

Well Name: Canyon Creek 4-13

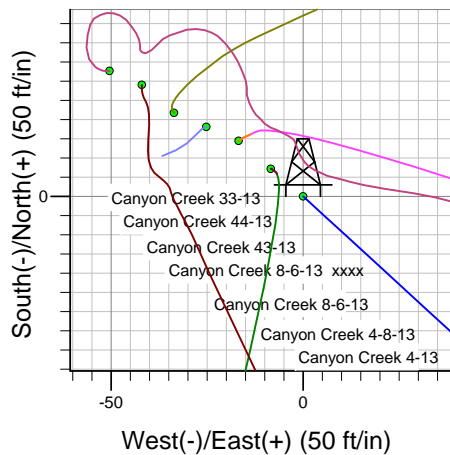
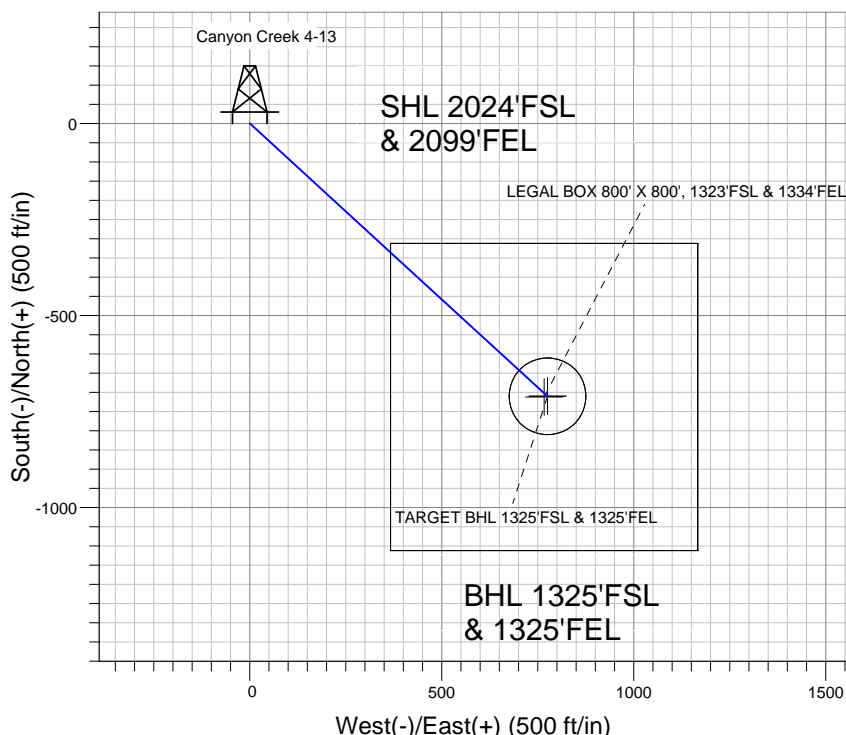
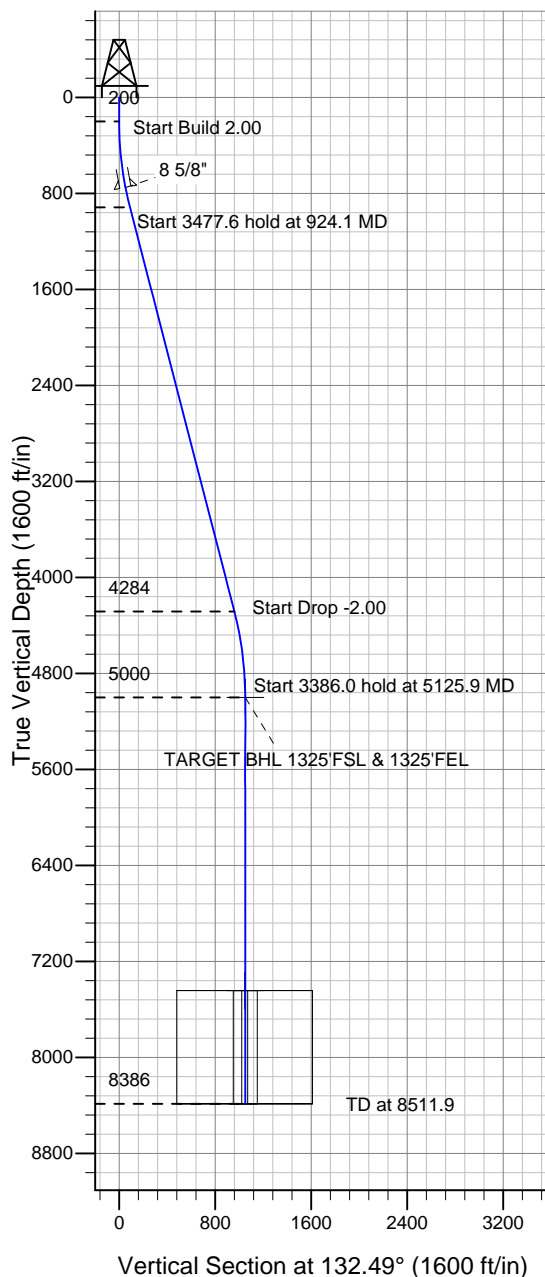
Surface Location: Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 5058.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1261183.67	3122343.35	40.049510	-105.062980	

Original Well Elev WELL @ 5071.0ft (Original Well Elev)

EnCana Oil & Gas Boulder County, CO



Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W
Canyon Creek 4-13
Plan 3 (July 3, 2012)
13:27, July 03 2012



Azimuths to True North
Magnetic North: 8.85°

Magnetic Field
Strength: 52801.8snT
Dip Angle: 66.68°
Date: 7/3/2012
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1325'FSL & 1325'FEL	5000.0	-710.5	775.5	40.047560	-105.060210	Point
LEGAL BOX 800' X 800', 1323'FSL & 1334'FEL	7443.0	-712.4	766.5	40.047555	-105.060242	Rectangle (Sides: L800.0 W800.0)
TARGET CIRCLE 1325'FSL & 1325'FEL	7443.0	-710.4	775.5	40.047560	-105.060210	Circle (Radius: 100.0)

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	924.1	14.48	132.49	916.4	-61.5	67.1	2.00	132.49	91.0	
4	4401.8	14.48	132.49	4283.6	-649.0	708.4	0.00	0.00	960.7	
5	5125.9	0.00	0.00	5000.0	-710.5	775.5	2.00	180.00	1051.7	TARGET BHL 1325'FSL & 1325'FEL
6	8511.9	0.00	0.00	8386.0	-710.5	775.5	0.00	0.00	1051.7	



EnCana Oil & Gas Boulder County, CO

SEC.13-T1N-R69W

Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W

Canyon Creek 4-13

Wellbore #1

Plan: Plan 3 (July 3, 2012)

Standard Planning Report

03 July, 2012

Database:	Landmark	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Company:	EnCana Oil & Gas Boulder County, CO	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Project:	SEC.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	North Reference:	True
Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3 (July 3, 2012)		

Project	SEC.13-T1N-R69W, Boulder County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W					
Site Position:		Northing:		Latitude:	
From:	Lat/Long	Easting:	1,261,226.92 ft	Longitude:	40.049630
Position Uncertainty:	0.0 ft	Slot Radius:	3,122,273.14 ft		-105.063230
			"	Grid Convergence:	0.28 °

Well	Canyon Creek 4-13					
Well Position	+N/-S	-43.6 ft	Northing:	1,261,183.67 ft	Latitude:	40.049510
	+E/-W	70.0 ft	Easting:	3,122,343.35 ft	Longitude:	-105.062980
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,058.0 ft

Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/3/2012	8.85	66.68	52,802

Design	Plan 3 (July 3, 2012)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	132.49

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	
924.1	14.48	132.49	916.4	-61.5	67.1	2.00	2.00	0.00	132.49	
4,401.8	14.48	132.49	4,283.6	-649.0	708.4	0.00	0.00	0.00	0.00	
5,125.9	0.00	0.00	5,000.0	-710.5	775.5	2.00	-2.00	0.00	180.00	TARGET BHL 1325
8,511.9	0.00	0.00	8,386.0	-710.5	775.5	0.00	0.00	0.00	0.00	

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Project:	SEC.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	North Reference:	True
Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3 (July 3, 2012)		

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)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
240.0	0.80	132.49	240.0	-0.2	0.2	0.3	2.00	2.00	0.00
280.0	1.60	132.49	280.0	-0.8	0.8	1.1	2.00	2.00	0.00
320.0	2.40	132.49	320.0	-1.7	1.9	2.5	2.00	2.00	0.00
360.0	3.20	132.49	359.9	-3.0	3.3	4.5	2.00	2.00	0.00
400.0	4.00	132.49	399.8	-4.7	5.1	7.0	2.00	2.00	0.00
440.0	4.80	132.49	439.7	-6.8	7.4	10.0	2.00	2.00	0.00
480.0	5.60	132.49	479.6	-9.2	10.1	13.7	2.00	2.00	0.00
520.0	6.40	132.49	519.3	-12.1	13.2	17.9	2.00	2.00	0.00
560.0	7.20	132.49	559.1	-15.3	16.7	22.6	2.00	2.00	0.00
600.0	8.00	132.49	598.7	-18.8	20.6	27.9	2.00	2.00	0.00
640.0	8.80	132.49	638.3	-22.8	24.9	33.7	2.00	2.00	0.00
680.0	9.60	132.49	677.8	-27.1	29.6	40.1	2.00	2.00	0.00
720.0	10.40	132.49	717.1	-31.8	34.7	47.1	2.00	2.00	0.00
760.0	11.20	132.49	756.4	-36.9	40.2	54.6	2.00	2.00	0.00
800.0	12.00	132.49	795.6	-42.3	46.2	62.6	2.00	2.00	0.00
840.0	12.80	132.49	834.7	-48.1	52.5	71.2	2.00	2.00	0.00
880.0	13.60	132.49	873.6	-54.3	59.2	80.3	2.00	2.00	0.00
920.0	14.40	132.49	912.4	-60.8	66.4	90.0	2.00	2.00	0.00
924.1	14.48	132.49	916.4	-61.5	67.1	91.0	2.00	2.00	0.00
960.0	14.48	132.49	951.2	-67.6	73.7	100.0	0.00	0.00	0.00
1,000.0	14.48	132.49	989.9	-74.3	81.1	110.0	0.00	0.00	0.00
1,040.0	14.48	132.49	1,028.6	-81.1	88.5	120.0	0.00	0.00	0.00
1,080.0	14.48	132.49	1,067.4	-87.8	95.9	130.0	0.00	0.00	0.00
1,120.0	14.48	132.49	1,106.1	-94.6	103.2	140.0	0.00	0.00	0.00
1,160.0	14.48	132.49	1,144.8	-101.3	110.6	150.0	0.00	0.00	0.00
1,200.0	14.48	132.49	1,183.5	-108.1	118.0	160.0	0.00	0.00	0.00
1,240.0	14.48	132.49	1,222.3	-114.9	125.4	170.0	0.00	0.00	0.00
1,280.0	14.48	132.49	1,261.0	-121.6	132.7	180.0	0.00	0.00	0.00
1,320.0	14.48	132.49	1,299.7	-128.4	140.1	190.0	0.00	0.00	0.00
1,360.0	14.48	132.49	1,338.5	-135.1	147.5	200.0	0.00	0.00	0.00
1,400.0	14.48	132.49	1,377.2	-141.9	154.9	210.0	0.00	0.00	0.00
1,440.0	14.48	132.49	1,415.9	-148.6	162.2	220.0	0.00	0.00	0.00
1,480.0	14.48	132.49	1,454.7	-155.4	169.6	230.0	0.00	0.00	0.00
1,520.0	14.48	132.49	1,493.4	-162.2	177.0	240.0	0.00	0.00	0.00
1,560.0	14.48	132.49	1,532.1	-168.9	184.4	250.1	0.00	0.00	0.00
1,600.0	14.48	132.49	1,570.8	-175.7	191.8	260.1	0.00	0.00	0.00
1,640.0	14.48	132.49	1,609.6	-182.4	199.1	270.1	0.00	0.00	0.00
1,680.0	14.48	132.49	1,648.3	-189.2	206.5	280.1	0.00	0.00	0.00
1,720.0	14.48	132.49	1,687.0	-195.9	213.9	290.1	0.00	0.00	0.00
1,760.0	14.48	132.49	1,725.8	-202.7	221.3	300.1	0.00	0.00	0.00
1,800.0	14.48	132.49	1,764.5	-209.5	228.6	310.1	0.00	0.00	0.00
1,840.0	14.48	132.49	1,803.2	-216.2	236.0	320.1	0.00	0.00	0.00
1,880.0	14.48	132.49	1,841.9	-223.0	243.4	330.1	0.00	0.00	0.00
1,920.0	14.48	132.49	1,880.7	-229.7	250.8	340.1	0.00	0.00	0.00
1,960.0	14.48	132.49	1,919.4	-236.5	258.1	350.1	0.00	0.00	0.00
2,000.0	14.48	132.49	1,958.1	-243.2	265.5	360.1	0.00	0.00	0.00
2,040.0	14.48	132.49	1,996.9	-250.0	272.9	370.1	0.00	0.00	0.00
2,080.0	14.48	132.49	2,035.6	-256.8	280.3	380.1	0.00	0.00	0.00

