Ontario

Ministry of the Environment | Ministère de l'Environnement

O. Reg. 170 SECTION 11 ANNUAL REPORT

Part III Form 2
Section 11. ANNUAL REPORT.

Drinking-Water System Number:	**220000460**
Drinking-Water System Name:	**North Bay WTP**
Drinking-Water System Owner:	**City of North Bay**
Drinking-Water System Category:	**Large Municipal Residential**
Period being reported:	**January 01, 2010 to December 31, 2010**

Complete if your Category is Large Municipal Residential or Small Municipal Residential

Does your Drinking-Water System serve more than 10,000 people? Yes [X] No [ ]

Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

The Corporation of the City of North Bay
P.O. Box 360
200 McIntyre Street East
North Bay, Ontario
P1B 8H8

Complete for all other Categories.

Number of Designated Facilities served:

Did you provide a copy of your annual report to all Designated Facilities you serve?
Yes [ ] No [ ]

Number of Interested Authorities you report to:

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?
Yes [ ] No [ ]

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

O. Reg. 170 SECTION 11 ANNUAL REPORT

List all Drinking-Water Systems, which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
NA	

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?
Yes [ ] No [ ]

Indicate how you notified system users that your annual report is available, and is free of charge.
[X] Public access/notice via the web
[ ] Public access/notice via Government Office
[X] Public access/notice via a newspaper
[ ] Public access/notice via Public Request
[ ] Public access/notice via a Public Library
[ ] Public access/notice via other method

Drinking-Water System Description

The City of North Bay Water Treatment System is classified as a "Large Municipal Residential" Drinking-Water System, Class 3 with Drinking-Water System Number: 220000460. The WTP, located at 248 Lakeside Drive in North Bay, treats water from Trout Lake which is part of the Mattawa River watershed. The WTP services a population of approximately 56,000 and the permit to take water permits consumption up to 79,500 cubic meters per day.

The City of North Bay Water Treatment Plant (WTP), Major Water Distribution Works and Distribution System are owned by the Corporation of the City of North Bay. The Ontario Clean Water Agency is the Operating Authority for the WTP and Major Water Distribution Works. The Major Water Distribution Works consists of the following:

Ellendale Reservoir, High Lift Pump Station & Re-chlorination Facility;
CFB Reservoir;
Canadore Pumping Station;
Judge Avenue Valve Chamber & Re-chlorination- Station;
Birches Road Standpipe and Re-chlorination Station; and
Airport Road Standpipe, Booster Pumping Station and Re-chlorination Facility.

A new Membrane Filtration Water Treatment Plant went into service on 16 February 2010. The new plant replaced the Trout Lake Pumping station. The new WTP has a design capacity of 79,500 cubic meters per day. The treatment plant is a SCADA controlled membrane filtration system with ultraviolet and chlorine disinfection systems, and fluoride addition prior to delivery to the distribution system.

The new membrane filtration plant meets the Ontario Drinking Water Standards requirements for the removal/disinfection of 3-log Giardia Lambia, 2-log Cryptosporidium and 4-log Viruses. The

membrane filtration Primary Barrier provides for a 3-log Giardia removal, 2-log Cryptosporidium removal and a 2 log virus removal. The chlorine/UV disinfection Secondary Barrier provides for a 0.5-log UV Giardia removal, 0.5-log UV Cryptosporidium removal and a 4 log chlorine virus removal.

In general the North Bay WTP can be described as follows:

Intake
A 1200 mm diameter series 45 polyethylene intake pipe, with a capacity of 80,000 cubic meters per day. The pipe, constructed in 1973, extends approximately 300 meters into Delaney Bay of Trout Lake and includes intake structure consisting of a steel inlet bell mouth with fiber reinforced plastic (FRP) cage and is in approximately 21.5 meters of water at low water level.

Membrane Feed Pump Well/Prescreening
Two (2) parallel sub-surface well chambers with level monitoring containing , two (2) 6 mm mesh manual prescreens in series, five (5) vertical turbine pumps (4 duty and one standby) rated at 20 m3/d feeding the primary membrane system.

