



## WASTEWATER SAMPLING PROGRAMS

Industrial or treatment plant discharges into surface, groundwater, sewer or stormdrains are regulated by governments via permits. The permit should specify the sites, number and type of tests required in addition to the allowable maximum discharge volume. The governing authority should also specify the maximum allowable limits for the permit perimeters.

Many industries and treatment plants have additional programs to monitor efficiency or source control.

### Sampling Criteria & Locations

System Sites:

1. Influent
2. Storage such as Lagoons, Holding Tanks
3. Discharge

Other Sites:

4. Activated Sludge
5. Upstream of Discharge (surfacewaters)
6. Downstream of Discharge (surfacewaters)
7. Monitoring Wells (groundwater)

Testing Criteria

#### A. Field Tests

The sampler should conduct & record results at each sample location for the following: temperature

- pH
- turbidity (or total dissolved solids)
- EC (specific conductance)

#### B. Laboratory Tests

At each designated site, a sample for laboratory analysis will be collected for in appropriate containers (supplied by the laboratory). Samples should be placed in a cool (1-8C) environment and shipped to the laboratory as soon as possible.

Samples can be collected as either grab or composites.

**Package I**

**Tests**  
 Fecal Coliforms  
 or Fecal Coliforms + Enterococci

**Package II**

Treatment Plants  
 primarily domestic sewage

**Tests**  
 BOD<sub>5</sub>            COD  
 Chloride            pH  
 Sulfate            Total Suspended Solids  
 Total & Mineral Oil & Grease

**Package III**

Treatment Plants  
 industrial influents  
 (or batch loads)

**Tests**  
 BTEX            COD  
 Chloride            pH  
 Mineral Oil & Grease

**Auxiliary Tests**

Phenols            PAH  
 Sulfide  
 Metals Scan (plus Hg, Se, Sn)  
 Daphnid or Microtox Toxicity

**Package IV**

Industrial Discharges  
 Tests usually governed by  
 the type of effluent produced.

**Tests**  
 BOD<sub>5</sub>            pH  
 Oil & Grease  
 Total Suspended Solids  
 or  
 Specific Metals  
 pH  
 Total Suspended Solids

**Special Sampling:**

All discharges may be subjected to special tests as dictated by a governing authority. These tests may include metals, toxicity (Daphnid, Microtox or Trout LD 50), specific organic analysis (such as PAH, PCB's).

An emergency plan, including bottles and sample gear should be part of all operations.

**M.B. LABS LTD**  
 2062 Henry Ave W  
 Sidney, B.C. V8L 5Y1

**Tel: (250) 656-1334**  
**Fax: (250) 656-0443**  
**email: [mblabs@pacificcoast.net](mailto:mblabs@pacificcoast.net)**