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Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3 (July 3, 2012)		

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)	Turn Rate (°/100ft)
2,120.0	14.48	132.49	2,074.3	-263.5	287.6	390.1	0.00	0.00	0.00
2,160.0	14.48	132.49	2,113.0	-270.3	295.0	400.1	0.00	0.00	0.00
2,200.0	14.48	132.49	2,151.8	-277.0	302.4	410.1	0.00	0.00	0.00
2,240.0	14.48	132.49	2,190.5	-283.8	309.8	420.1	0.00	0.00	0.00
2,280.0	14.48	132.49	2,229.2	-290.5	317.1	430.1	0.00	0.00	0.00
2,320.0	14.48	132.49	2,268.0	-297.3	324.5	440.1	0.00	0.00	0.00
2,360.0	14.48	132.49	2,306.7	-304.1	331.9	450.1	0.00	0.00	0.00
2,400.0	14.48	132.49	2,345.4	-310.8	339.3	460.1	0.00	0.00	0.00
2,440.0	14.48	132.49	2,384.1	-317.6	346.6	470.1	0.00	0.00	0.00
2,480.0	14.48	132.49	2,422.9	-324.3	354.0	480.1	0.00	0.00	0.00
2,520.0	14.48	132.49	2,461.6	-331.1	361.4	490.1	0.00	0.00	0.00
2,560.0	14.48	132.49	2,500.3	-337.8	368.8	500.1	0.00	0.00	0.00
2,600.0	14.48	132.49	2,539.1	-344.6	376.1	510.1	0.00	0.00	0.00
2,640.0	14.48	132.49	2,577.8	-351.4	383.5	520.1	0.00	0.00	0.00
2,680.0	14.48	132.49	2,616.5	-358.1	390.9	530.1	0.00	0.00	0.00
2,720.0	14.48	132.49	2,655.3	-364.9	398.3	540.1	0.00	0.00	0.00
2,760.0	14.48	132.49	2,694.0	-371.6	405.7	550.1	0.00	0.00	0.00
2,800.0	14.48	132.49	2,732.7	-378.4	413.0	560.2	0.00	0.00	0.00
2,840.0	14.48	132.49	2,771.4	-385.1	420.4	570.2	0.00	0.00	0.00
2,880.0	14.48	132.49	2,810.2	-391.9	427.8	580.2	0.00	0.00	0.00
2,920.0	14.48	132.49	2,848.9	-398.7	435.2	590.2	0.00	0.00	0.00
2,960.0	14.48	132.49	2,887.6	-405.4	442.5	600.2	0.00	0.00	0.00
3,000.0	14.48	132.49	2,926.4	-412.2	449.9	610.2	0.00	0.00	0.00
3,040.0	14.48	132.49	2,965.1	-418.9	457.3	620.2	0.00	0.00	0.00
3,080.0	14.48	132.49	3,003.8	-425.7	464.7	630.2	0.00	0.00	0.00
3,120.0	14.48	132.49	3,042.5	-432.4	472.0	640.2	0.00	0.00	0.00
3,160.0	14.48	132.49	3,081.3	-439.2	479.4	650.2	0.00	0.00	0.00
3,200.0	14.48	132.49	3,120.0	-446.0	486.8	660.2	0.00	0.00	0.00
3,240.0	14.48	132.49	3,158.7	-452.7	494.2	670.2	0.00	0.00	0.00
3,280.0	14.48	132.49	3,197.5	-459.5	501.5	680.2	0.00	0.00	0.00
3,320.0	14.48	132.49	3,236.2	-466.2	508.9	690.2	0.00	0.00	0.00
3,360.0	14.48	132.49	3,274.9	-473.0	516.3	700.2	0.00	0.00	0.00
3,400.0	14.48	132.49	3,313.6	-479.7	523.7	710.2	0.00	0.00	0.00
3,440.0	14.48	132.49	3,352.4	-486.5	531.0	720.2	0.00	0.00	0.00
3,480.0	14.48	132.49	3,391.1	-493.3	538.4	730.2	0.00	0.00	0.00
3,520.0	14.48	132.49	3,429.8	-500.0	545.8	740.2	0.00	0.00	0.00
3,560.0	14.48	132.49	3,468.6	-506.8	553.2	750.2	0.00	0.00	0.00
3,600.0	14.48	132.49	3,507.3	-513.5	560.5	760.2	0.00	0.00	0.00
3,640.0	14.48	132.49	3,546.0	-520.3	567.9	770.2	0.00	0.00	0.00
3,680.0	14.48	132.49	3,584.7	-527.0	575.3	780.2	0.00	0.00	0.00
3,720.0	14.48	132.49	3,623.5	-533.8	582.7	790.2	0.00	0.00	0.00
3,760.0	14.48	132.49	3,662.2	-540.6	590.0	800.2	0.00	0.00	0.00
3,800.0	14.48	132.49	3,700.9	-547.3	597.4	810.2	0.00	0.00	0.00
3,840.0	14.48	132.49	3,739.7	-554.1	604.8	820.2	0.00	0.00	0.00
3,880.0	14.48	132.49	3,778.4	-560.8	612.2	830.2	0.00	0.00	0.00
3,920.0	14.48	132.49	3,817.1	-567.6	619.6	840.2	0.00	0.00	0.00
3,960.0	14.48	132.49	3,855.8	-574.3	626.9	850.2	0.00	0.00	0.00
4,000.0	14.48	132.49	3,894.6	-581.1	634.3	860.2	0.00	0.00	0.00
4,040.0	14.48	132.49	3,933.3	-587.9	641.7	870.3	0.00	0.00	0.00
4,080.0	14.48	132.49	3,972.0	-594.6	649.1	880.3	0.00	0.00	0.00
4,120.0	14.48	132.49	4,010.8	-601.4	656.4	890.3	0.00	0.00	0.00
4,160.0	14.48	132.49	4,049.5	-608.1	663.8	900.3	0.00	0.00	0.00
4,200.0	14.48	132.49	4,088.2	-614.9	671.2	910.3	0.00	0.00	0.00
4,240.0	14.48	132.49	4,127.0	-621.7	678.6	920.3	0.00	0.00	0.00

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Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	North Reference:	True
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Wellbore:	Wellbore #1		
Design:	Plan 3 (July 3, 2012)		

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)	Turn Rate (°/100ft)
4,280.0	14.48	132.49	4,165.7	-628.4	685.9	930.3	0.00	0.00	0.00
4,320.0	14.48	132.49	4,204.4	-635.2	693.3	940.3	0.00	0.00	0.00
4,360.0	14.48	132.49	4,243.1	-641.9	700.7	950.3	0.00	0.00	0.00
4,400.0	14.48	132.49	4,281.9	-648.7	708.1	960.3	0.00	0.00	0.00
4,401.8	14.48	132.49	4,283.6	-649.0	708.4	960.7	0.00	0.00	0.00
4,440.0	13.72	132.49	4,320.7	-655.3	715.3	970.0	2.00	-2.00	0.00
4,480.0	12.92	132.49	4,359.6	-661.5	722.0	979.2	2.00	-2.00	0.00
4,520.0	12.12	132.49	4,398.6	-667.4	728.4	987.9	2.00	-2.00	0.00
4,560.0	11.32	132.49	4,437.8	-672.8	734.4	996.0	2.00	-2.00	0.00
4,600.0	10.52	132.49	4,477.1	-678.0	740.0	1,003.6	2.00	-2.00	0.00
4,640.0	9.72	132.49	4,516.5	-682.7	745.2	1,010.6	2.00	-2.00	0.00
4,680.0	8.92	132.49	4,555.9	-687.1	750.0	1,017.1	2.00	-2.00	0.00
4,720.0	8.12	132.49	4,595.5	-691.1	754.3	1,023.0	2.00	-2.00	0.00
4,760.0	7.32	132.49	4,635.1	-694.7	758.3	1,028.4	2.00	-2.00	0.00
4,800.0	6.52	132.49	4,674.8	-698.0	761.9	1,033.2	2.00	-2.00	0.00
4,840.0	5.72	132.49	4,714.6	-700.8	765.0	1,037.5	2.00	-2.00	0.00
4,880.0	4.92	132.49	4,754.4	-703.3	767.7	1,041.2	2.00	-2.00	0.00
4,920.0	4.12	132.49	4,794.3	-705.5	770.1	1,044.4	2.00	-2.00	0.00
4,960.0	3.32	132.49	4,834.2	-707.2	772.0	1,046.9	2.00	-2.00	0.00
5,000.0	2.52	132.49	4,874.2	-708.6	773.5	1,049.0	2.00	-2.00	0.00
5,040.0	1.72	132.49	4,914.1	-709.6	774.6	1,050.5	2.00	-2.00	0.00
5,080.0	0.92	132.49	4,954.1	-710.2	775.2	1,051.4	2.00	-2.00	0.00
5,120.0	0.12	132.49	4,994.1	-710.5	775.5	1,051.7	2.00	-2.00	0.00
5,125.9	0.00	0.00	5,000.0	-710.5	775.5	1,051.7	2.00	-2.00	0.00
TARGET BHL 1325'FSL & 1325'FEL									
5,160.0	0.00	0.00	5,034.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,200.0	0.00	0.00	5,074.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,240.0	0.00	0.00	5,114.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,280.0	0.00	0.00	5,154.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,320.0	0.00	0.00	5,194.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,360.0	0.00	0.00	5,234.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,400.0	0.00	0.00	5,274.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,440.0	0.00	0.00	5,314.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,480.0	0.00	0.00	5,354.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,520.0	0.00	0.00	5,394.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,560.0	0.00	0.00	5,434.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,474.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,640.0	0.00	0.00	5,514.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,680.0	0.00	0.00	5,554.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,720.0	0.00	0.00	5,594.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,760.0	0.00	0.00	5,634.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,674.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,840.0	0.00	0.00	5,714.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,880.0	0.00	0.00	5,754.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,920.0	0.00	0.00	5,794.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
5,960.0	0.00	0.00	5,834.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,874.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,040.0	0.00	0.00	5,914.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,080.0	0.00	0.00	5,954.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,120.0	0.00	0.00	5,994.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,160.0	0.00	0.00	6,034.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,074.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,240.0	0.00	0.00	6,114.1	-710.5	775.5	1,051.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Company:	EnCana Oil & Gas Boulder County, CO	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Project:	SEC.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	North Reference:	True
Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3 (July 3, 2012)		

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)	Turn Rate (°/100ft)
6,280.0	0.00	0.00	6,154.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,320.0	0.00	0.00	6,194.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,360.0	0.00	0.00	6,234.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,274.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,440.0	0.00	0.00	6,314.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,480.0	0.00	0.00	6,354.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,520.0	0.00	0.00	6,394.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,560.0	0.00	0.00	6,434.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,474.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,640.0	0.00	0.00	6,514.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,680.0	0.00	0.00	6,554.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,720.0	0.00	0.00	6,594.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,760.0	0.00	0.00	6,634.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,674.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,840.0	0.00	0.00	6,714.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,880.0	0.00	0.00	6,754.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,920.0	0.00	0.00	6,794.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
6,960.0	0.00	0.00	6,834.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,874.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,040.0	0.00	0.00	6,914.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,080.0	0.00	0.00	6,954.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,120.0	0.00	0.00	6,994.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,160.0	0.00	0.00	7,034.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,200.0	0.00	0.00	7,074.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,240.0	0.00	0.00	7,114.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,280.0	0.00	0.00	7,154.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,320.0	0.00	0.00	7,194.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,360.0	0.00	0.00	7,234.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,400.0	0.00	0.00	7,274.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,440.0	0.00	0.00	7,314.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,480.0	0.00	0.00	7,354.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,520.0	0.00	0.00	7,394.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,560.0	0.00	0.00	7,434.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,568.9	0.00	0.00	7,443.0	-710.5	775.5	1,051.7	0.00	0.00	0.00
TARGET CIRCLE 1325'FSL & 1325'FEL - LEGAL BOX 800' X 800', 1323'FSL & 1334'FEL									
7,600.0	0.00	0.00	7,474.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,640.0	0.00	0.00	7,514.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,680.0	0.00	0.00	7,554.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,720.0	0.00	0.00	7,594.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,760.0	0.00	0.00	7,634.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,674.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,840.0	0.00	0.00	7,714.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,880.0	0.00	0.00	7,754.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,920.0	0.00	0.00	7,794.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
7,960.0	0.00	0.00	7,834.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
8,000.0	0.00	0.00	7,874.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
8,040.0	0.00	0.00	7,914.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
8,080.0	0.00	0.00	7,954.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
8,120.0	0.00	0.00	7,994.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
8,160.0	0.00	0.00	8,034.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
8,200.0	0.00	0.00	8,074.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
8,240.0	0.00	0.00	8,114.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
8,280.0	0.00	0.00	8,154.1	-710.5	775.5	1,051.7	0.00	0.00	0.00
8,320.0	0.00	0.00	8,194.1	-710.5	775.5	1,051.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Company:	EnCana Oil & Gas Boulder County, CO	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Project:	SEC.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	North Reference:	True
Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3 (July 3, 2012)		

