



## MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

July 23, 2018

**Executive Summary:**  
**Beall Elementary School**  
451 Beall Avenue,  
Rockville, MD 20850

Round of Testing:	Initial
# of Outlets Tested:	79
# of Outlets $\geq$ 20 ppb:	2
Low Value (ppb):	< 1.0
High Value (ppb):	58.6
Follow-Up Testing Required (Samples $\geq$ 20 ppb):	Classroom 3 (22.1 ppb) Classroom 9 (58.6 ppb)

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

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

Classroom 3 – Replace fixture (LW11919), in addition to supply line and valve located under sink  
Classroom 9 – Replace fixture (M05608), in addition to supply line and valve located under sink



July 23, 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: Beall Elementary School  
451 Beall Avenue  
Rockville, MD 20850

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 Beall Elementary School, located 451 Beall Avenue, Rockville, MD 20850.

**Scope of Services:**

PSI conducted lead in water testing at Beall 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 4/30/18 and 5/1/18 to collect samples from 79 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. Two 30 second follow-up samples were 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 were two 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)
LW11919	Classroom 3	5/1/18	22.1	6/21/18	9.5
M05608	Classroom 9	5/1/18	58.6	6/21/18	39.0

\*ppb = parts per billion

The initial lead in water sample results (5/1/18) 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  
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Attachments:           A – Lead in Water Test Summary Table

# ATTACHMENT A

## Beall Elementary School Water Test Summary Table

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

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

Initial Sample Results for Beall Elementary School (5/1/18)

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW11890	1013	Office Media Center		Faucet	2.1	Pass	Testing Complete
LW11891		Kitchen		Faucet	1.0	Pass	Testing Complete
LW11892		Hallway	Across From Gym	Cooler	<1.0	Pass	Testing Complete
LW11893	101	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11894	101	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11895	1009	Health Room		Faucet	<1.0	Pass	Testing Complete
LW11896		Work Room Administration		Faucet	1.2	Pass	Testing Complete
LW11897	102	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11898	102	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11899	103	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11900	103	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11901	104	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11902	104	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11903	105	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11904	105	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11905	106	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11906	106	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11907	107	Classroom		Faucet	2.1	Pass	Testing Complete
LW11908	107	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11909	108	Classroom		Faucet	2.2	Pass	Testing Complete
LW11910	108	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11911	109	Classroom		Faucet	1.6	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW11912	109	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11913	110	Classroom		Faucet	3.9	Pass	Testing Complete
LW11914	110	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11915	111	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11916	111	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11917	004	Classroom		Faucet	1.5	Pass	Testing Complete
LW11918	004	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11919	003	Classroom		Faucet	22.1	Fail	Follow-Up Testing Needed
LW11920	003	Classroom		Bubbler - Indoor	4.7	Pass	Testing Complete
LW11961		Hallway	Left Of 8	Cooler	<1.0	Pass	Testing Complete
LW11962	11	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11963	11	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11964	13	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11965	13	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11966	15	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11967	15	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11968	17	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11969	17	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11970	18	Classroom		Faucet	1.5	Pass	Testing Complete
LW11971	18	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11972	16	Classroom		Faucet	2.2	Pass	Testing Complete
LW11973	16	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11974	14	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11975	14	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11976		Hallway	Right Of 211	Cooler	<1.0	Pass	Testing Complete
LW11977	211	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11978	211	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11979	210	Classroom		Faucet	2.8	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW11980	210	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11981	209	Classroom		Faucet	1.5	Pass	Testing Complete
LW11982	209	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11983	208	Classroom		Faucet	1.0	Pass	Testing Complete
LW11984	208	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11985	207	Classroom		Faucet	1.5	Pass	Testing Complete
LW11986	207	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11987	206	Classroom		Faucet	1.5	Pass	Testing Complete
LW11988	206	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11989	205	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11990	205	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11991	204	Classroom		Faucet	1.9	Pass	Testing Complete
LW11992	204	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11993	203	Classroom		Faucet	1.7	Pass	Testing Complete
LW11994	203	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11995	202	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11996	202	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW11997	201	Classroom		Faucet	1.7	Pass	Testing Complete
LW11998	201	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M05608	9	Classroom		Faucet	58.6	Fail	Follow-Up Testing Needed
M05609	9	Classroom		Bubbler - Indoor	3.3	Pass	Testing Complete
M05613	8A	Office		Faucet	<1.0	Pass	Testing Complete
M20324		Hallway	In Front Of 205	Cooler	<1.0	Pass	Testing Complete
M20345		Kitchen		Faucet	<1.0	Pass	Testing Complete
M20346		Kitchen		Faucet	<1.0	Pass	Testing Complete
M20347		Kitchen		Faucet	<1.0	Pass	Testing Complete
M20352		Break Room	Across From Kitchen	Faucet	<1.0	Pass	Testing Complete
M20356		Hallway	Hall Left Of Apr	Cooler	<1.0	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
M20382		Hallway	Across From 105	Cooler	<1.0	Pass	Testing Complete

\*ppb = parts per billion

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

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

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 <sup>nd</sup> ) (PPB)	30 Second Draw (PPB)	Status
LW11919	003	Classroom	Faucet	4.1	9.5	Remediation required – replace fixture, in addition to supply line and valve located under sink
M05608	9	Classroom	Bubbler - Indoor	1.3	39.0	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.