



RK Occupational & Environmental Analysis Inc.

401 St. James Ave. Phillipsburg, N.J. 08865  
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rkenvironmental@entermail.net

Mold Assessment  
and Remediation

June 6, 2022

Health/Safety and  
Environmental  
Regulatory  
Compliance

Mr. Loren Hamblin  
Supervisor of Buildings & Grounds  
Franklin Township Board of Education  
52 Asbury – Broadway Road  
Washington, NJ 07882

Right-To-Know

re: **Water Sampling for Compliance with N.J.A.C. 6A:26-12.4  
Lead in Drinking Water**

OSHA/EPA/DOT  
Training Programs

Dear Mr. Hamblin,

Asbestos and Lead  
Management

We enclose the following documents and related information for compliance with the NJ Department of Education Regulation related to Lead in Drinking Water in school buildings:

Industrial Hygiene/  
OSHA Compliance

Sampling Report Narrative	3 pages
Water Sampling Log and Results	2 pages
Laboratory Analytical Report and Chain of Custody for Samples	6 pages

Indoor Air Quality


All sample results for Lead were below the NJ Standard of 0.015 mg/L. This report along with the laboratory results should be updated on the District's website.

Underground/  
Aboveground  
Storage Tanks

If you have any questions, please don't hesitate to call us.

Sincerely,

Environmental  
Site Assessment

  
Patrick D. McGuinness, MS, P.E.  
Vice President

Hazardous/  
Medical Waste  
Management

PDM/

(file ....\Reports\Watertest\Franklin-221)

Environmental  
Audits

Expert Witness/  
Litigation Support

Customized  
Software

**Sampling Report - Lead in Drinking Water**  
**Franklin Township School District**

**1. Sampling Results Summary and Statistics**

Sample Collection Date	May 19, 2022
Number of Buildings Sampled	1
Total Number of Samples Collected	13
Number of Samples with No Detectible Lead	1
Number of Samples Exceeding 15 ppb (0.015 mg/L Standard)	0
Number of Samples Exceeding 5 ppb (0.005 mg/L EPA threshold)	2
Highest Measured Lead Content (ppb)	12.7

**2. Water Sampling Procedures**

Sampling protocols and procedures follow the EPA “3-T’s Program” that was developed for schools and Child Care centers. They recognize that the typical school building is actually a conglomeration of an original building with one or more additions, each of which typically having different plumbing system materials.

In addition, building sections constructed before 1986 likely have plumbing systems that used leaded solders on Copper water lines. Very old buildings and public water supply systems may also still have lead piping. Other potential sources of Lead in drinking water systems include brass faucets, fittings, along with valve seats and stems that are used in the municipal and building piping distribution systems. It is important to note that “Lead-Free” plumbing components used since 1986 may actually contain up to 8% Lead by weight. In January 2014, this limit was lowered from 8% to 0.2% Lead.

The sampling protocol requires that water be collected as a “First-Draw” to ensure that the water sample has been standing for at least 8 hours. This is intended to replicate a “worst-case” situation since both the Lead levels are usually lowered significantly after running the water even for a few moments.

Drinking water samples were collected early on a weekday (not Monday) or Saturday morning before staff and students arrived for classes to represent water that has sat idle in the building piping system overnight.

All samples were collected in 250 ml contaminant-free containers. Laboratory analysis of the water samples was performed by the International Asbestos Testing Laboratory, Inc of Mt. Laurel, NJ (NJ DEP Certification Nos. 03863). The analytical method is per EPA Method 200.98 via atomic absorption, graphite furnace technique.

### **3. Sample Results and Discussion**

Sampling results are discussed below and the sampling log is appended to this report. It is important to note that the laboratory results are reported in terms of micrograms per liter (µg/L). This is essentially equivalent to parts of Lead per billion (ppb) parts of water. The Action level also translates to 15 ppb.

A total of 13 water samples were collected on May 19, 2022. None of the samples exceeded the 0.015 mg/L Action Level but 2 of the 13 water samples had detectible levels of Lead present just below the standard.

### **4. Recommendations and Future Work**

All water sample results showed acceptable results for Lead content. The following responses include those required by N.J.A.C. 6A:26-12.4 and our recommendations to maintain the drinking water quality as it relates to Lead contamination.

The NJDOE regulations requires that:

- These sampling results be made publically available at the school building and on the School District's website.
- The School District shall collect drinking water samples and analyze for Lead at any drinking water outlet that has been replaced or after any alterations to the plumbing or service lines to the outlet. Do not consume or cook with water from the affected outlet until acceptable Lead results are obtained.
- Repeat water sampling within 3 years of the date of this sampling or before May 2025.

