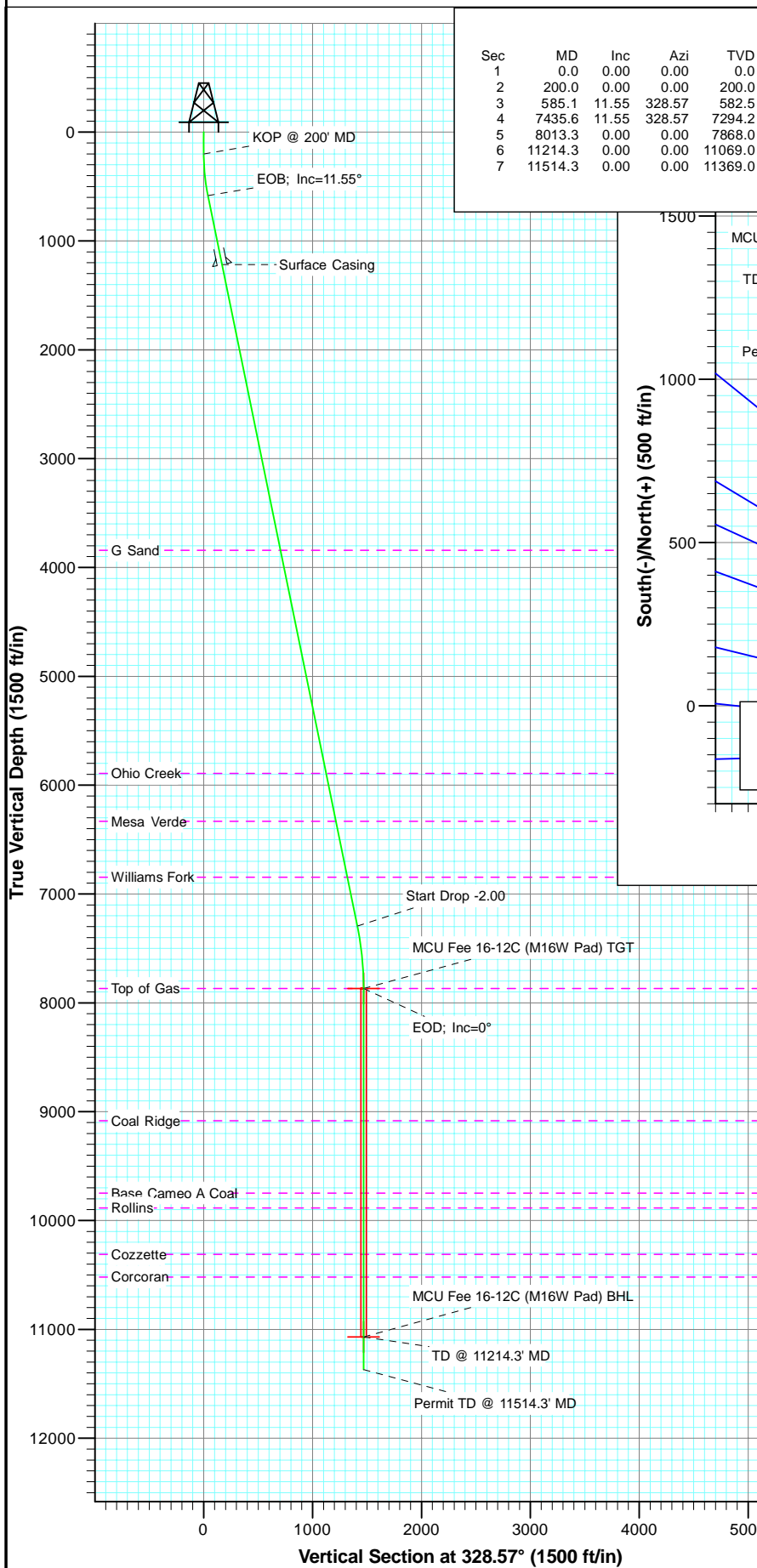
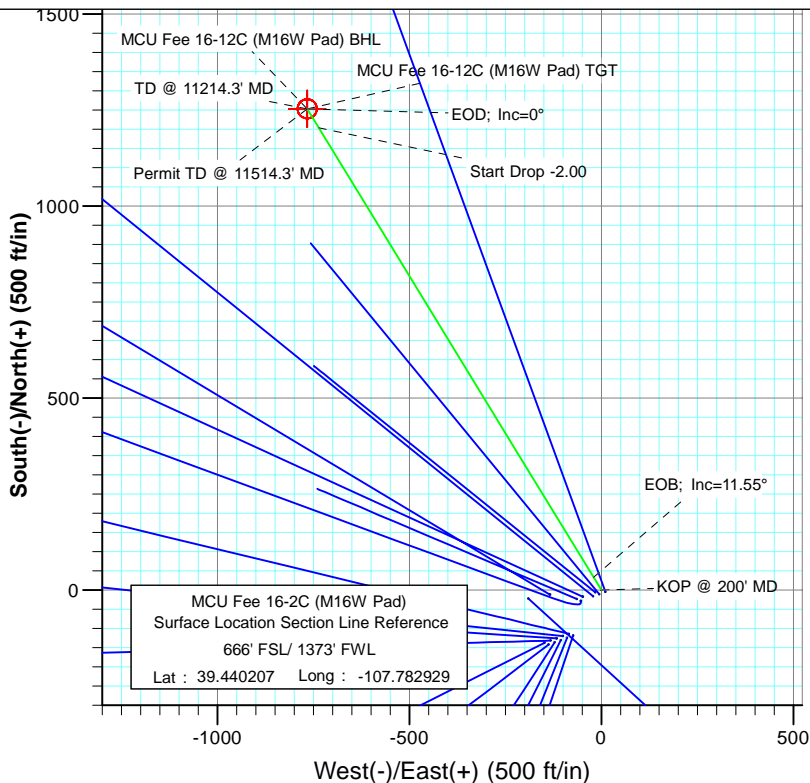




Project: Mamm Creek
 Site: SWSW S16-T7S-R93W (M16W Pad)
 Well: MCU Fee 16-2C (M16W Pad)
 Wellbore: DD
 Plan: Plan #1



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	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	585.1	11.55	328.57	582.5	33.0	-20.2	3.00	328.57	38.7	
4	7435.6	11.55	328.57	7294.2	1203.8	-735.6	0.00	0.00	1410.8	
5	8013.3	0.00	0.00	7868.0	1253.4	-765.9	2.00	180.00	1468.8	MCU Fee 16-12C (M16W Pad) TGT
6	11214.3	0.00	0.00	11069.0	1253.4	-765.9	0.00	0.00	1468.8	MCU Fee 16-12C (M16W Pad) BHL
7	11514.3	0.00	0.00	11369.0	1253.4	-765.9	0.00	0.00	1468.8	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3842.0	3912.0	G Sand
5892.0	6004.4	Ohio Creek
6333.0	6454.5	Mesa Verde
6845.0	6977.1	Williams Fork
7868.0	8013.3	Top of Gas
9084.0	9229.3	Coal Ridge
9748.0	9893.3	Base Cameo A Coal
9884.0	10029.3	Rollins
10310.0	10455.3	Cozzette
10519.0	10664.3	Corcoran

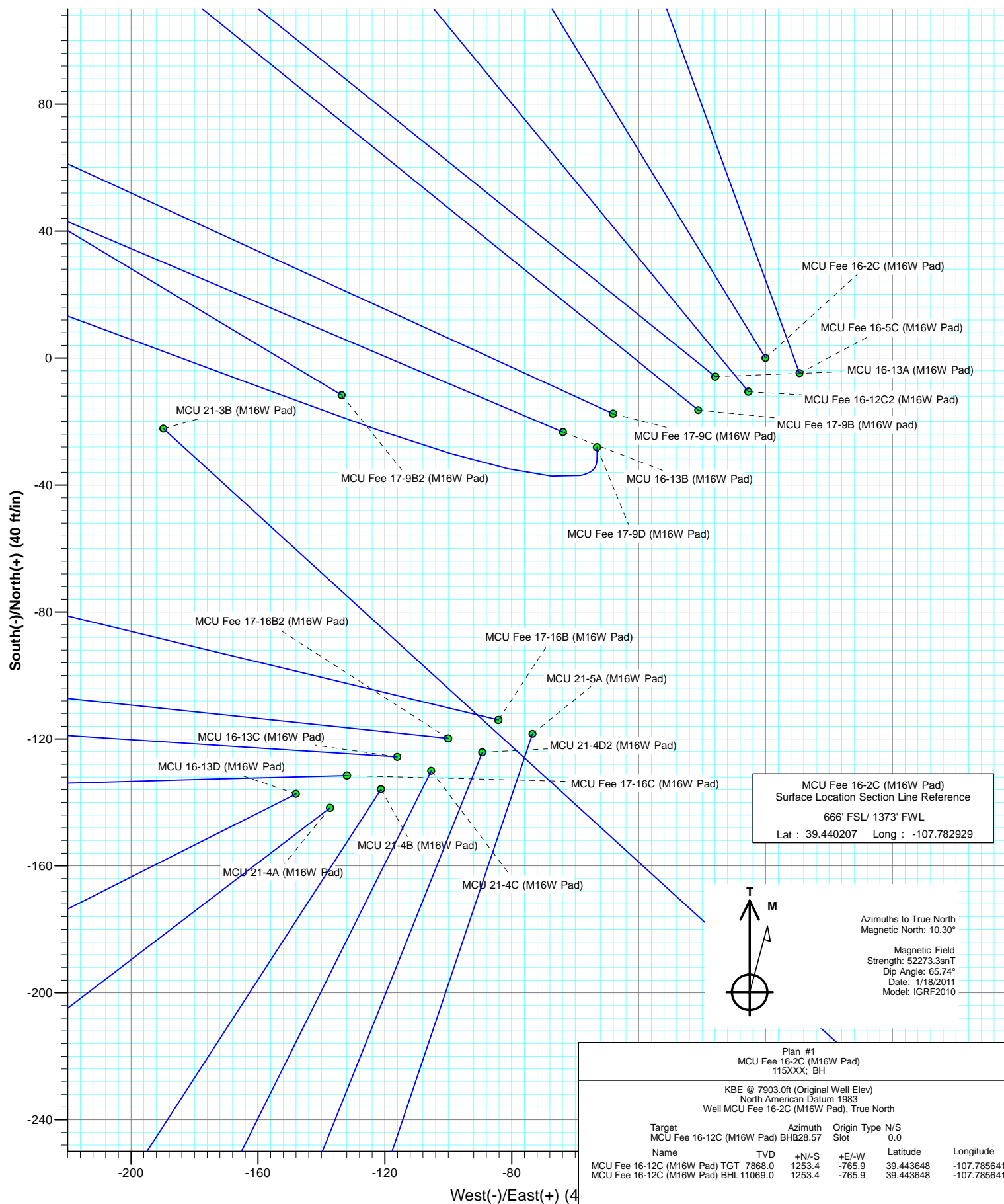


Azimuths to True North
 Magnetic North: 10.30°
 Magnetic Field
 Strength: 52273.3nT
 Dip Angle: 65.74°
 Date: 1/18/2011
 Model: IGRF2010

Plan #1					
MCU Fee 16-2C (M16W Pad)					
115XXX; BH					
KBE @ 7903.0ft (Original Well Elev)					
North American Datum 1983					
Well MCU Fee 16-2C (M16W Pad), True North					
Target	Azimuth	Origin	Type	N/S	
MCU Fee 16-12C (M16W Pad)	BHB28.57	Slot		0.0	
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
MCU Fee 16-12C (M16W Pad) TGT	7868.0	1253.4	-765.9	39.443648	-107.785641
MCU Fee 16-12C (M16W Pad) BHL	11069.0	1253.4	-765.9	39.443648	-107.785641

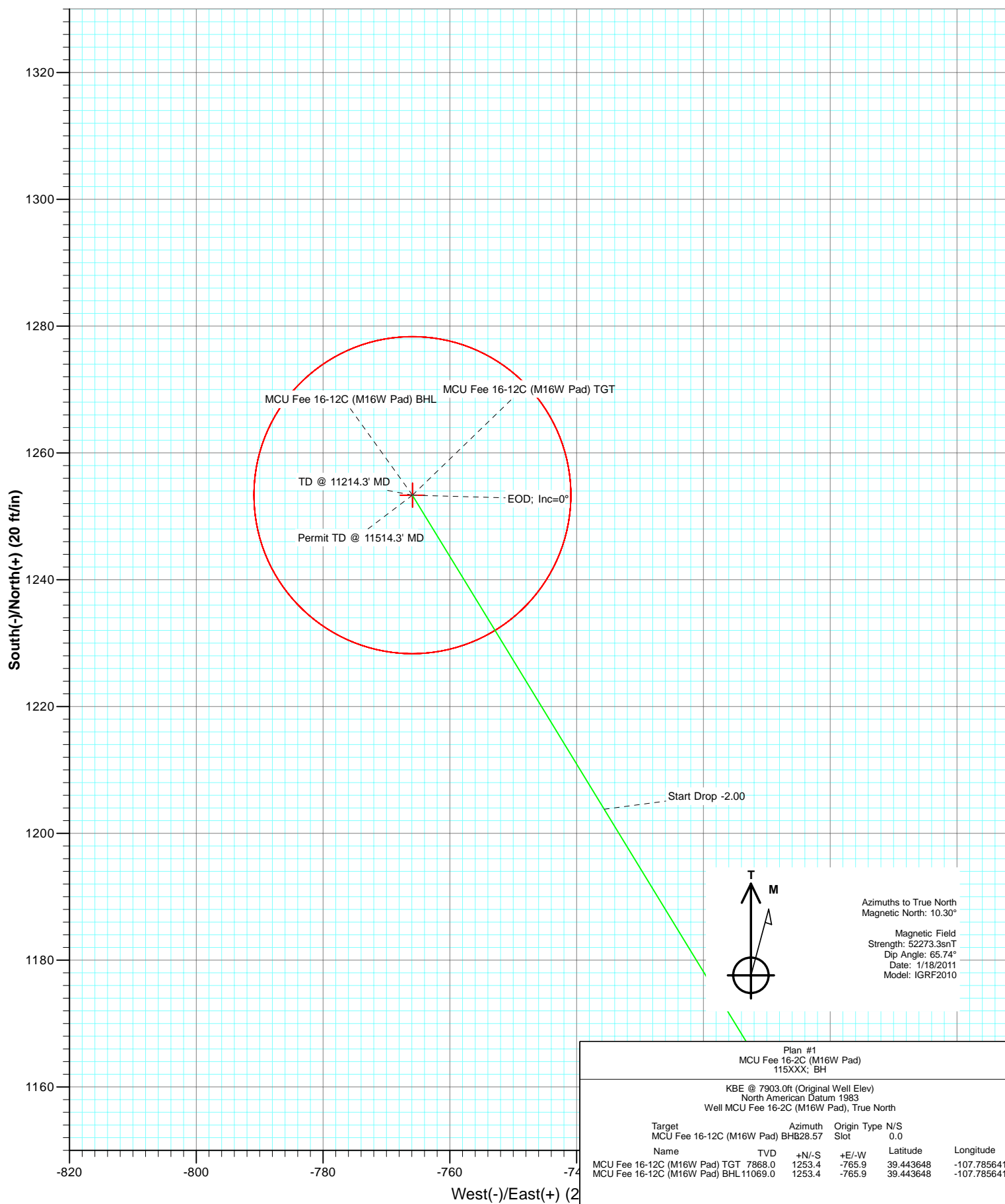


Project: Mamm Creek
Site: SWSW S16-T7S-R93W (M16W Pad)
Well: MCU Fee 16-2C (M16W Pad)
Wellbore: DD
Plan: Plan #1





