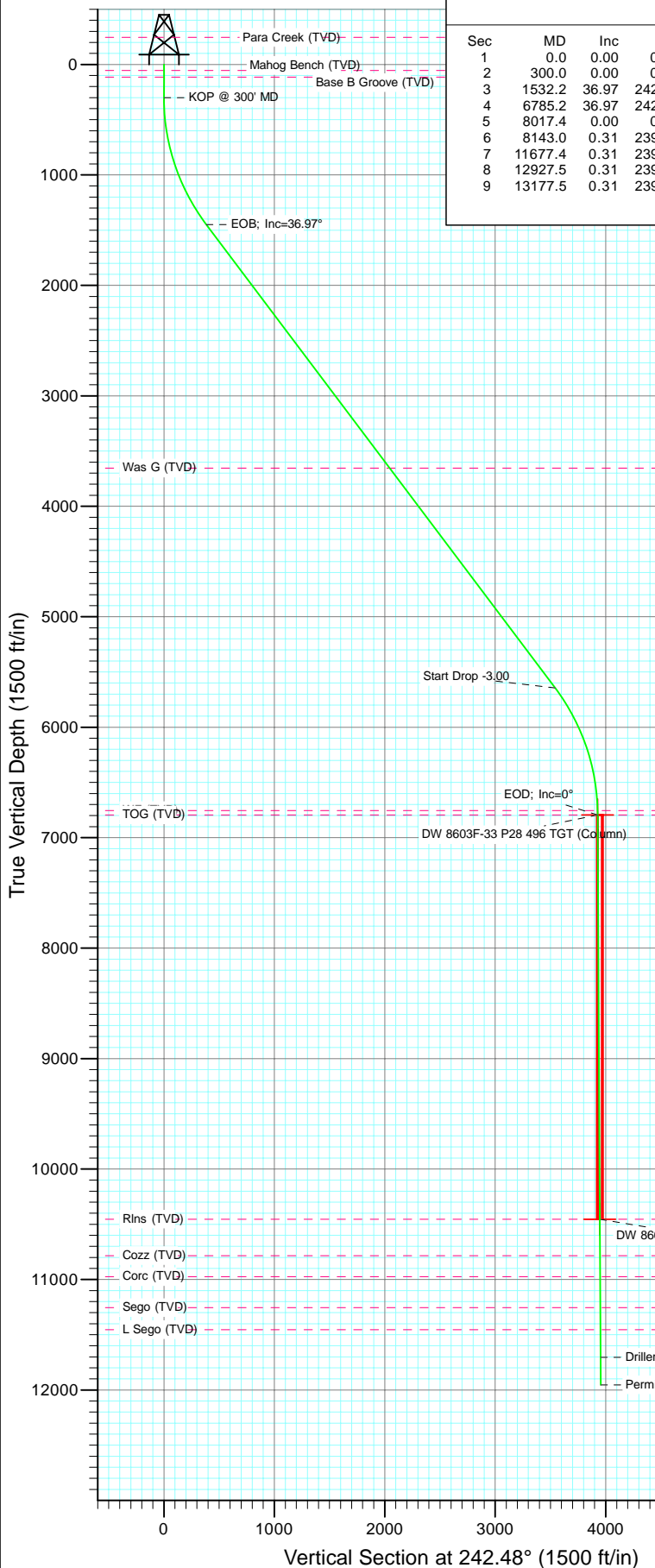


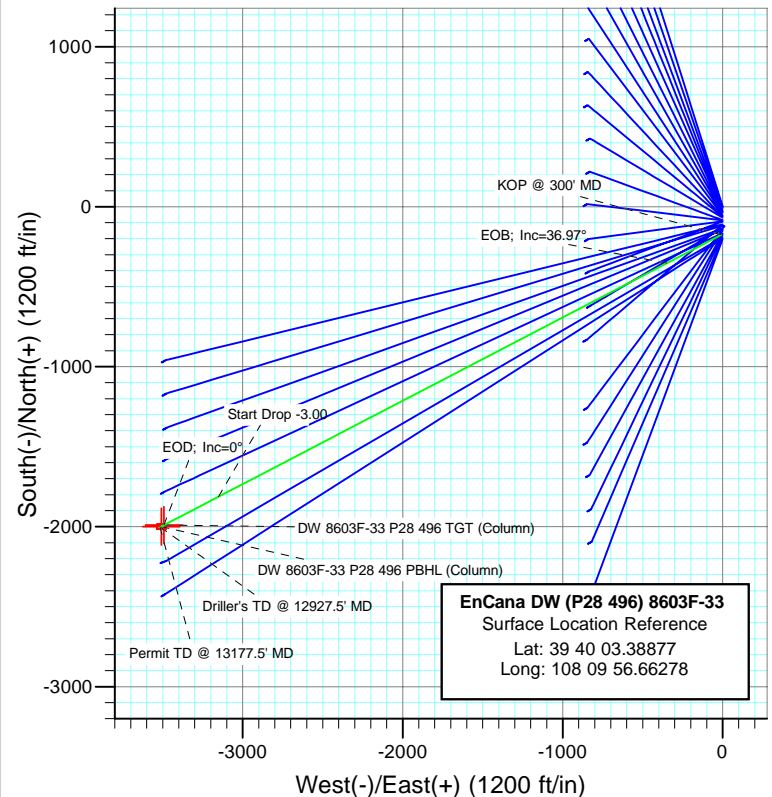


Project: Double Willow  
Site: S28-T4S-R96W (P28 496)(column pattern)  
Well: DW 8603F-33 (P28 496)  
Wellbore: DD  
Design: Plan #1



#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	-175.9	-9.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	-175.9	-9.0	0.00	0.00	0.0	
3	1532.2	36.97	242.49	1448.5	-353.3	-349.5	3.00	242.49	383.9	
4	6785.2	36.97	242.49	5645.5	-1812.4	-3151.2	0.00	0.00	3542.8	
5	8017.4	0.00	0.00	6794.0	-1989.7	-3491.7	3.00	180.00	3926.7	DW 8603F-33 P28 496 TGT (Column)
6	8143.0	0.31	239.57	6919.6	-1989.9	-3492.0	0.25	239.57	3927.1	
7	11677.4	0.31	239.57	10454.0	-1999.7	-3508.7	0.00	0.00	3946.4	DW 8603F-33 P28 496 PBHL (Column)
8	12927.5	0.31	239.57	11704.0	-2003.1	-3514.6	0.00	0.00	3953.2	
9	13177.5	0.31	239.57	11954.0	-2003.8	-3515.8	0.00	0.00	3954.6	



EnCana DW (P28 496) 8603F-33  
Surface Location Reference  
Lat: 39 40 03.38877  
Long: 108 09 56.66278

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
54.0	54.0	Mahog Bench (TVD)
114.0	114.0	Base B Groove (TVD)
3654.0	4292.6	Was G (TVD)
6754.0	7977.4	WF (TVD)
6794.0	8017.4	TOG (TVD)
10454.0	11677.4	Rins (TVD)
10784.0	12007.5	Cozz (TVD)
10974.0	12197.5	Corc (TVD)
11254.0	12477.5	Sego (TVD)
11454.0	12677.5	L Sego (TVD)



Azimuths to True North  
Magnetic North: 10.52°

Magnetic Field  
Strength: 52360.8nT  
Dip Angle: 65.86°  
Date: 12/1/2010  
Model: IGRF2010

Type	Target	Azimuth	Origin	Type	N/S	E/W	From	TVD
Target	DW 8603F-33 P28 496 PBHL (Column)	242.48	-175.9					0.0
Name	DW 8603F-33 P28 496 TGT (Column)	TVD	+N/-S	+E/-W	Latitude	Longitude		
	DW 8603F-33 P28 496 TGT (Column)	6794.0	-1989.7	-3491.739° 39'	45.46 N 108° 10' 41.20 W			
	DW 8603F-33 P28 496 PBHL (Column)	10454.0	-1999.7	-3508.739° 39'	45.36 N 108° 10' 41.41 W			

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Site S28-T4S-R96W (P28 496)(column pattern)
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 7804.0ft (Original Well Elev)
