



# LEAD IN DRINKING WATER TESTING REPORT

Conducted for:

Lyndhurst Board of Education 420 Fern Avenue Lyndhurst, New Jersey 07071

Conducted at:

Jefferson Elementary School 336 Lake Avenue Lyndhurst, New Jersey 07071

Submitted by:

McCabe Environmental Services, L.L.C. 464 Valley Brook Avenue Lyndhurst, New Jersey 07071

REPORT DATE: June 02, 2022

**MES Project No.:** 22-04308

Prepared by:

Like Hinto

Luke Giunta Environmental Scientist

Signed for the Company by:

John H. Chiaviello Vice President

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### APPENDIX A

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Sample Chain of Custody Forms

#### **APPENDIX B**

**School District Sampling Attachments** 

#### McCabe Environmental Services, L.L.C.

Client: Lyndhurst BOE – Jefferson Elementary School Lead in Drinking Water Testing Report Date: 06/02/2022

#### 1.0 INTRODUCTION

McCabe Environmental Services, L.L.C. (McCabe) was retained by Lyndhurst Board of Education (Client) to conduct lead in drinking water testing at Jefferson Elementary School located at 336 Lake Avenue, Lyndhurst, New Jersey 07071.

The project information is as follows:

<u>Client Name</u>: Lyndhurst Board of Education

Contact Person: Mr. Keith Matino

Project Name: Lyndhurst Public Schools –

Jefferson Elementary School Lead in Drinking Water Testing

<u>Project Location</u>: 336 Lake Avenue

Lyndhurst, New Jersey 07071

<u>Date(s) of Service</u>: April 20, 2022

McCabe Personnel: Gary Clare

#### 2.0 SCOPE OF WORK

Drinking water testing was performed at Jefferson Elementary School located at 336 Lake Avenue, Lyndhurst, New Jersey 07071 on April 20, 2022. The purpose of the testing was to determine if the building's plumbing was having an adverse impact on water quality, specifically with regard to lead concentrations. Samples were collected from various potential drinking water outlets located throughout the building.

#### 3.0 **PROCEDURES**

After determining which outlets would be sampled, McCabe personnel collected a "first draw" sample at each location. A "first draw" is the initial water that is first to come out of the tap after a period of inactivity. Following the "first draw", a "30 second flush" sample was also collected where the main service line comes into the building. An additional 3-minute flush sample was collected where the main service line comes into the building as well. All samples were collected into 250 mL sterile bottles, labeled with a sample identification, and analyzed in accordance with EPA approved methods to determine the level of lead in drinking water. Samples were analyzed by an accredited laboratory.

The U.S. Environmental Protection Agency (EPA) has established National Primary Drinking Water Regulations (NPDWR) that set mandatory water quality standards for drinking water contaminants. These are enforceable standards called "maximum contaminant levels" or "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.

The EPA has established the Lead and Copper Rule that sets standards for state and public water systems. This rule has set an MCL for lead at 15 parts per billion (ppb) for a one-liter sample. However, the EPA also established the Lead in Drinking Water at Schools and Child Care Facilities in which the EPA recommends an MCL of 20 ppb for a 250 milliliter first draw sample. In order to be more stringent, for our report purposes we have compared all results to both the 15 ppb and the 20 ppb standards.

MES Project No.: 22-04308

#### 4.0 TABLE OF SAMPLE RESULTS

The following table presents all sample results in order of sample identification:

Sample ID	Sample Location	Lead Result	Exceeds (MCL 15 ppb)	Exceeds (MCL 20 ppb)
01	Boiler Room Slop Sink – POE – First Draw	1.3	Pass	Pass
02	Boiler Room Slop Sink – POE – 30 Second Flush	< 0.5	Pass	Pass
03	Boiler Room Slop Sink – POE – 3 Minute Flush	< 0.5	Pass	Pass
04	Basement – Water Fountain	< 0.5	Pass	Pass
05	1 <sup>st</sup> Floor – Lobby – Water Fountain	< 0.5	Pass	Pass
06	1st Floor – Teacher's Lounge	< 0.5	Pass	Pass
07	Nurses Office – Main Sink	< 0.5	Pass	Pass
08	Nurses Office – Exam Room Sink	2.6	Pass	Pass

#### 5.0 DISCUSSION AND CONCLUSION

A total of eight (8) samples were collected from Jefferson Elementary School. All samples were found to be less than the EPA Lead in Drinking Water at Schools and Child Care Facilities standard of 20 ppb, as well as the EPA Lead and Copper Rule standard of 15 ppb.

In addition, McCabe Environmental recommends annual drinking water sampling to ensure that the building's plumbing is not having an adverse impact on water quality.

