

November 15, 2024

Jeff Pesta
Wrenshall School District
207 Pioneer Drive
Wrenshall, Minnesota 55797



**RE: Districtwide Lead-in-Water First Draw – Post-Remediation Testing
IEA Project #202410910**

Dear Mr. Pesta:

At the request of Wrenshall School District, the Institute for Environmental Assessment, Inc. (IEA) collected two water samples on November 1, 2024, in response to previously elevated sample results for lead analyses.

The purpose of the sampling is to determine if the lead content was reduced after remediation in the sampled locations to assist the District in complying with Minnesota Statute 121A.225.

INTRODUCTION

Lead is a metal that usually enters drinking water through the distribution system, including pipes, solders, faucets, and valves. Lead content in water may increase when the water is allowed to sit undisturbed in the system. Exposure to lead is a health concern.

Minnesota Statute 121A.335 requires public school buildings serving prekindergarten through grade 12 to test for lead in potable water fixtures every five years. The *3Ts for Reducing Lead in Drinking Water Toolkit (2018)* and the Lead Contamination Control Act (LCCA) of 1988 were created by the Environmental Protection Agency (EPA) to identify and reduce lead in drinking water. Statute 121A.335 requires remediation of water fixtures with levels of 5 parts per billion (ppb) or higher.

METHODOLOGY

First draw samples collected on October 17, 2024, showed four locations had lead content above the action level.

BROOKLYN PARK
9201 West Broadway, #600
Brooklyn Park, MN 55445
763-315-7900 / FAX 763-315-7920
800-233-9513

MANKATO
610 North Riverfront Drive
Mankato, MN 56001
507-345-8818 / FAX 507-345-5301
800-233-9513

ROCHESTER
210 Woodlake Drive SE
Rochester, MN 55904
507-281-6664 / FAX 507-281-6695
800-233-9513

BRAINERD
601 NW 5th Street, Ste. #4
Brainerd, MN 56401
218-454-0703 / FAX 218-454-0703
800-233-9513

MARSHALL
1420 East College Drive
Marshall, MN 56258
507-476-3599 / FAX 507-537-6985
800-233-9513

VIRGINIA
5525 Emerald Avenue
Mountain Iron, MN 55768
218-410-9521
800-233-9513

After notification of the results, the District cleaned aerators associated with two of the fixtures. The purpose of the sampling is to determine the lead content post remediation efforts and compare to the MDH action level.

IEA collected two first draw (unless otherwise noted) samples of approximately 250 milliliters (ml) of water. “First draw” means the samples are collected before the fixture is used or flushed during the day. The first-draw sample results reflect a worst-case scenario, i.e., the highest lead level that would be consumed by building occupants. The MDH recommends that fixtures are not used, eight to 18 hours prior to sampling fixtures.

Water samples were analyzed by RMB Environmental Laboratories, Inc. in Virginia, Minnesota, which uses EPA-approved analytical methods and quality control/assurance procedures. Samples were analyzed using the EPA Method 200.9.

RESULTS & DISCUSSION

The water analyses from the initial sampling and the post-remediation testing is listed below in Table 1. None of the re-tested locations showed reduced lead content below the Minnesota Statute 121A.335 action level of 5 ppb. The laboratory reports are provided in Appendix A. Laboratory results are reported in micrograms per liter (µg/L) which is equivalent to parts per billion (ppb).

Table 1: Water Testing Results – October 17, 2024, and November 1, 2024

Sample Number	Building	Sampling Location	Fixture Type	Lead Results (ppb)	
				Initial 10/17/2024	Re-Testing 11/1/2024
110124WS-3	Wrenshall K12 School	Kitchen – Left Center	KF	5.17	9.7
110124WS-4	Wrenshall K12 School	Kitchen - Right	KF	21.2	18.3
101724WS-46	Wrenshall K12 School	Room #226 Kitchen – Slop Sink	KF	6.28	Not Tested
101724WS-47	Wrenshall K12 School	Room #226 Kitchen – Back Far Right Corner	KF	17.8	Not Tested

ppb – parts per billion

CONCLUSIONS

All re-tested fixtures had lead content above the Minnesota Statute 121A.335 action level of five ppb.