<b>Project:</b>	Double Willow	<b>MD Reference:</b>	WELL @ 7804.0ft (Original Well Elev)
<b>Site:</b>	S28-T4S-R96W (P28 496)(column pattern)	<b>North Reference:</b>	True
<b>Well:</b>	DW 8603F-33 (P28 496)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

<b>Project</b>	Double Willow		
<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>	S28-T4S-R96W (P28 496)(column pattern)			
<b>Site Position:</b>		<b>Northing:</b>	1,679,243.29 ft	<b>Latitude:</b> 39° 40' 5.13 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,249,687.54 ft	<b>Longitude:</b> 108° 9' 56.55 W
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.68 °

<b>Well</b>	DW 8603F-33 (P28 496)			
<b>Well Position</b>	<b>+N/-S</b>	-175.9 ft	<b>Northing:</b>	1,679,067.71 ft
	<b>+E/-W</b>	-9.0 ft	<b>Easting:</b>	2,249,673.40 ft
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	ft
			<b>Ground Level:</b>	7,771.0 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 (nT)</b>
	IGRF2010	12/1/2010	10.52	65.86	52,361

<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) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	-175.9	-9.0	242.48

<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	-175.9	-9.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	-175.9	-9.0	0.00	0.00	0.00	0.00	
1,532.2	36.97	242.49	1,448.5	-353.3	-349.5	3.00	3.00	0.00	242.49	
6,785.2	36.97	242.49	5,645.5	-1,812.4	-3,151.2	0.00	0.00	0.00	0.00	
8,017.4	0.00	0.00	6,794.0	-1,989.7	-3,491.7	3.00	-3.00	0.00	180.00	DW 8603F-33 P28 49
8,143.0	0.31	239.57	6,919.6	-1,989.9	-3,492.0	0.25	0.25	-95.87	239.57	
11,677.4	0.31	239.57	10,454.0	-1,999.7	-3,508.7	0.00	0.00	0.00	0.00	DW 8603F-33 P28 49
12,927.5	0.31	239.57	11,704.0	-2,003.1	-3,514.6	0.00	0.00	0.00	0.00	
13,177.5	0.31	239.57	11,954.0	-2,003.8	-3,515.8	0.00	0.00	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Site S28-T4S-R96W (P28 496)(column pattern)
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 7804.0ft (Original Well Elev)
<b>Project:</b>	Double Willow	<b>MD Reference:</b>	WELL @ 7804.0ft (Original Well Elev)
