IMPORTANT NOTE: Prior to conducting testing, the School Lead Hazards Survey should be completed and returned to the North Dakota Department of Environmental Quality. (https://deq.nd.gov/forms/mf/SchoolLeadHazardsSurvey.pdf)

Please read the entire brochure BEFORE collecting samples.

1 Preparation is Required for Success

It is important to ensure that testing represents the water which students and staff consume under normal facility use. Therefore the first step should be to understand how to obtain accurate results. **We recommend that all schools also review the US EPA's *3Ts for Reducing Lead in Drinking Water in Schools* guidance document.** This preparation will assist you with planning to test and any necessary follow-up actions.

The *3Ts* documents will help in identifying plumbing materials and flow patterns within the facility pluming system, understand how lead can get into the drinking water, and how to use this information to prepare a targeted sampling plan. These documents also provide valuable guidance on the important preparation step of developing a communications plan.

2 Before You Sample

Ensure that all sample collectors have read and understand this brochure.

Contact the public water system which supplies water to your facility to obtain any known information about lead in the water distribution system. Discuss your plans to sample for lead to make them aware.

RELATED PUBLICATIONS AND ADDITIONAL RESOURCES

NDDEQ
https://deq.nd.gov/LeadInSchools/default.aspx

EPA
3Ts for Reducing Lead in Drinking Water in Schools (https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf)

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FOR MORE INFORMATION

North Dakota Department of Environmental Quality
Division of Municipal Facilities
Drinking Water Program
4201 Normandy St.
Bismarck ND, 58503-1324

Phone: 701-328-5211
Fax: 701-328-5200

Adapted from:
Washington State Department of Health
Environmental Public Health
Office of Drinking Water
Testing for Lead in School Drinking Water Systems

Testing for Lead in Drinking Water

GUIDANCE FOR SCHOOL FACILITIES

This guidance is for facilities served by a public water system. Facilities which are a public water system should not use this guidance for testing.

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Contact a laboratory certified to perform lead analysis. A list of regional labs is on the back of this brochure. Request the number of bottles needed for the collection. School facilities should collect 250 milliliter (ml) samples. Make sure you communicate to the lab the purpose of the sampling and that this is not lead testing for a public water system as that process and sample size is different.

3 Initial First-Draw Sampling

Select drinking water taps in the building to sample. Taps should be prioritized based upon how frequently and likely someone could use it for drinking or cooking. The most important taps to sample would be those water fountains or other water taps most often used by students or staff for drinking as well as the kitchen faucets used for cooking. Bathroom sinks used primarily for hand washing should not be prioritized unless they are also often used for drinking water. Fixtures not used for drinking water such as janitors sinks should not be tested.

Select a day to sample when normal facility operations are occurring. Do not sample the morning after a weekend or a long vacation. The long stagnant period will not represent normal water use. It is best to sample on a day in the middle of the week when schedules are routine.

Collect "first-draw" samples. A first-draw water sample is one which is taken after the water has sat without use for at least 8 hours but not more than 18 hours. Generally it works best to collect the samples in the morning before the facility opens to ensure no water has been used.

Only sample cold water. If you are collecting samples from fixtures which mix hot and cold water, make sure cold water is the last water to run through the tap before it sits overnight.

Do not remove the aerator. Regular cleaning of all aerators is recommended maintenance, however, during sample collection the screen must remain in place for accurate testing.

Sample collection steps:

- Do not rinse the sample bottle or run any water before collecting the sample.
- Place the opened bottle below the tap and turn on the cold water to a steady flow such as you would use to fill a glass of water.
- Fill the bottle to the 250 ml line or to the shoulder.
- Securely replace the lid and label the bottle as indicated by the laboratory.

Information to be provided to lab:

- Facility name
- Collection date and time
- Name of the person collecting the sample
- Sample location (Each tap should have an assigned site ID and be labeled on the container as well as on the lab sample recording form.)
- Contact and billing information

Repeat the process for each tap sample

4 Follow-up Monitoring

Identify taps for any necessary follow-up testing. We recommend follow-up monitoring for all taps where initial first-draw sampling shows lead in excess of 20 micrograms per liter (µg/l) or 20 parts per billion (ppb). Follow-up samples are flushed samples to show whether lead content is coming from the fixture or the plumbing behind the wall. The key difference between initial and follow-up sampling is allowing the water to run for 30 seconds before collecting the sample.

Sample on a weekday. Do not sample the morning after a weekend, vacation, or holiday.

Sample only cold water. Make sure that cold water is the last water to run through the tap prior to sitting overnight.

If a tap has been shut off or out of service, the water should be turned back on and the tap flushed for at least 2 minutes the day prior to sampling.

Collect samples in the morning. The water should sit for at least 8 hours but not more than 18 hours before sample collection.

Allow the cold water to run at a steady flow for 30 seconds before you collect the sample. After 30 seconds place the sample bottle under the water stream and fill the bottle . Securely replace the lid.

Complete the laboratory information sheet and label all bottles. All of the same information should be provided , except these samples should be labeled as "follow-up" or "flushed" samples.

Repeat the same process for each tap which exceeded 20 ppb for lead in the initial sample.