MES Project No.: 22-04308

## **APPENDIX A**

MES Project No.: 22-04308

Date: 06/02/2022

# LABORATORY CERTIFICATES OF ANALYSIS & SAMPLE CHAIN OF CUSTODY FORMS



Wednesday, May 04, 2022

Attn: Jarred Panecki McCabe Environmental Services, LLC 464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Project ID: 21-04308 LYNDHURST BOARD OF EDUCATION

SDG ID: GCL14249

Sample ID#s: CL14249 - CL14256

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis/Shiller

**Laboratory Director** 

**NELAC - #NY11301** 

CT Lab Registration #PH-0618

MA Lab Registration #M-CT007

ME Lab Registration #CT-007

NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003

NY Lab Registration #11301

PA Lab Registration #68-03530

RI Lab Registration #63

**UT Lab Registration #CT00007** 

VT Lab Registration #VT11301



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# Sample Id Cross Reference

May 04, 2022

SDG I.D.: GCL14249

Project ID: 21-04308 LYNDHURST BOARD OF EDUCATION

Client Id	Lab Id	Matrix
01	CL14249	DRINKING WATER
02	CL14250	DRINKING WATER
03	CL14251	DRINKING WATER
04	CL14252	DRINKING WATER
05	CL14253	DRINKING WATER
06	CL14254	DRINKING WATER
07	CL14255	DRINKING WATER
08	CL14256	DRINKING WATER



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**Analysis Report** 

May 04, 2022

FOR: Attn: Jarred Panecki

McCabe Environmental Services, LLC

464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Sample Information **Custody Information** Date Time DRINKING WATER 04/20/22 Matrix: Collected by: 11:00 Received by: MCCABE-PB SW 04/21/22 18:05 **Location Code:** 

Rush Request: Standard Analyzed by: see "By" below

aboratory Data

SDG ID: GCL14249

Phoenix ID: CL14249

21-04308 LYNDHURST BOARD OF EDUCATION Project ID:

Client ID:

P.O.#:

RL/

Parameter Result **PQL** DIL Units AL MCL MCLG Date/Time Βv Reference Lead 1.3 0.5 ppb 15 05/02/22 CPP E200.8 04/23/22 **Total Metal Digestion** Completed AG E200.8

RL/PQL=Reporting/Practical Quantitation Level DIL=Dilution (analysis required diluting to evaluate) ND=Not Detected BRL=Below Reporting Level (less than the reporting level, the lowest amount the laboratory can detect and report.) AL = Action Level MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

#### Comments:

Action Level (AL): 40 CFR Part 141.80 Lead & Copper ALs.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

May 04, 2022



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**Analysis Report** 

May 04, 2022

FOR: Attn: Jarred Panecki

McCabe Environmental Services, LLC

464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Sample InformationCustody InformationDateTimeMatrix:DRINKING WATERCollected by:04/20/2211:05Location Code:MCCABE-PBReceived by:SW04/21/2218:05

Rush Request: Standard Analyzed by: see "By" below

Laboratory Data

SDG ID: GCL14249

Phoenix ID: CL14250

Project ID: 21-04308 LYNDHURST BOARD OF EDUCATION

Client ID: 02

P.O.#:

RL/

Parameter Result **PQL** DIL Units AL MCL MCLG Date/Time Βv Reference Lead < 0.5 0.5 ppb 15 05/02/22 CPP E200.8 04/23/22 **Total Metal Digestion** Completed AG E200.8

RL/PQL=Reporting/Practical Quantitation Level DIL=Dilution (analysis required diluting to evaluate) ND=Not Detected BRL=Below Reporting Level (less than the reporting level, the lowest amount the laboratory can detect and report.) AL = Action Level MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

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Phyllis Shiller, Laboratory Director

May 04, 2022



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**Analysis Report** 

May 04, 2022

FOR: Attn: Jarred Panecki

McCabe Environmental Services, LLC

464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Sample InformationCustody InformationDateTimeMatrix:DRINKING WATERCollected by:04/20/2211:09Location Code:MCCABE-PBReceived by:SW04/21/2218:05

Rush Request: Standard Analyzed by: see "By" below

<u>Laboratory Data</u>

SDG ID: GCL14249

Phoenix ID: CL14251

21-04308 LYNDHURST BOARD OF EDUCATION

Client ID: 03

Project ID:

P.O.#:

RL/

Parameter Result **PQL** DIL Units AL MCL MCLG Date/Time Βv Reference Lead < 0.5 0.5 ppb 15 05/02/22 CPP E200.8 04/23/22 **Total Metal Digestion** Completed AG E200.8

RL/PQL=Reporting/Practical Quantitation Level DIL=Dilution (analysis required diluting to evaluate) ND=Not Detected BRL=Below Reporting Level (less than the reporting level, the lowest amount the laboratory can detect and report.) AL = Action Level MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

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Phyllis Shiller, Laboratory Director

May 04, 2022



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**Analysis Report** 

May 04, 2022

FOR: Attn: Jarred Panecki

McCabe Environmental Services, LLC

464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Sample InformationCustody InformationDateTimeMatrix:DRINKING WATERCollected by:04/20/2211:11Location Code:MCCABE-PBReceived by:SW04/21/2218:05

