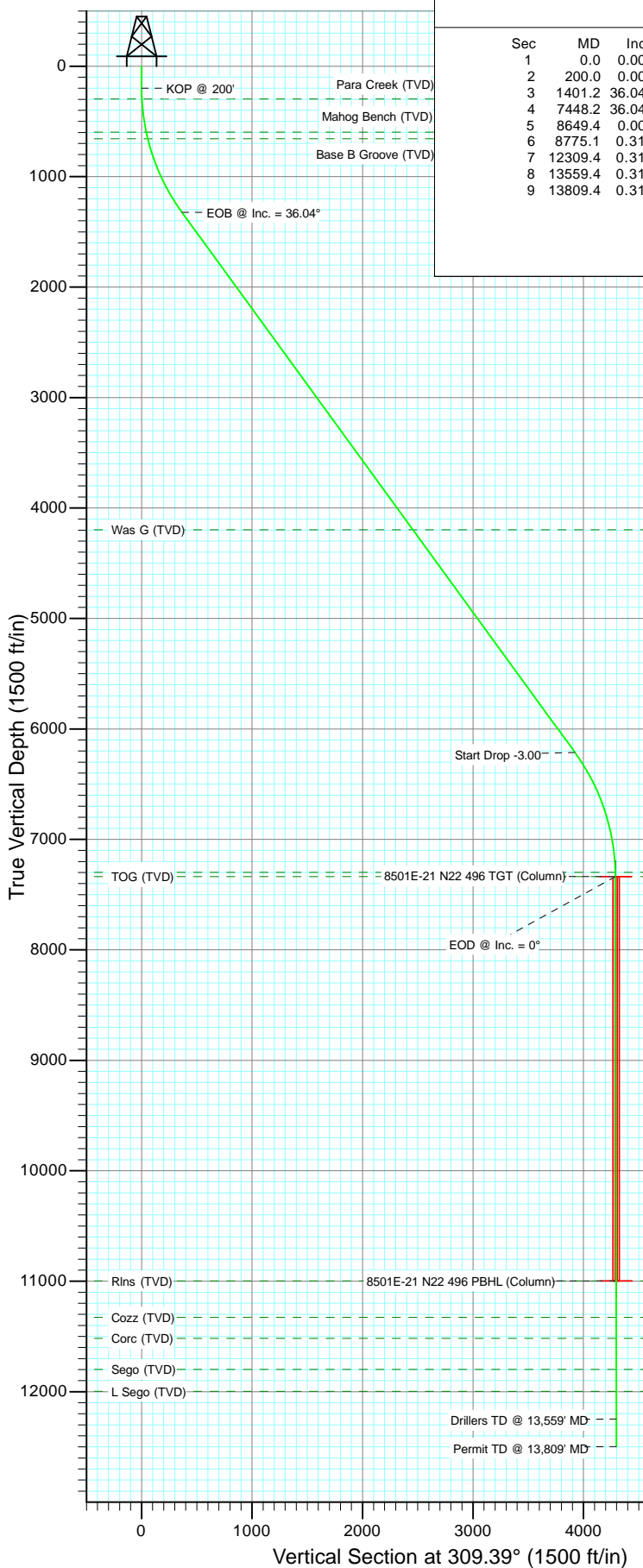


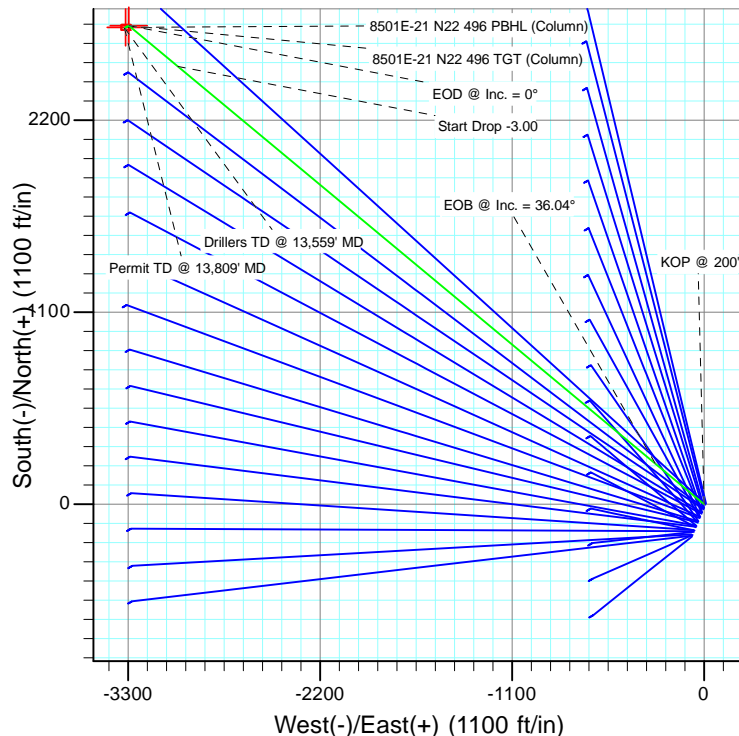


Project: Story Gulch
Site: S22-T4S-R96W (N22 496) (Column Pattern)
Well: 8501E-21 N22 496
Wellbore: DD
Design: Plan #1



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	1401.2	36.04	309.74	1323.5	233.6	-281.0	3.00	309.74	365.4	
4	7448.2	36.04	309.74	6213.5	2508.1	-3016.3	0.00	0.00	3922.7	8501E-21 N22 496 TGT (Column)
5	8649.4	0.00	0.00	7337.0	2741.7	-3297.3	3.00	180.00	4288.2	
6	8775.1	0.31	239.67	7462.8	2741.5	-3297.6	0.25	239.67	4288.3	
7	12309.4	0.31	239.67	10997.0	2731.7	-3314.3	0.00	0.00	4295.0	8501E-21 N22 496 PBHL (Column)
8	13559.4	0.31	239.67	12247.0	2728.3	-3320.3	0.00	0.00	4297.4	
9	13809.4	0.31	239.67	12497.0	2727.6	-3321.4	0.00	0.00	4297.9	



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
297.0	297.0	Para Creek (TVD)
597.0	599.9	Mahog Bench (TVD)
657.0	661.5	Base B Groove (TVD)
4197.0	4954.6	Was G (TVD)
7297.0	8609.4	WF (TVD)
7337.0	8649.4	TOG (TVD)
10997.0	12309.4	Rins (TVD)
11327.0	12639.4	Cozz (TVD)
11517.0	12829.4	Corc (TVD)
11797.0	13109.4	Sego (TVD)
11997.0	13309.4	L Sego (TVD)



Azimuths to True North
Magnetic North: 10.52°

Magnetic Field
Strength: 52372.3snT
Dip Angle: 65.88°
Date: 12/2/2010
Model: IGRF2010

Plan #1
8501E-21 N22 496
WELL @ 7602.0ft (Original Well Elev)
