



## MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

June 28, 2018

**Executive Summary:**  
**Bradley Hills Elementary School**  
8701 Hartsdale Avenue,  
Bethesda, MD 20817

Round of Testing:	Initial
# of Outlets Tested:	86
# of Outlets $\geq$ 20 ppb:	6
Low Value (ppb):	< 1.0
High Value (ppb):	42.8
Follow-Up Testing Required (Samples $\geq$ 20 ppb):	Classroom 108 (42.8 ppb) Classroom 109 (34.9 ppb) Classroom 118 (35.9 ppb and 35.0 ppb) Classroom 150 (36.1 ppb) Media Center Workroom 145A (22.3 ppb)

Round of Testing:	Follow-Up – 30 sec draw
# of Outlets Tested:	6

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

- Classroom 108 – Replace fixture (LW11553), in addition to supply line and valve located under sink
- Classroom 109 – Replace fixture (LW11557), in addition to supply line and valve located under sink
- Classroom 118 – Replace fixture (LW11567), in addition to supply line and valve located under sink
- Classroom 150 – Replace fixtures (LW11569 and M40947), in addition to supply line and valve located under sink
- Media Center Workroom 145A– Replace fixture (M31522), in addition to supply line and valve located under sink
- Classroom 118 – Replace fixture (M40947), in addition to supply line and valve located under sink



June 28, 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: Bradley Hills Elementary School  
8701 Hartsdale Avenue,  
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 Bradley Hills Elementary School, located 8701 Hartsdale Avenue, Bethesda, MD 20817.

**Scope of Services:**

PSI conducted lead in water testing at Bradley Hills 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 4/24/18 and 4/25/18 to collect samples from 86 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. Six 30 second follow-up sample were collected on 6/6/18.

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 six 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)
LW11553	Classroom 108	4/25/18	42.8	6/6/18	6.7
LW11557	Classroom 109	4/25/18	34.9	6/6/18	4.3
LW11567	Classroom 118	4/25/18	35.9	6/6/18	<1.0
LW11569	Classroom 150	4/25/18	36.1	6/6/18	1.9
M31522	Media Center Workroom 145A	4/25/18	22.3	6/6/18	<1.0
M40947	Classroom 118	4/25/18	35.0	6/6/18	<1.0

\*ppb = parts per billion

The initial lead in water sample results (4/25/18) and 30 second follow up results (6/6/18) 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  
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Attachments:           A – Lead in Water Test Summary Table

# ATTACHMENT A

## Bradley Hill Elementary School Water Test Summary Table

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

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

Initial Sample Results for Bradley Hills Elementary School (4/25/18)

