

CITY OF MINNEAPOLIS  
WATER TREATMENT & DISTRIBUTION SERVICES

# Creating Customer Confidence

## Minneapolis' Voluntary Customer Lead-Testing Program

Presented by Matthew Sullivan  
and Nicole Sanchez



**Minneapolis Water Works**  
Established in 1867

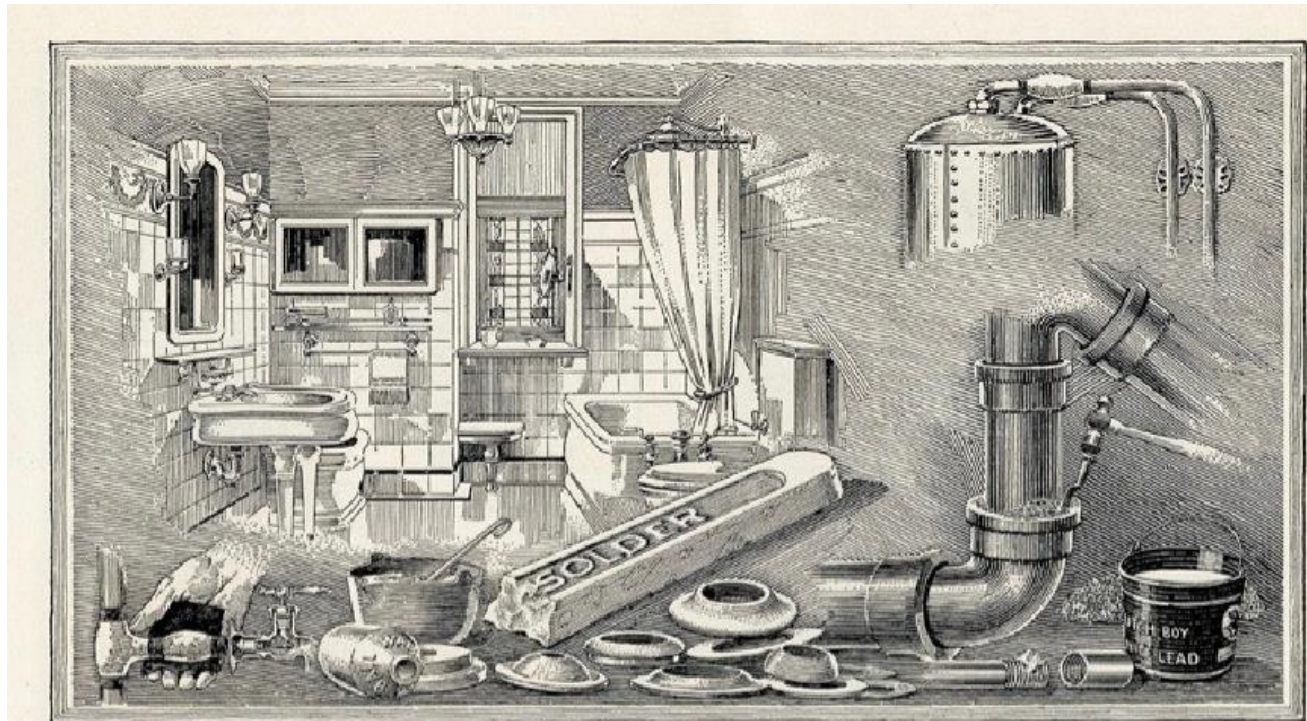
**Source Water**  
Mississippi River

**Max Capacity**  
140 MGD

**Average Capacity**  
52 MGD

**Average Total Production**  
20 billion Gallons Year

# The Health Risks of Lead have Matured Over Time



- Delicious
- Cheap
- Ductile/versatile
- Does not rust

## Lead helps to guard your health

**Y**OU wouldn't live today in a house without an adequate plumbing system. For without modern plumbing, sickness might endanger your life. Lead concealed in the walls and under the floors of many modern buildings helps to give the best sanitation.

portant ingredients in making the glossy white enamel covering the iron bodies of tub and basin and the glazed tile walls.