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)	Turn Rate (°/100ft)	
8,360.0	0.00	0.00	8,234.1	-710.5	775.5	1,051.7	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,274.1	-710.5	775.5	1,051.7	0.00	0.00	0.00	
8,440.0	0.00	0.00	8,314.1	-710.5	775.5	1,051.7	0.00	0.00	0.00	
8,480.0	0.00	0.00	8,354.1	-710.5	775.5	1,051.7	0.00	0.00	0.00	
8,511.9	0.00	0.00	8,386.0	-710.5	775.5	1,051.7	0.00	0.00	0.00	

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
- hit/miss target										
- Shape										
TARGET BHL 1325'F:	0.00	0.00	5,000.0	-710.5	775.5	1,260,477.06	3,123,122.32	40.047560	-105.060210	
- plan hits target center										
- Point										
TARGET CIRCLE 132	0.00	0.00	7,443.0	-710.4	775.5	1,260,477.09	3,123,122.31	40.047560	-105.060210	
- plan hits target center										
- Circle (radius 100.0)										
LEGAL BOX 800' X 80	0.00	0.00	7,443.0	-712.4	766.5	1,260,475.04	3,123,113.32	40.047555	-105.060242	
- plan misses target center by 9.2ft at 7568.9ft MD (7443.0 TVD, -710.5 N, 775.5 E)										
- Rectangle (sides W800.0 H800.0 D943.0)										



EnCana Oil & Gas Boulder County, CO

SEC.13-T1N-R69W

Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W

Canyon Creek 4-13

Wellbore #1

Plan 3 (July 3, 2012)

Anticollision Report

03 July, 2012

Company:	EnCana Oil & Gas Boulder County, CO	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Project:	SEC.13-T1N-R69W	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Reference Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan 3 (July 3, 2012)	Offset TVD Reference:	Offset Datum

Reference	Plan 3 (July 3, 2012)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 7/3/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	8,511.9	Plan 3 (July 3, 2012) (Wellbore #1)	MWD	MWD - Standard

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						
Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W						
Canyon Creek 33-13 - Wellbore #1 - Wellbore #1	0.0	0.0	60.1			
Canyon Creek 33-13 - Wellbore #1 - Wellbore #1	8,511.9	8,377.0	908.8	872.2	24.765	SF
Canyon Creek 4-8-13 - Wellbore #1 - Plan #3 (7-3-12)	254.6	254.8	8.4	7.4	8.614	CC, ES
Canyon Creek 4-8-13 - Wellbore #1 - Plan #3 (7-3-12)	400.0	400.1	12.0	10.4	7.392	SF
Canyon Creek 4-8-13 - Wellbore #1 - Wellbore #1	200.0	198.0	9.2	8.4	12.460	CC, ES, SF
Canyon Creek 8-6-13 - Wellbore #1 - Plan #3 (7-3-12)	213.2	213.3	21.1	20.3	26.286	CC, ES
Canyon Creek 8-6-13 - Wellbore #1 - Plan #3 (7-3-12)	1,300.0	1,300.0	91.3	81.8	9.696	SF
Canyon Creek 8-6-13 - Wellbore #1 - Wellbore #1	169.4	169.6	21.3	20.7	34.611	CC, ES
Canyon Creek 8-6-13 - Wellbore #1 - Wellbore #1	200.0	191.0	23.0	22.3	31.651	SF

Offset Design													
Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W - Canyon Creek 33-13 - Wellbore #1 - Wellbore #1													
Survey Program: 25-MWD													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-57.06	32.7	-50.4	60.1				
100.0	100.0	99.1	99.0	0.1	0.2	-57.73	32.7	-51.7	61.2	60.9	0.30	204.601	
200.0	200.0	199.0	199.0	0.3	0.4	-58.11	33.4	-53.7	63.3	62.5	0.74	86.013	
300.0	300.0	298.3	298.2	0.5	0.6	170.20	35.3	-55.5	67.6	66.4	1.16	58.054	
400.0	399.8	398.3	398.1	0.8	0.8	172.54	38.5	-56.4	75.2	73.6	1.59	47.227	
500.0	499.5	498.4	498.2	1.0	1.0	175.34	42.0	-56.1	85.7	83.7	2.03	42.244	
600.0	598.7	598.0	597.8	1.3	1.3	177.44	44.8	-55.4	99.1	96.7	2.47	40.210	
700.0	697.5	698.2	698.0	1.6	1.5	178.80	46.5	-54.3	115.0	112.1	2.91	39.561	
800.0	795.6	797.4	797.1	2.0	1.7	179.85	47.4	-52.3	133.2	129.8	3.35	39.741	
900.0	893.1	895.9	895.6	2.5	1.9	-179.49	47.8	-50.2	154.5	150.7	3.80	40.630	
1,000.0	989.9	993.4	993.0	3.0	2.1	-179.25	47.3	-48.2	177.5	173.3	4.26	41.716	
1,100.0	1,086.7	1,092.4	1,092.0	3.5	2.3	-179.20	46.3	-46.5	200.6	195.9	4.72	42.512	
1,200.0	1,183.5	1,189.4	1,189.0	4.0	2.5	-179.36	44.3	-44.7	223.0	217.8	5.18	43.017	
1,300.0	1,280.4	1,285.7	1,285.3	4.5	2.7	-179.55	42.4	-43.5	245.8	240.2	5.65	43.504	
1,400.0	1,377.2	1,382.0	1,381.6	5.1	2.9	-179.75	40.7	-42.7	269.1	262.9	6.12	43.948	
1,500.0	1,474.0	1,477.7	1,477.3	5.6	3.1	-179.98	39.0	-42.4	292.7	286.1	6.60	44.370	
1,600.0	1,570.8	1,573.4	1,572.9	6.1	3.3	179.87	37.9	-42.5	317.0	309.9	7.07	44.836	
1,700.0	1,667.7	1,671.3	1,670.8	6.7	3.5	179.90	37.4	-41.7	341.1	333.5	7.55	45.204	

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

Company:	EnCana Oil & Gas Boulder County, CO	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Project:	SEC.13-T1N-R69W	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Reference Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan 3 (July 3, 2012)	Offset TVD Reference:	Offset Datum

Offset Design Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W - Canyon Creek 33-13 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 25-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)	Minimum Separation (ft)	Separation Factor		
1,800.0	1,764.5	1,766.3	1,765.9	7.2	3.7	179.97	37.3	-41.0	365.5	357.5	8.02	45.571		
1,900.0	1,861.3	1,863.8	1,863.4	7.7	3.9	-179.90	37.7	-40.2	390.2	381.7	8.50	45.900		
2,000.0	1,958.1	1,958.5	1,958.0	8.3	4.1	-179.55	39.2	-38.2	414.7	405.8	8.98	46.208		
2,100.0	2,055.0	2,063.1	2,062.5	8.8	4.3	-179.07	41.7	-35.2	439.4	429.9	9.47	46.385		
2,200.0	2,151.8	2,167.9	2,167.2	9.4	4.5	-178.49	43.5	-29.8	461.8	451.9	9.97	46.340		
2,300.0	2,248.6	2,269.9	2,269.0	9.9	4.8	-178.17	42.9	-24.5	482.9	472.4	10.46	46.164		
2,400.0	2,345.4	2,362.9	2,362.0	10.4	5.0	-178.16	41.2	-21.6	504.4	493.5	10.94	46.126		
2,500.0	2,442.2	2,461.1	2,460.1	11.0	5.2	-178.28	38.7	-19.3	526.0	514.6	11.42	46.054		
2,600.0	2,539.1	2,554.9	2,553.8	11.5	5.4	-178.41	36.3	-17.6	548.0	536.1	11.90	46.056		
2,700.0	2,635.9	2,649.2	2,648.1	12.1	5.6	-178.55	34.2	-16.5	570.7	558.4	12.38	46.103		
2,800.0	2,732.7	2,745.5	2,744.4	12.6	5.8	-178.70	32.2	-15.8	593.8	580.9	12.86	46.165		
2,900.0	2,829.5	2,842.0	2,840.9	13.1	6.0	-178.83	30.3	-15.0	616.9	603.6	13.34	46.234		
3,000.0	2,926.4	2,936.1	2,935.0	13.7	6.2	-178.98	28.5	-14.7	640.4	626.5	13.82	46.322		
3,100.0	3,023.2	3,035.7	3,034.6	14.2	6.4	-179.16	26.3	-14.7	663.9	649.6	14.31	46.387		
3,200.0	3,120.0	3,136.5	3,135.3	14.8	6.6	-179.28	24.1	-13.9	686.9	672.1	14.80	46.417		
3,300.0	3,216.8	3,231.0	3,229.8	15.3	6.8	-179.37	22.3	-13.1	710.1	694.8	15.28	46.483		
3,400.0	3,313.6	3,330.0	3,328.7	15.8	7.0	-179.41	20.7	-11.7	733.0	717.3	15.76	46.504		
3,500.0	3,410.5	3,424.8	3,423.5	16.4	7.2	-179.43	19.5	-10.5	756.3	740.0	16.24	46.558		
3,600.0	3,507.3	3,524.4	3,523.1	16.9	7.4	-179.46	18.2	-9.2	779.5	762.8	16.73	46.583		
3,700.0	3,604.1	3,621.0	3,619.7	17.5	7.6	-179.41	17.4	-7.2	802.5	785.3	17.22	46.610		
3,800.0	3,700.9	3,717.4	3,716.1	18.0	7.8	-179.39	16.6	-5.5	825.7	808.0	17.70	46.642		
3,900.0	3,797.8	3,813.6	3,812.3	18.6	8.0	-179.38	15.8	-4.0	849.0	830.8	18.19	46.674		
4,000.0	3,894.6	3,908.2	3,906.9	19.1	8.2	-179.38	15.0	-2.7	872.5	853.8	18.67	46.720		
4,100.0	3,991.4	4,015.6	4,014.2	19.6	8.5	-179.46	12.8	-1.7	895.5	876.3	19.18	46.683		
4,200.0	4,088.2	4,115.5	4,114.1	20.2	8.7	-179.54	10.2	-0.5	917.9	898.2	19.67	46.671		
4,300.0	4,185.0	4,222.2	4,220.8	20.7	8.9	-179.58	7.6	1.8	939.8	919.6	20.17	46.604		
4,400.0	4,281.9	4,322.2	4,320.6	21.3	9.1	-179.52	5.6	5.5	960.8	940.2	20.65	46.521		
4,500.0	4,379.1	4,423.9	4,422.3	21.7	9.3	-179.40	4.4	10.1	980.1	959.0	21.18	46.280		
4,600.0	4,477.1	4,520.5	4,518.7	22.0	9.5	-179.29	3.2	14.7	995.9	974.3	21.64	46.015		
4,700.0	4,575.7	4,646.7	4,644.6	22.3	9.8	-179.03	1.7	23.2	1,006.7	984.5	22.14	45.476		
4,800.0	4,674.8	4,762.9	4,760.4	22.6	10.1	-178.72	-0.1	33.6	1,012.2	989.7	22.58	44.837		
4,900.0	4,774.4	4,880.6	4,877.3	22.8	10.4	-178.41	-3.7	45.7	1,012.3	989.3	22.99	44.035		
5,000.0	4,874.2	4,965.0	4,961.3	22.9	10.6	-178.22	-6.7	53.7	1,009.1	985.8	23.29	43.324		
5,100.0	4,974.1	5,062.3	5,058.2	23.0	10.8	-178.03	-10.1	62.0	1,003.2	979.6	23.59	42.535		
5,200.0	5,074.1	5,181.8	5,177.2	23.1	11.1	-45.34	-15.1	71.9	994.6	970.6	23.99	41.465		
5,300.0	5,174.1	5,282.0	5,276.8	23.2	11.3	-45.15	-20.6	81.9	983.6	959.3	24.36	40.373		
5,400.0	5,274.1	5,366.2	5,360.5	23.3	11.5	-44.99	-24.4	89.6	974.0	949.2	24.71	39.421		
5,500.0	5,374.1	5,448.5	5,442.5	23.4	11.7	-44.85	-27.4	95.9	966.0	940.9	25.05	38.564		
5,600.0	5,474.1	5,535.9	5,529.7	23.5	11.9	-44.72	-29.7	101.5	959.6	934.2	25.40	37.778		
5,700.0	5,574.1	5,627.6	5,621.2	23.6	12.1	-44.59	-31.7	106.4	954.3	928.5	25.77	37.035		
5,800.0	5,674.1	5,709.3	5,702.8	23.7	12.3	-44.49	-33.0	109.9	950.2	924.0	26.11	36.390		
5,900.0	5,774.1	5,798.6	5,792.1	23.8	12.5	-44.42	-33.6	112.1	947.9	921.5	26.47	35.811		
6,000.0	5,874.1	5,891.3	5,884.8	23.9	12.7	-44.37	-34.0	113.8	946.4	919.5	26.84	35.262		
6,100.0	5,974.1	5,982.6	5,976.1	24.0	12.9	-44.33	-34.0	114.6	945.7	918.5	27.20	34.764		
6,126.9	6,001.0	6,007.5	6,001.0	24.1	13.0	-44.33	-34.0	114.7	945.7	918.4	27.30	34.636		
6,200.0	6,074.1	6,078.5	6,072.0	24.1	13.1	-44.32	-33.8	114.8	945.8	918.2	27.58	34.292		
6,300.0	6,174.1	6,176.0	6,169.5	24.2	13.3	-44.31	-33.5	114.6	946.1	918.2	27.96	33.839		
6,400.0	6,274.1	6,275.1	6,268.6	24.4	13.5	-44.31	-33.0	114.3	946.7	918.3	28.34	33.404		
6,500.0	6,374.1	6,374.2	6,367.7	24.5	13.7	-44.29	-32.4	114.0	947.3	918.6	28.72	32.981		
6,600.0	6,474.1	6,472.8	6,466.3	24.6	13.9	-44.27	-31.6	113.8	948.1	919.0	29.10	32.574		
6,700.0	6,574.1	6,570.4	6,563.8	24.7	14.1	-44.24	-30.6	113.5	949.0	919.5	29.49	32.182		
6,800.0	6,674.1	6,666.8	6,660.2	24.8	14.3	-44.20	-29.3	113.1	950.3	920.4	29.87	31.812		

