



MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 10, 2018

Executive Summary:
Fields Road Elementary School
1 School Dr.
Gaithersburg, MD 20878

Round of Testing:	Initial
# of Outlets Tested:	76
# of Outlets \geq 20 ppb:	7
Low Value (ppb):	< 1.0
High Value (ppb):	259.0
Follow-Up Testing Required (Samples \geq 20 ppb):	Classroom 108 (121.0 ppb), Classroom 168 (43.5 ppb), Classroom 126 (99.0 ppb), Classroom 124 (51.8 ppb), Computer Lab 119 (259.0 ppb), Classroom 131 (21.2 ppb), Kitchen (21.7 ppb)

Round of Testing:	Follow-Up – 30 sec draw
# of Outlets Tested:	7

Project Status **Testing Complete: Remediation Plan**

- Classroom 108– Replace fixture (LW01535), in addition to supply line and valve located under sink
- Classroom 168 – Replace fixture (LW01561), in addition to supply line and valve located under sink
- Classroom 126 – Replace fixture (LW01576), in addition to supply line and valve located under sink
- Classroom 124 – Replace fixture (LW01580), in addition to supply line and valve located under sink
- Computer Lab 119 – Replace fixture (LW01584), in addition to supply line and valve located under sink
- Classroom 131 – Replace fixture (LW01595), in addition to supply line and valve located under sink
- Kitchen – Replace fixture (M02796), in addition to supply line and valve located under sink



May 10, 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: Fields Road Elementary School
1 School Drive
Gaithersburg, MD 20878

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 Fields Road Elementary School, located at 1 School Drive in Gaithersburg, MD 20878.

Scope of Services:

PSI conducted lead in water testing at Fields Road 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 3/15/18, 3/16/18, 3/19/18 and 3/20/18 to collect samples from 76 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. Seven 30 second follow-up samples were collected on 4/18/18.

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 seven 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)
LW01535	Classroom 108	3/16/18	121.0	4/18/18	5.6
LW01561	Classroom 168	3/16/18	43.5	4/18/18	5.5
LW01576	Classroom 126	3/16/18	99.0	4/18/18	1.5
LW01580	Classroom 124	3/16/18	51.8	4/18/18	5.9
LW01584	Computer Lab 119	3/16/18	259.0	4/18/18	7.9
LW01595	Classroom 131	3/16/18	21.2	4/18/18	<1.0
M02796	Kitchen	3/16/18	21.7	4/18/18	<1.0

The initial lead in water sample results (3/16/2018 and 3/20/18) and 30 second follow up results (4/18/18) 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

