

- ✎ “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@ptila.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)
3rd Floor					
01	Fountain o/s Rm. 316	First	ICP - MS, USEPA 200.8	10ug/L (milligrams per Liter)	43.8
02	Fountain o/s Rm. 316	Flush			92.7
2nd Floor					
03	Fountain o/s Rm. 210	First	ICP - MS, USEPA 200.8	10ug/L (milligrams per Liter)	97.4
04	Fountain o/s Rm. 210	Flush			126
05	Fountain o/s Rm. 221	First			4.50
06	Fountain o/s Rm. 221	Flush			5.90
1st Floor					
07	Fountain o/s Rm. 104	First	ICP - MS, USEPA 200.8	10ug/L (milligrams per Liter)	16.5
08	Fountain o/s Rm. 104	Flush			2.40
09	Fountain o/s Rm. 108	First			28.9
10	Fountain o/s Rm. 108	Flush			39.2
11	o/s Cafeteria – Middle Fountain	First			2.50
12	o/s Cafeteria – Middle Fountain	Flush			2.40
13	Kitchen Sink near Office	First			6.70
14	Kitchen Sink near Office	Flush			25.6
15	Kitchen Sink near Office (middle)	First			22.6
16	Kitchen Sink near Office (middle)	Flush			11.5
17	Kitchen Sink	First			46.0
18	Kitchen Sink	Flush			5.70

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

The outlets that had lead concentrations at or above the City of Philadelphia Action Level (Samples 01,02,03,04,07,09,10,14,15,16,17) are **required to be taken out of service until corrective actions have been taken and re-testing shows the lead concentration to be less than 10 ug/L**. The following corrective actions are recommended.

1. Consult a licensed and insured plumbing contractor to determine the source of the elevated sample results. Potential sources of lead contamination are as follows:
 - a. Water service lines;
 - b. Lead soldered joints and fittings;
 - c. Lead faucets/fixtures.

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: 7/27/2021
Report No.: 641010 - Lead Water
Project: VARE
Project No.: 675-290-6

Client: SYN177

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7257142 Location: Fountain O/S Rm 316 FD Result(ppb): 43.8
Client No.: 1 * Sample acidified to pH <2.

Lab No.: 7257143 Location: Fountain O/S Rm 316 FL Result(ppb): 92.7
Client No.: 2 * Sample acidified to pH <2.


Lab No.: 7257144 Location: Fountain O/S Rm 210 FD Result(ppb): 97.4
Client No.: 3 * Sample acidified to pH <2.


Lab No.: 7257145 Location: Fountain O/S Rm 210 FL Result(ppb): 126
Client No.: 4 * Sample acidified to pH <2.

Lab No.: 7257146 Location: Fountain O/S Rm 221 FD Result(ppb): 4.50
Client No.: 5 * Sample acidified to pH <2.

Lab No.: 7257147 Location: Fountain O/S Rm 221 FL Result(ppb): 5.90
Client No.: 6 * Sample acidified to pH <2.

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

Date Received: 7/16/2021
Date Analyzed: 07/26/2021
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: 7/27/2021
Report No.: 641010 - Lead Water
Project: VARE
Project No.: 675-290-6

Client: SYN177

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7257148

Location: Fountain O/S Rm 104 FD

Result(ppb): 16.5

Client No.: 7

* Sample acidified to pH <2.

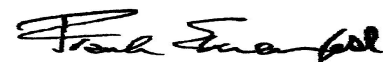
Note: Sample turbidity >1.0 NTU. Does not meet Federal and NJ State Primary and Secondary Drinking Water Standards.

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

Date Received: 7/16/2021

Approved By:

Date Analyzed: 07/27/2021



Signature: 

Frank E. Ehrenfeld, III

Analyst: Chad Shaffer

Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Synertech Inc.
228 Moore Street
Philadelphia PA 19148

Report Date: 7/27/2021
Report No.: 641010 - Lead Water
Project: VARE
Project No.: 675-290-6

Client: SYN177

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7257149 **Location:** Fountain O/S Rm 104 FL **Result(ppb):** 2.40
Client No.: 8 * Sample acidified to pH <2.

Lab No.: 7257150 **Location:** Fountain O/S Rm 108 FD **Result(ppb):** 28.9
Client No.: 9 * Sample acidified to pH <2.