North American Datum 1983
Well 8501E-21 N22 496, True North

Type	Target	Azimuth	Origin	Type	N/S	E/W	From
TD	No Target (Freehand)	309.39	Slot		0.0	0.0	TVD
Name	8501E-21 N22 496 TGT (Column)	TVD	+N/-S	+E/-W	Latitude	Longitude	
		7337.0	2741.7	-3297.3	39° 41' 30.29 N	108° 10' 7.43 W	
	8501E-21 N22 496 PBHL (Column)	10997.0	2731.7	-3314.3	39° 41' 30.19 N	108° 10' 7.64 W	

Cathedral Energy

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8501E-21 N22 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7602.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	WELL @ 7602.0ft (Original Well Elev)
Site:	S22-T4S-R96W (N22 496) (Column Pattern)	North Reference:	True
Well:	8501E-21 N22 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		S22-T4S-R96W (N22 496) (Column Pattern)			
Site Position:		Northing:	1,685,048.56 ft	Latitude:	39° 41' 3.24 N
From:	Lat/Long	Easting:	2,252,316.79 ft	Longitude:	108° 9' 25.11 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.68 °

Well	8501E-21 N22 496					
Well Position	+N/-S	0.0 ft	Northing:	1,685,044.61 ft	Latitude:	39° 41' 3.20 N
	+E/-W	0.0 ft	Easting:	2,252,306.13 ft	Longitude:	108° 9' 25.24 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,569.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/2/2010	10.52	65.88	52,372

