

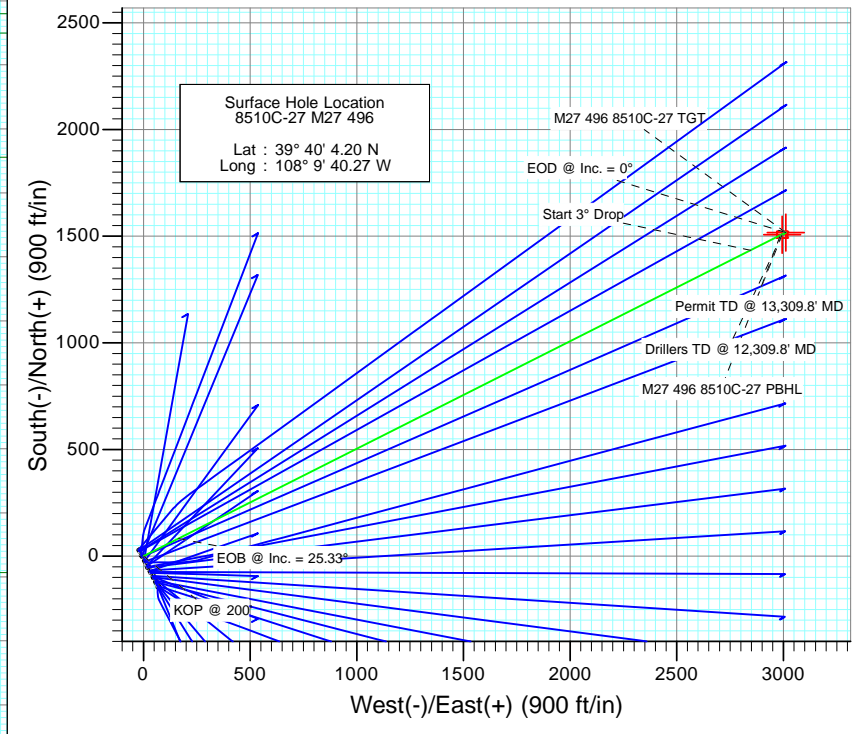
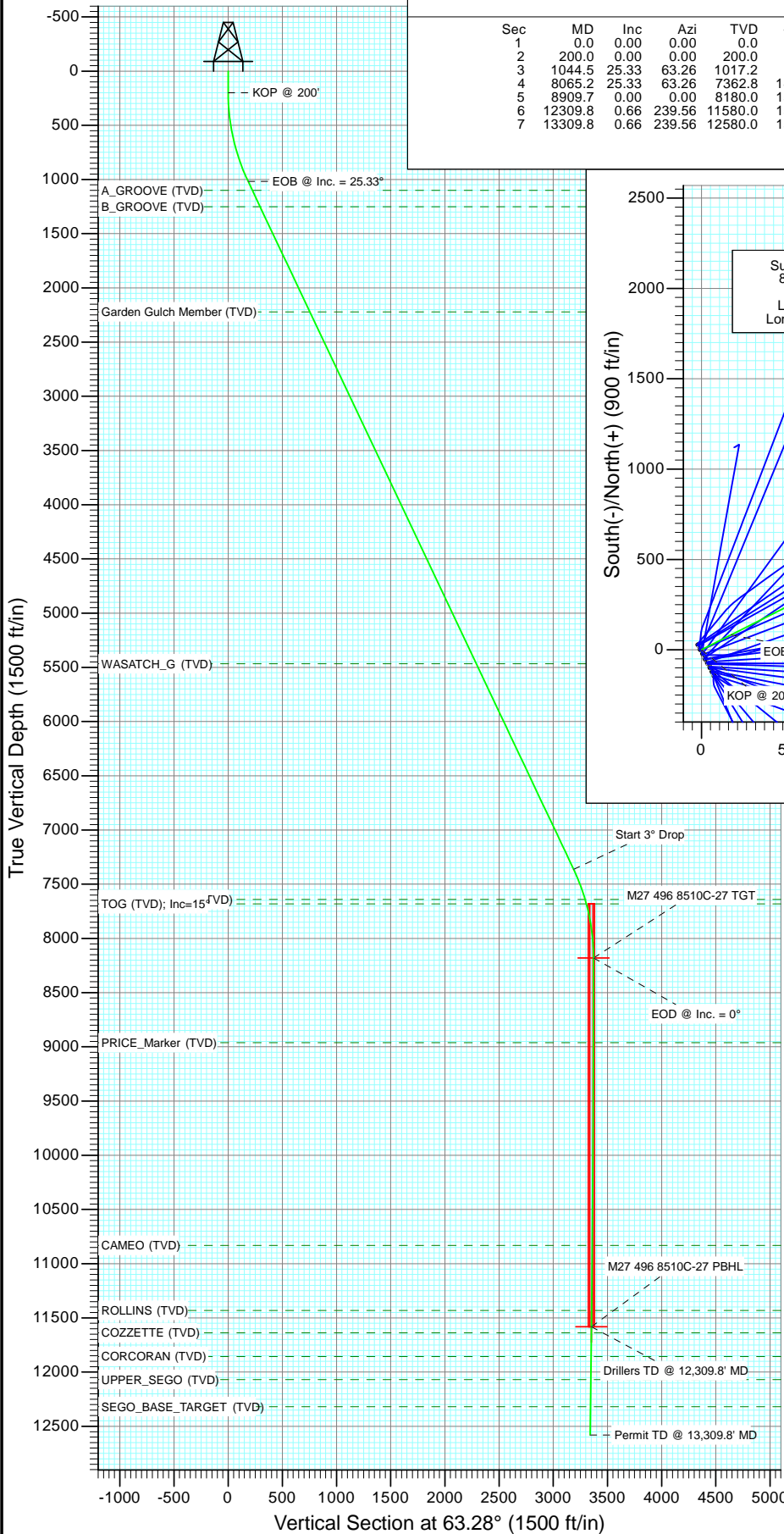


Project: Story Gulch  
 Site: S27-T4S-R96W (M27 496)  
 Well: 8510C-27 M27 496  
 Wellbore: DD  
 Design: Plan #2



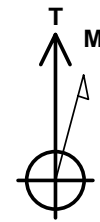
SECTION DETAILS

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	1044.5	25.33	63.26	1017.2	82.6	164.0	3.00	63.26	183.7	
4	8065.2	25.33	63.26	7362.8	1434.2	2847.0	0.00	0.00	3187.8	
5	8909.7	0.00	0.00	8180.0	1516.8	3011.0	3.00	180.00	3371.5	M27 496 8510C-27 TGT
6	12309.8	0.66	239.56	11580.0	1506.8	2994.0	0.02	239.56	3351.8	M27 496 8510C-27 PBHL
7	13309.8	0.66	239.56	12580.0	1500.9	2984.0	0.00	0.00	3340.2	



FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
1100.0	1136.1	A_GROOVE (TVD)
1252.0	1304.2	B_GROOVE (TVD)
2220.0	2375.2	Garden Gulch Member (TVD)
5466.0	5966.6	WASATCH_G (TVD)
7640.0	8362.2	WILLIAMS_FORK (TVD)
7680.0	8403.8	TOG (TVD); Inc=15°
8961.0	9690.7	PRICE_Marker (TVD)
10830.0	11559.7	CAMEO (TVD)
11430.0	12159.8	ROLLINS (TVD)
11637.0	12366.8	COZZETTE (TVD)
11856.0	12585.8	CORCORAN (TVD)
12068.0	12797.8	UPPER_SEGO (TVD)
12318.0	13047.8	SEGO_BASE_TARGET (TVD)



Azimuths to True North  
 Magnetic North: 10.41°

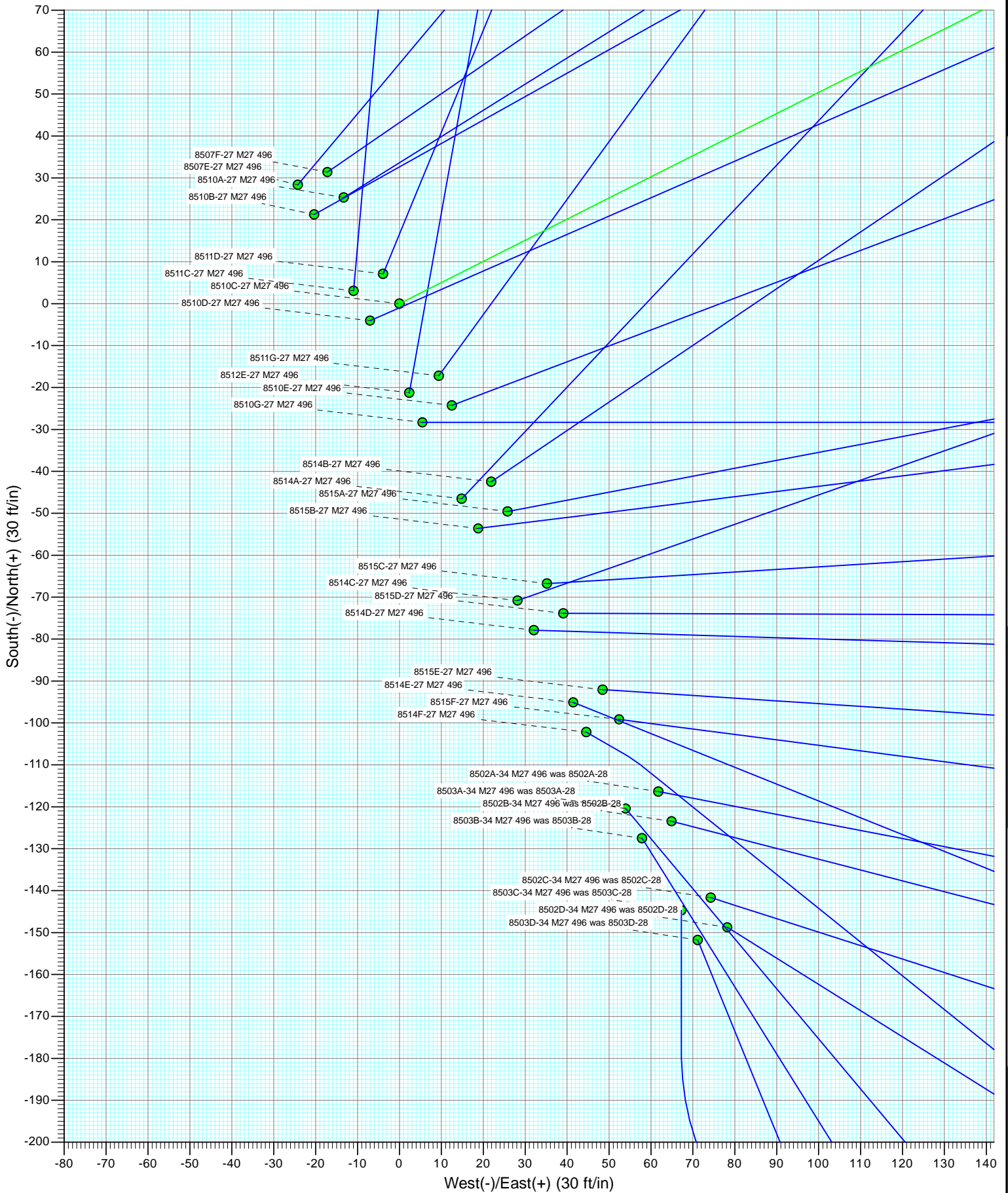
Magnetic Field  
 Strength: 52277.7snT  
 Dip Angle: 65.84°  
 Date: 9/21/2011  
 Model: IGRF2010

Plan #2  
 8510C-27 M27 496  
 15sax: LR  
 KBE @ 8121.0ft (Original Well Elev)  
 GL @ 8099.0  
 North American Datum 1983  
 Well 8510C-27 M27 496, True North

Type	Target	Target	Azimuth	Origin Type	N/S	E/W	From TVD
Type	Target	Target	Slot	Slot	0.0	0.0	0.0
Name	TVD	+N/-S	+E/-W	Latitude	Longitude		
M27 496 8510C-27 TGT	8180.0	1516.8	3011.0	39° 40' 19.19 N	108° 9' 1.76 W		
M27 496 8510C-27 PBHL	11580.0	1506.8	2994.0	39° 40' 19.09 N	108° 9' 1.98 W		

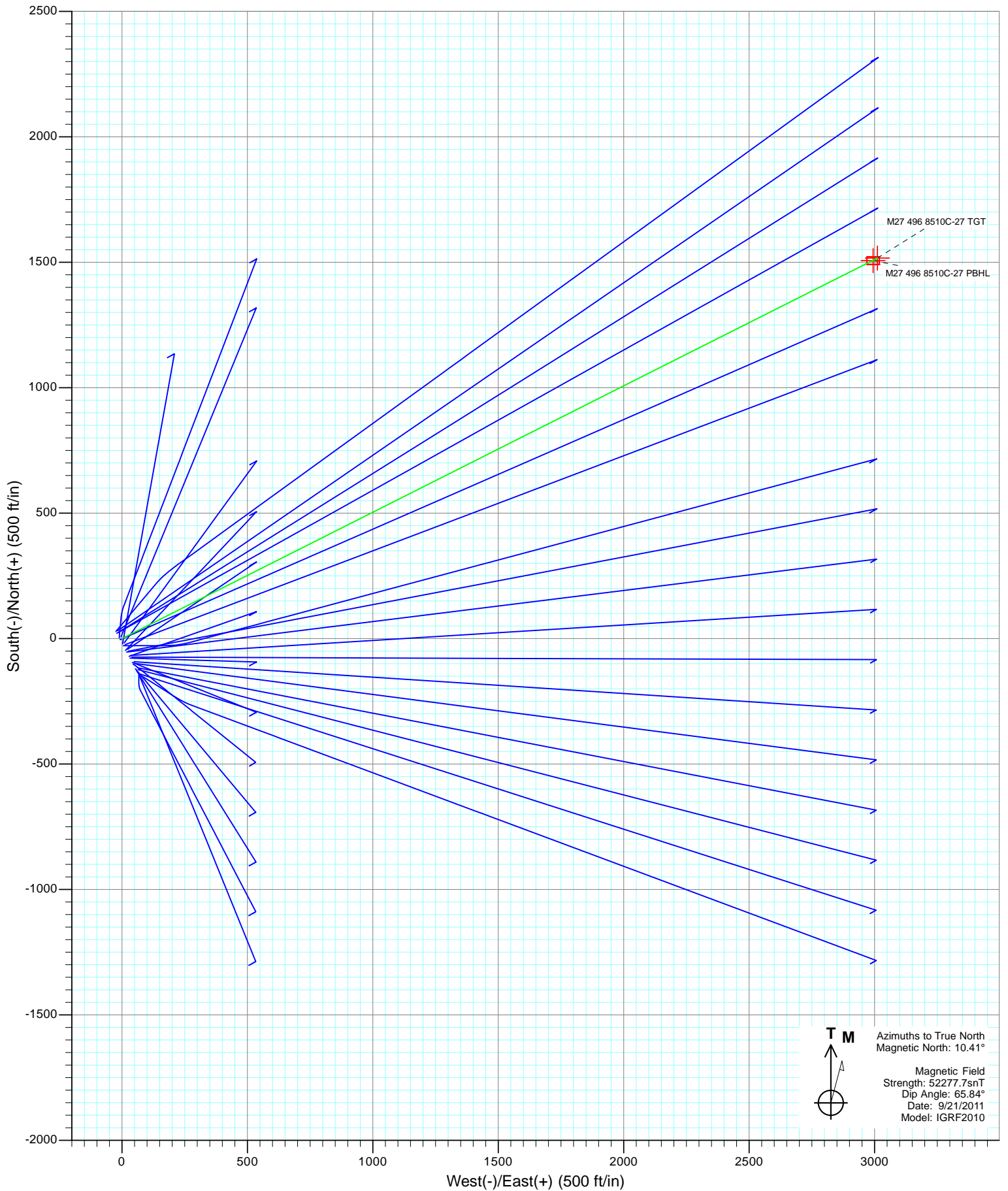


Project: Story Gulch  
Site: S27-T4S-R96W (M27 496)  
Well: 8510C-27 M27 496  
Wellbore: DD  
Design: Plan #2



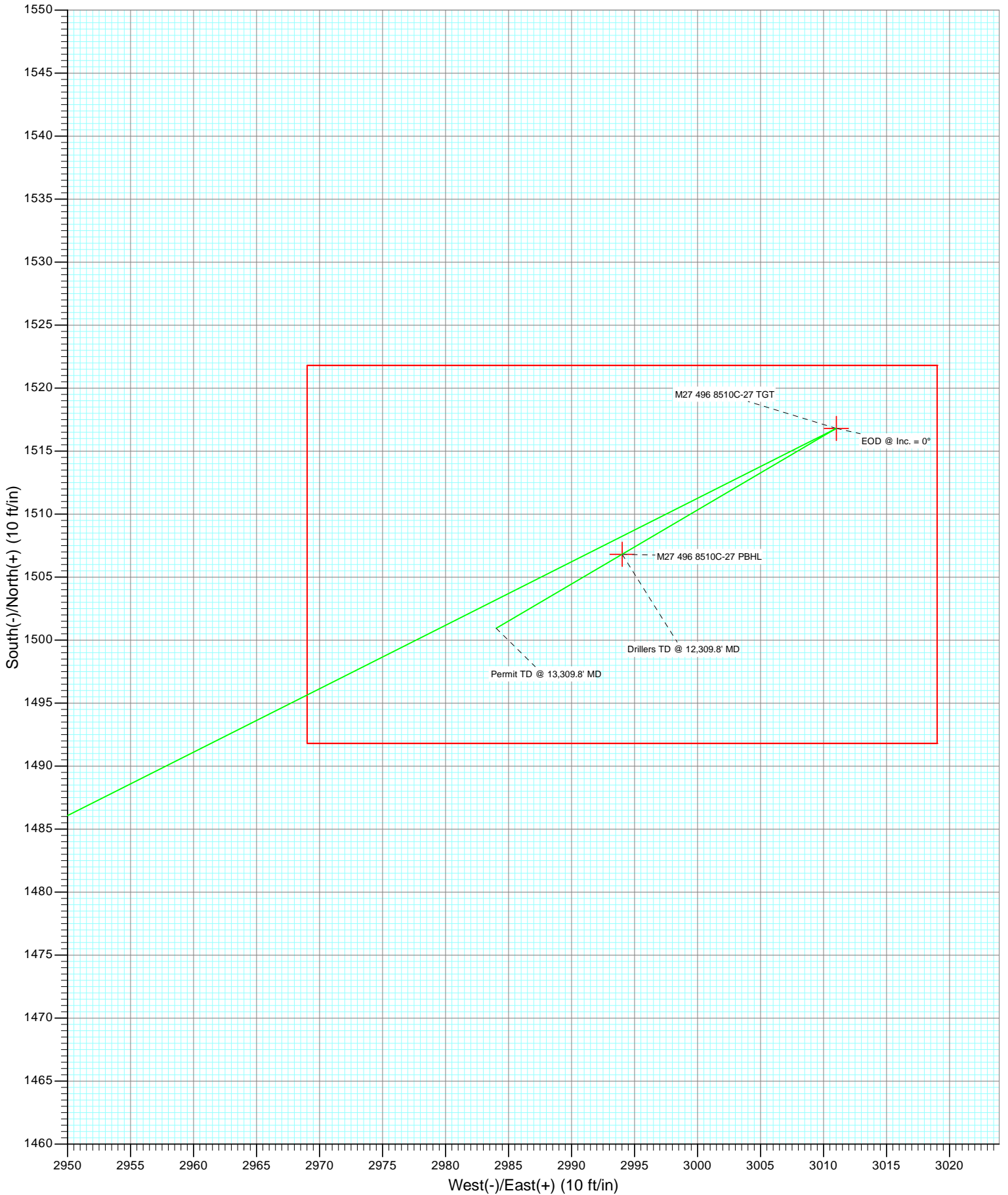


Project: Story Gulch  
Site: S27-T4S-R96W (M27 496)  
Well: 8510C-27 M27 496  
Wellbore: DD  
Design: Plan #2





