

Montgomery County Public Schools Lead in Drinking Water Testing Report

**Bannockburn Elementary School
6520 Dalroy Lane
Bethesda, MD 20917**

Report Date: February 17th, 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 | 12/03/2021 |
| # of Outlets Tested | 31 |
| # of Outlets \geq 5 ppb | 1 |

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 Bannockburn ES

| Fixture Barcode | Fixture Location | Fixture Type | Initial Results (ppb) | Pass/Fail | Follow up Results (ppb) | Status |
|-----------------|---------------------------------|---|-----------------------|-----------|-------------------------|------------------|
| Lw10388 | In hallway adjacent to 18 | Bottle Filler | <1 | Pass | N/A | Testing Complete |
| Lw10390 | In room 27 | Bubbler - Indoor | 3.6 | Pass | N/A | Testing Complete |
| Lw10400 | In room 41 | Bubbler - Indoor | <1 | Pass | N/A | Testing Complete |
| Lw10401 | In room 41 | Classroom Sink | <1 | Pass | N/A | Testing Complete |
| Lw10402 | In room 29 | Classroom Sink | 3.7 | Pass | N/A | Testing Complete |
| Lw10403 | In room 29 | Bubbler - Indoor | 8.3 | Fail | <1 | Testing Complete |
| LW12012 | In health room | Classroom Combination Drinking Fountain | 2.1 | Pass | N/A | Testing Complete |
| LW12013 | In hallway right of main office | Drinking Fountain | <1 | Pass | N/A | Testing Complete |
| LW12015 | In music 15 | Teacher's Lounge Sink | 4.1 | Pass | N/A | Testing Complete |
| LW12016 | In hallway left of room 25 | Drinking Fountain | <1 | Pass | N/A | Testing Complete |
| LW12017 | In break room 20 | Teachers Lounge Sink | <1 | Pass | N/A | Testing Complete |
| LW12018 | In hallway adjacent to room 18 | Drinking Fountain | <1 | Pass | N/A | Testing Complete |
| LW12019 | In kindergarten K1 | Teacher's Lounge Sink | 3.3 | Pass | N/A | Testing Complete |
| LW12021 | In hallway right of room 1 | Drinking Fountain | <1 | Pass | N/A | Testing Complete |
| LW12023 | In hallway right of room 13 | Drinking Fountain | 1.4 | Pass | N/A | Testing Complete |
| M38655 | In classroom 3 | Teacher's Lounge Sink | 2.7 | Pass | N/A | Testing Complete |
| M38656 | In classroom 3 | Classroom Combination Drinking Fountain | 1.4 | Pass | N/A | Testing Complete |
| M38657 | In classroom 1 | Teacher's Lounge Sink | 2.9 | Pass | N/A | Testing Complete |
| M38658 | In classroom 1 | Classroom Combination Drinking Fountain | 2.5 | Pass | N/A | Testing Complete |
| M38659 | In classroom 2 | Teacher's Lounge Sink | 1.6 | Pass | N/A | Testing Complete |
| M38660 | In classroom 2 | Classroom Combination Drinking Fountain | 2.2 | Pass | N/A | Testing Complete |
| M38661 | In classroom 4 | Teacher's Lounge Sink | 4.7 | Pass | N/A | Testing Complete |
| M38662 | In classroom 4 | Classroom Combination Drinking Fountain | 2.5 | Pass | N/A | Testing Complete |
| M38680 | In reading room 22 | Teacher's Lounge Sink | 2.2 | Pass | N/A | Testing Complete |
| M38684 | In hallway adjacent to CR 7 | Drinking Fountain | <1 | Pass | N/A | Testing Complete |
| M38713 | In kitchen | Kitchen Sink | 3.8 | Pass | N/A | Testing Complete |
| M38714 | In kitchen | Kitchen Sink | 1.9 | Pass | N/A | Testing Complete |
| M38715 | In kitchen | Kitchen Sink | 1.3 | Pass | N/A | Testing Complete |
| M38719 | In health room | Nurses Office Sink | <1 | Pass | N/A | Testing Complete |
| M38725 | In room 5 | Teacher's Lounge Sink | 2.7 | Pass | N/A | Testing Complete |

| | | | | | | |
|--------|-----------|---|-----|------|-----|------------------|
| M38726 | In room 5 | Classroom Combination Drinking Fountain | 2.2 | Pass | N/A | Testing Complete |
|--------|-----------|---|-----|------|-----|------------------|



