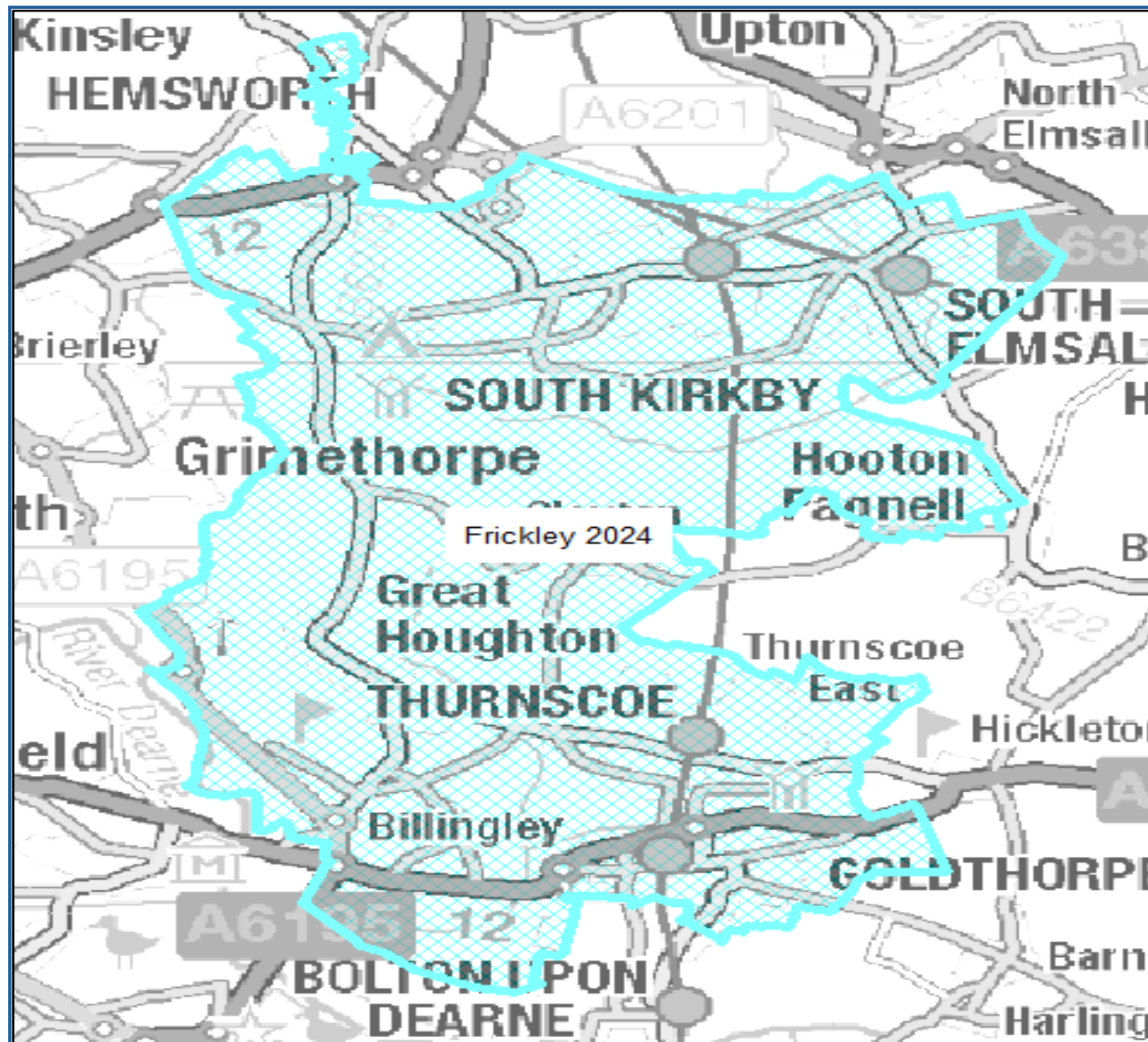


**COMMENTARY ON WATER QUALITY**

The water supplied to the zone is classified as being hard water, which is river/reservoir derived. As we have a grid system in place whereby we can move water around the Yorkshire region as required, occasionally the hardness of your water may vary.

