APC500 COD
Chemical Oxygen Demand
MR 0 – 150 mg/L

DOC312.53.94351

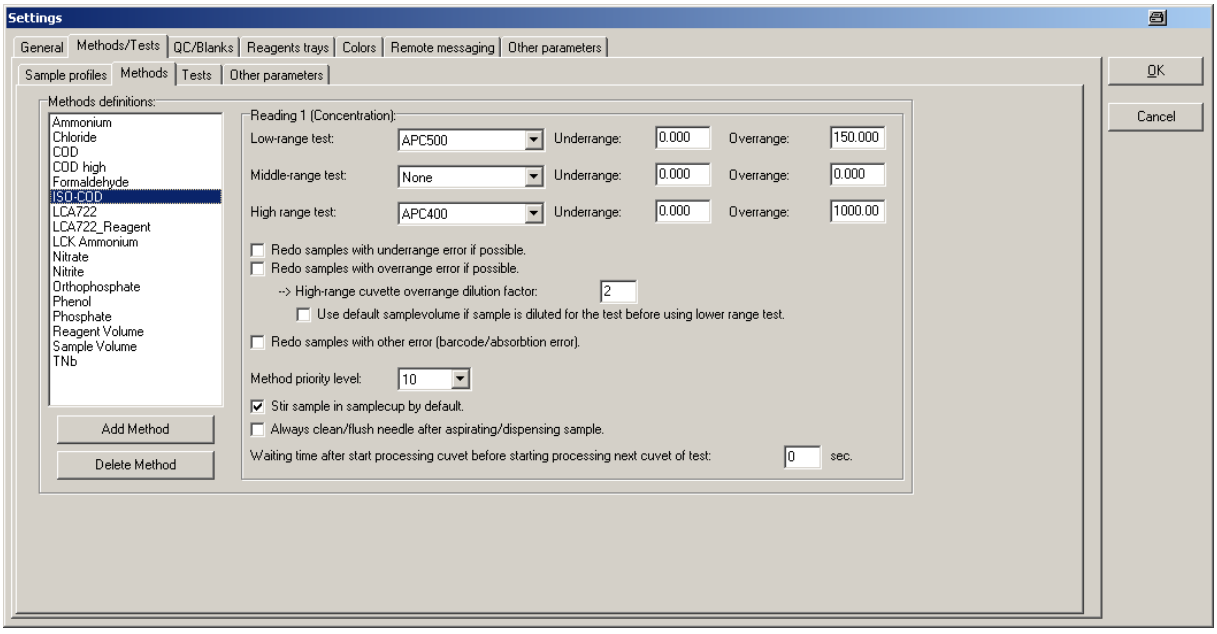
Principle
Oxidizable substances react with sulphuric acid – potassium dichromate solution in the presence of silver sulphate as catalyst. Chloride is masked by mercury sulphate. The reduction in the yellow coloration of Cr^{6+} is evaluated.

