

# Montgomery County Public Schools Lead in Drinking Water Testing Report

Stephen Knolls School  
10731 St Margaret's Way  
Kensington, MD 20895

Report Date: February 20<sup>th</sup>, 2022

## LEAD IN DRINKING WATER SAMPLE RESULTS SUMMARY

All Maryland public and nonpublic schools are required to sample all drinking water outlets for the presence of lead pursuant to the Code of Maryland Regulations (COMAR). Montgomery County Public Schools (MCPS) is required to remediate outlets where lead in drinking water concentrations exceed the Montgomery County Action Level (AL) of 5 parts per billion (ppb). A summary of the lead in water initial samples collected by SaLUT are presented in the table below.

Sampling Date	10/27/2021
# of Outlets Tested	29
# of Outlets $\geq$ 5 ppb	16

## NEXT STEPS

If an initial sample exceeds the AL (5 ppb), the outlet will be immediately shut-down, a follow-up sample collected, and a remedial plan of action developed for this outlet. No additional sampling or remedial actions are required for schools where all initial samples are below the AL.

## 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. Lead is stored in the bones and it can be released later in life. During pregnancy, the fetus receives lead from the mother's bones, which may affect brain development. 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.

## **SOURCES OF HUMAN EXPOSURE TO LEAD**

There are many different sources of human exposure to lead. These include: lead-based paint, lead-contaminated dust or soil, some plumbing materials, certain types of pottery, pewter, brass fixtures, food, cosmetics, exposure in the work place and from certain hobbies. According to the Environmental Protection Agency (EPA), 10 to 20 percent of a person's potential exposure to lead may come from drinking water, while for an infant consuming formula mixed with lead-containing water this may increase to 40 to 60 percent.

### **TO REDUCE EXPOSURE TO LEAD IN DRINKING WATER:**

1. Run your water to flush out lead: If water hasn't been used for several hours, run water for 15 to 30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking.
2. Use cold water for cooking and preparing baby formula: Lead from the plumbing dissolves more easily into hot water.

*\*Please note that boiling the water will not reduce lead levels.*

### **ADDITIONAL INFORMATION**

1. For additional information, please contact Brian Mullikin, Environmental Team Leader, at 240.740.2324 or [brian\\_a\\_mullikin@mcpsmd.org](mailto:brian_a_mullikin@mcpsmd.org).
2. For additional information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's website at [www.epa.gov/lead](http://www.epa.gov/lead).
3. If you are concerned about exposure; contact your local health department or healthcare provider to find out how you can get your child tested for lead.

