

# Well Name: Dowdy 8-2-10

Surface Location: Dowdy 4-2-10 Pad Sec.10-T2N-R65W  
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone  
 Ground Elevation: 4858.0  
 Easting 3239139.54 Latitude 40.157440 Longitude -104.644410 Slot  
 Original Well Elev WELL @ 4870.0ft (Original Well Elev)

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

Northing  
 1301352.28

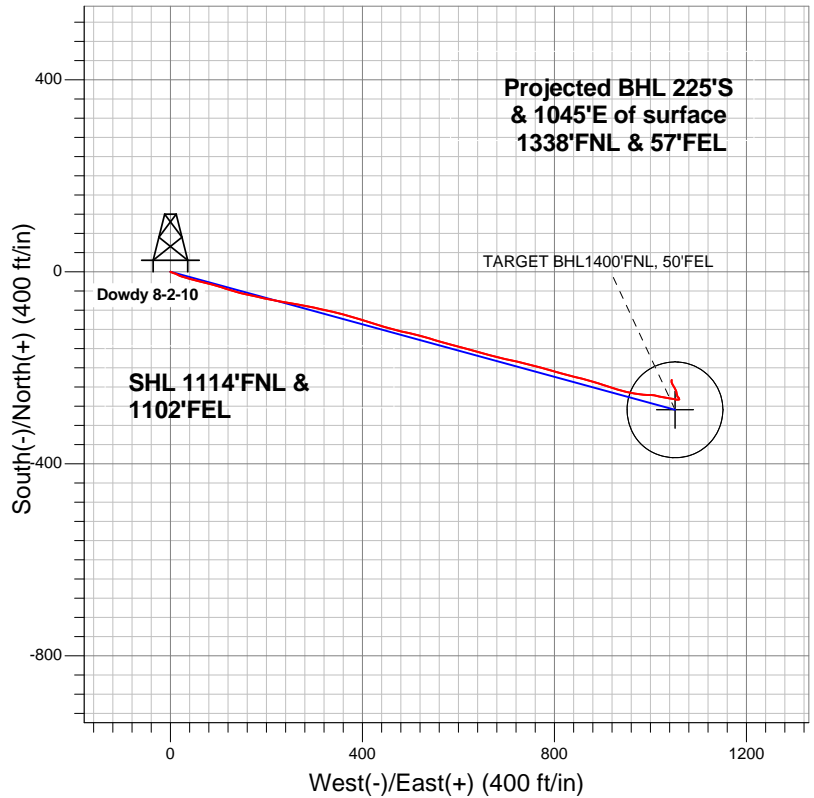
Easting  
 3239139.54

Latitude  
 40.157440

Longitude  
 -104.644410

Slot

## EnCana Oil & Gas Weld County CO



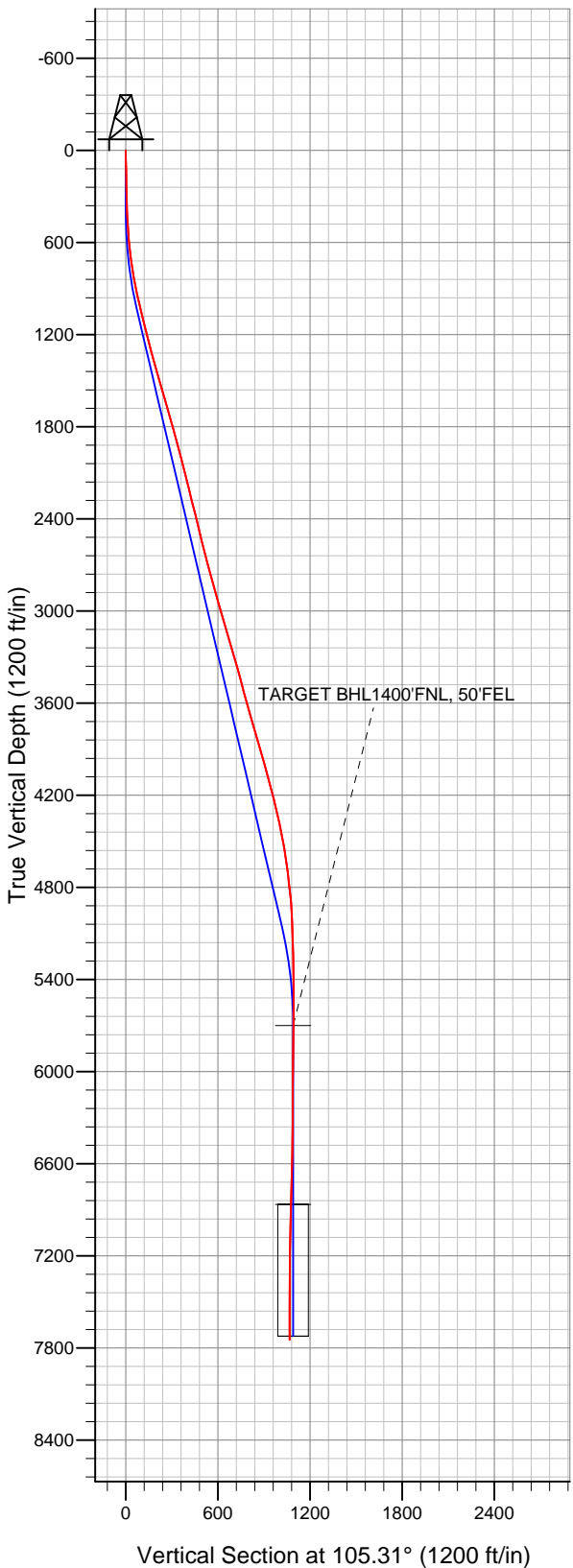
### LEGEND

- Dowdy 8-2-10, Wellbore #1, Plan #1 (7-09-12) V0
- Wellbore #1
- Survey #1

## Final Survey Plot

**Projected Final Survey -**  
**7883'MD & 7748'TVD @ 1067'VS**  
**0.30 deg Inc 36.80 deg AZ**

Project: SEC.10-T2N-R65W  
 Site: Dowdy 4-2-10 Pad Sec.10-T2N-R65W  
 Well: Dowdy 8-2-10  
 Plan: Wellbore #1





## **Directional**

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

**SEC.10-T2N-R65W**

**Dowdy 4-2-10 Pad Sec.10-T2N-R65W**

**Dowdy 8-2-10**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**23 October, 2012**

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Well:</b>	Dowdy 8-2-10	<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

<b>Project</b>	SEC.10-T2N-R65W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		Dowdy 4-2-10 Pad Sec.10-T2N-R65W			