In addition, we suggest that the following responses to minimize the potential for Lead contamination of drinking water:

#### **Administrative Responses:**

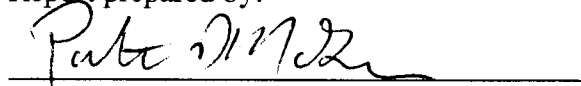
- There are several factors that influence the potential for Lead corrosion in drinking water piping systems. These include the chemistry of the water supplied being supplied to the building, water temperature and velocity through the piping, the age and condition of the plumbing, and the amount of time the water sits "stagnant" in contact with piping and drinking water fixtures. This last factor is the only one that a building owner has any control of.
- School building codes require a minimum of one (1) drinking water tap for every 100 students of building capacity. Wherever a larger number of water taps exists, the usage factor for each tap decreases. This, in turn, increases the "stagnation time" along with the increased potential for Lead corrosion. It is recommended that the need for all current water taps be investigated and reduced where appropriate while maintaining the minimum of 1 tap per 100 students.

- Consider implementing a program to shut-off and replace (if needed) any drinking water fixture of appliance that is more than 35 years old (was installed before the 1986 Lead Ban took effect).

Operational and Maintenance Responses:

- EPA recommends that any water tap where the measured Lead content exceeds 5 parts per billion (PPB) or 5 µg/L be inspected and cleaned of line sediment to eliminate potential sources of Lead contamination. There were 2 water samples above this level.
- Use cold water only for drinking or cooking. Higher water temperatures will increase the water's corrosion potential.
- The accumulation of line sediment on aerators and screens at the water taps is frequently the source of high levels of Lead. It is recommended that a program be established to regularly inspect for the presence of line sediment at all drinking water taps. Initially, an annual inspection is suggested. The inspection frequency should then be adjusted depending upon the amounts of sediment that is found and where it is found. Higher usage taps may accumulate sediment more quickly and need to be cleaned more often.
- It is known that flushing water through drinking water taps will reduce the levels of both Lead and Copper present in the drinking water. It is also recommended that a program be established to run water at all drinking or cooking taps for at least one minute before students and staff return to school after long breaks, especially after the Summer recess.

Report prepared by:



Patrick D. McGuinness, MS, P.E.

Vice President

# Water Sampling Log

Name of Building: Franklin Township School  
 Building Owner: Franklin Twp Bd of Educ

Date Collected: 19-May-22  
 Sample Collected by: PD McGuinness

Sample No.	Tap No.	Sample Type	Type of Outlet	Manufacturer		Time	Results (µg/L)	
							Cu	Pb
RK-051922-01	1	1st	Sink		Room 112	07:29	--	3.8
RK-051922-02	2	1st	Chiller	Elkay	Hallway - across from Room 303, left	07:30	--	1.0
RK-051922-03	3	1st	Chiller	Elkay	Hallway - across from Room 303, right	07:30	--	3.2
	4	1st	Bubbler		Room 301		not in service	
--	5	--	Bubbler		not used - Room 302 inoperative		not in service	
	6	1st	Bubbler		Room 303		not in service	
	7	1st	Bubbler		Room 305		not in service	
	8	1st	Bubbler		Room 307		not in service	
RK-051922-04	9	1st	Chiller	Elkay	Hallway - by bathrooms next to Rm 230, left	07:33	--	< 1.0
RK-051922-05	10	1st	Chiller	Elkay	Hallway - by bathrooms next to Rm 230, right	07:33	--	2.4
	11	1st	Bubbler		Room 306		not in service	
	12	1st	Bubbler		Room 309		not in service	
	13	1st	Bubbler		Room 310		not in service	
RK-051922-06	14	1st	Bubbler		Hallway - outside Room 109	07:36	--	1.3
	15	1st	Bubbler		Hallway - opposite Room 105		not in service	
RK-051922-07	16	1st	Bubbler		Hallway - outside Room 102	07:39	--	2.1
RK-051922-08	17	1st	Sink		Kitchen Sink	07:41	--	1.4
RK-051922-09	18	1st	Bubbler		Room 101 - All Purpose Room	07:42	--	12.7
	19	1st	Bubbler		Hallway - outside Room 201		not in service	
RK-051922-10	20	1st	Bubbler		Hallway - outside Room 206	07:43	--	4.9

Sample Type:

1st: First Draw sample collected after water sat in pipe between 8 and 18 hours

FL: Water flushed through tap for at least 2 minutes

< 1.0: means Not Detected at or above the Reliability Detection Limit (RDL) of 0.0010 mg/L for Lead.

