

## Westerne Heights #1 Raw Well Water Analysis 1260 Westerne Heights Road

CDWG=Canadian Drinking Water Guidelines  
OG= Operational Guidance Value

MAC=Maximum Acceptable Concentration  
AO= Aesthetic Objective

Green font indicates a value flagged for operational considerations.

Orange font indicates non-compliance with the Aesthetic Objective in the Canadian Drinking Water Guidelines (CDWG)

Red font indicates non-compliance with the Maximum Acceptable Concentration (MAC) in the CDWG

|                                          | Units       | CDWG         |           | October 25<br>2018 | October 3<br>2019 | October 21<br>2020 | October 21<br>2021 | October 13<br>2022 | October 12<br>2023 | October 10<br>2024 | November 6<br>2025 |
|------------------------------------------|-------------|--------------|-----------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>Miscellaneous Inorganics</b>          |             |              |           |                    |                   |                    |                    |                    |                    |                    |                    |
| Fluoride                                 | mg/L        | 1.5          | MAC       | 0.026              | <0.05             | <0.05              | <0.05              | <0.05              | <0.05              | <0.05              | <0.05              |
| Alkalinity (total as CaCO <sub>3</sub> ) | mg/L        |              |           | 45.1               | 47                | 40                 | 50                 | 41                 | 45                 | 45                 | 43                 |
| <b>Anions</b>                            |             |              |           |                    |                   |                    |                    |                    |                    |                    |                    |
| Dissolved Sulphate                       | mg/L        | 500          | AO        | 2.3                | 1.4               | 2.9                | 2.3                | 2.1                | 1.9                | 1.6                | 1.8                |
| Dissolved Chloride                       | mg/L        | 250          | AO        | 1.6                | 1.5               | 1.6                | 1.2                | <1                 | 1.6                | 1.1                | <1                 |
| Nitrite                                  | mg/L        | 1            | MAC       | <0.0050            | <0.005            | <0.0005            | <0.0005            | <0.005             | >0.005             | <0.005             | <0.0050            |
| <b>Miscellaneous</b>                     |             |              |           |                    |                   |                    |                    |                    |                    |                    |                    |
| Apparent Colour                          | Colour Unit |              |           | 5                  | 5                 | 5                  | <5                 | <5                 | <5                 | 3.9                | 3.2                |
| <b>Nutrients</b>                         |             |              |           |                    |                   |                    |                    |                    |                    |                    |                    |
| Total Ammonia                            | mg/L        |              |           | 0.02               | 0.07              | 0.027              | 0.017              | 0.018              | 0.017              | <0.015             | 0.023              |
| <b>Physical Properties</b>               |             |              |           |                    |                   |                    |                    |                    |                    |                    |                    |
| Conductivity                             | µS/cm       |              |           | 95.4               | 95                | 91                 | 90                 | 93                 | 97                 | 98                 | 98                 |
| pH                                       | pH          | 7.0-10.5     | OG        | 7.78               | 7.61              | 7.04               | 6.76               | 7.2                | 7.17               | 6.76               | 7.38               |
| TDS                                      | mg/L        | 500          | AO        | 60                 | 50                | 74                 | 82                 | 58                 | 64                 | 78                 | 52                 |
| Turbidity                                | NTU         |              |           | 0.34               | 0.25              | 0.44               | 0.28               | 0.37               | 0.7                | 0.3                | 0.22               |
| <b>Microbiological Parameters</b>        |             |              |           |                    |                   |                    |                    |                    |                    |                    |                    |
| E.coli                                   | MPN/100mL   | <1           | MAC       | <1.0               | <1.0              | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  |
