



+N/-S 0.0 +E/-W 0.0

Northing 1338605.22

Easting 3137621.04

Latitude 40.261820

Longitude -105.006870

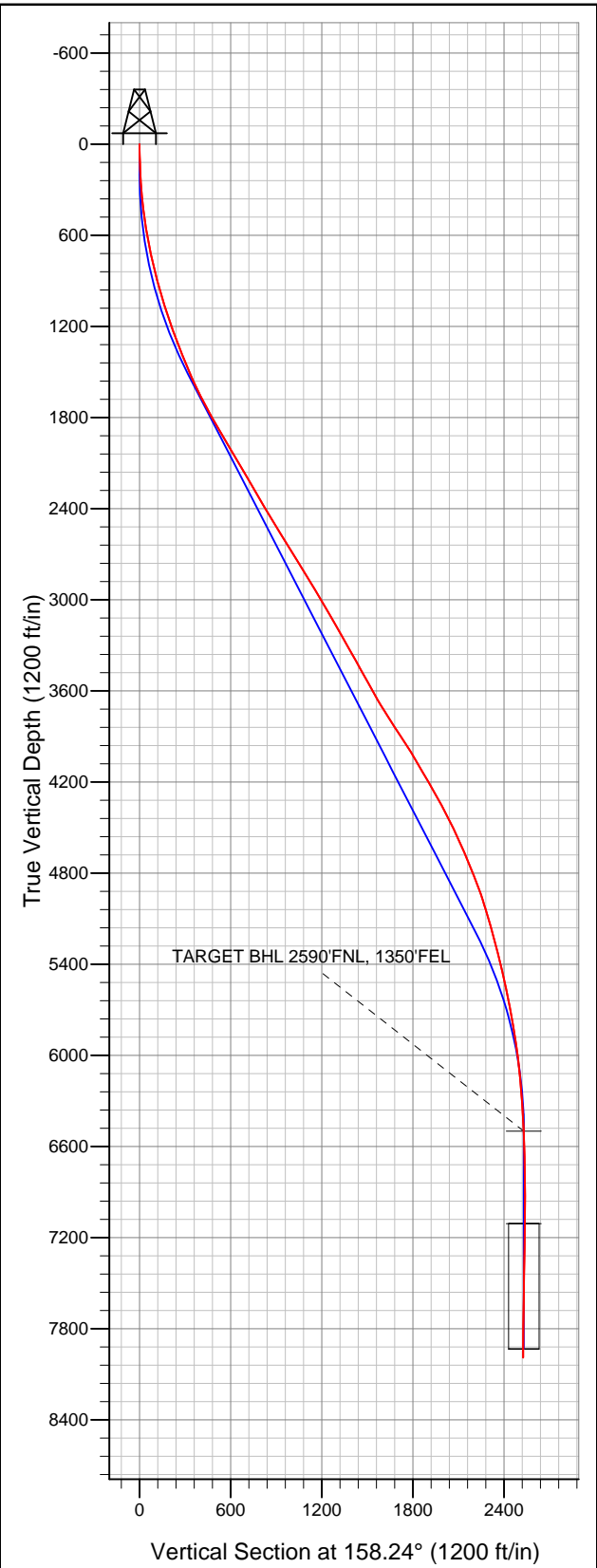
Slot

Well Name: Peppler Farms 6-4-4

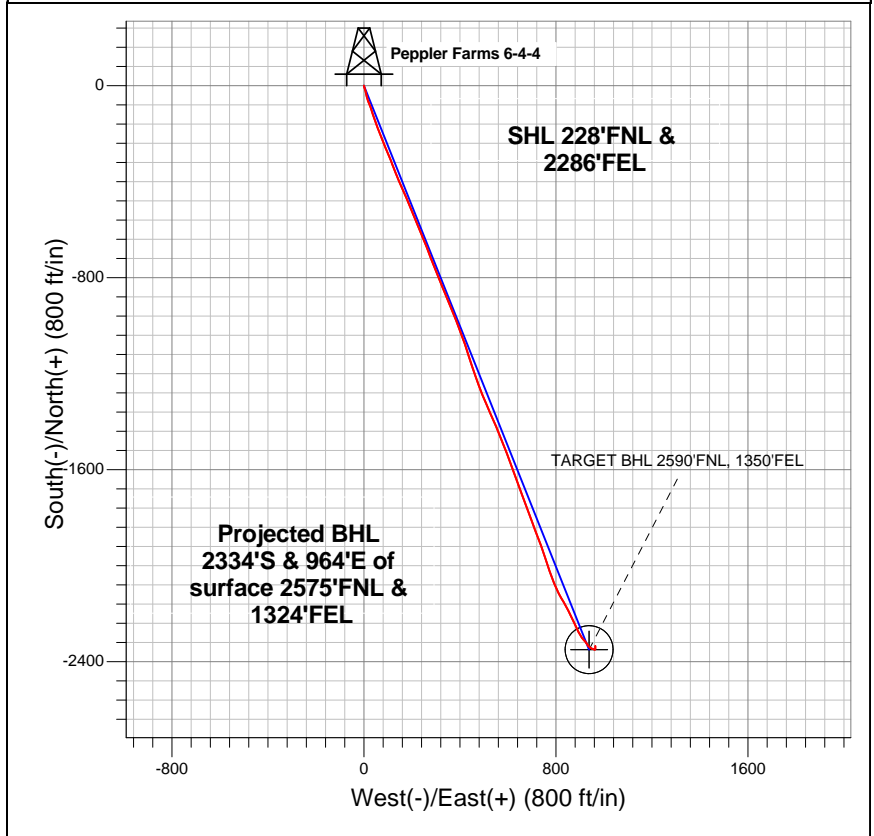
Surface Location: Peppler Farms 6-4-4 Pad Sec.4-T3N-R68W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 5069.0

Original Well Elev. WELL @ 5082.0ft (Original Well Elev.)



EnCana Oil & Gas Weld County CO



LEGEND

- ▣ Peppler Farms 6-4-4, Wellbore #1, Plan #1 (9-20-12) R V0
- ▣ Wellbore #1
- Survey #1

Final Survey Plot

**Projected Final Survey -
 8574'MD & 7990'TVD @ 2525'VS
 0.70 deg Inc 357.70 deg AZ**

Project: SEC.4-T3N-R68W
 Site: Peppler Farms 6-4-4 Pad Sec.4-T3N-R68W
 Well: Peppler Farms 6-4-4
 Plan: Wellbore #1



Directional

EnCana Oil & Gas Weld County CO

SEC.4-T3N-R68W

Peppler Farms 6-4-4 Pad Sec.4-T3N-R68W

Peppler Farms 6-4-4

Wellbore #1

Survey: Survey #1

Standard Survey Report

28 September, 2012

Company:	EnCana Oil & Gas Weld County CO	Local Co-ordinate Reference:	Well Pepler Farms 6-4-4
Project:	SEC.4-T3N-R68W	TVD Reference:	WELL @ 5082.0ft (Original Well Elev.)
Site:	Pepler Farms 6-4-4 Pad Sec.4-T3N-R68W	MD Reference:	WELL @ 5082.0ft (Original Well Elev.)
Well:	Pepler Farms 6-4-4	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.4-T3N-R68W, Weld 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

Site	Pepler Farms 6-4-4 Pad Sec.4-T3N-R68W				
Site Position:		Northing:	1,338,605.22 ft	Latitude:	40.261820
From:	Lat/Long	Easting:	3,137,621.04 ft	Longitude:	-105.006870
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.32 °

Well	Pepler Farms 6-4-4					
Well Position	+N/-S	0.0 ft	Northing:	1,338,605.22 ft	Latitude:	40.261820
	+E/-W	0.0 ft	Easting:	3,137,621.04 ft	Longitude:	-105.006870
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,069.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/20/2012	8.81	66.86	52,897

