

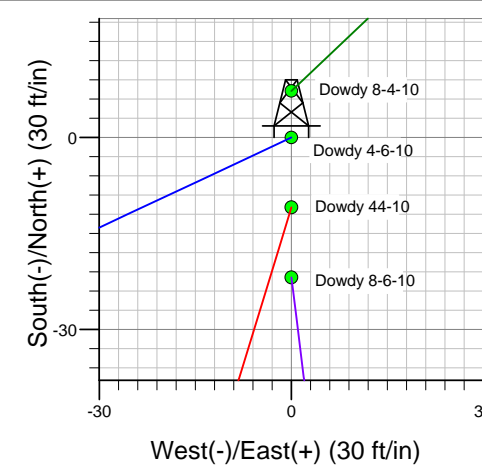
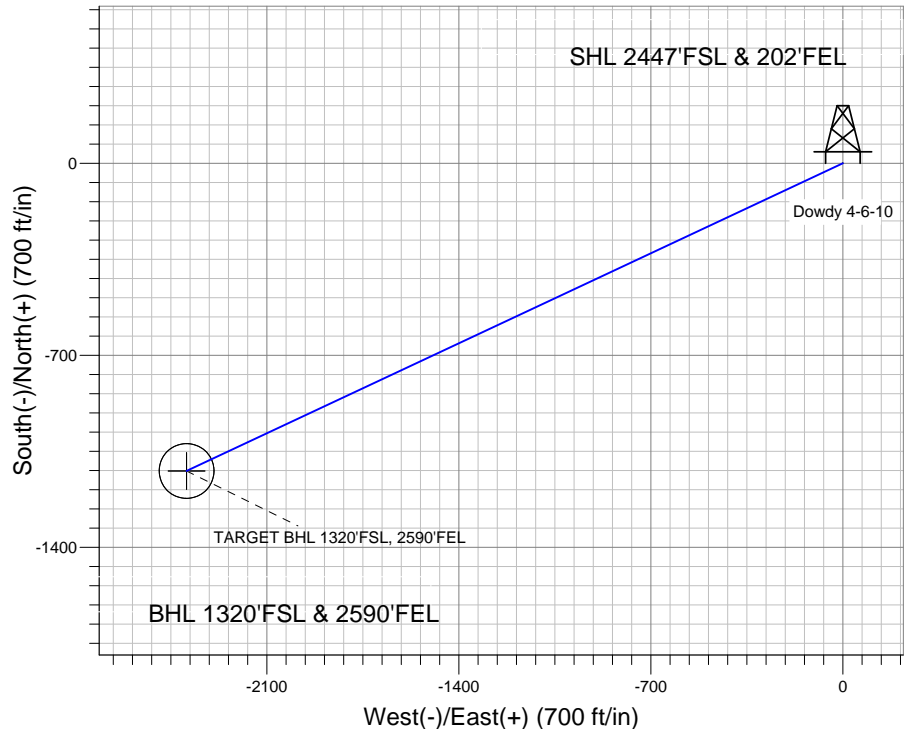
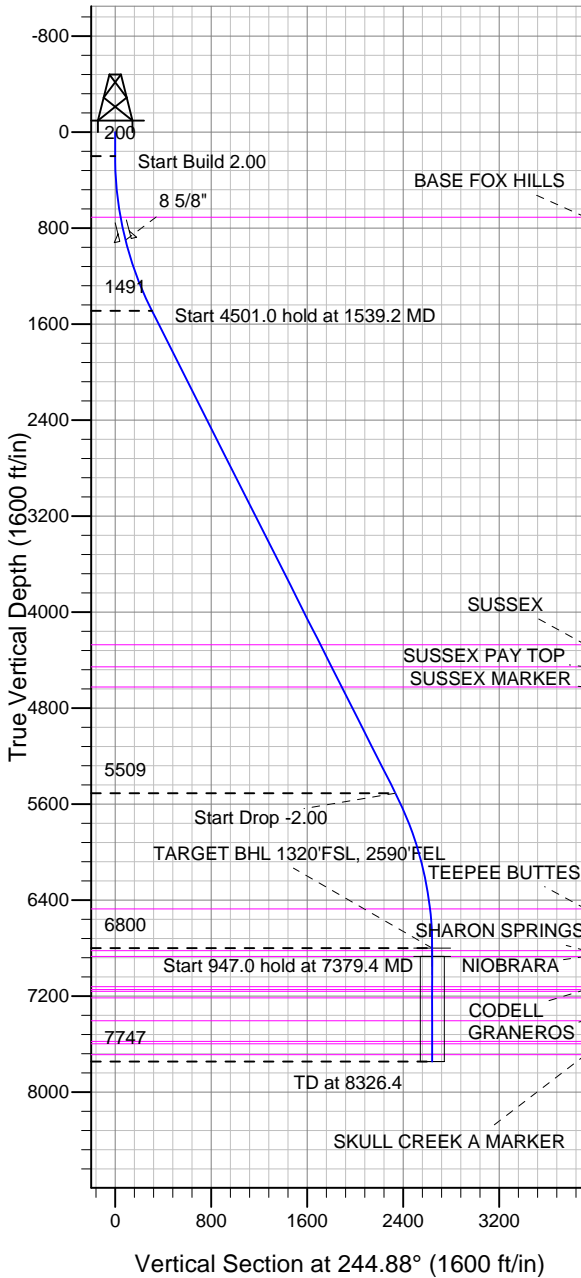
# ENSIGN

## Directional

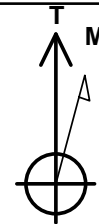
### Well Name: Dowdy 4-6-10

Surface Location: Dowdy 8-4-10 Pad Sec.10-T2N-R65W  
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone  
 Ground Elevation: 4861.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1299619.74 3240047.98 40.152660 -104.641220  
 Original Well Elev WELL @ 4874.0ft (Original Well Elev)

### EnCana Oil & Gas Weld County CO



Dowdy 8-4-10 Pad Sec.10-T2N-R65W  
 Dowdy 4-6-10  
 Plan #1 (7-09-12)  
 7:56, July 10 2012



Azimuths to True North  
 Magnetic North: 8.63°

Magnetic Field  
 Strength: 52901.9snT  
 Dip Angle: 66.83°  
 Date: 7/9/2012  
 Model: IGRF2010

#### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1320'FSL, 2590'FEL	6800.0	-1121.9	-2393.0	40.149580	-104.649780	Point
TARGET CIRCLE 1320'FSL & 2590'FEL	6870.0	-1121.9	-2393.0	40.149580	-104.649780	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	1539.2	26.78	244.88	1490.9	-130.5	-278.3	2.00	244.88	307.3	
4	6040.2	26.78	244.88	5509.1	-991.4	-2114.7	0.00	0.00	2335.6	
5	7379.4	0.00	0.00	6800.0	-1121.9	-2393.0	2.00	180.00	2642.9	TARGET BHL 1320'FSL, 2590'FEL
6	8326.4	0.00	0.00	7747.0	-1121.9	-2393.0	0.00	0.00	2642.9	



## **Directional**

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

**SEC.10-T2N-R65W**

**Dowdy 8-4-10 Pad Sec.10-T2N-R65W**

**Dowdy 4-6-10**

**Wellbore #1**

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

### **Standard Planning Report**

**10 July, 2012**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-6-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 4-6-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-09-12)		

<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 8-4-10 Pad Sec.10-T2N-R65W			
Site Position:		Northing:	1,299,627.04 ft	Latitude:	40.152680
From:	Lat/Long	Easting:	3,240,047.91 ft	Longitude:	-104.641220
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.55 °

Well	Dowdy 4-6-10					
Well Position	+N-S	-7.3 ft	Northing:	1,299,619.74 ft	Latitude:	40.152660
	+E-W	0.0 ft	Easting:	3,240,047.98 ft	Longitude:	-104.641220
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,861.0 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	7/9/2012	8.63	66.83	52,902

<b>Design</b>	Plan #1 (7-09-12)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<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	244.88

<b>Plan Sections</b>										
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	
1,539.2	26.78	244.88	1,490.9	-130.5	-278.3	2.00	2.00	0.00	244.88	
6,040.2	26.78	244.88	5,509.1	-991.4	-2,114.7	0.00	0.00	0.00	0.00	
7,379.4	0.00	0.00	6,800.0	-1,121.9	-2,393.0	2.00	-2.00	0.00	180.00	TARGET BHL 132C
8,326.4	0.00	0.00	7,747.0	-1,121.9	-2,393.0	0.00	0.00	0.00	0.00	

