

# Lead & Copper Rule and Sampling

03/24/2022

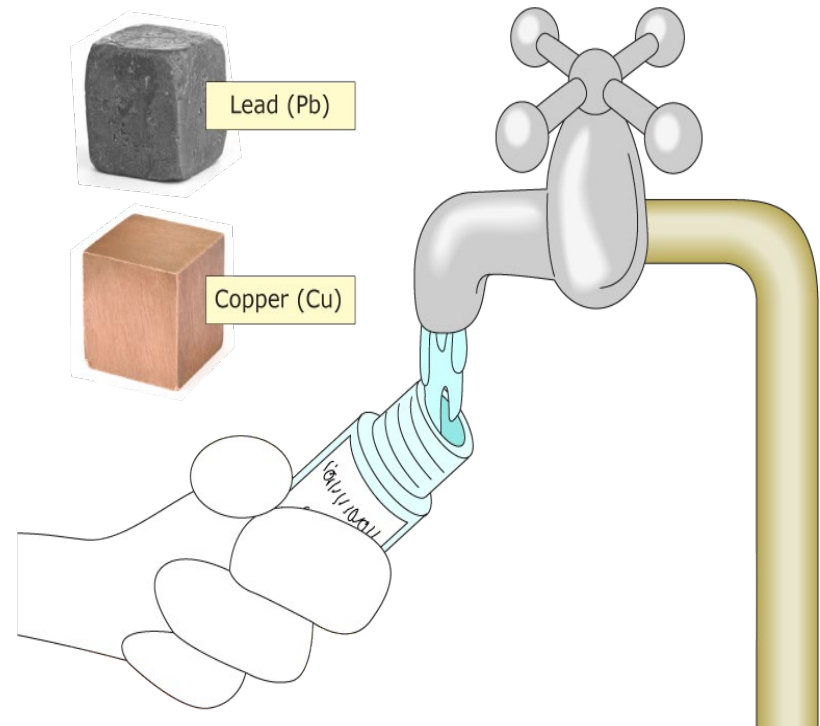
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# Presentation Plan

1. What's New
2. Lead & Copper Rule Revision
3. Sampling & Compliance – Do's and Don'ts
4. Lead Sampling in Schools



# What's New

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- New Lead & Copper Rule Manager
  - George Williams (406) 444-3276 [George.williams@mt.gov](mailto:George.williams@mt.gov)
- Lead & Copper Rule Revision (LCRR)
  - Published 12/16/2021
  - Implementation Date – 10/16/2024
- Lead & Copper Rule Improvements (LCRi)
  - EPA revising rule again
  - Suppose to be out prior to 10/16/2024
- Lead & Copper Rule Website
  - <https://deq.mt.gov/water/Programs/dw-leadandcopper>
- Lead & Copper Rule email address
  - [leadandcopper@mt.gov](mailto:leadandcopper@mt.gov)

# Lead & Copper Rule Revision

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- Published on December 16, 2021 with an implementation date of October 16, 2024
- Adds significant number of requirements.
- The rule aims to:
  - **Goal 1. Better protect children** at schools and childcare facilities
  - **Goal 2. Get the lead out** of drinking water, and
  - **Goal 3. Empower communities** through information

# What's Changing

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- New Trigger Level for lead (0.010 mg/L)
- Lead Service Line Inventories (LSL)\*\*\* (only requirement due by 10/16/2024)
- LSL replacement plans & replacement requirements
- New site sampling plans
- New sampling procedures
- Revised Corrosion Control Treatment requirements
- Small system flexibility
- Find-and-Fix provisions to address elevated results at individual sites
- Public notification requirements
- Lead testing at schools/childcare facilities

EPA will be revising the rule again with the Lead & Copper Rule Improvements (LCRI). The LCRI is supposed to be out prior the October 16, 2024 implementation date, and may revise all of the above requirements EXCEPT for the LSL inventories.

