

July 28, 2021

Ms. Tamelia Hinson  
Universal Companies  
1427 Catharine Street, 4<sup>th</sup> Floor  
Philadelphia, PA 19146

**Re: Summary Report for Lead in Water Sampling  
Universal Charter Schools – Bluford  
5720 Media Street, Philadelphia, PA  
Synertech Project No. 675-290-3**

Dear Ms. Hinson:

## **I. Executive Summary**

At the request of the Universal Charter Schools, *Synertech Incorporated* performed lead in water testing at the Universal Charter Bluford School located at 5720 Media Street, Philadelphia, Pennsylvania. The water sampling was conducted as a proactive effort by the Universal Charter Schools to evaluate, document, and ensure an acceptable water quality for all potable water outlets throughout the each of the buildings on the school's campus. The project included the collection of samples for analysis for lead in drinking water. This report is a summary of the sampling protocols and testing data.

The water sampling was performed and this report was prepared by Ms. Jennifer Drialo a Pennsylvania certified Lead Inspector at *Synertech Incorporated*.

## **II. Methodologies and Acceptable Standards**

*Synertech Incorporated* performed sampling for the parameters listed below. Analysis was performed by International Asbestos Testing Laboratories (*iATL*) located in Mt. Laurel, New Jersey.

The quantity of samples collected from each location varied depending on the number of possible potable water outlets present at each building. A total of twenty six (26) samples were collected from different outlet locations throughout the building. The sampling consisted of “first draw” and “flush draw” samples collected at each sample location.

### *Laws and Regulations*

There is no federal law requiring testing of drinking water in schools, except for schools that have their own water supply and are thus regulated under the Safe Drinking Water Act (SDWA). The vast majority of public water suppliers do not include schools in their sampling plans because regulations (specifically the Lead and Copper Rule) require sampling of single-family dwellings. However, Section A-703.2; B. of the City of Philadelphia Code does require the following:

“The Health Department or a testing agency certified by the Pennsylvania Department of Environmental Protection has certified, within the previous five years, that the building is in substantial compliance with applicable water quality requirements of the Board of Health, provided that in no event shall applicable water quality requirements be deemed to

permit lead in water at an outlet such as a sink or water fountain that is in service at 10 ppb or more. Any water outlet determined to exceed any such water quality requirements shall be taken out of service within 24 hours of notification of the relevant test. The owner of the educational occupancy shall post the results of the most recent water quality testing at each particular educational occupancy to a generally available website within ten days of receipt of the results.”

The Board of Health regulation describes your responsibility for testing your water outlets. Results of the testing for each potable water outlet in your facility should be reported to the health department by email to [WfilterLeadTest11g@pltila.gov](mailto:WfilterLeadTest11g@pltila.gov). The submission of results should include the following information:

1. A cover letter that identifies the name, address, and contact information for your facility.
2. A laboratory report that shows the date of sampling, the name of the laboratory performing the analysis, and the lead result for each potable (drinkable) water outlet.
3. If any lead results are reported to be equal to or exceeding the action level of 10 parts per billion (ug/L), you must discontinue use of the outlet immediately (within 24 hours). Report your response action(s) associated with an outlet with an elevated lead level in the cover letter. Any outlet with an elevated lead level may be put back into service only after corrective action has been taken and a repeat lead test has shown the level to be less than 10 parts per billion(ug/L).

In addition to the requirements by the City of Philadelphia, the EPA does recommend that schools implement programs for reducing lead in drinking water as part of the school’s overall plan for reducing environmental threats. Safe and healthy school environments foster healthy children, and may improve students’ general performance.

Although drinking water often incorporates low levels of some contaminants as it flows in rivers and collects in aquifers, these materials usually are not detected at harmful levels. Public water suppliers must monitor their water to make sure it complies with science-based public health standards. The EPA sets these maximum allowable levels of contaminants in drinking water under The Safe Drinking Water Act (SDWA). The health effects language mentioned in this report is not intended to catalog all possible health effects for the following drinking water contaminant. Rather, it is intended to inform consumers of some of the possible health effects associated with drinking water contaminants when the EPA rule and regulations was finalized. A medical doctor is to be consulted if further information is required.

