## OPTIONAL ANNUAL REPORT TEMPLATE

| | |
|---|---|
| **Drinking-Water System Number:** | 220000059 |
| **Drinking-Water System Name:** | Palmerston Drinking Water System |
| **Drinking-Water System Owner:** | Town of Minto |
| **Drinking-Water System Category:** | Large Municipal Residential |
| **Period being reported:** | January 1, 2022 to December 31, 2022 |

***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 [√ ]**

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

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

Town of Minto
5941 Hwy #89
R.R. #1
Harriston, ON
N0G 1Z0

***Complete for all other Categories.***

**Number of Designated Facilities served:**

N/A

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

**Number of Interested Authorities you report to:** N/A

**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 |
|---|---|
| Palmerston Drinking Water System | 220000059 |

**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.**

- **[√ ] Public access/notice via the web** Town of Minto Website
- **[ ] Public access/notice via Government Offices**
- **[√ ] Public access/notice via a newspaper** Advertisements in Local Newspapers
- **[ ] Public access/notice via Public Request**
- **[ ] Public access/notice via a Public Library**
- **[√ ] Public access/notice via other method** Tax Letter

**Describe your Drinking-Water System**

Palmerston is serviced by a waterworks that consists of: four drilled bedrock wells, two pumphouses, an elevated 2500 m3 steel storage tank and a distribution network of watermains, ranging in diameter from 100 mm to 250 mm. In the event of a prolonged power outage, a portable generator is available to either pumphouse to supply back-up power.

The bedrock wells are equipped with submersible pumps that discharge directly into the William Street pumphouse (Wells #1 and #2) or the Whites Road pumphouse (Well #3 and #4). In the pumphouse, the raw water supply is injected with 12% sodium hypochlorite for disinfection and the chemical PW1680, for iron sequestering. The treated water leaves the pumphouse and enters an underground contact pipe and is discharged into the distribution system after adequate contact time is achieved.

The wells are controlled (start/stop) automatically based on elevated storage tank liquid levels and pressures in the distribution system. Each pumphouse is equipped with alarms for free chlorine low and high residuals (and corresponding lockout of well pumps), low water level and intrusion. Each pumphouse has continuous monitoring analyzers for chlorine with lockouts and alarms.

SCADA provides continuous monitoring to this system.

**List all water treatment chemicals used over this reporting period**

- 12% Sodium Hypochlorite (disinfectant)
- PW1680 (sequestering agent)

**Were any significant expenses incurred to?**

- **[ ]** Install required equipment
- **[√ ]** Repair required equipment
- **[√ ]** Replace required equipment

**Please provide a brief description and a breakdown of monetary expenses incurred**

To continually meet the requirements of O. Reg. 170/03, upgrades, installations and replacement of various system components have been completed. However, maintaining the system includes repair and replacement of individual components as required.

2022 Capital Expenses
- $ 1,620 – Servicing Strategy
- $ 16,510 – to Videolog Well # 2
- $ 7,480 – on Well Exploration for the next well location
- $499,530 – to Replace Watermain on Whites Road

**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 |
|---|---|---|---|---|---|
| May 24, 2022 | Sodium | 23.8 | mg/L | Resample Well #1 | June 1, 2022 |
| May 24, 2022 | Sodium | 25.3 | mg/L | Resample Well #2 | June 1, 2022 |
| May 24, 2022 | Sodium | 21.6 | mg/L | Resample Well #3 | June 1, 2022 |

**Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.**

| | | Number of Samples | Range of Total Coliform Results (min #)-(max #) | Range of E.Coli Or Fecal Results (min #)-(max #) | Number of HPC Samples | Range of HPC Results (min #)-(max #) |
|---|---|---|---|---|---|---|
| **Raw** | Well 1 | 52 | 0 - 0 | 0 - 0 | N/A | N/A |
| | Well 2 | 53 | 0 - 1 | 0 - 0 | N/A | N/A |
| | Well 3 | 52 | 0 - 0 | 0 - 0 | N/A | N/A |
| | Well 4 | 52 | 0 - 0 | 0 - 0 | N/A | N/A |
| **Treated** | Well 1 | 51 | 0 - 0 | 0 - 0 | 51 | < 10 – 20 |
| | Well 2 | 53 | 0 - 0 | 0 - 0 | 53 | < 10 – 50 |
| | Well 3 | 52 | 0 - 0 | 0 - 0 | 52 | < 10 – 10 |
| | Well 4 | 52 | 0 - 0 | 0 - 0 | 52 | < 10 – 1820 |
| **Distribution** | | 208 | 0 – 0 | 0 - 0 | 208 | < 10 - 40 |

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

| | | Number of Samples | Range of Results (min #)-(max #) | Unit of Measure |
|---|---|---|---|---|
| **Turbidity Raw** | Well 1 | 53 | 0.19 – 0.92 | NTU |
| | Well 2 | 56 | 0.14 – 0.94 | NTU |
| | Well 3 | 53 | 0.16 – 0.85 | NTU |
| | Well 4 | 52 | 0.07 – 0.81 | NTU |
| **Chlorine** | Well 1 | 351 | 0.85 – 1.63 | mg/L |
| | Well 2 | 359 | 0.87 – 1.70 | mg/L |
| | Well 3 | 366 | 0.97 – 1.63 | mg/L |
| | Well 4 | 357 | 1.09 – 1.79 | mg/L |
| | Distribution | 562 | 0.71 – 1.52 | mg/L |
| **Fluoride** (If the DWS provides fluoridation) | | | | |

***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, order or other legal instrument.**

| Date of legal instrument issued | Parameter | Date Sampled | Result | Unit of Measure |
|---|---|---|---|---|
| N/A | N/A | N/A | N/A | N/A |
| | | | | |

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

Palmerston Well #1

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| **Antimony** | 24/05/22 | < 0.6 | ug/L | No |
| **Arsenic - (Sch. 23 & 24)** | 24/05/22 | 4.6 | ug/L | No |
| **Barium** | 24/05/22 | 88.9 | ug/L | No |
| **Boron** | 24/05/22 | 43 | ug/L | No |
| **Cadmium** | 24/05/22 | 0.007 | ug/L | No |
| **Chromium** | 24/05/22 | 0.22 | ug/L | No |
| **Manganese** | 03/02/22 | 45.9 | ug/L | No |
| **Mercury** | 24/05/22 | 0.03 | ug/L | No |
| **Selenium** | 24/05/22 | 0.20 | ug/L | No |
| **Sodium – (Every 60 months)** | 24/05/22 | 23.8 MAC | mg/L | Yes |
| **Sodium (Resample)** | 01/06/22 | 23.5 MAC | mg/L | Yes |
| **Uranium** | 24/05/22 | 0.605 | ug/L | No |
| **Fluoride** | 24/05/22 | 0.27 | mg/L | No |
| **Nitrite** | 25/02/22 | < 0.003 | mg/L | No |
| **Nitrite** | 13/05/22 | < 0.003 | mg/L | No |
| **Nitrite** | 25/08/22 | < 0.003 | mg/L | No |
| **Nitrite** | 25/11/22 | < 0.003 | mg/L | No |
| **Nitrate** | 25/02/22 | 0.316 | mg/L | No |
| **Nitrate** | 13/05/22 | 0.321 | mg/L | No |
| **Nitrate** | 25/08/22 | 0.321 | mg/L | No |
| **Nitrate** | 25/11/22 | 0.327 | mg/L | No |