<b>Site:</b>	S28-T4S-R96W (P28 496)(column pattern)	<b>North Reference:</b>	True
<b>Well:</b>	DW 8603F-33 (P28 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	-175.9	-9.0	0.0	0.00	0.00	
54.0	0.00	0.00	54.0	-175.9	-9.0	0.0	0.00	0.00	Mahog Bench (TVD)
100.0	0.00	0.00	100.0	-175.9	-9.0	0.0	0.00	0.00	
114.0	0.00	0.00	114.0	-175.9	-9.0	0.0	0.00	0.00	Base B Groove (TVD)
200.0	0.00	0.00	200.0	-175.9	-9.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	-175.9	-9.0	0.0	0.00	0.00	KOP @ 300' MD
400.0	3.00	242.49	400.0	-177.1	-11.3	2.6	3.00	3.00	
500.0	6.00	242.49	499.6	-180.8	-18.3	10.5	3.00	3.00	
600.0	9.00	242.49	598.8	-186.8	-29.8	23.5	3.00	3.00	
700.0	12.00	242.49	697.1	-195.2	-46.0	41.7	3.00	3.00	
800.0	15.00	242.49	794.3	-206.0	-66.7	65.1	3.00	3.00	
900.0	18.00	242.49	890.2	-219.1	-91.9	93.5	3.00	3.00	
1,000.0	21.00	242.49	984.4	-234.5	-121.5	126.9	3.00	3.00	
1,100.0	24.00	242.49	1,076.8	-252.2	-155.4	165.1	3.00	3.00	
1,200.0	27.00	242.49	1,167.1	-272.1	-193.6	208.2	3.00	3.00	
1,300.0	30.00	242.49	1,254.9	-294.1	-235.9	255.9	3.00	3.00	
1,400.0	33.00	242.49	1,340.2	-318.2	-282.3	308.1	3.00	3.00	
1,500.0	36.00	242.49	1,422.6	-344.4	-332.5	364.8	3.00	3.00	
1,532.2	36.97	242.49	1,448.5	-353.3	-349.5	383.9	3.00	3.00	EOB; Inc=36.97°
1,600.0	36.97	242.49	1,502.6	-372.1	-385.6	424.7	0.00	0.00	
1,700.0	36.97	242.49	1,582.5	-399.9	-439.0	484.8	0.00	0.00	
1,800.0	36.97	242.49	1,662.4	-427.6	-492.3	544.9	0.00	0.00	
1,900.0	36.97	242.49	1,742.3	-455.4	-545.6	605.1	0.00	0.00	
2,000.0	36.97	242.49	1,822.2	-483.2	-599.0	665.2	0.00	0.00	
2,100.0	36.97	242.49	1,902.1	-511.0	-652.3	725.3	0.00	0.00	
2,200.0	36.97	242.49	1,982.0	-538.7	-705.7	785.5	0.00	0.00	
2,300.0	36.97	242.49	2,061.9	-566.5	-759.0	845.6	0.00	0.00	
2,400.0	36.97	242.49	2,141.8	-594.3	-812.3	905.8	0.00	0.00	
2,500.0	36.97	242.49	2,221.7	-622.1	-865.7	965.9	0.00	0.00	
2,600.0	36.97	242.49	2,301.6	-649.8	-919.0	1,026.0	0.00	0.00	
2,700.0	36.97	242.49	2,381.5	-677.6	-972.3	1,086.2	0.00	0.00	
2,800.0	36.97	242.49	2,461.4	-705.4	-1,025.7	1,146.3	0.00	0.00	