| Total Coliforms                          | MPN/100mL   | <1           | MAC       | <1.0               | <1.0              | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  |
| <b>Calculated Parameters</b>             |             |              |           |                    |                   |                    |                    |                    |                    |                    |                    |
| Total Hardness (CaCO <sub>3</sub> )      | mg/L        |              |           | 43.3               | 41.4              | 41.2               | 39.5               | 40.6               | 43.8               | 40.4               | 41.2               |
| Nitrate                                  | mg/L        | 10           | MAC       | 0.117              | 0.12              | 0.117              | 0.138              | 0.134              | 0.13               | 0.14               | 0.131              |
| <b>Elements</b>                          |             |              |           |                    |                   |                    |                    |                    |                    |                    |                    |
| Total Mercury                            | mg/L        | 0.001        | MAC       | 0.0000083          | <0.000002         | <0.0000019         | <0.0000019         | <0.0000019         | <0.0000019         | <0.0000019         | <0.0000019         |
| <b>Total Metals</b>                      |             |              |           |                    |                   |                    |                    |                    |                    |                    |                    |
| Total Aluminum                           | mg/L        | 0.1          | OG        | <0.003             | <0.003            | <0.003             | <0.003             | <0.003             | >0.003             | <0.003             | 0.003              |
| Total Antimony                           | mg/L        | 0.006        | MAC       | <0.0005            | <0.0005           | <0.0005            | <0.0005            | <0.0005            | <0.0005            | <0.0005            | <0.0005            |
| Total Arsenic                            | mg/L        | 0.01         | MAC       | 0.00011            | <0.001            | <0.0001            | <0.0001            | 0.0001             | 0.00012            | <0.0001            | <0.0001            |
| Total Barium                             | mg/L        | 1            | MAC       | 0.0014             | 0.0015            | 0.0015             | 0.0015             | 0.0014             | 0.0014             | 0.0012             | 0.0014             |
| Total Beryllium                          | mg/L        |              |           | <0.0001            | <0.0001           | <0.0001            | <0.0001            | <0.0001            | <0.0001            | <0.0001            | <0.0001            |
| Total Bismuth                            | mg/L        |              |           | <0.001             | <0.001            | <0.001             | <0.001             | <0.001             | <0.001             | <0.001             | <0.001             |
| Total Boron                              | mg/L        | 5            | MAC       | <0.050             | <0.05             | <0.05              | <0.05              | <0.05              | <0.05              | <0.05              | <0.05              |
| Total Cadmium                            | mg/L        | 0.005        | MAC       | <0.00001           | <0.00001          | <0.00001           | <0.00001           | <0.00001           | <0.00001           | <0.00001           | <0.00001           |
| Total Chromium                           | mg/L        | 0.05         | MAC       | <0.001             | <0.001            | <0.001             | <0.001             | <0.001             | <0.001             | <0.001             | <0.001             |
| Total Cobalt                             | mg/L        |              |           | <0.0002            | <0.002            | <0.0002            | <0.0002            | <0.0002            | <0.0002            | <0.0002            | <0.0002            |
| Total Copper                             | mg/L        | 1            | AO        | 0.00418            | 0.00249           | 0.00168            | 0.00359            | 0.00105            | 0.00184            | 0.00367            | 0.00403            |
| Total Iron                               | mg/L        | 0.1          | AO        | 0.142              | 0.121             | 0.152              | 0.172              | 0.135              | 0.204              | 0.0784             | 0.128              |
| Total Lead                               | mg/L        | 0.01         | MAC       | 0.00032            | 0.00076           | 0.00063            | 0.00032            | <0.0002            | 0.00044            | <0.0002            | 0.00021            |
| Total Manganese                          | mg/L        | 0.02<br>0.12 | AO<br>MAC | 0.003              | 0.0031            | 0.0033             | 0.0034             | 0.0028             | 0.0027             | 0.0029             | 0.0033             |
| Total Molybdenum                         | mg/L        |              |           | <0.001             | <0.001            | <0.001             | <0.001             | <0.001             | <0.001             | <0.001             | <0.001             |
