

# Montgomery County Public Schools Lead in Drinking Water Testing Report

**Sherwood Elementary School  
1401 Olney Sandy Spring Rd.  
Sandy Spring, MD 20860**

**Report Date: November 15, 2024**

## **LEAD IN DRINKING WATER SAMPLE RESULTS SUMMARY**

All Maryland public and nonpublic schools are required to sample all drinking water outlets for the presence of lead pursuant to the Code of Maryland Regulations (COMAR). Montgomery County Public Schools (MCPS) is required to remediate outlets where lead in drinking water concentrations exceed the State Action Level (AL) of 5 parts per billion (ppb). A summary of the lead in water initial samples collected by KCI Technologies Inc. is presented in the table below.

Sampling Date	10/08/2024
# of Outlets Tested	44
# of Outlets $\geq$ 5 ppb	11

## **NEXT STEPS**

If an initial sample exceeds the AL (5 ppb), the outlet will be shut-down within 24 hours, a follow-up sample collected, and a remedial plan of action developed for this outlet. No additional sampling or remedial actions are required for schools where all initial samples are below the AL.

## **HEALTH EFFECTS OF LEAD**

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Lead is stored in the bones, and it can be released later in life. During pregnancy, the fetus receives lead from the mother's bones, which may affect brain development. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults.

## **SOURCES OF HUMAN EXPOSURE TO LEAD**

There are many different sources of human exposure to lead. These include lead-based paint, lead-contaminated dust or soil, some plumbing materials, certain types of pottery, pewter, brass outlets, food, cosmetics, exposure in the workplace and from certain hobbies. According to the Environmental Protection Agency (EPA), 10 to 20 percent of a person's potential exposure to lead may come from drinking water, while for an infant consuming formula mixed with lead-containing water this may increase to 40 to 60 percent.

### **TO REDUCE EXPOSURE TO LEAD IN DRINKING WATER:**

1. Run your water to flush out lead: If water hasn't been used for several hours, run water for 15 to 30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking.
2. Use cold water for cooking and preparing baby formula: Lead from the plumbing dissolves more easily into hot water.

*\*Please note that boiling the water will not reduce lead levels.*

### **ADDITIONAL INFORMATION**

1. For additional information, please contact Brian Mullikin, Environmental Team Leader, at 240.740.2324 or [brian\\_a\\_mullikin@mcpsmd.org](mailto:brian_a_mullikin@mcpsmd.org).
2. For additional information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's website at [www.epa.gov/lead](http://www.epa.gov/lead).
3. If you are concerned about exposure; contact your local health department or healthcare provider to find out how you can get your child tested for lead.

