



August 29, 2024

Mr. Clark Mathes  
Voorhees Township Public Schools  
329 Route 73  
Voorhees, New Jersey 08043

RE: Lead in Drinking Water Sampling  
Voorhees Middle School  
1000 Holly Oak Drive  
IEC Project # 2024.184.1

Dear Mr. Mathes:

Indoor Environmental Concepts, LLC (IEC) was retained by Voorhees Township Public Schools to perform testing of the drinking water outlets servicing 1000 Holly Oak Drive for the presence of lead (Pb). The lead in water testing was performed pursuant to the regulations and guidance documents from the New Jersey Safe Drinking Water Act (NJAC 6 7:10-1 et seq.) having principal responsibility to administer the programs and activities of the Federal Safe Drinking Water Act (40 CFR 141, 142 & 143) and the United States Environmental Protection Agency (EPA) protocols as recommended in their publication 3Ts for Reducing Lead in Drinking Water in Schools, Revised Technical Guidance. The EPA developed the 3Ts for Reducing Lead in Drinking Water in Schools, Revised Technical Guidance.

### **Background**

Federal studies indicate that children under the age of six are at the highest risk for harmful lead exposure, and children can be exposed to lead from a variety of sources, including drinking water, paint, soil and even some consumer products. Lead is a toxic metal that can be harmful to human health when ingested or inhaled. Even small doses of lead can be harmful. Unlike most other contaminants, lead is stored in our bones and can be later released into the bloodstream. The groups most vulnerable to lead include fetuses and young children. Drinking water and ingested dust are two likely routes of entry for lead exposure.

Even though water delivered from your community's public water supply must meet Federal and State standards for lead, a facility may have elevated concentrations of lead due to plumbing and water use patterns in the building. The physical/chemical interaction that occurs between the water and plumbing is referred to as corrosion. The extent of which corrosion occurs depends on various factors such as the lead content of the building's plumbing and piping system, water velocity, temperature, alkalinity, chlorine levels, the age and condition of plumbing, and the amount of time water is in contact with the plumbing.

Therefore, the critical issue is that even though your public water supplier may send you water that meets all Federal and State public health standards for lead, you may end up with too much lead

in your drinking water because of the plumbing in your facility. The only way to be certain that lead is not a problem in your school building is to test various drinking water outlets (i.e., taps, bubblers, coolers, etc.) for the substance. That is why testing the water from your drinking water outlets for lead is so important.

IEC collected samples based on previous sampling reports and outlets identified during the work such as kitchen food preparation areas.

### **Lead Sampling Collection and Analytical Results**

Trained technicians collected first draw samples from designated outlets on August 2, 2024. Samples were delivered after each sampling event to a laboratory certified by the New Jersey Department of Environmental Protection (NJ DEP) for analysis. The samples were collected after an 8-to-18-hour stagnation period. All samples were taken before the facility opened and before any water was used by building occupants. Where practical and feasible, samples were first collected at drinking water outlets that were as close as possible to the building water main. Cold water lines were sampled when possible. All water samples were collected in laboratory supplied, pre-cleaned 250 milliliter (mL) bottles. The bottles were labeled with a unique sample identification number and the sample location and time sampled were recorded on the chain of custody form. All samples were sealed immediately after collection and delivered to Eurofins/iATL in Mount Laurel. Analysis was performed for lead content via AAS Graphite Furnace by ASTM Method D3559-15D.

As indicated on the attached laboratory report from Eurofins/iATL, all results were below the NJAC 6A:26112.4 (e) action limit of 15  $\mu$ /L, **which is equivalent to 15 ppb**. Therefore, all outlets are acceptable for human consumption.

It should be noted that this sampling was performed in accordance with current guidelines. Should the guidelines change, or legislation dictate other criteria, these results may need to be reevaluated. If you need any further assistance, please do not hesitate to contact our office.

Thank you for the opportunity to provide you with our services. You may contact me if you have any questions or would like to discuss this matter further.