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-6-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 4-6-10	<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	244.88	240.0	-0.1	-0.3	0.3	2.00	2.00	0.00
280.0	1.60	244.88	280.0	-0.5	-1.0	1.1	2.00	2.00	0.00
320.0	2.40	244.88	320.0	-1.1	-2.3	2.5	2.00	2.00	0.00
360.0	3.20	244.88	359.9	-1.9	-4.0	4.5	2.00	2.00	0.00
400.0	4.00	244.88	399.8	-3.0	-6.3	7.0	2.00	2.00	0.00
440.0	4.80	244.88	439.7	-4.3	-9.1	10.0	2.00	2.00	0.00
480.0	5.60	244.88	479.6	-5.8	-12.4	13.7	2.00	2.00	0.00
520.0	6.40	244.88	519.3	-7.6	-16.2	17.9	2.00	2.00	0.00
560.0	7.20	244.88	559.1	-9.6	-20.5	22.6	2.00	2.00	0.00
600.0	8.00	244.88	598.7	-11.8	-25.2	27.9	2.00	2.00	0.00
640.0	8.80	244.88	638.3	-14.3	-30.5	33.7	2.00	2.00	0.00
680.0	9.60	244.88	677.8	-17.0	-36.3	40.1	2.00	2.00	0.00
712.7	10.25	244.88	710.0	-19.4	-41.4	45.8	2.00	2.00	0.00
BASE FOX HILLS									
720.0	10.40	244.88	717.1	-20.0	-42.6	47.1	2.00	2.00	0.00
760.0	11.20	244.88	756.4	-23.2	-49.4	54.6	2.00	2.00	0.00
800.0	12.00	244.88	795.6	-26.6	-56.7	62.6	2.00	2.00	0.00
840.0	12.80	244.88	834.7	-30.2	-64.5	71.2	2.00	2.00	0.00
880.0	13.60	244.88	873.6	-34.1	-72.7	80.3	2.00	2.00	0.00
907.2	14.14	244.88	900.0	-36.9	-78.6	86.8	2.00	2.00	0.00
8 5/8"									
920.0	14.40	244.88	912.4	-38.2	-81.5	90.0	2.00	2.00	0.00
960.0	15.20	244.88	951.1	-42.5	-90.7	100.2	2.00	2.00	0.00
1,000.0	16.00	244.88	989.6	-47.1	-100.5	111.0	2.00	2.00	0.00
1,040.0	16.80	244.88	1,028.0	-51.9	-110.7	122.3	2.00	2.00	0.00
1,080.0	17.60	244.88	1,066.2	-56.9	-121.4	134.1	2.00	2.00	0.00
1,120.0	18.40	244.88	1,104.3	-62.2	-132.6	146.5	2.00	2.00	0.00
1,160.0	19.20	244.88	1,142.1	-67.6	-144.3	159.3	2.00	2.00	0.00
1,200.0	20.00	244.88	1,179.8	-73.3	-156.4	172.8	2.00	2.00	0.00
1,240.0	20.80	244.88	1,217.3	-79.3	-169.1	186.7	2.00	2.00	0.00
1,280.0	21.60	244.88	1,254.6	-85.4	-182.1	201.2	2.00	2.00	0.00
1,320.0	22.40	244.88	1,291.7	-91.8	-195.7	216.2	2.00	2.00	0.00
1,360.0	23.20	244.88	1,328.6	-98.3	-209.8	231.7	2.00	2.00	0.00
1,400.0	24.00	244.88	1,365.2	-105.1	-224.3	247.7	2.00	2.00	0.00
1,440.0	24.80	244.88	1,401.6	-112.2	-239.2	264.2	2.00	2.00	0.00
1,480.0	25.60	244.88	1,437.8	-119.4	-254.6	281.2	2.00	2.00	0.00
1,520.0	26.40	244.88	1,473.8	-126.8	-270.5	298.8	2.00	2.00	0.00
1,539.2	26.78	244.88	1,490.9	-130.5	-278.3	307.3	2.00	2.00	0.00
1,560.0	26.78	244.88	1,509.5	-134.5	-286.8	316.7	0.00	0.00	0.00
1,600.0	26.78	244.88	1,545.2	-142.1	-303.1	334.8	0.00	0.00	0.00
1,640.0	26.78	244.88	1,580.9	-149.8	-319.4	352.8	0.00	0.00	0.00
1,680.0	26.78	244.88	1,616.6	-157.4	-335.7	370.8	0.00	0.00	0.00
1,720.0	26.78	244.88	1,652.4	-165.1	-352.1	388.8	0.00	0.00	0.00
1,760.0	26.78	244.88	1,688.1	-172.7	-368.4	406.9	0.00	0.00	0.00
1,800.0	26.78	244.88	1,723.8	-180.4	-384.7	424.9	0.00	0.00	0.00
1,840.0	26.78	244.88	1,759.5	-188.0	-401.0	442.9	0.00	0.00	0.00
1,880.0	26.78	244.88	1,795.2	-195.7	-417.3	460.9	0.00	0.00	0.00
1,920.0	26.78	244.88	1,830.9	-203.3	-433.7	479.0	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-6-10
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<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 4-6-10	<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	26.78	244.88	1,866.6	-211.0	-450.0	497.0	0.00	0.00	0.00
2,000.0	26.78	244.88	1,902.3	-218.6	-466.3	515.0	0.00	0.00	0.00
2,040.0	26.78	244.88	1,938.0	-226.3	-482.6	533.0	0.00	0.00	0.00
2,080.0	26.78	244.88	1,973.7	-233.9	-498.9	551.0	0.00	0.00	0.00
2,120.0	26.78	244.88	2,009.4	-241.6	-515.3	569.1	0.00	0.00	0.00
2,160.0	26.78	244.88	2,045.2	-249.2	-531.6	587.1	0.00	0.00	0.00
2,200.0	26.78	244.88	2,080.9	-256.9	-547.9	605.1	0.00	0.00	0.00
2,240.0	26.78	244.88	2,116.6	-264.5	-564.2	623.1	0.00	0.00	0.00
2,280.0	26.78	244.88	2,152.3	-272.2	-580.5	641.2	0.00	0.00	0.00
2,320.0	26.78	244.88	2,188.0	-279.8	-596.9	659.2	0.00	0.00	0.00
2,360.0	26.78	244.88	2,223.7	-287.5	-613.2	677.2	0.00	0.00	0.00
2,400.0	26.78	244.88	2,259.4	-295.1	-629.5	695.2	0.00	0.00	0.00
2,440.0	26.78	244.88	2,295.1	-302.8	-645.8	713.3	0.00	0.00	0.00
2,480.0	26.78	244.88	2,330.8	-310.4	-662.1	731.3	0.00	0.00	0.00
2,520.0	26.78	244.88	2,366.5	-318.1	-678.5	749.3	0.00	0.00	0.00
2,560.0	26.78	244.88	2,402.2	-325.7	-694.8	767.3	0.00	0.00	0.00
2,600.0	26.78	244.88	2,438.0	-333.4	-711.1	785.4	0.00	0.00	0.00
2,640.0	26.78	244.88	2,473.7	-341.0	-727.4	803.4	0.00	0.00	0.00
2,680.0	26.78	244.88	2,509.4	-348.7	-743.7	821.4	0.00	0.00	0.00
2,720.0	26.78	244.88	2,545.1	-356.3	-760.1	839.4	0.00	0.00	0.00
2,760.0	26.78	244.88	2,580.8	-364.0	-776.4	857.5	0.00	0.00	0.00
2,800.0	26.78	244.88	2,616.5	-371.6	-792.7	875.5	0.00	0.00	0.00
2,840.0	26.78	244.88	2,652.2	-379.3	-809.0	893.5	0.00	0.00	0.00
2,880.0	26.78	244.88	2,687.9	-386.9	-825.3	911.5	0.00	0.00	0.00
2,920.0	26.78	244.88	2,723.6	-394.6	-841.7	929.6	0.00	0.00	0.00
2,960.0	26.78	244.88	2,759.3	-402.3	-858.0	947.6	0.00	0.00	0.00
3,000.0	26.78	244.88	2,795.0	-409.9	-874.3	965.6	0.00	0.00	0.00
3,040.0	26.78	244.88	2,830.7	-417.6	-890.6	983.6	0.00	0.00	0.00
3,080.0	26.78	244.88	2,866.5	-425.2	-906.9	1,001.7	0.00	0.00	0.00
3,120.0	26.78	244.88	2,902.2	-432.9	-923.3	1,019.7	0.00	0.00	0.00
3,160.0	26.78	244.88	2,937.9	-440.5	-939.6	1,037.7	0.00	0.00	0.00
3,200.0	26.78	244.88	2,973.6	-448.2	-955.9	1,055.7	0.00	0.00	0.00
3,240.0	26.78	244.88	3,009.3	-455.8	-972.2	1,073.8	0.00	0.00	0.00
3,280.0	26.78	244.88	3,045.0	-463.5	-988.5	1,091.8	0.00	0.00	0.00
3,320.0	26.78	244.88	3,080.7	-471.1	-1,004.9	1,109.8	0.00	0.00	0.00
3,360.0	26.78	244.88	3,116.4	-478.8	-1,021.2	1,127.8	0.00	0.00	0.00
3,400.0	26.78	244.88	3,152.1	-486.4	-1,037.5	1,145.9	0.00	0.00	0.00
3,440.0	26.78	244.88	3,187.8	-494.1	-1,053.8	1,163.9	0.00	0.00	0.00
3,480.0	26.78	244.88	3,223.5	-501.7	-1,070.1	1,181.9	0.00	0.00	0.00
3,520.0	26.78	244.88	3,259.3	-509.4	-1,086.5	1,199.9	0.00	0.00	0.00
3,560.0	26.78	244.88	3,295.0	-517.0	-1,102.8	1,218.0	0.00	0.00	0.00
3,600.0	26.78	244.88	3,330.7	-524.7	-1,119.1	1,236.0	0.00	0.00	0.00
3,640.0	26.78	244.88	3,366.4	-532.3	-1,135.4	1,254.0	0.00	0.00	0.00
3,680.0	26.78	244.88	3,402.1	-540.0	-1,151.7	1,272.0	0.00	0.00	0.00
3,720.0	26.78	244.88	3,437.8	-547.6	-1,168.1	1,290.1	0.00	0.00	0.00
3,760.0	26.78	244.88	3,473.5	-555.3	-1,184.4	1,308.1	0.00	0.00	0.00
3,800.0	26.78	244.88	3,509.2	-562.9	-1,200.7	1,326.1	0.00	0.00	0.00
3,840.0	26.78	244.88	3,544.9	-570.6	-1,217.0	1,344.1	0.00	0.00	0.00
3,880.0	26.78	244.88	3,580.6	-578.2	-1,233.3	1,362.2	0.00	0.00	0.00
3,920.0	26.78	244.88	3,616.3	-585.9	-1,249.7	1,380.2	0.00	0.00	0.00
3,960.0	26.78	244.88	3,652.1	-593.5	-1,266.0	1,398.2	0.00	0.00	0.00
4,000.0	26.78	244.88	3,687.8	-601.2	-1,282.3	1,416.2	0.00	0.00	0.00
4,040.0	26.78	244.88	3,723.5	-608.8	-1,298.6	1,434.3	0.00	0.00	0.00
4,080.0	26.78	244.88	3,759.2	-616.5	-1,314.9	1,452.3	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-6-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 4-6-10	<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	26.78	244.88	3,794.9	-624.1	-1,331.3	1,470.3	0.00	0.00	0.00
4,160.0	26.78	244.88	3,830.6	-631.8	-1,347.6	1,488.3	0.00	0.00	0.00
4,200.0	26.78	244.88	3,866.3	-639.4	-1,363.9	1,506.3	0.00	0.00	0.00
