REGIONAL DISTRICT OF NANAIMO

Fairwinds Well Water Analysis Results

Fairwinds Well #1: 2275 Tippet Road

Canadian Drinking Water Guidelines Package

MAC=Maximum Acceptable Concentration IMAC= Interim Maximum Acceptable Concentration AO= Asthetic Objective
CDWG=Canadian Drinking Water Guidelines BCAWQG=British Columbia Approved Water Quality Guidelines
Red font indicates non-compliance with Canadian Drinking Water Guidelines
* raw well water

Parameter	Water Quality Guidelines				16-Oct	22-Oct	26-Oct	19-Oct	24-Oct	23-Oct	23-Oct	21-Oct	19-Oct
	Units	CDWG	BCAWQG		2002	2003	2004	2005	2006	2007	2008	2009	2010
Total Ammonia (N)	mg/L												1
Color	CU	15	</=15	AO	**16**	14	9	**17**	5	14	**24**	**28**	**22**
Conductivity	µS		700	MAC	311	326	319	327	326	331	329	329	339
Total Dissolved Solids	mg/L	500	</=500	AO	187	187	180	334	210	207	218	216	172
Hardness (CaCO3)	mg/L	80-100	</=500	AO	**109.1**	**117**	**120**	**120**	**110**	**120**	**130**	**120**	**120**
pH	pH units	6.5-8.5	6.5-8.5	AO	7.78	7.8	7.8	8	7.9	8.08	7.94	7.8	7.8
Turbidity	NTU's	5	1	MAC	0.83	2.06	1.6	1.5	1.3	1	1.2	1.3	1.2
Alkalinity	mg/L				151	150	150	150	150	150	150	150	150
Chloride	mg/L	250	</=250	AO	10.62	12.6	10.6	10.4	9.7	10.6	11.6	10.4	9.3
Fluoride	mg/L	1.5	1.5	MAC	0.17	<0.6	<1.0	<1.0	<1.0	<1.0	1	<1	<1.0
Sulfate	mg/L	500	</=500	AO	1.72	3.7	3	3.8	4.8	4.6	4.8	6.2	6
Nitrate (N)	mg/L	10	10	MAC	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite (N)	mg/L	1			<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
T-Aluminum	mg/L		0.2	MAC	0.017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
T-Antimony	mg/L		0.006	MAC	0.0004	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002
T-Arsenic	mg/L	0.025	0.025	IMAC	0.0031	0.0014	0.0019	0.0018	0.0016	0.0018	0.0017	0.0017	0.0018
T- Barium	mg/L	1.0	1	MAC	0.011	0.01	0.012	0.011	0.009	0.01	0.009	0.01	0.01
T-Boron	mg/L	5.0	5	MAC	0.166	0.067	0.069	0.066	0.06	0.071	0.062	0.061	0.06
T-Cadmium	mg/L	0.005			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00001	0.00001
T-Calcium	mg/L				26.4	28.1	29.1	30.4	28.1	29.6	30.6	28.2	30.8
T-Chromium	mg/L	0.05	0.05	MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	<0.0004	<0.0004	0.0012
T-Copper	mg/L	1.0	</=1	MAC	0.003	0.004	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	0.019
T-Iron	mg/L	0.3	</=0.3	AO	**0.6**	**0.7**	**0.7**	**0.7**	**0.6**	**0.7**	**0.61**	**0.606**	**0.655**
T-Lead	mg/L	0.01	0.01	MAC	0.001	0.0005	0.0003	0.0003	<0.0001	<0.0001	0.0001	<0.0001	0.0015
T-Lithium	mg/L											<0.001	<0.001
T-Magnesium	mg/L		</=700	AO	10.5	11.4	11.5	11	10.4	11	11.8	11.1	11.5
T-Manganese	mg/L	0.05	</=0.05	AO	**0.255**	**0.251**	**0.268**	**0.273**	**0.254**	**0.273**	**0.263**	**0.274**	**0.291**
T-Mercury	mg/L	0.001	0.001	MAC	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.01	<0.01	<0.00001
T-Nickel	mg/L											<0.001	<0.001
T-Phosphorus	mg/L											0.915	0.992
T-Potassium	mg/L				2.3	2.5	2.5	2.5	2.5	2.5	2.4	2.5	2.3
T-Selenium	mg/L	0.01	0.01	MAC	<0.0002	<0.0002	<0.0002	<.0002	<0.0002	0.0003	<0.0006	<0.0006	<0.0006
T-Silver	mg/L											<0.00001	<0.00001
T-Sodium	mg/L	200	</=200	AO	60.6	22	21.7	22.8	21.4	22.2	23.1	21.2	22.5
T-Uranium	mg/L	0.1	0.1	MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004	<0.0004	<0.0004
T-Zinc	mg/L	5	<5	AO	0.209	0.078	0.052	0.044	0.007	0.022	0.012	0.004	0.018
Total Coli	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1	<1.0	<1.0
Fecal Coli	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1	<1	
E.coli	cfu/100ml	<1	<1	cfu/100ml					<1	<1	<1	<1	<1.0