# Service Line Inventories

- Water systems must prepare an initial Lead Service Line Inventory by the LCRR Compliance Date that identifies:
  - Lead Service lines
  - Lead Status Unknown Service Lines
  - Galvanized lines requiring replacement
  - Non-lead Service lines
- Lead connectors (i.e., goosenecks or pigtails) are not required but recommended to be included in the inventory
  - EPA recommends including lead connectors where records exist
  - Water systems should replace lead connectors when encountered
- Inventories must be completed and submitted by October 16, 2024.

# Lead Service Line Replacement Plans

## **Water Systems with LSLs must prepare an LSLR plan with:**

- Strategy for IDing lead status unknown lines
- Procedure for conducting full LSLR
- Strategy for informing customers before a LSLR
- Procedure for customers to flush
- LSLR replacement prioritization strategy
  - disadvantaged consumers
  - populations most sensitive to the effects of lead
  - known lead service lines
- Funding strategy
- Due date will be after 10/16/24 (To be determined)
- All replacements must be full replacements (partial will not count)

# Trigger Level (Lead only)

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- Establishes a new Lead Trigger Level (TL) of 10 µg/L
- TL is in addition to the lead action level (AL) of 15 µg/L
- Water systems that exceed the TL but not the AL:
  - No reduced tap sampling – water systems must sample annually at the standard number of sites
  - Implement goal-based LSLR program
  - Conduct annual outreach to LSL customers
  - CCT study if CCT not installed
  - Re-optimize if CCT is installed



# Sampling Plans

## Tap sample site selection criteria (tiering)

Tier	Community Water Systems	NTNC Water Systems
Tier 1	Collect samples from SFSs with LSLs. Tier 1 samples can be collected from MFRs if they represent at least 20 percent of the structures served by the PWS. Lead status unknown sites cannot be used as Tier 1.	Collect samples from buildings serviced by LSL.
Tier 2	Collect samples from buildings and MFRs served by LSLs	N/A
Tier 3	Collect samples from SFSs with galvanized service lines downstream of an LSL, currently or in the past or known to be downstream of a lead connector	Collect from sampling locations with galvanized service lines downstream of an LSL, current or in the past or known downstream lead connector.
Tier 4	Collect samples from SFS with copper pipes and lead solder installed before 1988.	
Tier 5	Representative sample where the plumbing is similar to that used at other sites served	Sampling sites that are representative of sites throughout the distribution system.

- Acronyms: LSL – lead service line; SFS – single family structure; MFR multi-family residence

# Lead Sampling

## 90<sup>th</sup> percentile calculation for lead

- Water systems with LSLs will use 100% tap samples from LSL sites
- Water systems with insufficient numbers of LSLs collect samples from LSL and non-LSL sites will use the highest non-LSL tap samples
- Water systems without LSLs will use all tap samples collected

## Tap sample collection protocol

- Collect the 5<sup>th</sup> liter at sites with an LSL
  - 1<sup>st</sup> Liter and 5<sup>th</sup> Liter



- No removing/cleaning aerators or pre-stagnation flushing

# Monitoring

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Above the Trigger Level (0.010 mg/L) = monitor at least annually (not eligible for reduced triennial monitoring)

Above the AL (0.015 mg/L) = monitor every six months at or below the AL for two years

New source or long-term treatment change = monitor every six months

# Corrosion Control Treatment

- Require water systems with CCT to re-optimize if the 90<sup>th</sup> percentile lead level exceeds the TL or AL
- Require water systems without CCT to study OCCT if the 90<sup>th</sup> percentile >TL and implement OCCT if AL is exceeded
- Must evaluate orthophosphate-based inhibitor as CCT (instead of a phosphate-based inhibitor) as part of study
  - Use of Polyphosphates will not be an approved treatment for Corrosion Control
  - Awaiting guidance from EPA on use of Blended phosphates
- Sanitary surveys to include CCT review and OWQP assessment

