



# RESULTS OF WATER TESTING FOR LEAD CONTENT

Presented to the Board Of Education

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# INTRODUCTION



- In response to national events and increased awareness, Saint Louis Public Schools (SLPS) authorized Environmental Consultants, LLC (EC) to perform lead testing of water sources throughout active school buildings within the District. Initial sampling began on March 2, 2016 and all active school buildings were screened prior to the start of the 2016-2017 school year.
- Sampling was performed by trained and licensed personnel in accordance with Federal, State and local regulations. EC is licensed by the Missouri Department of Health and Senior Services (MDHSS) as a Lead Abatement Contractor authorized to perform water testing services and has been with the District since 2007.

# BACKGROUND



- ❑ SLPS began remediation of lead-based paint within its schools in 2001 and has continued to address lead hazards throughout recent bond issues. “Child Occupied Areas” – defined as classrooms and common spaces associated with students under the age of seven (7) are part of the District’s Lead Abatement Program and are subject to routine inspections and interim controls in accordance with Federal regulations.
- ❑ The United States Environmental Protection Agency (USEPA) regulates the nation’s drinking water in public water supplies (PWS) under the Safe Drinking Water Act (SDWA).
- ❑ The USEPA estimates that approximately 10,000 schools and childcare facilities maintain their own water supply. USEPA further estimates approximately 90,000 public schools are not regulated under the SDWA – this includes SLPS. As a proactive approach to protecting students and staff, SLPS voluntarily agreed to test drinking water sources at all active schools for lead content.



# METHODOLOGY, REPORTING, AND ALLOWABLE STANDARDS

- ❑ Sources of potable water that may be used as drinking water by students and staff within all active school buildings were sampled for lead content. Potential sources include drinking fountains and sinks. Sinks associated with kitchens and teacher lounges were included during sampling.
- ❑ The sampling timeline was prioritized to address children under the age of seven (7). The first areas to be tested were the Parent Infant Interactive Programs (PIIP) at Roosevelt, Sumner, and Vashon. The Early Childhood Centers at Stix and Wilkinson followed the PIIP facilities. Upon completion, the elementary schools, middle schools and high schools were then tested.
- ❑ All samples were collected on a “first draw” basis. “First draw” is achieved by allowing the water system to rest for at least six hours prior to sampling in order to collect any existing debris or settlement within the sample. The intent of this sampling is to replicate “worst case scenario” conditions.



# METHODOLOGY, REPORTING, AND ALLOWABLE STANDARDS



- ❑ After sample collection, samples were immediately delivered to Teklab, Inc. located in Collinsville, Illinois following strict chain of custody procedures. Teklab is a NELAP and State of Missouri accredited laboratory specializing in drinking water analysis. Certifications are available on request.
- ❑ The USEPA action level for lead in drinking water is 15.0 ppb for PWS. The USEPA document titled “Lead in Drinking Water at Schools and Child Care Facilities” last updated November 9, 2015 identifies an action level for drinking water collected from a plumbing fixture as 20.0 ppb. As a precautionary measure to ensure public safety, SLPS has set an internal action level of 10.0 ppb.
- ❑ The stricter action level set forth by SLPS is intended as a screening tool to allow the facilities team to better proactively manage water sources within their buildings. As corrosion of plumbing lines is an ongoing concern, utilizing a stricter internal action level allows the facilities team to focus on faulty systems before they deteriorate into major problems.



# SUMMARY OF RESULTS 2019

- ❑ Water sources at all active school buildings have been initially screened for lead content. Follow up sampling of select water sources remains ongoing in response to the implementation of response actions. No drinking water source will be available for public use until follow-up sample results meet SLPS expectations.
- ❑ **2019 test results indicated:**
  - ❑ Total number of active school buildings: 72 (+6 admin buildings)
  - ❑ Total number of water sources sampled: 1,375
    - ❑ 610 sinks
    - ❑ 765 drinking fountains
  - ❑ Total number of water sources that failed: 61
    - ❑ 45 sinks failed
    - ❑ 16 drinking fountains failed
      - ❑ Sources reported at 20 ppb or greater: 34
      - ❑ Sources reported at >10 ppb to 19.9 ppb: 27

# LEAD LEVEL CLASSIFICATIONS



- ❑ SLPS has classified all water sources into three priorities. Listed below are the priority classifications set forth by SLPS:
  - ❑ **Priority 1 – Sources over 20 ppb**
    - ❑ Remove from service
    - ❑ Identify source of lead content
    - ❑ Make repairs
    - ❑ Retest source prior to use
    - ❑ Retest annually
  - ❑ **Priority 2 – Sources over 10 ppb**
    - ❑ Remove from service
    - ❑ If re-test remains over 10 ppb, follow Priority 1 protocols.
  - ❑ **Priority 3 – Sources under 10 ppb**
    - ❑ Inspect and place on routine preventative maintenance program. Re-test in 3 years or when conditions change.

