

WATER RESOURCES ACT

(reg.102)

(Cap.72:03)

WATER RESOURCES REGULATIONS, 2018 **FORM L**

WATER OR WASTEWATER QUALITY SAMPLING PROCEDURES

The procedures to be followed where water/wastewater quality sample is taken for prosecution purposes shall include:

1. The presence of the alleged polluter at the place and time of sampling;
2. Where the intended analysis is to determine compliance with physical and chemical parameters, then a sample shall be taken and divided into three portions, each contained in an appropriate capacity container and preserved according to standard practice.
3. Where the intended analysis is to determine compliance with microbiological parameters, then a sample shall be taken and divided into three portions, each contained in a sterile glass bottle and preserved according to standard practise;
4. All three portions will be sealed in the presence of the alleged polluter who is required to sign an acknowledgement that he has witnessed the sampling process and the sample(s) collected are representative;
5. One portion will be provided to the alleged polluter who may obtain his/her own independent analysis from a gazetted laboratory of his/her choice;
6. One portion shall be sent by the Authority to a gazetted laboratory for analysis; and
7. One portion shall be retained by the Authority for future reference provided that the storage of the sample is safe enough and the period of storage does not result in the deterioration of the sample.

**Types of preservation suitable for different determinants**

|  |  |  |  |
| --- | --- | --- | --- |
| Determinant | Material of sample container | Method of preservations | Maximum time between sampling and analysis |
| Calcium  Chloride  Conductivity  Fluoride  Hardness  Magnesium  Potassium  Sodium  Sulphate  Alkalinity  BOD5  Colour  Nitrogen:  Ammonia  Nitrite  Nitrate  Organic  Odour  Phenols  Phosphorus:  Total  Orthophosphate  Silica  COD  Oil/Grease  Nitrogen ammonia  Nitrite  Nitrate  Organic  Metals:  Total metals  Dissolved metals  Mercury  Cyanide  Phenols  Chlorine  Dissolved Oxygen  pH  Solids:  Dissolved  Total  Turbidity  Radiological Tests  Alpha, beta and radium  Pesticides Tests:  Pesticides | P or G  P or G  P or G  P  P or G  P or G  P  P  P or G  P or G  G  P or G  P or G  P or G  P or G  G  G  G  P or G  P or G  P  G  G  P or G  P or G  P or G  G  P  P  P  P  G  G  G  P or G  P or G  P or G  P or G  P or G  G, Teflon-cap | None needed  None needed  None needed  None needed  None needed  None needed  None needed  None needed  None needed  Refrigeration at 40C  Refrigeration at 40C  Refrigeration at 40C  Refrigeration at 40C  Refrigeration at 40C  Refrigeration at 40C  Refrigeration at 40C  Refrigeration at 40C  Refrigeration at 40C  Refrigeration at 40C  Filter on site, then refrigeration at 40C  Filter on site, then refrigeration at 40C  H2SO4, 1-2 ml/litre of sample  H2SO4, 1-2 ml/litre of sample  HgC12, 12-40 mg/litre of sample  HgC12, 12-40 mg/litre of sample  HgC12, 12-40 mg/litre of sample  HgC12, 12-40 mg/litre of sample  HNO3, 2-10ml/litre of sample  Filter on site, then add HNO3, 2-10ml/litre of sample  HNO3, 5-10ml/litre of sample  Add NaOH to give pH 10-11  CuSO4 5H2O), 1g/litre of sample then H3PO4 to give pH 4  HNO3 to pH<2  Cool, 40c, pH 5-9e | 7 days  7 days  7 days  7 days  7 days  7 days  7 days  7 days  7 days  24 hours  4-24 hours  24 hours  1-7 days  1-7 days  24 hours  24 hours  6-24 hours  24 hours  1-7 days  24 hours  1-7 days  1-7 days  24 hours  1-7 days  1-7 days  24 hours  24 hours  Many weeks  Many weeks  7 days  7 days  24 hours  Immediately  Analyse as soon as possible, preferably on site  Analyse as soon as possible, preferably on site  24 hours  7 days  4-24 hours  6 months  7 days until extraction, 40 days after extraction |

1. P= Polyethylene; G = Glass
2. The times quoted are only rough indicators;
3. The maximum time depends on the type of sample;
4. Analysis can be started on site and completed in a laboratory

The pH adjustment may be performed upon receipt at the laboratory and may be omitted if the samples are extracted within 72 hours of collection. For the analysis of aldrin, add 0.008% Na2S2O3.