# Small System Flexibility

- Applies to CWS with less than 10,000 people and all NTNCs
- Allows system more flexibility when a Trigger level or an ALE occurs
- Treatment options
  - Corrosion Control Treatment
  - LSL replacement (if present)
  - Use of Point of Use (POU) treatment (filters)
    - System must supply and maintain the POU
- Replace all lead-bearing materials (NTNCs only)

# Find and Fix

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- Require all systems to collect a follow-up sample for each lead tap sample site >AL within 30 days of learning of the results
- Systems with CCT: collect an additional WQP sample at/near the high site within 5 days of learning of the lead results
- Is a “fix” is needed (e.g., adjustment to CCT, flushing portions of the distribution system, or other strategies)?
- Systems that identify a fix that is out of their control, such as premise plumbing, must provide documentation to their state

# Notification and Public Education

- Make Lead Service Line Inventory with general location identifiers publicly available
- Water systems must conduct public notification to consumers within 24 hours of a 90<sup>th</sup> percentile lead level > AL
- Provide notice to customers whose individual tap sample is > 15 µg/L within 3 days
- Require water systems with LSLs that exceed the TL to conduct annual outreach to LSL customers
- Deliver Public Education (PE) to impacted consumers during water-related work that may disturb LSLs
- Revised CCR health effects language, availability of the LSL inventory and report of the range of tap sample levels
- Provide public access tap sample results

# Lead Sampling in Schools and Childcare Facilities

## Community Water Systems will:

- Develop a list of schools/childcare facilities in service area
- For the first 5 years: sample 20% of elementary & middle schools and 20% of childcare facilities each year
- After one round (5 years) of sampling, systems sample on request at elementary schools and childcare facilities
- Systems must sample secondary schools (high schools) on request
- 5 samples/school and 2 samples/childcare facility using 250 ml sample bottle.
- Since MT has a state requirement for all accredited K-12 schools to sample for Lead, Community Systems will get a waiver for the schools covered by the state program.
  - Community systems will still be required to sample all non-accredited schools and all childcares that they provide water to.



# Consumer Notices

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- For Community Systems - Consumers Notices are to be sent to the customers where the samples were collected within 30 days upon receipt of the data.
- For NTNC Systems – Consumer notice must be posted in the facility where the samples were collected. And must be accessibly for consumers of the water. Must be posted within 30 days of receipt of the data.
- DEQ needs a copy of **all** the consumer notices that were sent or posted along with the completed Consumer notice certification form. These are to be submitted to the DEQ within 90 days following the end of the monitoring period.

# Dos & Don'ts

# Consumer Notices

Consumer notices **MUST** be distributed to the homes or businesses sampled for lead and copper EACH TIME you sample for lead and copper!



Consumer Notices should be delivered via mail or direct delivery within 30 days of receiving your test results.

NTNC's must post the notice in a public location within the building that was sampled.



Copies of the consumer notices and the certification page must be faxed, emailed, or mailed to the state within 90 days after the monitoring period ends.



You are welcome to create your own template or use the DEQ template. The consumer notice must contain:

Individual lead/copper tap water monitoring results

Health effects of lead

Ways consumers can reduce exposure to lead in drinking water

The maximum contaminant level goal (MCLG) and action levels with definitions

Contact information for water utility



# Consumer Notices

## Consumer Notice of Lead Tap Water Monitoring Results Certification Form

PWS Name:  PWSID:  Monitoring Period:

### Delivery Method

(A copy of the letter that you sent to the consumers must be submitted with this form.)

