



December 12, 2008

Office of Water Quality Water-Quality Information Note 2009.02

Subject: Field Methods—Update on the Availability and Use of Whatman Capsule Filters

This Water-Quality Information (WaQI) Note announces the availability of Whatman capsule filters from the National Field Supply Service (NFSS) of the National Water-Quality Laboratory (NWQL) and provides important caveats for how these capsule filters are to be used. (For information about previous problems regarding the use and availability of these capsule filters, access WaQI Notes 2008.13 and 2009.01 at:

<http://water.usgs.gov/usgs/owq/WaQI/index.html>.)

Effective immediately the NFSS will begin to fill purchase orders for Whatman capsule filters (item number Q398FLD), which have been on back order since October 2008. The current lots of Whatman filters do not meet all of our quality-assurance specifications, but can be used by modifying the rinse volumes used in our standard field procedures. The Office of Water Quality and the NWQL are actively engaged in looking for high-capacity, single-use capsule filters that better meet our needs.

The revised volume of rinse water needed to clean the capsule filters before collecting sample filtrate for nutrients and dissolved organic carbon are shown below in *bold italics*. These revisions to our protocols are to remain in effect until further notice.

- **Trace elements and major ions (FA, FAM, FU):** Before collecting sample filtrate for trace-element and major-ion analyses, pass either 1 liter (L) of ASTM Type 1 deionized water (DIW) or 1 L of inorganic blank water (IBW) through the capsule filter, plus 225 milliliters (mL) sample water, as specified in the *National Field Manual* (<http://water.usgs.gov/owq/FieldManual/chapter5/pdf/chap5.pdf>).
- **Nutrients (FCC, FCA):** Before collecting sample filtrate for nutrient analysis, prerinse the capsule filter with at least 1 L of DIW/IBW plus another 750 mL of sample water, if collecting major-ion and trace-element (FA and FU) samples first; ***or, with 2 L of DIW/IBW plus at least 200 mL sample water, if collecting nutrient samples without first collecting other samples for inorganic analyses.***

- **Dissolved Organic Carbon (DOC):** Before collecting filtrate for DOC analysis, *prerinse the capsule filter with at least 3 L of water, as follows: If the sample is collected as the last of the typical field sequence (FA, FU, FCC, etc.), ensure that a total of at least 2 L of sample water are passed through the filter unit before collecting the DOC sample. Alternatively, and if less than 1 L of sample (but a minimum of 200 mL of sample) will pass through the filter before DOC is collected, prerinse the filter with either 2 L of organic-grade deionized water (for example, pesticide blank water (PBW) or ASTM Type 1 water that has been polished with a carbon filter) followed by the sample-water rinse.*

Signed,

The Office of Water Quality and the Quality Assurance Section of the
NWQL. 12/12/2008.

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