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:	**210000951**
Drinking-Water System Name:	**Verner WTP**
Drinking-Water System Owner:	**The Corporation of the Municipality of West Nipissing**
Drinking-Water System Category:	**Large Municipal Residential**
Period being reported:	**Jan 01, 2009 to Dec 31, 2009**

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

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

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.

Municipality of West Nipissing
Sturgeon Falls Water Treatment Plant
11 Nipissing Street
Sturgeon Falls, Ontario P2B 1J4

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

List all Drinking-Water Systems (if any), 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 [ ]

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Indicate how you notified system users that your annual report is available, and is free of charge.

[X] Public access/notice via the web http:www.westnipissingouest.ca/pop/dep-utilities.html
[ ] Public access/notice via Government Office
[X] Public access/notice via a newspaper notice given via Sturgeon Falls Tribune newspaper
[ ] Public access/notice via Public Request
[X] Public access/notice via a Public Library copies placed at West Nipissing Library
[ ] Public access/notice via other method

Describe your Drinking-Water System

The Verner WTP was originally commissioned in 1975 and under went a major regulatory upgrades in 2005 which included replacement of all chemical feed system equipment and tanks, replacement of the plant instrumentation and controls, installation of a UV system for primary disinfection, installation of piping and valves to provide treatment-to-waste functionality, new raw water and treated water magnetic flow meters, and the installation of a 125 kW standby diesel generator. Also radio telemetry equipment was installed at the elevated storage tank to permit treatment plant-elevated tank communication and control.

The Verner Municipal Water System is a surface water system that draws water from the Veuve River which is part of the Lake Nipissing watershed. The intake structure is located 12 km upstream of Lake Nipissing and 48 km downstream of the source. The water treatment plant's intake facility consists of an intake structure located 5 m below the low river level, connected to a raw water wet well by a 42.7 m long, 250 mm ductile iron pipe. The intake structure is approximately 20 m from the riverbank.

The Verner Water Treatment Plant (WTP) is a conventional treatment facility, with a designed capacity of 1059 m^3/d. Conventional treatment is comprised of coagulation, flocculation, sedimentation & dual media rapid sand filtration, primary disinfection & secondary disinfection. Furthermore, disinfection is achieved through the use of chlorine dioxide, UV and chlorine gas. Chemically assisted filtration is through the use of an "Ecodyne Graver Monoplant" package treatment plant

The Ecodyne Graver Monoplant package treatment plant, consisting of a Mixing Zone; Flocculation Zone; Settling Compartment and flock barriers; Blowdown valve and rapid flow by gravity sand and anthracite filters.

Chemical treatment includes the addition of polymer, aluminum sulfate, pre and post soda ash, chlorine for disinfection and chlorine dioxide for iron and manganese removal to control taste and odour.

There are four (4) below grade clear wells connected in series having a total area, total capacity and useable capacity of 134 m2, 269 m^3 and 234 m^3 respectively. The high lift pumping station has a firm capacity of 1,090 m^3/d with three (3) identical vertical turbine high lift pumps each having a capacity of 545 m^3/d at a TDH of 53.3 m.

Standby emergency power is supplied at this plant by a 125 kW standby diesel generator with automatic switchover controls installed as part of the 2005 plant upgrades

The Verner Water Distribution System consists of approximately eight kilometers of watermain. The system includes an off site water storage facility located 23 m west of the extension of Dubeau

Street and 192 m north of the intersection of Debeau Street and Vercheres Avenue. The facility is a steel and concrete elevated storage tank, having a total storage capacity of 568 m^3 and about 40 m above ground equipped with low level alarm and an overflow. The system has approximately 50 hydrants, and serves approximately 1,100 consumers. The Distribution system is classified as a Class I system.

List all water treatment chemicals used over this reporting period

Chlorine Gas
Sodium Chlorite
Sodium Carbonate
Aluminum Sulfate (ALUM)
Magnafloc LT20 Poly Acrylamide Polymer

Were any significant expenses incurred to?