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Palmerston Well #2

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| **Antimony** | 24/05/22 | < 0.6 | ug/L | No |
| **Arsenic - (Sch. 23 & 24)** | 24/05/22 | 3.9 | ug/L | No |
| **Barium** | 24/05/22 | 95.8 | ug/L | No |
| **Boron** | 24/05/22 | 45 | ug/L | No |
| **Cadmium** | 24/05/22 | 0.015 | ug/L | No |
| **Chromium** | 24/05/22 | 0.27 | ug/L | No |
| **Manganese** | 03/02/22 | 49.4 | ug/L | No |
| **Mercury** | 24/05/22 | 0.08 | ug/L | No |
| **Selenium** | 24/05/22 | 0.22 | ug/L | No |

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| **Sodium – (Every 60 months)** | 24/05/22 | 25.3 MAC | mg/L | Yes |
| **Sodium (Resample)** | 01/06/22 | 24.5 MAC | mg/L | Yes |
| **Uranium** | 24/05/22 | 0.707 | ug/L | No |
| **Fluoride** | 24/05/22 | 0.26 | mg/L | No |
| **Nitrite** | 25/02/22 | < 0.003 | mg/L | No |
| **Nitrite** | 13/05/22 | < 0.003 | mg/L | No |
| **Nitrite** | 25/08/22 | < 0.003 | mg/L | No |
| **Nitrite** | 25/11/22 | < 0.003 | mg/L | No |
| **Nitrate** | 25/02/22 | 0.544 | mg/L | No |
| **Nitrate** | 13/05/22 | 0.407 | mg/L | No |
| **Nitrate** | 25/08/22 | 0.375 | mg/L | No |
| **Nitrate** | 25/11/22 | 0.385 | mg/L | No |

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Palmerston Well #3

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| **Antimony** | 24/05/22 | < 0.6 | ug/L | No |
| **Arsenic - (Sch. 23 & 24)** | 24/05/22 | 1.5 | ug/L | No |
| **Barium** | 24/05/22 | 101 | ug/L | No |
| **Boron** | 24/05/22 | 21 | ug/L | No |
| **Cadmium** | 24/05/22 | < 0.003 | ug/L | No |
| **Chromium** | 24/05/22 | 0.17 | ug/L | No |
| **Manganese** | 03/02/22 | 48.3 | ug/L | No |
| **Mercury** | 24/05/22 | 0.06 | ug/L | No |
| **Selenium** | 24/05/22 | 0.44 | ug/L | No |
| **Sodium – (Every 60 months)** | 24/05/22 | 21.6 MAC | mg/L | Yes |
| **Sodium (Resample)** | 01/06/22 | 19.9 | mg/L | No |
| **Uranium** | 24/05/22 | 0.818 | ug/L | No |
| **Fluoride** | 24/05/22 | 0.24 | mg/L | No |
| **Nitrite** | 25/02/22 | < 0.003 | mg/L | No |
| **Nitrite** | 13/05/22 | < 0.003 | mg/L | No |
| **Nitrite** | 25/08/22 | < 0.003 | mg/L | No |
| **Nitrite** | 25/11/22 | < 0.003 | mg/L | No |
| **Nitrate** | 25/02/22 | 0.272 | mg/L | No |
| **Nitrate** | 13/05/22 | 0.277 | mg/L | No |
| **Nitrate** | 25/08/22 | 0.271 | mg/L | No |
| **Nitrate** | 25/11/22 | 0.270 | mg/L | No |