# PRIORITY 1 AND 2 RESULTS BY SCHOOL



- Out of seventy-two (72) schools and six (6) Admin buildings within SLPS, there were a total of sixty-one (61) failed sources in thirty-three (33) buildings that were in excess of the internal action of 10 ppb. Follow-up testing occurred after response action were taken prior to any use.

SCHOOL	WATER SOURCE	INITIAL TESTING DATE	RESULT (PPB)	Retest Results	STATUS
Beaumont	Fountain - Outside Room 318	7/19/2019	32.0	4.0	Passed Retest
Beaumont	Fountain - Outside Room 324	7/19/2019	13.0	1.0	Passed Retest
Clyde C Miller	Sink - Kitchen By Freezer-Pot Filler-Right	7/19/2019	45.2	2.1	Passed Retest
Clyde C Miller	Sink Concession Stand - Hand Sink	7/19/2019	10.9	1.1	Passed Retest
Des Peres	Fountain - Outside Room 200	7/19/2019	11.2	2.9	Passed Retest
Farragut	Sink - Teacher's Lounge	7/19/2019	10.8	1.0	Passed Retest
Food Services	Sink Kitchen - 3 Bay Left	7/19/2019	183.0	1.0	Passed Retest
Froebel	Sink - Nurse's Office	6/25/2019	13.3	1.0	Passed Retest
Gallaudet	Sink - 2nd Floor Library	7/19/2019	41.1	2.9	Passed Retest
Gateway STEM	Sink - Kitchen - Near Freezer - Left	6/20/2019	99.7	1.0	Passed Retest
Henry	Fountain - Outside Room 111	6/13/2019	41.7	4.8	Passed Retest
Hickey	Sink - Room 108	6/7/2019	15.4	1.5	Passed Retest
Jefferson	Fountain - Outside Room 109	6/12/2019	13.7	1.0	Passed Retest
Laclede	Sink - Nurse's Office	6/6/2019	16.8	6.4	Passed Retest



# PRIORITY 1 AND 2 RESULTS BY LOCATION



SCHOOL	WATER SOURCE	INITIAL TESTING DATE	RESULT (PPB)	Retest Results	STATUS
Langston	Fountain - Inside Room 110	7/19/2019	21.6	1.4	Passed Retest
Langston	Sink - Kitchen - Hand Sink	7/19/2019	32.4	1.8	Passed Retest
Long	Fountain - Outside Room 102 - High	7/19/2019	15.5	8.4	Passed Retest
Long	Fountain - Outside Room 102 - Low	7/19/2019	17.6	8.9	Passed Retest
L'Ouverture	Sink - Room 204 - Station #2	7/19/2019	229.0	1.0	Passed Retest
L'Ouverture	Sink - Room 204 - Station #3	7/19/2019	260.0	2.8	Passed Retest
L'Ouverture	Sink - Room 204 - Station #4	7/19/2019	130.0	1.0	Passed Retest
Mallinckrodt	Sink - Nurse's Office	7/19/2019	11.2	1.0	Passed Retest
McKinley	Sink - Room G092 - 1 Bay - Station 4	6/20/2019	12.9	1.0	Passed Retest
McKinley	Sink - Room G092 - 1 Bay - Station 5	6/20/2019	10.9	1.0	Passed Retest
McKinley	Kitchen - Center - Pot Filler	6/20/2019	19.0	2.0	Passed Retest
McKinley	Fountain - Outside Main Office - High	6/20/2019	31.1	1.0	Passed Retest
Meda P-Security	Sink - 1st Floor Kitchen - Hand Sink	7/19/2019	13.3	10.0	Passed Retest
Metro	Sink - Kitchen - Room 174 - Sprayer	6/18/2019	17.3	1.0	Passed Retest
Nahed Chapman	Sink - Building 4 - Kitchen Hand Sink	7/19/2019	13.3	1.0	Passed Retest
Northwest	Fountain Boys' Locker Room Shower	6/4/2019	32.4	5.6	Passed Retest
Northwest	Kitchen - Dish Wash Left	6/4/2019	249.0	1.0	Passed Retest
Northwest	Kitchen - Dish Wash Right	6/4/2019	4,600.0	1.0	Passed Retest
Northwest	Kitchen - Pot Filler	6/4/2019	95.9	1.8	Passed Retest