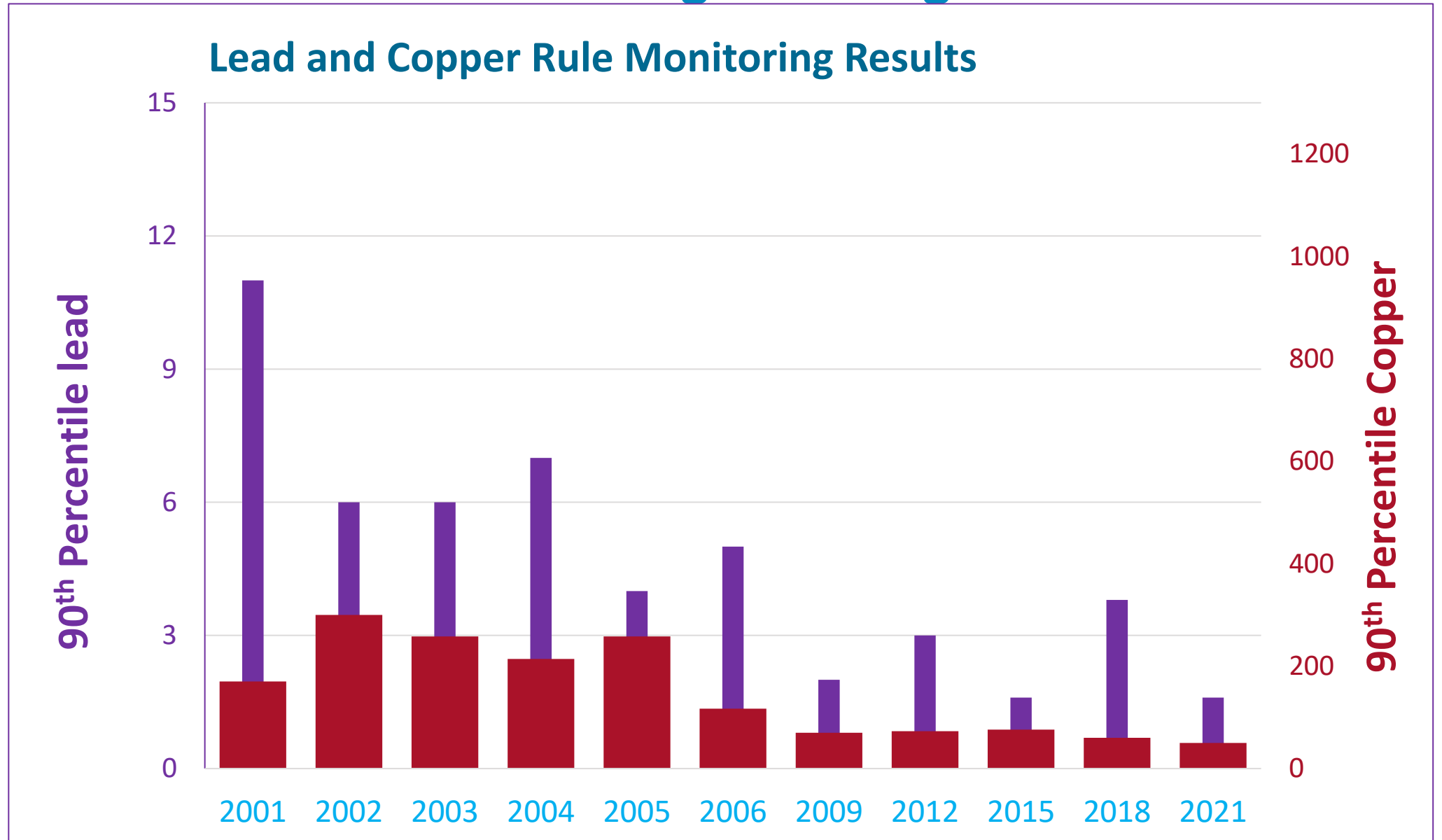
### *Lead in paint*

While lead is invaluable in assuring comfort



**Prior to 1930 Lead was Used in Plumbing in Minneapolis  
Removed but some Lead Service Lines Remain**

# Minneapolis Water's Corrosion Control Program Mitigates Risk



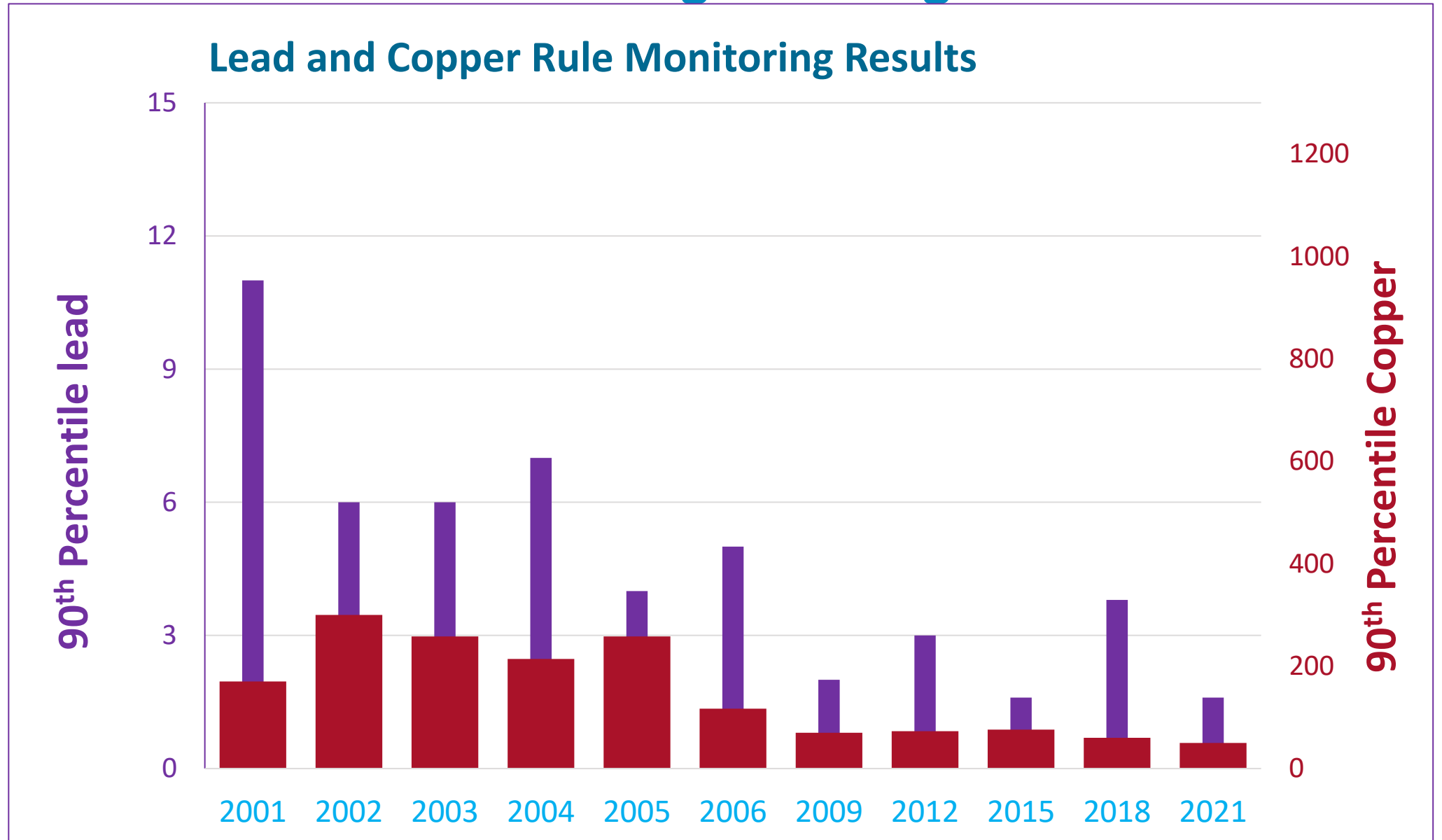
# Minneapolis's Corrosion Control Program

## What Makes it Successful

- **Teamwork**
- **Consistent Optimization of Additive that Forms a Protective Scale**
- **Non-Corrosive Water**
  - **Consistent Optimal pH**
  - **Consistent Optimization of all Water Quality Parameters and their Interdependencies**



# Minneapolis Water's Corrosion Control Program Mitigates Risk



# Flint, Michigan Put the Spotlight on Lead in Drinking Water



Staff Photo by Joey McLeister

A front-end loader poured lime sludge into a box, where the slurry is pumped from a 75-million-gallon reservoir in Columbia Heights.

