

Well Name: **Puritan 4-4-34**

Surface Location: Puritan 4-4-34 Pad Sec.34-T2N-R68W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone

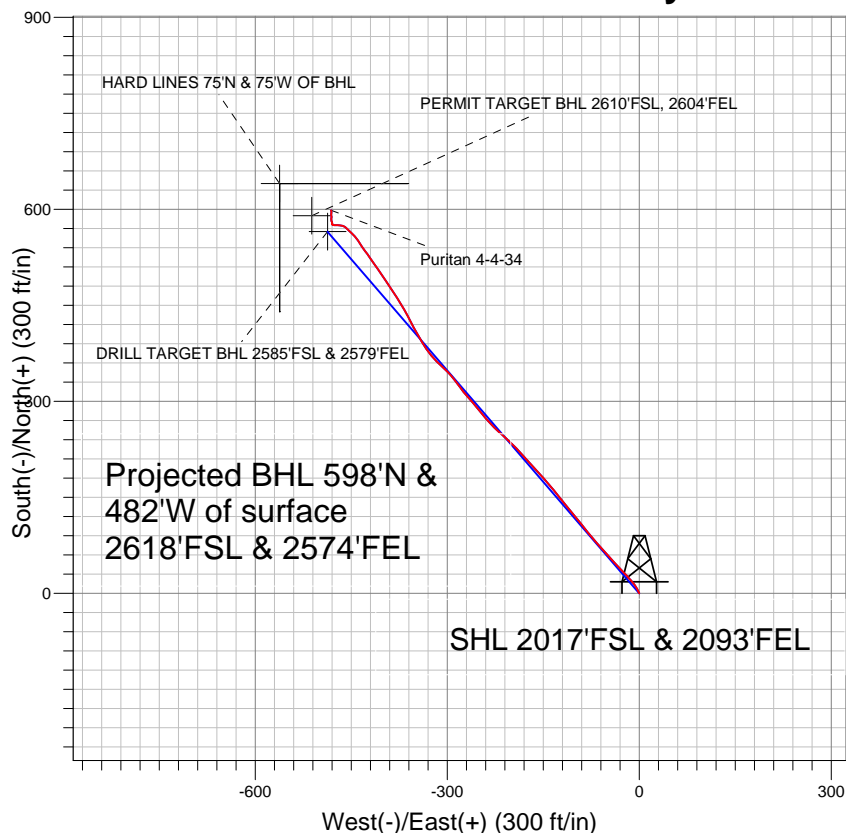
Ground Elevation: 5002.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1277215.51	3143418.05	40.093210	-104.987370

Original Well Elev WELL @ 5015.0ft (Original Well Elev)