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Palmerston Well #4

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| **Antimony** | 24/05/22 | < 0.6 | ug/L | No |
| **Arsenic - (Sch. 23 & 24)** | 24/05/22 | 0.8 | ug/L | No |
| **Barium** | 24/05/22 | 89.2 | ug/L | No |
| **Boron** | 24/05/22 | 23 | ug/L | No |
| **Cadmium** | 24/05/22 | < 0.003 | ug/L | No |
| **Chromium** | 24/05/22 | 0.25 | ug/L | No |
| **Manganese** | 03/02/22 | 48.3 | ug/L | No |
| **Mercury** | 24/05/22 | <0.01 | ug/L | No |
| **Selenium** | 24/05/22 | 0.25 | ug/L | No |
| **Sodium – (Every 60 months)** | 24/05/22 | 17.6 | mg/L | No |
| **Uranium** | 24/05/22 | 0.735 | ug/L | No |
| **Fluoride** | 24/05/22 | 0.27 | mg/L | No |
| **Nitrite** | 25/02/22 | < 0.003 | mg/L | No |
| **Nitrite** | 13/05/22 | < 0.003 | mg/L | No |
| **Nitrite** | 25/08/22 | < 0.003 | mg/L | No |
| **Nitrite** | 25/11/22 | < 0.003 | mg/L | No |
| **Nitrate** | 25/02/22 | 0.230 | mg/L | No |
| **Nitrate** | 13/05/22 | 0.233 | mg/L | No |
| **Nitrate** | 25/08/22 | 0.226 | mg/L | No |
| **Nitrate** | 25/11/22 | 0.230 | mg/L | No |

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

## 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 | Date | Number of Samples | Range of Lead Results (min#) – (max #) | Unit of Measure | Limit |
|---|---|---|---|---|---|
| **Plumbing** | Dec. 2013 – Apr. 2014 | 22 | < 1.0 – < 1.0 | ug/L | 10 |
| **Distribution** | Winter Dec. 15/19 – Apr. 15/20 | 2 | 0.19 – 0.68 | ug/L | 10 |
| **Distribution** | Summer Jun. 15/20 – Oct. 15/20 | 2 | 0.10 – 0.12 | ug/L | 10 |

No adverse results were identified.

Reduced Sampling

Town of Minto is now exempt from plumbing sampling for lead due to less than 10% of plumbing results exceeded 10 ug/L.

Distribution sampling is still required every “winter” and “summer” period.

- each year for pH and alkalinity
- once every 3 years for lead

| | Sample Date | Number of Samples | Range of Results (min) – (max) | Unit of Measure | Limit |
|---|---|---|---|---|---|
| Winter Alkalinity | 03/02/22 | 2 | 286 - 289 | mg/L | 30-500 |
| Winter pH | 03/02/22 | 2 | 7.07 - 7.19 | | |
| Summer Alkalinity | 29/07/22 | 2 | 273 - 278 | mg/L | 30-500 |
| Summer pH | 29/07/22 | 2 | 7.10 - 7.13 | | |