## Farmers line up for tons of giveaway lime

- Minneapolis desired to Empower its Customers after Flint
- Funding Becoming Available to Remove all Lead Service Lines
- Good Time to Buy an Excavator

# Revised Lead and Copper Rule puts Lead in the Crosshairs

[Environmental Topics](#) ▼

[Laws & Regulations](#) ▼

[Report a Violation](#) ▼

[About EPA](#) ▼

## Ground Water and Drinking Water

[CONTACT US](#)

[Ground Water and Drinking Water Home](#)

[Basic Information](#)

[Private Wells](#)

[Consumer Confidence Reports](#)

[Regulatory Requirements](#)

[Standards and Regulations](#)

[All Drinking Water Topics](#)

[Safe Drinking Water Information System](#)

[For Students and Teachers](#)

## Review of the National Primary Drinking Water Regulation: Lead and Copper Rule Revisions (LCRR)



### EPA Announces Intent to Strengthen LCR

[www.epa.gov/ground-water-and-drinking-water/review-national-primary-drinking-water-regulation-lead-and-copper](http://www.epa.gov/ground-water-and-drinking-water/review-national-primary-drinking-water-regulation-lead-and-copper)

**More Municipalities will Exceed Action Level-Customer Notification of Lead Service Line**





## Science and Confidence First

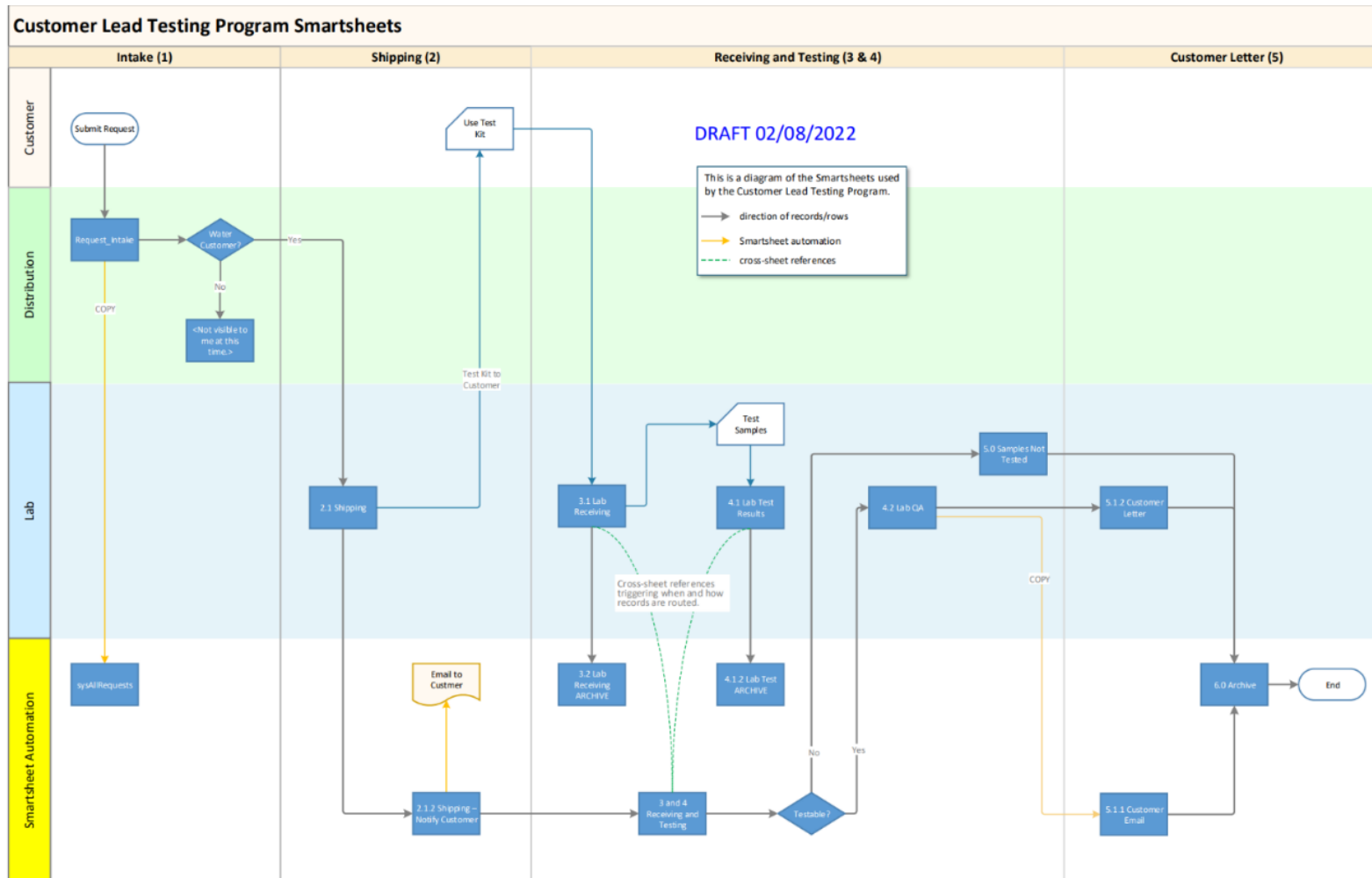
Inductively Coupled Plasma Mass Spectrometry (ICPMS) is Rocket Science