Lab No.: 7257151 **Location:** Fountain O/S Rm 108 FL **Result(ppb):** 39.2
Client No.: 10 * Sample acidified to pH <2.

Lab No.: 7257152 **Location:** O/S Cafeteria - Middle Fountain FD **Result(ppb):** 2.50
Client No.: 11 * Sample acidified to pH <2.

Lab No.: 7257153 **Location:** O/S Cafeteria - Middle Fountain FL **Result(ppb):** 2.40
Client No.: 12 * Sample acidified to pH <2.

Lab No.: 7257154 **Location:** Kitchen Sink Near Office FD **Result(ppb):** 6.70
Client No.: 13 * Sample acidified to pH <2.

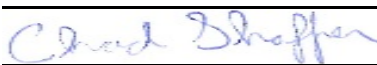
Lab No.: 7257155 **Location:** Kitchen Sink Near Office FL **Result(ppb):** 25.6
Client No.: 14 * Sample acidified to pH <2.

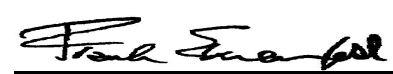
Lab No.: 7257156 **Location:** Kitchen Sink Near Office (Middle) FD **Result(ppb):** 22.6
Client No.: 15 * Sample acidified to pH <2.

Lab No.: 7257157 **Location:** Kitchen Sink Near Office (Middle) FL **Result(ppb):** 11.5
Client No.: 16 * Sample acidified to pH <2.

Lab No.: 7257158 **Location:** Kitchen Sink Far Left FD **Result(ppb):** 46.0
Client No.: 17 * Sample acidified to pH <2.

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

Date Received: 7/16/2021
Date Analyzed: 07/26/2021
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: 7/27/2021
Report No.: 641010 - Lead Water
Project: VARE
Project No.: 675-290-6

Client: SYN177

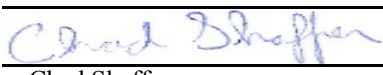
LEAD WATER SAMPLE ANALYSIS SUMMARY


Lab No.: 7257159
Client No.: 18

Location: Kitchen Sink Far Left FL
* Sample acidified to pH <2.

Result(ppb): 5.70

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

Date Received: 7/16/2021
Date Analyzed: 07/26/2021
Signature: 
Analyst: Chad Shaffer

Approved By: 
Frank E. Ehrenfeld, III
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Synertech Inc.
228 Moore Street
Philadelphia PA 19148

Client: SYN177

Report Date: 7/27/2021
Report No.: 641010 - Lead Water
Project: VARE
Project No.: 675-290-6

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 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.

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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

CERTIFICATE OF ANALYSIS

Client: Synertech Inc.
228 Moore Street
Philadelphia PA 19148

Client: SYN177

Report Date: 7/27/2021
Report No.: 641010 - Lead Water
Project: VARE
Project No.: 675-290-6

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.

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**

Project Name: VALE

Project No: 675-210-6 RECEIVED

State Sampled: PA

Laboratory: IATL

Turnaround Time: 24 hours 48 hours 1 Week Week

JUL 16 2021

Samples Collected By: J. DRIALO

Date/Time 7-15-21

Transmitted to Lab By: J. DRIALO

Date/Time IATL BY

Received in Lab By: _____

Date/Time _____

Samples Analyzed By: 07/26/21

Date/Time _____

DM 7/28/21

CL 7/28/21

SAMPLE #	LOCATION	REMARKS
1	FOUNTAIN O/S RM 316	FD 7257142
2	" "	FL 7257143
3	FOUNTAIN O/S RM 210	FD 7257144
4	" "	FL 7257145
5	FOUNTAIN O/S RM 221	FD 7257146
6	" "	FL 7257147
7	FOUNTAIN O/S RM 104	FD 7257148
8	" "	FL 7257149
9	FOUNTAIN O/S RM 108	FD 7257150
10	" "	FL 7257151
11	O/S CAFETERIA - MIDDLE FOUNTAIN	FD 7257152
12	" "	FL 7257153
13	KITCHEN SINK NEAR OFFICE	FD 7257154
14	" "	FL 7257155
15	KITCHEN SINK NEAR OFFICE (MIDDLE)	FD 7257156
16	" "	FL 7257157
17	KITCHEN SINK FAR LEFT	FD 7257158
18	" "	FL 7257159
		↓
	<u>07/21/21 1530</u>	