4,240.0	26.78	244.88	3,902.0	-647.1	-1,380.2	1,524.4	0.00	0.00	0.00
4,280.0	26.78	244.88	3,937.7	-654.7	-1,396.5	1,542.4	0.00	0.00	0.00
4,320.0	26.78	244.88	3,973.4	-662.4	-1,412.9	1,560.4	0.00	0.00	0.00
4,360.0	26.78	244.88	4,009.1	-670.0	-1,429.2	1,578.4	0.00	0.00	0.00
4,400.0	26.78	244.88	4,044.8	-677.7	-1,445.5	1,596.5	0.00	0.00	0.00
4,440.0	26.78	244.88	4,080.6	-685.4	-1,461.8	1,614.5	0.00	0.00	0.00
4,480.0	26.78	244.88	4,116.3	-693.0	-1,478.1	1,632.5	0.00	0.00	0.00
4,520.0	26.78	244.88	4,152.0	-700.7	-1,494.4	1,650.5	0.00	0.00	0.00
4,560.0	26.78	244.88	4,187.7	-708.3	-1,510.8	1,668.6	0.00	0.00	0.00
4,600.0	26.78	244.88	4,223.4	-716.0	-1,527.1	1,686.6	0.00	0.00	0.00
4,640.0	26.78	244.88	4,259.1	-723.6	-1,543.4	1,704.6	0.00	0.00	0.00
4,654.5	26.78	244.88	4,272.0	-726.4	-1,549.3	1,711.1	0.00	0.00	0.00
<b>SUSSEX</b>									
4,680.0	26.78	244.88	4,294.8	-731.3	-1,559.7	1,722.6	0.00	0.00	0.00
4,720.0	26.78	244.88	4,330.5	-738.9	-1,576.0	1,740.7	0.00	0.00	0.00
4,760.0	26.78	244.88	4,366.2	-746.6	-1,592.4	1,758.7	0.00	0.00	0.00
4,800.0	26.78	244.88	4,401.9	-754.2	-1,608.7	1,776.7	0.00	0.00	0.00
4,840.0	26.78	244.88	4,437.6	-761.9	-1,625.0	1,794.7	0.00	0.00	0.00
4,860.6	26.78	244.88	4,456.0	-765.8	-1,633.4	1,804.0	0.00	0.00	0.00
<b>SUSSEX PAY TOP</b>									
4,880.0	26.78	244.88	4,473.4	-769.5	-1,641.3	1,812.8	0.00	0.00	0.00
4,920.0	26.78	244.88	4,509.1	-777.2	-1,657.6	1,830.8	0.00	0.00	0.00
4,960.0	26.78	244.88	4,544.8	-784.8	-1,674.0	1,848.8	0.00	0.00	0.00
5,000.0	26.78	244.88	4,580.5	-792.5	-1,690.3	1,866.8	0.00	0.00	0.00
5,040.0	26.78	244.88	4,616.2	-800.1	-1,706.6	1,884.9	0.00	0.00	0.00
5,048.8	26.78	244.88	4,624.0	-801.8	-1,710.2	1,888.8	0.00	0.00	0.00
<b>SUSSEX MARKER</b>									
5,080.0	26.78	244.88	4,651.9	-807.8	-1,722.9	1,902.9	0.00	0.00	0.00
5,120.0	26.78	244.88	4,687.6	-815.4	-1,739.2	1,920.9	0.00	0.00	0.00
5,160.0	26.78	244.88	4,723.3	-823.1	-1,755.6	1,938.9	0.00	0.00	0.00
5,200.0	26.78	244.88	4,759.0	-830.7	-1,771.9	1,957.0	0.00	0.00	0.00
5,240.0	26.78	244.88	4,794.7	-838.4	-1,788.2	1,975.0	0.00	0.00	0.00
5,280.0	26.78	244.88	4,830.4	-846.0	-1,804.5	1,993.0	0.00	0.00	0.00
5,320.0	26.78	244.88	4,866.1	-853.7	-1,820.8	2,011.0	0.00	0.00	0.00
5,360.0	26.78	244.88	4,901.9	-861.3	-1,837.2	2,029.1	0.00	0.00	0.00
5,400.0	26.78	244.88	4,937.6	-869.0	-1,853.5	2,047.1	0.00	0.00	0.00
5,440.0	26.78	244.88	4,973.3	-876.6	-1,869.8	2,065.1	0.00	0.00	0.00
5,480.0	26.78	244.88	5,009.0	-884.3	-1,886.1	2,083.1	0.00	0.00	0.00
5,520.0	26.78	244.88	5,044.7	-891.9	-1,902.4	2,101.2	0.00	0.00	0.00
5,560.0	26.78	244.88	5,080.4	-899.6	-1,918.8	2,119.2	0.00	0.00	0.00
5,600.0	26.78	244.88	5,116.1	-907.2	-1,935.1	2,137.2	0.00	0.00	0.00
5,640.0	26.78	244.88	5,151.8	-914.9	-1,951.4	2,155.2	0.00	0.00	0.00
5,680.0	26.78	244.88	5,187.5	-922.5	-1,967.7	2,173.3	0.00	0.00	0.00
5,720.0	26.78	244.88	5,223.2	-930.2	-1,984.0	2,191.3	0.00	0.00	0.00
5,760.0	26.78	244.88	5,258.9	-937.8	-2,000.4	2,209.3	0.00	0.00	0.00
5,800.0	26.78	244.88	5,294.7	-945.5	-2,016.7	2,227.3	0.00	0.00	0.00
5,840.0	26.78	244.88	5,330.4	-953.1	-2,033.0	2,245.4	0.00	0.00	0.00
5,880.0	26.78	244.88	5,366.1	-960.8	-2,049.3	2,263.4	0.00	0.00	0.00
5,920.0	26.78	244.88	5,401.8	-968.5	-2,065.6	2,281.4	0.00	0.00	0.00
5,960.0	26.78	244.88	5,437.5	-976.1	-2,082.0	2,299.4	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-6-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 4-6-10	<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)
6,000.0	26.78	244.88	5,473.2	-983.8	-2,098.3	2,317.5	0.00	0.00	0.00
6,040.0	26.78	244.88	5,508.9	-991.4	-2,114.6	2,335.5	0.00	0.00	0.00
6,040.2	26.78	244.88	5,509.1	-991.4	-2,114.7	2,335.6	0.00	0.00	0.00
6,080.0	25.99	244.88	5,544.7	-999.0	-2,130.7	2,353.3	2.00	-2.00	0.00
6,120.0	25.19	244.88	5,580.8	-1,006.3	-2,146.3	2,370.5	2.00	-2.00	0.00
6,160.0	24.39	244.88	5,617.1	-1,013.4	-2,161.5	2,387.3	2.00	-2.00	0.00
6,200.0	23.59	244.88	5,653.7	-1,020.3	-2,176.3	2,403.6	2.00	-2.00	0.00
6,240.0	22.79	244.88	5,690.4	-1,027.0	-2,190.5	2,419.3	2.00	-2.00	0.00
6,280.0	21.99	244.88	5,727.4	-1,033.5	-2,204.3	2,434.5	2.00	-2.00	0.00
6,320.0	21.19	244.88	5,764.6	-1,039.7	-2,217.6	2,449.3	2.00	-2.00	0.00
6,360.0	20.39	244.88	5,802.0	-1,045.7	-2,230.5	2,463.5	2.00	-2.00	0.00
6,400.0	19.59	244.88	5,839.6	-1,051.5	-2,242.9	2,477.1	2.00	-2.00	0.00
6,440.0	18.79	244.88	5,877.4	-1,057.1	-2,254.8	2,490.3	2.00	-2.00	0.00
6,480.0	17.99	244.88	5,915.3	-1,062.5	-2,266.2	2,502.9	2.00	-2.00	0.00
6,520.0	17.19	244.88	5,953.5	-1,067.6	-2,277.1	2,515.0	2.00	-2.00	0.00
6,560.0	16.39	244.88	5,991.8	-1,072.5	-2,287.6	2,526.5	2.00	-2.00	0.00
6,600.0	15.59	244.88	6,030.2	-1,077.2	-2,297.6	2,537.5	2.00	-2.00	0.00
6,640.0	14.79	244.88	6,068.8	-1,081.6	-2,307.1	2,548.0	2.00	-2.00	0.00
6,680.0	13.99	244.88	6,107.6	-1,085.9	-2,316.1	2,558.0	2.00	-2.00	0.00
6,720.0	13.19	244.88	6,146.5	-1,089.8	-2,324.6	2,567.4	2.00	-2.00	0.00
6,760.0	12.39	244.88	6,185.5	-1,093.6	-2,332.6	2,576.2	2.00	-2.00	0.00
6,800.0	11.59	244.88	6,224.6	-1,097.1	-2,340.1	2,584.5	2.00	-2.00	0.00
6,840.0	10.79	244.88	6,263.8	-1,100.4	-2,347.1	2,592.3	2.00	-2.00	0.00
6,880.0	9.99	244.88	6,303.2	-1,103.5	-2,353.7	2,599.5	2.00	-2.00	0.00
6,920.0	9.19	244.88	6,342.6	-1,106.3	-2,359.7	2,606.2	2.00	-2.00	0.00
6,960.0	8.39	244.88	6,382.1	-1,108.9	-2,365.2	2,612.3	2.00	-2.00	0.00
7,000.0	7.59	244.88	6,421.8	-1,111.3	-2,370.3	2,617.8	2.00	-2.00	0.00
7,040.0	6.79	244.88	6,461.4	-1,113.4	-2,374.8	2,622.8	2.00	-2.00	0.00
7,052.6	6.53	244.88	6,474.0	-1,114.0	-2,376.1	2,624.3	2.00	-2.00	0.00
TEEPEE BUTTES									
7,080.0	5.99	244.88	6,501.2	-1,115.3	-2,378.8	2,627.3	2.00	-2.00	0.00
7,120.0	5.19	244.88	6,541.0	-1,116.9	-2,382.3	2,631.2	2.00	-2.00	0.00
7,160.0	4.39	244.88	6,580.9	-1,118.3	-2,385.4	2,634.5	2.00	-2.00	0.00
7,200.0	3.59	244.88	6,620.8	-1,119.5	-2,387.9	2,637.3	2.00	-2.00	0.00
7,240.0	2.79	244.88	6,660.7	-1,120.5	-2,389.9	2,639.5	2.00	-2.00	0.00
7,280.0	1.99	244.88	6,700.7	-1,121.2	-2,391.4	2,641.2	2.00	-2.00	0.00
7,320.0	1.19	244.88	6,740.7	-1,121.6	-2,392.4	2,642.3	2.00	-2.00	0.00
7,360.0	0.39	244.88	6,780.6	-1,121.9	-2,392.9	2,642.8	2.00	-2.00	0.00
7,379.4	0.00	0.00	6,800.0	-1,121.9	-2,393.0	2,642.9	2.00	-2.00	0.00
7,400.0	0.00	0.00	6,820.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,400.4	0.00	0.00	6,821.0	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
SHARON SPRINGS									
7,440.0	0.00	0.00	6,860.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,449.4	0.00	0.00	6,870.0	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
NIOBRARA									
7,480.0	0.00	0.00	6,900.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,520.0	0.00	0.00	6,940.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,560.0	0.00	0.00	6,980.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,600.0	0.00	0.00	7,020.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,640.0	0.00	0.00	7,060.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,680.0	0.00	0.00	7,100.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,701.4	0.00	0.00	7,122.0	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
FT. HAYES									