NELAC accreditation Provides Confidence in Results

# A Cross-Discipline Team Conceived and Implemented the Voluntary Lead Testing Program for Minneapolis Residents

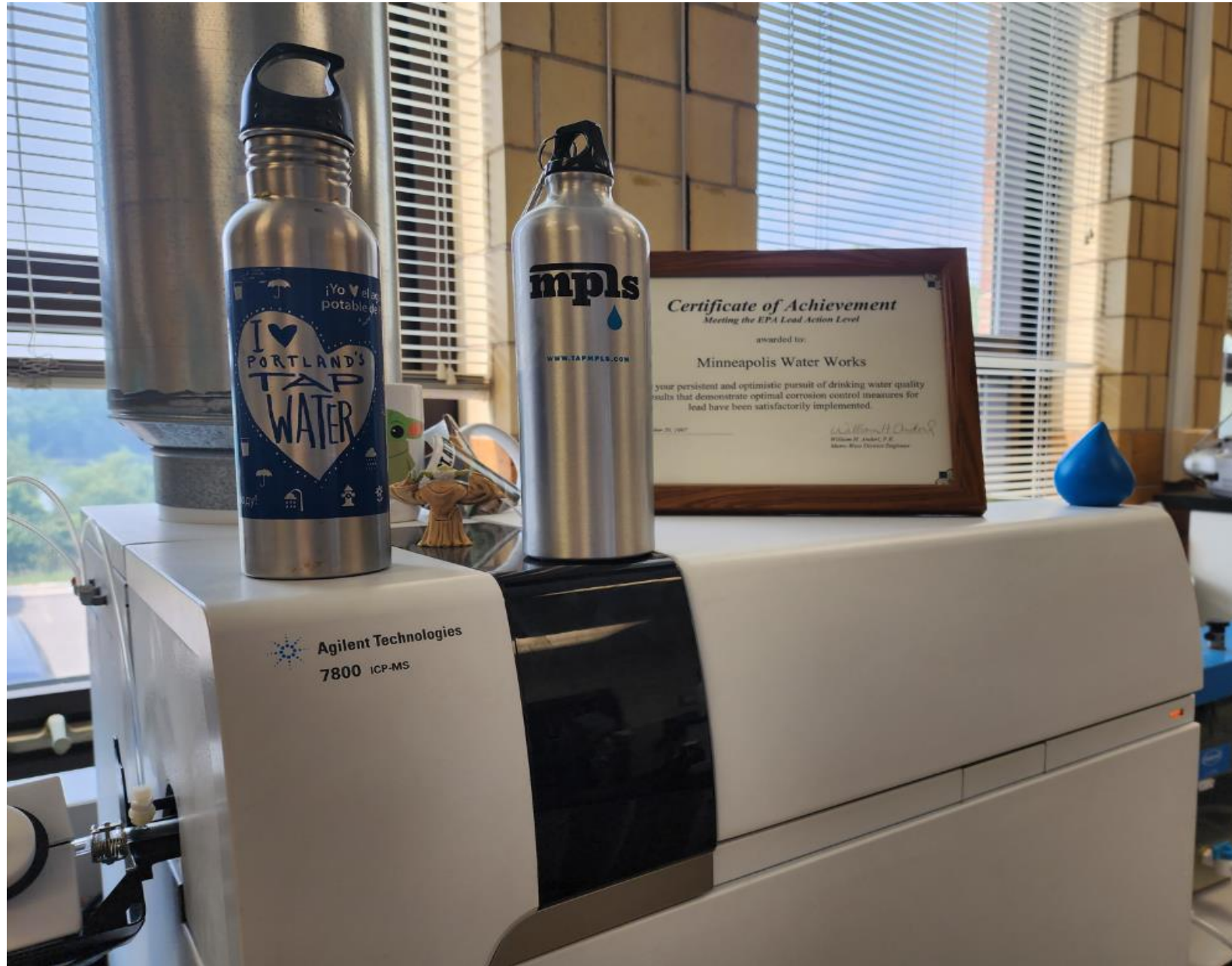


# Having IT Staff on the Cross-Discipline Team was a Blessing



In House Smartsheet Business Process is Robust and Survives NELAP Audits

# Shout out to The Portland Water Bureau



# Lead Testing Program

- Officially Launched Spring of 2022
- Free of Cost
- Accessible to all Minneapolis Residents

Minneapolis  
City of Lakes

## Request a Lead Test Kit

\* Required

First Name \*

Last Name \*

Mailing Address (The kit must be mailed to where the water sample will be taken.) \*

Example: 935 5th Ave SE

City, State ZIP Code

Phone

We will call you if your test results are high.

Materials and test results can be provided in the following languages. Please select your preference.

Select or enter value

If you need this material in an alternative format, please call 311. People who are deaf and/or hard of hearing can use a relay service to call 311 at 612-673-3000. TTY users call 612-263-6850.

Para asistencia 612-673-2700 - Rau kev pab 612-673-2800 - Hadii aad Caawimaad u baahantahay 612-673-3500

<https://www.minneapolismn.gov/government/programs-initiatives/lead-testing/lead-test-kit/#d.en.120019>

# Lead Kit Contents



# Boxing Assembly

- **First Step**
- **Easy and Fast**

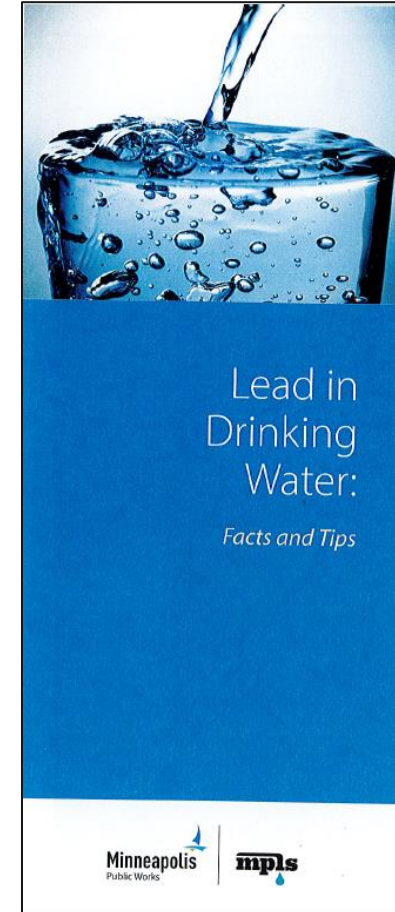
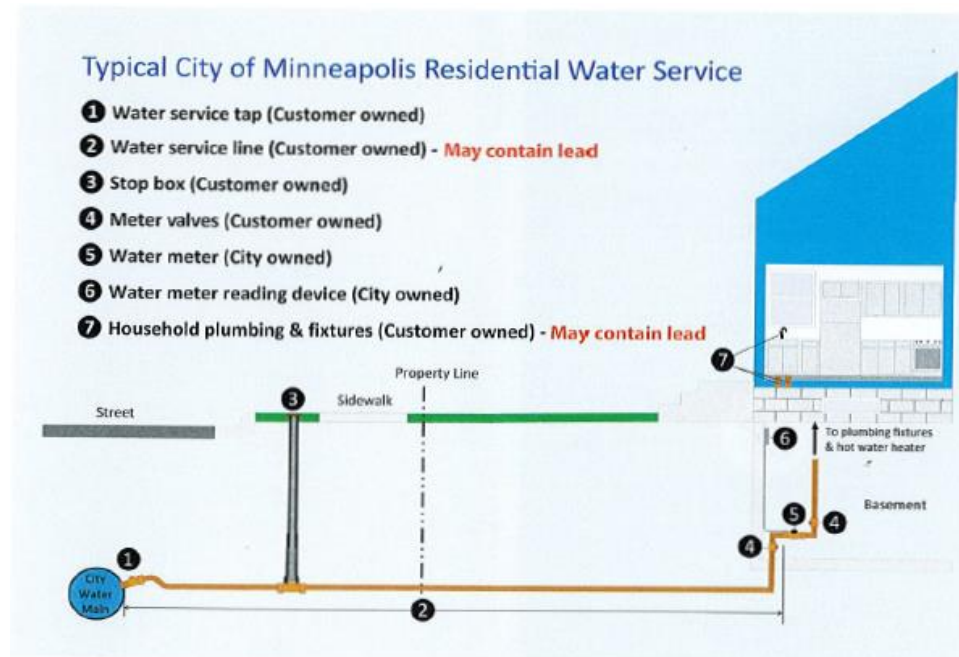