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

October 30, 2019

Executive Summary:

Bannockburn Elementary School

6520 Dalroy Lane

Bethesda, Maryland 20817

| | |
|----------------------------|----------------------------|
| Round of Testing: | Post-Remediation Follow-up |
| Sample Date | 1/23/2019 |
| # of Outlets Tested: | 1 |
| # of Outlets \geq 5 ppb: | 1 |
| Low Value (ppb): | 18.3 |
| High Value (ppb): | 18.3 |

Project Status

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

Office Media Center - Outlet (M38683) will have signage affixed



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: Bannockburn Elementary School

6520 Dalroy Lane
Bethesda, Maryland 20817

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 Bannockburn Elementary School, located at 6520 Dalroy Lane in Bethesda, Maryland 20817.

SCOPE OF SERVICES

One drinking water outlet was remediated at Bannockburn 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 1/23/2019 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 |
|------------|-------------|---------------------|-------|----------------|---------------|-------------|----------------------------------|--------------------------------------|---|
| M38683 | | Office Media Center | | Faucet | 28.1 | 1.6 | 18.3 | Fail | Post-remediation follow-up testing complete. Outlet will have signage affixed |

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 DRINKING WATER TESTING 2018

July 18, 2018

Executive Summary:
Bannockburn Elementary School
6520 Dalroy Lane,
Bethesda, MD 20817

| | |
|--|---------------------------------|
| Round of Testing: | Initial |
| # of Outlets Tested: | 36 |
| # of Outlets \geq 20 ppb: | 1 |
| Low Value (ppb): | < 1.0 |
| High Value (ppb): | 28.1 |
| Follow-Up Testing Required (Samples \geq 20 ppb): | Media Center Office (28.10 ppb) |

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

Project Status
Testing Complete: Remediation Plan

Media Center Office – Replace fixture (M38683), in addition to supply line and valve located under sink



July 18, 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: Bannockburn Elementary School
6520 Dalroy Lane,
Bethesda, MD 20817

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 initial lead in water testing at Bannockburn Elementary School, located 6520 Dalroy Lane, Bethesda, MD 20817.

Scope of Services:

PSI conducted lead in water testing at Bannockburn 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.

PSI visited the site on 4/25/18 and 4/26/18 to collect samples from 36 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. One 30 second follow-up sample was collected on 6/21/18.

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 was one result 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) |
|------------|---------------------|----------------|-----------------------------|----------------|---|
| M38683 | Media Center Office | 4/26/18 | 28.1 | 6/21/18 | 1.6 |

*ppb = parts per billion

The initial lead in water sample results (4/26/18) and 30 second follow up results (6/21/18) 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.
Department Manager, Environmental Services
Nand.Kaushik@psiusa.com

Attachments: A – Lead in Water Test Summary Table

ATTACHMENT A

Bannockburn Elementary School Water Test Summary Table

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Bannockburn Elementary School (4/26/18)

