



BIOVIR LABORATORIES, INC.

EXAMPLE PROCEDURE FOR COLLECTING BULK WATER SAMPLES (Including Matrix Spike Samples) FOR LABORATORY FILTRATION AND METHOD 1622/1623 ANALYSIS *

NOTE! The EPA method 1622/1623: Cryptosporidium and Giardia in Water by Filtration/IMS/FA December 2005 Sample arrival temperature requirement is 0° C to < 20°C. EPA target arrival temperature <10°C

* Adapted from EPA Document. See <http://www.epa.gov/microbes>

Example Procedure for Collecting Bulk Water Samples (Including Matrix Spike Samples) for Laboratory Filtration and Method 1622/1623 Analysis

1.0 Required Materials

Have the following material available prior to sampling:

- Several pair of new latex gloves*
- Sample Data sheet*
- 10-L cubitainer *
- Waterproof Sample Label*
- Waterproof Pen
- Cooler/vessel for chilling of sample prior to shipment
- 20 lbs. of ice for chilling of sample prior to shipping
- 2 30 gallon plastic liners *
- 10lbs ice (cubes or crushed) for shipping
- 5 large (gallon) ziplock bags*
- Strapping or duct tape to seal cooler prior to shipping
- Shipping air bill (completed by utilities)

2.0 Collecting the Sample

- Put on a pair of latex gloves.
- Turn on the influent tap and allow the source water to flush the system for 2 to 3 minutes or until any debris that had accumulated has cleared, or turbidity has become visibly uniform.
- While system is flushing record following information on the sample data sheet:
 - Public Water System (PWS) Name and Address
 - Sampler Name
 - PWS ID Number
 - Facility Name and PWS Facility ID number
 - Sample Collection Point Name and ID number
 - Sample Collection Date
 - Source water type
 - Assay Requested (indicate if Field Sample or Matrix sample)
- Measure and enter water Turbidity and other optional parameters such as temperature and pH after system has flushed.
- Fill the 10-L. Cubitainer. If a field sample and a matrix spike sample are collected, fill one right after the other. Record the Sample Collection Time on the Sample Data Sheet
- **Field sample and Matrix Spike sample volume must be the same (within 10%)!**
- Record any Comments to the laboratory if necessary.
- Tighten cubitainer cap(s) and record ID information on side of cubitainer with permanent waterproof ink. Place cubitainer(s) up to the shoulder (do not submerge completely) in an ice bath to chill the samples prior to packing in the shipping cooler. A starting temperature of 25°C will take approximately 2 hours to chill properly.
- If pre-chilling the sample prevents sending the same day, the temperature should be maintained by refrigeration, or a cooler filled with ice (Holding time for samples is 96 hours from start of sampling).

2.8 Sample must arrive at the Processing Laboratory between 0°C - <20°C

NOTE ! It is extremely important to pre-chill the sample. Rely only upon the ice contained in the shipping cooler to keep the sample cool. If sample temperature and holding time requirements are not met, the sample is invalid and must be recollected.

*Supplied if Requested

3.0 Packing and Shipping the Sample

- Line the sample cooler by inserting one large plastic liner into the other (to create a double liner).
- Place 10-lbs of ice divided into ziplock bags, expel as much air as possible then seal. Secure the ends with tape.
- Place the chilled container into the sample cooler, place an ice pack on each side of the container(s).
- Seal each liner by twisting the top of each bag, then tying into a knot.
- Place the completed sample data sheet (chain of custody) into a ziplock, seal and tape to the inside cooler lid.
- Close and seal the cooler lid.
- Attach your completed air bill to the cooler, retain sender copy.
- Send to BioVir.
- Alert BioVir at least 24 hours prior to sample shipment date. Indicate courier used and request BioVir contact client if sample not received.
- If problems are encountered with the shipment, communicate with the shipping company and BioVir to resolve.

NOTE ! It is very important to use the double liners and ziplocks to prevent leakage from the sample cooler. Shipping companies may delay shipment if leakage occurs.