Membrane Feed Strainers
Five (5) 300 micron automatic membranes feed strainers (four duty and one standby).

Treatment Plant Process Areas
A building housing the following process components:
- primary and secondary membrane filtration system;
- primary and secondary UV disinfection system;
- split chlorine contact tank;
- split high lift pump well;
- three (3) chemical storage and delivery rooms housing membrane cleaning and neutralization chemical systems, pre-chlorination system, primary disinfection chemical system, residual chlorination chemical system, alkalinity adjustment system and fluoride addition system;
- high lift pumping;
- generator room; and
- Electrical room.

Treatment Plant & Administration Areas
Two floor administrative area including laboratory/control room, server room, multipurpose training room, offices, washrooms, women's and men's locker rooms, janitor room, building mechanical room and storage room.

Membrane Filtration
Eleven (11) pressurized primary membrane racks treating water from the membrane feed strainers,
Two (2) pressurized secondary membrane racks treating non-chemical backwash water from the primary membrane racks,
Maximum production flow rate of 78.7 MLD based on raw water flow rate of 79.5 MLD, Ancillary systems including backwash pumps, instrument air for operating valves and integrity testing membranes, process blowers, and chemical cleaning and neutralization systems.

UV Disinfection Systems

Three (3) 600mm UV reactors (two duty and one standby) treating water from the eleven (11) pressurized primary membrane racks and two (2) secondary membrane racks, Each reactor contains medium pressure high intensity lamps housed in quartz sleeve and equipped with a self cleaning mechanism and intensity sensor.

Chemical Systems for:
Zebra Mussel Control
Primary Disinfection
Secondary (residual) Disinfection
Fluoride Dosing
Alkalinity Adjustment
Membrane Cleaning
Membrane Cleaning Solutions Nuetralization

Chlorine Contact Tank #1 and #2
Two (2) baffled chlorine contact tanks in series with storage volumes of 688 cubic meters (Tank #1) and 502 cubic meters (Tank #2).

High Lift Pump Well #1 and #2
High lift pump well #1 has a capacity of approximately 240 cubic meters and is equipped with one (1) variable speed and two (2) constant speed vertical turbine high lift pumps each rated at 20 MLD, High lift pump well #2 has a capacity of approximately 240 cubic meters and is equipped with one (1) variable speed and one (1) constant speed vertical turbine high lift pump each rated at 20 MLD.

Generator Room
One (1) dual fuel generator set (NG/Diesel) with a rating of 2050 kW, to provide power during peak hours and emergency situations.

Wastewater Disposal System

Primary Membrane Backwash Tank
Tank with a volume of approximately 700 cubic meters,
Two (2) membrane feed pumps supplying water to the Secondary Membrane System.

Secondary Waste Tank
Tank with a volume of approximately 66 cubic meters,
Two (2) pumps, one duty and one standby, to deliver water to the sanitary sewer.

Neutralization Tank #1 and #2
Two (2) tanks each with a volume of 150 cubic meters, pH and Chlorine residual analyzers.

Sanitary Sewage Disposal
One sump with two (2) submersible pumps in the Administration Area and two (2) sumps and two (2) submersible pumps in the Process Area discharging to the sanitary sewer along Lakeside Drive. The treated water is pumped to the distribution system.

Under contract to the city in addition to operating and maintaining the WTP OCWA operates and maintains the major distribution system facilities.

The Major Water Distribution Works can be described as follows:

Ellendale Reservoir, High Lift Pump Station and Re-chlorination Facility
The facility is a reinforced concrete at-grade, double cell, un-baffled, treated water reservoir, located at the east end of Ellendale Drive. The reservoir has an approximate capacity of 18,200 cubic meters, with dimensions of 71 meters by 38 meters by 7 meters. The facility is equipped with sodium hypochlorite re-chlorination system, on-line continuous water quality analyzers for free chlorine and turbidity and a standby generator to operate the entire facility during power outages.