*Please refer to the attachment(s) for additional water sampling information.*

**Attachment(s)** A – Lead in Water Sample Results Table

**ATTACHMENT A**

**Lead in Water Sample Results Table**

## Sampling Results for Stephen Knolls School

Fixture Barcode	Fixture Location	Fixture Type	Initial Results (ppb)	Pass/Fail	Follow up Results (ppb)	Status
LW01066	In hallway across from boys restroom and A4	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW01070	In classroom B2	Classroom Combination Sink	1.6	Pass	N/A	Testing Complete
LW01071	In classroom B2	Classroom Combination Drinking Fountain	1.9	Pass	N/A	Testing Complete
LW01072	In classroom B2	Classroom Sink	2.7	Pass	N/A	Testing Complete
LW01073	In classroom B8	Classroom Combination Sink	3.4	Pass	N/A	Testing Complete
LW01075	In cafeteria C1	Kitchen Sink	10.2	Fail	5.4	Testing Complete
LW01076	In cafeteria C1	Kitchen Sink	14.0	Fail	4.1	Testing Complete
LW01079	In hallway adjacent to cafeteria C1 and C2	Drinking Fountain	7.5	Fail	Device removed	Testing Complete
LW01080	In health room A6	Classroom Sink	2.1	Pass	N/A	Testing Complete
LW01081	In health room HR	Classroom Sink	5.6	Fail	1.8	Testing Complete
LW01083	In classroom B5	Classroom Sink	1.5	Pass	N/A	Testing Complete
LW01084	In classroom B6	Classroom Combination Sink	12.3	Fail	2.4	Testing Complete
LW01086	In classroom C3	Classroom Sink	9.5	Fail	2.0	Testing Complete
LW01087	In classroom C4	Classroom Sink	7.6	Fail	<1	Testing Complete
LW01088	In classroom D9	Classroom Sink	5.4	Fail	<1	Testing Complete
LW01089	In classroom D6	Classroom Sink	7.6	Fail	1.2	Testing Complete
LW01090	In classroom D5	Classroom Sink	13.0	Fail	4.8	Testing Complete
LW01091	In classroom D2	Classroom Sink	7.8	Fail	1.3	Testing Complete
LW02353	In hallway next to D3	Drinking Fountain	2.7	Pass	N/A	Testing Complete
LW02354	In hallway between B7 and B5	Drinking Fountain	1.9	Pass	N/A	Testing Complete
LW10933	In hallway adjacent to boys bathroom and A4	Bottle Filler	<1	Pass	N/A	Testing Complete
LW10934	In multipurpose room C1	Classroom Sink	10.4	Fail	<1	Testing Complete
LW10935	In classroom C2	Classroom Sink	22.8	Fail	3.8	Testing Complete
M03112	In classroom D3	Classroom Sink	4.4	Pass	N/A	Testing Complete
M03124	In classroom D10	Classroom Sink	5.9	Fail	3.7	Testing Complete
M03127	In classroom D11	Classroom Sink	4.6	Pass	N/A	Testing Complete
M03142	In kitchen by C1	Kitchen Sink	6.5	Fail	6.2	Testing Complete
M03151	In classroom B7	Classroom Sink	3.1	Pass	N/A	Testing Complete
M03157	In kitchen B4	Kitchen Sink	18.9	Fail	1.1	Testing Complete



**MONTGOMERY COUNTY PUBLIC SCHOOLS  
LEAD IN DRINKING WATER POST-REMEDATION FOLLOW-UP TESTING 2019**

November 13, 2019

**Executive Summary:**

**Stephen Knolls School**

10731 St. Margarets Way,  
Silver Spring, MD 20902

<b>Round of Testing:</b>	<b>Post-Remediation Follow-up</b>
Sample Date	02/06/2019
# of Outlets Tested:	3
# of Outlets $\geq$ 5 ppb:	2
Low Value (ppb):	4.5
High Value (ppb):	21.5

**Project Status**

**Testing Complete:** Post-remediation follow-up testing completed for the following rooms:

Kitchen by C1 – Outlet (M03145) will be placed back in service.

Media Center (D7) – Outlet (LW01093) will have signage affixed.

Kitchen by C1 – Outlet (M03146) will have signage affixed.



November 13, 2019

Mr. Brian Mullikin  
Environmental Team Leader  
Montgomery County Public Schools  
8301 Turkey Thicket Drive  
Building A, First Floor  
Gaithersburg, Maryland 20879

Re: Lead in Water Post-Remediation Follow-up Testing Service

Location: Stephen Knolls School  
10731 St. Margarets Way,  
Silver Spring, MD 20902

Dear Mr. Mullikin:

Intertek-PSI, Inc. is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of post-remediation lead in water testing at Stephen Knolls School, located at 10731 St. Margarets Way, Silver Spring, MD 20902.

**Scope of Services:**

Three (3) drinking water outlets were remediated at Stephen Knolls School due to initial levels that exceeded the lead action level of 5 parts per billion (ppb). Intertek-PSI conducted lead in water post-remediation follow-up testing in accordance with the Maryland Code of Regulations (COMAR) 26.16.07-Lead in Drinking Water – Public and Nonpublic Schools.

Intertek-PSI visited the site on 02/06/2019 to collect post-remediation follow-up samples from 3 of the outlets that have been replaced. Samples were submitted to a laboratory for lead in water analysis using current US EPA methodology. The laboratory has been certified by the Maryland Department of the Environment to analyze drinking water for lead.

