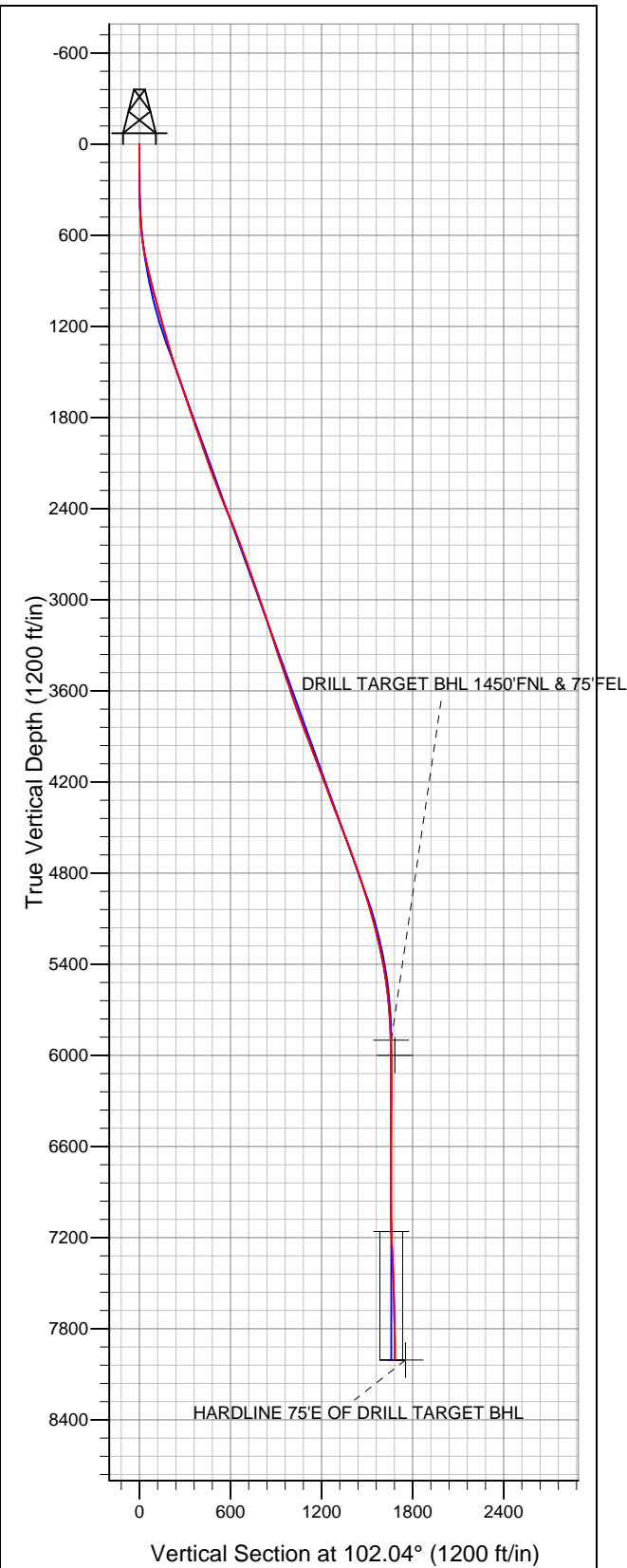


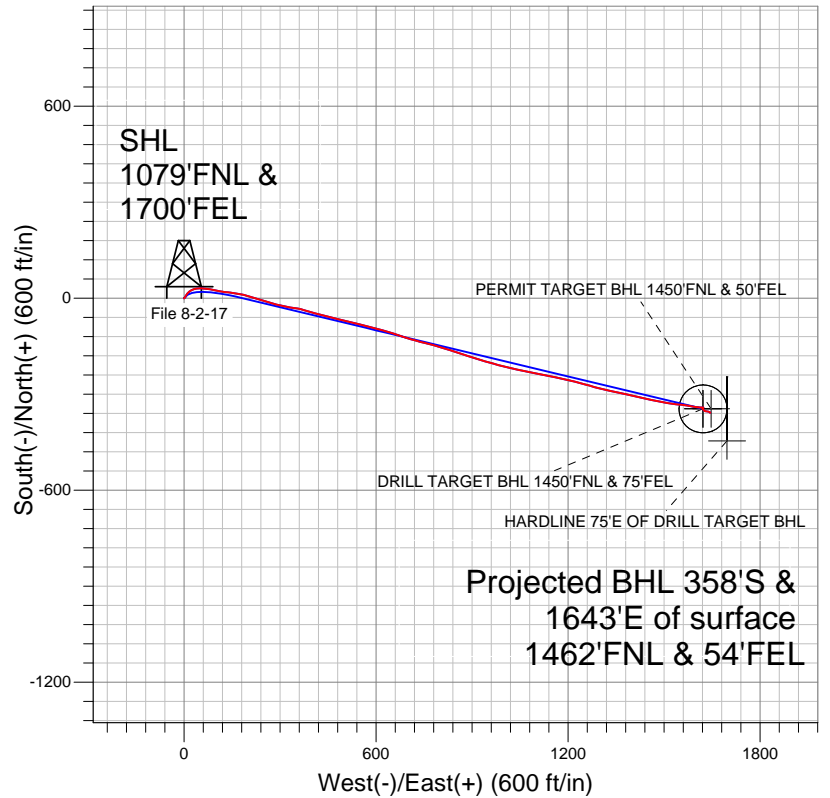
# Well Name: File 8-2-17

Surface Location: File 31-17 Pad Sec.17-T2N-R68W  
North American Datum 1983 US State Plane 1983Colorado Northern Zone  
Ground Elevation: 4882.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1295263.24	3133159.69	40.142910	-105.023690	
		Original Well Elev	WELL @ 4895.0ft (Original Well Elev)			



## EnCana Oil & Gas Weld County CO



### LEGEND

- Survey #1
- File 8-2-17, Wellbore #1, Plan #2 (2-15-12) R V0
- Wellbore #1

## Final Survey Plot

Projected Final Survey -  
8273'MD & 8003'TVD @ 1681'VS  
0.90 deg Inc 196.30 deg AZ

Project: SEC.17-T2N-R68W  
Site: File 31-17 Pad Sec.17-T2N-R68W  
Well: File 8-2-17  
Plan: Wellbore #1



