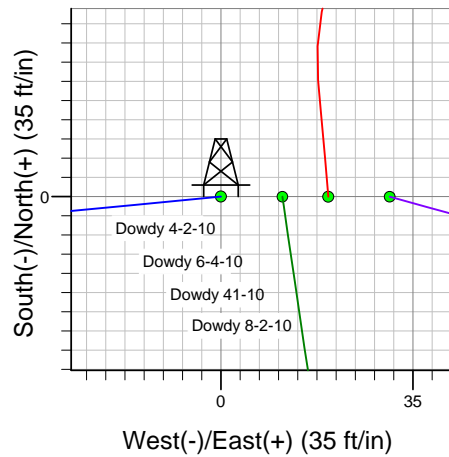
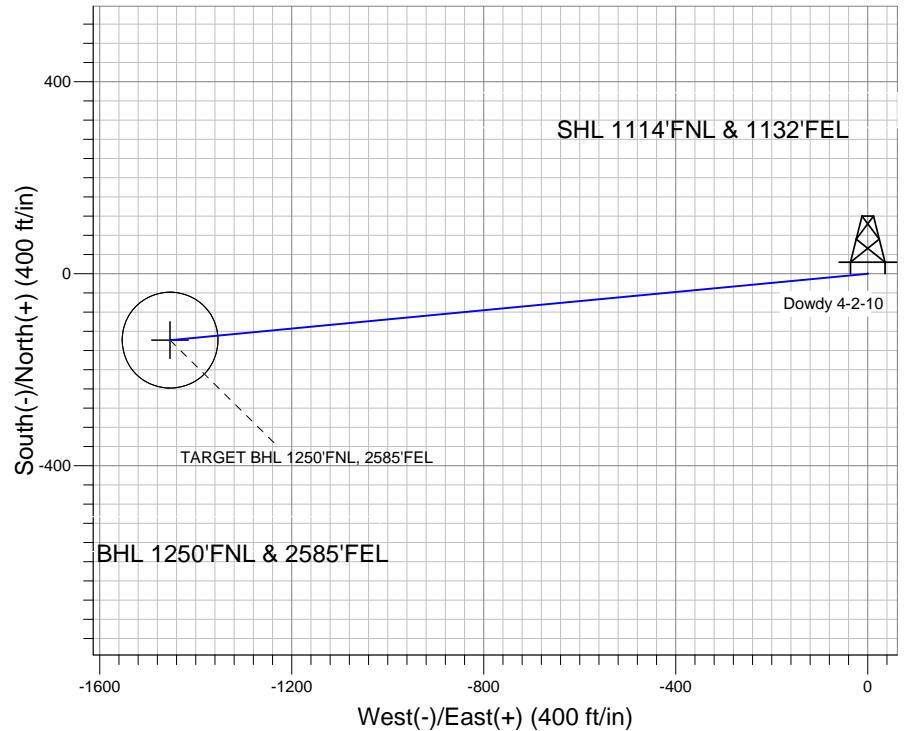
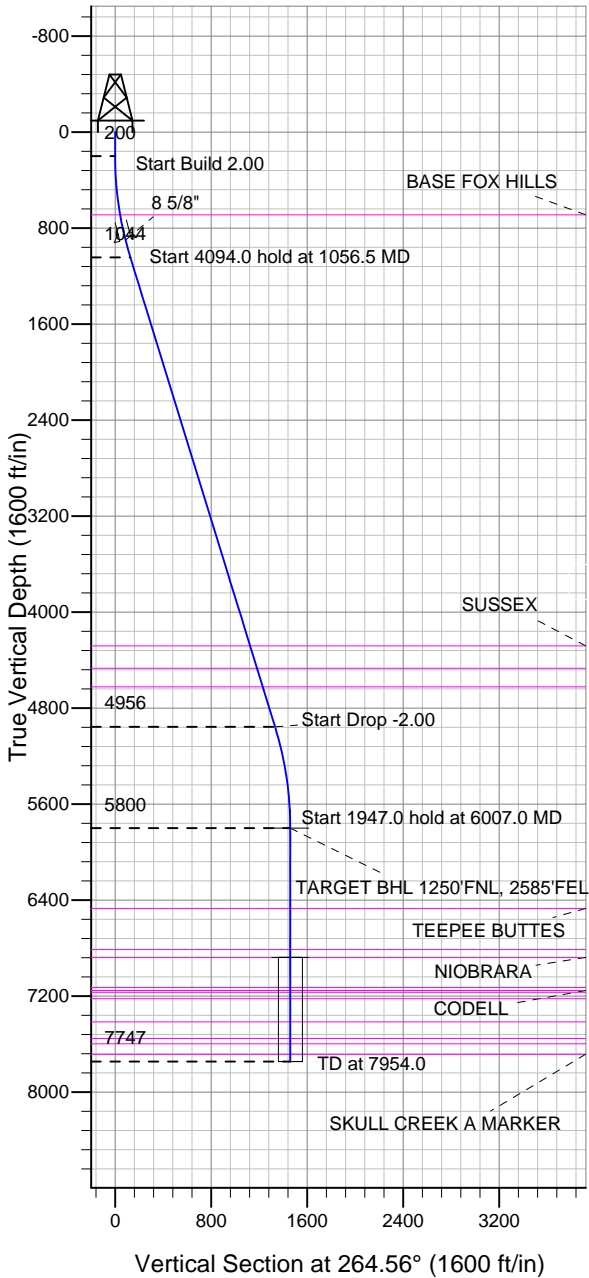


### Well Name: Dowdy 4-2-10

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  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1301352.01 3239108.79 40.157440 -104.644520  
 Original Well Elev WELL @ 4870.0ft (Original Well Elev)

### EnCana Oil & Gas Weld County CO



Dowdy 4-2-10 Pad Sec.10-T2N-R65W  
 Dowdy 4-2-10  
 Plan #1 (7-09-12)  
 10:45, July 09 2012



Azimuths to True North  
 Magnetic North: 8.63°

Magnetic Field  
 Strength: 52904.1nT  
 Dip Angle: 66.84°  
 Date: 7/9/2012  
 Model: IGRF2010

### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1250'FNL, 2585'FEL	5800.0	-138.4	-1453.5	40.157060	-104.649720	Point
TARGET CIRCLE 1250'FNL & 2585'FEL	6878.0	-138.4	-1453.5	40.157060	-104.649720	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	1056.5	17.13	264.56	1043.8	-12.0	-126.5	2.00	264.56	127.1	
4	5150.5	17.13	264.56	4956.2	-126.3	-1327.0	0.00	0.00	1333.0	
5	6007.0	0.00	0.00	5800.0	-138.4	-1453.5	2.00	180.00	1460.1	TARGET BHL 1250'FNL, 2585'FEL
6	7954.0	0.00	0.00	7747.0	-138.4	-1453.5	0.00	0.00	1460.1	