There are two additional fixtures that were tested on October 17, 2024, that had lead content above the Minnesota Statute 121A.335 action level of five ppb. These fixtures still require remediation.

RECOMMENDATIONS

All locations that are above the Minnesota Statute 121A.335 action level of five ppb require further attention.

IEA recommends ensuring fixtures that have not been remediated are removed from service until the fixture has been remediated. This can be completed by disconnecting the fixture from the water supply and/or posting signage noting the water is not potable. If additional water in the area is needed, bottled water meeting Food and Drug Administration (FDA) and State standards or another water source can be provided.

IEA recommends determining a remediation plan for the fixtures exceeding the action level. IEA recommends one of the following remediation options:

- 1) Determine if the fixture can be permanently changed to a non-potable fixture and label it accordingly.
- 2) Disconnect the fixture from use permanently.
- 3) Remove, inspect, clean and/or replace aerators and retest to confirm a lower lead content. *(This only applies to the fixtures that have not been remediated.)*
- 4) Complete follow-up flush sampling to help determine the location of the lead content. *(These sample results will help determine if the lead source is in the fixture or interior plumbing to determine if replacing the fixture is an effective remediation option.)*
- 5) Collect additional flush samples to determine if a flushing program can lower lead content.
- 6) Consider communicating with the municipality providing the building's water.
- 7) Consider the installation of a point-of-use or point-of-entry chemical treatment system.

Point-of-use treatment systems are required to meet National Sanitation Foundation (NSF) NSF/ANSI Standard 53, 42, and 58, or an equivalent and may be subject to Department of Labor and Industry (DLI) or local administrative authority plan review and approval prior to installation. Point-of-entry system installations may classify the building as a public water system, which would prompt additional water quality requirements.

If remediation of fixtures and verification of test results less than the MDH action level are not completed within 30 days, parents, guardians and staff must be notified.

The District is required to ensure the lead-in-water management plan is available on the district's website. In addition, annual notification of the lead-in-water management plan is included in the student handbook or another method used to communicate policy information. Lead-in-water testing records must be available upon request.

Test results and remediation documentation is required to be reported annually to the MDH by July 1. Lead results and remediation documentation is required to be maintained by the District for 15 years.

Lead-in-water testing is required every five years in Minnesota schools.

GENERAL CONDITIONS

The analysis and opinions expressed in this report are based upon data obtained from Wrenshall School District at the indicated locations. This report does not reflect variations in conditions that may occur across the site, property, or facility. Actual conditions may vary and may not become evident without further assessment.

The report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted environmental, health, and safety practices. Other than as provided in the preceding sentence, regarding lead-in-water sampling at Wrenshall K12 School, including the General Conditions attached thereto, no warranties are extended or made.

Please contact IEA if you would like assistance with any of the above recommendations or have questions regarding this report.

Sincerely,

IEA, Inc.



Taylor Dickinson, CSP
Virginia & Brainerd Regional Manager

TD/mh 11142024

Enc.

Appendix A

Laboratory Testing Report

November 07, 2024
Laboratory Report

IEA-Institute for Environmental Assessment
Taylor Dickinson
5525 Emerald Avenue
Mt Iron, MN 55768

RE: Wrenshall School District
Work Order: H016787

Enclosed are the results of analyses for samples received by the laboratory on 11/01/2024 13:21. If you have any questions concerning this report, please feel free to reach out to customer service at 888-200-5770 or the contacts listed below:

Chad Hadler	Sr. Project Manager	Chad.Hadler@rmbel.com	(952) 456-8470
Justin Tweedale	Sr. Project Manager	Justin.Tweedale@rmbel.com	(218) 849-8747
Kathleen Mitchell	Quality Assurance Director	Kathleen.Mitchell@rmbel.info	(785) 493-1633
Robert Borash	President CEO	Robert.Borash@rmbel.info	(218) 849-6420

Report approved by:



Chad Hadler
Project Manager
chad.hadler@rmbel.com

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Detroit Lakes (DL) Certification / Accreditation Numbers: EPA Lab ID MN00918 • Minnesota Department of Health 027-005-336 • North Dakota Department of Environmental Quality R-187
Burnsville (BL) Certification / Accreditation Numbers: EPA Lab ID MN01091 • Minnesota Department of Health 027-053-475 • North Dakota Department of Environmental Quality R-231
Hibbing (HB) Certification / Accreditation Numbers: EPA Lab ID MN01082 • Minnesota Department of Health 027-137-480 • North Dakota Department of Environmental Quality R-228

