MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

June 12, 2018

Executive Summary:
Burning Tree Elementary School
7900 Beech Tree Road,
Bethesda, MD 20817

Round of Testing:	Initial
# of Outlets Tested:	65
# of Outlets ≥ 20 ppb:	2
Low Value (ppb):	< 1.0
High Value (ppb):	35.2
Follow-Up Testing Required (Samples ≥ 20 ppb):	Kitchen (35.2 ppb) Administration Workroom (22.8)

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

Project Status
Testing Complete: Remediation Plan

Kitchen– Replace fixture (M35540), in addition to supply line and valve located under sink
Administration Workroom – Replace fixture (M35673), in addition to supply line and valve located under sink

June 12, 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: Burning Tree Elementary School
7900 Beech Tree Road,
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 Burning Tree Elementary School, located 7900 Beech Tree Road, Bethesda, MD 20817.

Scope of Services:

PSI conducted lead in water testing at Burning Tree 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 65 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 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 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)
M35540	Kitchen	4/25/18	35.2	6/6/18	<1.0
M35673	Administration Workroom	4/25/18	22.8	6/6/18	1.5

*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
Nand.Kaushik@psiusa.com

Attachments: A – Lead in Water Test Summary Table

ATTACHMENT A

Burning Tree Elementary School Water Test Summary Table

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

Initial Sample Results for Burning Tree Elementary School (4/25/18)

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW09312		Kitchen All Purpose Room		Faucet	<1.0	Pass	Testing Complete
LW09313		Kitchen All Purpose Room		Faucet	2.5	Pass	Testing Complete
LW09314		Hallway	In Front of All Purpose Room	Cooler	<1.0	Pass	Testing Complete
LW09315		Hallway	Outside of Gym	Cooler	<1.0	Pass	Testing Complete
LW09316		Hallway	Outside of Gym	Cooler	<1.0	Pass	Testing Complete
LW09317	4	Classroom		Faucet	4.4	Pass	Testing Complete
LW09318	4	Classroom		Bubbler - Indoor	1.1	Pass	Testing Complete
LW09319	3	Classroom		Faucet	2.0	Pass	Testing Complete
LW09320	3	Classroom		Bubbler - Indoor	2.0	Pass	Testing Complete
LW09321		Break Room		Faucet	<1.0	Pass	Testing Complete
LW09323		Health Room Administration		Faucet	1.0	Pass	Testing Complete
LW09324		Conference Room Administration		Faucet	4.1	Pass	Testing Complete
LW09325	8	Classroom		Bubbler - Indoor	1.6	Pass	Testing Complete
LW09326	7	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09327	5	Classroom		Faucet	3.2	Pass	Testing Complete
LW09328	5	Classroom		Bubbler - Indoor	3.3	Pass	Testing Complete
LW09329		Media Center Office Media Center		Faucet	3.1	Pass	Testing Complete
LW09330		ESOL		Faucet	8.5	Pass	Testing Complete
LW09331		ESOL		Bubbler - Indoor	11.4	Pass	Testing Complete
LW09332		Reading		Faucet	7.2	Pass	Testing Complete
LW09333		Reading		Bubbler - Indoor	3.6	Pass	Testing Complete
LW09334	11	Classroom		Faucet	3.1	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW09335	11	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09336	9	Classroom		Faucet	3.7	Pass	Testing Complete
LW09337	9	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09338		Resource Center	Left of Room 12	Cooler	<1.0	Pass	Testing Complete
LW09339		Hallway	Across from Reading Center	Cooler	<1.0	Pass	Testing Complete
LW09340	16	Classroom		Faucet	4.3	Pass	Testing Complete
LW09341	16	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09342	14	Classroom		Faucet	3.2	Pass	Testing Complete
LW09343	17	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09344	17A	Music		Faucet	<1.0	Pass	Testing Complete
LW09345	17A	Music		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09346		Hallway	Left of Classroom 20	Cooler	<1.0	Pass	Testing Complete
LW09347	18	Kindergarten		Faucet	1.7	Pass	Testing Complete
LW09348	20	Kindergarten		Faucet	18.7	Pass	Testing Complete
LW09349	19	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09350	21	Kindergarten		Faucet	5.3	Pass	Testing Complete
LW09351	21	Kindergarten		Bubbler - Indoor	1.6	Pass	Testing Complete
M35539		Kitchen for All Purpose Room		Faucet	2.9	Pass	Testing Complete
M35540		Kitchen for All Purpose Room		Faucet	35.2	Fail	Follow-Up Testing Needed
M35673		Work Room Administration		Faucet	22.8	Fail	Follow-Up Testing Needed
M38121	1	Classroom		Faucet	3.3	Pass	Testing Complete
M38122	1	Classroom		Bubbler - Indoor	2.4	Pass	Testing Complete
M38127	2	Classroom		Faucet	5.6	Pass	Testing Complete
M38129	2	Classroom		Bubbler - Indoor	2.0	Pass	Testing Complete
M38133	7	Classroom		Faucet	2.0	Pass	Testing Complete
M38137	6	Classroom		Faucet	5.0	Pass	Testing Complete
M38138	6	Classroom		Bubbler - Indoor	2.3	Pass	Testing Complete
M38139	8	Classroom		Faucet	3.9	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
M38141	12	Classroom		Faucet	6.6	Pass	Testing Complete
M38142	12	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M38146	14	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M38149	10	Classroom		Faucet	2.3	Pass	Testing Complete
M38150	10	Classroom		Bubbler - Indoor	1.0	Pass	Testing Complete
M38155	13	Classroom		Faucet	1.9	Pass	Testing Complete
M38156	13	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M38157	15	Classroom		Faucet	6.8	Pass	Testing Complete
M38158	15	Classroom		Bubbler - Indoor	1.9	Pass	Testing Complete
M38166		Band	1st Floor	Faucet	7.4	Pass	Testing Complete
M38167		Language Office	Reading Lang of Art	Faucet	4.2	Pass	Testing Complete
M38168	17	Classroom		Faucet	3.9	Pass	Testing Complete
M38178	19	Kindergarten		Faucet	9.0	Pass	Testing Complete
M38185	20	Kindergarten		Bubbler - Indoor	4.0	Pass	Testing Complete
M38188	K 18	Kindergarten		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 Burning Tree Elementary School (6/6/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2nd) (PPB)	30 Second Draw (PPB)	Status
M35540		Kitchen for All Purpose Room	Faucet	4.9	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
M35673		Administration Workroom	Faucet	11.9	1.5	Remediation required – replace fixture, in addition to supply line and valve located under sink

*ppb = parts per billion
ND = Non Detect

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.