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	309.39	

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	
1,401.2	36.04	309.74	1,323.5	233.6	-281.0	3.00	3.00	0.00	309.74	
7,448.2	36.04	309.74	6,213.5	2,508.1	-3,016.3	0.00	0.00	0.00	0.00	
8,649.4	0.00	0.00	7,337.0	2,741.7	-3,297.3	3.00	-3.00	0.00	180.00	8501E-21 N22 496 TC
8,775.1	0.31	239.67	7,462.8	2,741.5	-3,297.6	0.25	0.25	-95.66	239.67	
12,309.4	0.31	239.67	10,997.0	2,731.7	-3,314.3	0.00	0.00	0.00	0.00	8501E-21 N22 496 PE
13,559.4	0.31	239.67	12,247.0	2,728.3	-3,320.3	0.00	0.00	0.00	0.00	
13,809.4	0.31	239.67	12,497.0	2,727.6	-3,321.4	0.00	0.00	0.00	0.00	

Cathedral Energy

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8501E-21 N22 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7602.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	WELL @ 7602.0ft (Original Well Elev)
Site:	S22-T4S-R96W (N22 496) (Column Pattern)	North Reference:	True
Well:	8501E-21 N22 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	KOP @ 200'
297.0	2.91	309.74	297.0	1.6	-1.9	2.5	3.00	3.00	Para Creek (TVD)
300.0	3.00	309.74	300.0	1.7	-2.0	2.6	3.00	3.00	
400.0	6.00	309.74	399.6	6.7	-8.0	10.5	3.00	3.00	
500.0	9.00	309.74	498.8	15.0	-18.1	23.5	3.00	3.00	
599.9	12.00	309.74	597.0	26.7	-32.1	41.7	3.00	3.00	Mahog Bench (TVD)
600.0	12.00	309.74	597.1	26.7	-32.1	41.7	3.00	3.00	
661.5	13.84	309.74	657.0	35.5	-42.7	55.5	3.00	3.00	Base B Groove (TVD)
700.0	15.00	309.74	694.3	41.6	-50.0	65.1	3.00	3.00	
800.0	18.00	309.74	790.2	59.8	-71.9	93.5	3.00	3.00	
900.0	21.00	309.74	884.4	81.1	-97.5	126.8	3.00	3.00	
1,000.0	24.00	309.74	976.8	105.6	-127.0	165.1	3.00	3.00	
1,100.0	27.00	309.74	1,067.1	133.1	-160.1	208.2	3.00	3.00	
1,200.0	30.00	309.74	1,154.9	163.6	-196.7	255.9	3.00	3.00	
1,300.0	33.00	309.74	1,240.2	197.0	-236.9	308.1	3.00	3.00	
1,400.0	36.00	309.74	1,322.6	233.2	-280.5	364.7	3.00	3.00	
1,401.2	36.04	309.74	1,323.5	233.6	-281.0	365.4	3.00	3.00	EOB @ Inc. = 36.04°
1,500.0	36.04	309.74	1,403.5	270.8	-325.7	423.6	0.00	0.00	
1,600.0	36.04	309.74	1,484.3	308.4	-370.9	482.4	0.00	0.00	
1,700.0	36.04	309.74	1,565.2	346.0	-416.2	541.2	0.00	0.00	
1,800.0	36.04	309.74	1,646.0	383.7	-461.4	600.1	0.00	0.00	
1,900.0	36.04	309.74	1,726.9	421.3	-506.6	658.9	0.00	0.00	
2,000.0	36.04	309.74	1,807.8	458.9	-551.9	717.7	0.00	0.00	
2,100.0	36.04	309.74	1,888.6	496.5	-597.1	776.5	0.00	0.00	
2,200.0	36.04	309.74	1,969.5	534.1	-642.3	835.4	0.00	0.00	
2,300.0	36.04	309.74	2,050.4	571.7	-687.6	894.2	0.00	0.00	
2,400.0	36.04	309.74	2,131.2	609.3	-732.8	953.0	0.00	0.00	
2,500.0	36.04	309.74	2,212.1	646.9	-778.0	1,011.8	0.00	0.00	
2,600.0	36.04	309.74	2,293.0	684.6	-823.3	1,070.7	0.00	0.00	
2,700.0	36.04	309.74	2,373.8	722.2	-868.5	1,129.5	0.00	0.00	
2,800.0	36.04	309.74	2,454.7	759.8	-913.7	1,188.3	0.00	0.00	
2,900.0	36.04	309.74	2,535.6	797.4	-959.0	1,247.2	0.00	0.00	
3,000.0	36.04	309.74	2,616.4	835.0	-1,004.2	1,306.0	0.00	0.00	
3,100.0	36.04	309.74	2,697.3	872.6	-1,049.4	1,364.8	0.00	0.00	
3,200.0	36.04	309.74	2,778.2	910.2	-1,094.7	1,423.6	0.00	0.00	
3,300.0	36.04	309.74	2,859.0	947.8	-1,139.9	1,482.5	0.00	0.00	
3,400.0	36.04	309.74	2,939.9	985.4	-1,185.1	1,541.3	0.00	0.00	
3,500.0	36.04	309.74	3,020.8	1,023.1	-1,230.4	1,600.1	0.00	0.00	
3,600.0	36.04	309.74	3,101.6	1,060.7	-1,275.6	1,658.9	0.00	0.00	
3,700.0	36.04	309.74	3,182.5	1,098.3	-1,320.8	1,717.8	0.00	0.00	
3,800.0	36.04	309.74	3,263.4	1,135.9	-1,366.1	1,776.6	0.00	0.00	
3,900.0	36.04	309.74	3,344.2	1,173.5	-1,411.3	1,835.4	0.00	0.00	
4,000.0	36.04	309.74	3,425.1	1,211.1	-1,456.6	1,894.3	0.00	0.00	
4,100.0	36.04	309.74	3,505.9	1,248.7	-1,501.8	1,953.1	0.00	0.00	
4,200.0	36.04	309.74	3,586.8	1,286.3	-1,547.0	2,011.9	0.00	0.00	
4,300.0	36.04	309.74	3,667.7	1,324.0	-1,592.3	2,070.7	0.00	0.00	
4,400.0	36.04	309.74	3,748.5	1,361.6	-1,637.5	2,129.6	0.00	0.00	
4,500.0	36.04	309.74	3,829.4	1,399.2	-1,682.7	2,188.4	0.00	0.00	
4,600.0	36.04	309.74	3,910.3	1,436.8	-1,728.0	2,247.2	0.00	0.00	
4,700.0	36.04	309.74	3,991.1	1,474.4	-1,773.2	2,306.1	0.00	0.00	