## **Directional**

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

**SEC.10-T2N-R65W**

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

**Dowdy 4-2-10**

**Wellbore #1**

**Plan: Plan #1 (7-09-12)**

### **Standard Planning Report**

**09 July, 2012**

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	
1,056.5	17.13	264.56	1,043.8	-12.0	-126.5	2.00	2.00	0.00	264.56	
5,150.5	17.13	264.56	4,956.2	-126.3	-1,327.0	0.00	0.00	0.00	0.00	
6,007.0	0.00	0.00	5,800.0	-138.4	-1,453.5	2.00	-2.00	0.00	180.00	TARGET BHL 1250
7,954.0	0.00	0.00	7,747.0	-138.4	-1,453.5	0.00	0.00	0.00	0.00	

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-2-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 4-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-09-12)		

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	264.56	240.0	0.0	-0.3	0.3	2.00	2.00	0.00
280.0	1.60	264.56	280.0	-0.1	-1.1	1.1	2.00	2.00	0.00
320.0	2.40	264.56	320.0	-0.2	-2.5	2.5	2.00	2.00	0.00
360.0	3.20	264.56	359.9	-0.4	-4.4	4.5	2.00	2.00	0.00
400.0	4.00	264.56	399.8	-0.7	-6.9	7.0	2.00	2.00	0.00
440.0	4.80	264.56	439.7	-1.0	-10.0	10.0	2.00	2.00	0.00
480.0	5.60	264.56	479.6	-1.3	-13.6	13.7	2.00	2.00	0.00
520.0	6.40	264.56	519.3	-1.7	-17.8	17.9	2.00	2.00	0.00
560.0	7.20	264.56	559.1	-2.1	-22.5	22.6	2.00	2.00	0.00
600.0	8.00	264.56	598.7	-2.6	-27.8	27.9	2.00	2.00	0.00
640.0	8.80	264.56	638.3	-3.2	-33.6	33.7	2.00	2.00	0.00
680.0	9.60	264.56	677.8	-3.8	-39.9	40.1	2.00	2.00	0.00
693.4	9.87	264.56	691.0	-4.0	-42.2	42.4	2.00	2.00	0.00
<b>BASE FOX HILLS</b>									
720.0	10.40	264.56	717.1	-4.5	-46.9	47.1	2.00	2.00	0.00
760.0	11.20	264.56	756.4	-5.2	-54.3	54.6	2.00	2.00	0.00
800.0	12.00	264.56	795.6	-5.9	-62.3	62.6	2.00	2.00	0.00
840.0	12.80	264.56	834.7	-6.7	-70.9	71.2	2.00	2.00	0.00
880.0	13.60	264.56	873.6	-7.6	-80.0	80.3	2.00	2.00	0.00
907.2	14.14	264.56	900.0	-8.2	-86.4	86.8	2.00	2.00	0.00
<b>8 5/8"</b>									
920.0	14.40	264.56	912.4	-8.5	-89.6	90.0	2.00	2.00	0.00
960.0	15.20	264.56	951.1	-9.5	-99.8	100.2	2.00	2.00	0.00
1,000.0	16.00	264.56	989.6	-10.5	-110.5	111.0	2.00	2.00	0.00
1,040.0	16.80	264.56	1,028.0	-11.6	-121.7	122.3	2.00	2.00	0.00
1,056.5	17.13	264.56	1,043.8	-12.0	-126.5	127.1	2.00	2.00	0.00
1,080.0	17.13	264.56	1,066.3	-12.7	-133.4	134.0	0.00	0.00	0.00
1,120.0	17.13	264.56	1,104.5	-13.8	-145.1	145.8	0.00	0.00	0.00
1,160.0	17.13	264.56	1,142.7	-14.9	-156.9	157.6	0.00	0.00	0.00
1,200.0	17.13	264.56	1,180.9	-16.1	-168.6	169.4	0.00	0.00	0.00
1,240.0	17.13	264.56	1,219.2	-17.2	-180.3	181.1	0.00	0.00	0.00
1,280.0	17.13	264.56	1,257.4	-18.3	-192.0	192.9	0.00	0.00	0.00
1,320.0	17.13	264.56	1,295.6	-19.4	-203.8	204.7	0.00	0.00	0.00
1,360.0	17.13	264.56	1,333.8	-20.5	-215.5	216.5	0.00	0.00	0.00
1,400.0	17.13	264.56	1,372.1	-21.6	-227.2	228.3	0.00	0.00	0.00
1,440.0	17.13	264.56	1,410.3	-22.8	-239.0	240.0	0.00	0.00	0.00
1,480.0	17.13	264.56	1,448.5	-23.9	-250.7	251.8	0.00	0.00	0.00
1,520.0	17.13	264.56	1,486.7	-25.0	-262.4	263.6	0.00	0.00	0.00
1,560.0	17.13	264.56	1,525.0	-26.1	-274.2	275.4	0.00	0.00	0.00
1,600.0	17.13	264.56	1,563.2	-27.2	-285.9	287.2	0.00	0.00	0.00
1,640.0	17.13	264.56	1,601.4	-28.3	-297.6	299.0	0.00	0.00	0.00
1,680.0	17.13	264.56	1,639.6	-29.5	-309.3	310.7	0.00	0.00	0.00
1,720.0	17.13	264.56	1,677.9	-30.6	-321.1	322.5	0.00	0.00	0.00
1,760.0	17.13	264.56	1,716.1	-31.7	-332.8	334.3	0.00	0.00	0.00
1,800.0	17.13	264.56	1,754.3	-32.8	-344.5	346.1	0.00	0.00	0.00
1,840.0	17.13	264.56	1,792.5	-33.9	-356.3	357.9	0.00	0.00	0.00
1,880.0	17.13	264.56	1,830.8	-35.0	-368.0	369.6	0.00	0.00	0.00
1,920.0	17.13	264.56	1,869.0	-36.2	-379.7	381.4	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-2-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 4-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-09-12)		