**Results:**

The initial, flush, and post-remediation follow-up results are highlighted in the summary table below:



Barcode ID	Room Number	Location	Notes	Equipment Type	Initial (ppb)	Flush (ppb)	Post-Remediation Follow-up (ppb)	Post-Remediation Follow-up Pass/Fail	Status
M03145		Kitchen by C1		Faucet	48.1	2.5	4.5	Pass	Post-remediation follow-up testing complete. Outlet will be placed back in service
LW01093	D7	Media Center		Faucet	29.3	105.0	10.3	Fail	Post-remediation follow-up testing complete. Outlet will have signage affixed
M03146		Kitchen by C1		Faucet	42.4	3.7		Fail	Post-remediation follow-up testing complete. Outlet will have signage affixed

\*ppb = parts per billion

### **Discussion:**

Lead is a naturally occurring element that can be harmful to humans when ingested or inhaled, particularly to children under the age of six. Lead can adversely affect the development of children's brain potentially leading to detrimental alterations in intelligence and behavior. Lead has been historically used in plumbing, paint and other building materials. Lead is released into the environment from industrial sources and fuel combustion. Lead may also be found in consumer products (imported candy, medicines, toys, dishes, etc.).

Most lead leaches into drinking water from contact with plumbing components such as faucets and valves made of brass or lead-containing solder. The physical and chemical interaction that occurs between the plumbing and water directly contributes to the amount of lead that is released into the water. Although plumbing components installed prior to the 1990's could contain more lead than newer materials, the amount of lead in the drinking water cannot be predicted by the age of building. The purpose of this regulation is to establish a program to minimize the risk of exposure to lead in drinking water outlets at schools.

Simple steps like keeping your home clean and well-maintained will go a long way in preventing lead exposure. These steps include inspecting and maintaining all painted surfaces to prevent paint deterioration, using only cold water to prepare food and drinks, flushing water outlets used for drinking or food preparation, and cleaning around painted areas where friction can generate dust, such as doors, windows, and drawers. Wipe these areas with a wet sponge or rag to remove paint chips or dust, and wash children's hands, bottles, pacifiers and toys often.

Respectfully Submitted,

**PROFESSIONAL SERVICE INDUSTRIES, INC.**

Nan Lin  
Department Manager, Environmental Services  
[Nan.Lin@intertek.com](mailto:Nan.Lin@intertek.com)



## MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

April 24, 2018

**Executive Summary:**  
**Stephen Knolls School**  
10731 St Margarets Way  
Silver Spring, MD 20902

Round of Testing:	Initial
# of Outlets Tested:	41
# of Outlets $\geq$ 20 ppb:	3
Low Value (ppb):	< 1.0
High Value (ppb):	48.1
Follow-Up Testing Required (Samples $\geq$ 20 ppb):	Room D7 (29.3 ppb), Kitchen Faucet (48.1 ppb), and Kitchen Faucet (42.4)

Round of Testing:	Follow-Up – 30 sec draw
# of Outlets Tested:	3

**Project Status**  
**Testing Complete: Remediation Plan**

Room D7-Media Center – Replace fixture (LW01093), in addition to supply line and valve located under sink  
Kitchen Faucet – Replace fixture (M03145), in addition to supply line and valve located under sink  
Kitchen Faucet – Replace fixture (M03146), in addition to supply line and valve located under sink





April 24, 2018

Mr. Brian Mullikin  
Environmental Team Leader  
Montgomery County Public Schools  
8301 Turkey Thicket Drive  
Building A, First Floor  
Gaithersburg, Maryland 20879

Re: Lead in Water Testing Service

Location: Stephen Knolls School  
10731 St Margarets Way  
Silver Spring, MD 20902

Dear Mr. Mullikin:

Professional Services Industries (PSI), Inc. is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of the initial and follow-up lead in water testing at Stephen Knolls School, located at 10731 St Margarets Way in Silver Spring, MD 20902.

