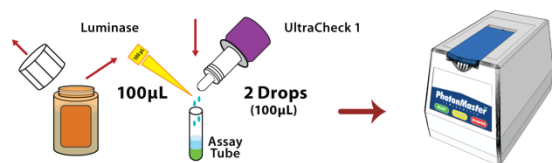


Step 1 - UltraCheck™ 1 Calibration

Perform one UltraCheck 1 calibration per day or per each set of samples analyzed.



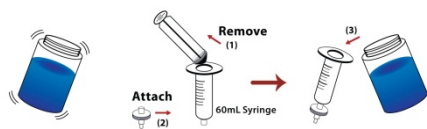
NOTE: If $RLU_{ATP1} \leq 5,000$ using a PhotonMaster or Lumitester C-110, rehydrate a new bottle of Luminase for maximum sensitivity.

Step 2 - Cellular ATP (cATP™) Analysis

2.1 – MEASURE SAMPLE VOLUME

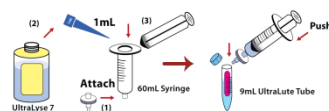
Determine volume and filter sample.

Sample Type	Volume (mL)
Cooling or Process Water	10 to 25
Fresh Brackish & Salt Water	25 to 50
Reclaimed Water, Effluents	25 to 50
Drinking and Sanitary Water	50 to 100
High Purity Water	> 100



2.3 – EXTRACTION

Extract ATP from filter & dilute.



2.4 – ASSAY

Measure ATP concentration.



NOTE: If $RLU_{cATP} \leq 10$ using a PhotonMaster or Lumitester C-110, you are below the low- detection limit

NOTE: If $RLU_{cATP} \leq 50$ using a PhotonMaster or Lumitester C-110, consider accounting for background (RLU_{bg}). See Test Kit Instructions for guidance.

Calculations

Cellular ATP (cATP) Calculation:

$$cATP \text{ (pg ATP/mL)} = \frac{RLU_{cATP}}{RLU_{ATP1}} \times \frac{10,000 \text{ (pg ATP)}}{V_{\text{Sample}} \text{ (mL)}}$$

Microbial Equivalent (ME/mL):

$$cATP \text{ (ME/mL)} = cATP \text{ (pg ATP/mL)} \times \frac{1 \text{ ME}}{0.001 \text{ pg ATP}}$$

NOTE: 1 ME (Microbial Equivalent) assumes 0.001 pg (1fg) ATP per cell.

Interpretations Guidelines

Application	Good Control (pg cATP/mL)	Preventative Action (pg cATP/mL)	Corrective Action (pg cATP/mL)
High Purity Water	< 0.1	0.1 to 1.0	> 1.0
Water for Consumption (Potable, Sanitary)	< 0.5	0.5 to 10	> 10
Raw Make-up Water (Fresh Brackish, Salt, Reclaimed)	< 10	10 to 100	> 100
Cooling & Process Water (Oxidizing Biocides)	< 10	10 to 100	> 100
Cooling & Process Water (Non-Oxidizing Biocides or Non-Chemical Treatment)	< 100	100 to 1,000	> 1,000

NOTE: Interpretation Guidelines provided for general guidance. For best results, establish your own baseline and control levels.