



MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 25, 2018

Executive Summary:
Greencastle Elementary School
13611 Robey Road
Silver Spring, MD 20904

Round of Testing:	Initial
# of Outlets Tested:	81
# of Outlets \geq 20 ppb:	1
Low Value (ppb):	< 1.0
High Value (ppb):	45.5
Follow-Up Testing Required (Samples \geq 20 ppb):	Classroom 3 (45.5 ppb)

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

Project Status
Testing Complete: Remediation Plan

Classroom 3– Replace fixture (LW08803), in addition to supply line and valve located under sink



May 25, 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: Greencastle Elementary School
13611 Robey Road
Silver Spring, MD 20904

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 Greencastle Elementary School, located at 13611 Robey Road in Silver Spring, MD 20904.

Scope of Services:

PSI conducted lead in water testing at Greencastle 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 4/3/18 and 4/4/18 to collect samples from 81 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 5/8/18.

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)
LW08803	Classroom	4/4/18	45.5	5/8/18	<1.0

The initial lead in water sample results (4/4/18) and 30 second follow up results (5/8/18) 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

Greencastle ES Water Test Summary Table

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Greencastle Elementary School (4/4/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW08801		Material Prep Area		Faucet	5.1	Pass	Testing Complete
LW08802	3	Classroom		Bubbler - Indoor	3.6	Pass	Testing Complete
LW08803	3	Classroom		Faucet	45.5	Fail	Follow-Up Testing Needed
LW08804	5	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08805	5	Classroom		Faucet	1.7	Pass	Testing Complete
LW08806		Hallway	Next to The Gym in Front of A Tree	Cooler	<1.0	Pass	Testing Complete
LW08807		Break Room		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08808		Break Room		Instant Hot Water	<1.0	Pass	Testing Complete
LW08809	9	Classroom		Bubbler - Indoor	2.6	Pass	Testing Complete
LW08810	9	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08811		Kitchen		Faucet	2.3	Pass	Testing Complete
LW08812		Kitchen		Faucet	1.0	Pass	Testing Complete
LW08813		Kitchen		Faucet	13.7	Pass	Testing Complete
LW08820	APK	Classroom		Bubbler - Indoor	1.3	Pass	Testing Complete
LW08821		Reading		Faucet	5.2	Pass	Testing Complete
LW08822		Reading		Bubbler - Indoor	1.3	Pass	Testing Complete
LW08823	2	Classroom		Faucet	8.9	Pass	Testing Complete
LW08824	2	Classroom		Bubbler - Indoor	3.3	Pass	Testing Complete
LW08825	4	Classroom		Faucet	3.4	Pass	Testing Complete
LW08826	4	Classroom		Bubbler - Indoor	4.0	Pass	Testing Complete
LW08827	IMU	Music		Faucet	<1.0	Pass	Testing Complete
LW08828	K-4	Kindergarten		Faucet	<1.0	Pass	Testing Complete
LW08829	K3	Kindergarten		Faucet	<1.0	Pass	Testing Complete
LW08830	K3	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08831	K2	Kindergarten		Faucet	1.9	Pass	Testing Complete
LW08832	K2	Kindergarten		Bubbler - Indoor	1.0	Pass	Testing Complete
LW08833	K1	Kindergarten		Faucet	<1.0	Pass	Testing Complete
LW08834	K1	Kindergarten		Bubbler - Indoor	8.9	Pass	Testing Complete
LW08835		Work Room Administration		Faucet	<1.0	Pass	Testing Complete
LW08836		Health Room		Faucet	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW08837	MU	Music		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08838	MU	Music		Faucet	4.0	Pass	Testing Complete
LW08839	APR	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08853	6	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08854	6	Classroom		Bubbler - Indoor	2.6	Pass	Testing Complete
LW08855	7	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08856	7	Classroom		Bubbler - Indoor	2.5	Pass	Testing Complete
LW08857	8	Classroom		Faucet	2.5	Pass	Testing Complete
LW08858	8	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08859	10	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08860	10	Classroom		Bubbler - Indoor	2.3	Pass	Testing Complete
LW08861		Kitchen		Faucet	12.2	Pass	Testing Complete
LW08862	23	Classroom		Faucet	1.6	Pass	Testing Complete
LW08863	23	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08864	25	Classroom		Faucet	1.2	Pass	Testing Complete
LW08865	25	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08866	14	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08867	14	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08868	12	Classroom		Faucet	2.1	Pass	Testing Complete
LW08869	12	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08879	21	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08880	21	Classroom		Bubbler - Indoor	1.3	Pass	Testing Complete
LW08881	19	Classroom		Faucet	4.0	Pass	Testing Complete
LW08882	19	Classroom		Bubbler - Indoor	1.0	Pass	Testing Complete
LW08883		Hallway	Left of RM 17	Cooler	<1.0	Pass	Testing Complete
LW08884	17	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08885	17	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08886	15	Art		Faucet	1.7	Pass	Testing Complete
LW08887	15	Art		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08888	13	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08889	13	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08890	11	Classroom		Faucet	3.9	Pass	Testing Complete
LW08891	11	Classroom		Bubbler - Indoor	4.1	Pass	Testing Complete
LW08892	22	Classroom		Bubbler - Indoor	2.8	Pass	Testing Complete
LW08893	22	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08894	24	Classroom		Bubbler - Indoor	1.5	Pass	Testing Complete
LW08895	24	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08896	26	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08897	26	Classroom		Faucet	1.2	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW08898	20	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08899	20	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08900	18	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08901	18	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08902		Support Room		Faucet	2.2	Pass	Testing Complete
LW08903	16	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW08904	16	Classroom		Faucet	<1.0	Pass	Testing Complete
M20709		Administration	Across from Telephone Room	Faucet	<1.0	Pass	Testing Complete
M20759		Office	Left of Staff Lounge	Faucet	<1.0	Pass	Testing Complete
M21941		Linkages to Learning Office		Faucet	3.6	Pass	Testing Complete
M21942		Hallway	Across from Admin	Cooler	<1.0	Pass	Testing Complete
M21944		Hallway	Next to Storage Closet 249	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 Greencastle Elementary School (5/8/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 nd) (PPB)	30 Second Draw (PPB)	Status
LW08803	3	Classroom	Faucet	4.9	<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.