Project: Mamm Creek
 Site: SWSW S16-T7S-R93W (M16W Pad)
 Well: MCU Fee 16-2C (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 16-2C (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 16-2C (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 16-2C (M16W Pad)					
Well Position	+N/-S	0.0 ft	Northing:	1,593,328.93 ft	Latitude:	39.440207
	+E/-W	0.0 ft	Easting:	2,355,318.25 ft	Longitude:	-107.782929
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	1/18/2011	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	328.57

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	
585.1	11.55	328.57	582.5	33.0	-20.2	3.00	3.00	0.00	328.57	
7,435.6	11.55	328.57	7,294.2	1,203.8	-735.6	0.00	0.00	0.00	0.00	
8,013.3	0.00	0.00	7,868.0	1,253.4	-765.9	2.00	-2.00	0.00	180.00	MCU Fee 16-12C (M1
11,214.3	0.00	0.00	11,069.0	1,253.4	-765.9	0.00	0.00	0.00	0.00	MCU Fee 16-12C (M1
11,514.3	0.00	0.00	11,369.0	1,253.4	-765.9	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 16-2C (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 16-2C (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	328.57	300.0	2.2	-1.4	2.6	3.00	3.00	
400.0	6.00	328.57	399.6	8.9	-5.5	10.5	3.00	3.00	
500.0	9.00	328.57	498.8	20.1	-12.3	23.5	3.00	3.00	
585.1	11.55	328.57	582.5	33.0	-20.2	38.7	3.00	3.00	EOB; Inc=11.55°
600.0	11.55	328.57	597.1	35.6	-21.7	41.7	0.00	0.00	
700.0	11.55	328.57	695.1	52.7	-32.2	61.7	0.00	0.00	
800.0	11.55	328.57	793.0	69.7	-42.6	81.7	0.00	0.00	
900.0	11.55	328.57	891.0	86.8	-53.1	101.8	0.00	0.00	
1,000.0	11.55	328.57	989.0	103.9	-63.5	121.8	0.00	0.00	
1,100.0	11.55	328.57	1,087.0	121.0	-74.0	141.8	0.00	0.00	
1,200.0	11.55	328.57	1,184.9	138.1	-84.4	161.9	0.00	0.00	
1,233.7	11.55	328.57	1,218.0	143.9	-87.9	168.6	0.00	0.00	Surface Casing
1,300.0	11.55	328.57	1,282.9	155.2	-94.8	181.9	0.00	0.00	
1,400.0	11.55	328.57	1,380.9	172.3	-105.3	201.9	0.00	0.00	
1,500.0	11.55	328.57	1,478.9	189.4	-115.7	221.9	0.00	0.00	
1,600.0	11.55	328.57	1,576.8	206.5	-126.2	242.0	0.00	0.00	
1,700.0	11.55	328.57	1,674.8	223.6	-136.6	262.0	0.00	0.00	
1,800.0	11.55	328.57	1,772.8	240.7	-147.1	282.0	0.00	0.00	
1,900.0	11.55	328.57	1,870.8	257.7	-157.5	302.1	0.00	0.00	
2,000.0	11.55	328.57	1,968.7	274.8	-167.9	322.1	0.00	0.00	
2,100.0	11.55	328.57	2,066.7	291.9	-178.4	342.1	0.00	0.00	
2,200.0	11.55	328.57	2,164.7	309.0	-188.8	362.1	0.00	0.00	
2,300.0	11.55	328.57	2,262.6	326.1	-199.3	382.2	0.00	0.00	
2,400.0	11.55	328.57	2,360.6	343.2	-209.7	402.2	0.00	0.00	
2,500.0	11.55	328.57	2,458.6	360.3	-220.2	422.2	0.00	0.00	
2,600.0	11.55	328.57	2,556.6	377.4	-230.6	442.3	0.00	0.00	
2,700.0	11.55	328.57	2,654.5	394.5	-241.1	462.3	0.00	0.00	
2,800.0	11.55	328.57	2,752.5	411.6	-251.5	482.3	0.00	0.00	
2,900.0	11.55	328.57	2,850.5	428.6	-261.9	502.3	0.00	0.00	
3,000.0	11.55	328.57	2,948.5	445.7	-272.4	522.4	0.00	0.00	
3,100.0	11.55	328.57	3,046.4	462.8	-282.8	542.4	0.00	0.00	
3,200.0	11.55	328.57	3,144.4	479.9	-293.3	562.4	0.00	0.00	
3,300.0	11.55	328.57	3,242.4	497.0	-303.7	582.5	0.00	0.00	
3,400.0	11.55	328.57	3,340.4	514.1	-314.2	602.5	0.00	0.00	
3,500.0	11.55	328.57	3,438.3	531.2	-324.6	622.5	0.00	0.00	
3,600.0	11.55	328.57	3,536.3	548.3	-335.0	642.5	0.00	0.00	
3,700.0	11.55	328.57	3,634.3	565.4	-345.5	662.6	0.00	0.00	
3,800.0	11.55	328.57	3,732.3	582.5	-355.9	682.6	0.00	0.00	
3,900.0	11.55	328.57	3,830.2	599.6	-366.4	702.6	0.00	0.00	
3,912.0	11.55	328.57	3,842.0	601.6	-367.6	705.0	0.00	0.00	G Sand
4,000.0	11.55	328.57	3,928.2	616.6	-376.8	722.7	0.00	0.00	
4,100.0	11.55	328.57	4,026.2	633.7	-387.3	742.7	0.00	0.00	
4,200.0	11.55	328.57	4,124.1	650.8	-397.7	762.7	0.00	0.00	
4,300.0	11.55	328.57	4,222.1	667.9	-408.2	782.8	0.00	0.00	
4,400.0	11.55	328.57	4,320.1	685.0	-418.6	802.8	0.00	0.00	
4,500.0	11.55	328.57	4,418.1	702.1	-429.0	822.8	0.00	0.00	
4,600.0	11.55	328.57	4,516.0	719.2	-439.5	842.8	0.00	0.00	
4,700.0	11.55	328.57	4,614.0	736.3	-449.9	862.9	0.00	0.00	
4,800.0	11.55	328.57	4,712.0	753.4	-460.4	882.9	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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	11.55	328.57	4,810.0	770.5	-470.8	902.9	0.00	0.00	
5,000.0	11.55	328.57	4,907.9	787.6	-481.3	923.0	0.00	0.00	
5,100.0	11.55	328.57	5,005.9	804.6	-491.7	943.0	0.00	0.00	
5,200.0	11.55	328.57	5,103.9	821.7	-502.1	963.0	0.00	0.00	
5,300.0	11.55	328.57	5,201.9	838.8	-512.6	983.0	0.00	0.00	
5,400.0	11.55	328.57	5,299.8	855.9	-523.0	1,003.1	0.00	0.00	
5,500.0	11.55	328.57	5,397.8	873.0	-533.5	1,023.1	0.00	0.00	
5,600.0	11.55	328.57	5,495.8	890.1	-543.9	1,043.1	0.00	0.00	
5,700.0	11.55	328.57	5,593.8	907.2	-554.4	1,063.2	0.00	0.00	
5,800.0	11.55	328.57	5,691.7	924.3	-564.8	1,083.2	0.00	0.00	
5,900.0	11.55	328.57	5,789.7	941.4	-575.3	1,103.2	0.00	0.00	
6,000.0	11.55	328.57	5,887.7	958.5	-585.7	1,123.2	0.00	0.00	
6,004.4	11.55	328.57	5,892.0	959.2	-586.2	1,124.1	0.00	0.00	Ohio Creek
6,100.0	11.55	328.57	5,985.6	975.6	-596.1	1,143.3	0.00	0.00	
6,200.0	11.55	328.57	6,083.6	992.6	-606.6	1,163.3	0.00	0.00	
6,300.0	11.55	328.57	6,181.6	1,009.7	-617.0	1,183.3	0.00	0.00	
6,400.0	11.55	328.57	6,279.6	1,026.8	-627.5	1,203.4	0.00	0.00	
6,454.5	11.55	328.57	6,333.0	1,036.1	-633.2	1,214.3	0.00	0.00	Mesa Verde
6,500.0	11.55	328.57	6,377.5	1,043.9	-637.9	1,223.4	0.00	0.00	
6,600.0	11.55	328.57	6,475.5	1,061.0	-648.4	1,243.4	0.00	0.00	
6,700.0	11.55	328.57	6,573.5	1,078.1	-658.8	1,263.5	0.00	0.00	
6,800.0	11.55	328.57	6,671.5	1,095.2	-669.2	1,283.5	0.00	0.00	
6,900.0	11.55	328.57	6,769.4	1,112.3	-679.7	1,303.5	0.00	0.00	
6,977.1	11.55	328.57	6,845.0	1,125.5	-687.7	1,319.0	0.00	0.00	Williams Fork
7,000.0	11.55	328.57	6,867.4	1,129.4	-690.1	1,323.5	0.00	0.00	
7,100.0	11.55	328.57	6,965.4	1,146.5	-700.6	1,343.6	0.00	0.00	
7,200.0	11.55	328.57	7,063.4	1,163.5	-711.0	1,363.6	0.00	0.00	
7,300.0	11.55	328.57	7,161.3	1,180.6	-721.5	1,383.6	0.00	0.00	
7,400.0	11.55	328.57	7,259.3	1,197.7	-731.9	1,403.7	0.00	0.00	
7,435.6	11.55	328.57	7,294.2	1,203.8	-735.6	1,410.8	0.00	0.00	Start Drop -2.00
7,500.0	10.27	328.57	7,357.4	1,214.2	-742.0	1,423.0	2.00	-2.00	
7,600.0	8.27	328.57	7,456.1	1,228.0	-750.4	1,439.1	2.00	-2.00	
7,700.0	6.27	328.57	7,555.3	1,238.7	-757.0	1,451.7	2.00	-2.00	
7,800.0	4.27	328.57	7,654.9	1,246.6	-761.8	1,460.9	2.00	-2.00	
7,900.0	2.27	328.57	7,754.7	1,251.4	-764.7	1,466.6	2.00	-2.00	
8,000.0	0.27	328.57	7,854.7	1,253.3	-765.9	1,468.8	2.00	-2.00	
8,013.3	0.00	0.00	7,868.0	1,253.4	-765.9	1,468.8	2.00	-2.00	EOD; Inc=0° - Top of Gas - MCU Fee 16-12C (I
8,100.0	0.00	0.00	7,954.7	1,253.4	-765.9	1,468.8	0.00	0.00	
8,200.0	0.00	0.00	8,054.7	1,253.4	-765.9	1,468.8	0.00	0.00	
8,300.0	0.00	0.00	8,154.7	1,253.4	-765.9	1,468.8	0.00	0.00	
8,400.0	0.00	0.00	8,254.7	1,253.4	-765.9	1,468.8	0.00	0.00	
8,500.0	0.00	0.00	8,354.7	1,253.4	-765.9	1,468.8	0.00	0.00	
8,600.0	0.00	0.00	8,454.7	1,253.4	-765.9	1,468.8	0.00	0.00	
8,700.0	0.00	0.00	8,554.7	1,253.4	-765.9	1,468.8	0.00	0.00	
8,800.0	0.00	0.00	8,654.7	1,253.4	-765.9	1,468.8	0.00	0.00	
8,900.0	0.00	0.00	8,754.7	1,253.4	-765.9	1,468.8	0.00	0.00	
9,000.0	0.00	0.00	8,854.7	1,253.4	-765.9	1,468.8	0.00	0.00	
9,100.0	0.00	0.00	8,954.7	1,253.4	-765.9	1,468.8	0.00	0.00	
9,200.0	0.00	0.00	9,054.7	1,253.4	-765.9	1,468.8	0.00	0.00	
9,229.3	0.00	0.00	9,084.0	1,253.4	-765.9	1,468.8	0.00	0.00	Coal Ridge
9,300.0	0.00	0.00	9,154.7	1,253.4	-765.9	1,468.8	0.00	0.00	
9,400.0	0.00	0.00	9,254.7	1,253.4	-765.9	1,468.8	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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	9,354.7	1,253.4	-765.9	1,468.8	0.00	0.00	
9,600.0	0.00	0.00	9,454.7	1,253.4	-765.9	1,468.8	0.00	0.00	
9,700.0	0.00	0.00	9,554.7	1,253.4	-765.9	1,468.8	0.00	0.00	
9,800.0	0.00	0.00	9,654.7	1,253.4	-765.9	1,468.8	0.00	0.00	
9,893.3	0.00	0.00	9,748.0	1,253.4	-765.9	1,468.8	0.00	0.00	Base Cameo A Coal
9,900.0	0.00	0.00	9,754.7	1,253.4	-765.9	1,468.8	0.00	0.00	
10,000.0	0.00	0.00	9,854.7	1,253.4	-765.9	1,468.8	0.00	0.00	
10,029.3	0.00	0.00	9,884.0	1,253.4	-765.9	1,468.8	0.00	0.00	Rollins
10,100.0	0.00	0.00	9,954.7	1,253.4	-765.9	1,468.8	0.00	0.00	
10,200.0	0.00	0.00	10,054.7	1,253.4	-765.9	1,468.8	0.00	0.00	
10,300.0	0.00	0.00	10,154.7	1,253.4	-765.9	1,468.8	0.00	0.00	
10,400.0	0.00	0.00	10,254.7	1,253.4	-765.9	1,468.8	0.00	0.00	
10,455.3	0.00	0.00	10,310.0	1,253.4	-765.9	1,468.8	0.00	0.00	Cozzette
10,500.0	0.00	0.00	10,354.7	1,253.4	-765.9	1,468.8	0.00	0.00	
10,600.0	0.00	0.00	10,454.7	1,253.4	-765.9	1,468.8	0.00	0.00	
10,664.3	0.00	0.00	10,519.0	1,253.4	-765.9	1,468.8	0.00	0.00	Corcoran
10,700.0	0.00	0.00	10,554.7	1,253.4	-765.9	1,468.8	0.00	0.00	
10,800.0	0.00	0.00	10,654.7	1,253.4	-765.9	1,468.8	0.00	0.00	
10,900.0	0.00	0.00	10,754.7	1,253.4	-765.9	1,468.8	0.00	0.00	
11,000.0	0.00	0.00	10,854.7	1,253.4	-765.9	1,468.8	0.00	0.00	
11,100.0	0.00	0.00	10,954.7	1,253.4	-765.9	1,468.8	0.00	0.00	
11,200.0	0.00	0.00	11,054.7	1,253.4	-765.9	1,468.8	0.00	0.00	
11,214.3	0.00	0.00	11,069.0	1,253.4	-765.9	1,468.8	0.00	0.00	TD @ 11214.3' MD - MCU Fee 16-12C (M16W)
11,300.0	0.00	0.00	11,154.7	1,253.4	-765.9	1,468.8	0.00	0.00	
11,400.0	0.00	0.00	11,254.7	1,253.4	-765.9	1,468.8	0.00	0.00	
11,500.0	0.00	0.00	11,354.7	1,253.4	-765.9	1,468.8	0.00	0.00	
11,514.3	0.00	0.00	11,369.0	1,253.4	-765.9	1,468.8	0.00	0.00	Permit TD @ 11514.3' 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 16-12C (M16v - plan hits target center - Circle (radius 25.0)	0.00	0.00	11,069.0	1,253.4	-765.9	1,594,601.13	2,354,584.09	39.443648	-107.785641
MCU Fee 16-12C (M16v - plan hits target center - Circle (radius 25.0)	0.00	0.00	7,868.0	1,253.4	-765.9	1,594,601.13	2,354,584.09	39.443648	-107.785641