Project: Story Gulch  
Site: S27-T4S-R96W (M27 496)  
Well: 8510C-27 M27 496  
Wellbore: DD  
Design: Plan #2



# Cathedral Energy Services

## Planning Report

<b>Database:</b> USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b> Well 8510C-27 M27 496
<b>Company:</b> EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b> KBE @ 8121.0ft (Original Well Elev)
<b>Project:</b> Story Gulch	<b>MD Reference:</b> KBE @ 8121.0ft (Original Well Elev)
<b>Site:</b> S27-T4S-R96W (M27 496)	<b>North Reference:</b> True
<b>Well:</b> 8510C-27 M27 496	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Wellbore:</b> DD	
<b>Design:</b> Plan #2	

<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 (M27 496)				
<b>Site Position:</b>		<b>Northing:</b> 1,678,990.24 ft	<b>Latitude:</b> 39° 40' 3.01 N	
<b>From:</b> Lat/Long		<b>Easting:</b> 2,251,008.33 ft	<b>Longitude:</b> 108° 9' 39.57 W	
<b>Position Uncertainty:</b> 0.0 ft		<b>Slot Radius:</b> 13.200 in	<b>Grid Convergence:</b> -1.68 °	

<b>Well</b> 8510C-27 M27 496				
<b>Well Position</b>	<b>+N/-S</b> 0.0 ft	<b>Northing:</b> 1,679,112.18 ft	<b>Latitude:</b> 39° 40' 4.20 N	
	<b>+E/-W</b> 0.0 ft	<b>Easting:</b> 2,250,957.14 ft	<b>Longitude:</b> 108° 9' 40.27 W	
<b>Position Uncertainty</b>	0.0 ft	<b>Wellhead Elevation:</b> ft	<b>Ground Level:</b> 8,099.0 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	9/21/2011	(°) 10.41	(°) 65.84	(nT) 52,278

<b>Design</b> Plan #2				
<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	63.28

<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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,044.5	25.33	63.26	1,017.2	82.6	164.0	3.00	3.00	0.00	63.26	
8,065.2	25.33	63.26	7,362.8	1,434.2	2,847.0	0.00	0.00	0.00	0.00	
8,909.7	0.00	0.00	8,180.0	1,516.8	3,011.0	3.00	-3.00	0.00	180.00	M27 496 8510C-27 T1
12,309.8	0.66	239.56	11,580.0	1,506.8	2,994.0	0.02	0.02	-3.54	239.56	M27 496 8510C-27 P1
13,309.8	0.66	239.56	12,580.0	1,500.9	2,984.0	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 8510C-27 M27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site:</b>	S27-T4S-R96W (M27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

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'
300.0	3.00	63.26	300.0	1.2	2.3	2.6	3.00	3.00	
400.0	6.00	63.26	399.6	4.7	9.3	10.5	3.00	3.00	
500.0	9.00	63.26	498.8	10.6	21.0	23.5	3.00	3.00	
600.0	12.00	63.26	597.1	18.8	37.3	41.7	3.00	3.00	
700.0	15.00	63.26	694.3	29.3	58.1	65.1	3.00	3.00	
800.0	18.00	63.26	790.2	42.1	83.5	93.5	3.00	3.00	
900.0	21.00	63.26	884.4	57.1	113.3	126.9	3.00	3.00	
1,000.0	24.00	63.26	976.8	74.3	147.5	165.1	3.00	3.00	
1,044.5	25.33	63.26	1,017.2	82.6	164.0	183.7	3.00	3.00	EOB @ Inc. = 25.33°
1,100.0	25.33	63.26	1,067.4	93.3	185.3	207.4	0.00	0.00	
1,136.1	25.33	63.26	1,100.0	100.3	199.0	222.9	0.00	0.00	A_GROOVE (TVD)
1,200.0	25.33	63.26	1,157.8	112.6	223.5	250.2	0.00	0.00	
1,300.0	25.33	63.26	1,248.2	131.8	261.7	293.0	0.00	0.00	
1,304.2	25.33	63.26	1,252.0	132.6	263.3	294.8	0.00	0.00	B_GROOVE (TVD)
1,400.0	25.33	63.26	1,338.6	151.1	299.9	335.8	0.00	0.00	
1,500.0	25.33	63.26	1,428.9	170.3	338.1	378.6	0.00	0.00	
1,600.0	25.33	63.26	1,519.3	189.6	376.3	421.4	0.00	0.00	
1,700.0	25.33	63.26	1,609.7	208.8	414.5	464.2	0.00	0.00	
1,800.0	25.33	63.26	1,700.1	228.1	452.8	507.0	0.00	0.00	
1,900.0	25.33	63.26	1,790.5	247.3	491.0	549.8	0.00	0.00	
2,000.0	25.33	63.26	1,880.9	266.6	529.2	592.5	0.00	0.00	
2,100.0	25.33	63.26	1,971.2	285.8	567.4	635.3	0.00	0.00	
2,200.0	25.33	63.26	2,061.6	305.1	605.6	678.1	0.00	0.00	
2,300.0	25.33	63.26	2,152.0	324.3	643.8	720.9	0.00	0.00	
2,375.2	25.33	63.26	2,220.0	338.8	672.6	753.1	0.00	0.00	Garden Gulch Member (TVD)
2,400.0	25.33	63.26	2,242.4	343.6	682.0	763.7	0.00	0.00	
2,500.0	25.33	63.26	2,332.8	362.8	720.3	806.5	0.00	0.00	
2,600.0	25.33	63.26	2,423.2	382.1	758.5	849.3	0.00	0.00	
2,700.0	25.33	63.26	2,513.5	401.3	796.7	892.1	0.00	0.00	
2,800.0	25.33	63.26	2,603.9	420.6	834.9	934.9	0.00	0.00	
2,900.0	25.33	63.26	2,694.3	439.8	873.1	977.6	0.00	0.00	
3,000.0	25.33	63.26	2,784.7	459.1	911.3	1,020.4	0.00	0.00	
3,100.0	25.33	63.26	2,875.1	478.3	949.5	1,063.2	0.00	0.00	
3,200.0	25.33	63.26	2,965.5	497.6	987.8	1,106.0	0.00	0.00	
3,300.0	25.33	63.26	3,055.8	516.8	1,026.0	1,148.8	0.00	0.00	
3,400.0	25.33	63.26	3,146.2	536.1	1,064.2	1,191.6	0.00	0.00	
3,500.0	25.33	63.26	3,236.6	555.3	1,102.4	1,234.4	0.00	0.00	
3,600.0	25.33	63.26	3,327.0	574.6	1,140.6	1,277.2	0.00	0.00	
3,700.0	25.33	63.26	3,417.4	593.8	1,178.8	1,320.0	0.00	0.00	
3,800.0	25.33	63.26	3,507.7	613.1	1,217.0	1,362.8	0.00	0.00	
3,900.0	25.33	63.26	3,598.1	632.3	1,255.3	1,405.5	0.00	0.00	
4,000.0	25.33	63.26	3,688.5	651.6	1,293.5	1,448.3	0.00	0.00	
4,100.0	25.33	63.26	3,778.9	670.8	1,331.7	1,491.1	0.00	0.00	
4,200.0	25.33	63.26	3,869.3	690.1	1,369.9	1,533.9	0.00	0.00	
4,300.0	25.33	63.26	3,959.7	709.3	1,408.1	1,576.7	0.00	0.00	
4,400.0	25.33	63.26	4,050.0	728.6	1,446.3	1,619.5	0.00	0.00	
4,500.0	25.33	63.26	4,140.4	747.8	1,484.5	1,662.3	0.00	0.00	
4,600.0	25.33	63.26	4,230.8	767.1	1,522.8	1,705.1	0.00	0.00	
4,700.0	25.33	63.26	4,321.2	786.3	1,561.0	1,747.9	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 8510C-27 M27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site:</b>	S27-T4S-R96W (M27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

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	25.33	63.26	4,411.6	805.6	1,599.2	1,790.6	0.00	0.00	
4,900.0	25.33	63.26	4,502.0	824.8	1,637.4	1,833.4	0.00	0.00	
5,000.0	25.33	63.26	4,592.3	844.1	1,675.6	1,876.2	0.00	0.00	
5,100.0	25.33	63.26	4,682.7	863.3	1,713.8	1,919.0	0.00	0.00	
5,200.0	25.33	63.26	4,773.1	882.6	1,752.1	1,961.8	0.00	0.00	
5,300.0	25.33	63.26	4,863.5	901.9	1,790.3	2,004.6	0.00	0.00	
5,400.0	25.33	63.26	4,953.9	921.1	1,828.5	2,047.4	0.00	0.00	
5,500.0	25.33	63.26	5,044.3	940.4	1,866.7	2,090.2	0.00	0.00	
5,600.0	25.33	63.26	5,134.6	959.6	1,904.9	2,133.0	0.00	0.00	
5,700.0	25.33	63.26	5,225.0	978.9	1,943.1	2,175.7	0.00	0.00	
5,800.0	25.33	63.26	5,315.4	998.1	1,981.3	2,218.5	0.00	0.00	
5,900.0	25.33	63.26	5,405.8	1,017.4	2,019.6	2,261.3	0.00	0.00	
5,966.6	25.33	63.26	5,466.0	1,030.2	2,045.0	2,289.8	0.00	0.00	WASATCH_G (TVD)
6,000.0	25.33	63.26	5,496.2	1,036.6	2,057.8	2,304.1	0.00	0.00	
6,100.0	25.33	63.26	5,586.6	1,055.9	2,096.0	2,346.9	0.00	0.00	
6,200.0	25.33	63.26	5,676.9	1,075.1	2,134.2	2,389.7	0.00	0.00	
6,300.0	25.33	63.26	5,767.3	1,094.4	2,172.4	2,432.5	0.00	0.00	
6,400.0	25.33	63.26	5,857.7	1,113.6	2,210.6	2,475.3	0.00	0.00	
6,500.0	25.33	63.26	5,948.1	1,132.9	2,248.8	2,518.1	0.00	0.00	
6,600.0	25.33	63.26	6,038.5	1,152.1	2,287.1	2,560.9	0.00	0.00	
6,700.0	25.33	63.26	6,128.9	1,171.4	2,325.3	2,603.6	0.00	0.00	
6,800.0	25.33	63.26	6,219.2	1,190.6	2,363.5	2,646.4	0.00	0.00	
6,900.0	25.33	63.26	6,309.6	1,209.9	2,401.7	2,689.2	0.00	0.00	
7,000.0	25.33	63.26	6,400.0	1,229.1	2,439.9	2,732.0	0.00	0.00	
7,100.0	25.33	63.26	6,490.4	1,248.4	2,478.1	2,774.8	0.00	0.00	
7,200.0	25.33	63.26	6,580.8	1,267.6	2,516.3	2,817.6	0.00	0.00	
7,300.0	25.33	63.26	6,671.1	1,286.9	2,554.6	2,860.4	0.00	0.00	
7,400.0	25.33	63.26	6,761.5	1,306.1	2,592.8	2,903.2	0.00	0.00	
7,500.0	25.33	63.26	6,851.9	1,325.4	2,631.0	2,946.0	0.00	0.00	
7,600.0	25.33	63.26	6,942.3	1,344.6	2,669.2	2,988.7	0.00	0.00	
7,700.0	25.33	63.26	7,032.7	1,363.9	2,707.4	3,031.5	0.00	0.00	
7,800.0	25.33	63.26	7,123.1	1,383.1	2,745.6	3,074.3	0.00	0.00	
7,900.0	25.33	63.26	7,213.4	1,402.4	2,783.8	3,117.1	0.00	0.00	
8,000.0	25.33	63.26	7,303.8	1,421.6	2,822.1	3,159.9	0.00	0.00	
8,065.2	25.33	63.26	7,362.8	1,434.2	2,847.0	3,187.8	0.00	0.00	Start 3° Drop
8,100.0	24.29	63.26	7,394.3	1,440.7	2,860.0	3,202.4	3.00	-3.00	
8,200.0	21.29	63.26	7,486.5	1,458.2	2,894.6	3,241.1	3.00	-3.00	
8,300.0	18.29	63.26	7,580.6	1,473.4	2,924.8	3,275.0	3.00	-3.00	
8,362.2	16.42	63.26	7,640.0	1,481.7	2,941.4	3,293.6	3.00	-3.00	WILLIAMS_FORK (TVD)
8,400.0	15.29	63.26	7,676.3	1,486.4	2,950.6	3,303.9	3.00	-3.00	
8,403.8	15.18	63.26	7,680.0	1,486.8	2,951.5	3,304.9	3.00	-3.00	TOG (TVD); Inc=15°
8,500.0	12.29	63.26	7,773.4	1,497.1	2,971.9	3,327.7	3.00	-3.00	
8,600.0	9.29	63.26	7,871.7	1,505.5	2,988.6	3,346.4	3.00	-3.00	
8,700.0	6.29	63.26	7,970.7	1,511.6	3,000.7	3,360.0	3.00	-3.00	
8,800.0	3.29	63.26	8,070.4	1,515.4	3,008.2	3,368.3	3.00	-3.00	
8,909.7	0.00	0.00	8,180.0	1,516.8	3,011.0	3,371.5	3.00	-3.00	EOD @ Inc. = 0°
9,000.0	0.02	239.56	8,270.3	1,516.8	3,011.0	3,371.5	0.02	0.02	
9,100.0	0.04	239.56	8,370.3	1,516.8	3,011.0	3,371.4	0.02	0.02	
9,200.0	0.06	239.56	8,470.3	1,516.7	3,010.9	3,371.3	0.02	0.02	
9,300.0	0.08	239.56	8,570.3	1,516.7	3,010.8	3,371.2	0.02	0.02	
9,400.0	0.10	239.56	8,670.3	1,516.6	3,010.7	3,371.1	0.02	0.02	
9,500.0	0.12	239.56	8,770.3	1,516.5	3,010.5	3,370.9	0.02	0.02	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site:</b>	S27-T4S-R96W (M27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

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	0.13	239.56	8,870.3	1,516.4	3,010.3	3,370.7	0.02	0.02	
9,690.7	0.15	239.56	8,961.0	1,516.3	3,010.1	3,370.5	0.02	0.02	PRICE_Marker (TVD)
9,700.0	0.15	239.56	8,970.3	1,516.3	3,010.1	3,370.4	0.02	0.02	
9,800.0	0.17	239.56	9,070.3	1,516.1	3,009.9	3,370.1	0.02	0.02	
9,900.0	0.19	239.56	9,170.3	1,516.0	3,009.6	3,369.8	0.02	0.02	
10,000.0	0.21	239.56	9,270.3	1,515.8	3,009.3	3,369.5	0.02	0.02	
10,100.0	0.23	239.56	9,370.3	1,515.6	3,008.9	3,369.1	0.02	0.02	
10,200.0	0.25	239.56	9,470.3	1,515.4	3,008.6	3,368.7	0.02	0.02	
10,300.0	0.27	239.56	9,570.3	1,515.1	3,008.2	3,368.2	0.02	0.02	
10,400.0	0.29	239.56	9,670.3	1,514.9	3,007.8	3,367.7	0.02	0.02	
10,500.0	0.31	239.56	9,770.3	1,514.6	3,007.3	3,367.2	0.02	0.02	
10,600.0	0.33	239.56	9,870.3	1,514.3	3,006.8	3,366.6	0.02	0.02	
10,700.0	0.35	239.56	9,970.3	1,514.0	3,006.3	3,366.0	0.02	0.02	
10,800.0	0.37	239.56	10,070.3	1,513.7	3,005.8	3,365.4	0.02	0.02	
10,900.0	0.39	239.56	10,170.3	1,513.4	3,005.2	3,364.7	0.02	0.02	
11,000.0	0.41	239.56	10,270.3	1,513.0	3,004.6	3,364.1	0.02	0.02	
11,100.0	0.43	239.56	10,370.3	1,512.7	3,004.0	3,363.3	0.02	0.02	
11,200.0	0.45	239.56	10,470.3	1,512.3	3,003.3	3,362.6	0.02	0.02	
11,300.0	0.47	239.56	10,570.3	1,511.9	3,002.6	3,361.8	0.02	0.02	
11,400.0	0.49	239.56	10,670.3	1,511.4	3,001.9	3,360.9	0.02	0.02	
11,500.0	0.51	239.56	10,770.3	1,511.0	3,001.2	3,360.1	0.02	0.02	
11,559.7	0.52	239.56	10,830.0	1,510.7	3,000.7	3,359.5	0.02	0.02	CAMEO (TVD)
11,600.0	0.53	239.56	10,870.3	1,510.6	3,000.4	3,359.2	0.02	0.02	
11,700.0	0.55	239.56	10,970.3	1,510.1	2,999.6	3,358.2	0.02	0.02	
11,800.0	0.56	239.56	11,070.3	1,509.6	2,998.7	3,357.3	0.02	0.02	
11,900.0	0.58	239.56	11,170.3	1,509.1	2,997.9	3,356.3	0.02	0.02	
12,000.0	0.60	239.56	11,270.3	1,508.6	2,997.0	3,355.2	0.02	0.02	
12,100.0	0.62	239.56	11,370.2	1,508.0	2,996.1	3,354.2	0.02	0.02	
12,159.8	0.64	239.56	11,430.0	1,507.7	2,995.5	3,353.5	0.02	0.02	ROLLINS (TVD)
12,200.0	0.64	239.56	11,470.2	1,507.5	2,995.1	3,353.1	0.02	0.02	
12,309.8	0.66	239.56	11,580.0	1,506.8	2,994.0	3,351.8	0.02	0.02	Drillers TD @ 12,309.8' MD
12,366.8	0.66	239.56	11,637.0	1,506.5	2,993.4	3,351.2	0.00	0.00	COZZETTE (TVD)
12,400.0	0.66	239.56	11,670.2	1,506.3	2,993.1	3,350.8	0.00	0.00	
12,500.0	0.66	239.56	11,770.2	1,505.7	2,992.1	3,349.6	0.00	0.00	
12,585.8	0.66	239.56	11,856.0	1,505.2	2,991.3	3,348.6	0.00	0.00	CORCORAN (TVD)
12,600.0	0.66	239.56	11,870.2	1,505.1	2,991.1	3,348.5	0.00	0.00	
12,700.0	0.66	239.56	11,970.2	1,504.5	2,990.1	3,347.3	0.00	0.00	
12,797.8	0.66	239.56	12,068.0	1,504.0	2,989.1	3,346.2	0.00	0.00	UPPER_SEGO (TVD)
12,800.0	0.66	239.56	12,070.2	1,503.9	2,989.1	3,346.1	0.00	0.00	
12,900.0	0.66	239.56	12,170.2	1,503.4	2,988.1	3,345.0	0.00	0.00	
13,000.0	0.66	239.56	12,270.2	1,502.8	2,987.1	3,343.8	0.00	0.00	
13,047.8	0.66	239.56	12,318.0	1,502.5	2,986.6	3,343.3	0.00	0.00	SEGO_BASE_TARGET (TVD)
13,100.0	0.66	239.56	12,370.2	1,502.2	2,986.1	3,342.7	0.00	0.00	
13,200.0	0.66	239.56	12,470.2	1,501.6	2,985.1	3,341.5	0.00	0.00	
13,309.8	0.66	239.56	12,580.0	1,500.9	2,984.0	3,340.2	0.00	0.00	Permit TD @ 13,309.8' MD

