



MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 16, 2018

Executive Summary:
DuFief Elementary School
15001 DuFief Drive
North Potomac, MD 20878

Round of Testing:	Initial
# of Outlets Tested:	55
# of Outlets \geq 20 ppb:	4
Low Value (ppb):	< 1.0
High Value (ppb):	46
Follow-Up Testing Required (Samples \geq 20 ppb):	Classroom 13 (34.9 ppb) Classroom 2 (21.9 ppb) Speech Therapy (46 ppb) Kitchen (42.5 ppb)

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

Project Status
Testing Complete: Remediation Plan

Classroom 13– Replace fixture (LW07309), in addition to supply line and valve located under sink
Classroom 2 – Replace fixture (LW07328), in addition to supply line and valve located under sink
Speech Therapy Room– Replace fixture (M11142), in addition to supply line and valve located under sink
Kitchen – Replace fixture (M14308), 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: DuFief Elementary School
15001 DuFief Dr.
North Potomac, 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 DuFief Elementary School, located at 15001 DuFief Drive in North Potomac, MD 20878.

Scope of Services:

PSI conducted lead in water testing at DuFief 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 3/7/18 and 3/8/18 to collect samples from 55 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 4/18/18.

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 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)
LW07309	Classroom 2	3/8/18	21.9	4/18/18	<1.0
LW07328	Classroom 13	3/8/18	34.9	4/18/18	1.0
M11142	Speech Therapy Room	3/8/18	46	4/18/18	3.0
M14308	Kitchen	3/8/18	42.5	4/18/18	2.6

The initial lead in water sample results (3/8/2018) 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

DuFief ES Water Test Summary Table

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for DuFief Elementary School (3/8/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW07298		Work Room Office		Faucet	1.5	Pass	Testing Complete
LW07299	1	Kindergarten		Faucet	3.5	Pass	Testing Complete
LW07300	1	Kindergarten		Bubbler - Indoor	3.3	Pass	Testing Complete
LW07301	2	Kindergarten		Faucet	3.8	Pass	Testing Complete
LW07302	2	Kindergarten		Bubbler - Indoor	7.4	Pass	Testing Complete
LW07303	1	Classroom		Faucet	5.6	Pass	Testing Complete
LW07304	1	Classroom		Bubbler - Indoor	3.0	Pass	Testing Complete
LW07305	6	Classroom		Faucet	4.8	Pass	Testing Complete
LW07306	6	Classroom		Bubbler - Indoor	1.6	Pass	Testing Complete
LW07307	4	Classroom		Faucet	5.8	Pass	Testing Complete
LW07308	4	Classroom		Bubbler - Indoor	2.3	Pass	Testing Complete
LW07309	2	Classroom		Faucet	21.9	Fail	Follow-Up Testing Needed
LW07310	2	Classroom		Bubbler - Indoor	4.0	Pass	Testing Complete
LW07311	3	Classroom		Faucet	6.9	Pass	Testing Complete
LW07312	3	Classroom		Bubbler - Indoor	3.3	Pass	Testing Complete
LW07313	10	Classroom		Faucet	4.0	Pass	Testing Complete
LW07314	10	Classroom		Bubbler - Indoor	1.4	Pass	Testing Complete
LW07315	7	Classroom		Faucet	4.2	Pass	Testing Complete
LW07316	7	Classroom		Bubbler - Indoor	1.8	Pass	Testing Complete
LW07317	8	Classroom		Faucet	1.6	Pass	Testing Complete
LW07318	8	Classroom		Bubbler - Indoor	1.8	Pass	Testing Complete
LW07319	9	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW07320	12	Classroom		Faucet	2.8	Pass	Testing Complete
LW07321	12	Classroom		Bubbler - Indoor	3.5	Pass	Testing Complete
LW07322	11	Classroom		Faucet	1.5	Pass	Testing Complete
LW07323	11	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW07324	21	Classroom		Faucet	8.0	Pass	Testing Complete
LW07325	19	Child Development		Faucet	1.6	Pass	Testing Complete
LW07326	14	Classroom		Faucet	2.1	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW07327	14	Classroom		Bubbler - Indoor	1.0	Pass	Testing Complete
LW07328	13	Classroom		Faucet	34.9	Fail	Follow-Up Testing Needed
LW07329	13	Classroom		Bubbler - Indoor	4.8	Pass	Testing Complete
LW07330	15	Classroom		Faucet	1.6	Pass	Testing Complete
LW07331	15	Classroom		Bubbler - Indoor	1.5	Pass	Testing Complete
LW07332	17	Classroom		Faucet	3.1	Pass	Testing Complete
LW07333	17	Classroom		Bubbler - Indoor	2.0	Pass	Testing Complete
LW07334	18	Classroom		Faucet	3.6	Pass	Testing Complete
LW07335	18	Classroom		Bubbler - Indoor	2.1	Pass	Testing Complete
LW07336		Hallway	Across From Gym	Cooler	<1.0	Pass	Testing Complete
M10697	16	Classroom		Faucet	11.3	Pass	Testing Complete
M10698	16	Classroom		Bubbler - Indoor	1.8	Pass	Testing Complete
M11111	9	Classroom		Faucet	1.6	Pass	Testing Complete
M11119		Therapy	Outside of PT Rm	Faucet	18.8	Pass	Testing Complete
M11120		Hallway	Hallway Outside CR 10	Cooler	<1.0	Pass	Testing Complete
M11141		Speech Therapy		Faucet	18.0	Pass	Testing Complete
M11142	SP	Speech Therapy		Bubbler - Indoor	46.0	Fail	Follow-Up Testing Needed
M11144		Hallway	Hallway Outside CR 14	Cooler	<1.0	Pass	Testing Complete
M14266		Hallway	Left Of Room 7	Cooler	<1.0	Pass	Testing Complete
M14275	5	Classroom		Faucet	6.3	Pass	Testing Complete
M14276	5	Classroom		Bubbler - Indoor	3.1	Pass	Testing Complete
M14286		Media Center		Faucet	7.8	Pass	Testing Complete
M14305		Kitchen		Faucet	5.2	Pass	Testing Complete
M14306		Kitchen		Faucet	<1.0	Pass	Testing Complete
M14308		Kitchen		Faucet	42.5	Fail	Follow-Up Testing Needed
M14309		Music		Faucet	3.8	Pass	Testing Complete

*ppb = parts per billion

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

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

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 nd) (PPB)	Initial draw (3 rd) (PPB)	30 Second Draw (PPB)	Status
LW07309	2	Classroom 2	Faucet	10.6	9.8	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW07328	13	Classroom 13	Faucet	12.9	11.6	1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
M11142		Speech Therapy Room	Bubbler- indoor	12.30	10.0	3.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
M14308		Kitchen	Faucet	8.3	6.9	2.6	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.