Cathedral Energy

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8501E-21 N22 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7602.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	WELL @ 7602.0ft (Original Well Elev)
Site:	S22-T4S-R96W (N22 496) (Column Pattern)	North Reference:	True
Well:	8501E-21 N22 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
4,800.0	36.04	309.74	4,072.0	1,512.0	-1,818.4	2,364.9	0.00	0.00	
4,900.0	36.04	309.74	4,152.9	1,549.6	-1,863.7	2,423.7	0.00	0.00	
4,954.6	36.04	309.74	4,197.0	1,570.2	-1,888.3	2,455.8	0.00	0.00	Was G (TVD)
5,000.0	36.04	309.74	4,233.7	1,587.2	-1,908.9	2,482.5	0.00	0.00	
5,100.0	36.04	309.74	4,314.6	1,624.9	-1,954.1	2,541.4	0.00	0.00	
5,200.0	36.04	309.74	4,395.5	1,662.5	-1,999.4	2,600.2	0.00	0.00	
5,300.0	36.04	309.74	4,476.3	1,700.1	-2,044.6	2,659.0	0.00	0.00	
5,400.0	36.04	309.74	4,557.2	1,737.7	-2,089.8	2,717.8	0.00	0.00	
5,500.0	36.04	309.74	4,638.1	1,775.3	-2,135.1	2,776.7	0.00	0.00	
5,600.0	36.04	309.74	4,718.9	1,812.9	-2,180.3	2,835.5	0.00	0.00	
5,700.0	36.04	309.74	4,799.8	1,850.5	-2,225.5	2,894.3	0.00	0.00	
5,800.0	36.04	309.74	4,880.7	1,888.1	-2,270.8	2,953.2	0.00	0.00	
5,900.0	36.04	309.74	4,961.5	1,925.8	-2,316.0	3,012.0	0.00	0.00	
6,000.0	36.04	309.74	5,042.4	1,963.4	-2,361.2	3,070.8	0.00	0.00	
6,100.0	36.04	309.74	5,123.3	2,001.0	-2,406.5	3,129.6	0.00	0.00	
6,200.0	36.04	309.74	5,204.1	2,038.6	-2,451.7	3,188.5	0.00	0.00	
6,300.0	36.04	309.74	5,285.0	2,076.2	-2,496.9	3,247.3	0.00	0.00	
6,400.0	36.04	309.74	5,365.8	2,113.8	-2,542.2	3,306.1	0.00	0.00	
6,500.0	36.04	309.74	5,446.7	2,151.4	-2,587.4	3,364.9	0.00	0.00	
6,600.0	36.04	309.74	5,527.6	2,189.0	-2,632.6	3,423.8	0.00	0.00	
6,700.0	36.04	309.74	5,608.4	2,226.7	-2,677.9	3,482.6	0.00	0.00	
6,800.0	36.04	309.74	5,689.3	2,264.3	-2,723.1	3,541.4	0.00	0.00	
6,900.0	36.04	309.74	5,770.2	2,301.9	-2,768.3	3,600.3	0.00	0.00	
7,000.0	36.04	309.74	5,851.0	2,339.5	-2,813.6	3,659.1	0.00	0.00	