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site:</b>	S27-T4S-R96W (M27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

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									
M27 496 8510C-27 PBH - plan hits target center - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	11,580.0	1,506.8	2,994.0	1,680,530.66	2,253,994.00	39° 40' 19.09 N	108° 9' 1.98 W
M27 496 8510C-27 TGT - plan hits target center - Point	0.00	0.00	8,180.0	1,516.8	3,011.0	1,680,540.15	2,254,011.29	39° 40' 19.19 N	108° 9' 1.76 W

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
1,136.1	1,100.0	A_GROOVE (TVD)			
1,304.2	1,252.0	B_GROOVE (TVD)			
2,375.2	2,220.0	Garden Gulch Member (TVD)			
5,966.6	5,466.0	WASATCH_G (TVD)			
8,362.2	7,640.0	WILLIAMS_FORK (TVD)			
8,403.8	7,680.0	TOG (TVD); Inc=15°			
9,690.7	8,961.0	PRICE_Marker (TVD)			
11,559.7	10,830.0	CAMEO (TVD)			
12,159.8	11,430.0	ROLLINS (TVD)			
12,366.8	11,637.0	COZZETTE (TVD)			
12,585.8	11,856.0	CORCORAN (TVD)			
12,797.8	12,068.0	UPPER_SEGO (TVD)			
13,047.8	12,318.0	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'
1,044.5	1,017.2	82.6	164.0	EOB @ Inc. = 25.33°
8,065.2	7,362.8	1,434.2	2,847.0	Start 3° Drop
8,909.7	8,180.0	1,516.8	3,011.0	EOD @ Inc. = 0°
12,309.8	11,580.0	1,506.8	2,994.0	Drillers TD @ 12,309.8' MD
13,309.8	12,580.0	1,500.9	2,984.0	Permit TD @ 13,309.8' MD

# **EnCana Oil & Gas (USA) Inc**

**Story Gulch**

**S27-T4S-R96W (M27 496)**

**8510C-27 M27 496**

**DD**

**Plan #2**

## **Anticollision Report**

**05 January, 2012**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #2		
<b>Filter type:</b>	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
<b>Interpolation Method:</b>	MD Interval 100.0ft	<b>Error Model:</b>	Systematic Ellipse
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 200.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	1/5/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.0	13,309.8	Plan #2 (DD)	MWD	Geolink MWD	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

### Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
<b>Offset Well - Wellbore - Design</b>						
S27-T4S-R96W (M27 496)						
8502A-34 M27 496 was 8502A-28 - DD - Plan #2	242.3	242.3	131.7	131.0	170.618	CC, ES
8502A-34 M27 496 was 8502A-28 - DD - Plan #2	900.0	867.9	199.4	194.1	37.576	SF
8502B-34 M27 496 was 8502B-28 - DD - Plan #2	200.0	200.0	139.5	138.8	224.462	CC, ES
8502B-34 M27 496 was 8502B-28 - DD - Plan #2	800.0	765.9	199.0	194.8	46.529	SF
8502C-34 M27 496 was 8502C-28 - DD - Plan #2	241.1	241.1	159.9	159.2	208.365	CC, ES
8502C-34 M27 496 was 8502C-28 - DD - Plan #2	700.0	672.1	196.4	193.2	61.414	SF
8502D-34 M27 496 was 8502D-28 - DD - Plan #2	200.0	200.0	168.0	167.4	270.453	CC, ES
8502D-34 M27 496 was 8502D-28 - DD - Plan #2	500.0	477.4	186.8	185.0	101.573	SF
8503A-34 M27 496 was 8503A-28 - DD - Plan #2	200.0	200.0	131.9	131.3	212.363	CC
8503A-34 M27 496 was 8503A-28 - DD - Plan #2	300.0	300.0	132.1	131.1	134.951	ES
8503A-34 M27 496 was 8503A-28 - DD - Plan #2	900.0	884.4	187.1	183.2	47.989	SF
8503B-34 M27 496 was 8503B-28 - DD - Plan #2	200.0	200.0	140.0	139.4	225.341	CC, ES
8503B-34 M27 496 was 8503B-28 - DD - Plan #2	700.0	674.2	190.6	187.7	64.951	SF
8503C-34 M27 496 was 8503C-28 - DD - Plan #2	200.0	200.0	159.6	158.9	256.802	CC
8503C-34 M27 496 was 8503C-28 - DD - Plan #2	221.1	221.1	159.6	158.9	229.082	ES
8503C-34 M27 496 was 8503C-28 - DD - Plan #2	600.0	576.9	185.7	183.4	80.368	SF
8503D-34 M27 496 was 8503D-28 - DD - Plan #2	200.0	200.0	167.6	167.0	269.794	CC, ES
8503D-34 M27 496 was 8503D-28 - DD - Plan #2	600.0	572.6	199.3	197.0	86.219	SF
8507E-27 M27 496 - DD - Plan #1	200.0	200.0	37.3	36.7	60.021	CC, ES
8507E-27 M27 496 - DD - Plan #1	1,900.0	1,912.9	195.9	174.2	9.027	SF
8507F-27 M27 496 - DD - Plan #1	200.0	200.0	35.8	35.2	57.583	CC
8507F-27 M27 496 - DD - Plan #1	300.0	299.8	36.1	35.1	36.607	ES
8507F-27 M27 496 - DD - Plan #1	3,000.0	2,992.6	193.4	155.4	5.082	SF
8510A-27 M27 496 - DD - Plan #2	200.0	200.0	28.6	28.0	46.016	CC
8510A-27 M27 496 - DD - Plan #2	300.0	299.9	28.8	27.8	29.204	ES
8510A-27 M27 496 - DD - Plan #2	4,400.0	4,395.0	198.5	139.9	3.387	SF
8510B-27 M27 496 - DD - Plan #1	200.0	200.0	29.4	28.8	47.341	CC, ES
8510B-27 M27 496 - DD - Plan #1	6,200.0	6,243.9	131.7	39.0	1.421	Level 3, SF
8510D-27 M27 496 - DD - Plan #2	200.0	200.0	8.1	7.5	13.066	CC, ES
8510D-27 M27 496 - DD - Plan #2	8,000.0	8,041.5	186.2	74.3	1.663	SF
8510E-27 M27 496 - DD - Plan #2	200.0	200.0	27.3	26.7	43.941	CC
8510E-27 M27 496 - DD - Plan #2	300.0	299.8	27.6	26.6	27.935	ES
8510E-27 M27 496 - DD - Plan #2	4,300.0	4,294.5	199.6	142.7	3.508	SF
8510G-27 M27 496 - DD - Plan #1	200.0	200.0	28.8	28.2	46.420	CC, ES
8510G-27 M27 496 - DD - Plan #1	500.0	499.3	41.3	39.5	23.620	SF
8511C-27 M27 496 - DD - Plan #1	200.0	200.0	11.4	10.7	18.288	CC, ES
8511C-27 M27 496 - DD - Plan #1	300.0	300.0	13.4	12.4	13.794	SF
8511D-27 M27 496 - DD - Plan #1	200.0	200.0	8.1	7.5	13.039	CC, ES
8511D-27 M27 496 - DD - Plan #1	300.0	299.8	9.4	8.4	9.554	SF
8511G-27 M27 496 - DD - Plan #2	249.7	249.7	19.6	18.8	24.506	CC
8511G-27 M27 496 - DD - Plan #2	300.0	300.0	19.7	18.7	20.098	ES
8511G-27 M27 496 - DD - Plan #2	500.0	500.5	23.4	21.6	13.349	SF
8512E-27 M27 496 - DD - Plan #3	200.0	200.0	21.4	20.8	34.413	CC, ES
8512E-27 M27 496 - DD - Plan #3	400.0	399.6	26.9	25.5	19.940	SF
8514A-27 M27 496 - DD - Plan #1	200.0	200.0	48.8	48.2	78.614	CC
8514A-27 M27 496 - DD - Plan #1	500.0	502.2	49.2	47.3	26.887	ES
8514A-27 M27 496 - DD - Plan #1	700.0	701.5	57.0	54.3	21.203	SF
8514B-27 M27 496 - DD - Plan #1	493.5	494.0	46.5	44.7	25.050	CC
8514B-27 M27 496 - DD - Plan #1	500.0	500.5	46.5	44.6	24.635	ES
8514B-27 M27 496 - DD - Plan #1	700.0	698.9	54.4	51.6	18.876	SF
8514C-27 M27 496 - DD - Plan #1	200.0	200.0	76.2	75.6	122.648	CC
8514C-27 M27 496 - DD - Plan #1	300.0	300.0	76.5	75.5	78.143	ES
8514C-27 M27 496 - DD - Plan #1	800.0	796.5	116.0	112.8	35.795	SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
S27-T4S-R96W (M27 496)						
8514D-27 M27 496 - DD - Plan #1	200.0	200.0	84.2	83.6	135.575	CC
8514D-27 M27 496 - DD - Plan #1	300.0	300.0	84.5	83.5	86.311	ES
8514D-27 M27 496 - DD - Plan #1	800.0	792.5	123.1	119.6	35.206	SF
8514E-27 M27 496 - DD - Plan #2	200.0	200.0	103.7	103.1	166.953	CC
8514E-27 M27 496 - DD - Plan #2	300.0	300.0	103.9	102.9	106.163	ES
8514E-27 M27 496 - DD - Plan #2	900.0	884.0	169.0	165.0	41.522	SF
8514F-27 M27 496 - DD - Plan #2	200.0	200.0	111.5	110.9	179.421	CC
8514F-27 M27 496 - DD - Plan #2	300.0	300.0	111.7	110.7	114.073	ES
8514F-27 M27 496 - DD - Plan #2	900.0	878.3	186.5	182.3	44.227	SF
8515A-27 M27 496 - DD - Plan #1	200.0	200.0	55.9	55.3	89.938	CC, ES
8515A-27 M27 496 - DD - Plan #1	1,800.0	1,785.4	193.1	173.7	9.947	SF
8515B-27 M27 496 - DD - Plan #1	200.0	200.0	56.8	56.2	91.422	CC, ES
8515B-27 M27 496 - DD - Plan #1	1,600.0	1,589.2	197.6	181.9	12.548	SF
8515C-27 M27 496 - DD - Plan #1	272.8	272.8	75.5	74.6	85.619	CC
8515C-27 M27 496 - DD - Plan #1	300.0	300.0	75.5	74.5	77.100	ES
8515C-27 M27 496 - DD - Plan #1	1,300.0	1,286.3	184.3	173.4	16.921	SF
8515D-27 M27 496 - DD - Plan #1	200.0	200.0	83.6	82.9	134.488	CC, ES
8515D-27 M27 496 - DD - Plan #1	1,200.0	1,174.3	194.1	184.0	19.314	SF
8515E-27 M27 496 - DD - Plan #1	284.8	284.7	104.0	103.1	112.571	CC
8515E-27 M27 496 - DD - Plan #1	300.0	300.0	104.0	103.1	106.282	ES
8515E-27 M27 496 - DD - Plan #1	1,100.0	1,075.5	196.7	188.8	24.901	SF
8515F-27 M27 496 - DD - Plan #1	200.0	200.0	112.1	111.5	180.479	CC, ES
8515F-27 M27 496 - DD - Plan #1	900.0	870.2	181.9	176.3	32.633	SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
S27-T4S-R96W (M27 496) - 8502A-34 M27 496 was 8502A-28 - DD - Plan #2													Offset Well Error:		0.0 ft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	152.04	-116.4	61.8	131.7						
100.0	100.0	100.0	100.0	0.1	0.1	152.04	-116.4	61.8	131.7	131.5	0.27	483.866			
200.0	200.0	200.0	200.0	0.3	0.3	152.04	-116.4	61.8	131.7	131.1	0.62	212.031			
242.3	242.3	242.3	242.3	0.4	0.4	88.98	-116.4	61.8	131.7	131.0	0.77	170.618	CC, ES		
300.0	300.0	297.9	297.9	0.5	0.5	89.66	-116.5	62.4	132.1	131.1	0.98	135.396			
400.0	399.6	393.8	393.6	0.7	0.7	91.15	-117.4	67.1	135.2	133.8	1.38	98.308			
500.0	498.8	489.4	488.8	1.0	0.9	92.91	-119.2	76.5	141.5	139.6	1.87	75.699			
600.0	597.1	584.8	583.1	1.4	1.2	94.77	-121.9	90.5	151.1	148.6	2.49	60.610			
700.0	694.3	679.8	676.2	1.8	1.6	96.59	-125.5	109.1	163.9	160.7	3.27	50.178			
800.0	790.2	774.2	767.6	2.4	2.0	98.25	-129.9	132.0	180.1	175.9	4.20	42.832			
900.0	884.4	867.9	857.2	3.0	2.5	99.68	-135.1	159.1	199.4	194.1	5.31	37.576	SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
S27-T4S-R96W (M27 496) - 8502B-34 M27 496 was 8502B-28 - DD - Plan #2														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	152.27	-123.4	64.9	139.5					
100.0	100.0	100.0	100.0	0.1	0.1	152.27	-123.4	64.9	139.5	139.2	0.27	512.233		
200.0	200.0	200.0	200.0	0.3	0.3	152.27	-123.4	64.9	139.5	138.8	0.62	224.462	CC, ES	
300.0	300.0	295.3	295.3	0.5	0.5	89.25	-124.0	67.2	141.1	140.1	0.98	144.671		
400.0	399.6	390.4	390.1	0.7	0.7	89.96	-125.8	74.1	146.0	144.6	1.39	105.283		
500.0	498.8	485.2	484.1	1.0	1.0	91.02	-128.8	85.5	154.2	152.3	1.90	81.265		
600.0	597.1	579.5	577.0	1.4	1.3	92.31	-132.8	101.3	165.8	163.3	2.54	65.299		
700.0	694.3	673.1	668.2	1.8	1.7	93.67	-138.0	121.3	180.7	177.4	3.33	54.288		
800.0	790.2	765.9	757.6	2.4	2.2	95.00	-144.3	145.5	199.0	194.8	4.28	46.529	SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
S27-T4S-R96W (M27 496) - 8502C-34 M27 496 was 8502C-28 - DD - Plan #2													Offset Well Error:		0.0 ft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	152.33	-141.7	74.3	160.0						
100.0	100.0	100.0	100.0	0.1	0.1	152.33	-141.7	74.3	160.0	159.7	0.27	587.480			
200.0	200.0	200.0	200.0	0.3	0.3	152.33	-141.7	74.3	160.0	159.3	0.62	257.435			
241.1	241.1	241.1	241.1	0.4	0.4	89.22	-141.7	74.3	159.9	159.2	0.77	208.365 CC, ES			
300.0	300.0	297.2	297.2	0.5	0.5	89.80	-141.8	74.8	160.4	159.4	0.97	164.601			
400.0	399.6	391.5	391.3	0.7	0.7	91.13	-143.3	79.3	163.9	162.5	1.37	119.705			
500.0	498.8	485.5	484.9	1.0	0.9	92.78	-146.1	88.1	171.0	169.1	1.85	92.342			
600.0	597.1	579.1	577.5	1.4	1.2	94.60	-150.3	101.2	181.8	179.4	2.45	74.078			
700.0	694.3	672.1	668.7	1.8	1.5	96.43	-155.9	118.5	196.4	193.2	3.20	61.414 SF			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
S27-T4S-R96W (M27 496) - 8502D-34 M27 496 was 8502D-28 - DD - Plan #2															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	152.27	-148.7	78.2	168.0						
100.0	100.0	100.0	100.0	0.1	0.1	152.27	-148.7	78.2	168.0	167.8	0.27	617.188			
200.0	200.0	200.0	200.0	0.3	0.3	152.27	-148.7	78.2	168.0	167.4	0.62	270.453 CC, ES			
300.0	300.0	292.9	292.8	0.5	0.5	89.38	-149.9	80.1	170.1	169.1	0.97	175.590			
400.0	399.6	385.4	385.2	0.7	0.7	90.44	-153.5	85.8	176.3	175.0	1.36	129.352			
500.0	498.8	477.4	476.4	1.0	0.9	92.02	-159.4	95.2	186.8	185.0	1.84	101.573 SF			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
S27-T4S-R96W (M27 496) - 8503A-34 M27 496 was 8503A-28 - DD - Plan #2													Offset Well Error:		0.0 ft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	155.86	-120.4	54.0	131.9						
100.0	100.0	100.0	100.0	0.1	0.1	155.86	-120.4	54.0	131.9	131.7	0.27	484.622			
200.0	200.0	200.0	200.0	0.3	0.3	155.86	-120.4	54.0	131.9	131.3	0.62	212.363 CC			
300.0	300.0	300.0	300.0	0.5	0.5	93.73	-120.4	54.0	132.1	131.1	0.98	134.951 ES			
400.0	399.6	399.6	399.6	0.7	0.7	97.07	-120.4	54.0	132.8	131.5	1.37	96.759			
500.0	498.8	498.8	498.8	1.0	0.8	102.46	-120.4	54.0	135.1	133.2	1.82	74.059			
600.0	597.1	597.1	597.1	1.4	1.0	109.50	-120.4	54.0	140.2	137.9	2.33	60.140			
700.0	694.3	694.3	694.3	1.8	1.2	117.51	-120.4	54.0	149.7	146.9	2.87	52.189			
800.0	790.2	790.2	790.2	2.4	1.3	125.66	-120.4	54.0	165.1	161.7	3.40	48.537			
900.0	884.4	884.4	884.4	3.0	1.5	133.25	-120.4	54.0	187.1	183.2	3.90	47.989 SF			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
S27-T4S-R96W (M27 496) - 8503B-34 M27 496 was 8503B-28 - DD - Plan #2															
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	155.59	-127.5	57.9	140.0						
100.0	100.0	100.0	100.0	0.1	0.1	155.59	-127.5	57.9	140.0	139.7	0.27	514.240			
200.0	200.0	200.0	200.0	0.3	0.3	155.59	-127.5	57.9	140.0	139.4	0.62	225.341	CC, ES		
300.0	300.0	295.3	295.3	0.5	0.5	93.19	-128.8	58.7	141.8	140.8	0.97	146.045			
400.0	399.6	390.2	390.1	0.7	0.7	95.66	-132.8	61.2	147.3	146.0	1.36	108.514			
500.0	498.8	484.2	483.8	1.0	0.9	99.30	-139.4	65.3	157.2	155.3	1.81	87.009			
600.0	597.1	577.5	576.4	1.4	1.1	103.61	-148.6	71.0	171.9	169.6	2.33	73.814			
700.0	694.3	674.2	672.3	1.8	1.4	108.55	-159.1	77.6	190.6	187.7	2.93	64.951	SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
S27-T4S-R96W (M27 496) - 8503C-34 M27 496 was 8503C-28 - DD - Plan #2															
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	155.07	-144.7	67.3	159.6						
100.0	100.0	100.0	100.0	0.1	0.1	155.07	-144.7	67.3	159.6	159.3	0.27	586.036			
200.0	200.0	200.0	200.0	0.3	0.3	155.07	-144.7	67.3	159.6	158.9	0.62	256.802 CC			
221.1	221.1	221.1	221.1	0.3	0.3	91.85	-144.7	67.3	159.6	158.9	0.70	229.082 ES			
300.0	300.0	297.5	297.5	0.5	0.5	92.76	-145.1	67.3	160.0	159.1	0.97	164.206			
400.0	399.6	392.1	392.0	0.7	0.7	95.69	-148.2	67.3	163.7	162.3	1.36	120.278			
500.0	498.8	485.4	485.2	1.0	0.8	100.24	-154.4	67.3	171.8	170.0	1.81	95.168			
600.0	597.1	576.9	576.2	1.4	1.1	105.73	-163.3	67.3	185.7	183.4	2.31	80.368 SF			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
S27-T4S-R96W (M27 496) - 8503D-34 M27 496 was 8503D-28 - DD - Plan #2															
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	154.88	-151.8	71.2	167.6						
100.0	100.0	100.0	100.0	0.1	0.1	154.88	-151.8	71.2	167.6	167.4	0.27	615.682			
200.0	200.0	200.0	200.0	0.3	0.3	154.88	-151.8	71.2	167.6	167.0	0.62	269.794	CC, ES		
300.0	300.0	294.4	294.4	0.5	0.5	92.43	-153.2	71.7	169.4	168.4	0.97	174.756			
400.0	399.6	388.3	388.2	0.7	0.7	94.74	-157.5	73.5	174.8	173.5	1.35	129.145			
500.0	498.8	481.2	480.7	1.0	0.9	98.21	-164.6	76.4	184.6	182.8	1.80	102.662			
600.0	597.1	572.6	571.6	1.4	1.1	102.37	-174.2	80.3	199.3	197.0	2.31	86.219	SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference															
Offset				Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-40.54	28.3	-24.2	37.3						
100.0	100.0	100.0	100.0	0.1	0.1	-40.54	28.3	-24.2	37.3	37.0	0.27	136.971			
200.0	200.0	200.0	200.0	0.3	0.3	-40.54	28.3	-24.2	37.3	36.7	0.62	60.021	CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-107.62	28.3	-24.2	38.0	37.0	0.98	38.857			
400.0	399.6	399.7	399.7	0.7	0.7	-114.38	30.3	-22.6	40.9	39.6	1.37	29.865			
500.0	498.8	499.7	499.3	1.0	0.9	-119.30	36.3	-17.5	46.4	44.5	1.84	25.233			
600.0	597.1	599.7	598.5	1.4	1.1	-122.28	46.3	-9.2	54.0	51.6	2.41	22.394			
700.0	694.3	699.8	696.9	1.8	1.5	-123.69	60.3	2.6	63.7	60.6	3.12	20.391			
800.0	790.2	799.8	794.1	2.4	1.9	-124.01	78.2	17.6	75.3	71.3	3.99	18.843			
900.0	884.4	899.8	890.0	3.0	2.5	-123.62	99.9	35.8	88.7	83.7	5.04	17.593			
1,000.0	976.8	999.6	984.0	3.8	3.1	-122.79	125.4	57.2	104.0	97.7	6.28	16.567			
1,100.0	1,067.4	1,099.3	1,076.1	4.5	3.8	-121.63	154.6	81.7	120.6	113.0	7.68	15.716			
1,200.0	1,157.8	1,198.8	1,166.0	5.3	4.6	-118.92	187.4	109.2	136.8	127.5	9.27	14.752			
1,300.0	1,248.2	1,300.6	1,255.6	6.2	5.5	-114.90	224.0	140.5	152.5	141.4	11.05	13.805			
1,400.0	1,338.6	1,408.3	1,350.1	7.0	6.4	-111.29	260.1	177.5	164.4	151.5	12.88	12.761			
1,500.0	1,428.9	1,514.7	1,443.4	7.8	7.4	-108.36	291.5	218.0	171.3	156.6	14.70	11.652			
1,600.0	1,519.3	1,614.3	1,530.6	8.6	8.2	-105.86	319.7	256.9	177.0	160.5	16.46	10.755			
1,700.0	1,609.7	1,713.8	1,617.7	9.4	9.1	-103.52	347.9	295.8	183.0	164.8	18.21	10.049			
1,800.0	1,700.1	1,813.4	1,704.9	10.2	10.0	-101.33	376.1	334.8	189.3	169.4	19.96	9.484			
1,900.0	1,790.5	1,912.9	1,792.1	11.0	10.9	-99.28	404.3	373.7	195.9	174.2	21.71	9.027	SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
S27-T4S-R96W (M27 496) - 8507F-27 M27 496 - DD - Plan #1													Offset Well Error:	0.0 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-28.74	31.4	-17.2	35.8					
100.0	100.0	100.0	100.0	0.1	0.1	-28.74	31.4	-17.2	35.8	35.5	0.27	131.408		
200.0	200.0	200.0	200.0	0.3	0.3	-28.74	31.4	-17.2	35.8	35.2	0.62	57.583 CC		
300.0	300.0	299.8	299.8	0.5	0.5	-92.02	32.8	-15.1	36.1	35.1	0.99	36.607 ES		
400.0	399.6	399.6	399.3	0.7	0.7	-92.06	37.3	-8.6	37.2	35.8	1.43	26.052		
500.0	498.8	499.4	498.2	1.0	1.0	-92.13	44.6	2.1	39.0	37.0	1.99	19.531		
600.0	597.1	599.2	596.3	1.4	1.4	-92.21	54.9	17.0	41.4	38.7	2.72	15.224		
700.0	694.3	698.9	693.3	1.8	1.8	-92.29	68.1	36.2	44.6	41.0	3.62	12.303		
800.0	790.2	798.6	788.9	2.4	2.4	-92.37	84.1	59.5	48.4	43.7	4.71	10.277		
900.0	884.4	898.3	882.8	3.0	3.0	-92.44	102.9	86.8	52.9	47.0	5.99	8.839		
1,000.0	976.8	997.9	974.9	3.8	3.7	-92.49	124.4	118.2	58.1	50.7	7.46	7.791		
1,100.0	1,067.4	1,097.5	1,064.8	4.5	4.6	-91.90	148.7	153.4	63.9	54.8	9.07	7.044		
1,200.0	1,157.8	1,197.2	1,153.3	5.3	5.4	-89.00	174.7	191.3	70.1	59.4	10.70	6.555		
1,300.0	1,248.2	1,296.9	1,241.7	6.2	6.3	-86.50	200.8	229.3	76.5	64.2	12.31	6.217		
1,400.0	1,338.6	1,396.7	1,330.2	7.0	7.1	-84.38	227.0	267.3	83.0	69.1	13.90	5.973		
1,500.0	1,428.9	1,496.4	1,418.6	7.8	8.0	-82.58	253.1	305.3	89.7	74.2	15.48	5.792		
1,600.0	1,519.3	1,596.2	1,507.1	8.6	8.9	-81.02	279.2	343.3	96.3	79.3	17.04	5.654		
1,700.0	1,609.7	1,695.9	1,595.5	9.4	9.7	-79.67	305.4	381.2	103.1	84.5	18.59	5.546		
1,800.0	1,700.1	1,795.6	1,683.9	10.2	10.6	-78.48	331.5	419.2	109.9	89.8	20.13	5.460		
1,900.0	1,790.5	1,895.4	1,772.4	11.0	11.5	-77.43	357.6	457.2	116.7	95.1	21.65	5.391		
2,000.0	1,880.9	1,995.1	1,860.8	11.8	12.4	-76.50	383.7	495.2	123.6	100.4	23.17	5.334		
2,100.0	1,971.2	2,094.9	1,949.3	12.7	13.2	-75.67	409.9	533.2	130.5	105.8	24.68	5.288		
2,200.0	2,061.6	2,194.6	2,037.7	13.5	14.1	-74.92	436.0	571.2	137.4	111.2	26.18	5.249		
2,300.0	2,152.0	2,294.4	2,126.2	14.3	15.0	-74.24	462.1	609.2	144.4	116.7	27.68	5.215		
2,400.0	2,242.4	2,394.1	2,214.6	15.1	15.9	-73.62	488.2	647.2	151.3	122.2	29.18	5.187		
2,500.0	2,332.8	2,493.9	2,303.1	15.9	16.8	-73.06	514.4	685.2	158.3	127.7	30.66	5.163		
2,600.0	2,423.2	2,593.6	2,391.5	16.7	17.6	-72.55	540.5	723.2	165.3	133.2	32.15	5.142		
2,700.0	2,513.5	2,693.3	2,480.0	17.6	18.5	-72.08	566.6	761.2	172.3	138.7	33.63	5.124		
2,800.0	2,603.9	2,793.1	2,568.4	18.4	19.4	-71.64	592.7	799.2	179.4	144.2	35.11	5.109		
2,900.0	2,694.3	2,892.8	2,656.9	19.2	20.3	-71.24	618.9	837.2	186.4	149.8	36.58	5.095		
3,000.0	2,784.7	2,992.6	2,745.3	20.0	21.1	-70.87	645.0	875.2	193.4	155.4	38.06	5.082 SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8510A-27 M27 496 - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-27.71	25.3	-13.3	28.6					
100.0	100.0	100.0	100.0	0.1	0.1	-27.71	25.3	-13.3	28.6	28.3	0.27	105.011		
200.0	200.0	200.0	200.0	0.3	0.3	-27.71	25.3	-13.3	28.6	28.0	0.62	46.016 CC		
300.0	300.0	299.9	299.8	0.5	0.5	-90.98	26.7	-11.1	28.8	27.8	0.99	29.204 ES		
400.0	399.6	399.8	399.4	0.7	0.7	-91.02	30.8	-4.4	29.5	28.1	1.43	20.688		
500.0	498.8	499.7	498.4	1.0	1.0	-91.07	37.7	6.6	30.7	28.7	2.00	15.399		
600.0	597.1	599.5	596.6	1.4	1.4	-91.14	47.4	22.0	32.4	29.7	2.72	11.897		
700.0	694.3	699.4	693.7	1.8	1.8	-91.21	59.7	41.8	34.5	30.9	3.63	9.518		
800.0	790.2	799.2	789.4	2.4	2.4	-91.28	74.7	65.8	37.1	32.4	4.72	7.868		
900.0	884.4	899.0	883.5	3.0	3.0	-91.35	92.3	94.0	40.2	34.2	6.00	6.696		
1,000.0	976.8	998.9	975.8	3.8	3.7	-91.41	112.5	126.4	43.7	36.2	7.48	5.843		
1,100.0	1,067.4	1,098.6	1,065.8	4.5	4.6	-90.57	135.3	162.7	47.6	38.5	9.09	5.238		
1,200.0	1,157.8	1,198.5	1,155.0	5.3	5.4	-87.98	159.1	200.9	51.8	41.1	10.71	4.837		
1,300.0	1,248.2	1,298.4	1,244.2	6.2	6.2	-85.78	182.9	239.0	56.0	43.7	12.31	4.552		
1,400.0	1,338.6	1,398.3	1,333.4	7.0	7.1	-83.89	206.7	277.1	60.3	46.4	13.90	4.342		
1,500.0	1,428.9	1,498.2	1,422.6	7.8	7.9	-82.26	230.5	315.2	64.7	49.2	15.47	4.183		
1,600.0	1,519.3	1,598.1	1,511.8	8.6	8.8	-80.83	254.3	353.4	69.1	52.1	17.03	4.058		
1,700.0	1,609.7	1,698.0	1,601.0	9.4	9.6	-79.57	278.2	391.5	73.6	55.0	18.58	3.959		
1,800.0	1,700.1	1,797.9	1,690.2	10.2	10.5	-78.46	302.0	429.6	78.1	57.9	20.12	3.879		
1,900.0	1,790.5	1,897.7	1,779.4	11.0	11.3	-77.47	325.8	467.8	82.6	60.9	21.65	3.813		
2,000.0	1,880.9	1,997.6	1,868.6	11.8	12.2	-76.58	349.6	505.9	87.1	63.9	23.18	3.758		
2,100.0	1,971.2	2,097.5	1,957.8	12.7	13.1	-75.78	373.4	544.0	91.7	67.0	24.69	3.712		
2,200.0	2,061.6	2,197.4	2,047.0	13.5	13.9	-75.06	397.3	582.2	96.2	70.0	26.20	3.672		
2,300.0	2,152.0	2,297.3	2,136.2	14.3	14.8	-74.40	421.1	620.3	100.8	73.1	27.71	3.639		
2,400.0	2,242.4	2,397.2	2,225.4	15.1	15.6	-73.80	444.9	658.4	105.4	76.2	29.20	3.609		
2,500.0	2,332.8	2,497.1	2,314.6	15.9	16.5	-73.25	468.7	696.5	110.0	79.3	30.70	3.584		
2,600.0	2,423.2	2,597.0	2,403.8	16.7	17.3	-72.74	492.5	734.7	114.6	82.4	32.19	3.561		
2,700.0	2,513.5	2,696.9	2,493.0	17.6	18.2	-72.28	516.3	772.8	119.2	85.6	33.67	3.541		
2,800.0	2,603.9	2,796.7	2,582.2	18.4	19.0	-71.84	540.2	810.9	123.9	88.7	35.16	3.523		
2,900.0	2,694.3	2,896.6	2,671.4	19.2	19.9	-71.44	564.0	849.1	128.5	91.9	36.64	3.508		
3,000.0	2,784.7	2,996.5	2,760.6	20.0	20.8	-71.07	587.8	887.2	133.1	95.0	38.11	3.494		
3,100.0	2,875.1	3,096.4	2,849.8	20.8	21.6	-70.72	611.6	925.3	137.8	98.2	39.59	3.481		
3,200.0	2,965.5	3,196.3	2,939.0	21.6	22.5	-70.40	635.4	963.5	142.4	101.4	41.06	3.469		
3,300.0	3,055.8	3,296.2	3,028.2	22.5	23.3	-70.09	659.3	1,001.6	147.1	104.6	42.53	3.459		
3,400.0	3,146.2	3,396.1	3,117.4	23.3	24.2	-69.81	683.1	1,039.7	151.8	107.8	44.00	3.449		
3,500.0	3,236.6	3,496.0	3,206.6	24.1	25.0	-69.54	706.9	1,077.8	156.4	111.0	45.46	3.441		
3,600.0	3,327.0	3,595.8	3,295.8	24.9	25.9	-69.28	730.7	1,116.0	161.1	114.2	46.93	3.433		
3,700.0	3,417.4	3,695.7	3,385.0	25.7	26.8	-69.05	754.5	1,154.1	165.8	117.4	48.39	3.425		
3,800.0	3,507.7	3,795.6	3,474.2	26.5	27.6	-68.82	778.3	1,192.2	170.4	120.6	49.86	3.419		
3,900.0	3,598.1	3,895.5	3,563.4	27.4	28.5	-68.61	802.2	1,230.4	175.1	123.8	51.32	3.412		
4,000.0	3,688.5	3,995.4	3,652.6	28.2	29.3	-68.40	826.0	1,268.5	179.8	127.0	52.78	3.407		
4,100.0	3,778.9	4,095.3	3,741.8	29.0	30.2	-68.21	849.8	1,306.6	184.5	130.2	54.24	3.401		
4,200.0	3,869.3	4,195.2	3,831.0	29.8	31.0	-68.03	873.6	1,344.8	189.1	133.5	55.69	3.396		
4,300.0	3,959.7	4,295.1	3,920.2	30.6	31.9	-67.85	897.4	1,382.9	193.8	136.7	57.15	3.392		
4,400.0	4,050.0	4,395.0	4,009.4	31.4	32.8	-67.69	921.3	1,421.0	198.5	139.9	58.61	3.387 SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

