Source Water Quality for Public Water Supplies
Nutrients and Metals

Sample Date	Ammonia	DOC	Nitrate(ite)	Kjeldahl Nitrogen	Total Phosphorus	Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Selenium	Uranium	Zinc
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Guidelines for Canadian Drinking Water Quality			10				0.006	0.01	1.0	0.005	0.05	1.0	0.3	0.01		0.05	0.001		0.01	0.02	5.0
Aesthetic(A) Parameter or Contaminant (C)			C				C	C	C	C	C	A	A	C		A	C		C	C	A
Community Name: **Labrador City**																					
Service Area: **Labrador City**																					
Source Name: **Beverly Lake**																					
Oct 17, 2012	0.000	2.4	0.000	0.000	0.000	0.000	0.00000	0.000	0.010	0.00000	0.00100	0.000	0.040	0.000	5.000	0.040	0.0000	0.000	0.000	0.0000	0.000
Feb 14, 2012	0.000	2.4	0.000	0.000	0.000	0.000	0.00000	0.000	0.000	0.00000	0.00000	0.000	0.000	0.000	5.000	0.000	0.0000	0.000	0.000	0.0000	0.000
Aug 08, 2011	0.040	3.4	0.000	0.000	0.000	0.010	0.00000	0.000	0.000	0.00020	0.00000	0.006	0.050	0.000	4.000	0.030	0.0000	0.000	0.000	0.0000	0.020
Jun 13, 2011	0.000	2.9	0.000	0.000	0.000	0.010	0.00000	0.000	0.000	0.00000	0.00000	0.000	0.040	0.000	5.000	0.080	0.0000	0.000	0.000	0.0000	0.000
Jan 26, 2011	0.000	2.2	0.000	0.000	0.000	0.000	0.00000	0.000	0.010	0.00000	0.00200	0.002	0.000	0.000	4.000	0.010	0.0000	0.000	0.000	0.0000	0.000
Nov 02, 2010	0.000	2.6	0.000	0.000	0.000	0.000	0.00000	0.000	0.010	0.00000	0.00000	0.000	0.040	0.000	5.000	0.040	0.0000	0.000	0.000	0.0000	0.000
Aug 03, 2010	0.000	2.5	0.000	0.000	0.010	0.020	0.00000	0.000	0.000	0.00000	0.00000	0.000	0.050	0.000	5.000	0.040	0.0000	0.000	0.000	0.0000	0.000
Jun 02, 2010	0.000	2.5	0.000	0.170	0.000	0.000	0.00000	0.000	0.000	0.00000	0.00000	0.000	0.000	0.000	5.000	0.130	0.0000	0.000	0.000	0.0000	0.000