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

Palmerston Well #1

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| **Alachlor** | 24/05/22 | < 0.02 | ug/L | No |
| **Atrazine** | 24/05/22 | < 0.01 | ug/L | No |
| **Desethyl Atrazine** | 24/05/22 | < 0.01 | ug/L | No |
| **Atrazine + N-dealkylated metabolites** | 24/05/22 | < 0.01 | ug/L | No |
| **Azinphos-methyl** | 24/05/22 | < 0.05 | ug/L | No |
| **Benzene** | 24/05/22 | < 0.32 | ug/L | No |
| **Benzo(a)pyrene** | 24/05/22 | < 0.004 | ug/L | No |
| **Bromoxynil** | 24/05/22 | < 0.33 | ug/L | No |
| **Carbaryl** | 24/05/22 | < 0.05 | ug/L | No |
| **Carbofuran** | 24/05/22 | < 0.01 | ug/L | No |
| **Carbon Tetrachloride** | 24/05/22 | < 0.17 | ug/L | No |
| **Chlorpyrifos** | 24/05/22 | < 0.02 | ug/L | No |
| **Diazinon** | 24/05/22 | < 0.02 | ug/L | No |
| **Dicamba** | 24/05/22 | < 0.2 | ug/L | No |
| **1,2-Dichlorobenzene** | 24/05/22 | < 0.41 | ug/L | No |
| **1,4-Dichlorobenzene** | 24/05/22 | < 0.36 | ug/L | No |
| **1,2-Dichloroethane** | 24/05/22 | < 0.35 | ug/L | No |
| **1,1-Dichloroethylene (vinylidene chloride)** | 24/05/22 | < 0.33 | ug/L | No |
| **Dichloromethane** | 24/05/22 | < 0.35 | ug/L | No |
| **2-4 Dichlorophenol** | 24/05/22 | < 0.15 | ug/L | No |
| **2,4-Dichlorophenoxy acetic acid (2,4-D)** | 24/05/22 | < 0.19 | ug/L | No |
| **Diclofop-methyl** | 24/05/22 | < 0.4 | ug/L | No |
| **Dimethoate** | 24/05/22 | < 0.06 | ug/L | No |
| **Diquat** | 24/05/22 | < 1.0 | ug/L | No |
| **Diuron** | 24/05/22 | < 0.03 | ug/L | No |
| **Glyphosate** | 24/05/22 | < 1.0 | ug/L | No |
| **Malathion** | 24/05/22 | < 0.02 | ug/L | No |
| **MCPA** | 24/05/22 | < 0.00012 | mg/L | No |
| **Metolachlor** | 24/05/22 | < 0.01 | ug/L | No |
| **Metribuzin** | 24/05/22 | < 0.02 | ug/L | No |
| **Monochlorobenzene** | 24/05/22 | < 0.3 | ug/L | No |
| **Paraquat** | 24/05/22 | < 1.0 | ug/L | No |
| **Pentachlorophenol** | 24/05/22 | < 0.15 | ug/L | No |
| **Phorate** | 24/05/22 | < 0.01 | ug/L | No |
| **Picloram** | 24/05/22 | < 1.0 | ug/L | No |
| **Polychlorinated Biphenyls (PCBs) - Total** | 24/05/22 | < 0.04 | ug/L | No |
| **Prometryne** | 24/05/22 | < 0.03 | ug/L | No |
| **Simazine** | 24/05/22 | < 0.01 | ug/L | No |
| **Terbufos** | 24/05/22 | < 0.01 | ug/L | No |
| **Tetrachloroethylene (perchloroethylene)** | 24/05/22 | < 0.35 | ug/L | No |
| **2,3,4,6-Tetrachlorophenol** | 24/05/22 | < 0.20 | ug/L | No |
| **Triallate** | 24/05/22 | < 0.01 | ug/L | No |
| **Trichloroethylene** | 24/05/22 | < 0.44 | ug/L | No |
| **2,4,6-Trichlorophenol** | 24/05/22 | < 0.25 | ug/L | No |
| **Trifluralin** | 24/05/22 | < 0.02 | ug/L | No |

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| Vinyl Cloride | 24/05/22 | < 0.17 | ug/L | No |