# PRIORITY 1 AND 2 RESULTS BY LOCATION



SCHOOL	WATER SOURCE	INITIAL TESTING DATE	RESULT (PPB)	Retest Results	STATUS
Northwest	Kitchen - Prep Hand Sink	6/4/2019	21.6	1.3	Passed Retest
Northwest	Kitchen - Hand Sink Door 4	6/4/2019	31.4	1.1	Passed Retest
Peabody	Sink - Teacher's Lounge - 2 Bay Station 2	6/21/2019	36.8	1.0	Passed Retest
Peabody	Sink - Teacher's Lounge - 1 Bay Station 3	6/21/2019	536.0	1.0	Passed Retest
Peabody	Fountain - 3rd Floor - O/S Room 309	6/21/2019	10.0	3.0	Passed Retest
Pruitt	Sink - Kitchen - Hand Sink	7/19/2019	10.9	4.4	Passed Retest
Roosevelt	Sink - Kitchen - 2 Bay Left	7/9/2019	11.3	1.0	Passed Retest
Roosevelt	Sink - Kitchen - 2 Bay Right	7/9/2019	33.0	1.0	Passed Retest
Roosevelt	Sink - Kitchen - Hand Wash - East	7/9/2019	11.8	1.6	Passed Retest
Shenandoah	Sink - Kitchen - 3 Bay Left	6/21/2019	13.8	1.8	Passed Retest
Shenandoah	Sink - Kitchen - 3 Bay Right	6/21/2019	11.4	3.4	Passed Retest
Shenandoah	Sink - Kitchen - Hand Sink	6/21/2019	16.2	2.7	Passed Retest
Sigel	Fountain - Inside Gymnasium - High	6/20/2019	13.6	6.1	Passed Retest
Stevens	Sink - Kitchen - 3 Bay - Left	7/19/2019	34.1	1.9	Passed Retest
Stevens	Sink - Kitchen - 3 Bay - Right	7/19/2019	200.0	1.0	Passed Retest
Stevens	Fountain - Outside Gym	7/19/2019	13.8	3.5	Passed Retest
Stevens	Sink - Office 112A-B	7/19/2019	192.0	1.0	Passed Retest
Stevens	Fountain - Outside Room 208	7/19/2019	25.7	1.9	Passed Retest



# PRIORITY 1 AND 2 RESULTS BY LOCATION

SCHOOL	WATER SOURCE	INITIAL TESTING DATE	RESULT (PPB)	Retest Results	STATUS
Stevens	Sink - Kitchen - Hand Sink	7/19/2019	47.3	2.6	Passed Retest
Stix	Sink - Nurse's Office	6/18/2019	12.2	7.3	Passed Retest
Sumner FS	Sink - Room 112 - Station 3	6/11/2019	78.2	3.2	Passed Retest
Sumner FS	Room 112 - Station 4	6/11/2019	145.0	1.0	Passed Retest
Yeatman	Sink - Room 212 - Sink #2	6/11/2019	345.0	2.2	Passed Retest
Yeatman	Sink - Room 212 - Sink #4	6/11/2019	41.1	4.9	Passed Retest
Yeatman	Sink - Room 212 - Sink #1	6/11/2019	60.5	1.0	Passed Retest
Yeatman	Sink - Room 212 - Sink #3	6/11/2019	25.9	3.6	Passed Retest
Beaumont	Fountain - Outside Room 313	7/19/2019	109.0	76.8	Recommend Abandonment
Beaumont	Fountain - Outside Room 217	7/19/2019	56.3	2,290.0	Recommend Abandonment

Note: O

# ACTION PLAN



- ❑ As we received each round of preliminary results, we turned off the water to sinks and drinking fountains and tagged any that tested above our action level of 10 ppb. As an alternative, water sources from other sinks and drinking fountains in the buildings that tested below 10 ppb were utilized.
- ❑ As of today, October 8, 2019, we replaced 11 faucets and 1 drinking fountains. 49 water sources just needed to be flushed out.
- ❑ Out of 61 failed water sources, repairs were made to 59 sources. Once repairs were made, these water sources were retested and returned to service after passing.
- ❑ We only had 2 drinking fountains, which are located at Beaumont High School, that did not pass after repairs were made. Based on usage, we are recommending abandoning these drinking fountains by removing them from service. They are located on the 2nd and 3rd floors in which there are no students.

# CONCLUSION



- ❑ 2016 was the first year we conducted lead water testing. As a result, we had 88 water sources to fail requiring them to be retested every year.
- ❑ In 2019, during our 3-year inspection of all buildings, we had 61 failed water sources. Out of the 61, only 3 were repeat failures from 2016.
  - ❑ Two sinks at Roosevelt were repaired, retested, and passed.
  - ❑ One water fountain at Beaumont will be abandon.





# QUESTIONS