# Lead Brochure

- Comes in 4 languages
- Facts and Tips
- Image of Residential Water Service Line



# Lead Brochure



# Consumer Confidence Report

- Information on the City's Water Quality
- Switched over to post-card for 2022's CCR— Just scan the QR code!



2022 Water Quality Report/  
Consumer Confidence Report  
for Minneapolis

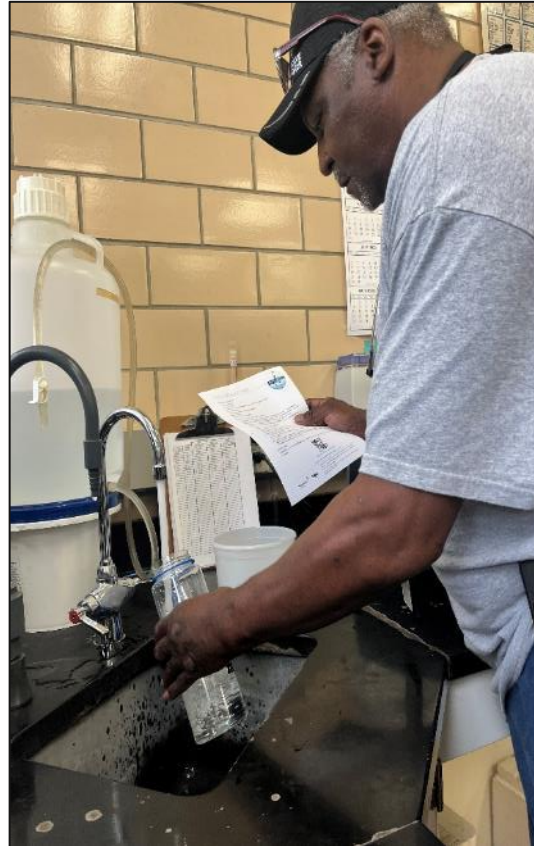


View online at  
[www.minneapolismn.gov/publicworks/water/ccr](http://www.minneapolismn.gov/publicworks/water/ccr)  
or call 311 or 612-673-3000 to have a hard copy  
mailed to you.



# Instructions

- Want to make it as easy as possible for customers
- Step by step
- QR code



## How to collect your water sample



### WHAT'S IN YOUR KIT

- Water sample card
- 'Do Not Use' tags
- Large bottle to collect the sample (the bottle is BPA free and yours to keep!)
- Small sample bottle
- Bubble-lined envelope with absorbent material
- Return envelope
- Lead in Drinking Water pamphlet

### GET READY TO COLLECT YOUR WATER SAMPLE

- 1 Do not use any water indoors or outdoors for at least 6 hours before taking your water sample. The best times to sample are first thing in the morning or after work. If you live in a multi-family building such as an apartment or condominium, you will still be collecting a sample from your unit's plumbing.
- 2 Decide where to collect your sample. The best location is the kitchen faucet. If your kitchen faucet has an extra water filter installed, please use a bathroom faucet instead.
- 3 Place 'Do Not Use' tags on toilet handles and sink faucets.

### COLLECT AND RETURN YOUR WATER SAMPLE

- 1 After at least 6 hours of no water use, you are ready to collect your sample.
- 2 Remove the bottle caps without touching the insides of the caps or bottles.
- 3 Put the large bottle under the faucet, turn on the cold water, and fill to the top.
- 4 Use the large bottle to fill the small bottle to the top. (Filling the large bottle first allows for a sample from both your faucet and from your household plumbing.)
- 5 Tightly cap the small bottle (no need to shake). Put the small bottle in the bubble-lined envelope and seal.
- 6 Fill out the water sample card.
- 7 Put the water sample card and bubble-lined envelope in the return envelope and seal. The large bottle is yours to keep.
- 8 Return the envelope no later than 3 days after collecting the sample. The postage is prepaid. Do not add stamps. You can put the envelope in your mailbox or you can take it to the post office. Don't worry if the sample freezes on its way to us, we can still test it.

### WHAT'S NEXT?

A laboratory technician will carefully test your sample for lead. Your results will be mailed to you after testing is complete.



