



MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 16, 2018

Executive Summary:
Maryvale Elementary School
1000 1st Street
Rockville, MD 20850

Round of Testing:	Initial
# of Outlets Tested:	61
# of Outlets \geq 20 ppb:	4
Low Value (ppb):	< 1.0
High Value (ppb):	310.0
Follow-Up Testing Required (Samples \geq 20 ppb):	Conference Room (67.3 ppb) Classroom 203 (53.1 ppm) Classroom 606 (310.0 ppb) Classroom 2 (27.8 ppb)

Round of Testing:	Follow-Up – 30 sec draw
# of Outlets Tested:	4

Project Status
Testing Complete: Remediation Plan

Conference Room– Replace fixture (LW06736), in addition to supply line and valve located under sink
Classroom 203 – Replace fixture (LW06741), in addition to supply line and valve located under sink
Classroom 606 – Replace fixture (LW06776), in addition to supply line and valve located under sink
Classroom 2 – Replace fixture (M22618), in addition to supply line and valve located under sink



May 16, 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: Maryvale Elementary School
1000 1st Street
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 Maryvale Elementary School, located at 1000 1st Street in Rockville, MD 20850.

Scope of Services:

PSI conducted lead in water testing at Maryvale 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 2/28/18 and 3/1/18 to collect samples from 61 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. Four 30 second follow-up samples were collected on 4/13/18.

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 four 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)
LW06736	Conference Room	3/1/18	67.3	4/13/18	13.2
LW06741	Classroom 203	3/1/18	53.1	4/13/18	1.4
LW06776	Classroom 606	3/1/18	310.0	4/13/18	<1.0
M22618	Classroom 2	3/1/18	27.8	4/13/18	72.6

The initial lead in water sample results (3/01/2018) and 30 second follow up results (4/13/18) 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

Maryvale ES Water Test Summary Table

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Maryvale Elementary School (3/1/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW06721	601	Classroom		Bubbler - Indoor	5.5	Pass	Testing Complete
LW06722	602	Classroom		Faucet	11.0	Pass	Testing Complete
LW06723	602	Classroom		Bubbler - Indoor	8.8	Pass	Testing Complete
LW06724	105	Classroom		Faucet	3.5	Pass	Testing Complete
LW06725	106	Classroom		Faucet	8.5	Pass	Testing Complete
LW06726	106	Classroom		Bubbler - Indoor	4.3	Pass	Testing Complete
LW06727		Hallway	Next To 103a	Cooler	<1.0	Pass	Testing Complete
LW06728	103A	Classroom		Faucet	3.5	Pass	Testing Complete
LW06729	104	Classroom		Faucet	10.2	Pass	Testing Complete
LW06730	104	Classroom		Bubbler - Indoor	8.4	Pass	Testing Complete
LW06731	102	Classroom		Faucet	4.8	Pass	Testing Complete
LW06732	102	Classroom		Bubbler - Indoor	3.0	Pass	Testing Complete
LW06734	101	Classroom		Bubbler - Indoor	2.2	Pass	Testing Complete
LW06735	2	Classroom		Faucet	3.3	Pass	Testing Complete
LW06736		Conference Room		Faucet	67.3	Fail	Follow-Up Testing Needed
LW06737	1	Classroom		Faucet	1.5	Pass	Testing Complete
LW06738	201	Classroom		Faucet	3.5	Pass	Testing Complete
LW06740	203	Classroom		Faucet	5.8	Pass	Testing Complete
LW06741	203	Classroom		Bubbler - Indoor	53.1	Fail	Follow-Up Testing Needed
LW06742	205	Classroom		Bubbler - Indoor	3.5	Pass	Testing Complete
LW06743		Work Room Administration		Faucet	1.0	Pass	Testing Complete
LW06744		Health Room		Faucet	7.3	Pass	Testing Complete
LW06745	603	Classroom		Faucet	1.2	Pass	Testing Complete
LW06746	603	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW06747	604	Classroom		Faucet	6.1	Pass	Testing Complete
LW06748	604	Classroom		Bubbler - Indoor	2.7	Pass	Testing Complete
LW06749	605	Classroom		Faucet	3.9	Pass	Testing Complete
LW06750	605	Classroom		Bubbler - Indoor	1.4	Pass	Testing Complete
LW06751	306	Classroom		Faucet	6.3	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW06752	306	Cafeteria		Bubbler - Indoor	5.3	Pass	Testing Complete
LW06753	304	Classroom		Faucet	6.7	Pass	Testing Complete
LW06754	304	Classroom		Bubbler - Indoor	3.9	Pass	Testing Complete
LW06755	302	Classroom		Faucet	1.6	Pass	Testing Complete
LW06756		Break Room	Next To Kitchen	Faucet	<1.0	Pass	Testing Complete
LW06757		Kitchen		Faucet	1.6	Pass	Testing Complete
LW06758		Kitchen		Faucet	1.5	Pass	Testing Complete
LW06759		Kitchen		Faucet	2.2	Pass	Testing Complete
LW06760	402	Kindergarten		Faucet	2.5	Pass	Testing Complete
LW06761	401	Classroom		Faucet	3.2	Pass	Testing Complete
LW06762	401	Classroom		Bubbler - Indoor	4.5	Pass	Testing Complete
LW06763	406	Classroom		Faucet	2.4	Pass	Testing Complete
LW06764	403	Classroom		Faucet	3.6	Pass	Testing Complete
LW06765	403	Classroom		Bubbler - Indoor	10.2	Pass	Testing Complete
LW06766	408	Classroom		Faucet	1.3	Pass	Testing Complete
LW06767	412	Classroom		Faucet	1.3	Pass	Testing Complete
LW06768	412	Classroom		Faucet	1.8	Pass	Testing Complete
LW06769	405	Classroom		Faucet	5.4	Pass	Testing Complete
LW06770	405	Classroom		Bubbler - Indoor	3.1	Pass	Testing Complete
LW06771		Hallway	Next To 72 (art)	Cooler	<1.0	Pass	Testing Complete
LW06772	71	Music		Faucet	15.8	Pass	Testing Complete
LW06773		Office	Inside Of PE Office	Faucet	11.3	Pass	Testing Complete
LW06774	607	Classroom		Faucet	11.5	Pass	Testing Complete
LW06775	607	Classroom		Bubbler - Indoor	8.6	Pass	Testing Complete
LW06776	606	Classroom		Faucet	310.0	Fail	Follow-Up Testing Needed
LW06777	606	Classroom		Bubbler - Indoor	11.4	Pass	Testing Complete
LW06842	601	Classroom		Faucet	6.1	Pass	Testing Complete
M22524		Work Room Media Center		Faucet	4.4	Pass	Testing Complete
M22534	205	Classroom		Faucet	4.7	Pass	Testing Complete
M22565		Hallway	Next to JC C4	Cooler	<1.0	Pass	Testing Complete
M22618	2	Classroom		Faucet	27.8	Fail	Follow-Up Testing Needed
M22623		Hallway	Outside Admin	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 Maryvale Elementary School (4/13/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 nd) (PPB)	Initial draw (3 rd) (PPB)	30 Second Draw (PPB)	Status
LW06736		Conference Room	Faucet	18.2	85.8	13.2	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW06741	203	Classroom	Bubbler- indoor	3.7	5.0	1.4	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW06776	606	Classroom	Faucet	131.0	9.5	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
M22618	2	Classroom	Faucet	3,740.0	10,100.0	72.6	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 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.