1. Community water system (choose a or b):
  - a. Consumers were notified by U.S. Mail on  (date).
  - b. Consumers were notified by hand/direct delivery on  (date).
2. Non Transient Non Community (NTNC) water system (choose a or b):
  - a. The lead and copper results were posted on  (date) within the facility in which the samples were collected and the results will be posted until the next lead/copper results are reported.
  - b. Consumers were notified by hand/direct delivery on  (date)

The water system named above hereby certifies that its lead and copper consumer notice has been provided to each person it serves at the specific sampling site from which the sample was tested. The water system also certifies that these results and the following information were provided to such persons within 30 days of receiving the test results from the laboratory:

- Individual tap results from lead and copper tap water monitoring.
- An explanation of the health effects of lead and copper with steps that consumers can take to reduce exposure to lead and copper in drinking water.
- Contact information for your water utility.
- The maximum contaminant level goals and action levels for lead and copper, and the definitions of these two terms from.

Signature:  Print Name:

Job Title:  Phone:  Date:

Comments:

- Complete this form.
- Within 3 months following the end of the monitoring period, mail, email, or fax this form with a sample copy of one of the consumer notifications to:

Mail: Montana Department of Environmental Quality, Lead and Copper Rule Manager  
P.O. Box 200901, Helena, MT 59620-0901  
Email: george.williams@mt.gov  
Fax: 406-444-1374

Please be reminded to retain copies of all lead consumer notice documentation for your records.

If you have any questions, please call 406-444-4400.

# Consumer Notices - Community

To: \_\_\_\_\_ [customer name] Date \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ [customer address]

Sample Tap Location: \_\_\_\_\_ Lead and Copper Results

From: \_\_\_\_\_ [PWS Name] \_\_\_\_\_ [PWSID] Community \_\_\_\_\_  
\_\_\_\_\_ [PWS Contact Person, Title]  
\_\_\_\_\_ [PWS Contact Address]  
\_\_\_\_\_ [PWS Contact Phone]

Dear \_\_\_\_\_ [customer],

Thank you for participating in the lead and copper tap monitoring that was recently conducted. This letter is to report the lead and copper results for the above-designated sample location. The reported results are \_\_\_\_\_ milligrams/liter (mg/L) for lead, and \_\_\_\_\_ mg/L for copper.

The 90th percentile lead and copper levels for our system are \_\_\_\_\_ mg/L for lead, and \_\_\_\_\_ mg/L for copper. The action level for lead is 0.015 mg/L with the maximum contaminant level goal (MCLG) set at zero. The action level and MCLG for copper is 1.3 mg/L. The results indicate that we \_\_\_\_\_ [have/have not] exceeded the lead action level and \_\_\_\_\_ [have/have not] exceeded the copper action level.

## What Does This Mean?

Under the authority of the Safe Drinking Water Act, EPA set the action level for lead in drinking water at 0.015 mg/L and 1.3 mg/L for copper. This means utilities must ensure that water from the customer's tap does not exceed these levels in at least 90 percent of the homes sampled (90th percentile value). The action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. If water from the tap does exceed this limit, then the utility must take certain steps to correct the problem. Because lead may pose serious health risks, the EPA set a Maximum Contaminant Level Goal (MCLG) of zero for lead. The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

## What Are The Health Effects of Lead?

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of

lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

## What Are the Health Effects of Copper?

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

## What Are The Sources of Lead and Copper?

Lead is a common metal found in the environment. The main sources of lead exposure are lead-based paint and lead-contaminated dust or soil. Drinking water is also a possible source of lead exposure. Most sources of drinking water have no lead or very low levels of lead. Most lead gets into drinking water after the water leaves the local well or treatment plant and comes into contact with plumbing materials containing lead. These include lead pipes, lead solder (commonly used until 1986), as well as faucets, valves, and other components made of brass.

Copper works its way into the water by dissolving from copper pipes in the household plumbing. The longer the water has stood idle in the pipes, the more copper it is likely to have absorbed. Newer homes with copper pipes may be more likely to have a problem. Over time, a coating forms on the inside of the pipes and can insulate the water from the copper in the pipes. In newer homes, this coating has not yet had a chance to develop.

