# Drinking Water Quality Report for Ebbsfleet Supply Zone ZTW0501

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| **Areas covered by Report:** | Ebbsfleet, London |
| **Report Period:** | 01 January 2018 to 31 December 2018 |
| **Upstream Zone:** | Thames Water South Darenth WSZ (Z0091) |
| **Population:** | 534 |
| **Notices:** | n/a |

## Commentary on Water Quality

The water supplied to the Ebbsfleet zone originates from a ground water source that is chlorinated. The analysis results indicate the quality of the water supplied to this zone is very good with no contraventions recorded or detected during 2018.
There was 1 customer contact concerning "apperance" during the period of this report. The investigation by IWNL concluded that the water supplied was compliant with regulations.

**Hardness Rating:** The water supplied to this zone is classified as hard as it contains naturally elevated concentrations of calcium and magnesium.

| | Soft | Moderately Soft | Slightly Hard | Moderately Hard | Hard | Very Hard |
|---|---|---|---|---|---|---|
| CaCO3 mg/l | 0-50 | 50-100 | 100-150 | 150-200 | 200-300 | 300+ |

**Microbiological Indicators**

| Parameter | units of measurement | Number of Samples | Minimum | Maximum | Average | Prescribed Concentration or Value |
|---|---|---|---|---|---|---|
| **Coliform Bacteria (Indicator)** | **No. 100/ml** | 13 | 0 | 0 | 0 | **0** |
| **E.coli (faecal coliforms Confirmed)** | **No. 100/ml** | 13 | 0 | 0 | 0 | **0** |
| **Enterococci (Confirmed)** | **No. 100/ml** | 4 | 0 | 0 | 0 | **0** |
| **Sulphite-reducing Clostridia (Confirmed)** | **No. 100/ml** | 4 | 0 | 0 | 0 | **0** |

**Physio-Chemical Parameters**

| Parameter | units of measurement | Number of Samples | Minimum | Maximum | Average | Prescribed Concentration or Value |
|---|---|---|---|---|---|---|
| **Ammonium (Total)** | **mg/l NH4** | 4 | 0.004 | 0.004 | 0.004 | **0.5** |
| **Boron** | **mg/l B** | 4 | 0.03 | 0.04 | 0.04 | **1** |
| **Bromate** | **ug/l BrO3** | 4 | 0.1 | 0.1 | 0.10 | **10** |
| **Chloride** | **mg/l** | 4 | 32.6 | 34.7 | 33.28 | **250** |
| **Colour** | **mg/l Pt/Co** | 4 | 1 | 1 | 1.00 | **20** |
| **Cyanide (Total)** | **ug/l CN** | 4 | 0.7 | 0.9 | 0.75 | **50** |

**Physio-Chemical Parameters continued**

| Parameter | units of measurement | Number of Samples | Minimum | Maximum | Average | Prescribed Concentration or Value |
|---|---|---|---|---|---|---|
| Electrical Conductivity | uS/cm @ 20 C | 5 | 625 | 659 | 639.6 | 2500 |
| Fluoride (Total) | mg/l F | 4 | 0.1 | 0.13 | 0.118 | 1.5 |
| Free Residual Chlorine | mg/l | 12 | 0.31 | 0.52 | 0.404 | No Specific PCV |
| Hydrogen ion | pH value | 5 | 7.05 | 7.17 | 7.114 | 6.5-9.5 |
| Nitrate (Total) | mg/l NO3 | 4 | 37.8 | 39.3 | 38.48 | 50 |
| Nitrite - Consumer's Taps | mg/l NO3 | 4 | 0.002 | 0.003 | 0.0023 | 0.5 |
| Nitrite/Nitrate formula | No Units | 4 | 0.76 | 0.79 | 0.773 | 1 |
| Sodium | mg/l Na | 4 | 17.1 | 19.4 | 17.95 | 200 |
| Sulphate | mg/l SO4 | 4 | 23.2 | 28.4 | 25.68 | 250 |
| Total Residual Chlorine | mg/l | 13 | 0.36 | 0.56 | 0.463 | No Specific PVC |
| Turbidity (CT) | FTU | 5 | 0.08 | 0.16 | 0.124 | 4 |

