



Montgomery County Public Schools Lead in Drinking Water Testing 2018

April 27, 2018

Executive Summary:

John T. Baker Middle School

25400 Oak Drive

Damascus, Maryland 20872

Round of Testing:	Initial
# of Outlets Tested:	37
# of Outlets ≥ 20 ppb:	1
Low Value (ppb):	<1.0
High Value (ppb):	195
Follow-Up Testing Required (Samples ≥ 20 ppb):	Home Economics (195 ppb)

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

Project Status:

Testing Complete: Remediation Plan

Home Economics - Replace fixture (M11076), 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 #1214634191

Location: John T. Baker Middle School

25400 Oak Drive
Damascus, Maryland 20872

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 John T. Baker Middle School, located at 25400 Oak Drive in Damascus, Maryland 20872.

SCOPE OF SERVICES

KCI conducted lead in water testing at John T. Baker Middle 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 3/19/2018 and 3/20/2018 to collect samples from 37 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 4/13/2018, one 30 second follow-up sample was 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 was one result 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:

Barcode ID	Sample Location	Date Collected	Initial Sample Result (ppb)	Date Collected	30 Second Follow Up Sample Result (ppb)
M11076	Faucet - Home Economics	3/20/2018	195	4/13/2018	35.3

The initial lead in water sample results (3/20/2018) and 30 second follow up results (4/13/2018) 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

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Lead in Water Test Summary Table

Contractor: KCI Technologies, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for John T. Baker Middle School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
E52753		Kitchen Cafeteria		Icemaker	<1.0	Pass	Testing Complete
LW06014		Kitchen Cafeteria		Faucet	8.7	Pass	Testing Complete
LW06015		Kitchen Cafeteria		Faucet	8.4	Pass	Testing Complete
LW06016		Kitchen Cafeteria		Faucet	5.1	Pass	Testing Complete
LW06017	121	Classroom		Faucet	2.2	Pass	Testing Complete
LW06018		Hallway	Outside Of Café	Cooler	1.2	Pass	Testing Complete
LW06019		Cafeteria		Cooler	<1.0	Pass	Testing Complete
LW06020		Hallway	Across From Cr 134	Cooler	<1.0	Pass	Testing Complete
LW06021		Hallway	Across From Cr 134	Cooler	<1.0	Pass	Testing Complete
LW06022		Hallway	Close To Cr 105	Cooler	1.8	Pass	Testing Complete
LW06023		Locker Room - Girls		Cooler	<1.0	Pass	Testing Complete
LW06024	117B	Classroom		Faucet	<1.0	Pass	Testing Complete
LW06025	117A	Classroom		Faucet	<1.0	Pass	Testing Complete
LW06026		Hallway	Outside Of Cr 117b	Cooler	<1.0	Pass	Testing Complete
LW06027		Locker Room - Boys		Cooler	<1.0	Pass	Testing Complete
LW06028		Office Administration		Cooler	<1.0	Pass	Testing Complete
LW06029		Work Room Administration		Faucet	<1.0	Pass	Testing Complete
LW06030		Health Room Administration		Faucet	1.1	Pass	Testing Complete
LW06031		Health Room Administration		Cooler	<1.0	Pass	Testing Complete
LW06032		Work Room Media Center		Faucet	8.7	Pass	Testing Complete
LW06033		Hallway	Outside Of Cr 208	Cooler	<1.0	Pass	Testing Complete
LW06035		Hallway	Across From Cr 233	Cooler	<1.0	Pass	Testing Complete
M10144		Kitchen Cafeteria		Faucet	3.2	Pass	Testing Complete
M10145		Kitchen Cafeteria		Faucet	3.9	Pass	Testing Complete
M10149		Kitchen Cafeteria		Faucet	12.4	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M10151		Kitchen Cafeteria		Faucet	4.0	Pass	Testing Complete
M10174		Break Room Cafeteria	Next to Dining Rm	Faucet	10.6	Pass	Testing Complete
M10176	125	Home Economics		Faucet	195	Fail	Follow-Up Testing Needed
M10177	125	Home Economics		Faucet	5.5	Pass	Testing Complete
M10178	125	Home Economics		Faucet	3.0	Pass	Testing Complete
M10179	125	Home Economics		Faucet	5.8	Pass	Testing Complete
M10180	125	Home Economics		Faucet	5.5	Pass	Testing Complete
M10181	125	Home Economics		Faucet	1.7	Pass	Testing Complete
M10394	214	Classroom		Faucet	2.5	Pass	Testing Complete
M11477		Kitchen Cafeteria	to the right of M10151	Faucet	1.5	Pass	Testing Complete
M27591		Kitchen Work Room	Media Center	Faucet	3.2	Pass	Testing Complete
M27606		Hallway	Across from CR 233 & 234	Cooler	<1.0	Pass	Testing Complete

*PPB = parts per billion

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

Follow Up Sample Result for John T. Baker Middle School

Barcode ID	Room #	Location	Equipment Type	Initial Draw (2nd) (PPB)*	Initial Draw (3rd) (PPB)	30 Second Draw (PPB)	Status
M10176	125	Home Economics	Faucet	NA	536	35.3	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.