Rush Request: Standard Analyzed by: see "By" below

P.O.#: Laboratory Data

SDG ID: GCL14249

Phoenix ID: CL14252

Project ID: 21-04308 LYNDHURST BOARD OF EDUCATION

Client ID: 04

RL/

Parameter Result **PQL** DIL Units AL MCL MCLG Date/Time Βv Reference Lead < 0.5 0.5 ppb 15 05/02/22 CPP E200.8 04/23/22 **Total Metal Digestion** Completed AG E200.8

RL/PQL=Reporting/Practical Quantitation Level DIL=Dilution (analysis required diluting to evaluate) ND=Not Detected BRL=Below Reporting Level (less than the reporting level, the lowest amount the laboratory can detect and report.) AL = Action Level MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

#### Comments:

Action Level (AL): 40 CFR Part 141.80 Lead & Copper ALs.

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Phyllis Shiller, Laboratory Director

May 04, 2022



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**Analysis Report** 

May 04, 2022

FOR: Attn: Jarred Panecki

McCabe Environmental Services, LLC

464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Sample InformationCustody InformationDateTimeMatrix:DRINKING WATERCollected by:04/20/2211:12Location Code:MCCABE-PBReceived by:SW04/21/2218:05

Rush Request: Standard Analyzed by: see "By" below

P.O.#: Laboratory Data

SDG ID: GCL14249

Phoenix ID: CL14253

Project ID: 21-04308 LYNDHURST BOARD OF EDUCATION

Client ID: 05

RL/

Parameter Result **PQL** DIL Units AL MCL MCLG Date/Time Βv Reference Lead < 0.5 0.5 ppb 15 05/02/22 CPP E200.8 04/23/22 **Total Metal Digestion** Completed AG E200.8

RL/PQL=Reporting/Practical Quantitation Level DIL=Dilution (analysis required diluting to evaluate) ND=Not Detected BRL=Below Reporting Level (less than the reporting level, the lowest amount the laboratory can detect and report.) AL = Action Level MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

#### Comments:

Action Level (AL): 40 CFR Part 141.80 Lead & Copper ALs.

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Phyllis Shiller, Laboratory Director

May 04, 2022



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**Analysis Report** 

May 04, 2022

FOR: Attn: Jarred Panecki

McCabe Environmental Services, LLC

464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Sample Information **Custody Information** Date Time DRINKING WATER 04/20/22 Matrix: Collected by: 11:15 Received by: MCCABE-PB SW 04/21/22 18:05 **Location Code:** 

Rush Request: Standard Analyzed by: see "By" below

aboratory Data

< 0.5

SDG ID: GCL14249 Phoenix ID: CL14254

Reference

E200.8

Βv

CPP

21-04308 LYNDHURST BOARD OF EDUCATION Project ID:

Client ID:

P.O.#:

RL/ Parameter Result

**PQL** DIL Units AL MCL MCLG Date/Time 0.5 ppb 15 05/02/22

Lead

04/23/22 **Total Metal Digestion** Completed AG E200.8

RL/PQL=Reporting/Practical Quantitation Level DIL=Dilution (analysis required diluting to evaluate) ND=Not Detected BRL=Below Reporting Level (less than the reporting level, the lowest amount the laboratory can detect and report.) AL = Action Level MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

#### Comments:

Action Level (AL): 40 CFR Part 141.80 Lead & Copper ALs.

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Phyllis Shiller, Laboratory Director

May 04, 2022



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**Analysis Report** 

May 04, 2022

FOR: Attn: Jarred Panecki

McCabe Environmental Services, LLC

464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Sample InformationCustody InformationDateTimeMatrix:DRINKING WATERCollected by:04/20/2211:17Location Code:MCCABE-PBReceived by:SW04/21/2218:05

Rush Request: Standard Analyzed by: see "By" below

<u>Laboratory Data</u>

SDG ID: GCL14249

Phoenix ID: CL14255

Project ID: 21-04308 LYNDHURST BOARD OF EDUCATION

Client ID: 07

P.O.#:

RL/

Parameter Result **PQL** DIL Units AL MCL MCLG Date/Time Βv Reference Lead < 0.5 0.5 ppb 15 05/02/22 CPP E200.8 04/23/22 **Total Metal Digestion** Completed AG E200.8

RL/PQL=Reporting/Practical Quantitation Level DIL=Dilution (analysis required diluting to evaluate) ND=Not Detected BRL=Below Reporting Level (less than the reporting level, the lowest amount the laboratory can detect and report.) AL = Action Level MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

#### Comments:

Action Level (AL): 40 CFR Part 141.80 Lead & Copper ALs.