**Scope of Services:**

PSI conducted lead in water testing at Stephen Knolls School in accordance with the Environmental Protection Agency (EPA) and Maryland House Bill (HB) 270. State regulation established an action level of 20 parts per billion (ppb) to evaluate lead levels in school buildings, a concentration EPA recommends that schools take action to reduce lead below this action level. Maryland requires periodic testing for the presence of lead in drinking water in occupied public and nonpublic school buildings. EPA developed the 3T's (Training, Testing, and Telling) to assist schools in reducing the lead concentrations in their drinking water. More information about 3T's can be found on the EPA website.

PSI visited the site on 02/20/18, 02/21/18, and 02/22/18 to collect samples from 41 drinking water outlets in accordance with current criteria described by the Maryland Department of the Environment (MDE) Draft Lead in Drinking Water—Public and Nonpublic Schools, Title 26, Subtitle 16 Lead, Chapter 07. Three 30 second follow-up samples were collected on 4/12/18.

Samples were submitted to a laboratory for lead in water analysis using current US EPA methodology. The laboratory has been certified by the Maryland Department of the Environment to analyze drinking water for lead.

**Results:**

There were three results of the initial lead in water analysis at or above 20 parts per billion (ppb) and subsequent follow up 30 second results are highlighted in the summary table below:



Barcode ID	Sample Location	Date Collected	Initial Sample Result (ppb)	Date Collected	30 Second Follow Up Sample Result (ppb)
LW01093	Faucet – Media Center	2/21/2018	29.3	4/12/18	105.0
M03145	Faucet – Kitchen	2/21/2018	48.1	4/12/18	2.5
M03146	Faucet - Kitchen	2/21/2018	42.4	4/12/18	3.7

The initial lead in water sample results 02/21/18 and 02/22/18 and 30 second follow up results (4/12/18) are shown in Attachment A.

**Discussion:**

Lead is a naturally occurring element that can be harmful to humans when ingested or inhaled, particularly to children under the age of six. Lead can adversely affect the development of children’s brain potentially leading to detrimental alterations in intelligence and behavior. Lead has been historically used in plumbing, paint and other building materials. Lead is released into the environment from industrial sources and fuel combustion. Lead may also be found in consumer products (imported candy, medicines, toys, dishes, etc.).

Most lead leaches into drinking water from contact with plumbing components such as faucets and valves made of brass or lead-containing solder. The physical and chemical interaction that occurs between the plumbing and water directly contributes to the amount of lead that is released into the water. Although plumbing components installed prior to the 1990’s could contain more lead than newer materials, the amount of lead in the drinking water cannot be predicted by the age of building. The purpose of this regulation is to establish a program to minimize the risk of exposure to lead in drinking water outlets at schools.

Simple steps like keeping your home clean and well-maintained will go a long way in preventing lead exposure. These steps include inspecting and maintaining all painted surfaces to prevent paint deterioration, using only cold water to prepare food and drinks, flushing water outlets used for drinking or food preparation, and cleaning around painted areas where friction can generate dust, such as doors, windows, and drawers. Wipe these areas with a wet sponge or rag to remove paint chips or dust, and wash children's hands, bottles, pacifiers and toys often.

Respectfully Submitted,

**PROFESSIONAL SERVICE INDUSTRIES, INC.**

Nand Kaushik, P.E.  
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[Nand.Kaushik@psiusa.com](mailto:Nand.Kaushik@psiusa.com)

Attachments: A – Initial Lead in Water Test Summary Table

# ATTACHMENT A

## Stephen Knolls School Water Test Summary Table

**Contractor:** Professional Services Industries, Inc.

**Certified Laboratory:** Microbac Laboratories, Inc.

Initial Sample Results for Stephen Knolls School (2/21/18)