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<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8510B-27 M27 496 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-43.72	21.3	-20.3	29.4					
100.0	100.0	100.0	100.0	0.1	0.1	-43.72	21.3	-20.3	29.4	29.1	0.27	108.035		
200.0	200.0	200.0	200.0	0.3	0.3	-43.72	21.3	-20.3	29.4	28.8	0.62	47.341	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	-111.70	21.3	-20.3	30.3	29.3	0.98	30.977		
400.0	399.6	399.6	399.6	0.7	0.7	-123.97	21.3	-20.3	34.0	32.6	1.36	25.060		
500.0	498.8	498.8	498.8	1.0	0.8	-138.42	21.3	-20.3	42.7	41.0	1.74	24.572		
600.0	597.1	597.1	597.1	1.4	1.0	-150.25	21.3	-20.3	57.7	55.6	2.10	27.515		
700.0	694.3	697.9	697.9	1.8	1.2	-157.93	22.5	-18.1	76.6	74.2	2.44	31.387		
800.0	790.2	800.0	799.7	2.4	1.4	-162.39	26.4	-11.2	96.4	93.6	2.79	34.562		
900.0	884.4	903.3	902.1	3.0	1.6	-165.20	33.0	0.7	116.5	113.4	3.14	37.073		
1,000.0	976.8	1,007.9	1,004.8	3.8	2.0	-167.05	42.4	17.5	136.7	133.2	3.50	39.022		
1,100.0	1,067.4	1,113.8	1,107.6	4.5	2.4	-168.33	54.8	39.6	155.9	152.0	3.89	40.116		
1,200.0	1,157.8	1,221.7	1,210.8	5.3	3.0	-168.95	70.2	67.2	170.3	166.0	4.31	39.527		
1,300.0	1,248.2	1,331.1	1,313.4	6.2	3.6	-169.03	88.7	100.3	179.3	174.5	4.77	37.608		
1,400.0	1,338.6	1,441.2	1,414.3	7.0	4.4	-168.65	110.2	138.8	182.7	177.4	5.27	34.627		
1,500.0	1,428.9	1,548.5	1,510.1	7.8	5.3	-167.84	133.7	180.9	180.6	174.8	5.84	30.916		
1,600.0	1,519.3	1,648.4	1,598.6	8.6	6.2	-166.95	156.3	221.3	177.2	170.8	6.45	27.499		
1,700.0	1,609.7	1,748.3	1,687.1	9.4	7.0	-166.02	178.9	261.7	173.9	166.8	7.10	24.506		
1,800.0	1,700.1	1,848.2	1,775.6	10.2	7.9	-165.05	201.5	302.2	170.6	162.8	7.80	21.872		
1,900.0	1,790.5	1,948.1	1,864.2	11.0	8.8	-164.04	224.1	342.6	167.3	158.8	8.56	19.548		
2,000.0	1,880.9	2,048.0	1,952.7	11.8	9.6	-163.00	246.6	383.0	164.1	154.7	9.38	17.495		
2,100.0	1,971.2	2,147.9	2,041.2	12.7	10.5	-161.91	269.2	423.4	161.0	150.7	10.27	15.677		
2,200.0	2,061.6	2,247.8	2,129.7	13.5	11.4	-160.78	291.8	463.8	157.9	146.6	11.22	14.066		
2,300.0	2,152.0	2,347.7	2,218.3	14.3	12.3	-159.61	314.4	504.2	154.8	142.6	12.25	12.638		
2,400.0	2,242.4	2,447.6	2,306.8	15.1	13.1	-158.39	337.0	544.7	151.9	138.5	13.36	11.370		
2,500.0	2,332.8	2,547.5	2,395.3	15.9	14.0	-157.12	359.6	585.1	149.0	134.4	14.54	10.244		
2,600.0	2,423.2	2,647.4	2,483.8	16.7	14.9	-155.81	382.1	625.5	146.2	130.4	15.81	9.243		
2,700.0	2,513.5	2,747.3	2,572.4	17.6	15.8	-154.44	404.7	665.9	143.4	126.3	17.17	8.353		
2,800.0	2,603.9	2,847.2	2,660.9	18.4	16.7	-153.02	427.3	706.3	140.8	122.2	18.62	7.562		
2,900.0	2,694.3	2,947.1	2,749.4	19.2	17.6	-151.55	449.9	746.8	138.2	118.1	20.16	6.858		
3,000.0	2,784.7	3,047.0	2,838.0	20.0	18.4	-150.02	472.5	787.2	135.8	114.0	21.79	6.231		
3,100.0	2,875.1	3,146.9	2,926.5	20.8	19.3	-148.44	495.1	827.6	133.4	109.9	23.52	5.673		
3,200.0	2,965.5	3,246.8	3,015.0	21.6	20.2	-146.80	517.7	868.0	131.2	105.8	25.34	5.176		
3,300.0	3,055.8	3,346.7	3,103.5	22.5	21.1	-145.10	540.2	908.4	129.0	101.8	27.25	4.734		
3,400.0	3,146.2	3,446.6	3,192.1	23.3	22.0	-143.35	562.8	948.8	127.0	97.7	29.26	4.339		
3,500.0	3,236.6	3,546.5	3,280.6	24.1	22.9	-141.55	585.4	989.3	125.1	93.7	31.36	3.988		
3,600.0	3,327.0	3,646.4	3,369.1	24.9	23.8	-139.69	608.0	1,029.7	123.3	89.7	33.55	3.675		
3,700.0	3,417.4	3,746.3	3,457.6	25.7	24.6	-137.78	630.6	1,070.1	121.6	85.8	35.82	3.396		
3,800.0	3,507.7	3,846.2	3,546.2	26.5	25.5	-135.82	653.2	1,110.5	120.1	82.0	38.17	3.147		
3,900.0	3,598.1	3,946.1	3,634.7	27.4	26.4	-133.81	675.8	1,150.9	118.8	78.2	40.59	2.926		
4,000.0	3,688.5	4,046.0	3,723.2	28.2	27.3	-131.75	698.3	1,191.3	117.6	74.5	43.07	2.730		
4,100.0	3,778.9	4,145.9	3,811.7	29.0	28.2	-129.66	720.9	1,231.8	116.5	70.9	45.60	2.555		
4,200.0	3,869.3	4,245.8	3,900.3	29.8	29.1	-127.53	743.5	1,272.2	115.6	67.4	48.18	2.400		
4,300.0	3,959.7	4,345.7	3,988.8	30.6	30.0	-125.38	766.1	1,312.6	114.9	64.1	50.78	2.262		
4,400.0	4,050.0	4,445.7	4,077.3	31.4	30.8	-123.19	788.7	1,353.0	114.3	60.9	53.41	2.140		
4,500.0	4,140.4	4,545.6	4,165.9	32.3	31.7	-120.99	811.3	1,393.4	113.9	57.9	56.04	2.032		
4,600.0	4,230.8	4,645.5	4,254.4	33.1	32.6	-118.78	833.9	1,433.8	113.7	55.0	58.67	1.937		
4,687.7	4,310.1	4,733.1	4,332.0	33.8	33.4	-116.83	853.7	1,469.3	113.6	52.6	60.95	1.864		
4,700.0	4,321.2	4,745.4	4,342.9	33.9	33.5	-116.56	856.4	1,474.3	113.6	52.3	61.27	1.854		
4,800.0	4,411.6	4,845.3	4,431.4	34.7	34.4	-114.34	879.0	1,514.7	113.7	49.9	63.85	1.781		
4,900.0	4,502.0	4,945.2	4,520.0	35.5	35.3	-112.13	901.6	1,555.1	114.0	47.6	66.39	1.717		
5,000.0	4,592.3	5,045.1	4,608.5	36.4	36.2	-109.93	924.2	1,595.5	114.4	45.6	68.87	1.661		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8510B-27 M27 496 - DD - Plan #1													Offset Site Error:	0.0 ft	
Survey Program: O-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)					
5,100.0	4,682.7	5,145.0	4,697.0	37.2	37.1	-107.75	946.8	1,635.9	115.0	43.7	71.30	1.614			
5,200.0	4,773.1	5,244.9	4,785.5	38.0	37.9	-105.60	969.4	1,676.3	115.8	42.2	73.65	1.572			
5,300.0	4,863.5	5,344.8	4,874.1	38.8	38.8	-103.48	991.9	1,716.8	116.8	40.8	75.93	1.538			
5,400.0	4,953.9	5,444.7	4,962.6	39.6	39.7	-101.40	1,014.5	1,757.2	117.8	39.7	78.13	1.508			
5,500.0	5,044.3	5,544.6	5,051.1	40.4	40.6	-99.36	1,037.1	1,797.6	119.1	38.8	80.25	1.484	Level 3		
5,600.0	5,134.6	5,644.5	5,139.6	41.3	41.5	-97.36	1,059.7	1,838.0	120.5	38.2	82.28	1.464	Level 3		
5,700.0	5,225.0	5,744.4	5,228.2	42.1	42.4	-95.41	1,082.3	1,878.4	122.0	37.8	84.23	1.449	Level 3		
5,800.0	5,315.4	5,844.3	5,316.7	42.9	43.3	-93.51	1,104.9	1,918.9	123.7	37.6	86.09	1.437	Level 3		
5,900.0	5,405.8	5,944.2	5,405.2	43.7	44.2	-91.67	1,127.5	1,959.3	125.5	37.7	87.86	1.429	Level 3		
6,000.0	5,496.2	6,044.1	5,493.7	44.5	45.1	-89.87	1,150.0	1,999.7	127.5	37.9	89.55	1.423	Level 3		
6,100.0	5,586.6	6,144.0	5,582.3	45.4	45.9	-88.14	1,172.6	2,040.1	129.5	38.4	91.16	1.421	Level 3		
6,200.0	5,676.9	6,243.9	5,670.8	46.2	46.8	-86.46	1,195.2	2,080.5	131.7	39.0	92.69	1.421	Level 3, SF		
6,300.0	5,767.3	6,343.8	5,759.3	47.0	47.7	-84.83	1,217.8	2,120.9	134.0	39.8	94.15	1.423	Level 3		
6,400.0	5,857.7	6,443.7	5,847.9	47.8	48.6	-83.26	1,240.4	2,161.4	136.4	40.8	95.54	1.427	Level 3		
6,500.0	5,948.1	6,543.6	5,936.4	48.6	49.5	-81.75	1,263.0	2,201.8	138.9	42.0	96.86	1.434	Level 3		
6,600.0	6,038.5	6,643.5	6,024.9	49.4	50.4	-80.29	1,285.6	2,242.2	141.4	43.3	98.13	1.441	Level 3		
6,700.0	6,128.9	6,743.4	6,113.4	50.3	51.3	-78.88	1,308.1	2,282.6	144.1	44.8	99.33	1.451	Level 3		
6,800.0	6,219.2	6,843.3	6,202.0	51.1	52.2	-77.53	1,330.7	2,323.0	146.9	46.4	100.49	1.461	Level 3		
6,900.0	6,309.6	6,943.2	6,290.5	51.9	53.1	-76.22	1,353.3	2,363.4	149.7	48.1	101.59	1.473	Level 3		
7,000.0	6,400.0	7,043.1	6,379.0	52.7	53.9	-74.97	1,375.9	2,403.9	152.6	49.9	102.65	1.487	Level 3		
7,100.0	6,490.4	7,143.0	6,467.5	53.5	54.8	-73.76	1,398.5	2,444.3	155.6	51.9	103.67	1.501			
7,200.0	6,580.8	7,242.9	6,556.1	54.4	55.7	-72.60	1,421.1	2,484.7	158.6	54.0	104.65	1.516			
7,300.0	6,671.1	7,342.8	6,644.6	55.2	56.6	-71.48	1,443.7	2,525.1	161.7	56.1	105.60	1.531			
7,400.0	6,761.5	7,442.7	6,733.1	56.0	57.5	-70.40	1,466.2	2,565.5	164.9	58.4	106.52	1.548			
7,500.0	6,851.9	7,542.6	6,821.6	56.8	58.4	-69.37	1,488.8	2,605.9	168.1	60.7	107.41	1.565			
7,600.0	6,942.3	7,642.5	6,910.2	57.6	59.3	-68.37	1,511.4	2,646.4	171.4	63.1	108.28	1.583			
7,700.0	7,032.7	7,742.4	6,998.7	58.4	60.2	-67.41	1,534.0	2,686.8	174.7	65.6	109.12	1.601			
7,800.0	7,123.1	7,842.3	7,087.2	59.3	61.0	-66.49	1,556.6	2,727.2	178.1	68.1	109.94	1.620			
7,900.0	7,213.4	7,942.3	7,175.8	60.1	61.9	-65.60	1,579.2	2,767.6	181.5	70.7	110.75	1.639			
8,000.0	7,303.8	8,042.2	7,264.3	60.9	62.8	-64.75	1,601.7	2,808.0	185.0	73.4	111.53	1.658			
8,100.0	7,394.3	8,145.1	7,356.0	61.7	63.7	-64.14	1,624.5	2,848.8	188.1	75.6	112.46	1.672			
8,200.0	7,486.5	8,250.0	7,451.8	62.4	64.4	-63.84	1,645.4	2,886.1	190.6	77.1	113.45	1.680			
8,300.0	7,580.6	8,355.0	7,549.9	63.0	65.1	-63.57	1,663.7	2,918.8	192.8	78.5	114.29	1.687			
8,400.0	7,676.3	8,460.2	7,650.0	63.5	65.7	-63.35	1,679.3	2,946.8	194.7	79.7	114.98	1.693			
8,500.0	7,773.4	8,565.4	7,751.8	63.9	66.1	-63.16	1,692.2	2,969.9	196.3	80.8	115.54	1.699			
8,600.0	7,871.7	8,670.7	7,855.1	64.2	66.4	-63.01	1,702.4	2,988.2	197.6	81.6	115.95	1.704			
8,700.0	7,970.7	8,776.1	7,959.3	64.4	66.7	-62.89	1,709.8	3,001.4	198.5	82.3	116.24	1.708			
8,800.0	8,070.4	8,881.5	8,064.3	64.6	66.8	-62.81	1,714.4	3,009.6	199.1	82.7	116.40	1.710			
8,900.0	8,170.3	8,986.9	8,169.7	64.6	66.9	-62.76	1,716.1	3,012.7	199.3	82.9	116.44	1.712			
9,000.0	8,270.3	9,087.6	8,270.3	64.6	66.9	120.94	1,716.1	3,012.8	199.4	82.8	116.53	1.711			
9,100.0	8,370.3	9,187.6	8,370.4	64.7	67.0	120.94	1,716.1	3,012.7	199.4	82.7	116.62	1.709			
9,200.0	8,470.3	9,287.7	8,470.4	64.7	67.0	120.94	1,716.1	3,012.6	199.4	82.6	116.71	1.708			
9,300.0	8,570.3	9,387.7	8,570.4	64.8	67.1	120.94	1,716.0	3,012.5	199.4	82.5	116.81	1.707			
9,400.0	8,670.3	9,487.8	8,670.5	64.8	67.1	120.94	1,715.9	3,012.4	199.4	82.5	116.90	1.705			
9,500.0	8,770.3	9,587.8	8,770.5	64.8	67.1	120.93	1,715.9	3,012.2	199.4	82.4	117.00	1.704			
9,600.0	8,870.3	9,687.8	8,870.5	64.9	67.2	120.93	1,715.7	3,012.0	199.4	82.3	117.10	1.702			
9,700.0	8,970.3	9,787.9	8,970.6	64.9	67.2	120.93	1,715.6	3,011.8	199.4	82.2	117.19	1.701			
9,800.0	9,070.3	9,887.9	9,070.6	65.0	67.3	120.92	1,715.5	3,011.5	199.4	82.1	117.29	1.700			
9,900.0	9,170.3	9,987.9	9,170.7	65.0	67.3	120.92	1,715.3	3,011.2	199.4	82.0	117.39	1.698			
10,000.0	9,270.3	10,088.0	9,270.7	65.0	67.3	120.91	1,715.1	3,010.9	199.4	81.9	117.49	1.697			
10,100.0	9,370.3	10,188.0	9,370.7	65.1	67.4	120.91	1,714.9	3,010.6	199.4	81.8	117.58	1.695			
10,200.0	9,470.3	10,288.0	9,470.8	65.1	67.4	120.90	1,714.7	3,010.2	199.4	81.7	117.68	1.694			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft		
Survey Program: 0-MWD													Offset Well Error:		0.0 ft	
Reference													Distance		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis			Offset Wellbore Centre		Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning			
		Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)								
10,300.0	9,570.3	10,388.1	9,570.8	65.2	67.5	120.89	1,714.5	3,009.8	199.4	81.6	117.78	1.693				
10,400.0	9,670.3	10,488.1	9,670.8	65.2	67.5	120.89	1,714.2	3,009.3	199.4	81.5	117.88	1.691				
10,500.0	9,770.3	10,588.1	9,770.9	65.2	67.5	120.88	1,714.0	3,008.8	199.4	81.4	117.98	1.690				
10,600.0	9,870.3	10,688.2	9,870.9	65.3	67.6	120.87	1,713.7	3,008.3	199.4	81.3	118.08	1.688				
10,700.0	9,970.3	10,788.2	9,970.9	65.3	67.6	120.86	1,713.4	3,007.8	199.4	81.2	118.19	1.687				
10,800.0	10,070.3	10,888.2	10,071.0	65.4	67.7	120.86	1,713.1	3,007.2	199.4	81.1	118.29	1.685				
10,900.0	10,170.3	10,988.3	10,171.0	65.4	67.7	120.85	1,712.7	3,006.6	199.4	81.0	118.39	1.684				
11,000.0	10,270.3	11,088.3	10,271.0	65.4	67.7	120.84	1,712.4	3,006.0	199.4	80.9	118.49	1.682				
11,100.0	10,370.3	11,188.3	10,371.1	65.5	67.8	120.83	1,712.0	3,005.3	199.4	80.8	118.60	1.681				
11,200.0	10,470.3	11,288.4	10,471.1	65.5	67.8	120.81	1,711.6	3,004.6	199.4	80.6	118.70	1.679				
11,300.0	10,570.3	11,388.4	10,571.1	65.6	67.8	120.80	1,711.2	3,003.9	199.3	80.5	118.81	1.678				
11,400.0	10,670.3	11,488.5	10,671.1	65.6	67.9	120.79	1,710.8	3,003.1	199.3	80.4	118.91	1.676				
11,500.0	10,770.3	11,588.5	10,771.2	65.6	67.9	120.78	1,710.4	3,002.3	199.3	80.3	119.02	1.675				
11,600.0	10,870.3	11,688.5	10,871.2	65.7	68.0	120.77	1,709.9	3,001.5	199.3	80.2	119.12	1.673				
11,700.0	10,970.3	11,788.6	10,971.2	65.7	68.0	120.75	1,709.4	3,000.7	199.3	80.1	119.23	1.672				
11,800.0	11,070.3	11,888.6	11,071.3	65.8	68.0	120.74	1,708.9	2,999.8	199.3	80.0	119.34	1.670				
11,900.0	11,170.3	11,988.6	11,171.3	65.8	68.1	120.72	1,708.4	2,998.9	199.3	79.9	119.44	1.669				
12,000.0	11,270.3	12,088.7	11,271.3	65.8	68.1	120.71	1,707.9	2,997.9	199.3	79.8	119.55	1.667				
12,100.0	11,370.2	12,188.7	11,371.4	65.9	68.1	120.69	1,707.4	2,996.9	199.3	79.7	119.66	1.666				
12,200.0	11,470.2	12,288.7	11,471.4	65.9	68.2	120.68	1,706.8	2,995.9	199.3	79.6	119.77	1.664				
12,300.0	11,570.2	12,388.8	11,571.4	66.0	68.2	120.66	1,706.2	2,994.9	199.3	79.5	119.88	1.663				
12,400.0	11,670.2	12,488.8	11,671.4	66.0	68.2	120.64	1,705.6	2,993.8	199.3	79.4	119.99	1.661				
12,500.0	11,770.2	12,588.8	11,771.4	66.0	68.3	120.63	1,705.0	2,992.8	199.3	79.2	120.10	1.660				
12,600.0	11,870.2	12,688.8	11,871.4	66.1	68.3	120.61	1,704.4	2,991.7	199.3	79.1	120.21	1.658				
12,700.0	11,970.2	12,788.8	11,971.4	66.1	68.4	120.59	1,703.9	2,990.7	199.3	79.0	120.33	1.657				
12,800.0	12,070.2	12,888.8	12,071.4	66.2	68.4	120.58	1,703.3	2,989.6	199.3	78.9	120.44	1.655				
12,900.0	12,170.2	12,988.8	12,171.4	66.2	68.4	120.56	1,702.7	2,988.5	199.3	78.8	120.56	1.653				
13,000.0	12,270.2	13,088.8	12,271.4	66.2	68.5	120.54	1,702.1	2,987.5	199.3	78.7	120.67	1.652				
13,100.0	12,370.2	13,188.8	12,371.4	66.3	68.5	120.53	1,701.5	2,986.4	199.3	78.5	120.79	1.650				
13,200.0	12,470.2	13,288.8	12,471.3	66.3	68.6	120.51	1,700.9	2,985.4	199.3	78.4	120.91	1.649				
13,300.0	12,570.2	13,388.8	12,571.3	66.4	68.6	120.49	1,700.3	2,984.3	199.3	78.3	121.03	1.647				
13,309.8	12,580.0	13,398.6	12,581.2	66.4	68.6	120.49	1,700.3	2,984.2	199.3	78.3	121.04	1.647				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8510D-27 M27 496 - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-119.90	-4.0	-7.0	8.1					
100.0	100.0	100.0	100.0	0.1	0.1	-119.90	-4.0	-7.0	8.1	7.8	0.27	29.818		
200.0	200.0	200.0	200.0	0.3	0.3	-119.90	-4.0	-7.0	8.1	7.5	0.62	13.066	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	177.60	-4.0	-7.0	10.7	9.8	0.97	11.070		
400.0	399.6	399.6	399.6	0.7	0.7	178.61	-4.0	-7.0	18.6	17.3	1.32	14.124		
500.0	498.8	498.8	498.8	1.0	0.8	179.18	-4.0	-7.0	31.6	30.0	1.66	19.092		
600.0	597.1	597.1	597.1	1.4	1.0	179.47	-4.0	-7.0	49.8	47.9	1.99	25.024		
700.0	694.3	698.0	697.9	1.8	1.2	179.52	-3.0	-4.7	70.8	68.4	2.33	30.414		
800.0	790.2	800.1	799.7	2.4	1.4	179.35	0.1	2.6	91.6	89.0	2.66	34.450		
900.0	884.4	903.4	902.2	3.0	1.6	179.08	5.6	15.0	112.4	109.4	2.99	37.564		
1,000.0	976.8	1,008.0	1,004.9	3.8	2.0	178.76	13.3	32.7	132.9	129.6	3.32	40.012		
1,100.0	1,067.4	1,114.0	1,107.8	4.5	2.4	178.40	23.5	56.0	152.4	148.7	3.68	41.465		
1,200.0	1,157.8	1,221.9	1,211.0	5.3	3.0	177.95	36.2	84.9	166.9	162.9	4.06	41.151		
1,300.0	1,248.2	1,331.3	1,313.6	6.2	3.6	177.39	51.4	119.7	175.8	171.4	4.45	39.514		
1,400.0	1,338.6	1,441.4	1,414.5	7.0	4.4	176.67	69.0	160.1	179.0	174.2	4.86	36.842		
1,500.0	1,428.9	1,544.5	1,507.1	7.8	5.3	175.86	87.2	201.6	177.9	172.6	5.28	33.709		
1,600.0	1,519.3	1,644.5	1,596.7	8.6	6.1	175.04	104.9	242.1	176.6	170.9	5.71	30.923		
1,700.0	1,609.7	1,744.4	1,686.4	9.4	6.9	174.21	122.6	282.6	175.3	169.1	6.17	28.420		
1,800.0	1,700.1	1,844.4	1,776.0	10.2	7.7	173.37	140.3	323.1	174.0	167.3	6.65	26.155		
1,900.0	1,790.5	1,944.4	1,865.7	11.0	8.6	172.52	158.0	363.7	172.7	165.6	7.17	24.093		
2,000.0	1,880.9	2,044.3	1,955.3	11.8	9.4	171.65	175.7	404.2	171.6	163.8	7.72	22.210		
2,100.0	1,971.2	2,144.3	2,045.0	12.7	10.2	170.78	193.4	444.7	170.4	162.1	8.32	20.486		
2,200.0	2,061.6	2,244.2	2,134.6	13.5	11.1	169.89	211.1	485.2	169.3	160.3	8.95	18.907		
2,300.0	2,152.0	2,344.2	2,224.3	14.3	11.9	168.99	228.8	525.7	168.2	158.6	9.63	17.458		
2,400.0	2,242.4	2,444.2	2,313.9	15.1	12.7	168.08	246.6	566.2	167.2	156.8	10.36	16.132		
2,500.0	2,332.8	2,544.1	2,403.5	15.9	13.6	167.15	264.3	606.7	166.2	155.0	11.14	14.916		
2,600.0	2,423.2	2,644.1	2,493.2	16.7	14.4	166.22	282.0	647.2	165.2	153.3	11.97	13.804		
2,700.0	2,513.5	2,744.0	2,582.8	17.6	15.3	165.28	299.7	687.7	164.3	151.5	12.85	12.787		
2,800.0	2,603.9	2,844.0	2,672.5	18.4	16.1	164.32	317.4	728.3	163.5	149.7	13.79	11.858		
2,900.0	2,694.3	2,943.9	2,762.1	19.2	17.0	163.36	335.1	768.8	162.7	147.9	14.78	11.009		
3,000.0	2,784.7	3,043.9	2,851.8	20.0	17.8	162.39	352.8	809.3	161.9	146.1	15.82	10.234		
3,100.0	2,875.1	3,143.9	2,941.4	20.8	18.7	161.40	370.5	849.8	161.2	144.3	16.92	9.527		
3,200.0	2,965.5	3,243.8	3,031.1	21.6	19.5	160.41	388.2	890.3	160.5	142.4	18.07	8.882		
3,300.0	3,055.8	3,343.8	3,120.7	22.5	20.4	159.41	406.0	930.8	159.9	140.6	19.28	8.293		
3,400.0	3,146.2	3,443.7	3,210.4	23.3	21.2	158.41	423.7	971.3	159.3	138.8	20.54	7.755		
3,500.0	3,236.6	3,543.7	3,300.0	24.1	22.1	157.39	441.4	1,011.8	158.8	136.9	21.86	7.264		
3,600.0	3,327.0	3,643.7	3,389.7	24.9	22.9	156.38	459.1	1,052.3	158.3	135.1	23.23	6.815		
3,700.0	3,417.4	3,743.6	3,479.3	25.7	23.8	155.35	476.8	1,092.9	157.9	133.2	24.66	6.404		
3,800.0	3,507.7	3,843.6	3,569.0	26.5	24.6	154.32	494.5	1,133.4	157.5	131.4	26.13	6.028		
3,900.0	3,598.1	3,943.5	3,658.6	27.4	25.5	153.28	512.2	1,173.9	157.2	129.6	27.66	5.684		
4,000.0	3,688.5	4,043.5	3,748.3	28.2	26.3	152.25	529.9	1,214.4	156.9	127.7	29.23	5.369		
4,100.0	3,778.9	4,143.5	3,837.9	29.0	27.1	151.20	547.6	1,254.9	156.7	125.9	30.85	5.080		
4,200.0	3,869.3	4,243.4	3,927.6	29.8	28.0	150.16	565.3	1,295.4	156.6	124.0	32.52	4.814		
4,300.0	3,959.7	4,343.4	4,017.2	30.6	28.8	149.11	583.1	1,335.9	156.4	122.2	34.24	4.570		
4,400.0	4,050.0	4,443.3	4,106.9	31.4	29.7	148.07	600.8	1,376.4	156.4	120.4	35.99	4.345		
4,465.5	4,109.2	4,508.8	4,165.6	32.0	30.3	147.38	612.4	1,403.0	156.4	119.2	37.16	4.208		
4,500.0	4,140.4	4,543.3	4,196.5	32.3	30.5	147.02	618.5	1,417.0	156.4	118.6	37.79	4.138		
4,600.0	4,230.8	4,643.3	4,286.2	33.1	31.4	145.97	636.2	1,457.5	156.4	116.8	39.63	3.947		
4,700.0	4,321.2	4,743.2	4,375.8	33.9	32.2	144.92	653.9	1,498.0	156.5	115.0	41.50	3.771		
4,800.0	4,411.6	4,843.2	4,465.5	34.7	33.1	143.88	671.6	1,538.5	156.7	113.3	43.41	3.609		
4,900.0	4,502.0	4,943.1	4,555.1	35.5	33.9	142.84	689.3	1,579.0	156.9	111.5	45.35	3.459		
5,000.0	4,592.3	5,043.1	4,644.8	36.4	34.8	141.80	707.0	1,619.5	157.1	109.8	47.33	3.320		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
S27-T4S-R96W (M27 496) - 8510D-27 M27 496 - DD - Plan #2													Survey Program: 0-MWD		
Reference		Offset		Semi Major Axis			Distance				Warning		Offset Well Error:		0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
5,100.0	4,682.7	5,143.0	4,734.4	37.2	35.6	140.76	724.7	1,660.0	157.4	108.1	49.33	3.191			
5,200.0	4,773.1	5,243.0	4,824.1	38.0	36.5	139.73	742.4	1,700.5	157.8	106.4	51.36	3.072			
5,300.0	4,863.5	5,343.0	4,913.7	38.8	37.3	138.70	760.2	1,741.0	158.2	104.8	53.42	2.961			
5,400.0	4,953.9	5,442.9	5,003.4	39.6	38.2	137.68	777.9	1,781.6	158.6	103.1	55.50	2.858			
5,500.0	5,044.3	5,542.9	5,093.0	40.4	39.0	136.66	795.6	1,822.1	159.2	101.6	57.60	2.763			
5,600.0	5,134.6	5,642.8	5,182.7	41.3	39.9	135.66	813.3	1,862.6	159.7	100.0	59.72	2.674			
5,700.0	5,225.0	5,742.8	5,272.3	42.1	40.7	134.65	831.0	1,903.1	160.3	98.5	61.86	2.592			
5,800.0	5,315.4	5,842.8	5,362.0	42.9	41.6	133.66	848.7	1,943.6	161.0	97.0	64.01	2.515			
5,900.0	5,405.8	5,942.7	5,451.6	43.7	42.4	132.68	866.4	1,984.1	161.7	95.5	66.17	2.443			
6,000.0	5,496.2	6,042.7	5,541.3	44.5	43.3	131.70	884.1	2,024.6	162.4	94.1	68.35	2.376			
6,100.0	5,586.6	6,142.6	5,630.9	45.4	44.1	130.73	901.8	2,065.1	163.2	92.7	70.53	2.314			
6,200.0	5,676.9	6,242.6	5,720.6	46.2	45.0	129.78	919.6	2,105.7	164.1	91.3	72.72	2.256			
6,300.0	5,767.3	6,342.6	5,810.2	47.0	45.8	128.83	937.3	2,146.2	164.9	90.0	74.92	2.202			
6,400.0	5,857.7	6,442.5	5,899.9	47.8	46.7	127.89	955.0	2,186.7	165.9	88.8	77.13	2.151			
6,500.0	5,948.1	6,542.5	5,989.5	48.6	47.5	126.97	972.7	2,227.2	166.9	87.5	79.33	2.103			
6,600.0	6,038.5	6,642.4	6,079.2	49.4	48.4	126.05	990.4	2,267.7	167.9	86.3	81.54	2.059			
6,700.0	6,128.9	6,742.4	6,168.8	50.3	49.2	125.15	1,008.1	2,308.2	168.9	85.2	83.75	2.017			
6,800.0	6,219.2	6,842.3	6,258.5	51.1	50.1	124.26	1,025.8	2,348.7	170.0	84.1	85.96	1.978			
6,900.0	6,309.6	6,942.3	6,348.1	51.9	50.9	123.38	1,043.5	2,389.2	171.2	83.0	88.16	1.942			
7,000.0	6,400.0	7,042.3	6,437.8	52.7	51.8	122.51	1,061.2	2,429.7	172.4	82.0	90.36	1.908			
7,100.0	6,490.4	7,142.2	6,527.4	53.5	52.6	121.65	1,078.9	2,470.3	173.6	81.0	92.56	1.876			
7,200.0	6,580.8	7,242.2	6,617.1	54.4	53.5	120.81	1,096.7	2,510.8	174.9	80.1	94.75	1.845			
7,300.0	6,671.1	7,342.1	6,706.7	55.2	54.3	119.97	1,114.4	2,551.3	176.2	79.2	96.93	1.817			
7,400.0	6,761.5	7,442.1	6,796.4	56.0	55.2	119.15	1,132.1	2,591.8	177.5	78.4	99.11	1.791			
7,500.0	6,851.9	7,542.1	6,886.0	56.8	56.0	118.35	1,149.8	2,632.3	178.9	77.6	101.28	1.766			
7,600.0	6,942.3	7,642.0	6,975.7	57.6	56.9	117.55	1,167.5	2,672.8	180.3	76.8	103.44	1.743			
7,700.0	7,032.7	7,742.0	7,065.3	58.4	57.7	116.77	1,185.2	2,713.3	181.7	76.1	105.60	1.721			
7,800.0	7,123.1	7,841.9	7,155.0	59.3	58.6	116.00	1,202.9	2,753.8	183.2	75.4	107.74	1.700			
7,900.0	7,213.4	7,941.9	7,244.6	60.1	59.4	115.24	1,220.6	2,794.4	184.7	74.8	109.87	1.681			
8,000.0	7,303.8	8,041.5	7,333.9	60.9	60.3	114.51	1,238.3	2,834.7	186.2	74.3	111.98	1.663 SF			
8,100.0	7,394.3	8,138.0	7,421.7	61.7	61.0	114.57	1,254.3	2,871.4	188.8	75.4	113.35	1.666			
8,200.0	7,486.5	8,234.4	7,511.3	62.4	61.6	114.95	1,268.5	2,903.9	191.5	77.2	114.28	1.675			
8,300.0	7,580.6	8,330.7	7,602.5	63.0	62.2	115.30	1,280.9	2,932.2	193.9	78.8	115.07	1.685			
8,400.0	7,676.3	8,426.9	7,695.1	63.5	62.6	115.60	1,291.4	2,956.3	195.9	80.2	115.70	1.694			
8,500.0	7,773.4	8,523.0	7,788.8	63.9	63.0	115.88	1,300.1	2,976.1	197.7	81.5	116.19	1.701			
8,600.0	7,871.7	8,619.1	7,883.4	64.2	63.3	116.12	1,306.8	2,991.5	199.1	82.6	116.53	1.709			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
S27-T4S-R96W (M27 496) - 8510E-27 M27 496 - DD - Plan #2													Survey Program:	0-MWD
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	152.72	-24.3	12.5	27.3					
100.0	100.0	100.0	100.0	0.1	0.1	152.72	-24.3	12.5	27.3	27.0	0.27	100.276		
200.0	200.0	200.0	200.0	0.3	0.3	152.72	-24.3	12.5	27.3	26.7	0.62	43.941 CC		