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Phyllis Shiller, Laboratory Director

May 04, 2022



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**Analysis Report** 

May 04, 2022

FOR: Attn: Jarred Panecki

McCabe Environmental Services, LLC

464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Sample InformationCustody InformationDateTimeMatrix:DRINKING WATERCollected by:04/20/2211:20Location Code:MCCABE-PBReceived by:SW04/21/2218:05

Rush Request: Standard Analyzed by: see "By" below

P.O.#: Laboratory Data

SDG ID: GCL14249

Phoenix ID: CL14256

Project ID: 21-04308 LYNDHURST BOARD OF EDUCATION

Client ID: 08

RL/ Parameter Result **PQL** DIL Units AL MCL MCLG Date/Time Βv Reference Lead 2.6 0.5 ppb 15 05/02/22 CPP E200.8 04/23/22 **Total Metal Digestion** Completed AG E200.8

RL/PQL=Reporting/Practical Quantitation Level DIL=Dilution (analysis required diluting to evaluate) ND=Not Detected BRL=Below Reporting Level (less than the reporting level, the lowest amount the laboratory can detect and report.) AL = Action Level MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

#### Comments:

Action Level (AL): 40 CFR Part 141.80 Lead & Copper ALs.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

May 04, 2022

# **Analysis Report - Summary**

McCabe Environmental Services, LLC

Attn: Jarred Panecki

464 Valley Brook Avenue

Lyndhurst, New Jersey 07071

May 04, 2022

**PHOENIX** 

Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



SDG I.D.: GCL14249

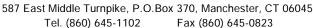
Sample	Client Id	Col Date	Parameter	Result	RL	CL Units	Date Analyzed	Reference
Project:	21-04308 Lyndhurst Board Of Education							
CL14249	01	04/20/22	Lead	1.3	0.5	ppb	05/02/22	E200.8
CL14250	02	04/20/22	Lead	< 0.5	0.5	ppb	05/02/22	E200.8
CL14251	03	04/20/22	Lead	< 0.5	0.5	ppb	05/02/22	E200.8
CL14252	04	04/20/22	Lead	< 0.5	0.5	ppb	05/02/22	E200.8
CL14253	05	04/20/22	Lead	< 0.5	0.5	ppb	05/02/22	E200.8
CL14254	06	04/20/22	Lead	< 0.5	0.5	ppb	05/02/22	E200.8
CL14255	07	04/20/22	Lead	< 0.5	0.5	ppb	05/02/22	E200.8
CL14256	08	04/20/22	Lead	2.6	0.5	ppb	05/02/22	E200.8

#### **Comments:**

If there are any questions regarding this data, please call Phoenix Client Services at extension 200. ND=Not detected BDL=Below Detection Level RL=Reporting Level CL=Client Limit

Phyllis Shiller Laboratory Director May 04, 2022







# QA/QC Report

May 04, 2022

### QA/QC Data

SDG I.D.: GCL14249

												70	70
		Blk	Sample	Dup	Dup	LCS	LCSD	LCS	MS	MSD	MS	Rec	RPD
Parameter	Blank	RL	Result	Result	RPD	%	%	RPD	%	%	RPD	Limits	Limits

QA/QC Batch 621655A (mg/L), QC Sample No: CL14246 2X (CL14249, CL14250, CL14251, CL14252, CL14253, CL14254, CL14255)

ICP MS Metals - Aqueous

Lead BRL 0.0001 114 107

Comment:

This batch does not include a duplicate.

QA/QC Batch 621658 (mg/L), QC Sample No: CL14256 2X (CL14256)

ICP MS Metals - Aqueous

Lead BRL 0.0001 0.0026 0.0027 3.80 113 110

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

**RPD** - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

May 04, 2022

Wednesday, May 04, 2022

Criteria: NJ: DW

# **Sample Criteria Exceedances Report**

GCL14249 - MCCABE-PB

State: NJ

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RLCriteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

<sup>\*\*\*</sup> No Data to Display \*\*\*



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# **Analysis Comments**

May 04, 2022 SDG I.D.: GCL14249

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

WCLP 2.1

MCCABE ENVIRONMENTAL SERVICES, L.L.C.
464 VALLEY BROOK AVENUE LYNDHURST, NJ 07071• PHONE: (201)438-4839 FAX: (201)438-1798

