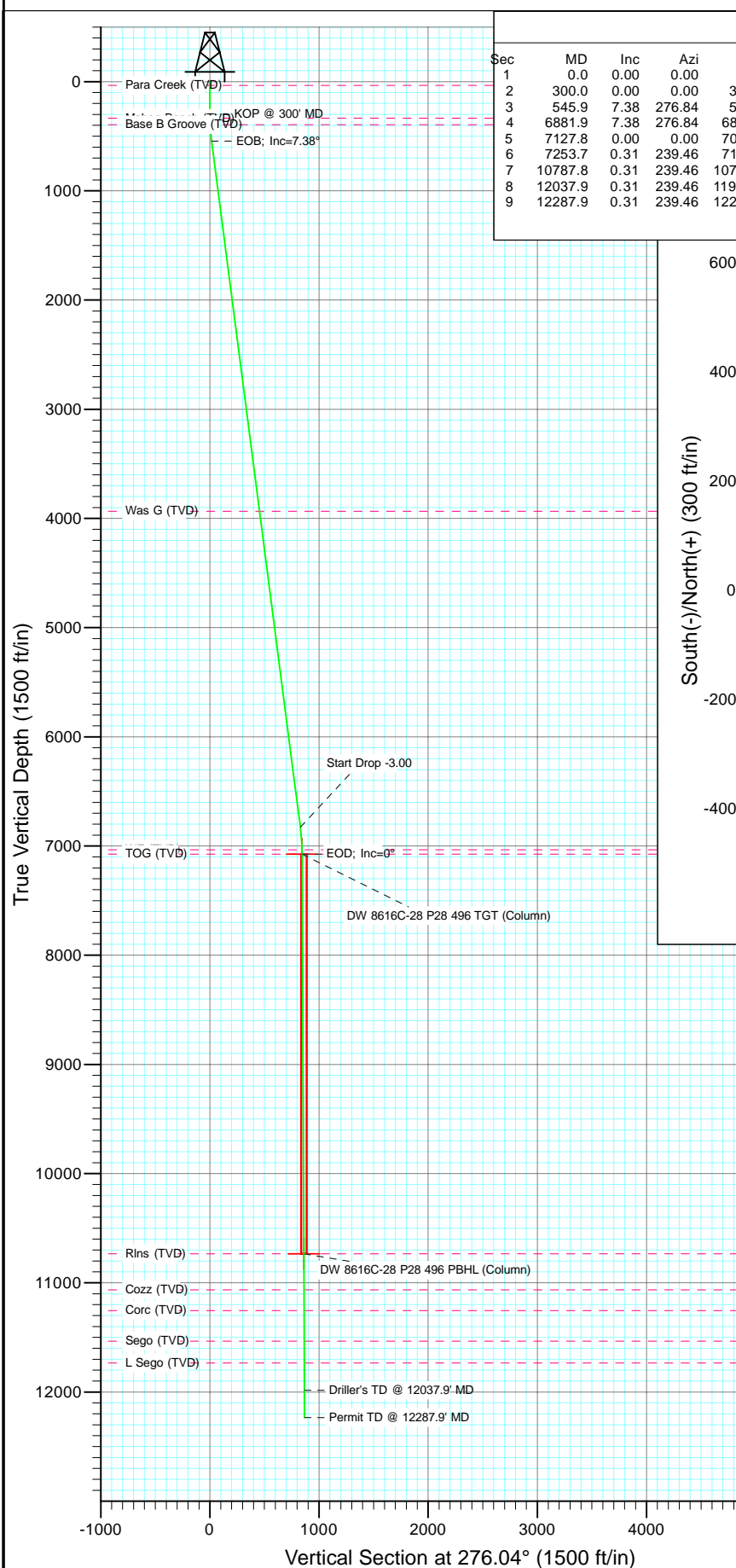
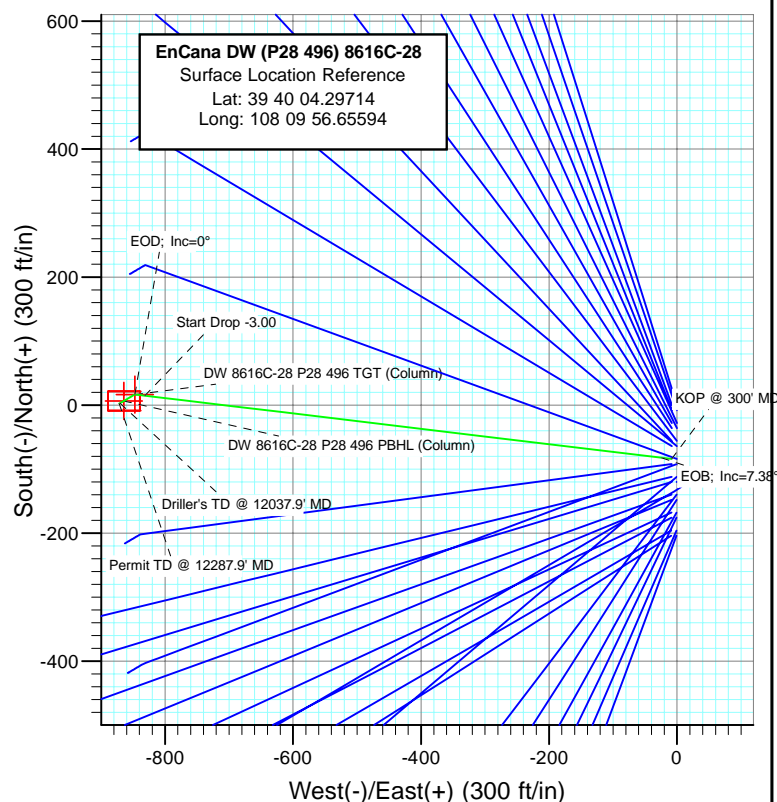




Project: Double Willow  
Site: S28-T4S-R96W (P28 496)(column pattern)  
Well: DW 8616C-28 (P28 496)  
Wellbore: DD  
Design: Plan #1



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	-84.0	-8.4	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	-84.0	-8.4	0.00	0.00	0.0	
3	545.9	7.38	276.84	545.2	-82.1	-24.1	3.00	276.84	15.8	
4	6881.9	7.38	276.84	6828.8	14.7	-831.8	0.00	0.00	829.1	DW 8616C-28 P28 496 TGT (Column)
5	7127.8	0.00	0.00	7074.0	16.6	-847.4	3.00	180.00	844.9	
6	7253.7	0.31	239.46	7199.9	16.4	-847.7	0.25	239.46	845.2	DW 8616C-28 P28 496 PBHL (Column)
7	10787.8	0.31	239.46	10734.0	6.6	-864.5	0.00	0.00	860.8	
8	12037.9	0.31	239.46	11984.0	3.1	-870.4	0.00	0.00	866.3	
9	12287.9	0.31	239.46	12234.0	2.4	-871.6	0.00	0.00	867.4	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
34.0	34.0	Para Creek (TVD)
334.0	334.0	Mahog Bench (TVD)
394.0	394.0	Base B Groove (TVD)
3934.0	3963.0	Was G (TVD)
7034.0	7087.8	WF (TVD)
7074.0	7127.8	TOG (TVD)
10734.0	10787.8	Rins (TVD)
11064.0	11117.8	Cozz (TVD)
11254.0	11307.8	Corc (TVD)
11534.0	11587.9	Sego (TVD)
11734.0	11787.9	L Sego (TVD)



Azimuths to True North  
Magnetic North: 10.52°

Magnetic Field  
Strength: 52360.9snT  
Dip Angle: 65.86°  
Date: 12/1/2010  
Model: IGRF2010

Plan #1					
DW 8616C-28 (P28 496)					
WELL @ 7804.0ft (Original Well Elev)					
North American Datum 1983					
Site S28-T4S-R96W (P28 496)(column pattern), True North					
Type	Target	Azimuth	Origin	Type	N/S
Target	DW 8616C-28 P28 496 PBHL (Column)	276.04	Slot	-84.0	-8.4
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
DW 8616C-28 P28 496 TGT (Column)	7074.0	16.6	-847.4	39° 40' 5.29 N	108° 10' 7.39 W
DW 8616C-28 P28 496 PBHL (Column)	10734.0	6.6	-864.5	39° 40' 5.19 N	108° 10' 7.60 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 8616C-28 (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 8616C-28 (P28 496)			
<b>Well Position</b>	<b>+N/-S</b>	-84.0 ft	<b>Northing:</b>	1,679,159.57 ft