Palmerston Well #2

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| Alachlor | 24/05/22 | < 0.02 | ug/L | No |
| Atrazine | 24/05/22 | < 0.01 | ug/L | No |
| Desethyl Atrazine | 24/05/22 | < 0.01 | ug/L | No |
| Atrazine + N-dealkylated metabolites | 24/05/22 | < 0.01 | ug/L | No |
| Azinphos-methyl | 24/05/22 | < 0.05 | ug/L | No |
| Benzene | 24/05/22 | < 0.32 | ug/L | No |
| Benzo(a)pyrene | 24/05/22 | < 0.004 | ug/L | No |
| Bromoxynil | 24/05/22 | < 0.33 | ug/L | No |
| Carbaryl | 24/05/22 | < 0.05 | ug/L | No |
| Carbofuran | 24/05/22 | < 0.01 | ug/L | No |
| Carbon Tetrachloride | 24/05/22 | < 0.17 | ug/L | No |
| Chlorpyrifos | 24/05/22 | < 0.02 | ug/L | No |
| Diazinon | 24/05/22 | < 0.02 | ug/L | No |
| Dicamba | 24/05/22 | < 0.2 | ug/L | No |
| 1,2-Dichlorobenzene | 24/05/22 | < 0.41 | ug/L | No |
| 1,4-Dichlorobenzene | 24/05/22 | < 0.36 | ug/L | No |
| 1,2-Dichloroethane | 24/05/22 | < 0.35 | ug/L | No |
| 1,1-Dichloroethylene (vinylidene chloride) | 24/05/22 | < 0.33 | ug/L | No |
| Dichloromethane | 24/05/22 | < 0.35 | ug/L | No |
| 2-4 Dichlorophenol | 24/05/22 | < 0.15 | ug/L | No |
| 2,4-Dichlorophenoxy acetic acid (2,4-D) | 24/05/22 | < 0.19 | ug/L | No |
| Diclofop-methyl | 24/05/22 | < 0.4 | ug/L | No |
| Dimethoate | 24/05/22 | < 0.06 | ug/L | No |
| Diquat | 24/05/22 | < 1.0 | ug/L | No |
| Diuron | 24/05/22 | < 0.03 | ug/L | No |
| Glyphosate | 24/05/22 | < 1.0 | ug/L | No |
| Malathion | 24/05/22 | < 0.02 | ug/L | No |
| MCPA | 24/05/22 | < 0.00012 | mg/L | No |
| Metolachlor | 24/05/22 | < 0.01 | ug/L | No |
| Metribuzin | 24/05/22 | < 0.02 | ug/L | No |
| Monochlorobenzene | 24/05/22 | < 0.3 | ug/L | No |
| Paraquat | 24/05/22 | < 1.0 | ug/L | No |
| Pentachlorophenol | 24/05/22 | < 0.15 | ug/L | No |
| Phorate | 24/05/22 | < 0.01 | ug/L | No |
| Picloram | 24/05/22 | < 1.0 | ug/L | No |
| Polychlorinated Biphenyls (PCBs) - Total | 24/05/22 | < 0.04 | ug/L | No |
| Prometryne | 24/05/22 | < 0.03 | ug/L | No |
| Simazine | 24/05/22 | < 0.01 | ug/L | No |
| Terbufos | 24/05/22 | < 0.01 | ug/L | No |
| Tetrachloroethylene (perchloroethylene) | 24/05/22 | < 0.35 | ug/L | No |
| 2,3,4,6-Tetrachlorophenol | 24/05/22 | < 0.20 | ug/L | No |
| Triallate | 24/05/22 | < 0.01 | ug/L | No |
| Trichloroethylene | 24/05/22 | < 0.44 | ug/L | No |
| 2,4,6-Trichlorophenol | 24/05/22 | < 0.25 | ug/L | No |
| Trifluralin | 24/05/22 | < 0.02 | ug/L | No |

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| Vinyl Cloride | 24/05/22 | < 0.17 | ug/L | No |

