

Montgomery County Public Schools Lead in Drinking Water Testing Report

Lake Seneca Elementary School
13600 Wanegarden Drive
Germantown, MD 20874

Report Date: February 23rd, 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	11/23/2021
# 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.
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.
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 Lake Seneca ES

Fixture Barcode	Fixture Location	Fixture Type	Initial Results (ppb)	Pass/Fail	Follow up Results (ppb)	Status
LW03632	In break room 1	Teachers Lounge Sink	9.4	Fail	<1	Testing Complete
LW03660	In classroom 10	Teacher's Lounge Sink	6.5	Fail	<1	Testing Complete
LW03658	In classroom 11	Classroom Sink	7.0	Fail	<1	Testing Complete
LW03649	In classroom 15	Classroom Combination Sink	6.3	Fail	<1	Testing Complete
LW03651	In classroom 17	Classroom Sink	5.7	Fail	<1	Testing Complete
LW03653	In classroom 19	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
LW03646	In classroom 20	Classroom Sink	5.6	Fail	<1	Testing Complete
LW11031	In classroom 24	Classroom Sink	8.2	Fail	<1	Testing Complete
LW03638	In classroom 26	Classroom Sink	24.6	Fail	2.6	Testing Complete
LW03625	In classroom 27	Classroom Sink	5.5	Fail	<1	Testing Complete
LW03629	In classroom 28	Classroom Combination Sink	3.2	Pass	N/A	Testing Complete
LW03623	In classroom 29	Classroom Sink	5.7	Fail	<1	Testing Complete
LW03627	In classroom 30	Classroom Combination Sink	2.0	Pass	N/A	Testing Complete
LW03621	In classroom 31	Classroom Sink	6.3	Fail	2.0	Testing Complete
LW03708	In classroom 32	Classroom Combination Sink	2.5	Pass	N/A	Testing Complete
LW10991	In classroom 34	Classroom Sink	3.0	Pass	N/A	Testing Complete
Lw03668	In classroom 4	Classroom Combination Sink	5.7	Fail	<1	Testing Complete
LW03670	In classroom 5	Teacher's Lounge Sink	3.2	Pass	N/A	Testing Complete
LW10990	In classroom 7	Classroom Sink	29.7	Fail	5.4	Testing Complete
LW03662	In classroom 8	Classroom Sink	7.2	Fail	<1	Testing Complete
LW03664	In classroom 9	Classroom Sink	2.9	Pass	N/A	Testing Complete
LW10989	In hallway adjacent to gym	Bottle Filler	<1	Pass	N/A	Testing Complete
M01861	In hallway adjacent to gym	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW10983	In health room	Nurses Office Sink	9.9	Fail	<1	Testing Complete
M01872	In kitchen	Kitchen Sink	1.5	Pass	N/A	Testing Complete
M01870	In kitchen	Kitchen Sink	5.1	Fail	<1	Testing Complete
LW03633	In media center 25	Teacher's Lounge Sink	3.4	Pass	N/A	Testing Complete
M01866	In room 2	Classroom Sink	3.3	Pass	N/A	Testing Complete
M01384	In teacher lounge room 18	Teachers Lounge Sink	4.0	Pass	N/A	Testing Complete



Montgomery County Public Schools Lead in Drinking Water Post Remediation Follow Up Testing 2019

October 30, 2019

Executive Summary:

Lake Seneca Elementary School

13600 Wanegarden Drive

Germantown, Maryland 20874

Round of Testing:	Post-Remediation Follow-up
Sample Date	1/31/2019
# of Outlets Tested:	2
# of Outlets \geq 5 ppb:	1
Low Value (ppb):	4.2
High Value (ppb):	5.2

Project Status

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

- Classroom 9 - Outlet (LW03665) will be removed from service
- Classroom 34 - Outlet (LW03707) will be placed back into service



October 30, 2019

Mr. Brian Mullikin, MS
Environmental Team Leader
Montgomery County Public Schools
8301 Turkey Thicket Dr., Bldg A, 1st Floor
Gaithersburg, Maryland 20879

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

Location: Lake Seneca Elementary School

13600 Wanegarden Drive
Germantown, Maryland 20874

Dear Mr. Mullikin:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of the post-remediation follow-up lead in water testing at Lake Seneca Elementary School, located at 13600 Wanegarden Drive in Germantown, Maryland 20874.