	<b>+E/-W</b>	-8.4 ft	<b>Easting:</b>	2,249,676.63 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	-84.0	-8.4	276.04

<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	-84.0	-8.4	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	-84.0	-8.4	0.00	0.00	0.00	0.00	
545.9	7.38	276.84	545.2	-82.1	-24.1	3.00	3.00	0.00	276.84	
6,881.9	7.38	276.84	6,828.8	14.7	-831.8	0.00	0.00	0.00	0.00	
7,127.8	0.00	0.00	7,074.0	16.6	-847.4	3.00	-3.00	0.00	180.00	DW 8616C-28 P28 496
7,253.7	0.31	239.46	7,199.9	16.4	-847.7	0.25	0.25	-95.74	239.46	
10,787.8	0.31	239.46	10,734.0	6.6	-864.5	0.00	0.00	0.00	0.00	DW 8616C-28 P28 496
12,037.9	0.31	239.46	11,984.0	3.1	-870.4	0.00	0.00	0.00	0.00	
12,287.9	0.31	239.46	12,234.0	2.4	-871.6	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 8616C-28 (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	-84.0	-8.4	0.0	0.00	0.00	
34.0	0.00	0.00	34.0	-84.0	-8.4	0.0	0.00	0.00	Para Creek (TVD)
100.0	0.00	0.00	100.0	-84.0	-8.4	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	-84.0	-8.4	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	-84.0	-8.4	0.0	0.00	0.00	KOP @ 300' MD
334.0	1.02	276.84	334.0	-84.0	-8.7	0.3	3.00	3.00	Mahog Bench (TVD)
394.0	2.82	276.84	394.0	-83.7	-10.7	2.3	3.00	3.00	Base B Groove (TVD)
400.0	3.00	276.84	400.0	-83.7	-11.0	2.6	3.00	3.00	
500.0	6.00	276.84	499.6	-82.8	-18.8	10.5	3.00	3.00	
545.9	7.38	276.84	545.2	-82.1	-24.1	15.8	3.00	3.00	EOB; Inc=7.38°
600.0	7.38	276.84	598.9	-81.3	-31.0	22.8	0.00	0.00	
700.0	7.38	276.84	698.0	-79.8	-43.8	35.6	0.00	0.00	
800.0	7.38	276.84	797.2	-78.2	-56.5	48.4	0.00	0.00	
900.0	7.38	276.84	896.4	-76.7	-69.3	61.3	0.00	0.00	
1,000.0	7.38	276.84	995.6	-75.2	-82.0	74.1	0.00	0.00	
1,100.0	7.38	276.84	1,094.7	-73.7	-94.8	86.9	0.00	0.00	
1,200.0	7.38	276.84	1,193.9	-72.1	-107.5	99.8	0.00	0.00	
1,300.0	7.38	276.84	1,293.1	-70.6	-120.3	112.6	0.00	0.00	
1,400.0	7.38	276.84	1,392.3	-69.1	-133.0	125.4	0.00	0.00	
1,500.0	7.38	276.84	1,491.4	-67.5	-145.8	138.3	0.00	0.00	
1,600.0	7.38	276.84	1,590.6	-66.0	-158.5	151.1	0.00	0.00	
1,700.0	7.38	276.84	1,689.8	-64.5	-171.3	164.0	0.00	0.00	
