



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

April 30, 2018

### Executive Summary:

#### Seven Locks Elementary School

9500 Seven Locks Road

Bethesda, Maryland 20817

Round of Testing:	Initial
# of Outlets Tested:	70
# of Outlets $\geq 20$ ppb:	2
Low Value (ppb):	<1.0
High Value (ppb):	47.1
Follow-Up Testing Required (Samples $\geq 20$ ppb):	Classroom 220 (20.0 ppb) Classroom 220 (47.1 ppb)

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

### Project Status:

#### Testing Complete: Remediation Plan

Classroom 220 - Replace fixture (M50786), in addition to supply line and valve located under sink

Classroom 220 - Replace fixture (M50787), in addition to supply line and valve located under sink



April 30, 2018

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

Re: Drinking Water Testing

KCI Job #1214634189

**Location: Seven Locks Elementary School**

9500 Seven Locks 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 initial and follow-up lead in water testing at Seven Locks Elementary School, located at 9500 Seven Locks Road in Bethesda, Maryland 20817.

**SCOPE OF SERVICES**

KCI conducted lead in water testing at Seven Locks 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 3/12/2018 and 3/13/2018 to collect samples from 70 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 4/12/2018, 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>
M50786	Bubbler-Indoor - Classroom 220	3/13/2018	20.0	4/12/2018	2.6
M50787	Faucet - Classroom 220	3/13/2018	47.1	4/12/2018	3.3

The initial lead in water sample results (3/13/2018) and 30 second follow up results (4/12/2018) 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 Seven Locks Elementary School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M50712	149	Hallway		Cooler	<1.0	Pass	Testing Complete
M50713	149	Hallway		Cooler	<1.0	Pass	Testing Complete
M50716	157	Kitchen		Faucet	1.4	Pass	Testing Complete
M50717	157	Kitchen		Faucet	<1.0	Pass	Testing Complete
M50718	157	Kitchen		Faucet	<1.0	Pass	Testing Complete
M50719	144	Art		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50720	144	Classroom		Faucet	2.5	Pass	Testing Complete
M50721	144	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50722	144	Art		Faucet	2.5	Pass	Testing Complete
M50723	144	Hallway	Across From	Cooler	<1.0	Pass	Testing Complete
M50724	144	Hallway	Across From	Cooler	<1.0	Pass	Testing Complete
M50725	146	Classroom		Faucet	1.9	Pass	Testing Complete
M50726	146	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50727	146	Classroom		Faucet	1.7	Pass	Testing Complete
M50728	146	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50730	115	Hallway	Outside Of	Cooler	<1.0	Pass	Testing Complete
M50731	115	Hallway	Outside Of	Cooler	<1.0	Pass	Testing Complete
M50733	115	Classroom		Faucet	<1.0	Pass	Testing Complete
M50734	116	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50735	116	Classroom		Faucet	<1.0	Pass	Testing Complete
M50736	117	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50737	117	Classroom		Faucet	3.1	Pass	Testing Complete
M50738	120	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M50739	120	Classroom		Faucet	2.4	Pass	Testing Complete
M50740	122	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50741	122	Classroom		Faucet	2.3	Pass	Testing Complete
M50743	126	Classroom		Faucet	2.4	Pass	Testing Complete
M50744	126	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50750	134	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50751	134	Classroom		Faucet	4.5	Pass	Testing Complete
M50753	138	Classroom		Faucet	1.9	Pass	Testing Complete
M50754	138	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50761	139	Classroom		Faucet	5.6	Pass	Testing Complete
M50762	140	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50763	140	Classroom		Faucet	2.7	Pass	Testing Complete
M50764	143	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50765	143	Classroom		Faucet	5.1	Pass	Testing Complete
M50766	200A	Work Room Media Center		Faucet	<1.0	Pass	Testing Complete
M50768	238	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50769	238	Classroom		Faucet	3.9	Pass	Testing Complete
M50770	205	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50771	205	Classroom		Faucet	3.0	Pass	Testing Complete
M50772	208	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50773	208	Classroom		Faucet	3.3	Pass	Testing Complete
M50774	209	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50775	209	Classroom		Faucet	2.8	Pass	Testing Complete
M50776	210	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50777	210	Classroom		Faucet	2.1	Pass	Testing Complete
M50781	213	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50782	213	Classroom		Faucet	2.4	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M50784	216	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50785	216	Classroom		Faucet	1.1	Pass	Testing Complete
M50786	220	Classroom		Bubbler - Indoor	20.0	Fail	Follow-Up Testing Needed
M50787	220	Classroom		Faucet	47.1	Fail	Follow-Up Testing Needed
M50788	222	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50789	222	Classroom		Faucet	<1.0	Pass	Testing Complete
M50791	226	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50792	226	Classroom		Faucet	3.1	Pass	Testing Complete
M50796	229	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50797	229	Classroom		Faucet	2.4	Pass	Testing Complete
M50798	230	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50799	230	Classroom		Faucet	3.8	Pass	Testing Complete
M50800	233	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50801	233	Classroom		Faucet	2.2	Pass	Testing Complete
M50802	106	Break Room		Faucet	<1.0	Pass	Testing Complete
M50804	102	Health Room		Faucet	<1.0	Pass	Testing Complete
M50805	102C	Exam Health		Faucet	2.6	Pass	Testing Complete
M50808	106C	Work Room Admin		Faucet	3.5	Pass	Testing Complete
M50810	200	Hallway	Across From	Cooler	<1.0	Pass	Testing Complete
M50811	200	Hallway	Across From	Cooler	<1.0	Pass	Testing Complete

\*PPB = parts per billion



**Contractor:** KCI Technologies, Inc.

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

Follow UP Sample Results for Seven Locks Elementary School

Barcode ID	Room #	Location	Equipment Type	Initial Draw (2nd) (PPB)	Initial Draw (3rd) (PPB)	30 Second Draw (PPB)*	Status
M50786	220	Classroom	Bubbler - Indoor	6.3	4.6	2.6	Remediation required – replace fixture, in addition to supply line and valve located under sink
M50787	220	Classroom	Faucet	33.3	22.9	3.3	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.