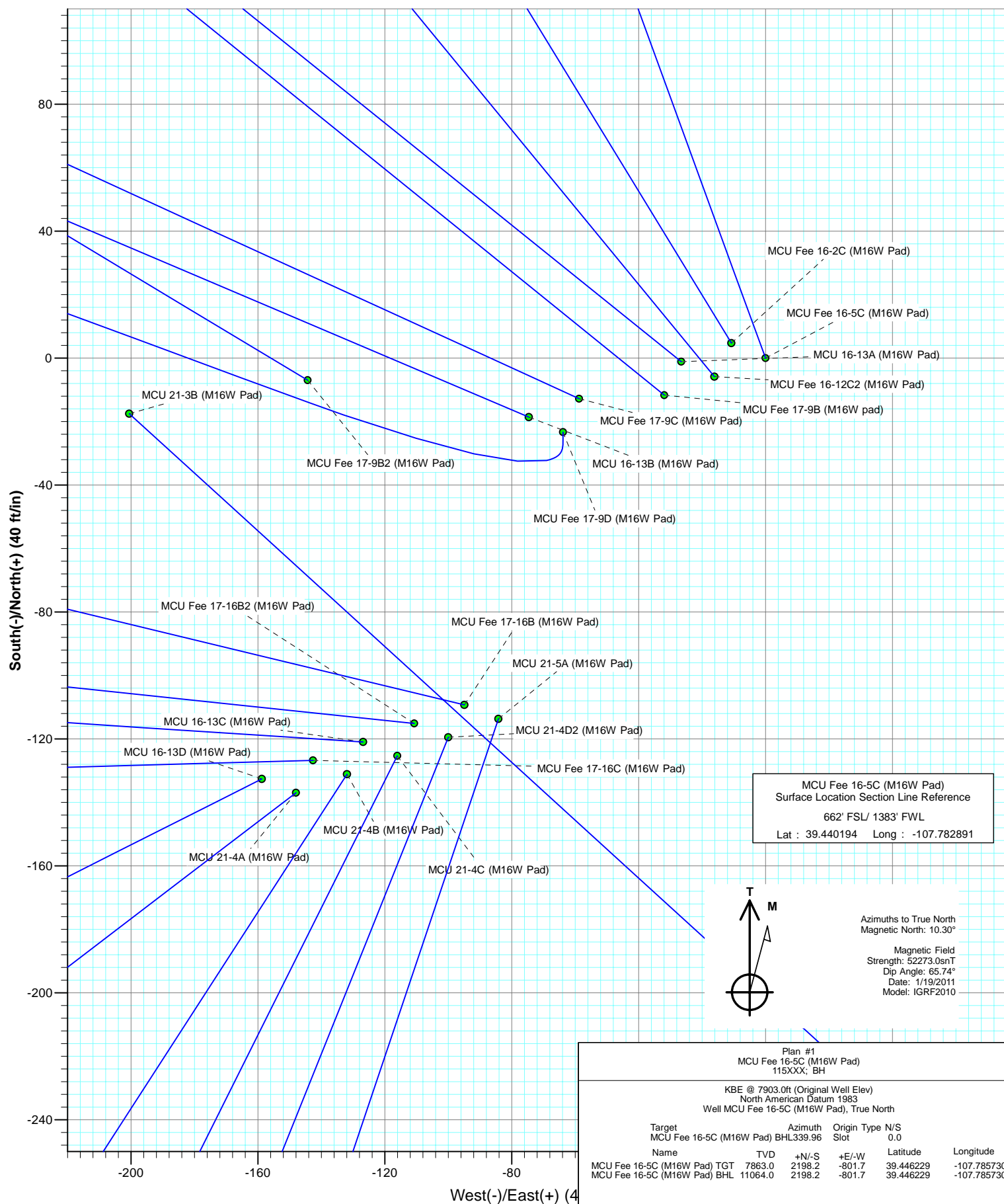


Plan #1 MCU Fee 16-5C (M16W Pad) 115XXX; BH						
KBE @ 7903.0ft (Original Well Elev) North American Datum 1983 Well MCU Fee 16-5C (M16W Pad), True North						
MCU Fee 16-5C (M16W Pad) BHL	Target	Azimuth	Origin Type	N/S		
	Name	TVD	+N/-S	+E/-W	Latitude	Longitude
			339.96	Slot	0.0	
MCU Fee 16-5C (M16W Pad) BHL	TGT	7863.0	2198.2	-801.7	39.446229	-107.785730
MCU Fee 16-5C (M16W Pad) BHL	BHL	11064.0	2198.2	-801.7	39.446229	-107.785730

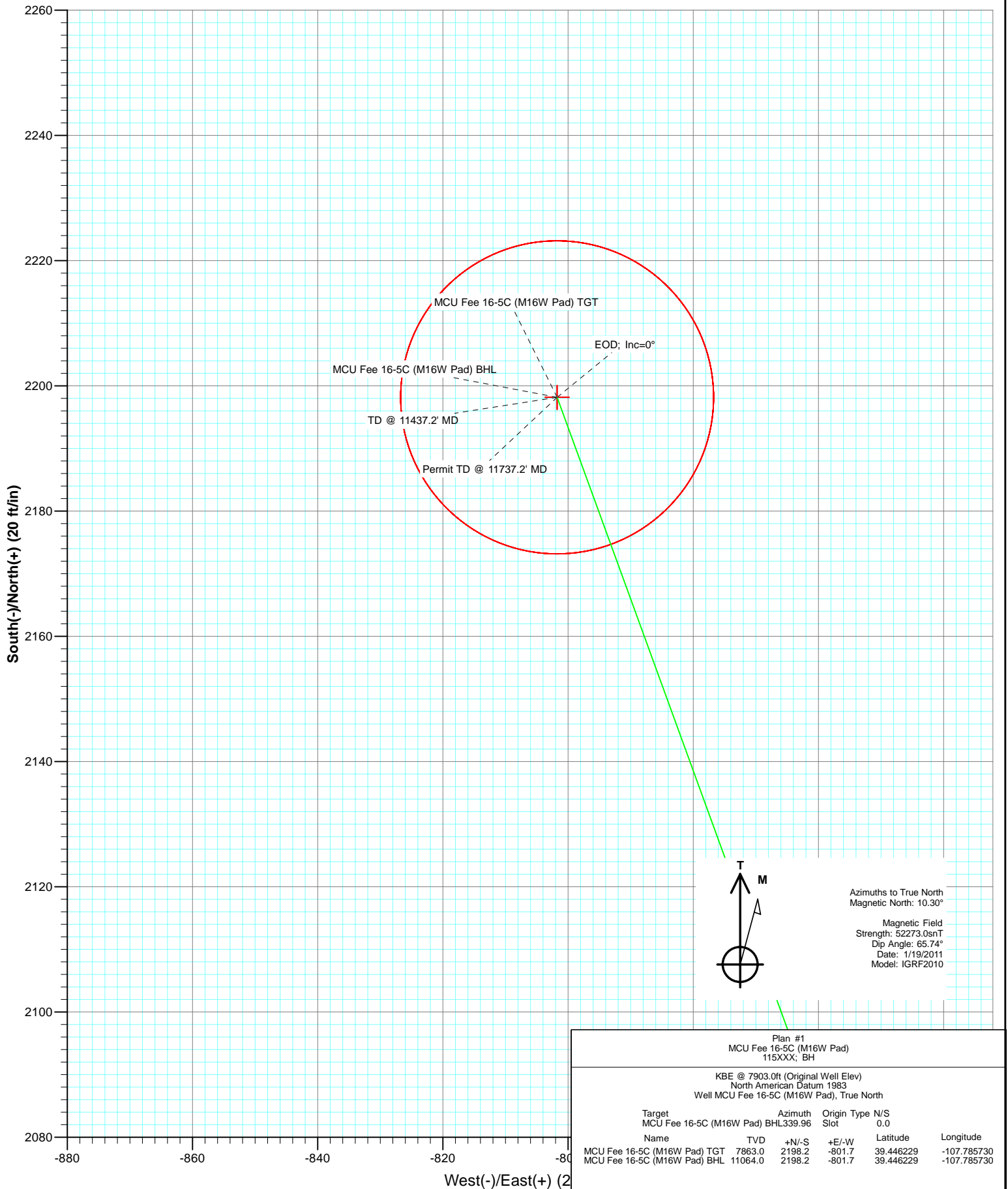


Project: Mamm Creek
Site: SWSW S16-T7S-R93W (M16W Pad)
Well: MCU Fee 16-5C (M16W Pad)
Wellbore: DD
Plan: Plan #1





Project: Mamm Creek
 Site: SWSW S16-T7S-R93W (M16W Pad)
 Well: MCU Fee 16-5C (M16W Pad)
 Wellbore: DD
 Plan: Plan #1



Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Project:	Mamm Creek	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site:	SWSW S16-T7S-R93W (M16W Pad)	North Reference:	True
Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Project	Mamm Creek		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		SWSW S16-T7S-R93W (M16W Pad)			
Site Position:		Northing:	1,593,196.17 ft	Latitude:	39.439834
From:	Lat/Long	Easting:	2,355,193.71 ft	Longitude:	-107.783358
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.44 °

Well	MCU Fee 16-5C (M16W Pad)					
Well Position	+N/-S	0.0 ft	Northing:	1,593,323.93 ft	Latitude:	39.440194
	+E/-W	0.0 ft	Easting:	2,355,328.86 ft	Longitude:	-107.782891
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,881.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/19/2011	10.30	65.74	52,273