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW01065	A5	Break Room		Faucet	8.6	Pass	Testing Complete
LW01066		Hallway	Across From Boys Restroom And A4	Cooler	<1.0	Pass	Testing Complete
LW01067		Work Room Office		Faucet	11.0	Pass	Testing Complete
LW01069	A7	Classroom		Faucet	11.1	Pass	Testing Complete
LW01070	B2	Classroom		Faucet	3.5	Pass	Testing Complete
LW01071	B2	Classroom		Bubbler - Indoor	2.8	Pass	Testing Complete
LW01072	B2	Classroom		Faucet	4.3	Pass	Testing Complete
LW01075		Kitchen		Faucet	7.3	Pass	Testing Complete
LW01076		Kitchen		Faucet	7.0	Pass	Testing Complete
LW01077		Cafeteria		Faucet	17.3	Pass	Testing Complete
LW01078		Cafeteria		Bubbler - Indoor	7.7	Pass	Testing Complete
LW01079		Hallway		Cooler	8.6	Pass	Testing Complete
LW01080	A6	Health Room		Faucet	1.1	Pass	Testing Complete
LW01081	HR	Health Room		Faucet	1.9	Pass	Testing Complete
LW01082	B3	Classroom		Faucet	9.4	Pass	Testing Complete
LW01083	B5	Classroom		Faucet	1.0	Pass	Testing Complete
LW01084	B6	Classroom		Faucet	1.8	Pass	Testing Complete
LW01085	B6	Classroom		Bubbler - Indoor	2.0	Pass	Testing Complete
LW01086	C3	Classroom		Faucet	5.6	Pass	Testing Complete
LW01087	C4	Classroom		Faucet	2.5	Pass	Testing Complete
LW01088	D9	Classroom		Faucet	2.2	Pass	Testing Complete
LW01089	D6	Classroom		Faucet	2.3	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW01090	D5	Classroom		Faucet	5.9	Pass	Testing Complete
LW01091	D2	Classroom		Faucet	2.7	Pass	Testing Complete
LW01093	D7	Media Center		Faucet	29.3	Fail	Follow-Up Testing Needed
LW01094	D1	Kitchen		Faucet	14.9	Pass	Testing Complete
LW01095	D1	Kitchen		Faucet	2.8	Pass	Testing Complete
LW01096	D1	Kitchen		Faucet	5.7	Pass	Testing Complete
LW02353		Hallway	Next To Room D3	Cooler	1.9	Pass	Testing Complete
LW02354		Hallway		Cooler	<1.0	Pass	Testing Complete
M03112	D3	Classroom		Faucet	3.7	Pass	Testing Complete
M03124	D10	Classroom		Faucet	2.7	Pass	Testing Complete
M03127	D11	Classroom		Faucet	2.0	Pass	Testing Complete
M03136	C2	Classroom		Faucet	8.6	Pass	Testing Complete
M03141		Kitchen	By Room C1	Faucet	15.6	Pass	Testing Complete
M03142		Kitchen	By Room C1	Faucet	3.7	Pass	Testing Complete
M03145		Kitchen	By Room C1	Faucet	48.1	Fail	Follow-Up Testing Needed
M03146		Kitchen	By Room C1	Faucet	42.4	Fail	Follow-Up Testing Needed
M03151	B7	Classroom		Faucet	2.6	Pass	Testing Complete
M03157	B4	Break Room		Faucet	13.7	Pass	Testing Complete
M03163	A3	Therapy		Bubbler - Indoor	16.3	Pass	Testing Complete

\*ppb = parts per billion

**Contractor:** Professional Services Industries, Inc.  
**Certified Laboratory:** Microbac Laboratories, Inc.

Follow Up Sample Results for Stephen Knolls School (4/12/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 <sup>nd</sup> ) (PPB)	Initial draw (3 <sup>rd</sup> ) (PPB)	30 Second Draw (PPB)	Status
LW010903		Media Center Room D7	Bubbler - Indoor	12.30	447.0	105.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
M03145		Kitchen	Faucet	7.20	344.0	2.5	Remediation required – replace fixture, in addition to supply line and valve located under sink
M03146		Kitchen	Faucet	8.10	173.0	3.70	Remediation required – replace fixture, in addition to supply line and valve located under sink

Note: Fixture(s) with elevated test results were immediately removed from service. Subsequent 2nd and 3rd round testing was performed on these fixture(s) for further diagnostics for remediation. Because the fixture was shut off after the first test, the subsequent test results may not be representative of an in-use fixture because of stagnant water in the supply line and the operation of shut off valves prior to the tests. All fixtures with elevated test results are to be remediated. After remediation, post remediation testing will be conducted before the fixture is returned to service.