		LEAD in DRINKING WATER	KING WATER		
		CHAIN-OF-CUSTODY FORM	STODY FORM		
CLIENT NAME:	1	Lyndhurst Board of Education	SITE ADDRESS: Jefferson Elementary School 336 Lake Avenue, Lyndhurst	Jefferson Elementary School 336 Lake Avenue, Lyndhurst, New Jersey 07071	Jersey 07071
FIELD INS	FIELD INSPECTOR'S NAME:		TURNAROUND TIME REQUESTED:	EQUESTED:	
MES PROJ	MES PROJECT #: 21-04308	SAMPLE DATE: $\sqrt{20/22}$		sue Che	
Matrix	SAMPLE ID	SAMPLE LOCATION	NOI	TIME COLLECTED	ANALYSIS REQUESTED
DW	01/14249	Boiler Room Slop Sink-Put-First Draw	Pot-First Draw	00:11	LEAD - 200.8
DW	02 14250	Beiler	Room Slop Sink-POE-30 Stond Flish	50:11	LEAD - 200.8
DW	03 [425]	Boiler R	our STOP Sink - FDE-3 windte Flush	6 0:11	LEAD - 200.8
DW	04 14252	Lasement	زما	11:11	LEAD - 200.8
DW	5524 56	15t floor - Losby - water Fountain	r Fountain	(1:12	LEAD - 200.8
DW	H52H1 90	45)	ounge	11:15	LEAD - 200.8
DW	25241 70	Nurses	Sink	(1:1)	LEAD - 200.8
DW	08 14256	, Wusses	Sink	11:20	LEAD - 200.8
DW					LEAD - 200.8
DW					LEAD - 200.8
Relinquishe	Relinquished by (Print) $\int_{\mathcal{Q}} \alpha \sqrt{\gamma}$ (	Date: Time:	Received by: (Print)	enor.	Date: Time:
Signature:	Ma	4/20/21	Signature:	7	-1
Relinquishe	Relinquished by (Print) J Desses	Date: Time:	Received by: (Print)	7	Date: Time:
Signature:	A de la constant de l	38.	Signature:	7	
Laboratory /	Analysis Performed by (A	Laboratory Analysis Performed by (Analyst Signature, Laboratory Name & Location): Phoenix Environmental Laboratories	Phoenix Environmental Laboratories		

Client: Lyndhurst BOE – Jefferson Elementary School Lead in Drinking Water Testing Report

# **APPENDIX B**

MES Project No.: 22-04308

Date: 06/02/2022

# SCHOOL DISTRICT SAMPLING ATTACHMENTS

# **Attachment A - List of Priority for Sampling**

SCHOOL NAME	DATE OF SAMPLING	CERTIFIED LABORATORY	NOTES
		Phoenix	
Jefferson Elementary School	04/20/22	Environmental	
		Laboratories	

### Attachment B - Plumbing Profile

Note: Complete for each school. For additional information see the USE	PA publication, "The 3Ts for Reducing Lead in Drinking Water in Schools"
Name of School:  Address:  Individual school project officer Signature:	Grade Levels: 3-5  Date: 6     22
Questions	Answers
Background Information  1. What year was the original building constructed?  Were any buildings or additions added to the original facility?  2. If the building was constructed or repaired after 1986, was lead-free plumbing and solder utilized?  What type of solder was used?  Document all locations where lead solder was used.  3. Where are the most recent plumbing repairs and replacements?	Yes
4. With what materials is the service connection (the pipe that carries water to the school from the public water system's main in the street) made?  Where is the Service Line located? (This is the POE location.)  5. Is there point of entry (POE) or point of use (POU) treatment in use?  6. Are there tanks in your plumbing system (pressure tanks,	Material: Copper  Location: Basement Across from  MIDDLE School Boilen Room  Type:  Location:
7. Does the school have a filter maintenance and operation program?  If so, who is responsible for this program?  What is the process for adding filters?  8. Have accessible screens or aerators on outlets that provide drinking water been cleaned?  Does the school have a screen or aerator maintenance program?  9. Have there been any complaints about bad (metallic) taste?  Note location(s).  10. Review records and consult with the public water supplie to determine whether any water samples have been taken in the building for any contaminants. If so, identify:  • Name of contaminant(s)  • Concentrations found  • pH level  Is testing done regularly at the building?  11. Other plumbing background questions include:  • Are blueprints of the building available?  • Are there known plumbing "dead-ends", low use areas, existing leaks or other "problem areas"?	Y/N  Y/N  Location:  T  AND DPW-TOWN
Walk-Through These questions should be addressed during the walk-through of the fac	ility, while Attachment C- Drinking Water Outlet Inventory is being completed.

Confirm the material of Service Line visually.
 Confirm the presence of POE or POU treatment.

Lead

3. What are the potable water pipes made of in your facility?

- Plastic
- Galvanized Metal
- Gast Iron

Note the water flow through the building and the areas that receive water first, and which areas receive water last.

4. Are electrical wires grounded to Water Pipes? Note location(s).

Location: MAIN Meter Hot anter TANK

5. Are brass fittings, faucets, or valves used in your drinking Complete in "Brass" Column in Attachment C- Water Outlet Inventory. water system?

Note that most faucets are brass on the inside. Document the locations of any brass water outlet to be sampled.

6. Locate all drinking water outlets (i.e. water coolers,

Complete in Attachment C-Water Outlet Inventory.

bubblers, ice machines, kitchen/ food prep sinks, etc.) in the facility.

7. Have the brands and models of the water coolers in the school been compared to the list of recalled water coolers in the Toolkit?

I on each floor

Recalled Drinking Water Fountains NON

Make and Model

8. Have signs of corrosion, such as frequent leaks, rustcolored water, or stained fixtures, dishes, or laundry been detected? 20

Note the locations of water outlets.