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-6-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 4-6-10	<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)
7,720.0	0.00	0.00	7,140.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,725.4	0.00	0.00	7,146.0	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
<b>CODELL</b>									
7,739.4	0.00	0.00	7,160.0	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
<b>FAIRPORT</b>									
7,760.0	0.00	0.00	7,180.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,794.4	0.00	0.00	7,215.0	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
<b>GREENHORN</b>									
7,800.0	0.00	0.00	7,220.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,840.0	0.00	0.00	7,260.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,880.0	0.00	0.00	7,300.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,920.0	0.00	0.00	7,340.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,960.0	0.00	0.00	7,380.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
7,984.4	0.00	0.00	7,405.0	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
<b>GRANEROS</b>									
8,000.0	0.00	0.00	7,420.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
8,040.0	0.00	0.00	7,460.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
8,080.0	0.00	0.00	7,500.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
8,120.0	0.00	0.00	7,540.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
8,157.4	0.00	0.00	7,578.0	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
<b>MOWRY</b>									
8,160.0	0.00	0.00	7,580.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
8,176.4	0.00	0.00	7,597.0	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
<b>J-SAND</b>									
8,200.0	0.00	0.00	7,620.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
8,240.0	0.00	0.00	7,660.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
8,267.4	0.00	0.00	7,688.0	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
<b>SKULL CREEK A MARKER</b>									
8,280.0	0.00	0.00	7,700.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
8,320.0	0.00	0.00	7,740.6	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00
8,326.4	0.00	0.00	7,747.0	-1,121.9	-2,393.0	2,642.9	0.00	0.00	0.00