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)
1,960.0	17.13	264.56	1,907.2	-37.3	-391.4	393.2	0.00	0.00	0.00
2,000.0	17.13	264.56	1,945.4	-38.4	-403.2	405.0	0.00	0.00	0.00
2,040.0	17.13	264.56	1,983.7	-39.5	-414.9	416.8	0.00	0.00	0.00
2,080.0	17.13	264.56	2,021.9	-40.6	-426.6	428.6	0.00	0.00	0.00
2,120.0	17.13	264.56	2,060.1	-41.7	-438.4	440.3	0.00	0.00	0.00
2,160.0	17.13	264.56	2,098.3	-42.9	-450.1	452.1	0.00	0.00	0.00
2,200.0	17.13	264.56	2,136.6	-44.0	-461.8	463.9	0.00	0.00	0.00
2,240.0	17.13	264.56	2,174.8	-45.1	-473.5	475.7	0.00	0.00	0.00
2,280.0	17.13	264.56	2,213.0	-46.2	-485.3	487.5	0.00	0.00	0.00
2,320.0	17.13	264.56	2,251.2	-47.3	-497.0	499.3	0.00	0.00	0.00
2,360.0	17.13	264.56	2,289.5	-48.4	-508.7	511.0	0.00	0.00	0.00
2,400.0	17.13	264.56	2,327.7	-49.6	-520.5	522.8	0.00	0.00	0.00
2,440.0	17.13	264.56	2,365.9	-50.7	-532.2	534.6	0.00	0.00	0.00
2,480.0	17.13	264.56	2,404.1	-51.8	-543.9	546.4	0.00	0.00	0.00
2,520.0	17.13	264.56	2,442.4	-52.9	-555.7	558.2	0.00	0.00	0.00
2,560.0	17.13	264.56	2,480.6	-54.0	-567.4	569.9	0.00	0.00	0.00
2,600.0	17.13	264.56	2,518.8	-55.1	-579.1	581.7	0.00	0.00	0.00
2,640.0	17.13	264.56	2,557.0	-56.3	-590.8	593.5	0.00	0.00	0.00
2,680.0	17.13	264.56	2,595.3	-57.4	-602.6	605.3	0.00	0.00	0.00
2,720.0	17.13	264.56	2,633.5	-58.5	-614.3	617.1	0.00	0.00	0.00
2,760.0	17.13	264.56	2,671.7	-59.6	-626.0	628.9	0.00	0.00	0.00
2,800.0	17.13	264.56	2,709.9	-60.7	-637.8	640.6	0.00	0.00	0.00
2,840.0	17.13	264.56	2,748.2	-61.8	-649.5	652.4	0.00	0.00	0.00
2,880.0	17.13	264.56	2,786.4	-63.0	-661.2	664.2	0.00	0.00	0.00
2,920.0	17.13	264.56	2,824.6	-64.1	-672.9	676.0	0.00	0.00	0.00
2,960.0	17.13	264.56	2,862.8	-65.2	-684.7	687.8	0.00	0.00	0.00
3,000.0	17.13	264.56	2,901.1	-66.3	-696.4	699.5	0.00	0.00	0.00
3,040.0	17.13	264.56	2,939.3	-67.4	-708.1	711.3	0.00	0.00	0.00
3,080.0	17.13	264.56	2,977.5	-68.5	-719.9	723.1	0.00	0.00	0.00
3,120.0	17.13	264.56	3,015.8	-69.7	-731.6	734.9	0.00	0.00	0.00
3,160.0	17.13	264.56	3,054.0	-70.8	-743.3	746.7	0.00	0.00	0.00
3,200.0	17.13	264.56	3,092.2	-71.9	-755.0	758.5	0.00	0.00	0.00
3,240.0	17.13	264.56	3,130.4	-73.0	-766.8	770.2	0.00	0.00	0.00
3,280.0	17.13	264.56	3,168.7	-74.1	-778.5	782.0	0.00	0.00	0.00
3,320.0	17.13	264.56	3,206.9	-75.2	-790.2	793.8	0.00	0.00	0.00
3,360.0	17.13	264.56	3,245.1	-76.4	-802.0	805.6	0.00	0.00	0.00
3,400.0	17.13	264.56	3,283.3	-77.5	-813.7	817.4	0.00	0.00	0.00
3,440.0	17.13	264.56	3,321.6	-78.6	-825.4	829.2	0.00	0.00	0.00
3,480.0	17.13	264.56	3,359.8	-79.7	-837.1	840.9	0.00	0.00	0.00
3,520.0	17.13	264.56	3,398.0	-80.8	-848.9	852.7	0.00	0.00	0.00
3,560.0	17.13	264.56	3,436.2	-81.9	-860.6	864.5	0.00	0.00	0.00
3,600.0	17.13	264.56	3,474.5	-83.1	-872.3	876.3	0.00	0.00	0.00
3,640.0	17.13	264.56	3,512.7	-84.2	-884.1	888.1	0.00	0.00	0.00
3,680.0	17.13	264.56	3,550.9	-85.3	-895.8	899.8	0.00	0.00	0.00
3,720.0	17.13	264.56	3,589.1	-86.4	-907.5	911.6	0.00	0.00	0.00
3,760.0	17.13	264.56	3,627.4	-87.5	-919.3	923.4	0.00	0.00	0.00
3,800.0	17.13	264.56	3,665.6	-88.6	-931.0	935.2	0.00	0.00	0.00
3,840.0	17.13	264.56	3,703.8	-89.8	-942.7	947.0	0.00	0.00	0.00
3,880.0	17.13	264.56	3,742.0	-90.9	-954.4	958.8	0.00	0.00	0.00
3,920.0	17.13	264.56	3,780.3	-92.0	-966.2	970.5	0.00	0.00	0.00
3,960.0	17.13	264.56	3,818.5	-93.1	-977.9	982.3	0.00	0.00	0.00
4,000.0	17.13	264.56	3,856.7	-94.2	-989.6	994.1	0.00	0.00	0.00
4,040.0	17.13	264.56	3,894.9	-95.3	-1,001.4	1,005.9	0.00	0.00	0.00
4,080.0	17.13	264.56	3,933.2	-96.5	-1,013.1	1,017.7	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-2-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 4-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-09-12)		