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

Description of major repairs, equipment replacement or capital improvements

- **High lift Pump #1 was overhauled**
- **High lift Pump #3 was overhauled**

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
None to report for 2009					

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

	Number of EC & TC Samples	Range of E.Coli Results (min #)-(max #)	Range of Total Coli form Results (min #)-(max #)	Number of GBP Background Samples	Range of GBP Background Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	**51**	**10 - 290**	**0 - >2000**	**51**	**>200 - >2000**	**NA**	**NA**
Treated	**51**	**0 - 0**	**0 - 0**	**51**	**0 - 0**	**51**	**0 - 13**
Distribution	**153**	**0 – 0**	**0- 0**	**153**	**0 – 2**	**51**	**0 - 87**

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

Filter Grabs

	Number of Grab Samples	Range of Results (min #)-(max #)
Post Filter Turbidity	**361**	**0.10– 0.32 NTU**

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

POE Grabs

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity	**365**	**0.13– 3.9 NTU**
Free Chlorine	**363**	**1.09 – 1.92 mg/L**

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

Distribution Grabs

	Number of Grab Samples	Range of Results (min #)-(max #)
Free Chlorine	**414**	**0.11 – 1.64 mg/L**

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

Filter On-line Continuous Analyzers

	Number of Samples	Range of Results (min #)-(max #)
Post Filter Turbidity	**8760**	**0.04– 0.32 NTU**

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

POE On-line Continuous Analyzers

	Number of Samples	Range of Results (min #)-(max #)
POE Free Chlorine	**8760**	**1.01 – 2.35 mg/L**

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

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

Date of legal instrument issued	Parameter	Sampling Frequency	Range of Result	Unit of Measure
C of A 7938-6T4JLY issued 28 Aug 2006	UV Intensity	continuous when units operating	plant shut down interlock activates if dosage <22 mJ/cm^2	mJ/cm^2
	Flow Rate	continuous	min 328.5 – max 603.6	m^3/d
	UV Transmittance	daily 5 days per wk	min 23- max 40	% UVT
	UV Lamp Status	continuous	plant shut down interlock on lamp failure	on or off

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	25 Feb 09	<0.5	ug/L	No
Arsenic	25 Feb 09	<1	ug/L	No
Barium	25 Feb 09	11	ug/L	No
Boron	25 Feb 09	<10	ug/L	No
Cadmium	25 Feb 09	<0. 1	ug/L	No
Chromium	25 Feb 09	<5	ug/L	No
Mercury	25 Feb 09	<0.0001	mg/L	No
Selenium	25 Feb 09	<2	ug/L	No
Sodium	25 Feb 09 12 Mar 09	36000 59000	ug/L ug/L	>20,000 notification to MOH - re-sample result
Uranium	25 Feb 09	<0.1	ug/L	No
Fluoride	01 Feb 2006	<0.1	mg/L	
Nitrite	25 Feb 09 11 May 09 25 Aug 09 17 Nov 09	<0.01 <0.01 <0.01 <0.01	mg/L mg/L mg/L mg/L	No No No No
Nitrate	25 Feb 09 11 May 09 25 Aug 09 17 Nov 09	0.2 0.1 <0.1 <0.1	mg/L mg/L mg/L mg/L	No No No No

Summary of lead testing under O. Reg. 170/03 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)

Round 1 Dec 15, 2007-April 15, 2008	Number of Lead Samples	Number of Adverse Results	Range of Lead Samples (ug/L)		Range of PH Sample Results		Range of Alkalinity Sample Results (mg/L as $CaCO_3$)	
			MIN #	MAX #	MIN #	MAX #	MIN #	MAX #
Distribution	4	0	< 1	< 1	7.25	7.46	55	66
Non-Residential	2	0	< 1	< 1	7.26	7.27	NA	NA
Residential	20	0	< 1	6	7.01	7.38	NA	NA
Round 2 **June 15, 2008 – October 15, 2008**	**Number of Lead Samples**	**Number of Adverse Results**	**Range of Lead Samples (ug/L)**		**Range of PH Sample Results**		**Range of Alkalinity Sample Results (mg/L as $CaCO_3$)**	
			MIN #	MAX #	MIN #	MAX #	MIN #	MAX #
Distribution	4	0	< 1	3	7.21	7.43	64	68
Non-Residential	2	0	< 1	2	6.87	6.87	NA	NA
Residential	20	0	< 1	4	7.02	7.68	NA	NA

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	25 Feb 09	<0.5	ug/L	No
Aldicarb	25 Feb 09	<5	ug/L	DL > ½ MAC
Aldrin + Dieldrin	25 Feb 09	<0.01	ug/L	no
Atrazine + N-dealkylated metobolites	25 Feb 09	<1	ug/L	No
Azinphos-methyl (Guthion)	25 Feb 09	<2	ug/L	no
Bendiocarb	25 Feb 09	<2	ug/L	No
Benzene	25 Feb 09	<0.1	ug/L	no
Benzo(a)pyrene	25 Feb 09	<0.009	ug/L	DL > ½ MAC
Bromoxynil	25 Feb 09	<0.5	ug/L	No
Carbaryl	25 Feb 09	<5	ug/L	No
Carbofuran	25 Feb 09	<5	ug/L	No
Carbon Tetrachloride	25 Feb 09	<0.1	ug/L	No