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

Company:	EnCana Oil & Gas Boulder County, CO	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Project:	SEC.13-T1N-R69W	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Reference Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan 3 (July 3, 2012)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 25-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)	Minimum Separation (ft)	Separation Factor	Warning
6,900.0	6,774.1	6,764.3	6,757.7	24.9	14.5	-44.15	-27.6	112.5	951.9	921.6	30.26	31.458	
7,000.0	6,874.1	6,862.3	6,855.7	25.0	14.7	-44.08	-25.5	112.1	953.7	923.1	30.65	31.118	
7,100.0	6,974.1	6,957.4	6,950.8	25.2	14.9	-44.01	-23.1	111.6	955.9	924.8	31.03	30.801	
7,200.0	7,074.1	7,049.0	7,042.4	25.3	15.1	-43.94	-20.6	110.7	958.6	927.2	31.41	30.516	
7,300.0	7,174.1	7,147.5	7,140.8	25.4	15.3	-43.85	-17.2	109.6	961.8	930.0	31.81	30.237	
7,400.0	7,274.1	7,258.9	7,252.1	25.5	15.5	-43.65	-12.2	109.3	965.3	933.1	32.23	29.948	
7,500.0	7,374.1	7,417.3	7,410.4	25.7	15.8	-43.44	-11.0	113.2	964.0	931.2	32.76	29.429	
7,600.0	7,474.1	7,516.4	7,509.4	25.8	16.0	-43.36	-12.8	116.6	960.3	927.1	33.15	28.966	
7,700.0	7,574.1	7,619.5	7,612.4	25.9	16.3	-43.33	-15.2	119.7	956.6	923.0	33.56	28.506	
7,800.0	7,674.1	7,727.5	7,720.4	26.0	16.5	-43.34	-18.8	122.8	952.1	918.2	33.97	28.029	
7,900.0	7,774.1	7,845.9	7,838.6	26.2	16.8	-43.38	-24.2	127.0	946.4	912.0	34.40	27.511	
8,000.0	7,874.1	7,956.2	7,948.5	26.3	17.0	-43.39	-30.5	132.7	938.7	903.9	34.82	26.960	
8,100.0	7,974.1	8,048.9	8,041.0	26.4	17.2	-43.39	-35.5	137.5	931.1	895.9	35.20	26.449	
8,200.0	8,074.1	8,142.6	8,134.4	26.6	17.4	-43.38	-40.1	142.0	924.3	888.7	35.60	25.967	
8,300.0	8,174.1	8,237.1	8,228.7	26.7	17.7	-43.37	-44.3	146.2	918.1	882.1	35.99	25.507	
8,400.0	8,274.1	8,331.5	8,323.0	26.9	17.9	-43.37	-48.1	149.8	912.4	876.0	36.39	25.074	
8,494.3	8,368.4	8,377.0	8,368.4	27.0	18.0	-43.39	-50.2	151.3	908.7	872.0	36.67	24.783	
8,500.0	8,374.1	8,377.0	8,368.4	27.0	18.0	-43.39	-50.2	151.3	908.7	872.0	36.68	24.776	
8,511.9	8,386.0	8,377.0	8,368.4	27.0	18.0	-43.39	-50.2	151.3	908.8	872.2	36.70	24.765 SF	

Company:	EnCana Oil & Gas Boulder County, CO	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Project:	SEC.13-T1N-R69W	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Reference Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan 3 (July 3, 2012)	Offset TVD Reference:	Offset Datum

Offset Design Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W - Canyon Creek 4-8-13 - Wellbore #1 - Plan #3 (7-3-12)													Offset Site Error:	0.0 ft
Survey Program: 25-MWD, 198-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-49.61	7.2	-8.4	11.0	11.0	0.00	N/A		
100.0	100.0	100.1	100.1	0.1	0.2	-49.03	7.0	-8.1	10.7	10.4	0.30	35.621		
200.0	200.0	200.2	200.2	0.3	0.4	-49.84	5.7	-6.8	8.9	8.1	0.74	12.001		
254.6	254.6	254.8	254.8	0.5	0.5	172.77	4.5	-6.4	8.4	7.4	0.97	8.614 CC, ES		
300.0	300.0	300.2	300.2	0.5	0.6	166.54	3.0	-6.3	8.7	7.5	1.17	7.418		
400.0	399.8	400.1	399.9	0.8	0.9	147.59	-2.6	-6.6	12.0	10.4	1.62	7.392 SF		
500.0	499.5	499.6	499.0	1.0	1.1	134.53	-11.5	-8.0	19.6	17.5	2.13	9.203		
600.0	598.7	598.6	597.1	1.3	1.4	128.02	-23.7	-10.3	31.3	28.6	2.70	11.595		
700.0	697.5	696.7	694.1	1.6	1.8	124.72	-38.9	-13.5	46.7	43.4	3.33	14.019		
800.0	795.6	793.9	789.5	2.0	2.1	122.88	-57.1	-17.7	65.8	61.8	4.04	16.271		
900.0	893.1	890.0	883.1	2.5	2.6	121.74	-78.2	-22.6	88.4	83.6	4.84	18.277		
1,000.0	989.9	984.9	974.8	3.0	3.0	120.86	-101.9	-28.5	114.0	108.3	5.71	19.971		
1,100.0	1,086.7	1,078.8	1,064.7	3.5	3.6	119.30	-128.2	-35.1	141.4	134.7	6.63	21.322		
1,200.0	1,183.5	1,171.5	1,152.5	4.0	4.1	117.37	-157.0	-42.4	170.5	163.0	7.59	22.472		
1,300.0	1,280.4	1,262.8	1,238.0	4.5	4.7	115.30	-187.9	-50.4	201.7	193.1	8.58	23.519		
1,400.0	1,377.2	1,352.6	1,321.0	5.1	5.4	113.22	-220.9	-59.1	234.9	225.3	9.58	24.520		
1,500.0	1,474.0	1,444.1	1,404.8	5.6	6.1	111.21	-256.6	-68.5	269.9	259.3	10.61	25.442		
1,600.0	1,570.8	1,537.3	1,490.0	6.1	6.8	109.60	-293.0	-78.2	305.3	293.6	11.64	26.225		
1,700.0	1,667.7	1,630.6	1,575.3	6.7	7.5	108.32	-329.5	-87.9	340.8	328.1	12.67	26.895		
1,800.0	1,764.5	1,723.8	1,660.5	7.2	8.2	107.28	-366.0	-97.5	376.4	362.7	13.70	27.474		
1,900.0	1,861.3	1,817.0	1,745.8	7.7	9.0	106.42	-402.5	-107.2	412.1	397.4	14.73	27.978		
2,000.0	1,958.1	1,910.3	1,831.0	8.3	9.7	105.70	-439.0	-116.9	447.9	432.2	15.76	28.421		
2,100.0	2,055.0	2,003.5	1,916.3	8.8	10.4	105.09	-475.4	-126.5	483.8	467.0	16.79	28.811		
2,200.0	2,151.8	2,096.7	2,001.6	9.4	11.2	104.56	-511.9	-136.2	519.7	501.9	17.82	29.159		
2,300.0	2,248.6	2,190.0	2,086.8	9.9	11.9	104.10	-548.4	-145.8	555.6	536.8	18.85	29.469		
2,400.0	2,345.4	2,283.2	2,172.1	10.4	12.6	103.69	-584.9	-155.5	591.6	571.7	19.89	29.748		
2,500.0	2,442.2	2,376.4	2,257.3	11.0	13.4	103.33	-621.4	-165.2	627.6	606.6	20.92	30.001		
2,600.0	2,539.1	2,469.7	2,342.6	11.5	14.1	103.01	-657.8	-174.8	663.6	641.6	21.95	30.230		
2,700.0	2,635.9	2,562.9	2,427.8	12.1	14.9	102.72	-694.3	-184.5	699.6	676.6	22.98	30.439		
2,800.0	2,732.7	2,656.1	2,513.1	12.6	15.6	102.46	-730.8	-194.2	735.6	711.6	24.02	30.631		
2,900.0	2,829.5	2,749.4	2,598.3	13.1	16.4	102.23	-767.3	-203.8	771.6	746.6	25.05	30.806		
3,000.0	2,926.4	2,842.6	2,683.6	13.7	17.1	102.01	-803.8	-213.5	807.7	781.6	26.08	30.968		
3,100.0	3,023.2	2,935.8	2,768.9	14.2	17.8	101.82	-840.2	-223.2	843.8	816.6	27.11	31.118		
3,200.0	3,120.0	3,029.1	2,854.1	14.8	18.6	101.64	-876.7	-232.8	879.8	851.7	28.15	31.257		
3,300.0	3,216.8	3,122.3	2,939.4	15.3	19.3	101.47	-913.2	-242.5	915.9	886.7	29.18	31.386		
3,400.0	3,313.6	3,215.6	3,024.6	15.8	20.1	101.32	-949.7	-252.2	952.0	921.8	30.22	31.506		
3,500.0	3,410.5	3,308.8	3,109.9	16.4	20.8	101.18	-986.2	-261.8	988.1	956.8	31.25	31.618		
3,600.0	3,507.3	3,402.0	3,195.1	16.9	21.6	101.04	-1,022.6	-271.5	1,024.2	991.9	32.28	31.724		
3,700.0	3,604.1	3,495.3	3,280.4	17.5	22.3	100.92	-1,059.1	-281.1	1,060.3	1,026.9	33.32	31.822		
3,800.0	3,700.9	3,588.5	3,365.6	18.0	23.0	100.81	-1,095.6	-290.8	1,096.4	1,062.0	34.35	31.915		
3,900.0	3,797.8	3,681.7	3,450.9	18.6	23.8	100.70	-1,132.1	-300.5	1,132.5	1,097.1	35.39	32.002		
4,000.0	3,894.6	3,775.0	3,536.2	19.1	24.5	100.60	-1,168.6	-310.1	1,168.6	1,132.1	36.42	32.084		
4,100.0	3,991.4	3,868.2	3,621.4	19.6	25.3	100.50	-1,205.0	-319.8	1,204.7	1,167.2	37.46	32.162		
4,200.0	4,088.2	3,961.4	3,706.7	20.2	26.0	100.41	-1,241.5	-329.5	1,240.8	1,202.3	38.49	32.235		
4,300.0	4,185.0	4,054.7	3,791.9	20.7	26.8	100.33	-1,278.0	-339.1	1,276.9	1,237.4	39.53	32.305		
4,400.0	4,281.9	4,147.9	3,877.2	21.3	27.5	100.25	-1,314.5	-348.8	1,313.0	1,272.5	40.56	32.371		
4,500.0	4,379.1	4,241.2	3,962.5	21.7	28.3	100.84	-1,351.0	-358.5	1,348.9	1,307.2	41.68	32.360		
4,600.0	4,477.1	4,334.5	4,047.8	22.0	29.0	101.28	-1,387.5	-368.1	1,384.1	1,341.4	42.66	32.442		
4,700.0	4,575.7	4,427.8	4,133.1	22.3	29.7	101.58	-1,424.0	-377.8	1,418.8	1,375.2	43.58	32.559		
4,800.0	4,674.8	4,520.9	4,218.3	22.6	30.5	101.75	-1,460.4	-387.5	1,452.8	1,408.4	44.41	32.712		
4,900.0	4,774.4	4,613.8	4,303.2	22.8	31.2	101.79	-1,496.8	-397.1	1,486.4	1,441.2	45.18	32.902		
5,000.0	4,874.2	4,706.2	4,387.7	22.9	32.0	101.73	-1,532.9	-406.7	1,519.5	1,473.6	45.87	33.130		