Birchs Road Standpipe and Re-chlorination Station
The facility consists of one (1) 19 meter high, 11,775 cubic meter capacity, steel, un-baffled, treated water standpipe, located near the southwest corner of Birchs Road and Booth Road. The facility is equipped with sodium hypochlorite re-chlorination system, on-line continuous water quality analyzers for free chlorine and turbidity and a fixed 7.5 kW, 120/240 Volt single phase, diesel powered generator to power the re-chlorination and SCADA communications during prolonged power outages

Judge Avenue Valve Chamber and Re-chlorination Station
The facility consists of a valve and re-chlorination station, located near the northeast corner of Judge Avenue and Lakeshore Drive, equipped with a sodium hypochlorite re-chlorination system, on-line continuous water quality analyzers for free chlorine and turbidity, a fixed 7.5 kW, 120/240 Volt single phase, diesel powered generator to power the re-chlorination and SCADA communications during prolonged power outages.
The facility includes a 6.2 square meter control building housing the following:

A sodium hypochlorite disinfection system for re-chlorination, consisting of one (1) 270 liter capacity sodium hypochlorite solution storage tank and one (1) chemical solution metering pump, each rated at 311 L/d, together with a solution feed line to the watermain below and a control system to maintain the desired chlorine residual,
UPS battery with 3 hours of standby power for SCADA system,
A fixed 7.5 kW, 120/240 Volt, single phase, diesel generator to power the re-chlorination station systems during prolonged power outages.

CFB North Bay Reservoir, Pump Station and Re-chlorination Facility
The facility consists of one (1) 1820 cubic meter capacity, un-baffled reservoir; pump station and re-chlorination facility located at the north end of Manston Crescent. The facility is equipped with a sodium hypochlorite re-chlorination system, on line continuous water quality analyzers for free chlorine and a standby pump to provide water during power outages.

Canadore Pumping Station
The facility is equipped with high lift pumps and pressurized cushion tanks to maintain pressure in the pressurized zone of the distribution system servicing Canadore College and Nipissing University. There is an on-line continuous water quality analyzer to monitor free chlorine residual and a 200 kW, 347/600 Volt, 3 phase diesel generator to provide power and SCADA communications during prolonged power outages.

Airport Standpipe, Booster Pumping Station and Re-chlorination Facility
This is a recently constructed 4,000 cubic meter water storage standpipe, booster pumping station and re-chlorination facility.

This 4,000 cubic meter water storage standpipe, booster pumping station and re-chlorination facility was constructed in 2009. With the standpipe, high lift pumps and pressurized cushion tanks this facility maintain pressure in the pressurized zone of the distribution system servicing the Airport and Carmichael Drive areas.

The overall system consists of pressure Zones 4 and 5 which accommodate a total of nine pumps, including three booster pumps (2 duty 1 standby) for Zone 4, and four booster pumps (3 duty and 1 standby) and two fire pumps for Zone 5.

The water standpipe is connected to the Zone 4 distribution header to provide Zone 4 fire flow and peak hour demand. It is also connected to the Zone 5 fire pumps suction header to provide Zone 5 fire flow demand.

Zone 5 is equipped with four (4) hydro pneumatic tanks connected to the Zone 5 discharge header to mitigate minor pressure fluctuations within the distribution system, and to provide some volume of available storage during power interruptions before the standby power system engages. This will ensure that negative pressures do not develop in the distribution system at any time

List all water treatment chemicals used over this reporting period

Sodium Hydroxide
Sodium Hypochlorite
Hydrofluosilicic Acid

Were any significant expenses incurred to?