9. Are there any outlets that are not operational and therefore out of service? Permanently? Temporarily? Type

Complete in "Signs of Corrosion" column in Attachment C- Drinking Water Outlet Inventory.

Complete "Operational Column" in Attachment C- Drinking Water Outlet inventory.

Type/ Location

Description

Permanently

Temporarily

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#### **Attachment B.i: Plumbing Profile Instructions**

Plumbing Profile Questions	What Your Answers to the Plumbing Profile Questions Mean
The questions in this column will help you determine whether lead is likely to be a problem in your facility, and will enable you to prioritize your sampling effort.	This column discusses the significance of possible answers to the plumbing profile questions.
Background Information	
When was the original building constructed?	Older Buildings – Through the early 1900s, lead pipes were commonly used for interior plumbing in certain parts of the country in public buildings and private homes. Plumbing installed before 1930 is more likely to contain lead than newer pipes. Between 1920 and 1950,
Were any buildings or additions added to the original facility? If so, complete a separate plumbing profile for each building, addition, or	galvanized pipes were also used for plumbing. After 1930, copper generally replaced lead as the most commonly used material for water pipes. Up until the mid- to late-1980s (until the lead-free requirements of the 1986 Safe Drinking Water Act Amendments took effect), lead
wing.	solder was typically used to join these copper pipes. The efforts of your public water supplier over the years to minimize the corrosiveness of the water may have resulted in mineral deposits forming a coating on the inside of the water pipes (passivation). This coating insulates the water from the plumbing and results in decreased lead levels in water. If the coating does not exist or is disturbed, the water is in direct contact with any lead in the plumbing system.

	Newer Buildings – New buildings are not likely to have lead pipes in their plumbing systems, but they are very likely to have copper pipes with solder joints. Buildings constructed prior to the late 1980s, before the lead-free requirements of the 1986 Safe Drinking Water Act Amendments, may have joints made of lead solder. Buildings constructed after this period should have joints made of lead-free solders. Even if "lead-free" materials were used in new construction and/or plumbing repairs, lead leaching may occur.
2. If built or repaired after 1986, were lead-free plumbing and solder used in accordance with the lead-free requirements of the 1986 Safe Drinking Water Act Amendments? What type of solder has been used?	The 1986 Amendments to the Safe Drinking Water Act banned plumbing components that contained elevated levels of lead. Lead-free solder and flux (not more than 0.2% lead) and pipe, pipe fittings, and fixtures (not more than 8% lead) must now be used. The leaching potential of lead-free (i.e., tin- antimony) solder is much less than lead solder. The leaching potential of lead-free pipe, pipe fittings, and fixtures is also less, but leaching is still possible.
Was lead solder used in your plumbing system? Note the locations of lead solder.	If lead-free materials were not used in new construction and/or plumbing repairs, elevated lead levels can be produced. If the film resulting from passivation does not exist or has not yet adequately formed, any lead that is present is in direct contact with the water.
	In some areas of the country, it is possible that high-lead materials were used until 1988 or perhaps even later. Your local plumbing code authority or building inspector may be able to provide guidance regarding when high-lead materials were last used on a regular basis in your area.
3. When were the most recent plumbing repairs and replacements made (note locations)? ,	Corrosion occurs (1) as a reaction between the water and the pipes and (2) as a reaction between the copper and solder (metal-to-metal). This latter reaction is known as galvanic corrosion, which can be vigorous in new piping. If lead solders were used in the piping or if brass faucets, valves, and fittings containing alloys of lead were installed (see response to Walk Through Question 5 below for further discussion of brass), lead levels in the water may be high. After about 5 years, however, this type of reaction (galvanic corrosion) slows down and lead gets into water mainly as a result of water being corrosive. If the water is non-corrosive, passivation is likely to have occurred and to have reduced opportunities for lead to get into the water system.
	For these reasons, if the building (or an addition, new plumbing, or repair) is less than 5 years old and lead solder or other materials (e.g., brass faucets containing lead alloys) were used, you may have elevated lead levels. If water supplied to the building is corrosive, lead can remain a problem regardless of the plumbing's age.
4. With what materials is the service connection (the pipe that carries water to the school from the public water system's main in the street) made? Note the location where the service connection enters the building and connects to the interior plumbing. (This is the POE location)	Lead piping was often used for the service connections that join buildings to public water systems. The service connection is the pipe that carries drinking water from a public water main to a building. Some localities actually required the use of lead service connections up until the lead-free requirements of the 1986 Safe Drinking Water Act Amendments took effect. Although a protective layering of minerals may have formed on these pipes, vibrations can cause flaking of any protective build-up and, allowing lead contamination to occur.
5. Is there point of entry (POE) or point of use (POU) treatment in use?	Are there water treatment units in your plumbing system? Treatment units could be, but are not limited to, ion exchange units, filter cartridge, reserve osmosis, etc.
6. Do you have tanks in your plumbing system (pressure tanks, gravity storage tanks)?  Note the location of any tanks, and any available	Some older tanks may contain coatings that are high in lead content.  Tanks may accumulate sediment that could be flushed back into the plumbing system under certain circumstances. You may wish to contact the supplier or manufacturer to obtain information about coatings. You may also wish to hire a plumber or tank service contractor to
information about the tank; e.g., manufacturer, date of installation.	inspect your tanks, especially gravity storage tanks that are located outside of the building.
7. Does the school have a filter maintenance and operation program?  If so, who is responsible for this program?  What is the process for adding filters?	A program for the maintenance and the upkeep of filters on drinking water outlets is necessary to ensure the effectiveness of the filters. Most filters recommend replacement after six months. If th filters need replacement every six months, the program will include a procedure for ensuring that every six month old filter is replaced. An individual should be responsible for ensuring that this filter maintenance program is followed.
	If the school would like to add a filter to a water outlet, what is the process? Does a request form have to be completed and submitted to the individual in charge of maintenance? Do all filters need to be added at a certain time of year to follow the maintenance program?
8. Do outlets that provide drinking water have accessible screens or aerators? (Standard faucets usually have screens. Many coolers and bubblers also have screens.) Note the locations.  Have these screens been cleaned? Note the locations.	Lead-containing sediments that are trapped on screens can be a significant source of lead contamination. Sediments should be tested for the presence of lead, and your facility should create a routine maintenance program to clean the screens frequently. If sediment has been a reoccurring problem regular cleaning of the screens and additional investigating into why the debris is accumulating is appropriate. However, the manufacturer or water service provider should be contacted to obtain instructions.
9. Have there been any complaints about water taste (metallic, etc.) or rusty appearance? Note the locations.	Although you cannot see, taste, or smell lead dissolved in water, the presence of a metallic taste or rusty appearance may indicate corrosion and possible lead contamination.

