



## Montgomery County Public Schools Lead in Drinking Water Testing 2018

April 27, 2018

**Executive Summary:**  
**Strathmore Elementary School**  
3200 Beaverwood Lane  
Silver Spring, Maryland 20906

Round of Testing:	Initial
# of Outlets Tested:	58
# of Outlets $\geq 20$ ppb:	2
Low Value (ppb):	<1.0
High Value (ppb):	51.8
Follow-Up Testing Required (Samples $\geq 20$ ppb):	Classroom 123 (30.3 ppb) Kitchen (51.8 ppb)

Round of Testing:	Follow-Up - 30 sec draw
# of Outlets Tested:	2

**Project Status:**  
**Testing Complete: Remediation Plan**

Classroom 123 - Replace fixture (LW02817), in addition to supply line and valve located under sink  
Kitchen - Replace fixture (M20613), in addition to supply line and valve located under sink



April 27, 2018

Mr. Brian Mullikin, MS  
Environmental Team Leader  
Montgomery County Public Schools  
Division of Maintenance  
Gaithersburg, Maryland 20879

Re: Drinking Water Testing

KCI Job #1214634186

**Location: Strathmore Elementary School**

3200 Beaverwood Lane  
Silver Spring, Maryland 20906

Dear Mr. Mullikin:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of initial and follow-up lead in water testing at Strathmore Elementary School, located at 3200 Beaverwood Lane in Silver Spring, Maryland 20906.

**SCOPE OF SERVICES**

KCI conducted lead in water testing at Strathmore 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.

KCI visited the site on 2/12/2018 and 2/13/2018 to collect samples from 58 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. On 4/11/2018, two 30 second follow-up samples were collected.

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.

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## **RESULTS**

There were two results of the 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:

<b>Barcode ID</b>	<b>Sample Location</b>	<b>Date Collected</b>	<b>Initial Sample Result (ppb)</b>	<b>Date Collected</b>	<b>30 Second Follow Up Sample Result (ppb)</b>
LW02817	Faucet - Classroom 123	2/13/2018	30.3	4/11/2018	30.7
M20613	Faucet - Kitchen	2/13/2018	51.8	4/11/2018	1.2

The initial lead in water sample results (2/13/2018) and 30 second follow up results (4/11/2018) 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.

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Respectfully Submitted,  
KCI Technologies, Inc.



Kamau McAbee  
MDE Certified Water Sampler #8281KM

Attachment:

A- Lead in Water Test Summary Table

# ATTACHMENT A

## Lead in Water Test Summary Table

ATTACHMENT A

Lead in Water Test Summary Table

**Contractor:** KCI Technologies, Inc.

**Certified Laboratory:** Microbac Laboratories, Inc.

Initial Sample Results for Strathmore Elementary School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW02643	00	Work Room Administration		Faucet	18.4	Pass	Testing Complete
LW02813		Hallway	Outside Of Kitchen	Cooler	<1.0	Pass	Testing Complete
LW02814		Break Room		Faucet	2.0	Pass	Testing Complete
LW02815	125	Music		Faucet	3.7	Pass	Testing Complete
LW02816	125	Music		Bubbler - Indoor	4.6	Pass	Testing Complete
LW02817	123	Classroom		Faucet	30.3	Fail	Follow-up Testing Needed
LW02818	123	Classroom		Bubbler - Indoor	7.4	Pass	Testing Complete
LW02819	129	Classroom		Faucet	2.2	Pass	Testing Complete
LW02820	129	Classroom		Bubbler - Indoor	1.8	Pass	Testing Complete
LW02821	131	Classroom		Faucet	3.6	Pass	Testing Complete
LW02822	131	Classroom		Bubbler - Indoor	4.7	Pass	Testing Complete
LW02823	130	Classroom		Faucet	<1.0	Pass	Testing Complete
LW02824	130	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW02825	132	Classroom		Faucet	<1.0	Pass	Testing Complete
LW03138	132	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03141		Hallway	Outside Of Cr 145	Cooler	<1.0	Pass	Testing Complete
LW03142	145	Classroom		Faucet	5.0	Pass	Testing Complete
LW03144	147	Classroom		Faucet	3.3	Pass	Testing Complete
LW03146	151	Classroom		Faucet	<1.0	Pass	Testing Complete
LW03147	151	Classroom		Bubbler - Indoor	4.7	Pass	Testing Complete
LW03148	140	Classroom		Faucet	<1.0	Pass	Testing Complete
LW03149	140	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03150	138	Classroom		Faucet	<1.0	Pass	Testing Complete
LW03151	138	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03152	136	Classroom		Faucet	1.0	Pass	Testing Complete
LW03153	136	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03154	128	Classroom		Faucet	10.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW03155	128	Classroom		Bubbler - Indoor	2.4	Pass	Testing Complete
LW03156	115	Office Media Center		Faucet	16.0	Pass	Testing Complete
LW03158	120	Classroom		Faucet	1.3	Pass	Testing Complete
LW03159	120	Classroom		Bubbler - Indoor	1.1	Pass	Testing Complete
LW03160	122	Classroom		Faucet	3.2	Pass	Testing Complete
LW03161	122	Classroom		Bubbler - Indoor	2.0	Pass	Testing Complete
LW03162	124	Classroom		Faucet	2.6	Pass	Testing Complete
LW03163	124	Classroom		Bubbler - Indoor	1.1	Pass	Testing Complete
LW03164	126	Classroom		Faucet	1.7	Pass	Testing Complete
LW03165	126	Classroom		Bubbler - Indoor	1.7	Pass	Testing Complete
LW03166	109	Classroom		Faucet	2.7	Pass	Testing Complete
LW03167	109	Classroom		Bubbler - Indoor	1.0	Pass	Testing Complete
LW03168	111	Classroom		Faucet	3.4	Pass	Testing Complete
LW03169	111	Classroom		Bubbler - Indoor	2.7	Pass	Testing Complete
LW03170	113	Classroom		Faucet	4.5	Pass	Testing Complete
LW03171	113	Classroom		Bubbler - Indoor	1.6	Pass	Testing Complete
LW03172	114	Classroom		Faucet	2.8	Pass	Testing Complete
LW03173	14	Classroom		Bubbler - Indoor	1.7	Pass	Testing Complete
LW03174	112	Classroom		Faucet	2.6	Pass	Testing Complete
LW03175	112	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03176	110	Classroom		Faucet	5.3	Pass	Testing Complete
LW03177	110	Classroom		Bubbler - Indoor	4.2	Pass	Testing Complete
LW03178	104	Classroom		Faucet	3.3	Pass	Testing Complete
LW03179	104	Classroom		Bubbler - Indoor	2.5	Pass	Testing Complete
LW03180	102	Art		Faucet	1.9	Pass	Testing Complete
LW03181	102	Art		Bubbler - Indoor	2.4	Pass	Testing Complete
LW03182		Hallway	Outside Of Gym	Cooler	<1.0	Pass	Testing Complete
LW03183		Hallway	Outside Of Gym	Cooler	<1.0	Pass	Testing Complete
LW06095	100B	Health Room		Faucet	3.4	Pass	Testing Complete
M20613		Hallway		Faucet	51.8	Fail	Follow-up Testing Needed

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M20614		Hallway		Faucet	1.0	Pass	Testing Complete
M20616		Hallway		Faucet	9.3	Pass	Testing Complete

\*PPB = parts per billion



**Contractor:** KCI Technologies, Inc.

**Certified Laboratory:** Microbac Laboratories, Inc.

Follow Up Sample Results for Strathmore Elementary School

Barcode ID	Room #	Location	Equipment Type	Initial Draw (2nd) (PPB)	Initial Draw (3rd) (PPB)	30 Second Draw (PPB)*	Status
LW02817	123	Classroom	Faucet	3.0	835	30.7	Remediation required – replace fixture, in addition to supply line and valve located under sink
M20613		Kitchen	Faucet	3640	79.5	1.2	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.