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,233.7	1,218.0	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 16-2C (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 16-2C (M16W Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,912.0	3,842.0	G Sand		0.00		
6,004.4	5,892.0	Ohio Creek		0.00		
6,454.5	6,333.0	Mesa Verde		0.00		
6,977.1	6,845.0	Williams Fork		0.00		
8,013.3	7,868.0	Top of Gas		0.00		
9,229.3	9,084.0	Coal Ridge		0.00		
9,893.3	9,748.0	Base Cameo A Coal		0.00		
10,029.3	9,884.0	Rollins		0.00		
10,455.3	10,310.0	Cozzette		0.00		
10,664.3	10,519.0	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	
585.1	582.5	33.0	-20.2	EOB; Inc=11.55°	
7,435.6	7,294.2	1,203.8	-735.6	Start Drop -2.00	
8,013.3	7,868.0	1,253.4	-765.9	EOD; Inc=0°	
11,214.3	11,069.0	1,253.4	-765.9	TD @ 11214.3' MD	
11,514.3	11,369.0	1,253.4	-765.9	Permit TD @ 11514.3' MD	

EnCana Oil & Gas (USA) Inc

Mamm Creek

SWSW S16-T7S-R93W (M16W Pad)

MCU Fee 16-2C (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 16-2C (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 16-2C (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
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 500.0ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	Systematic Ellipse
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic

Survey Tool Program	Date	1/19/2011
From (ft)	To (ft)	Survey (Wellbore)
0.0	11,514.3	Plan #1 (DD)
		Tool Name
		MWD
		Description
		Geolink MWD

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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						
(J16W)						
Existing 16-11 - DD - DD						Out of range
HMU Federal 16-11B - DD - Plan #1						Out of range
SESW S9-T7S-R93W (N9W Pad)						
EnCana GMR 16-5 - Final - DD						Out of range
SWSW S16-T7S-R93W (M16W Pad)						
MCU 16-13A (M16W Pad) - DD - Plan #1	200.0	200.0	16.9	16.2	27.127	CC, ES
MCU 16-13A (M16W Pad) - DD - Plan #1	700.0	698.0	35.3	32.2	11.192	SF
MCU 16-13B (M16W Pad) - DD - Plan #1	200.0	200.0	68.0	67.3	109.363	CC, ES
MCU 16-13B (M16W Pad) - DD - Plan #1	1,400.0	1,386.7	164.0	157.1	23.872	SF
MCU 16-13C (M16W Pad) - DD - Plan #1	200.0	200.0	171.1	170.4	275.323	CC, ES
MCU 16-13C (M16W Pad) - DD - Plan #1	2,600.0	2,560.8	496.2	483.9	40.277	SF
MCU 16-13D (M16W Pad) - DD - Plan #1	200.0	200.0	201.9	201.3	324.918	CC, ES
MCU 16-13D (M16W Pad) - DD - Plan #1	2,000.0	1,948.1	488.9	479.7	53.047	SF
MCU 21-3B (M16W Pad) - DD - Plan #1	652.4	657.8	160.3	157.1	50.880	CC, ES
MCU 21-3B (M16W Pad) - DD - Plan #1	800.0	790.7	172.6	168.4	41.660	SF
MCU 21-4A (M16W Pad) - DD - Plan #1	200.0	200.0	197.3	196.6	317.492	CC, ES
MCU 21-4A (M16W Pad) - DD - Plan #1	1,800.0	1,743.9	480.0	471.9	59.115	SF
MCU 21-4B (M16W Pad) - DD - Plan #1	200.0	200.0	182.0	181.4	292.966	CC, ES
MCU 21-4B (M16W Pad) - DD - Plan #1	1,500.0	1,425.7	472.0	465.6	73.465	SF
MCU 21-4C (M16W Pad) - DD - Plan #1	200.0	200.0	167.3	166.7	269.337	CC, ES
MCU 21-4C (M16W Pad) - DD - Plan #1	1,400.0	1,313.5	469.5	463.7	80.568	SF
MCU 21-4D2 (M16W Pad) - DD - Plan #1	200.0	200.0	152.9	152.3	246.157	CC, ES
MCU 21-4D2 (M16W Pad) - DD - Plan #1	1,400.0	1,293.8	495.1	489.4	86.915	SF
MCU 21-5A (M16W Pad) - DD - Plan #1	200.0	200.0	139.3	138.7	224.197	CC, ES
MCU 21-5A (M16W Pad) - DD - Plan #1	700.0	645.2	233.7	231.1	90.414	SF
MCU Fee 16-12C2 (M16W Pad) - DD - Plan #1	200.0	200.0	11.8	11.2	19.068	CC
MCU Fee 16-12C2 (M16W Pad) - DD - Plan #1	300.0	300.2	12.2	11.2	12.364	ES
MCU Fee 16-12C2 (M16W Pad) - DD - Plan #1	600.0	600.7	17.9	15.3	6.995	SF
MCU Fee 16-5C (M16W Pad) - DD - Plan #1	200.0	200.0	11.7	11.1	18.879	CC
MCU Fee 16-5C (M16W Pad) - DD - Plan #1	300.0	300.4	12.1	11.1	12.330	ES
MCU Fee 16-5C (M16W Pad) - DD - Plan #1	800.0	801.1	25.3	20.9	5.743	SF
MCU Fee 17-16B (M16W Pad) - DD - Plan #1	200.0	200.0	141.7	141.1	228.066	CC, ES
MCU Fee 17-16B (M16W Pad) - DD - Plan #1	2,000.0	1,936.0	482.3	468.2	34.163	SF
MCU Fee 17-16B2 (M16W Pad) - DD - Plan #1	200.0	200.0	156.1	155.4	251.173	CC, ES
MCU Fee 17-16B2 (M16W Pad) - DD - Plan #1	1,800.0	1,723.0	488.1	476.0	40.388	SF
MCU Fee 17-16C (M16W Pad) - DD - Plan #1	200.0	200.0	186.2	185.6	299.739	CC, ES
MCU Fee 17-16C (M16W Pad) - DD - Plan #1	1,600.0	1,507.9	493.2	483.2	49.497	SF
MCU Fee 17-9B (M16W pad) - DD - Plan #1	200.0	200.0	26.8	26.2	43.110	CC, ES
MCU Fee 17-9B (M16W pad) - DD - Plan #1	1,200.0	1,200.3	82.8	75.3	11.166	SF
MCU Fee 17-9B2 (M16W Pad) - DD - Plan #1	200.0	200.0	134.1	133.5	215.816	CC, ES
MCU Fee 17-9B2 (M16W Pad) - DD - Plan #1	2,400.0	2,320.1	497.2	482.3	33.337	SF
MCU Fee 17-9C (M16W Pad) - DD - Plan #1	200.0	200.0	51.1	50.5	82.243	CC, ES
MCU Fee 17-9C (M16W Pad) - DD - Plan #1	900.0	878.7	120.0	115.1	24.628	SF
MCU Fee 17-9D (M16W Pad) - DD - Plan #1	200.0	200.0	60.0	59.4	96.643	CC, ES
MCU Fee 17-9D (M16W Pad) - DD - Plan #1	2,800.0	2,755.7	465.7	446.0	23.652	SF

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Between Centres (ft)	Between Ellipses (ft)				Measured Depth (ft)	Vertical Depth (ft)	Offset (ft)
0.0	0.0	0.0	0.0	0.0	0.0	-110.23	-5.8	-15.8	16.9					
100.0	100.0	100.0	100.0	0.1	0.1	-110.23	-5.8	-15.8	16.9	16.6				
200.0	200.0	200.0	200.0	0.3	0.3	-110.23	-5.8	-15.8	16.9	16.2				
300.0	300.0	299.5	299.5	0.5	0.5	-79.85	-4.2	-17.8	17.7	16.7				
400.0	399.6	399.0	398.7	0.7	0.7	-82.46	0.7	-23.9	20.2	18.8				
500.0	498.8	498.7	497.6	1.0	1.0	-87.39	8.3	-33.3	24.2	22.2				
600.0	597.1	598.4	596.5	1.4	1.2	-100.24	16.2	-43.2	28.9	26.3				
700.0	695.1	698.0	695.3	1.7	1.5	-112.14	24.1	-53.0	35.3	32.2				
800.0	793.0	797.6	794.1	2.1	1.8	-120.15	32.0	-62.8	42.8	39.1				
900.0	891.0	897.1	892.8	2.5	2.1	-125.71	39.9	-72.6	50.9	46.7				
1,000.0	989.0	996.7	991.6	2.9	2.3	-129.73	47.8	-82.5	59.3	54.6				
1,100.0	1,087.0	1,096.3	1,090.4	3.3	2.6	-132.74	55.7	-92.3	67.9	62.7				
1,200.0	1,184.9	1,195.9	1,189.1	3.6	2.9	-135.06	63.6	-102.1	76.7	71.0				
1,300.0	1,282.9	1,295.4	1,287.9	4.0	3.2	-136.91	71.5	-111.9	85.6	79.4				
1,400.0	1,380.9	1,395.0	1,386.7	4.4	3.5	-138.41	79.4	-121.7	94.5	87.8				
1,500.0	1,478.9	1,494.6	1,485.4	4.8	3.7	-139.65	87.3	-131.6	103.5	96.3				
1,600.0	1,576.8	1,594.1	1,584.2	5.2	4.0	-140.69	95.2	-141.4	112.5	104.9				
1,700.0	1,674.8	1,693.7	1,683.0	5.6	4.3	-141.58	103.1	-151.2	121.6	113.5				
1,800.0	1,772.8	1,793.3	1,781.8	6.0	4.6	-142.34	111.0	-161.0	130.7	122.1				
1,900.0	1,870.8	1,892.9	1,880.5	6.4	4.9	-143.00	118.9	-170.9	139.8	130.7				
2,000.0	1,968.7	1,992.4	1,979.3	6.8	5.1	-143.59	126.8	-180.7	148.9	139.4				
2,100.0	2,066.7	2,092.0	2,078.1	7.2	5.4	-144.10	134.8	-190.5	158.0	148.0				
2,200.0	2,164.7	2,191.6	2,176.8	7.5	5.7	-144.56	142.7	-200.3	167.2	156.7				
2,300.0	2,262.6	2,291.1	2,275.6	7.9	6.0	-144.97	150.6	-210.1	176.4	165.4				
2,400.0	2,360.6	2,390.7	2,374.4	8.3	6.3	-145.34	158.5	-220.0	185.5	174.1				
2,500.0	2,458.6	2,490.3	2,473.2	8.7	6.5	-145.68	166.4	-229.8	194.7	182.8				
2,600.0	2,556.6	2,589.9	2,571.9	9.1	6.8	-145.98	174.3	-239.6	203.9	191.5				
2,700.0	2,654.5	2,689.4	2,670.7	9.5	7.1	-146.26	182.2	-249.4	213.1	200.2				
2,800.0	2,752.5	2,789.0	2,769.5	9.9	7.4	-146.52	190.1	-259.2	222.3	208.9				
2,900.0	2,850.5	2,888.6	2,868.2	10.3	7.7	-146.75	198.0	-269.1	231.5	217.6				
3,000.0	2,948.5	2,988.1	2,967.0	10.7	7.9	-146.97	205.9	-278.9	240.7	226.3				
3,100.0	3,046.4	3,087.7	3,065.8	11.1	8.2	-147.17	213.8	-288.7	249.9	235.1				
3,200.0	3,144.4	3,187.3	3,164.6	11.5	8.5	-147.36	221.7	-298.5	259.1	243.8				
3,300.0	3,242.4	3,286.9	3,263.3	11.9	8.8	-147.53	229.6	-308.4	268.3	252.5				
3,400.0	3,340.4	3,386.4	3,362.1	12.3	9.1	-147.70	237.5	-318.2	277.5	261.3				
3,500.0	3,438.3	3,486.0	3,460.9	12.6	9.3	-147.85	245.4	-328.0	286.7	270.0				
3,600.0	3,536.3	3,585.6	3,559.6	13.0	9.6	-147.99	253.3	-337.8	295.9	278.7				
3,700.0	3,634.3	3,685.2	3,658.4	13.4	9.9	-148.13	261.2	-347.6	305.1	287.5				
3,800.0	3,732.3	3,784.7	3,757.2	13.8	10.2	-148.25	269.1	-357.5	314.3	296.2				
3,900.0	3,830.2	3,884.3	3,855.9	14.2	10.5	-148.37	277.0	-367.3	323.6	305.0				
4,000.0	3,928.2	3,983.9	3,954.7	14.6	10.8	-148.48	284.9	-377.1	332.8	313.7				
4,100.0	4,026.2	4,083.4	4,053.5	15.0	11.0	-148.59	292.8	-386.9	342.0	322.5				
4,200.0	4,124.1	4,183.0	4,152.3	15.4	11.3	-148.69	300.7	-396.7	351.2	331.2				
4,300.0	4,222.1	4,282.6	4,251.0	15.8	11.6	-148.79	308.6	-406.6	360.4	339.9				
4,400.0	4,320.1	4,382.2	4,349.8	16.2	11.9	-148.88	316.5	-416.4	369.7	348.7				
4,500.0	4,418.1	4,481.7	4,448.6	16.6	12.2	-148.97	324.5	-426.2	378.9	357.4				
4,600.0	4,516.0	4,581.3	4,547.3	17.0	12.4	-149.05	332.4	-436.0	388.1	366.2				
4,700.0	4,614.0	4,680.9	4,646.1	17.4	12.7	-149.13	340.3	-445.9	397.3	374.9				
4,800.0	4,712.0	4,780.4	4,744.9	17.7	13.0	-149.20	348.2	-455.7	406.6	383.7				
4,900.0	4,810.0	4,880.0	4,843.7	18.1	13.3	-149.27	356.1	-465.5	415.8	392.4				
5,000.0	4,907.9	4,979.6	4,942.4	18.5	13.6	-149.34	364.0	-475.3	425.0	401.2				