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

Company:	EnCana Oil & Gas Boulder County, CO	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Project:	SEC.13-T1N-R69W	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Reference Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan 3 (July 3, 2012)	Offset TVD Reference:	Offset Datum

Offset Design Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W - Canyon Creek 4-8-13 - Wellbore #1 - Plan #3 (7-3-12)												Offset Site Error:	0.0 ft
Survey Program: 25-MWD, 198-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 Toelface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	4,974.1	4,798.1	4,471.7	23.0	32.7	101.56	-1,568.9	-416.2	1,552.2	1,505.7	46.48	33.397	
5,200.0	5,074.1	4,889.5	4,555.3	23.1	33.4	-126.67	-1,604.7	-425.7	1,584.8	1,537.9	46.90	33.787	
5,300.0	5,174.1	4,981.0	4,639.0	23.2	34.2	-127.53	-1,640.4	-435.2	1,617.7	1,570.4	47.27	34.224	
5,400.0	5,274.1	5,072.4	4,722.6	23.3	34.9	-128.36	-1,676.2	-444.6	1,650.9	1,603.3	47.63	34.665	
5,500.0	5,374.1	5,163.9	4,806.2	23.4	35.6	-129.16	-1,712.0	-454.1	1,684.5	1,636.5	47.98	35.109	
5,600.0	5,474.1	5,310.1	4,940.7	23.5	36.6	-130.35	-1,767.4	-468.8	1,717.5	1,669.1	48.39	35.490	
5,700.0	5,574.1	5,502.0	5,121.2	23.6	37.6	-131.60	-1,830.1	-485.4	1,746.0	1,697.3	48.75	35.813	
5,800.0	5,674.1	5,702.5	5,314.1	23.7	38.4	-132.61	-1,883.1	-499.4	1,769.2	1,720.1	49.12	36.019	
5,900.0	5,774.1	5,910.1	5,517.3	23.8	39.0	-133.35	-1,924.1	-510.3	1,786.6	1,737.1	49.48	36.110	
6,000.0	5,874.1	6,123.1	5,728.3	23.9	39.5	-133.82	-1,951.2	-517.5	1,797.9	1,748.1	49.82	36.089	
6,100.0	5,974.1	6,339.0	5,943.9	24.0	39.8	-134.02	-1,963.1	-520.6	1,802.8	1,752.6	50.14	35.958	
6,200.0	6,074.1	6,469.3	6,074.1	24.1	39.9	-134.03	-1,963.6	-520.8	1,803.0	1,752.6	50.36	35.799	
6,300.0	6,174.1	6,569.3	6,174.1	24.2	40.0	-134.03	-1,963.6	-520.8	1,803.0	1,752.4	50.56	35.662	
6,400.0	6,274.1	6,669.3	6,274.1	24.4	40.0	-134.03	-1,963.6	-520.8	1,803.0	1,752.2	50.75	35.524	
6,500.0	6,374.1	6,769.3	6,374.1	24.5	40.1	-134.03	-1,963.6	-520.8	1,803.0	1,752.0	50.95	35.385	
6,600.0	6,474.1	6,869.3	6,474.1	24.6	40.1	-134.03	-1,963.6	-520.8	1,803.0	1,751.8	51.16	35.244	
6,700.0	6,574.1	6,969.3	6,574.1	24.7	40.2	-134.03	-1,963.6	-520.8	1,803.0	1,751.6	51.36	35.103	
6,800.0	6,674.1	7,069.3	6,674.1	24.8	40.3	-134.03	-1,963.6	-520.8	1,803.0	1,751.4	51.57	34.960	
6,900.0	6,774.1	7,169.3	6,774.1	24.9	40.3	-134.03	-1,963.6	-520.8	1,803.0	1,751.2	51.79	34.817	
7,000.0	6,874.1	7,269.3	6,874.1	25.0	40.4	-134.03	-1,963.6	-520.8	1,803.0	1,751.0	52.00	34.673	
7,100.0	6,974.1	7,369.3	6,974.1	25.2	40.4	-134.03	-1,963.6	-520.8	1,803.0	1,750.8	52.22	34.528	
7,200.0	7,074.1	7,469.3	7,074.1	25.3	40.5	-134.03	-1,963.6	-520.8	1,803.0	1,750.6	52.44	34.382	
7,300.0	7,174.1	7,569.3	7,174.1	25.4	40.6	-134.03	-1,963.6	-520.8	1,803.0	1,750.3	52.66	34.236	
7,400.0	7,274.1	7,669.3	7,274.1	25.5	40.6	-134.03	-1,963.6	-520.8	1,803.0	1,750.1	52.89	34.089	
7,500.0	7,374.1	7,769.3	7,374.1	25.7	40.7	-134.03	-1,963.6	-520.8	1,803.0	1,749.9	53.12	33.941	
7,600.0	7,474.1	7,869.3	7,474.1	25.8	40.8	-134.03	-1,963.6	-520.8	1,803.0	1,749.6	53.35	33.793	
7,700.0	7,574.1	7,969.3	7,574.1	25.9	40.9	-134.03	-1,963.6	-520.8	1,803.0	1,749.4	53.59	33.645	
7,800.0	7,674.1	8,069.3	7,674.1	26.0	40.9	-134.03	-1,963.6	-520.8	1,803.0	1,749.2	53.83	33.496	
7,900.0	7,774.1	8,169.3	7,774.1	26.2	41.0	-134.03	-1,963.6	-520.8	1,803.0	1,748.9	54.07	33.347	
8,000.0	7,874.1	8,269.3	7,874.1	26.3	41.1	-134.03	-1,963.6	-520.8	1,803.0	1,748.7	54.31	33.197	
8,100.0	7,974.1	8,369.3	7,974.1	26.4	41.2	-134.03	-1,963.6	-520.8	1,803.0	1,748.4	54.56	33.048	
8,200.0	8,074.1	8,469.3	8,074.1	26.6	41.2	-134.03	-1,963.6	-520.8	1,803.0	1,748.2	54.81	32.898	
8,300.0	8,174.1	8,569.3	8,174.1	26.7	41.3	-134.03	-1,963.6	-520.8	1,803.0	1,747.9	55.06	32.748	
8,400.0	8,274.1	8,669.3	8,274.1	26.9	41.4	-134.03	-1,963.6	-520.8	1,803.0	1,747.7	55.31	32.598	
8,500.0	8,374.1	8,769.3	8,374.1	27.0	41.5	-134.03	-1,963.6	-520.8	1,803.0	1,747.4	55.57	32.447	
8,511.9	8,386.0	8,781.1	8,386.0	27.0	41.5	-134.03	-1,963.6	-520.8	1,803.0	1,747.4	55.60	32.429	

Company:	EnCana Oil & Gas Boulder County, CO	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Project:	SEC.13-T1N-R69W	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Reference Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan 3 (July 3, 2012)	Offset TVD Reference:	Offset Datum

Offset Design Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W - Canyon Creek 4-8-13 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 25-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)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-49.61	7.2	-8.4	11.0	11.0	0.00	N/A		
100.0	100.0	100.1	100.1	0.1	0.2	-49.03	7.0	-8.1	10.7	10.4	0.30	35.621		
170.1	170.1	170.3	170.3	0.3	0.3	-48.49	6.3	-7.1	9.5	8.9	0.61	15.555		
200.0	200.0	198.0	198.0	0.3	0.4	-49.65	5.8	-6.8	9.2	8.4	0.73	12.460 CC, ES, SF		
300.0	300.0	198.0	198.0	0.5	0.4	177.31	5.8	-6.8	102.6	101.6	0.94	109.062		
400.0	399.8	198.0	198.0	0.8	0.4	169.40	5.8	-6.8	202.5	201.3	1.16	174.503		
500.0	499.5	198.0	198.0	1.0	0.4	2.72	5.8	-6.8	302.5	301.1	1.40	215.399		
600.0	598.7	198.0	198.0	1.3	0.4	0.99	5.8	-6.8	402.4	400.7	1.67	241.165		
700.0	697.5	198.0	198.0	1.6	0.4	0.55	5.8	-6.8	502.2	500.3	1.95	257.661		
800.0	795.6	198.0	198.0	2.0	0.4	0.35	5.8	-6.8	601.9	599.7	2.24	268.185		
900.0	893.1	198.0	198.0	2.5	0.4	0.25	5.8	-6.8	701.4	698.9	2.55	274.717		
1,000.0	989.9	198.0	198.0	3.0	0.4	0.23	5.8	-6.8	800.8	798.0	2.83	282.774		
1,100.0	1,086.7	198.0	198.0	3.5	0.4	0.23	5.8	-6.8	900.3	897.2	3.10	290.177		
1,200.0	1,183.5	198.0	198.0	4.0	0.4	0.23	5.8	-6.8	999.9	996.6	3.38	296.134		
1,300.0	1,280.4	198.0	198.0	4.5	0.4	0.23	5.8	-6.8	1,099.6	1,096.0	3.65	301.021		
1,400.0	1,377.2	198.0	198.0	5.1	0.4	0.23	5.8	-6.8	1,199.4	1,195.4	3.93	305.097		
1,500.0	1,474.0	198.0	198.0	5.6	0.4	0.23	5.8	-6.8	1,299.1	1,294.9	4.21	308.545		
1,600.0	1,570.8	198.0	198.0	6.1	0.4	0.23	5.8	-6.8	1,399.0	1,394.5	4.49	311.497		
1,700.0	1,667.7	198.0	198.0	6.7	0.4	0.23	5.8	-6.8	1,498.8	1,494.0	4.77	314.053		
1,800.0	1,764.5	198.0	198.0	7.2	0.4	0.23	5.8	-6.8	1,598.7	1,593.6	5.05	316.285		
1,900.0	1,861.3	198.0	198.0	7.7	0.4	0.23	5.8	-6.8	1,698.5	1,693.2	5.34	318.251		
2,000.0	1,958.1	198.0	198.0	8.3	0.4	0.23	5.8	-6.8	1,798.4	1,792.8	5.62	319.996		
2,100.0	2,055.0	198.0	198.0	8.8	0.4	0.23	5.8	-6.8	1,898.3	1,892.4	5.90	321.555		
2,200.0	2,151.8	198.0	198.0	9.4	0.4	0.23	5.8	-6.8	1,998.2	1,992.0	6.19	322.955		
2,300.0	2,248.6	198.0	198.0	9.9	0.4	0.23	5.8	-6.8	2,098.1	2,091.7	6.47	324.220		
2,400.0	2,345.4	198.0	198.0	10.4	0.4	0.23	5.8	-6.8	2,198.1	2,191.3	6.76	325.368		
2,500.0	2,442.2	198.0	198.0	11.0	0.4	0.23	5.8	-6.8	2,298.0	2,291.0	7.04	326.414		
2,600.0	2,539.1	198.0	198.0	11.5	0.4	0.23	5.8	-6.8	2,397.9	2,390.6	7.32	327.372		
2,700.0	2,635.9	198.0	198.0	12.1	0.4	0.23	5.8	-6.8	2,497.9	2,490.3	7.61	328.252		
2,800.0	2,732.7	198.0	198.0	12.6	0.4	0.23	5.8	-6.8	2,597.8	2,589.9	7.89	329.063		
2,900.0	2,829.5	198.0	198.0	13.1	0.4	0.23	5.8	-6.8	2,697.8	2,689.6	8.18	329.813		
3,000.0	2,926.4	198.0	198.0	13.7	0.4	0.23	5.8	-6.8	2,797.7	2,789.3	8.46	330.509		
3,100.0	3,023.2	198.0	198.0	14.2	0.4	0.23	5.8	-6.8	2,897.7	2,888.9	8.75	331.156		
3,200.0	3,120.0	198.0	198.0	14.8	0.4	0.23	5.8	-6.8	2,997.6	2,988.6	9.04	331.759		
3,300.0	3,216.8	198.0	198.0	15.3	0.4	0.23	5.8	-6.8	3,097.6	3,088.3	9.32	332.323		
3,400.0	3,313.6	198.0	198.0	15.8	0.4	0.23	5.8	-6.8	3,197.6	3,188.0	9.61	332.851		
3,500.0	3,410.5	198.0	198.0	16.4	0.4	0.23	5.8	-6.8	3,297.5	3,287.6	9.89	333.346		
3,600.0	3,507.3	198.0	198.0	16.9	0.4	0.23	5.8	-6.8	3,397.5	3,387.3	10.18	333.812		
3,700.0	3,604.1	198.0	198.0	17.5	0.4	0.23	5.8	-6.8	3,497.5	3,487.0	10.46	334.251		
3,800.0	3,700.9	198.0	198.0	18.0	0.4	0.23	5.8	-6.8	3,597.5	3,586.7	10.75	334.665		
3,900.0	3,797.8	198.0	198.0	18.6	0.4	0.23	5.8	-6.8	3,697.4	3,686.4	11.04	335.056		
4,000.0	3,894.6	198.0	198.0	19.1	0.4	0.23	5.8	-6.8	3,797.4	3,786.1	11.32	335.426		
4,100.0	3,991.4	198.0	198.0	19.6	0.4	0.23	5.8	-6.8	3,897.4	3,885.8	11.61	335.778		
4,200.0	4,088.2	198.0	198.0	20.2	0.4	0.23	5.8	-6.8	3,997.4	3,985.5	11.89	336.111		
4,300.0	4,185.0	198.0	198.0	20.7	0.4	0.23	5.8	-6.8	4,097.3	4,085.2	12.18	336.428		
4,400.0	4,281.9	198.0	198.0	21.3	0.4	0.23	5.8	-6.8	4,197.3	4,184.9	12.46	336.729		
4,500.0	4,379.1	198.0	198.0	21.7	0.4	179.70	5.8	-6.8	4,297.3	4,284.6	12.67	339.145		
4,600.0	4,477.1	198.0	198.0	22.0	0.4	179.91	5.8	-6.8	4,397.3	4,384.4	12.83	342.856		
4,700.0	4,575.7	198.0	198.0	22.3	0.4	179.95	5.8	-6.8	4,497.0	4,484.1	12.96	346.977		
4,800.0	4,674.8	198.0	198.0	22.6	0.4	179.96	5.8	-6.8	4,596.5	4,583.5	13.08	351.502		
4,900.0	4,774.4	198.0	198.0	22.8	0.4	179.97	5.8	-6.8	4,695.7	4,682.5	13.18	356.368		
5,000.0	4,874.2	198.0	198.0	22.9	0.4	179.98	5.8	-6.8	4,794.4	4,781.1	13.26	361.509		