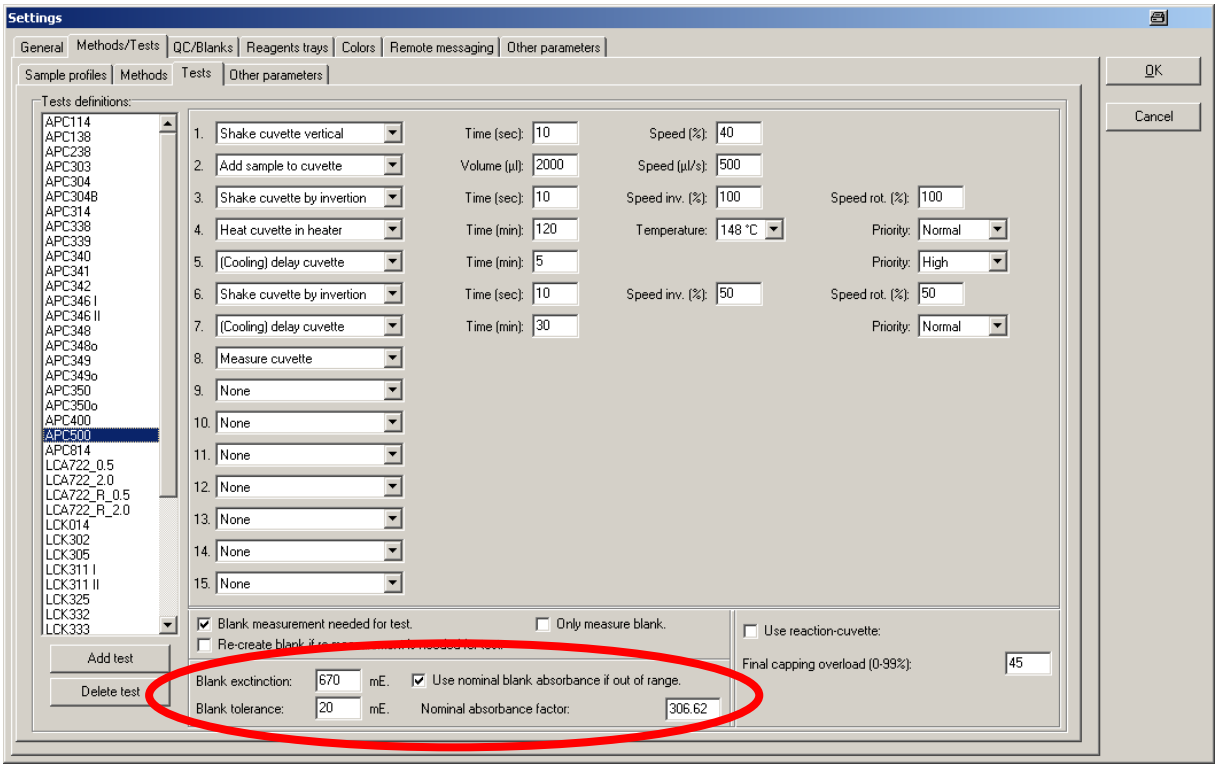
Range of Application
Water, waste water, process analysis

Interferences
The method can be used for samples (or diluted samples) with chloride concentrations of up to 1000 mg/l.
The measurement results must be subjected to plausibility checks (dilute and/or spike the sample).

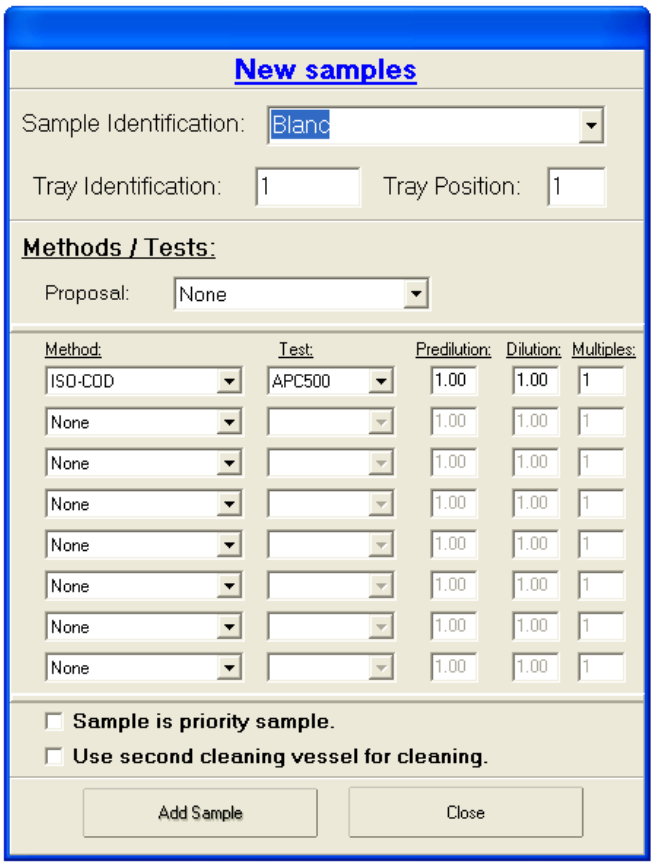
Sample Volume **2 mL**
Digestion Temperature/Time **148 °C/2h**

Method Library:
APC500 COD is pre-programmed in the method library. Please check under Settings/Software/Application/Methods **ISO-COD** and Tests **APC500.**