Sincerely,  
Indoor Environmental Concepts, LLC



Michael P. Menz, CIH, CHMM  
President

Project Name: Voorhees Middle School

 File #: 2024.184.1

 Laboratory: Eurofins/iATL

 Analysis: Lead in Drinking Water ASTM D3559

 Turnaround Time: ☒ 2 week

 Collected by: Mel C May

 Date: 8/2/24

 Transmitted by: Mel C May

 Date: 8/2/24 AUG 10:20 AM

 Received by: (A)W

 Date: 8/12/24

Sample #	Location	Fixture Type	Time sampled
A1	right fountain next to P-15	C	7:36778178
A2	bottle filler " " "	BF	7:31778179
A3	left chiller near door C-17	C	7:35778180
A4	right " " " "	C	7:30778181
A5	bottle filler " " "	BF	7:32778182
A6	girls lavatory by door C-17 (Ewing)	S	7:40778183
A7	boys lavatory " " " (L19)	S	7:41778184
A8	chiller (left) across E14	C	7:42778185
A9	bottle filler across E14	BF	7:40778186
A10	right chiller next to E6	C	7:40778187
A11	bottle filler next to E6	BF	7:40778188
A12	chiller near <del>C-17</del> C-3	C	7:40778189
A13	bottle filler near C-3	BF	7:38778190
A14	faculty men lavatory across C-5	S	7:32778191
A15	faculty women lavatory next to P-7	S	7:33778192
A16	left chiller between A31 & boys lav.	C	7:32778193
A17	left bottle filler " " "	BF	7:38778194
A18	right chiller " " "	C	7:37778195

 Email results to:  
[labresults@indoorenvconcepts.com](mailto:labresults@indoorenvconcepts.com)

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Project Name: Voorhees Middle

 File #: 2024.184.1

 Laboratory: Eurofins/iATL

 Analysis: Lead in Drinking Water ASTM D3559

 Turnaround Time: ☒ 2 week

 Collected by: Mike C May

 Date: 8/2/24

 Transmitted by: myan

 Date: 8/2/24 10:20 AM

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

Sample #	Location	Fixture Type	Time sampled
A19	right bottle filler between A-31 + <sup>boys</sup> lav	BF	7:57 7778196
A20	boys lavatory b/w A31 & <del>A34</del> A30	S	8:07 7778197
A21	girls lavatory b/w A30 & A29	S	8:08 7778198
A22	old cafe/kitchen food prep sink	S	8:09 7778199
A23	kitchen "Hot Chaud" steamer	S	8:09 7778200
A24	teachers lounge next to old cafe	S	8:09 7778201
A25	gender neutral lavatory next to stage door	S	8:12 7778202
A26	left chiller o/s boys locker (across theater)	C	8:14 7778203
A27	left bottle filler " " " "	BF	8:15 7778204
A28	right chiller " " " "	C	8:16 7778205
A29	right bottle filler " " " "	BF	8:17 7778206
A30	boys bathroom o/s gym/theater	S	8:19 7778207
A31	girls " " " " <sup>by trophy cases</sup>	S	8:20 7778208
A32	left chiller by P-11 (o/s theater)	C	8:22 7778209
A33	bottle filler (left)	BF	8:23 7778210
A34	center chiller " " "	C	8:24 7778211
A35	center bottle filler	BF	8:25 7778212
A36	right chiller	C	8:26 7778213

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Project Name: Voorhees Middle

 File #: 2024.184.1

 Laboratory: Eurofins/iATL

 Analysis: Lead in Drinking Water ASTM D3559

 Turnaround Time: ☒ 2 week

 Collected by: Michael May

 Date: 8/2/24

 Transmitted by: mpm

 Date: 8/2/24 10:20AM

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

Sample #	Location	Fixture Type	Time sampled
A37	right bottle filler by P-11	BF	8:07 7778214
A38	chiller at door A1 o/s main office	C	8:27 7778215
A39	bottle filler " " " "	BF	8:30 7778216
A40	main office kitchenette	S	8:37 7778217
A41	Nurse office	S	8:33 7778218
A42	bottle filler across A-14	BF	8:35 7778219
A43	bottle filler o/s P-10	BF	8:37 7778220
A44	chiller " "	C	8:38 7778221
A45	bottle filler between library & D7	BF	8:40 7778222
A46	chiller " " " "	C	8:41 7778223
A47	faculty dining across B2	S	8:43 7778224
	Acidified M5		
	8/1/24 7:00		

 Email results to:  
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# CERTIFICATE OF ANALYSIS

Client: Indoor Environmental Concepts, LLC  
117 N Black Horse Pike  
Runnemede NJ 08078  
  
Client: IND601

Report Date: 8/13/2024  
Report No.: 703265 - Lead Water  
Project: Voorhees Middle School  
Project No.: 2024.184.1

## LEAD WATER SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 7778178	<b>Location:</b> Right Fountain Next To P-15	<b>Result(ppb):</b> <1.00
<b>Client No.:</b> A1	* Sample acidified to pH <2.	

<b>Lab No.:</b> 7778179	<b>Location:</b> Bottle Filler Next To P-15	<b>Result(ppb):</b> <1.00
<b>Client No.:</b> A2	* Sample acidified to pH <2.	

<b>Lab No.:</b> 7778180	<b>Location:</b> Left Chiller Near Door C-17	<b>Result(ppb):</b> <1.00
<b>Client No.:</b> A3	* Sample acidified to pH <2.	