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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		
5,100.0	5,005.9	5,079.2	5,041.2	18.9	13.8	-149.41	371.9	-485.1	434.3	410.0	24.30	17.870		
5,200.0	5,103.9	5,178.7	5,140.0	19.3	14.1	-149.47	379.8	-495.0	443.5	418.7	24.78	17.899		
5,300.0	5,201.9	5,278.3	5,238.7	19.7	14.4	-149.53	387.7	-504.8	452.7	427.5	25.25	17.927		
5,400.0	5,299.8	5,377.9	5,337.5	20.1	14.7	-149.59	395.6	-514.6	461.9	436.2	25.73	17.954		
5,500.0	5,397.8	5,477.4	5,436.3	20.5	15.0	-149.64	403.5	-524.4	471.2	445.0	26.20	17.981		
5,600.0	5,495.8	5,577.0	5,535.0	20.9	15.2	-149.70	411.4	-534.2	480.4	453.7	26.68	18.006		
5,700.0	5,593.8	5,676.6	5,633.8	21.3	15.5	-149.75	419.3	-544.1	489.6	462.5	27.16	18.030		
5,800.0	5,691.7	5,776.2	5,732.6	21.7	15.8	-149.80	427.2	-553.9	498.9	471.2	27.63	18.054		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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							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	-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	297.4	297.4	0.5	0.5	-79.26	-22.3	-66.1	69.3	68.3	0.98	70.853		
400.0	399.6	394.9	394.6	0.7	0.7	-81.00	-19.4	-73.0	73.4	72.0	1.39	52.844		
500.0	498.8	494.6	493.8	1.0	0.9	-85.15	-15.6	-82.0	78.5	76.6	1.88	41.657		
600.0	597.1	593.9	592.6	1.4	1.2	-92.27	-11.8	-91.0	84.0	81.5	2.47	34.050		
700.0	695.1	693.0	691.2	1.7	1.4	-99.71	-8.0	-99.9	91.0	87.9	3.07	29.673		
800.0	793.0	792.1	789.9	2.1	1.6	-106.01	-4.2	-108.9	99.3	95.7	3.66	27.150		
900.0	891.0	891.2	888.5	2.5	1.9	-111.30	-0.4	-117.9	108.7	104.4	4.23	25.672		
1,000.0	989.0	990.3	987.1	2.9	2.1	-115.72	3.5	-126.8	118.8	114.0	4.79	24.804		
1,100.0	1,087.0	1,089.4	1,085.7	3.3	2.4	-119.43	7.3	-135.8	129.5	124.2	5.33	24.304		
1,200.0	1,184.9	1,188.5	1,184.4	3.6	2.6	-122.58	11.1	-144.8	140.7	134.8	5.85	24.033		
1,300.0	1,282.9	1,287.6	1,283.0	4.0	2.8	-125.25	14.9	-153.7	152.2	145.8	6.37	23.906		
1,400.0	1,380.9	1,386.7	1,381.6	4.4	3.1	-127.54	18.7	-162.7	164.0	157.1	6.87	23.872	SF	
1,500.0	1,478.9	1,485.8	1,480.2	4.8	3.3	-129.53	22.5	-171.7	176.0	168.7	7.37	23.898		
1,600.0	1,576.8	1,584.9	1,578.8	5.2	3.6	-131.26	26.3	-180.6	188.2	180.4	7.86	23.962		
1,700.0	1,674.8	1,684.0	1,677.5	5.6	3.8	-132.78	30.1	-189.6	200.6	192.3	8.34	24.051		
1,800.0	1,772.8	1,783.1	1,776.1	6.0	4.1	-134.12	33.9	-198.6	213.1	204.3	8.82	24.155		
1,900.0	1,870.8	1,882.2	1,874.7	6.4	4.3	-135.31	37.7	-207.5	225.7	216.4	9.30	24.269		
2,000.0	1,968.7	1,981.3	1,973.3	6.8	4.5	-136.38	41.5	-216.5	238.3	228.6	9.77	24.386		
2,100.0	2,066.7	2,080.4	2,071.9	7.2	4.8	-137.34	45.3	-225.5	251.1	240.8	10.25	24.506		
2,200.0	2,164.7	2,179.5	2,170.6	7.5	5.0	-138.21	49.2	-234.4	263.9	253.2	10.72	24.625		
2,300.0	2,262.6	2,278.6	2,269.2	7.9	5.3	-138.99	53.0	-243.4	276.8	265.6	11.19	24.742		
2,400.0	2,360.6	2,377.7	2,367.8	8.3	5.5	-139.71	56.8	-252.4	289.7	278.0	11.65	24.857		
2,500.0	2,458.6	2,476.8	2,466.4	8.7	5.8	-140.36	60.6	-261.3	302.6	290.5	12.12	24.968		
2,600.0	2,556.6	2,575.9	2,565.0	9.1	6.0	-140.96	64.4	-270.3	315.6	303.0	12.59	25.076		
2,700.0	2,654.5	2,675.0	2,663.7	9.5	6.2	-141.52	68.2	-279.3	328.6	315.6	13.05	25.181		
2,800.0	2,752.5	2,774.1	2,762.3	9.9	6.5	-142.03	72.0	-288.3	341.7	328.2	13.51	25.282		
2,900.0	2,850.5	2,873.2	2,860.9	10.3	6.7	-142.50	75.8	-297.2	354.7	340.8	13.98	25.379		
3,000.0	2,948.5	2,972.3	2,959.5	10.7	7.0	-142.94	79.6	-306.2	367.8	353.4	14.44	25.472		
3,100.0	3,046.4	3,071.4	3,058.1	11.1	7.2	-143.35	83.4	-315.2	381.0	366.1	14.90	25.562		
3,200.0	3,144.4	3,170.6	3,156.8	11.5	7.5	-143.74	87.2	-324.1	394.1	378.7	15.37	25.648		
3,300.0	3,242.4	3,269.7	3,255.4	11.9	7.7	-144.09	91.0	-333.1	407.2	391.4	15.83	25.731		
3,400.0	3,340.4	3,368.8	3,354.0	12.3	7.9	-144.43	94.9	-342.1	420.4	404.1	16.29	25.811		
3,500.0	3,438.3	3,467.9	3,452.6	12.6	8.2	-144.75	98.7	-351.0	433.6	416.8	16.75	25.887		
3,600.0	3,536.3	3,567.0	3,551.3	13.0	8.4	-145.04	102.5	-360.0	446.8	429.5	17.21	25.960		
3,700.0	3,634.3	3,666.1	3,649.9	13.4	8.7	-145.32	106.3	-369.0	460.0	442.3	17.67	26.031		
3,800.0	3,732.3	3,765.2	3,748.5	13.8	8.9	-145.59	110.1	-377.9	473.2	455.0	18.13	26.099		
3,900.0	3,830.2	3,864.3	3,847.1	14.2	9.2	-145.84	113.9	-386.9	486.4	467.8	18.59	26.164		
4,000.0	3,928.2	3,963.4	3,945.7	14.6	9.4	-146.07	117.7	-395.9	499.6	480.6	19.05	26.227		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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				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	-137.27	-125.7	-116.1	171.1					
100.0	100.0	100.0	100.0	0.1	0.1	-137.27	-125.7	-116.1	171.1	170.8	0.27	628.302		
200.0	200.0	200.0	200.0	0.3	0.3	-137.27	-125.7	-116.1	171.1	170.4	0.62	275.323 CC, ES		
300.0	300.0	294.6	294.6	0.5	0.5	-105.96	-125.5	-118.4	173.3	172.4	0.97	178.022		
400.0	399.6	390.8	390.5	0.7	0.7	-106.39	-125.1	-125.3	180.0	178.6	1.38	130.759		
500.0	498.8	490.2	489.6	1.0	0.9	-107.99	-124.5	-133.4	188.9	187.0	1.85	102.111		
600.0	597.1	589.1	588.1	1.4	1.1	-110.80	-124.0	-141.5	199.7	197.3	2.38	83.783		
700.0	695.1	687.7	686.4	1.7	1.3	-114.01	-123.5	-149.6	211.9	208.9	2.93	72.388		
800.0	793.0	786.2	784.6	2.1	1.6	-116.88	-123.0	-157.6	224.6	221.1	3.47	64.757		
900.0	891.0	884.8	882.9	2.5	1.8	-119.43	-122.4	-165.7	237.8	233.8	4.00	59.391		
1,000.0	989.0	983.4	981.1	2.9	2.0	-121.72	-121.9	-173.8	251.4	246.9	4.53	55.467		
1,100.0	1,087.0	1,082.0	1,079.4	3.3	2.2	-123.76	-121.4	-181.8	265.4	260.4	5.06	52.507		
1,200.0	1,184.9	1,180.6	1,177.7	3.6	2.4	-125.61	-120.9	-189.9	279.7	274.2	5.57	50.217		
1,300.0	1,282.9	1,279.2	1,275.9	4.0	2.7	-127.27	-120.4	-198.0	294.3	288.2	6.08	48.409		
1,400.0	1,380.9	1,377.8	1,374.2	4.4	2.9	-128.78	-119.8	-206.0	309.1	302.5	6.58	46.956		
1,500.0	1,478.9	1,476.4	1,472.4	4.8	3.1	-130.14	-119.3	-214.1	324.1	317.0	7.08	45.771		
1,600.0	1,576.8	1,575.0	1,570.7	5.2	3.3	-131.39	-118.8	-222.1	339.2	331.6	7.57	44.792		
1,700.0	1,674.8	1,673.5	1,668.9	5.6	3.5	-132.53	-118.3	-230.2	354.5	346.4	8.06	43.974		
1,800.0	1,772.8	1,772.1	1,767.2	6.0	3.8	-133.58	-117.8	-238.3	369.9	361.3	8.55	43.285		
1,900.0	1,870.8	1,870.7	1,865.5	6.4	4.0	-134.54	-117.2	-246.3	385.4	376.4	9.03	42.698		
2,000.0	1,968.7	1,969.3	1,963.7	6.8	4.2	-135.43	-116.7	-254.4	401.0	391.5	9.50	42.194		
2,100.0	2,066.7	2,067.9	2,062.0	7.2	4.4	-136.25	-116.2	-262.5	416.7	406.7	9.98	41.759		
2,200.0	2,164.7	2,166.5	2,160.2	7.5	4.7	-137.02	-115.7	-270.5	432.5	422.0	10.45	41.382		
2,300.0	2,262.6	2,265.1	2,258.5	7.9	4.9	-137.72	-115.1	-278.6	448.3	437.4	10.92	41.051		
2,400.0	2,360.6	2,363.7	2,356.7	8.3	5.1	-138.39	-114.6	-286.7	464.3	452.9	11.39	40.761		
2,500.0	2,458.6	2,462.3	2,455.0	8.7	5.3	-139.00	-114.1	-294.7	480.2	468.4	11.86	40.505		
2,600.0	2,556.6	2,560.8	2,553.2	9.1	5.5	-139.58	-113.6	-302.8	496.2	483.9	12.32	40.277 SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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				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	-132.86	-137.3	-148.0	201.9					
100.0	100.0	100.0	100.0	0.1	0.1	-132.86	-137.3	-148.0	201.9	201.6	0.27	741.480		
200.0	200.0	200.0	200.0	0.3	0.3	-132.86	-137.3	-148.0	201.9	201.3	0.62	324.918 CC, ES		
300.0	300.0	290.7	290.6	0.5	0.5	-101.83	-138.3	-149.9	204.7	203.7	0.96	212.531		
400.0	399.6	382.6	382.3	0.7	0.7	-103.00	-141.2	-155.7	213.1	211.7	1.34	158.528		
500.0	498.8	481.5	480.8	1.0	0.9	-105.24	-145.0	-163.2	224.4	222.6	1.80	124.835		
600.0	597.1	579.5	578.6	1.4	1.1	-108.40	-148.8	-170.7	237.8	235.4	2.31	102.891		
700.0	695.1	677.3	676.0	1.7	1.3	-111.90	-152.5	-178.2	252.6	249.7	2.83	89.189		
800.0	793.0	775.1	773.3	2.1	1.5	-115.01	-156.3	-185.7	268.2	264.9	3.35	80.018		
900.0	891.0	872.8	870.7	2.5	1.8	-117.78	-160.0	-193.1	284.6	280.7	3.87	73.575		
1,000.0	989.0	970.6	968.1	2.9	2.0	-120.24	-163.8	-200.6	301.5	297.1	4.38	68.870		
1,100.0	1,087.0	1,068.3	1,065.5	3.3	2.2	-122.45	-167.6	-208.1	319.0	314.1	4.88	65.326		
1,200.0	1,184.9	1,166.1	1,162.9	3.6	2.4	-124.42	-171.3	-215.6	336.8	331.4	5.38	62.589		
1,300.0	1,282.9	1,263.8	1,260.3	4.0	2.7	-126.20	-175.1	-223.0	355.0	349.1	5.87	60.431		
1,400.0	1,380.9	1,361.6	1,357.7	4.4	2.9	-127.81	-178.8	-230.5	373.5	367.1	6.36	58.699		
1,500.0	1,478.9	1,459.3	1,455.1	4.8	3.1	-129.26	-182.6	-238.0	392.3	385.4	6.85	57.289		
1,600.0	1,576.8	1,557.1	1,552.5	5.2	3.3	-130.58	-186.4	-245.4	411.3	403.9	7.33	56.126		
1,700.0	1,674.8	1,654.9	1,649.9	5.6	3.6	-131.79	-190.1	-252.9	430.4	422.6	7.80	55.156		
1,800.0	1,772.8	1,752.6	1,747.3	6.0	3.8	-132.89	-193.9	-260.4	449.8	441.5	8.28	54.338		
1,900.0	1,870.8	1,850.4	1,844.7	6.4	4.0	-133.90	-197.6	-267.8	469.3	460.5	8.75	53.643		
2,000.0	1,968.7	1,948.1	1,942.1	6.8	4.2	-134.83	-201.4	-275.3	488.9	479.7	9.22	53.047 SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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						
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	-96.68	-22.2	-189.8	191.1				
100.0	100.0	100.0	100.0	0.1	0.1	-96.68	-22.2	-189.8	191.1	190.8	0.27	701.820	
200.0	200.0	200.0	200.0	0.3	0.3	-96.68	-22.2	-189.8	191.1	190.5	0.62	307.539	
300.0	300.0	306.7	306.7	0.5	0.5	-66.79	-24.2	-187.6	188.2	187.2	1.00	188.956	
400.0	399.6	411.6	411.2	0.7	0.7	-71.56	-30.1	-181.1	180.3	178.9	1.43	125.698	
500.0	498.8	512.9	511.5	1.0	1.0	-79.93	-39.4	-170.9	169.9	167.9	2.00	84.773	
600.0	597.1	609.3	606.1	1.4	1.4	-91.90	-51.6	-157.5	161.6	158.9	2.73	59.103	
652.4	648.4	657.8	653.5	1.5	1.6	-99.02	-59.0	-149.4	160.3	157.1	3.15	50.880 CC, ES	
700.0	695.1	701.0	695.3	1.7	1.8	-105.67	-66.2	-141.5	161.5	158.0	3.50	46.111	
800.0	793.0	790.7	781.9	2.1	2.2	-119.05	-81.8	-124.4	172.6	168.4	4.14	41.660 SF	
900.0	891.0	880.4	868.6	2.5	2.7	-130.54	-97.4	-107.3	193.3	188.7	4.62	41.855	
1,000.0	989.0	970.1	955.3	2.9	3.1	-139.81	-112.9	-90.3	221.1	216.1	4.97	44.479	
1,100.0	1,087.0	1,059.8	1,042.0	3.3	3.5	-147.09	-128.5	-73.2	253.5	248.3	5.25	48.282	
1,200.0	1,184.9	1,149.5	1,128.7	3.6	4.0	-152.78	-144.1	-56.1	289.1	283.6	5.50	52.556	
1,300.0	1,282.9	1,239.2	1,215.4	4.0	4.4	-157.27	-159.6	-39.0	326.8	321.1	5.74	56.911	
1,400.0	1,380.9	1,329.0	1,302.0	4.4	4.8	-160.87	-175.2	-21.9	366.0	360.0	5.99	61.135	
1,500.0	1,478.9	1,418.7	1,388.7	4.8	5.3	-163.79	-190.8	-4.8	406.1	399.9	6.24	65.123	
1,600.0	1,576.8	1,508.4	1,475.4	5.2	5.7	-166.20	-206.4	12.2	447.1	440.6	6.50	68.833	
1,700.0	1,674.8	1,598.1	1,562.1	5.6	6.1	-168.21	-221.9	29.3	488.6	481.8	6.76	72.253	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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	-135.91	-141.7	-137.3	197.3						
100.0	100.0	100.0	100.0	0.1	0.1	-135.91	-141.7	-137.3	197.3	197.0	0.27	724.532			
200.0	200.0	200.0	200.0	0.3	0.3	-135.91	-141.7	-137.3	197.3	196.6	0.62	317.492 CC, ES			
300.0	300.0	290.6	290.6	0.5	0.5	-104.96	-143.0	-139.0	200.3	199.3	0.96	208.114			
400.0	399.6	380.5	380.2	0.7	0.7	-106.29	-146.9	-144.0	209.4	208.1	1.34	156.616			
500.0	498.8	478.5	477.8	1.0	0.9	-108.65	-152.6	-151.6	222.9	221.1	1.78	125.037			
600.0	597.1	576.2	575.0	1.4	1.1	-111.84	-158.4	-159.1	238.7	236.4	2.28	104.520			
700.0	695.1	673.5	671.9	1.7	1.3	-115.35	-164.1	-166.6	256.1	253.3	2.79	91.769			
800.0	793.0	770.8	768.7	2.1	1.6	-118.40	-169.8	-174.1	274.3	271.1	3.30	83.233			
900.0	891.0	868.1	865.6	2.5	1.8	-121.08	-175.5	-181.6	293.3	289.5	3.80	77.230			
1,000.0	989.0	965.4	962.4	2.9	2.0	-123.43	-181.3	-189.1	312.7	308.4	4.29	72.839			
1,100.0	1,087.0	1,062.7	1,059.3	3.3	2.3	-125.51	-187.0	-196.6	332.7	327.9	4.78	69.525			
1,200.0	1,184.9	1,160.1	1,156.1	3.6	2.5	-127.36	-192.7	-204.1	353.0	347.7	5.27	66.957			
1,300.0	1,282.9	1,257.4	1,253.0	4.0	2.8	-129.00	-198.4	-211.6	373.6	367.8	5.75	64.925			
1,400.0	1,380.9	1,354.7	1,349.8	4.4	3.0	-130.47	-204.1	-219.1	394.5	388.3	6.23	63.288			
1,500.0	1,478.9	1,452.0	1,446.7	4.8	3.2	-131.80	-209.9	-226.6	415.6	408.9	6.71	61.948			
1,600.0	1,576.8	1,549.3	1,543.5	5.2	3.5	-133.00	-215.6	-234.1	436.9	429.7	7.18	60.837			
1,700.0	1,674.8	1,646.6	1,640.4	5.6	3.7	-134.08	-221.3	-241.6	458.4	450.7	7.65	59.905			
1,800.0	1,772.8	1,743.9	1,737.2	6.0	3.9	-135.07	-227.0	-249.1	480.0	471.9	8.12	59.115 SF			