Note
The APC500 follows the INTERNATIONAL STANDARD ISO 15705:2002
The APC500 needs a reagent blank measurement.
The first sample needs to be defined as a **Blank**,
Choose it from the drop-down menu in the Sample Identification



Run the APC500 COD method

Create a Run like described in the QUICK GUIDE

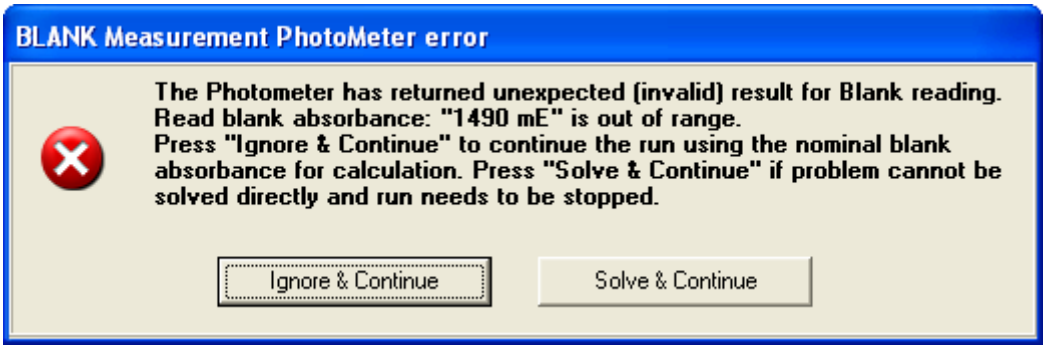
- Place the APC500 cuvettes according to the settings in the Software in the APC 500 rack.
- Place the **BLANK** in the 1. position of the sample rack
- Place the samples according to the settings in the Software in the sample racks
- Check if enough Rinsing/Dilution water is available
- Initialize the AP 3800 multi and the Dispenser

Note: First APC500 cuvette in the tray will be always used as a BLANK. Don't remove this cuvette during the RUN. Whenever a new BLANK is needed the AP3900 multi goes back to position 1 and re-read this BLANK cuvette as "0" reference. This will always happen when the AP3900 multi switches between different methods (common for sample mode).

Special Note:
The method offers the possibility to compare the measured blank (actual run) against a nominal blank value. The nominal **Blank extinction** can be taken from the **Certificate of Analysis** at **http://www.hach-lange.co.uk/view/content.** Alternatively, you can set a measured blank as **Blank Extinction**. You can also set a tolerance for the blank extinction variance in the **Blank tolerance** box (look at red marked area above).

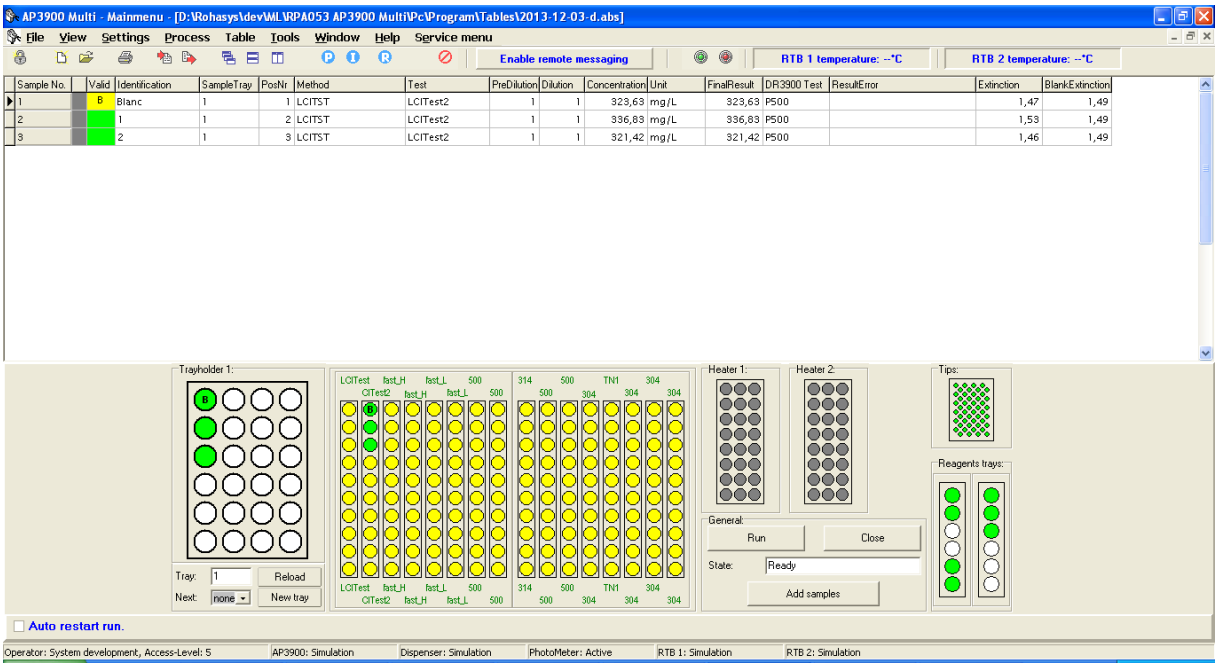
If the blank (actual run) is out of range by random error and if the box **Use nominal blank absorbance if out of range** is clicked all sample concentrations will be calculated based on the given Blank in the box **Blank Extinction**.