# **EnCana Oil & Gas Weld County CO**

**SEC.17-T2N-R68W**

**File 31-17 Pad Sec.17-T2N-R68W**

**File 8-2-17**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**27 February, 2012**

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)
Survey Data	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	139.0	0.50	192.00	139.0	-0.6	-0.1	0.0	0.36	0.36	0.00
	231.0	1.00	44.80	231.0	-0.4	0.4	0.4	1.57	0.54	-160.00
	322.0	2.30	34.70	322.0	1.6	2.0	1.6	1.46	1.43	-11.10
	414.0	5.30	29.10	413.7	6.9	5.1	3.5	3.28	3.26	-6.09
	505.0	7.10	39.00	504.2	14.9	10.7	7.3	2.29	1.98	10.88
	597.0	9.00	58.50	595.3	23.1	20.4	15.1	3.59	2.07	21.20
	689.0	10.40	74.40	686.0	29.1	34.5	27.7	3.27	1.52	17.28
	782.0	12.10	91.20	777.2	31.2	52.3	44.7	3.95	1.83	18.06
	874.0	14.20	100.40	866.8	28.9	73.1	65.4	3.22	2.28	10.00
	967.0	15.10	100.40	956.8	24.7	96.2	89.0	0.97	0.97	0.00
	980.0	15.10	100.40	969.4	24.1	99.6	92.3	0.00	0.00	0.00
1,023.0	15.50	101.00	1,010.8	21.9	110.7	103.7	1.00	0.93	1.40	