Report Date: November 07,2024

IEA-Institute for Environmental Assessment
5525 Emerald Avenue
Mt Iron MN, 55768

Project: Wrenshall School District
Project Number: 202410910

Date/Time Received
11/1/2024 1:21:00PM

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Location	Matrix	Date/Time Sampled
H016787-01	110124WS-3	Kitchen - Left Center	Water	11/01/2024 07:20
H016787-02	110124WS-4	Ritchen - Right	Water	11/01/2024 07:20

Additional information:

All samples will be retained for 30 days from date sampled, unless otherwise requested.
Record retention policy is 5 years unless otherwise agreed to in writing.
All calculations are performed using the raw data results.

Laboratory Results
November 07, 2024

Lab Number	Analyte	Sample ID	Location	Result	Units	Sample RL	DF	Analysis Method	Analyzed	Batch	Analyte Qualifiers	Facility
------------	---------	-----------	----------	--------	-------	-----------	----	-----------------	----------	-------	--------------------	----------

Metals

H016787-01	Lead	110124WS-3	Kitchen - Left Center	9.7	ug/L	2.0	1	EPA 200.9	11/05/24 15:42	BH10987		DL
H016787-02	Lead	110124WS-4	Ritchen - Right	18.3	ug/L	2.0	1	EPA 200.9	11/05/24 15:50	BH10987		DL

Metals - Quality Control

Analyte	Result	Units	Qualifiers	Sample RL	DF	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BH10987 - EPA 200.9											
Blank (BH10987-BLK1)											
Prepared & Analyzed: 11/05/2024											
Lead	< 2.0	ug/L		2.0	1						
LCS (BH10987-BS1)											
Prepared & Analyzed: 11/05/2024											
Lead	33.2	ug/L		2.0	1	30.0		111	85-115		

Qualifiers and Definitions

Item	Definition
RL	Reporting Limit (Corrected for dilution factor when applicable due to sample preparation variation.)
MDL	Method Detection Limit (Corrected for sample preparation variation.)
DF	Dilution Factor
DL	Indicates test performed by RMB Environmental Laboratories - Detroit Lakes

Chain of Custody

H016787



Client Name Wrenshall School District		Building Name Wrenshall School		Analytical Lab RMBEL	
Contact Name Taylor Dickinson		Project # 202410910/Additional		Project Name LIW Testing	
Phone # 218-410-9521		Email Taylor.Dickinson@leasafety.com		Written Sample Results To Taylor Dickinson	

Other Information					
Sampled By Tyler Peterson	Date 11/01/24	Time 7:20 AM	Analyzed By (Company)	Analyst	Date & Time
Shipped By Tyler Peterson	Date 11/01/24	Time 7:20 AM	Turnaround Time	Standard	Notes
Received By [Signature]	Date 11/01/24	Time 1321	Sample Condition Good	Temperature 20.5	HB123

Lab Number	Sample Number	Sample Location	Fixture Type OF - Drinking Fountain; KS - Fixture; SP - Sprayer	Sample Type			Date Sampled	Time Sampled	Volume/ Bottle Type	Analysis Required	Comments & Observations
				Water	Soil	Other					
01	110124WS3	Kitchen - Left center	KF	X			11/01/24	7:20 AM	250 ml Unpreserved	Lead	
02	110124WS4	Kitchen - Right	KF	X			11/01/24	7:20 AM	250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	
				X					250 ml Unpreserved	Lead	

Sample Receipt Conditions

RMB Environmental Labs: BL DL **(HB)** (circle lab) RMB Environmental Laboratories, Inc.

Received on 11/1/24 at 1321 By STB

Temp 20.5 °C Therm ID: HB123

Does meet proper sample storage/transport guidelines

Received on Ice

Received same day as collection

Received in good condition

Recorded sample rejection details on the chain of custody

Chlorine: No Yes N/A

RMB Courier Fees \$ Hand Delivered Shipping/Mailing Service

Vitric Preservation
Date 11/1/24 Time: 1322
Staff: STB HB Lab