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)
4,120.0	17.13	264.56	3,971.4	-97.6	-1,024.8	1,029.4	0.00	0.00	0.00
4,160.0	17.13	264.56	4,009.6	-98.7	-1,036.5	1,041.2	0.00	0.00	0.00
4,200.0	17.13	264.56	4,047.8	-99.8	-1,048.3	1,053.0	0.00	0.00	0.00
4,240.0	17.13	264.56	4,086.1	-100.9	-1,060.0	1,064.8	0.00	0.00	0.00
4,280.0	17.13	264.56	4,124.3	-102.0	-1,071.7	1,076.6	0.00	0.00	0.00
4,320.0	17.13	264.56	4,162.5	-103.2	-1,083.5	1,088.4	0.00	0.00	0.00
4,360.0	17.13	264.56	4,200.7	-104.3	-1,095.2	1,100.1	0.00	0.00	0.00
4,400.0	17.13	264.56	4,239.0	-105.4	-1,106.9	1,111.9	0.00	0.00	0.00
4,440.0	17.13	264.56	4,277.2	-106.5	-1,118.6	1,123.7	0.00	0.00	0.00
4,446.1	17.13	264.56	4,283.0	-106.7	-1,120.4	1,125.5	0.00	0.00	0.00
<b>SUSSEX</b>									
4,480.0	17.13	264.56	4,315.4	-107.6	-1,130.4	1,135.5	0.00	0.00	0.00
4,520.0	17.13	264.56	4,353.6	-108.7	-1,142.1	1,147.3	0.00	0.00	0.00
4,560.0	17.13	264.56	4,391.9	-109.9	-1,153.8	1,159.1	0.00	0.00	0.00
4,600.0	17.13	264.56	4,430.1	-111.0	-1,165.6	1,170.8	0.00	0.00	0.00
4,639.7	17.13	264.56	4,468.0	-112.1	-1,177.2	1,182.5	0.00	0.00	0.00
<b>SUSSEX PAY TOP</b>									
4,640.0	17.13	264.56	4,468.3	-112.1	-1,177.3	1,182.6	0.00	0.00	0.00
4,680.0	17.13	264.56	4,506.5	-113.2	-1,189.0	1,194.4	0.00	0.00	0.00
4,720.0	17.13	264.56	4,544.8	-114.3	-1,200.7	1,206.2	0.00	0.00	0.00
4,760.0	17.13	264.56	4,583.0	-115.4	-1,212.5	1,218.0	0.00	0.00	0.00
4,800.0	17.13	264.56	4,621.2	-116.6	-1,224.2	1,229.7	0.00	0.00	0.00
4,801.9	17.13	264.56	4,623.0	-116.6	-1,224.8	1,230.3	0.00	0.00	0.00
<b>SUSSEX MARKER</b>									
4,840.0	17.13	264.56	4,659.4	-117.7	-1,235.9	1,241.5	0.00	0.00	0.00
4,880.0	17.13	264.56	4,697.7	-118.8	-1,247.7	1,253.3	0.00	0.00	0.00
4,920.0	17.13	264.56	4,735.9	-119.9	-1,259.4	1,265.1	0.00	0.00	0.00
4,960.0	17.13	264.56	4,774.1	-121.0	-1,271.1	1,276.9	0.00	0.00	0.00
5,000.0	17.13	264.56	4,812.3	-122.1	-1,282.9	1,288.7	0.00	0.00	0.00
5,040.0	17.13	264.56	4,850.6	-123.3	-1,294.6	1,300.4	0.00	0.00	0.00
5,080.0	17.13	264.56	4,888.8	-124.4	-1,306.3	1,312.2	0.00	0.00	0.00
5,120.0	17.13	264.56	4,927.0	-125.5	-1,318.0	1,324.0	0.00	0.00	0.00
5,150.5	17.13	264.56	4,956.2	-126.3	-1,327.0	1,333.0	0.00	0.00	0.00
5,160.0	16.94	264.56	4,965.3	-126.6	-1,329.8	1,335.8	2.00	-2.00	0.00
5,200.0	16.14	264.56	5,003.6	-127.7	-1,341.1	1,347.2	2.00	-2.00	0.00
5,240.0	15.34	264.56	5,042.1	-128.7	-1,351.9	1,358.0	2.00	-2.00	0.00
5,280.0	14.54	264.56	5,080.7	-129.7	-1,362.2	1,368.3	2.00	-2.00	0.00
5,320.0	13.74	264.56	5,119.5	-130.6	-1,371.9	1,378.1	2.00	-2.00	0.00
5,360.0	12.94	264.56	5,158.5	-131.5	-1,381.1	1,387.3	2.00	-2.00	0.00
5,400.0	12.14	264.56	5,197.5	-132.3	-1,389.7	1,396.0	2.00	-2.00	0.00
5,440.0	11.34	264.56	5,236.7	-133.1	-1,397.8	1,404.1	2.00	-2.00	0.00
5,480.0	10.54	264.56	5,275.9	-133.8	-1,405.4	1,411.7	2.00	-2.00	0.00
5,520.0	9.74	264.56	5,315.3	-134.5	-1,412.4	1,418.8	2.00	-2.00	0.00
5,560.0	8.94	264.56	5,354.8	-135.1	-1,418.9	1,425.3	2.00	-2.00	0.00
5,600.0	8.14	264.56	5,394.3	-135.6	-1,424.8	1,431.2	2.00	-2.00	0.00
5,640.0	7.34	264.56	5,434.0	-136.2	-1,430.1	1,436.6	2.00	-2.00	0.00
5,680.0	6.54	264.56	5,473.7	-136.6	-1,434.9	1,441.4	2.00	-2.00	0.00
5,720.0	5.74	264.56	5,513.4	-137.0	-1,439.2	1,445.7	2.00	-2.00	0.00
5,760.0	4.94	264.56	5,553.3	-137.4	-1,442.9	1,449.4	2.00	-2.00	0.00
5,800.0	4.14	264.56	5,593.1	-137.7	-1,446.1	1,452.6	2.00	-2.00	0.00
5,840.0	3.34	264.56	5,633.1	-137.9	-1,448.7	1,455.2	2.00	-2.00	0.00
5,880.0	2.54	264.56	5,673.0	-138.1	-1,450.7	1,457.3	2.00	-2.00	0.00
5,920.0	1.74	264.56	5,713.0	-138.3	-1,452.2	1,458.8	2.00	-2.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-2-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 4-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-09-12)		

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)
5,960.0	0.94	264.56	5,753.0	-138.3	-1,453.1	1,459.7	2.00	-2.00	0.00
6,000.0	0.14	264.56	5,793.0	-138.4	-1,453.5	1,460.1	2.00	-2.00	0.00
6,007.0	0.00	0.00	5,800.0	-138.4	-1,453.5	1,460.1	2.00	-2.00	0.00
6,040.0	0.00	0.00	5,833.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,080.0	0.00	0.00	5,873.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,120.0	0.00	0.00	5,913.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,160.0	0.00	0.00	5,953.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,200.0	0.00	0.00	5,993.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,240.0	0.00	0.00	6,033.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,280.0	0.00	0.00	6,073.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,320.0	0.00	0.00	6,113.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,360.0	0.00	0.00	6,153.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,400.0	0.00	0.00	6,193.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,440.0	0.00	0.00	6,233.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,480.0	0.00	0.00	6,273.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,520.0	0.00	0.00	6,313.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,560.0	0.00	0.00	6,353.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,600.0	0.00	0.00	6,393.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,640.0	0.00	0.00	6,433.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,677.0	0.00	0.00	6,470.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
TEEPEE BUTTES									
6,680.0	0.00	0.00	6,473.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,720.0	0.00	0.00	6,513.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,760.0	0.00	0.00	6,553.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,800.0	0.00	0.00	6,593.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,840.0	0.00	0.00	6,633.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,880.0	0.00	0.00	6,673.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,920.0	0.00	0.00	6,713.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
6,960.0	0.00	0.00	6,753.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
7,000.0	0.00	0.00	6,793.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
7,019.0	0.00	0.00	6,812.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
SHARON SPRINGS									
7,040.0	0.00	0.00	6,833.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
7,080.0	0.00	0.00	6,873.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
7,085.0	0.00	0.00	6,878.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
NIOBRARA									
7,120.0	0.00	0.00	6,913.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
7,160.0	0.00	0.00	6,953.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
7,200.0	0.00	0.00	6,993.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
7,240.0	0.00	0.00	7,033.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
7,280.0	0.00	0.00	7,073.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
7,320.0	0.00	0.00	7,113.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
7,335.0	0.00	0.00	7,128.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
FT. HAYES									
7,360.0	0.00	0.00	7,153.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
7,361.0	0.00	0.00	7,154.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
CODELL									
7,376.0	0.00	0.00	7,169.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
FAIRPORT									
7,400.0	0.00	0.00	7,193.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
7,429.0	0.00	0.00	7,222.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00
GREENHORN									
7,440.0	0.00	0.00	7,233.0	-138.4	-1,453.5	1,460.1	0.00	0.00	0.00