Slot

EnCana Oil & Gas Weld County CO



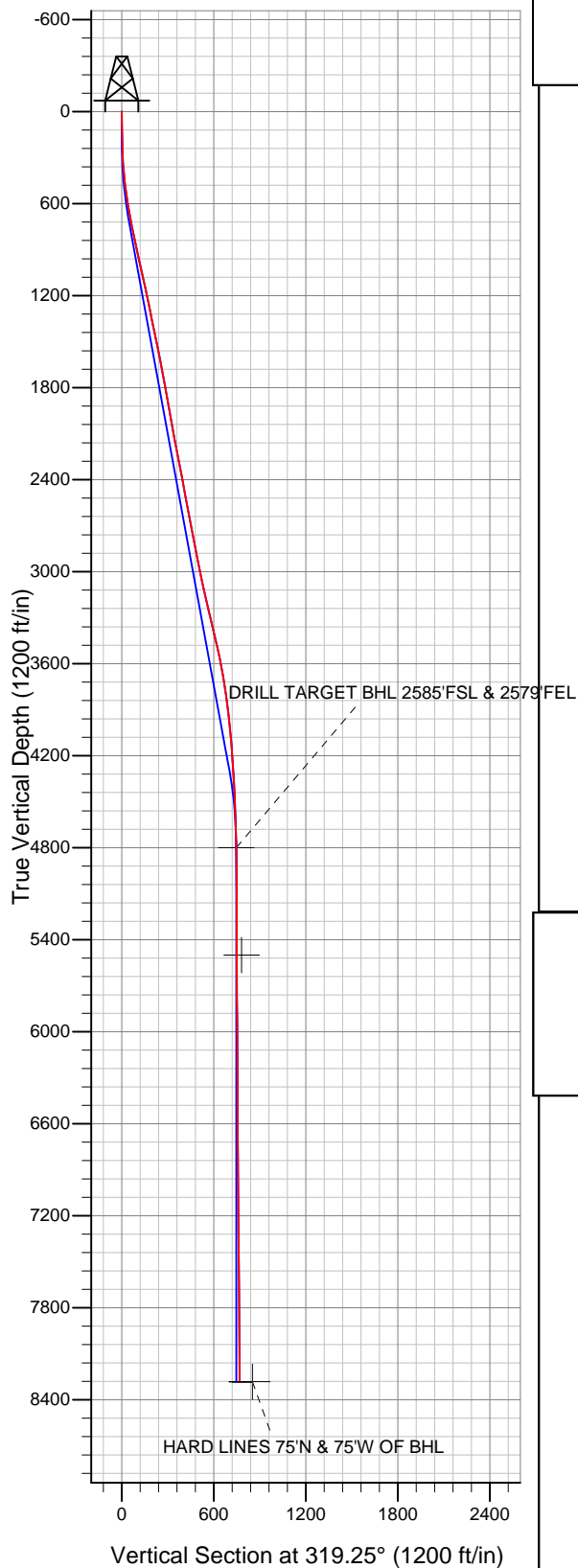
LEGEND

- ✕ Puritan 4-4-34, Wellbore #1, Plan #1 (7-13-11) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
8343'MD & 8273'TVD @ 768'VS
0.3 deg Inc 6.3 deg AZ

Project: SEC.34-T2N-R68W
Site: Puritan 4-4-34 Pad Sec.34-T2N-R68W
Well: Puritan 4-4-34
Plan: Wellbore #1





Directional

EnCana Oil & Gas Weld County CO

SEC.34-T2N-R68W

Puritan 4-4-34 Pad Sec.34-T2N-R68W

Puritan 4-4-34

Wellbore #1

Survey: Survey #1

Standard Survey Report

03 August, 2011

Survey	Survey Data									
	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
	169.0	1.40	336.20	169.0	1.9	-0.8	2.0	0.83	0.83	0.00
	261.0	2.20	330.40	260.9	4.5	-2.2	4.8	0.89	0.87	-6.30
	352.0	3.80	332.00	351.8	8.6	-4.4	9.4	1.76	1.76	1.76
	444.0	5.80	322.80	443.5	15.0	-8.7	17.1	2.32	2.17	-10.00
	536.0	8.10	317.70	534.8	23.5	-15.9	28.2	2.59	2.50	-5.54
	629.0	10.10	315.90	626.6	34.2	-25.9	42.9	2.17	2.15	-1.94
	721.0	11.60	317.10	717.0	46.8	-37.8	60.2	1.65	1.63	1.30
	807.0	12.00	318.10	801.2	59.8	-49.7	77.7	0.52	0.47	1.16
	944.0	12.30	319.40	935.1	81.5	-68.7	106.6	0.30	0.22	0.95
	1,031.0	11.90	321.00	1,020.2	95.5	-80.4	124.8	0.60	-0.46	1.84
	1,118.0	11.60	321.00	1,105.3	109.2	-91.5	142.5	0.34	-0.34	0.00
	1,206.0	11.90	321.00	1,191.5	123.2	-102.8	160.4	0.34	0.34	0.00