| Total Nickel                             | mg/L        |              |           | <0.001             | <0.001            | <0.001             | <0.001             | <0.001             | <0.001             | <0.001             | <0.001             |
| Total Selenium                           | mg/L        | 0.05         | MAC       | <0.0001            | <0.0001           | <0.0001            | <0.0001            | <0.0001            | <0.0001            | <0.0001            | <0.0001            |
| Total Silicon                            | mg/L        |              |           | 7.17               | 7.09              | 7.46               | 7.48               | 7.86               | 7.78               | 7.27               | 7.37               |
| Total Silver                             | mg/L        |              |           | <0.00002           | <0.00002          | <0.00002           | <0.00002           | <0.00002           | <0.00002           | <0.00002           | <0.00002           |
| Total Strontium                          | mg/L        |              |           | 0.0281             | 0.0273            | 0.0262             | 0.0245             | 0.0242             | 0.0273             | 0.0246             | 0.0259             |
| Total Thallium                           | mg/L        |              |           | <0.00001           | <0.00001          | <0.00001           | <0.00001           | <0.00001           | <0.00001           | <0.00001           | <0.00001           |
| Total Tin                                | mg/L        |              |           | <0.005             | <0.005            | <0.005             | <0.005             | <0.005             | <0.005             | <0.005             | <0.005             |
| Total Titanium                           | mg/L        |              |           | <0.005             | <0.005            | <0.005             | <0.005             | <0.005             | <0.005             | <0.005             | <0.005             |
| Total Uranium                            | mg/L        | 0.02         | MAC       | <0.0001            | <0.0001           | <0.0001            | <0.0001            | <0.0001            | <0.0001            | <0.0001            | <0.0001            |
| Total Vanadium                           | mg/L        |              |           | <0.005             | <0.005            | <0.005             | <0.005             | <0.005             | <0.005             | <0.005             | <0.005             |
| Total Zinc                               | mg/L        | 5            | AO        | <0.005             | <0.005            | <0.005             | 0.0051             | <0.005             | <0.005             | <0.005             | <0.005             |
| Total Zirconium                          | mg/L        |              |           | <0.0001            | <0.0001           | <0.0001            | <0.0001            | <0.0001            | <0.0001            | <0.0001            | <0.0001            |
| Total Calcium                            | mg/L        |              |           | 12                 | 11.3              | 11.2               | 10.9               | 11.2               | 12.1               | 11.2               | 11.4               |
| Total Magnesium                          | mg/L        |              |           | 3.27               | 3.2               | 3.21               | 2.94               | 3.09               | 3.29               | 3                  | 3.08               |
| Total Potassium                          | mg/L        |              |           | 0.179              | 0.172             | 0.18               | 0.167              | 0.165              | 0.179              | 0.178              | 0.183              |
| Total Sodium                             | mg/L        | 200          | AO        | 2.8                | 2.52              | 2.65               | 2.29               | 2.39               | 2.48               | 3.19               | 2.46               |
| Total Sulphur                            | mg/L        |              |           | <3.0               | <3                | <3                 | <3                 | <3                 | <3                 | <3                 | <3.0               |

Notes below about pH (2015) from [https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/ewh-semt/alt\\_formats/pdf/pubs/water-eau/sum\\_guide-res\\_recom/summary-table-EN-2020-02-11.pdf](https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/ewh-semt/alt_formats/pdf/pubs/water-eau/sum_guide-res_recom/summary-table-EN-2020-02-11.pdf)

| Type              | Parameter (published, reaffirmed) | MAC (mg/L) | Other value (mg/L) | Common sources of parameter in water | Health considerations | Comments                                                                                                                                                    |
|-------------------|-----------------------------------|------------|--------------------|--------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Treatment-related | pH (2015)                         | None       | 7.0-10.5           | Not applicable                       | Not applicable        | The control of pH is important to maximize treatment effectiveness, control corrosion and reduce leaching from distribution system and plumbing components. |