## What Can I Do To Reduce Exposure to Lead and Copper in Drinking Water?

Run your water to flush out lead and copper. If water hasn't been used for several hours, run water for 15-30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking. This flushes lead and copper-containing water from the pipes.

- *Use cold water for cooking and preparing baby formula.*
- *Do not boil water to remove lead or copper.*
- *Look for alternative sources or treatment of water.*
- *Test your water for lead or copper.*
- *Identify if your plumbing fixtures contain lead or copper.*

## For More Information

Call us at \_\_\_\_\_ [PWS phone number]. For more information on reducing lead exposure around your home and the health effects of lead, visit EPA's Web site at [www.epa.gov/lead](http://www.epa.gov/lead), call the National Lead Information Center at 800-424-LEAD, or contact your health care provider. You may also contact **Montana Department of Environmental Quality, 406-444-4400, Public Water Supply Program**, P.O. Box 200901, Helena, MT 59620-0901. <http://www.deq.mt.gov/wqinfo/pws/leadcopper.mcp>



# Consumer Notices - NTNC

Date \_\_\_\_\_

Sample Location: \_\_\_\_\_ Lead and Copper Results

From: \_\_\_\_\_ [PWS Name] \_\_\_\_\_ [PWSID] NTNC  
\_\_\_\_\_ [PWS Contact Person, Title]  
\_\_\_\_\_ [PWS Contact Address]  
\_\_\_\_\_ [PWS Contact Phone]

Dear Consumers,

This letter is to report the lead and copper results for the public water supply system. The reported results are:

Sample Site Location	Lead Result (mg/L)	Copper Result (mg/L)

The 90th percentile lead and copper levels for our system are \_\_\_\_\_ mg/L for lead, and \_\_\_\_\_ mg/L for copper. The action level for lead is 0.015 mg/L with the maximum contaminant level goal (MCLG) set at zero. The action level and MCLG for copper is 1.3 mg/L. The results indicate that we \_\_\_\_\_ [have/have not] exceeded the lead action level and \_\_\_\_\_ [have/have not] exceeded the copper action level.

## What Does This Mean?

Under the authority of the Safe Drinking Water Act, EPA set the action level for lead in drinking water at 0.015 mg/L and 1.3 mg/L for copper. This means utilities must ensure that water from the customer's tap does not exceed these levels in at least 90 percent of the locations sampled (90th percentile value). The action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. If water from the tap does exceed this limit, then the utility must take certain steps to correct the problem. Because lead may pose serious health risks, the EPA set a Maximum Contaminant Level Goal (MCLG) of zero for lead. The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

## What Are The Health Effects of Lead?

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead

exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

## What Are the Health Effects of Copper?

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

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Lead is a common metal found in the environment. The main sources of lead exposure are lead-based paint and lead-contaminated dust or soil. Drinking water is also a possible source of lead exposure. Most sources of drinking water have no lead or very low levels of lead. Most lead gets into drinking water after the water leaves the local well or treatment plant and comes into contact with plumbing materials containing lead. These include lead pipes, lead solder (commonly used until 1986), as well as faucets, valves, and other components made of brass.

Copper works its way into the water by dissolving from copper pipes in the household plumbing. The longer the water has stood idle in the pipes, the more copper it is likely to have absorbed. Newer homes with copper pipes may be more likely to have a problem. Over time, a coating forms on the inside of the pipes and can insulate the water from the copper in the pipes. In newer homes, this coating has not yet had a chance to develop.

## What Can I Do To Reduce Exposure to Lead and Copper in Drinking Water?

Run your water to flush out lead and copper. If water hasn't been used for several hours, run water for 15-30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking. This flushes lead and copper-containing water from the pipes.

- Use cold water for cooking and preparing baby formula.
- Do not boil water to remove lead or copper.
- Look for alternative sources or treatment of water.
- Test your water for lead or copper.
- Identify if your plumbing fixtures contain lead or copper.