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well File 8-2-17
<b>Project:</b>	SEC.17-T2N-R68W	<b>TVD Reference:</b>	WELL @ 4895.0ft (Original Well Elev)
<b>Site:</b>	File 31-17 Pad Sec.17-T2N-R68W	<b>MD Reference:</b>	WELL @ 4895.0ft (Original Well Elev)
<b>Well:</b>	File 8-2-17	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)	
1,092.0	14.20	95.70	1,077.5	19.3	128.2	121.3	2.72	-1.88	-7.68	
1,154.0	15.90	97.00	1,137.4	17.6	144.2	137.3	2.80	2.74	2.10	
1,247.0	15.70	100.00	1,226.9	13.8	169.2	162.6	0.90	-0.22	3.23	
1,371.0	16.50	105.60	1,346.0	6.2	202.7	196.9	1.41	0.65	4.52	
1,464.0	18.50	108.30	1,434.7	-2.0	229.4	224.8	2.32	2.15	2.90	
1,557.0	20.20	108.90	1,522.5	-11.8	258.6	255.4	1.84	1.83	0.65	
1,650.0	19.00	100.90	1,610.1	-19.9	288.7	286.5	3.16	-1.29	-8.60	
1,743.0	18.70	101.50	1,698.1	-25.7	318.2	316.5	0.38	-0.32	0.65	
1,835.0	17.80	98.40	1,785.5	-30.7	346.5	345.3	1.44	-0.98	-3.37	
1,928.0	18.50	106.90	1,873.9	-37.1	374.7	374.2	2.94	0.75	9.14	
2,021.0	18.80	106.90	1,962.0	-45.8	403.2	403.8	0.32	0.32	0.00	
2,114.0	19.80	103.90	2,049.8	-53.9	432.8	434.5	1.51	1.08	-3.23	
2,207.0	20.40	102.40	2,137.1	-61.2	463.9	466.5	0.85	0.65	-1.61	
2,300.0	22.00	102.90	2,223.8	-68.5	496.7	500.1	1.73	1.72	0.54	
2,393.0	22.50	105.10	2,309.9	-77.1	530.9	535.3	1.04	0.54	2.37	
2,486.0	21.80	105.10	2,396.0	-86.2	564.8	570.3	0.75	-0.75	0.00	
2,579.0	21.20	105.30	2,482.5	-95.1	597.6	604.3	0.65	-0.65	0.22	
2,672.0	21.80	103.70	2,569.1	-103.7	630.6	638.4	0.90	0.65	-1.72	
2,765.0	19.10	108.70	2,656.2	-112.6	661.8	670.8	3.46	-2.90	5.38	
2,858.0	20.70	108.90	2,743.7	-122.8	691.8	702.2	1.72	1.72	0.22	
2,951.0	20.10	105.00	2,830.8	-132.3	722.8	734.5	1.60	-0.65	-4.19	
3,044.0	19.00	103.00	2,918.5	-139.8	753.0	765.6	1.38	-1.18	-2.15	
3,137.0	18.20	106.00	3,006.6	-147.2	781.7	795.2	1.34	-0.86	3.23	
3,230.0	18.80	109.00	3,094.8	-156.1	809.8	824.6	1.21	0.65	3.23	
3,323.0	19.40	107.20	3,182.7	-165.6	838.7	854.8	0.90	0.65	-1.94	
3,416.0	17.80	107.00	3,270.8	-174.3	867.1	884.4	1.72	-1.72	-0.22	
3,508.0	18.90	108.00	3,358.1	-183.0	894.7	913.2	1.24	1.20	1.09	
3,601.0	18.40	107.90	3,446.3	-192.2	923.0	942.8	0.54	-0.54	-0.11	
3,694.0	19.60	105.70	3,534.2	-200.9	952.0	973.0	1.50	1.29	-2.37	
3,787.0	18.50	104.10	3,622.1	-208.7	981.3	1,003.3	1.31	-1.18	-1.72	
3,880.0	18.90	104.60	3,710.2	-216.1	1,010.2	1,033.1	0.46	0.43	0.54	
3,973.0	20.30	102.00	3,797.8	-223.3	1,040.6	1,064.2	1.77	1.51	-2.80	
4,066.0	22.50	100.70	3,884.4	-229.9	1,073.8	1,098.2	2.42	2.37	-1.40	
4,159.0	20.40	100.80	3,970.9	-236.3	1,107.2	1,132.2	2.26	-2.26	0.11	
4,252.0	19.80	102.40	4,058.3	-242.7	1,138.6	1,164.1	0.88	-0.65	1.72	
4,345.0	21.10	102.00	4,145.4	-249.5	1,170.3	1,196.6	1.41	1.40	-0.43	
4,438.0	21.50	102.90	4,232.1	-256.8	1,203.3	1,230.4	0.56	0.43	0.97	
4,531.0	19.90	104.60	4,319.1	-264.6	1,235.2	1,263.3	1.84	-1.72	1.83	
4,624.0	21.30	106.40	4,406.1	-273.4	1,266.8	1,295.9	1.65	1.51	1.94	
4,717.0	20.40	103.60	4,493.0	-282.0	1,298.7	1,329.0	1.44	-0.97	-3.01	
4,810.0	20.60	103.40	4,580.1	-289.6	1,330.4	1,361.5	0.23	0.22	-0.22	
4,903.0	20.70	103.10	4,667.2	-297.1	1,362.3	1,394.3	0.16	0.11	-0.32	
4,995.0	20.30	100.90	4,753.3	-303.8	1,393.8	1,426.5	0.94	-0.43	-2.39	
5,088.0	18.30	100.70	4,841.1	-309.6	1,424.0	1,457.2	2.15	-2.15	-0.22	
5,181.0	18.20	104.20	4,929.4	-315.8	1,452.4	1,486.4	1.18	-0.11	3.76	
5,274.0	15.70	102.80	5,018.4	-322.2	1,478.8	1,513.5	2.72	-2.69	-1.51	
5,367.0	14.80	98.50	5,108.1	-326.7	1,502.8	1,537.9	1.55	-0.97	-4.62	
5,460.0	14.20	97.60	5,198.1	-330.0	1,525.9	1,561.1	0.69	-0.65	-0.97	
5,553.0	12.90	94.90	5,288.6	-332.4	1,547.5	1,582.8	1.55	-1.40	-2.90	
5,646.0	10.80	99.70	5,379.6	-334.7	1,566.4	1,601.8	2.49	-2.26	5.16	
5,739.0	9.10	98.70	5,471.2	-337.3	1,582.3	1,617.9	1.84	-1.83	-1.08	
5,832.0	7.00	99.30	5,563.2	-339.3	1,595.2	1,630.9	2.26	-2.26	0.65	
5,925.0	5.50	97.20	5,655.7	-340.8	1,605.2	1,641.0	1.63	-1.61	-2.26	
6,018.0	3.50	90.50	5,748.4	-341.4	1,612.4	1,648.2	2.22	-2.15	-7.20	

