



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

April 30, 2018

### Executive Summary:

#### Damascus Elementary School

10201 Bethesda Church Road

Damascus, Maryland 20872

|  |   |
|--|---|
| Round of Testing:                                      | Initial   |
| # of Outlets Tested:                                   | 40  |
| # of Outlets $\geq 20$ ppb:                            | 2   |
| Low Value (ppb):                                       | <1.0  |
| High Value (ppb):                                      | 175   |
| Follow-Up Testing Required<br>(Samples $\geq 20$ ppb): | Classroom 11 (30.7 ppb)<br>Classroom 12 (175 ppb) |

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

### Project Status:

#### Testing Complete: Remediation Plan

Classroom 11 - Replace fixture (M23149), in addition to supply line and valve located under sink

Classroom 12 - Replace fixture (M23171), 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 #1214634191

**Location: Damascus Elementary School**

10201 Bethesda Church Road  
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 Damascus Elementary School, located at 10201 Bethesda Church Road in Damascus, Maryland 20872.

**SCOPE OF SERVICES**

KCI conducted lead in water testing at Damascus 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 3/19/2018 and 3/20/2018 to collect samples from 40 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, 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> |
|-------------------|-------------------------------|-----------------------|------------------------------------|-----------------------|--|
| M23149            | Faucet - Classroom 11         | 3/20/2018             | 30.7                               | 4/13/2018             | 2.1  |
| M23171            | Bubbler-Indoor - Classroom 12 | 3/20/2018             | 175                                | 4/13/2018             | 4.5  |

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.

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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 Damascus Elementary School

| Barcode ID | Room # | Location                  | Location Notes | Equipment Type    | Date Collected | Results (PPB)* | Pass/Fail | Status                   |
|------------|--------|---------------------------|----------------|-------------------|----------------|----------------|-----------|--------------------------|
| LW04918    | 7      | Classroom                 |                | Faucet            | 3/20/18        | 4.0            | Pass      | Testing Complete         |
| LW04920    | 10     | Classroom                 |                | Faucet            | 3/20/18        | 3.3            | Pass      | Testing Complete         |
| LW04921    | K1     | Classroom                 |                | Bubbler - Indoor  | 3/20/18        | 2.4            | Pass      | Testing Complete         |
| LW04922    |        | Hallway                   | Across From 11 | Cooler            | 3/20/18        | 2.1            | Pass      | Testing Complete         |
| LW05011    |        | All Purpose Room          |                | Cooler            | 3/20/18        | 10.2           | Pass      | Testing Complete         |
| LW05013    |        | Break Room                |                | Faucet            | 3/20/18        | <1.0           | Pass      | Testing Complete         |
| LW05014    |        | Break Room                |                | Instant Hot Water | 3/20/18        | <1.0           | Pass      | Testing Complete         |
| LW05015    |        | Work Room                 |                | Faucet            | 3/20/18        | 1.8            | Pass      | Testing Complete         |
| LW05016    |        | Health Room Office        |                | Faucet            | 3/20/18        | 1.8            | Pass      | Testing Complete         |
| LW05017    |        | Hallway Office            | In Front Of    | Bubbler - Indoor  | 3/20/18        | <1.0           | Pass      | Testing Complete         |
| M23118     |        | Media Center Media Center |                | Faucet            | 3/20/18        | 7.9            | Pass      | Testing Complete         |
| M23129     | 4      | Classroom                 |                | Faucet            | 3/20/18        | 5.7            | Pass      | Testing Complete         |
| M23130     | 5      | Closet Classroom          |                | Faucet            | 3/20/18        | 3.6            | Pass      | Testing Complete         |
| M23132     | K2     | Classroom                 |                | Faucet            | 3/20/18        | 3.3            | Pass      | Testing Complete         |
| M23137     | K1     | Classroom                 |                | Faucet            | 3/20/18        | 3.8            | Pass      | Testing Complete         |
| M23140     | 1      | Classroom                 |                | Faucet            | 3/20/18        | 4.8            | Pass      | Testing Complete         |
| M23141     | CR1    | Hallway                   | Outside Of     | Cooler            | 3/20/18        | 1.1            | Pass      | Testing Complete         |
| M23142     | 2      | Classroom                 |                | Faucet            | 3/20/18        | 7.0            | Pass      | Testing Complete         |
| M23143     | 2      | Classroom                 |                | Bubbler - Indoor  | 3/20/18        | 2.7            | Pass      | Testing Complete         |
| M23149     | 11     | Classroom                 |                | Faucet            | 3/20/18        | 30.7           | Fail      | Follow-Up Testing Needed |
| M23153     | 9      | Classroom                 |                | Faucet            | 3/20/18        | 5.0            | Pass      | Testing Complete         |
| M23158     | 7      | Classroom                 |                | Bubbler - Indoor  | 3/20/18        | 6.4            | Pass      | Testing Complete         |
| M23159     | 8      | Classroom                 |                | Faucet            | 3/20/18        | 4.8            | Pass      | Testing Complete         |
| M23161     | 6      | Classroom                 |                | Faucet            | 3/20/18        | 3.2            | Pass      | Testing Complete         |
| M23162     | 6      | Classroom                 |                | Bubbler - Indoor  | 3/20/18        | 5.6            | Pass      | Testing Complete         |
| M23163     |        | Hallway                   | Outside Gym    | Cooler            | 3/20/18        | 1.0            | Pass      | Testing Complete         |