| Barcode ID | Room Number | Location | Location Notes | Equipment Type | Result (PPB)* | Pass/Fail | Status |
|------------|-------------|------------------------|----------------------|------------------|---------------|-----------|------------------|
| LW12012 | | Health Room | | Bubbler - Indoor | 1.1 | Pass | Testing Complete |
| LW12013 | | Hallway | Right Of Main Office | Cooler | <1.0 | Pass | Testing Complete |
| LW12014 | | Kitchen | | Faucet | 9.4 | Pass | Testing Complete |
| LW12015 | 15 | Music | | Faucet | 4.4 | Pass | Testing Complete |
| LW12016 | | Hallway | Left Of Room 25 | Cooler | <1.0 | Pass | Testing Complete |
| LW12017 | 20 | Break Room | | Faucet | <1.0 | Pass | Testing Complete |
| LW12018 | | Hallway | Across From Rm 18 | Cooler | <1.0 | Pass | Testing Complete |
| LW12019 | K1 | Kindergarten Classroom | | Faucet | 3.1 | Pass | Testing Complete |
| LW12020 | K1 | Kindergarten Classroom | | Bubbler - Indoor | 1.7 | Pass | Testing Complete |
| LW12021 | | Hallway | Right Of Room 1 | Cooler | <1.0 | Pass | Testing Complete |
| LW12022 | 14 | Classroom | | Faucet | 16.1 | Pass | Testing Complete |
| LW12023 | | Hallway | Right Of 13 | Cooler | <1.0 | Pass | Testing Complete |
| M38647 | | Classroom | | Faucet | 11.7 | Pass | Testing Complete |
| M38648 | | Kindergarten | | Faucet | 2.5 | Pass | Testing Complete |
| M38649 | | Kindergarten | | Bubbler - Indoor | 7.2 | Pass | Testing Complete |
| M38655 | 3 | Classroom | | Faucet | <1.0 | Pass | Testing Complete |
| M38656 | 3 | Classroom | | Bubbler - Indoor | 1.9 | Pass | Testing Complete |
| M38657 | 1 | Classroom | | Faucet | 1.7 | Pass | Testing Complete |
| M38658 | 1 | Classroom | | Bubbler - Indoor | 2.9 | Pass | Testing Complete |
| M38659 | 2 | Classroom | | Faucet | 2.2 | Pass | Testing Complete |
| M38660 | 2 | Classroom | | Bubbler - Indoor | 3.4 | Pass | Testing Complete |

| Barcode ID | Room Number | Location | Location Notes | Equipment Type | Result (PPB)* | Pass/Fail | Status |
|------------|-------------|---------------------|----------------|------------------|---------------|-----------|--------------------------|
| M38661 | 4 | Classroom | | Faucet | 3.9 | Pass | Testing Complete |
| M38662 | 4 | Classroom | | Bubbler - Indoor | 1.5 | Pass | Testing Complete |
| M38680 | 22 | Reading | | Faucet | 1.9 | Pass | Testing Complete |
| M38683 | | Office Media Center | | Faucet | 28.1 | Fail | Follow-Up Testing Needed |
| M38684 | | Hallway | Across CR 7 | Cooler | <1.0 | Pass | Testing Complete |
| M38693 | 10 | Classroom | | Faucet | 8.1 | Pass | Testing Complete |
| M38700 | 13 | Classroom | | Faucet | 6.2 | Pass | Testing Complete |
| M38702 | 12 | Classroom | | Faucet | 11.2 | Pass | Testing Complete |
| M38713 | | Kitchen | | Faucet | 3.7 | Pass | Testing Complete |
| M38714 | | Kitchen | | Faucet | 2.7 | Pass | Testing Complete |
| M38715 | | Kitchen | | Faucet | 1.4 | Pass | Testing Complete |
| M38719 | | Health Room | | Faucet | 1.4 | Pass | Testing Complete |
| M38724 | 31 | Classroom | | Faucet | 1.9 | Pass | Testing Complete |
| M38725 | 5 | Kiln Classroom | | Faucet | 3.2 | Pass | Testing Complete |
| M38726 | 5 | Kiln Classroom | | Bubbler - Indoor | 3.8 | Pass | Testing Complete |

*ppb = parts per billion

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Follow Up Sample Results for Bannockburn Elementary School (6/21/18)

| Barcode ID | Room Number | Location | Equipment Type | Initial draw (2 nd) (PPB) | 30 Second Draw (PPB) | Status |
|------------|-------------|---------------------|----------------|---------------------------------------|----------------------|---|
| M38683 | | Media Center Office | Faucet | 21.7 | 1.6 | 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 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.