300.0	300.0	299.8	299.8	0.5	0.5	89.50	-23.3	15.0	27.6	26.6	0.99	27.935 ES		
400.0	399.6	399.7	399.3	0.7	0.7	89.60	-20.6	22.3	28.4	27.0	1.43	19.883		
500.0	498.8	499.5	498.3	1.0	1.0	89.75	-16.0	34.4	29.7	27.8	2.00	14.907		
600.0	597.1	599.3	596.4	1.4	1.4	89.95	-9.5	51.4	31.6	28.9	2.72	11.619		
700.0	694.3	699.1	693.4	1.8	1.8	90.16	-1.3	73.1	34.1	30.4	3.63	9.387		
800.0	790.2	798.9	789.1	2.4	2.4	90.37	8.7	99.6	37.0	32.3	4.72	7.839		
900.0	884.4	898.6	883.2	3.0	3.0	90.57	20.5	130.7	40.5	34.5	6.01	6.739		
1,000.0	976.8	998.4	975.3	3.8	3.8	90.75	34.0	166.3	44.5	37.0	7.50	5.933		
1,100.0	1,067.4	1,098.3	1,066.5	4.5	4.5	92.69	48.5	204.5	48.8	39.7	9.05	5.391		
1,200.0	1,157.8	1,198.1	1,157.6	5.3	5.3	94.90	63.0	242.7	53.2	42.6	10.61	5.014		
1,300.0	1,248.2	1,298.0	1,248.7	6.2	6.1	96.78	77.5	280.9	57.7	45.5	12.16	4.741		
1,400.0	1,338.6	1,397.9	1,339.9	7.0	6.8	98.38	92.0	319.2	62.2	48.5	13.71	4.536		
1,500.0	1,428.9	1,497.8	1,431.0	7.8	7.6	99.76	106.5	357.4	66.7	51.5	15.25	4.378		
1,600.0	1,519.3	1,597.7	1,522.2	8.6	8.4	100.97	120.9	395.6	71.3	54.6	16.78	4.252		
1,700.0	1,609.7	1,697.6	1,613.3	9.4	9.2	102.03	135.4	433.8	76.0	57.7	18.31	4.150		
1,800.0	1,700.1	1,797.4	1,704.4	10.2	9.9	102.96	149.9	472.0	80.6	60.8	19.83	4.067		
1,900.0	1,790.5	1,897.3	1,795.6	11.0	10.7	103.80	164.4	510.3	85.3	64.0	21.34	3.997		
2,000.0	1,880.9	1,997.2	1,886.7	11.8	11.5	104.55	178.9	548.5	90.0	67.1	22.85	3.938		
2,100.0	1,971.2	2,097.1	1,977.8	12.7	12.3	105.22	193.4	586.7	94.7	70.3	24.35	3.888		
2,200.0	2,061.6	2,197.0	2,069.0	13.5	13.1	105.83	207.9	624.9	99.4	73.5	25.85	3.845		
2,300.0	2,152.0	2,296.9	2,160.1	14.3	13.8	106.39	222.3	663.2	104.1	76.8	27.35	3.807		
2,400.0	2,242.4	2,396.7	2,251.3	15.1	14.6	106.90	236.8	701.4	108.8	80.0	28.84	3.774		
2,500.0	2,332.8	2,496.6	2,342.4	15.9	15.4	107.36	251.3	739.6	113.6	83.2	30.33	3.744		
2,600.0	2,423.2	2,596.5	2,433.5	16.7	16.2	107.79	265.8	777.8	118.3	86.5	31.82	3.718		
2,700.0	2,513.5	2,696.4	2,524.7	17.6	17.0	108.18	280.3	816.0	123.1	89.8	33.31	3.695		
2,800.0	2,603.9	2,796.3	2,615.8	18.4	17.8	108.55	294.8	854.3	127.8	93.0	34.79	3.674		
2,900.0	2,694.3	2,896.2	2,706.9	19.2	18.5	108.89	309.3	892.5	132.6	96.3	36.27	3.655		
3,000.0	2,784.7	2,996.0	2,798.1	20.0	19.3	109.20	323.8	930.7	137.4	99.6	37.75	3.638		
3,100.0	2,875.1	3,095.9	2,889.2	20.8	20.1	109.50	338.2	968.9	142.1	102.9	39.23	3.623		
3,200.0	2,965.5	3,195.8	2,980.3	21.6	20.9	109.77	352.7	1,007.1	146.9	106.2	40.71	3.609		
3,300.0	3,055.8	3,295.7	3,071.5	22.5	21.7	110.03	367.2	1,045.4	151.7	109.5	42.18	3.596		
3,400.0	3,146.2	3,395.6	3,162.6	23.3	22.4	110.27	381.7	1,083.6	156.5	112.8	43.66	3.584		
3,500.0	3,236.6	3,495.5	3,253.8	24.1	23.2	110.50	396.2	1,121.8	161.2	116.1	45.13	3.573		
3,600.0	3,327.0	3,595.3	3,344.9	24.9	24.0	110.71	410.7	1,160.0	166.0	119.4	46.60	3.562		
3,700.0	3,417.4	3,695.2	3,436.0	25.7	24.8	110.92	425.2	1,198.2	170.8	122.7	48.08	3.553		
3,800.0	3,507.7	3,795.1	3,527.2	26.5	25.6	111.11	439.7	1,236.5	175.6	126.1	49.55	3.544		
3,900.0	3,598.1	3,895.0	3,618.3	27.4	26.4	111.29	454.1	1,274.7	180.4	129.4	51.02	3.536		
4,000.0	3,688.5	3,994.9	3,709.4	28.2	27.1	111.46	468.6	1,312.9	185.2	132.7	52.48	3.528		
4,100.0	3,778.9	4,094.8	3,800.6	29.0	27.9	111.62	483.1	1,351.1	190.0	136.0	53.95	3.521		
4,200.0	3,869.3	4,194.6	3,891.7	29.8	28.7	111.78	497.6	1,389.4	194.8	139.3	55.42	3.514		
4,300.0	3,959.7	4,294.5	3,982.9	30.6	29.5	111.93	512.1	1,427.6	199.6	142.7	56.89	3.508 SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8510G-27 M27 496 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	169.06	-28.3	5.5	28.8					
100.0	100.0	100.0	100.0	0.1	0.1	169.06	-28.3	5.5	28.8	28.6	0.27	105.933		
200.0	200.0	200.0	200.0	0.3	0.3	169.06	-28.3	5.5	28.8	28.2	0.62	46.420 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	110.64	-28.3	5.5	29.7	28.7	0.98	30.338		
400.0	399.6	399.6	399.6	0.7	0.7	123.28	-28.3	5.5	33.3	31.9	1.36	24.512		
500.0	498.8	499.3	499.2	1.0	0.8	136.00	-28.3	7.2	41.3	39.5	1.75	23.620 SF		
600.0	597.1	599.0	598.8	1.4	1.0	144.23	-28.3	12.4	53.3	51.1	2.15	24.791		
700.0	694.3	698.7	698.2	1.8	1.2	149.08	-28.3	21.0	68.6	66.0	2.58	26.640		
800.0	790.2	798.5	797.2	2.4	1.5	151.82	-28.3	33.1	86.8	83.8	3.04	28.559		
900.0	884.4	898.3	895.8	3.0	1.8	153.28	-28.3	48.7	107.7	104.1	3.56	30.271		
1,000.0	976.8	998.0	993.7	3.8	2.1	153.97	-28.3	67.7	131.1	126.9	4.14	31.657		
1,100.0	1,067.4	1,098.0	1,091.1	4.5	2.5	154.24	-28.3	90.1	156.3	151.5	4.80	32.533		
1,200.0	1,157.8	1,198.8	1,188.5	5.3	3.0	153.73	-28.3	116.1	179.8	174.2	5.58	32.204		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8511C-27 M27 496 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-74.46	3.0	-10.9	11.4					
100.0	100.0	100.0	100.0	0.1	0.1	-74.46	3.0	-10.9	11.4	11.1	0.27	41.734		
200.0	200.0	200.0	200.0	0.3	0.3	-74.46	3.0	-10.9	11.4	10.7	0.62	18.288 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-145.23	3.0	-10.9	13.4	12.4	0.97	13.794 SF		
400.0	399.6	399.7	399.7	0.7	0.7	-152.96	4.8	-10.8	20.1	18.8	1.33	15.138		
500.0	498.8	499.2	499.0	1.0	0.9	-154.19	9.9	-10.3	31.4	29.6	1.71	18.313		
600.0	597.1	598.1	597.5	1.4	1.1	-153.17	18.5	-9.6	46.9	44.7	2.14	21.888		
700.0	694.3	696.2	695.0	1.8	1.3	-151.63	30.3	-8.6	66.7	64.1	2.64	25.248		
800.0	790.2	793.4	791.0	2.4	1.6	-150.09	45.3	-7.3	90.8	87.6	3.23	28.130		
900.0	884.4	889.5	885.3	3.0	2.0	-148.65	63.2	-5.7	119.1	115.2	3.91	30.473		
1,000.0	976.8	984.2	977.7	3.8	2.3	-147.34	84.1	-3.9	151.6	147.0	4.68	32.370		
1,100.0	1,067.4	1,083.9	1,074.7	4.5	2.7	-146.95	107.1	-0.1	186.0	180.5	5.51	33.727		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8511D-27 M27 496 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-28.86	7.1	-3.9	8.1					
100.0	100.0	100.0	100.0	0.1	0.1	-28.86	7.1	-3.9	8.1	7.8	0.27	29.756		
200.0	200.0	200.0	200.0	0.3	0.3	-28.86	7.1	-3.9	8.1	7.5	0.62	13.039 CC, ES		
300.0	300.0	299.8	299.8	0.5	0.5	-99.78	8.7	-3.2	9.4	8.4	0.98	9.554 SF		
400.0	399.6	399.5	399.3	0.7	0.7	-113.33	13.5	-1.3	13.8	12.4	1.39	9.946		
500.0	498.8	499.0	498.5	1.0	0.9	-122.88	21.5	2.0	21.9	20.0	1.86	11.794		
600.0	597.1	598.2	596.9	1.4	1.2	-128.26	32.6	6.6	33.7	31.3	2.40	14.005		
700.0	694.3	697.0	694.5	1.8	1.5	-131.26	46.9	12.5	48.9	45.9	3.04	16.106		
800.0	790.2	795.3	791.0	2.4	1.8	-132.99	64.1	19.5	67.6	63.9	3.77	17.963		
900.0	884.4	892.7	886.4	3.0	2.2	-135.25	82.4	27.1	89.9	85.4	4.52	19.881		
1,000.0	976.8	989.0	980.7	3.8	2.6	-138.16	100.5	34.5	116.0	110.7	5.27	22.031		
1,100.0	1,067.4	1,084.2	1,073.9	4.5	2.9	-141.24	118.4	41.9	145.7	139.7	5.98	24.381		
1,200.0	1,157.8	1,179.3	1,167.0	5.3	3.3	-143.56	136.3	49.3	176.1	169.4	6.68	26.351		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8511G-27 M27 496 - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	151.37	-17.2	9.4	19.6					
100.0	100.0	100.0	100.0	0.1	0.1	151.37	-17.2	9.4	19.6	19.3	0.27	71.924		
200.0	200.0	200.0	200.0	0.3	0.3	151.37	-17.2	9.4	19.6	19.0	0.62	31.517		
249.7	249.7	249.7	249.7	0.4	0.4	90.00	-17.2	9.4	19.6	18.8	0.80	24.506 CC		
300.0	300.0	300.0	300.0	0.5	0.5	95.74	-17.2	9.4	19.7	18.7	0.98	20.098 ES		
400.0	399.6	400.2	400.2	0.7	0.7	113.78	-15.8	10.4	20.5	19.1	1.37	15.010		
500.0	498.8	500.5	500.3	1.0	0.9	135.53	-11.5	13.5	23.4	21.6	1.75	13.349 SF		
600.0	597.1	600.8	600.2	1.4	1.1	155.51	-4.4	18.7	29.9	27.8	2.07	14.419		
700.0	694.3	700.6	699.3	1.8	1.3	170.19	5.3	25.7	40.6	38.2	2.37	17.105		
800.0	790.2	798.9	796.8	2.4	1.6	178.90	15.5	33.2	57.3	54.6	2.71	21.132		
900.0	884.4	896.2	893.3	3.0	1.8	-176.55	25.6	40.5	79.8	76.7	3.08	25.928		
1,000.0	976.8	992.2	988.5	3.8	2.1	-174.24	35.6	47.8	107.5	104.1	3.45	31.167		
1,100.0	1,067.4	1,086.9	1,082.4	4.5	2.4	-173.10	45.4	55.0	139.6	135.8	3.84	36.321		
1,200.0	1,157.8	1,181.4	1,176.1	5.3	2.6	-172.44	55.3	62.1	172.2	168.0	4.26	40.451		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8512E-27 M27 496 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	173.70	-21.3	2.3	21.4					
100.0	100.0	100.0	100.0	0.1	0.1	173.70	-21.3	2.3	21.4	21.1	0.27	78.532		
200.0	200.0	200.0	200.0	0.3	0.3	173.70	-21.3	2.3	21.4	20.8	0.62	34.413 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	116.68	-21.3	2.3	22.4	21.5	0.98	22.958		
400.0	399.6	399.6	399.6	0.7	0.7	131.67	-21.3	2.3	26.9	25.5	1.35	19.940 SF		
500.0	498.8	498.8	498.8	1.0	0.8	146.78	-21.3	2.3	36.9	35.2	1.71	21.548		
600.0	597.1	597.1	597.1	1.4	1.0	157.40	-21.3	2.3	53.1	51.1	2.06	25.850		
700.0	694.3	694.3	694.3	1.8	1.2	164.04	-21.3	2.3	75.3	72.9	2.38	31.585		
800.0	790.2	790.2	790.2	2.4	1.3	168.21	-21.3	2.3	102.9	100.2	2.70	38.122		
900.0	884.4	884.4	884.4	3.0	1.5	170.92	-21.3	2.3	135.8	132.8	3.01	45.172		
1,000.0	976.8	976.8	976.8	3.8	1.7	172.76	-21.3	2.3	173.7	170.4	3.30	52.603		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8514A-27 M27 496 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	162.29	-46.5	14.9	48.8					
100.0	100.0	100.0	100.0	0.1	0.1	162.29	-46.5	14.9	48.8	48.6	0.27	179.401		
200.0	200.0	200.0	200.0	0.3	0.3	162.29	-46.5	14.9	48.8	48.2	0.62	78.614 CC		
300.0	300.0	300.4	300.4	0.5	0.5	101.60	-46.2	15.2	49.1	48.1	0.98	50.122		
400.0	399.6	401.3	401.2	0.7	0.7	107.14	-43.6	17.6	49.1	47.7	1.38	35.618		
436.5	435.9	438.1	438.0	0.8	0.7	109.80	-42.0	19.1	49.0	47.5	1.55	31.728		
500.0	498.8	502.2	501.8	1.0	0.9	115.25	-38.5	22.5	49.2	47.3	1.83	26.887 ES		
600.0	597.1	602.4	601.6	1.4	1.1	125.88	-31.0	29.5	50.6	48.3	2.29	22.060		
700.0	694.3	701.5	700.0	1.8	1.3	138.82	-23.3	36.8	57.0	54.3	2.69	21.203 SF		
800.0	790.2	799.6	797.6	2.4	1.6	150.82	-15.6	44.1	70.2	67.2	2.99	23.501		
900.0	884.4	896.7	894.2	3.0	1.8	159.91	-8.0	51.2	90.4	87.2	3.24	27.888		
1,000.0	976.8	992.4	989.3	3.8	2.1	166.19	-0.5	58.3	117.0	113.5	3.49	33.524		
1,100.0	1,067.4	1,086.8	1,083.1	4.5	2.3	170.49	6.9	65.3	148.7	144.9	3.76	39.519		
1,200.0	1,157.8	1,181.0	1,176.8	5.3	2.5	173.37	14.2	72.2	181.4	177.3	4.07	44.577		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8514B-27 M27 496 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	152.74	-42.5	21.9	47.8					
100.0	100.0	100.0	100.0	0.1	0.1	152.74	-42.5	21.9	47.8	47.5	0.27	175.553		
200.0	200.0	200.0	200.0	0.3	0.3	152.74	-42.5	21.9	47.8	47.2	0.62	76.928		
300.0	300.0	300.2	300.2	0.5	0.5	90.54	-41.5	23.3	47.6	46.6	0.98	48.394		
400.0	399.6	400.4	400.3	0.7	0.7	93.81	-38.6	27.7	47.0	45.6	1.40	33.601		
493.5	492.4	494.0	493.5	1.0	0.9	99.35	-34.2	34.1	46.5	44.7	1.86	25.050 CC		
500.0	498.8	500.5	500.0	1.0	0.9	99.90	-33.9	34.6	46.5	44.6	1.89	24.635 ES		
600.0	597.1	600.0	599.1	1.4	1.1	111.47	-29.1	41.7	48.1	45.7	2.42	19.912		
700.0	694.3	698.9	697.6	1.8	1.3	126.36	-24.3	48.8	54.4	51.6	2.88	18.876 SF		
800.0	790.2	796.8	795.2	2.4	1.6	140.34	-19.5	55.9	67.6	64.4	3.23	20.936		
900.0	884.4	893.6	891.6	3.0	1.8	150.99	-14.8	62.8	88.1	84.6	3.50	25.200		
1,000.0	976.8	988.9	986.6	3.8	2.0	158.40	-10.2	69.7	115.2	111.5	3.73	30.851		
1,100.0	1,067.4	1,082.8	1,080.1	4.5	2.2	163.56	-5.6	76.5	147.6	143.6	3.98	37.104		
1,200.0	1,157.8	1,176.5	1,173.5	5.3	2.4	167.00	-1.0	83.2	181.2	176.9	4.25	42.631		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8514C-27 M27 496 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	158.32	-70.8	28.2	76.2					
100.0	100.0	100.0	100.0	0.1	0.1	158.32	-70.8	28.2	76.2	75.9	0.27	279.889		
200.0	200.0	200.0	200.0	0.3	0.3	158.32	-70.8	28.2	76.2	75.6	0.62	122.648 CC		
300.0	300.0	300.0	300.0	0.5	0.5	97.00	-70.8	28.2	76.5	75.5	0.98	78.143 ES		
400.0	399.6	399.6	399.6	0.7	0.7	102.69	-70.8	28.2	77.8	76.5	1.37	56.769		
500.0	498.8	498.8	498.8	1.0	0.8	111.47	-70.8	28.2	81.7	79.9	1.81	45.152		
600.0	597.1	598.4	598.3	1.4	1.0	121.15	-70.3	29.7	89.4	87.1	2.28	39.172		
700.0	694.3	698.2	698.1	1.8	1.2	129.70	-68.5	34.6	100.7	97.9	2.77	36.383		
800.0	790.2	796.5	796.1	2.4	1.4	137.04	-66.0	41.8	116.0	112.8	3.24	35.795 SF		
900.0	884.4	893.1	892.3	3.0	1.6	143.69	-63.5	48.9	136.9	133.3	3.67	37.291		
1,000.0	976.8	988.2	987.1	3.8	1.8	149.35	-61.1	55.9	163.7	159.7	4.06	40.343		
1,100.0	1,067.4	1,081.8	1,080.4	4.5	2.0	154.11	-58.6	62.8	195.6	191.2	4.40	44.452		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8514D-27 M27 496 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	157.63	-77.9	32.1	84.2					
100.0	100.0	100.0	100.0	0.1	0.1	157.63	-77.9	32.1	84.2	84.0	0.27	309.390		
200.0	200.0	200.0	200.0	0.3	0.3	157.63	-77.9	32.1	84.2	83.6	0.62	135.575 CC		
300.0	300.0	300.0	300.0	0.5	0.5	96.13	-77.9	32.1	84.5	83.5	0.98	86.311 ES		
400.0	399.6	398.7	398.7	0.7	0.7	100.16	-77.9	33.8	86.2	84.8	1.37	62.784		
500.0	498.8	497.5	497.3	1.0	0.9	105.03	-78.1	38.9	90.5	88.6	1.84	49.244		
600.0	597.1	596.7	596.3	1.4	1.0	111.13	-78.3	45.9	97.5	95.1	2.37	41.156		
700.0	694.3	695.1	694.4	1.8	1.3	118.67	-78.5	52.9	107.9	105.0	2.94	36.766		
800.0	790.2	792.5	791.6	2.4	1.5	126.59	-78.7	59.9	123.1	119.6	3.50	35.206 SF		
900.0	884.4	888.6	887.5	3.0	1.7	134.00	-79.0	66.7	143.8	139.8	4.02	35.787		
1,000.0	976.8	983.1	981.8	3.8	1.9	140.42	-79.2	73.4	170.4	165.9	4.49	37.950		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference															
Offset				Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	156.45	-95.1	41.4	103.7						
100.0	100.0	100.0	100.0	0.1	0.1	156.45	-95.1	41.4	103.7	103.5	0.27	380.995			
200.0	200.0	200.0	200.0	0.3	0.3	156.45	-95.1	41.4	103.7	103.1	0.62	166.953 CC			
300.0	300.0	300.0	300.0	0.5	0.5	94.62	-95.1	41.4	103.9	102.9	0.98	106.163 ES			
400.0	399.6	399.6	399.6	0.7	0.7	98.86	-95.1	41.4	104.8	103.5	1.37	76.392			
500.0	498.8	496.8	496.7	1.0	0.8	104.72	-95.7	43.0	108.5	106.7	1.82	59.677			
600.0	597.1	593.7	593.5	1.4	1.0	110.93	-97.5	47.5	116.8	114.5	2.33	50.104			
700.0	694.3	691.3	690.9	1.8	1.2	117.22	-100.3	54.4	129.7	126.8	2.90	44.717			
800.0	790.2	788.3	787.6	2.4	1.4	123.83	-103.1	61.3	146.8	143.3	3.49	42.077			
900.0	884.4	884.0	883.0	3.0	1.6	130.17	-105.8	68.1	169.0	165.0	4.07	41.522 SF			
1,000.0	976.8	978.0	976.8	3.8	1.8	135.84	-108.5	74.8	196.7	192.1	4.63	42.516			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8514F-27 M27 496 - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	156.43	-102.2	44.6	111.5					
100.0	100.0	100.0	100.0	0.1	0.1	156.43	-102.2	44.6	111.5	111.2	0.27	409.447		
200.0	200.0	200.0	200.0	0.3	0.3	156.43	-102.2	44.6	111.5	110.9	0.62	179.421 CC		
300.0	300.0	300.0	300.0	0.5	0.5	94.50	-102.2	44.6	111.7	110.7	0.98	114.073 ES		
400.0	399.6	396.8	396.7	0.7	0.7	97.75	-103.0	46.0	113.8	112.4	1.37	83.140		
500.0	498.8	493.3	493.1	1.0	0.8	102.04	-105.4	50.2	119.8	118.0	1.82	65.659		
600.0	597.1	589.2	588.7	1.4	1.0	106.92	-109.5	56.9	130.1	127.7	2.35	55.247		
700.0	694.3	686.7	685.8	1.8	1.3	112.96	-115.0	63.7	144.6	141.7	2.95	49.054		
800.0	790.2	783.2	781.9	2.4	1.5	119.27	-120.4	70.4	163.2	159.6	3.58	45.604		
900.0	884.4	878.3	876.7	3.0	1.7	125.34	-125.7	77.1	186.5	182.3	4.22	44.227 SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
S27-T4S-R96W (M27 496) - 8515A-27 M27 496 - DD - Plan #1													Offset Well Error:	0.0 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	152.50	-49.6	25.8	55.9					
100.0	100.0	100.0	100.0	0.1	0.1	152.50	-49.6	25.8	55.9	55.6	0.27	205.243		
200.0	200.0	200.0	200.0	0.3	0.3	152.50	-49.6	25.8	55.9	55.3	0.62	89.938	CC, ES	
300.0	300.0	299.2	299.1	0.5	0.5	89.35	-49.1	28.3	56.6	55.6	0.99	57.442		
400.0	399.6	398.3	397.9	0.7	0.7	89.66	-47.6	35.9	58.7	57.3	1.42	41.322		
500.0	498.8	497.4	496.2	1.0	1.0	90.13	-45.3	48.5	62.3	60.3	1.98	31.459		
600.0	597.1	596.4	593.5	1.4	1.4	90.70	-41.9	66.1	67.3	64.6	2.69	24.963		
700.0	694.3	695.2	689.7	1.8	1.8	91.29	-37.7	88.5	73.7	70.1	3.58	20.551		
800.0	790.2	794.0	784.4	2.4	2.3	91.87	-32.5	115.8	81.4	76.8	4.66	17.484		
900.0	884.4	892.5	877.5	3.0	3.0	92.40	-26.4	147.8	90.6	84.7	5.92	15.302		
1,000.0	976.8	991.2	968.9	3.8	3.7	92.95	-19.4	184.4	101.0	93.7	7.35	13.748		
1,100.0	1,067.4	1,090.5	1,060.3	4.5	4.4	95.07	-12.2	222.4	112.1	103.3	8.86	12.655		
1,200.0	1,157.8	1,189.8	1,151.7	5.3	5.1	97.16	-5.0	260.5	123.4	113.0	10.38	11.892		
1,300.0	1,248.2	1,289.1	1,243.1	6.2	5.9	98.91	2.2	298.6	134.8	122.9	11.89	11.337		
1,400.0	1,338.6	1,388.3	1,334.5	7.0	6.6	100.38	9.5	336.6	146.3	132.9	13.40	10.917		
1,500.0	1,428.9	1,487.6	1,425.9	7.8	7.3	101.63	16.7	374.7	157.9	143.0	14.91	10.591		
1,600.0	1,519.3	1,586.9	1,517.3	8.6	8.1	102.71	23.9	412.7	169.6	153.2	16.42	10.332		
1,700.0	1,609.7	1,686.1	1,608.7	9.4	8.8	103.66	31.2	450.8	181.3	163.4	17.92	10.121		
1,800.0	1,700.1	1,785.4	1,700.1	10.2	9.6	104.49	38.4	488.9	193.1	173.7	19.41	9.947	SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8515B-27 M27 496 - DD - Plan #1														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	160.71	-53.6	18.8	56.8						
100.0	100.0	100.0	100.0	0.1	0.1	160.71	-53.6	18.8	56.8	56.5	0.27	208.630			
200.0	200.0	200.0	200.0	0.3	0.3	160.71	-53.6	18.8	56.8	56.2	0.62	91.422	CC, ES		
300.0	300.0	299.7	299.7	0.5	0.5	99.38	-53.5	19.4	57.3	56.3	0.98	58.563			
400.0	399.6	399.2	399.0	0.7	0.7	101.83	-52.9	24.5	59.6	58.2	1.39	42.891			
500.0	498.8	498.7	498.0	1.0	0.9	103.94	-51.6	34.8	63.7	61.8	1.91	33.425			
600.0	597.1	598.2	596.3	1.4	1.2	105.60	-49.7	50.2	69.7	67.1	2.57	27.145			
700.0	694.3	697.7	693.6	1.8	1.6	106.77	-47.2	70.6	77.5	74.1	3.40	22.822			
800.0	790.2	797.1	789.6	2.4	2.1	107.51	-44.0	96.0	87.0	82.6	4.40	19.774			
900.0	884.4	896.4	884.1	3.0	2.7	107.88	-40.3	126.3	98.2	92.6	5.59	17.574			
1,000.0	976.8	995.5	976.7	3.8	3.4	107.96	-35.9	161.3	111.1	104.1	6.97	15.946			
1,100.0	1,067.4	1,094.5	1,067.9	4.5	4.1	108.45	-31.2	199.6	125.4	116.9	8.42	14.896			
1,200.0	1,157.8	1,193.4	1,159.0	5.3	4.8	109.14	-26.5	237.9	139.8	129.9	9.87	14.158			
1,300.0	1,248.2	1,292.4	1,250.0	6.2	5.6	109.69	-21.7	276.3	154.2	142.9	11.34	13.603			
1,400.0	1,338.6	1,391.3	1,341.1	7.0	6.3	110.16	-17.0	314.6	168.7	155.9	12.81	13.173			
1,500.0	1,428.9	1,490.2	1,432.2	7.8	7.0	110.54	-12.2	353.0	183.2	168.9	14.28	12.829			
1,600.0	1,519.3	1,589.2	1,523.3	8.6	7.8	110.88	-7.5	391.3	197.6	181.9	15.75	12.548	SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S27-T4S-R96W (M27 496) - 8515C-27 M27 496 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	152.21	-66.8	35.2	75.5					
100.0	100.0	100.0	100.0	0.1	0.1	152.21	-66.8	35.2	75.5	75.2	0.27	277.199		
200.0	200.0	200.0	200.0	0.3	0.3	152.21	-66.8	35.2	75.5	74.9	0.62	121.469		
272.8	272.8	272.8	272.8	0.4	0.4	90.00	-66.8	35.2	75.5	74.6	0.88	85.619	CC	
300.0	300.0	300.0	300.0	0.5	0.5	90.93	-66.8	35.2	75.5	74.5	0.98	77.100	ES	
400.0	399.6	398.4	398.4	0.7	0.7	94.92	-66.6	37.7	76.8	75.4	1.38	55.757		
500.0	498.8	497.1	496.7	1.0	0.9	98.81	-66.1	45.3	80.5	78.6	1.86	43.171		
600.0	597.1	595.8	594.7	1.4	1.1	102.29	-65.4	58.0	86.7	84.2	2.48	34.924		
700.0	694.3	694.6	691.8	1.8	1.5	105.18	-64.3	75.7	95.2	92.0	3.25	29.270		
800.0	790.2	793.4	787.9	2.4	1.9	107.41	-62.9	98.5	106.0	101.8	4.19	25.294		
900.0	884.4	892.1	882.7	3.0	2.4	109.02	-61.2	126.1	118.9	113.6	5.30	22.428		
1,000.0	976.8	990.7	975.7	3.8	3.1	110.09	-59.2	158.5	133.9	127.3	6.59	20.306		
1,100.0	1,067.4	1,089.2	1,067.0	4.5	3.8	110.78	-56.9	195.5	150.6	142.6	8.00	18.815		
1,200.0	1,157.8	1,187.8	1,157.8	5.3	4.5	111.19	-54.5	233.8	167.4	158.0	9.44	17.732		
1,300.0	1,248.2	1,286.3	1,248.6	6.2	5.2	111.52	-52.2	272.1	184.3	173.4	10.89	16.921	SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
S27-T4S-R96W (M27 496) - 8515D-27 M27 496 - DD - Plan #1													Offset Well Error:	0.0 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	152.10	-73.9	39.1	83.6					
100.0	100.0	100.0	100.0	0.1	0.1	152.10	-73.9	39.1	83.6	83.3	0.27	306.908		
200.0	200.0	200.0	200.0	0.3	0.3	152.10	-73.9	39.1	83.6	82.9	0.62	134.488	CC, ES	
300.0	300.0	298.0	297.9	0.5	0.5	89.04	-73.9	41.6	84.7	83.7	0.98	86.274		
400.0	399.6	395.9	395.5	0.7	0.7	89.61	-73.9	49.1	88.2	86.8	1.41	62.574		
500.0	498.8	493.6	492.4	1.0	1.0	90.45	-73.9	61.6	94.0	92.0	1.95	48.161		
600.0	597.1	591.1	588.4	1.4	1.3	91.44	-74.0	79.0	102.1	99.4	2.64	38.658		
700.0	694.3	688.3	683.0	1.8	1.8	92.48	-74.1	101.2	112.5	109.0	3.50	32.177		
800.0	790.2	785.1	776.0	2.4	2.3	93.47	-74.2	128.0	125.3	120.7	4.53	27.655		
900.0	884.4	881.5	867.1	3.0	2.9	94.35	-74.3	159.4	140.3	134.5	5.74	24.429		
1,000.0	976.8	978.0	956.7	3.8	3.6	95.17	-74.4	195.2	157.4	150.3	7.11	22.143		
1,100.0	1,067.4	1,076.2	1,047.4	4.5	4.3	97.06	-74.5	232.9	175.6	167.0	8.57	20.487		
1,200.0	1,157.8	1,174.3	1,138.0	5.3	5.0	98.94	-74.6	270.6	194.1	184.0	10.05	19.314	SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
S27-T4S-R96W (M27 496) - 8515E-27 M27 496 - DD - Plan #1															
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	152.23	-92.1	48.5	104.0						
100.0	100.0	100.0	100.0	0.1	0.1	152.23	-92.1	48.5	104.0	103.8	0.27	382.154			
200.0	200.0	200.0	200.0	0.3	0.3	152.23	-92.1	48.5	104.0	103.4	0.62	167.461			
284.8	284.7	284.7	284.7	0.5	0.5	90.00	-92.1	48.5	104.0	103.1	0.92	112.571 CC			
300.0	300.0	300.0	300.0	0.5	0.5	90.41	-92.1	48.5	104.0	103.1	0.98	106.282 ES			
400.0	399.6	397.2	397.2	0.7	0.7	93.35	-92.2	51.0	105.5	104.1	1.37	76.781			
500.0	498.8	494.6	494.3	1.0	0.9	96.40	-92.7	58.4	109.9	108.1	1.86	59.189			
600.0	597.1	592.0	590.8	1.4	1.1	99.31	-93.5	70.7	117.3	114.9	2.47	47.571			
700.0	694.3	689.2	686.5	1.8	1.5	101.89	-94.6	87.9	127.7	124.4	3.23	39.567			
800.0	790.2	786.2	781.0	2.4	1.9	104.03	-96.1	109.9	140.9	136.8	4.15	33.936			
900.0	884.4	883.0	873.9	3.0	2.4	105.72	-97.8	136.6	156.9	151.7	5.25	29.900			
1,000.0	976.8	979.3	965.1	3.8	3.0	106.96	-99.8	167.8	175.7	169.2	6.52	26.947			
1,100.0	1,067.4	1,075.5	1,054.4	4.5	3.7	107.96	-102.1	203.4	196.7	188.8	7.90	24.901 SF			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8510C-27 M27 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b>	S27-T4S-R96W (M27 496)	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	8510C-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