[X] Install required equipment
[X] Repair required equipment
[X] Replace required equipment

Description of major equipment repair, replacement and capital works completed

- Start-up of new Water Treatment Membrane Filtration Plant and decommissioning and demolition of old Water Treatment Plant
- A condition assessment was completed on Ellendale Reservoir & Pumping Station
- Ellendale Reservoir inspection of isolation gate for both cell using an underwater rover
- Rebuild of pumps #1, 2 and 4 at Ellendale Reservoir & Pumping Station
- Various vent/drain fittings replacement with Stainless Steel on piping at Ellendale Reservoir
- Major service of air handling unit at Ellendale Reservoir
- Annual Hoist & crane inspections completed for all equipment at all water system facilities
- Replacement of seals/gaskets in PRV chamber at Kenwood/Bain Dr station
- Replacement of seals/gaskets in valve chamber at Judge St.
- High Pressure cleaning of sump pump piping at Judge St valve chamber
- Replacement pressure transmitters at Greenhill and Lakeview chambers

- Engineering Condition Assessment was completed on the Ellendale Reservoir
- Decommissioned most of the equipment at the CFB pumping station due to new airport standpipe
- Purchased new PAX mixer to be installed at Birches Standpipe in Spring 2011
- Purchased new butterfly valve to replace valve #1 at Ellendale Reservoir in early 2011
- Replacement of Watermain on Front Street (From O'Brien to First)
- Replacement of Watermain on Ann Street (Front to High)
- Replacement of Watermain on Cedar Street (Galt to Ann)
- Replacement of Watermain on McLearen Street (Ann to Algonquin)
- Replacement of Watermain on Second Avenue (Front to Commercial)
- Replacement of Watermain on Commercial (Second to Algonquin)
- Replacement of Watermain on Algonquin Avenue (Commercial to McIntyre)
- Replacement of Watermain on Worthington Avenue (Cassels to Algonquin)
- Replacement of Watermain on Foran Street (McIntyre to Main)
- Replacement of Watermain on McIntyre Street (Foran to Algonquin)
- Replacement of Watermain on First Avenue (Fisher to Sherbrook)
- Watermain installation down Carmichael towards Littledown Lane and Ayr
- Replacement 200m of Watermain on Seymour, Commerce and Venture

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
24-Feb-2010	Hexachlorocyclopentadiene	0.08	ug/L	Reported to the MOE and MOH as required. Re-sample collected and submitted on 09 Mar 2010. AWQI #93752	8-Apr-2010
9-Mar-2010	Hexachlorocyclopentadiene	0.11	ug/L	This was a provisional adverse report due to lab complications with the matrix. Reported to the MOE and MOH as required. Re-sample collected and submitted on 23 Mar 2010. AWQI #93953	8-Apr-2010
23-Mar-2010	Hexachlorocyclopentadiene	0.11	ug/L	Reported to the MOE and MOH as required. Re-sample collected and submitted on 24 Mar 2010. Instructions given by the MOH on 01 April 2010 that no further actions required. AWQI #94132	8-Apr-2010
17-Jul-2010	Virus Log Removal	< 4.0	Log	When isolating the water plant from the distribution grid to a mode of internal recirculation, one of 2 isolation valves to the distribution grid was left open allowing water to enter the grid without the required log	21-Jul-10

				removal for viruses for 15 minutes. 2nd isolation valve was closed within 15 minutes. Reported to the MOE and MOH as required. AWQI # 96356	
18-Sep-2010	Low Distribution System Chlorine Residual	<0.05	mg/L	Upon reviewing the distribution chlorine residual trending for the Birch's Road Standpipe for 18 Sep 2010 it was noted that the free chlorine residual dropped sharply at 09:15 hrs form approx 0.66 mg/L to zero and remained at zero for 2 hrs 9min and then sharply rose back to approximately 0.65 mg/L. This was reported to the MOH and MOE. When investigated further it was determined that an instrumentation glitch was the cause. Not a true reportable adverse event. AWQI # 98160	21-Sep-2010
16-Nov-2010	Total Coliforms E.Coli	> 1	CFU/100 ml	Microbiological sample results of 28 TC & 5 EC were reported for a treated water sample collected on 16 Nov 2010. This was reported to the MOH and MOE. Results of a treated water re-sample collected on 18 Nov 2010 had results 0 TC, 0 EC & 0 GBP. Also 3 distribution samples collected on 18 Nov 2010 had clear results. It is suspected that labeling of treated and raw sample bottles were reversed on the samples collected on 16 Nov 2010). AWQI#99164	23-Nov-10

Microbiological testing done under section 8-2 during this reporting period.