Name of Building: Franklin Township Scho  
Building Owner: Franklin Twp Bd of Educ

Date Collected: 19-May-22  
Sample Collected by: PD McGuinness

[illegible]

Sample Type:

**1st:** First Draw sample collected after water sat in pipe between 8 and 18 hours

**FL:** Water flushed through tap for at least 2 minutes

< 1.0: means Not Detected at or above the Reliability Detection Limit (RDL) of 0.0010 mg/L for Lead.

CERTIFICATE OF ANALYSIS

Client: R. K. Environmental Consultants  
401 St. James Ave.  
Phillipsburg NJ 08865

Report Date: 5/25/2022  
Report No.: 661510 - Lead Water  
Project: Franklin Township School  
Project No.:

Client: RKE630

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.:7431001	Location:Room 112 Sink	Result(ppb):3.80
Client No.:RK051922-01	* Sample acidified to pH <2.	

Lab No.:7431002	Location:Hall Across Rm 303 Left - Chiller	Result(ppb):1.00
Client No.:RK051922-02	* Sample acidified to pH <2.	

Lab No.:7431003	Location:Hall Across Rm 303 Right - Chiller	Result(ppb):3.20
Client No.:RK051922-03	* Sample acidified to pH <2.	

Lab No.:7431004	Location:Hall By Rm 230 Left - Chiller	Result(ppb):<1.00
Client No.:RK051922-04	* Sample acidified to pH <2.	

Lab No.:7431005	Location:Hall By Rm 230 Right - Chiller	Result(ppb):2.40
Client No.:RK051922-05	* Sample acidified to pH <2.	

Lab No.:7431006	Location:Hall By Rm 102 Bubbler	Result(ppb):1.30
Client No.:RK051922-06	* Sample acidified to pH <2.	

Lab No.:7431007	Location:Kitchen Sink	Result(ppb):2.10
Client No.:RK051922-07	* Sample acidified to pH <2.	


Lab No.:7431008	Location:Hall Outside Rm 206 - Bubbler	Result(ppb):1.40
Client No.:RK051922-08	* Sample acidified to pH <2.	

Lab No.:7431009	Location:Nurse's Office Sink	Result(ppb):12.7
Client No.:RK051922-09	* Sample acidified to pH <2.	

Lab No.:7431010	Location:Room 208 Sink	Result(ppb):4.90
Client No.:RK051922-10	* Sample acidified to pH <2.	

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 5/21/2022  
Date Analyzed: 05/25/2022  
Signature: \_\_\_\_\_  
Analyst: Chad Shaffer

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

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CERTIFICATE OF ANALYSIS

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Client: R. K. Environmental Consultants  
401 St. James Ave.  
Phillipsburg NJ 08865

Report Date: 5/25/2022  
Report No.: 661510 - Lead Water  
Project: Franklin Township School  
Project No.:

Client: RKE630

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LEAD WATER SAMPLE ANALYSIS SUMMARY

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Lab No.:7431011

Location:Room 208 Coffee Maker

Result(ppb):1.00

Client No.:RK051922-11

\* Sample acidified to pH <2.

Lab No.:7431012

Location:

Result(ppb):12.2

Client No.:RK051922-12

\* Sample acidified to pH <2.

Lab No.:7431013

Location:

Result(ppb):1.90

Client No.:RK051922-13

\* Sample acidified to pH <2.

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Please refer to the Appendix of this report for further information regarding your analysis.

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Date Received: 5/21/2022

Date Analyzed: 05/25/2022

Signature:

Analyst: Chad Shaffer

Approved By:



Frank E. Ehrenfeld, III  
Laboratory Director



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CERTIFICATE OF ANALYSIS

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Client: R. K. Environmental Consultants  
401 St. James Ave.  
Phillipsburg NJ 08865  
  
Client: RKE630

Report Date: 5/25/2022  
Report No.: 661510 - Lead Water  
Project: Franklin Township School  
Project No.:

## Appendix to Analytical Report:

**Customer Contact:** Jonathan Gilbert  
**Analysis:** AAS-GF - ASTM D3559-08D

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

**iATL Customer Service:** customerservice@iatl.com  
**iATL Office Manager:** wchampion@iatl.com  
**iATL Account Representative:** Shirley Clark  
**Sample Login Notes:** See Batch Sheet Attached  
**Sample Matrix:** Water  
**Exceptions Noted:** See Following Pages