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

Company:	EnCana Oil & Gas Boulder County, CO	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Project:	SEC.13-T1N-R69W	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Reference Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan 3 (July 3, 2012)	Offset TVD Reference:	Offset Datum

Offset Design Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W - Canyon Creek 4-8-13 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 25-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)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	4,974.1	198.0	198.0	23.0	0.4	179.98	5.8	-6.8	4,892.5	4,879.1	13.34	366.871	
5,200.0	5,074.1	198.0	198.0	23.1	0.4	-47.52	5.8	-6.8	4,990.2	4,976.7	13.48	370.251	
5,300.0	5,174.1	198.0	198.0	23.2	0.4	-47.52	5.8	-6.8	5,087.9	5,074.3	13.63	373.213	
5,400.0	5,274.1	198.0	198.0	23.3	0.4	-47.52	5.8	-6.8	5,185.8	5,172.0	13.79	376.062	
5,500.0	5,374.1	198.0	198.0	23.4	0.4	-47.52	5.8	-6.8	5,283.7	5,269.8	13.95	378.800	
5,600.0	5,474.1	198.0	198.0	23.5	0.4	-47.52	5.8	-6.8	5,381.7	5,367.6	14.11	381.432	
5,700.0	5,574.1	198.0	198.0	23.6	0.4	-47.52	5.8	-6.8	5,479.8	5,465.5	14.27	383.962	
5,800.0	5,674.1	198.0	198.0	23.7	0.4	-47.52	5.8	-6.8	5,577.9	5,563.5	14.44	386.394	
5,900.0	5,774.1	198.0	198.0	23.8	0.4	-47.52	5.8	-6.8	5,676.1	5,661.5	14.60	388.731	
6,000.0	5,874.1	198.0	198.0	23.9	0.4	-47.52	5.8	-6.8	5,774.4	5,759.6	14.77	390.978	
6,100.0	5,974.1	198.0	198.0	24.0	0.4	-47.52	5.8	-6.8	5,872.7	5,857.8	14.94	393.137	
6,200.0	6,074.1	198.0	198.0	24.1	0.4	-47.52	5.8	-6.8	5,971.1	5,956.0	15.11	395.213	
6,300.0	6,174.1	198.0	198.0	24.2	0.4	-47.52	5.8	-6.8	6,069.5	6,054.3	15.28	397.208	
6,400.0	6,274.1	198.0	198.0	24.4	0.4	-47.52	5.8	-6.8	6,168.0	6,152.6	15.45	399.127	
6,500.0	6,374.1	198.0	198.0	24.5	0.4	-47.52	5.8	-6.8	6,266.6	6,250.9	15.63	400.971	
6,600.0	6,474.1	198.0	198.0	24.6	0.4	-47.52	5.8	-6.8	6,365.1	6,349.3	15.80	402.744	
6,700.0	6,574.1	198.0	198.0	24.7	0.4	-47.52	5.8	-6.8	6,463.8	6,447.8	15.98	404.450	
6,800.0	6,674.1	198.0	198.0	24.8	0.4	-47.52	5.8	-6.8	6,562.4	6,546.3	16.16	406.090	
6,900.0	6,774.1	198.0	198.0	24.9	0.4	-47.52	5.8	-6.8	6,661.1	6,644.8	16.34	407.667	
7,000.0	6,874.1	198.0	198.0	25.0	0.4	-47.52	5.8	-6.8	6,759.9	6,743.4	16.52	409.184	
7,100.0	6,974.1	198.0	198.0	25.2	0.4	-47.52	5.8	-6.8	6,858.7	6,842.0	16.70	410.644	
7,200.0	7,074.1	198.0	198.0	25.3	0.4	-47.52	5.8	-6.8	6,957.5	6,940.6	16.89	412.048	
7,300.0	7,174.1	198.0	198.0	25.4	0.4	-47.52	5.8	-6.8	7,056.3	7,039.2	17.07	413.400	
7,400.0	7,274.1	198.0	198.0	25.5	0.4	-47.52	5.8	-6.8	7,155.2	7,137.9	17.25	414.701	
7,500.0	7,374.1	198.0	198.0	25.7	0.4	-47.52	5.8	-6.8	7,254.1	7,236.7	17.44	415.953	
7,600.0	7,474.1	198.0	198.0	25.8	0.4	-47.52	5.8	-6.8	7,353.0	7,335.4	17.63	417.158	
7,700.0	7,574.1	198.0	198.0	25.9	0.4	-47.52	5.8	-6.8	7,452.0	7,434.2	17.81	418.319	
7,800.0	7,674.1	198.0	198.0	26.0	0.4	-47.52	5.8	-6.8	7,551.0	7,533.0	18.00	419.436	
7,900.0	7,774.1	198.0	198.0	26.2	0.4	-47.52	5.8	-6.8	7,650.0	7,631.8	18.19	420.513	
8,000.0	7,874.1	198.0	198.0	26.3	0.4	-47.52	5.8	-6.8	7,749.1	7,730.7	18.38	421.550	
8,100.0	7,974.1	198.0	198.0	26.4	0.4	-47.52	5.8	-6.8	7,848.1	7,829.6	18.57	422.549	
8,200.0	8,074.1	198.0	198.0	26.6	0.4	-47.52	5.8	-6.8	7,947.2	7,928.5	18.77	423.512	
8,300.0	8,174.1	198.0	198.0	26.7	0.4	-47.52	5.8	-6.8	8,046.4	8,027.4	18.96	424.440	
8,400.0	8,274.1	198.0	198.0	26.9	0.4	-47.52	5.8	-6.8	8,145.5	8,126.3	19.15	425.334	
8,500.0	8,374.1	198.0	198.0	27.0	0.4	-47.52	5.8	-6.8	8,244.7	8,225.3	19.34	426.196	
8,511.9	8,386.0	198.0	198.0	27.0	0.4	-47.52	5.8	-6.8	8,256.4	8,237.1	19.37	426.297	

Company:	EnCana Oil & Gas Boulder County, CO	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Project:	SEC.13-T1N-R69W	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Reference Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan 3 (July 3, 2012)	Offset TVD Reference:	Offset Datum