#### *National Primary Drinking Water Regulations*

The U.S. Environmental Protection Agency (EPA) has established National Primary Drinking Water Regulations that set mandatory water quality standards for drinking water contaminants. These are enforceable standards called Maximum Contaminant Levels (MCL), which are established to protect the public against consumption of drinking water contaminants that present a risk to human health. An MCL is the maximum allowable amount of a contaminant in drinking water which is delivered to the consumer. MCLs are set as close to the health goals as possible, considering cost, benefits and the ability of public water systems to detect and remove contaminants using suitable treatment technologies. The EPA has set this level of protection based on the best available science to prevent potential health problems. The following paragraphs contain MCLs and brief health effects of those reported to be associated with the samples collected at this time.

- ✧ *Lead*, a metal found in natural deposits, is commonly used in household plumbing materials and water service lines. Most lead contamination occurs at some point in the water delivery system. Materials in the water delivery system may include service connections, pipes, brass fixtures, and solder. If subsequent samples yield elevated levels of lead action may require the replacement of water delivery parts with ‘non-lead’ parts. Homes built before 1986 are more likely to have lead pipes, fixtures and solder. However, new homes are also at risk: even legally “lead-free” plumbing may contain up to eight (8) percent lead. The

most common problem is with brass or chrome-plated brass faucets and fixtures which can leach significant amounts of lead into the water, especially hot water.

There is no safe level of lead. Lead toxicity affects the nervous system, both in adults and children. Long-term exposure can result in decreased performance in cognitive ability and functions of the nervous system. Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people and can cause anemia. Exposure to high lead levels can severely damage the brain and kidneys in adults or children and ultimately cause death. Lead does not noticeably alter the color, taste, or odor of water. The effects of low level toxicity of lead in water may not be obvious. There may be no symptoms or the symptoms may be mistaken as flu or other illness. Many domestic water treatment systems remove the majority of lead from drinking water.

The Action Level (AL) of Lead (Pb) in accordance with the City of Philadelphia Code is **“threshold” is 10 micrograms per liter (µg/L), while** the Environmental Protection Agency (EPA) drinking water standard is 15 micrograms per liter (µg/L). The Action Level (threshold) is defined as the concentration of lead in water that may trigger requirements for corrosion control, source water treatment, lead service line replacement, and public education. Compliance with an action level is based on multiple samples.

### III. Sampling Results

The following tables outline the sample results for each building where water samples were collected during this project. Those sample results reported above the City of Philadelphia action level will appear in **bold** lettering below.

Lead in Drinking Water					
Sample #	Location	Draw	Sampling Method	CoP Action Level (AL)	Results (ug/L)
<b>1<sup>st</sup> Floor</b>					
01	Kitchen Sink	First	ICP - MS, USEPA 200.8	10ug/L (milligrams per Liter)	ND
02	Kitchen Sink	Flush			ND
03	Kitchen Side Sink	First			9.80
04	Kitchen Side Sink	Flush			ND
05	1 <sup>st</sup> Fl. Low Hall Fountain across from Lunch Rm.	First			ND
06	1 <sup>st</sup> Fl. Low Hall Fountain across from Lunch Rm.	Flush			ND
07	1 <sup>st</sup> Fl. High Hall Fountain across from Lunch Rm.	First			ND
08	1 <sup>st</sup> Fl. High Hall Fountain across from Lunch Rm.	Flush			ND
09	Low Hall Hallway o/s Rm. 129	First			ND
10	Low Hall Hallway o/s Rm. 129	Flush			ND
11	High Hall Hallway o/s Rm. 129	First			ND
12	High Hall Hallway o/s Rm. 129	Flush			ND
17	Room 116 Fountain	First			1.30
18	Room 116 Fountain	Flush			ND
19	Room 123 Sink	First			ND
20	Room 123 Sink	Flush			ND
21	Room 124 Fountain	First			ND
22	Room 124 Fountain	Flush			ND
23	Room 125 Fountain	First			ND
24	Room 125 Fountain	Flush			ND
25	Room 126 Fountain	First			6.10
26	Room 126 Fountain	Flush			1.20

Lead in Drinking Water					
Sample #	Location	Draw	Sampling Method	CoP Action Level (AL)	Results (ug/L)
<b>2<sup>nd</sup> Floor</b>					
13	Conference Room	First	ICP - MS, USEPA 200.8	10ug/L (milligrams per Liter)	2.80
14	Conference Room	Flush			5.00
15	Fountain o/s of Library	First			ND
16	Fountain o/s of Library	Flush			ND