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<b>Well:</b>	File 8-2-17	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
6,111.0	2.80	86.80	5,841.3	-341.3	1,617.6	1,653.2	0.78	-0.75	-3.98
6,169.9	1.96	94.29	5,900.1	-341.3	1,620.0	1,655.5	1.52	-1.43	12.72
DRILL TARGET BHL 1450'FNL & 75'FEL									
6,204.0	1.50	102.40	5,934.2	-341.4	1,621.0	1,656.6	1.52	-1.34	23.76
6,270.3	0.78	109.18	6,000.4	-341.8	1,622.3	1,657.9	1.10	-1.09	10.23
PERMIT TARGET BHL 1450'FNL & 50'FEL									
6,297.0	0.50	117.40	6,027.2	-341.9	1,622.6	1,658.2	1.10	-1.05	30.73
6,390.0	0.20	146.30	6,120.2	-342.2	1,623.0	1,658.7	0.36	-0.32	31.08
6,482.0	0.40	252.50	6,212.2	-342.4	1,622.8	1,658.5	0.54	0.22	115.44
6,575.0	0.40	270.20	6,305.2	-342.5	1,622.2	1,657.9	0.13	0.00	19.03
6,668.0	0.40	238.50	6,398.2	-342.7	1,621.6	1,657.4	0.23	0.00	-34.09
6,761.0	0.70	223.10	6,491.2	-343.3	1,620.9	1,656.8	0.36	0.32	-16.56
6,854.0	0.60	232.10	6,584.2	-344.0	1,620.1	1,656.2	0.15	-0.11	9.68
6,947.0	0.20	196.50	6,677.2	-344.5	1,619.7	1,655.9	0.49	-0.43	-38.28
7,040.0	0.10	30.80	6,770.2	-344.5	1,619.7	1,655.9	0.32	-0.11	-178.17
7,133.0	0.20	115.00	6,863.2	-344.5	1,619.9	1,656.1	0.23	0.11	90.54
7,226.0	0.40	172.70	6,956.2	-344.9	1,620.1	1,656.4	0.36	0.22	62.04
7,319.0	0.60	159.00	7,049.2	-345.7	1,620.3	1,656.7	0.25	0.22	-14.73
7,412.0	3.00	139.70	7,142.1	-348.0	1,622.0	1,658.9	2.63	2.58	-20.75
7,429.8	2.92	139.05	7,159.9	-348.7	1,622.6	1,659.7	0.47	-0.44	-3.63
TARGET CIRCLE 1450'FNL & 75'FEL									
7,505.0	2.60	135.90	7,235.0	-351.4	1,625.1	1,662.6	0.47	-0.43	-4.19
7,598.0	2.40	98.60	7,327.9	-353.2	1,628.5	1,666.3	1.73	-0.22	-40.11
7,691.0	2.20	97.70	7,420.8	-353.7	1,632.2	1,670.0	0.22	-0.22	-0.97
7,784.0	2.00	96.50	7,513.8	-354.1	1,635.5	1,673.4	0.22	-0.22	-1.29
7,881.0	1.70	98.20	7,610.7	-354.5	1,638.6	1,676.5	0.31	-0.31	1.75
7,974.0	1.30	109.30	7,703.7	-355.1	1,641.0	1,679.0	0.53	-0.43	11.94
8,067.0	1.10	126.60	7,796.7	-356.0	1,642.7	1,680.8	0.44	-0.22	18.60
8,159.0	0.70	159.50	7,888.7	-357.0	1,643.6	1,681.9	0.69	-0.43	35.76
8,231.0	0.80	184.20	7,960.6	-357.9	1,643.7	1,682.2	0.47	0.14	34.31
8,273.0	0.90	196.30	8,002.6	-358.5	1,643.6	1,682.3	0.49	0.24	28.81
HARDLINE 75'E OF DRILL TARGET BHL									

Checked By: _____	Approved By: _____	Date: _____
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