



CIRCUMSTANCES

- **Suspected Case Investigation**

Optimal sensitivity is desirable in the context of a case investigation; therefore, two samples, water and swab, should be collected from the same water outlet(s) in the immediate environment of a suspected case. Health departments will often recommend that a larger volume of water (1 liter) be collected.

- **Routine Monitoring**

For routine environmental surveillance, one sample, either swab or water (or a combination of the two), of an outlet is acceptable. The volume of water collected is less than one liter. We recommend ≥ 120 mL (250 mL bottle).

- **Post-disinfection Monitoring**

Ongoing surveillance for monitoring the efficacy of disinfection efforts should include previously positive locations for follow up testing.

- **What is different when routine sampling volumes (≥ 120 mL [250 mL bottle]) are processed vs. 1 liter samples?**

Potable water samples are filter concentrated through a very small pore size (0.2 micron) filter. Depending on the particulates, a liter takes five times longer to pass through the filter—sometimes as long as 20 minutes and can require multiple filters.

More of the unwanted non-*Legionella* are brought along with the *Legionella* when 1 liter is filtered. The laboratory must use additional processing steps (multiple pre-treatment steps and additional selective culture media) to isolate *Legionella*.

The above steps increase the time and materials required to process each 1 liter water sample.

SAMPLE COLLECTION

Potable Water

1. Use waterproof pen to label bottle or swab with sample location, description, and date.
2. Swab collection:
 - a) Remove aerator if present.
 - b) Moisten the outlet by briefly turning on the hot water.
 - c) Insert swab into faucet opening rotating four times against the inner surface as it moves up into the opening (for shower head, rotate swab over entire surface of showerhead four times).
 - d) Replace swab in transport tube.



3. Water collection: a) Turn on hot water and immediately fill the bottle to **≥120 mL**.
b) Close bottle and invert to mix the sodium thiosulfate neutralizer.

Hot Water Tanks

1. Open the drain valve at the base of the heater or tank and immediately fill bottle.
2. Let the water continue to drain for 15–30 seconds to flush out residual water within the drain pipe.
3. Fill a second sample bottle.
4. Submit both samples, labeled *Immediate* and *Post Flush*.

Cooling Towers

Submerge open bottle just under the surface of water to obtain approximately 120 mL of sample.

Note: Swabs are not considered an appropriate sample for routine testing of cooling towers.

Ice Machines

The ice is processed in the lab after allowing it to melt and is concentrated by filtration. One 500 mL sample bottle of ice is required for adequate melted volume. If a water dispenser is part of the machine, collect the water as you would from any faucet: turn on the faucet and immediately fill the sample bottle.

Note: A swab of the faucet opening can also be collected and is recommended if assessing the outlet as a source of infection during a case investigation.

CHAIN OF CUSTODY

1. Log on to MySPL portal and click Start Chain of Custody under the Quick Links section.
2. Enter your information, and then click Save and Submit or Save as Draft. *Chains of Custody cannot be edited after submission.*
3. Add confirmation number from the confirmation screen (or email) to the box before shipping.

SHIPPING

1. Ship the same day samples are collected for receipt in laboratory for delivery within 24 hours (recommended) and **not to exceed 48 hours**.
2. Place bottles in box with insulated liner.



TEST CODE
101

SAMPLING AND SHIPPING
Legionella

3. Write your confirmation number on your SPL label that shipped with your bottle order. Add the label to top of box (if no label, write the number on your box).
4. Use the included return tape to seal your box for return shipping. Make an “H” with the tape by affixing tape evenly across the flaps and seams along the top of the box.
5. Ship overnight Monday–Friday only to:
(When shipping samples on Friday, check the Saturday delivery box when creating shipping labels.)

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Questions? Contact SPL at 412-281-5335