Fields Road ES Water Test Summary Table

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Fields Road Elementary School (3/16/18 and 3/20/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW01522	104	Media Center		Faucet	5.7	Pass	Testing Complete
LW01523	153	Reading		Faucet	12.0	Pass	Testing Complete
LW01524	153	Reading		Bubbler - Indoor	2.3	Pass	Testing Complete
LW01525	151	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01526	151	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01527	149	Classroom		Faucet	2.4	Pass	Testing Complete
LW01528	149	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01529	143	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01530	143	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01531		Hallway	Across From 143	Cooler	<1.0	Pass	Testing Complete
LW01532		Hallway	Across From 143	Cooler	<1.0	Pass	Testing Complete
LW01533	155	ESOL		Faucet	3.8	Pass	Testing Complete
LW01534	155	ESOL		Bubbler - Indoor	1.7	Pass	Testing Complete
LW01535	108	Classroom		Faucet	121.0	Fail	Follow-Up Testing Needed
LW01536	108	Classroom		Bubbler - Indoor	4.6	Pass	Testing Complete
LW01537	107	Classroom		Faucet	10.4	Pass	Testing Complete
LW01538	107	Classroom		Bubbler - Indoor	14.3	Pass	Testing Complete
LW01539		Hallway	In Front Of 103	Bubbler - Indoor	1.4	Pass	Testing Complete
LW01540	104	Classroom		Faucet	10.4	Pass	Testing Complete
LW01541	104	Classroom		Bubbler - Indoor	8.3	Pass	Testing Complete
LW01548	157	Classroom		Faucet	2.0	Pass	Testing Complete
LW01549	157	Classroom		Bubbler - Indoor	1.1	Pass	Testing Complete
LW01550	160	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01551	160	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01552	159	ESOL		Faucet	1.1	Pass	Testing Complete
LW01553	159	ESOL		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01554	162	Classroom		Faucet	2.5	Pass	Testing Complete
LW01555	162	Classroom		Bubbler - Indoor	1.4	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW01556		Hallway	Across From 164	Cooler	<1.0	Pass	Testing Complete
LW01558	164	Music		Faucet	<1.0	Pass	Testing Complete
LW01559	164	Music		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01560	172	Music		Faucet	4.5	Pass	Testing Complete
LW01561	168	Classroom		Faucet	43.5	Fail	Follow-Up Testing Needed
LW01563	169	Classroom		Faucet	15.8	Pass	Testing Complete
LW01565		Hallway	Outside Of Gym	Cooler	<1.0	Pass	Testing Complete
LW01567		Hallway	Across From Main Office	Cooler	<1.0	Pass	Testing Complete
LW01568		Kitchen		Faucet	7.0	Pass	Testing Complete
LW01569		Kitchen		Faucet	5.9	Pass	Testing Complete
LW01570	117	Classroom		Faucet	7.0	Pass	Testing Complete
LW01571	117	Classroom		Bubbler - Indoor	7.0	Pass	Testing Complete
LW01572	118	Classroom		Faucet	5.8	Pass	Testing Complete
LW01573	118	Classroom		Bubbler - Indoor	2.3	Pass	Testing Complete
LW01574	100A	Work Room		Faucet	3.9	Pass	Testing Complete
LW01575	126	Classroom		Faucet	8.4	Pass	Testing Complete
LW01576	126	Classroom		Bubbler - Indoor	99.0	Fail	Follow-Up Testing Needed
LW01577	125	Art		Faucet	7.2	Pass	Testing Complete
LW01578	125	Art		Bubbler - Indoor	9.1	Pass	Testing Complete
LW01579	124	Classroom		Faucet	14.9	Pass	Testing Complete
LW01580	124	Classroom		Bubbler - Indoor	51.8	Fail	Follow-Up Testing Needed
LW01581	123	Classroom		Faucet	4.5	Pass	Testing Complete
LW01583		Hallway	In Front Of 123	Cooler	<1.0	Pass	Testing Complete
LW01584	119	Computer Lab		Faucet	259.0	Fail	Follow-Up Testing Needed
LW01587	116	Classroom		Faucet	10.6	Pass	Testing Complete
LW01588	116	Classroom		Bubbler - Indoor	8.4	Pass	Testing Complete
LW01590	128	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01592	130	Classroom		Faucet	3.9	Pass	Testing Complete
LW01593	130	Classroom		Bubbler - Indoor	4.6	Pass	Testing Complete
LW01594	131	Classroom		Faucet	1.0	Pass	Testing Complete
LW01595	131	Classroom		Bubbler - Indoor	21.2	Fail	Follow-Up Testing Needed
LW01596	135	Resource Center		Faucet	3.8	Pass	Testing Complete
LW01597	135	Resource Center		Bubbler - Indoor	1.0	Pass	Testing Complete
LW01598	139	Preschool		Faucet	<1.0	Pass	Testing Complete
LW01626	140	Classroom		Faucet	2.6	Pass	Testing Complete
LW01628	141	Kindergarten		Faucet	1.5	Pass	Testing Complete
LW01629	141	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01630	105	Classroom		Faucet	15.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW01631	105	Classroom		Bubbler - Indoor	3.9	Pass	Testing Complete
LW01632	106	Classroom		Faucet	11.4	Pass	Testing Complete
LW01633	106	Classroom		Bubbler - Indoor	7.4	Pass	Testing Complete
LW01639	109	Break Room		Faucet	8.2	Pass	Testing Complete
LW01640	115	Classroom		Faucet	12.2	Pass	Testing Complete
LW01641	115	Classroom		Bubbler - Indoor	16.4	Pass	Testing Complete
LW01642	103	Classroom		Faucet	5.8	Pass	Testing Complete
M02793		Hallway	Hall Outside APR	Cooler	1.3	Pass	Testing Complete
M02795		Kitchen		Faucet	7.0	Pass	Testing Complete
M02796		Kitchen		Faucet	21.7	Fail	Follow-Up Testing Needed

*ppb = parts per billion

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Follow Up Sample Results for Fields Road Elementary School (4/18/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 nd) (PPB)	30 Second Draw (PPB)	Status
LW01535	108	Classroom	Faucet	13.5	5.5	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW01561	168	Classroom	Faucet	9.3	5.5	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW01576	126	Classroom	Bubbler - Indoor	15.8	1.5	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW01580	124	124	Bubbler - Indoor	14.4	5.9	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW01584	119	Computer Lab	Faucet	16.4	7.9	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW01595	131	Classroom	Bubbler - Indoor	9.1	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
M02796		Kitchen	Faucet	19.7	<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.