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	339.96

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
826.7	18.80	339.96	815.5	95.7	-34.9	3.00	3.00	0.00	339.96	
7,296.1	18.80	339.96	6,939.7	2,054.6	-749.4	0.00	0.00	0.00	0.00	
8,236.2	0.00	0.00	7,863.0	2,198.2	-801.7	2.00	-2.00	0.00	180.00	MCU Fee 16-5C (M16W Pad)
11,437.2	0.00	0.00	11,064.0	2,198.2	-801.7	0.00	0.00	0.00	0.00	MCU Fee 16-5C (M16W Pad)
11,737.2	0.00	0.00	11,364.0	2,198.2	-801.7	0.00	0.00	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Project:	Mamm Creek	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site:	SWSW S16-T7S-R93W (M16W Pad)	North Reference:	True
Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200' MD
300.0	3.00	339.96	300.0	2.5	-0.9	2.6	3.00	3.00	
400.0	6.00	339.96	399.6	9.8	-3.6	10.5	3.00	3.00	
500.0	9.00	339.96	498.8	22.1	-8.1	23.5	3.00	3.00	
600.0	12.00	339.96	597.1	39.2	-14.3	41.7	3.00	3.00	
700.0	15.00	339.96	694.3	61.1	-22.3	65.1	3.00	3.00	
800.0	18.00	339.96	790.2	87.8	-32.0	93.5	3.00	3.00	
826.7	18.80	339.96	815.5	95.7	-34.9	101.9	3.00	3.00	EOB; Inc=18.8°
900.0	18.80	339.96	884.9	117.9	-43.0	125.5	0.00	0.00	
1,000.0	18.80	339.96	979.6	148.2	-54.1	157.8	0.00	0.00	
1,100.0	18.80	339.96	1,074.2	178.5	-65.1	190.0	0.00	0.00	
1,173.7	18.80	339.96	1,144.0	200.8	-73.2	213.7	0.00	0.00	Surface Casing
1,200.0	18.80	339.96	1,168.9	208.8	-76.1	222.2	0.00	0.00	
1,300.0	18.80	339.96	1,263.6	239.0	-87.2	254.4	0.00	0.00	
1,400.0	18.80	339.96	1,358.2	269.3	-98.2	286.7	0.00	0.00	
1,500.0	18.80	339.96	1,452.9	299.6	-109.3	318.9	0.00	0.00	
1,600.0	18.80	339.96	1,547.5	329.9	-120.3	351.1	0.00	0.00	
1,700.0	18.80	339.96	1,642.2	360.2	-131.4	383.4	0.00	0.00	
1,800.0	18.80	339.96	1,736.9	390.4	-142.4	415.6	0.00	0.00	
1,900.0	18.80	339.96	1,831.5	420.7	-153.4	447.8	0.00	0.00	
2,000.0	18.80	339.96	1,926.2	451.0	-164.5	480.1	0.00	0.00	
2,100.0	18.80	339.96	2,020.9	481.3	-175.5	512.3	0.00	0.00	
2,200.0	18.80	339.96	2,115.5	511.5	-186.6	544.5	0.00	0.00	
2,300.0	18.80	339.96	2,210.2	541.8	-197.6	576.7	0.00	0.00	
2,400.0	18.80	339.96	2,304.9	572.1	-208.7	609.0	0.00	0.00	
2,500.0	18.80	339.96	2,399.5	602.4	-219.7	641.2	0.00	0.00	
2,600.0	18.80	339.96	2,494.2	632.7	-230.7	673.4	0.00	0.00	
2,700.0	18.80	339.96	2,588.9	662.9	-241.8	705.7	0.00	0.00	
2,800.0	18.80	339.96	2,683.5	693.2	-252.8	737.9	0.00	0.00	
2,900.0	18.80	339.96	2,778.2	723.5	-263.9	770.1	0.00	0.00	
3,000.0	18.80	339.96	2,872.8	753.8	-274.9	802.3	0.00	0.00	
3,100.0	18.80	339.96	2,967.5	784.1	-286.0	834.6	0.00	0.00	
3,200.0	18.80	339.96	3,062.2	814.3	-297.0	866.8	0.00	0.00	
3,300.0	18.80	339.96	3,156.8	844.6	-308.1	899.0	0.00	0.00	
3,400.0	18.80	339.96	3,251.5	874.9	-319.1	931.3	0.00	0.00	
3,500.0	18.80	339.96	3,346.2	905.2	-330.1	963.5	0.00	0.00	
3,600.0	18.80	339.96	3,440.8	935.4	-341.2	995.7	0.00	0.00	
3,700.0	18.80	339.96	3,535.5	965.7	-352.2	1,028.0	0.00	0.00	
3,800.0	18.80	339.96	3,630.2	996.0	-363.3	1,060.2	0.00	0.00	
3,900.0	18.80	339.96	3,724.8	1,026.3	-374.3	1,092.4	0.00	0.00	
4,000.0	18.80	339.96	3,819.5	1,056.6	-385.4	1,124.6	0.00	0.00	
4,018.5	18.80	339.96	3,837.0	1,062.2	-387.4	1,130.6	0.00	0.00	G Sand
4,100.0	18.80	339.96	3,914.1	1,086.8	-396.4	1,156.9	0.00	0.00	
4,200.0	18.80	339.96	4,008.8	1,117.1	-407.4	1,189.1	0.00	0.00	
4,300.0	18.80	339.96	4,103.5	1,147.4	-418.5	1,221.3	0.00	0.00	
4,400.0	18.80	339.96	4,198.1	1,177.7	-429.5	1,253.6	0.00	0.00	
4,500.0	18.80	339.96	4,292.8	1,208.0	-440.6	1,285.8	0.00	0.00	
4,600.0	18.80	339.96	4,387.5	1,238.2	-451.6	1,318.0	0.00	0.00	
4,700.0	18.80	339.96	4,482.1	1,268.5	-462.7	1,350.2	0.00	0.00	
4,800.0	18.80	339.96	4,576.8	1,298.8	-473.7	1,382.5	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Project:	Mamm Creek	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site:	SWSW S16-T7S-R93W (M16W Pad)	North Reference:	True
Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,900.0	18.80	339.96	4,671.5	1,329.1	-484.7	1,414.7	0.00	0.00	
5,000.0	18.80	339.96	4,766.1	1,359.3	-495.8	1,446.9	0.00	0.00	
5,100.0	18.80	339.96	4,860.8	1,389.6	-506.8	1,479.2	0.00	0.00	
5,200.0	18.80	339.96	4,955.5	1,419.9	-517.9	1,511.4	0.00	0.00	
5,300.0	18.80	339.96	5,050.1	1,450.2	-528.9	1,543.6	0.00	0.00	
5,400.0	18.80	339.96	5,144.8	1,480.5	-540.0	1,575.9	0.00	0.00	
5,500.0	18.80	339.96	5,239.4	1,510.7	-551.0	1,608.1	0.00	0.00	
5,600.0	18.80	339.96	5,334.1	1,541.0	-562.1	1,640.3	0.00	0.00	
5,700.0	18.80	339.96	5,428.8	1,571.3	-573.1	1,672.5	0.00	0.00	
5,800.0	18.80	339.96	5,523.4	1,601.6	-584.1	1,704.8	0.00	0.00	
5,900.0	18.80	339.96	5,618.1	1,631.9	-595.2	1,737.0	0.00	0.00	
6,000.0	18.80	339.96	5,712.8	1,662.1	-606.2	1,769.2	0.00	0.00	
6,100.0	18.80	339.96	5,807.4	1,692.4	-617.3	1,801.5	0.00	0.00	
6,184.1	18.80	339.96	5,887.0	1,717.9	-626.5	1,828.6	0.00	0.00	Ohio Creek
6,200.0	18.80	339.96	5,902.1	1,722.7	-628.3	1,833.7	0.00	0.00	
6,300.0	18.80	339.96	5,996.8	1,753.0	-639.4	1,865.9	0.00	0.00	
6,400.0	18.80	339.96	6,091.4	1,783.2	-650.4	1,898.2	0.00	0.00	
6,500.0	18.80	339.96	6,186.1	1,813.5	-661.4	1,930.4	0.00	0.00	
6,600.0	18.80	339.96	6,280.7	1,843.8	-672.5	1,962.6	0.00	0.00	
6,649.9	18.80	339.96	6,328.0	1,858.9	-678.0	1,978.7	0.00	0.00	Mesa Verde
6,700.0	18.80	339.96	6,375.4	1,874.1	-683.5	1,994.8	0.00	0.00	
6,800.0	18.80	339.96	6,470.1	1,904.4	-694.6	2,027.1	0.00	0.00	
6,900.0	18.80	339.96	6,564.7	1,934.6	-705.6	2,059.3	0.00	0.00	
7,000.0	18.80	339.96	6,659.4	1,964.9	-716.7	2,091.5	0.00	0.00	
7,100.0	18.80	339.96	6,754.1	1,995.2	-727.7	2,123.8	0.00	0.00	
7,190.8	18.80	339.96	6,840.0	2,022.7	-737.7	2,153.0	0.00	0.00	Williams Fork
7,200.0	18.80	339.96	6,848.7	2,025.5	-738.7	2,156.0	0.00	0.00	
7,296.1	18.80	339.96	6,939.7	2,054.6	-749.4	2,187.0	0.00	0.00	Start Drop -2.00
7,300.0	18.72	339.96	6,943.4	2,055.7	-749.8	2,188.2	2.00	-2.00	
7,400.0	16.72	339.96	7,038.6	2,084.3	-760.2	2,218.7	2.00	-2.00	
7,500.0	14.72	339.96	7,134.9	2,109.8	-769.5	2,245.8	2.00	-2.00	
7,600.0	12.72	339.96	7,232.0	2,132.1	-777.6	2,269.5	2.00	-2.00	
7,700.0	10.72	339.96	7,329.9	2,151.2	-784.6	2,289.8	2.00	-2.00	
7,800.0	8.72	339.96	7,428.5	2,167.0	-790.4	2,306.7	2.00	-2.00	
7,900.0	6.72	339.96	7,527.6	2,179.7	-795.0	2,320.1	2.00	-2.00	
8,000.0	4.72	339.96	7,627.1	2,189.0	-798.4	2,330.1	2.00	-2.00	
8,100.0	2.72	339.96	7,726.9	2,195.1	-800.6	2,336.6	2.00	-2.00	
8,200.0	0.72	339.96	7,826.8	2,198.0	-801.7	2,339.6	2.00	-2.00	
8,236.2	0.00	0.00	7,863.0	2,198.2	-801.7	2,339.8	2.00	-2.00	EOD; Inc=0° - Top of Gas - MCU Fee 16-5C (M
8,300.0	0.00	0.00	7,926.8	2,198.2	-801.7	2,339.8	0.00	0.00	
8,400.0	0.00	0.00	8,026.8	2,198.2	-801.7	2,339.8	0.00	0.00	
8,500.0	0.00	0.00	8,126.8	2,198.2	-801.7	2,339.8	0.00	0.00	
8,600.0	0.00	0.00	8,226.8	2,198.2	-801.7	2,339.8	0.00	0.00	
8,700.0	0.00	0.00	8,326.8	2,198.2	-801.7	2,339.8	0.00	0.00	
8,800.0	0.00	0.00	8,426.8	2,198.2	-801.7	2,339.8	0.00	0.00	
8,900.0	0.00	0.00	8,526.8	2,198.2	-801.7	2,339.8	0.00	0.00	
9,000.0	0.00	0.00	8,626.8	2,198.2	-801.7	2,339.8	0.00	0.00	
9,100.0	0.00	0.00	8,726.8	2,198.2	-801.7	2,339.8	0.00	0.00	
9,200.0	0.00	0.00	8,826.8	2,198.2	-801.7	2,339.8	0.00	0.00	
9,300.0	0.00	0.00	8,926.8	2,198.2	-801.7	2,339.8	0.00	0.00	
9,400.0	0.00	0.00	9,026.8	2,198.2	-801.7	2,339.8	0.00	0.00	
9,452.2	0.00	0.00	9,079.0	2,198.2	-801.7	2,339.8	0.00	0.00	Coal Ridge

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Project:	Mamm Creek	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site:	SWSW S16-T7S-R93W (M16W Pad)	North Reference:	True
Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,500.0	0.00	0.00	9,126.8	2,198.2	-801.7	2,339.8	0.00	0.00	
9,600.0	0.00	0.00	9,226.8	2,198.2	-801.7	2,339.8	0.00	0.00	
9,700.0	0.00	0.00	9,326.8	2,198.2	-801.7	2,339.8	0.00	0.00	
9,800.0	0.00	0.00	9,426.8	2,198.2	-801.7	2,339.8	0.00	0.00	
9,900.0	0.00	0.00	9,526.8	2,198.2	-801.7	2,339.8	0.00	0.00	
10,000.0	0.00	0.00	9,626.8	2,198.2	-801.7	2,339.8	0.00	0.00	
10,100.0	0.00	0.00	9,726.8	2,198.2	-801.7	2,339.8	0.00	0.00	
10,116.2	0.00	0.00	9,743.0	2,198.2	-801.7	2,339.8	0.00	0.00	Base Cameo A Coal
10,200.0	0.00	0.00	9,826.8	2,198.2	-801.7	2,339.8	0.00	0.00	
10,252.2	0.00	0.00	9,879.0	2,198.2	-801.7	2,339.8	0.00	0.00	Rollins
10,300.0	0.00	0.00	9,926.8	2,198.2	-801.7	2,339.8	0.00	0.00	
10,400.0	0.00	0.00	10,026.8	2,198.2	-801.7	2,339.8	0.00	0.00	
10,500.0	0.00	0.00	10,126.8	2,198.2	-801.7	2,339.8	0.00	0.00	
10,600.0	0.00	0.00	10,226.8	2,198.2	-801.7	2,339.8	0.00	0.00	
10,678.2	0.00	0.00	10,305.0	2,198.2	-801.7	2,339.8	0.00	0.00	Cozzette
10,700.0	0.00	0.00	10,326.8	2,198.2	-801.7	2,339.8	0.00	0.00	
10,800.0	0.00	0.00	10,426.8	2,198.2	-801.7	2,339.8	0.00	0.00	
10,887.2	0.00	0.00	10,514.0	2,198.2	-801.7	2,339.8	0.00	0.00	Corcoran
10,900.0	0.00	0.00	10,526.8	2,198.2	-801.7	2,339.8	0.00	0.00	
11,000.0	0.00	0.00	10,626.8	2,198.2	-801.7	2,339.8	0.00	0.00	
11,100.0	0.00	0.00	10,726.8	2,198.2	-801.7	2,339.8	0.00	0.00	
11,200.0	0.00	0.00	10,826.8	2,198.2	-801.7	2,339.8	0.00	0.00	
11,300.0	0.00	0.00	10,926.8	2,198.2	-801.7	2,339.8	0.00	0.00	
11,400.0	0.00	0.00	11,026.8	2,198.2	-801.7	2,339.8	0.00	0.00	
11,437.2	0.00	0.00	11,064.0	2,198.2	-801.7	2,339.8	0.00	0.00	TD @ 11437.2' MD - MCU Fee 16-5C (M16W F
11,500.0	0.00	0.00	11,126.8	2,198.2	-801.7	2,339.8	0.00	0.00	
11,600.0	0.00	0.00	11,226.8	2,198.2	-801.7	2,339.8	0.00	0.00	
11,700.0	0.00	0.00	11,326.8	2,198.2	-801.7	2,339.8	0.00	0.00	
11,737.2	0.00	0.00	11,364.0	2,198.2	-801.7	2,339.8	0.00	0.00	Permit TD @ 11737.2' MD

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
MCU Fee 16-5C (M16W - plan hits target center - Circle (radius 25.0)	0.00	0.00	11,064.0	2,198.2	-801.7	1,595,541.56	2,354,582.61	39.446229	-107.785730
MCU Fee 16-5C (M16W - plan hits target center - Circle (radius 25.0)	0.00	0.00	7,863.0	2,198.2	-801.7	1,595,541.56	2,354,582.61	39.446229	-107.785730

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,173.7	1,144.0	Surface Casing	0.000	0.000

