

Montgomery County Public Schools Lead in Drinking Water Testing Report

**Northwood High School
919 University Blvd West
Silver Spring, MD 20901**

Report Date: August 13th, 2020

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	2/25/2020
# of Outlets Tested	37
# of Outlets \geq 5 ppb	2

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. Due to the Stay-at-Home Order to combat the spread of COVID-19 (coronavirus), no follow-up samples were collected. 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 Northwood HS

Fixture Barcode	Fixture Location	Fixture Type	Initial Results (ppb)	Pass/Fail	Follow up Results (ppb)	Status
LW03424	In hallway B215B outside of	Drinking Fountain	<1	Pass	N/A	Testing complete
LW03425	In hallway E209 outside of	Drinking Fountain	<1	Pass	N/A	Testing complete
LW03426	In hallway A224 outside of	Drinking Fountain	<1	Pass	N/A	Testing complete
LW03427	In hallway D102 by locker room - boys ie. outside of	Drinking Fountain	<1	Pass	N/A	Testing complete
LW03428	In hallway G118 outside of	Drinking Fountain	<1	Pass	N/A	Testing complete
LW03429	In locker room - boys D102	Drinking Fountain	<1	Pass	N/A	Testing complete
LW04573	Outside entrance to auditorium	Drinking Fountain	<1	Pass	N/A	Testing complete
LW04574	In hallway across from E119	Drinking Fountain	<1	Pass	N/A	Testing complete
LW04576	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing complete
LW04577	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing complete
LW04578	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing complete
LW04579	In kitchen	Ice Machine	<1	Pass	N/A	Testing complete
LW04580	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing complete
LW04581	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing complete
LW04582	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing complete
LW04583	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing complete
LW04584	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing complete
LW04585	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing complete
LW04586	In health room F115	Nurses Office Sink	<1	Pass	N/A	Testing complete
LW04587	In health room F115B	Nurses Office Sink	<1	Pass	N/A	Testing complete
LW04588	In health room near Rest rooms	Drinking Fountain	<1	Pass	N/A	Testing complete
LW04590	In media center F122B	Teachers Lounge Sink	<1	Pass	N/A	Testing complete
LW04591	In classroom F124	Classroom Combination Sink	<1	Pass	N/A	Testing complete
LW04592	In classroom F124	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing complete
LW04595	In lab F112	Classroom Sink	5.1	Fail	NC	Remediation Action Plan
LW04598	In hallway inside of girls locker room	Drinking Fountain	<1	Pass	N/A	Testing complete
LW04599	In hallway next to A125	Drinking Fountain	<1	Pass	N/A	Testing complete

LW04600	In hallway In front of auditorium	Drinking Fountain	<1	Pass	N/A	Testing complete
LW04601	In locker room - girls	Ice Machine	27.0	Fail	NC	Remediation Action Plan
LW04602	In health room W12 F115	Nurses Office Sink	1.3	Pass	N/A	Testing complete
LW04603	In health room W15 F115	Nurses Office Sink	2.3	Pass	N/A	Testing complete
LW04604	In health room W11 F115	Nurses Office Sink	2.0	Pass	N/A	Testing complete
LW06094	In work room C100J by administration	Teachers Lounge Sink	<1	Pass	N/A	Testing complete
M25454	In girls locker room	Drinking Fountain	<1	Pass	N/A	Testing complete
Lw08398	Aux Gymnasium	Drinking Fountain	<1	Pass	N/A	Testing complete
LW08399	Aux. Gym	Drinking Fountain	<1	Pass	N/A	Testing complete
LW08307	In Room G109	Drinking Fountain	<1	Pass	N/A	Testing complete

NC - Not Collected (No follow-up sample collected due to COVID-19 (Coronavirus) Stay-at-Home Order.)



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

August 30, 2019

Executive Summary:

Northwood High School

919 University Boulevard West

Silver Spring, Maryland 20901

Round of Testing:	Post-Remediation Follow-up
Sample Date	1/29/19
# of Outlets Tested:	1
# of Outlets ≥ 5 ppb:	0
Low Value (ppb):	<1.0
High Value (ppb):	<1.0

Project Status

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

Work Room Administration - Outlet (LW06094) will be placed back into service



August 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: Northwood High School

919 University Boulevard West
Silver Spring, Maryland 20901

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 Northwood High School, located at 919 University Boulevard West in Silver Spring, Maryland 20901.

