



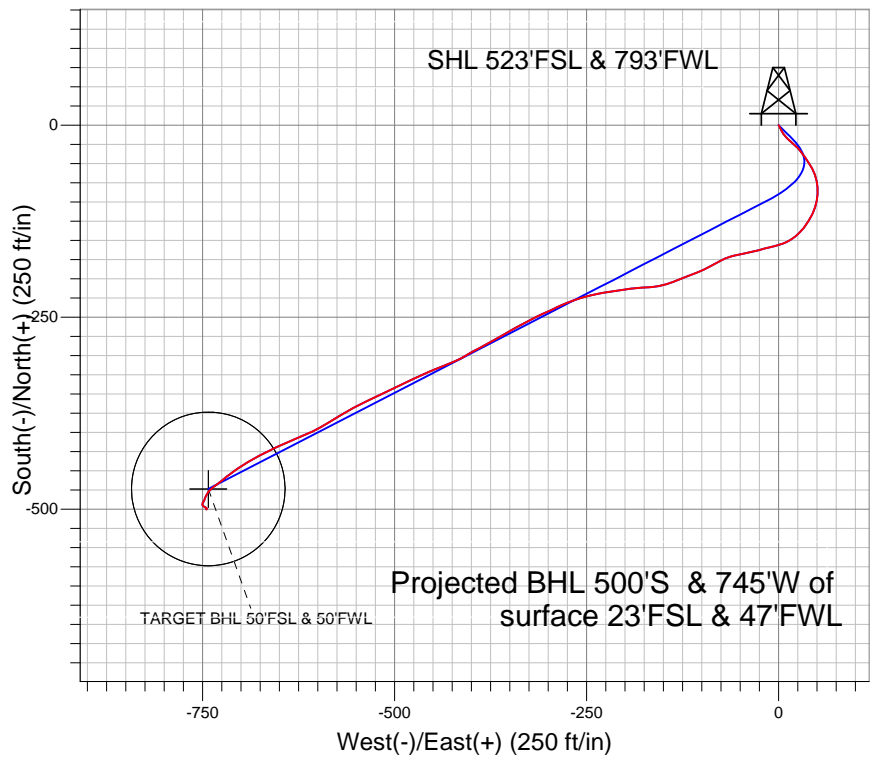
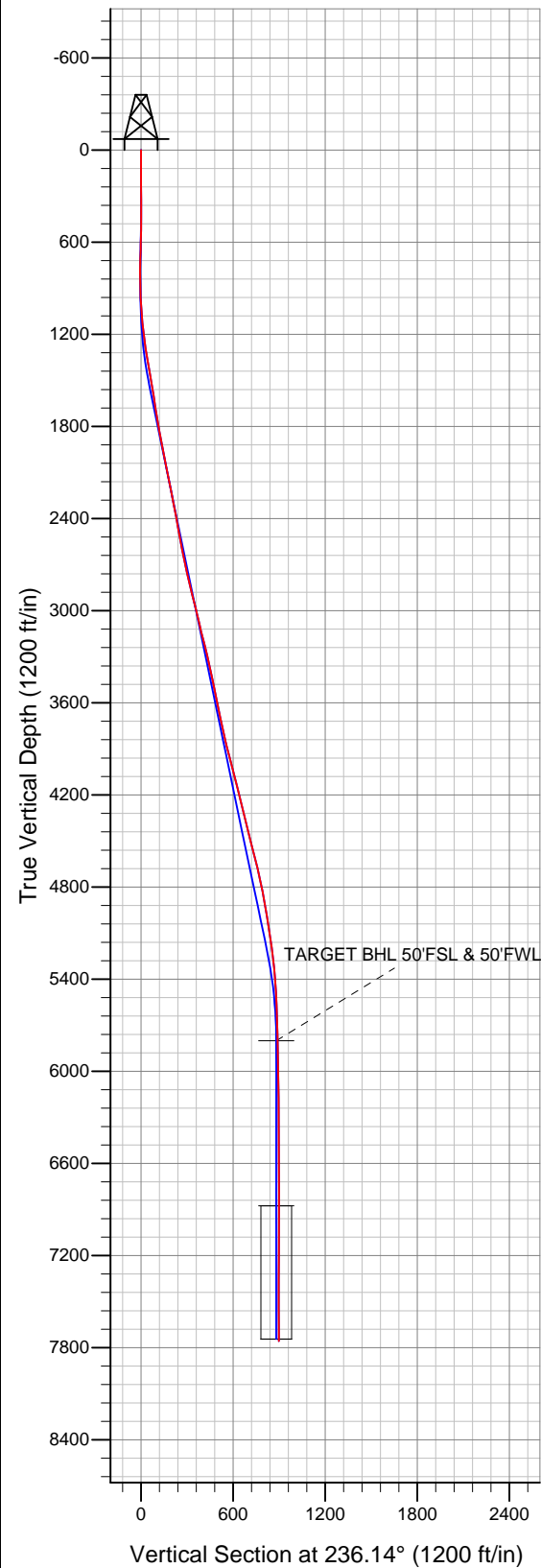
Well Name: **Aristocrat Angus 0-8-3**