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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		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		
0.0	0.0	0.0	0.0	0.0	0.0	-138.27	-135.9	-121.2	182.0				
100.0	100.0	100.0	100.0	0.1	0.1	-138.27	-135.9	-121.2	182.0	181.8	0.27	668.564	
200.0	200.0	200.0	200.0	0.3	0.3	-138.27	-135.9	-121.2	182.0	181.4	0.62	292.966 CC, ES	
300.0	300.0	291.2	291.2	0.5	0.5	-107.56	-137.7	-122.3	185.2	184.2	0.96	192.255	
400.0	399.6	381.5	381.2	0.7	0.7	-109.56	-143.1	-125.8	194.8	193.4	1.34	145.713	
500.0	498.8	469.9	469.0	1.0	0.9	-112.38	-151.8	-131.5	211.3	209.6	1.76	120.311	
600.0	597.1	564.9	563.0	1.4	1.2	-116.05	-163.5	-139.0	233.5	231.3	2.23	104.535	
700.0	695.1	660.5	657.6	1.7	1.5	-119.91	-175.2	-146.6	257.7	255.0	2.71	95.068	
800.0	793.0	756.2	752.2	2.1	1.7	-123.12	-187.0	-154.2	282.9	279.7	3.18	88.836	
900.0	891.0	851.8	846.8	2.5	2.0	-125.80	-198.7	-161.8	308.7	305.1	3.65	84.499	
1,000.0	989.0	947.5	941.5	2.9	2.3	-128.08	-210.5	-169.4	335.1	331.0	4.12	81.344	
1,100.0	1,087.0	1,043.1	1,036.1	3.3	2.6	-130.02	-222.2	-177.0	362.0	357.4	4.58	78.963	
1,200.0	1,184.9	1,138.8	1,130.7	3.6	2.9	-131.70	-234.0	-184.6	389.1	384.1	5.05	77.114	
1,300.0	1,282.9	1,234.4	1,225.3	4.0	3.2	-133.16	-245.7	-192.2	416.5	411.0	5.51	75.644	
1,400.0	1,380.9	1,330.1	1,320.0	4.4	3.5	-134.44	-257.4	-199.8	444.2	438.2	5.97	74.450	
1,500.0	1,478.9	1,425.7	1,414.6	4.8	3.8	-135.57	-269.2	-207.4	472.0	465.6	6.43	73.465 SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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	-140.99	-130.0	-105.3	167.3					
100.0	100.0	100.0	100.0	0.1	0.1	-140.99	-130.0	-105.3	167.3	167.1	0.27	614.641		
200.0	200.0	200.0	200.0	0.3	0.3	-140.99	-130.0	-105.3	167.3	166.7	0.62	269.337	CC, ES	
300.0	300.0	291.9	291.9	0.5	0.5	-110.39	-132.0	-106.3	170.6	169.6	0.96	176.928		
400.0	399.6	382.9	382.6	0.7	0.7	-112.67	-137.9	-109.2	180.6	179.2	1.34	135.010		
500.0	498.8	471.7	470.8	1.0	0.9	-115.84	-147.3	-114.0	197.8	196.1	1.75	112.774		
600.0	597.1	558.5	556.4	1.4	1.2	-119.43	-160.0	-120.3	222.8	220.6	2.21	100.956		
700.0	695.1	652.8	649.1	1.7	1.5	-123.44	-175.5	-128.0	251.7	249.0	2.67	94.349		
800.0	793.0	747.2	741.9	2.1	1.8	-126.63	-190.9	-135.7	281.5	278.3	3.12	90.143		
900.0	891.0	841.6	834.7	2.5	2.2	-129.22	-206.4	-143.4	311.9	308.3	3.57	87.260		
1,000.0	989.0	936.0	927.5	2.9	2.5	-131.34	-221.8	-151.1	342.9	338.8	4.03	85.175		
1,100.0	1,087.0	1,030.4	1,020.3	3.3	2.9	-133.12	-237.2	-158.8	374.2	369.7	4.48	83.600		
1,200.0	1,184.9	1,124.7	1,113.1	3.6	3.2	-134.63	-252.7	-166.5	405.7	400.8	4.93	82.369		
1,300.0	1,282.9	1,219.1	1,205.9	4.0	3.5	-135.92	-268.1	-174.2	437.5	432.2	5.38	81.380		
1,400.0	1,380.9	1,313.5	1,298.7	4.4	3.9	-137.04	-283.6	-181.9	469.5	463.7	5.83	80.568	SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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	-144.30	-124.2	-89.2	152.9					
100.0	100.0	100.0	100.0	0.1	0.1	-144.30	-124.2	-89.2	152.9	152.7	0.27	561.742		
200.0	200.0	200.0	200.0	0.3	0.3	-144.30	-124.2	-89.2	152.9	152.3	0.62	246.157 CC, ES		
300.0	300.0	292.6	292.6	0.5	0.5	-113.80	-126.3	-90.1	156.3	155.4	0.97	162.010		
400.0	399.6	384.1	383.8	0.7	0.7	-116.30	-132.4	-92.5	166.8	165.5	1.34	124.737		
500.0	498.8	473.4	472.5	1.0	0.9	-119.72	-142.3	-96.5	184.8	183.1	1.75	105.744		
600.0	597.1	559.7	557.6	1.4	1.2	-123.44	-155.6	-101.8	211.0	208.8	2.19	96.352		
700.0	695.1	644.4	640.4	1.7	1.5	-127.13	-171.9	-108.4	243.4	240.8	2.62	92.888		
800.0	793.0	737.2	730.8	2.1	1.9	-130.23	-191.3	-116.2	278.3	275.2	3.06	90.971		
900.0	891.0	829.9	821.2	2.5	2.3	-132.64	-210.7	-123.9	313.7	310.2	3.50	89.747		
1,000.0	989.0	922.7	911.6	2.9	2.7	-134.57	-230.1	-131.7	349.6	345.6	3.93	88.885		
1,100.0	1,087.0	1,015.5	1,002.0	3.3	3.1	-136.14	-249.4	-139.4	385.7	381.3	4.37	88.232		
1,200.0	1,184.9	1,108.2	1,092.3	3.6	3.5	-137.45	-268.8	-147.2	422.0	417.2	4.81	87.711		
1,300.0	1,282.9	1,201.0	1,182.7	4.0	3.9	-138.55	-288.2	-155.0	458.5	453.2	5.25	87.281		
1,400.0	1,380.9	1,293.8	1,273.1	4.4	4.3	-139.49	-307.5	-162.7	495.1	489.4	5.70	86.915 SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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						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	-148.19	-118.4	-73.4	139.3				
100.0	100.0	100.0	100.0	0.1	0.1	-148.19	-118.4	-73.4	139.3	139.0	0.27	511.628	
200.0	200.0	200.0	200.0	0.3	0.3	-148.19	-118.4	-73.4	139.3	138.7	0.62	224.197	CC, ES
300.0	300.0	293.2	293.1	0.5	0.5	-117.75	-120.5	-74.2	142.9	141.9	0.97	147.994	
400.0	399.6	385.2	384.9	0.7	0.7	-120.39	-126.9	-76.3	153.9	152.5	1.34	115.242	
500.0	498.8	475.0	474.0	1.0	0.9	-123.93	-137.1	-79.7	172.8	171.1	1.74	99.393	
600.0	597.1	561.6	559.4	1.4	1.2	-127.67	-150.7	-84.3	200.1	197.9	2.17	92.319	
700.0	695.1	645.2	641.2	1.7	1.6	-131.22	-167.3	-89.9	233.7	231.1	2.59	90.414	SF
800.0	793.0	727.0	720.3	2.1	1.9	-133.82	-186.8	-96.5	272.1	269.1	3.00	90.812	
900.0	891.0	817.9	807.9	2.5	2.4	-135.98	-210.0	-104.2	312.5	309.1	3.42	91.362	
1,000.0	989.0	908.8	895.4	2.9	2.8	-137.65	-233.2	-112.0	353.2	349.4	3.85	91.815	
1,100.0	1,087.0	999.7	983.0	3.3	3.3	-138.98	-256.4	-119.8	394.1	389.8	4.28	92.160	
1,200.0	1,184.9	1,090.6	1,070.6	3.6	3.7	-140.06	-279.5	-127.6	435.2	430.5	4.71	92.413	
1,300.0	1,282.9	1,181.5	1,158.1	4.0	4.2	-140.96	-302.7	-135.4	476.3	471.2	5.14	92.597	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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: O-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	-153.07	-10.6	-5.4	11.8					
100.0	100.0	100.0	100.0	0.1	0.1	-153.07	-10.6	-5.4	11.8	11.6	0.27	43.514		
200.0	200.0	200.0	200.0	0.3	0.3	-153.07	-10.6	-5.4	11.8	11.2	0.62	19.068 CC		
300.0	300.0	300.2	300.2	0.5	0.5	-120.81	-8.5	-7.0	12.2	11.2	0.98	12.364 ES		
400.0	399.6	400.5	400.1	0.7	0.7	-118.55	-2.4	-12.0	13.1	11.7	1.41	9.319		
500.0	498.8	500.7	499.5	1.0	1.0	-115.46	7.7	-20.4	14.8	12.9	1.96	7.560		
600.0	597.1	600.7	598.1	1.4	1.3	-119.07	20.1	-30.5	17.9	15.3	2.55	6.995 SF		
700.0	695.1	700.5	696.7	1.7	1.6	-125.85	32.4	-40.7	22.0	18.9	3.10	7.106		
800.0	793.0	800.4	795.3	2.1	2.0	-130.44	44.8	-50.9	26.4	22.8	3.62	7.283		
900.0	891.0	900.3	893.9	2.5	2.3	-133.71	57.2	-61.0	30.9	26.7	4.13	7.467		
1,000.0	989.0	1,000.2	992.5	2.9	2.6	-136.15	69.5	-71.2	35.4	30.8	4.63	7.641		
1,100.0	1,087.0	1,100.1	1,091.1	3.3	2.9	-138.03	81.9	-81.4	40.0	34.9	5.13	7.799		
1,200.0	1,184.9	1,200.0	1,189.7	3.6	3.3	-139.51	94.3	-91.6	44.7	39.0	5.62	7.940		
1,300.0	1,282.9	1,299.9	1,288.3	4.0	3.6	-140.72	106.7	-101.7	49.3	43.2	6.11	8.066		
1,400.0	1,380.9	1,399.8	1,386.9	4.4	3.9	-141.72	119.0	-111.9	54.0	47.4	6.60	8.179		
1,500.0	1,478.9	1,499.6	1,485.5	4.8	4.2	-142.56	131.4	-122.1	58.7	51.6	7.09	8.279		
1,600.0	1,576.8	1,599.5	1,584.1	5.2	4.6	-143.28	143.8	-132.2	63.4	55.8	7.57	8.370		
1,700.0	1,674.8	1,699.4	1,682.7	5.6	4.9	-143.89	156.2	-142.4	68.1	60.1	8.06	8.451		
1,800.0	1,772.8	1,799.3	1,781.3	6.0	5.2	-144.43	168.5	-152.6	72.8	64.3	8.54	8.525		
1,900.0	1,870.8	1,899.2	1,879.9	6.4	5.6	-144.90	180.9	-162.7	77.6	68.5	9.03	8.592		
2,000.0	1,968.7	1,999.1	1,978.4	6.8	5.9	-145.32	193.3	-172.9	82.3	72.8	9.51	8.653		
2,100.0	2,066.7	2,099.0	2,077.0	7.2	6.2	-145.69	205.6	-183.1	87.0	77.0	9.99	8.709		
2,200.0	2,164.7	2,198.8	2,175.6	7.5	6.5	-146.02	218.0	-193.3	91.8	81.3	10.48	8.760		
2,300.0	2,262.6	2,298.7	2,274.2	7.9	6.9	-146.32	230.4	-203.4	96.5	85.5	10.96	8.808		
2,400.0	2,360.6	2,398.6	2,372.8	8.3	7.2	-146.59	242.8	-213.6	101.2	89.8	11.44	8.851		
2,500.0	2,458.6	2,498.5	2,471.4	8.7	7.5	-146.84	255.1	-223.8	106.0	94.1	11.92	8.892		
2,600.0	2,556.6	2,598.4	2,570.0	9.1	7.9	-147.07	267.5	-233.9	110.7	98.3	12.40	8.929		
2,700.0	2,654.5	2,698.3	2,668.6	9.5	8.2	-147.28	279.9	-244.1	115.5	102.6	12.88	8.964		
2,800.0	2,752.5	2,798.2	2,767.2	9.9	8.5	-147.47	292.2	-254.3	120.2	106.9	13.36	8.997		
2,900.0	2,850.5	2,898.0	2,865.8	10.3	8.9	-147.65	304.6	-264.4	125.0	111.1	13.85	9.028		
3,000.0	2,948.5	2,997.9	2,964.4	10.7	9.2	-147.81	317.0	-274.6	129.7	115.4	14.33	9.056		
3,100.0	3,046.4	3,097.8	3,063.0	11.1	9.5	-147.96	329.4	-284.8	134.5	119.7	14.81	9.083		
3,200.0	3,144.4	3,197.7	3,161.6	11.5	9.9	-148.10	341.7	-295.0	139.3	124.0	15.29	9.109		
3,300.0	3,242.4	3,297.6	3,260.2	11.9	10.2	-148.24	354.1	-305.1	144.0	128.2	15.77	9.133		
3,400.0	3,340.4	3,397.5	3,358.8	12.3	10.5	-148.36	366.5	-315.3	148.8	132.5	16.25	9.155		
3,500.0	3,438.3	3,497.4	3,457.4	12.6	10.8	-148.48	378.9	-325.5	153.5	136.8	16.73	9.176		
3,600.0	3,536.3	3,597.3	3,556.0	13.0	11.2	-148.59	391.2	-335.6	158.3	141.1	17.21	9.197		
3,700.0	3,634.3	3,697.1	3,654.5	13.4	11.5	-148.69	403.6	-345.8	163.0	145.4	17.69	9.216		
3,800.0	3,732.3	3,797.0	3,753.1	13.8	11.8	-148.79	416.0	-356.0	167.8	149.6	18.17	9.234		
3,900.0	3,830.2	3,896.9	3,851.7	14.2	12.2	-148.88	428.3	-366.2	172.6	153.9	18.65	9.251		
4,000.0	3,928.2	3,996.8	3,950.3	14.6	12.5	-148.97	440.7	-376.3	177.3	158.2	19.13	9.268		
4,100.0	4,026.2	4,096.7	4,048.9	15.0	12.8	-149.05	453.1	-386.5	182.1	162.5	19.61	9.284		
4,200.0	4,124.1	4,196.6	4,147.5	15.4	13.2	-149.13	465.5	-396.7	186.8	166.7	20.09	9.299		
4,300.0	4,222.1	4,296.5	4,246.1	15.8	13.5	-149.20	477.8	-406.8	191.6	171.0	20.57	9.313		
4,400.0	4,320.1	4,396.3	4,344.7	16.2	13.8	-149.27	490.2	-417.0	196.4	175.3	21.05	9.327		
4,500.0	4,418.1	4,496.2	4,443.3	16.6	14.1	-149.34	502.6	-427.2	201.1	179.6	21.53	9.340		
4,600.0	4,516.0	4,596.1	4,541.9	17.0	14.5	-149.40	514.9	-437.3	205.9	183.9	22.01	9.352		
4,700.0	4,614.0	4,696.0	4,640.5	17.4	14.8	-149.47	527.3	-447.5	210.6	188.2	22.49	9.364		
4,800.0	4,712.0	4,795.9	4,739.1	17.7	15.1	-149.52	539.7	-457.7	215.4	192.4	22.97	9.376		
4,900.0	4,810.0	4,895.8	4,837.7	18.1	15.5	-149.58	552.1	-467.9	220.2	196.7	23.45	9.387		
5,000.0	4,907.9	4,995.7	4,936.3	18.5	15.8	-149.63	564.4	-478.0	224.9	201.0	23.93	9.398		
5,100.0	5,005.9	5,095.5	5,034.9	18.9	16.1	-149.69	576.8	-488.2	229.7	205.3	24.42	9.408		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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						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	
5,200.0	5,103.9	5,195.4	5,133.5	19.3	16.5	-149.73	589.2	-498.4	234.5	209.6	24.90	9.418	
5,300.0	5,201.9	5,295.3	5,232.0	19.7	16.8	-149.78	601.6	-508.5	239.2	213.8	25.38	9.427	
5,400.0	5,299.8	5,395.2	5,330.6	20.1	17.1	-149.83	613.9	-518.7	244.0	218.1	25.86	9.436	
5,500.0	5,397.8	5,495.1	5,429.2	20.5	17.5	-149.87	626.3	-528.9	248.7	222.4	26.34	9.445	
5,600.0	5,495.8	5,595.0	5,527.8	20.9	17.8	-149.91	638.7	-539.0	253.5	226.7	26.82	9.454	
5,700.0	5,593.8	5,694.9	5,626.4	21.3	18.1	-149.95	651.0	-549.2	258.3	231.0	27.30	9.462	
5,800.0	5,691.7	5,794.8	5,725.0	21.7	18.4	-149.99	663.4	-559.4	263.0	235.3	27.78	9.470	
5,900.0	5,789.7	5,894.6	5,823.6	22.1	18.8	-150.03	675.8	-569.6	267.8	239.5	28.26	9.478	
6,000.0	5,887.7	5,994.5	5,922.2	22.5	19.1	-150.07	688.2	-579.7	272.6	243.8	28.74	9.485	
6,100.0	5,985.6	6,094.4	6,020.8	22.8	19.4	-150.10	700.5	-589.9	277.3	248.1	29.22	9.492	
6,200.0	6,083.6	6,194.3	6,119.4	23.2	19.8	-150.14	712.9	-600.1	282.1	252.4	29.70	9.499	
6,300.0	6,181.6	6,294.2	6,218.0	23.6	20.1	-150.17	725.3	-610.2	286.9	256.7	30.18	9.506	
6,400.0	6,279.6	6,394.1	6,316.6	24.0	20.4	-150.20	737.6	-620.4	291.6	261.0	30.66	9.513	
6,500.0	6,377.5	6,494.0	6,415.2	24.4	20.8	-150.23	750.0	-630.6	296.4	265.2	31.14	9.519	
6,600.0	6,475.5	6,593.8	6,513.8	24.8	21.1	-150.26	762.4	-640.7	301.1	269.5	31.62	9.525	
6,700.0	6,573.5	6,693.7	6,612.4	25.2	21.4	-150.29	774.8	-650.9	305.9	273.8	32.10	9.531	
6,800.0	6,671.5	6,793.6	6,711.0	25.6	21.7	-150.32	787.1	-661.1	310.7	278.1	32.58	9.537	
6,900.0	6,769.4	6,893.5	6,809.6	26.0	22.1	-150.35	799.5	-671.3	315.4	282.4	33.06	9.543	
7,000.0	6,867.4	6,993.4	6,908.1	26.4	22.4	-150.37	811.9	-681.4	320.2	286.7	33.54	9.548	
7,100.0	6,965.4	7,093.3	7,006.7	26.8	22.7	-150.40	824.3	-691.6	325.0	291.0	34.01	9.554	
7,200.0	7,063.4	7,193.2	7,105.3	27.2	23.1	-150.42	836.6	-701.8	329.7	295.2	34.49	9.559	
7,300.0	7,161.3	7,293.0	7,203.9	27.6	23.4	-150.45	849.0	-711.9	334.5	299.5	34.97	9.564	
7,400.0	7,259.3	7,392.9	7,302.5	27.9	23.7	-150.47	861.4	-722.1	339.3	303.8	35.45	9.569	
7,500.0	7,357.4	7,492.8	7,401.1	28.3	24.1	-150.46	873.7	-732.3	343.4	307.4	35.95	9.551	
7,600.0	7,456.1	7,584.8	7,492.1	28.6	24.3	-150.33	884.2	-740.9	345.8	309.3	36.44	9.490	
7,700.0	7,555.3	7,676.0	7,582.7	28.9	24.5	-150.23	892.3	-747.5	347.6	310.8	36.85	9.434	
7,800.0	7,654.9	7,767.2	7,673.6	29.1	24.7	-150.16	898.2	-752.4	349.0	311.8	37.20	9.383	
7,900.0	7,754.7	7,858.4	7,764.7	29.2	24.8	-150.11	901.9	-755.4	349.8	312.4	37.47	9.336	
8,000.0	7,854.7	7,949.6	7,855.8	29.3	24.9	-150.10	903.3	-756.6	350.1	312.5	37.69	9.291	
8,100.0	7,954.7	8,048.5	7,954.7	29.4	25.0	178.48	903.3	-756.6	350.2	312.2	37.93	9.230	
8,200.0	8,054.7	8,148.5	8,054.7	29.5	25.1	178.48	903.3	-756.6	350.2	312.0	38.19	9.168	
8,300.0	8,154.7	8,248.5	8,154.7	29.5	25.2	178.48	903.3	-756.6	350.2	311.7	38.45	9.106	
8,400.0	8,254.7	8,348.5	8,254.7	29.6	25.3	178.48	903.3	-756.6	350.2	311.4	38.72	9.044	
8,500.0	8,354.7	8,448.5	8,354.7	29.7	25.4	178.48	903.3	-756.6	350.2	311.2	38.98	8.983	
8,600.0	8,454.7	8,548.5	8,454.7	29.8	25.5	178.48	903.3	-756.6	350.2	310.9	39.25	8.922	
8,700.0	8,554.7	8,648.5	8,554.7	29.9	25.6	178.48	903.3	-756.6	350.2	310.6	39.51	8.862	
8,800.0	8,654.7	8,748.5	8,654.7	30.0	25.7	178.48	903.3	-756.6	350.2	310.4	39.78	8.803	
8,900.0	8,754.7	8,848.5	8,754.7	30.1	25.9	178.48	903.3	-756.6	350.2	310.1	40.05	8.743	
9,000.0	8,854.7	8,948.5	8,854.7	30.2	26.0	178.48	903.3	-756.6	350.2	309.8	40.32	8.685	
9,100.0	8,954.7	9,048.5	8,954.7	30.3	26.1	178.48	903.3	-756.6	350.2	309.6	40.59	8.627	
9,200.0	9,054.7	9,148.5	9,054.7	30.3	26.2	178.48	903.3	-756.6	350.2	309.3	40.86	8.569	
9,300.0	9,154.7	9,248.5	9,154.7	30.4	26.3	178.48	903.3	-756.6	350.2	309.0	41.13	8.512	
9,400.0	9,254.7	9,348.5	9,254.7	30.5	26.4	178.48	903.3	-756.6	350.2	308.7	41.41	8.456	
9,500.0	9,354.7	9,448.5	9,354.7	30.6	26.5	178.48	903.3	-756.6	350.2	308.5	41.68	8.400	
9,600.0	9,454.7	9,548.5	9,454.7	30.7	26.6	178.48	903.3	-756.6	350.2	308.2	41.96	8.345	
9,700.0	9,554.7	9,648.5	9,554.7	30.8	26.7	178.48	903.3	-756.6	350.2	307.9	42.24	8.290	
9,800.0	9,654.7	9,748.5	9,654.7	30.9	26.8	178.48	903.3	-756.6	350.2	307.6	42.52	8.235	
9,900.0	9,754.7	9,848.5	9,754.7	31.0	26.9	178.48	903.3	-756.6	350.2	307.4	42.80	8.181	
10,000.0	9,854.7	9,948.5	9,854.7	31.1	27.0	178.48	903.3	-756.6	350.2	307.1	43.08	8.128	
10,100.0	9,954.7	10,048.5	9,954.7	31.2	27.2	178.48	903.3	-756.6	350.2	306.8	43.36	8.075	
10,200.0	10,054.7	10,148.5	10,054.7	31.3	27.3	178.48	903.3	-756.6	350.2	306.5	43.64	8.023	
10,300.0	10,154.7	10,248.5	10,154.7	31.4	27.4	178.48	903.3	-756.6	350.2	306.2	43.93	7.971	

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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						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		
10,400.0	10,254.7	10,348.5	10,254.7	31.5	27.5	178.48	903.3	-756.6	350.2	305.9	44.21	7.920		
10,500.0	10,354.7	10,377.8	10,284.0	31.6	27.5	178.48	903.3	-756.6	357.2	312.8	44.40	8.046		
10,600.0	10,454.7	10,377.8	10,284.0	31.7	27.5	178.48	903.3	-756.6	389.5	345.0	44.54	8.745		
10,700.0	10,554.7	10,377.8	10,284.0	31.8	27.5	178.48	903.3	-756.6	442.6	397.9	44.68	9.904		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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 16-5C (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	113.81	-4.7	10.7	11.7					
100.0	100.0	100.0	100.0	0.1	0.1	113.81	-4.7	10.7	11.7	11.5	0.27	43.083		
200.0	200.0	200.0	200.0	0.3	0.3	113.81	-4.7	10.7	11.7	11.1	0.62	18.879 CC		
300.0	300.0	300.4	300.4	0.5	0.5	143.31	-2.3	9.8	12.1	11.1	0.98	12.330 ES		
400.0	399.6	400.8	400.5	0.7	0.7	138.14	5.2	7.1	13.1	11.8	1.38	9.524		
500.0	498.8	501.2	500.0	1.0	1.0	131.27	17.5	2.6	15.1	13.2	1.89	8.003		
600.0	597.1	601.5	598.6	1.4	1.4	124.18	34.8	-3.7	18.1	15.6	2.57	7.062		
700.0	695.1	701.7	695.9	1.7	1.8	110.02	56.8	-11.7	20.9	17.4	3.47	6.025		
800.0	793.0	801.1	791.2	2.1	2.3	87.85	83.4	-21.4	25.3	20.9	4.40	5.743 SF		
900.0	891.0	900.1	885.0	2.5	2.9	68.11	113.2	-32.3	34.1	29.2	4.95	6.892		
1,000.0	989.0	999.2	978.8	2.9	3.5	57.01	143.2	-43.2	45.4	40.0	5.34	8.491		
1,100.0	1,087.0	1,098.2	1,072.6	3.3	4.1	50.45	173.2	-54.2	57.6	51.9	5.73	10.054		
1,200.0	1,184.9	1,197.3	1,166.4	3.6	4.6	46.22	203.2	-65.1	70.4	64.3	6.14	11.464		
1,300.0	1,282.9	1,296.4	1,260.1	4.0	5.2	43.30	233.2	-76.1	83.4	76.8	6.56	12.708		
1,400.0	1,380.9	1,395.5	1,353.9	4.4	5.8	41.17	263.2	-87.0	96.6	89.6	7.00	13.799		
1,500.0	1,478.9	1,494.5	1,447.7	4.8	6.4	39.55	293.2	-97.9	109.9	102.4	7.44	14.758		
1,600.0	1,576.8	1,593.6	1,541.5	5.2	7.0	38.28	323.2	-108.9	123.2	115.3	7.89	15.605		
1,700.0	1,674.8	1,692.7	1,635.3	5.6	7.5	37.26	353.2	-119.8	136.6	128.2	8.35	16.357		
1,800.0	1,772.8	1,791.8	1,729.1	6.0	8.1	36.42	383.2	-130.8	150.0	141.2	8.81	17.028		
1,900.0	1,870.8	1,890.8	1,822.9	6.4	8.7	35.72	413.2	-141.7	163.4	154.2	9.27	17.629		
2,000.0	1,968.7	1,989.9	1,916.7	6.8	9.3	35.12	443.2	-152.6	176.9	167.2	9.73	18.172		
2,100.0	2,066.7	2,089.0	2,010.4	7.2	9.9	34.61	473.2	-163.6	190.4	180.2	10.20	18.663		
2,200.0	2,164.7	2,188.1	2,104.2	7.5	10.5	34.17	503.2	-174.5	203.9	193.2	10.67	19.110		
2,300.0	2,262.6	2,287.1	2,198.0	7.9	11.1	33.78	533.2	-185.5	217.4	206.2	11.14	19.518		
2,400.0	2,360.6	2,386.2	2,291.8	8.3	11.6	33.44	563.2	-196.4	230.9	219.3	11.61	19.892		
2,500.0	2,458.6	2,485.3	2,385.6	8.7	12.2	33.14	593.2	-207.3	244.4	232.3	12.08	20.236		
2,600.0	2,556.6	2,584.4	2,479.4	9.1	12.8	32.86	623.2	-218.3	257.9	245.4	12.55	20.554		
2,700.0	2,654.5	2,683.4	2,573.2	9.5	13.4	32.62	653.2	-229.2	271.5	258.5	13.02	20.847		
2,800.0	2,752.5	2,782.5	2,667.0	9.9	14.0	32.40	683.2	-240.2	285.0	271.5	13.49	21.120		
2,900.0	2,850.5	2,881.6	2,760.7	10.3	14.6	32.20	713.2	-251.1	298.5	284.6	13.97	21.374		
3,000.0	2,948.5	2,980.7	2,854.5	10.7	15.2	32.01	743.2	-262.1	312.1	297.7	14.44	21.611		
3,100.0	3,046.4	3,079.7	2,948.3	11.1	15.7	31.84	773.2	-273.0	325.6	310.7	14.92	21.833		
3,200.0	3,144.4	3,178.8	3,042.1	11.5	16.3	31.69	803.2	-283.9	339.2	323.8	15.39	22.040		
3,300.0	3,242.4	3,277.9	3,135.9	11.9	16.9	31.54	833.2	-294.9	352.7	336.9	15.86	22.235		
3,400.0	3,340.4	3,376.9	3,229.7	12.3	17.5	31.41	863.2	-305.8	366.3	350.0	16.34	22.419		
3,500.0	3,438.3	3,476.0	3,323.5	12.6	18.1	31.29	893.2	-316.8	379.8	363.0	16.81	22.591		
3,600.0	3,536.3	3,575.1	3,417.3	13.0	18.7	31.17	923.2	-327.7	393.4	376.1	17.29	22.755		
3,700.0	3,634.3	3,674.2	3,511.0	13.4	19.3	31.06	953.2	-338.6	407.0	389.2	17.76	22.909		
3,800.0	3,732.3	3,773.2	3,604.8	13.8	19.8	30.96	983.2	-349.6	420.5	402.3	18.24	23.055		
3,900.0	3,830.2	3,872.3	3,698.6	14.2	20.4	30.87	1,013.2	-360.5	434.1	415.4	18.72	23.194		
4,000.0	3,928.2	3,971.4	3,792.4	14.6	21.0	30.78	1,043.2	-371.5	447.6	428.5	19.19	23.325		
4,100.0	4,026.2	4,070.5	3,886.2	15.0	21.6	30.70	1,073.2	-382.4	461.2	441.5	19.67	23.450		
4,200.0	4,124.1	4,169.5	3,980.0	15.4	22.2	30.62	1,103.2	-393.3	474.8	454.6	20.14	23.569		
4,300.0	4,222.1	4,268.6	4,073.8	15.8	22.8	30.55	1,133.2	-404.3	488.3	467.7	20.62	23.683		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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					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)	Total Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-143.56	-114.0	-84.2	141.7					
100.0	100.0	100.0	100.0	0.1	0.1	-143.56	-114.0	-84.2	141.7	141.4	0.27	520.458		
200.0	200.0	200.0	200.0	0.3	0.3	-143.56	-114.0	-84.2	141.7	141.1	0.62	228.066 CC, ES		
300.0	300.0	297.2	297.1	0.5	0.5	-112.11	-113.4	-86.6	143.7	142.7	0.98	146.663		
400.0	399.6	394.1	393.8	0.7	0.7	-112.04	-111.7	-93.7	149.6	148.2	1.40	106.857		
500.0	498.8	490.6	489.5	1.0	1.0	-111.92	-108.8	-105.6	159.4	157.5	1.92	82.828		
600.0	597.1	586.5	583.8	1.4	1.3	-111.79	-104.9	-122.0	173.1	170.5	2.57	67.264		
700.0	695.1	681.6	676.5	1.7	1.7	-111.13	-99.9	-142.9	189.4	186.1	3.31	57.230		
800.0	793.0	775.8	767.1	2.1	2.2	-109.37	-93.8	-167.9	207.7	203.6	4.12	50.427		
900.0	891.0	869.0	855.4	2.5	2.8	-106.85	-86.8	-196.9	228.3	223.3	4.97	45.969		
1,000.0	989.0	966.0	946.7	2.9	3.4	-104.28	-79.2	-228.7	250.2	244.4	5.84	42.859		
1,100.0	1,087.0	1,063.0	1,038.0	3.3	4.0	-102.13	-71.5	-260.6	272.6	265.9	6.70	40.678		
1,200.0	1,184.9	1,160.0	1,129.3	3.6	4.6	-100.30	-63.8	-292.4	295.2	287.7	7.55	39.085		
1,300.0	1,282.9	1,257.0	1,220.6	4.0	5.2	-98.74	-56.2	-324.3	318.1	309.7	8.40	37.887		
1,400.0	1,380.9	1,354.0	1,311.9	4.4	5.9	-97.38	-48.5	-356.1	341.2	332.0	9.23	36.961		
1,500.0	1,478.9	1,451.0	1,403.2	4.8	6.5	-96.19	-40.8	-388.0	364.4	354.4	10.06	36.231		
1,600.0	1,576.8	1,548.0	1,494.5	5.2	7.1	-95.15	-33.2	-419.8	387.8	376.9	10.88	35.645		
1,700.0	1,674.8	1,645.0	1,585.9	5.6	7.7	-94.22	-25.5	-451.6	411.3	399.6	11.70	35.167		
1,800.0	1,772.8	1,742.0	1,677.2	6.0	8.3	-93.40	-17.8	-483.5	434.9	422.4	12.51	34.772		
1,900.0	1,870.8	1,839.0	1,768.5	6.4	9.0	-92.66	-10.1	-515.3	458.6	445.2	13.31	34.442		
2,000.0	1,968.7	1,936.0	1,859.8	6.8	9.6	-91.99	-2.5	-547.2	482.3	468.2	14.12	34.163 SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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	-140.16	-119.8	-100.0	156.1					
100.0	100.0	100.0	100.0	0.1	0.1	-140.16	-119.8	-100.0	156.1	155.8	0.27	573.189		
200.0	200.0	200.0	200.0	0.3	0.3	-140.16	-119.8	-100.0	156.1	155.4	0.62	251.173 CC, ES		
300.0	300.0	295.6	295.6	0.5	0.5	-108.81	-119.6	-102.4	158.3	157.3	0.98	162.204		
400.0	399.6	390.9	390.6	0.7	0.7	-109.02	-118.8	-109.5	165.0	163.6	1.39	118.907		
500.0	498.8	485.7	484.6	1.0	1.0	-109.31	-117.6	-121.2	176.1	174.2	1.90	92.915		
600.0	597.1	579.6	577.1	1.4	1.3	-109.68	-115.9	-137.4	191.6	189.1	2.52	76.120		
700.0	695.1	672.7	667.9	1.7	1.7	-109.70	-113.8	-157.9	210.3	207.1	3.21	65.431		
800.0	793.0	764.6	756.5	2.1	2.2	-108.75	-111.2	-182.4	231.5	227.6	3.97	58.268		
900.0	891.0	855.4	842.6	2.5	2.7	-107.13	-108.2	-210.7	255.4	250.7	4.77	53.596		
1,000.0	989.0	951.8	933.5	2.9	3.3	-105.34	-104.8	-242.8	280.7	275.1	5.60	50.169		
1,100.0	1,087.0	1,048.2	1,024.3	3.3	3.9	-103.84	-101.5	-274.8	306.2	299.8	6.42	47.693		
1,200.0	1,184.9	1,144.6	1,115.2	3.6	4.5	-102.57	-98.1	-306.9	331.9	324.7	7.24	45.833		
1,300.0	1,282.9	1,241.0	1,206.0	4.0	5.1	-101.49	-94.7	-339.0	357.8	349.7	8.06	44.393		
1,400.0	1,380.9	1,337.4	1,296.9	4.4	5.7	-100.55	-91.4	-371.0	383.7	374.8	8.87	43.251		
1,500.0	1,478.9	1,433.8	1,387.7	4.8	6.3	-99.73	-88.0	-403.1	409.7	400.0	9.68	42.326		
1,600.0	1,576.8	1,530.2	1,478.6	5.2	6.9	-99.00	-84.6	-435.2	435.8	425.3	10.48	41.565		
1,700.0	1,674.8	1,626.6	1,569.4	5.6	7.6	-98.36	-81.3	-467.2	461.9	450.6	11.29	40.928		
1,800.0	1,772.8	1,723.0	1,660.3	6.0	8.2	-97.79	-77.9	-499.3	488.1	476.0	12.08	40.388 SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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							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	-134.91	-131.5	-131.9	186.2							
100.0	100.0	100.0	100.0	0.1	0.1	-134.91	-131.5	-131.9	186.2	186.0	0.27	684.019				
200.0	200.0	200.0	200.0	0.3	0.3	-134.91	-131.5	-131.9	186.2	185.6	0.62	299.739	CC, ES			
300.0	300.0	293.3	293.3	0.5	0.5	-103.66	-131.6	-134.2	188.6	187.7	0.97	194.347				
400.0	399.6	386.3	386.0	0.7	0.7	-104.16	-131.7	-141.0	195.8	194.4	1.37	142.851				
500.0	498.8	478.6	477.6	1.0	0.9	-104.89	-132.0	-152.2	207.7	205.9	1.86	111.891				
600.0	597.1	569.9	567.6	1.4	1.3	-105.81	-132.5	-167.6	224.4	222.0	2.44	91.829				
700.0	695.1	660.2	655.8	1.7	1.6	-106.59	-133.0	-187.1	244.9	241.8	3.09	79.198				
800.0	793.0	749.3	741.8	2.1	2.1	-106.56	-133.6	-210.3	268.5	264.7	3.79	70.818				
900.0	891.0	837.0	825.2	2.5	2.6	-105.93	-134.4	-237.1	295.2	290.6	4.52	65.317				
1,000.0	989.0	932.8	915.8	2.9	3.2	-105.05	-135.2	-268.4	323.3	318.0	5.30	61.056				
1,100.0	1,087.0	1,028.7	1,006.4	3.3	3.8	-104.32	-136.1	-299.8	351.5	345.5	6.07	57.878				
1,200.0	1,184.9	1,124.5	1,097.0	3.6	4.3	-103.70	-136.9	-331.1	379.8	373.0	6.85	55.422				
1,300.0	1,282.9	1,220.4	1,187.5	4.0	4.9	-103.16	-137.8	-362.5	408.1	400.5	7.63	53.475				
1,400.0	1,380.9	1,316.2	1,278.1	4.4	5.5	-102.69	-138.6	-393.8	436.4	428.0	8.41	51.896				
1,500.0	1,478.9	1,412.1	1,368.7	4.8	6.1	-102.28	-139.5	-425.1	464.8	455.6	9.19	50.591				
1,600.0	1,576.8	1,507.9	1,459.3	5.2	6.7	-101.92	-140.3	-456.5	493.2	483.2	9.96	49.497	SF			

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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	-127.74	-16.4	-21.2	26.8					
100.0	100.0	100.0	100.0	0.1	0.1	-127.74	-16.4	-21.2	26.8	26.5	0.27	98.378		
200.0	200.0	200.0	200.0	0.3	0.3	-127.74	-16.4	-21.2	26.8	26.2	0.62	43.110 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-101.79	-16.4	-21.2	27.2	26.2	0.98	27.797		
400.0	399.6	399.6	399.6	0.7	0.7	-116.60	-16.4	-21.2	29.8	28.4	1.36	21.884		
500.0	498.8	499.5	499.5	1.0	0.8	-130.92	-14.8	-23.2	36.5	34.7	1.76	20.687		
600.0	597.1	599.8	599.5	1.4	1.0	-138.92	-9.8	-29.3	46.1	43.9	2.20	20.984		
700.0	695.1	700.8	699.6	1.7	1.3	-140.84	-1.5	-39.6	54.9	52.2	2.69	20.412		
800.0	793.0	802.1	799.2	2.1	1.6	-137.99	10.1	-54.0	61.0	57.7	3.31	18.439		
900.0	891.0	903.2	897.4	2.5	2.1	-131.45	25.1	-72.4	65.1	60.9	4.12	15.785		
1,000.0	989.0	1,003.6	993.6	2.9	2.6	-121.56	43.1	-94.7	68.5	63.4	5.16	13.279		
1,100.0	1,087.0	1,102.6	1,086.8	3.3	3.2	-108.96	64.0	-120.5	73.6	67.3	6.34	11.616		
1,200.0	1,184.9	1,200.3	1,177.4	3.6	3.9	-95.59	87.1	-149.2	82.8	75.3	7.41	11.166 SF		
1,300.0	1,282.9	1,298.1	1,267.7	4.0	4.5	-84.93	110.6	-178.2	95.7	87.5	8.25	11.607		
1,400.0	1,380.9	1,395.8	1,358.0	4.4	5.2	-76.96	134.1	-207.2	111.2	102.3	8.93	12.462		
1,500.0	1,478.9	1,493.6	1,448.4	4.8	5.9	-70.99	157.6	-236.3	128.3	118.8	9.52	13.484		
1,600.0	1,576.8	1,591.3	1,538.7	5.2	6.6	-66.45	181.1	-265.3	146.5	136.4	10.07	14.550		
1,700.0	1,674.8	1,689.1	1,629.0	5.6	7.3	-62.91	204.6	-294.4	165.3	154.7	10.60	15.601		
1,800.0	1,772.8	1,786.8	1,719.4	6.0	8.0	-60.10	228.1	-323.4	184.7	173.6	11.12	16.609		
1,900.0	1,870.8	1,884.6	1,809.7	6.4	8.7	-57.82	251.6	-352.4	204.4	192.7	11.64	17.560		
2,000.0	1,968.7	1,982.3	1,900.0	6.8	9.4	-55.95	275.1	-381.5	224.3	212.1	12.16	18.451		
2,100.0	2,066.7	2,080.1	1,990.3	7.2	10.1	-54.38	298.6	-410.5	244.4	231.8	12.68	19.283		
2,200.0	2,164.7	2,177.8	2,080.7	7.5	10.7	-53.05	322.1	-439.5	264.7	251.5	13.20	20.058		
2,300.0	2,262.6	2,275.6	2,171.0	7.9	11.4	-51.91	345.6	-468.6	285.1	271.4	13.72	20.780		
2,400.0	2,360.6	2,373.3	2,261.3	8.3	12.1	-50.92	369.1	-497.6	305.6	291.4	14.25	21.452		
2,500.0	2,458.6	2,471.1	2,351.7	8.7	12.8	-50.05	392.5	-526.7	326.2	311.4	14.77	22.079		
2,600.0	2,556.6	2,568.8	2,442.0	9.1	13.5	-49.29	416.0	-555.7	346.9	331.6	15.30	22.664		
2,700.0	2,654.5	2,666.6	2,532.3	9.5	14.2	-48.61	439.5	-584.7	367.5	351.7	15.83	23.212		
2,800.0	2,752.5	2,764.3	2,622.7	9.9	14.9	-48.01	463.0	-613.8	388.3	371.9	16.37	23.724		
2,900.0	2,850.5	2,862.0	2,713.0	10.3	15.6	-47.46	486.5	-642.8	409.1	392.2	16.90	24.205		
3,000.0	2,948.5	2,959.8	2,803.3	10.7	16.3	-46.97	510.0	-671.9	429.9	412.4	17.43	24.656		
3,100.0	3,046.4	3,057.5	2,893.7	11.1	17.0	-46.53	533.5	-700.9	450.7	432.7	17.97	25.081		
3,200.0	3,144.4	3,155.3	2,984.0	11.5	17.7	-46.12	557.0	-729.9	471.5	453.0	18.51	25.481		
3,300.0	3,242.4	3,253.0	3,074.3	11.9	18.4	-45.75	580.5	-759.0	492.4	473.4	19.04	25.859		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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				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	-94.99	-11.7	-133.6	134.1					
100.0	100.0	100.0	100.0	0.1	0.1	-94.99	-11.7	-133.6	134.1	133.8	0.27	492.502		
200.0	200.0	200.0	200.0	0.3	0.3	-94.99	-11.7	-133.6	134.1	133.5	0.62	215.816 CC, ES		
300.0	300.0	294.6	294.6	0.5	0.5	-63.89	-10.4	-135.6	134.9	134.0	0.97	139.023		
400.0	399.6	389.1	388.8	0.7	0.7	-64.87	-6.8	-141.6	137.5	136.1	1.36	100.800		
500.0	498.8	483.5	482.5	1.0	1.0	-66.41	-0.8	-151.6	141.8	140.0	1.84	77.099		
600.0	597.1	577.7	575.3	1.4	1.3	-68.40	7.5	-165.5	148.1	145.7	2.43	61.066		
700.0	695.1	671.7	666.9	1.7	1.7	-69.82	18.2	-183.3	157.5	154.4	3.08	51.125		
800.0	793.0	765.0	756.8	2.1	2.2	-69.99	31.0	-204.7	170.6	166.8	3.78	45.097		
900.0	891.0	857.2	844.3	2.5	2.7	-69.19	46.0	-229.6	187.1	182.6	4.51	41.504		
1,000.0	989.0	951.4	932.4	2.9	3.4	-67.73	63.2	-258.3	206.9	201.7	5.23	39.541		
1,100.0	1,087.0	1,049.2	1,023.5	3.3	4.0	-66.37	81.3	-288.6	227.3	221.3	5.96	38.154		
1,200.0	1,184.9	1,147.0	1,114.7	3.6	4.7	-65.23	99.5	-318.9	247.8	241.1	6.67	37.130		
1,300.0	1,282.9	1,244.7	1,205.9	4.0	5.3	-64.27	117.7	-349.2	268.4	261.0	7.38	36.353		
1,400.0	1,380.9	1,342.5	1,297.0	4.4	6.0	-63.44	135.9	-379.5	289.0	280.9	8.09	35.747		
1,500.0	1,478.9	1,440.3	1,388.2	4.8	6.6	-62.73	154.1	-409.8	309.7	300.9	8.78	35.265		
1,600.0	1,576.8	1,538.0	1,479.3	5.2	7.3	-62.10	172.2	-440.1	330.5	321.0	9.48	34.876		
1,700.0	1,674.8	1,635.8	1,570.5	5.6	8.0	-61.55	190.4	-470.4	351.2	341.1	10.16	34.556		
1,800.0	1,772.8	1,733.5	1,661.6	6.0	8.6	-61.06	208.6	-500.7	372.0	361.2	10.85	34.289		
1,900.0	1,870.8	1,831.3	1,752.8	6.4	9.3	-60.62	226.8	-531.0	392.9	381.3	11.53	34.065		
2,000.0	1,968.7	1,929.1	1,844.0	6.8	10.0	-60.22	245.0	-561.3	413.7	401.5	12.21	33.874		
2,100.0	2,066.7	2,026.8	1,935.1	7.2	10.6	-59.87	263.1	-591.6	434.6	421.7	12.89	33.711		
2,200.0	2,164.7	2,124.6	2,026.3	7.5	11.3	-59.54	281.3	-621.8	455.4	441.9	13.57	33.569		
2,300.0	2,262.6	2,222.4	2,117.4	7.9	12.0	-59.25	299.5	-652.1	476.3	462.1	14.24	33.446		
2,400.0	2,360.6	2,320.1	2,208.6	8.3	12.6	-58.98	317.7	-682.4	497.2	482.3	14.91	33.337 SF		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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	-110.02	-17.5	-48.0	51.1					
100.0	100.0	100.0	100.0	0.1	0.1	-110.02	-17.5	-48.0	51.1	50.8	0.27	187.683		
200.0	200.0	200.0	200.0	0.3	0.3	-110.02	-17.5	-48.0	51.1	50.5	0.62	82.243 CC, ES		
300.0	300.0	298.1	298.1	0.5	0.5	-79.37	-16.4	-50.3	52.4	51.4	0.98	53.509		
400.0	399.6	396.1	395.7	0.7	0.7	-81.48	-13.3	-57.2	56.4	55.0	1.40	40.429		
500.0	498.8	493.8	492.7	1.0	1.0	-84.37	-8.1	-68.5	63.2	61.3	1.92	32.972		
600.0	597.1	591.2	588.4	1.4	1.3	-87.45	-0.9	-84.3	72.9	70.4	2.57	28.339		
700.0	695.1	688.0	682.7	1.7	1.8	-88.45	8.3	-104.4	85.7	82.3	3.31	25.890		
800.0	793.0	784.0	775.0	2.1	2.3	-86.89	19.4	-128.6	101.3	97.2	4.09	24.780		
900.0	891.0	878.7	864.5	2.5	2.9	-83.92	32.2	-156.5	120.0	115.1	4.87	24.628 SF		
1,000.0	989.0	975.9	955.5	2.9	3.5	-80.80	46.4	-187.6	140.9	135.2	5.64	24.976		
1,100.0	1,087.0	1,073.5	1,046.8	3.3	4.1	-78.48	60.7	-218.9	162.0	155.6	6.39	25.337		
1,200.0	1,184.9	1,171.0	1,138.1	3.6	4.8	-76.69	75.0	-250.1	183.4	176.3	7.14	25.682		
1,300.0	1,282.9	1,268.6	1,229.4	4.0	5.4	-75.28	89.2	-281.3	204.9	197.0	7.88	26.000		
1,400.0	1,380.9	1,366.1	1,320.7	4.4	6.1	-74.13	103.5	-312.6	226.5	217.9	8.62	26.288		
1,500.0	1,478.9	1,463.7	1,412.1	4.8	6.7	-73.19	117.8	-343.8	248.2	238.8	9.35	26.549		
1,600.0	1,576.8	1,561.2	1,503.4	5.2	7.4	-72.40	132.1	-375.0	269.9	259.8	10.08	26.785		
1,700.0	1,674.8	1,658.8	1,594.7	5.6	8.0	-71.72	146.4	-406.2	291.7	280.9	10.80	26.998		
1,800.0	1,772.8	1,756.3	1,686.0	6.0	8.6	-71.14	160.7	-437.5	313.5	302.0	11.53	27.191		
1,900.0	1,870.8	1,853.9	1,777.3	6.4	9.3	-70.63	175.0	-468.7	335.3	323.1	12.25	27.367		
2,000.0	1,968.7	1,951.4	1,868.6	6.8	9.9	-70.19	189.3	-499.9	357.2	344.2	12.98	27.526		
2,100.0	2,066.7	2,049.0	1,959.9	7.2	10.6	-69.80	203.5	-531.2	379.0	365.3	13.70	27.673		
2,200.0	2,164.7	2,146.5	2,051.2	7.5	11.2	-69.45	217.8	-562.4	400.9	386.5	14.42	27.807		
2,300.0	2,262.6	2,244.1	2,142.5	7.9	11.9	-69.13	232.1	-593.6	422.8	407.7	15.14	27.930		
2,400.0	2,360.6	2,341.6	2,233.8	8.3	12.5	-68.85	246.4	-624.8	444.7	428.9	15.86	28.044		
2,500.0	2,458.6	2,439.2	2,325.1	8.7	13.2	-68.59	260.7	-656.1	466.6	450.1	16.58	28.149		
2,600.0	2,556.6	2,536.7	2,416.4	9.1	13.8	-68.36	275.0	-687.3	488.6	471.3	17.30	28.247		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU Fee 16-2C (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 16-2C (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				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	-117.84	-28.0	-53.1	60.0					
100.0	100.0	100.0	100.0	0.1	0.1	-117.84	-28.0	-53.1	60.0	59.8	0.27	220.544		
200.0	200.0	200.0	200.0	0.3	0.3	-117.84	-28.0	-53.1	60.0	59.4	0.62	96.643 CC, ES		
300.0	300.0	298.9	298.8	0.5	0.5	-90.25	-29.8	-53.1	60.8	59.9	0.98	62.092		
400.0	399.6	397.0	396.8	0.7	0.7	-100.08	-34.2	-53.6	64.7	63.3	1.37	47.080		
500.0	498.8	495.1	494.8	1.0	0.9	-109.18	-36.9	-57.9	73.1	71.3	1.81	40.488		
600.0	597.1	593.4	592.7	1.4	1.1	-115.88	-37.3	-66.7	85.7	83.4	2.30	37.176		
700.0	695.1	692.1	690.5	1.7	1.3	-119.08	-35.1	-79.9	100.0	97.2	2.87	34.875		
800.0	793.0	791.1	787.8	2.1	1.6	-118.88	-30.5	-97.6	114.5	111.0	3.53	32.475		
900.0	891.0	889.8	883.7	2.5	2.1	-116.44	-23.5	-119.6	129.1	124.8	4.29	30.112		
1,000.0	989.0	987.8	977.7	2.9	2.5	-112.53	-14.2	-145.6	144.3	139.1	5.12	28.155		
1,100.0	1,087.0	1,086.0	1,071.5	3.3	3.1	-108.79	-4.1	-172.9	160.3	154.3	5.98	26.821		
1,200.0	1,184.9	1,184.2	1,165.3	3.6	3.6	-105.74	6.0	-200.3	176.9	170.1	6.82	25.919		
1,300.0	1,282.9	1,282.4	1,259.1	4.0	4.1	-103.21	16.1	-227.7	193.9	186.2	7.66	25.292		
1,400.0	1,380.9	1,380.6	1,352.9	4.4	4.7	-101.09	26.2	-255.1	211.2	202.7	8.50	24.849		
1,500.0	1,478.9	1,478.9	1,446.6	4.8	5.2	-99.30	36.3	-282.5	228.7	219.4	9.32	24.529		
1,600.0	1,576.8	1,577.1	1,540.4	5.2	5.7	-97.75	46.4	-309.9	246.4	236.3	10.14	24.295		
1,700.0	1,674.8	1,675.3	1,634.2	5.6	6.3	-96.42	56.4	-337.3	264.3	253.3	10.96	24.122		
1,800.0	1,772.8	1,773.5	1,728.0	6.0	6.8	-95.25	66.5	-364.7	282.3	270.5	11.76	23.994		
1,900.0	1,870.8	1,871.7	1,821.7	6.4	7.4	-94.23	76.6	-392.0	300.4	287.8	12.57	23.898		
2,000.0	1,968.7	1,969.9	1,915.5	6.8	7.9	-93.32	86.7	-419.4	318.5	305.2	13.37	23.826		
2,100.0	2,066.7	2,068.1	2,009.3	7.2	8.5	-92.51	96.8	-446.8	336.8	322.6	14.17	23.772		
2,200.0	2,164.7	2,166.4	2,103.1	7.5	9.0	-91.78	106.9	-474.2	355.1	340.1	14.96	23.732		
2,300.0	2,262.6	2,264.6	2,196.9	7.9	9.6	-91.12	117.0	-501.6	373.4	357.7	15.75	23.703		
2,400.0	2,360.6	2,362.8	2,290.6	8.3	10.1	-90.53	127.1	-529.0	391.8	375.3	16.54	23.682		
2,500.0	2,458.6	2,461.0	2,384.4	8.7	10.7	-89.99	137.2	-556.4	410.2	392.9	17.33	23.668		
2,600.0	2,556.6	2,559.2	2,478.2	9.1	11.3	-89.49	147.3	-583.7	428.7	410.6	18.12	23.659		
2,700.0	2,654.5	2,657.4	2,572.0	9.5	11.8	-89.04	157.4	-611.1	447.2	428.3	18.91	23.654		
2,800.0	2,752.5	2,755.7	2,665.8	9.9	12.4	-88.62	167.5	-638.5	465.7	446.0	19.69	23.652 SF		
2,900.0	2,850.5	2,853.9	2,759.5	10.3	12.9	-88.23	177.6	-665.9	484.3	463.8	20.47	23.653		

Cathedral Energy Services

Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
Project: Mamm Creek
Reference Site: SWSW S16-T7S-R93W (M16W Pad)
Site Error: 0.0ft
Reference Well: MCU Fee 16-2C (M16W Pad)
Well Error: 0.0ft
Reference Wellbore: DD
Reference Design: Plan #1

Local Co-ordinate Reference: Well MCU Fee 16-2C (M16W Pad)
TVD Reference: KBE @ 7903.0ft (Original Well Elev)
MD Reference: KBE @ 7903.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 US Multi Users DB
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 16-2C (M16W Pad)
 Coordinate System is US State Plane 1983, Colorado Central Zone
 Grid Convergence at Surface is: -1.44°