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW11544	101	Health Room Office		Faucet	<1.0	Pass	Testing Complete
LW11545	101B	Health Room Office		Faucet	<1.0	Pass	Testing Complete
LW11546	100G	Work Room Administration		Faucet	2.7	Pass	Testing Complete
LW11547	102	Classroom		Faucet	3.5	Pass	Testing Complete
LW11548	104	Classroom		Faucet	7.7	Pass	Testing Complete
LW11550	103	Classroom		Bubbler - Indoor	14.4	Pass	Testing Complete
LW11551	103	Classroom		Faucet	2.6	Pass	Testing Complete
LW11552	105	Classroom		Bubbler - Indoor	6.0	Pass	Testing Complete
LW11553	108	Classroom		Bubbler - Indoor	42.8	Fail	Follow-Up Testing Needed
LW11554	108	Classroom		Faucet	14.9	Pass	Testing Complete
LW11556	107	Classroom		Faucet	1.0	Pass	Testing Complete
LW11557	109	Classroom		Bubbler - Indoor	34.9	Fail	Follow-Up Testing Needed
LW11558	109	Classroom		Faucet	8.2	Pass	Testing Complete
LW11559		Hallway	Next To 114	Cooler	<1.0	Pass	Testing Complete
LW11560		Hallway	Next To 114	Cooler	<1.0	Pass	Testing Complete
LW11562	117	Classroom		Faucet	11.4	Pass	Testing Complete
LW11564	116	Classroom		Faucet	10.3	Pass	Testing Complete
LW11565	119	Classroom		Bubbler - Indoor	9.6	Pass	Testing Complete
LW11566	119	Classroom		Faucet	18.7	Pass	Testing Complete
LW11567	118	Classroom		Bubbler - Indoor	35.9	Fail	Follow-Up Testing Needed
LW11569	150	Classroom		Faucet	36.1	Fail	Follow-Up Testing Needed
LW11635	161	Kitchen		Faucet	2.4	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW11636	161	Kitchen		Faucet	3.6	Pass	Testing Complete
LW11637	161	Kitchen		Faucet	4.1	Pass	Testing Complete
LW11638	161	Kitchen		Faucet	2.1	Pass	Testing Complete
LW11639		Hallway	Across From 162	Cooler	<1.0	Pass	Testing Complete
LW11640		Hallway	Across From 162	Cooler	<1.0	Pass	Testing Complete
LW11641	168	Art		Bubbler - Indoor	4.5	Pass	Testing Complete
LW11642	168	Art		Faucet	3.7	Pass	Testing Complete
LW11643	168	Art		Faucet	<1.0	Pass	Testing Complete
LW11644	153	Classroom		Faucet	<1.0	Pass	Testing Complete
M31457	127	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31458	124	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31459	130	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31489	127	Classroom		Faucet	<1.0	Pass	Testing Complete
M31492	126	Office		Bubbler - Indoor	1.0	Pass	Testing Complete
M31493	126	Office		Faucet	<1.0	Pass	Testing Complete
M31494	129	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31495	129	Classroom		Faucet	<1.0	Pass	Testing Complete
M31497	124	Classroom		Faucet	<1.0	Pass	Testing Complete
M31500	131	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31501	131	Classroom		Faucet	<1.0	Pass	Testing Complete
M31502	130	Classroom		Faucet	<1.0	Pass	Testing Complete
M31505	134	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31506	134	Classroom		Faucet	<1.0	Pass	Testing Complete
M31511		Hallway	Across from Classroom 134	Cooler	<1.0	Pass	Testing Complete
M31512		Hallway	Across from Classroom 134	Cooler	<1.0	Pass	Testing Complete
M31517	138	Classroom		Faucet	<1.0	Pass	Testing Complete
M31518	138	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31520		Hallway	Across from 145 IMC	Cooler	<1.0	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
M31521		Hallway	Across from 145 IMC	Cooler	<1.0	Pass	Testing Complete
M31522	145A	Work Room Media Center	Inside IMC	Faucet	22.3	Fail	Follow-Up Testing Needed
M31523	149	Office		Bubbler - Indoor	2.7	Pass	Testing Complete
M31524	149	Office		Faucet	1.1	Pass	Testing Complete
M31525	121	Art		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31526	121	Art		Faucet	<1.0	Pass	Testing Complete
M31534		Hallway	Across from Gym 01	Cooler	<1.0	Pass	Testing Complete
M31535		Hallway	Across from Gym 01	Cooler	<1.0	Pass	Testing Complete
M31540	201	Classroom		Faucet	1.1	Pass	Testing Complete
M31541	201	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31542	205	Classroom		Faucet	<1.0	Pass	Testing Complete
M31543	205	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31544	204	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31545	204	Classroom		Faucet	2.2	Pass	Testing Complete
M31546	209	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31547	209	Classroom		Faucet	1.2	Pass	Testing Complete
M31548	206	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31549	206	Classroom		Faucet	1.6	Pass	Testing Complete
M31550		Hallway	Across from Classroom 211	Cooler	<1.0	Pass	Testing Complete
M31551		Hallway	Across from Classroom 211	Cooler	<1.0	Pass	Testing Complete
M31552	211	Classroom		Faucet	1.4	Pass	Testing Complete
M31553	211	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31555	215	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31556	215	Classroom		Faucet	1.9	Pass	Testing Complete
M31563	217	Classroom		Faucet	1.5	Pass	Testing Complete
M31564	217	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31565	221	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31566	221	Classroom		Faucet	<1.0	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
M31567	224	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31568	224	Classroom		Faucet	<1.0	Pass	Testing Complete
M31569	223	Music		Faucet	4.2	Pass	Testing Complete
M40939	162	Kindergarten		Faucet	8.3	Pass	Testing Complete
M40947	118	Classroom		Faucet	35.0	Fail	Follow-Up Testing Needed
M40956	102	Classroom		Bubbler - Indoor	4.0	Pass	Testing Complete
M40957	105	Classroom		Faucet	2.0	Pass	Testing Complete
M40959	110	Classroom		Faucet	7.4	Pass	Testing Complete

\*ppb = parts per billion



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

Follow Up Sample Results for Bradley Hills Elementary School (6/6/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 <sup>nd</sup> ) (PPB)	30 Second Draw (PPB)	Status
LW11553	108	Classroom	Bubbler-Indoor	48.6	6.7	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW11557	109	Classroom	Bubbler-Indoor	30.2	4.3	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW11567	118	Classroom	Bubbler-Indoor	<1.0	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW11569	150	Classroom	Faucet	14.7	1.9	Remediation required – replace fixture, in addition to supply line and valve located under sink
M31522	145A	Media Center Workroom	Faucet	1.8	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
M40947	118	Classroom	Faucet	8.8	<1.0	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.