Surface Location: Aristocrat Angus 0-8-3 Pad Sec.3-T3N-R65W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4808.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1334502.30	3235581.58	40.248530	-104.656010	
Original Well Elev Well @ 4821.0ft (Original Well Elev)						

## EnCana Oil & Gas Weld County CO



### LEGEND

- Aristocrat Angus 0-8-3, Wellbore #1, Plan #2 (5-17-13) R V0
- Wellbore #1
- Survey #1

## Final Survey Plot

Projected Final Survey -  
7860'MD & 7756'TVD @  
897.3' VS 0.40 deg Inc  
291.17 deg AZ

Project: SEC.3-T3N-R65W  
Site: Aristocrat Angus 0-8-3 Pad Sec.3-T3N-R65W  
Well: Aristocrat Angus 0-8-3  
Plan: Wellbore #1



## **Directional**

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

**SEC.3-T3N-R65W**

**Aristocrat Angus 0-8-3 Pad Sec.3-T3N-R65W**

**Aristocrat Angus 0-8-3**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**21 May, 2013**



<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Aristocrat Angus 0-8-3
<b>Project:</b>	SEC.3-T3N-R65W	<b>TVD Reference:</b>	Well @ 4821.0ft (Original Well Elev)
<b>Site:</b>	Aristocrat Angus 0-8-3 Pad Sec.3-T3N-R65W	<b>MD Reference:</b>	Well @ 4821.0ft (Original Well Elev)
<b>Well:</b>	Aristocrat Angus 0-8-3	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.3-T3N-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	Aristocrat Angus 0-8-3 Pad Sec.3-T3N-R65W				
Site Position:		Northing:	1,334,502.31 ft	Latitude:	40.248530
From:	Lat/Long	Easting:	3,235,581.58 ft	Longitude:	-104.656010
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.55 °

Well	Aristocrat Angus 0-8-3					
Well Position	+N/-S	0.0 ft	Northing:	1,334,502.30 ft	Latitude:	40.248530
	+E/-W	0.0 ft	Easting:	3,235,581.58 ft	Longitude:	-104.656010
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,808.0 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	5/17/2013	8.53	66.88	52,861

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	236.14	

<b>Survey Program</b>	<b>Date</b>	5/21/2013			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
105.0	7,860.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
105.0	1.40	147.10	105.0	-1.1	0.7	0.0	1.33	1.33	0.00	
166.0	1.60	151.60	166.0	-2.5	1.5	0.1	0.38	0.33	7.38	
225.0	1.50	149.00	224.9	-3.8	2.3	0.2	0.21	-0.17	-4.41	
286.0	1.40	158.00	285.9	-5.2	3.0	0.4	0.41	-0.16	14.75	
346.0	1.80	158.10	345.9	-6.8	3.6	0.8	0.67	0.67	0.17	
406.0	3.30	146.70	405.8	-9.1	4.9	1.0	2.63	2.50	-19.00	
466.0	4.70	144.80	465.7	-12.5	7.3	0.9	2.34	2.33	-3.17	
527.0	5.90	134.80	526.4	-16.8	10.9	0.3	2.48	1.97	-16.39	
587.0	6.90	130.40	586.1	-21.3	15.9	-1.3	1.86	1.67	-7.33	
648.0	8.00	134.40	646.5	-26.6	21.7	-3.2	1.99	1.80	6.56	
711.0	8.50	139.50	708.9	-33.3	27.9	-4.6	1.41	0.79	8.10	
782.0	8.70	145.00	779.1	-41.6	34.3	-5.3	1.19	0.28	7.75	