Offset Design Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W - Canyon Creek 8-6-13 - Wellbore #1 - Plan #3 (7-3-12)												Offset Site Error:	0.0 ft
Survey Program: 25-MWD, 191-MWD												Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-49.34	14.4	-16.8	22.2				
100.0	100.0	100.1	100.1	0.1	0.2	-46.11	15.2	-15.8	21.9	21.6	0.31	70.076	
200.0	200.0	200.1	200.1	0.3	0.4	-39.81	16.2	-13.5	21.1	20.4	0.75	28.323	
213.2	213.2	213.3	213.3	0.4	0.4	-171.51	16.4	-13.3	21.1	20.3	0.80	26.286 CC, ES	
300.0	300.0	300.4	300.4	0.5	0.6	-166.56	17.1	-11.1	22.1	20.9	1.18	18.697	
400.0	399.8	401.0	400.8	0.8	0.9	-159.47	16.8	-5.8	24.2	22.5	1.62	14.877	
500.0	499.5	501.6	501.0	1.0	1.1	-151.52	15.1	2.7	27.2	25.1	2.10	12.952	
600.0	598.7	602.0	600.7	1.3	1.4	-143.70	12.0	14.5	31.5	28.9	2.64	11.943	
700.0	697.5	702.4	699.8	1.6	1.8	-136.66	7.5	29.4	37.1	33.9	3.26	11.385	
800.0	795.6	802.7	798.3	2.0	2.1	-130.68	1.7	47.5	44.1	40.1	3.99	11.045	
900.0	893.1	902.8	895.9	2.5	2.6	-125.75	-5.4	68.7	52.5	47.6	4.85	10.811	
1,000.0	989.9	1,002.8	992.5	3.0	3.1	-121.05	-13.9	93.0	61.6	55.8	5.85	10.535	
1,100.0	1,086.7	1,102.5	1,087.9	3.5	3.7	-114.90	-23.7	120.3	70.6	63.6	6.97	10.133	
1,200.0	1,183.5	1,201.7	1,181.7	4.0	4.3	-107.73	-34.8	150.5	80.2	72.0	8.18	9.810	
1,300.0	1,280.4	1,300.0	1,273.6	4.5	5.0	-100.08	-47.0	183.3	91.3	81.8	9.41	9.696 SF	
1,400.0	1,377.2	1,397.7	1,363.6	5.1	5.8	-92.39	-60.4	218.8	104.5	93.9	10.61	9.845	
1,500.0	1,474.0	1,494.8	1,451.9	5.6	6.6	-85.19	-74.7	256.5	120.3	108.6	11.73	10.259	
1,600.0	1,570.8	1,592.4	1,540.5	6.1	7.5	-79.49	-89.3	294.8	137.8	125.1	12.76	10.802	
1,700.0	1,667.7	1,690.0	1,629.1	6.7	8.3	-75.10	-104.0	333.2	156.4	142.6	13.74	11.380	
1,800.0	1,764.5	1,787.7	1,717.7	7.2	9.2	-71.64	-118.6	371.5	175.7	161.0	14.70	11.953	
1,900.0	1,861.3	1,885.3	1,806.3	7.7	10.1	-68.86	-133.2	409.8	195.4	179.8	15.63	12.501	
2,000.0	1,958.1	1,982.9	1,894.8	8.3	11.0	-66.60	-147.8	448.2	215.6	199.0	16.56	13.015	
2,100.0	2,055.0	2,080.5	1,983.4	8.8	11.8	-64.72	-162.5	486.5	236.0	218.5	17.49	13.493	
2,200.0	2,151.8	2,178.2	2,072.0	9.4	12.7	-63.15	-177.1	524.8	256.6	238.2	18.41	13.937	
2,300.0	2,248.6	2,275.8	2,160.6	9.9	13.6	-61.80	-191.7	563.2	277.3	258.0	19.33	14.346	
2,400.0	2,345.4	2,373.4	2,249.2	10.4	14.5	-60.65	-206.3	601.5	298.2	278.0	20.25	14.725	
2,500.0	2,442.2	2,471.1	2,337.8	11.0	15.4	-59.64	-221.0	639.8	319.2	298.0	21.17	15.075	
2,600.0	2,539.1	2,568.7	2,426.4	11.5	16.3	-58.76	-235.6	678.2	340.3	318.2	22.10	15.399	
2,700.0	2,635.9	2,666.3	2,515.0	12.1	17.2	-57.98	-250.2	716.5	361.4	338.4	23.02	15.700	
2,800.0	2,732.7	2,763.9	2,603.6	12.6	18.1	-57.29	-264.8	754.8	382.6	358.7	23.94	15.979	
2,900.0	2,829.5	2,861.6	2,692.1	13.1	18.9	-56.67	-279.5	793.2	403.9	379.0	24.87	16.239	
3,000.0	2,926.4	2,959.2	2,780.7	13.7	19.8	-56.11	-294.1	831.5	425.2	399.4	25.80	16.481	
3,100.0	3,023.2	3,056.8	2,869.3	14.2	20.7	-55.61	-308.7	869.8	446.5	419.8	26.72	16.707	
3,200.0	3,120.0	3,154.5	2,957.9	14.8	21.6	-55.15	-323.3	908.2	467.8	440.2	27.65	16.919	
3,300.0	3,216.8	3,252.1	3,046.5	15.3	22.5	-54.73	-338.0	946.5	489.2	460.6	28.58	17.118	
3,400.0	3,313.6	3,349.7	3,135.1	15.8	23.4	-54.35	-352.6	984.8	510.6	481.1	29.51	17.304	
3,500.0	3,410.5	3,447.3	3,223.7	16.4	24.3	-53.99	-367.2	1,023.2	532.0	501.6	30.44	17.479	
3,600.0	3,507.3	3,545.0	3,312.3	16.9	25.2	-53.67	-381.8	1,061.5	553.5	522.1	31.37	17.645	
3,700.0	3,604.1	3,642.6	3,400.9	17.5	26.1	-53.37	-396.5	1,099.8	574.9	542.6	32.30	17.800	
3,800.0	3,700.9	3,740.2	3,489.4	18.0	27.0	-53.09	-411.1	1,138.2	596.4	563.2	33.23	17.948	
3,900.0	3,797.8	3,837.9	3,578.0	18.6	27.9	-52.83	-425.7	1,176.5	617.9	583.7	34.16	18.087	
4,000.0	3,894.6	3,935.5	3,666.6	19.1	28.7	-52.59	-440.3	1,214.8	639.4	604.3	35.09	18.219	
4,100.0	3,991.4	4,033.1	3,755.2	19.6	29.6	-52.36	-455.0	1,253.2	660.9	624.8	36.03	18.344	
4,200.0	4,088.2	4,130.7	3,843.8	20.2	30.5	-52.15	-469.6	1,291.5	682.4	645.4	36.96	18.463	
4,300.0	4,185.0	4,228.4	3,932.4	20.7	31.4	-51.95	-484.2	1,329.8	703.9	666.0	37.89	18.577	
4,400.0	4,281.9	4,326.0	4,021.0	21.3	32.3	-51.76	-498.8	1,368.2	725.4	686.6	38.82	18.685	
4,500.0	4,379.1	4,423.4	4,109.3	21.7	33.2	-51.84	-513.4	1,406.4	748.0	708.3	39.72	18.831	
4,600.0	4,477.1	4,520.1	4,197.1	22.0	34.1	-51.76	-527.9	1,444.4	772.7	732.2	40.44	19.108	
4,700.0	4,575.7	4,616.0	4,284.1	22.3	35.0	-51.56	-542.3	1,482.0	799.5	758.5	41.04	19.481	
4,800.0	4,674.8	4,711.1	4,370.4	22.6	35.8	-51.24	-556.5	1,519.4	828.5	787.0	41.54	19.948	
4,900.0	4,774.4	4,805.2	4,455.8	22.8	36.7	-50.83	-570.6	1,556.3	859.8	817.9	41.93	20.507	
5,000.0	4,874.2	4,898.1	4,540.1	22.9	37.6	-50.35	-584.5	1,592.8	893.5	851.2	42.23	21.158	

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

Company:	EnCana Oil & Gas Boulder County, CO	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Project:	SEC.13-T1N-R69W	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Reference Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan 3 (July 3, 2012)	Offset TVD Reference:	Offset Datum

Offset Design Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W - Canyon Creek 8-6-13 - Wellbore #1 - Plan #3 (7-3-12)												Offset Site Error:	0.0 ft
Survey Program: 25-MWD, 191-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)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	4,974.1	4,989.9	4,623.4	23.0	38.4	-49.82	-598.3	1,628.8	929.5	887.0	42.44	21.900	
5,200.0	5,074.1	5,080.6	4,705.7	23.1	39.2	83.67	-611.9	1,664.5	967.3	924.9	42.45	22.789	
5,300.0	5,174.1	5,171.4	4,788.1	23.2	40.1	84.75	-625.5	1,700.1	1,005.5	963.1	42.41	23.712	
5,400.0	5,274.1	5,303.4	4,908.9	23.3	41.0	86.12	-644.4	1,749.7	1,042.4	1,000.2	42.27	24.662	
5,500.0	5,374.1	5,445.1	5,041.2	23.4	41.9	87.31	-662.5	1,797.0	1,075.5	1,033.3	42.19	25.489	
5,600.0	5,474.1	5,591.9	5,180.8	23.5	42.7	88.29	-678.7	1,839.6	1,104.3	1,062.0	42.20	26.164	
5,700.0	5,574.1	5,743.4	5,327.1	23.6	43.4	89.08	-692.8	1,876.5	1,128.5	1,086.2	42.28	26.692	
5,800.0	5,674.1	5,898.9	5,479.1	23.7	43.9	89.69	-704.3	1,906.8	1,148.0	1,105.5	42.42	27.065	
5,900.0	5,774.1	6,057.5	5,635.8	23.8	44.3	90.13	-713.0	1,929.7	1,162.4	1,119.8	42.59	27.291	
6,000.0	5,874.1	6,218.4	5,795.9	23.9	44.7	90.41	-718.7	1,944.6	1,171.7	1,128.9	42.81	27.368	
6,100.0	5,974.1	6,380.6	5,957.9	24.0	44.8	90.52	-721.2	1,951.1	1,175.7	1,132.7	43.07	27.301	
6,200.0	6,074.1	6,496.8	6,074.1	24.1	44.9	90.53	-721.3	1,951.4	1,175.9	1,132.6	43.31	27.150	
6,300.0	6,174.1	6,596.8	6,174.1	24.2	45.0	90.53	-721.3	1,951.4	1,175.9	1,132.4	43.54	27.006	
6,400.0	6,274.1	6,696.8	6,274.1	24.4	45.0	90.53	-721.3	1,951.4	1,175.9	1,132.1	43.78	26.862	
6,500.0	6,374.1	6,796.8	6,374.1	24.5	45.1	90.53	-721.3	1,951.4	1,175.9	1,131.9	44.01	26.717	
6,600.0	6,474.1	6,896.8	6,474.1	24.6	45.2	90.53	-721.3	1,951.4	1,175.9	1,131.7	44.25	26.572	
6,700.0	6,574.1	6,996.8	6,574.1	24.7	45.2	90.53	-721.3	1,951.4	1,175.9	1,131.4	44.50	26.427	
6,800.0	6,674.1	7,096.8	6,674.1	24.8	45.3	90.53	-721.3	1,951.4	1,175.9	1,131.2	44.74	26.281	
6,900.0	6,774.1	7,196.8	6,774.1	24.9	45.4	90.53	-721.3	1,951.4	1,175.9	1,130.9	44.99	26.135	
7,000.0	6,874.1	7,296.8	6,874.1	25.0	45.4	90.53	-721.3	1,951.4	1,175.9	1,130.7	45.25	25.989	
7,100.0	6,974.1	7,396.8	6,974.1	25.2	45.5	90.53	-721.3	1,951.4	1,175.9	1,130.4	45.50	25.843	
7,200.0	7,074.1	7,496.8	7,074.1	25.3	45.6	90.53	-721.3	1,951.4	1,175.9	1,130.2	45.76	25.696	
7,300.0	7,174.1	7,596.8	7,174.1	25.4	45.6	90.53	-721.3	1,951.4	1,175.9	1,129.9	46.02	25.550	
7,400.0	7,274.1	7,696.8	7,274.1	25.5	45.7	90.53	-721.3	1,951.4	1,175.9	1,129.6	46.29	25.404	
7,500.0	7,374.1	7,796.8	7,374.1	25.7	45.8	90.53	-721.3	1,951.4	1,175.9	1,129.4	46.56	25.258	
7,600.0	7,474.1	7,896.8	7,474.1	25.8	45.9	90.53	-721.3	1,951.4	1,175.9	1,129.1	46.83	25.112	
7,700.0	7,574.1	7,996.8	7,574.1	25.9	45.9	90.53	-721.3	1,951.4	1,175.9	1,128.8	47.10	24.967	
7,800.0	7,674.1	8,096.8	7,674.1	26.0	46.0	90.53	-721.3	1,951.4	1,175.9	1,128.5	47.38	24.821	
7,900.0	7,774.1	8,196.8	7,774.1	26.2	46.1	90.53	-721.3	1,951.4	1,175.9	1,128.3	47.65	24.676	
8,000.0	7,874.1	8,296.8	7,874.1	26.3	46.2	90.53	-721.3	1,951.4	1,175.9	1,128.0	47.93	24.532	
8,100.0	7,974.1	8,396.8	7,974.1	26.4	46.3	90.53	-721.3	1,951.4	1,175.9	1,127.7	48.22	24.388	
8,200.0	8,074.1	8,496.8	8,074.1	26.6	46.3	90.53	-721.3	1,951.4	1,175.9	1,127.4	48.50	24.244	
8,300.0	8,174.1	8,596.8	8,174.1	26.7	46.4	90.53	-721.3	1,951.4	1,175.9	1,127.1	48.79	24.101	
8,400.0	8,274.1	8,696.8	8,274.1	26.9	46.5	90.53	-721.3	1,951.4	1,175.9	1,126.8	49.08	23.958	
8,500.0	8,374.1	8,796.8	8,374.1	27.0	46.6	90.53	-721.3	1,951.4	1,175.9	1,126.5	49.38	23.815	
8,502.6	8,376.7	8,799.4	8,376.7	27.0	46.6	90.53	-721.3	1,951.4	1,175.9	1,126.5	49.38	23.812	
8,511.9	8,386.0	8,807.7	8,385.0	27.0	46.6	90.53	-721.3	1,951.4	1,175.9	1,126.5	49.41	23.799	

Company:	EnCana Oil & Gas Boulder County, CO	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Project:	SEC.13-T1N-R69W	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Reference Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan 3 (July 3, 2012)	Offset TVD Reference:	Offset Datum