Scan for instructional video

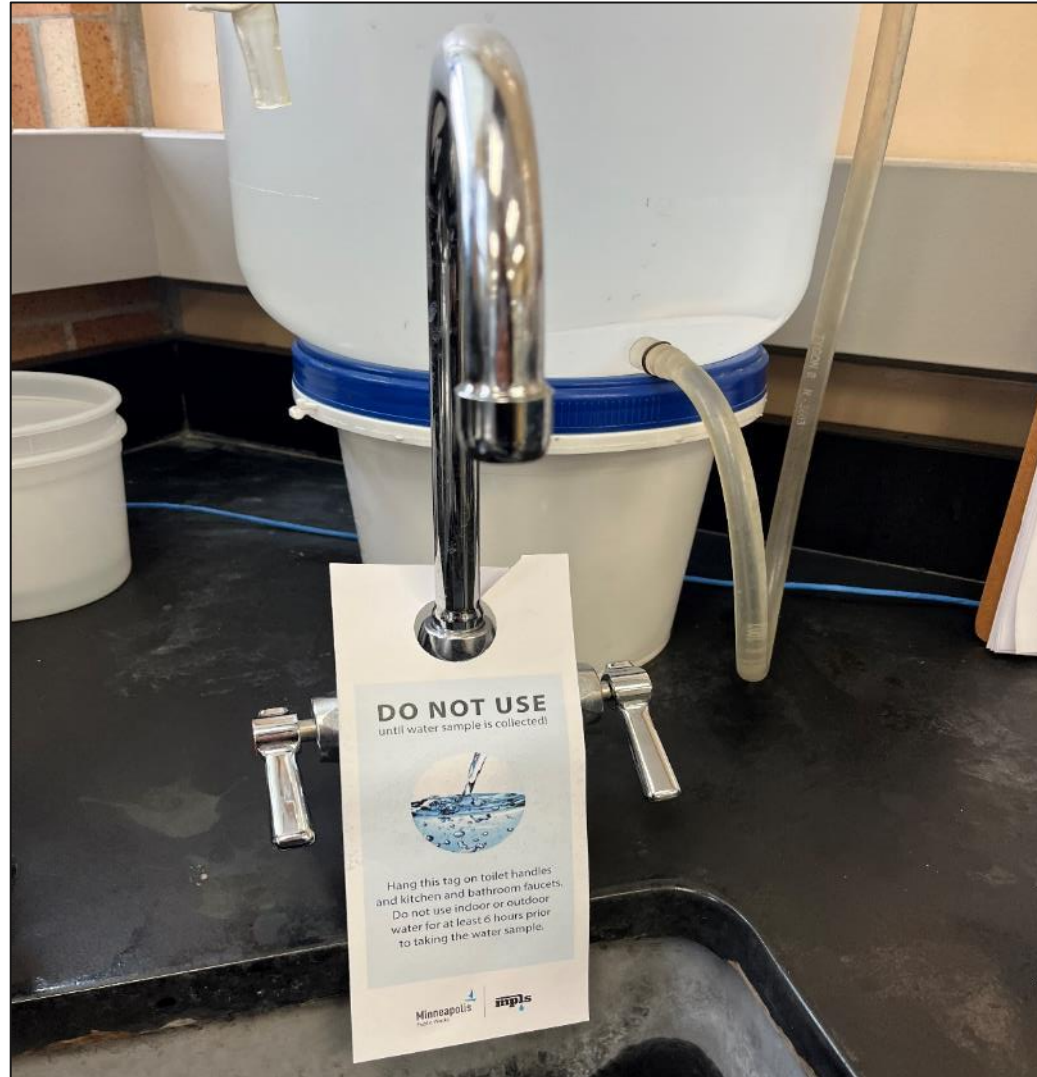
If you have any questions, please call 311.



For reasonable accommodations or alternative formats, please call 311 at 612-673-3900.  
People who are deaf or hard of hearing can use a relay service to call 311 at 612-673-3900.  
TTY users can call 612-265-8920.  
For additional information, call 612-228-2290, visit our website, or call 311 at 612-673-3900. For more information, visit [minneapolis.gov](http://minneapolis.gov) or call 311 at 612-673-3900.

## Do Not Use Tags

- **Friendly Reminder**
- **Can be hung in various places**



# Blue Sample Card

**Minneapolis Water Treatment & Distribution Services**

**Water Sample Card**

Minneapolis  
City of Lakes

**mpls**

Placeholder Placeholder  
1234 Any Street  
MINNEAPOLIS MN 54321



PB90011

**Please complete the following and mail with your sample:**

Did you use any water within 6 hours of collecting your sample? Yes/No

When did you collect the water sample? Date: \_\_\_/\_\_\_/\_\_\_ Time: \_\_\_:\_\_\_ a.m./p.m.

Sample collected from:  Kitchen Sink  Bathroom Sink  Other: \_\_\_\_\_

I have followed the sample instructions to the best of my ability:

Signature \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

# Sports Bottle

- For Customers to keep!
- Part of the sampling process



# Sampling Bottle

- Less than 4 Fluid oz
- Returned for sample analyzation
- Small, yet representative





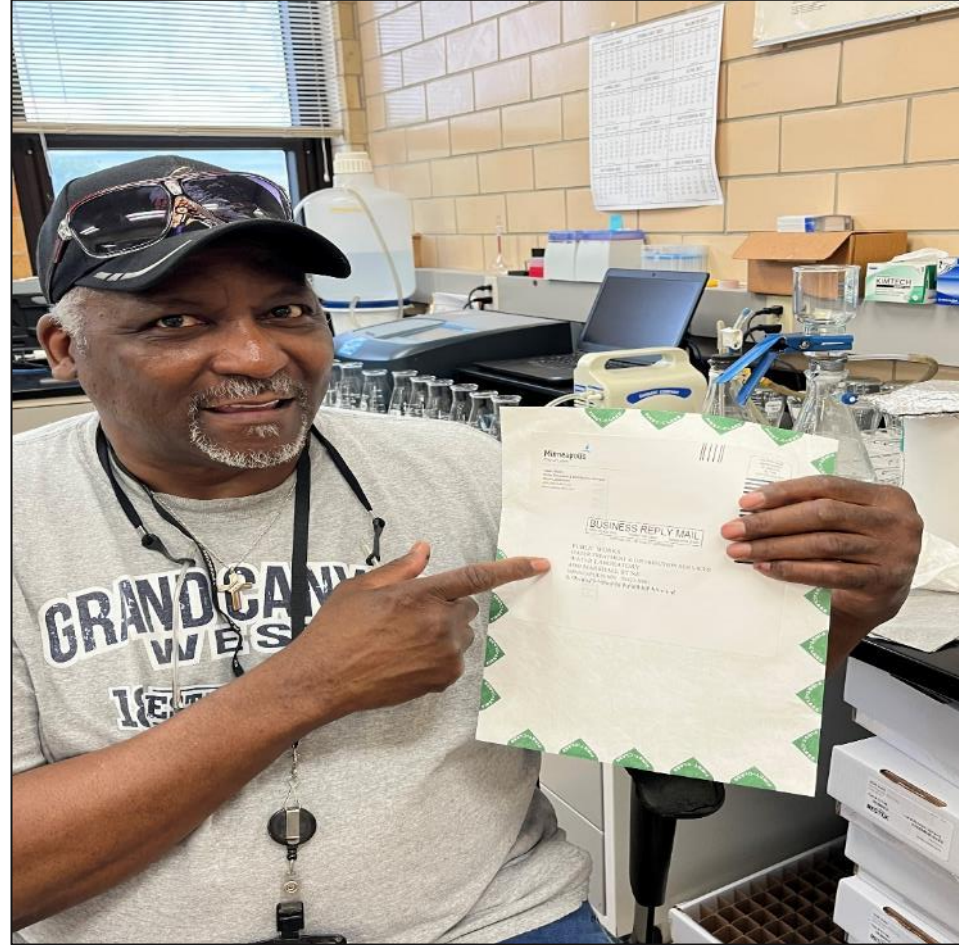
# Shipping

- **ULINE bubble mailer**
- **ULINE Universal Sorbent Pad**



# Shipping Envelope

- Contains a pre-paid shipping label
- Unpuncturable Tyvek!



