KCI TECHNOLOGIES
ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
936 RIDGEBROOK ROAD • SPARKS, MD 21152 • 410-316-7800 • (FAX) 410-316-7935

Montgomery County Public Schools
Lead in Drinking Water Testing 2018

April 27, 2018

Executive Summary:
Farmland Elementary School
700 Old Gate Road
Rockville, Maryland 20852

Round of Testing:	Initial
# of Outlets Tested:	95
# of Outlets ≥20 ppb:	1
Low Value (ppb):	<1.0
High Value (ppb):	564
Follow-Up Testing Required (Samples ≥ 20 ppb):	ESOL (564 ppb)

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

Project Status:
Testing Complete: Remediation Plan

ESOL - Replace fixture (M09497), in addition to supply line and valve located under sink

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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 #1214634189

Location: Farmland Elementary School
700 Old Gate Road
Rockville, Maryland 20852

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 Farmland Elementary School, located at 700 Old Gate Road in Rockville, Maryland 20852.

SCOPE OF SERVICES

KCI conducted lead in water testing at Farmland 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 3/5/2018 and 3/6/2018 to collect samples from 95 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, 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)
M09497	Faucet - ESOL	3/6/2018	564	4/12/2018	1.9

The initial lead in water sample results (3/6/2018) 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 Farmland Elementary School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
F70204	170	Kitchen		Faucet	1.4	Pass	Testing Complete
LW05495	170	Kitchen		Faucet	2.6	Pass	Testing Complete
LW05496	154	Music		Faucet	2.6	Pass	Testing Complete
LW05497	154	Music		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW05498	271	ESOL		Faucet	2.4	Pass	Testing Complete
M09493	268	ESOL	ESOL	Faucet	1.1	Pass	Testing Complete
M09494	268	ESOL	ESOL	Bubbler - Indoor	<1.0	Pass	Testing Complete
M09495	273	ESOL	ESOL	Faucet	3.2	Pass	Testing Complete
M09496	273	ESOL	ESOL	Bubbler - Indoor	<1.0	Pass	Testing Complete
M09497	264	ESOL	ESOL	Faucet	564	Fail	Testing Complete
M09498	264	ESOL	ESOL	Bubbler - Indoor	8.5	Pass	Testing Complete
M09500	271	ESOL	ESOL	Bubbler - Indoor	<1.0	Pass	Testing Complete
M09504		Hallway	Across Rm CR 271	Cooler	<1.0	Pass	Testing Complete
M09505		Hallway	Across from CR 271	Cooler	<1.0	Pass	Testing Complete
M09511	251	Material Prep Media Center	inside IMC	Faucet	4.1	Pass	Testing Complete
M09512	250	Break Room		Faucet	<1.0	Pass	Testing Complete
M09513	201	Classroom		Faucet	3.2	Pass	Testing Complete
M09514	201	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09515	200	Classroom		Faucet	2.5	Pass	Testing Complete
M09516	200	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09517	205	Classroom		Faucet	5.5	Pass	Testing Complete
M09518	205	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09519	204	Classroom		Faucet	2.7	Pass	Testing Complete
M09520	204	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09521	207	Classroom		Faucet	2.7	Pass	Testing Complete
M09522	207	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09523	206	Classroom		Faucet	3.1	Pass	Testing Complete
M09524	206	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09525	211	Classroom		Faucet	2.4	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M09526	211	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09527	210	Classroom		Faucet	3.2	Pass	Testing Complete
M09528	210	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09529	213	Classroom		Faucet	2.1	Pass	Testing Complete
M09530	213	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09531	212	Classroom		Faucet	3.1	Pass	Testing Complete
M09533	217	Classroom		Faucet	2.6	Pass	Testing Complete
M09534	217	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09535	216	Classroom		Faucet	3.4	Pass	Testing Complete
M09536	216	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09541		Hallway	Next To Rm 218	Cooler	<1.0	Pass	Testing Complete
M09542		Hallway	Next To Rm 218	Cooler	<1.0	Pass	Testing Complete
M09549	229	Classroom		Faucet	2.5	Pass	Testing Complete
M09550	229	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09551	230	Classroom		Faucet	<1.0	Pass	Testing Complete
M09552	230	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09553	233	Classroom		Faucet	<1.0	Pass	Testing Complete
M09554	233	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09555	234	Classroom		Faucet	1.0	Pass	Testing Complete
M09556	234	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09557	235	Classroom		Faucet	<1.0	Pass	Testing Complete
M09558	235	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09559	238	Classroom		Faucet	1.5	Pass	Testing Complete
M09560	238	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09561	239	Classroom		Faucet	2.4	Pass	Testing Complete
M09562	239	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09563	161	Music		Faucet	2.4	Pass	Testing Complete
M09564	161	Music		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09567	157	Dual Purpose Room		Faucet	2.8	Pass	Testing Complete
M09568	157	Dual Purpose Room		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09579	151	Classroom	Pre-Kindergarten	Faucet	5.4	Pass	Testing Complete
M09580	151	Classroom	Prekindergarten	Bubbler - Indoor	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M09582		Hallway	Across from 150 APR Rm	Cooler	<1.0	Pass	Testing Complete
M09583		Hallway	Across from 150 APR Rm	Cooler	<1.0	Pass	Testing Complete
M09584	100A	Work Room Admin	inside Admin	Faucet	<1.0	Pass	Testing Complete
M09585	102	Health Room Office		Faucet	<1.0	Pass	Testing Complete
M09589	103	Kindergarten		Faucet	5.1	Pass	Testing Complete
M09590	103	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09592	107	Kindergarten		Faucet	4.7	Pass	Testing Complete
M09593	107	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09595	111	Kindergarten		Faucet	3.9	Pass	Testing Complete
M09596	111	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09598	106	Resource Center		Faucet	2.5	Pass	Testing Complete
M09599	115	Kindergarten		Faucet	2.3	Pass	Testing Complete
M09600	115	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09602	108	Special Ed		Faucet	2.8	Pass	Testing Complete
M09603	108	Special Ed		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09609	130	Classroom		Faucet	1.7	Pass	Testing Complete
M09610	130	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09611	131	Classroom		Faucet	<1.0	Pass	Testing Complete
M09612	131	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09613	134	Classroom		Faucet	<1.0	Pass	Testing Complete
M09614	134	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09615	135	Classroom		Faucet	<1.0	Pass	Testing Complete
M09616	135	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09617	137	Classroom		Faucet	<1.0	Pass	Testing Complete
M09618	137	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09619	138	Classroom		Faucet	5.5	Pass	Testing Complete
M09620	138	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09621	141	Classroom		Faucet	2.5	Pass	Testing Complete
M09622	141	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09627		Hallway	Across from Gym	Cooler	<1.0	Pass	Testing Complete
M09628		Hallway	Across from Gym	Cooler	<1.0	Pass	Testing Complete
M09637	170	Kitchen		Faucet	<1.0	Pass	Testing Complete

*PPB = parts per billion

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

Follow Up Sample Results for Farmland Elementary School

Barcode ID	Room #	Location	Equipment Type	Initial Draw (2nd) (PPB)	Initial Draw (3rd) (PPB)	30 Second Draw (PPB)*	Status
M09497	264	ESOL	Faucet	11.5	3.6	1.9	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.