**Drinking Water Quality and Compliance**

**Village of Paynton**

**Station No. SK05EG0028**

**2022 Notice January to December**

This report was completed on February 1, 2023. Readers should refer to Water Security Agency’s “Municipal Drinking Water Quality Monitoring Guidelines, June 2015, EFB 502” for more information on minimum sample 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 the nature and significance of specific water tests, for example, “what is the significance of selenium in a water supply”, more detailed information is available from: <http://www.hc-sc-gc.ca/ewh-semt/pubs/water-eau/index_e.html> .

***BACTERIOLGICAL QUALITY***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **Limit** | **Reg. Samples Required** | **Reg. Samples Submitted** | **# Positive of Reg. Submitted** |
| Total Coliform | 0 Organisms/100ml | 26/year | 56 | 0 |
| E. Coli | 0 Organisms/100ml | 26/year | 56 | 0 |
| Background Bacteria | Less than 200/100ml | 26/year | 56 | 0 |

***WATER DISINFECTION***

**Chlorine Residual in Distribution System- From Test Results Submitted with Bacteriological Samples**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **Minimum Limit**  **(either/or)** | **Range**  **(mg/L)** | **Mean** | **# Tests Required** | **# Tests Submitted** | **# Inadequate Chlorine** |
| Free Chlorine | 0.1mg/L | 0.03-0.60 | 0.1325 | 26/year | 56 | **9** |
| Total Chlorine | 0.5 mg/L | 1.44-8.40 | 4.247 | 26/year | 56 | **0** |

**Chlorine Residual in Distribution System- From Water Treatment Plant Records**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **Minimum Limit (either/or)** | **Range**  **(mg/L)** | **Mean** | **# Tests Required** | **# Tests Performed** | **# Inadequate Chlorine** |
| **Free Chlorine** | **0.1 mg/L** | **0.03-0.52** | **0.13** | **365/year** | **>365** | **67** |
| **Total Chlorine** | **0.5 mg/L** | **1.74-9.90** | **4.63** | **365/year** | **>365** | **0** |

***TURBIDITY***

**Turbidity in Distribution System- From Test Results Submitted with Bacteriological Samples**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **Limit (NTU)** | **Range (NTU)** | **Mean** | **# Tests Required** | **# Tests Submitted** | **# Exceeding Limit** |
| Turbidity | 1.0 NTU-95% of time | 0.09-0.39 | 0.24 | 26/year | 42 | 0 |

**Turbidity in Distribution System- From Water Treatment Plant Records**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **Limit (NTU)** | **Range (NTU)** | **Mean** | **# Tests Required** | **# Tests Performed** | **# Exceeding Limit** |
| Turbidity | 1.0 NTU-95% of time | 0.18-2.25 | 0.27 | 365/year | >365 | **5** |

***CHEMICAL – GENERAL***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **\*Aesthetic Objectives (mg/L)** | **\*Sample Results (average)** | **#Samples Required** | **#Samples Submitted** |
| Total Alkalinity | <500 | 545 | 1 | 1 |
| Bicarbonate | No Objective | 651 | 1 | 1 |
| Calcium | No objective | 40 | 1 | 1 |
| Carbonate | No objective | 7 | 1 | 1 |
| Chloride | <250 | 15.3 | 1 | 1 |
| Fluoride | <1.5 | 0.08 | 1 | 1 |
| Total Hardness | <800 | 153 | 1 | 1 |
| Hydroxide | No Objective | 0 | 1 | 1 |
| Magnesium | <200 | <0.01 | 1 | 1 |
| Nitrate | <45 | <0.2 | 1 | 1 |
| pH | 6.5-9.0 | 8.1 | 1 | 1 |
| Potassium | No Objective | 11 | 1 | 1 |
| Sodium | <300 | 361 | 1 | 1 |
| Sulfate | <500 | 364.3 | 1 | 1 |
| Specific Conductivity | <2300 | 1739 | 1 | 1 |
| TDS (Total Dissolved Solids) | <1500 | 1463 | 1 | 1 |

**\***Aesthetic Objectives- objectives apply to certain characteristics of our substances found in water for human consumptive or hygienic use. The presence of these substances will affect the acceptance of water by consumers and/or interfere with the practice of supplying good quality water. Compliance with the drinking water aesthetic objectives in not mandatory as these objectives are in the range where they do not constitute a health hazard. The objectives for several parameters (including hardness as CACO3, magnesium, sodium, and TDS) consider regional differences in drinking water sources and quality.

\* Sample results- the samples were sent on December 20, 2021

***CHEMICAL HEALTH***

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Sask Guide** | **Unit** | **December 20,2021 Sample Results**  **(mg/L)** |
| **Aluminum** | **None** | **ug/L** | **0.0005** |
| **Arsenic** | **<10** | **ug/L** | **<0.1** |
| **Barium** | **<1000** | **ug/L** | **0.0076** |
| **Boron** | **<5.0** | **mg/L** | **0.65** |
| **Bromate** | **0.01** | **mg/L** | **Not listed** |
| **Cadmium** | **<5** | **ug/L** | **<0.00001** |
| **Chlorate** | **1.0** | **mg/L** | **Not listed** |
| **Chromium** | **<50** | **ug/L** | **<0.0005** |
| **Copper** | **<1000** | **ug/L** | **0.0042** |
| **Halo acetic Acid** | **0.080** | **mg/L** | **Not listed** |
| **Iron** | **<0.3** | **mg/L** | **0.29** |
| **Lead** | **<10** | **ug/L** | **0.0001** |
| **Manganese** | **<0.5** | **mg/l** | **0.011** |
| **Selenium** | **<10** | **ug/L** | **<0.0001** |
| **Uranium** | **<20** | **ug/L** | **<0.1** |
| **Zinc** | **<5000** | **ug/L** | **0.0026** |

**MAC- Maximum Acceptable Concentrations**

**IMAC- Interim Maximum Acceptable Concentrations**

**“<” not detected at level stated above**