SCOPE OF SERVICES

One drinking water outlet was remediated at Northwood High 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 1/29/19 to collect a post-remediation follow-up sample from 1 drinking water outlet that had been replaced. The sample was 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
LW06094*		Work Room Administration		Faucet	128	<1.0	<1.0	Pass	Post-remediation follow-up testing complete. Outlet will be placed back into service
*Fixture was assigned barcode LW06094 as previous barcode LW04572 could not be located at the time of sampling.									

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

April 26, 2018

Executive Summary:

Northwood High School

919 University Boulevard

Silver Spring, Maryland 20901

Round of Testing:	Initial
# of Outlets Tested:	38
# of Outlets ≥ 20 ppb:	1
Low Value (ppb):	<1.0
High Value (ppb):	128
Follow-Up Testing Required (Samples ≥ 20 ppb):	Work Room (128 ppb)

Round of Testing:	Follow-Up - 30 sec draw
# of Outlets Tested:	1

Project Status:

Testing Complete: Remediation Plan

Work Room - Replace fixture (LW04572), in addition to supply line and valve located under sink



April 26, 2018

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

Re: Drinking Water Testing

KCI Job #1214634186

Location: Northwood High School

919 University Boulevard
Silver Spring, Maryland 20901

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 Northwood High School, located at 919 University Boulevard in Silver Spring, Maryland 20901.

SCOPE OF SERVICES

KCI conducted lead in water testing at Northwood High 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 2/22/2018 and 2/23/2018 to collect samples from 38 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 4/11/2018, one 30 second follow-up sample was 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 was one result 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)
LW04572	Faucet - Work Room	2/23/2018	128	4/11/2018	ND

The initial lead in water sample results (2/23/2018) and 30 second follow up results (4/11/2018) 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 Northwood High School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW03424	B215B	Hallway	Outside Of	Cooler	<1.0	Pass	Testing Complete
LW03425	E209	Hallway	Outside Of	Cooler	<1.0	Pass	Testing Complete
LW03426	A224	Hallway	Outside Of	Cooler	<1.0	Pass	Testing Complete
LW03427	D102	Hallway Locker Room - Boys	Outside Of	Cooler	<1.0	Pass	Testing Complete
LW03428	G118	Hallway	Outside Of	Cooler	<1.0	Pass	Testing Complete
LW03429	D102	Locker Room - Boys		Cooler	<1.0	Pass	Testing Complete
LW04572		Work Room		Faucet	128	Fail	Follow-up Testing Needed
LW04573		Hallway		Cooler	2.6	Pass	Testing Complete
LW04574		Hallway	Across From Rm E119	Cooler	<1.0	Pass	Testing Complete
LW04575		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW04576		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW04577		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW04578		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW04579		Kitchen		Icemaker	<1.0	Pass	Testing Complete
LW04580		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW04581		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW04582		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW04583		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW04584		Kitchen		Faucet	1.0	Pass	Testing Complete
LW04585		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW04586	F115	Health Room		Faucet	1.2	Pass	Testing Complete
LW04587	F115B	Health Room		Faucet	1.3	Pass	Testing Complete
LW04588		Health Room	Near Rest Rooms	Cooler	2.1	Pass	Testing Complete
LW04589		Hallway		Cooler	<1.0	Pass	Testing Complete
LW04590	F122B	Media Center		Faucet	<1.0	Pass	Testing Complete
LW04591	F124	Classroom		Faucet	1.8	Pass	Testing Complete
LW04592	F124	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW04594	E109	Art		Faucet	1.1	Pass	Testing Complete
LW04598		Hallway	Inside Of Girls Locker Room	Cooler	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW04599		Hallway	Next To A125	Cooler	<1.0	Pass	Testing Complete
LW04600		Hallway	In Front Of Auditorium	Cooler	1.0	Pass	Testing Complete
LW04601		Locker Room - Girls		Icemaker	<1.0	Pass	Testing Complete
LW04602	W12	Health Room	F115	Faucet	1.6	Pass	Testing Complete
LW04603	W15	Health Room	F115	Faucet	3.8	Pass	Testing Complete
LW04604	W11	Health Room	F115	Faucet	3.5	Pass	Testing Complete
LW04605	W16	Health Room	F115	Faucet	14.7	Pass	Testing Complete
M25454		Girls Locker Room		Cooler	<1.0	Pass	Testing Complete

*PPB = parts per billion

Contractor: KCI Technologies, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Follow Up Initial Sample Results for Northwood High School

Barcode ID	Room #	Location	Equipment Type	Initial Draw (2nd) (PPB)	Initial Draw (3rd) (PPB)	30 Second Draw (PPB)*	Status
LW04572		Work Room	Faucet	1.6	ND	ND	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.