*Please refer to the attachment(s) for additional water sampling information.*

**Attachment(s)** A – Lead in Water Sample Results Table

**ATTACHMENT A**

**Lead in Water Sample Results Table**

## Sampling Results for Sherwood ES

Outlet Barcode	Outlet Location	Outlet Type	Initial Results (ppb)	Pass/Fail	Status
LW05686	In Classroom 120	Faucet, Cold	4.4	Pass	Testing Complete
LW05689	Hallway adjacent to 128	Bottle Filler/Drinking Fountain Combo Unit - Bottle Filler	<1.0	Pass	Testing Complete
LW05693	In Classroom 129	Combination Sink - Fountain - Bubblers	4.8	Pass	Testing Complete
LW05695	In Classroom 130	Combination Sink - Fountain - Bubblers	16.7	Fail	Remediation Action Plan
LW05699	In Classroom 132	Combination Sink - Fountain - Bubblers	3.7	Pass	Testing Complete
LW05703	In Classroom 134	Combination Sink - Fountain - Bubblers	5.2	Fail	Remediation Action Plan
LW05709	Hallway across 156	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated)	3.0	Pass	Testing Complete
LW05710	In Classroom 156	Faucet, Cold	4.1	Pass	Testing Complete
LW05711	In Classroom 156	Combination Sink - Fountain - Bubblers	2.7	Pass	Testing Complete
LW05714	In Classroom 159	Combination Sink - Faucet, Cold	3.5	Pass	Testing Complete
LW05717	In Classroom 160	Combination Sink - Fountain - Bubblers	5.4	Fail	Remediation Action Plan
LW05719	In Classroom 161	Combination Sink - Fountain - Bubblers	5.8	Fail	Remediation Action Plan
LW05720	In Classroom 146	Combination Sink - Fountain - Bubblers	4.1	Pass	Testing Complete
LW05723	In Classroom 140A	Combination Sink - Fountain - Bubblers	<1.0	Pass	Testing Complete
LW05729	Hallway next to 144	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated)	3.3	Pass	Testing Complete
LW05731	In Classroom 140	Faucet, Cold	2.0	Pass	Testing Complete
LW10895	In Classroom 131	Combination Sink - Fountain - Bubblers	3.4	Pass	Testing Complete
LW10898	In Classroom 133	Combination Sink - Fountain - Bubblers	14.8	Fail	Remediation Action Plan
LW10904	In Classroom 158	Faucet, Cold	10.6	Fail	Remediation Action Plan
LW10905	In hallway adjacent to 128	Bottle Filler/Drinking Fountain Combo Unit - Cooler/Chiller (Refrigerated)	<1.0	Pass	Testing Complete
LW11271	In Classroom 168	Combination Sink - Fountain - Bubblers	<1.0	Pass	Testing Complete
LW13506	In 100h	Faucet, Cold	1.9	Pass	Testing Complete
LW13507	In 100h2	Faucet, Cold	<1.0	Pass	Testing Complete
LW13508	Hall outside 120	Bottle Filler/Drinking Fountain Combo Unit - Cooler/Chiller (Refrigerated)	<1.0	Pass	Testing Complete
LW13509	Hallway outside 120	Bottle Filler/Drinking Fountain Combo Unit - Bottle Filler	<1.0	Pass	Testing Complete
LW13611	Hallway outside 120	Bubbler	5.1	Fail	Remediation Action Plan
M08094	In Classroom 168	Combination Sink - Fountain - Bubblers	<1.0	Pass	Testing Complete

Outlet Barcode	Outlet Location	Outlet Type	Initial Results (ppb)	Pass/Fail	Status
M08973	In Classroom 177	Combination Sink - Fountain - Bubbler	<1.0	Pass	Testing Complete
M08976	In Classroom 175	Combination Sink - Fountain - Bubbler	<1.0	Pass	Testing Complete
M08979	Hallway between 168 and 169	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated)	<1.0	Pass	Testing Complete
M08980	Hallway between 168 and 169	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated)	<1.0	Pass	Testing Complete
M08986	In Classroom 168	Combination Sink - Fountain - Bubbler	<1.0	Pass	Testing Complete
M08996	Hallway by elevator	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated)	<1.0	Pass	Testing Complete
M08997	Hallway by elevator	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated)	<1.0	Pass	Testing Complete
M09004	In Classroom 208	Combination Sink - Fountain - Bubbler	<1.0	Pass	Testing Complete
M09008	In Classroom 211	Combination Sink - Fountain - Bubbler	<1.0	Pass	Testing Complete
M09010	In Classroom 212	Combination Sink - Fountain - Bubbler	<1.0	Pass	Testing Complete
M09012	In Classroom 214	Combination Sink - Fountain - Bubbler	<1.0	Pass	Testing Complete
M22876	In Kitchen	Faucet, Cold	7.2	Fail	Remediation Action Plan
M22877	In Kitchen	Faucet, Cold	5.3	Fail	Remediation Action Plan
M22878	In Kitchen	Faucet, Cold	29.8	Fail	Remediation Action Plan
M22879	In Kitchen	Faucet, Cold	14.4	Fail	Remediation Action Plan
M22880	In Kitchen	Faucet, Cold	1.7	Pass	Testing Complete