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Project:	Mamm Creek	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site:	SWSW S16-T7S-R93W (M16W Pad)	North Reference:	True
Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,018.5	3,837.0	G Sand		0.00		
6,184.1	5,887.0	Ohio Creek		0.00		
6,649.9	6,328.0	Mesa Verde		0.00		
7,190.8	6,840.0	Williams Fork		0.00		
8,236.2	7,863.0	Top of Gas		0.00		
9,452.2	9,079.0	Coal Ridge		0.00		
10,116.2	9,743.0	Base Cameo A Coal		0.00		
10,252.2	9,879.0	Rollins		0.00		
10,678.2	10,305.0	Cozzette		0.00		
10,887.2	10,514.0	Corcoran		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.0	200.0	0.0	0.0	KOP @ 200' MD	
826.7	815.5	95.7	-34.9	EOB; Inc=18.8°	
7,296.1	6,939.7	2,054.6	-749.4	Start Drop -2.00	
8,236.2	7,863.0	2,198.2	-801.7	EOD; Inc=0°	
11,437.2	11,064.0	2,198.2	-801.7	TD @ 11437.2' MD	
11,737.2	11,364.0	2,198.2	-801.7	Permit TD @ 11737.2' MD	

EnCana Oil & Gas (USA) Inc

Mamm Creek

SWSW S16-T7S-R93W (M16W Pad)

MCU Fee 16-5C (M16W Pad)

DD

Plan #1

Anticollision Report

19 January, 2011

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	1/19/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,737.2	Plan #1 (DD)	MWD	Geolink MWD	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SESW S9-T7S-R93W (N9W Pad)						
EnCana GMR 16-5 - Final - DD	10,364.6	9,873.0	404.0	355.8	8.378	CC, ES, SF
EnCana GMR 16-5 - Final - Plan #4	10,400.0	9,918.7	422.7	374.5	8.785	CC, ES, SF
SWSW S16-T7S-R93W (M16W Pad)						
MCU 16-13A (M16W Pad) - DD - Plan #1	200.0	200.0	26.6	25.9	42.763	CC, ES
MCU 16-13A (M16W Pad) - DD - Plan #1	700.0	695.5	52.5	49.3	16.218	SF
MCU 16-13B (M16W Pad) - DD - Plan #1	200.0	200.0	76.8	76.2	123.668	CC, ES
MCU 16-13B (M16W Pad) - DD - Plan #1	900.0	884.3	142.1	137.7	32.160	SF
MCU 16-13C (M16W Pad) - DD - Plan #1	200.0	200.0	175.2	174.6	282.012	CC, ES
MCU 16-13C (M16W Pad) - DD - Plan #1	1,600.0	1,545.0	457.6	449.8	58.782	SF
MCU 16-13D (M16W Pad) - DD - Plan #1	200.0	200.0	206.8	206.2	332.848	CC, ES
MCU 16-13D (M16W Pad) - DD - Plan #1	1,500.0	1,428.1	496.4	489.3	69.744	SF
MCU 21-3B (M16W Pad) - DD - Plan #1	634.1	644.2	176.0	173.0	58.206	CC, ES
MCU 21-3B (M16W Pad) - DD - Plan #1	800.0	789.7	194.6	190.4	45.886	SF
MCU 21-4A (M16W Pad) - DD - Plan #1	200.0	200.0	201.6	201.0	324.520	CC, ES
MCU 21-4A (M16W Pad) - DD - Plan #1	1,400.0	1,325.3	486.0	479.6	75.299	SF
MCU 21-4B (M16W Pad) - DD - Plan #1	200.0	200.0	186.0	185.4	299.315	CC, ES
MCU 21-4B (M16W Pad) - DD - Plan #1	1,300.0	1,204.1	494.3	488.7	87.461	SF
MCU 21-4C (M16W Pad) - DD - Plan #1	200.0	200.0	170.8	170.2	274.893	CC, ES
MCU 21-4C (M16W Pad) - DD - Plan #1	1,100.0	1,007.6	426.9	422.3	93.495	SF
MCU 21-4D2 (M16W Pad) - DD - Plan #1	200.0	200.0	155.8	155.2	250.729	CC, ES
MCU 21-4D2 (M16W Pad) - DD - Plan #1	800.0	729.8	296.3	293.2	96.205	SF
MCU 21-5A (M16W Pad) - DD - Plan #1	200.0	200.0	141.4	140.8	227.595	CC, ES
MCU 21-5A (M16W Pad) - DD - Plan #1	700.0	642.5	242.9	240.4	94.778	SF
MCU Fee 16-12C2 (M16W Pad) - DD - Plan #1	200.0	200.0	17.1	16.5	27.554	CC, ES
MCU Fee 16-12C2 (M16W Pad) - DD - Plan #1	700.0	698.2	37.7	34.4	11.216	SF
MCU Fee 16-2C (M16W Pad) - DD - Plan #1	200.0	200.0	11.7	11.1	18.879	CC
MCU Fee 16-2C (M16W Pad) - DD - Plan #1	300.0	299.5	12.1	11.1	12.347	ES
MCU Fee 16-2C (M16W Pad) - DD - Plan #1	800.0	797.2	25.2	20.8	5.735	SF
MCU Fee 17-16B (M16W Pad) - DD - Plan #1	200.0	200.0	144.7	144.1	232.923	CC, ES
MCU Fee 17-16B (M16W Pad) - DD - Plan #1	1,600.0	1,524.4	476.3	463.9	38.398	SF
MCU Fee 17-16B2 (M16W Pad) - DD - Plan #1	200.0	200.0	159.7	159.1	257.028	CC, ES
MCU Fee 17-16B2 (M16W Pad) - DD - Plan #1	1,500.0	1,407.3	492.8	482.0	45.469	SF
MCU Fee 17-16C (M16W Pad) - DD - Plan #1	200.0	200.0	190.8	190.2	307.095	CC, ES
MCU Fee 17-16C (M16W Pad) - DD - Plan #1	1,300.0	1,195.4	474.8	466.4	56.729	SF
MCU Fee 17-9B (M16W pad) - DD - Plan #1	200.0	200.0	34.0	33.4	54.684	CC
MCU Fee 17-9B (M16W pad) - DD - Plan #1	300.0	300.0	34.1	33.1	34.818	ES
MCU Fee 17-9B (M16W pad) - DD - Plan #1	2,400.0	2,372.2	362.0	339.1	15.778	SF
MCU Fee 17-9B2 (M16W Pad) - DD - Plan #1	200.0	200.0	144.5	143.9	232.539	CC, ES
MCU Fee 17-9B2 (M16W Pad) - DD - Plan #1	2,100.0	2,014.2	484.6	466.0	25.970	SF
MCU Fee 17-9C (M16W Pad) - DD - Plan #1	200.0	200.0	60.1	59.5	96.750	CC, ES
MCU Fee 17-9C (M16W Pad) - DD - Plan #1	2,200.0	2,125.3	486.4	466.6	24.557	SF
MCU Fee 17-9D (M16W Pad) - DD - Plan #1	200.0	200.0	68.0	67.3	109.363	CC, ES
MCU Fee 17-9D (M16W Pad) - DD - Plan #1	2,200.0	2,136.1	498.2	480.8	28.590	SF