Formations	Geological Data				
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip Direction (°)
	693.4	691.0	BASE FOX HILLS		0.00
	4,446.1	4,283.0	SUSSEX		0.00
	4,639.7	4,468.0	SUSSEX PAY TOP		0.00
	4,801.9	4,623.0	SUSSEX MARKER		0.00
	6,677.0	6,470.0	TEEPEE BUTTES		0.00
	7,019.0	6,812.0	SHARON SPRINGS		0.00
	7,085.0	6,878.0	NIOBRARA		0.00
	7,335.0	7,128.0	FT. HAYES		0.00
	7,361.0	7,154.0	CODELL		0.00
	7,376.0	7,169.0	FAIRPORT		0.00
	7,429.0	7,222.0	GREENHORN		0.00
	7,622.0	7,415.0	GRANEROS		0.00
	7,761.0	7,554.0	MOWRY		0.00
	7,804.0	7,597.0	J-SAND		0.00
	7,893.0	7,686.0	SKULL CREEK A MARKER		0.00



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-2-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 4-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-09-12)		



## **Directional**

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

**SEC.10-T2N-R65W**

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

**Dowdy 4-2-10**

**Wellbore #1**

**Plan #1 (7-09-12)**

### **Anticollision Report**

**09 July, 2012**



<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 4-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-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		
2,200.0	2,136.6	2,056.6	2,034.4	10.4	6.6	159.50	231.5	151.1	679.7	668.1	11.55	58.846		
2,300.0	2,232.1	2,147.3	2,123.8	11.0	6.9	159.63	244.3	160.2	721.6	709.5	12.14	59.458		
2,400.0	2,327.7	2,238.1	2,213.2	11.7	7.3	159.74	257.2	169.3	763.5	750.8	12.72	60.010		
2,500.0	2,423.3	2,328.9	2,302.6	12.3	7.6	159.85	270.0	178.4	805.5	792.2	13.31	60.510		
2,600.0	2,518.8	2,419.7	2,392.0	12.9	8.0	159.94	282.9	187.6	847.4	833.5	13.90	60.964		
2,700.0	2,614.4	2,510.4	2,481.4	13.5	8.3	160.03	295.7	196.7	889.4	874.9	14.49	61.379		
2,800.0	2,709.9	2,601.2	2,570.7	14.2	8.7	160.10	308.6	205.8	931.3	916.2	15.08	61.759		
2,900.0	2,805.5	2,692.0	2,660.1	14.8	9.1	160.17	321.5	214.9	973.3	957.6	15.67	62.108		
3,000.0	2,901.1	2,782.7	2,749.5	15.4	9.4	160.24	334.3	224.0	1,015.2	999.0	16.26	62.430		
3,100.0	2,996.6	2,873.5	2,838.9	16.1	9.8	160.30	347.2	233.2	1,057.2	1,040.3	16.85	62.728		
3,200.0	3,092.2	2,964.3	2,928.3	16.7	10.1	160.35	360.0	242.3	1,099.1	1,081.7	17.45	63.004		
3,300.0	3,187.8	3,055.0	3,017.7	17.3	10.5	160.40	372.9	251.4	1,141.1	1,123.0	18.04	63.261		
3,400.0	3,283.3	3,145.8	3,107.1	18.0	10.8	160.45	385.8	260.5	1,183.0	1,164.4	18.63	63.501		
3,500.0	3,378.9	3,236.6	3,196.5	18.6	11.2	160.49	398.6	269.6	1,225.0	1,205.8	19.22	63.724		
3,600.0	3,474.5	3,327.3	3,285.9	19.2	11.5	160.54	411.5	278.8	1,267.0	1,247.1	19.82	63.933		
3,700.0	3,570.0	3,418.1	3,375.3	19.9	11.9	160.57	424.3	287.9	1,308.9	1,288.5	20.41	64.129		
3,800.0	3,665.6	3,508.9	3,464.6	20.5	12.2	160.61	437.2	297.0	1,350.9	1,329.9	21.00	64.313		
3,900.0	3,761.1	3,599.7	3,554.0	21.1	12.6	160.64	450.1	306.1	1,392.8	1,371.2	21.60	64.487		
4,000.0	3,856.7	3,690.4	3,643.4	21.8	12.9	160.68	462.9	315.2	1,434.8	1,412.6	22.19	64.650		
4,100.0	3,952.3	3,781.2	3,732.8	22.4	13.3	160.71	475.8	324.4	1,476.7	1,453.9	22.79	64.804		
4,200.0	4,047.8	3,872.0	3,822.2	23.0	13.7	160.73	488.6	333.5	1,518.7	1,495.3	23.38	64.949		
4,300.0	4,143.4	3,962.7	3,911.6	23.7	14.0	160.76	501.5	342.6	1,560.7	1,536.7	23.98	65.087		
4,400.0	4,239.0	4,053.5	4,001.0	24.3	14.4	160.79	514.4	351.7	1,602.6	1,578.0	24.57	65.217		
4,500.0	4,334.5	4,230.1	4,175.7	24.9	14.9	160.94	535.1	366.4	1,642.2	1,617.0	25.29	64.947		
4,600.0	4,430.1	4,415.4	4,360.4	25.5	15.3	161.30	547.3	375.1	1,676.8	1,650.9	25.93	64.666		
4,700.0	4,525.7	4,580.7	4,525.7	26.2	15.5	161.79	550.1	377.1	1,706.4	1,679.9	26.48	64.331		
4,800.0	4,621.2	4,676.3	4,621.2	26.8	15.6	162.09	550.1	377.1	1,734.5	1,707.5	26.96	64.341		
4,900.0	4,716.8	4,771.9	4,716.8	27.4	15.8	162.38	550.1	377.1	1,762.7	1,735.2	27.43	64.249		
5,000.0	4,812.3	4,867.4	4,812.3	28.1	15.9	162.67	550.1	377.1	1,790.9	1,763.0	27.91	64.162		
5,100.0	4,907.9	4,963.0	4,907.9	28.7	16.0	162.94	550.1	377.1	1,819.1	1,790.7	28.39	64.079		
5,150.5	4,956.2	5,011.2	4,956.2	29.0	16.1	163.08	550.1	377.1	1,833.4	1,804.8	28.63	64.038		
5,200.0	5,003.6	5,058.7	5,003.6	29.3	16.2	163.29	550.1	377.1	1,847.0	1,818.1	28.92	63.862		
5,300.0	5,100.1	5,155.2	5,100.1	29.7	16.3	163.66	550.1	377.1	1,872.1	1,842.6	29.46	63.540		
5,400.0	5,197.5	5,252.6	5,197.5	30.1	16.5	163.98	550.1	377.1	1,894.0	1,864.0	29.97	63.201		
5,500.0	5,295.6	5,350.7	5,295.6	30.4	16.6	164.24	550.1	377.1	1,912.6	1,882.2	30.43	62.848		
5,600.0	5,394.3	5,449.4	5,394.3	30.7	16.7	164.45	550.1	377.1	1,927.9	1,897.1	30.86	62.479		
5,700.0	5,493.6	5,548.6	5,493.6	31.0	16.9	164.62	550.1	377.1	1,939.9	1,908.7	31.24	62.097		
5,800.0	5,593.1	5,648.2	5,593.1	31.1	17.1	164.73	550.1	377.1	1,948.5	1,917.0	31.58	61.699		
5,900.0	5,693.0	5,748.1	5,693.0	31.3	17.2	164.80	550.1	377.1	1,953.8	1,921.9	31.88	61.286		
6,007.0	5,800.0	5,855.1	5,800.0	31.4	17.4	69.39	550.1	377.1	1,955.8	1,923.6	32.16	60.814		
6,100.0	5,893.0	5,948.0	5,893.0	31.5	17.5	69.39	550.1	377.1	1,955.8	1,923.3	32.46	60.247		
6,200.0	5,993.0	6,048.0	5,993.0	31.6	17.7	69.39	550.1	377.1	1,955.8	1,923.0	32.79	59.643		
6,300.0	6,093.0	6,148.0	6,093.0	31.6	17.8	69.39	550.1	377.1	1,955.8	1,922.6	33.12	59.045		
6,400.0	6,193.0	6,248.0	6,193.0	31.7	18.0	69.39	550.1	377.1	1,955.8	1,922.3	33.46	58.455		
6,500.0	6,293.0	6,348.0	6,293.0	31.8	18.2	69.39	550.1	377.1	1,955.8	1,922.0	33.79	57.872		
6,600.0	6,393.0	6,448.0	6,393.0	31.9	18.3	69.39	550.1	377.1	1,955.8	1,921.6	34.13	57.296		
6,700.0	6,493.0	6,548.0	6,493.0	32.0	18.5	69.39	550.1	377.1	1,955.8	1,921.3	34.48	56.728		
6,800.0	6,593.0	6,648.0	6,593.0	32.1	18.7	69.39	550.1	377.1	1,955.8	1,920.9	34.82	56.167		
6,900.0	6,693.0	6,748.0	6,693.0	32.2	18.8	69.39	550.1	377.1	1,955.8	1,920.6	35.17	55.613		
7,000.0	6,793.0	6,848.0	6,793.0	32.3	19.0	69.39	550.1	377.1	1,955.8	1,920.2	35.52	55.067		
7,100.0	6,893.0	6,948.0	6,893.0	32.4	19.2	69.39	550.1	377.1	1,955.8	1,919.9	35.87	54.528		
7,200.0	6,993.0	7,048.0	6,993.0	32.5	19.4	69.39	550.1	377.1	1,955.8	1,919.5	36.22	53.997		