1,800.0	7.38	276.84	1,788.9	-63.0	-184.0	176.8	0.00	0.00	
1,900.0	7.38	276.84	1,888.1	-61.4	-196.7	189.6	0.00	0.00	
2,000.0	7.38	276.84	1,987.3	-59.9	-209.5	202.5	0.00	0.00	
2,100.0	7.38	276.84	2,086.5	-58.4	-222.2	215.3	0.00	0.00	
2,200.0	7.38	276.84	2,185.6	-56.8	-235.0	228.1	0.00	0.00	
2,300.0	7.38	276.84	2,284.8	-55.3	-247.7	241.0	0.00	0.00	
2,400.0	7.38	276.84	2,384.0	-53.8	-260.5	253.8	0.00	0.00	
2,500.0	7.38	276.84	2,483.2	-52.3	-273.2	266.6	0.00	0.00	
2,600.0	7.38	276.84	2,582.3	-50.7	-286.0	279.5	0.00	0.00	
2,700.0	7.38	276.84	2,681.5	-49.2	-298.7	292.3	0.00	0.00	
2,800.0	7.38	276.84	2,780.7	-47.7	-311.5	305.2	0.00	0.00	
2,900.0	7.38	276.84	2,879.8	-46.1	-324.2	318.0	0.00	0.00	
3,000.0	7.38	276.84	2,979.0	-44.6	-337.0	330.8	0.00	0.00	
3,100.0	7.38	276.84	3,078.2	-43.1	-349.7	343.7	0.00	0.00	
3,200.0	7.38	276.84	3,177.4	-41.6	-362.4	356.5	0.00	0.00	
3,300.0	7.38	276.84	3,276.5	-40.0	-375.2	369.3	0.00	0.00	
3,400.0	7.38	276.84	3,375.7	-38.5	-387.9	382.2	0.00	0.00	
3,500.0	7.38	276.84	3,474.9	-37.0	-400.7	395.0	0.00	0.00	
3,600.0	7.38	276.84	3,574.0	-35.4	-413.4	407.8	0.00	0.00	
3,700.0	7.38	276.84	3,673.2	-33.9	-426.2	420.7	0.00	0.00	
3,800.0	7.38	276.84	3,772.4	-32.4	-438.9	433.5	0.00	0.00	
3,900.0	7.38	276.84	3,871.6	-30.9	-451.7	446.4	0.00	0.00	
3,963.0	7.38	276.84	3,934.0	-29.9	-459.7	454.4	0.00	0.00	Was G (TVD)
4,000.0	7.38	276.84	3,970.7	-29.3	-464.4	459.2	0.00	0.00	
4,100.0	7.38	276.84	4,069.9	-27.8	-477.2	472.0	0.00	0.00	
4,200.0	7.38	276.84	4,169.1	-26.3	-489.9	484.9	0.00	0.00	
4,300.0	7.38	276.84	4,268.3	-24.7	-502.7	497.7	0.00	0.00	
4,400.0	7.38	276.84	4,367.4	-23.2	-515.4	510.5	0.00	0.00	
4,500.0	7.38	276.84	4,466.6	-21.7	-528.1	523.4	0.00	0.00	
4,600.0	7.38	276.84	4,565.8	-20.2	-540.9	536.2	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 8616C-28 (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
4,700.0	7.38	276.84	4,664.9	-18.6	-553.6	549.0	0.00	0.00	
4,800.0	7.38	276.84	4,764.1	-17.1	-566.4	561.9	0.00	0.00	
4,900.0	7.38	276.84	4,863.3	-15.6	-579.1	574.7	0.00	0.00	
5,000.0	7.38	276.84	4,962.5	-14.0	-591.9	587.6	0.00	0.00	
