



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

April 30, 2018

**Executive Summary:**  
**Belmont Elementary School**  
19528 Olney Mill Road  
Olney, Maryland 20832

Round of Testing:	Initial
# of Outlets Tested:	53
# of Outlets $\geq 20$ ppb:	3
Low Value (ppb):	<1.0
High Value (ppb):	39.3
Follow-Up Testing Required (Samples $\geq 20$ ppb):	Classroom 10 (39.3 ppb) Kitchen (21.1 ppb) Classroom 8 (28.6 ppb)

Round of Testing:	Follow-Up - 30 sec draw
# of Outlets Tested:	3

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

Classroom 10 - Replace fixture (LW03438), in addition to supply line and valve located under sink  
Kitchen - Replace fixture (LW03419), in addition to supply line and valve located under sink  
Classroom 8 - Replace fixture (LW03441), 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: Belmont Elementary School**

19528 Olney Mill Road  
Olney, Maryland 20832

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 Belmont Elementary School, located at 19528 Olney Mill Road in Olney, Maryland 20832.

**SCOPE OF SERVICES**

KCI conducted lead in water testing at Belmont 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 2/26/2018 and 2/27/2018 to collect samples from 53 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, three 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.

---

## **RESULTS**

There were three 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>
LW03438	Faucet - Classroom 10	2/27/2018	39.3	4/12/2018	ND
LW03419	Faucet - Kitchen	2/27/2018	21.1	4/12/2018	14.0
LW03441	Faucet - Classroom 8	2/27/2018	28.6	4/12/2018	6.1

The initial lead in water sample results (2/27/2018) 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.

---

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 Belmont Elementary School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW03419		Kitchen		Faucet	21.1	Fail	Follow-up Testing Needed
LW03420	22	Classroom		Faucet	3.2	Pass	Testing Complete
LW03421	20	Classroom		Faucet	11.8	Pass	Testing Complete
LW03422	20	Classroom		Bubbler - Indoor	14.7	Pass	Testing Complete
LW03423	21	Classroom		Faucet	12.4	Pass	Testing Complete
LW03430	21	Classroom		Bubbler - Indoor	6.9	Pass	Testing Complete
LW03431	18	Classroom		Faucet	7.4	Pass	Testing Complete
LW03432	18	Classroom		Bubbler - Indoor	3.7	Pass	Testing Complete
LW03433	19	Classroom		Faucet	5.3	Pass	Testing Complete
LW03434	19	Classroom		Bubbler - Indoor	2.8	Pass	Testing Complete
LW03435	K1	Classroom		Faucet	3.0	Pass	Testing Complete
LW03436	K2	Classroom		Faucet	1.8	Pass	Testing Complete
LW03437	11	Classroom		Bubbler - Indoor	2.4	Pass	Testing Complete
LW03438	10	Classroom		Faucet	39.3	Fail	Follow-up Testing Needed
LW03439	10	Classroom		Bubbler - Indoor	2.0	Pass	Testing Complete
LW03440	9	Classroom		Bubbler - Indoor	1.3	Pass	Testing Complete
LW03441	8	Classroom		Faucet	28.6	Fail	Follow-up Testing Needed
LW03442	8	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03443	8	Hallway	Across From	Cooler	<1.0	Pass	Testing Complete
LW03444	7	Classroom		Faucet	6.0	Pass	Testing Complete
LW03445	7	Classroom		Bubbler - Indoor	3.4	Pass	Testing Complete
LW03446	6	Classroom		Faucet	4.6	Pass	Testing Complete
LW03447	6	Classroom		Bubbler - Indoor	2.2	Pass	Testing Complete
LW03448	5	Classroom		Faucet	5.2	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW03449	5	Classroom		Bubbler - Indoor	1.6	Pass	Testing Complete
LW03450	4	Classroom		Faucet	3.9	Pass	Testing Complete
LW03451	4	Classroom		Bubbler - Indoor	1.2	Pass	Testing Complete
LW03452	2	Classroom		Faucet	6.2	Pass	Testing Complete
LW03453	2	Classroom		Bubbler - Indoor	2.3	Pass	Testing Complete
LW03454	1	Art		Faucet	3.1	Pass	Testing Complete
LW03455	1	Art		Bubbler - Indoor	3.0	Pass	Testing Complete
LW03456		Break Room		Faucet	1.9	Pass	Testing Complete
LW03457		Hallway Gymnasium	Across From	Cooler	1.0	Pass	Testing Complete
LW03458		Hallway Administration	Across From	Cooler	<1.0	Pass	Testing Complete
LW03489	K2	Hallway	Across From	Faucet	3.6	Pass	Testing Complete
LW03490	K2	Hallway	Across From	Bubbler - Indoor	2.2	Pass	Testing Complete
LW03491	15	Classroom		Faucet	4.2	Pass	Testing Complete
LW03492	15	Classroom		Bubbler - Indoor	6.4	Pass	Testing Complete
LW03493	16	Classroom		Faucet	8.2	Pass	Testing Complete
LW03494	16	Classroom		Bubbler - Indoor	4.4	Pass	Testing Complete
LW03495	13	Classroom		Faucet	1.5	Pass	Testing Complete
LW03496	13	Classroom		Bubbler - Indoor	1.6	Pass	Testing Complete
LW03497	14	Classroom		Faucet	<1.0	Pass	Testing Complete
LW03498	14	Classroom		Bubbler - Indoor	1.1	Pass	Testing Complete
LW03499	12	Classroom		Faucet	5.5	Pass	Testing Complete
LW03500	12	Classroom		Bubbler - Indoor	3.1	Pass	Testing Complete
LW03501	11	Classroom		Faucet	<1.0	Pass	Testing Complete
M05630		Kitchen		Faucet	1.9	Pass	Testing Complete
M05653	9	Classroom		Faucet	13	Pass	Testing Complete
M05668	3	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M05669	3	Classroom		Faucet	2.6	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M05690	K1	Classroom		Bubbler - Indoor	2.3	Pass	Testing Complete
M05692	K2	Classroom		Bubbler - Indoor	1.1	Pass	Testing Complete

\*PPB = parts per billion



**Contractor:** KCI Technologies, Inc.  
**Certified Laboratory:** Microbac Laboratories, Inc.

Follow Up Sample Results for Belmont Elementary School

Barcode ID	Room #	Location	Equipment Type	Initial Draw (2nd) (PPB)	Initial Draw (3rd) (PPB)	30 Second Draw (PPB)*	Status
LW03419		Kitchen	Faucet	17.9	1310	14.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW03438	10	Classroom	Faucet	23.7	3.5	ND	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW03441	8	Classroom	Faucet	13.3	6.1	6.1	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.