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

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 4-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Dowdy 4-2-10 Pad Sec.10-T2N-R65W - Dowdy 41-10 - Wellbore #1 - Plan #1 (7-09-12)												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	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
7,300.0	7,093.0	7,148.0	7,093.0	32.6	19.5	69.39	550.1	377.1	1,955.8	1,919.2	36.58	53.472	
7,400.0	7,193.0	7,248.0	7,193.0	32.7	19.7	69.39	550.1	377.1	1,955.8	1,918.8	36.93	52.955	
7,500.0	7,293.0	7,348.0	7,293.0	32.8	19.9	69.39	550.1	377.1	1,955.8	1,918.5	37.29	52.445	
7,600.0	7,393.0	7,448.0	7,393.0	32.9	20.1	69.39	550.1	377.1	1,955.8	1,918.1	37.65	51.942	
7,700.0	7,493.0	7,548.0	7,493.0	33.0	20.2	69.39	550.1	377.1	1,955.8	1,917.7	38.02	51.447	
7,800.0	7,593.0	7,648.0	7,593.0	33.1	20.4	69.39	550.1	377.1	1,955.8	1,917.4	38.38	50.958	
7,900.0	7,693.0	7,748.0	7,693.0	33.2	20.6	69.39	550.1	377.1	1,955.8	1,917.0	38.75	50.476	
7,929.3	7,722.3	7,777.3	7,722.3	33.3	20.6	69.39	550.1	377.1	1,955.8	1,916.9	38.85	50.336	
7,954.0	7,747.0	7,787.4	7,732.3	33.3	20.7	69.39	550.1	377.1	1,955.8	1,916.9	38.92	50.258	