SCOPE OF SERVICES

Two drinking water outlets were remediated at Lake Seneca Elementary School due to initial lead levels that exceeded the lead action level of 5 parts per billion (ppb). KCI Technologies, Inc. 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.

KCI Technologies, Inc. visited the site on 1/31/2019 to collect post-remediation follow-up samples from 2 drinking water outlets that had 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
LW03665	9	Classroom		Bubbler-Indoor	38.1	3	5.2	Fail	Post-remediation follow-up testing complete. Outlet will be removed from service
LW03707	34	Classroom		Bubbler - Indoor	29.6	3.6	4.2	Pass	Post-remediation follow-up testing complete. Outlet will be placed back into service

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. The Environmental Protection Agency (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.

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,
KCI Technologies, Inc.



Kamau McAbee
MDE Certified Water Sampler #8281KM
KCI Job #1214634186



Montgomery County Public Schools Lead in Drinking Water Testing 2018

June 15, 2018

Executive Summary:

Lake Seneca Elementary School

13600 Wanegarden Drive
Germantown, Maryland 20874

Round of Testing:	Initial
# of Outlets Tested:	46
# of Outlets ≥ 20 ppb:	2
Low Value (ppb):	<1.0
High Value (ppb):	38.1
Follow-Up Testing Required (Samples ≥ 20 ppb):	Classroom 9 (38.1 ppb) Classroom 34 (29.6 ppb)

Round of Testing:	Follow-Up - 30 sec draw
# of Outlets Tested:	2

Project Status:

Testing Complete: Remediation Plan

Classroom 9 - Replace fixture (LW03665), in addition to supply line and valve located under sink
Classroom 34 - Replace fixture (LW03707), in addition to supply line and valve located under sink



June 15, 2018

Mr. Brian Mullikin, MS
Environmental Team Leader
Montgomery County Public Schools
Division of Maintenance
Gaithersburg, Maryland 20879

Re: Drinking Water Testing

KCI Job #1214634193

Location: Lake Seneca Elementary School

13600 Wanegarden Drive
Germantown, Maryland 20874

Dear Mr. Mullikin:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of initial and follow-up lead in water testing at Lake Seneca Elementary School, located at 13600 Wanegarden Drive in Germantown, Maryland 20874.

SCOPE OF SERVICES

KCI conducted lead in water testing at Lake Seneca Elementary 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.

KCI visited the site on 4/16/2018 and 4/17/2018 to collect samples from 46 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. On 5/24/2018, two 30 second follow-up samples were collected.

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 two results of the 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)
LW03665	Bubbler-Indoor - Classroom 9	4/17/2018	38.1	5/24/2018	3.0
LW03707	Bubbler-Indoor - Classroom 34	4/17/2018	29.6	5/24/2018	3.6

The initial lead in water sample results (4/17/2018) and 30 second follow up results (5/24/2018) 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,
KCI Technologies, Inc.



Kamau McAbee
MDE Certified Water Sampler #8281KM

Attachment:

A- Lead in Water Test Summary Table

ATTACHMENT A

Lead in Water Test Summary Table

ATTACHMENT A

Lead in Water Test Summary Table

Contractor: KCI Technologies, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Lake Seneca Elementary School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW03619	33	Classroom		Faucet	5.5	Pass	Testing Complete
LW03621	31	Classroom		Faucet	4.9	Pass	Testing Complete
LW03623	29	Classroom		Faucet	3.7	Pass	Testing Complete
LW03625	27	Classroom		Faucet	3.4	Pass	Testing Complete
LW03626	27	Classroom		Bubbler - Indoor	6.9	Pass	Testing Complete
LW03627	30	Classroom		Faucet	2.4	Pass	Testing Complete
LW03629	28	Classroom		Faucet	2.9	Pass	Testing Complete
LW03631		Kitchen		Faucet	6.1	Pass	Testing Complete
LW03632	1	Break Room		Faucet	4.4	Pass	Testing Complete
LW03633	25	Media Center		Faucet	3.6	Pass	Testing Complete
LW03635	26	Kitchen		Faucet	5.9	Pass	Testing Complete
LW03636	26	Classroom		Faucet	5.2	Pass	Testing Complete
LW03638	26	Classroom		Faucet	11.3	Pass	Testing Complete
LW03640	24	Classroom		Faucet	5.5	Pass	Testing Complete
LW03642	24	Classroom		Faucet	6.9	Pass	Testing Complete
LW03644	22	Classroom		Faucet	5.4	Pass	Testing Complete
LW03646	20	Classroom		Faucet	4.3	Pass	Testing Complete
LW03649	15	Classroom		Faucet	4.3	Pass	Testing Complete
LW03651	17	Classroom		Faucet	4.6	Pass	Testing Complete
LW03652	117	Classroom		Bubbler - Indoor	16.0	Pass	Testing Complete
LW03653	19	Classroom		Faucet	<1.0	Pass	Testing Complete
LW03655		Hallway	Across From Room 14	Cooler	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW03656	13	Classroom		Faucet	6.8	Pass	Testing Complete
LW03657	13	Classroom		Bubbler - Indoor	15.9	Pass	Testing Complete
LW03658	11	Classroom		Faucet	4.7	Pass	Testing Complete
LW03660	10	Classroom		Faucet	4.6	Pass	Testing Complete
LW03662	8	Classroom		Faucet	6.1	Pass	Testing Complete
LW03663	8	Classroom		Bubbler - Indoor	7.9	Pass	Testing Complete
LW03664	9	Classroom		Faucet	5.4	Pass	Testing Complete
LW03665	9	Classroom		Bubbler - Indoor	38.1	Fail	Follow Up Testing Needed
LW03666	6	Classroom		Faucet	7.5	Pass	Testing Complete
LW03667	6	Classroom		Bubbler - Indoor	6.9	Pass	Testing Complete
LW03668	4	Classroom		Faucet	6.1	Pass	Testing Complete
LW03670	5	Classroom		Faucet	3.9	Pass	Testing Complete
LW03685	3	Art		Faucet	4.9	Pass	Testing Complete
LW03686	3	Art		Bubbler - Indoor	13.8	Pass	Testing Complete
LW03687	3	Art		Faucet	4.3	Pass	Testing Complete
LW03701		Health Room		Faucet	8.3	Pass	Testing Complete
LW03703		Work Room Office		Faucet	5.4	Pass	Testing Complete
LW03706	34	Classroom		Faucet	8.1	Pass	Testing Complete
LW03707	34	Classroom		Bubbler - Indoor	29.6	Fail	Follow Up Testing Needed
LW03708	32	Classroom		Faucet	2.6	Pass	Testing Complete
M01861		Hallway	Hall Across from Gym	Cooler	<1.0	Pass	Testing Complete
M01862		Hallway	Hall Across from Gym	Cooler	<1.0	Pass	Testing Complete
M01870		Kitchen		Faucet	7.3	Pass	Testing Complete
M01872		Kitchen		Faucet	3.4	Pass	Testing Complete

*PPB = parts per billion

Contractor: KCI Technologies, Inc.
Certified Laboratory: Microbac Laboratories, Inc.

Follow-Up Sample Results for Lake Seneca Elementary School

Barcode ID	Room #	Location	Equipment Type	Initial Draw (2nd) (PPB)	Initial Draw (3rd) (PPB)	30 Second Draw (PPB)*	Status
LW03665	9	Classroom	Bubbler - Indoor	N/A	12.4	3.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW03707	34	Classroom	Bubbler - Indoor	N/A	16.1	3.6	Remediation required – replace fixture, in addition to supply line and valve located under sink

*PPB = parts per billion

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.