	Number of Samples	Range of E.Coli Results (#-#)	Range of Total Coliform Results (#-#)	Number of Samples Back-ground Colony Counts	Range of Results Background Colony Counts (#-#)	Number of Samples HPC Counts	Range of Results HPC Counts (#-#)
Raw	**55**	**0 - 7**	**0 – 200**	**52**	**0 - >200**	**NA**	**NA**
Treated	**57**	**0 – 5**	**0 – 28**	**57**	**0 - 113**	**52**	**0 - 86**
Distribution Fixed Sites (reservoirs & rechlorination)	**352**	**0 - 0**	**0 – 0**	**352**	**0 - 122**	**104**	**0 - 120**
Distribution Random Sites	**510**	**0 - 0**	**0 – 0**	**510**	**0 – 2**	**153**	**0 - 6**

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

POE Grab Samples	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity	**249**	**0.03 – 0.78 NTU**
Chlorine	**279**	**0.87 – 1.68 mg/L**
Fluoride (If the DWS provides fluoridation)	**50**	**0.38 – 0.53 mg/L**

NOTE: For continuous monitors use 8760 as the number of samples.

Distribution Grab Samples	Number of Grab Samples	Range of Results (min #)-(max #)
Chlorine Fixed Sites	**3151**	**0.23 – >2.2 mg/L**
Chlorine Random Sites	**510**	**0.12 – 1.67 mg/L**

NOTE: For continuous monitors use 8760 as the number of samples.

POE On-line Continuous Analyzers	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity	**8760**	**0.018 – 1.067 NTU**
Free Chlorine Residual	**8760**	**0.00 – 5.0 mg/L**
Fluoride	**8760**	**0 – 10 mg/L**

NOTE: For continuous monitors use 8760 as the number of samples.

Summary of Inorganic parameters tested during this reporting period or the most recent

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	**24 Feb 10**	**<0. 5**	**ug/L**	
Arsenic	**24 Feb 10**	**<1**	**ug/L**	
Barium	**24 Feb 10**	**13.0**	**ug/L**	
Boron	**24 Feb 10**	**<10**	**ug/L**	
Cadmium	**24 Feb 10**	**<0.1**	**ug/L**	
Chromium	**24 Feb 10**	**<5**	**ug/L**	
Mercury	**24 Feb 10**	**<0. 0001**	**mg/L**	
Selenium	**24 Feb 10**	**<2**	**ug/L**	
Sodium	**24 Feb 10**	**13**	**mg/L**	

Uranium	24 Feb 10	<0.1	ug/L	
Fluoride	18 Feb 09	0.6	mg/L	
Nitrite	24 Feb 10	<0.01	mg/L	
	19 May 10	<0.01	mg/L	
	16 Aug 10	<0.01	mg/L	
	09 Nov 10	<0.01	mg/L	
	Average	<0.01	mg/L	
Nitrate	24 Feb 10	0.2	mg/L	
	19 May 10	0.2	mg/L	
	16 Aug 10	0.2	mg/L	
	09 Nov 10	0.1	mg/L	
	Average	0.18	mg/L	

Summary of lead testing under Schedule 15.1 during this reporting period (applicable to the following drinking water systems; large municipal residential systems, Small municipal residential systems and non-municipal year-round residential systems)

	Location Type	Number of Samples	Range of Lead Results mg/L (min#) – (max #)	Number of Exceedances
Round 1 Dec 15 2009 to Apr 15 2010	Plumbing	88	<0.001 – 0.028	6
	Distribution	16	<0.001 – 0.009	0
Round 2 June 15 2010 to Oct 15 2010	Plumbing	88	<0.001 – 0.023	3
	Distribution	16	<0.001 – 0.05	0

Summary of additional testing and sampling carried out in accordance with the requirement of an approval or order.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
NA				