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 4-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-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	90.04	0.0	11.2	11.2	11.2	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	90.04	0.0	11.2	11.2	11.0	0.22	49.744		
200.0	200.0	200.0	200.0	0.3	0.3	90.04	0.0	11.2	11.2	10.5	0.67	16.581 CC, ES		
300.0	300.0	300.0	300.0	0.6	0.6	-175.26	0.0	11.2	12.9	11.8	1.12	11.548 SF		
400.0	399.8	399.8	399.8	0.8	0.8	-176.62	0.0	11.2	18.1	16.6	1.57	11.585		
500.0	499.5	499.3	499.3	1.0	1.0	-174.05	-1.7	11.4	27.1	25.1	2.00	13.561		
600.0	598.7	598.2	598.0	1.3	1.2	-168.50	-6.8	12.2	40.1	37.7	2.43	16.528		
700.0	697.5	696.0	695.5	1.7	1.4	-163.25	-15.1	13.4	57.8	54.9	2.91	19.898		
800.0	795.6	792.5	791.3	2.0	1.6	-158.98	-26.6	15.1	80.2	76.8	3.43	23.380		
900.0	893.1	887.3	884.9	2.5	1.9	-155.61	-40.9	17.2	107.4	103.4	4.01	26.766		
1,000.0	989.6	980.1	976.1	3.0	2.2	-152.94	-57.9	19.7	139.2	134.5	4.65	29.937		
1,056.5	1,043.8	1,031.6	1,026.5	3.3	2.5	-151.65	-68.6	21.2	159.2	154.1	5.04	31.608		
1,100.0	1,085.4	1,070.8	1,064.6	3.6	2.6	-150.87	-77.3	22.5	175.3	169.9	5.35	32.788		
1,200.0	1,180.9	1,159.8	1,150.9	4.2	3.0	-149.03	-99.1	25.7	213.4	207.3	6.10	35.009		
1,300.0	1,276.5	1,249.3	1,237.0	4.8	3.5	-147.22	-123.4	29.3	253.2	246.3	6.89	36.733		
1,400.0	1,372.1	1,340.6	1,324.7	5.4	4.0	-145.79	-148.5	33.0	293.3	285.6	7.72	38.010		
1,500.0	1,467.6	1,432.0	1,412.5	6.0	4.5	-144.71	-173.7	36.7	333.6	325.1	8.55	39.003		
1,600.0	1,563.2	1,523.4	1,500.3	6.6	5.0	-143.86	-198.9	40.3	374.0	364.6	9.40	39.791		
1,700.0	1,658.7	1,614.8	1,588.0	7.3	5.5	-143.17	-224.0	44.0	414.4	404.1	10.25	40.431		
1,800.0	1,754.3	1,706.1	1,675.8	7.9	6.0	-142.60	-249.2	47.7	454.8	443.7	11.11	40.955		
1,900.0	1,849.9	1,797.5	1,763.5	8.5	6.5	-142.13	-274.4	51.4	495.3	483.3	11.97	41.391		
2,000.0	1,945.4	1,888.9	1,851.3	9.1	7.0	-141.73	-299.5	55.1	535.8	523.0	12.83	41.759		
2,100.0	2,041.0	1,980.2	1,939.1	9.8	7.5	-141.39	-324.7	58.8	576.3	562.6	13.70	42.074		
2,200.0	2,136.6	2,071.6	2,026.8	10.4	8.0	-141.09	-349.8	62.5	616.8	602.3	14.57	42.345		
2,300.0	2,232.1	2,163.0	2,114.6	11.0	8.6	-140.83	-375.0	66.2	657.4	642.0	15.44	42.582		
2,400.0	2,327.7	2,254.4	2,202.3	11.7	9.1	-140.59	-400.2	69.9	698.0	681.6	16.31	42.789		
2,500.0	2,423.3	2,345.7	2,290.1	12.3	9.6	-140.39	-425.3	73.6	738.5	721.3	17.19	42.973		
2,600.0	2,518.8	2,437.1	2,377.9	12.9	10.1	-140.20	-450.5	77.3	779.1	761.0	18.06	43.136		
2,700.0	2,614.4	2,528.5	2,465.6	13.5	10.7	-140.03	-475.7	80.9	819.7	800.7	18.94	43.283		
2,800.0	2,709.9	2,619.8	2,553.4	14.2	11.2	-139.88	-500.8	84.6	860.3	840.4	19.82	43.414		
2,900.0	2,805.5	2,711.2	2,641.1	14.8	11.7	-139.75	-526.0	88.3	900.9	880.2	20.69	43.533		
3,000.0	2,901.1	2,802.6	2,728.9	15.4	12.2	-139.62	-551.1	92.0	941.4	919.9	21.57	43.641		
3,100.0	2,996.6	2,894.0	2,816.7	16.1	12.8	-139.51	-576.3	95.7	982.0	959.6	22.45	43.740		
3,200.0	3,092.2	2,985.3	2,904.4	16.7	13.3	-139.40	-601.5	99.4	1,022.6	999.3	23.33	43.830		
3,300.0	3,187.8	3,076.7	2,992.2	17.3	13.8	-139.30	-626.6	103.1	1,063.2	1,039.0	24.21	43.912		
3,400.0	3,283.3	3,168.1	3,079.9	18.0	14.3	-139.21	-651.8	106.8	1,103.9	1,078.8	25.09	43.989		
3,500.0	3,378.9	3,259.4	3,167.7	18.6	14.9	-139.13	-677.0	110.5	1,144.5	1,118.5	25.98	44.059		
3,600.0	3,474.5	3,350.8	3,255.5	19.2	15.4	-139.05	-702.1	114.2	1,185.1	1,158.2	26.86	44.124		
3,700.0	3,570.0	3,442.2	3,343.2	19.9	15.9	-138.97	-727.3	117.8	1,225.7	1,197.9	27.74	44.185		
3,800.0	3,665.6	3,533.6	3,431.0	20.5	16.5	-138.91	-752.5	121.5	1,266.3	1,237.7	28.62	44.241		
3,900.0	3,761.1	3,624.9	3,518.7	21.1	17.0	-138.84	-777.6	125.2	1,306.9	1,277.4	29.51	44.294		
4,000.0	3,856.7	3,716.3	3,606.5	21.8	17.5	-138.78	-802.8	128.9	1,347.5	1,317.1	30.39	44.343		
4,100.0	3,952.3	3,807.7	3,694.3	22.4	18.0	-138.72	-827.9	132.6	1,388.1	1,356.9	31.27	44.389		
4,200.0	4,047.8	3,899.0	3,782.0	23.0	18.6	-138.67	-853.1	136.3	1,428.8	1,396.6	32.16	44.432		
4,300.0	4,143.4	3,990.4	3,869.8	23.7	19.1	-138.62	-878.3	140.0	1,469.4	1,436.3	33.04	44.473		
4,400.0	4,239.0	4,081.8	3,957.5	24.3	19.6	-138.57	-903.4	143.7	1,510.0	1,476.1	33.92	44.511		
4,500.0	4,334.5	4,173.2	4,045.3	24.9	20.1	-138.53	-928.6	147.4	1,550.6	1,515.8	34.81	44.547		
4,600.0	4,430.1	4,264.5	4,133.1	25.5	20.7	-138.48	-953.8	151.1	1,591.2	1,555.5	35.69	44.581		
4,700.0	4,525.7	4,355.9	4,220.8	26.2	21.2	-138.44	-978.9	154.8	1,631.9	1,595.3	36.58	44.613		
4,800.0	4,621.2	4,447.3	4,308.6	26.8	21.7	-138.40	-1,004.1	158.4	1,672.5	1,635.0	37.46	44.643		
4,900.0	4,716.8	4,538.6	4,396.3	27.4	22.3	-138.37	-1,029.3	162.1	1,713.1	1,674.8	38.35	44.672		
5,000.0	4,812.3	4,630.0	4,484.1	28.1	22.8	-138.33	-1,054.4	165.8	1,753.7	1,714.5	39.23	44.699		