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
907.2	900.0	8 5/8"	8-5/8	12-1/4	



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-6-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 4-6-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-09-12)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
712.7	710.0	BASE FOX HILLS		0.00		
4,654.5	4,272.0	SUSSEX		0.00		
4,860.6	4,456.0	SUSSEX PAY TOP		0.00		
5,048.8	4,624.0	SUSSEX MARKER		0.00		
7,052.6	6,474.0	TEEPEE BUTTES		0.00		
7,400.4	6,821.0	SHARON SPRINGS		0.00		
7,449.4	6,870.0	NIOBRARA		0.00		
7,701.4	7,122.0	FT. HAYES		0.00		
7,725.4	7,146.0	CODELL		0.00		
7,739.4	7,160.0	FAIRPORT		0.00		
7,794.4	7,215.0	GREENHORN		0.00		
7,984.4	7,405.0	GRANEROS		0.00		
8,157.4	7,578.0	MOWRY		0.00		
8,176.4	7,597.0	J-SAND		0.00		
8,267.4	7,688.0	SKULL CREEK A MARKER		0.00		



## **Directional**

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

**SEC.10-T2N-R65W**

**Dowdy 8-4-10 Pad Sec.10-T2N-R65W**

**Dowdy 4-6-10**

**Wellbore #1**

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

### **Anticollision Report**

**10 July, 2012**



<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-6-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 4-6-10	<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: 7800-UNKNOWN													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		
1,900.0	1,813.0	1,814.0	1,814.0	10.4	36.3	-115.34	-298.7	-293.5	165.1	119.8	45.27	3.647		
2,000.0	1,902.3	1,903.3	1,903.3	11.3	38.1	-126.84	-298.7	-293.5	190.4	144.1	46.36	4.108		
2,100.0	1,991.6	1,992.6	1,992.6	12.3	39.9	-135.71	-298.7	-293.5	222.1	174.8	47.35	4.690		
2,200.0	2,080.9	2,081.9	2,081.9	13.2	41.6	-142.45	-298.7	-293.5	257.8	209.3	48.45	5.321		
2,300.0	2,170.1	2,171.1	2,171.1	14.2	43.4	-147.61	-298.7	-293.5	296.0	246.4	49.70	5.957		
2,400.0	2,259.4	2,260.4	2,260.4	15.2	45.2	-151.64	-298.7	-293.5	336.0	284.9	51.09	6.577		
2,500.0	2,348.7	2,349.7	2,349.7	16.1	47.0	-154.83	-298.7	-293.5	377.1	324.5	52.59	7.170		
2,600.0	2,438.0	2,439.0	2,439.0	17.1	48.8	-157.41	-298.7	-293.5	419.0	364.8	54.19	7.732		
2,700.0	2,527.2	2,528.2	2,528.2	18.1	50.6	-159.54	-298.7	-293.5	461.5	405.7	55.86	8.263		
2,800.0	2,616.5	2,617.5	2,617.5	19.0	52.4	-161.31	-298.7	-293.5	504.5	446.9	57.58	8.762		
2,900.0	2,705.8	2,706.8	2,706.8	20.0	54.1	-162.80	-298.7	-293.5	547.8	488.4	59.34	9.230		
3,000.0	2,795.0	2,796.0	2,796.0	21.0	55.9	-164.08	-298.7	-293.5	591.3	530.2	61.14	9.671		
3,100.0	2,884.3	2,885.3	2,885.3	21.9	57.7	-165.19	-298.7	-293.5	635.1	572.1	62.97	10.086		
3,200.0	2,973.6	2,974.6	2,974.6	22.9	59.5	-166.16	-298.7	-293.5	679.0	614.2	64.82	10.476		
3,300.0	3,062.9	3,063.9	3,063.9	23.9	61.3	-167.01	-298.7	-293.5	723.1	656.4	66.68	10.843		
3,400.0	3,152.1	3,153.1	3,153.1	24.8	63.1	-167.76	-298.7	-293.5	767.3	698.7	68.57	11.190		
3,500.0	3,241.4	3,242.4	3,242.4	25.8	64.8	-168.43	-298.7	-293.5	811.6	741.1	70.46	11.518		
3,600.0	3,330.7	3,331.7	3,331.7	26.8	66.6	-169.04	-298.7	-293.5	855.9	783.6	72.36	11.828		
3,700.0	3,419.9	3,420.9	3,420.9	27.7	68.4	-169.58	-298.7	-293.5	900.4	826.1	74.28	12.122		
3,800.0	3,509.2	3,510.2	3,510.2	28.7	70.2	-170.07	-298.7	-293.5	944.9	868.7	76.20	12.400		
3,900.0	3,598.5	3,599.5	3,599.5	29.7	72.0	-170.52	-298.7	-293.5	989.4	911.3	78.12	12.665		
4,000.0	3,687.8	3,688.8	3,688.8	30.6	73.8	-170.93	-298.7	-293.5	1,034.0	953.9	80.05	12.916		
4,100.0	3,777.0	3,778.0	3,778.0	31.6	75.6	-171.31	-298.7	-293.5	1,078.6	996.6	81.99	13.155		
4,200.0	3,866.3	3,867.3	3,867.3	32.6	77.3	-171.65	-298.7	-293.5	1,123.3	1,039.4	83.93	13.383		
4,300.0	3,955.6	3,956.6	3,956.6	33.5	79.1	-171.97	-298.7	-293.5	1,168.0	1,082.1	85.88	13.601		
4,400.0	4,044.8	4,045.8	4,045.8	34.5	80.9	-172.27	-298.7	-293.5	1,212.7	1,124.9	87.82	13.808		
4,500.0	4,134.1	4,135.1	4,135.1	35.5	82.7	-172.55	-298.7	-293.5	1,257.5	1,167.7	89.77	14.007		
4,600.0	4,223.4	4,224.4	4,224.4	36.5	84.5	-172.80	-298.7	-293.5	1,302.2	1,210.5	91.73	14.197		
4,700.0	4,312.7	4,313.7	4,313.7	37.4	86.3	-173.04	-298.7	-293.5	1,347.0	1,253.3	93.68	14.378		
4,800.0	4,401.9	4,402.9	4,402.9	38.4	88.1	-173.27	-298.7	-293.5	1,391.8	1,296.2	95.64	14.552		
4,900.0	4,491.2	4,492.2	4,492.2	39.4	89.8	-173.48	-298.7	-293.5	1,436.6	1,339.0	97.60	14.720		
5,000.0	4,580.5	4,581.5	4,581.5	40.3	91.6	-173.68	-298.7	-293.5	1,481.5	1,381.9	99.56	14.880		
5,100.0	4,669.8	4,670.8	4,670.8	41.3	93.4	-173.86	-298.7	-293.5	1,526.3	1,424.8	101.52	15.034		
5,200.0	4,759.0	4,760.0	4,760.0	42.3	95.2	-174.04	-298.7	-293.5	1,571.2	1,467.7	103.49	15.182		
5,300.0	4,848.3	4,849.3	4,849.3	43.2	97.0	-174.20	-298.7	-293.5	1,616.1	1,510.6	105.45	15.325		
5,400.0	4,937.6	4,938.6	4,938.6	44.2	98.8	-174.36	-298.7	-293.5	1,660.9	1,553.5	107.42	15.462		
5,500.0	5,026.8	5,027.8	5,027.8	45.2	100.6	-174.51	-298.7	-293.5	1,705.8	1,596.4	109.39	15.594		
5,600.0	5,116.1	5,117.1	5,117.1	46.1	102.3	-174.65	-298.7	-293.5	1,750.7	1,639.4	111.36	15.722		
5,700.0	5,205.4	5,206.4	5,206.4	47.1	104.1	-174.78	-298.7	-293.5	1,795.6	1,682.3	113.32	15.845		
5,800.0	5,294.7	5,295.7	5,295.7	48.1	105.9	-174.91	-298.7	-293.5	1,840.6	1,725.3	115.29	15.964		
5,900.0	5,383.9	5,384.9	5,384.9	49.1	107.7	-175.03	-298.7	-293.5	1,885.5	1,768.2	117.27	16.079		
6,000.0	5,473.2	5,474.2	5,474.2	50.0	109.5	-175.15	-298.7	-293.5	1,930.4	1,811.2	119.24	16.190		
6,040.2	5,509.1	5,510.1	5,510.1	50.4	110.2	-175.19	-298.7	-293.5	1,948.5	1,828.4	120.03	16.233		
6,100.0	5,562.7	5,563.7	5,563.7	50.9	111.3	-175.31	-298.7	-293.5	1,974.8	1,852.6	122.22	16.158		
6,200.0	5,653.7	5,654.7	5,654.7	51.6	113.1	-175.47	-298.7	-293.5	2,016.3	1,890.5	125.80	16.028		
6,300.0	5,746.0	5,747.0	5,747.0	52.3	114.9	-175.62	-298.7	-293.5	2,054.6	1,925.3	129.30	15.890		
6,400.0	5,839.6	5,840.6	5,840.6	52.9	116.8	-175.75	-298.7	-293.5	2,089.7	1,957.0	132.70	15.747		
6,500.0	5,934.4	5,935.4	5,935.4	53.4	118.7	-175.86	-298.7	-293.5	2,121.5	1,985.5	136.00	15.599		
6,600.0	6,030.2	6,031.2	6,031.2	53.9	120.6	-175.96	-298.7	-293.5	2,149.9	2,010.8	139.17	15.448		
6,700.0	6,127.0	6,128.0	6,128.0	54.3	122.6	-176.04	-298.7	-293.5	2,175.1	2,032.8	142.22	15.293		
6,800.0	6,224.6	6,225.6	6,225.6	54.7	124.5	-176.11	-298.7	-293.5	2,196.8	2,051.7	145.13	15.136		
6,900.0	6,322.9	6,323.9	6,323.9	55.0	126.5	-176.17	-298.7	-293.5	2,215.1	2,067.2	147.90	14.978		

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 4-6-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 4-6-10	<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>												<b>Offset Site Error:</b>	0.0 ft
Dowdy 8-4-10 Pad Sec.10-T2N-R65W - Dowdy 43-10 (Exist.) - Wellbore #1 - Wellbore #1												<b>Offset Well Error:</b>	0.0 ft
Survey Program: 7800-UNKNOWN													
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
7,000.0	6,421.8	6,422.8	6,422.8	55.2	128.5	-176.22	-298.7	-293.5	2,230.0	2,079.5	150.50	14.818	
7,100.0	6,521.1	6,522.1	6,522.1	55.4	130.4	-176.25	-298.7	-293.5	2,241.5	2,088.5	152.93	14.657	
7,200.0	6,620.8	6,621.8	6,621.8	55.6	132.4	-176.27	-298.7	-293.5	2,249.5	2,094.3	155.19	14.495	
7,300.0	6,720.7	6,721.7	6,721.7	55.7	134.4	-176.29	-298.7	-293.5	2,254.0	2,096.7	157.25	14.333	
7,379.4	6,800.0	6,801.0	6,801.0	55.8	136.0	68.59	-298.7	-293.5	2,255.1	2,096.3	158.76	14.204	
7,400.0	6,820.6	6,821.6	6,821.6	55.8	136.4	68.59	-298.7	-293.5	2,255.1	2,095.9	159.20	14.165	
7,500.0	6,920.6	6,921.6	6,921.6	55.8	138.4	68.59	-298.7	-293.5	2,255.1	2,093.7	161.31	13.979	
7,600.0	7,020.6	7,021.6	7,021.6	55.9	140.4	68.59	-298.7	-293.5	2,255.1	2,091.6	163.43	13.798	
7,700.0	7,120.6	7,121.6	7,121.6	55.9	142.4	68.59	-298.7	-293.5	2,255.1	2,089.5	165.55	13.622	
7,800.0	7,220.6	7,221.6	7,221.6	56.0	144.4	68.59	-298.7	-293.5	2,255.1	2,087.4	167.67	13.449	
7,900.0	7,320.6	7,321.6	7,321.6	56.0	146.4	68.59	-298.7	-293.5	2,255.1	2,085.3	169.79	13.281	
8,000.0	7,420.6	7,421.6	7,421.6	56.1	148.4	68.59	-298.7	-293.5	2,255.1	2,083.1	171.92	13.117	
8,100.0	7,520.6	7,521.6	7,521.6	56.2	150.4	68.59	-298.7	-293.5	2,255.1	2,081.0	174.04	12.957	
8,200.0	7,620.6	7,621.6	7,621.6	56.2	152.4	68.59	-298.7	-293.5	2,255.1	2,078.9	176.17	12.800	
8,300.0	7,720.6	7,721.6	7,721.6	56.3	154.4	68.59	-298.7	-293.5	2,255.1	2,076.8	178.30	12.648	
8,326.4	7,747.0	7,748.0	7,748.0	56.3	155.0	68.59	-298.7	-293.5	2,255.1	2,076.2	178.86	12.608	