Palmerston Well #3

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| Alachlor | 24/05/22 | < 0.02 | ug/L | No |
| Atrazine | 24/05/22 | < 0.01 | ug/L | No |
| Desethyl Atrazine | 24/05/22 | < 0.01 | ug/L | No |
| Atrazine + N-dealkylated metabolites | 24/05/22 | < 0.01 | ug/L | No |
| Azinphos-methyl | 24/05/22 | < 0.05 | ug/L | No |
| Benzene | 24/05/22 | < 0.32 | ug/L | No |
| Benzo(a)pyrene | 24/05/22 | < 0.004 | ug/L | No |
| Bromoxynil | 24/05/22 | < 0.33 | ug/L | No |
| Carbaryl | 24/05/22 | < 0.05 | ug/L | No |
| Carbofuran | 24/05/22 | < 0.01 | ug/L | No |
| Carbon Tetrachloride | 24/05/22 | < 0.17 | ug/L | No |
| Chlorpyrifos | 24/05/22 | < 0.02 | ug/L | No |
| Diazinon | 24/05/22 | < 0.02 | ug/L | No |
| Dicamba | 24/05/22 | < 0.2 | ug/L | No |
| 1,2-Dichlorobenzene | 24/05/22 | < 0.41 | ug/L | No |
| 1,4-Dichlorobenzene | 24/05/22 | < 0.36 | ug/L | No |
| 1,2-Dichloroethane | 24/05/22 | < 0.35 | ug/L | No |
| 1,1-Dichloroethylene (vinylidene chloride) | 24/05/22 | < 0.33 | ug/L | No |
| Dichloromethane | 24/05/22 | < 0.35 | ug/L | No |
| 2-4 Dichlorophenol | 24/05/22 | < 0.15 | ug/L | No |
| 2,4-Dichlorophenoxy acetic acid (2,4-D) | 24/05/22 | < 0.19 | ug/L | No |
| Diclofop-methyl | 24/05/22 | < 0.4 | ug/L | No |
| Dimethoate | 24/05/22 | < 0.06 | ug/L | No |
| Diquat | 24/05/22 | < 1.0 | ug/L | No |
| Diuron | 24/05/22 | < 0.03 | ug/L | No |
| Glyphosate | 24/05/22 | < 1.0 | ug/L | No |
| Malathion | 24/05/22 | < 0.02 | ug/L | No |
| MCPA | 24/05/22 | < 0.00012 | mg/L | No |
| Metolachlor | 24/05/22 | < 0.01 | ug/L | No |
| Metribuzin | 24/05/22 | < 0.02 | ug/L | No |
| Monochlorobenzene | 24/05/22 | < 0.3 | ug/L | No |
| Paraquat | 24/05/22 | < 1.0 | ug/L | No |
| Pentachlorophenol | 24/05/22 | < 0.15 | ug/L | No |
| Phorate | 24/05/22 | < 0.01 | ug/L | No |
| Picloram | 24/05/22 | < 1.0 | ug/L | No |
| Polychlorinated Biphenyls (PCB) - Total | 24/05/22 | < 0.04 | ug/L | No |
| Prometryne | 24/05/22 | < 0.03 | ug/L | No |
| Simazine | 24/05/22 | < 0.01 | ug/L | No |
| Terbufos | 24/05/22 | < 0.01 | ug/L | No |
| Tetrachloroethylene (perchloroethylene) | 24/05/22 | < 0.35 | ug/L | No |
| 2,3,4,6-Tetrachlorophenol | 24/05/22 | < 0.20 | ug/L | No |
| Triallate | 24/05/22 | < 0.01 | ug/L | No |
| Trichloroethylene | 24/05/22 | < 0.44 | ug/L | No |
| 2,4,6-Trichlorophenol | 24/05/22 | < 0.25 | ug/L | No |
| Trifluralin | 24/05/22 | < 0.02 | ug/L | No |

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| Vinyl Cloride | 24/05/22 | < 0.17 | ug/L | No |