No fluoride is added to the water. Any fluoride that is there is naturally occurring.

The geographical area covered by this Water Supply Zone is show below:



(Ody) COPYRIGHT STATEMENTS: Based upon Ordnance Survey map data with the permission of the Controller of HMSO, (c) Crown Copyright. Licence No. 100019559. Copyright for additional WSZ boundary data shown on this map rests with Yorkshire Water.

| ParameterName:                      | Std       | Und Std | Units            | No of Samples<br>taken | No of Fails | % Fails | Population<br>43793  |                  | Min       | Mean     | Max     |
|-------------------------------------|-----------|---------|------------------|------------------------|-------------|---------|----------------------|------------------|-----------|----------|---------|
|                                     |           |         |                  |                        |             |         | No of Fails<br>(Und) | % Fails<br>(Und) |           |          |         |
| Colony Counts After 3 Days At 22øc  | -         |         | no/ml            | 36                     | 0           | 0.00%   | 0                    | 0.00%            | 0         | 0.1      | 3       |
| E. coli                             | 0         |         | no'/100 ml       | 108                    | 0           | 0.00%   | 0                    | 0.00%            | 0         | 0        | 0       |
| Enterococci                         | 0         |         | no'/100 ml       | 8                      | 0           | 0.00%   | 0                    | 0.00%            | 0         | 0        | 0       |
| Residual Disinfectant - Free        | -         |         | mg/l             | 108                    | 0           | 0.00%   | 0                    | 0.00%            | 0.04      | 0.31     | 0.67    |
| Residual Disinfectant - Total       | -         |         | mg/l             | 108                    | 0           | 0.00%   | 0                    | 0.00%            | 0.09      | 0.46     | 0.77    |
| Total coliforms(Indicator)          | 0         |         | no'/100 ml       | 108                    | 0           | 0.00%   | 0                    | 0.00%            | 0         | 0        | 0       |
| 1,2 Dichloroethane                  | 3         |         | µg/l             | 9                      | 0           | 0.00%   | 0                    | 0.00% <          | 0.16 <    | 0.2 <    | 0.16    |
| Aluminium                           | 200       |         | µg Al/l          | 36                     | 0           | 0.00%   | 0                    | 0.00% <          | 6.9 <     | 10.662   | 14.5    |
| Ammonium(ammonia and ammonium ions) | 0.5       |         | mg NH4/l         | 36                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.008 <   | 0.0122   | 0.063   |
| Antimony                            | 5         |         | µg Sb/l          | 8                      | 0           | 0.00%   | 0                    | 0.00%            | 0.09      | 0.0975   | 0.12    |
| Arsenic                             | 10        |         | µg As/l          | 8                      | 0           | 0.00%   | 0                    | 0.00%            | 0.18      | 0.265    | 0.39    |
| Benzene                             | 1         |         | µg/l             | 9                      | 0           | 0.00%   | 0                    | 0.00% <          | 0.06 <    | 0.06 <   | 0.06    |
| Benzo 3,4 pyrene                    | 0.01      |         | ug/l             | 8                      | 0           | 0.00%   | 0                    | 0.00% <          | 0.00042 < | 0.0004 < | 0.00042 |
| Boron                               | 1         |         | mg B/l           | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.032 <   | 0.0322   | 0.0337  |
| Bromate                             | 10        |         | µg BrO3/l        | 8                      | 0           | 0.00%   | 0                    | 0.00%            | 0.5       | 1.6125   | 2.9     |
| Cadmium                             | 5         |         | µg Cd/l          | 8                      | 0           | 0.00%   | 0                    | 0.00% <          | 0.01 <    | 0.025    | 0.03    |
| Chloride                            | 250       |         | mg Cl/l          | 12                     | 0           | 0.00%   | 0                    | 0.00%            | 23.8      | 29.375   | 33.5    |
| Chromium                            | 50        |         | µg Cr/l          | 8                      | 0           | 0.00%   | 0                    | 0.00% <          | 0.08 <    | 0.1725   | 0.25    |
| Colour                              | 20        |         | mg/l Pt/Co scale | 36                     | 0           | 0.00%   | 0                    | 0.00% <          | 3 <       | 3 <      | 3       |
| Conductivity                        | 2500      |         | µS/cm            | 36                     | 0           | 0.00%   | 0                    | 0.00%            | 434       | 546.44   | 619     |
| Copper                              | 2         |         | mg Cu/l          | 8                      | 0           | 0.00%   | 0                    | 0.00%            | 0.0009    | 0.0209   | 0.111   |
| Cyanide                             | 50        |         | µg CN/l          | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 1.2 <     | 1.2 <    | 1.2     |
| Fluoride                            | 1.5       |         | mg F/l           | 12                     | 0           | 0.00%   | 0                    | 0.00%            | 0.06      | 0.072    | 0.1     |
| Hydrogen Ion (pH)                   | 6.5 - 9.5 |         | pH value         | 36                     | 0           | 0.00%   | 0                    | 0.00%            | 6.94      | 7.16     | 7.35    |
| Iron                                | 200       |         | µg Fe/l          | 36                     | 0           | 0.00%   | 0                    | 0.00% <          | 3.72 <    | 15.41    | 123     |
| Lead                                | 10        |         | µg/l             | 8                      | 0           | 0.00%   | 0                    | 0.00% <          | 0.04 <    | 0.772    | 2.12    |
| Manganese                           | 50        |         | µg Mn/l          | 36                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.3 <     | 1.17     | 5.29    |
| Mercury                             | 1         |         | µg Hg/l          | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.04 <    | 0.045 <  | 0.06    |
| Nickel                              | 20        |         | µg Ni/l          | 8                      | 0           | 0.00%   | 0                    | 0.00%            | 1.75      | 2.29     | 4.05    |
| Nitrate                             | 50        |         | mg NO3/l         | 8                      | 0           | 0.00%   | 0                    | 0.00%            | 17.5      | 20.0375  | 22.2    |
| Nitrite - Consumer's Taps           | 0.5       |         | mg/l NO2         | 8                      | 0           | 0.00%   | 0                    | 0.00% <          | 0.002 <   | 0.0024 < | 0.003   |