Sample Date	Ammonia	DOC	Nitrate(ite)	Kjeldahl Nitrogen	Total Phosphorus	Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Selenium	Uranium	Zinc
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Guidelines for Canadian Drinking Water Quality			10				0.006	0.01	1.0	0.005	0.05	1.0	0.3	0.01		0.05	0.001		0.01	0.02	5.0
Aesthetic(A) Parameter or Contaminant (C)			C				C	C	C	C	C	A	A	C		A	C		C	C	A
Oct 22, 2009	0.000	1.7	0.000	0.000	0.000	0.000	0.00000	0.000	0.011	0.00000	0.00000	0.000	0.000	0.000	4.800	0.044	0.0000	0.000	0.000	0.0001	0.000
Aug 11, 2009	0.000	2.1	0.000	0.200	0.000	0.010	0.00000	0.000	0.008	0.00000	0.00000	0.000	0.000	0.000	4.400	0.019	0.0000	0.000	0.000	0.0000	0.009
May 29, 2009	0.000	2.6	0.000	0.200	0.000	0.030	0.00000	0.000	0.005	0.00000	0.00000	0.000	0.110	0.000	1.900	0.047	0.0000	0.000	0.000	0.0000	0.000
Jan 15, 2009	0.000	1.0	0.080	0.000	0.000	0.000	0.00000	0.000	0.011	0.00000	0.00000	0.000	0.000	0.000	4.700	0.006	0.0000	0.000	0.000	0.0000	0.000
Nov 03, 2008	0.000	1.8	0.000	0.000	0.000	0.000	0.00000	0.000	0.011	0.00000	0.00000	0.000	0.000	0.000	4.500	0.025	0.0000	0.000	0.000	0.0000	0.005
Aug 06, 2008	0.000	2.4	0.000	0.100	0.000	0.000	0.00000	0.000	0.008	0.00000	0.00000	0.000	0.000	0.000	4.900	0.015	0.0000	0.000	0.000	0.0001	0.000
May 29, 2008	0.000	2.0	0.000	0.000	0.000	0.010	0.00000	0.000	0.009	0.00000	0.00000	0.000	0.000	0.000	4.500	0.072	0.0000	0.000	0.000	0.0000	0.000
Dec 05, 2007	0.000	2.1	0.000	0.200	0.000	0.000	0.00000	0.000	0.013	0.00000	0.00000	0.000	0.000	0.000	6.000	0.007	0.0000	0.000	0.000	0.0001	0.000
Aug 14, 2007	0.000	2.0	0.000	0.200	0.000	0.070	0.00000	0.000	0.011	0.00000	0.00000	0.000	0.120	0.000	5.300	0.091	0.0000	0.000	0.000	0.0001	0.000
May 29, 2007	0.000	1.7	0.120	0.300	0.000	0.030	0.00000	0.000	0.009	0.00000	0.00000	0.000	0.080	0.000	5.300	0.110	0.0000	0.000	0.000	0.0001	0.005
Nov 06, 2006	0.000	1.5	0.000	0.160	0.020	0.000	0.00000	0.000	0.010	0.00000	0.00000	0.000	0.000	0.000	5.000	0.030	0.0000	0.000	0.000	0.0000	0.000

Sample Date	Ammonia	DOC	Nitrate(ite)	Kjeldahl Nitrogen	Total Phosphorus	Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Selenium	Uranium	Zinc
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Guidelines for Canadian Drinking Water Quality			10				0.006	0.01	1.0	0.005	0.05	1.0	0.3	0.01		0.05	0.001		0.01	0.02	5.0
Aesthetic(A) Parameter or Contaminant (C)			C				C	C	C	C	C	A	A	C		A	C		C	C	A
Sep 14, 2006	0.000	2.6	0.000	0.260	0.040	0.000	0.00000	0.000	0.000	0.00000	0.00000	0.000	0.000	0.000	5.000	0.010	).0000	0.000	0.000	0.0000	0.000
Feb 16, 2006	0.190	2.1	0.000	0.240	0.000	0.000	0.00000	0.000	0.000	0.00000	0.00000	0.000	0.000	0.000	5.000	0.000	).0000	0.000	0.000	0.0000	0.000
Nov 30, 2005	0.000	1.9	0.000	0.120	0.000	0.030	0.00000	0.000	0.000	0.00000	0.00000	0.000	0.000	0.000	5.000	0.010	).0000	0.000	0.000	0.0000	0.000
Aug 22, 2005	0.000	2.9	0.000	0.160	0.000	0.000	0.00000	0.000	0.000	0.00000	0.00000	0.000	0.000	0.000	5.000	0.020	).0000	0.000	0.000	0.0000	0.000
Nov 26, 2004	0.110	2.3	0.000	0.200	0.090	0.000	0.00000	0.000	0.000	0.00000	0.00000	0.000	0.010	0.000	5.000	0.010	).0000	0.000	0.000	0.0000	0.000
Sep 09, 2004	0.170	2.8	0.000	0.390	0.050	0.000	0.00000	0.000	0.000	0.00000	0.00000	0.000	0.040	0.000	4.000	0.020	).0000	0.000	0.000	0.0000	0.000
Oct 29, 2002	0.010	1.9	0.050	0.130	0.060	1.200	0.00050	0.001	0.020	0.00005	0.00200	0.002	0.170	0.001	5.000	0.080	).0000	0.003	0.001		0.003
Jul 13, 2001		1.5	0.001	0.150	0.003	0.013		0.003	0.013	0.00050	0.00250	0.003	0.040	0.000	4.180	0.003	).0002	0.003	0.003		0.003
Jun 07, 1999		1.8	0.003	0.190	0.005	0.025						0.005	0.020	0.001		0.010					0.005
Jun 17, 1998		1.1	0.003	0.260	0.005	0.025						0.005	0.020	0.001		0.010					0.005
Oct 24, 1995	0.020	0.5	0.025	0.100	0.006	0.013				0.00005	0.00025	0.005	0.025	0.001	4.900	0.005					0.005