5,100.0	7.38	276.84	5,061.6	-12.5	-604.6	600.4	0.00	0.00	
5,200.0	7.38	276.84	5,160.8	-11.0	-617.4	613.2	0.00	0.00	
5,300.0	7.38	276.84	5,260.0	-9.5	-630.1	626.1	0.00	0.00	
5,400.0	7.38	276.84	5,359.2	-7.9	-642.9	638.9	0.00	0.00	
5,500.0	7.38	276.84	5,458.3	-6.4	-655.6	651.7	0.00	0.00	
5,600.0	7.38	276.84	5,557.5	-4.9	-668.4	664.6	0.00	0.00	
5,700.0	7.38	276.84	5,656.7	-3.3	-681.1	677.4	0.00	0.00	
5,800.0	7.38	276.84	5,755.8	-1.8	-693.9	690.2	0.00	0.00	
5,900.0	7.38	276.84	5,855.0	-0.3	-706.6	703.1	0.00	0.00	
6,000.0	7.38	276.84	5,954.2	1.2	-719.3	715.9	0.00	0.00	
6,100.0	7.38	276.84	6,053.4	2.8	-732.1	728.8	0.00	0.00	
6,200.0	7.38	276.84	6,152.5	4.3	-744.8	741.6	0.00	0.00	
6,300.0	7.38	276.84	6,251.7	5.8	-757.6	754.4	0.00	0.00	
6,400.0	7.38	276.84	6,350.9	7.4	-770.3	767.3	0.00	0.00	
6,500.0	7.38	276.84	6,450.1	8.9	-783.1	780.1	0.00	0.00	
6,600.0	7.38	276.84	6,549.2	10.4	-795.8	792.9	0.00	0.00	
6,700.0	7.38	276.84	6,648.4	11.9	-808.6	805.8	0.00	0.00	
6,800.0	7.38	276.84	6,747.6	13.5	-821.3	818.6	0.00	0.00	
6,881.9	7.38	276.84	6,828.8	14.7	-831.8	829.1	0.00	0.00	Start Drop -3.00
6,900.0	6.83	276.84	6,846.8	15.0	-834.0	831.4	3.00	-3.00	
7,000.0	3.83	276.84	6,946.3	16.1	-843.2	840.7	3.00	-3.00	
7,087.8	1.20	276.84	7,034.0	16.6	-847.0	844.5	3.00	-3.00	WF (TVD)
7,100.0	0.83	276.84	7,046.2	16.6	-847.2	844.7	3.00	-3.00	
7,127.8	0.00	0.00	7,074.0	16.6	-847.4	844.9	3.00	-3.00	EOD; Inc=0° - TOG (TVD) - DW 8616C-28 P28
7,200.0	0.18	239.46	7,146.2	16.5	-847.5	845.0	0.25	0.25	
7,253.7	0.31	239.46	7,199.9	16.4	-847.7	845.2	0.25	0.25	
7,300.0	0.31	239.46	7,246.2	16.3	-848.0	845.4	0.00	0.00	
7,400.0	0.31	239.46	7,346.2	16.0	-848.4	845.9	0.00	0.00	
7,500.0	0.31	239.46	7,446.2	15.7	-848.9	846.3	0.00	0.00	
7,600.0	0.31	239.46	7,546.2	15.5	-849.4	846.7	0.00	0.00	
7,700.0	0.31	239.46	7,646.2	15.2	-849.9	847.2	0.00	0.00	
7,800.0	0.31	239.46	7,746.2	14.9	-850.3	847.6	0.00	0.00	
7,900.0	0.31	239.46	7,846.2	14.6	-850.8	848.1	0.00	0.00	
8,000.0	0.31	239.46	7,946.2	14.3	-851.3	848.5	0.00	0.00	
8,100.0	0.31	239.46	8,046.2	14.1	-851.8	848.9	0.00	0.00	
8,200.0	0.31	239.46	8,146.2	13.8	-852.2	849.4	0.00	0.00	