| ParameterName:                          | Std  | Und Std | Units           | No of Samples | No of Fails | % Fails | Population  |         | Min     | Mean     | Max   |
|-----------------------------------------|------|---------|-----------------|---------------|-------------|---------|-------------|---------|---------|----------|-------|
|                                         |      |         |                 |               |             |         | No of Fails | % Fails |         |          |       |
|                                         |      |         |                 | taken         |             |         | (Und)       | (Und)   |         |          |       |
| Nitrite/ Nitrate formula                | 1    |         | mg/l            | 8             | 0           | 0.00%   | 0           | 0.00%   | 0.38    | 0.4038   | 0.44  |
| Odour                                   | 0    |         | dilution number | 36            | 0           | 0.00%   | 0           | 0.00%   | 0       | 0        | 0     |
| Polycyclic Aromatic Hydrocarbons (PAHs) | 0.1  |         | µg/l            | 8             | 0           | 0.00%   | 0           | 0.00%   | 0       | 0        | 0     |
| Selenium                                | 10   |         | µg Se/l         | 8             | 0           | 0.00%   | 0           | 0.00% < | 0.13 <  | 0.283    | 0.32  |
| Sodium                                  | 200  |         | mg Na/l         | 8             | 0           | 0.00%   | 0           | 0.00%   | 14.8    | 17.4     | 20    |
| Sulphate                                | 250  |         | mg SO4/l        | 8             | 0           | 0.00%   | 0           | 0.00%   | 121     | 129.875  | 150   |
| Taste                                   | 0    |         | dilution number | 36            | 0           | 0.00%   | 0           | 0.00%   | 0       | 0        | 0     |
| Tetrachloroethene/Trichlorethene - Sum  | 10   |         | µg/l            | 8             | 0           | 0.00%   | 0           | 0.00%   | 0       | 0        | 0     |
| Tetrachloromethane                      | 3    |         | µg/l            | 8             | 0           | 0.00%   | 0           | 0.00% < | 0.16 <  | 0.16 <   | 0.16  |
| Total organic carbon                    | -    |         | mg C/l          | 12            | 0           | 0.00%   | 0           | 0.00%   | 1.5     | 1.93     | 2.35  |
| Total Trihalomethanes (THM's)           | 100  |         | µg/l            | 8             | 0           | 0.00%   | 0           | 0.00%   | 21.63   | 25.555   | 31.64 |
| Turbidity                               | 4    |         | NTU             | 36            | 0           | 0.00%   | 0           | 0.00% < | 0.07 <  | 0.166    | 0.47  |
| Calcium                                 | -    |         | mg Ca/l         | 8             | 0           | 0.00%   | 0           | 0.00%   | 84.5    | 94.8375  | 102   |
| Magnesium                               | -    |         | mg Mg/l         | 8             | 0           | 0.00%   | 0           | 0.00%   | 6.49    | 8.325    | 10    |
| Total Hardness                          | -    |         | mg Ca/l         | 8             | 0           | 0.00%   | 0           | 0.00%   | 95.2    | 108.65   | 115   |
| 2,4,5-T                                 | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.013 < | 0.0137 < | 0.015 |
| 2,4-D                                   | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.01 <  | 0.0103 < | 0.011 |
| 2,4-DB                                  | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.01 <  | 0.0113 < | 0.012 |
| Aldrin                                  | 0.03 |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.008 < | 0.008 <  | 0.008 |
| Atrazine                                | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.006 < | 0.006 <  | 0.006 |
| Azoxystrobin                            | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.006 < | 0.006 <  | 0.006 |
| Bentazone                               | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.004 < | 0.0043 < | 0.005 |
| Bixafen                                 | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.012 < | 0.012 <  | 0.012 |
| Boscalid                                | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.008 < | 0.008 <  | 0.008 |
| Bromacil                                | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.011 < | 0.011 <  | 0.011 |
| Bromoxynil                              | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.007 < | 0.008 <  | 0.01  |
| Carbetamide                             | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.009 < | 0.009 <  | 0.009 |
| Chlormequat                             | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.008 < | 0.008 <  | 0.008 |
| Chlorpropham                            | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.005 < | 0.0077 < | 0.009 |
| Chlorpyrifos                            | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.008 < | 0.008 <  | 0.008 |
| Chlortoluron                            | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.005 < | 0.005 <  | 0.005 |
| Clomazone                               | 0.1  |         | µg/l            | 12            | 0           | 0.00%   | 0           | 0.00% < | 0.007 < | 0.007 <  | 0.007 |

