



TOWN OF NIPAWIN DRINKING WATER QUALITY AND COMPLIANCE ANNUAL NOTICE TO CONSUMERS

Saskatchewan Environment (SE) requires that at least once each year waterworks owners provide notification to consumers of the quality of water produced and supplied as well as information on the performance of the waterworks in submitting samples as required by a Minister's Order or Permit to Operate a Waterworks. The following is a summary of the Town of Nipawin's water quality and sample submission compliance record for the 2007 calendar year. This report was completed on June 1st, 2008. Readers should refer to Saskatchewan Environment's "Municipal Drinking Water Quality Monitoring Guidelines, November 2002, EPB 202" for more information on minimum sampling submission requirements. Permit requirements for a specific waterworks may require more sampling than outlined in the department's monitoring guidelines. If consumers need more information on water regulations and the nature and significance of specific water tests, more detailed information is available from: www.saskh2o.ca

Water Quality Standards

Bacteriological Quality

| Parameter | Limit | # of Regular Samples Required to be Submitted | # of Regular Samples Submitted (%) | Total # of Positive Samples Submitted (%) |
|--|---|---|------------------------------------|---|
| Total Coliform and Background Bacteria | 0 Organisms/100 mg./L Less than 200 Organisms/100 ml | 52 | 52(100%) | 0(0%) |

The Town of Nipawin is responsible to ensure that 100 per cent of all bacteriological samples are submitted as required. Samples for bacteriological water quality are submitted once every week.

Water Disinfection

Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples

| Parameter | Minimum Limit (mg/L) | Free Chlorine Residual Range | Total Chlorine Residual Range | # Tests with Proper Data Submitted (%) | # Tests- Inadequate Chlorine levels |
|-------------------|------------------------------------|------------------------------|-------------------------------|--|-------------------------------------|
| Chlorine Residual | 0.1 mg/L free OR 0.5 mg/L total | 0.01 – 0.13 mg/L | 0.58-1.47 mg/L | 52(100%) | 0 |

A minimum of 0.1 milligrams per litre (mg/L) free chlorine residual OR 0.5 mg/L total chlorine residual is required at all times throughout the distribution system unless otherwise approved. The Town of Nipawin's proper chlorine submission is defined as a bacteriological sample submission with both free and total chlorine residuals filled out and the total chlorine residual level being above the minimum regulated level described above. Chlorine residual test results are included on every weekly bacteriological sample submitted.

General Chemical

| Samples Required | Samples Submitted | Date of Last Sample |
|------------------|-------------------|---------------------|
| 1 | 1 | July 17, 2006 |

The Town of Nipawin is required to submit one treated water sample for SE's General Chemical category every two years from the treated water at the water treatment plant. The General Chemical sample tests for a range of parameters such as hardness and alkalinity. The results of samples submitted on the above date indicated that the Provincial Maximum Acceptable Concentrations (MAC) and aesthetic objectives were not exceeded for the General Chemical category.

Health & Toxicity Analysis

| <u>Samples Required</u> | <u>Samples Submitted</u> | <u>Date of Last Sample</u> |
|-------------------------|--------------------------|----------------------------|
| 1 | 1 | July 16, 2007 |

The Town of Nipawin's water source is from groundwater and therefore we are required to submit one treated water sample for SE's Healthy & Toxicity category every two years from the treated water at the water treatment plant. This category includes analysis for arsenic, barium, boron, cadmium, chromium, fluoride, lead, nitrates, selenium and uranium. The results of samples submitted on the above date indicated that the Provincial MAC and aesthetic objectives were not exceeded for the Health & Toxicity category.

Water Disinfection

Total Chlorine Residual for Water Entering Distribution System at the Water Treatment Plant - From Water Treatment Plant Records

| <u>Parameter</u> | <u>Limit (mg/L)</u> | <u>Test Level Range</u> | <u>#Tests Performed</u> | <u>#Tests Not Meeting Requirements</u> |
|-------------------------|---------------------|-------------------------|-------------------------|--|
| Total Chlorine Residual | at least 0.5 mg/L | 0.87 – 1.56 mg/L | 365 | 0 |

A minimum of 0.5 milligrams per litre (mg/L) total chlorine residual is required for water entering the distribution system. Tests are performed on a daily basis by the waterworks operator and are recorded in operation records. This data includes the number of total chlorine residual tests performed, the overall range of total residual (highest and lowest recorded values) and the number of tests and percentage of results not meeting the minimum requirement of 0.5 mg/L total chlorine residual

Turbidity – From Water Treatment Plant Records

| <u>Parameter</u> | <u>Limit (NTU)</u> | <u>Test Level Range</u> | <u>#Tests Not Meeting Requirements</u> | <u>Maximum Turbidity</u> | <u>#Tests Required</u> | <u>#Tests Performed</u> |
|------------------|--------------------|-------------------------|--|--------------------------|------------------------|-------------------------|
| Turbidity | less than 1.0 NTU | 0.06-0.23NTU | 0 | 0.25NTU | 365 | 365 |

Turbidity is a measure of water treatment efficiency. Turbidity measures the "clarity" of the drinking water and is generally reported in Nephelometric Turbidity Units (NTU). The Town of Nipawin is required to monitor turbidity at the water treatment plant on a daily basis.

For more information contact:

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