



Montgomery County Public Schools Lead in Drinking Water Post-Remediation Follow-Up Testing 2019

October 30, 2019

Executive Summary:

Radnor Center

7000 Radnor Road

Bethesda, Maryland 20817

Round of Testing:	Post-Remediation Follow-up
Sample Date	1/23/2019
# of Outlets Tested:	1
# of Outlets \geq 5 ppb:	1
Low Value (ppb):	8.8
High Value (ppb):	8.8

Project Status

Testing Complete: Post-remediation follow-up testing completed for following rooms:

Conference Room 9 - Outlet (M04449) will have signage affixed



October 30, 2019

Mr. Brian Mullikin, MS
Environmental Team Leader
Montgomery County Public Schools
8301 Turkey Thicket Dr., Bldg A, 1st Floor
Gaithersburg, Maryland 20879

Re: Lead in Water Post-Remediation Follow-up Testing Service

Location: Radnor Center

7000 Radnor Road
Bethesda, Maryland 20817

Dear Mr. Mullikin:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of the post-remediation follow-up lead in water testing at Radnor Center, located at 7000 Radnor Road in Bethesda, Maryland 20817.

SCOPE OF SERVICES

One drinking water outlet was remediated at Radnor Center due to initial lead levels that exceeded the lead action level of 5 parts per billion (ppb). KCI Technologies, Inc. conducted lead in water post-remediation follow-up testing in accordance with the Maryland Code of Regulations (COMAR) 26.16.07 - Lead in Drinking Water - Public and Nonpublic Schools.

KCI Technologies, Inc. visited the site on 1/23/2019 to collect a post-remediation follow-up sample from 1 drinking water outlet that had been replaced. The sample was 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

The initial, flush, and post-remediation follow-up results are highlighted in the summary table below:

Barcode ID	Room Number	Location	Notes	Equipment Type	Initial (ppb)	Flush (ppb)	Post-Remediation Follow-up (ppb)	Post-Remediation Follow-up Pass/Fail	Status
M04449	9	Conference Room		Faucet	30.2	3.2	8.8	Fail	Post-remediation follow-up testing complete. Outlet will have signage affixed

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. The Environmental Protection Agency (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.

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,
KCI Technologies, Inc.



Kamau McAbee
MDE Certified Water Sampler #8281KM
KCI Job #1214634186



MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

August 30, 2018

Executive Summary:
Potomac Elementary School at Radnor Center
7000 Radnor Road
Bethesda, MD 20817

Round of Testing:	Initial
# of Outlets Tested:	27
# of Outlets \geq 20 ppb:	1
Low Value (ppb):	< 1.0
High Value (ppb):	30.2
Follow-Up Testing Required (Samples \geq 20 ppb):	Conference Room 9 (30.2 ppb)

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

Project Status
Testing Complete: Remediation Plan

Conference Room 9– Replace fixture (M04449), in addition to supply line and valve located under sink



August 30, 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: Potomac Elementary School at Radnor Center
7000 Radnor Road
Bethesda, MD 20817

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 Potomac Elementary School at Radnor Center, located at 7000 Radnor Road, Bethesda, MD 20817.

Scope of Services:

PSI conducted lead in water testing at Potomac Elementary School at Radnor Center 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 7/30/18 and 7/31/18 to collect samples from 27 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 samples was collected on 8/14/18.

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 1 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)
LW01897	Conference Room 9	7/31/18	30.2	8/14/18	3.2

The initial lead in water sample results (7/31/18) and 30 second follow up results (8/14/18) are shown in Attachment B.

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
Nand.Kaushik@psiusa.com

Attachments: A – Lead in Water Test Summary Table

ATTACHMENT A

Potomac Elementary School at Radnor Center Water Test Summary Table

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Potomac Elementary School at Radnor Center (7/31/18)

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW11621		Hallway	Next to Principal Office	Cooler	<1.0	Pass	Testing Complete
LW11843	18	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11844	17	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11845		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW11846		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW11847		Work Room Media Center		Faucet	<1.0	Pass	Testing Complete
LW11848		All Purpose Room		Faucet	<1.0	Pass	Testing Complete
LW11849		All Purpose Room		Faucet	<1.0	Pass	Testing Complete
LW11850		Hallway		Cooler	<1.0	Pass	Testing Complete
LW11851		Break Room		Faucet	1.9	Pass	Testing Complete
LW11852	12	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11853	11	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11854	14	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11855	13	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11858	2	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11859	L	Health Room		Faucet	2.7	Pass	Testing Complete
LW11860	3	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11861	4	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11862	5	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11863	6	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11864	7	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11865	15	Classroom		Faucet	<1.0	Pass	Testing Complete
LW11866		Hallway	In Front Of 15	Cooler	<1.0	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW11868	16	Classroom		Faucet	<1.0	Pass	Testing Complete
M04449	9	Conference Room		Faucet	30.2	Fail	Follow-Up Testing Needed
M22122		Kitchen		Faucet	11.2	Pass	Testing Complete
M22164	8	Classroom		Faucet	<1.0	Pass	Testing Complete

*ppb = parts per billion

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

Follow Up Sample Results for Potomac Elementary School at Radnor Center (8/14/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 nd) (PPB)	30 Second Draw (PPB)	Status
M04449	9	Conference Room	Faucet	27.4	3.2	Remediation required – replace fixture, in addition to supply line and valve located under sink

*ppb = parts per billion
ND = Non Detect

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.