2,900.0	36.97	242.49	2,541.3	-733.2	-1,079.0	1,206.4	0.00	0.00	
3,000.0	36.97	242.49	2,621.2	-761.0	-1,132.3	1,266.6	0.00	0.00	
3,100.0	36.97	242.49	2,701.1	-788.7	-1,185.7	1,326.7	0.00	0.00	
3,200.0	36.97	242.49	2,781.0	-816.5	-1,239.0	1,386.8	0.00	0.00	
3,300.0	36.97	242.49	2,860.9	-844.3	-1,292.3	1,447.0	0.00	0.00	
3,400.0	36.97	242.49	2,940.8	-872.1	-1,345.7	1,507.1	0.00	0.00	
3,500.0	36.97	242.49	3,020.7	-899.8	-1,399.0	1,567.2	0.00	0.00	
3,600.0	36.97	242.49	3,100.6	-927.6	-1,452.4	1,627.4	0.00	0.00	
3,700.0	36.97	242.49	3,180.5	-955.4	-1,505.7	1,687.5	0.00	0.00	
3,800.0	36.97	242.49	3,260.4	-983.2	-1,559.0	1,747.6	0.00	0.00	
3,900.0	36.97	242.49	3,340.3	-1,010.9	-1,612.4	1,807.8	0.00	0.00	
4,000.0	36.97	242.49	3,420.2	-1,038.7	-1,665.7	1,867.9	0.00	0.00	
4,100.0	36.97	242.49	3,500.1	-1,066.5	-1,719.0	1,928.1	0.00	0.00	
4,200.0	36.97	242.49	3,580.0	-1,094.3	-1,772.4	1,988.2	0.00	0.00	
4,292.6	36.97	242.49	3,654.0	-1,120.0	-1,821.8	2,043.9	0.00	0.00	Was G (TVD)
4,300.0	36.97	242.49	3,659.9	-1,122.1	-1,825.7	2,048.3	0.00	0.00	
4,400.0	36.97	242.49	3,739.8	-1,149.8	-1,879.0	2,108.5	0.00	0.00	
4,500.0	36.97	242.49	3,819.7	-1,177.6	-1,932.4	2,168.6	0.00	0.00	
4,600.0	36.97	242.49	3,899.6	-1,205.4	-1,985.7	2,228.7	0.00	0.00	
4,700.0	36.97	242.49	3,979.5	-1,233.2	-2,039.1	2,288.9	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Site S28-T4S-R96W (P28 496)(column pattern)
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 7804.0ft (Original Well Elev)
<b>Project:</b>	Double Willow	<b>MD Reference:</b>	WELL @ 7804.0ft (Original Well Elev)
<b>Site:</b>	S28-T4S-R96W (P28 496)(column pattern)	<b>North Reference:</b>	True
<b>Well:</b>	DW 8603F-33 (P28 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
4,800.0	36.97	242.49	4,059.4	-1,260.9	-2,092.4	2,349.0	0.00	0.00	
4,900.0	36.97	242.49	4,139.3	-1,288.7	-2,145.7	2,409.1	0.00	0.00	
5,000.0	36.97	242.49	4,219.2	-1,316.5	-2,199.1	2,469.3	0.00	0.00	
5,100.0	36.97	242.49	4,299.1	-1,344.3	-2,252.4	2,529.4	0.00	0.00	
5,200.0	36.97	242.49	4,379.0	-1,372.0	-2,305.7	2,589.5	0.00	0.00	