# Shipping



**KITS ARE SENT OFF!**

# Sample Receiving



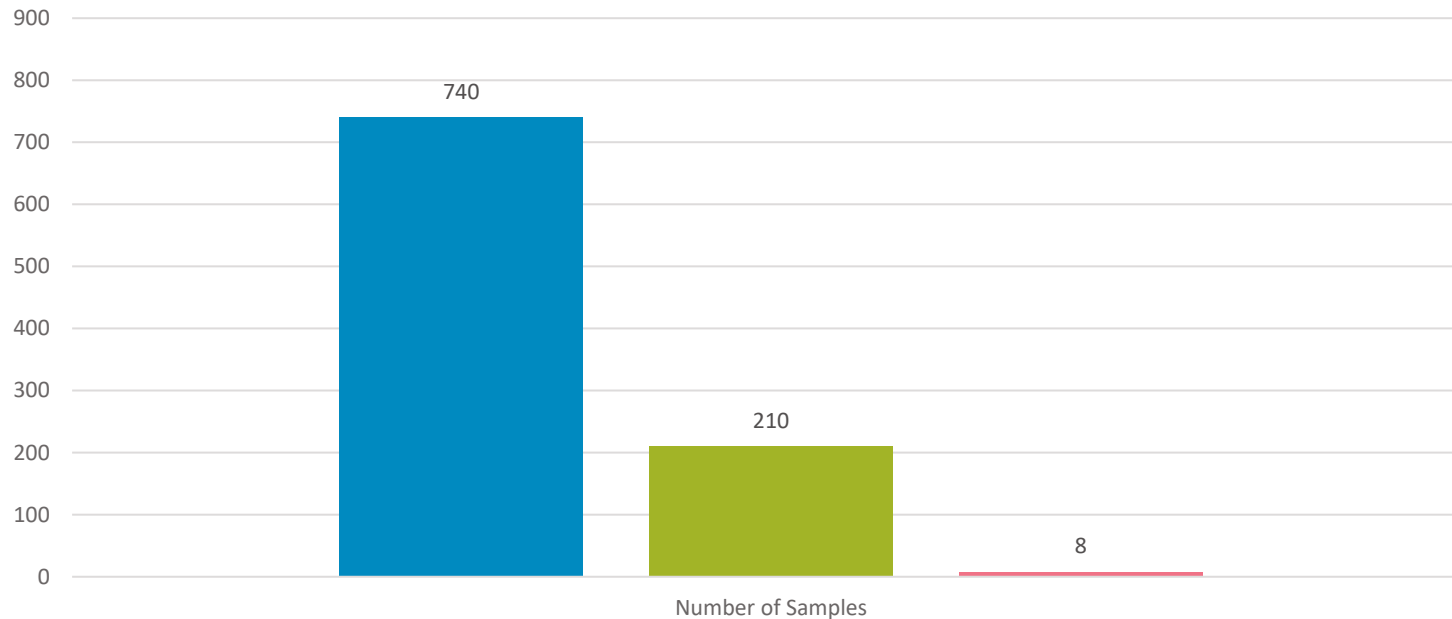
# How has the program been received?

Summary of Kits	
Status	Count
Intake	1
Shipping	0
To Be Returned	1,054
Awaiting Test	0
QA Ready	0
Not Testable	2
Letters	0
Completed	958
<b>TOTAL</b>	<b>2,015</b>

- Overwhelmingly Positive Feedback
- Excellent Return Rate of Lead Kits
- Steady Stream of Samples
- Limited Promotion, Word Of Mouth
- Tap Water Ambassador Program
- Slammed at Start, Trial by Fire



# Analyzed Lead Kit Results



- Not detected
- Lead Samples Less Than 15ppb
- Lead Samples Greater Than > 15ppb