10. Check building files to determine whether Lead testing may have previously been done voluntarily under the Lead Contamination Control Act. Results of analyses of general water quality, such as measures of pH, calcium any water samples have been taken from your hardness, and carbonate alkalinity, can provide important clues about the corrosiveness of the building for any contaminants (also check with your public water supplier). water. Generally, the higher the values of these parameters, the less likely it is that your water is corrosive. If you have no data from your school, your public water system should at • Name of contaminant(s)? least be able to provide information about the general water quality. • What concentrations of these contaminants were found? • What was the pH level of the water? • Is testing done regularly at your facility? 11. Other plumbing questions: You should incorporate this information into decisions regarding sample locations and sampling protocol. You may wish to note the direction of water flow and the location of fixtures, valves, • Are blueprints of the building available? tanks, areas of sediment accumulation, areas of corrosion, etc., on a sketch or blueprint of the plumbing. · Are there known plumbing "dead ends," low use areas, existing leaks or other "problem areas"? • Are renovations being planned for part or all of the plumbing system? Walk-Through 1. Confirm the material that the service line See Background Information Question #4. is made of visually 2. Confirm the presence of POE or POU See Background Information Question #5 treatment. Survey your building for exposed pipes, preferably accompanied by an experienced plumber 3. Specifically, what are the potable water who should be able to readily identify the composition of pipes on site. Most buildings have a pipes made of in your facility (note the locations)? combination of different plumbing materials: • Lead Lead pipes are dull gray in color and may be easily scratched by an object such as a knife or key. Lead pipes are a major source of lead contamination in drinking water. • Plastic Galvanized Metal Galvanized metal pipes are gray or silver-gray in color and are usually fitted together with Cast Iron threaded joints. In some instances, compounds containing lead have been used to seal Copper the threads joining the pipes. Debris from this material, which has fallen inside the Other pipes, may be a source of contamination. Note the location of the different types of pipe, Copper pipes are red-brown in color. Corroded portions may show green deposits. if applicable, and the direction of water flow Copper pipe joints were typically joined together with lead solders until the lead-free through the building. Note the areas of the requirements of the 1986 Safe Drinking Water Act Amendments took effect. building that receive water first, and which areas receive water last. Plastic pipes, especially those manufactured abroad, may contain lead. If plastic pipes are used, be sure they meet NSF International standards. (Note: NSF International is an independent, third-party testing organization. Product listings can be obtained by visiting their Web site at http://www.nsf.org/business/search\_listings/index/asp.) If electrical equipment, such as telephones, has been installed using water pipes as a ground, the 4. Is any electrical equipment grounded to water pipes? Note the locations. electric current traveling through the ground wire will accelerate the corrosion of any interior plumbing containing lead. The practice should be avoided, if possible. However, if existing wires are already grounded to water pipes, the wires should not be removed from the pipes unless a qualified electrician installs an alternative grounding system. Check with your local building inspector on this matter. Your state or local building code may require grounding of the wires to the water pipes. Improper grounding of electrical equipment may cause severe shock. 5. Are brass fittings, faucets, or valves used Brass fittings, faucets, and valves are golden yellow in color, similar to copper in appearance, or in your drinking water system? (Note: Most are plated with chrome. Brass is composed primarily of two metals, copper and zinc. Most faucets are brass on the inside.) brasses contain lead ranging from 2 percent to 8 percent. That lead can contaminate the water contact surface when it is smeared on the machined surfaces during production. After 1996, brass You may want to note the locations on a map fittings installed in drinking water outlets such as faucets and water coolers must meet NSF or diagram of your facility and make standards for lead content. While this percentage is considered lead-free under the 1986 Safe extensive notes that would facilitate future Drinking Water Act Amendments, some contamination problems still may occur. Older brass faucets may contain higher percentages of lead and lead solder in their interior construction and analysis of lead sample results. pose contamination problems. Note that your state or local government may have imposed this standard prior to 1988. The degree to which lead will leach from brass products containing alloys with less than 8 percent lead is dependent upon the corrosiveness of the water and the manufacturing process used to develop the product. A study revealed that fabricated faucets tend to contribute less lead to the water than faucets manufactured by the permanent mold process, regardless of the amount of lead in the alloy. In response to a requirement of the 1996 SDWA, EPA worked with the plumbing industry and NSF International to develop a voluntary industry standard that is designed to minimize the