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 112-MWD, 916-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
8,300.0	7,926.8	7,891.0	7,465.2	43.5	43.5	0.29	2,689.0	-799.2	498.6	455.8	42.74	11.666	
8,400.0	8,026.8	7,978.7	7,551.6	43.6	43.7	-0.20	2,674.4	-803.4	481.9	438.9	43.01	11.204	
8,500.0	8,126.8	8,071.2	7,643.1	43.7	44.0	-0.42	2,661.2	-805.1	467.6	424.3	43.27	10.807	
8,600.0	8,226.8	8,160.0	7,731.1	43.7	44.2	-0.59	2,649.4	-806.4	454.4	410.9	43.52	10.441	
8,700.0	8,326.8	8,251.0	7,821.6	43.8	44.4	-0.79	2,640.0	-807.9	444.0	400.2	43.78	10.141	
8,800.0	8,426.8	8,346.8	7,916.9	43.8	44.6	-1.03	2,630.8	-809.5	434.5	390.4	44.06	9.861	
8,900.0	8,526.8	8,436.8	8,006.6	43.9	44.7	-1.29	2,623.5	-811.3	426.4	382.1	44.34	9.616	
9,000.0	8,626.8	8,526.9	8,096.5	44.0	44.9	-1.71	2,618.5	-814.3	421.0	376.3	44.65	9.428	
9,100.0	8,726.8	8,619.0	8,188.5	44.0	45.0	-2.03	2,615.2	-816.5	417.4	372.4	44.93	9.289	
9,200.0	8,826.8	8,714.8	8,284.3	44.1	45.1	-2.17	2,613.5	-817.5	415.7	370.5	45.20	9.196	
9,300.0	8,926.8	8,816.6	8,386.1	44.1	45.2	-2.37	2,611.5	-818.8	413.8	368.3	45.48	9.098	
9,400.0	9,026.8	8,914.6	8,484.1	44.2	45.2	-2.44	2,609.7	-819.3	411.9	366.2	45.73	9.007	
9,500.0	9,126.8	9,010.3	8,579.8	44.3	45.3	-2.38	2,608.7	-818.8	410.9	364.9	45.97	8.939	
9,545.6	9,172.4	9,054.0	8,623.5	44.3	45.3	-2.39	2,608.6	-818.9	410.8	364.7	46.08	8.914	
9,600.0	9,226.8	9,108.4	8,677.8	44.3	45.4	-2.45	2,608.6	-819.3	410.8	364.6	46.23	8.885	
9,653.0	9,279.8	9,161.4	8,730.8	44.4	45.4	-2.53	2,608.6	-819.8	410.8	364.4	46.38	8.857	
9,700.0	9,326.8	9,207.7	8,777.2	44.4	45.4	-2.57	2,608.6	-820.2	410.8	364.3	46.50	8.835	
9,800.0	9,426.8	9,308.5	8,878.0	44.5	45.5	-2.55	2,608.8	-820.0	411.0	364.2	46.75	8.791	
9,900.0	9,526.8	9,409.8	8,979.3	44.5	45.6	-2.53	2,608.5	-819.9	410.8	363.8	47.00	8.739	
10,000.0	9,626.8	9,511.0	9,080.5	44.6	45.6	-2.56	2,608.0	-820.1	410.3	363.0	47.26	8.681	
10,100.0	9,726.8	9,615.1	9,184.6	44.7	45.7	-2.56	2,606.9	-820.0	409.2	361.6	47.52	8.610	
10,200.0	9,826.8	9,716.0	9,285.4	44.7	45.8	-2.58	2,605.1	-820.1	407.4	359.6	47.78	8.525	
10,300.0	9,926.8	9,817.5	9,386.9	44.8	45.9	-2.64	2,603.0	-820.4	405.3	357.3	48.06	8.435	
10,364.6	9,991.4	9,873.0	9,442.4	44.9	46.0	-2.67	2,601.7	-820.6	404.0	355.8	48.22	8.378 CC, ES, SF	
10,400.0	10,026.8	9,873.0	9,442.4	44.9	46.0	-2.67	2,601.7	-820.6	405.5	357.3	48.27	8.401	
10,500.0	10,126.8	9,873.0	9,442.4	45.0	46.0	-2.67	2,601.7	-820.6	426.1	377.7	48.42	8.800	
10,600.0	10,226.8	9,873.0	9,442.4	45.0	46.0	-2.67	2,601.7	-820.6	467.6	419.0	48.56	9.628	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 112-MWD, 916-MWD												Offset Well Error:	0.0 ft
SESU S9-T7S-R93W (N9W Pad) - EnCana GMR 16-5 - Final - Plan #4													
Reference		Offset		Semi Major Axis			Distance				Total		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)	Uncertainty Axis	Separation Factor	
8,200.0	7,826.8	7,811.5	7,374.2	43.5	43.8	21.20	2,663.6	-792.6	475.6	433.2	42.42	11.212	
8,300.0	7,926.8	7,900.0	7,460.9	43.5	44.1	0.17	2,647.8	-800.4	457.2	414.4	42.78	10.688	
8,400.0	8,026.8	7,973.1	7,533.1	43.6	44.3	-0.49	2,637.4	-805.5	442.7	399.6	43.08	10.277	
8,500.0	8,126.8	8,055.5	7,614.9	43.7	44.5	-1.07	2,628.6	-809.8	432.1	388.8	43.38	9.962	
8,600.0	8,226.8	8,138.7	7,697.8	43.7	44.6	-1.45	2,623.1	-812.5	425.5	381.8	43.65	9.748	
8,700.0	8,326.8	8,222.2	7,781.3	43.8	44.6	-1.61	2,620.7	-813.6	422.7	378.8	43.89	9.632	
8,742.3	8,369.1	8,261.0	7,820.1	43.8	44.7	-1.62	2,620.7	-813.7	422.7	378.7	43.99	9.608	
8,800.0	8,426.8	8,318.7	7,877.8	43.8	44.7	-1.62	2,620.7	-813.7	422.7	378.5	44.13	9.578	
8,900.0	8,526.8	8,418.7	7,977.8	43.9	44.8	-1.62	2,620.7	-813.7	422.7	378.3	44.36	9.527	
9,000.0	8,626.8	8,518.7	8,077.8	44.0	44.8	-1.62	2,620.7	-813.7	422.7	378.0	44.61	9.475	
9,100.0	8,726.8	8,618.7	8,177.8	44.0	44.9	-1.62	2,620.7	-813.7	422.7	377.8	44.85	9.424	
9,200.0	8,826.8	8,718.7	8,277.8	44.1	44.9	-1.62	2,620.7	-813.7	422.7	377.6	45.09	9.373	
9,300.0	8,926.8	8,818.7	8,377.8	44.1	45.0	-1.62	2,620.7	-813.7	422.7	377.3	45.34	9.323	
9,400.0	9,026.8	8,918.7	8,477.8	44.2	45.1	-1.62	2,620.7	-813.7	422.7	377.1	45.58	9.272	
9,500.0	9,126.8	9,018.7	8,577.8	44.3	45.1	-1.62	2,620.7	-813.7	422.7	376.8	45.83	9.222	
9,600.0	9,226.8	9,118.7	8,677.8	44.3	45.2	-1.62	2,620.7	-813.7	422.7	376.6	46.08	9.172	
9,700.0	9,326.8	9,218.7	8,777.8	44.4	45.2	-1.62	2,620.7	-813.7	422.7	376.3	46.33	9.123	
9,800.0	9,426.8	9,318.7	8,877.8	44.5	45.3	-1.62	2,620.7	-813.7	422.7	376.1	46.58	9.074	
9,900.0	9,526.8	9,418.7	8,977.8	44.5	45.4	-1.62	2,620.7	-813.7	422.7	375.8	46.83	9.025	
10,000.0	9,626.8	9,518.7	9,077.8	44.6	45.4	-1.62	2,620.7	-813.7	422.7	375.6	47.09	8.976	
10,100.0	9,726.8	9,618.7	9,177.8	44.7	45.5	-1.62	2,620.7	-813.7	422.7	375.3	47.34	8.928	
10,200.0	9,826.8	9,718.7	9,277.8	44.7	45.6	-1.62	2,620.7	-813.7	422.7	375.1	47.60	8.880	
10,300.0	9,926.8	9,818.7	9,377.8	44.8	45.6	-1.62	2,620.7	-813.7	422.7	374.8	47.85	8.832	
10,400.0	10,026.8	9,918.7	9,477.8	44.9	45.7	-1.62	2,620.7	-813.7	422.7	374.5	48.11	8.785 CC, ES, SF	
10,500.0	10,126.8	9,944.9	9,504.0	45.0	45.7	-1.62	2,620.7	-813.7	429.0	380.8	48.29	8.886	
10,600.0	10,226.8	9,944.9	9,504.0	45.0	45.7	-1.62	2,620.7	-813.7	457.0	408.6	48.43	9.436	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU 16-13A (M16W Pad) - 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	-92.36	-1.1	-26.5	26.6					
100.0	100.0	100.0	100.0	0.1	0.1	-92.36	-1.1	-26.5	26.6	26.3	0.27	97.588		
200.0	200.0	200.0	200.0	0.3	0.3	-92.36	-1.1	-26.5	26.6	25.9	0.62	42.763	CC, ES	
300.0	300.0	298.9	298.9	0.5	0.5	-73.90	0.5	-28.5	27.7	26.8	0.98	28.293		
400.0	399.6	397.8	397.4	0.7	0.7	-77.90	5.3	-34.5	31.3	29.9	1.40	22.433		
500.0	498.8	497.0	495.9	1.0	1.0	-83.77	12.9	-43.9	37.1	35.2	1.91	19.413		
600.0	597.1	596.5	594.6	1.4	1.2	-94.25	20.8	-53.7	43.6	41.0	2.54	17.137		
700.0	694.3	695.5	692.8	1.8	1.5	-107.26	28.6	-63.5	52.5	49.3	3.24	16.218	SF	
800.0	790.2	793.7	790.2	2.3	1.8	-120.03	36.4	-73.2	65.8	61.9	3.89	16.936		
900.0	884.9	891.1	886.9	2.9	2.0	-130.42	44.2	-82.8	83.8	79.4	4.42	18.961		
1,000.0	979.6	988.5	983.5	3.5	2.3	-137.18	51.9	-92.4	103.7	98.8	4.90	21.149		
1,100.0	1,074.2	1,085.9	1,080.1	4.1	2.6	-141.75	59.6	-102.0	124.6	119.2	5.37	23.193		
1,200.0	1,168.9	1,183.3	1,176.7	4.6	2.9	-145.00	67.4	-111.6	146.0	140.2	5.83	25.026		
1,300.0	1,263.6	1,280.7	1,273.3	5.2	3.1	-147.42	75.1	-121.2	167.7	161.4	6.29	26.649		
1,400.0	1,358.2	1,378.1	1,369.9	5.8	3.4	-149.28	82.8	-130.8	189.7	182.9	6.75	28.084		
1,500.0	1,452.9	1,475.5	1,466.5	6.4	3.7	-150.76	90.5	-140.4	211.8	204.6	7.22	29.354		
1,600.0	1,547.5	1,572.9	1,563.1	7.0	4.0	-151.95	98.3	-150.0	234.0	226.3	7.68	30.483		
1,700.0	1,642.2	1,670.3	1,659.7	7.6	4.2	-152.94	106.0	-159.6	256.3	248.2	8.14	31.492		
1,800.0	1,736.9	1,767.7	1,756.4	8.2	4.5	-153.78	113.7	-169.2	278.7	270.1	8.60	32.396		
1,900.0	1,831.5	1,865.1	1,853.0	8.8	4.8	-154.48	121.5	-178.8	301.1	292.0	9.07	33.212		
2,000.0	1,926.2	1,962.5	1,949.6	9.4	5.0	-155.09	129.2	-188.5	323.5	314.0	9.53	33.950		
2,100.0	2,020.9	2,059.9	2,046.2	9.9	5.3	-155.62	136.9	-198.1	346.0	336.0	9.99	34.621		
2,200.0	2,115.5	2,157.2	2,142.8	10.5	5.6	-156.09	144.7	-207.7	368.5	358.0	10.46	35.233		
2,300.0	2,210.2	2,254.6	2,239.4	11.1	5.9	-156.50	152.4	-217.3	391.0	380.1	10.92	35.794		
2,400.0	2,304.9	2,352.0	2,336.0	11.7	6.1	-156.87	160.1	-226.9	413.6	402.2	11.39	36.310		
2,500.0	2,399.5	2,449.4	2,432.6	12.3	6.4	-157.20	167.9	-236.5	436.1	424.3	11.86	36.786		
2,600.0	2,494.2	2,546.8	2,529.2	12.9	6.7	-157.50	175.6	-246.1	458.7	446.3	12.32	37.226		
2,700.0	2,588.9	2,644.2	2,625.9	13.5	7.0	-157.76	183.3	-255.7	481.2	468.5	12.79	37.635		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU 16-13B (M16W Pad) - 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	Separation	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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-103.99	-18.6	-74.6	76.8					
100.0	100.0	100.0	100.0	0.1	0.1	-103.99	-18.6	-74.6	76.8	76.6	0.27	282.216		
200.0	200.0	200.0	200.0	0.3	0.3	-103.99	-18.6	-74.6	76.8	76.2	0.62	123.668 CC, ES		
300.0	300.0	296.8	296.8	0.5	0.5	-84.66	-17.6	-76.8	78.6	77.6	0.98	80.491		
400.0	399.6	393.6	393.3	0.7	0.7	-86.60	-14.7	-83.6	83.9	82.5	1.38	60.699		
500.0	498.8	493.2	492.4	1.0	0.9	-90.64	-10.9	-92.6	91.0	89.1	1.87	48.630		
600.0	597.1	592.2	590.9	1.4	1.2	-97.02	-7.1	-101.6	99.0	96.5	2.45	40.428		
700.0	694.3	690.6	688.8	1.8	1.4	-104.89	-3.3	-110.4	109.3	106.2	3.10	35.269		
800.0	790.2	787.9	785.6	2.3	1.6	-113.33	0.4	-119.3	123.6	119.8	3.78	32.648		
900.0	884.9	884.3	881.6	2.9	1.9	-121.42	4.1	-128.0	142.1	137.7	4.42	32.160 SF		
1,000.0	979.6	980.6	977.5	3.5	2.1	-127.75	7.8	-136.7	162.9	157.9	4.99	32.625		
1,100.0	1,074.2	1,077.0	1,073.4	4.1	2.3	-132.64	11.5	-145.4	185.3	179.8	5.53	33.505		
1,200.0	1,168.9	1,173.4	1,169.3	4.6	2.6	-136.47	15.2	-154.1	208.7	202.6	6.04	34.551		
1,300.0	1,263.6	1,269.8	1,265.2	5.2	2.8	-139.53	18.9	-162.9	232.8	226.2	6.53	35.641		
1,400.0	1,358.2	1,366.1	1,361.1	5.8	3.0	-142.02	22.6	-171.6	257.4	250.4	7.01	36.714		
1,500.0	1,452.9	1,462.5	1,457.0	6.4	3.3	-144.07	26.3	-180.3	282.4	274.9	7.48	37.743		
1,600.0	1,547.5	1,558.9	1,552.9	7.0	3.5	-145.79	30.0	-189.0	307.7	299.7	7.95	38.713		
1,700.0	1,642.2	1,655.2	1,648.8	7.6	3.7	-147.25	33.7	-197.7	333.2	324.8	8.41	39.621		
1,800.0	1,736.9	1,751.6	1,744.7	8.2	4.0	-148.51	37.4	-206.5	358.8	350.0	8.87	40.468		
1,900.0	1,831.5	1,848.0	1,840.6	8.8	4.2	-149.59	41.1	-215.2	384.7	375.3	9.32	41.257		
2,000.0	1,926.2	1,944.3	1,936.5	9.4	4.5	-150.54	44.8	-223.9	410.6	400.8	9.78	41.990		
2,100.0	2,020.9	2,040.7	2,032.4	9.9	4.7	-151.38	48.6	-232.6	436.6	426.4	10.23	42.672		
2,200.0	2,115.5	2,137.1	2,128.3	10.5	4.9	-152.13	52.3	-241.3	462.7	452.0	10.68	43.308		
2,300.0	2,210.2	2,233.4	2,224.2	11.1	5.2	-152.79	56.0	-250.1	488.9	477.8	11.14	43.900		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU 16-13C (M16W Pad) - 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	-133.64	-120.9	-126.8	175.2					
100.0	100.0	100.0	100.0	0.1	0.1	-133.64	-120.9	-126.8	175.2	175.0	0.27	643.565		
200.0	200.0	200.0	200.0	0.3	0.3	-133.64	-120.9	-126.8	175.2	174.6	0.62	282.012 CC, ES		
300.0	300.0	294.1	294.0	0.5	0.5	-113.70	-120.8	-129.1	177.9	177.0	0.97	183.172		
400.0	399.6	389.8	389.5	0.7	0.7	-114.07	-120.3	-135.9	185.9	184.5	1.37	135.997		
500.0	498.8	489.0	488.4	1.0	0.9	-115.47	-119.8	-144.0	196.8	195.0	1.83	107.741		
600.0	597.1	587.6	586.6	1.4	1.1	-117.90	-119.3	-152.1	210.3	207.9	2.35	89.608		
700.0	694.3	685.2	684.0	1.8	1.3	-121.03	-118.8	-160.1	226.9	223.9	2.92	77.693		
800.0	790.2	781.7	780.1	2.3	1.5	-124.58	-118.3	-168.0	247.1	243.6	3.53	69.978		
900.0	884.9	877.2	875.3	2.9	1.8	-128.49	-117.8	-175.8	270.7	266.6	4.13	65.557		
1,000.0	979.6	972.6	970.3	3.5	2.0	-131.94	-117.3	-183.6	295.5	290.8	4.70	62.844		
1,100.0	1,074.2	1,068.0	1,065.4	4.1	2.2	-134.86	-116.7	-191.4	321.2	316.0	5.25	61.144		
1,200.0	1,168.9	1,163.4	1,160.5	4.6	2.4	-137.35	-116.2	-199.2	347.6	341.8	5.79	60.080		
1,300.0	1,263.6	1,258.8	1,255.6	5.2	2.6	-139.49	-115.7	-207.0	374.6	368.2	6.30	59.426		
1,400.0	1,358.2	1,354.2	1,350.7	5.8	2.8	-141.35	-115.2	-214.8	401.9	395.1	6.81	59.046		
1,500.0	1,452.9	1,449.6	1,445.8	6.4	3.0	-142.97	-114.7	-222.6	429.6	422.3	7.30	58.851		
1,600.0	1,547.5	1,545.0	1,540.9	7.0	3.3	-144.40	-114.2	-230.4	457.6	449.8	7.78	58.782 SF		
1,700.0	1,642.2	1,640.5	1,636.0	7.6	3.5	-145.67	-113.7	-238.2	485.8	477.6	8.26	58.800		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU 16-13D (M16W Pad) - 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	-129.87	-132.6	-158.7	206.8				
100.0	100.0	100.0	100.0	0.1	0.1	-129.87	-132.6	-158.7	206.8	206.5	0.27	759.576	
200.0	200.0	200.0	200.0	0.3	0.3	-129.87	-132.6	-158.7	206.8	206.2	0.62	332.848	CC, ES
300.0	300.0	290.3	290.3	0.5	0.5	-110.22	-133.5	-160.6	210.0	209.0	0.96	218.400	
400.0	399.6	381.8	381.5	0.7	0.7	-111.33	-136.4	-166.4	219.6	218.2	1.34	164.247	
500.0	498.8	480.4	479.8	1.0	0.9	-113.40	-140.2	-173.9	232.8	231.1	1.78	130.948	
600.0	597.1	578.2	577.2	1.4	1.1	-116.22	-144.0	-181.4	248.7	246.5	2.28	109.241	
700.0	694.3	674.8	673.5	1.8	1.3	-119.51	-147.7	-188.8	267.9	265.0	2.83	94.693	
800.0	790.2	770.1	768.4	2.3	1.5	-123.04	-151.4	-196.0	290.8	287.4	3.42	84.989	
900.0	884.9	864.1	862.1	2.9	1.7	-126.93	-155.0	-203.2	317.3	313.3	4.00	79.221	
1,000.0	979.6	958.1	955.7	3.5	2.0	-130.40	-158.6	-210.4	345.2	340.6	4.57	75.600	
1,100.0	1,074.2	1,052.1	1,049.4	4.1	2.2	-133.36	-162.2	-217.6	374.1	369.0	5.11	73.265	
1,200.0	1,168.9	1,146.1	1,143.0	4.6	2.4	-135.91	-165.8	-224.8	403.8	398.2	5.63	71.745	
1,300.0	1,263.6	1,240.1	1,236.7	5.2	2.6	-138.11	-169.4	-231.9	434.2	428.1	6.14	70.757	
1,400.0	1,358.2	1,334.1	1,330.3	5.8	2.8	-140.03	-173.1	-239.1	465.1	458.5	6.63	70.127	
1,500.0	1,452.9	1,428.1	1,424.0	6.4	3.0	-141.71	-176.7	-246.3	496.4	489.3	7.12	69.744	SF