5,300.0	36.97	242.49	4,458.9	-1,399.8	-2,359.1	2,649.7	0.00	0.00	
5,400.0	36.97	242.49	4,538.8	-1,427.6	-2,412.4	2,709.8	0.00	0.00	
5,500.0	36.97	242.49	4,618.7	-1,455.4	-2,465.7	2,770.0	0.00	0.00	
5,600.0	36.97	242.49	4,698.6	-1,483.2	-2,519.1	2,830.1	0.00	0.00	
5,700.0	36.97	242.49	4,778.5	-1,510.9	-2,572.4	2,890.2	0.00	0.00	
5,800.0	36.97	242.49	4,858.4	-1,538.7	-2,625.7	2,950.4	0.00	0.00	
5,900.0	36.97	242.49	4,938.3	-1,566.5	-2,679.1	3,010.5	0.00	0.00	
6,000.0	36.97	242.49	5,018.2	-1,594.3	-2,732.4	3,070.6	0.00	0.00	
6,100.0	36.97	242.49	5,098.1	-1,622.0	-2,785.8	3,130.8	0.00	0.00	
6,200.0	36.97	242.49	5,178.0	-1,649.8	-2,839.1	3,190.9	0.00	0.00	
6,300.0	36.97	242.49	5,257.9	-1,677.6	-2,892.4	3,251.0	0.00	0.00	
6,400.0	36.97	242.49	5,337.8	-1,705.4	-2,945.8	3,311.2	0.00	0.00	
6,500.0	36.97	242.49	5,417.7	-1,733.1	-2,999.1	3,371.3	0.00	0.00	
6,600.0	36.97	242.49	5,497.6	-1,760.9	-3,052.4	3,431.4	0.00	0.00	
6,700.0	36.97	242.49	5,577.5	-1,788.7	-3,105.8	3,491.6	0.00	0.00	
6,785.2	36.97	242.49	5,645.5	-1,812.4	-3,151.2	3,542.8	0.00	0.00	Start Drop -3.00
6,800.0	36.52	242.49	5,657.4	-1,816.5	-3,159.1	3,551.7	3.00	-3.00	
6,900.0	33.52	242.49	5,739.3	-1,843.0	-3,210.0	3,609.1	3.00	-3.00	
7,000.0	30.52	242.49	5,824.0	-1,867.4	-3,257.0	3,662.1	3.00	-3.00	
7,100.0	27.52	242.49	5,911.5	-1,889.9	-3,300.0	3,710.6	3.00	-3.00	
7,200.0	24.52	242.49	6,001.3	-1,910.1	-3,338.9	3,754.4	3.00	-3.00	
7,300.0	21.52	242.49	6,093.4	-1,928.2	-3,373.6	3,793.5	3.00	-3.00	
7,400.0	18.52	242.49	6,187.3	-1,944.0	-3,404.0	3,827.8	3.00	-3.00	
7,500.0	15.52	242.49	6,282.9	-1,957.5	-3,429.9	3,857.1	3.00	-3.00	
7,600.0	12.52	242.49	6,379.9	-1,968.7	-3,451.4	3,881.3	3.00	-3.00	
7,700.0	9.52	242.49	6,478.1	-1,977.5	-3,468.4	3,900.4	3.00	-3.00	
7,800.0	6.52	242.49	6,577.1	-1,984.0	-3,480.7	3,914.3	3.00	-3.00	
7,900.0	3.52	242.49	6,676.7	-1,988.0	-3,488.5	3,923.1	3.00	-3.00	
7,977.4	1.20	242.49	6,754.0	-1,989.5	-3,491.3	3,926.3	3.00	-3.00	WF (TVD)
8,000.0	0.52	242.49	6,776.6	-1,989.6	-3,491.6	3,926.6	3.00	-3.00	