**Hydrocarbons / Organics**

| Parameter | units of measurement | Number of Samples | Minimum | Maximum | Average | Prescribed Concentration or Value |
|---|---|---|---|---|---|---|
| 1 1 1-Trichloroethane (Total) | ug/l | 4 | 0.04 | 0.04 | 0.040 | 0.1 |
| 1 2-Dichloroethane (Total) | ug/l | 4 | 0.07 | 0.07 | 0.070 | 3 |
| Benzene (Total) | ug/l | 4 | 0.02 | 0.02 | 0.020 | 1 |
| Benzo[a]Pyrene (Total) | ug/l | 4 | 0.00022 | 0.00022 | 0.000220 | 0.01 |
| Benzo[b]Fluoranthene (Total) | ug/l | 4 | 0.00052 | 0.00052 | 0.000520 | The sum of PAHs must be <0.1 ug/l |
| Benzo[ghi]Perylene (Total) | ug/l | 4 | 0.0004 | 0.0004 | 0.000400 | The sum of PAHs must be <0.1 ug/l |
| Benzo[k]Fluoranthene (Total) | ug/l | 4 | 0.00047 | 0.00047 | 0.000470 | The sum of PAHs must be <0.1 ug/l |
| Bromodichloromethane (Total) | ug/l | 4 | 0.98 | 1.22 | 1.113 | 60 |
| ChloroDibromomethane (Total) | ug/l | 4 | 2.09 | 2.7 | 2.410 | 100 |
| Indeno[1 2 3-cd]Pyrene (Total) | ug/l | 4 | 0.00048 | 0.00048 | 0.00048 | The sum of PAHs must be <0.1 ug/l |
| Polycyclic Aromatic Hydrocarbons (Total by Calculation) | ug/l | 4 | 0 | 0.01 | 0.0050 | 0.1 |
| Tetrachloroethene (Total) | ug/l | 4 | 0.05 | 0.17 | 0.115 | 10 |
| Tetrachloromethane (Total) | ug/l | 4 | 0.02 | 0.02 | 0.020 | 3 |
| Total Organic Carbon | mg/l C | 4 | 0.6 | 0.8 | 0.675 | NO ABNORMAL CHANGE |
| Total Trichloroethene & Tetrachloroethene (Total by Calculation) | ug/l | 3 | 0.16 | 0.22 | 0.183333333 | 100 |

**Hydrocarbons / Organics continued**

| Parameter | units of measurement | Number of Samples | Minimum | Maximum | Average | Prescribed Concentration or Value |
|---|---|---|---|---|---|---|
| **Tribromomethane-Bromoform (Total)** | **ug/l** | 4 | 1.98 | 2.93 | 2.445 | **100** |
| **Trichloroethene (Total)** | **ug/l** | 3 | 0.05 | 0.16 | 0.107 | **10** |
| **Trichloromethane-Chloroform (Total)** | **ug/l** | 4 | 0.3 | 0.5 | 0.350 | **300** |
| **Trihalomethanes (Total by Calculation)** | **ug/l** | 4 | 5.12 | 6.83 | 6.090 | **100** |

**Metals**

| Parameter | units of measurement | Number of Samples | Minimum | Maximum | Average | Prescribed Concentration or Value |
|---|---|---|---|---|---|---|
| **Aluminium (Total)** | **ug/l Al** | 4 | 7.22 | 7.22 | 7.22 | **200** |
| **Antimony** | **ug/l Sb** | 4 | 0.047 | 0.06 | 0.0543 | **5** |
| **Arsenic (Total)** | **ug/l As** | 4 | 0.15 | 0.44 | 0.25 | **10** |
| **Cadmium (Total)** | **ug/l Cd** | 4 | 0.006 | 0.013 | 0.01125 | **5** |
| **Chromium (Total)** | **ug/l Cr** | 4 | 0.33 | 0.63 | 0.4375 | **50** |
| **Copper (Total)** | **mg/l Cu** | 4 | 0.0194 | 0.476 | 0.17705 | **2** |
| **Iron (Total)** | **ug/l Fe** | 5 | 0.7 | 8.13 | 2.83 | **200** |
| **Lead (10)** | **ug/l Pb** | 4 | 0.19 | 1.19 | 0.495 | **10** |
| **Manganese (Total)** | **ug/l Mn** | 4 | 0.22 | 0.32 | 0.27 | **50** |
| **Mercury (Total)** | **ug/l Hg** | 4 | 0.02 | 0.05 | 0.030 | **1** |
| **Nickel (Total)** | **ug/l Ni** | 4 | 1.17 | 10.4 | 3.81 | **20** |
| **Selenium (Total)** | **ug/l Se** | 4 | 0.7 | 1.71 | 1.01 | **10** |

**Organoleptic Parameters**

| Parameter | units of measurement | Number of Samples | Minimum | Maximum | Average | Prescribed Concentration or Value |
|---|---|---|---|---|---|---|
| **Odour (Quantitative)** | **Dilution Number** | 5 | 0 | 0 | 0 | **0** |
| **Taste(Quantitative)** | **Dilution Number** | 5 | 0 | 0 | 0 | **0** |

**Radioactivity Parameters**

| Parameter | units of measurement | Number of Samples | Minimum | Maximum | Average | Prescribed Concentration or Value |
|---|---|---|---|---|---|---|
| **Gross Alpha** | **Bq/l** | 5 | 0.023 | 0.039 | 0.03 | **0.1** |
| **Gross Beta** | **Bq/l** | 5 | 0.053 | 0.071 | 0.062 | **1** |
| **Tritium** | **Bq/l** | 5 | 5 | 5 | 5.00 | **100** |
| **Radon** | **Bq/l** | 4 | 4.37 | 10 | 8.5925 | **100** |

**Glossary of Terms**

| Term | Definition |
|---|---|
| PCV | Prescribed Concentration or Value |
| mg/l | Milligrammes per Litre or parts per million |
| µg/l | Microgrammes per Litre or parts per billion |
| Pt/Co | Platinum/Cobalt |
| µS/cm | Micro Siemens per Centimetre |
| Bq/l | Becquerel per Litre |
| NTU | Nephelometric Turbidity Units |