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Aristocrat Angus 0-8-3
<b>Project:</b>	SEC.3-T3N-R65W	<b>TVD Reference:</b>	Well @ 4821.0ft (Original Well Elev)
<b>Site:</b>	Aristocrat Angus 0-8-3 Pad Sec.3-T3N-R65W	<b>MD Reference:</b>	Well @ 4821.0ft (Original Well Elev)
<b>Well:</b>	Aristocrat Angus 0-8-3	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
868.0	8.70	149.90	864.1	-52.6	41.3	-5.0	0.86	0.00	5.70
954.0	8.40	157.60	949.2	-64.0	47.0	-3.3	1.37	-0.35	8.95
1,040.0	8.60	171.70	1,034.2	-76.2	50.3	0.7	2.43	0.23	16.40
1,125.0	9.80	183.30	1,118.1	-89.7	50.8	7.8	2.59	1.41	13.65
1,211.0	10.20	196.80	1,202.8	-104.3	48.2	18.1	2.76	0.47	15.70
1,297.0	9.80	207.20	1,287.5	-118.1	42.6	30.4	2.15	-0.47	12.09
1,382.0	9.50	215.30	1,371.3	-130.3	35.3	43.3	1.63	-0.35	9.53
1,468.0	10.20	226.30	1,456.1	-141.3	25.7	57.4	2.33	0.81	12.79
1,554.0	9.60	240.40	1,540.8	-150.1	13.9	72.1	2.90	-0.70	16.40
1,640.0	8.40	253.20	1,625.8	-155.5	1.7	85.2	2.71	-1.40	14.88
1,725.0	9.70	256.60	1,709.7	-158.9	-11.2	97.9	1.65	1.53	4.00
1,811.0	11.30	255.00	1,794.3	-162.8	-26.4	112.6	1.89	1.86	-1.86
1,897.0	11.40	258.90	1,878.6	-166.6	-42.9	128.5	0.90	0.12	4.53
1,983.0	11.40	256.20	1,962.9	-170.3	-59.5	144.3	0.62	0.00	-3.14
2,068.0	11.20	242.30	2,046.2	-176.1	-75.0	160.4	3.21	-0.24	-16.35
2,154.0	11.50	240.80	2,130.6	-184.2	-89.8	177.2	0.49	0.35	-1.74
2,240.0	12.00	249.00	2,214.8	-191.6	-105.7	194.5	2.02	0.58	9.53
2,326.0	11.30	249.00	2,299.0	-197.8	-121.9	211.4	0.81	-0.81	0.00
2,411.0	10.80	247.80	2,382.4	-203.8	-137.0	227.3	0.65	-0.59	-1.41
2,497.0	10.60	257.10	2,466.9	-208.6	-152.2	242.6	2.02	-0.23	10.81
2,583.0	11.80	266.90	2,551.3	-210.8	-168.7	257.6	2.61	1.40	11.40
2,668.0	12.70	264.30	2,634.4	-212.2	-186.7	273.3	1.24	1.06	-3.06
2,754.0	14.60	261.50	2,717.9	-214.8	-206.8	291.4	2.34	2.21	-3.26
2,840.0	14.10	260.30	2,801.2	-218.2	-227.8	310.7	0.68	-0.58	-1.40
2,926.0	14.40	256.00	2,884.6	-222.5	-248.5	330.4	1.28	0.35	-5.00
3,011.0	15.00	249.90	2,966.8	-228.8	-269.1	351.0	1.95	0.71	-7.18
3,097.0	12.90	243.90	3,050.3	-236.9	-288.2	371.3	2.96	-2.44	-6.98
3,183.0	14.50	246.00	3,133.8	-245.5	-306.7	391.4	1.95	1.86	2.44
3,269.0	14.30	242.00	3,217.1	-254.9	-325.9	412.6	1.18	-0.23	-4.65
3,354.0	13.00	241.10	3,299.7	-264.4	-343.5	432.6	1.55	-1.53	-1.06
3,440.0	12.10	240.40	3,383.7	-273.5	-359.8	451.2	1.06	-1.05	-0.81
3,526.0	12.00	239.90	3,467.8	-282.5	-375.4	469.1	0.17	-0.12	-0.58
3,612.0	11.90	243.40	3,551.9	-290.9	-391.1	486.8	0.85	-0.12	4.07
3,697.0	11.20	238.30	3,635.2	-299.2	-405.9	503.8	1.46	-0.82	-6.00
3,783.0	12.20	246.00	3,719.4	-307.3	-421.3	521.1	2.15	1.16	8.95
3,869.0	12.80	249.00	3,803.4	-314.4	-438.5	539.3	1.03	0.70	3.49
3,954.0	14.20	246.70	3,886.0	-321.9	-456.9	558.7	1.76	1.65	-2.71
4,040.0	15.00	244.30	3,969.3	-330.9	-476.6	580.1	1.17	0.93	-2.79
4,126.0	15.00	244.60	4,052.3	-340.5	-496.7	602.2	0.09	0.00	0.35
4,212.0	13.70	245.00	4,135.6	-349.6	-516.0	623.2	1.52	-1.51	0.47
4,297.0	14.20	244.60	4,218.1	-358.3	-534.5	643.5	0.60	0.59	-0.47
4,383.0	14.10	241.50	4,301.5	-367.8	-553.2	664.3	0.89	-0.12	-3.60
4,469.0	13.70	238.60	4,385.0	-378.1	-571.1	685.0	0.93	-0.47	-3.37
4,555.0	13.80	238.80	4,468.5	-388.7	-588.6	705.4	0.13	0.12	0.23
4,640.0	14.90	243.60	4,550.9	-398.8	-607.1	726.3	1.91	1.29	5.65
4,726.0	14.50	248.50	4,634.1	-407.7	-627.0	747.8	1.52	-0.47	5.70
4,812.0	12.80	246.20	4,717.7	-415.5	-645.7	767.7	2.07	-1.98	-2.67
4,897.0	12.10	243.00	4,800.7	-423.3	-662.3	785.8	1.16	-0.82	-3.76
4,983.0	9.80	243.20	4,885.1	-430.7	-676.8	802.0	2.67	-2.67	0.23
5,069.0	9.20	238.80	4,969.9	-437.6	-689.3	816.2	1.09	-0.70	-5.12
5,155.0	9.10	236.00	5,054.8	-445.0	-700.8	829.8	0.53	-0.12	-3.26
5,240.0	8.50	234.80	5,138.8	-452.3	-711.5	842.8	0.74	-0.71	-1.41
5,326.0	7.40	230.90	5,224.0	-459.5	-721.0	854.7	1.42	-1.28	-4.53
5,412.0	6.20	233.00	5,309.4	-465.8	-729.0	864.9	1.42	-1.40	2.44

