



## MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

April 24, 2018

**Executive Summary:**  
**Gaithersburg Elementary School**  
35 N Summit Avenue  
Gaithersburg, MD 20877

Round of Testing:	Initial
# of Outlets Tested:	96
# of Outlets $\geq$ 20 ppb:	2
Low Value (ppb):	< 1.0
High Value (ppb):	253
Follow-Up Testing Required (Samples $\geq$ 20 ppb):	Classroom 10 (83.6 ppb) Classroom 14 (253 ppb)

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

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

Classroom 10 – Replace fixture (LW00622), in addition to supply line and valve located under sink  
Classroom 14– Replace fixture (LW00654), in addition to supply line and valve located under sink



April 24, 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: Gaithersburg Elementary School  
35 N Summit Avenue  
Gaithersburg, MD 20877

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 the initial and follow-up lead in water testing at Gaithersburg Elementary School, located at 35 North Summit Avenue in Gaithersburg, MD 20877.

**Scope of Services:**

PSI conducted lead in water testing at Gaithersburg ES 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 1/30/18 and 01/31/18 to collect initial samples from 96 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 4/11/18.

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)
LW00622	Bubbler – Classroom 10	1/31/2018	83.6	4/11/18	1.5
LW00654	Bubbler – Classroom 14	1/31/2018	253	4/11/18	2.2

The initial lead in water sample results (01/31/18) and 30 second follow up results (4/11/18) 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 – Initial Lead in Water Test Summary Table

# ATTACHMENT A

## Gaithersburg ES Water Test Summary Table

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

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

Initial Sample Results for Gaithersburg ES (1/31/18)