## For More Information

Call us at \_\_\_\_\_ [PWS phone number]. For more information on reducing lead exposure around your home and the health effects of lead, visit EPA's Web site at [www.epa.gov/lead](http://www.epa.gov/lead) or call the National Lead Information Center at 800-424-LEAD, or contact your health care provider. You may also contact Montana Department of Environmental Quality, 406-444-4400, Public Water Supply Program, P.O. Box 200901, Helena, MT 59620-0901. <http://www.deq.mt.gov/wqinfo/pws/leadcopper.mcpj>

# Calculating the 90<sup>th</sup> Percentile

## How to Calculate 90<sup>th</sup> Percentile Values

Calculating 90<sup>th</sup> percentile values determines if your water system has exceeded the lead and/or copper action levels. The 90<sup>th</sup> percentile calculations for lead and copper are described in the steps below. These values are dependent on how many samples you are required to collect. Compare your calculated values to the action levels of .015 mg/L for lead and 1.3 mg/L for copper. The lead and copper action levels are exceeded when more than 10 percent of tap water samples collected during a monitoring period are greater than the allowable levels of .015 mg/L for lead and 1.3 mg/L for copper.

### If You Are Required to Collect More Than Five Samples:

- Step 1: Place lead results in ascending order (from lowest to highest value).
- Step 2: Assign each sample a number, 1 for lowest value.
- Step 3: Multiply the total number of samples by 0.9. This is your 90<sup>th</sup> percentile value.
- Step 4: Compare the 90<sup>th</sup> percentile level to the action level of 0.015 mg/L (can also be expressed as 15 parts per billion (ppb)). If your 90<sup>th</sup> percentile value is higher than 0.015 mg/L, you have an exceedance.

Repeat this procedure for copper sample results, except compare the 90<sup>th</sup> percentile copper level against its action level of 1.3 mg/L. If your 90<sup>th</sup> percentile value is greater than 1.3 mg/L, you have an exceedance.

### Example:

Sample Rank	Sample Value mg/L for Lead
1	0.00
2	0.00
3	0.001
4	0.001
5	0.003

Sample Rank	Sample Value mg/L for Lead
6	0.007
7	0.009
8	0.010
9 (90 <sup>th</sup> Percentile)	0.010
10	0.017

10 samples  $\times$  0.9=9<sup>th</sup> sample. In this example, the 9<sup>th</sup> sample is equal to the value of 0.010 mg/L which is below the lead action level of 0.015mg/L

### Example:

Sample Rank	Sample Value mg/L for Lead
1	0.00
2	0.00
3	0.00
4	0.001
5	0.001
6	0.001

Sample Rank	Sample Value mg/L for Lead
7	0.003
8	0.007
9	0.009
10	0.014
11 (90 <sup>th</sup> Percentile)	0.016
12	0.016

In this example the water system handed out 12 sample bottles to ensure they received at least 10 back. All samples taken during a compliance period will be used to calculate the 90<sup>th</sup> percentile even though your schedule may ask for less samples. Rounding is defined as follows:

1. Round down to the nearest whole number if the decimal is 0.4 or lower.
2. Round up to the nearest whole number if the decimal is 0.5 or higher.

12 samples  $\times$  0.9=10.8. Using rounding for this example equates to the 11<sup>th</sup> sample= 0.016 mg/L which is over the lead action level of 0.015 mg/L.

### If You Are Required to Collect Five Samples:

- Step 1: Place lead or copper results in ascending order.
- Step 2: Take the average of the 4<sup>th</sup> and 5<sup>th</sup> highest sample (the two highest values added together and divided by two). This is your 90<sup>th</sup> percentile level.
- Step 3: Compare the 90<sup>th</sup> percentile level against the lead or copper action level.