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-6-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 4-6-10	<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	180.00	-10.9	0.0	10.9	10.9	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-10.9	0.0	10.9	10.7	0.22	48.623		
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-10.9	0.0	10.9	10.3	0.67	16.208 CC, ES		
300.0	300.0	299.6	299.6	0.5	0.5	-70.01	-12.6	-0.5	11.9	10.8	1.09	10.959		
400.0	399.8	399.1	399.0	0.8	0.7	-81.08	-17.5	-2.0	15.2	13.7	1.51	10.088 SF		
500.0	499.5	498.4	497.8	1.0	1.0	-91.25	-25.8	-4.5	21.5	19.5	2.00	10.764		
600.0	598.7	597.3	596.0	1.3	1.3	-98.21	-37.2	-8.0	30.8	28.2	2.55	12.053		
700.0	697.5	695.7	693.3	1.6	1.6	-102.59	-51.8	-12.5	43.1	39.9	3.19	13.477		
800.0	795.6	793.6	789.4	2.0	2.0	-105.34	-69.5	-17.9	58.2	54.3	3.93	14.823		
900.0	893.1	890.8	884.1	2.5	2.4	-107.10	-90.2	-24.3	76.1	71.3	4.75	16.014		
1,000.0	989.6	987.3	977.4	3.0	2.9	-108.23	-113.7	-31.5	96.7	91.0	5.68	17.036		
1,100.0	1,085.3	1,082.8	1,068.9	3.6	3.4	-108.96	-140.0	-39.5	120.0	113.3	6.70	17.898		
1,200.0	1,179.8	1,177.5	1,158.6	4.2	4.0	-109.41	-168.8	-48.3	145.8	138.0	7.83	18.622		
1,300.0	1,273.2	1,271.1	1,246.3	5.0	4.6	-109.65	-200.2	-57.9	174.2	165.1	9.06	19.230		
1,400.0	1,365.2	1,364.2	1,332.5	5.7	5.3	-109.77	-234.0	-68.3	204.9	194.6	10.38	19.741		
1,500.0	1,455.8	1,458.7	1,419.5	6.6	6.0	-110.29	-269.1	-79.0	237.3	225.5	11.80	20.118		
1,539.2	1,490.9	1,495.6	1,453.5	7.0	6.3	-110.61	-282.8	-83.2	250.3	238.0	12.37	20.244		
1,600.0	1,545.2	1,552.8	1,506.2	7.5	6.7	-111.50	-304.1	-89.7	270.7	257.5	13.27	20.400		
1,700.0	1,634.5	1,646.8	1,592.8	8.5	7.4	-112.70	-339.1	-100.4	304.4	289.6	14.77	20.614		
1,800.0	1,723.8	1,740.8	1,679.4	9.4	8.1	-113.66	-374.1	-111.1	338.1	321.9	16.27	20.787		
1,900.0	1,813.0	1,834.8	1,766.0	10.4	8.8	-114.44	-409.0	-121.8	371.9	354.2	17.77	20.929		
2,000.0	1,902.3	1,928.8	1,852.6	11.3	9.6	-115.10	-444.0	-132.5	405.8	386.5	19.28	21.048		
2,100.0	1,991.6	2,022.8	1,939.2	12.3	10.3	-115.65	-479.0	-143.2	439.7	418.9	20.79	21.150		
2,200.0	2,080.9	2,116.8	2,025.8	13.2	11.0	-116.13	-513.9	-153.9	473.6	451.3	22.30	21.237		
2,300.0	2,170.1	2,210.8	2,112.4	14.2	11.7	-116.54	-548.9	-164.6	507.6	483.7	23.82	21.312		
2,400.0	2,259.4	2,304.8	2,199.0	15.2	12.4	-116.90	-583.9	-175.3	541.5	516.2	25.33	21.379		
2,500.0	2,348.7	2,398.8	2,285.5	16.1	13.2	-117.22	-618.8	-186.0	575.5	548.7	26.85	21.437		
2,600.0	2,438.0	2,492.8	2,372.1	17.1	13.9	-117.50	-653.8	-196.8	609.5	581.2	28.36	21.489		
2,700.0	2,527.2	2,586.8	2,458.7	18.1	14.6	-117.75	-688.8	-207.5	643.6	613.7	29.88	21.536		
2,800.0	2,616.5	2,680.8	2,545.3	19.0	15.3	-117.98	-723.7	-218.2	677.6	646.2	31.40	21.578		
2,900.0	2,705.8	2,774.8	2,631.9	20.0	16.1	-118.18	-758.7	-228.9	711.6	678.7	32.92	21.616		
3,000.0	2,795.0	2,868.8	2,718.5	21.0	16.8	-118.37	-793.6	-239.6	745.7	711.2	34.44	21.650		
3,100.0	2,884.3	2,962.8	2,805.1	21.9	17.5	-118.54	-828.6	-250.3	779.7	743.7	35.96	21.682		
3,200.0	2,973.6	3,056.8	2,891.7	22.9	18.2	-118.70	-863.6	-261.0	813.8	776.3	37.48	21.711		
3,300.0	3,062.9	3,150.8	2,978.3	23.9	19.0	-118.84	-898.5	-271.7	847.8	808.8	39.00	21.738		
3,400.0	3,152.1	3,244.8	3,064.9	24.8	19.7	-118.97	-933.5	-282.4	881.9	841.4	40.52	21.762		
3,500.0	3,241.4	3,338.8	3,151.5	25.8	20.4	-119.10	-968.5	-293.1	916.0	873.9	42.05	21.785		
3,600.0	3,330.7	3,432.8	3,238.1	26.8	21.1	-119.21	-1,003.4	-303.8	950.0	906.5	43.57	21.806		
3,700.0	3,419.9	3,526.8	3,324.7	27.7	21.9	-119.32	-1,038.4	-314.5	984.1	939.0	45.09	21.826		
3,800.0	3,509.2	3,620.8	3,411.3	28.7	22.6	-119.41	-1,073.4	-325.2	1,018.2	971.6	46.61	21.844		
3,900.0	3,598.5	3,714.8	3,497.9	29.7	23.3	-119.51	-1,108.3	-335.9	1,052.3	1,004.1	48.13	21.861		
4,000.0	3,687.8	3,808.8	3,584.5	30.6	24.0	-119.59	-1,143.3	-346.6	1,086.3	1,036.7	49.66	21.877		
4,100.0	3,777.0	3,902.8	3,671.1	31.6	24.8	-119.67	-1,178.3	-357.3	1,120.4	1,069.2	51.18	21.892		
4,200.0	3,866.3	3,996.8	3,757.7	32.6	25.5	-119.75	-1,213.2	-368.0	1,154.5	1,101.8	52.70	21.906		
4,300.0	3,955.6	4,090.8	3,844.3	33.5	26.2	-119.82	-1,248.2	-378.7	1,188.6	1,134.4	54.23	21.920		
4,400.0	4,044.8	4,184.8	3,930.9	34.5	26.9	-119.89	-1,283.2	-389.4	1,222.7	1,166.9	55.75	21.932		
4,500.0	4,134.1	4,278.8	4,017.5	35.5	27.7	-119.96	-1,318.1	-400.1	1,256.8	1,199.5	57.27	21.944		
4,600.0	4,223.4	4,372.8	4,104.1	36.5	28.4	-120.02	-1,353.1	-410.8	1,290.9	1,232.1	58.80	21.955		
4,700.0	4,312.7	4,466.8	4,190.7	37.4	29.1	-120.08	-1,388.1	-421.5	1,325.0	1,264.6	60.32	21.966		
4,800.0	4,401.9	4,560.8	4,277.3	38.4	29.8	-120.13	-1,423.0	-432.2	1,359.1	1,297.2	61.84	21.976		
4,900.0	4,491.2	4,654.8	4,363.9	39.4	30.6	-120.18	-1,458.0	-442.9	1,393.1	1,329.8	63.37	21.986		
5,000.0	4,580.5	4,748.8	4,450.5	40.3	31.3	-120.23	-1,493.0	-453.6	1,427.2	1,362.4	64.89	21.995		