<b>Lab No.:</b> 7778181	<b>Location:</b> Right Chiller Near Door C-17	<b>Result(ppb):</b> <1.00
<b>Client No.:</b> A4	* Sample acidified to pH <2.	

<b>Lab No.:</b> 7778182	<b>Location:</b> Bottle Filler Near Door C-17	<b>Result(ppb):</b> <1.00
<b>Client No.:</b> A5	* Sample acidified to pH <2.	

<b>Lab No.:</b> 7778183	<b>Location:</b> Girls Lavatory By Door C-17 (E Wing)	<b>Result(ppb):</b> <1.00
<b>Client No.:</b> A6	* Sample acidified to pH <2.	


<b>Lab No.:</b> 7778184	<b>Location:</b> Boys Lavatory By Door C-17 (19)	<b>Result(ppb):</b> 1.10
<b>Client No.:</b> A7	* Sample acidified to pH <2.	

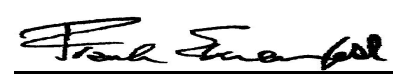
<b>Lab No.:</b> 7778185	<b>Location:</b> Chiller (Left) Across E14	<b>Result(ppb):</b> <1.00
<b>Client No.:</b> A8	* Sample acidified to pH <2.	

<b>Lab No.:</b> 7778186	<b>Location:</b> Bottle Filler Across E14	<b>Result(ppb):</b> <1.00
<b>Client No.:</b> A9	* Sample acidified to pH <2.	

<b>Lab No.:</b> 7778187	<b>Location:</b> Right Chiller Next To E6	<b>Result(ppb):</b> <1.00
<b>Client No.:</b> A10	* Sample acidified to pH <2.	

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

Date Received: 8/2/2024  
Date Analyzed: 08/13/2024  
Signature:   
Analyst: Mark Stewart

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director



CERTIFICATE OF ANALYSIS

Client: Indoor Environmental Concepts, LLC  
117 N Black Horse Pike  
Runnemede NJ 08078

Report Date: 8/13/2024  
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Project: Voorhees Middle School  
Project No.: 2024.184.1

Client: IND601

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7778188 Location: Bottle Filler Next To E6 Result(ppb): <1.00  
Client No.: A11 \* Sample acidified to pH <2.

Lab No.: 7778189 Location: Chiller Near C-3 Result(ppb): <1.00  
Client No.: A12 \* Sample acidified to pH <2.

Lab No.: 7778190 Location: Bottle Filler Near C-3 Result(ppb): <1.00  
Client No.: A13 \* Sample acidified to pH <2.

Lab No.: 7778191 Location: Faculty Men Lavatory Across C-5 Result(ppb): 2.60  
Client No.: A14 \* Sample acidified to pH <2.

Lab No.: 7778192 Location: Faculty Women Lavatory Next To P-7 Result(ppb): 1.20  
Client No.: A15 \* Sample acidified to pH <2.

Lab No.: 7778193 Location: Left Chiller Between A31 And Boys Lav Result(ppb): <1.00  
Client No.: A16 \* Sample acidified to pH <2.


Lab No.: 7778194 Location: Left Bottle Filler Between A31 And Boys Lav Result(ppb): <1.00  
Client No.: A17 \* Sample acidified to pH <2.

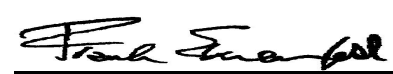
Lab No.: 7778195 Location: Right Chiller Between A31 And Boys Lav Result(ppb): <1.00  
Client No.: A18 \* Sample acidified to pH <2.

Lab No.: 7778196 Location: Right Bottle Filler Between A31 And Boys Lav Result(ppb): <1.00  
Client No.: A19 \* Sample acidified to pH <2.

Lab No.: 7778197 Location: Boys Lavatory B/W A31 And A30 Result(ppb): <1.00  
Client No.: A20 \* Sample acidified to pH <2.

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

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Signature:   
Analyst: Mark Stewart

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director



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LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7778198      Location: Girls Lavatory B/W A30 And A29      Result(ppb): <1.00  
Client No.: A21      \* Sample acidified to pH <2.

Lab No.: 7778199      Location: Old Cafe/Kitchen Food Prep Sink      Result(ppb): <1.00  
Client No.: A22      \* Sample acidified to pH <2.

Lab No.: 7778200      Location: Kitchen "Hot Chaud" Steamer      Result(ppb): 1.10  
Client No.: A23      \* Sample acidified to pH <2.

Lab No.: 7778201      Location: Teachers Lounge Next To Old Cafe      Result(ppb): <1.00  
Client No.: A24      \* Sample acidified to pH <2.

Lab No.: 7778202      Location: Gender Neutral Lavatory Next To Storage Door      Result(ppb): 1.40  
Client No.: A25      \* Sample acidified to pH <2.