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	158.24	

Survey Program	Date	9/28/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
77.0	8,574.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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	
77.0	1.10	181.80	77.0	-0.7	0.0	0.7	1.43	1.43	0.00	
169.0	2.20	160.90	169.0	-3.3	0.5	3.3	1.34	1.20	-22.72	
260.0	3.90	157.90	259.8	-7.8	2.3	8.1	1.88	1.87	-3.30	
352.0	5.90	167.60	351.5	-15.3	4.5	15.9	2.35	2.17	10.54	
443.0	7.70	169.60	441.8	-25.9	6.6	26.5	1.99	1.98	2.20	
535.0	9.20	164.90	532.8	-39.1	9.6	39.8	1.79	1.63	-5.11	
627.0	9.70	161.70	623.6	-53.5	13.9	54.9	0.79	0.54	-3.48	
670.0	10.60	160.90	665.9	-60.7	16.4	62.4	2.12	2.09	-1.86	
725.0	11.70	160.90	719.9	-70.7	19.9	73.1	2.00	2.00	0.00	
742.0	11.70	158.10	736.5	-74.0	21.1	76.5	3.34	0.00	-16.47	
827.0	13.50	160.50	819.5	-91.3	27.6	95.0	2.20	2.12	2.82	
913.0	15.40	161.40	902.8	-111.6	34.6	116.5	2.22	2.21	1.05	