8,300.0	0.31	239.46	8,246.2	13.5	-852.7	849.8	0.00	0.00	
8,400.0	0.31	239.46	8,346.2	13.2	-853.2	850.3	0.00	0.00	
8,500.0	0.31	239.46	8,446.2	12.9	-853.6	850.7	0.00	0.00	
8,600.0	0.31	239.46	8,546.2	12.7	-854.1	851.1	0.00	0.00	
8,700.0	0.31	239.46	8,646.2	12.4	-854.6	851.6	0.00	0.00	
8,800.0	0.31	239.46	8,746.2	12.1	-855.1	852.0	0.00	0.00	
8,900.0	0.31	239.46	8,846.2	11.8	-855.5	852.5	0.00	0.00	
9,000.0	0.31	239.46	8,946.2	11.5	-856.0	852.9	0.00	0.00	
9,100.0	0.31	239.46	9,046.2	11.3	-856.5	853.4	0.00	0.00	
9,200.0	0.31	239.46	9,146.2	11.0	-857.0	853.8	0.00	0.00	
9,300.0	0.31	239.46	9,246.2	10.7	-857.4	854.2	0.00	0.00	
9,400.0	0.31	239.46	9,346.2	10.4	-857.9	854.7	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 8616C-28 (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
9,500.0	0.31	239.46	9,446.2	10.2	-858.4	855.1	0.00	0.00	
9,600.0	0.31	239.46	9,546.2	9.9	-858.8	855.6	0.00	0.00	
9,700.0	0.31	239.46	9,646.2	9.6	-859.3	856.0	0.00	0.00	
9,800.0	0.31	239.46	9,746.2	9.3	-859.8	856.4	0.00	0.00	
9,900.0	0.31	239.46	9,846.2	9.0	-860.3	856.9	0.00	0.00	
10,000.0	0.31	239.46	9,946.2	8.8	-860.7	857.3	0.00	0.00	
10,100.0	0.31	239.46	10,046.2	8.5	-861.2	857.8	0.00	0.00	
10,200.0	0.31	239.46	10,146.2	8.2	-861.7	858.2	0.00	0.00	
10,300.0	0.31	239.46	10,246.2	7.9	-862.2	858.6	0.00	0.00	
10,400.0	0.31	239.46	10,346.2	7.6	-862.6	859.1	0.00	0.00	
10,500.0	0.31	239.46	10,446.2	7.4	-863.1	859.5	0.00	0.00	
10,600.0	0.31	239.46	10,546.2	7.1	-863.6	860.0	0.00	0.00	
10,700.0	0.31	239.46	10,646.2	6.8	-864.1	860.4	0.00	0.00	
10,787.8	0.31	239.46	10,734.0	6.6	-864.5	860.8	0.00	0.00	Rins (TVD) - DW 8616C-28 P28 496 PBHL (Co
10,800.0	0.31	239.46	10,746.2	6.5	-864.5	860.9	0.00	0.00	
10,900.0	0.31	239.46	10,846.2	6.2	-865.0	861.3	0.00	0.00	
11,000.0	0.31	239.46	10,946.2	6.0	-865.5	861.7	0.00	0.00	
11,100.0	0.31	239.46	11,046.2	5.7	-865.9	862.2	0.00	0.00	
11,117.8	0.31	239.46	11,064.0	5.6	-866.0	862.3	0.00	0.00	Cozz (TVD)
11,200.0	0.31	239.46	11,146.2	5.4	-866.4	862.6	0.00	0.00	
11,300.0	0.31	239.46	11,246.2	5.1	-866.9	863.1	0.00	0.00	