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU 21-3B (M16W Pad) - 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	-94.98	-17.5	-200.5	201.3				
100.0	100.0	100.0	100.0	0.1	0.1	-94.98	-17.5	-200.5	201.3	201.0	0.27	739.270	
200.0	200.0	200.0	200.0	0.3	0.3	-94.98	-17.5	-200.5	201.3	200.7	0.62	323.950	
300.0	300.0	307.4	307.3	0.5	0.5	-76.44	-19.5	-198.3	198.8	197.8	1.00	199.142	
400.0	399.6	413.0	412.5	0.7	0.8	-81.04	-25.5	-191.8	191.9	190.4	1.44	133.223	
500.0	498.8	515.1	513.7	1.0	1.1	-88.94	-35.0	-181.4	183.1	181.0	2.01	91.078	
600.0	597.1	612.4	609.2	1.4	1.4	-99.99	-47.4	-167.7	176.6	173.9	2.74	64.558	
634.1	630.4	644.2	640.2	1.5	1.6	-104.32	-52.1	-162.5	176.0	173.0	3.02	58.206 CC, ES	
700.0	694.3	703.5	697.7	1.8	1.8	-113.06	-61.9	-151.8	178.7	175.1	3.54	50.456	
800.0	790.2	789.7	781.0	2.3	2.2	-125.78	-76.9	-135.3	194.6	190.4	4.24	45.886 SF	
900.0	884.9	873.9	862.3	2.9	2.6	-137.07	-91.5	-119.3	224.0	219.3	4.75	47.199	
1,000.0	979.6	958.0	943.6	3.5	3.0	-146.11	-106.1	-103.3	261.5	256.4	5.10	51.282	
1,100.0	1,074.2	1,042.1	1,024.9	4.1	3.4	-153.08	-120.7	-87.3	304.0	298.7	5.37	56.613	
1,200.0	1,168.9	1,126.2	1,106.1	4.6	3.8	-158.48	-135.3	-71.3	349.8	344.2	5.61	62.380	
1,300.0	1,263.6	1,210.3	1,187.4	5.2	4.2	-162.71	-149.9	-55.2	397.6	391.8	5.84	68.130	
1,400.0	1,358.2	1,294.4	1,268.7	5.8	4.7	-166.08	-164.5	-39.2	446.9	440.8	6.07	73.617	
1,500.0	1,452.9	1,378.5	1,349.9	6.4	5.1	-168.81	-179.1	-23.2	497.1	490.8	6.32	78.719	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU 21-4A (M16W Pad) - 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	-132.78	-137.0	-148.0	201.6					
100.0	100.0	100.0	100.0	0.1	0.1	-132.78	-137.0	-148.0	201.6	201.4	0.27	740.571		
200.0	200.0	200.0	200.0	0.3	0.3	-132.78	-137.0	-148.0	201.6	201.0	0.62	324.520	CC, ES	
300.0	300.0	290.3	290.3	0.5	0.5	-113.20	-138.2	-149.7	205.0	204.1	0.96	213.341		
400.0	399.6	379.8	379.6	0.7	0.7	-114.48	-142.1	-154.7	215.2	213.9	1.33	161.846		
500.0	498.8	477.5	476.8	1.0	0.9	-116.68	-147.8	-162.2	230.5	228.7	1.76	130.837		
600.0	597.1	574.8	573.7	1.4	1.1	-119.54	-153.5	-169.7	248.7	246.5	2.25	110.700		
700.0	694.3	670.9	669.3	1.8	1.3	-122.77	-159.2	-177.1	270.5	267.7	2.78	97.299		
800.0	790.2	765.5	763.5	2.3	1.6	-126.14	-164.8	-184.4	296.2	292.9	3.35	88.434		
900.0	884.9	858.9	856.4	2.9	1.8	-129.84	-170.3	-191.6	325.5	321.6	3.91	83.274		
1,000.0	979.6	952.2	949.2	3.5	2.0	-133.13	-175.7	-198.8	356.1	351.7	4.45	80.064		
1,100.0	1,074.2	1,045.5	1,042.1	4.1	2.2	-135.91	-181.2	-206.0	387.7	382.7	4.97	78.011		
1,200.0	1,168.9	1,138.8	1,134.9	4.6	2.5	-138.27	-186.7	-213.2	419.9	414.4	5.48	76.686		
1,300.0	1,263.6	1,232.0	1,227.8	5.2	2.7	-140.31	-192.2	-220.4	452.8	446.8	5.97	75.834		
1,400.0	1,358.2	1,325.3	1,320.6	5.8	2.9	-142.07	-197.7	-227.6	486.0	479.6	6.45	75.299	SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU 21-4B (M16W Pad) - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-134.83	-131.1	-131.9	186.0					
100.0	100.0	100.0	100.0	0.1	0.1	-134.83	-131.1	-131.9	186.0	185.7	0.27	683.052		
200.0	200.0	200.0	200.0	0.3	0.3	-134.83	-131.1	-131.9	186.0	185.4	0.62	299.315	CC, ES	
300.0	300.0	291.1	291.1	0.5	0.5	-115.49	-132.9	-133.1	189.4	188.5	0.96	196.855		
400.0	399.6	381.2	380.9	0.7	0.7	-117.42	-138.3	-136.6	200.0	198.6	1.33	150.206		
500.0	498.8	469.2	468.3	1.0	0.9	-120.13	-147.0	-142.2	218.0	216.2	1.74	125.379		
600.0	597.1	563.6	561.7	1.4	1.2	-123.50	-158.6	-149.7	242.3	240.1	2.20	110.109		
700.0	694.3	657.7	654.8	1.8	1.5	-126.97	-170.1	-157.1	270.6	267.9	2.70	100.276		
800.0	790.2	750.0	746.1	2.3	1.7	-130.31	-181.5	-164.5	303.3	300.1	3.22	94.053		
900.0	884.9	840.9	836.0	2.9	2.0	-133.90	-192.6	-171.7	339.7	336.0	3.74	90.909		
1,000.0	979.6	931.7	925.9	3.5	2.3	-137.02	-203.8	-178.9	377.3	373.1	4.23	89.175		
1,100.0	1,074.2	1,022.5	1,015.7	4.1	2.6	-139.58	-214.9	-186.1	415.8	411.0	4.71	88.207		
1,200.0	1,168.9	1,113.3	1,105.5	4.6	2.8	-141.72	-226.1	-193.3	454.8	449.6	5.19	87.695		
1,300.0	1,263.6	1,204.1	1,195.3	5.2	3.1	-143.53	-237.2	-200.5	494.3	488.7	5.65	87.461	SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU 21-4C (M16W Pad) - 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	-137.19	-125.3	-116.1	170.8					
100.0	100.0	100.0	100.0	0.1	0.1	-137.19	-125.3	-116.1	170.8	170.5	0.27	627.320		
200.0	200.0	200.0	200.0	0.3	0.3	-137.19	-125.3	-116.1	170.8	170.2	0.62	274.893 CC, ES		
300.0	300.0	291.9	291.9	0.5	0.5	-117.96	-127.3	-117.1	174.3	173.4	0.96	180.937		
400.0	399.6	382.7	382.4	0.7	0.7	-120.18	-133.1	-120.0	185.1	183.8	1.33	138.943		
500.0	498.8	471.2	470.3	1.0	0.9	-123.25	-142.5	-124.7	203.7	202.0	1.74	117.253		
600.0	597.1	557.1	555.1	1.4	1.2	-126.58	-155.1	-130.9	230.5	228.3	2.17	106.006		
700.0	694.3	649.8	646.2	1.8	1.5	-130.16	-170.2	-138.5	263.4	260.7	2.65	99.262		
800.0	790.2	740.5	735.3	2.3	1.8	-133.43	-185.1	-145.9	300.7	297.6	3.15	95.378		
900.0	884.9	829.6	822.9	2.9	2.1	-136.88	-199.7	-153.2	341.8	338.2	3.64	93.985		
1,000.0	979.6	918.6	910.4	3.5	2.5	-139.83	-214.2	-160.4	384.0	379.9	4.11	93.527		
1,100.0	1,074.2	1,007.6	997.9	4.1	2.8	-142.21	-228.8	-167.7	426.9	422.3	4.57	93.495 SF		
1,200.0	1,168.9	1,096.6	1,085.5	4.6	3.1	-144.17	-243.3	-175.0	470.2	465.2	5.02	93.682		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU 21-4D2 (M16W Pad) - 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	Separation	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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-140.08	-119.5	-100.0	155.8					
100.0	100.0	100.0	100.0	0.1	0.1	-140.08	-119.5	-100.0	155.8	155.5	0.27	572.175		
200.0	200.0	200.0	200.0	0.3	0.3	-140.08	-119.5	-100.0	155.8	155.2	0.62	250.729	CC, ES	
300.0	300.0	292.6	292.6	0.5	0.5	-120.95	-121.6	-100.8	159.4	158.5	0.96	165.318		
400.0	399.6	384.0	383.7	0.7	0.7	-123.41	-127.7	-103.3	170.6	169.3	1.33	128.046		
500.0	498.8	473.1	472.1	1.0	0.9	-126.75	-137.6	-107.2	189.8	188.1	1.73	109.616		
600.0	597.1	558.7	556.6	1.4	1.2	-130.25	-150.7	-112.5	217.5	215.4	2.16	100.816		
700.0	694.3	641.1	637.2	1.8	1.5	-133.46	-166.5	-118.8	253.8	251.2	2.60	97.473		
800.0	790.2	729.8	723.6	2.3	1.9	-136.60	-185.0	-126.3	296.3	293.2	3.08	96.205	SF	
900.0	884.9	816.7	808.3	2.9	2.2	-139.88	-203.2	-133.5	342.3	338.8	3.54	96.784		
1,000.0	979.6	903.6	892.9	3.5	2.6	-142.64	-221.3	-140.8	389.3	385.4	3.98	97.772		
1,100.0	1,074.2	990.4	977.5	4.1	3.0	-144.81	-239.5	-148.1	436.9	432.5	4.42	98.808		
1,200.0	1,168.9	1,077.2	1,062.2	4.6	3.3	-146.56	-257.6	-155.4	484.9	480.1	4.86	99.803		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU 21-5A (M16W Pad) - 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	Separation	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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-143.48	-113.6	-84.2	141.4					
100.0	100.0	100.0	100.0	0.1	0.1	-143.48	-113.6	-84.2	141.4	141.1	0.27	519.383		
200.0	200.0	200.0	200.0	0.3	0.3	-143.48	-113.6	-84.2	141.4	140.8	0.62	227.595 CC, ES		
300.0	300.0	293.2	293.2	0.5	0.5	-124.43	-115.8	-84.9	145.2	144.2	0.96	150.490		
400.0	399.6	385.2	384.9	0.7	0.7	-127.05	-122.1	-87.0	156.8	155.5	1.33	117.862		
500.0	498.8	474.7	473.8	1.0	0.9	-130.55	-132.3	-90.4	176.8	175.1	1.72	102.629		
600.0	597.1	560.8	558.6	1.4	1.2	-134.12	-145.8	-95.0	205.5	203.4	2.14	96.238		
700.0	694.3	642.5	638.5	1.8	1.5	-137.27	-162.0	-100.4	242.9	240.4	2.56	94.778 SF		
800.0	790.2	720.0	713.6	2.3	1.9	-139.80	-180.3	-106.6	288.7	285.7	3.00	96.061		
900.0	884.9	803.5	794.0	2.9	2.3	-142.82	-201.6	-113.7	339.7	336.2	3.44	98.749		
1,000.0	979.6	887.9	875.3	3.5	2.7	-145.34	-223.1	-121.0	391.5	387.6	3.87	101.266		
1,100.0	1,074.2	972.3	956.6	4.1	3.1	-147.28	-244.6	-128.2	443.7	439.4	4.29	103.451		
1,200.0	1,168.9	1,056.7	1,037.9	4.6	3.5	-148.82	-266.2	-135.4	496.2	491.5	4.71	105.323		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU Fee 16-12C2 (M16W Pad) - 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		Separation		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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-109.90	-5.8	-16.1	17.1					
100.0	100.0	100.0	100.0	0.1	0.1	-109.90	-5.8	-16.1	17.1	16.8	0.27	62.881		
200.0	200.0	200.0	200.0	0.3	0.3	-109.90	-5.8	-16.1	17.1	16.5	0.62	27.554 CC, ES		
300.0	300.0	299.7	299.6	0.5	0.5	-90.34	-3.8	-17.8	18.0	17.0	0.99	18.242		
400.0	399.6	399.3	399.0	0.7	0.7	-91.52	2.2	-22.7	20.6	19.2	1.42	14.476		
500.0	498.8	498.9	497.7	1.0	1.0	-92.91	12.2	-30.9	24.9	22.9	1.98	12.564		
600.0	597.1	598.7	596.2	1.4	1.3	-98.13	24.5	-41.1	30.5	27.9	2.65	11.529		
700.0	694.3	698.2	694.4	1.8	1.6	-109.38	36.9	-51.2	37.7	34.4	3.36	11.216 SF		
800.0	790.2	797.1	792.0	2.3	1.9	-122.16	49.1	-61.3	48.5	44.5	4.01	12.113		
900.0	884.9	895.4	889.1	2.9	2.3	-132.78	61.3	-71.3	63.4	58.9	4.50	14.080		
1,000.0	979.6	993.8	986.1	3.5	2.6	-139.40	73.5	-81.3	79.8	74.8	4.96	16.077		
1,100.0	1,074.2	1,092.1	1,083.2	4.1	2.9	-143.74	85.7	-91.3	96.9	91.4	5.42	17.882		
1,200.0	1,168.9	1,190.4	1,180.2	4.6	3.2	-146.78	97.8	-101.3	114.3	108.4	5.87	19.468		
1,300.0	1,263.6	1,288.7	1,277.3	5.2	3.5	-149.00	110.0	-111.3	132.0	125.6	6.33	20.854		
1,400.0	1,358.2	1,387.0	1,374.3	5.8	3.9	-150.70	122.2	-121.3	149.8	143.0	6.79	22.067		
1,500.0	1,452.9	1,485.3	1,471.3	6.4	4.2	-152.04	134.4	-131.3	167.7	160.5	7.25	23.133		
1,600.0	1,547.5	1,583.6	1,568.4	7.0	4.5	-153.12	146.5	-141.4	185.7	178.0	7.71	24.074		
1,700.0	1,642.2	1,681.9	1,665.4	7.6	4.8	-154.01	158.7	-151.4	203.7	195.6	8.18	24.911		
1,800.0	1,736.9	1,780.3	1,762.5	8.2	5.2	-154.76	170.9	-161.4	221.8	213.2	8.65	25.658		
1,900.0	1,831.5	1,878.6	1,859.5	8.8	5.5	-155.39	183.1	-171.4	239.9	230.8	9.11	26.330		
2,000.0	1,926.2	1,976.9	1,956.6	9.4	5.8	-155.93	195.3	-181.4	258.1	248.5	9.58	26.936		
2,100.0	2,020.9	2,075.2	2,053.6	9.9	6.1	-156.40	207.4	-191.4	276.2	266.2	10.05	27.485		
2,200.0	2,115.5	2,173.5	2,150.6	10.5	6.5	-156.82	219.6	-201.4	294.4	283.9	10.52	27.986		
2,300.0	2,210.2	2,271.8	2,247.7	11.1	6.8	-157.18	231.8	-211.4	312.6	301.6	10.99	28.444		
2,400.0	2,304.9	2,370.1	2,344.7	11.7	7.1	-157.51	244.0	-221.4	330.8	319.3	11.46	28.864		
2,500.0	2,399.5	2,468.5	2,441.8	12.3	7.4	-157.80	256.1	-231.4	349.0	337.1	11.93	29.251		
2,600.0	2,494.2	2,566.8	2,538.8	12.9	7.8	-158.06	268.3	-241.5	367.2	354.8	12.40	29.608		
2,700.0	2,588.9	2,665.1	2,635.8	13.5	8.1	-158.30	280.5	-251.5	385.4	372.6	12.87	29.939		
2,800.0	2,683.5	2,763.4	2,732.9	14.1	8.4	-158.52	292.7	-261.5	403.7	390.3	13.35	30.247		
2,900.0	2,778.2	2,861.7	2,829.9	14.7	8.7	-158.71	304.9	-271.5	421.9	408.1	13.82	30.533		
3,000.0	2,872.8	2,960.0	2,927.0	15.3	9.1	-158.90	317.0	-281.5	440.1	425.8	14.29	30.801		
3,100.0	2,967.5	3,058.3	3,024.0	15.9	9.4	-159.06	329.2	-291.5	458.4	443.6	14.76	31.051		
3,200.0	3,062.2	3,156.7	3,121.1	16.5	9.7	-159.22	341.4	-301.5	476.6	461.4	15.23	31.286		
3,300.0	3,156.8	3,255.0	3,218.1	17.0	10.0	-159.36	353.6	-311.5	494.9	479.2	15.71	31.506		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU Fee 16-2C (M16W Pad) - 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	Separation	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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-66.19	4.7	-10.7	11.7					
100.0	100.0	100.0	100.0	0.1	0.1	-66.19	4.7	-10.7	11.7	11.5	0.27	43.083		
200.0	200.0	200.0	200.0	0.3	0.3	-66.19	4.7	-10.7	11.7	11.1	0.62	18.879 CC		
300.0	300.0	299.5	299.5	0.5	0.5	-48.05	6.9	-12.1	12.1	11.1	0.98	12.347 ES		
400.0	399.6	399.0	398.6	0.7	0.7	-53.13	13.6	-16.1	13.1	11.8	1.38	9.538		
500.0	498.8	498.4	497.2	1.0	1.0	-59.88	24.6	-22.9	15.1	13.2	1.88	8.012		
600.0	597.1	597.9	595.0	1.4	1.3	-66.82	39.9	-32.2	18.1	15.5	2.56	7.072		
700.0	694.3	697.7	692.9	1.8	1.7	-80.70	57.0	-42.7	20.8	17.4	3.45	6.041		
800.0	790.2	797.2	790.3	2.3	2.1	-102.73	74.0	-53.1	25.2	20.8	4.39	5.735 SF		
900.0	884.9	896.3	887.4	2.9	2.5	-122.63	90.9	-63.4	33.9	29.0	4.93	6.874		
1,000.0	979.6	995.4	984.5	3.5	2.9	-133.85	107.9	-73.8	45.2	39.8	5.32	8.481		
1,100.0	1,074.2	1,094.5	1,081.6	4.1	3.2	-140.47	124.8	-84.1	57.4	51.7	5.71	10.053		
1,200.0	1,168.9	1,193.6	1,178.6	4.6	3.6	-144.73	141.7	-94.5	70.2	64.0	6.12	11.472		
1,300.0	1,263.6	1,292.6	1,275.7	5.2	4.0	-147.67	158.7	-104.8	83.2	76.6	6.54	12.722		
1,400.0	1,358.2	1,391.7	1,372.8	5.8	4.4	-149.82	175.6	-115.1	96.3	89.4	6.97	13.819		
1,500.0	1,452.9	1,490.8	1,469.8	6.4	4.8	-151.44	192.5	-125.5	109.6	102.2	7.41	14.782		
1,600.0	1,547.5	1,589.9	1,566.9	7.0	5.2	-152.72	209.5	-135.8	122.9	115.1	7.86	15.632		
1,700.0	1,642.2	1,688.9	1,664.0	7.6	5.5	-153.74	226.4	-146.2	136.3	128.0	8.32	16.386		
1,800.0	1,736.9	1,788.0	1,761.0	8.2	5.9	-154.58	243.3	-156.5	149.7	141.0	8.78	17.058		
1,900.0	1,831.5	1,887.1	1,858.1	8.8	6.3	-155.29	260.3	-166.9	163.2	153.9	9.24	17.661		
2,000.0	1,926.2	1,986.2	1,955.2	9.4	6.7	-155.88	277.2	-177.2	176.6	166.9	9.70	18.204		
2,100.0	2,020.9	2,085.2	2,052.2	9.9	7.1	-156.39	294.1	-187.6	190.1	180.0	10.17	18.696		
2,200.0	2,115.5	2,184.3	2,149.3	10.5	7.5	-156.84	311.1	-197.9	203.6	193.0	10.64	19.143		
2,300.0	2,210.2	2,283.4	2,246.4	11.1	7.9	-157.23	328.0	-208.3	217.1	206.0	11.11	19.551		
2,400.0	2,304.9	2,382.5	2,343.4	11.7	8.3	-157.57	344.9	-218.6	230.6	219.1	11.58	19.925		
2,500.0	2,399.5	2,481.5	2,440.5	12.3	8.7	-157.87	361.9	-229.0	244.2	232.1	12.05	20.269		
2,600.0	2,494.2	2,580.6	2,537.6	12.9	9.0	-158.15	378.8	-239.3	257.7	245.2	12.52	20.586		
2,700.0	2,588.9	2,679.7	2,634.6	13.5	9.4	-158.39	395.7	-249.7	271.2	258.2	12.99	20.880		
2,800.0	2,683.5	2,778.7	2,731.7	14.1	9.8	-158.62	412.7	-260.0	284.8	271.3	13.46	21.152		
2,900.0	2,778.2	2,877.8	2,828.8	14.7	10.2	-158.82	429.6	-270.4	298.3	284.4	13.94	21.406		
3,000.0	2,872.8	2,976.9	2,925.8	15.3	10.6	-159.00	446.5	-280.7	311.8	297.4	14.41	21.642		
3,100.0	2,967.5	3,076.0	3,022.9	15.9	11.0	-159.17	463.5	-291.0	325.4	310.5	14.88	21.863		
3,200.0	3,062.2	3,175.0	3,120.0	16.5	11.4	-159.33	480.4	-301.4	338.9	323.6	15.36	22.070		
3,300.0	3,156.8	3,274.1	3,217.0	17.0	11.8	-159.47	497.3	-311.7	352.5	336.7	15.83	22.265		
3,400.0	3,251.5	3,373.2	3,314.1	17.6	12.1	-159.61	514.3	-322.1	366.0	349.7	16.31	22.448		
3,500.0	3,346.2	3,472.3	3,411.2	18.2	12.5	-159.73	531.2	-332.4	379.6	362.8	16.78	22.620		
3,600.0	3,440.8	3,571.3	3,508.2	18.8	12.9	-159.84	548.1	-342.8	393.1	375.9	17.26	22.783		
3,700.0	3,535.5	3,670.4	3,605.3	19.4	13.3	-159.95	565.1	-353.1	406.7	389.0	17.73	22.937		
3,800.0	3,630.2	3,769.5	3,702.4	20.0	13.7	-160.05	582.0	-363.5	420.3	402.1	18.21	23.082		
3,900.0	3,724.8	3,868.6	3,799.4	20.6	14.1	-160.15	598.9	-373.8	433.8	415.1	18.68	23.221		
4,000.0	3,819.5	3,967.6	3,896.5	21.2	14.5	-160.23	615.8	-384.2	447.4	428.2	19.16	23.352		
4,100.0	3,914.1	4,066.7	3,993.6	21.8	14.9	-160.32	632.8	-394.5	461.0	441.3	19.63	23.476		
4,200.0	4,008.8	4,165.8	4,090.6	22.4	15.3	-160.40	649.7	-404.9	474.5	454.4	20.11	23.595		
4,300.0	4,103.5	4,264.9	4,187.7	23.0	15.6	-160.47	666.6	-415.2	488.1	467.5	20.59	23.708		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU Fee 17-16B (M16W Pad) - 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	-139.03	-109.3	-94.9	144.7					
100.0	100.0	100.0	100.0	0.1	0.1	-139.03	-109.3	-94.9	144.7	144.5	0.27	531.543		
200.0	200.0	200.0	200.0	0.3	0.3	-139.03	-109.3	-94.9	144.7	144.1	0.62	232.923 CC, ES		
300.0	300.0	296.6	296.5	0.5	0.5	-118.94	-108.7	-97.3	147.2	146.2	0.98	150.586		
400.0	399.6	392.8	392.5	0.7	0.7	-118.81	-107.0	-104.3	154.4	153.1	1.39	111.212		
500.0	498.8	488.4	487.3	1.0	1.0	-118.58	-104.2	-116.0	166.5	164.6	1.89	87.926		
600.0	597.1	583.0	580.4	1.4	1.3	-118.28	-100.3	-132.1	183.4	180.8	2.52	72.836		
700.0	694.3	676.4	671.4	1.8	1.7	-117.90	-95.4	-152.4	204.8	201.5	3.27	62.633		
800.0	790.2	768.2	759.9	2.3	2.2	-117.46	-89.6	-176.5	230.8	226.6	4.15	55.553		
900.0	884.9	858.5	845.6	2.9	2.7	-117.30	-82.9	-204.2	260.5	255.4	5.12	50.932		
1,000.0	979.6	953.7	935.1	3.5	3.3	-116.98	-75.4	-235.4	291.3	285.2	6.14	47.468		
1,100.0	1,074.2	1,048.8	1,024.6	4.1	3.9	-116.71	-67.9	-266.6	322.2	315.0	7.17	44.928		
1,200.0	1,168.9	1,143.9	1,114.2	4.6	4.5	-116.49	-60.4	-297.9	353.0	344.8	8.21	42.992		
1,300.0	1,263.6	1,239.0	1,203.7	5.2	5.1	-116.31	-52.9	-329.1	383.8	374.5	9.25	41.470		
1,400.0	1,358.2	1,334.2	1,293.2	5.8	5.7	-116.16	-45.3	-360.3	414.6	404.3	10.30	40.245		
1,500.0	1,452.9	1,429.3	1,382.8	6.4	6.3	-116.02	-37.8	-391.6	445.5	434.1	11.35	39.239		
1,600.0	1,547.5	1,524.4	1,472.3	7.0	6.9	-115.91	-30.3	-422.8	476.3	463.9	12.40	38.398 SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU Fee 17-16B2 (M16W Pad) - 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	-136.11	-115.1	-110.7	159.7					
100.0	100.0	100.0	100.0	0.1	0.1	-136.11	-115.1	-110.7	159.7	159.4	0.27	586.551		
200.0	200.0	200.0	200.0	0.3	0.3	-136.11	-115.1	-110.7	159.7	159.1	0.62	257.028 CC, ES		
300.0	300.0	295.0	295.0	0.5	0.5	-116.13	-114.9	-113.1	162.4	161.4	0.97	166.795		
400.0	399.6	389.7	389.4	0.7	0.7	-116.29	-114.1	-120.1	170.4	169.0	1.38	123.804		
500.0	498.8	483.5	482.5	1.0	1.0	-116.49	-112.9	-131.6	183.7	181.9	1.86	98.525		
600.0	597.1	576.2	573.8	1.4	1.3	-116.69	-111.2	-147.4	202.3	199.8	2.46	82.192		
700.0	694.3	667.4	662.7	1.8	1.7	-116.82	-109.2	-167.3	225.9	222.7	3.17	71.151		
800.0	790.2	756.7	748.9	2.3	2.1	-116.85	-106.7	-190.8	254.5	250.5	4.01	63.485		
900.0	884.9	844.2	832.1	2.9	2.6	-117.22	-103.9	-217.7	287.3	282.3	4.91	58.494		
1,000.0	979.6	937.6	920.1	3.5	3.2	-117.39	-100.6	-248.8	321.5	315.6	5.88	54.700		
1,100.0	1,074.2	1,031.5	1,008.6	4.1	3.8	-117.52	-97.3	-280.0	355.8	348.9	6.86	51.871		
1,200.0	1,168.9	1,125.5	1,097.1	4.6	4.4	-117.62	-94.0	-311.3	390.0	382.2	7.85	49.701		
1,300.0	1,263.6	1,219.4	1,185.7	5.2	5.0	-117.71	-90.8	-342.5	424.3	415.5	8.84	47.990		
1,400.0	1,358.2	1,313.3	1,274.2	5.8	5.6	-117.79	-87.5	-373.8	458.6	448.7	9.84	46.607		
1,500.0	1,452.9	1,407.3	1,362.7	6.4	6.2	-117.86	-84.2	-405.0	492.8	482.0	10.84	45.469 SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU Fee 17-16C (M16W Pad) - 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								
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	-131.63	-126.8	-142.6	190.8						
100.0	100.0	100.0	100.0	0.1	0.1	-131.63	-126.8	-142.6	190.8	190.5	0.27	700.806			
200.0	200.0	200.0	200.0	0.3	0.3	-131.63	-126.8	-142.6	190.8	190.2	0.62	307.095 CC, ES			
300.0	300.0	292.8	292.8	0.5	0.5	-111.75	-126.8	-144.9	193.6	192.7	0.97	199.941			
400.0	399.6	385.2	384.9	0.7	0.7	-112.20	-127.0	-151.6	202.1	200.7	1.36	148.525			
500.0	498.8	476.6	475.6	1.0	0.9	-112.83	-127.3	-162.6	216.2	214.4	1.83	118.199			
600.0	597.1	566.7	564.4	1.4	1.2	-113.55	-127.7	-177.7	235.9	233.5	2.39	98.536			
700.0	694.3	655.0	650.7	1.8	1.6	-114.23	-128.2	-196.6	261.0	257.9	3.06	85.182			
800.0	790.2	741.3	734.1	2.3	2.1	-114.80	-128.8	-218.8	291.5	287.6	3.84	75.866			
900.0	884.9	825.4	814.3	2.9	2.5	-115.76	-129.5	-244.1	326.6	321.9	4.68	69.763			
1,000.0	979.6	917.0	900.8	3.5	3.1	-116.56	-130.3	-274.0	363.5	357.9	5.58	65.108			
1,100.0	1,074.2	1,009.8	988.5	4.1	3.6	-117.22	-131.2	-304.3	400.6	394.1	6.50	61.587			
1,200.0	1,168.9	1,102.6	1,076.2	4.6	4.2	-117.76	-132.0	-334.7	437.7	430.2	7.43	58.875			
1,300.0	1,263.6	1,195.4	1,163.9	5.2	4.8	-118.22	-132.8	-365.0	474.8	466.4	8.37	56.729 SF			