# Montgomery County Public Schools Lead in Drinking Water Testing Report

**Sherwood Elementary School  
1401 Olney-Sandy Spring Road  
Sandy Spring, MD 20860**

**Report Date: February 23<sup>rd</sup>, 2022**

## **LEAD IN DRINKING WATER SAMPLE RESULTS SUMMARY**

All Maryland public and nonpublic schools are required to sample all drinking water outlets for the presence of lead pursuant to the Code of Maryland Regulations (COMAR). Montgomery County Public Schools (MCPS) is required to remediate outlets where lead in drinking water concentrations exceed the Montgomery County Action Level (AL) of 5 parts per billion (ppb). A summary of the lead in water initial samples collected by SaLUT are presented in the table below.

Sampling Date	12/01/2021
# of Outlets Tested	63
# of Outlets $\geq$ 5 ppb	11

## **NEXT STEPS**

If an initial sample exceeds the AL (5 ppb), the outlet will be immediately shut-down, a follow-up sample collected, and a remedial plan of action developed for this outlet. No additional sampling or remedial actions are required for schools where all initial samples are below the AL.

## **HEALTH EFFECTS OF LEAD**

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Lead is stored in the bones and it can be released later in life. During pregnancy, the fetus receives lead from the mother's bones, which may affect brain development. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults.

## **SOURCES OF HUMAN EXPOSURE TO LEAD**

There are many different sources of human exposure to lead. These include: lead-based paint, lead-contaminated dust or soil, some plumbing materials, certain types of pottery, pewter, brass fixtures, food, cosmetics, exposure in the work place and from certain hobbies. According to the Environmental Protection Agency (EPA), 10 to 20 percent of a person's potential exposure to lead may come from drinking water, while for an infant consuming formula mixed with lead-containing water this may increase to 40 to 60 percent.

## **TO REDUCE EXPOSURE TO LEAD IN DRINKING WATER:**

1. Run your water to flush out lead: If water hasn't been used for several hours, run water for 15 to 30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking.
2. Use cold water for cooking and preparing baby formula: Lead from the plumbing dissolves more easily into hot water.

*\*Please note that boiling the water will not reduce lead levels.*

## **ADDITIONAL INFORMATION**

1. For additional information, please contact Brian Mullikin, Environmental Team Leader, at 240.740.2324 or [brian\\_a\\_mullikin@mcpsmd.org](mailto:brian_a_mullikin@mcpsmd.org).
2. For additional information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's website at [www.epa.gov/lead](http://www.epa.gov/lead).
3. If you are concerned about exposure; contact your local health department or healthcare provider to find out how you can get your child tested for lead.

