



MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 10, 2018

Executive Summary:

Lucy V. Barnsley Elementary School at North Lake Center

15101 Bauer Drive,
Rockville, MD 20853

Round of Testing:	Initial
# of Outlets Tested:	38
# of Outlets \geq 20 ppb:	5
Low Value (ppb):	3.0
High Value (ppb):	356.0
Follow-Up Testing Required (Samples \geq 20 ppb):	Classroom 22 (26.6 ppb) Classroom 10 (27.5 ppb) Media Center Workroom (74.3 ppb) Kitchen (20.9 ppb) Classroom 1 (356.0 ppb)

Round of Testing:	Follow-Up – 30 sec draw
# of Outlets Tested:	5

Project Status

Testing Complete: Remediation Plan

- Classroom 22 – Replace fixture (LW06822), in addition to supply line and valve located under sink
- Classroom 10 – Replace fixture (LW06829), in addition to supply line and valve located under sink
- Media Center Workroom – Replace fixture (M26389), in addition to supply line and valve located under sink
- Kitchen – Replace fixture (M26398), in addition to supply line and valve located under sink
- Classroom 1 – Replace fixture (M26401), 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: Lucy V. Barnsley Elementary School
15101 Bauer Drive,
Rockville, MD 20853

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 Lucy V. Barnsley Elementary School at Northlake Center, located at 15101 Bauer Drive, Rockville, MD 20853.

Scope of Services:

PSI conducted lead in water testing at Lucy V. Barnsley 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 2/27/18 and 2/28/18 to collect samples from 38 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. Five 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 five 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)
LW06822	Classroom 22	2/28/18	26.6	4/13/18	23.4
LW06829	Classroom 10	2/28/18	27.5	4/13/18	1.8
M26389	Media Center Workroom	2/28/18	74.3	4/13/18	10.5
M26398	Kitchen	2/28/18	20.9	4/13/18	11.1
M26401	Classroom 1	2/28/18	356	4/13/18	43.7

The initial lead in water sample results (2/28/18) 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.

A handwritten signature in black ink that reads "Nand Kaushik". The signature is written in a cursive, flowing style.

Nand Kaushik, P.E.
Department Manager, Environmental Services
Nand.Kaushik@psiusa.com

Attachments: A – Lead in Water Test Summary Table

ATTACHMENT A

Lucy V. Barnsley Elementary School Water Test Summary Table

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Lucy V. Barnsley Elementary School (2/28/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW06700		Break Room	Staff Lounge	Faucet	6.3	Pass	Testing Complete
LW06701	18	Classroom		Faucet	9.1	Pass	Testing Complete
LW06702	18	Classroom		Bubbler - Indoor	4.0	Pass	Testing Complete
LW06703	21	Classroom		Faucet	6.1	Pass	Testing Complete
LW06704	21	Classroom		Bubbler - Indoor	19.5	Pass	Testing Complete
LW06706	15	Classroom		Faucet	6.1	Pass	Testing Complete
LW06709	13	Classroom		Faucet	13.4	Pass	Testing Complete
LW06710	8	Classroom		Faucet	12.8	Pass	Testing Complete
LW06712	11	Classroom		Faucet	18	Pass	Testing Complete
LW06714	4	Kindergarten		Faucet	7.1	Pass	Testing Complete
LW06716	6	Kindergarten		Faucet	12.8	Pass	Testing Complete
LW06718		Work Room Administration		Faucet	12.9	Pass	Testing Complete
LW06719	2	Classroom		Faucet	10.8	Pass	Testing Complete
LW06817	19	Classroom		Faucet	7.4	Pass	Testing Complete
LW06818	19	Classroom		Bubbler - Indoor	12.2	Pass	Testing Complete
LW06819	20	Classroom		Faucet	3.7	Pass	Testing Complete
LW06821	22	Classroom		Faucet	11.2	Pass	Testing Complete
LW06822	22	Classroom		Bubbler - Indoor	26.6	Fail	Follow-Up Testing Needed
LW06823	16	Classroom		Faucet	5.7	Pass	Testing Complete
LW06824	16	Classroom		Bubbler - Indoor	13.1	Pass	Testing Complete
LW06825	14	Classroom		Faucet	14.6	Pass	Testing Complete
LW06826	14	Classroom		Bubbler - Indoor	12.2	Pass	Testing Complete
LW06827	9	Classroom		Faucet	10.3	Pass	Testing Complete
LW06828	9	Classroom		Bubbler - Indoor	12.8	Pass	Testing Complete
LW06829	10	Classroom		Faucet	27.5	Fail	Follow-Up Testing Needed
LW06831	12	Classroom		Faucet	8.7	Pass	Testing Complete
LW06833	3	Classroom		Faucet	3.9	Pass	Testing Complete
LW06834	3	Classroom		Bubbler - Indoor	15.9	Pass	Testing Complete
LW06835	5	Classroom		Faucet	10.3	Pass	Testing Complete
LW06837	7	Classroom		Faucet	12.9	Pass	Testing Complete
LW06839	1	Classroom		Faucet	8.2	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW06840	1	Classroom		Bubbler - Indoor	8.2	Pass	Testing Complete
LW06841		Kitchen		Faucet	6.4	Pass	Testing Complete
M26389		Work Room Media Center Office		Faucet	74.3	Fail	Follow-Up Testing Needed
M26394		Kitchen		Faucet	16.8	Pass	Testing Complete
M26395		Kitchen		Faucet	12.6	Pass	Testing Complete
M26398		Kitchen		Faucet	20.9	Fail	Follow-Up Testing Needed
M26401	1	Classroom		Bubbler - Indoor	356	Fail	Follow-Up Testing Needed

*ppb = parts per billion

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

Follow Up Sample Results for Lucy V. Barnsley 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
LW06822	22	Classroom	Bubbler - Indoor	31.1	39.1	23.4	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW06829	10	Classroom	Faucet	27.4	23.7	1.8	Remediation required – replace fixture, in addition to supply line and valve located under sink
M26389		Media Center Workroom	Faucet	51.6	56.6	10.5	Remediation required – replace fixture, in addition to supply line and valve located under sink
M26398		Kitchen	Faucet	21.6	17.3	11.1	Remediation required – replace fixture, in addition to supply line and valve located under sink
M26401	1	Classroom	Bubbler - Indoor	136.0	124	43.7	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.