Sample Date	Ammonia	DOC	Nitrate(ite)	Kjeldahl Nitrogen	Total Phosphorus	Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Selenium	Uranium	Zinc
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Guidelines for Canadian Drinking Water Quality			10				0.006	0.01	1.0	0.005	0.05	1.0	0.3	0.01		0.05	0.001		0.01	0.02	5.0
Aesthetic(A) Parameter or Contaminant (C)			C				C	C	C	C	C	A	A	C		A	C		C	C	A
Jun 04, 1995	0.004	2.4	0.010	0.230	0.001	0.050				0.00003	0.00010	0.000	0.093	0.001	4.600	0.045					0.005
Jul 04, 1989			0.002	0.480	0.140	0.130		0.003		0.00030	0.00250	0.003	0.200	0.007	4.600	0.030		0.003			0.003
Jan 01, 1900		1.5	0.003	0.330	0.005	0.025						0.005	0.040	0.003		0.040					0.005

Sample Date	Ammonia	DOC	Nitrate(ite)	Kjeldahl Nitrogen	Total Phosphorus	Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Selenium	Uranium	Zinc
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Guidelines for Canadian Drinking Water Quality			10				0.006	0.01	1.0	0.005	0.05	1.0	0.3	0.01		0.05	0.001		0.01	0.02	5.0
Aesthetic(A) Parameter or Contaminant (C)			C				C	C	C	C	C	A	A	C		A	C		C	C	A

Source water samples are collected directly from the source such as a groundwater well, lake, pond, or stream prior to disinfection or other treatment. The source water quality is analyzed to determine the quality of water that flows into your water treatment and distribution system. The quality of the water this water is a direct indicator of the health of the ecosystem that makes up the natural drainage basin, well head recharge area or watershed area. Monitoring of source water quality is the most important tool to assess the impact of land use changes on source water quality, the presence of disinfection by-product (DBP) pre-cursors and to ensure the integrity of a public water supply. The values for each parameter are as reported by the lap and verified by the department.

Quality Assurace / Quality Control (QA/QC) - The department is striving to improve the quality of the data using standard QA/QC protocols. This is an evolving process which many result in minor changes to the reported data.

LTD - Less Than Detection Limit - The detection limit is the lowest concentration of a substance that can be determined using a particular test method and instrument. Detection limits vary from parameter to parameter and change from time to time due to improvements in analytical procedures and equipment.

The exceedence report for source water provides a brief discussion and interpretation of health related water quality parameters, if any, that exceed the acceptable limits as set out in the Guidelines for Canadian Drinking Water Quality, Sixth Edition (GCDWQ). This comparison is only for screening purposes since at present there are no guidelines for untreated source water. The GCDWQ applies to water at the consumers tap. However in the absence of water treatment these guidelines could be applicable to source water quality.

Aesthetic (A) Parameters - Aesthetic parameters reflect substances or characteristics of drinking water that can affect its acceptance by consumers but which usually do not pose any health effects.

Contaminants (C) - Contaminants are substances that are known or suspected to cause adverse effects on the health of some people when present in concentrations greater than the established Maximum Acceptable Concentrations (MACs) or the Interim Maximum Acceptable Concentrations (IMACs) of the GCDWQ. Each MAC has been derived to safeguard health assuming lifelong consumption of drinking water containing the substance at that concentration. IMACs are reviewed periodically as new information becomes available. Please consult your Medical Officer of Health for additional information on the health aspects of contaminants.

Contaminants

Nitrate(ite) - The maximum acceptable concentration for nitrate(ite) in drinking water is 10 mg/L expressed as nitrate-nitrogen. Nitrate and nitrite are naturally occurring ions that are widespread in the environment. High levels of this contaminant can cause adverse health effects for some people.

Arsenic - The interim maximum acceptable concentration for arsenic in drinking water is 0.01 mg/L. Arsenic is introduced into water through the dissolution of minerals and ores, from industrial effluents and via atmospheric deposition. High levels of this contaminant can cause adverse health effects for some people.