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 4-6-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 4-6-10	<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	
5,100.0	4,669.8	4,842.8	4,537.1	41.3	32.0	-120.28	-1,527.9	-464.3	1,461.3	1,394.9	66.41	22.004	
5,200.0	4,759.0	4,936.8	4,623.7	42.3	32.7	-120.33	-1,562.9	-475.0	1,495.4	1,427.5	67.94	22.012	
5,300.0	4,848.3	5,030.8	4,710.3	43.2	33.5	-120.37	-1,597.9	-485.7	1,529.5	1,460.1	69.46	22.020	
5,400.0	4,937.6	5,124.8	4,796.8	44.2	34.2	-120.41	-1,632.8	-496.4	1,563.6	1,492.7	70.99	22.027	
5,500.0	5,026.8	5,218.8	4,883.4	45.2	34.9	-120.45	-1,667.8	-507.1	1,597.7	1,525.2	72.51	22.035	
5,600.0	5,116.1	5,326.6	4,983.5	46.1	35.6	-120.56	-1,706.2	-518.8	1,631.5	1,557.5	73.95	22.060	
5,700.0	5,205.4	5,435.0	5,085.5	47.1	36.1	-120.82	-1,741.1	-529.5	1,664.4	1,589.1	75.25	22.119	
5,800.0	5,294.7	5,543.4	5,188.9	48.1	36.6	-121.20	-1,772.3	-539.1	1,696.5	1,620.0	76.46	22.188	
5,900.0	5,383.9	5,651.5	5,293.1	49.1	37.0	-121.71	-1,799.7	-547.5	1,727.9	1,650.3	77.60	22.268	
6,000.0	5,473.2	5,759.0	5,397.7	50.0	37.4	-122.32	-1,823.2	-554.7	1,758.7	1,680.1	78.65	22.362	
6,040.2	5,509.1	5,801.9	5,439.8	50.4	37.5	-122.60	-1,831.5	-557.2	1,771.0	1,691.9	79.05	22.403	
6,100.0	5,562.7	5,865.7	5,502.5	50.9	37.7	-123.33	-1,842.8	-560.7	1,788.7	1,709.1	79.60	22.471	
6,200.0	5,653.7	5,972.6	5,608.1	51.6	38.0	-124.51	-1,858.7	-565.5	1,816.4	1,736.1	80.35	22.607	
6,300.0	5,746.0	6,079.5	5,714.2	52.3	38.2	-125.64	-1,870.8	-569.2	1,841.8	1,760.9	80.97	22.746	
6,400.0	5,839.6	6,186.3	5,820.7	52.9	38.4	-126.72	-1,879.1	-571.8	1,864.9	1,783.4	81.48	22.887	
6,500.0	5,934.4	6,292.9	5,927.1	53.4	38.5	-127.76	-1,883.5	-573.1	1,885.5	1,803.7	81.86	23.033	
6,600.0	6,030.2	6,396.0	6,030.2	53.9	38.6	-128.74	-1,884.4	-573.4	1,903.8	1,821.6	82.14	23.177	
6,700.0	6,127.0	6,492.8	6,127.0	54.3	38.7	-129.57	-1,884.4	-573.4	1,920.0	1,837.6	82.36	23.312	
6,800.0	6,224.6	6,590.4	6,224.6	54.7	38.7	-130.28	-1,884.4	-573.4	1,934.2	1,851.6	82.55	23.431	
6,900.0	6,322.9	6,688.6	6,322.9	55.0	38.8	-130.87	-1,884.4	-573.4	1,946.3	1,863.5	82.71	23.532	
7,000.0	6,421.8	6,787.5	6,421.8	55.2	38.8	-131.35	-1,884.4	-573.4	1,956.1	1,873.3	82.84	23.614	
7,100.0	6,521.1	6,886.9	6,521.1	55.4	38.9	-131.71	-1,884.4	-573.4	1,963.8	1,880.8	82.94	23.676	
7,200.0	6,620.8	6,986.5	6,620.8	55.6	39.0	-131.97	-1,884.4	-573.4	1,969.1	1,886.1	83.03	23.716	
7,300.0	6,720.7	7,086.4	6,720.7	55.7	39.0	-132.11	-1,884.4	-573.4	1,972.1	1,889.0	83.10	23.732	
7,379.4	6,800.0	7,165.8	6,800.0	55.8	39.1	112.74	-1,884.4	-573.4	1,972.9	1,889.7	83.15	23.726	
7,400.0	6,820.6	7,186.4	6,820.6	55.8	39.1	112.74	-1,884.4	-573.4	1,972.9	1,889.7	83.18	23.718	
7,500.0	6,920.6	7,286.4	6,920.6	55.8	39.2	112.74	-1,884.4	-573.4	1,972.9	1,889.6	83.31	23.682	
7,600.0	7,020.6	7,386.4	7,020.6	55.9	39.2	112.74	-1,884.4	-573.4	1,972.9	1,889.4	83.44	23.645	
7,700.0	7,120.6	7,486.4	7,120.6	55.9	39.3	112.74	-1,884.4	-573.4	1,972.9	1,889.3	83.57	23.607	
7,800.0	7,220.6	7,586.4	7,220.6	56.0	39.4	112.74	-1,884.4	-573.4	1,972.9	1,889.2	83.71	23.569	
7,900.0	7,320.6	7,686.4	7,320.6	56.0	39.4	112.74	-1,884.4	-573.4	1,972.9	1,889.0	83.85	23.530	
8,000.0	7,420.6	7,786.4	7,420.6	56.1	39.5	112.74	-1,884.4	-573.4	1,972.9	1,888.9	83.99	23.491	
8,100.0	7,520.6	7,886.4	7,520.6	56.2	39.6	112.74	-1,884.4	-573.4	1,972.9	1,888.7	84.13	23.451	
8,200.0	7,620.6	7,986.4	7,620.6	56.2	39.7	112.74	-1,884.4	-573.4	1,972.9	1,888.6	84.27	23.411	
8,300.0	7,720.6	8,086.4	7,720.6	56.3	39.7	112.74	-1,884.4	-573.4	1,972.9	1,888.5	84.42	23.370	
8,326.4	7,747.0	8,093.8	7,728.0	56.3	39.7	112.74	-1,884.4	-573.4	1,973.0	1,888.5	84.44	23.365	



<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 4-6-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 4-6-10	<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	0.00	7.3	0.0	7.3	7.3	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	0.00	7.3	0.0	7.3	7.0	0.22	32.341		
178.9	178.9	178.9	178.9	0.3	0.3	0.00	7.3	0.0	7.3	6.7	0.58	12.548		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	7.3	0.0	7.3	6.6	0.67	10.780 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.6	126.26	7.3	0.0	8.2	7.1	1.11	7.350 SF		
400.0	399.8	399.8	399.8	0.8	0.8	146.75	7.3	0.0	12.0	10.5	1.56	7.732		
500.0	499.5	499.5	499.5	1.0	1.0	160.59	7.3	0.0	19.9	17.9	2.01	9.903		
600.0	598.7	598.7	598.7	1.3	1.2	167.89	7.3	0.0	31.7	29.2	2.47	12.838		
700.0	697.5	697.5	697.5	1.6	1.5	171.84	7.3	0.0	47.1	44.1	2.92	16.095		
800.0	795.6	795.6	795.6	2.0	1.7	174.15	7.3	0.0	66.0	62.6	3.39	19.499		
900.0	893.1	893.1	893.1	2.5	1.9	175.60	7.3	0.0	88.4	84.6	3.85	22.971		
1,000.0	989.6	989.6	989.6	3.0	2.1	176.56	7.3	0.0	114.3	109.9	4.32	26.470		
1,100.0	1,085.3	1,085.3	1,085.3	3.6	2.3	177.24	7.3	0.0	143.4	138.7	4.79	29.973		
1,200.0	1,179.8	1,179.8	1,179.8	4.2	2.5	177.72	7.3	0.0	176.0	170.7	5.26	33.466		
1,300.0	1,273.2	1,273.2	1,273.2	5.0	2.7	178.08	7.3	0.0	211.8	206.1	5.73	36.940		
1,400.0	1,365.2	1,365.2	1,365.2	5.7	3.0	178.35	7.3	0.0	250.8	244.6	6.21	40.390		
1,500.0	1,455.8	1,455.8	1,455.8	6.6	3.2	178.57	7.3	0.0	293.1	286.4	6.69	43.812		
1,539.2	1,490.9	1,490.9	1,490.9	7.0	3.2	178.64	7.3	0.0	310.5	303.6	6.88	45.144		
1,600.0	1,545.2	1,545.2	1,545.2	7.5	3.4	178.75	7.3	0.0	337.9	330.7	7.20	46.924		
1,700.0	1,634.5	1,634.5	1,634.5	8.5	3.6	178.90	7.3	0.0	383.0	375.2	7.74	49.494		
1,800.0	1,723.8	1,723.8	1,723.8	9.4	3.8	179.01	7.3	0.0	428.0	419.7	8.28	51.699		
1,900.0	1,813.0	1,813.0	1,813.0	10.4	4.0	179.11	7.3	0.0	473.1	464.2	8.82	53.609		
2,000.0	1,902.3	1,902.3	1,902.3	11.3	4.2	179.18	7.3	0.0	518.1	508.8	9.37	55.276		
2,100.0	1,991.6	1,991.6	1,991.6	12.3	4.4	179.25	7.3	0.0	563.2	553.3	9.93	56.744		
2,200.0	2,080.9	2,080.9	2,080.9	13.2	4.5	179.27	7.8	0.6	609.1	598.7	10.45	58.276		
2,300.0	2,170.1	2,139.7	2,139.6	14.2	4.7	179.23	9.6	2.5	657.3	646.3	10.98	59.865		
2,400.0	2,259.4	2,210.2	2,210.0	15.2	4.8	179.15	12.6	5.6	707.4	695.9	11.50	61.503		
2,500.0	2,348.7	2,278.7	2,278.3	16.1	5.0	179.03	16.6	9.8	759.6	747.6	12.02	63.189		
2,600.0	2,438.0	2,345.4	2,344.5	17.1	5.2	178.89	21.6	15.1	813.7	801.1	12.54	64.898		
2,700.0	2,527.2	2,421.6	2,420.1	18.1	5.3	178.72	28.3	22.1	869.3	856.2	13.07	66.505		
2,800.0	2,616.5	2,504.6	2,502.4	19.0	5.5	178.54	35.6	29.9	925.0	911.4	13.61	67.981		
2,900.0	2,705.8	2,587.6	2,584.7	20.0	5.7	178.39	43.0	37.7	980.7	966.5	14.14	69.333		
3,000.0	2,795.0	2,670.6	2,667.1	21.0	6.0	178.25	50.4	45.4	1,036.4	1,021.7	14.69	70.564		
3,100.0	2,884.3	2,753.6	2,749.4	21.9	6.2	178.13	57.7	53.2	1,092.1	1,076.9	15.23	71.708		
3,200.0	2,973.6	2,836.6	2,831.7	22.9	6.4	178.01	65.1	61.0	1,147.9	1,132.1	15.77	72.767		
3,300.0	3,062.9	2,919.6	2,914.0	23.9	6.6	177.91	72.4	68.8	1,203.6	1,187.3	16.32	73.746		
3,400.0	3,152.1	3,002.6	2,996.3	24.8	6.8	177.82	79.8	76.5	1,259.3	1,242.5	16.87	74.656		
3,500.0	3,241.4	3,085.6	3,078.6	25.8	7.1	177.74	87.2	84.3	1,315.1	1,297.7	17.42	75.499		
3,600.0	3,330.7	3,168.7	3,161.0	26.8	7.3	177.66	94.5	92.1	1,370.8	1,352.8	17.97	76.286		
3,700.0	3,419.9	3,251.7	3,243.3	27.7	7.5	177.59	101.9	99.8	1,426.6	1,408.0	18.52	77.021		
3,800.0	3,509.2	3,334.7	3,325.6	28.7	7.8	177.52	109.3	107.6	1,482.3	1,463.2	19.07	77.709		
3,900.0	3,598.5	3,417.7	3,407.9	29.7	8.0	177.46	116.6	115.4	1,538.0	1,518.4	19.63	78.354		
4,000.0	3,687.8	3,500.7	3,490.2	30.6	8.3	177.40	124.0	123.1	1,593.8	1,573.6	20.18	78.960		
4,100.0	3,777.0	3,583.7	3,572.6	31.6	8.5	177.35	131.4	130.9	1,649.5	1,628.8	20.74	79.529		
4,200.0	3,866.3	3,699.5	3,687.5	32.6	8.8	177.29	141.2	141.3	1,705.0	1,683.7	21.35	79.858		
4,300.0	3,955.6	3,904.5	3,891.8	33.5	9.3	177.29	151.6	152.3	1,756.3	1,734.2	22.06	79.615		
4,400.0	4,044.8	4,057.5	4,044.8	34.5	9.5	177.39	153.0	153.7	1,802.1	1,779.4	22.69	79.421		
4,500.0	4,134.1	4,146.8	4,134.1	35.5	9.7	177.45	153.0	153.7	1,847.1	1,823.9	23.25	79.452		
4,600.0	4,223.4	4,236.1	4,223.4	36.5	9.9	177.51	153.0	153.7	1,892.2	1,868.4	23.81	79.453		
4,700.0	4,312.7	4,325.3	4,312.7	37.4	10.1	177.57	153.0	153.7	1,937.2	1,912.8	24.38	79.453		
4,800.0	4,401.9	4,414.6	4,401.9	38.4	10.3	177.63	153.0	153.7	1,982.2	1,957.3	24.95	79.451		
4,900.0	4,491.2	4,503.9	4,491.2	39.4	10.4	177.68	153.0	153.7	2,027.3	2,001.7	25.52	79.447		