If the box **Use nominal blank absorbance if out of range** is un-clicked (entries for **Blank extinction and Blank tolerance** still filled) the following error comes up on the screen.

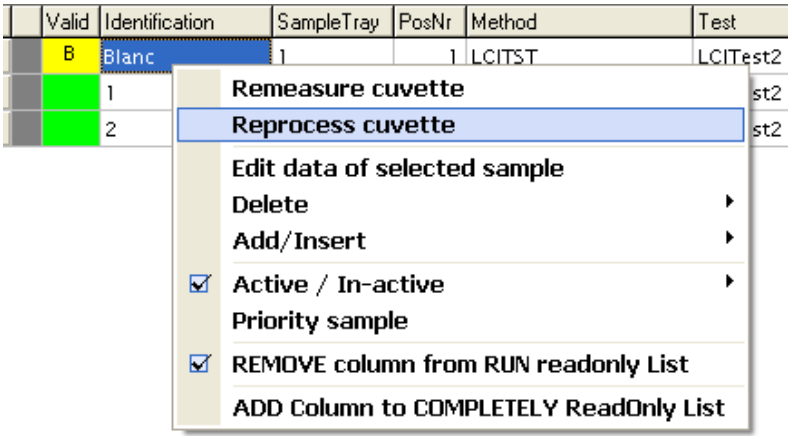


You can choose now **Ignore and Continue** using the nominal blank calculation or **Solve and Continue** (stop).

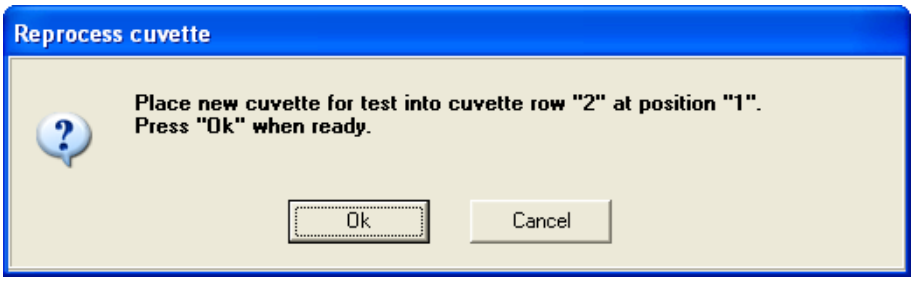
If the blank has failed it will be marked in yellow in the result table (see below).



Additionally you can re-run a blank after the main run and start a re-calculation based on this new blank afterwards. The blank that has been out of tolerance will be overwritten. For reprocessing the blank you can select **Reprocess cuvette** (right mouse in the blank field as shown below).



When selected a message appears to reload a new cuvette for the blank measurement (replace the original one):



After reprocessing the blank all samples can be recalculated under **Table → (re) Calculate results**.

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