Lab No.: 7778203      Location: Left Chiller O/S Boys Locker (Across Theater)      Result(ppb): <1.00  
Client No.: A26      \* Sample acidified to pH <2.

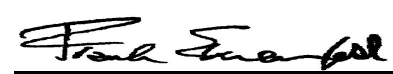
Lab No.: 7778204      Location: Left Bottle Filler O/S Boys Locker (Across Theater)      Result(ppb): <1.00  
Client No.: A27      \* Sample acidified to pH <2.

Lab No.: 7778205      Location: Right Chiller O/S Boys Locker (Across Theater)      Result(ppb): <1.00  
Client No.: A28      \* Sample acidified to pH <2.

Lab No.: 7778206      Location: Right Bottle Filler O/S Boys Locker (Across Theater)      Result(ppb): <1.00  
Client No.: A29      \* Sample acidified to pH <2.

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

Date Received: 8/2/2024  
Date Analyzed: 08/13/2024  
Signature:   
Analyst: Mark Stewart

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director



CERTIFICATE OF ANALYSIS

Client: Indoor Environmental Concepts, LLC  
117 N Black Horse Pike  
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Report Date: 8/13/2024  
Report No.: 703265 - Lead Water  
Project: Voorhees Middle School  
Project No.: 2024.184.1

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7778207      Location: Boys Bathroom O/S Gym Theater      Result(ppb): <1.00  
Client No.: A30      \* Sample acidified to pH <2.

Lab No.: 7778208      Location: Girls Bathroom O/S Gym Theater By Trophy Cases      Result(ppb): <1.00  
Client No.: A31      \* Sample acidified to pH <2.

Lab No.: 7778209      Location: Ledft Chiller By P-11 (O/S Theater)      Result(ppb): <1.00  
Client No.: A32      \* Sample acidified to pH <2.

Lab No.: 7778210      Location: Bottle Filler (Left)      Result(ppb): <1.00  
Client No.: A33      \* Sample acidified to pH <2.

Lab No.: 7778211      Location: Center Chiller      Result(ppb): <1.00  
Client No.: A34      \* Sample acidified to pH <2.

Lab No.: 7778212      Location: Center Bottle Filler      Result(ppb): <1.00  
Client No.: A35      \* Sample acidified to pH <2.


Lab No.: 7778213      Location: Right Chiller      Result(ppb): <1.00  
Client No.: A36      \* Sample acidified to pH <2.

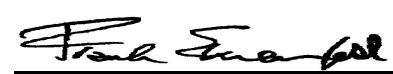
Lab No.: 7778214      Location: Right Bottle Filler By P-11      Result(ppb): <1.00  
Client No.: A37      \* Sample acidified to pH <2.

Lab No.: 7778215      Location: Chiller At Door A1 O/S Main Office      Result(ppb): <1.00  
Client No.: A38      \* Sample acidified to pH <2.

Lab No.: 7778216      Location: Bottle Filler Door A1 O/S Main Office      Result(ppb): <1.00  
Client No.: A39      \* Sample acidified to pH <2.

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

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Signature:   
Analyst: Mark Stewart

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director



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Client: IND601

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7778217 Location: Main Office Kitchenette Result(ppb): <1.00  
Client No.: A40 \* Sample acidified to pH <2.

Lab No.: 7778218 Location: Nurse Office Result(ppb): 11.0  
Client No.: A41 \* Sample acidified to pH <2.

Lab No.: 7778219 Location: Bottle Filler Across A-16 Result(ppb): <1.00  
Client No.: A42 \* Sample acidified to pH <2.

Lab No.: 7778220 Location: Bottle Filler O/S P-10 Result(ppb): <1.00  
Client No.: A43 \* Sample acidified to pH <2.


Lab No.: 7778221 Location: Chiller O/S P-10 Result(ppb): <1.00  
Client No.: A44 \* Sample acidified to pH <2.


Lab No.: 7778222 Location: Bottle Filler Between Library And D7 Result(ppb): <1.00  
Client No.: A45 \* Sample acidified to pH <2.

Lab No.: 7778223 Location: Chiller Result(ppb): <1.00  
Client No.: A46 \* Sample acidified to pH <2.

Lab No.: 7778224 Location: Faculty Dining Across B2 Result(ppb): <1.00  
Client No.: A47 \* Sample acidified to pH <2.

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Project: Voorhees Middle School  
Project No.: 2024.184.1

## Appendix to Analytical Report:

**Customer Contact:** Lab Results  
**Analysis:** AAS-GF - ASTM D3559-15D

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 D3559-15D

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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Project No.: 2024.184.1

Client: IND601

**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.