Barium - The maximum acceptable concentration for barium in drinking water is 1.0 mg/L. Barium is not found free in nature but occurs as in a number of compounds. High levels of this contaminant can cause adverse health effects for some people.

Cadmium - The maximum acceptable concentration for cadmium in drinking water is 0.005 mg/L. Cadmium that is present as an impurity in galvanized pipes, a constituent of solders used in fitting water heaters or incorporated into stabilizers in black polyethylene pipes may contaminate water supplies during their distribution. High levels of this contaminant can cause adverse health effects for some people.

Chromium - The maximum acceptable concentration for chromium in drinking water is 0.05 mg/L. High levels of this contaminant can cause adverse health effects for some people.

Lead - The maximum acceptable concentration for lead in drinking water is 0.010 mg/l. Lead is present in tap water as a result of dissolution from natural sources or from the distribution systems and plumbing containing lead in pipes, solder or service connections. High levels of this contaminant can cause adverse health effects for some people.

Mercury - The maximum acceptable concentration for mercury in drinking water is 0.001 mg/L. High levels of this contaminant can cause adverse health effects for some people.

Selenium - The maximum acceptable concentration for selenium in drinking water is 0.01 mg/L. High levels of this contaminant can cause adverse health effects for some people.

Uranium - The interim maximum acceptable concentration for uranium in drinking water is 0.02 mg/L. Uranium may enter drinking water from naturally occurring deposits or as a result of human activity, such as mill tailings and phosphate fertilizers. High levels of this contaminant can cause adverse health effects for some people.

Antimony - The interim maximum acceptable concentration (IMAC) for antimony in drinking water is 0.006 mg/L. It is a naturally occurring metal that is introduced into water through the natural weathering of rocks, runoff from soils, effluents from mining and manufacturing operations, industrial and municipal leachate discharges and from household piping and possibly non-leaded solders. High levels of this contaminant can cause adverse health effects for some people.

Aesthetic Parameters

Copper - The aesthetic objective for copper in drinking water is 1.0 mg/L. Copper is widely distributed in nature and is found frequently in surface water and in some groundwater. Usually, copper in tap water is the result of dissolution of copper piping within the distribution system. The aesthetic objective was set to ensure palatability and to minimize staining of laundry and plumbing fixtures. Copper is an essential element in human metabolism and copper deficiency results in a variety of clinical disorders. At extremely high doses copper intake can result in adverse health effects. High levels of copper in tap water may result in blue-green staining on some fixtures.

Iron - The aesthetic objective for iron in drinking water is 0.3 mg/L. Usually, iron in tap water is the result of high iron content in the raw water and dissolution of iron piping within the distribution system. Iron is an essential element in nutrition. High levels of iron in tap water can cause staining of laundry and plumbing fixtures, unpleasant taste, colour and promote biological growths in the distribution system.

Manganese - The aesthetic objective for manganese in drinking water is 0.05 mg/L. Usually, manganese in drinking water is the result of high amounts of manganese in the source water supply's bedrock. Manganese is an essential element in humans and is regarded as one of the least toxic elements. High levels of manganese may cause staining of plumbing and laundry and undesirable tastes in beverages.

Zinc - The aesthetic objective for zinc in drinking water is 5.0 mg/L. Zinc in water can be naturally occurring or due to zinc in plumbing materials. Zinc is an essential element for human nutrition. Long term ingestion of zinc has not resulted in adverse effects. Water with zinc concentrations higher than the aesthetic objective has an astringent taste and may be opalescent and develop a greasy film on boiling.

mg/L = milligrams per litre or parts per million µS/cm = micro Siemens per centimeter NTU = nephelometric turbidity units TDS = total dissolved solids TSS = total suspended solids TCU = true colour units
DOC = dissolved organic carbon Nitrate(ite) = Nitrate + Nitrite WS # = water supply number SA# = serviced area number GCDWQ = Guidelines for Canadian Drinking Water Quality
Notes : Guidelines for Canadian Drinking Water Quality have not been developed for all the parameters listed in this report.
pH has no units

Source Water Quality for Public Water Supplies
Physical Parameters and Major Ions