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW00601		Hallway	In Front Of Staff Lounge	Cooler	<1.0	Pass	Testing Complete
LW00602		Break Room		Faucet	2.3	Pass	Testing Complete
LW00603	2	Classroom		Bubbler - Indoor	6.8	Pass	Testing Complete
LW00604	2	Classroom		Faucet	1.9	Pass	Testing Complete
LW00605	4	Classroom		Bubbler - Indoor	2.8	Pass	Testing Complete
LW00606	4	Classroom		Faucet	2.9	Pass	Testing Complete
LW00607	1	Classroom		Faucet	2.4	Pass	Testing Complete
LW00608	1	Classroom		Bubbler - Indoor	3.8	Pass	Testing Complete
LW00609	3	Classroom		Bubbler - Indoor	2.6	Pass	Testing Complete
LW00610	3	Classroom		Faucet	3.6	Pass	Testing Complete
LW00611		Hallway	Next To Building Services	Cooler	<1.0	Pass	Testing Complete
LW00612		Music		Faucet	3.7	Pass	Testing Complete
LW00613		Music		Bubbler - Indoor	4.7	Pass	Testing Complete
LW00614		Hallway	In Front Of Gym	Cooler	<1.0	Pass	Testing Complete
LW00615	12A	Classroom		Faucet	2.3	Pass	Testing Complete
LW00616	12A	Classroom		Bubbler - Indoor	6.4	Pass	Testing Complete
LW00617	12B	Classroom		Bubbler - Indoor	11.0	Pass	Testing Complete
LW00618	12B	Classroom		Faucet	13.9	Pass	Testing Complete
LW00619	11	Classroom		Faucet	2.4	Pass	Testing Complete
LW00620	11	Classroom		Bubbler - Indoor	1.1	Pass	Testing Complete
LW00621	10	Classroom		Faucet	7.4	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW00622	10	Classroom		Bubbler - Indoor	83.6	Fail	Follow-Up Testing Needed
LW00623		Hallway	Across From Room 10	Cooler	<1.0	Pass	Testing Complete
LW00624	8	Classroom		Faucet	7.8	Pass	Testing Complete
LW00625	8	Classroom		Bubbler - Indoor	1.3	Pass	Testing Complete
LW00626	7	Classroom		Faucet	9.2	Pass	Testing Complete
LW00627	7	Classroom		Bubbler - Indoor	4.9	Pass	Testing Complete
LW00628	9	Classroom		Faucet	5.1	Pass	Testing Complete
LW00629	9	Classroom		Bubbler - Indoor	3.9	Pass	Testing Complete
LW00630	6	Classroom		Faucet	4.1	Pass	Testing Complete
LW00631	6	Classroom		Bubbler - Indoor	1.7	Pass	Testing Complete
LW00632	5	Classroom		Faucet	6.5	Pass	Testing Complete
LW00633	5	Classroom		Bubbler - Indoor	6.7	Pass	Testing Complete
LW00634		Work Room		Faucet	8.4	Pass	Testing Complete
LW00635		Kitchen		Faucet	5.5	Pass	Testing Complete
LW00636		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW00637		Kitchen		Faucet	1.1	Pass	Testing Complete
LW00638		Health Room		Faucet	<1.0	Pass	Testing Complete
LW00639	B110	Wellness Center		Faucet	3.3	Pass	Testing Complete
LW00640	B111	Wellness Center		Faucet	<1.0	Pass	Testing Complete
LW00641	B112	Wellness Center		Faucet	<1.0	Pass	Testing Complete
LW00642		Hallway	In Front Of K-1	Cooler	<1.0	Pass	Testing Complete
LW00643	16	Classroom		Faucet	9.7	Pass	Testing Complete
LW00645		Hallway	Across From Room 15	Cooler	<1.0	Pass	Testing Complete
LW00646	19	Classroom		Faucet	4.9	Pass	Testing Complete
LW00647	19	Classroom		Bubbler - Indoor	6.6	Pass	Testing Complete
LW00648	15	Classroom		Faucet	6.2	Pass	Testing Complete
LW00649	15	Classroom		Bubbler - Indoor	6.6	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW00650	18	Classroom		Faucet	2.2	Pass	Testing Complete
LW00651	18	Classroom		Bubbler - Indoor	2.0	Pass	Testing Complete
LW00653	14	Classroom		Faucet	9.3	Pass	Testing Complete
LW00654	14	Classroom		Bubbler - Indoor	253	Fail	Follow-Up Testing Needed
LW00655	17	Classroom		Faucet	1.8	Pass	Testing Complete
LW00656	17	Classroom		Bubbler - Indoor	6.9	Pass	Testing Complete
LW00657	13	Classroom		Faucet	2.7	Pass	Testing Complete
LW00658	13	Classroom		Bubbler - Indoor	2.4	Pass	Testing Complete
LW00659	P13	Other (See Location Notes)	Linkages to Learning	Faucet	1.3	Pass	Testing Complete
LW00660	P13	Other (See Location Notes)	Linkages to Learning	Cooler	<1.0	Pass	Testing Complete
LW00661	P12	Other (See Location Notes)	Parent Resource Center	Faucet	<1.0	Pass	Testing Complete
LW00662	P12	Other (See Location Notes)	Parent Resource Center	Cooler	<1.0	Pass	Testing Complete
M03536		Work Room Media Center		Faucet	4.5	Pass	Testing Complete
M03577		Kitchen		Faucet	3.1	Pass	Testing Complete
M06078	20	Classroom		Faucet	5.2	Pass	Testing Complete
M06079	20	Classroom		Bubbler - Indoor	7.4	Pass	Testing Complete
M07063	21	Classroom		Faucet	<1.0	Pass	Testing Complete
M07064	21	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M07066	22	Classroom		Faucet	<1.0	Pass	Testing Complete
M07067	22	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M07070	23	Classroom		Faucet	<1.0	Pass	Testing Complete
M07071	23	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M07079	24	Classroom		Faucet	<1.0	Pass	Testing Complete
M07081	25	Classroom		Faucet	<1.0	Pass	Testing Complete
M07083	26	Classroom		Faucet	1.6	Pass	Testing Complete
M07084	26	Classroom		Bubbler - Indoor	3.1	Pass	Testing Complete
M07085	27	Classroom		Faucet	1.8	Pass	Testing Complete
M07086	27	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
M07087	28	Classroom		Faucet	<1.0	Pass	Testing Complete
M07088	28	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M07090	29	Classroom	Art Room	Faucet	<1.0	Pass	Testing Complete
M07091	29	Classroom	Art Room	Bubbler - Indoor	<1.0	Pass	Testing Complete
M07093	30	Classroom		Faucet	1.3	Pass	Testing Complete
M07094	30	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M07096	PRE K	Classroom		Faucet	<1.0	Pass	Testing Complete
M07097	PRE K	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M07099	K1	Classroom		Faucet	<1.0	Pass	Testing Complete
M07100	K1	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M07102	K2	Classroom		Faucet	<1.0	Pass	Testing Complete
M07103	K2	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M07105	K3	Classroom		Faucet	<1.0	Pass	Testing Complete
M07106	K3	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M07108	K4	Classroom		Faucet	1.3	Pass	Testing Complete
M07109	K4	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M07111	K5	Classroom		Faucet	<1.0	Pass	Testing Complete
M07112	K5	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M07114	K6	Classroom		Faucet	<1.0	Pass	Testing Complete
M07115	K6	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete

\*ppb = parts per billion

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

Follow Up Sample Results for Gaithersburg ES (4/11/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 <sup>nd</sup> ) (PPB)	Initial draw (3 <sup>rd</sup> ) (PPB)	30 Second Draw (PPB)	Status
LW00622	10	Classroom	Bubbler - Indoor	7.7	5.2	1.5	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW00654	14	Classroom	Bubbler - Indoor	38.9	13.9	2.2	Remediation required – replace fixture, in addition to supply line and valve located under sink

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.