Company:	EnCana Oil & Gas Weld County CO	Local Co-ordinate Reference:	Well Pepler Farms 6-4-4
Project:	SEC.4-T3N-R68W	TVD Reference:	WELL @ 5082.0ft (Original Well Elev.)
Site:	Pepler Farms 6-4-4 Pad Sec.4-T3N-R68W	MD Reference:	WELL @ 5082.0ft (Original Well Elev.)
Well:	Pepler Farms 6-4-4	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)	
998.0	16.70	162.10	984.4	-133.9	41.9	139.9	1.55	1.53	0.82	
1,084.0	17.80	160.20	1,066.6	-158.1	50.2	165.4	1.44	1.28	-2.21	
1,170.0	18.90	158.60	1,148.2	-183.4	59.7	192.5	1.41	1.28	-1.86	
1,255.0	20.00	158.40	1,228.3	-209.7	70.1	220.8	1.30	1.29	-0.24	
1,341.0	20.60	158.80	1,309.0	-237.5	81.0	250.6	0.72	0.70	0.47	
1,426.0	21.50	157.20	1,388.3	-265.8	92.4	281.1	1.26	1.06	-1.88	
1,512.0	23.00	156.70	1,467.9	-295.8	105.2	313.7	1.76	1.74	-0.58	
1,598.0	24.40	160.00	1,546.7	-327.9	117.9	348.2	2.24	1.63	3.84	
1,683.0	25.70	157.00	1,623.7	-361.4	131.1	384.2	2.14	1.53	-3.53	
1,769.0	28.00	157.70	1,700.4	-397.2	146.1	423.0	2.70	2.67	0.81	
1,854.0	28.50	156.80	1,775.3	-434.3	161.6	463.3	0.77	0.59	-1.06	
1,940.0	29.50	155.40	1,850.5	-472.4	178.5	504.9	1.41	1.16	-1.63	
2,026.0	31.00	158.40	1,924.8	-512.3	195.5	548.2	2.48	1.74	3.49	
2,111.0	31.00	158.40	1,997.6	-553.0	211.6	592.0	0.00	0.00	0.00	
2,197.0	30.80	156.30	2,071.4	-593.7	228.6	636.2	1.28	-0.23	-2.44	
2,282.0	29.60	157.20	2,144.9	-633.0	245.5	678.9	1.51	-1.41	1.06	
2,368.0	30.30	158.80	2,219.4	-672.8	261.6	721.8	1.23	0.81	1.86	
2,454.0	30.20	160.20	2,293.7	-713.4	276.7	765.1	0.83	-0.12	1.63	
2,539.0	29.90	158.10	2,367.3	-753.2	291.9	807.7	1.29	-0.35	-2.47	
2,625.0	31.10	158.40	2,441.4	-793.7	308.0	851.3	1.41	1.40	0.35	
2,710.0	32.30	157.20	2,513.7	-835.1	324.9	896.0	1.59	1.41	-1.41	
2,796.0	32.20	157.20	2,586.4	-877.4	342.7	941.9	0.12	-0.12	0.00	
2,882.0	30.90	157.50	2,659.7	-918.9	360.0	986.9	1.52	-1.51	0.35	
2,967.0	31.30	158.40	2,732.5	-959.6	376.5	1,030.8	0.72	0.47	1.06	
3,053.0	31.80	159.30	2,805.8	-1,001.5	392.8	1,075.8	0.80	0.58	1.05	
3,138.0	31.60	160.50	2,878.1	-1,043.5	408.1	1,120.4	0.78	-0.24	1.41	
3,224.0	30.60	161.70	2,951.8	-1,085.5	422.5	1,164.8	1.37	-1.16	1.40	
3,310.0	30.40	161.20	3,025.9	-1,126.9	436.4	1,208.4	0.38	-0.23	-0.58	
3,395.0	30.50	161.60	3,099.1	-1,167.7	450.1	1,251.4	0.27	0.12	0.47	
3,481.0	29.80	160.90	3,173.5	-1,208.6	464.0	1,294.5	0.91	-0.81	-0.81	
3,566.0	29.50	159.60	3,247.4	-1,248.2	478.2	1,336.5	0.83	-0.35	-1.53	
3,652.0	29.70	158.10	3,322.1	-1,287.8	493.5	1,379.0	0.89	0.23	-1.74	
3,738.0	29.10	156.50	3,397.1	-1,326.8	509.8	1,421.2	1.15	-0.70	-1.86	
3,823.0	29.00	157.00	3,471.4	-1,364.7	526.1	1,462.5	0.31	-0.12	0.59	
3,909.0	29.20	156.70	3,546.5	-1,403.1	542.6	1,504.3	0.29	0.23	-0.35	
3,994.0	29.30	158.10	3,620.7	-1,441.5	558.5	1,545.8	0.81	0.12	1.65	
4,080.0	31.00	157.40	3,695.0	-1,481.4	574.9	1,589.0	2.02	1.98	-0.81	
4,166.0	32.50	158.40	3,768.2	-1,523.4	591.9	1,634.3	1.85	1.74	1.16	
4,251.0	33.00	159.80	3,839.7	-1,566.3	608.3	1,680.2	1.07	0.59	1.65	
4,337.0	33.80	160.30	3,911.5	-1,610.8	624.5	1,727.5	0.98	0.93	0.58	
4,422.0	32.10	160.20	3,982.8	-1,654.3	640.1	1,773.8	2.00	-2.00	-0.12	
4,508.0	30.30	159.30	4,056.3	-1,696.1	655.5	1,818.3	2.16	-2.09	-1.05	
4,594.0	30.20	160.70	4,130.6	-1,736.9	670.3	1,861.6	0.83	-0.12	1.63	
4,679.0	29.50	160.00	4,204.4	-1,776.7	684.5	1,903.9	0.92	-0.82	-0.82	
4,765.0	29.10	158.90	4,279.4	-1,816.1	699.3	1,945.9	0.78	-0.47	-1.28	
4,850.0	28.70	159.30	4,353.8	-1,854.5	713.9	1,987.0	0.52	-0.47	0.47	
4,936.0	27.90	159.30	4,429.5	-1,892.6	728.4	2,027.8	0.93	-0.93	0.00	
5,022.0	25.40	159.60	4,506.3	-1,928.7	741.9	2,066.3	2.91	-2.91	0.35	
5,107.0	23.70	162.60	4,583.7	-1,962.1	753.4	2,101.6	2.48	-2.00	3.53	
5,193.0	23.20	162.60	4,662.6	-1,994.8	763.6	2,135.7	0.58	-0.58	0.00	
5,278.0	23.20	159.30	4,740.7	-2,026.4	774.5	2,169.2	1.53	0.00	-3.88	
5,364.0	22.20	159.20	4,820.0	-2,057.5	786.3	2,202.3	1.16	-1.16	-0.12	
5,450.0	19.90	156.40	4,900.3	-2,086.1	797.9	2,233.2	2.92	-2.67	-3.26	
5,535.0	18.00	154.50	4,980.7	-2,111.2	809.4	2,260.8	2.35	-2.24	-2.24	