| ParameterName:      | Std  | Und Std | Units | No of Samples<br>taken | No of Fails | % Fails | Population<br>43793  |                  | Min     | Mean     | Max   |
|---------------------|------|---------|-------|------------------------|-------------|---------|----------------------|------------------|---------|----------|-------|
|                     |      |         |       |                        |             |         | No of Fails<br>(Und) | % Fails<br>(Und) |         |          |       |
| Clopyralid          | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.011 < | 0.0117   | 0.013 |
| Cyanazine           | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.007 < | 0.007 <  | 0.007 |
| Cypermethrin        | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.008 < | 0.008 <  | 0.008 |
| Cyproconazole       | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.006 < | 0.006 <  | 0.006 |
| Diazinon            | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.007 < | 0.007 <  | 0.007 |
| Dicamba             | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.011 < | 0.0113 < | 0.012 |
| Dichlobenil         | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.004 < | 0.004 <  | 0.004 |
| Dichlorprop         | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.006 < | 0.0073 < | 0.01  |
| Dieldrin            | 0.03 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.009 < | 0.009 <  | 0.009 |
| Difenconazole       | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.009 < | 0.009 <  | 0.009 |
| Diiflufenican       | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.009 < | 0.009 <  | 0.009 |
| Diuron              | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.009 < | 0.009 <  | 0.009 |
| Epoxiconazole       | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.006 < | 0.006 <  | 0.006 |
| EPTC                | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.022 < | 0.022 <  | 0.022 |
| Flufenacet          | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.008 < | 0.0112   | 0.046 |
| Fluroxypyr          | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.008 < | 0.01 <   | 0.011 |
| Flurtamone          | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.007 < | 0.007 <  | 0.007 |
| Flusilazole         | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.009 < | 0.009 <  | 0.009 |
| Flutriafol          | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.005 < | 0.005 <  | 0.005 |
| Fluxapyroxad        | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.01 <  | 0.01 <   | 0.01  |
| Gamma-HCH (Lindane) | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.005 < | 0.005 <  | 0.005 |
| Heptachlor          | 0.03 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.005 < | 0.005 <  | 0.005 |
| Heptachlor epoxide  | 0.03 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.007 < | 0.007 <  | 0.007 |
| Imazapyr            | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.004 < | 0.0053 < | 0.006 |
| Ioxynil             | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.004 < | 0.0043 < | 0.005 |
| Isoproturon         | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.005 < | 0.005 <  | 0.005 |
| Linuron             | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.009 < | 0.009 <  | 0.009 |
| MCPA                | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.006 < | 0.0073 < | 0.008 |
| Mecoprop-P          | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.009 < | 0.0097 < | 0.01  |
| Mepiquat chloride   | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.008 < | 0.008 <  | 0.008 |
| Metalddehyde        | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.006 < | 0.0062   | 0.008 |
| Metamitron          | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.008 < | 0.008 <  | 0.008 |
| Metazachlor         | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.005 < | 0.005 <  | 0.005 |
| Metobromuron        | 0.1  |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.01 <  | 0.01 <   | 0.01  |