ND = No Lead Detected in Sample

#### IV. Recommendations

##### A. Outlets not sampled and outlets with reported lead levels but below the Action Level

1. Lead-bearing plumbing materials in contact with drinking water pose a risk at all times (not just when there is a lead action level (LAL) exceeded); therefore, *Synertech Incorporated* recommends labeling all bathroom outlets with signage indicating that these outlets are “not for drinking”.
2. Flushing of all water outlets for at least 30 seconds prior to drinking or cooking. The more time water has been sitting in the pipes, the more lead it is likely to contain. Anytime the water in a particular faucet has not been used for six hours or longer, "flush" your cold-water pipes by running the water until it becomes as cold as it will get.

##### B. Outlets with Reported lead levels at or Above the Action Level

All outlets that were sampled came back below the action level. No corrective actions required.

*Synertech Incorporated* is pleased to have had the opportunity to provide Universal Charter Schools with our professional environmental services. If you have any questions or would like to discuss this matter further, please do not hesitate to call at 215-755-2305.

Prepared by:

*Synertech Incorporated*



Jennifer Drialo  
 Certified Lead Inspector

**Attachment 1**

**Lab Results  
&  
Chain of Custody Forms**

CERTIFICATE OF ANALYSIS

Client: Synertech Inc.  
228 Moore Street  
Philadelphia PA 19148

Report Date: 7/19/2021  
Report No.: 640513 - Lead Water  
Project: Universal Bluford School  
Project No.: 675-290-3

Client: SYN177

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7253194                      Location: Kitchen Sink FD                      Result(ppb): <1.00  
Client No.: 1                      \* Sample acidified to pH <2.

Lab No.: 7253195                      Location: Kitchen Sink FL                      Result(ppb): <1.00  
Client No.: 2                      \* Sample acidified to pH <2.

Lab No.: 7253196                      Location: Kitchen Side Sink FD                      Result(ppb): 9.80  
Client No.: 3                      \* Sample acidified to pH <2.

Lab No.: 7253197                      Location: Kitchen Side Sink FL                      Result(ppb): <1.00  
Client No.: 4                      \* Sample acidified to pH <2.

Lab No.: 7253198                      Location: 1st Floor Hall Low Fountain Across From Lunch Room FD                      Result(ppb): <1.00  
Client No.: 5                      \* Sample acidified to pH <2.


Lab No.: 7253199                      Location: 1st Floor Hall Low Fountain Across From Lunch Room FL                      Result(ppb): <1.00  
Client No.: 6                      \* Sample acidified to pH <2.


Lab No.: 7253200                      Location: 1st Floor Hall High Fountain Across From Lunch Room FD                      Result(ppb): <1.00  
Client No.: 7                      \* Sample acidified to pH <2.

Lab No.: 7253201                      Location: 1st Floor Hall High Fountain Across From Lunch Room FL                      Result(ppb): <1.00  
Client No.: 8                      \* Sample acidified to pH <2.

Lab No.: 7253202                      Location: 1st Floor Hallway O/S Of 129 Low FD                      Result(ppb): <1.00  
Client No.: 9                      \* Sample acidified to pH <2.

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 7/9/2021  
Date Analyzed: 07/15/2021  
Signature:   
Analyst: Chad Shaffer

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

CERTIFICATE OF ANALYSIS

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228 Moore Street  
Philadelphia PA 19148

Report Date: 7/19/2021  
Report No.: 640513 - Lead Water  
Project: Universal Bluford School  
Project No.: 675-290-3

Client: SYN177

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7253203      Location: 1st Floor Hallway O/S Of 129 Low FL      Result(ppb): <1.00  
Client No.: 10      \* Sample acidified to pH <2.

Lab No.: 7253204      Location: 1st Floor Hallway O/S Of 129 High FD      Result(ppb): <1.00  
Client No.: 11      \* Sample acidified to pH <2.

Lab No.: 7253205      Location: 1st Floor Hallway O/S Of 129 High FL      Result(ppb): <1.00  
Client No.: 12      \* Sample acidified to pH <2.