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU Fee 17-9B (M16W pad) - 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		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)	Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-110.07	-11.7	-31.9	34.0					
100.0	100.0	100.0	100.0	0.1	0.1	-110.07	-11.7	-31.9	34.0	33.7	0.27	124.792		
200.0	200.0	200.0	200.0	0.3	0.3	-110.07	-11.7	-31.9	34.0	33.4	0.62	54.684 CC		
227.2	227.2	227.2	227.2	0.4	0.4	-90.36	-11.7	-31.9	34.0	33.3	0.72	47.307		
300.0	300.0	300.0	300.0	0.5	0.5	-94.43	-11.7	-31.9	34.1	33.1	0.98	34.818 ES		
400.0	399.6	399.6	399.6	0.7	0.7	-107.06	-11.7	-31.9	35.6	34.2	1.37	25.981		
500.0	498.8	498.8	498.8	1.0	0.8	-120.85	-10.1	-33.9	41.2	39.5	1.79	23.015		
600.0	597.1	598.3	597.9	1.4	1.0	-129.52	-5.2	-39.9	51.3	49.0	2.26	22.658		
700.0	694.3	697.9	696.7	1.8	1.3	-133.97	2.9	-49.9	64.5	61.7	2.81	22.920		
800.0	790.2	797.6	794.7	2.3	1.6	-135.77	14.3	-64.0	80.3	76.8	3.48	23.059		
900.0	884.9	897.4	891.8	2.9	2.0	-135.70	28.8	-82.0	97.5	93.2	4.29	22.737		
1,000.0	979.6	997.4	987.7	3.5	2.6	-133.22	46.6	-104.0	113.5	108.2	5.28	21.491		
1,100.0	1,074.2	1,097.1	1,081.7	4.1	3.2	-129.07	67.5	-129.7	128.7	122.2	6.47	19.879		
1,200.0	1,168.9	1,195.7	1,173.1	4.6	3.8	-124.04	90.8	-158.5	144.0	136.2	7.80	18.467		
1,300.0	1,263.6	1,293.7	1,263.7	5.2	4.5	-119.75	114.3	-187.6	160.1	151.0	9.13	17.549		
1,400.0	1,358.2	1,391.8	1,354.3	5.8	5.2	-116.26	137.9	-216.8	177.0	166.6	10.44	16.956		
1,500.0	1,452.9	1,489.8	1,444.9	6.4	5.9	-113.39	161.4	-245.9	194.5	182.7	11.74	16.563		
1,600.0	1,547.5	1,587.9	1,535.5	7.0	6.6	-110.98	185.0	-275.0	212.3	199.3	13.03	16.298		
1,700.0	1,642.2	1,685.9	1,626.1	7.6	7.3	-108.95	208.6	-304.1	230.4	216.1	14.30	16.118		
1,800.0	1,736.9	1,783.9	1,716.7	8.2	7.9	-107.22	232.1	-333.3	248.8	233.2	15.55	15.995		
1,900.0	1,831.5	1,882.0	1,807.3	8.8	8.6	-105.72	255.7	-362.4	267.4	250.5	16.80	15.911		
2,000.0	1,926.2	1,980.0	1,897.9	9.4	9.3	-104.42	279.3	-391.5	286.1	268.0	18.04	15.854		
2,100.0	2,020.9	2,078.0	1,988.5	9.9	10.0	-103.28	302.8	-420.6	304.9	285.6	19.28	15.817		
2,200.0	2,115.5	2,176.1	2,079.1	10.5	10.7	-102.27	326.4	-449.8	323.9	303.4	20.50	15.795		
2,300.0	2,210.2	2,274.1	2,169.7	11.1	11.4	-101.37	349.9	-478.9	342.9	321.2	21.73	15.782		
2,400.0	2,304.9	2,372.2	2,260.3	11.7	12.1	-100.57	373.5	-508.0	362.0	339.1	22.94	15.778 SF		
2,500.0	2,399.5	2,470.2	2,350.9	12.3	12.8	-99.84	397.1	-537.1	381.2	357.0	24.16	15.778		
2,600.0	2,494.2	2,568.2	2,441.5	12.9	13.5	-99.19	420.6	-566.3	400.4	375.0	25.37	15.783		
2,700.0	2,588.9	2,666.3	2,532.1	13.5	14.2	-98.59	444.2	-595.4	419.6	393.1	26.58	15.791		
2,800.0	2,683.5	2,764.3	2,622.7	14.1	14.9	-98.05	467.8	-624.5	439.0	411.2	27.78	15.801		
2,900.0	2,778.2	2,862.3	2,713.3	14.7	15.6	-97.56	491.3	-653.6	458.3	429.3	28.98	15.812		
3,000.0	2,872.8	2,960.4	2,803.9	15.3	16.3	-97.10	514.9	-682.8	477.7	447.5	30.18	15.825		
3,100.0	2,967.5	3,058.4	2,894.5	15.9	17.0	-96.68	538.4	-711.9	497.1	465.7	31.38	15.838		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU Fee 17-9B2 (M16W Pad) - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty	Separation		
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-92.75	-6.9	-144.3	144.5				
100.0	100.0	100.0	100.0	0.1	0.1	-92.75	-6.9	-144.3	144.5	144.2	0.27	530.664	
200.0	200.0	200.0	200.0	0.3	0.3	-92.75	-6.9	-144.3	144.5	143.9	0.62	232.539	CC, ES
300.0	300.0	294.1	294.0	0.5	0.5	-73.09	-5.7	-146.3	145.8	144.8	0.97	150.215	
400.0	399.6	388.0	387.7	0.7	0.7	-74.19	-2.2	-152.2	149.6	148.3	1.37	109.542	
500.0	498.8	481.6	480.6	1.0	0.9	-75.89	3.7	-162.1	156.2	154.3	1.85	84.599	
600.0	597.1	574.8	572.4	1.4	1.3	-78.01	11.9	-175.7	165.6	163.1	2.44	67.751	
700.0	694.3	667.4	662.7	1.8	1.7	-80.36	22.4	-193.1	178.0	174.8	3.18	55.893	
800.0	790.2	759.3	751.3	2.3	2.1	-82.75	34.9	-214.0	193.5	189.4	4.08	47.401	
900.0	884.9	850.5	838.0	2.9	2.7	-85.12	49.5	-238.4	212.3	207.2	5.09	41.703	
1,000.0	979.6	943.7	925.2	3.5	3.3	-86.54	66.5	-266.6	234.1	228.0	6.15	38.073	
1,100.0	1,074.2	1,041.1	1,016.0	4.1	3.9	-87.61	84.6	-296.8	256.7	249.5	7.25	35.403	
1,200.0	1,168.9	1,138.4	1,106.7	4.6	4.6	-88.52	102.7	-327.0	279.3	271.0	8.37	33.385	
1,300.0	1,263.6	1,235.7	1,197.4	5.2	5.3	-89.28	120.8	-357.1	302.0	292.5	9.49	31.814	
1,400.0	1,358.2	1,333.0	1,288.2	5.8	5.9	-89.95	138.9	-387.3	324.8	314.1	10.63	30.559	
1,500.0	1,452.9	1,430.3	1,378.9	6.4	6.6	-90.52	157.0	-417.4	347.5	335.8	11.77	29.536	
1,600.0	1,547.5	1,527.6	1,469.7	7.0	7.2	-91.02	175.0	-447.6	370.3	357.4	12.91	28.686	
1,700.0	1,642.2	1,625.0	1,560.4	7.6	7.9	-91.47	193.1	-477.7	393.2	379.1	14.06	27.971	
1,800.0	1,736.9	1,722.3	1,651.1	8.2	8.5	-91.86	211.2	-507.9	416.0	400.8	15.20	27.360	
1,900.0	1,831.5	1,819.6	1,741.9	8.8	9.2	-92.22	229.3	-538.1	438.9	422.5	16.36	26.833	
2,000.0	1,926.2	1,916.9	1,832.6	9.4	9.9	-92.54	247.4	-568.2	461.7	444.2	17.51	26.373	
2,100.0	2,020.9	2,014.2	1,923.4	9.9	10.5	-92.83	265.5	-598.4	484.6	466.0	18.66	25.970	SF