| Frickley 2024                 |     |         |       | Population             |             |         |                      | 43793            |         |          |       |
|-------------------------------|-----|---------|-------|------------------------|-------------|---------|----------------------|------------------|---------|----------|-------|
| ParameterName:                | Std | Und Std | Units | No of Samples<br>taken | No of Fails | % Fails | No of Fails<br>(Und) | % Fails<br>(Und) | Min     | Mean     | Max   |
| Monuron                       | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.005 < | 0.005 <  | 0.005 |
| op'-DDD (TDE)                 | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.005 < | 0.005 <  | 0.005 |
| op'-DDE                       | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.005 < | 0.005 <  | 0.005 |
| op'-DDT                       | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.004 < | 0.004 <  | 0.004 |
| Oxadixyl                      | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.012 < | 0.012 <  | 0.012 |
| Pendimethalin                 | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.009 < | 0.009 <  | 0.009 |
| Pesticides - Total Substances | 0.5 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00%            | 0       | 0.0084   | 0.066 |
| pp'-DDD (TDE)                 | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.005 < | 0.005 <  | 0.005 |
| pp'-DDE                       | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.005 < | 0.005 <  | 0.005 |
| pp'-DDT                       | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.004 < | 0.004 <  | 0.004 |
| Propachlor                    | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.007 < | 0.007 <  | 0.007 |
| Propamocarb                   | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.004 < | 0.0047 < | 0.006 |
| Propham                       | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.005 < | 0.005 <  | 0.005 |
| Propiconazole                 | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.009 < | 0.009 <  | 0.009 |
| Propyzamide                   | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.009 < | 0.0098   | 0.014 |
| Prosulfocarb                  | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.006 < | 0.006 <  | 0.006 |
| Prothioconazole-desthio       | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.007 < | 0.007 <  | 0.007 |
| Quinmerac                     | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.006 < | 0.006 <  | 0.006 |
| Simazine                      | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.005 < | 0.005 <  | 0.005 |
| Tebuconazole                  | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.006 < | 0.006 <  | 0.006 |
| Tri-allate                    | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.006 < | 0.006 <  | 0.006 |
| Trichlopyr                    | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.016 < | 0.018 <  | 0.019 |
| Trietazine                    | 0.1 |         | µg/l  | 12                     | 0           | 0.00%   | 0                    | 0.00% <          | 0.005 < | 0.005 <  | 0.005 |

- Notes:**
- 1) Qualified values are taken at face value in all calculations.
  - 2) Any infringements of the regulatory standard are thoroughly investigated and are reported to the Drinking Water Inspectorate (DWI), with remedial actions put in place where necessary.
  - 3) Details of undertakings and notices (Improvement programmes) applicable can be obtained from the DWI website: [Yorkshire Water Improvement Programmes - Drinking Water Inspectorate](#)