	Sample Date	Alkalinity	Color	Conductivit	Hardness	pH	TDS	TSS	Turbidity	Boron	Bromide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulphate
	Units	mg/L	TCU	µS/cm	mg/L		mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
	Guidelines for Canadian Drinking Water Quality		15			6.5 - 8.5	500		1.0	5.0			250	1.5		200	500
	Aesthetic(A) Parameter or Contaminant (C)		A			A	A		C	C			A	C		A	A
Community Name:	**Labrador City**																
Service Area:	**Labrador City**																
Source Name:	**Beverly Lake**																
	Oct 17, 2012	52.00	5	105.0	53.00	7.2	68		0.70	0.00	0.00	13.00	1	0.000	1.000	0	4
	Feb 14, 2012	53.00	6	106.0	48.00	7.5	69		0.30	0.00	0.00	11.00	1	0.000	1.000	0	4
	Aug 08, 2011	52.00	7	102.0	44.00	7.6	66		0.40	0.00	0.00	11.00	1	0.000	1.000	0	4
	Jun 13, 2011	49.00	9	98.0	51.00	7.6	64		0.80	0.00	0.00	12.00	1	0.000	1.000	0	2
	Jan 26, 2011	53.00	4	113.0	44.00	7.7	74		0.20	0.00	0.00	11.00	1	0.000	1.000	0	4
	Nov 02, 2010	51.00	5	103.0	53.00	7.9	67		0.40	0.02	0.00	13.00	1	0.000	1.000	0	4
	Aug 03, 2010	51.00	9	106.0	53.00	7.8	69		0.40	0.00	0.00	13.00	2	0.000	1.000	0	4
	Jun 02, 2010	47.00	0	99.0	51.00	7.7	64		1.00	0.00	0.00	12.00	1	0.000	1.000	0	4
	Oct 22, 2009	45.00	6	110.0	49.00	7.7	60		0.00	0.00	0.00	12.00	5	0.000	1.400	1	3

Sample Date	Alkalinity	Color	Conductivit	Hardness	pH	TDS	TSS	Turbidity	Boron	Bromide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulphate
Units	mg/L	TCU	µS/cm	mg/L		mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Guidelines for Canadian Drinking Water Quality		15			6.5 - 8.5	500		1.0	5.0			250	1.5		200	500
Aesthetic(A) Parameter or Contaminant (C)		A			A	A		C	C			A	C		A	A
Aug 11, 2009	48.00	7	96.0	50.00	7.5	57		0.30	0.00	0.00	13.00	1	0.000	1.400	1	3
May 29, 2009	20.00	14	39.0	20.00	7.3	22		0.50	0.00	0.00	4.90	0	0.000	0.700	0	0
Jan 15, 2009	50.00	0	110.0	49.00	7.6	60		0.10	0.00	0.00	12.00	0	0.000	1.600	1	4
Nov 03, 2008	51.00	8	99.0	46.00	7.7	58		0.10	0.00	0.00	11.00	1	0.000	1.400	1	3
Aug 06, 2008	46.00	7	99.0	49.00	7.9	56		0.00	0.00	0.00	12.00	1	0.000	1.500	1	2
May 29, 2008	46.00	11	97.0	46.00	7.8	55		0.20	0.00	0.00	11.00	1	0.000	1.500	1	3
Dec 05, 2007	57.00	0	120.0	59.00	7.5	67		0.30	0.00	0.00	14.00	2	0.000	1.800	1	3
Aug 14, 2007	46.00	0	98.0	54.00	7.8	57		0.20	0.00	0.00	13.00	0	0.000	1.400	1	3
May 29, 2007	49.00	0	100.0	54.00	7.6	61		0.30	0.00	0.00	13.00	1	0.000	1.500	1	3
Nov 06, 2006	49.00	4	100.0	48.00	7.6	65		0.70	0.00	0.00	11.00	1	0.000	1.000	0	4
Sep 14, 2006	48.00	0	101.0	48.00	7.2	66		0.50	0.00	0.00	11.00	1	0.000	1.000	0	4
Feb 16, 2006	51.00	4	103.0	48.00	7.4	67		0.40	0.00	0.00	11.00	1	0.110	1.000	0	4