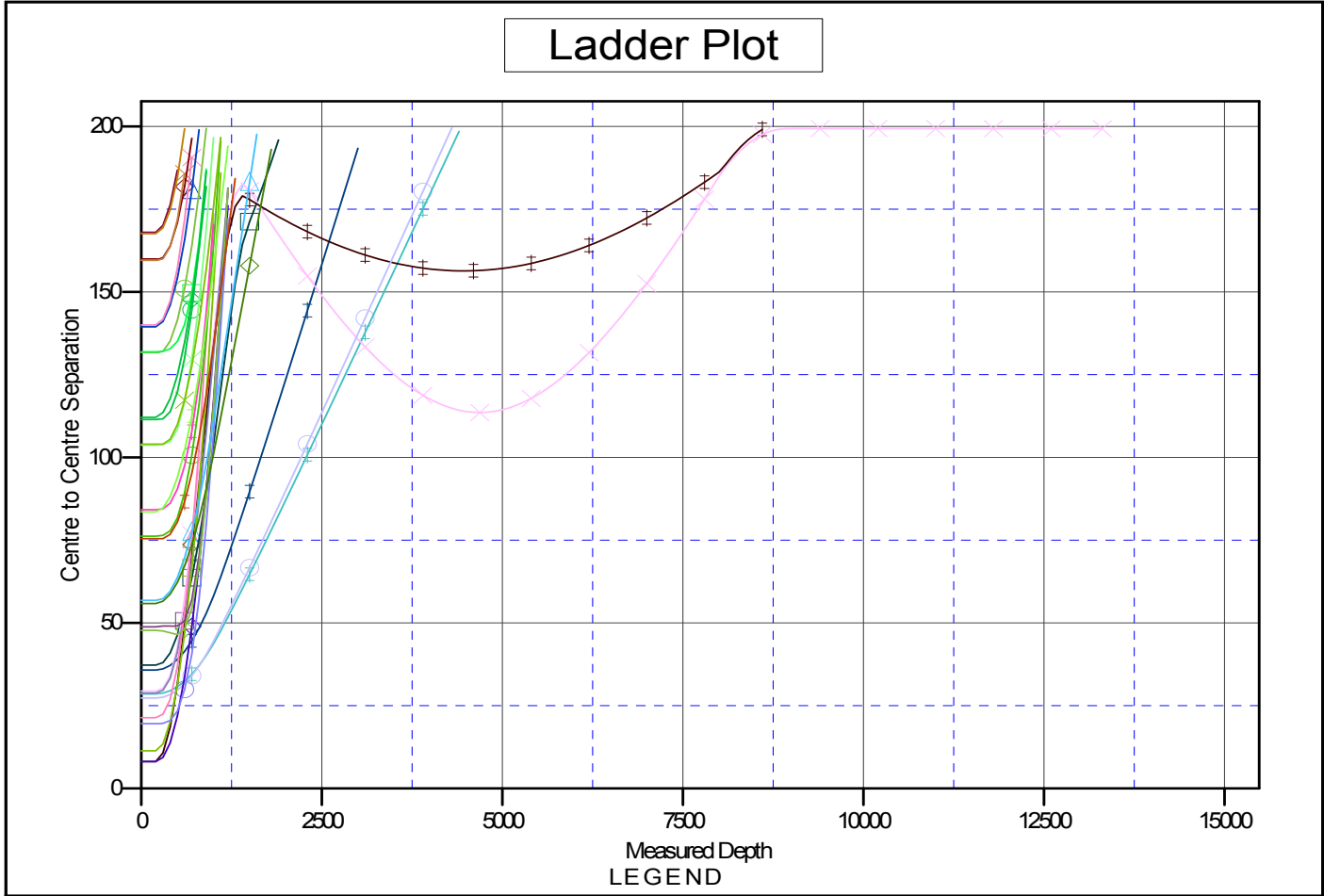
Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference															
Offset															
Semi Major Axis															
Distance															
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	152.15	-99.1	52.4	112.1						
100.0	100.0	100.0	100.0	0.1	0.1	152.15	-99.1	52.4	112.1	111.9	0.27	411.863			
200.0	200.0	200.0	200.0	0.3	0.3	152.15	-99.1	52.4	112.1	111.5	0.62	180.479	CC, ES		
300.0	300.0	296.7	296.7	0.5	0.5	89.11	-99.5	54.8	113.6	112.6	0.98	116.014			
400.0	399.6	393.3	392.9	0.7	0.7	89.75	-100.4	62.1	117.8	116.4	1.40	84.233			
500.0	498.8	489.6	488.5	1.0	1.0	90.71	-102.0	74.1	124.9	123.0	1.93	64.862			
600.0	597.1	585.6	583.0	1.4	1.3	91.86	-104.2	90.9	134.8	132.2	2.59	52.028			
700.0	694.3	681.1	676.0	1.8	1.7	93.07	-106.9	112.2	147.7	144.3	3.42	43.223			
800.0	790.2	776.0	767.3	2.4	2.2	94.24	-110.3	137.9	163.4	158.9	4.41	37.049			
900.0	884.4	870.2	856.5	3.0	2.8	95.30	-114.2	167.8	181.9	176.3	5.57	32.633	SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b> EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b> Well 8510C-27 M27 496	<b>TVD Reference:</b> KBE @ 8121.0ft (Original Well Elev)
<b>Project:</b> Story Gulch	<b>TVD Reference:</b> KBE @ 8121.0ft (Original Well Elev)	<b>MD Reference:</b> KBE @ 8121.0ft (Original Well Elev)
<b>Reference Site:</b> S27-T4S-R96W (M27 496)	<b>North Reference:</b> True	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Site Error:</b> 0.0ft	<b>Output errors are at</b> 2.00 sigma	<b>Database:</b> USA EDM 5000 Multi Users DB
<b>Reference Well:</b> 8510C-27 M27 496	<b>Offset TVD Reference:</b> Offset Datum	
<b>Well Error:</b> 0.0ft		
<b>Reference Wellbore</b> DD		
<b>Reference Design:</b> Plan #2		