Site Position:		Northing:	1,301,352.02 ft	Latitude:	40.157440
From:	Lat/Long	Easting:	3,239,108.79 ft	Longitude:	-104.644520
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.55 °

Well	Dowdy 8-2-10					
Well Position	+N/-S	0.0 ft	Northing:	1,301,352.28 ft	Latitude:	40.157440
	+E/-W	0.0 ft	Easting:	3,239,139.54 ft	Longitude:	-104.644410
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,858.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	10/16/2012	8.60	66.83	52,876

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	105.31	

<b>Survey Program</b>	<b>Date</b>	10/23/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
46.0	7,883.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
46.0	0.80	145.40	46.0	-0.3	0.2	0.2	1.74	1.74	0.00	
136.0	1.20	107.90	136.0	-1.1	1.4	1.7	0.83	0.44	-41.67	
227.0	1.30	106.70	227.0	-1.7	3.3	3.7	0.11	0.11	-1.32	
317.0	1.20	107.60	316.9	-2.2	5.2	5.6	0.11	-0.11	1.00	
408.0	2.50	105.30	407.9	-3.1	8.0	8.6	1.43	1.43	-2.53	
499.0	3.50	118.30	498.8	-4.9	12.4	13.2	1.32	1.10	14.29	
590.0	4.90	113.90	589.5	-7.8	18.4	19.8	1.58	1.54	-4.84	
681.0	7.50	107.40	680.0	-11.1	27.6	29.6	2.95	2.86	-7.14	
772.0	8.80	106.50	770.1	-14.9	40.0	42.5	1.44	1.43	-0.99	
875.0	10.90	102.10	871.5	-19.2	57.0	60.1	2.16	2.04	-4.27	
975.0	12.60	104.80	969.4	-23.9	76.8	80.4	1.79	1.70	2.70	
1,060.0	13.50	107.10	1,052.2	-29.2	95.3	99.6	1.22	1.06	2.71	