Sample Date	Alkalinity	Color	Conductivit	Hardness	pH	TDS	TSS	Turbidity	Boron	Bromide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulphate
Units	mg/L	TCU	µS/cm	mg/L		mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Guidelines for Canadian Drinking Water Quality		15			6.5 - 8.5	500		1.0	5.0			250	1.5		200	500
Aesthetic(A) Parameter or Contaminant (C)		A			A	A		C	C			A	C		A	A
Nov 30, 2005	50.00	4	100.0	48.00	7.8	65		0.40	0.00	0.00	11.00	1	0.140	1.000	0	4
Aug 22, 2005	49.00	5	94.0	48.00	7.8	61		0.70	0.00	0.00	11.00	0	0.000	1.000	0	4
Nov 26, 2004	43.00	2	94.0	48.00	7.0	61		0.30	0.00	0.00	11.00	2	0.110	1.000	4	4
Sep 09, 2004	44.00	9	85.0	37.00	7.2	55		0.70	0.00	0.00	8.00	2	0.120	1.000	0	4
Oct 29, 2002	56.00	6	94.0	93.00	6.7	61		1.40	0.03	0.03	29.00	1	0.100	1.000	1	4
Jul 13, 2001	44.10	11	90.5	42.00	7.6	67		0.32	0.01	0.01	10.30	1	0.003	1.210	0	2
Jun 07, 1999	43.10	16	77.8		7.6	64	2	1.00		0.03	10.40	2	0.025	1.230	0	2
Jun 17, 1998	43.00	13	89.0		7.9	60	2	0.30			10.10	1		1.340	1	3
Oct 24, 1995	44.60		94.4		7.8	60					10.90	1	0.050	1.370	1	3
Jun 04, 1995	42.10	10	92.9		7.7	50		0.80			11.40	1	0.108	1.340	1	2
Jul 04, 1989	40.00	15	98.1		6.3	49	20	0.50			9.50	1	0.080	1.130	1	3
Jan 01, 1900	50.30	12	92.6		7.7	70	1	0.61			12.60	1		1.590	1	2

Sample Date	Alkalinity	Color	Conductivit	Hardness	pH	TDS	TSS	Turbidity	Boron	Bromide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulphate
Units	mg/L	TCU	µS/cm	mg/L		mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Guidelines for Canadian Drinking Water Quality		15			6.5 - 8.5	500		1.0	5.0			250	1.5		200	500
Aesthetic(A) Parameter or Contaminant (C)		A			A	A		C	C			A	C		A	A

Source water samples are collected directly from the source such as a groundwater well, lake, pond, or stream prior to disinfection or other treatment. The source water quality is analyzed to determine the quality of water that flows into your water treatment and distribution system. The quality of the water this water is a direct indicator of the health of the ecosystem that makes up the natural drainage basin, well head recharge area or watershed area. Monitoring of source water quality is the most important tool to assess the impact of land use changes on source water quality, the presence of disinfection by-product (DBP) pre-cursors and to ensure the integrity of a public water supply. The values for each parameter are as reported by the lap and verified by the department.

Quality Assurace / Quality Control (QA/QC) - The department is striving to improve the quality of the data using standard QA/QC protocols. This is an evolving process which many result in minor changes to the reported data.
LTD - Less Than Detection Limit - The detection limit is the lowest concentration of a substance that can be determined using a particular test method and instrument. Detection limits vary from parameter to parameter and change from time to time due to improvements in analytical procedures and equipment.

The exceedence report for source water provides a brief discussion and interpretation of health related water quality parameters, if any, that exceed the acceptable limits as set out in the Guidelines for Canadian Drinking Water Quality, Sixth Edition (GCDWQ). This comparison is only for screening purposes since at present there are no guidelines for untreated source water. The GCDWQ applies to water at the consumers tap. However in the absence of water treatment these guidelines could be applicable to source water quality.

Aesthetic (A) Parameters - Aesthetic parameters reflect substances or characteristics of drinking water that can affect its acceptance by consumers but which usually do not pose any health effects.