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Well:	Pepler Farms 6-4-4	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)
5,621.0	16.40	150.00	5,062.8	-2,133.7	821.2	2,286.1	2.42	-1.86	-5.23
5,706.0	15.90	149.30	5,144.5	-2,154.1	833.1	2,309.4	0.63	-0.59	-0.82
5,792.0	15.20	153.10	5,227.3	-2,174.3	844.2	2,332.3	1.44	-0.81	4.42
5,878.0	14.40	151.60	5,310.5	-2,193.7	854.4	2,354.2	1.03	-0.93	-1.74
5,963.0	14.00	155.40	5,392.9	-2,212.4	863.7	2,374.9	1.19	-0.47	4.47
6,049.0	12.90	154.90	5,476.5	-2,230.5	872.1	2,394.9	1.29	-1.28	-0.58
6,134.0	11.90	154.50	5,559.5	-2,247.0	879.9	2,413.1	1.18	-1.18	-0.47
6,220.0	10.90	156.70	5,643.8	-2,262.5	886.9	2,430.1	1.27	-1.16	2.56
6,306.0	10.70	149.80	5,728.3	-2,276.9	894.2	2,446.1	1.52	-0.23	-8.02
6,391.0	9.70	149.80	5,812.0	-2,289.9	901.7	2,461.0	1.18	-1.18	0.00
6,477.0	8.90	141.40	5,896.8	-2,301.3	909.5	2,474.5	1.83	-0.93	-9.77
6,562.0	8.00	140.30	5,980.9	-2,311.0	917.4	2,486.5	1.08	-1.06	-1.29
6,648.0	6.80	144.90	6,066.2	-2,319.8	924.2	2,497.1	1.56	-1.40	5.35
6,734.0	5.80	144.20	6,151.7	-2,327.5	929.6	2,506.3	1.17	-1.16	-0.81
6,819.0	4.70	139.80	6,236.3	-2,333.6	934.4	2,513.8	1.38	-1.29	-5.18
6,905.0	4.00	134.30	6,322.1	-2,338.4	938.8	2,519.8	0.95	-0.81	-6.40
6,990.0	3.40	126.80	6,406.9	-2,342.0	943.0	2,524.7	0.91	-0.71	-8.82
7,076.0	2.50	112.40	6,492.8	-2,344.2	946.7	2,528.2	1.35	-1.05	-16.74
7,082.9	2.51	111.77	6,499.7	-2,344.4	947.0	2,528.4	0.41	0.09	-9.14
TARGET BHL 2590'FNL, 1350'FEL									
7,162.0	2.60	104.80	6,578.7	-2,345.5	950.4	2,530.7	0.41	0.12	-8.81
7,333.0	2.50	117.50	6,749.5	-2,348.2	957.4	2,535.8	0.33	-0.06	7.43
7,504.0	1.00	79.00	6,920.5	-2,349.6	962.2	2,538.9	1.07	-0.88	-22.51
7,675.0	1.00	1.80	7,091.4	-2,347.8	963.7	2,537.8	0.73	0.00	-45.15
7,691.5	1.01	1.56	7,108.0	-2,347.5	963.7	2,537.5	0.06	0.06	-1.46
TARGET CIRCLE 2590'FNL & 1350'FEL									
7,847.0	1.10	359.50	7,263.4	-2,344.7	963.7	2,534.9	0.06	0.06	-1.32
8,023.0	1.00	2.50	7,439.4	-2,341.5	963.8	2,531.9	0.06	-0.06	1.70
8,198.0	0.80	358.40	7,614.4	-2,338.7	963.8	2,529.4	0.12	-0.11	-2.34
8,373.0	0.50	357.60	7,789.3	-2,336.7	963.8	2,527.5	0.17	-0.17	-0.46
8,532.0	0.70	357.70	7,948.3	-2,335.1	963.7	2,525.9	0.13	0.13	0.06
8,574.0	0.70	357.70	7,990.3	-2,334.6	963.7	2,525.5	0.00	0.00	0.00

Target Name	- hit/miss target	- Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
TARGET BHL 2590'F			0.00	0.00	6,500.0	-2,349.7	937.8	1,336,260.84	3,138,571.88	40.255370	-105.003510
- survey misses target center by 10.6ft at 7082.9ft MD (6499.7 TVD, -2344.4 N, 947.0 E)											
- Point											
TARGET CIRCLE 2590'F			0.00	0.00	7,108.0	-2,349.7	937.8	1,336,260.84	3,138,571.88	40.255370	-105.003510
- survey misses target center by 26.0ft at 7691.5ft MD (7107.9 TVD, -2347.5 N, 963.7 E)											
- Circle (radius 100.0)											

Checked By: _____ Approved By: _____ Date: _____