Offset Design Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W - Canyon Creek 8-6-13 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 25-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)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-49.34	14.4	-16.8	22.2					
100.0	100.0	100.1	100.1	0.1	0.2	-46.11	15.2	-15.8	21.9	21.6	0.31	70.076		
169.4	169.4	169.6	169.5	0.3	0.3	-41.79	15.9	-14.2	21.3	20.7	0.62	34.611 CC, ES		
200.0	200.0	191.0	191.0	0.3	0.4	-40.36	16.1	-13.7	23.0	22.3	0.73	31.651 SF		
300.0	300.0	191.0	191.0	0.5	0.4	-172.08	16.1	-13.7	111.4	110.5	0.94	118.558		
400.0	399.8	191.0	191.0	0.8	0.4	-168.84	16.1	-13.7	210.8	209.6	1.17	180.693		
500.0	499.5	191.0	191.0	1.0	0.4	-148.26	16.1	-13.7	310.7	309.3	1.42	218.645		
600.0	598.7	191.0	191.0	1.3	0.4	-17.55	16.1	-13.7	410.7	409.0	1.67	245.558		
700.0	697.5	191.0	191.0	1.6	0.4	-6.16	16.1	-13.7	510.6	508.6	1.96	260.353		
800.0	795.6	191.0	191.0	2.0	0.4	-3.43	16.1	-13.7	610.4	608.2	2.26	270.116		
900.0	893.1	191.0	191.0	2.5	0.4	-2.25	16.1	-13.7	710.1	707.5	2.57	276.204		
1,000.0	989.9	191.0	191.0	3.0	0.4	-2.07	16.1	-13.7	809.6	806.8	2.85	284.013		
1,100.0	1,086.7	191.0	191.0	3.5	0.4	-2.07	16.1	-13.7	909.3	906.1	3.12	291.219		
1,200.0	1,183.5	191.0	191.0	4.0	0.4	-2.07	16.1	-13.7	1,009.0	1,005.6	3.40	297.005		
1,300.0	1,280.4	191.0	191.0	4.5	0.4	-2.07	16.1	-13.7	1,108.7	1,105.1	3.67	301.743		
1,400.0	1,377.2	191.0	191.0	5.1	0.4	-2.07	16.1	-13.7	1,208.5	1,204.6	3.95	305.688		
1,500.0	1,474.0	191.0	191.0	5.6	0.4	-2.07	16.1	-13.7	1,308.4	1,304.1	4.23	309.021		
1,600.0	1,570.8	191.0	191.0	6.1	0.4	-2.07	16.1	-13.7	1,408.2	1,403.7	4.52	311.872		
1,700.0	1,667.7	191.0	191.0	6.7	0.4	-2.07	16.1	-13.7	1,508.1	1,503.3	4.80	314.337		
1,800.0	1,764.5	191.0	191.0	7.2	0.4	-2.07	16.1	-13.7	1,608.0	1,602.9	5.08	316.488		
1,900.0	1,861.3	191.0	191.0	7.7	0.4	-2.07	16.1	-13.7	1,707.9	1,702.5	5.36	318.381		
2,000.0	1,958.1	191.0	191.0	8.3	0.4	-2.07	16.1	-13.7	1,807.8	1,802.1	5.65	320.060		
2,100.0	2,055.0	191.0	191.0	8.8	0.4	-2.07	16.1	-13.7	1,907.7	1,901.8	5.93	321.559		
2,200.0	2,151.8	191.0	191.0	9.4	0.4	-2.07	16.1	-13.7	2,007.6	2,001.4	6.22	322.904		
2,300.0	2,248.6	191.0	191.0	9.9	0.4	-2.07	16.1	-13.7	2,107.6	2,101.1	6.50	324.119		
2,400.0	2,345.4	191.0	191.0	10.4	0.4	-2.07	16.1	-13.7	2,207.5	2,200.7	6.79	325.221		
2,500.0	2,442.2	191.0	191.0	11.0	0.4	-2.07	16.1	-13.7	2,307.5	2,300.4	7.07	326.225		
2,600.0	2,539.1	191.0	191.0	11.5	0.4	-2.07	16.1	-13.7	2,407.4	2,400.1	7.36	327.144		
2,700.0	2,635.9	191.0	191.0	12.1	0.4	-2.07	16.1	-13.7	2,507.4	2,499.7	7.64	327.987		
2,800.0	2,732.7	191.0	191.0	12.6	0.4	-2.07	16.1	-13.7	2,607.3	2,599.4	7.93	328.765		
2,900.0	2,829.5	191.0	191.0	13.1	0.4	-2.07	16.1	-13.7	2,707.3	2,699.1	8.22	329.483		
3,000.0	2,926.4	191.0	191.0	13.7	0.4	-2.07	16.1	-13.7	2,807.3	2,798.8	8.50	330.150		
3,100.0	3,023.2	191.0	191.0	14.2	0.4	-2.07	16.1	-13.7	2,907.2	2,898.4	8.79	330.769		
3,200.0	3,120.0	191.0	191.0	14.8	0.4	-2.07	16.1	-13.7	3,007.2	2,998.1	9.08	331.346		
3,300.0	3,216.8	191.0	191.0	15.3	0.4	-2.07	16.1	-13.7	3,107.2	3,097.8	9.36	331.886		
3,400.0	3,313.6	191.0	191.0	15.8	0.4	-2.07	16.1	-13.7	3,207.2	3,197.5	9.65	332.390		
3,500.0	3,410.5	191.0	191.0	16.4	0.4	-2.07	16.1	-13.7	3,307.1	3,297.2	9.94	332.864		
3,600.0	3,507.3	191.0	191.0	16.9	0.4	-2.07	16.1	-13.7	3,407.1	3,396.9	10.22	333.310		
3,700.0	3,604.1	191.0	191.0	17.5	0.4	-2.07	16.1	-13.7	3,507.1	3,496.6	10.51	333.729		
3,800.0	3,700.9	191.0	191.0	18.0	0.4	-2.07	16.1	-13.7	3,607.1	3,596.3	10.80	334.125		
3,900.0	3,797.8	191.0	191.0	18.6	0.4	-2.07	16.1	-13.7	3,707.0	3,696.0	11.08	334.499		
4,000.0	3,894.6	191.0	191.0	19.1	0.4	-2.07	16.1	-13.7	3,807.0	3,795.7	11.37	334.853		
4,100.0	3,991.4	191.0	191.0	19.6	0.4	-2.07	16.1	-13.7	3,907.0	3,895.3	11.66	335.188		
4,200.0	4,088.2	191.0	191.0	20.2	0.4	-2.07	16.1	-13.7	4,007.0	3,995.0	11.94	335.507		
4,300.0	4,185.0	191.0	191.0	20.7	0.4	-2.07	16.1	-13.7	4,107.0	4,094.7	12.23	335.809		
4,400.0	4,281.9	191.0	191.0	21.3	0.4	-2.07	16.1	-13.7	4,207.0	4,194.4	12.52	336.097		
4,500.0	4,379.1	191.0	191.0	21.7	0.4	-177.94	16.1	-13.7	4,306.9	4,294.3	12.69	339.496		
4,600.0	4,477.1	191.0	191.0	22.0	0.4	-179.33	16.1	-13.7	4,406.9	4,394.0	12.84	343.317		
4,700.0	4,575.7	191.0	191.0	22.3	0.4	-179.60	16.1	-13.7	4,506.7	4,493.7	12.97	347.465		
4,800.0	4,674.8	191.0	191.0	22.6	0.4	-179.72	16.1	-13.7	4,606.1	4,593.1	13.08	352.053		
4,900.0	4,774.4	191.0	191.0	22.8	0.4	-179.78	16.1	-13.7	4,705.2	4,692.1	13.18	357.016		
5,000.0	4,874.2	191.0	191.0	22.9	0.4	-179.83	16.1	-13.7	4,803.9	4,790.6	13.26	362.280		

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

Company:	EnCana Oil & Gas Boulder County, CO	Local Co-ordinate Reference:	Well Canyon Creek 4-13
Project:	SEC.13-T1N-R69W	TVD Reference:	WELL @ 5071.0ft (Original Well Elev)
Reference Site:	Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W	MD Reference:	WELL @ 5071.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Canyon Creek 4-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan 3 (July 3, 2012)	Offset TVD Reference:	Offset Datum

Offset Design Canyon Creek 4-6-13 Pad Sec.13-T1N-R69W - Canyon Creek 8-6-13 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 25-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)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	4,974.1	191.0	191.0	23.0	0.4	-179.85	16.1	-13.7	4,902.0	4,888.6	13.33	367.780	
5,200.0	5,074.1	191.0	191.0	23.1	0.4	-47.37	16.1	-13.7	4,999.6	4,986.1	13.47	371.185	
5,300.0	5,174.1	191.0	191.0	23.2	0.4	-47.37	16.1	-13.7	5,097.3	5,083.7	13.62	374.134	
5,400.0	5,274.1	191.0	191.0	23.3	0.4	-47.37	16.1	-13.7	5,195.1	5,181.4	13.78	376.970	
5,500.0	5,374.1	191.0	191.0	23.4	0.4	-47.37	16.1	-13.7	5,293.0	5,279.1	13.94	379.696	
5,600.0	5,474.1	191.0	191.0	23.5	0.4	-47.37	16.1	-13.7	5,391.0	5,376.9	14.10	382.315	
5,700.0	5,574.1	191.0	191.0	23.6	0.4	-47.37	16.1	-13.7	5,489.0	5,474.8	14.26	384.833	
5,800.0	5,674.1	191.0	191.0	23.7	0.4	-47.37	16.1	-13.7	5,587.1	5,572.7	14.43	387.253	
5,900.0	5,774.1	191.0	191.0	23.8	0.4	-47.37	16.1	-13.7	5,685.3	5,670.7	14.59	389.578	
6,000.0	5,874.1	191.0	191.0	23.9	0.4	-47.37	16.1	-13.7	5,783.5	5,768.8	14.76	391.813	
6,100.0	5,974.1	191.0	191.0	24.0	0.4	-47.37	16.1	-13.7	5,881.8	5,866.9	14.93	393.961	
6,200.0	6,074.1	191.0	191.0	24.1	0.4	-47.37	16.1	-13.7	5,980.2	5,965.1	15.10	396.026	
6,300.0	6,174.1	191.0	191.0	24.2	0.4	-47.37	16.1	-13.7	6,078.6	6,063.3	15.27	398.010	
6,400.0	6,274.1	191.0	191.0	24.4	0.4	-47.37	16.1	-13.7	6,177.0	6,161.6	15.45	399.918	
6,500.0	6,374.1	191.0	191.0	24.5	0.4	-47.37	16.1	-13.7	6,275.5	6,259.9	15.62	401.752	
6,600.0	6,474.1	191.0	191.0	24.6	0.4	-47.37	16.1	-13.7	6,374.1	6,358.3	15.80	403.515	
6,700.0	6,574.1	191.0	191.0	24.7	0.4	-47.37	16.1	-13.7	6,472.7	6,456.7	15.97	405.210	
6,800.0	6,674.1	191.0	191.0	24.8	0.4	-47.37	16.1	-13.7	6,571.3	6,555.2	16.15	406.840	
6,900.0	6,774.1	191.0	191.0	24.9	0.4	-47.37	16.1	-13.7	6,670.0	6,653.7	16.33	408.407	
7,000.0	6,874.1	191.0	191.0	25.0	0.4	-47.37	16.1	-13.7	6,768.7	6,752.2	16.51	409.915	
7,100.0	6,974.1	191.0	191.0	25.2	0.4	-47.37	16.1	-13.7	6,867.5	6,850.8	16.69	411.365	
7,200.0	7,074.1	191.0	191.0	25.3	0.4	-47.37	16.1	-13.7	6,966.3	6,949.4	16.88	412.760	
7,300.0	7,174.1	191.0	191.0	25.4	0.4	-47.37	16.1	-13.7	7,065.1	7,048.0	17.06	414.103	
7,400.0	7,274.1	191.0	191.0	25.5	0.4	-47.37	16.1	-13.7	7,163.9	7,146.7	17.25	415.395	
7,500.0	7,374.1	191.0	191.0	25.7	0.4	-47.37	16.1	-13.7	7,262.8	7,245.4	17.43	416.638	
7,600.0	7,474.1	191.0	191.0	25.8	0.4	-47.37	16.1	-13.7	7,361.7	7,344.1	17.62	417.835	
7,700.0	7,574.1	191.0	191.0	25.9	0.4	-47.37	16.1	-13.7	7,460.7	7,442.9	17.81	418.987	
7,800.0	7,674.1	191.0	191.0	26.0	0.4	-47.37	16.1	-13.7	7,559.7	7,541.7	18.00	420.096	
7,900.0	7,774.1	191.0	191.0	26.2	0.4	-47.37	16.1	-13.7	7,658.7	7,640.5	18.18	421.165	
8,000.0	7,874.1	191.0	191.0	26.3	0.4	-47.37	16.1	-13.7	7,757.7	7,739.3	18.37	422.194	
8,100.0	7,974.1	191.0	191.0	26.4	0.4	-47.37	16.1	-13.7	7,856.7	7,838.2	18.57	423.185	
8,200.0	8,074.1	191.0	191.0	26.6	0.4	-47.37	16.1	-13.7	7,955.8	7,937.1	18.76	424.141	
8,300.0	8,174.1	191.0	191.0	26.7	0.4	-47.37	16.1	-13.7	8,054.9	8,036.0	18.95	425.061	
8,400.0	8,274.1	191.0	191.0	26.9	0.4	-47.37	16.1	-13.7	8,154.0	8,134.9	19.14	425.948	
8,500.0	8,374.1	191.0	191.0	27.0	0.4	-47.37	16.1	-13.7	8,253.2	8,233.8	19.34	426.803	
8,511.9	8,386.0	191.0	191.0	27.0	0.4	-47.37	16.1	-13.7	8,265.0	8,245.6	19.36	426.903	

Reference Depths are relative to WELL @ 5071.0ft (Original Well Elev) Coordinates are relative to: Canyon Creek 4-13
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.28°



Reference Depths are relative to WELL @ 5071.0ft (Original Well Elev) Coordinates are relative to: Canyon Creek 4-13
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