Contaminants (C) - Contaminants are substances that are known or suspected to cause adverse effects on the health of some people when present in concentrations greater than the established Maximum Acceptable Concentrations (MACs) or the Interim Maximum Acceptable Concentrations (IMACs) of the GCDWQ. Each MAC has been derived to safeguard health assuming lifelong consumption of drinking water containing the substance at that concentration. IMACs are reviewed periodically as new information becomes available. Please consult your Medical Officer of Health for additional information on the

Contaminants:

Turbidity - The maximum acceptable concentration for turbidity is 1 NTU. Turbidity refers to the water's ability to transmit light or the cloudiness of the water. Turbidity in tap water can be the result of turbid raw water and influences within the distribution system. Turbidity is usually the result of fine organic and inorganic particles which do not settle out. Increased turbidity of drinking water results in it being less aesthetically pleasing, and may interfere with the disinfection process.

Boron - The interim maximum acceptable concentration for boron in drinking water is 5.0 mg/L. Boron is widespread in the environment, occurring naturally in over 80 minerals and in the earth's crust. Levels in well water have been reported to be more variable and often higher than those in surface waters, most likely due to erosion from natural resources. High levels of this contaminant can cause adverse health effects for some peopleTurbidity - The maximum acceptable concentration for turbidity is 1 NTU. Turbidity refers to the water's ability to transmit light or the cloudiness of the water. Turbidity in tap water can be the result of turbid raw water and influences within the distribution system. Turbidity is usually the result of fine organic and inorganic particles which do not settle out. Increased turbidity of drinking water results in it being less aesthetically pleasing, and may interfere with the disinfection process.

Fluoride - The maximum acceptable concentration for fluoride in drinking water is 1.5mg/L.The fluoride concentration in natural water varies widely as it depends on such factors as the source of the water and the geological formations present. Trace amounts of fluoride may be essential for human nutrition and the presence of small quantities leads to a reduction of dental caries. High levels of this contaminant can cause adverse health effects for some people.

mg/L = milligrams per litre or parts per million µS/cm = micro Siemens per centimeter NTU = nephelometric turbidity units TDS = total dissolved solids TSS = total suspended solids
TCU = true colour units
DOC = dissolved organic carbon Nitrate(ite) = Nitrate + Nitrite WS # = water supply number SA# = serviced area number GCDWQ = Guidelines for Canadian Drinking Water Quality
Notes : Guidelines for Canadian Drinking Water Quality have not been developed for all the parameters listed in this report.
pH has no units

Asthetic Parameters

Colour - An aesthetic objective of 15 true colour units (TCU) has been established for colour in drinking water. Colour in drinking water may be due to the presence of coloured organic substances or metals such as iron, manganese and copper. Highly coloured industrial wastes also contribute to colour. The presence of colour is not directly linked to health but it can be aesthetically displeasing.

pH -The acceptable range for drinking water pH is 6.5 - 8.5. The control of pH is primarily based on minimizing corrosion and encrustration in the distribution system. Tap water with low pH may accelerate the corrosion process in the distribution system, and contribute to increased levels of copper, lead and possibly other metals. Incrustation and scaling problems may become more frequent above pH 8.5

TDS - The aesthetic objective for TDS in drinking water is 500 mg/L. The term "total dissolved solids"(TDS) refers mainly to the inorganic substances that are dissolved in water. At low levels TDS contributes to the palatability of water. At high levels it may cause excessive hardness, taste, mineral deposition and corrosion.

Chloride - The aesthetic objective for chloride in drinking water is 250 mg/L. Chloride can be in water from a variety of sources, including the dissolution of salt deposits and salting of roads for ice control. No evidence has been found suggesting that ingestion of chloride is harmful to humans. However, high levels of chloride in water can impart undesirable tastes to water and beverages prepared from water.

Sodium - The aesthetic objective for sodium in drinking water is 200 mg/L. Since the body has very effective means to control levels of sodium, sodium is not an acutely toxic element in the normal range of environmental or dietary concentrations. At extremely high dosages it has adverse health effects. Sodium levels may be of interest to authorities who wish to prescribe sodium restricted diets for their patients..

Sulphate - The aesthetic objective for sulphate in drinking water is 500 mg/L. Sulphates, which occur naturally in numerous minerals, are used in the mining and pulping industries and in wood preservation. Large quantities of sulphate can result in catharsis and gastrointestinal irritation. The presence of sulphate above