8,017.4	0.00	0.00	6,794.0	-1,989.7	-3,491.7	3,926.7	3.00	-3.00	EOD; Inc=0° - TOG (TVD) - DW 8603F-33 P28
8,100.0	0.21	239.57	6,876.6	-1,989.8	-3,491.8	3,926.9	0.25	0.25	
8,143.0	0.31	239.57	6,919.6	-1,989.9	-3,492.0	3,927.1	0.25	0.25	
8,200.0	0.31	239.57	6,976.6	-1,990.0	-3,492.3	3,927.4	0.00	0.00	
8,300.0	0.31	239.57	7,076.6	-1,990.3	-3,492.7	3,927.9	0.00	0.00	
8,400.0	0.31	239.57	7,176.6	-1,990.6	-3,493.2	3,928.5	0.00	0.00	
8,500.0	0.31	239.57	7,276.6	-1,990.8	-3,493.7	3,929.0	0.00	0.00	
8,600.0	0.31	239.57	7,376.6	-1,991.1	-3,494.2	3,929.6	0.00	0.00	
8,700.0	0.31	239.57	7,476.6	-1,991.4	-3,494.6	3,930.1	0.00	0.00	
8,800.0	0.31	239.57	7,576.6	-1,991.7	-3,495.1	3,930.6	0.00	0.00	
8,900.0	0.31	239.57	7,676.6	-1,992.0	-3,495.6	3,931.2	0.00	0.00	
9,000.0	0.31	239.57	7,776.6	-1,992.2	-3,496.0	3,931.7	0.00	0.00	
9,100.0	0.31	239.57	7,876.6	-1,992.5	-3,496.5	3,932.3	0.00	0.00	
9,200.0	0.31	239.57	7,976.6	-1,992.8	-3,497.0	3,932.8	0.00	0.00	
9,300.0	0.31	239.57	8,076.6	-1,993.1	-3,497.5	3,933.4	0.00	0.00	
9,400.0	0.31	239.57	8,176.6	-1,993.3	-3,497.9	3,933.9	0.00	0.00	
9,500.0	0.31	239.57	8,276.6	-1,993.6	-3,498.4	3,934.5	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Site S28-T4S-R96W (P28 496)(column pattern)
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 7804.0ft (Original Well Elev)
<b>Project:</b>	Double Willow	<b>MD Reference:</b>	WELL @ 7804.0ft (Original Well Elev)
<b>Site:</b>	S28-T4S-R96W (P28 496)(column pattern)	<b>North Reference:</b>	True
<b>Well:</b>	DW 8603F-33 (P28 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
9,600.0	0.31	239.57	8,376.6	-1,993.9	-3,498.9	3,935.0	0.00	0.00	
9,700.0	0.31	239.57	8,476.6	-1,994.2	-3,499.4	3,935.6	0.00	0.00	
9,800.0	0.31	239.57	8,576.6	-1,994.5	-3,499.8	3,936.1	0.00	0.00	
9,900.0	0.31	239.57	8,676.6	-1,994.7	-3,500.3	3,936.7	0.00	0.00	
10,000.0	0.31	239.57	8,776.6	-1,995.0	-3,500.8	3,937.2	0.00	0.00	
10,100.0	0.31	239.57	8,876.6	-1,995.3	-3,501.2	3,937.8	0.00	0.00	
10,200.0	0.31	239.57	8,976.6	-1,995.6	-3,501.7	3,938.3	0.00	0.00	