Chlordane (Total)	**25 Feb 09**	**<0.01**	**ug/L**	**no**
Chlorpyrifos	**25 Feb 09**	**<1**	**ug/L**	**No**
Cyanazine	**25 Feb 09**	**<1**	**ug/L**	**No**
Diazinon	**25 Feb 09**	**<1**	**ug/L**	**No**
Dicamba	**25 Feb 09**	**<1**	**ug/L**	**No**
1,2-Dichlorobenzene	**25 Feb 09**	**<0.2**	**ug/L**	**No**
1,4-Dichlorobenzene	**25 Feb 09**	**<0.2**	**ug/L**	**no**
Dichlorodiphenyltrichloroethane(DDT)+metabolite	**25 Feb 09**	**<0.02**	**ug/L**	**no**
1,2-Dichloroethane	**25 Feb 09**	**<0.2**	**ug/L**	**No**
1,1-Dichloroethylene (vinylidene chloride)	**25 Feb 09**	**<0.1**	**ug/L**	**no**
Dichloromethane	**25 Feb 09**	**<0.5**	**ug/L**	**No**
2-4 Dichlorophenol	**25 Feb 09**	**<0.5**	**ug/L**	**No**
2,4-Dichlorophenoxy acetic acid (2,4-D)	**25 Feb 09**	**<1**	**ug/L**	**no**
Diclofop-methyl	**25 Feb 09**	**<0.9**	**ug/L**	**No**
Dimethoate	**25 Feb 09**	**<3**	**ug/L**	**No**
Dinoseb	**25 Feb 09**	**<1**	**ug/L**	**No**
Diquat	**25 Feb 09**	**<7**	**ug/L**	**No**
Diuron	**25 Feb 09**	**<10**	**ug/L**	**No**
Glyphosate	**25 Feb 09**	**<10**	**ug/L**	**No**
Heptachlor + Heptachlor Epoxide	**25 Feb 09**	**<0.01**	**ug/L**	**No**
Lindane (Total)	**25 Feb 09**	**<0.006**	**ug/L**	**No**
Malathion	**25 Feb 09**	**<5**	**ug/L**	**no**
Methoxychlor	**25 Feb 09**	**<0.02**	**ug/L**	**No**
Metolachlor	**25 Feb 09**	**<0.5**	**ug/L**	**No**
Metribuzin	**25 Feb 09**	**<5**	**ug/L**	**No**
Monochlorobenzene	**25 Feb 09**	**<0.1**	**ug/L**	**no**
Paraquat	**25 Feb 09**	**<1**	**ug/L**	**no**
Parathion	**25 Feb 09**	**<1**	**ug/L**	**No**
Pentachlorophenol	**25 Feb 09**	**<0.5**	**ug/L**	**No**
Phorate	**25 Feb 09**	**<0.5**	**ug/L**	**No**
Picloram	**25 Feb 09**	**<5**	**ug/L**	**No**
Polychlorinated Biphenyls(PCB)	**25 Feb 09**	**<0.05**	**ug/L**	**No**
Prometryn	**25 Feb 09**	**<0.3**	**ug/L**	**No**
Simazine	**25 Feb 09**	**<1**	**ug/L**	**No**
THM Dist Sample Location 80 Principal St. E	**25 Feb 09** **11 May 09** **25 Aug 09** **17 Nov 09** **Ann Avg.**	**36.2** **54.1** **89.2** **60.3** **60.0**	**ug/L** **ug/L** **ug/L** **ug/L** **ug/L**	**No** **No** **No** **No**
Temephos	**25 Feb 09**	**<10**	**ug/L**	**No**
Terbufos	**25 Feb 09**	**<0.5**	**ug/L**	**DL > ½ MAC**
Tetrachloroethylene	**25 Feb 09**	**<0.1**	**ug/L**	**No**
2,3,4,6-Tetrachlorophenol	**25 Feb 09**	**<0.5**	**ug/L**	**No**
Triallate	**25 Feb 09**	**<1**	**ug/L**	**No**

Trichloroethylene	25 Feb 09	<0.1	ug/L	no
2,4,6-Trichlorophenol	25 Feb 09	<0.5	ug/L	No
2,4,5-Trichlorophenoxy acetic acid(2,4,5-T)	25 Feb 09	<1	ug/L	no
Trifluralin	25 Feb 09	<1	ug/L	no
Vinyl Chloride	25 Feb 09	<0.2	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	25 Feb 09
Benzo(a)pyrene	<0.009 lab detection level	ug/L	0.005	0.01	25 Feb 09
Lead	6.0	Ug/L	5.0	10.0	Spring 08

Note! **With the exception of the lead result, 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.**