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<b>Well:</b>	Dowdy 8-2-10	<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)	
1,146.0	14.70	107.60	1,135.7	-35.5	115.3	120.5	1.40	1.40	0.58	
1,232.0	14.10	106.40	1,219.0	-41.7	135.7	141.9	0.78	-0.70	-1.40	
1,317.0	14.90	101.40	1,301.2	-46.8	156.4	163.2	1.75	0.94	-5.88	
1,403.0	15.70	102.30	1,384.2	-51.5	178.6	185.8	0.97	0.93	1.05	
1,488.0	15.70	102.70	1,466.0	-56.5	201.0	208.8	0.13	0.00	0.47	
1,574.0	16.10	100.20	1,548.7	-61.1	224.1	232.3	0.92	0.47	-2.91	
1,660.0	16.40	100.60	1,631.3	-65.5	247.8	256.3	0.37	0.35	0.47	
1,745.0	16.10	98.80	1,712.9	-69.5	271.2	279.9	0.69	-0.35	-2.12	
1,831.0	15.60	102.30	1,795.6	-73.8	294.3	303.3	1.25	-0.58	4.07	
1,916.0	15.20	103.40	1,877.6	-78.8	316.3	325.9	0.58	-0.47	1.29	
2,002.0	14.90	102.10	1,960.6	-83.7	338.1	348.2	0.53	-0.35	-1.51	
2,088.0	14.50	104.30	2,043.8	-88.7	359.3	370.0	0.80	-0.47	2.56	
2,173.0	14.10	106.50	2,126.2	-94.3	379.6	391.0	0.79	-0.47	2.59	
2,259.0	13.80	107.20	2,209.7	-100.3	399.4	411.7	0.40	-0.35	0.81	
2,344.0	14.20	108.60	2,292.1	-106.6	419.0	432.3	0.62	0.47	1.65	
2,430.0	13.60	107.90	2,375.6	-113.1	438.6	452.9	0.72	-0.70	-0.81	
2,516.0	14.00	103.00	2,459.1	-118.5	458.4	473.4	1.44	0.47	-5.70	
2,601.0	14.10	102.70	2,541.6	-123.1	478.5	494.0	0.15	0.12	-0.35	
2,687.0	14.00	103.90	2,625.0	-127.9	498.8	514.9	0.36	-0.12	1.40	
2,772.0	14.30	104.40	2,707.4	-133.0	518.9	535.6	0.38	0.35	0.59	
2,858.0	15.70	107.90	2,790.5	-139.2	540.3	557.9	1.94	1.63	4.07	
2,944.0	16.50	105.50	2,873.1	-146.0	563.1	581.7	1.21	0.93	-2.79	
3,029.0	16.40	105.10	2,954.7	-152.4	586.4	605.8	0.18	-0.12	-0.47	
3,115.0	15.90	106.50	3,037.3	-158.9	609.4	629.7	0.74	-0.58	1.63	
3,200.0	15.90	103.20	3,119.0	-164.9	631.9	653.0	1.06	0.00	-3.88	
3,286.0	16.40	105.80	3,201.6	-170.9	655.0	676.9	1.02	0.58	3.02	
3,372.0	16.40	105.30	3,284.1	-177.4	678.4	701.2	0.16	0.00	-0.58	
3,457.0	15.60	101.60	3,365.8	-182.8	701.2	724.6	1.52	-0.94	-4.35	
3,543.0	14.70	103.60	3,448.8	-187.7	723.1	747.0	1.21	-1.05	2.33	
3,628.0	15.40	103.70	3,530.9	-192.9	744.6	769.1	0.82	0.82	0.12	
3,714.0	16.10	103.60	3,613.7	-198.4	767.3	792.4	0.81	0.81	-0.12	
3,800.0	15.80	108.80	3,696.4	-205.0	789.9	816.0	1.70	-0.35	6.05	
3,885.0	15.80	103.00	3,778.2	-211.4	812.2	839.2	1.86	0.00	-6.82	
3,971.0	16.40	104.30	3,860.8	-217.0	835.3	863.0	0.81	0.70	1.51	
4,056.0	15.30	105.50	3,942.6	-223.0	857.8	886.2	1.35	-1.29	1.41	
4,142.0	15.80	105.10	4,025.4	-229.0	880.0	909.3	0.59	0.58	-0.47	
4,228.0	15.90	109.00	4,108.2	-235.9	902.5	932.7	1.24	0.12	4.53	
4,313.0	14.20	108.10	4,190.2	-242.9	923.4	954.8	2.02	-2.00	-1.06	
4,399.0	13.70	103.40	4,273.7	-248.6	943.3	975.5	1.44	-0.58	-5.47	
4,484.0	12.50	100.90	4,356.5	-252.7	962.1	994.7	1.56	-1.41	-2.94	
4,570.0	10.60	98.10	4,440.7	-255.5	979.1	1,011.8	2.30	-2.21	-3.26	
4,656.0	9.50	89.70	4,525.4	-256.6	994.0	1,026.5	2.13	-1.28	-9.77	
4,741.0	9.40	99.50	4,609.3	-257.7	1,007.9	1,040.2	1.89	-0.12	11.53	
4,827.0	7.80	103.20	4,694.3	-260.2	1,020.5	1,053.0	1.97	-1.86	4.30	
4,912.0	6.50	99.30	4,778.6	-262.3	1,030.9	1,063.5	1.63	-1.53	-4.59	
4,998.0	5.10	99.50	4,864.2	-263.7	1,039.4	1,072.2	1.63	-1.63	0.23	
5,084.0	3.30	103.40	4,950.0	-264.9	1,045.6	1,078.5	2.12	-2.09	4.53	
5,169.0	2.60	97.00	5,034.9	-265.7	1,049.9	1,082.8	0.91	-0.82	-7.53	
5,255.0	2.20	97.60	5,120.8	-266.2	1,053.5	1,086.4	0.47	-0.47	0.70	
5,340.0	1.40	93.40	5,205.7	-266.5	1,056.1	1,089.0	0.95	-0.94	-4.94	
5,426.0	1.10	88.10	5,291.7	-266.5	1,058.0	1,090.8	0.37	-0.35	-6.16	
5,597.0	0.40	60.50	5,462.7	-266.2	1,060.2	1,092.8	0.45	-0.41	-16.14	
5,768.0	0.40	288.50	5,633.7	-265.7	1,060.1	1,092.7	0.43	0.00	-77.19	
5,834.1	0.70	328.11	5,699.8	-265.3	1,059.7	1,092.1	0.71	0.46	59.96	