Summary of Organic parameters sampled during this reporting period or the most recent

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	24 Feb 10	<0.5	ug/L	no
Aldicarb	24 Feb 10	<5	ug/L	DL > ½ MAC
Aldrin	24 Feb 10	<0.006	ug/L	no
Aldrin + Dieldrin	24 Feb 10	<0.01	ug/L	no
Atrazine	24 Feb 10	<0.5	ug/L	no
Desethyl-atrazine	24 Feb 10	<0.5	ug/L	no

Atrazine + N-dealkylated metobolites	24 Feb 10	<1	ug/L	no
Azinphos-methyl (Guthion)	24 Feb 10	<2	ug/L	no
Bendiocarb	24 Feb 10	<2	ug/L	no
Benzene	24 Feb 10	<0.1	ug/L	no
Benzo(a)pyrene	24 Feb 10	<0.009	ug/L	DL > ½ MAC
Bromoxynil	24 Feb 10	<0.5	ug/L	no
Carbaryl	24 Feb 10	<5	ug/L	no
Carbofuran	24 Feb 10	<5	ug/L	no
Carbon Tetrachloride	24 Feb 10	<0.1	ug/L	no
g-Chlordane	24 Feb 10	<0.006	ug/L	no
a-Chlordane	24 Feb 10	<0.006	ug/L	no
Chlordane (Total)	24 Feb 10	<0.01	ug/L	no
Chlorpyrifos (Dursban)	24 Feb 10	<1	ug/L	no
Cyanazine (Bladex)	24 Feb 10	<1	ug/L	no
p,p-DDE	24 Feb 10	<0.006	ug/L	no
p,p-DDD	24 Feb 10	<0.006	ug/L	no
o,p-DDT	24 Feb 10	<0.006	ug/L	no
p,p-DDT	24 Feb 10	<0.006	ug/L	no
DDT + Metabolites	24 Feb 10	<0.02	ug/L	no
Diazinon	24 Feb 10	<1	ug/L	no
Dicamba	24 Feb 10	<1	ug/L	no
1,2-Dichlorobenzene	24 Feb 10	<0.2	ug/L	no
1,4-Dichlorobenzene	24 Feb 10	<0.2	ug/L	no
1,2-Dichloroethane	24 Feb 10	<0.2	ug/L	no
1,1-Dichloroethylene (vinylidene chloride)	24 Feb 10	<0.006	ug/L	no
Methaylene Chloride (Dichloromethane)	24 Feb 10	<0.5	ug/L	no
2-4 Dichlorophenol	24 Feb 10	<0.5	ug/L	no
2,4-Dichlorophenoxy acetic acid(2,4-D)	24 Feb 10	<1	ug/L	no
Diclofop-methyl	24 Feb 10	<0.9	ug/L	no
Dieldrin	24 Feb 10	<0.006	ug/L	no
Dimethoate	24 Feb 10	<3	ug/L	no
Dinoseb	24 Feb 10	<1	ug/L	no
Diquat	24 Feb 10	<7	ug/L	no
Diuron	24 Feb 10	<10	ug/L	no
Glyphosate	24 Feb 10	<10	ug/L	no
Heptachlor	24 Feb 10	<0.006	ug/L	no
Heptachlor Epoxide	24 Feb 10	<0.006	ug/L	no
Heptachlor + Heptachlor Epoxide	24 Feb 10	<0.01	ug/L	no
Hexachlorocyclopentadiene	24 Feb 10 09 Mar 10 23 Mar 10	0.08 0.11 0.11	ug/L ug/L ug/L	present provis resample re-sample present
Lindane (Total)	24 Feb 10	<0.006	ug/L	no
Malathion	24 Feb 10	<5	ug/L	no
Methoxychlor	24 Feb 10	<0.02	ug/L	no