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU Fee 17-9C (M16W Pad) - 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		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)	Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-102.26	-12.8	-58.7	60.1					
100.0	100.0	100.0	100.0	0.1	0.1	-102.26	-12.8	-58.7	60.1	59.8	0.27	220.789		
200.0	200.0	200.0	200.0	0.3	0.3	-102.26	-12.8	-58.7	60.1	59.5	0.62	96.750 CC, ES		
300.0	300.0	297.5	297.5	0.5	0.5	-83.13	-11.7	-61.0	61.8	60.8	0.98	63.229		
400.0	399.6	394.8	394.4	0.7	0.7	-85.57	-8.6	-67.8	67.0	65.6	1.39	48.297		
500.0	498.8	491.6	490.5	1.0	1.0	-88.84	-3.5	-79.0	75.8	73.9	1.89	40.030		
600.0	597.1	587.8	585.1	1.4	1.3	-92.24	3.6	-94.4	88.5	86.0	2.53	34.925		
700.0	694.3	683.1	678.0	1.8	1.7	-95.30	12.5	-114.0	105.1	101.8	3.32	31.609		
800.0	790.2	777.4	768.6	2.3	2.2	-97.82	23.3	-137.5	125.5	121.3	4.27	29.407		
900.0	884.9	870.6	856.9	2.9	2.8	-99.80	35.7	-164.7	149.5	144.2	5.31	28.169		
1,000.0	979.6	966.5	946.7	3.5	3.4	-100.60	49.7	-195.3	175.3	168.9	6.39	27.446		
1,100.0	1,074.2	1,063.0	1,037.0	4.1	4.1	-101.18	63.9	-226.3	201.2	193.7	7.49	26.880		
1,200.0	1,168.9	1,159.6	1,127.4	4.6	4.7	-101.62	78.0	-257.2	227.1	218.5	8.59	26.433		
1,300.0	1,263.6	1,256.2	1,217.8	5.2	5.3	-101.98	92.2	-288.1	253.0	243.3	9.70	26.075		
1,400.0	1,358.2	1,352.8	1,308.2	5.8	6.0	-102.27	106.3	-319.0	279.0	268.1	10.82	25.781		
1,500.0	1,452.9	1,449.3	1,398.6	6.4	6.6	-102.51	120.5	-349.9	304.9	292.9	11.94	25.537		
1,600.0	1,547.5	1,545.9	1,489.0	7.0	7.2	-102.71	134.6	-380.8	330.8	317.7	13.06	25.330		
1,700.0	1,642.2	1,642.5	1,579.4	7.6	7.9	-102.88	148.7	-411.8	356.7	342.6	14.18	25.154		
1,800.0	1,736.9	1,739.1	1,669.8	8.2	8.5	-103.03	162.9	-442.7	382.7	367.4	15.31	25.002		
1,900.0	1,831.5	1,835.6	1,760.2	8.8	9.2	-103.16	177.0	-473.6	408.6	392.2	16.43	24.870		
2,000.0	1,926.2	1,932.2	1,850.6	9.4	9.8	-103.28	191.2	-504.5	434.5	417.0	17.56	24.753		
2,100.0	2,020.9	2,028.8	1,941.0	9.9	10.5	-103.38	205.3	-535.4	460.5	441.8	18.68	24.650		
2,200.0	2,115.5	2,125.3	2,031.4	10.5	11.1	-103.47	219.5	-566.3	486.4	466.6	19.81	24.557 SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S16-T7S-R93W (M16W Pad) - MCU Fee 17-9D (M16W Pad) - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation		
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-110.06	-23.3	-63.8	68.0					
100.0	100.0	100.0	100.0	0.1	0.1	-110.06	-23.3	-63.8	68.0	67.7	0.27	249.573		
200.0	200.0	200.0	200.0	0.3	0.3	-110.06	-23.3	-63.8	68.0	67.3	0.62	109.363	CC, ES	
300.0	300.0	299.0	299.0	0.5	0.5	-93.51	-25.0	-63.8	68.7	67.7	0.98	70.052		
400.0	399.6	396.9	396.7	0.7	0.7	-102.52	-29.4	-64.3	72.4	71.0	1.37	52.651		
500.0	498.8	494.1	493.9	1.0	0.9	-111.08	-32.2	-68.6	81.4	79.6	1.80	45.204		
600.0	597.1	591.4	590.7	1.4	1.1	-117.48	-32.5	-77.2	95.6	93.3	2.29	41.743		
700.0	694.3	688.3	686.8	1.8	1.3	-121.74	-30.5	-90.0	114.2	111.4	2.88	39.720		
800.0	790.2	784.8	781.7	2.3	1.6	-124.31	-26.2	-107.1	136.7	133.1	3.58	38.150		
900.0	884.9	881.0	875.2	2.9	2.0	-125.75	-19.5	-128.2	162.0	157.6	4.40	36.819		
1,000.0	979.6	977.2	967.7	3.5	2.5	-125.45	-10.6	-153.3	187.6	182.3	5.32	35.265		
1,100.0	1,074.2	1,073.8	1,059.9	4.1	3.0	-124.67	-0.6	-180.3	213.4	207.1	6.29	33.924		
1,200.0	1,168.9	1,170.4	1,152.1	4.6	3.5	-124.06	9.3	-207.2	239.3	232.0	7.28	32.873		
1,300.0	1,263.6	1,266.9	1,244.3	5.2	4.0	-123.57	19.2	-234.1	265.1	256.8	8.28	32.033		
1,400.0	1,358.2	1,363.5	1,336.5	5.8	4.6	-123.17	29.1	-261.1	291.0	281.7	9.28	31.351		
1,500.0	1,452.9	1,460.1	1,428.7	6.4	5.1	-122.83	39.1	-288.0	316.9	306.6	10.29	30.789		
1,600.0	1,547.5	1,556.7	1,520.9	7.0	5.6	-122.55	49.0	-314.9	342.8	331.4	11.31	30.318		
1,700.0	1,642.2	1,653.3	1,613.2	7.6	6.2	-122.30	58.9	-341.9	368.6	356.3	12.32	29.919		
1,800.0	1,736.9	1,749.8	1,705.4	8.2	6.7	-122.08	68.8	-368.8	394.5	381.2	13.34	29.577		
1,900.0	1,831.5	1,846.4	1,797.6	8.8	7.2	-121.90	78.8	-395.7	420.4	406.1	14.36	29.281		
2,000.0	1,926.2	1,943.0	1,889.8	9.4	7.8	-121.73	88.7	-422.6	446.4	431.0	15.38	29.021		
2,100.0	2,020.9	2,039.6	1,982.0	9.9	8.3	-121.58	98.6	-449.6	472.3	455.9	16.40	28.793		
2,200.0	2,115.5	2,136.1	2,074.2	10.5	8.9	-121.45	108.5	-476.5	498.2	480.8	17.43	28.590	SF	

