12,371.7	-1,241.7	2,730.2	2,999.2	0.00	0.00	
13,010.3	0.25	239.66	12,382.0	-1,241.7	2,730.1	2,999.2	0.00	0.00	Permit TD @ 13010.3' MD

Cathedral Energy Services

Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well 8515C-27 L27 496
Company: EnCana Oil & Gas (USA) Inc	TVD Reference: WELL @ 8136.0ft (Original Well Elev)
Project: Story Gulch	MD Reference: WELL @ 8136.0ft (Original Well Elev)
Site: S27-T4S-R96W (L27 496)	North Reference: True
Well: 8515C-27 L27 496	Survey Calculation Method: Minimum Curvature
Wellbore: DD	
Design: 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 8515C-27 TGT - plan hits target center - Point	0.00	0.00	7,638.0	-1,231.4	2,747.7	1,678,956.40	2,253,960.40	39° 40' 3.53 N	108° 9' 1.82 W
L27 496 8515C-27 PBHI - plan hits target center - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	12,232.0	-1,241.4	2,730.7	1,678,946.94	2,253,943.09	39° 40' 3.43 N	108° 9' 2.04 W

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
1,109.0	1,076.0	A_GROOVE_TVD				
1,273.8	1,226.0	B_GROOVE_TVD				
1,295.8	1,246.0	B_GROOVE_BASE_TVD				
2,344.1	2,200.0	GARDEN_GULCH_TVD.				
3,452.9	3,209.0	WASATCH_FM_TVD				
5,896.9	5,433.0	WASATCH_G_TVD				
8,226.3	7,598.0	WILLIAMS_FORK_TVD				
8,266.3	7,638.0	TOG TVD				
11,645.3	11,017.0	CAMEO_TVD				
11,991.3	11,363.0	ROLLINS_TVD				
12,232.3	11,604.0	COZZETTE_TVD				
12,420.3	11,792.0	CORCORAN_TVD				
12,710.3	12,082.0	UPPER_SEGO_TVD				
12,860.3	12,232.0	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	
1,016.5	991.8	-70.3	156.8	EOB; Inc=24.49°	
7,449.8	6,846.2	-1,161.1	2,590.9	Start 3° Drop @ 7449.8' MD	
8,266.3	7,638.0	-1,231.4	2,747.7	EOD @ 8266.3' MD	
12,860.3	12,232.0	-1,231.5	2,747.5	TD @ 12860.3' MD	
13,010.3	12,382.0	-1,241.4	2,730.7	Permit TD @ 13010.3' MD	