

WASTE WATER

Waste water is water of varying composition from many sources: domestic, municipal, industrial, agricultural, etc. and for that reason it has been degraded or altered in its original quality.



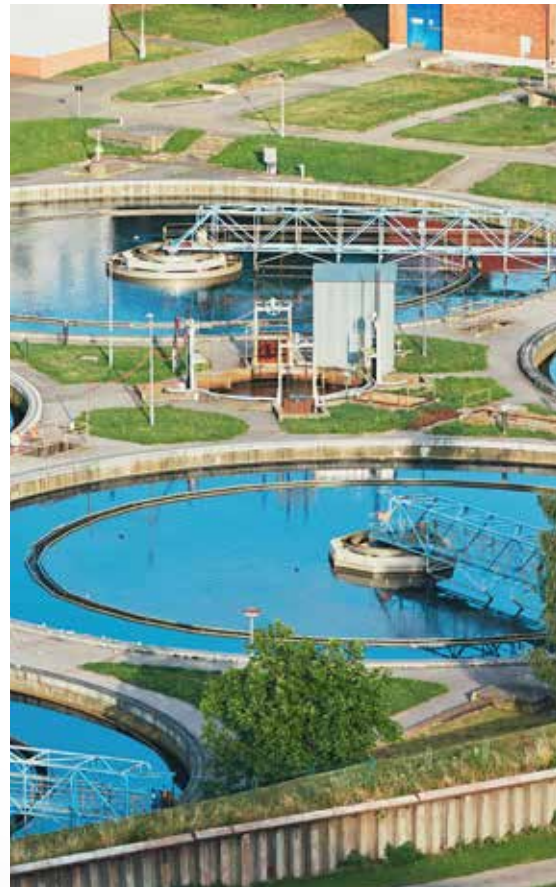
The discharges in to the integrated sanitation system (ISS), in accordance with the Directive 91/271/CEE can be classified as follows:

- *Domestic waste water:* those from housing and general services areas, product of human metabolism and domestic activities.
- *Industrial waste waters:* all waste water discharged from places used for carrying on any trade or industry, other than domestic sewage or storm water runoff.
- *Urban waste water:* domestic wastewater or its mixture with industrial waste water and / or storm water runoff.

All of them are usually collected in a collecting system and sent through a terrestrial emissary to a WWTP (Waste Water Treatment Plant). The aforementioned Directive 91/271/CEE establishes the parameters, limits or the reduction level that the treatment process must achieve.

In discharge authorizations (either to sanitation systems or to public domain) the parameters and limits of application are defined, depending on the raw materials, production process and quality requirements of the receiving environment. It will take into account compliance with the limits for priority and preferential substances in Directive 2008/105/EC. These parameters include mainly organic substances, cyanides, fluorides and metals.

According to the normative which establishes the legal framework for the reuse of treated water, reclaimed water is defined as: “*The treated waste water that has undergone a treatment process additional or complementary that allows to achieve the quality for their intended use*”. This legislation establishes permitted uses, the frequency and quality criteria of this type of waste water.



WASTE WATER



WASTE WATER: PHYSICAL-CHEMICAL /REF. 990004/

ROUND I

WEEK 5
31st January

Aluminium;
Ammonium;
Chlorides;
Chromium;
Biological oxygen demand (BO₅D);
Chemical oxygen demand (COD);
Fluorides;
Nitrates;
Suspended solids;
Toxicity.

ROUND II

WEEK 19
9th May

Anionic surfactants;
Cadmium;
Total organic carbon (TOC);
Chromium VI;
Biological oxygen demand (BO₅D);
Chemical oxygen demand (COD);
Total phosphorus;
Orthophosphates;
Suspended solids;
Zinc.

ROUND III

WEEK 39
26th September

Boron;
Conductivity at 20°C;
Biological oxygen demand (BO₅D);
Chemical oxygen demand (COD);
Iron;
Kjeldahl nitrogen;
Total nitrogen;
pH;
Lead;
Suspended solids.



RECLAIMED WATER /REF. 990005/

ROUND I

WEEK 11
14th March

Boron;
Escherichia coli;
Legionella pneumophila;
Legionella spp.;
Intestinal nematodes;
Suspended solids;
Total phosphorus;
Turbidity*.

ROUND II

WEEK 38
19th September

Cadmium;
Escherichia coli;
Legionella pneumophila;
Legionella spp.;
Intestinal nematodes;
Nitrates;
Total nitrogen;
SAR* (Sodium Adsorption Ratio).

* Parameter not included in our accreditation by ENAC.
Samples will be dispatched preferably on the Monday of the stated week.

WASTE WATER



WASTE WATER: MICROBIOLOGY /REF. 990014/

ROUND I

WEEK 5
31st January

Clostridium perfringens;
Faecal coliforms;
Total coliforms;
Enterococci;
Escherichia coli;
Salmonella spp.

ROUND II

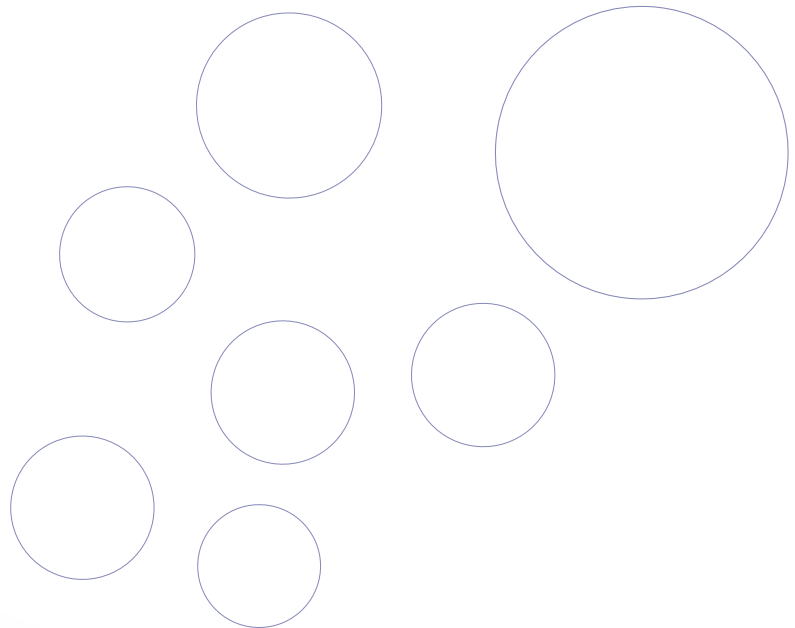
WEEK 19
9th May

Clostridium perfringens;
Faecal coliforms;
Total coliforms;
Enterococci;
Escherichia coli;
Salmonella spp.

ROUND III

WEEK 42
17th October

Clostridium perfringens;
Faecal coliforms;
Total coliforms;
Enterococci;
Escherichia coli;
Salmonella spp.



Samples will be dispatched preferably on the Monday of the stated week.