7,100.0	36.04	309.74	5,931.9	2,377.1	-2,858.8	3,717.9	0.00	0.00	
7,200.0	36.04	309.74	6,012.8	2,414.7	-2,904.0	3,776.7	0.00	0.00	
7,300.0	36.04	309.74	6,093.6	2,452.3	-2,949.3	3,835.6	0.00	0.00	
7,400.0	36.04	309.74	6,174.5	2,489.9	-2,994.5	3,894.4	0.00	0.00	
7,448.2	36.04	309.74	6,213.5	2,508.1	-3,016.3	3,922.7	0.00	0.00	Start Drop -3.00
7,500.0	34.48	309.74	6,255.8	2,527.2	-3,039.3	3,952.7	3.00	-3.00	
7,600.0	31.48	309.74	6,339.7	2,562.0	-3,081.2	4,007.1	3.00	-3.00	
7,700.0	28.48	309.74	6,426.3	2,593.9	-3,119.6	4,057.0	3.00	-3.00	
7,800.0	25.48	309.74	6,515.4	2,622.9	-3,154.5	4,102.4	3.00	-3.00	
7,900.0	22.48	309.74	6,606.7	2,648.9	-3,185.7	4,143.0	3.00	-3.00	
8,000.0	19.48	309.74	6,700.1	2,671.8	-3,213.2	4,178.8	3.00	-3.00	
8,100.0	16.48	309.74	6,795.2	2,691.5	-3,237.0	4,209.7	3.00	-3.00	
8,200.0	13.48	309.74	6,891.8	2,708.1	-3,256.8	4,235.6	3.00	-3.00	
8,300.0	10.48	309.74	6,989.6	2,721.3	-3,272.8	4,256.3	3.00	-3.00	
8,400.0	7.48	309.74	7,088.4	2,731.3	-3,284.8	4,271.9	3.00	-3.00	
8,500.0	4.48	309.74	7,187.8	2,738.0	-3,292.8	4,282.3	3.00	-3.00	
8,600.0	1.48	309.74	7,287.7	2,741.3	-3,296.8	4,287.5	3.00	-3.00	
8,609.4	1.20	309.74	7,297.0	2,741.4	-3,297.0	4,287.8	3.00	-3.00	WF (TVD)
8,649.4	0.00	0.00	7,337.0	2,741.7	-3,297.3	4,288.2	3.00	-3.00	EOD @ Inc. = 0° - TOG (TVD) - 8501E-21 N22
8,700.0	0.13	239.67	7,387.6	2,741.7	-3,297.3	4,288.2	0.25	0.25	
8,775.1	0.31	239.67	7,462.8	2,741.5	-3,297.6	4,288.3	0.25	0.25	
8,800.0	0.31	239.67	7,487.6	2,741.5	-3,297.7	4,288.3	0.00	0.00	
8,900.0	0.31	239.67	7,587.6	2,741.2	-3,298.2	4,288.5	0.00	0.00	
9,000.0	0.31	239.67	7,687.6	2,740.9	-3,298.7	4,288.7	0.00	0.00	
9,100.0	0.31	239.67	7,787.6	2,740.6	-3,299.1	4,288.9	0.00	0.00	
9,200.0	0.31	239.67	7,887.6	2,740.4	-3,299.6	4,289.1	0.00	0.00	
9,300.0	0.31	239.67	7,987.6	2,740.1	-3,300.1	4,289.3	0.00	0.00	
9,400.0	0.31	239.67	8,087.6	2,739.8	-3,300.6	4,289.5	0.00	0.00	