*Please refer to the attachment(s) for additional water sampling information.*

**Attachment(s)** A – Lead in Water Sample Results Table

**ATTACHMENT A**

**Lead in Water Sample Results Table**



## Sampling Results for Sherwood ES

Fixture Barcode	Fixture Location	Fixture Type	Initial Results (ppb)	Pass/Fail	Follow up Results (ppb)	Status
M08984	In art 168 by art	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
LW05686	In break room 120	Teachers Lounge Sink	3.3	Pass	N/A	Testing Complete
LW05693	In classroom 129	Classroom Combination Drinking Fountain	4.4	Pass	N/A	Testing Complete
Lw10897	In classroom 129	Classroom Combination Sink	5.7	Fail	14	Testing Complete
LW05695	In classroom 130	Classroom Combination Drinking Fountain	3.5	Pass	N/A	Testing Complete
Lw10896	In classroom 130	Classroom Combination Sink	6.8	Fail	3.6	Testing Complete
Lw10895	In classroom 131	Classroom Sink	3.9	Pass	N/A	Testing Complete
LW05699	In classroom 132	Classroom Combination Drinking Fountain	1.3	Pass	N/A	Testing Complete
Lw10894	In classroom 132	Classroom Combination Sink	4.3	Pass	N/A	Testing Complete
Lw10898	In classroom 133	Classroom Sink	7.7	Fail	6.5	Testing Complete
LW05703	In classroom 134	Classroom Combination Drinking Fountain	4.9	Pass	N/A	Testing Complete
Lw05702	In classroom 134	Classroom Combination Sink	6.0	Fail	8.7	Testing Complete
LW05706	In classroom 138	Teacher's Lounge Sink	1.9	Pass	N/A	Testing Complete
Lw10899	In classroom 139	Classroom Combination Sink	2.7	Pass	N/A	Testing Complete
Lw10900	In classroom 139	Bubbler - Indoor	4.1	Pass	N/A	Testing Complete
LW05731	In classroom 140	Classroom Combination Drinking Fountain	2.0	Pass	N/A	Testing Complete
LW05730	In classroom 140	Drinking Fountain	2.2	Pass	N/A	Testing Complete
LW05722	In classroom 140A	Teacher's Lounge Sink	2.1	Pass	N/A	Testing Complete
LW05723	In classroom 140A	Classroom Combination Drinking Fountain	2.7	Pass	N/A	Testing Complete
LW05724	In classroom 145	Teacher's Lounge Sink	<1	Pass	N/A	Testing Complete
Lw05720	In classroom 146	Classroom Sink	3.6	Pass	N/A	Testing Complete
Lw05727	In classroom 147	Classroom Combination Sink	8.0	Fail	9.1	Testing Complete
LW05705	In classroom 155	Classroom Combination Drinking Fountain	1.7	Pass	N/A	Testing Complete
LW05710	In classroom 156	Teacher's Lounge Sink	6.1	Fail	4.2	Testing Complete
Lw10904	In classroom 158	Classroom Sink	8.5	Fail	13.7	Testing Complete
LW05714	In classroom 159	Teacher's Lounge Sink	5.0	Fail	4.7	Testing Complete
LW05717	In classroom 160	Classroom Combination Drinking Fountain	4.1	Pass	N/A	Testing Complete
Lw10902	In classroom 160	Classroom Combination Sink	6.0	Fail	8.7	Testing Complete
Lw10903	In classroom 161	Classroom Combination Sink	12.2	Fail	7.4	Testing Complete
LW05719	In classroom 161	Classroom Combination Drinking Fountain	5.5	Fail	5.4	Testing Complete

M08985	In classroom 167	Teacher's Lounge Sink	<1	Pass	N/A	Testing Complete
M08986	In classroom 167	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
Lw11271	In classroom 168	Bubbler - Indoor	<1	Pass	N/A	Testing Complete
M08978	In classroom 169	Teacher's Lounge Sink	<1	Pass	N/A	Testing Complete
M08975	In classroom 175	Teacher's Lounge Sink	<1	Pass	N/A	Testing Complete
M08976	In classroom 175	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M08972	In classroom 177	Teacher's Lounge Sink	<1	Pass	N/A	Testing Complete
M08973	In classroom 177	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M09001	In classroom 206	Teacher's Lounge Sink	<1	Pass	N/A	Testing Complete
M09002	In classroom 206	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M09003	In classroom 208	Teacher's Lounge Sink	<1	Pass	N/A	Testing Complete
M09004	In classroom 208	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M09005	In classroom 209	Teacher's Lounge Sink	<1	Pass	N/A	Testing Complete
M09006	In classroom 209	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M09008	In classroom 211	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M09007	In classroom 211	Teacher's Lounge Sink	2.4	Pass	N/A	Testing Complete
M09009	In classroom 212	Teacher's Lounge Sink	<1	Pass	N/A	Testing Complete
M09010	In classroom 212	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M09011	In classroom 214	Teacher's Lounge Sink	<1	Pass	N/A	Testing Complete
M09012	In classroom 214	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
Lw10905	In hallway adjacent to 128	Bottle Filler	<1	Pass	N/A	Testing Complete
LW05689	In hallway adjacent to 128	Drinking Fountain	2.6	Pass	N/A	Testing Complete
LW05691	In hallway adjacent to CR 132	Drinking Fountain	<1	Pass	N/A	Testing Complete
M22860	In hallway adjacent to CR 132	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW05709	In hallway adjacent to CR 156	Drinking Fountain	1.9	Pass	N/A	Testing Complete
M08997	In hallway adjacent to elevator	Drinking Fountain	<1	Pass	N/A	Testing Complete
M08996	In hallway adjacent to the elevator	Drinking Fountain	<1	Pass	N/A	Testing Complete
M08979	In hallway between CR 169 & CR 168	Drinking Fountain	<1	Pass	N/A	Testing Complete
M08980	In hallway between CR 169 & CR 168	Drinking Fountain	<1	Pass	N/A	Testing Complete
M22886	In hallway next to 128	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW05729	In hallway next to CR 144	Drinking Fountain	2.0	Pass	N/A	Testing Complete
M22880	In kitchen	Kitchen Sink	2.3	Pass	N/A	Testing Complete
M22876	In kitchen	Kitchen Sink	3.1	Pass	N/A	Testing Complete