Lab No.: 7253206      Location: 2nd Floor Conference Room Sink FD      Result(ppb): 2.80  
Client No.: 13      \* Sample acidified to pH <2.

Lab No.: 7253207      Location: 2nd Floor Conference Room Sink FL      Result(ppb): 5.00  
Client No.: 14      \* Sample acidified to pH <2.

Lab No.: 7253208      Location: Fountain O/S Of Library FD      Result(ppb): <1.00  
Client No.: 15      \* Sample acidified to pH <2.

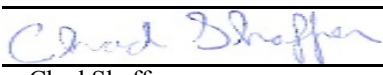
Lab No.: 7253209      Location: Fountain O/S Of Library FL      Result(ppb): <1.00  
Client No.: 16      \* Sample acidified to pH <2.


Lab No.: 7253210      Location: Room 116 Fountain FD      Result(ppb): 1.30  
Client No.: 17      \* Sample acidified to pH <2.

Lab No.: 7253211      Location: Room 116 Fountain FL      Result(ppb): <1.00  
Client No.: 18      \* Sample acidified to pH <2.

Lab No.: 7253212      Location: Room 123 Sink FD      Result(ppb): <1.00  
Client No.: 19      \* Sample acidified to pH <2.

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 7/9/2021  
Date Analyzed: 07/15/2021  
Signature:   
Analyst: Chad Shaffer

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Synertech Inc.  
228 Moore Street  
Philadelphia PA 19148

Report Date: 7/19/2021  
Report No.: 640513 - Lead Water  
Project: Universal Bluford School  
Project No.: 675-290-3

Client: SYN177

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7253213                      Location: Room 123 Sink FL                      Result(ppb): <1.00  
Client No.: 20                      \* Sample acidified to pH <2.


Lab No.: 7253214                      Location: Room 124 Fountain FD                      Result(ppb): <1.00  
Client No.: 21                      \* Sample acidified to pH <2.


Lab No.: 7253215                      Location: Room 124 Fountain FL                      Result(ppb): <1.00  
Client No.: 22                      \* Sample acidified to pH <2.

Lab No.: 7253216                      Location: Room 125 Fountain FD                      Result(ppb): <1.00  
Client No.: 23                      \* Sample acidified to pH <2.

Lab No.: 7253217                      Location: Room 125 Fountain FL                      Result(ppb): <1.00  
Client No.: 24                      \* Sample acidified to pH <2.

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 7/9/2021  
Date Analyzed: 07/15/2021  
Signature:   
Analyst: Chad Shaffer

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director



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Client: Synertech Inc.  
228 Moore Street  
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Project: Universal Bluford School  
Project No.: 675-290-3

Client: SYN177

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LEAD WATER SAMPLE ANALYSIS SUMMARY

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**Lab No.:** 7253218

**Location:** Room 126 Fountain FD

**Result(ppb):** 6.10

**Client No.:** 25

\* Sample acidified to pH <2.

Note: Sample turbidity >1.0 NTU. Does not meet Federal and NJ State Primary and Secondary Drinking Water Standards.

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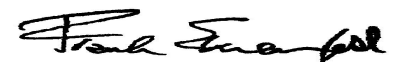
Please refer to the Appendix of this report for further information regarding your analysis.

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Date Received: 7/9/2021

Approved By:

Date Analyzed: 07/19/2021



Signature: 

Frank E. Ehrenfeld, III

Analyst: Chad Shaffer

Laboratory Director

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Project No.: 675-290-3

Client: SYN177

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LEAD WATER SAMPLE ANALYSIS SUMMARY

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Lab No.: 7253219  
Client No.: 26

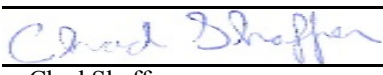
Location: Room 126 Fountain FL  
\* Sample acidified to pH <2.


Result(ppb): 1.20

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Please refer to the Appendix of this report for further information regarding your analysis.