REGIONAL DISTRICT OF NANAIMO

Fairwinds Well Water Analysis Results

Fairwinds Well #2: 2395 Nanoose Road

Canadian Drinking Water Guidelines Package

water SMART zero waste

MAC=Maximum Acceptable Concentration IMAC= Interim Maximum Acceptable Concentration AO= Asthetic Objective
CDWG=Canadian Drinking Water Guidelines BCAWQG=British Columbia Approved Water Quality Guidelines
Red font indicates non-compliance with Canadian Drinking Water Guidelines
* raw well water

Parameter	Water Quality Guidelines				16-Oct	22-Oct	26-Oct	19-Oct	24-Oct	23-Oct	23-Oct	21-Oct	19-Oct
	Units	CDWG	BCAWQG		2002	2003	2004	2005	2006	2007	2008	2009	2010
Total Ammonia (N)	mg/L												1
Color	CU	15	</=15	AO	**45**	<5	13	**18**	<5	**18**	**25**	**84**	**25**
Conductivity	µS		700	MAC	371	382	343	350	457	365	359	390	343
Total Dissolved Solids	mg/L	500	</=500	AO	207	220	210	190	290	247	224	246	180
Hardness (CaCO3)	mg/L	80-100	</=500	AO	**98**	**96**	**110**	**110**	100	**110**	**110**	100	**110**
pH	pH units	6.5-8.5	6.5-8.5	AO	7.57	7.63	7.7	7.9	7.8	8.06	7.97	7.6	7.8
Turbidity	NTU's	5	1	MAC	0.42	0.92	1.2	1.2	1.1	1	1	1.9	1.4
Alkalinity	mg/L				151	160	160	160	160	150	150	140	140
Chloride	mg/L	250	</=250	AO	34.06	25.9	13.7	12.8	42.4	13.7	15.5	27.4	9.2
Fluoride	mg/L	1.5	1.5	MAC	0.19	<0.6	<1.0	<1.0	<1.0	<1.0	1	<1.0	<1.0
Sulfate	mg/L	500	</=500	AO	2.49	4.8	5.2	5.2	6.4	6.4	7.9	11.4	9.1
Nitrate (N)	mg/L	10	10	MAC	0.03	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1
Nitrite (N)	mg/L	1			<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
T-Aluminum	mg/L		0.2	MAC	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
T-Antimony	mg/L		0.006	MAC	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
T-Arsenic	mg/L	0.025	0.025	IMAC	0.0016	0.0025	0.0017	0.0015	0.0015	0.001	0.0012	0.0016	0.0013
T- Barium	mg/L	1.0	1	MAC	0.009	0.009	0.009	0.009	0.007	0.009	0.008	0.013	0.008
T-Boron	mg/L	5.0	5	MAC	0.063	0.08	0.095	0.091	0.092	0.098	0.096	0.073	0.077
T-Cadmium	mg/L	0.005			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
T-Calcium	mg/L				23.9	23.4	26.4	27.3	25.5	26.5	27.8	24.5	26.6
T-Chromium	mg/L	0.05	0.05	MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0006	<0.0004	<0.0004	0.001
T-Copper	mg/L	1.0	</=1	MAC	0.004	0.002	<0.001	0.003	0.001	<0.001	<0.001	0.01	<0.001
T-Iron	mg/L	0.3	</=0.3	AO	**0.7**	**1.1**	**0.7**	**0.7**	**0.4**	**0.6**	**0.56**	**0.992**	**0.846**
T-Lead	mg/L	0.01	0.01	MAC	0.0003	0.0005	<0.0001	<0.0001	<0.0001	<0.0001	0.0002	0.0006	0.0002
T-Lithium	mg/L											<0.001	<0.001
T-Magnesium	mg/L		</=700	AO	9.3	9.2	10.2	9.8	9.4	9.7	10.7	9.57	9.78
T-Manganese	mg/L	0.05	</=0.05	AO	**0.318**	**0.319**	**0.325**	**0.319**	**0.178**	**0.317**	**0.317**	**0.47**	**0.335**
T-Mercury	mg/L	0.001	0.001	MAC	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.01	<0.01	<0.00001
T-Nickel	mg/L											<0.001	<0.001
T-Phosphorus	mg/L												1.24
T-Potassium	mg/L				2.7	2.7	2.8	2.9	3	2.9	3	3	2.6
T-Selenium	mg/L	0.01	0.01	MAC	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0006	<0.0006	<0.0006
T-Silver	mg/L											<0.00001	<0.00001
T-Sodium	mg/L	200	</=200	AO	42.4	43.4	31.7	32.6	57.6	32	33.2	41.9	29.8
T-Uranium	mg/L	0.1	0.1	MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004	<0.0004	<0.0004
T-Zinc	mg/L	5	<5	AO	0.06	0.049	0.006	0.013	0.003	0.006	0.005	0.081	0.007
Total Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1	<1.0	<1.0
Fecal Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1	<1.0	
E.coli	cfu/100ml	<1	<1	cfu/100ml					<1	<1	<1	<1.0	<1.0