11,307.8	0.31	239.46	11,254.0	5.1	-866.9	863.1	0.00	0.00	Corc (TVD)
11,400.0	0.31	239.46	11,346.2	4.9	-867.4	863.5	0.00	0.00	
11,500.0	0.31	239.46	11,446.2	4.6	-867.8	863.9	0.00	0.00	
11,587.9	0.31	239.46	11,534.0	4.3	-868.3	864.3	0.00	0.00	Sego (TVD)
11,600.0	0.31	239.46	11,546.1	4.3	-868.3	864.4	0.00	0.00	
11,700.0	0.31	239.46	11,646.1	4.0	-868.8	864.8	0.00	0.00	
11,787.9	0.31	239.46	11,734.0	3.8	-869.2	865.2	0.00	0.00	L Sego (TVD)
11,800.0	0.31	239.46	11,746.1	3.7	-869.3	865.3	0.00	0.00	
11,900.0	0.31	239.46	11,846.1	3.5	-869.7	865.7	0.00	0.00	
12,000.0	0.31	239.46	11,946.1	3.2	-870.2	866.1	0.00	0.00	
12,037.9	0.31	239.46	11,984.0	3.1	-870.4	866.3	0.00	0.00	Driller's TD @ 12037.9' MD
12,100.0	0.31	239.46	12,046.1	2.9	-870.7	866.6	0.00	0.00	
12,200.0	0.31	239.46	12,146.1	2.6	-871.2	867.0	0.00	0.00	
12,287.9	0.31	239.46	12,234.0	2.4	-871.6	867.4	0.00	0.00	

### Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
DW 8616C-28 P28 496 `	0.00	0.00	7,074.0	16.6	-847.4	1,679,284.75	2,248,840.94	39° 40' 5.29 N	108° 10' 7.39 W
- plan hits target center									
- Point									
DW 8616C-28 P28 496 l	0.00	0.00	10,734.0	6.6	-864.5	1,679,275.21	2,248,823.64	39° 40' 5.19 N	108° 10' 7.60 W
- plan hits target center									
- Rectangle (sides W30.0 H50.0 D0.0)									

# 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 8616C-28 (P28 496)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
34.0	34.0	Para Creek (TVD)				
334.0	334.0	Mahog Bench (TVD)				
394.0	394.0	Base B Groove (TVD)				
3,963.0	3,934.0	Was G (TVD)				
7,087.8	7,034.0	WF (TVD)				
7,127.8	7,074.0	TOG (TVD)				
10,787.8	10,734.0	Rlns (TVD)				
11,117.8	11,064.0	Cozz (TVD)				
11,307.8	11,254.0	Corc (TVD)				
11,587.9	11,534.0	Sego (TVD)				
11,787.9	11,734.0	L Sego (TVD)				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
300.0	300.0	-84.0	-8.4	KOP @ 300' MD	
545.9	545.2	-82.1	-24.1	EOB; Inc=7.38°	
6,881.9	6,828.8	14.7	-831.8	Start Drop -3.00	
7,127.8	7,074.0	16.6	-847.4	EOD; Inc=0°	
12,037.9	11,984.0	3.1	-870.4	Driller's TD @ 12037.9' MD	
12,287.9	12,234.0	2.4	-871.6	Permit TD @ 12287.9' MD	