Company:	EnCana Oil & Gas Weld County CO	Local Co-ordinate Reference:	Well Puritan 4-4-34
Project:	SEC.34-T2N-R68W	TVD Reference:	WELL @ 5015.0ft (Original Well Elev)
Site:	Puritan 4-4-34 Pad Sec.34-T2N-R68W	MD Reference:	WELL @ 5015.0ft (Original Well Elev)
Well:	Puritan 4-4-34	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
1,293.0	12.10	320.30	1,276.6	137.2	-114.3	178.5	0.28	0.23	-0.80	
1,380.0	12.10	321.70	1,361.7	151.3	-125.8	196.7	0.34	0.00	1.61	
1,467.0	11.70	320.00	1,446.8	165.2	-137.1	214.7	0.61	-0.46	-1.95	
1,555.0	11.10	319.40	1,533.1	178.5	-148.3	232.1	0.70	-0.68	-0.68	
1,642.0	11.20	317.00	1,618.4	191.0	-159.5	248.9	0.55	0.11	-2.76	
1,729.0	10.70	317.00	1,703.8	203.1	-170.8	265.4	0.57	-0.57	0.00	
1,817.0	10.20	318.80	1,790.4	215.0	-181.5	281.3	0.68	-0.57	2.05	
1,904.0	10.50	316.60	1,876.0	226.5	-192.0	297.0	0.57	0.34	-2.53	
1,991.0	10.20	312.70	1,961.5	237.5	-203.1	312.5	0.88	-0.34	-4.48	
2,079.0	10.20	312.30	2,048.1	248.0	-214.6	328.0	0.08	0.00	-0.45	
2,166.0	10.50	314.00	2,133.7	258.7	-226.0	343.6	0.49	0.34	1.95	
2,253.0	10.90	318.10	2,219.2	270.4	-237.2	359.7	0.99	0.46	4.71	
2,340.0	10.90	322.00	2,304.7	283.0	-247.8	376.1	0.85	0.00	4.48	
2,428.0	11.10	320.20	2,391.0	296.0	-258.3	392.9	0.45	0.23	-2.05	
2,515.0	11.00	316.70	2,476.4	308.5	-269.4	409.6	0.78	-0.11	-4.02	
2,602.0	10.20	326.50	2,561.9	321.0	-279.3	425.5	2.26	-0.92	11.26	
2,690.0	10.40	321.50	2,648.5	333.7	-288.6	441.2	1.04	0.23	-5.68	
2,777.0	10.90	316.50	2,734.0	345.8	-299.1	457.2	1.21	0.57	-5.75	
2,864.0	11.90	311.20	2,819.3	357.7	-311.5	474.3	1.66	1.15	-6.09	
2,952.0	11.10	319.90	2,905.6	370.1	-323.8	491.8	2.17	-0.91	9.89	
3,039.0	11.10	327.30	2,990.9	383.6	-333.7	508.4	1.64	0.00	8.51	
3,126.0	12.30	328.90	3,076.1	398.6	-343.1	525.9	1.43	1.38	1.84	
3,213.0	13.00	331.50	3,161.0	415.1	-352.5	544.6	1.04	0.80	2.99	
3,301.0	13.80	333.20	3,246.6	433.2	-362.0	564.4	1.01	0.91	1.93	
3,388.0	13.70	328.50	3,331.1	451.2	-372.0	584.7	1.29	-0.11	-5.40	
3,475.0	13.60	327.50	3,415.7	468.6	-382.9	605.0	0.29	-0.11	-1.15	
3,563.0	12.80	325.30	3,501.3	485.4	-394.0	624.9	1.07	-0.91	-2.50	
3,650.0	11.00	326.30	3,586.5	500.2	-404.1	642.7	2.08	-2.07	1.15	
3,737.0	9.90	324.60	3,672.0	513.2	-413.0	658.4	1.31	-1.26	-1.95	
3,825.0	8.70	325.10	3,758.9	524.8	-421.2	672.6	1.37	-1.36	0.57	
3,912.0	7.60	324.00	3,845.0	534.9	-428.4	684.8	1.28	-1.26	-1.26	
3,999.0	6.60	325.50	3,931.3	543.6	-434.6	695.5	1.17	-1.15	1.72	
4,086.0	6.00	326.60	4,017.8	551.6	-439.9	705.0	0.70	-0.69	1.26	
4,174.0	5.10	317.50	4,105.4	558.3	-445.1	713.5	1.43	-1.02	-10.34	
4,261.0	3.80	313.10	4,192.1	563.1	-449.8	720.2	1.54	-1.49	-5.06	
4,348.0	2.50	312.80	4,279.0	566.4	-453.3	725.0	1.49	-1.49	-0.34	
4,436.0	4.10	315.80	4,366.8	569.9	-456.9	730.0	1.83	1.82	3.41	
4,610.0	2.20	272.20	4,540.6	574.5	-464.6	738.5	1.68	-1.09	-25.06	
4,698.0	2.30	277.40	4,628.5	574.8	-468.0	741.0	0.26	0.11	5.91	
4,785.0	2.20	278.50	4,715.5	575.3	-471.4	743.5	0.13	-0.11	1.26	
4,870.0	1.91	269.93	4,800.4	575.5	-474.4	745.7	0.50	-0.35	-10.08	
DRILL TARGET BHL 2585'FSL & 2579'FEL										
4,872.0	1.90	269.70	4,802.4	575.5	-474.5	745.7	0.50	-0.32	-11.63	
4,959.0	1.10	262.70	4,889.4	575.4	-476.8	747.1	0.94	-0.92	-8.05	
5,134.0	0.60	311.30	5,064.3	575.8	-479.1	749.0	0.48	-0.29	27.77	
5,309.0	0.20	48.40	5,239.3	576.6	-479.6	749.9	0.37	-0.23	55.49	
5,483.0	0.10	199.40	5,413.3	576.7	-479.4	749.8	0.17	-0.06	86.78	
5,569.7	0.12	321.49	5,500.1	576.7	-479.5	749.9	0.22	0.02	140.79	
PERMIT TARGET BHL 2610'FSL, 2604'FEL										
5,658.0	0.30	338.20	5,588.3	576.9	-479.6	750.2	0.22	0.21	18.93	
5,832.0	0.20	347.10	5,762.3	577.7	-479.9	750.9	0.06	-0.06	5.11	
6,007.0	0.70	357.80	5,937.3	579.0	-480.0	752.0	0.29	0.29	6.11	
6,182.0	0.30	322.80	6,112.3	580.5	-480.3	753.3	0.28	-0.23	-20.00	
6,356.0	0.30	335.50	6,286.3	581.2	-480.8	754.2	0.04	0.00	7.30	