## Montgomery County Public Schools Lead in Drinking Water Post-Remediation Follow-Up Testing 2019

October 30, 2019

### Executive Summary:

**Sherwood Elementary School**  
1401 Olney Sandy Spring Road  
Sandy Spring, Maryland 20860

Round of Testing:	Post-Remediation Follow-up
Sample Date	2/4/2019
# of Outlets Tested:	3
# of Outlets $\geq$ 5 ppb:	2
Low Value (ppb):	2.2
High Value (ppb):	25

### Project Status

**Testing Complete:** Post-remediation follow-up testing completed for following rooms:

Work Room Administration 102 - Outlet (LW05687) will be removed from service  
Classroom 134 - Outlet (LW05703) will be placed back into service  
Kitchen - Outlet (M22878) will have signage affixed



October 30, 2019

Mr. Brian Mullikin, MS  
Environmental Team Leader  
Montgomery County Public Schools  
8301 Turkey Thicket Dr., Bldg A, 1st Floor  
Gaithersburg, Maryland 20879

Re: Lead in Water Post-Remediation Follow-up Testing Service

**Location: Sherwood Elementary School**

1401 Olney Sandy Spring Road  
Sandy Spring, Maryland 20860

Dear Mr. Mullikin:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of the post-remediation follow-up lead in water testing at Sherwood Elementary School, located at 1401 Olney Sandy Spring Road in Sandy Spring, Maryland 20860.

**SCOPE OF SERVICES**

Three drinking water outlets were remediated at Sherwood Elementary School due to initial lead levels that exceeded the lead action level of 5 parts per billion (ppb). KCI Technologies, Inc. conducted lead in water post-remediation follow-up testing in accordance with the Maryland Code of Regulations (COMAR) 26.16.07 - Lead in Drinking Water - Public and Nonpublic Schools.

KCI Technologies, Inc. visited the site on 2/4/2019 to collect post-remediation follow-up samples from 3 drinking water outlets that had been replaced. 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**

The initial, flush, and post-remediation follow-up results are highlighted in the summary table below:

Barcode ID	Room Number	Location	Notes	Equipment Type	Initial (ppb)	Flush (ppb)	Post-Remediation Follow-up (ppb)	Post-Remediation Follow-up Pass/Fail	Status
LW05687	102	Work Room Administration		Faucet	44.8	ND	21.1	Fail	Post-remediation follow-up testing complete. Outlet will be removed from service
LW05703	134	Classroom		Bubbler - Indoor	90.9	1.9	2.2	Pass	Post-remediation follow-up testing complete. Outlet will be placed back into service
M22878		Kitchen		Faucet	22.9	5.2	25	Fail	Post-remediation follow-up testing complete. Outlet will have signage affixed

## **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. The Environmental Protection Agency (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.