### General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at [www.iATL.com](http://www.iATL.com) and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

### Information Pertinent to this Report:

Analysis by AAS Graphite Furnace:

- ASTM D3559-08D

Certification:

- NYS-DOH No. 11021

- NJDEP No. 03863

### Note: These methods are analytically equivalent to iATL's accredited method;

- USEPA 40CFR 141.11B

- USEPA 200.9 Pb, AAS-GF, RL <2 ppb/sample

- USEPA SW 846-7421 - Pb(AAS-GF, RL <2 ppb/sample)

Regulatory limit for lead in drinking water is 15.0 parts per billion as cited in EPA 40 CFR 141.11 National Primary Drinking Water Regulations, Subpart B: Maximum contaminant levels for inorganic chemicals.

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Sample results are not corrected for contamination by field or analytical blanks.

PPB = Parts per billion. 1 µg/L = 1 ppb MDL = 0.24 PPB Reporting Limit (RL) = 1.0 PPB

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CERTIFICATE OF ANALYSIS

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Client: R. K. Environmental Consultants  
401 St. James Ave.  
Phillipsburg NJ 08865

Report Date: 5/25/2022  
Report No.: 661510 - Lead Water  
Project: Franklin Township School  
Project No.:

Client: RKE630

**Disclaimers / Qualifiers:**

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at [customerservice@iatl.com](mailto:customerservice@iatl.com).

Matrix spiking is performed on each client batch to determine if interferences could impact results. When spike recoveries fall out of acceptable range matrix interference is suspected and samples are diluted until acceptable spike recovery can be achieved. Reporting limits will increase by the same degree as the dilution required.

Note: Sample dilution required due to matrix interference.

Water Sample Turbidity greater than 1.0 NTU does not meet Federal and NJ State Primary & Secondary Drinking Water Standards.

\* ASTM D3559 (D) calls for the addition of acid at the time of sampling. Unless so noted on the chain of custody by the client iATL acidifies samples to a pH of <2 at least 24 hours prior to analysis.

## Chain of Custody

– Environmental Lead –

### Contact Information

Client Company: RK ENVIRONMENTAL Project Number: \_\_\_\_\_  
Office Address: 401 ST JAMES AVE Project Name: FRANKLIN TOWNSHIP SCHOOL  
City, State, Zip: PHILIPSBURG NJ 08665 Primary Contact: PAT MCGUINNESS  
Fax Number: \_\_\_\_\_ Office Phone: 908 454 6316  
Email Address: RK-ENVIRONMENTAL@ENTERMAIL.NET Cell Phone: \_\_\_\_\_

iATL is accredited by the National Lead Laboratory Accreditation Program (NLLAP) to perform analytical testing of environmental samples for lead (Pb). The accreditation is through AIHA-LAP, LLC and several other nationally recognized state programs.

### Matrix/Method:

- ☐ Paint by AAS: ASTM D3335-85a, 2009  
☐ Wipe/Dust by AAS: SW 846: 3050B: 700B, 2010  
☐ Air by AAS: NIOSH 7082, 1994  
☐ Soil by AAS: EPA SW 846 (Soil)  
☒ Water by AAS-GF: ASTM D3559-03D, US EPA 200.9  
☐ Other Metals (Cd, Zn, Cr) by AAS  
☐ Toxicity Characteristic Leaching Procedure (TCLP) by AAS: US EPA 1311  
☐ Other \_\_\_\_\_

### Special Instructions:

### Turnaround Time

Preliminary Results Requested Date: \_\_\_\_\_  
Specific date / time  
☐ 10 Day ☒ 5 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day\* ☐ 12 Hour\*\* ☐ 6 Hour\*\* ☐ RUSH\*\*  
\* End of next business day unless otherwise specified. \*\* Matrix Dependent. \*\*\*Please notify the lab before shipping\*\*\*

### Chain of Custody

Relinquished (Name/Organization): [Signature] Date: 5-21-22 Time: \_\_\_\_\_  
Received (Name / iATL): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Sample Login (Name / iATL): 151312 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Analysis(Name(s) / iATL): 1512622 Date: 5/25/22 Time: \_\_\_\_\_  
QA/QC Review (Name / iATL): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Archived / Released: \_\_\_\_\_ QA/QC InterLAB Use: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

RECEIVED

MAY 21 2022

iATL - BY