Reference Depths are relative to KBE @ 8121.0ft (Original Well Elev)      Coordinates are relative to: 8510C-27 M27 496  
 Offset Depths are relative to Offset Datum      Coordinate System is US State Plane 1983, Colorado Central Zone  
 Central Meridian is 105° 30' 0.00 W °      Grid Convergence at Surface is: -1.68°



8502A-34 M27 496 was 8502A-28, DD, Plan #2 V0	8510B-27 M27 496, DD, Plan #1 V0	8514D-27 M27 496, DD, Plan #1 V0
8502B-34 M27 496 was 8502B-28, DD, Plan #2 V0	8510D-27 M27 496, DD, Plan #2 V0	8514E-27 M27 496, DD, Plan #2 V0
8502C-34 M27 496 was 8502C-28, DD, Plan #2 V0	8510E-27 M27 496, DD, Plan #2 V0	8514F-27 M27 496, DD, Plan #2 V0
8502D-34 M27 496 was 8502D-28, DD, Plan #2 V0	8510G-27 M27 496, DD, Plan #1 V0	8515A-27 M27 496, DD, Plan #1 V0
8503A-34 M27 496 was 8503A-28, DD, Plan #2 V0	8511C-27 M27 496, DD, Plan #1 V0	8515B-27 M27 496, DD, Plan #1 V0
8503B-34 M27 496 was 8503B-28, DD, Plan #2 V0	8511D-27 M27 496, DD, Plan #1 V0	8515C-27 M27 496, DD, Plan #1 V0
8503C-34 M27 496 was 8503C-28, DD, Plan #2 V0	8511G-27 M27 496, DD, Plan #2 V0	8515D-27 M27 496, DD, Plan #1 V0
8503D-34 M27 496 was 8503D-28, DD, Plan #2 V0	8512E-27 M27 496, DD, Plan #3 V0	8515E-27 M27 496, DD, Plan #1 V0
8507E-27 M27 496, DD, Plan #1 V0	8514A-27 M27 496, DD, Plan #1 V0	8515F-27 M27 496, DD, Plan #1 V0
8507F-27 M27 496, DD, Plan #1 V0	8514B-27 M27 496, DD, Plan #1 V0	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation