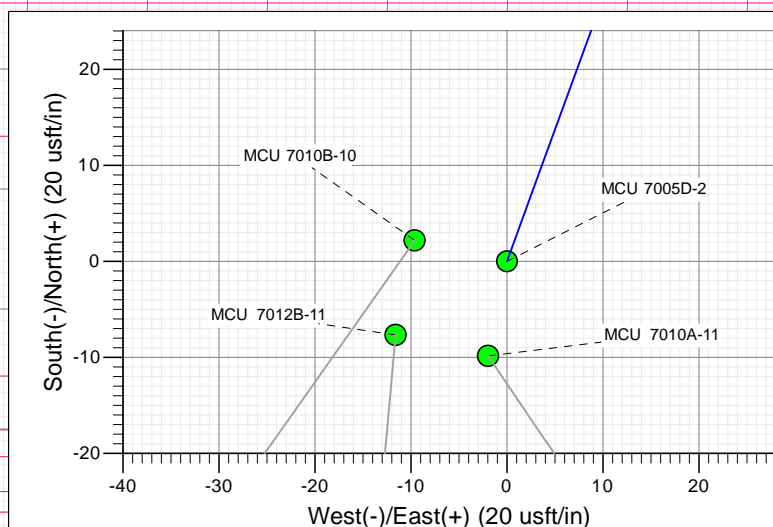
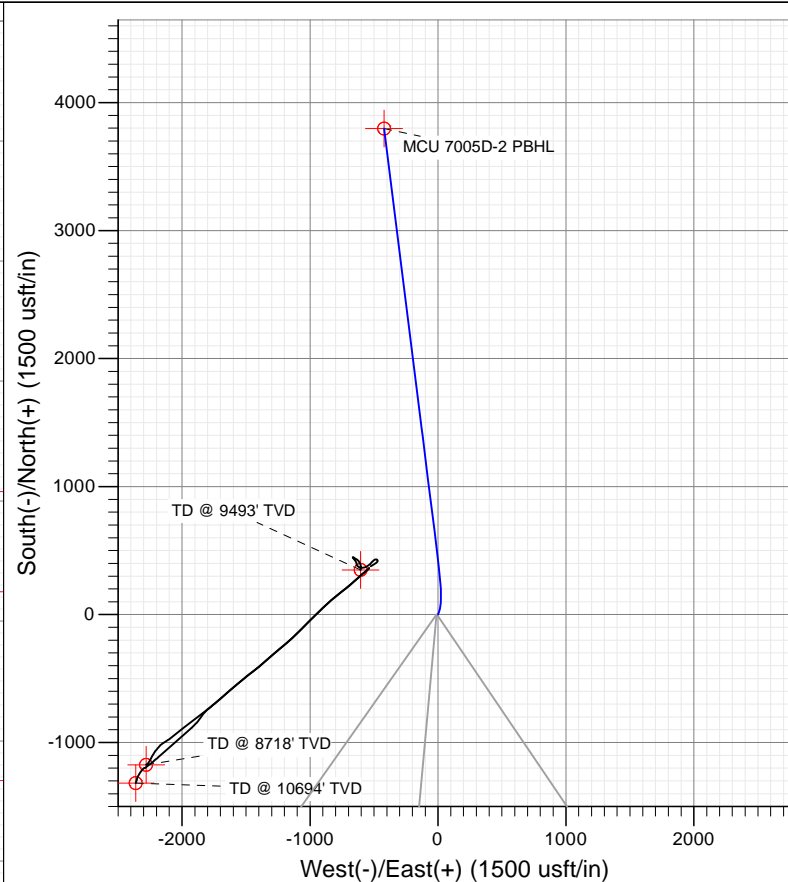
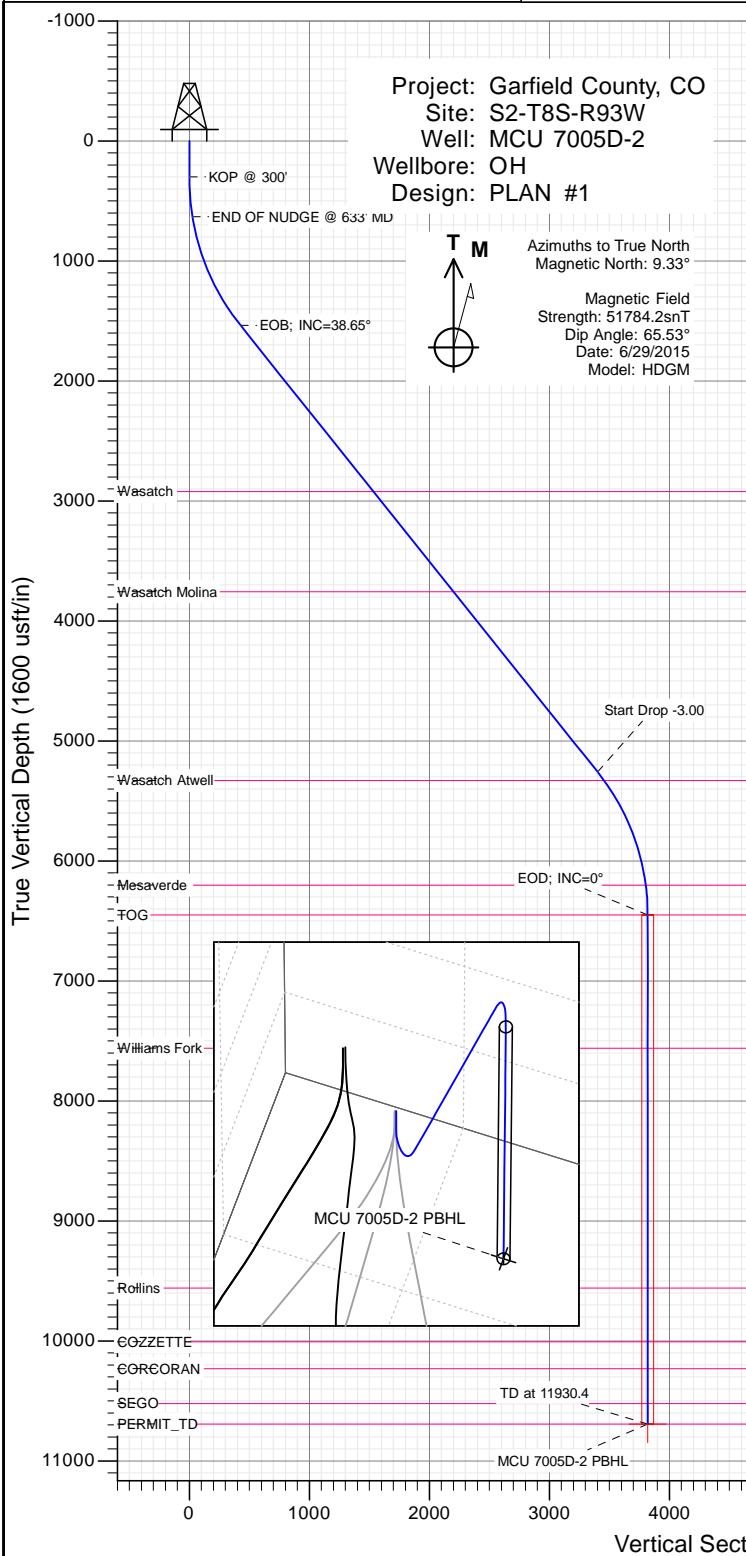




SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	633.3	10.00	20.00	631.6	27.3	9.9	3.00	20.00	26.0	
4	1634.9	38.65	352.86	1536.7	428.6	0.6	3.00	-34.68	425.9	
5	6400.0	38.65	352.86	5258.2	3381.7	-369.1	0.00	0.00	3401.7	
6	7688.4	0.00	0.00	6451.0	3796.7	-421.1	3.00	180.00	3820.0	
7	11930.4	0.00	0.00	10693.0	3796.7	-421.1	0.00	0.00	3820.0	MCU 7005D-2 PBHL



WELL DETAILS: MCU 7005D-2

			Ground Level:	7777.0		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.0	0.0	1573690.73	2365211.64	39.386993	-107.746174	



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well MCU 7005D-2
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 7799.0usft
Project:	Garfield County, CO	MD Reference:	KB @ 7799.0usft
Site:	S2-T8S-R93W	North Reference:	True
Well:	MCU 7005D-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Project	Garfield County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		S2-T8S-R93W			
Site Position:		Northing:	1,573,690.74 usft	Latitude:	39.386993
From:	Lat/Long	Easting:	2,365,211.64 usft	Longitude:	-107.746174
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.42 °

Well	MCU 7005D-2					
Well Position	+N/-S	0.0 usft	Northing:	1,573,690.73 usft	Latitude:	39.386993
	+E/-W	0.0 usft	Easting:	2,365,211.64 usft	Longitude:	-107.746174
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	7,777.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	6/29/2015	9.33	65.53	51,784

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	353.67

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
633.3	10.00	20.00	631.6	27.3	9.9	3.00	3.00	0.00	20.00	
1,634.9	38.65	352.86	1,536.7	428.6	0.6	3.00	2.86	-2.71	-34.68	
6,400.0	38.65	352.86	5,258.2	3,381.7	-369.1	0.00	0.00	0.00	0.00	
7,688.4	0.00	0.00	6,451.0	3,796.7	-421.1	3.00	-3.00	0.00	180.00	
11,930.4	0.00	0.00	10,693.0	3,796.7	-421.1	0.00	0.00	0.00	0.00	MCU 7005D-2 PBHL

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well MCU 7005D-2
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 7799.0usft
Project:	Garfield County, CO	MD Reference:	KB @ 7799.0usft
Site:	S2-T8S-R93W	North Reference:	True
Well:	MCU 7005D-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300'
400.0	3.00	20.00	400.0	2.5	0.9	2.3	3.00	3.00	
500.0	6.00	20.00	499.6	9.8	3.6	9.4	3.00	3.00	
600.0	9.00	20.00	598.8	22.1	8.0	21.1	3.00	3.00	
633.3	10.00	20.00	631.6	27.3	9.9	26.0	3.00	3.00	END OF NUDGE @ 633' MD
700.0	11.70	14.38	697.1	39.3	13.6	37.5	3.00	2.55	
800.0	14.39	8.49	794.5	61.4	17.9	59.0	3.00	2.69	
900.0	17.19	4.46	890.8	88.4	20.9	85.6	3.00	2.79	
1,000.0	20.04	1.53	985.5	120.3	22.5	117.0	3.00	2.85	
1,100.0	22.93	359.31	1,078.6	156.9	22.7	153.4	3.00	2.89	
1,200.0	25.84	357.56	1,169.6	198.1	21.6	194.5	3.00	2.91	
1,300.0	28.77	356.15	1,258.5	243.9	19.0	240.3	3.00	2.93	
1,400.0	31.71	354.98	1,344.9	294.1	15.1	290.7	3.00	2.94	
1,500.0	34.66	353.99	1,428.5	348.6	9.9	345.4	3.00	2.95	
1,600.0	37.62	353.14	1,509.3	407.2	3.2	404.4	3.00	2.96	
1,634.9	38.65	352.86	1,536.7	428.6	0.6	425.9	3.00	2.96	EOB; INC=38.65°
1,700.0	38.65	352.86	1,587.6	468.9	-4.5	466.6	0.00	0.00	
1,800.0	38.65	352.86	1,665.7	530.9	-12.2	529.0	0.00	0.00	
1,900.0	38.65	352.86	1,743.8	592.9	-20.0	591.5	0.00	0.00	
2,000.0	38.65	352.86	1,821.9	654.8	-27.7	653.9	0.00	0.00	
2,100.0	38.65	352.86	1,900.0	716.8	-35.5	716.4	0.00	0.00	
2,200.0	38.65	352.86	1,978.1	778.8	-43.2	778.8	0.00	0.00	
2,300.0	38.65	352.86	2,056.2	840.8	-51.0	841.3	0.00	0.00	
2,400.0	38.65	352.86	2,134.3	902.7	-58.8	903.7	0.00	0.00	
2,500.0	38.65	352.86	2,212.4	964.7	-66.5	966.2	0.00	0.00	
2,600.0	38.65	352.86	2,290.5	1,026.7	-74.3	1,028.6	0.00	0.00	
2,700.0	38.65	352.86	2,368.6	1,088.7	-82.0	1,091.1	0.00	0.00	
2,800.0	38.65	352.86	2,446.7	1,150.6	-89.8	1,153.5	0.00	0.00	
2,900.0	38.65	352.86	2,524.8	1,212.6	-97.6	1,216.0	0.00	0.00	
3,000.0	38.65	352.86	2,602.9	1,274.6	-105.3	1,278.4	0.00	0.00	
3,100.0	38.65	352.86	2,680.9	1,336.5	-113.1	1,340.9	0.00	0.00	
3,200.0	38.65	352.86	2,759.0	1,398.5	-120.8	1,403.3	0.00	0.00	
3,300.0	38.65	352.86	2,837.1	1,460.5	-128.6	1,465.8	0.00	0.00	
3,400.0	38.65	352.86	2,915.2	1,522.5	-136.3	1,528.2	0.00	0.00	
3,408.7	38.65	352.86	2,922.0	1,527.8	-137.0	1,533.6	0.00	0.00	Wasatch
3,500.0	38.65	352.86	2,993.3	1,584.4	-144.1	1,590.7	0.00	0.00	
3,600.0	38.65	352.86	3,071.4	1,646.4	-151.9	1,653.1	0.00	0.00	
3,700.0	38.65	352.86	3,149.5	1,708.4	-159.6	1,715.6	0.00	0.00	
3,800.0	38.65	352.86	3,227.6	1,770.4	-167.4	1,778.0	0.00	0.00	
3,900.0	38.65	352.86	3,305.7	1,832.3	-175.1	1,840.5	0.00	0.00	
4,000.0	38.65	352.86	3,383.8	1,894.3	-182.9	1,902.9	0.00	0.00	
4,100.0	38.65	352.86	3,461.9	1,956.3	-190.7	1,965.4	0.00	0.00	
4,200.0	38.65	352.86	3,540.0	2,018.2	-198.4	2,027.8	0.00	0.00	
4,300.0	38.65	352.86	3,618.1	2,080.2	-206.2	2,090.3	0.00	0.00	
4,400.0	38.65	352.86	3,696.2	2,142.2	-213.9	2,152.7	0.00	0.00	
4,477.8	38.65	352.86	3,757.0	2,190.4	-220.0	2,201.3	0.00	0.00	Wasatch Molina
4,500.0	38.65	352.86	3,774.3	2,204.2	-221.7	2,215.2	0.00	0.00	
4,600.0	38.65	352.86	3,852.4	2,266.1	-229.5	2,277.6	0.00	0.00	
4,700.0	38.65	352.86	3,930.5	2,328.1	-237.2	2,340.1	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well MCU 7005D-2
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 7799.0usft
Project:	Garfield County, CO	MD Reference:	KB @ 7799.0usft
Site:	S2-T8S-R93W	North Reference:	True
Well:	MCU 7005D-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,800.0	38.65	352.86	4,008.6	2,390.1	-245.0	2,402.5	0.00	0.00	
4,900.0	38.65	352.86	4,086.7	2,452.1	-252.7	2,465.0	0.00	0.00	
5,000.0	38.65	352.86	4,164.8	2,514.0	-260.5	2,527.4	0.00	0.00	
5,100.0	38.65	352.86	4,242.9	2,576.0	-268.2	2,589.9	0.00	0.00	
5,200.0	38.65	352.86	4,321.0	2,638.0	-276.0	2,652.3	0.00	0.00	
5,300.0	38.65	352.86	4,399.1	2,700.0	-283.8	2,714.8	0.00	0.00	
5,400.0	38.65	352.86	4,477.2	2,761.9	-291.5	2,777.2	0.00	0.00	
5,500.0	38.65	352.86	4,555.3	2,823.9	-299.3	2,839.7	0.00	0.00	
5,600.0	38.65	352.86	4,633.4	2,885.9	-307.0	2,902.1	0.00	0.00	
5,700.0	38.65	352.86	4,711.5	2,947.8	-314.8	2,964.6	0.00	0.00	
5,800.0	38.65	352.86	4,789.6	3,009.8	-322.6	3,027.0	0.00	0.00	
5,900.0	38.65	352.86	4,867.7	3,071.8	-330.3	3,089.5	0.00	0.00	
6,000.0	38.65	352.86	4,945.8	3,133.8	-338.1	3,151.9	0.00	0.00	
6,100.0	38.65	352.86	5,023.9	3,195.7	-345.8	3,214.4	0.00	0.00	
6,200.0	38.65	352.86	5,102.0	3,257.7	-353.6	3,276.8	0.00	0.00	
6,300.0	38.65	352.86	5,180.1	3,319.7	-361.3	3,339.3	0.00	0.00	
6,400.0	38.65	352.86	5,258.2	3,381.7	-369.1	3,401.7	0.00	0.00	Start Drop -3.00
6,491.6	35.90	352.86	5,331.0	3,436.7	-376.0	3,457.2	3.00	-3.00	Wasatch Atwell
6,500.0	35.65	352.86	5,337.8	3,441.6	-376.6	3,462.1	3.00	-3.00	
6,600.0	32.65	352.86	5,420.6	3,497.3	-383.6	3,518.2	3.00	-3.00	
6,700.0	29.65	352.86	5,506.2	3,548.6	-390.0	3,570.0	3.00	-3.00	
6,800.0	26.65	352.86	5,594.3	3,595.4	-395.9	3,617.1	3.00	-3.00	
6,900.0	23.65	352.86	5,684.8	3,637.6	-401.1	3,659.6	3.00	-3.00	
7,000.0	20.65	352.86	5,777.4	3,675.0	-405.8	3,697.3	3.00	-3.00	
7,100.0	17.65	352.86	5,871.9	3,707.5	-409.9	3,730.1	3.00	-3.00	
7,200.0	14.65	352.86	5,967.9	3,735.1	-413.4	3,757.9	3.00	-3.00	
7,300.0	11.65	352.86	6,065.3	3,757.7	-416.2	3,780.7	3.00	-3.00	
7,400.0	8.65	352.86	6,163.7	3,775.2	-418.4	3,798.3	3.00	-3.00	
7,439.7	7.46	352.86	6,203.0	3,780.7	-419.1	3,803.9	3.00	-3.00	Mesaverde
7,500.0	5.65	352.86	6,262.9	3,787.5	-419.9	3,810.7	3.00	-3.00	
7,600.0	2.65	352.86	6,362.7	3,794.7	-420.8	3,818.0	3.00	-3.00	
7,688.4	0.00	0.00	6,451.0	3,796.7	-421.1	3,820.0	3.00	-3.00	EOD; INC=0° - TOG
7,700.0	0.00	0.00	6,462.6	3,796.7	-421.1	3,820.0	0.00	0.00	
7,800.0	0.00	0.00	6,562.6	3,796.7	-421.1	3,820.0	0.00	0.00	
7,900.0	0.00	0.00	6,662.6	3,796.7	-421.1	3,820.0	0.00	0.00	
8,000.0	0.00	0.00	6,762.6	3,796.7	-421.1	3,820.0	0.00	0.00	
8,100.0	0.00	0.00	6,862.6	3,796.7	-421.1	3,820.0	0.00	0.00	
8,200.0	0.00	0.00	6,962.6	3,796.7	-421.1	3,820.0	0.00	0.00	
8,300.0	0.00	0.00	7,062.6	3,796.7	-421.1	3,820.0	0.00	0.00	
8,400.0	0.00	0.00	7,162.6	3,796.7	-421.1	3,820.0	0.00	0.00	
8,500.0	0.00	0.00	7,262.6	3,796.7	-421.1	3,820.0	0.00	0.00	
8,600.0	0.00	0.00	7,362.6	3,796.7	-421.1	3,820.0	0.00	0.00	
8,700.0	0.00	0.00	7,462.6	3,796.7	-421.1	3,820.0	0.00	0.00	
8,798.4	0.00	0.00	7,561.0	3,796.7	-421.1	3,820.0	0.00	0.00	Williams Fork
8,800.0	0.00	0.00	7,562.6	3,796.7	-421.1	3,820.0	0.00	0.00	
8,900.0	0.00	0.00	7,662.6	3,796.7	-421.1	3,820.0	0.00	0.00	
9,000.0	0.00	0.00	7,762.6	3,796.7	-421.1	3,820.0	0.00	0.00	
9,100.0	0.00	0.00	7,862.6	3,796.7	-421.1	3,820.0	0.00	0.00	
9,200.0	0.00	0.00	7,962.6	3,796.7	-421.1	3,820.0	0.00	0.00	
9,300.0	0.00	0.00	8,062.6	3,796.7	-421.1	3,820.0	0.00	0.00	
9,400.0	0.00	0.00	8,162.6	3,796.7	-421.1	3,820.0	0.00	0.00	
9,500.0	0.00	0.00	8,262.6	3,796.7	-421.1	3,820.0	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well MCU 7005D-2
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 7799.0usft
Project:	Garfield County, CO	MD Reference:	KB @ 7799.0usft
Site:	S2-T8S-R93W	North Reference:	True
Well:	MCU 7005D-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
9,600.0	0.00	0.00	8,362.6	3,796.7	-421.1	3,820.0	0.00	0.00	
9,700.0	0.00	0.00	8,462.6	3,796.7	-421.1	3,820.0	0.00	0.00	
9,800.0	0.00	0.00	8,562.6	3,796.7	-421.1	3,820.0	0.00	0.00	
9,900.0	0.00	0.00	8,662.6	3,796.7	-421.1	3,820.0	0.00	0.00	
10,000.0	0.00	0.00	8,762.6	3,796.7	-421.1	3,820.0	0.00	0.00	
10,100.0	0.00	0.00	8,862.6	3,796.7	-421.1	3,820.0	0.00	0.00	
10,200.0	0.00	0.00	8,962.6	3,796.7	-421.1	3,820.0	0.00	0.00	
10,300.0	0.00	0.00	9,062.6	3,796.7	-421.1	3,820.0	0.00	0.00	
10,400.0	0.00	0.00	9,162.6	3,796.7	-421.1	3,820.0	0.00	0.00	
10,500.0	0.00	0.00	9,262.6	3,796.7	-421.1	3,820.0	0.00	0.00	
10,600.0	0.00	0.00	9,362.6	3,796.7	-421.1	3,820.0	0.00	0.00	
10,700.0	0.00	0.00	9,462.6	3,796.7	-421.1	3,820.0	0.00	0.00	
10,796.4	0.00	0.00	9,559.0	3,796.7	-421.1	3,820.0	0.00	0.00	Rollins
10,800.0	0.00	0.00	9,562.6	3,796.7	-421.1	3,820.0	0.00	0.00	
10,900.0	0.00	0.00	9,662.6	3,796.7	-421.1	3,820.0	0.00	0.00	
11,000.0	0.00	0.00	9,762.6	3,796.7	-421.1	3,820.0	0.00	0.00	
11,100.0	0.00	0.00	9,862.6	3,796.7	-421.1	3,820.0	0.00	0.00	
11,200.0	0.00	0.00	9,962.6	3,796.7	-421.1	3,820.0	0.00	0.00	
11,244.4	0.00	0.00	10,007.0	3,796.7	-421.1	3,820.0	0.00	0.00	COZZETTE
11,300.0	0.00	0.00	10,062.6	3,796.7	-421.1	3,820.0	0.00	0.00	
11,400.0	0.00	0.00	10,162.6	3,796.7	-421.1	3,820.0	0.00	0.00	
11,468.4	0.00	0.00	10,231.0	3,796.7	-421.1	3,820.0	0.00	0.00	CORCORAN
11,500.0	0.00	0.00	10,262.6	3,796.7	-421.1	3,820.0	0.00	0.00	
11,600.0	0.00	0.00	10,362.6	3,796.7	-421.1	3,820.0	0.00	0.00	
11,700.0	0.00	0.00	10,462.6	3,796.7	-421.1	3,820.0	0.00	0.00	
11,760.4	0.00	0.00	10,523.0	3,796.7	-421.1	3,820.0	0.00	0.00	SEGO
11,800.0	0.00	0.00	10,562.6	3,796.7	-421.1	3,820.0	0.00	0.00	
11,900.0	0.00	0.00	10,662.6	3,796.7	-421.1	3,820.0	0.00	0.00	
11,930.4	0.00	0.00	10,693.0	3,796.7	-421.1	3,820.0	0.00	0.00	TD at 11930.4 - PERMIT_TD - MCU 7005D-2 P

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
MCU 7005D-2 PBHL	0.00	0.00	10,693.0	3,796.7	-421.1	1,577,496.72	2,364,884.56	39.397417	-107.747664
- hit/miss target									
- Shape									
- plan hits target center									
- Circle (radius 50.0)									

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well MCU 7005D-2
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KB @ 7799.0usft
Project:	Garfield County, CO	MD Reference:	KB @ 7799.0usft
Site:	S2-T8S-R93W	North Reference:	True
Well:	MCU 7005D-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,408.7	2,922.0	Wasatch				
4,477.8	3,757.0	Wasatch Molina				
6,491.6	5,331.0	Wasatch Atwell				
7,439.7	6,203.0	Mesaverde				
7,688.4	6,451.0	TOG				
8,798.4	7,561.0	Williams Fork				
10,796.4	9,559.0	Rollins				
11,244.4	10,007.0	COZZETTE				
11,468.4	10,231.0	CORCORAN				
11,760.4	10,523.0	SEGO				
11,930.4	10,693.0	PERMIT_TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
300.0	300.0	0.0	0.0	KOP @ 300'	
633.3	631.6	27.3	9.9	END OF NUDGE @ 633' MD	
1,634.9	1,536.7	428.6	0.6	EOB; INC=38.65°	
6,400.0	5,258.2	3,381.7	-369.1	Start Drop -3.00	
7,688.4	6,451.0	3,796.7	-421.1	EOD; INC=0°	
11,930.4	10,693.0	3,796.7	-421.1	TD at 11930.4	

EnCana Oil & Gas (USA) Inc

Garfield County, CO

S2-T8S-R93W

MCU 7005D-2

OH

PLAN #1

Anticollision Report

29 June, 2015

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU 7005D-2
Project:	Garfield County, CO	TVD Reference:	KB @ 7799.0usft
Reference Site:	S2-T8S-R93W	MD Reference:	KB @ 7799.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	MCU 7005D-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 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 100.0usft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,367.1usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	6/29/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	11,930.4	PLAN #1 (OH)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S2-T8S-R93W						
HMU 10-1 (EXISTING) - ENCANA - ORIGINAL HOLE	1,119.7	1,002.0	626.6	618.4	76.363	CC, ES
HMU 10-1 (EXISTING) - ENCANA - ORIGINAL HOLE	1,800.0	1,426.1	748.0	732.7	49.021	SF
HMU 10-1 (EXISTING) - Wellbore #2 - SIDETRACK	1,111.7	995.2	628.3	620.1	76.932	CC, ES
HMU 10-1 (EXISTING) - Wellbore #2 - SIDETRACK	1,800.0	1,426.1	750.7	735.4	49.095	SF
MCU 7010A-11 - OH - PLAN #1	200.0	200.0	10.0	9.0	10.062	CC, ES
MCU 7010A-11 - OH - PLAN #1	300.0	299.5	12.0	10.2	6.500	SF
MCU 7010B-10 - OH - PLAN #1	200.0	200.0	9.9	8.9	9.890	CC, ES
MCU 7010B-10 - OH - PLAN #1	300.0	299.7	11.1	9.3	6.259	SF
MCU 7012B-11 - OH - PLAN #1	200.0	200.0	13.9	12.9	13.930	CC, ES
MCU 7012B-11 - OH - PLAN #1	400.0	398.1	24.5	21.6	8.542	SF
WIEBEN 2-13 (EXISTING) - ENCANA - SURVEYS	1,713.8	1,576.8	468.4	453.5	31.432	CC, ES
WIEBEN 2-13 (EXISTING) - ENCANA - SURVEYS	2,000.0	1,795.9	502.3	484.3	27.887	SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU 7005D-2
Project:	Garfield County, CO	TVD Reference:	KB @ 7799.0usft
Reference Site:	S2-T8S-R93W	MD Reference:	KB @ 7799.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	MCU 7005D-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T8S-R93W - HMU 10-1 (EXISTING) - ENCANA - ORIGINAL HOLE													Offset Site Error:	0.0 usft
Survey Program: 117-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-56.02	363.1	-538.7	650.0					
100.0	100.0	77.6	77.6	0.1	0.1	-56.01	363.2	-538.7	649.7	649.4	0.28	2,328.191		
200.0	200.0	179.4	179.4	0.5	0.4	-56.01	363.2	-538.7	649.7	648.8	0.92	702.781		
300.0	300.0	280.4	280.4	0.9	0.8	-56.06	362.5	-538.7	649.3	647.7	1.63	397.442		
400.0	400.0	379.3	379.2	1.2	1.1	-76.37	361.8	-538.8	648.4	646.1	2.34	277.265		
500.0	499.6	476.5	476.4	1.6	1.5	-77.20	360.7	-539.6	646.6	643.5	3.05	212.191		
600.0	598.8	571.9	571.8	2.0	1.8	-78.64	358.0	-541.7	644.3	640.5	3.77	170.822		
700.0	697.1	660.1	659.9	2.4	2.1	-75.01	354.3	-545.5	642.0	637.4	4.52	142.167		
800.0	794.5	749.5	749.0	2.8	2.5	-71.65	349.7	-550.9	638.2	632.9	5.31	120.255		
900.0	890.8	837.8	836.8	3.3	2.8	-70.62	344.0	-557.8	633.5	627.3	6.15	103.059		
1,000.0	985.5	916.8	915.1	3.9	3.1	-70.92	337.0	-565.8	628.9	621.8	7.04	89.317		
1,100.0	1,078.6	987.6	984.8	4.5	3.4	-72.02	329.3	-575.4	626.6	618.6	8.00	78.292		
1,119.7	1,096.7	1,002.0	999.0	4.6	3.5	-72.36	327.6	-577.6	626.6	618.4	8.21	76.363 CC, ES		
1,200.0	1,169.6	1,064.0	1,059.6	5.1	3.7	-74.22	319.3	-587.9	627.6	618.6	9.03	69.527		
1,300.0	1,258.5	1,134.9	1,128.4	5.9	4.1	-76.73	308.3	-600.6	632.3	622.2	10.10	62.591		
1,400.0	1,344.9	1,200.4	1,191.6	6.7	4.4	-79.32	296.8	-613.3	642.0	630.8	11.20	57.312		
1,500.0	1,428.5	1,262.0	1,250.7	7.6	4.7	-81.83	285.4	-626.2	657.9	645.6	12.30	53.507		
1,600.0	1,509.3	1,320.9	1,307.1	8.5	5.0	-84.23	273.9	-639.2	680.4	667.1	13.36	50.938		
1,700.0	1,587.6	1,373.2	1,356.8	9.6	5.3	-87.11	263.0	-651.3	710.2	695.9	14.35	49.476		
1,800.0	1,665.7	1,426.1	1,406.7	10.6	5.7	-90.45	251.4	-664.2	748.0	732.7	15.26	49.021 SF		
1,900.0	1,743.8	1,489.6	1,466.6	11.7	6.0	-94.28	237.0	-679.9	792.1	775.9	16.12	49.149		
2,000.0	1,821.9	1,559.9	1,533.0	12.8	6.5	-98.26	221.5	-696.9	840.7	823.8	16.94	49.615		
2,100.0	1,900.0	1,634.6	1,603.9	13.8	6.9	-102.08	207.0	-715.3	892.8	875.0	17.77	50.232		
2,200.0	1,978.1	1,709.7	1,675.6	14.9	7.4	-105.61	193.3	-733.3	947.4	928.9	18.59	50.969		
2,300.0	2,056.2	1,755.4	1,719.0	16.0	7.7	-107.61	184.8	-744.3	1,005.1	985.9	19.20	52.362		
2,400.0	2,134.3	1,806.1	1,766.9	17.1	8.0	-109.70	174.8	-757.5	1,066.5	1,046.7	19.81	53.844		
2,500.0	2,212.4	1,861.5	1,819.1	18.2	8.4	-111.84	163.5	-772.3	1,130.4	1,110.0	20.44	55.307		
2,600.0	2,290.5	1,920.5	1,874.8	19.4	8.8	-113.97	151.4	-787.8	1,195.9	1,174.8	21.09	56.702		
2,700.0	2,368.6	1,963.9	1,915.5	20.5	9.0	-115.46	142.0	-799.2	1,263.5	1,241.9	21.60	58.503		
2,800.0	2,446.7	2,010.2	1,958.9	21.6	9.4	-116.98	131.2	-811.7	1,333.1	1,311.0	22.12	60.281		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU 7005D-2
Project:	Garfield County, CO	TVD Reference:	KB @ 7799.0usft
Reference Site:	S2-T8S-R93W	MD Reference:	KB @ 7799.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	MCU 7005D-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T8S-R93W - HMU 10-1 (EXISTING) - Wellbore #2 - SIDETRACK													Offset Site Error:	0.0 usft
Survey Program: 117-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance				Total		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-56.02	363.1	-538.7	650.0					
100.0	100.0	78.0	78.0	0.1	0.1	-56.02	363.1	-538.7	649.7	649.4	0.28	2,323.297		
200.0	200.0	179.6	179.6	0.5	0.4	-56.04	362.9	-538.8	649.6	648.7	0.93	696.476		
300.0	300.0	280.4	280.4	0.9	0.8	-56.09	362.2	-538.8	649.3	647.6	1.65	392.993		
400.0	400.0	372.9	372.9	1.2	1.1	-76.57	360.0	-540.9	649.2	646.9	2.34	276.870		
500.0	499.6	476.5	476.4	1.6	1.5	-77.47	358.6	-542.0	647.5	644.5	3.08	210.422		
600.0	598.8	571.7	571.6	2.0	1.8	-78.91	356.0	-544.1	645.3	641.5	3.80	169.595		
700.0	697.1	662.2	661.8	2.4	2.2	-75.31	352.2	-547.8	642.8	638.3	4.56	141.086		
800.0	794.5	749.3	748.7	2.8	2.5	-71.89	347.7	-553.0	639.1	633.8	5.35	119.555		
900.0	890.8	836.9	835.8	3.3	2.8	-70.83	342.0	-559.9	634.6	628.4	6.19	102.564		
1,000.0	985.5	915.6	913.8	3.9	3.1	-71.09	335.3	-567.9	630.3	623.3	7.08	88.994		
1,100.0	1,078.6	987.1	984.3	4.5	3.4	-72.21	327.5	-577.6	628.3	620.2	8.05	78.084		
1,111.7	1,089.3	995.2	992.2	4.5	3.5	-72.38	326.5	-578.8	628.3	620.1	8.17	76.932 CC, ES		
1,200.0	1,169.6	1,064.0	1,059.5	5.1	3.8	-74.41	317.4	-590.2	629.5	620.4	9.07	69.404		
1,300.0	1,258.5	1,134.3	1,127.7	5.9	4.1	-76.88	306.5	-602.8	634.4	624.2	10.14	62.536		
1,400.0	1,344.9	1,199.8	1,191.0	6.7	4.4	-79.44	295.1	-615.5	644.3	633.0	11.24	57.309		
1,500.0	1,428.5	1,261.3	1,250.0	7.6	4.8	-81.93	283.7	-628.3	660.3	648.0	12.33	53.542		
1,600.0	1,509.3	1,320.2	1,306.3	8.5	5.1	-84.31	272.2	-641.3	683.0	669.6	13.39	50.998		
1,700.0	1,587.6	1,372.5	1,356.0	9.6	5.4	-87.18	261.3	-653.4	712.9	698.5	14.39	49.551		
1,800.0	1,665.7	1,426.1	1,406.6	10.6	5.7	-90.55	249.5	-666.5	750.7	735.4	15.29	49.095 SF		
1,900.0	1,743.8	1,488.6	1,465.5	11.7	6.1	-94.31	235.3	-682.0	794.8	778.7	16.14	49.233		
2,000.0	1,821.9	1,558.9	1,531.9	12.8	6.5	-98.26	219.9	-698.9	843.5	826.5	16.97	49.695		
2,100.0	1,900.0	1,633.7	1,602.9	13.8	7.0	-102.08	205.4	-717.3	895.6	877.8	17.80	50.306		
2,200.0	1,978.1	1,708.8	1,674.6	14.9	7.4	-105.60	191.6	-735.3	950.3	931.7	18.62	51.036		
2,300.0	2,056.2	1,754.8	1,718.4	16.0	7.7	-107.61	183.0	-746.4	1,007.9	988.7	19.23	52.415		
2,400.0	2,134.3	1,806.1	1,766.9	17.1	8.1	-109.72	172.9	-759.8	1,069.3	1,049.4	19.85	53.878		
2,500.0	2,212.4	1,860.5	1,818.1	18.2	8.4	-111.81	161.8	-774.3	1,133.2	1,112.7	20.47	55.354		
2,600.0	2,290.5	1,919.9	1,874.1	19.4	8.8	-113.95	149.7	-789.9	1,198.6	1,177.5	21.13	56.734		
2,700.0	2,368.6	1,963.2	1,914.8	20.5	9.1	-115.44	140.3	-801.3	1,266.2	1,244.5	21.63	58.527		
2,800.0	2,446.7	2,009.2	1,957.8	21.6	9.4	-116.94	129.6	-813.7	1,335.8	1,313.7	22.15	60.307		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU 7005D-2
Project:	Garfield County, CO	TVD Reference:	KB @ 7799.0usft
Reference Site:	S2-T8S-R93W	MD Reference:	KB @ 7799.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	MCU 7005D-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T8S-R93W - MCU 7010A-11 - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-168.62	-9.8	-2.0	10.0					
100.0	100.0	100.0	100.0	0.1	0.1	-168.62	-9.8	-2.0	10.0	9.7	0.28	35.860		
200.0	200.0	200.0	200.0	0.5	0.5	-168.62	-9.8	-2.0	10.0	9.0	1.00	10.062 CC, ES		
300.0	300.0	299.5	299.5	0.9	0.8	-177.50	-12.0	-0.5	12.0	10.2	1.85	6.500 SF		
400.0	400.0	398.3	398.0	1.2	1.2	151.89	-18.3	3.8	21.1	18.2	2.88	7.320		
500.0	499.6	495.2	494.0	1.6	1.6	148.78	-28.7	10.8	39.6	35.6	3.93	10.068		
600.0	598.8	589.0	586.3	2.0	2.0	148.13	-42.5	20.2	66.9	62.0	4.94	13.554		
700.0	697.1	678.7	673.7	2.4	2.4	153.60	-59.2	31.5	102.8	96.9	5.90	17.421		
800.0	794.5	763.1	755.0	2.8	2.9	158.74	-78.0	44.3	147.3	140.5	6.81	21.639		
900.0	890.8	841.6	829.6	3.3	3.3	161.85	-98.2	58.0	199.8	192.1	7.66	26.073		
1,000.0	985.5	913.5	897.1	3.9	3.8	163.87	-118.8	72.0	259.7	251.3	8.44	30.757		
1,100.0	1,078.6	978.7	957.3	4.5	4.2	165.24	-139.4	85.9	326.3	317.1	9.15	35.664		
1,200.0	1,169.6	1,037.1	1,010.6	5.1	4.7	166.22	-159.2	99.4	398.8	389.0	9.78	40.792		
1,300.0	1,258.5	1,088.7	1,057.0	5.9	5.1	166.91	-177.9	112.1	476.6	466.3	10.33	46.153		
1,400.0	1,344.9	1,133.9	1,097.1	6.7	5.5	167.40	-195.0	123.7	559.0	548.2	10.81	51.724		
1,500.0	1,428.5	1,172.8	1,131.2	7.6	5.9	167.72	-210.4	134.1	645.2	634.0	11.21	57.535		
1,600.0	1,509.3	1,200.0	1,154.9	8.5	6.1	167.92	-221.6	141.7	734.9	723.3	11.56	63.565		
1,700.0	1,587.6	1,234.0	1,184.3	9.6	6.4	167.76	-235.9	151.4	826.9	815.0	11.84	69.806		
1,800.0	1,665.7	1,260.3	1,206.7	10.6	6.7	167.58	-247.2	159.1	919.5	907.4	12.10	76.013		
1,900.0	1,743.8	1,300.0	1,240.2	11.7	7.1	167.31	-264.8	171.0	1,012.8	1,000.4	12.37	81.863		
2,000.0	1,821.9	1,300.0	1,240.2	12.8	7.1	167.31	-264.8	171.0	1,106.2	1,093.6	12.52	88.354		
2,100.0	1,900.0	1,330.0	1,265.2	13.8	7.4	167.12	-278.5	180.3	1,200.0	1,187.3	12.76	94.060		
2,200.0	1,978.1	1,350.5	1,282.2	14.9	7.7	166.99	-288.0	186.8	1,294.3	1,281.4	12.95	99.926		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU 7005D-2
Project:	Garfield County, CO	TVD Reference:	KB @ 7799.0usft
Reference Site:	S2-T8S-R93W	MD Reference:	KB @ 7799.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	MCU 7005D-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T8S-R93W - MCU 7010B-10 - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-77.16	2.2	-9.6	9.9					
100.0	100.0	100.0	100.0	0.1	0.1	-77.16	2.2	-9.6	9.9	9.6	0.28	35.249		
200.0	200.0	200.0	200.0	0.5	0.5	-77.16	2.2	-9.6	9.9	8.9	1.00	9.890 CC, ES		
300.0	300.0	299.7	299.7	0.9	0.8	-89.68	0.1	-11.1	11.1	9.3	1.78	6.259 SF		
400.0	400.0	398.6	398.2	1.2	1.2	-137.66	-6.2	-15.6	18.7	15.8	2.88	6.498		
500.0	499.6	495.1	493.9	1.6	1.6	-154.43	-16.4	-22.7	37.6	33.6	4.03	9.319		
600.0	598.8	587.9	585.2	2.0	2.0	-161.45	-29.9	-32.2	67.1	62.1	5.09	13.202		
700.0	697.1	675.9	671.0	2.4	2.4	-159.09	-46.0	-43.6	105.9	99.9	6.06	17.489		
800.0	794.5	758.7	750.7	2.8	2.8	-155.40	-64.1	-56.3	152.3	145.3	6.93	21.967		
900.0	890.8	835.7	824.1	3.3	3.3	-152.86	-83.5	-70.0	205.6	197.8	7.74	26.546		
1,000.0	985.5	906.8	890.7	3.9	3.7	-150.85	-103.5	-84.1	265.4	256.9	8.48	31.288		
1,100.0	1,078.6	971.6	950.8	4.5	4.2	-149.03	-123.5	-98.2	331.0	321.8	9.15	36.177		
1,200.0	1,169.6	1,030.3	1,004.4	5.1	4.6	-147.22	-143.0	-111.9	401.9	392.2	9.75	41.214		
1,300.0	1,258.5	1,083.0	1,051.9	5.9	5.0	-145.28	-161.7	-125.1	477.5	467.2	10.29	46.395		
1,400.0	1,344.9	1,129.8	1,093.5	6.7	5.4	-143.11	-179.2	-137.4	557.2	546.4	10.78	51.706		
1,500.0	1,428.5	1,171.1	1,129.8	7.6	5.7	-140.60	-195.3	-148.8	640.5	629.3	11.21	57.153		
1,600.0	1,509.3	1,200.0	1,154.9	8.5	6.0	-137.25	-207.0	-157.0	726.9	715.3	11.59	62.699		
1,700.0	1,587.6	1,238.8	1,188.4	9.6	6.3	-137.47	-223.1	-168.4	815.6	803.7	11.93	68.385		
1,800.0	1,665.7	1,268.5	1,213.6	10.6	6.6	-138.79	-235.8	-177.3	905.3	893.0	12.24	73.980		
1,900.0	1,743.8	1,300.0	1,240.2	11.7	6.9	-139.99	-249.7	-187.1	995.7	983.2	12.54	79.395		
2,000.0	1,821.9	1,323.0	1,259.4	12.8	7.1	-140.75	-260.0	-194.3	1,086.8	1,074.0	12.81	84.809		
2,100.0	1,900.0	1,348.0	1,280.1	13.8	7.4	-141.49	-271.5	-202.4	1,178.5	1,165.4	13.08	90.065		
2,200.0	1,978.1	1,371.6	1,299.5	14.9	7.6	-142.12	-282.5	-210.2	1,270.7	1,257.3	13.34	95.250		
2,300.0	2,056.2	1,400.0	1,322.6	16.0	7.9	-142.79	-296.0	-219.7	1,363.4	1,349.8	13.62	100.096		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU 7005D-2
Project:	Garfield County, CO	TVD Reference:	KB @ 7799.0usft