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  
KCI Job #1214634186



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

April 30, 2018

### Executive Summary:

#### Sherwood Elementary School

1401 Olney Sandy Spring Road  
Sandy Spring, Maryland 20860

Round of Testing:	Initial
# of Outlets Tested:	77
# of Outlets $\geq 20$ ppb:	3
Low Value (ppb):	<1.0
High Value (ppb):	90.9
Follow-Up Testing Required (Samples $\geq 20$ ppb):	Work Room Admin (44.8 ppb) Classroom 134 (90.9 ppb) Kitchen (22.9 ppb)

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

### Project Status:

#### Testing Complete: Remediation Plan

Work Room Admin - Replace fixture (LW05687), in addition to supply line and valve located under sink

Classroom 134 - Replace fixture (LW05703), in addition to supply line and valve located under sink

Kitchen - Replace fixture (M22878), 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: Sherwood Elementary School**

1401 Olney Sandy Spring Road  
Sandy Spring, Maryland 20860

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 Sherwood Elementary School, located at 1401 Olney Sandy Spring Road in Sandy Spring, Maryland 20860.

**SCOPE OF SERVICES**

KCI conducted lead in water testing at Sherwood 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 3/14/2018 and 3/15/2018 to collect samples from 77 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.



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## **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>
LW05687	Faucet - Work Room Admin	3/15/2018	44.8	4/12/2018	ND
LW05703	Bubbler-Indoor - Classroom 134	3/15/2018	90.9	4/12/2018	1.9
M22878	Faucet - Kitchen	3/15/2018	22.9	4/12/2018	5.2