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Aristocrat Angus 0-8-3
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<b>Well:</b>	Aristocrat Angus 0-8-3	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,498.0	4.40	231.60	5,395.0	-470.6	-735.3	872.8	2.10	-2.09	-1.63
5,583.0	3.70	224.90	5,479.8	-474.6	-739.8	878.7	0.99	-0.82	-7.88
5,669.0	2.90	213.30	5,565.7	-478.4	-742.9	883.5	1.21	-0.93	-13.49
5,755.0	2.20	209.50	5,651.6	-481.6	-744.9	886.9	0.84	-0.81	-4.42
5,903.1	1.24	200.09	5,799.6	-485.6	-746.9	890.8	0.67	-0.65	-6.35
<b>TARGET BHL 50'FSL &amp; 50'FWL</b>									
5,926.0	1.10	197.20	5,822.5	-486.1	-747.0	891.2	0.67	-0.62	-12.65
6,098.0	0.70	191.90	5,994.5	-488.7	-747.7	893.2	0.24	-0.23	-3.08
6,269.0	0.60	241.80	6,165.5	-490.1	-748.7	894.8	0.33	-0.06	29.18
6,441.0	0.40	200.00	6,337.5	-491.1	-749.7	896.2	0.23	-0.12	-24.30
6,612.0	0.60	192.70	6,508.4	-492.5	-750.1	897.3	0.12	0.12	-4.27
6,784.0	0.50	172.60	6,680.4	-494.2	-750.2	898.3	0.13	-0.06	-11.69
6,955.0	0.50	139.00	6,851.4	-495.5	-749.7	898.6	0.17	0.00	-19.65
6,979.5	0.51	136.38	6,875.9	-495.6	-749.5	898.5	0.11	0.05	-10.71
<b>TARGET CIRCLE 50'FSL &amp; 50'FWL</b>									
7,127.0	0.60	123.10	7,023.4	-496.5	-748.4	898.1	0.11	0.06	-9.00
7,298.0	0.80	111.70	7,194.4	-497.5	-746.6	897.1	0.14	0.12	-6.67
7,469.0	0.60	130.70	7,365.4	-498.5	-744.8	896.2	0.18	-0.12	11.11
7,641.0	0.40	196.10	7,537.4	-499.6	-744.2	896.4	0.33	-0.12	38.02
7,814.0	0.40	271.20	7,710.4	-500.2	-745.0	897.4	0.28	0.00	43.41
7,860.0	0.40	291.17	7,756.4	-500.1	-745.3	897.6	0.30	0.00	43.41

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_