Reference Site:	S2-T8S-R93W	MD Reference:	KB @ 7799.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	MCU 7005D-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T8S-R93W - MCU 7012B-11 - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-123.41	-7.6	-11.6	13.9					
100.0	100.0	100.0	100.0	0.1	0.1	-123.41	-7.6	-11.6	13.9	13.6	0.28	49.650		
200.0	200.0	200.0	200.0	0.5	0.5	-123.41	-7.6	-11.6	13.9	12.9	1.00	13.930 CC, ES		
300.0	300.0	299.5	299.4	0.9	0.8	-130.85	-10.2	-11.8	15.6	13.8	1.82	8.612		
400.0	400.0	398.1	397.7	1.2	1.2	-166.49	-17.9	-12.5	24.5	21.6	2.86	8.542 SF		
500.0	499.6	494.4	493.2	1.6	1.6	-176.64	-30.2	-13.6	44.0	40.1	3.98	11.079		
600.0	598.8	586.9	584.3	2.0	2.0	178.60	-46.5	-15.1	73.9	68.9	5.03	14.702		
700.0	697.1	674.7	669.8	2.4	2.4	-178.09	-66.1	-16.9	113.0	107.0	6.01	18.816		
800.0	794.5	756.8	748.9	2.8	2.8	-174.00	-87.9	-18.9	160.4	153.5	6.89	23.260		
900.0	890.8	832.6	821.1	3.3	3.2	-171.32	-111.0	-21.0	215.4	207.6	7.72	27.908		
1,000.0	985.5	900.0	884.4	3.9	3.6	-169.28	-134.0	-23.1	277.4	268.9	8.51	32.613		
1,100.0	1,078.6	964.3	944.1	4.5	4.1	-167.66	-157.9	-25.3	345.7	336.6	9.11	37.962		
1,200.0	1,169.6	1,020.0	995.1	5.1	4.5	-166.09	-180.3	-27.3	419.6	409.9	9.68	43.354		
1,300.0	1,258.5	1,069.1	1,039.4	5.9	4.8	-164.47	-201.2	-29.3	498.5	488.3	10.18	48.984		
1,400.0	1,344.9	1,111.9	1,077.6	6.7	5.1	-162.70	-220.3	-31.0	581.6	571.0	10.60	54.858		
1,500.0	1,428.5	1,148.6	1,110.1	7.6	5.5	-160.64	-237.5	-32.6	668.3	657.4	10.96	60.969		
1,600.0	1,509.3	1,179.8	1,137.3	8.5	5.7	-158.12	-252.5	-33.9	758.2	746.9	11.26	67.335		
1,700.0	1,587.6	1,200.0	1,154.9	9.6	5.9	-157.60	-262.5	-34.8	850.3	838.8	11.51	73.850		
1,800.0	1,665.7	1,231.0	1,181.6	10.6	6.1	-158.90	-278.1	-36.3	943.1	931.3	11.72	80.450		
1,900.0	1,743.8	1,254.1	1,201.4	11.7	6.4	-159.73	-290.1	-37.4	1,036.4	1,024.4	11.92	86.931		
2,000.0	1,821.9	1,275.8	1,219.8	12.8	6.5	-160.43	-301.5	-38.4	1,130.1	1,118.0	12.11	93.349		
2,100.0	1,900.0	1,300.0	1,240.2	13.8	6.8	-161.13	-314.5	-39.6	1,224.3	1,212.0	12.29	99.637		
2,200.0	1,978.1	1,300.0	1,240.2	14.9	6.8	-161.13	-314.5	-39.6	1,319.0	1,306.6	12.39	106.457		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU 7005D-2
Project:	Garfield County, CO	TVD Reference:	KB @ 7799.0usft
Reference Site:	S2-T8S-R93W	MD Reference:	KB @ 7799.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	MCU 7005D-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T8S-R93W - WIEBEN 2-13 (EXISTING) - ENCANA - SURVEYS													Offset Site Error:	0.0 usft
Survey Program: 250-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance				Total		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-54.24	377.7	-524.6	646.8					
100.0	100.0	78.7	78.7	0.1	0.1	-54.24	377.8	-524.5	646.4	646.1	0.28	2,298.050		
200.0	200.0	179.5	179.5	0.5	0.3	-54.20	378.0	-524.1	646.2	645.4	0.82	787.483		
300.0	300.0	280.6	280.6	0.9	0.6	-54.13	378.4	-523.4	645.9	644.5	1.42	456.161		
400.0	400.0	382.2	382.2	1.2	0.9	-74.28	379.2	-522.2	644.6	642.5	2.14	301.279		
500.0	499.6	483.6	483.6	1.6	1.3	-74.87	380.3	-520.4	641.8	638.9	2.87	223.727		
600.0	598.8	583.6	583.5	2.0	1.6	-75.92	381.6	-518.2	637.4	633.8	3.61	176.652		
700.0	697.1	682.3	682.2	2.4	2.0	-71.88	383.0	-516.0	631.4	627.1	4.37	144.420		
800.0	794.5	783.0	782.9	2.8	2.4	-68.06	384.6	-513.5	622.1	616.9	5.18	120.017		
900.0	890.8	885.2	884.9	3.3	2.7	-66.48	387.0	-509.5	609.0	602.9	6.05	100.726		
1,000.0	985.5	985.9	985.4	3.9	3.1	-66.41	390.4	-504.1	592.3	585.3	6.95	85.201		
1,100.0	1,078.6	1,083.0	1,082.3	4.5	3.5	-67.50	394.3	-497.8	572.7	564.8	7.90	72.490		
1,200.0	1,169.6	1,179.2	1,178.1	5.1	3.8	-69.66	398.7	-490.8	551.1	542.1	8.91	61.814		
1,300.0	1,258.5	1,264.0	1,262.5	5.9	4.1	-72.34	403.1	-483.6	527.9	518.0	9.95	53.044		
1,400.0	1,344.9	1,349.3	1,347.4	6.7	4.5	-75.93	408.2	-477.1	505.8	494.7	11.08	45.640		
1,500.0	1,428.5	1,424.3	1,422.1	7.6	4.7	-79.76	413.1	-473.1	487.5	475.2	12.26	39.775		
1,600.0	1,509.3	1,497.2	1,494.8	8.5	5.0	-84.08	417.9	-471.0	474.4	460.9	13.49	35.164		
1,700.0	1,587.6	1,567.2	1,564.7	9.6	5.3	-88.90	421.5	-470.6	468.5	453.8	14.73	31.797		
1,713.8	1,598.4	1,576.8	1,574.3	9.7	5.3	-89.59	421.9	-470.7	468.4	453.5	14.90	31.432 CC, ES		
1,800.0	1,665.7	1,637.2	1,634.7	10.6	5.5	-93.96	424.2	-471.8	471.9	456.0	15.91	29.662		
1,900.0	1,743.8	1,716.7	1,714.0	11.7	5.8	-99.63	426.6	-474.0	483.6	466.6	17.02	28.412		
2,000.0	1,821.9	1,795.9	1,793.2	12.8	6.0	-105.07	428.9	-476.3	502.3	484.3	18.01	27.887 SF		
2,100.0	1,900.0	1,869.4	1,866.7	13.8	6.3	-109.86	430.7	-478.6	527.6	508.8	18.85	27.994		
2,200.0	1,978.1	1,939.6	1,936.7	14.9	6.5	-114.16	431.6	-481.7	559.6	540.0	19.55	28.623		
2,300.0	2,056.2	2,011.0	2,008.1	16.0	6.7	-118.21	431.6	-485.6	597.5	577.3	20.18	29.607		
2,400.0	2,134.3	2,082.7	2,079.7	17.1	7.0	-121.97	430.7	-489.8	640.0	619.3	20.75	30.847		
2,500.0	2,212.4	2,155.9	2,152.7	18.2	7.2	-125.52	429.1	-493.8	686.2	664.9	21.29	32.239		
2,600.0	2,290.5	2,228.7	2,225.4	19.4	7.5	-128.76	426.6	-497.5	735.5	713.7	21.79	33.754		
2,700.0	2,368.6	2,302.4	2,298.9	20.5	7.7	-131.75	423.8	-501.1	787.4	765.1	22.29	35.317		
2,800.0	2,446.7	2,375.6	2,372.0	21.6	7.9	-134.43	420.7	-504.7	841.3	818.5	22.79	36.915		
2,900.0	2,524.8	2,451.6	2,447.8	22.7	8.2	-136.96	417.2	-508.3	896.8	873.5	23.31	38.466		
3,000.0	2,602.9	2,528.5	2,524.6	23.8	8.4	-139.26	413.8	-511.8	953.6	929.7	23.86	39.973		
3,100.0	2,680.9	2,605.6	2,601.5	24.9	8.7	-141.36	410.4	-515.1	1,011.3	986.9	24.41	41.436		
3,200.0	2,759.0	2,683.0	2,678.7	26.0	9.0	-143.27	407.0	-518.2	1,069.7	1,044.8	24.97	42.846		
3,300.0	2,837.1	2,760.4	2,756.1	27.2	9.2	-145.00	403.8	-521.2	1,128.9	1,103.3	25.54	44.203		
3,400.0	2,915.2	2,837.0	2,832.6	28.3	9.5	-146.57	400.6	-524.1	1,188.5	1,162.4	26.11	45.518		
3,500.0	2,993.3	2,913.6	2,909.0	29.4	9.8	-147.98	397.5	-527.2	1,248.7	1,222.0	26.70	46.777		
3,600.0	3,071.4	2,990.3	2,985.6	30.5	10.0	-149.27	394.6	-530.4	1,309.4	1,282.1	27.29	47.976		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well MCU 7005D-2
Project:	Garfield County, CO	TVD Reference:	KB @ 7799.0usft
Reference Site:	S2-T8S-R93W	MD Reference:	KB @ 7799.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	MCU 7005D-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 7799.0usft
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: MCU 7005D-2
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.42°