10,300.0	0.31	239.57	9,076.6	-1,995.8	-3,502.2	3,938.9	0.00	0.00	
10,400.0	0.31	239.57	9,176.6	-1,996.1	-3,502.7	3,939.4	0.00	0.00	
10,500.0	0.31	239.57	9,276.6	-1,996.4	-3,503.1	3,940.0	0.00	0.00	
10,600.0	0.31	239.57	9,376.6	-1,996.7	-3,503.6	3,940.5	0.00	0.00	
10,700.0	0.31	239.57	9,476.6	-1,997.0	-3,504.1	3,941.0	0.00	0.00	
10,800.0	0.31	239.57	9,576.6	-1,997.2	-3,504.6	3,941.6	0.00	0.00	
10,900.0	0.31	239.57	9,676.6	-1,997.5	-3,505.0	3,942.1	0.00	0.00	
11,000.0	0.31	239.57	9,776.6	-1,997.8	-3,505.5	3,942.7	0.00	0.00	
11,100.0	0.31	239.57	9,876.6	-1,998.1	-3,506.0	3,943.2	0.00	0.00	
11,200.0	0.31	239.57	9,976.6	-1,998.3	-3,506.4	3,943.8	0.00	0.00	
11,300.0	0.31	239.57	10,076.6	-1,998.6	-3,506.9	3,944.3	0.00	0.00	
11,400.0	0.31	239.57	10,176.6	-1,998.9	-3,507.4	3,944.9	0.00	0.00	
11,500.0	0.31	239.57	10,276.6	-1,999.2	-3,507.9	3,945.4	0.00	0.00	
11,600.0	0.31	239.57	10,376.6	-1,999.5	-3,508.3	3,946.0	0.00	0.00	
11,677.4	0.31	239.57	10,454.0	-1,999.7	-3,508.7	3,946.4	0.00	0.00	Rins (TVD) - DW 8603F-33 P28 496 PBHL (Col
11,700.0	0.31	239.57	10,476.6	-1,999.7	-3,508.8	3,946.5	0.00	0.00	
11,800.0	0.31	239.57	10,576.6	-2,000.0	-3,509.3	3,947.1	0.00	0.00	
11,900.0	0.31	239.57	10,676.5	-2,000.3	-3,509.8	3,947.6	0.00	0.00	
12,000.0	0.31	239.57	10,776.5	-2,000.6	-3,510.2	3,948.2	0.00	0.00	
12,007.5	0.31	239.57	10,784.0	-2,000.6	-3,510.3	3,948.2	0.00	0.00	Cozz (TVD)
12,100.0	0.31	239.57	10,876.5	-2,000.8	-3,510.7	3,948.7	0.00	0.00	
12,197.5	0.31	239.57	10,974.0	-2,001.1	-3,511.2	3,949.2	0.00	0.00	Corc (TVD)
12,200.0	0.31	239.57	10,976.5	-2,001.1	-3,511.2	3,949.3	0.00	0.00	
12,300.0	0.31	239.57	11,076.5	-2,001.4	-3,511.6	3,949.8	0.00	0.00	
12,400.0	0.31	239.57	11,176.5	-2,001.7	-3,512.1	3,950.4	0.00	0.00	
12,477.5	0.31	239.57	11,254.0	-2,001.9	-3,512.5	3,950.8	0.00	0.00	Sego (TVD)
12,500.0	0.31	239.57	11,276.5	-2,002.0	-3,512.6	3,950.9	0.00	0.00	
12,600.0	0.31	239.57	11,376.5	-2,002.2	-3,513.1	3,951.4	0.00	0.00	
12,677.5	0.31	239.57	11,454.0	-2,002.4	-3,513.4	3,951.9	0.00	0.00	L Sego (TVD)
