**AFM® Enquiry:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Company:**  **Contact Name:**  **Country/ Location:** | | | **Project Name / Project Info** | | | |
| **Water source (specify type/details):** | | | | | **Filtration Flow Rate m3/d (max./min.)** | |
| **Ground water** |  | | | |  | |
| **Surface water** |  | | | |  | |
| **Sea water (open/well intake)** |  | | | |  | |
| **Reservoir / lake** |  | | | |  | |
| **Industrial waste water** |  | | | |  | |
| **Biological waste water** (Secondary or Tertiary) |  | | | |  | |
| **Raw water characteristic or type /analysis:** | | | | | | |
| ***Parameter*** | | ***Value/Unit*** | | ***Parameter*** | | ***Value/Unit*** |
| **General Chemistry** | |  | | ***Metals*** | |  |
| Temperature | |  | | Aluminium | |  |
| pH | |  | | Antimony | |  |
| Conductivity (@20oC) | |  | | Arsenic | |  |
| Alkalinity / Hardness | |  | | Boron | |  |
| Total dissolved solids | |  | | Cadmium | |  |
| Suspended Solids | |  | | Chromium | |  |
| PSD - d50 / d10 / fines | |  | | Copper | |  |
| Turbidity NTU | |  | | Iron | |  |
| SDI-15 (Silt Density Index) | |  | | Lead | |  |
| Dissolved Oxygen | |  | | Manganese | |  |
| Colour | |  | | Mercury | |  |
| Sodium | |  | | Nickel | |  |
| Calcium | |  | | Selenium | |  |
| Magnesium | |  | | Zinc | |  |
| Potassium | |  | | - other metal- | |  |
| Chloride | |  | |  | |  |
| Sulphate | |  | | **Non Metals / Others** | |  |
| Nitrate | |  | | Boron | |  |
| Phosphate | |  | | Silica (reactive/dissolved) | |  |
| Ammonium / Ammonia (NH4 / NH3 volatile) | |  | | Silica (colloidal) | |  |
| Bromide | |  | |  | |  |
| Fluoride | |  | | **Organic Chemistry** | |  |
|  | |  | |  | |  |
| **Biology** | |  | | Solvent extractable Oganic compounds | |  |
| TOC / BOD | |  | |  | |  |
| DOC | |  | |  | |  |
| Total Viable Count (TVC) @ 22oC | |  | |  | |  |
| Total Viable Count (TVC) @ 37oC | |  | |  | |  |
| P. aeroginosa | |  | |  | |  |
| E.Coli | |  | |  | |  |
| Cryptosporidium | |  | |  | |  |
| Algae | |  | |  | |  |
| **Filtration process** | | ***Value/Unit*** | | **Process Description & Comments** | | |
| New or Existing media filtration process | |  | |  | | |
| Feed water storage volume  (before filtration) | |  | |  | | |
| Filtration / Backwash Velocity m/h  Rapid Gravity (tank dimension)  Vertical Pressure (tank dimensions)  Horizontal sand filter (tank dimensions)  Moving bed sand filter (tank dimensions) | |  | |  | | |
| Volume of quartz sand (kg, mt, m3) Volume of other media (name media)  Grade of filtration & support media  Anthracite (used/not used) | |  | |  | | |
| **Mechanical Pre-Treatment  before media filtration** | | ***Value/Unit*** | | **Process Description & Comments** | | |
| Coarse screen  FOG removal (type)  Clarifier  Dissolved air Flotation  Other Media Filtration | |  | |  | | |
| **Chemical Pre-Treatment  before media filtration** | | ***Value/Unit*** | | **Process Description & Comments** | | |
| Pre oxidation (Chlorine, Chlorine dioxide, KMnO4)  Aeration (ozone or O2)  Ferric hydroxide absorption  Flocculants / coagulants (type, name)  Disinfection chlorine/chlorine dioxide  pH correction (acid, alkaline)  Neutralization (e.g. Lime, NaOH dosing) | |  | |  | | |
| **Business Case** | | ***Value/Unit*** | | **Process Description & Comments** | | |
| Energy cost  Chemicals costs (by type)  Sludge volume  Water used (backwash, rinse, etc.) Other filtration OPEX cost (specify) | |  | |  | | |
| **Describe specific filtration challenge(s) and targets to be addressed** | | | | | | |
|  | | | | | | |