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Date Received: 7/9/2021  
Date Analyzed: 07/15/2021  
Signature:   
Analyst: Chad Shaffer

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

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228 Moore Street  
Philadelphia PA 19148

Report Date: 7/19/2021  
Report No.: 640513 - Lead Water  
Project: Universal Bluford School  
Project No.: 675-290-3

Client: SYN177

## Appendix to Analytical Report:

**Customer Contact:** Jacqueline McMahon  
**Analysis:** AAS-GF - ASTM D3559-08D

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

**iATL Customer Service:** customerservice@iatl.com  
**iATL Office Manager:** ?wchampion@iatl.com  
**iATL Account Representative:** Shirley Clark  
**Sample Login Notes:** See Batch Sheet Attached  
**Sample Matrix:** Water  
**Exceptions Noted:** See Following Pages

### General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at [www.iATL.com](http://www.iATL.com) and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

### Information Pertinent to this Report:

Analysis by AAS Graphite Furnace:

- ASTM D3559-08D

Certification:

- NYS-DOH No. 11021

- NJDEP No. 03863

### Note: These methods are analytically equivalent to iATL's accredited method;

- USEPA 40CFR 141.11B

- USEPA 200.9 Pb, AAS-GF, RL <2 ppb/sample

- USEPA SW 846-7421 - Pb(AAS-GF, RL <2 ppb/sample)

Regulatory limit for lead in drinking water is 15.0 parts per billion as cited in EPA 40 CFR 141.11 National Primary Drinking Water Regulations, Subpart B: Maximum contaminant levels for inorganic chemicals.

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Sample results are not corrected for contamination by field or analytical blanks.

PPB = Parts per billion. 1 µg/L = 1 ppb MDL = 0.24 PPB Reporting Limit (RL) = 1.0 PPB

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Project No.: 675-290-3

**Disclaimers / Qualifiers:**

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at [customerservice@iatl.com](mailto:customerservice@iatl.com).

Matrix spiking is performed on each client batch to determine if interferences could impact results. When spike recoveries fall out of acceptable range matrix interference is suspected and samples are diluted until acceptable spike recovery can be achieved. Reporting limits will increase by the same degree as the dilution required.

Note: Sample dilution required due to matrix interference.

Water Sample Turbidity greater than 1.0 NTU does not meet Federal and NJ State Primary & Secondary Drinking Water Standards.

\* ASTM D3559 (D) calls for the addition of acid at the time of sampling. Unless so noted on the chain of custody by the client iATL acidifies samples to a pH of <2 at least 24 hours prior to analysis.

**Chain of Custody Transmittal  
Lead In Drinking Water Samples  
via US EPA 200.9**

**RECEIVED**

Project Name: UNIVERSAL BLUFORD SCHOOL Project No: 075-290-3

JUL - 9 2021

State Sampled: PA

Laboratory: IATL

Turnaround Time:  24 hours  48 hours  1 Week  2 Week

IATL - By [Signature]

Samples Collected By: J. DRIALO

Date/Time 7-9-21

Transmitted to Lab By: J. DRIALO

Date/Time 7-9-21

Received in Lab By: \_\_\_\_\_

Date/Time \_\_\_\_\_

Samples Analyzed By: [Signature]

Date/Time \_\_\_\_\_

SAMPLE #	LOCATION	REMARKS
1	KITCHEN SINK	FD 7253194
2	" "	FL 7253195
3	KITCHEN SIDE SINK	FD 7253196
4	" "	FL 7253197
5	1 <sup>ST</sup> FLOOR HALL LOW FOUNTAIN ACROSS FROM LUNCH ROOM	FD 7253198
6	" "	FL 7253199
7	1 <sup>ST</sup> FLOOR HALL HIGH FOUNTAIN ACROSS FROM LUNCH RM	FD 7253200
8	" "	FL 7253201
9	1 <sup>ST</sup> FLOOR HALLWAY O/S OF 129 LOW	FD 7253202
10	" "	FL 7253203
11	" " HIGH	FD 7253204
12	" "	FL 7253205
13	2 <sup>ND</sup> FLOOR CONFERENCE ROOM SINK	FD 7253206
14	" "	FL 7253207
15	FOUNTAIN O/S OF LIBRARY	FD 7253208
16	" "	FL 7253209
17	ROOM 116 FOUNTAIN	FD 7253210
18	" "	FL 7253211
19	ROOM 123 SINK	FD 7253212
20	" "	FL 7253213
21	ROOM 124 FOUNTAIN	FD 7253214
22	" "	FL 7253215

FIRST DRAW = FD FLUSH = FL