- 77% of results are Non-detects
- 0.01% greater than 15ppb Lead

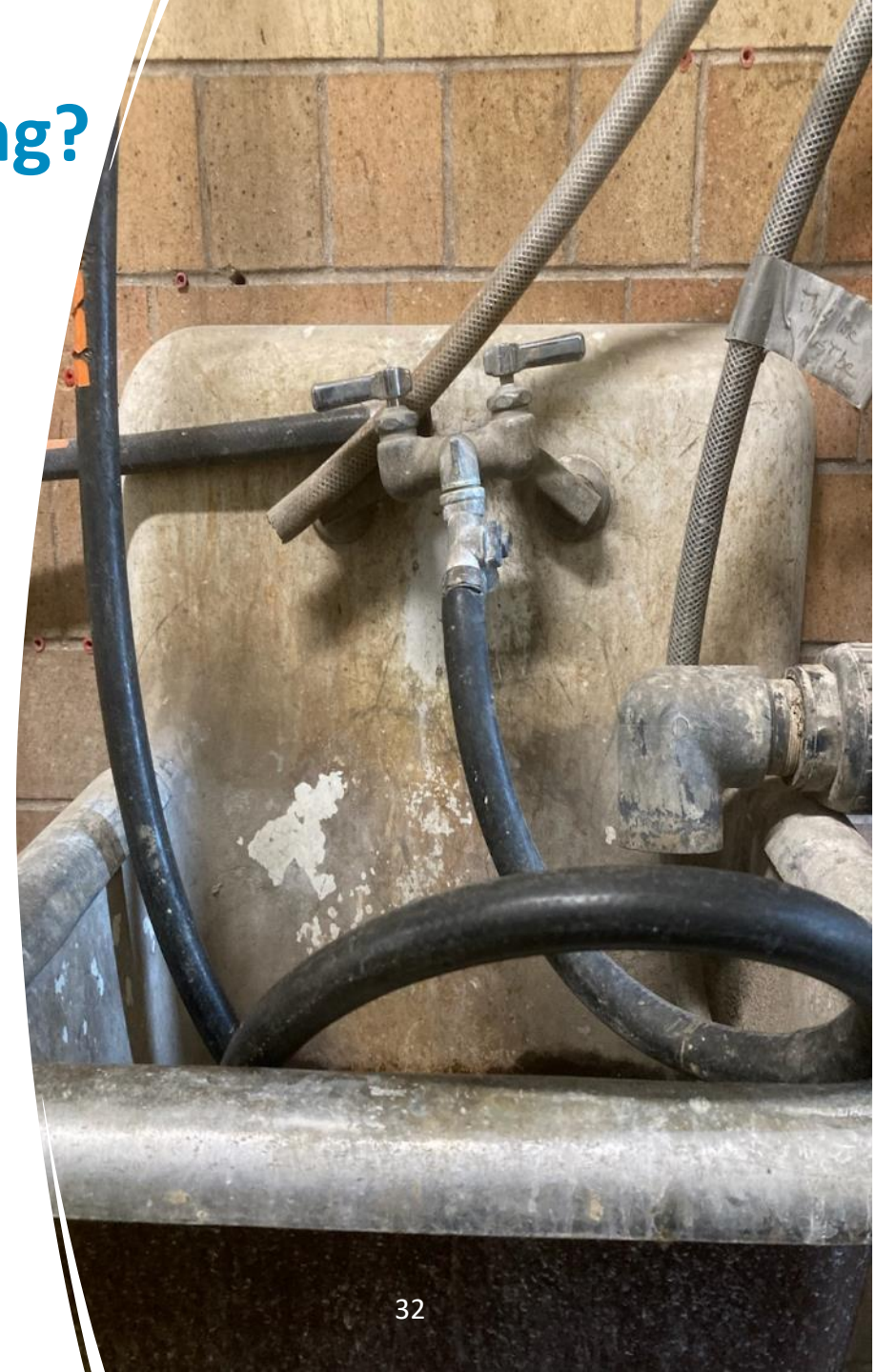
# Additional Outreach and Testing

- Follow up Testing in 1 Liter Containers
- Multiple Taps and may Entail Multiple Visits
- Filtered and Unfiltered
- May have a Master Plumber Visit
- Test Water Quality Parameters



# What have we learned from follow up testing?

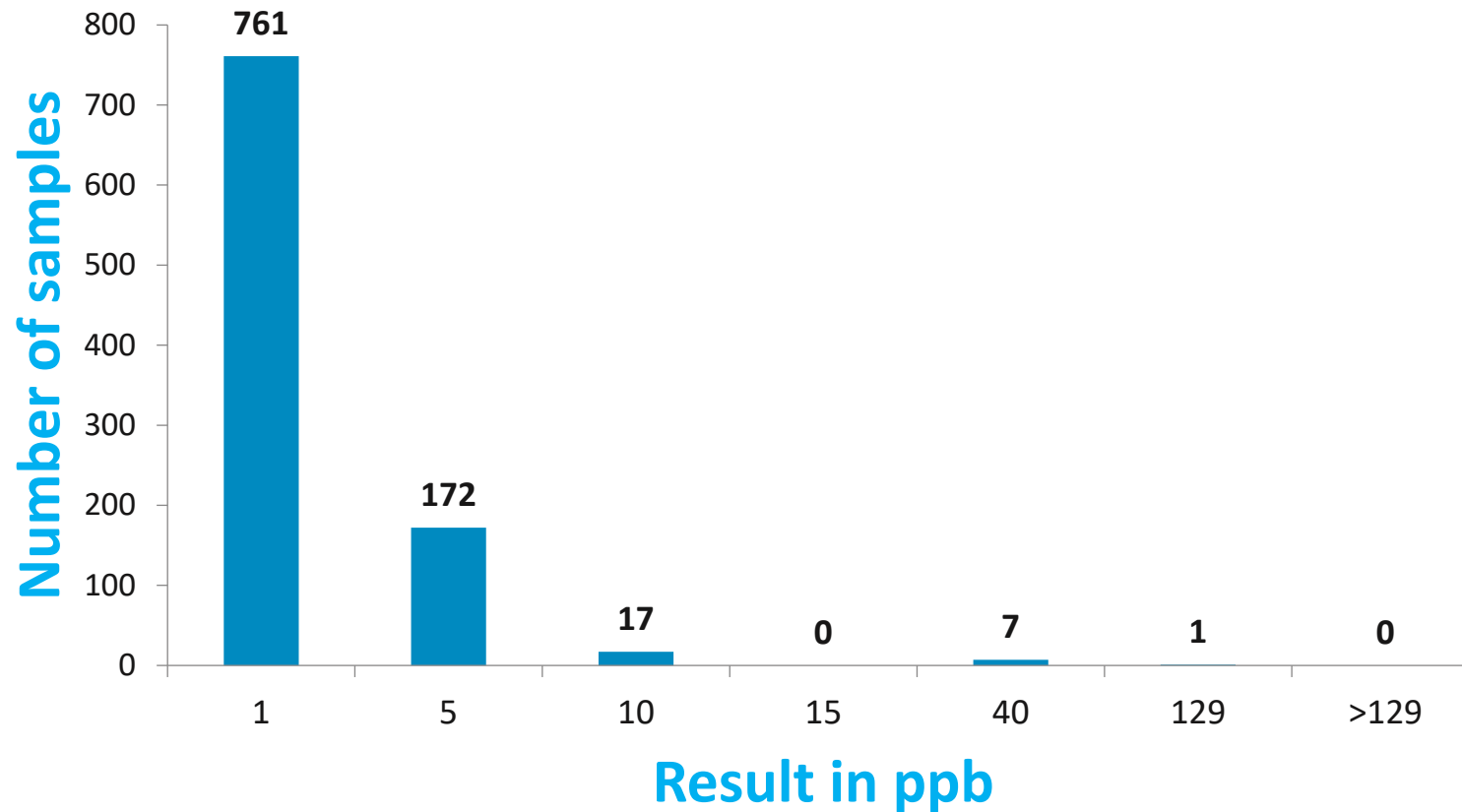
- Not all Customers Practice Good laboratory Practice when Sampling
- Not all Samples Returned are Drinking Water
- Stagnant Water Upsets Water Chemistry
- No Unsolved Mysteries





# Customer Results

## Lead Results Distribution



- **Over 90% Less than 5 ppb**
- **No Samples over 10 ppb Except those over 15 ppb**
- **Those over 10 ppb are not just Statistical Outliers**

# Thank You!

## Questions?

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