The initial lead in water sample results (3/15/2018) 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 Sherwood Elementary School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW05685	116	Music		Faucet	10.3	Pass	Testing Complete
LW05686	120	Break Room		Faucet	3.0	Pass	Testing Complete
LW05687	102	Work Room Administration		Faucet	44.8	Fail	Follow-Up Testing Needed
LW05688	100H	Health Room Administration		Faucet	<1.0	Pass	Testing Complete
LW05689		Hallway	Next To Staff Lounge	Cooler	3.2	Pass	Testing Complete
LW05690	109	Classroom Music		Faucet	7.8	Pass	Testing Complete
LW05691		Hallway	Across From Cr 132	Cooler	2.3	Pass	Testing Complete
LW05692	129	Classroom		Faucet	6.5	Pass	Testing Complete
LW05693	129	Classroom		Bubbler - Indoor	3.1	Pass	Testing Complete
LW05694	130	Classroom		Faucet	9.7	Pass	Testing Complete
LW05695	130	Classroom		Bubbler - Indoor	4.7	Pass	Testing Complete
LW05696	131	Classroom		Faucet	6.4	Pass	Testing Complete
LW05697	131	Classroom		Bubbler - Indoor	5.0	Pass	Testing Complete
LW05698	132	Classroom		Faucet	10.9	Pass	Testing Complete
LW05699	132	Classroom		Bubbler - Indoor	2.4	Pass	Testing Complete
LW05700	133	Classroom		Faucet	13.6	Pass	Testing Complete
LW05701	133	Classroom		Bubbler - Indoor	6.0	Pass	Testing Complete
LW05702	134	Classroom		Faucet	11.5	Pass	Testing Complete
LW05703	134	Classroom		Bubbler - Indoor	90.9	Fail	Follow-Up Testing Needed
LW05704	155	Classroom		Faucet	10.6	Pass	Testing Complete
LW05705	155	Classroom		Bubbler - Indoor	3.5	Pass	Testing Complete
LW05706	138	Classroom		Faucet	2.2	Pass	Testing Complete
LW05707	138	Classroom		Bubbler - Indoor	7.0	Pass	Testing Complete
LW05708	139	Classroom		Faucet	11.2	Pass	Testing Complete
LW05709		Hallway	Across From Cr 156	Cooler	1.8	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW05710	156	Classroom		Faucet	3.9	Pass	Testing Complete
LW05711	156	Classroom		Bubbler - Indoor	2.9	Pass	Testing Complete
LW05712	158	Classroom		Faucet	8.4	Pass	Testing Complete
LW05713	158	Classroom		Bubbler - Indoor	5.8	Pass	Testing Complete
LW05714	159	Classroom		Faucet	3.6	Pass	Testing Complete
LW05715	159	Classroom		Bubbler - Indoor	5.1	Pass	Testing Complete
LW05716	160	Classroom		Faucet	10	Pass	Testing Complete
LW05717	160	Classroom		Bubbler - Indoor	2.7	Pass	Testing Complete
LW05718	161	Classroom		Faucet	8.7	Pass	Testing Complete
LW05719	161	Classroom		Bubbler - Indoor	4.4	Pass	Testing Complete
LW05720	146	Classroom		Faucet	9.0	Pass	Testing Complete
LW05721	146	Classroom		Bubbler - Indoor	8.0	Pass	Testing Complete
LW05722	140A	Classroom		Faucet	1.5	Pass	Testing Complete
LW05723	140A	Classroom		Bubbler - Indoor	2.2	Pass	Testing Complete
LW05724	145	Classroom		Faucet	<1.0	Pass	Testing Complete
LW05725	145	Classroom		Bubbler - Indoor	1.2	Pass	Testing Complete
LW05726	144	Classroom		Faucet	10.6	Pass	Testing Complete
LW05727	147	Classroom		Faucet	9.5	Pass	Testing Complete
LW05729		Hallway	Next To Cr 144	Cooler	2.0	Pass	Testing Complete
LW05730	140	Classroom		Cooler	1.4	Pass	Testing Complete
LW05731	140	Classroom		Bubbler - Indoor	2.1	Pass	Testing Complete
M08972	177	Classroom		Faucet	<1.0	Pass	Testing Complete
M08973	177	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M08975	175	Classroom		Faucet	<1.0	Pass	Testing Complete
M08976	175	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M08978	169	Classroom		Faucet	<1.0	Pass	Testing Complete
M08979		Hallway	Between CR 169 & CR 168	Cooler	<1.0	Pass	Testing Complete
M08980		Hallway	Between CR 169 & CR 168	Cooler	<1.0	Pass	Testing Complete
M08983	168	Art		Faucet	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M08984	168	Art		Bubbler - Indoor	<1.0	Pass	Testing Complete
M08985	167	Classroom		Faucet	1.6	Pass	Testing Complete
M08986	167	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09001	206	Classroom		Faucet	<1.0	Pass	Testing Complete
M09002	206	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09003	208	Classroom		Faucet	<1.0	Pass	Testing Complete
M09004	208	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09005	209	Classroom		Faucet	<1.0	Pass	Testing Complete
M09006	209	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09007	211	Classroom		Faucet	<1.0	Pass	Testing Complete
M09008	211	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09009	212	Classroom		Faucet	<1.0	Pass	Testing Complete
M09010	212	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09011	214	Classroom		Faucet	<1.0	Pass	Testing Complete
M09012	214	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M22824	103	Office Media Center		Faucet	17.2	Pass	Testing Complete
M22860		Hallway	Across From Cr 132	Cooler	11.8	Pass	Testing Complete
M22876		Kitchen		Faucet	3.8	Pass	Testing Complete
M22877		Kitchen		Faucet	5.3	Pass	Testing Complete
M22878		Kitchen		Faucet	22.9	Fail	Follow-Up Testing Needed
M22879		Kitchen		Faucet	6.6	Pass	Testing Complete
M22880		Kitchen		Faucet	2.2	Pass	Testing Complete
M22886		Hallway	Next To Staff Lounge	Cooler	<1.0	Pass	Testing Complete

\*PPB = parts per billion

**Contractor:** KCI Technologies, Inc.

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

Follow Up Sample Results for Sherwood Elementary School

Barcode ID	Room #	Location	Equipment Type	Initial Draw (2nd) (PPB)	Initial Draw (3rd) (PPB)	30 Second Draw (PPB)*	Status
LW05687	102	Work Room Administration	Faucet	70.8	11.3	ND	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW05703	134	Classroom	Bubbler - Indoor	6.8	5.3	1.9	Remediation required – replace fixture, in addition to supply line and valve located under sink
M22878		Kitchen	Faucet	39.0	26.6	5.2	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.