Cathedral Energy

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8501E-21 N22 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7602.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	WELL @ 7602.0ft (Original Well Elev)
Site:	S22-T4S-R96W (N22 496) (Column Pattern)	North Reference:	True
Well:	8501E-21 N22 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
9,500.0	0.31	239.67	8,187.6	2,739.5	-3,301.0	4,289.7	0.00	0.00	
9,600.0	0.31	239.67	8,287.6	2,739.2	-3,301.5	4,289.9	0.00	0.00	
9,700.0	0.31	239.67	8,387.6	2,739.0	-3,302.0	4,290.1	0.00	0.00	
9,800.0	0.31	239.67	8,487.6	2,738.7	-3,302.5	4,290.2	0.00	0.00	
9,900.0	0.31	239.67	8,587.6	2,738.4	-3,302.9	4,290.4	0.00	0.00	
10,000.0	0.31	239.67	8,687.6	2,738.1	-3,303.4	4,290.6	0.00	0.00	
10,100.0	0.31	239.67	8,787.6	2,737.9	-3,303.9	4,290.8	0.00	0.00	
10,200.0	0.31	239.67	8,887.6	2,737.6	-3,304.3	4,291.0	0.00	0.00	
10,300.0	0.31	239.67	8,987.6	2,737.3	-3,304.8	4,291.2	0.00	0.00	
10,400.0	0.31	239.67	9,087.6	2,737.0	-3,305.3	4,291.4	0.00	0.00	
10,500.0	0.31	239.67	9,187.6	2,736.8	-3,305.8	4,291.6	0.00	0.00	
10,600.0	0.31	239.67	9,287.6	2,736.5	-3,306.2	4,291.8	0.00	0.00	
10,700.0	0.31	239.67	9,387.6	2,736.2	-3,306.7	4,292.0	0.00	0.00	
10,800.0	0.31	239.67	9,487.6	2,735.9	-3,307.2	4,292.1	0.00	0.00	
10,900.0	0.31	239.67	9,587.6	2,735.6	-3,307.7	4,292.3	0.00	0.00	
11,000.0	0.31	239.67	9,687.6	2,735.4	-3,308.1	4,292.5	0.00	0.00	
11,100.0	0.31	239.67	9,787.6	2,735.1	-3,308.6	4,292.7	0.00	0.00	
11,200.0	0.31	239.67	9,887.6	2,734.8	-3,309.1	4,292.9	0.00	0.00	
11,300.0	0.31	239.67	9,987.6	2,734.5	-3,309.6	4,293.1	0.00	0.00	
11,400.0	0.31	239.67	10,087.6	2,734.3	-3,310.0	4,293.3	0.00	0.00	
11,500.0	0.31	239.67	10,187.6	2,734.0	-3,310.5	4,293.5	0.00	0.00	
11,600.0	0.31	239.67	10,287.6	2,733.7	-3,311.0	4,293.7	0.00	0.00	
11,700.0	0.31	239.67	10,387.6	2,733.4	-3,311.5	4,293.9	0.00	0.00	
11,800.0	0.31	239.67	10,487.6	2,733.1	-3,311.9	4,294.0	0.00	0.00	
11,900.0	0.31	239.67	10,587.6	2,732.9	-3,312.4	4,294.2	0.00	0.00	
12,000.0	0.31	239.67	10,687.6	2,732.6	-3,312.9	4,294.4	0.00	0.00	
12,100.0	0.31	239.67	10,787.6	2,732.3	-3,313.3	4,294.6	0.00	0.00	
12,200.0	0.31	239.67	10,887.6	2,732.0	-3,313.8	4,294.8	0.00	0.00	
12,300.0	0.31	239.67	10,987.6	2,731.8	-3,314.3	4,295.0	0.00	0.00	
12,309.4	0.31	239.67	10,997.0	2,731.7	-3,314.3	4,295.0	0.00	0.00	Rins (TVD) - 8501E-21 N22 496 PBHL (Column)
12,400.0	0.31	239.67	11,087.6	2,731.5	-3,314.8	4,295.2	0.00	0.00	
12,500.0	0.31	239.67	11,187.6	2,731.2	-3,315.2	4,295.4	0.00	0.00	
12,600.0	0.31	239.67	11,287.6	2,730.9	-3,315.7	4,295.6	0.00	0.00	
12,639.4	0.31	239.67	11,327.0	2,730.8	-3,315.9	4,295.6	0.00	0.00	Cozz (TVD)
12,700.0	0.31	239.67	11,387.6	2,730.7	-3,316.2	4,295.8	0.00	0.00	
12,800.0	0.31	239.67	11,487.6	2,730.4	-3,316.7	4,296.0	0.00	0.00	
12,829.4	0.31	239.67	11,517.0	2,730.3	-3,316.8	4,296.0	0.00	0.00	Corc (TVD)
12,900.0	0.31	239.67	11,587.6	2,730.1	-3,317.1	4,296.1	0.00	0.00	
13,000.0	0.31	239.67	11,687.6	2,729.8	-3,317.6	4,296.3	0.00	0.00	
13,100.0	0.31	239.67	11,787.6	2,729.5	-3,318.1	4,296.5	0.00	0.00	
13,109.4	0.31	239.67	11,797.0	2,729.5	-3,318.1	4,296.5	0.00	0.00	Sego (TVD)
13,200.0	0.31	239.67	11,887.6	2,729.3	-3,318.6	4,296.7	0.00	0.00	
13,300.0	0.31	239.67	11,987.6	2,729.0	-3,319.0	4,296.9	0.00	0.00	
13,309.4	0.31	239.67	11,997.0	2,729.0	-3,319.1	4,296.9	0.00	0.00	L Sego (TVD)
13,400.0	0.31	239.67	12,087.6	2,728.7	-3,319.5	4,297.1	0.00	0.00	
13,500.0	0.31	239.67	12,187.6	2,728.4	-3,320.0	4,297.3	0.00	0.00	
13,559.4	0.31	239.67	12,247.0	2,728.3	-3,320.3	4,297.4	0.00	0.00	Drillers TD @ 13,559' MD
13,600.0	0.31	239.67	12,287.6	2,728.2	-3,320.5	4,297.5	0.00	0.00	
13,700.0	0.31	239.67	12,387.6	2,727.9	-3,320.9	4,297.7	0.00	0.00	
13,800.0	0.31	239.67	12,487.6	2,727.6	-3,321.4	4,297.9	0.00	0.00	
13,809.4	0.31	239.67	12,497.0	2,727.6	-3,321.4	4,297.9	0.00	0.00	Permit TD @ 13,809' MD