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 4-6-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 4-6-10	<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
5,000.0	4,580.5	4,593.2	4,580.5	40.3	10.6	177.73	153.0	153.7	2,072.3	2,046.2	26.09	79.442	
5,100.0	4,669.8	4,682.4	4,669.8	41.3	10.8	177.78	153.0	153.7	2,117.3	2,090.7	26.65	79.436	
5,200.0	4,759.0	4,771.7	4,759.0	42.3	11.0	177.82	153.0	153.7	2,162.4	2,135.1	27.22	79.428	
5,300.0	4,848.3	4,861.0	4,848.3	43.2	11.2	177.87	153.0	153.7	2,207.4	2,179.6	27.79	79.420	
5,400.0	4,937.6	4,950.2	4,937.6	44.2	11.4	177.91	153.0	153.7	2,252.4	2,224.1	28.36	79.411	
5,500.0	5,026.8	5,039.5	5,026.8	45.2	11.6	177.95	153.0	153.7	2,297.5	2,268.5	28.94	79.400	
5,600.0	5,116.1	5,128.8	5,116.1	46.1	11.8	177.99	153.0	153.7	2,342.5	2,313.0	29.51	79.389	
5,700.0	5,205.4	5,218.1	5,205.4	47.1	11.9	178.03	153.0	153.7	2,387.6	2,357.5	30.08	79.378	
5,800.0	5,294.7	5,307.3	5,294.7	48.1	12.1	178.07	153.0	153.7	2,432.6	2,401.9	30.65	79.366	
5,900.0	5,383.9	5,396.6	5,383.9	49.1	12.3	178.10	153.0	153.7	2,477.6	2,446.4	31.22	79.353	
6,000.0	5,473.2	5,485.9	5,473.2	50.0	12.5	178.14	153.0	153.7	2,522.7	2,490.9	31.80	79.339	
6,040.2	5,509.1	5,521.8	5,509.1	50.4	12.6	178.15	153.0	153.7	2,540.8	2,508.8	32.03	79.333	
6,100.0	5,562.7	5,575.4	5,562.7	50.9	12.7	178.19	153.0	153.7	2,567.2	2,534.7	32.46	79.080	
6,200.0	5,653.7	5,666.4	5,653.7	51.6	12.9	178.24	153.0	153.7	2,608.7	2,575.6	33.14	78.711	
6,300.0	5,746.0	5,758.7	5,746.0	52.3	13.1	178.29	153.0	153.7	2,647.1	2,613.4	33.78	78.367	
6,400.0	5,839.6	5,852.3	5,839.6	52.9	13.3	178.34	153.0	153.7	2,682.3	2,647.9	34.37	78.048	
6,500.0	5,934.4	5,947.1	5,934.4	53.4	13.5	178.38	153.0	153.7	2,714.1	2,679.2	34.91	77.754	
6,600.0	6,030.2	6,042.9	6,030.2	53.9	13.7	178.41	153.0	153.7	2,742.7	2,707.3	35.40	77.484	
6,700.0	6,127.0	6,139.7	6,127.0	54.3	13.9	178.44	153.0	153.7	2,767.9	2,732.0	35.84	77.238	
6,800.0	6,224.6	6,237.3	6,224.6	54.7	14.1	178.46	153.0	153.7	2,789.6	2,753.4	36.22	77.015	
6,900.0	6,322.9	6,335.6	6,322.9	55.0	14.3	178.48	153.0	153.7	2,808.0	2,771.5	36.55	76.816	
7,000.0	6,421.8	6,434.4	6,421.8	55.2	14.5	178.50	153.0	153.7	2,822.9	2,786.1	36.83	76.640	
7,100.0	6,521.1	6,533.8	6,521.1	55.4	14.8	178.51	153.0	153.7	2,834.4	2,797.3	37.06	76.486	
7,200.0	6,620.8	6,633.4	6,620.8	55.6	15.0	178.52	153.0	153.7	2,842.4	2,805.2	37.23	76.354	
7,300.0	6,720.7	6,733.3	6,720.7	55.7	15.2	178.52	153.0	153.7	2,846.9	2,809.6	37.34	76.243	
7,379.4	6,800.0	6,812.7	6,800.0	55.8	15.4	63.41	153.0	153.7	2,848.0	2,810.6	37.40	76.158	
7,400.0	6,820.6	6,833.3	6,820.6	55.8	15.4	63.41	153.0	153.7	2,848.0	2,810.5	37.47	76.014	
7,500.0	6,920.6	6,933.3	6,920.6	55.8	15.6	63.41	153.0	153.7	2,848.0	2,810.2	37.81	75.328	
7,600.0	7,020.6	7,033.3	7,020.6	55.9	15.8	63.41	153.0	153.7	2,848.0	2,809.9	38.15	74.651	
7,700.0	7,120.6	7,133.3	7,120.6	55.9	16.1	63.41	153.0	153.7	2,848.0	2,809.5	38.50	73.982	
7,800.0	7,220.6	7,233.3	7,220.6	56.0	16.3	63.41	153.0	153.7	2,848.0	2,809.2	38.84	73.323	
7,900.0	7,320.6	7,333.3	7,320.6	56.0	16.5	63.41	153.0	153.7	2,848.0	2,808.8	39.19	72.672	
8,000.0	7,420.6	7,433.3	7,420.6	56.1	16.7	63.41	153.0	153.7	2,848.0	2,808.5	39.54	72.030	
8,100.0	7,520.6	7,533.3	7,520.6	56.2	16.9	63.41	153.0	153.7	2,848.0	2,808.1	39.89	71.397	
8,200.0	7,620.6	7,633.3	7,620.6	56.2	17.2	63.41	153.0	153.7	2,848.0	2,807.8	40.24	70.772	
8,300.0	7,720.6	7,733.3	7,720.6	56.3	17.4	63.41	153.0	153.7	2,848.0	2,807.4	40.60	70.155	
8,304.0	7,724.6	7,737.3	7,724.6	56.3	17.4	63.41	153.0	153.7	2,848.0	2,807.4	40.61	70.130	
8,326.4	7,747.0	7,743.7	7,731.0	56.3	17.4	63.41	153.0	153.7	2,848.0	2,807.4	40.65	70.056	

Reference Depths are relative to WELL @ 4874.0ft (Original Well Elev) Coordinates are relative to: Dowdy 4-6-10  
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 4-6-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 8-4-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4874.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 4-6-10	<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 @ 4874.0ft (Original Well Elev) Coordinates are relative to: Dowdy 4-6-10  
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
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