DEPARTMENT OF HEALTH AND HOSPITALS
Public Health

Procedure for Collecting Bulk Water Samples *Giardia/Cryptosporidium* Analysis
LA DHH OPH Laboratory

Materials

The following materials should be available before collecting samples:

- Several pairs of new, powder-free latex gloves
- OPH Sample collection form
- Clean unused 10 L cubitainer (will need 2 if collecting the matrix spike)
- Cooler, approximately 34-quart for one sample; 70-quart for two samples
- Two large plastic trash bags
- Two 8-lb. bags of ice, or the equivalent number of ice packs sufficient to maintain the sample 1°C and 10°C
- Five gallon size ziplock bags
- Strapping tape (if applicable)
- Airbill for shipment with plastic sleeves (if applicable)
- Bench scale (0-25 lbs.)

Sample Collection

1. Put on a pair of powder-free latex gloves.

2. If sampling from a pressurized sample tap, turn on the influent tap and flush the system by allowing source water to flow for 2 to 3 minutes or until the temperature has stabilized and any debris that has accumulated has cleared or the turbidity in the water becomes visibly uniform.

3. While the system is flushing or if you are collecting a sample directly from the source water, record the following information on the sample collection form:

Public water system (PWS) name	Sample Collection Point Name
PWS address	Sample Collection Point ID
PWS ID number	Sample Collection Date
Facility name	Sampler
PWS facility ID number	

Source water type (optional [but required for *E. coli* sample forms])

Requested analysis (circle *Cryptosporidium* field sample for routine monitoring sample; circle both "*Cryptosporidium* field sample" and "*Cryptosporidium* matrix spike" sample if you are sending an additional sample with the monitoring sample for matrix spike analysis)

4. After the system has been flushed, measure the turbidity of the source water and temperature. If desired, measure the pH of the sample.

5. Fill the 10 Liter (or multiple) cubitainer(s) to the neck line of the cubitainer. If both a field sample and a matrix spike sample are being collected, fill one immediately after the other. Write the PWS ID# and Sample Location on the sample container with a permanent marker. Record the Sample Collection Time and any comments to the laboratory (if needed) on the sample collection form.

6. Immediately following sample collection, tighten the cubitainer cap(s) and weigh the sample (10 liters ≈ 22.5 lbs.). ***Note!*** Lab will reject the sample if less than 10 Liters (**<22.5 lbs**.) is received. Place the cubitainer(s) in a refrigerator or cooler filled with wet ice to chill. Deliver samples to the laboratory the same day or the day after they are collected. If samples are shipped to the laboratory repack with fresh ice before shipping.

Note! Method 1623.1 requires that the temperature of shipped samples upon arrival at the laboratory must be <20°C (but not frozen), and the laboratory must have time to process the sample before **96 hours** elapses after sample collection. Source water samples that are collected above 10°C, should be chilled before shipment. If the sample temperature and holding time requirements are not met, then the sample is invalid and must be recollected.

Packing the Sample for Shipment

7. Insert two large plastic trash bags into the shipping cooler to create a double liner. Immediately before packing the cooler, place a fresh 8-lb bag of ice into each of the two plastic, Ziploc bags. To prevent leaks place each ice pack into an additional Ziploc bag. Seal each Ziploc bag, expelling as much air as possible, and secure top with tape.

Note! Shipping companies may delay sample shipments if leakage occurs. Double liners and Ziploc bags around ice will prevent leakage and delays.

8. Place the chilled cubitainer upright into the center of the lined cooler. Place the two ice packs into the cooler, one on each side of the cubitainer. Seal each liner bag by twisting top of bag and tying in a knot.

9. Sign and date the sample collection form. Fold the completed sample collection form, and place it inside a plastic Ziploc bag. Tape the plastic bag to the inside of the cooler top.

10. Close the cooler lid, seal the horizontal joints with strapping tape, and secure the lid with tape by taping the cooler at each end, perpendicular to the seal.

Note! Shipping companies may delay sample shipments if leakage occurs. Be sure to seal the cooler joints.

11. Peel the backing off of the airbill sleeve and attach the sleeve to the outside of the cooler lid. Complete the shipping airbill with the laboratory address, billing information, sample weight, and shipping service. Remove the shipper's copy of the airbill, and place the remainder of the airbill inside the plastic sleeve.

Shipping and Tracking

12. Ship the sample after it has chilled to between 1°C and 10°C using a reliable shipping service for overnight delivery. If samples are not shipped the day of collection, the sample must be maintained between 1°C and 10°C by chilling in a refrigerator or cooler filled with ice.

13. Contact the laboratory to notify them of the sample shipment and provide them with the tracking number. Request that the laboratory contact you the next day if the sample is not received.

14. Using the tracking number on the shipper's copy of the airbill, track the sample shipment using the shipping company's web page or by contacting the shipping company over the phone.

15. If problems are encountered with the shipment, communicate with the shipping company to resolve, and update the laboratory regarding the status of the shipment.

16. Ship sample to or drop off samples at:

    Louisiana Office of Public Health (OPH) Laboratory
    1209 Leesville Ave.
    Baton Rouge, La. 70802

If you have any questions or need additional information please contact Beth Fava, OPH laboratory, at (504) 219-5207 or Beth.Fava@la.gov and Caryn Benjamin, Safe Drinking Water Program, at (225) 342-6157 or Caryn.Benjamin@la.gov.

Long Term 2 Enhanced Surface Water Treatment Rule Sample Collection Form

PWS Name:	**Laboratory:** LA DHH OPH Laboratory
PWS Address:	**Address:** 1209 Leesville Avenue Baton Rouge, LA 70802 Phone: (225) 219-5207
PWS ID:	**Laboratory Contact:** Beth Fava email: beth.fava@la.gov
Facility Name:	**Date Shipped to Laboratory:**
Facility ID:	**Shipper/Tracking Number(if applicable):**
Sample Collection Point Name (optional):	**Sample Collection Point ID:**
Sample Type (circle one): **Flowing stream/river GWUDI - FS** **Reservoir/Lake GWUDI - RL**	**Requested Analysis (check all that apply):** ☐ ***Giardia/Cryptosporidium* Field** ☐ ***Giardia/Cryptosporidium* Matrix Spike** ☐ ***E. coli***
Sample Collection Date:	**Sample Collection Start Time:**
Sample Temperature (°C):	**Sample Turbidity (NTU):**
pH (optional):	
Volume Collected (L):	**Sampler Signature:**
SAMPLE RECEIPT INFORMATION (FOR LAB USE ONLY)	
Sample Temperature (°C)[1]:	**Sample Volume ≥ 10 L (≥22.5 lbs)?** **Yes No[2]**
Sample Condition:	**Are All Sample Acceptance Criteria Met?** **YES NO**
Sample Received By:	**Date/Time Received:**
ADDITIONAL COMMENTS:	

1. Sample temperature upon receipt must be <20°C unless samples are delivered to the laboratory on the same day as collected. However, samples delivered the same day must show evidence of chilling (on ice) upon receipt.

2. If <10 L is received the sample must be rejected. The client must be instructed to collect a replacement sample.