REGIONAL DISTRICT OF NANAIMO

Fairwinds Well Water Analysis Results

Fairwinds Well #3: 2301 Nanoose Road

Canadian Drinking Water Guidelines Package

MAC=Maximum Acceptable Concentration IMAC= Interim Maximum Acceptable Concentration AO= Asthetic Objective
CDWG=Canadian Drinking Water Guidelines BCAWQG=British Columbia Approved Water Quality Guidelines
Red font indicates non-compliance with Canadian Drinking Water Guidelines
*raw well water

Parameter	Water Quality Guidelines						26-Oct	19-Oct	24-Oct	23-Oct	23-Oct	21-Oct	19-Oct
	Units	CDWG	BCAWQG		2002	2003	2004	2005	2006	2007	2008	2009	2010
Total Ammonia (N)	mg/L												1.1
Color	CU	15	</=15	AO		off	12	12	12	**18**	**24**	**39**	**21**
Conductivity	µS		700	MAC		off	504	516	494	524	525	554	521
Total Dissolved Solids	mg/L	500	</=500	AO		off	270	**560**	270	267	334	326	274
Hardness (CaCO3)	mg/L	80-100	</=500	AO		off	**110**	**130**	**120**	**130**	**150**	**140**	**150**
pH	pH units	6.5-8.5	6.5-8.5	AO		off	7.80	8.00	7.80	8.05	8.05	7.80	7.80
Turbidity	NTU's	5	1	MAC		off	0.5	0.6	0.6	1.1	2.5	3.6	1.5
Alkalinity	mg/L					off	150	150	150	140	150	140	160
Chloride	mg/L	250	</=250	AO		off	66.4	70.6	61.3	66.9	68.6	77.6	53.2
Fluoride	mg/L	1.5	1.5	MAC		off	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Sulfate	mg/L	500	</=500	AO		off	<2.0	<2.0	3.2	4.4	6.2	5.7	15.2
Nitrate (N)	mg/L	10	10	MAC		off	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite (N)	mg/L	1				off	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
T-Aluminum	mg/L		0.2	MAC		off	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005
T-Antimony	mg/L		0.006	MAC		off	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002	<0.0002	<0.0002
T-Arsenic	mg/L	0.025	0.025	IMAC		off	0.0049	0.0046	0.0043	0.0046	0.0044	0.0054	0.0045
T- Barium	mg/L	1.0	1	MAC		off	0.008	0.009	0.008	0.010	0.008	0.009	0.009
T-Boron	mg/L	5.0	5	MAC		off	0.111	0.103	0.095	0.100	0.094	0.086	0.078
T-Cadmium	mg/L	0.005				off	<0.00001	<0.00001	<0.00002	0.00002	<0.00001	<0.00001	<0.00001
T-Calcium	mg/L					off	27.3	32.4	31.1	33.7	36.6	34.3	37.1
T-Chromium	mg/L	0.05	0.05	MAC		off	<0.0005	<0.0005	<0.001	0.0006	0.0006	<0.0004	0.0009
T-Copper	mg/L	1.0	</=1	MAC		off	0.002	0.003	0.006	0.001	0.032	0.002	0.001
T-Iron	mg/L	0.3	</=0.3	AO		off	**0.400**	**0.400**	**0.400**	**0.500**	**0.490**	**0.672**	**0.508**
T-Lead	mg/L	0.01	0.01	MAC		off	0.0011	0.0013	0.0004	0.0002	0.0126	0.0007	0.0008
T_Lithium	mg/L											<0.001	<0.001
T-Magnesium	mg/L		</=700	AO		off	10.0	11.2	11.0	12.0	13.6	12.8	13.1
T-Manganese	mg/L	0.05	</=0.05	AO		off	**0.162**	**0.196**	**0.190**	**0.213**	**0.223**	**0.234**	**0.237**
T-Mercury	mg/L	0.001	0.001	MAC		off	<0.0002	<0.0001	<0.0001	<0.0001	<0.0100	<0.0100	<0.00001
T-Nickel	mg/L											<0.001	<0.001
T-Phosphorus	mg/L											1.19	0.932
T-Potassium	mg/L					off	3.4	3.7	3.7	3.7	3.7	3.7	3.2
T-Selenium	mg/L	0.01	0.01	MAC		off	<0.0002	<0.0002	<0.0004	<0.0002	<0.0006	<0.0006	<0.0006
T-Silver	mg/L											<0.00001	<0.00001
T-Sodium	mg/L	200	</=200	AO		off	52.2	53.0	47.4	46.9	49.0	50.8	47.3
T-Uranium	mg/L	0.1	0.1	MAC		off	<0.0005	<0.0005	<0.001	<0.0005	<0.0004	<0.0004	<0.0004
T-Zinc	mg/L	5	<5	AO		off	0.017	0.010	0.009	0.016	0.052	0.166	0.033
Total Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1	<1	<1.0
Fecal Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1	<1	
E.coli	cfu/100ml	<1	<1	cfu/100ml					<1	<1	<1	<1	<1.0