12,700.0	0.31	239.57	11,476.5	-2,002.5	-3,513.5	3,952.0	0.00	0.00	
12,800.0	0.31	239.57	11,576.5	-2,002.8	-3,514.0	3,952.5	0.00	0.00	
12,900.0	0.31	239.57	11,676.5	-2,003.1	-3,514.5	3,953.1	0.00	0.00	
12,927.5	0.31	239.57	11,704.0	-2,003.1	-3,514.6	3,953.2	0.00	0.00	Driller's TD @ 12927.5' MD
13,000.0	0.31	239.57	11,776.5	-2,003.3	-3,515.0	3,953.6	0.00	0.00	
13,100.0	0.31	239.57	11,876.5	-2,003.6	-3,515.4	3,954.2	0.00	0.00	
13,177.5	0.31	239.57	11,954.0	-2,003.8	-3,515.8	3,954.6	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Site S28-T4S-R96W (P28 496)(column pattern)
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 7804.0ft (Original Well Elev)
<b>Project:</b>	Double Willow	<b>MD Reference:</b>	WELL @ 7804.0ft (Original Well Elev)
<b>Site:</b>	S28-T4S-R96W (P28 496)(column pattern)	<b>North Reference:</b>	True
<b>Well:</b>	DW 8603F-33 (P28 496)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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)		
DW 8603F-33 P28 496 T - plan hits target center - Point	0.00	0.00	6,794.0	-1,989.7	-3,491.7	1,677,356.91	2,246,138.97	39° 39' 45.46 N	108° 10' 41.20 W
DW 8603F-33 P28 496 F - plan hits target center - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	10,454.0	-1,999.7	-3,508.7	1,677,347.42	2,246,121.68	39° 39' 45.36 N	108° 10' 41.41 W

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
54.0	54.0	Mahog Bench (TVD)				
114.0	114.0	Base B Groove (TVD)				
4,292.6	3,654.0	Was G (TVD)				
7,977.4	6,754.0	WF (TVD)				
8,017.4	6,794.0	TOG (TVD)				
11,677.4	10,454.0	Rlms (TVD)				
12,007.5	10,784.0	Cozz (TVD)				
12,197.5	10,974.0	Corc (TVD)				
12,477.5	11,254.0	Sego (TVD)				
12,677.5	11,454.0	L Sego (TVD)				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
300.0	300.0	-175.9	-9.0	KOP @ 300' MD
1,532.2	1,448.5	-353.3	-349.5	EOB; Inc=36.97°
6,785.2	5,645.5	-1,812.4	-3,151.2	Start Drop -3.00
8,017.4	6,794.0	-1,989.7	-3,491.7	EOD; Inc=0°
12,927.5	11,704.0	-2,003.1	-3,514.6	Driller's TD @ 12927.5' MD
13,177.5	11,954.0	-2,003.8	-3,515.8	Permit TD @ 13177.5' MD