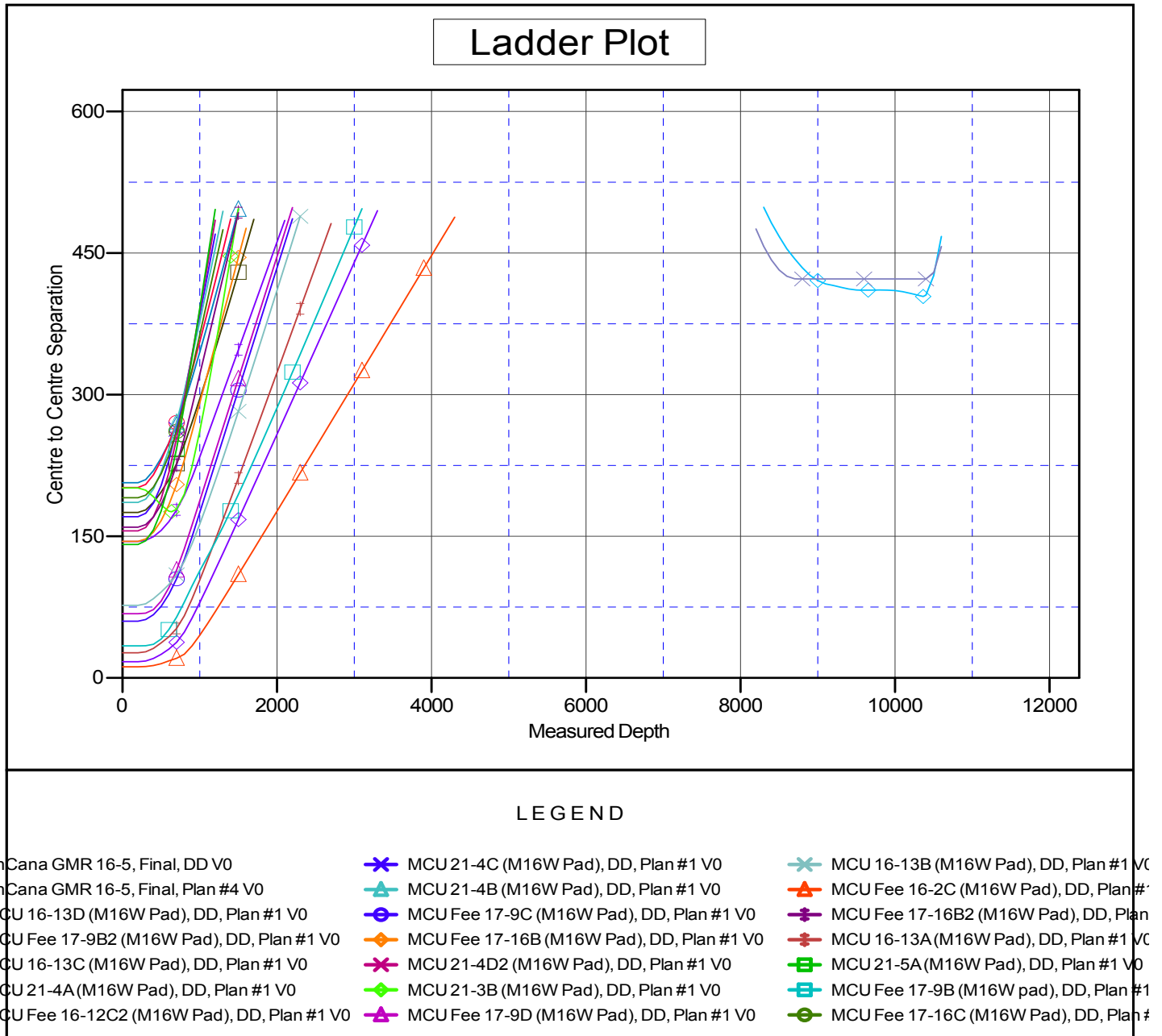
Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-5C (M16W Pad)
Project:	Mamm Creek	TVD Reference:	KBE @ 7903.0ft (Original Well Elev)
Reference Site:	SWSW S16-T7S-R93W (M16W Pad)	MD Reference:	KBE @ 7903.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	MCU Fee 16-5C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KBE @ 7903.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: MCU Fee 16-5C (M16W Pad)
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.44°



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