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6,531.0	0.40	349.80	6,461.3	582.3	-481.1	755.1	0.08	0.06	8.17	
6,705.0	0.40	3.20	6,635.3	583.5	-481.1	756.1	0.05	0.00	7.70	
6,880.0	0.50	338.80	6,810.3	584.8	-481.4	757.2	0.12	0.06	-13.94	
7,055.0	0.60	35.00	6,985.3	586.2	-481.1	758.2	0.30	0.06	32.11	
7,229.0	0.60	349.40	7,159.3	587.9	-480.8	759.2	0.27	0.00	-26.21	
7,404.0	0.70	341.70	7,334.3	589.8	-481.3	761.0	0.08	0.06	-4.40	
7,578.0	0.70	3.80	7,508.3	591.9	-481.6	762.7	0.15	0.00	12.70	
7,753.0	0.60	9.20	7,683.3	593.8	-481.3	764.1	0.07	-0.06	3.09	
7,928.0	0.70	7.30	7,858.3	595.8	-481.1	765.4	0.06	0.06	-1.09	
8,102.0	0.40	325.30	8,032.2	597.4	-481.3	766.7	0.28	-0.17	-24.14	
8,293.0	0.20	6.30	8,223.2	598.2	-481.6	767.6	0.15	-0.10	21.47	
8,343.0	0.30	6.30	8,273.2	598.5	-481.6	767.7	0.20	0.20	0.00	
HARD LINES 75°N & 75°W OF BHL										

Checked By: _____	Approved By: _____	Date: _____
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