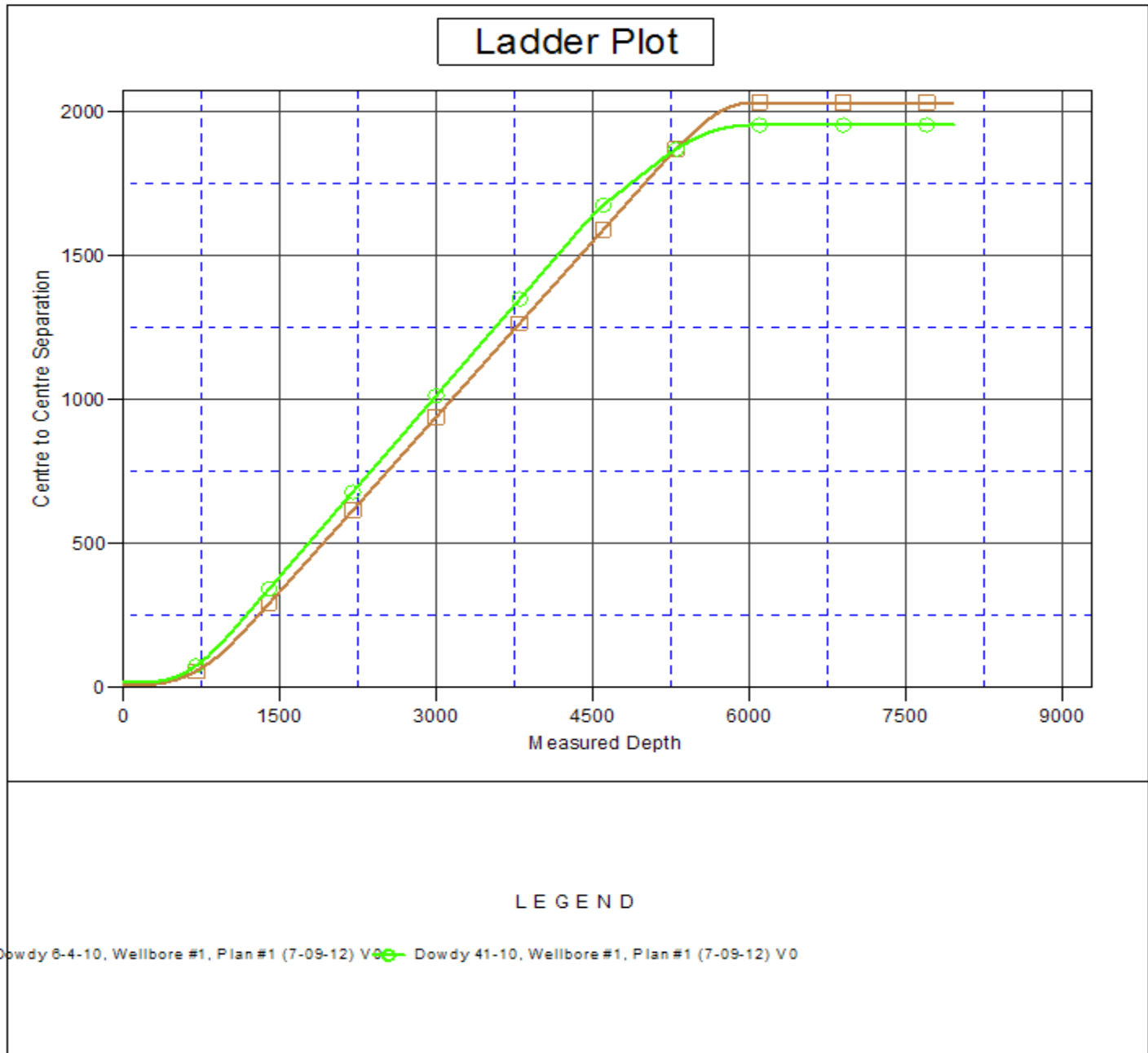
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 4-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-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	4,907.9	4,721.4	4,571.9	28.7	23.3	-138.30	-1,079.6	169.5	1,794.4	1,754.2	40.12	44.725	
5,150.5	4,956.2	4,767.5	4,616.2	29.0	23.6	-138.28	-1,092.3	171.4	1,814.9	1,774.3	40.57	44.738	
5,200.0	5,003.6	4,812.9	4,659.7	29.3	23.8	-138.54	-1,104.8	173.2	1,834.7	1,793.6	41.05	44.697	
5,300.0	5,100.1	4,905.2	4,748.4	29.7	24.4	-138.98	-1,130.2	176.9	1,872.9	1,831.0	41.93	44.664	
5,400.0	5,197.5	4,998.4	4,838.0	30.1	24.9	-139.30	-1,155.9	180.7	1,908.7	1,865.9	42.78	44.614	
5,500.0	5,295.6	5,092.4	4,928.2	30.4	25.5	-139.52	-1,181.8	184.5	1,942.1	1,898.5	43.59	44.551	
5,600.0	5,394.3	5,202.2	5,033.8	30.7	26.1	-139.59	-1,211.8	188.9	1,972.9	1,928.4	44.41	44.427	
5,700.0	5,493.6	5,385.5	5,211.8	31.0	26.7	-139.42	-1,254.7	195.2	1,998.4	1,953.2	45.25	44.167	
5,800.0	5,593.1	5,574.8	5,398.2	31.1	27.3	-139.30	-1,287.1	200.0	2,017.1	1,971.1	45.95	43.899	
5,900.0	5,693.0	5,768.3	5,590.6	31.3	27.7	-139.22	-1,307.5	202.9	2,028.6	1,982.1	46.49	43.637	
6,007.0	5,800.0	5,977.9	5,800.0	31.4	27.9	125.37	-1,315.1	204.1	2,032.8	1,985.9	46.89	43.350	
6,100.0	5,893.0	6,070.9	5,893.0	31.5	28.0	125.37	-1,315.1	204.1	2,032.8	1,985.7	47.08	43.177	
6,200.0	5,993.0	6,170.9	5,993.0	31.6	28.1	125.37	-1,315.1	204.1	2,032.8	1,985.5	47.28	42.992	
6,300.0	6,093.0	6,270.9	6,093.0	31.6	28.2	125.37	-1,315.1	204.1	2,032.8	1,985.3	47.49	42.806	
6,400.0	6,193.0	6,370.9	6,193.0	31.7	28.3	125.37	-1,315.1	204.1	2,032.8	1,985.1	47.70	42.619	
6,500.0	6,293.0	6,470.9	6,293.0	31.8	28.3	125.37	-1,315.1	204.1	2,032.8	1,984.9	47.91	42.430	
6,600.0	6,393.0	6,570.9	6,393.0	31.9	28.4	125.37	-1,315.1	204.1	2,032.8	1,984.7	48.12	42.240	
6,700.0	6,493.0	6,670.9	6,493.0	32.0	28.5	125.37	-1,315.1	204.1	2,032.8	1,984.4	48.34	42.049	
6,800.0	6,593.0	6,770.9	6,593.0	32.1	28.6	125.37	-1,315.1	204.1	2,032.8	1,984.2	48.57	41.857	
6,900.0	6,693.0	6,870.9	6,693.0	32.2	28.7	125.37	-1,315.1	204.1	2,032.8	1,984.0	48.79	41.663	
7,000.0	6,793.0	6,970.9	6,793.0	32.3	28.8	125.37	-1,315.1	204.1	2,032.8	1,983.8	49.02	41.470	
7,100.0	6,893.0	7,070.9	6,893.0	32.4	28.9	125.37	-1,315.1	204.1	2,032.8	1,983.5	49.25	41.275	
7,200.0	6,993.0	7,170.9	6,993.0	32.5	29.0	125.37	-1,315.1	204.1	2,032.8	1,983.3	49.48	41.080	
7,300.0	7,093.0	7,270.9	7,093.0	32.6	29.1	125.37	-1,315.1	204.1	2,032.8	1,983.1	49.72	40.884	
7,400.0	7,193.0	7,370.9	7,193.0	32.7	29.2	125.37	-1,315.1	204.1	2,032.8	1,982.8	49.96	40.687	
7,500.0	7,293.0	7,470.9	7,293.0	32.8	29.3	125.37	-1,315.1	204.1	2,032.8	1,982.6	50.20	40.490	
7,600.0	7,393.0	7,570.9	7,393.0	32.9	29.4	125.37	-1,315.1	204.1	2,032.8	1,982.3	50.45	40.293	
7,700.0	7,493.0	7,670.9	7,493.0	33.0	29.5	125.37	-1,315.1	204.1	2,032.8	1,982.1	50.70	40.095	
7,800.0	7,593.0	7,770.9	7,593.0	33.1	29.6	125.37	-1,315.1	204.1	2,032.8	1,981.8	50.95	39.898	
7,900.0	7,693.0	7,870.9	7,693.0	33.2	29.7	125.37	-1,315.1	204.1	2,032.8	1,981.6	51.20	39.700	
7,928.4	7,721.4	7,899.3	7,721.4	33.3	29.7	125.37	-1,315.1	204.1	2,032.8	1,981.5	51.28	39.643	
7,954.0	7,747.0	7,908.9	7,731.0	33.3	29.7	125.37	-1,315.1	204.1	2,032.8	1,981.5	51.32	39.609	

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 4-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4870.0ft (Original Well Elev) Coordinates are relative to: Dowdy 4-2-10  
 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: 0.55°





<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 4-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4870.0ft (Original Well Elev) Coordinates are relative to: Dowdy 4-2-10  
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