Metolachlor	24 Feb 10	<0.5	ug/L	no
Metribuzin (Sencor)	24 Feb 10	<5	ug/L	no
Monochlorobenzene	24 Feb 10	<0.006	ug/L	no
Oxychloradane	24 Feb 10	<0.006	ug/L	no
Paraquat	24 Feb 10	<1	ug/L	no
Parathion	24 Feb 10	<1	ug/L	no
Pentachlorophenol	24 Feb 10	<0.5	ug/L	no
Phorate	24 Feb 10	<0.5	ug/L	no
Picloram	24 Feb 10	<5	ug/L	no
Polychlorinated Biphenyls (PCB)	24 Feb 10	<0.05	ug/L	no
Prometryn	24 Feb 10	<0.3	ug/L	no
Simazine	24 Feb 10	<1	ug/L	no
Temephos	24 Feb 10	<10	ug/L	no
Terbufos	24 Feb 10	<0.5	ug/L	DL > ½ MAC
Tetrachloroethylene	24 Feb 10	<0.1	ug/L	no
2,3,4,6-Tetrachlorophenol	24 Feb 10	<0.5	ug/L	no
Triallate	24 Feb 10	<1	ug/L	no
Trichloroethylene	24 Feb 10	<0.1	ug/L	no
2,4,6-Trichlorophenol	24 Feb 10	<0.5	ug/L	no
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	24 Feb 10	<1	ug/L	no
Trifluralin	24 Feb 10	<1	ug/L	no
Vinyl Chloride	24 Feb 10	<0.2	ug/L	no

THM Dist Sample Location 55 Aviation Ave & 201 Pinewood Park Result marked with * not used in calculating the annual average. The regulation requires that the highest result from each quarter be used to calculate the average	1 st Quarter Result Value	2 nd Quarter Result Value	3 rd Quarter Result Value	4th Quarter Result Value	Unit of Measure	Exceedance
Date Sampled	24 Feb 10	19 May 10	22 Jul 10	09 Nov 10		
Bromodichloromethane	3.4 3.2	4.0 4.0	3.8 4.0	4.1 4.2	ug/L	No
Bromoform	< 0.2 <0.2	< 0.2 <0.2	< 0.2 <0.2	< 0.2 <0.2	ug/L	No
Chloriform	64.8 68.0	75.5 71.5	67.4 78.1	77.3 85.7	ug/L	No
Dibromochloromethane	< 0.2 < 0.2	< 0.2 < 0.2	< 0.2 < 0.2	< 0.2 < 0.2	ug/L	No
Total Trihalomethanes	68.2* 71.2	79.5 75.5*	71.2* 82.1	81.4* 89.9	ug/L	No
Total Trihalomethanes 4 Quarter Average				80.7	ug/L	No

Extra THM Sampling Results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Total Trihalomethanes	28 Jun 10	69.2 81.4	ug/L	No
Total Trihalomethanes	16 Aug 10	59.3 70.3	ug/L	No
Total Trihalomethanes	14 Sep 10	60.8 72.3	ug/L	No
Total Trihalomethanes	20 Oct 10	68.3 77.4	ug/L	No

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	½ MAC VALUE	MAC Value	Date of Sample
Aldicarb	<5 lab detection level	ug/L	4.5	9	24 Feb 10
Benzo(a)pyrene	<0.009 lab detection level	ug/L	0.005	0.01	24 Feb 10
Hexachlorocyclopentadiene	0.08 0.11	ug/L ug/L	n/a	n/a	24 Feb 10 23 Mar 10
Lead	<0.001 – 0.028	mg/l	0.05	0.010	Mar-Oct 10

Note! In all of the cases above the analysis result value was less that the lab detection limit. However the lab detection limit is above the ½ MAC value.

Ontario

Location: **WTRS / WT DATA / Input WT Record** WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 3674-876NA2
Permit Holder: THE CORPORATION OF THE CITY OF NORTH BAY.
Recieved on:Feb 1, 2011 8:09 AM

This confirmation indicates that your data has been received by the Ministry,but should not be construed as acceptance of this data if it deffers from that specified on the Permit Number, assigned to the Permit Holder stated above.

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