Palmerston Well #4

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| Alachlor | 24/05/22 | < 0.02 | ug/L | No |
| Atrazine | 24/05/22 | < 0.01 | ug/L | No |
| Desethyl Atrazine | 24/05/22 | < 0.01 | ug/L | No |
| Atrazine + N-dealkylated metabolites | 24/05/22 | < 0.01 | ug/L | No |
| Azinphos-methyl | 24/05/22 | < 0.05 | ug/L | No |
| Benzene | 24/05/22 | < 0.32 | ug/L | No |
| Benzo(a)pyrene | 24/05/22 | < 0.004 | ug/L | No |
| Bromoxynil | 24/05/22 | < 0.33 | ug/L | No |
| Carbaryl | 24/05/22 | < 0.05 | ug/L | No |
| Carbofuran | 24/05/22 | < 0.01 | ug/L | No |
| Carbon Tetrachloride | 24/05/22 | < 0.17 | ug/L | No |
| Chlorpyrifos | 24/05/22 | < 0.02 | ug/L | No |
| Diazinon | 24/05/22 | < 0.02 | ug/L | No |
| Dicamba | 24/05/22 | < 0.2 | ug/L | No |
| 1,2-Dichlorobenzene | 24/05/22 | < 0.41 | ug/L | No |
| 1,4-Dichlorobenzene | 24/05/22 | < 0.36 | ug/L | No |
| 1,2-Dichloroethane | 24/05/22 | < 0.35 | ug/L | No |
| 1,1-Dichloroethylene (vinylidene chloride) | 24/05/22 | < 0.33 | ug/L | No |
| Dichloromethane | 24/05/22 | < 0.35 | ug/L | No |
| 2-4 Dichlorophenol | 24/05/22 | < 0.15 | ug/L | No |
| 2,4-Dichlorophenoxy acetic acid (2,4-D) | 24/05/22 | < 0.19 | ug/L | No |
| Diclofop-methyl | 24/05/22 | < 0.4 | ug/L | No |
| Dimethoate | 24/05/22 | < 0.06 | ug/L | No |
| Diquat | 24/05/22 | < 1.0 | ug/L | No |
| Diuron | 24/05/22 | < 0.03 | ug/L | No |
| Glyphosate | 24/05/22 | < 1.0 | ug/L | No |
| Malathion | 24/05/22 | < 0.02 | ug/L | No |
| MCPA | 24/05/22 | < 0.00012 | mg/L | No |
| Metolachlor | 24/05/22 | < 0.01 | ug/L | No |
| Metribuzin | 24/05/22 | < 0.02 | ug/L | No |
| Monochlorobenzene | 24/05/22 | < 0.3 | ug/L | No |
| Paraquat | 24/05/22 | < 1.0 | ug/L | No |
| Pentachlorophenol | 24/05/22 | < 0.15 | ug/L | No |
| Phorate | 24/05/22 | < 0.01 | ug/L | No |
| Picloram | 24/05/22 | < 1.0 | ug/L | No |
| Polychlorinated Biphenyls (PCB) - Total | 24/05/22 | < 0.04 | ug/L | No |
| Prometryne | 24/05/22 | < 0.03 | ug/L | No |
| Simazine | 24/05/22 | < 0.01 | ug/L | No |
| Terbufos | 24/05/22 | < 0.01 | ug/L | No |
| Tetrachloroethylene (perchloroethylene) | 24/05/22 | < 0.35 | ug/L | No |
| 2,3,4,6-Tetrachlorophenol | 24/05/22 | < 0.20 | ug/L | No |
| Triallate | 24/05/22 | < 0.01 | ug/L | No |
| Trichloroethylene | 24/05/22 | < 0.44 | ug/L | No |
| 2,4,6-Trichlorophenol | 24/05/22 | < 0.25 | ug/L | No |
| Trifluralin | 24/05/22 | < 0.02 | ug/L | No |

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| Vinyl Cloride | 24/05/22 | < 0.17 | ug/L | No |

Palmerston Distribution System

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

| Parameter | Sample Date | Result Value RAA | Unit of Measure | ODWS Criteria |
|---|---|---|---|---|
| THM (NOTE: latest quarterly average shown) | 25/02/22 | 11.63 | ug/L | 100 |
| | 13/05/22 | 12.68 | | |
| | 25/08/22 | 10.60 | | |
| | 25/11/22 | 11.43 | | |

| Parameter | Sample Date | Result Value RAA | Unit of Measure | ODWS Criteria |
|---|---|---|---|---|
| HAA (NOTE: latest quarterly average shown) | 25/02/22 | < 5.3 | ug/L | 80 |
| | 13/05/22 | < 5.3 | | |
| | 25/08/22 | < 5.3 | | |
| | 25/11/22 | < 5.3 | | |

**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 | Date of Sample |
|---|---|---|---|
| | | | |