Cathedral Energy

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8501E-21 N22 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7602.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	WELL @ 7602.0ft (Original Well Elev)
Site:	S22-T4S-R96W (N22 496) (Column Pattern)	North Reference:	True
Well:	8501E-21 N22 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
8501E-21 N22 496 PBH	0.00	0.00	10,997.0	2,731.7	-3,314.3	1,687,872.10	2,249,073.09	39° 41' 30.19 N	108° 10' 7.64 W
- plan hits target center									
- Rectangle (sides W30.0 H50.0 D0.0)									
8501E-21 N22 496 TGT	0.00	0.00	7,337.0	2,741.7	-3,297.3	1,687,881.57	2,249,090.42	39° 41' 30.29 N	108° 10' 7.43 W
- plan hits target center									
- Point									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
297.0	297.0	Para Creek (TVD)				
599.9	597.0	Mahog Bench (TVD)				
661.5	657.0	Base B Groove (TVD)				
4,954.6	4,197.0	Was G (TVD)				
8,609.4	7,297.0	WF (TVD)				
8,649.4	7,337.0	TOG (TVD)				
12,309.4	10,997.0	Rlms (TVD)				
12,639.4	11,327.0	Cozz (TVD)				
12,829.4	11,517.0	Corc (TVD)				
13,109.4	11,797.0	Sego (TVD)				
13,309.4	11,997.0	L Sego (TVD)				

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP @ 200'
1,401.2	1,323.5	233.6	-281.0	EOB @ Inc. = 36.04°
7,448.2	6,213.5	2,508.1	-3,016.3	Start Drop -3.00
8,649.4	7,337.0	2,741.7	-3,297.3	EOD @ Inc. = 0°
13,559.4	12,247.0	2,741.5	-3,297.6	Drillers TD @ 13,559' MD
13,809.4	12,497.0	2,731.7	-3,314.3	Permit TD @ 13,809' MD