### Example:

Sample Rank	Sample Value mg/L for Lead
1	0.00
2	0.001
3	0.003
4	0.009
5	0.015

The average of the 4<sup>th</sup> and 5<sup>th</sup> highest values equal 0.009 mg/L + 0.015mg/L=0.024 mg/L.  
0.024 mg/L + 2=0.012 mg/L which is below the lead action level of 0.015mg/L

### If You Are Allowed to Collect Fewer Than Five Samples:

- Step 1: Place lead or copper results in ascending order.
- Step 2: Compare the highest sample value (this is considered to be your 90<sup>th</sup> percentile level) against the lead or copper action level.

### Example:

Sample Rank	Sample Value mg/L for Lead
1	0.003
2 (90 <sup>th</sup> Percentile)	0.005

The highest value is 0.005 mg/L which is below the lead action level of 0.015 mg/L

# Calculating the 90<sup>th</sup> Percentile

<https://deq.mt.gov/water/programs/dw-leadandcopper>

## GUIDANCE AND FORMS

### Guidance

- [How to Calculate 90th Percentile Values](#)
- [90th Percentile Calculator \(EXTERNAL LINK\)](#)
- [Sampling Instructions for NTNC](#)
- [Sampling Instructions for Communities](#)

### Forms

**Not a big fan of doing math by hand?  
Let the calculator do it for you!**

### Drinking water lead and copper 90th percentile calculator

#### Lead and Copper Rule Forms and Guidance

Question 1: How many samples do you have?

#### Output

Lead 90th Percentile = 0 mg/L

Copper 90th Percentile = 0 mg/L

#### Enter Your Sample Results

Samples	Lead Result (mg/L) AL = .015 mg/L	Copper Result (mg/L) AL = 1.3 mg/L
Dual Sample Result #1	<input type="text"/>	<input type="text"/>
Dual Sample Result #2	<input type="text"/>	<input type="text"/>
Dual Sample Result #3	<input type="text"/>	<input type="text"/>
Dual Sample Result #4	<input type="text"/>	<input type="text"/>
Dual Sample Result #5	<input type="text"/>	<input type="text"/>
Dual Sample Result #6	<input type="text"/>	<input type="text"/>
Dual Sample Result #7	<input type="text"/>	<input type="text"/>
Dual Sample Result #8	<input type="text"/>	<input type="text"/>
Dual Sample Result #9	<input type="text"/>	<input type="text"/>
Dual Sample Result #10	<input type="text"/>	<input type="text"/>



# Sampling Outside of Monitoring Period

- Please avoid sampling outside of your system's monitoring period
  - For example: Town A is on 3 year reducing monitoring and collects 5 compliance samples. Their next sample event is between June 1-Sept 30<sup>th</sup> 2023. Town A decides to collect 2 samples between June 1 – Sept 30<sup>th</sup> 2022 for some reason. The following ramifications occur:
    - Town A comes up as violation candidate in our EPA database since only 2 out of 5 samples were collected
    - When Town A collects their normal 5 compliance samples in 2023. The EPA database will take the 5 samples from 2023 and the 2 samples from 2022 to calculate the 90<sup>th</sup> percentile. This causes inaccurate data.
    - Sampling outside the monitoring period also causes the Monitoring Schedule to show wrong dates for the next sampling event
- If a system does want to collect some early samples, try to collect outside the June 1 – Sept 30 time frame or call DEQ to discuss other options.

# Sample Types

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- Compliance Samples
  - 1<sup>st</sup> Draw sample
  - Collected from Distribution system
- Source Water Sample
  - Flush Draw sample
  - Collected from Entry Point
- Water Quality Parameters (WQPs)
  - pH and temp must be measure in field with meter not pH paper
  - Flush Draw sample
  - Collected from Entry Point and Distribution system
- Orthophosphate / Silicate
  - Flush Draw sample
  - Collected from Entry Point and Distribution system