| Barcode ID | Room # | Location    | Location Notes | Equipment Type   | Date Collected | Results (PPB)* | Pass/Fail | Status                   |
|------------|--------|-------------|----------------|------------------|----------------|----------------|-----------|--------------------------|
| M23170     | 12     | Classroom   |                | Faucet           | 3/20/18        | 9.5            | Pass      | Testing Complete         |
| M23171     | 12     | Classroom   |                | Bubbler - Indoor | 3/20/18        | 175            | Fail      | Follow-Up Testing Needed |
| M23172     | 13     | Classroom   |                | Faucet           | 3/20/18        | 1.9            | Pass      | Testing Complete         |
| M23175     | 15     | Hallway     | Outside CR 15  | Cooler           | 3/20/18        | <1.0           | Pass      | Testing Complete         |
| M23176     | 15     | Classroom   |                | Faucet           | 3/20/18        | 1.0            | Pass      | Testing Complete         |
| M23178     | 14     | Classroom   |                | Faucet           | 3/20/18        | 3.5            | Pass      | Testing Complete         |
| M23185     | 17     | Classroom   |                | Faucet           | 3/20/18        | 9.2            | Pass      | Testing Complete         |
| M23187     |        | Resource Rm |                | Faucet           | 3/20/18        | 4.0            | Pass      | Testing Complete         |
| M23192     |        | Kitchen     |                | Faucet           | 3/20/18        | 7.3            | Pass      | Testing Complete         |
| M23193     |        | Kitchen     |                | Faucet           | 3/20/18        | 19.4           | Pass      | Testing Complete         |
| M23194     |        | Kitchen     |                | Faucet           | 3/20/18        | 7.9            | Pass      | Testing Complete         |
| M23195     |        | Kitchen     |                | Faucet           | 3/20/18        | 4.9            | Pass      | Testing Complete         |
| M23196     |        | Kitchen     |                | Faucet           | 3/20/18        | 16.2           | Pass      | Testing Complete         |
| M23197     |        | Kitchen     |                | Faucet           | 3/20/18        | 5.0            | Pass      | Testing Complete         |

\*PPB = parts per billion

**Contractor:** KCI Technologies, Inc.

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

Follow Up Sample Results for Damascus Elementary School

| Barcode ID | Room # | Location  | Equipment Type   | Date Collected | Initial Draw (2nd) (PPB) | Initial Draw (3rd) (PPB) | 30 Second Draw (PPB)* | Status  |
|------------|--------|-----------|------------------|----------------|--------------------------|--------------------------|-----------------------|---|
| M23149     | 11     | Classroom | Faucet           | 3/20/18        | N/A                      | 8.4                      | 2.1                   | Remediation required – replace fixture, in addition to supply line and valve located under sink |
| M23171     | 12     | Classroom | Bubbler - Indoor | 3/20/18        | N/A                      | 55.7                     | 4.5                   | 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.