# Lead and Copper Sampling – Common Mistakes

- DO NOT SAMPLE A VACANT BUILDING OR HOUSE



# Lead and Copper Sampling - Common Mistakes

- DO NOT SAMPLE OUTSIDE FAUCETS



# Lead and Copper Sampling – Common Mistakes

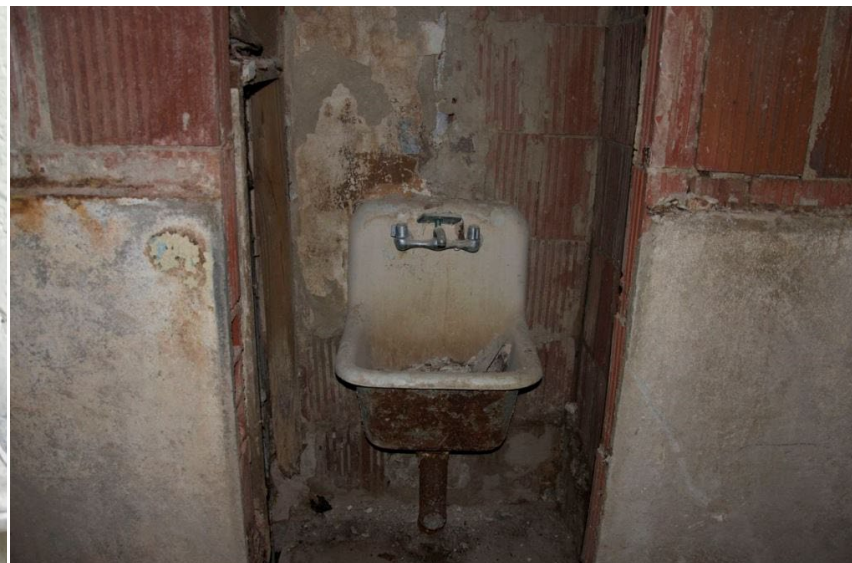
- DO NOT SAMPLE IF BUILDING/HOUSE HAS BEEN EMPTY FOR A CERTAIN PERIOD OF TIME (vacation or school). Make sure water is been used regularly





# Lead and Copper Sampling – Common Mistakes

- DO NOT SAMPLE FROM JANITOR/UTILITY SINKS OR HAND WASH SINKS



# Lead and Copper Sampling – Common Mistakes

- DO NOT SAMPLE IF THERE IS A POINT OF USE FILTER or RO



# Lead and Copper Sampling – Common Mistakes

- DO NOT SAMPLE IF WATER IS DISCOLORED





# Lead and Copper Sampling – Common Mistakes

DO NOT SAMPLE IMMEDIATELY AFTER ANY WORK ON DISTURBTION OR TREATMENT SYSTEMS.



# Lead and Copper Sampling

- DO NOT WAIT UNTIL THE END OF THE MONITORING PERIOD TO COLLECT THE SAMPLES



# Lead and Copper Sampling – Common Mistakes

- DO NOT SAMPLE FROM HOT WATER TAP.



# Lead and Copper – Routine Maintenance

- Inspect/Clean/replace faucet aerators on a regular basis
- Clean aerators after any plumbing work or construction work
- If planning on flushing system, remove aerators while flushing.



# Lead Reduction in School Drinking Water Program

- In January 2020, the Montana Department of Public Health and Human Services (DPHHS) adopted amendments to the administrative rules regarding the matter of health in Montana schools. The amendments included requirements pertaining to reducing lead in schools' drinking water. It requires all schools accredited by the Montana Board of Public Education to sample for lead in schools' drinking water.
- DEQ implements the program on behalf of DPHHS.
- All drinking water fountains and kitchen fixtures used for drinking or food preparation must be sampled. As well as all other fixtures that have the potential of being used for food prep or drinking (classroom sinks, bathroom sinks, nurse's office, concession stands, etc..).
- Any fixture with lead results 0.005 mg/L or greater have to be addressed (replace, remove, filter, plumbing replacement)
- Schools are required to flushing their plumbing system whenever the to school is inactive for greater than 3 days

# Any Questions?

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