	amounts of lead being leached from these products. This standard is NSF/ANSI Standard 61, Section 9. Since 1998, all plumbing fixtures for use as drinking water supply must meet this standard. You should require NSF/ANSI 61 certification on all drinking water system products purchased. Include a copy of the NSF/ANSI 61 certificate as a requirement on your purchase orders. The distributor or manufacturer can provide you with a list of certified products. You should require NSF/ANSI 61 certification on all drinking water system products used in new construction and inform your architects and revise your building specifications.
6. How many of the following outlets provide water for consumption? Note the locations.  • Water Coolers  • Bubblers  • Ice Makers  • Kitchen Taps  • Drinking Fountains or Taps	In addition to lead components in the plumbing system, lead solders or lead in the brass fittings and valves used in some taps, bubblers, and refrigerated water coolers may be sources of lead. It is important to identify the locations of all such drinking water outlets. Faucets in restrooms should not be used to obtain water for drinking. Although they may be adequate for washing hands, they may not be appropriate for drinking purposes. You may consider posting "do not drink" signs.
7. Has your school checked the brands and models of water coolers and compared them to the list of recalled water coolers in Appendix H.i Note the locations of any recalled coolers.	Water coolers may be a major source of lead contamination. The Federal Consumer Product Safety Commission negotiated an agreement with Halsey Taylor through a consent order agreement published in June 1990 to provide a replacement or refund program that addresses all the water coolers listed by EPA as having lead-lined tanks. Halsey Taylor was the only company identified by EPA as manufacturing some water coolers with lead-lined tanks. Additionally, some coolers manufactured by EBCO had a bubbler valve and one soldered joint that contained lead.  See Attachment H.i of this document for a summary of EPA's list of water coolers found to
•	contain lead. Use the list to help prioritize your sampling. If your water cooler is listed as having a lead-lined tank, you should not use the water for drinking, and you should remove the cooler immediately as these coolers pose the highest risk of contamination.
8. Are there any signs of corrosion, such as frequent leaks, rust-colored water, or stained dishes or laundry? Note the locations.	Frequent leaks, rust-colored water, and stains on fixtures, dishes, and laundry are signs of corrosive water. Blue-green deposits on pipes and sinks indicate copper corrosion; brown stains result from the corrosion of iron. Where such signs occur, high levels of lead, copper, and iron may be present in the water. Lead can accumulate with iron, which can form sediments that are hard to remove.
9. Are there any outlets that are not operational and therefore out of service? Permanently? Temporarily?	Permanently out of service water outlets are outlets that are no longer being used and the facility plans to decommission in the future.
	Temporarily out of service water outlets are outlets that require repair or replacement and will be put back in service once they are operational.

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# **Attachment C - Drinking Water Outlet Inventory**

Name of School: <u>Jefferson Elementary School</u> Address: <u>336 Lake Avenue Lyndhurst, New Jersey 07071</u>

Grade Levels: 3-5 Year School Constructed: NA Renovated/Additions: NA

Individual school project officer Name/Signature: Gary Clare Date Completed: 05/23/2022

#1	Туре	Location	Code	Operational <sup>2</sup> (Y/N)	Signs of Corrosion	Filter <sup>4</sup> (Y/N)	Brass Fittings, Faucets	Aerator/ Screen (Y/N)	Motion Activated (Y/N)	Chiller (Y/N)	Water Make	Cooler	Comments
					(Y/N)		or valves? (Y/N)						
01	Slop Sink	Boiler Room	01	Y	N	N	N	N	N	N	NA	NA	
02	Slop Sink	Boiler Room	02	Y	N	N	N	N	N	N	NA	NA	
03	Slop Sink	Boiler Room	03	Y	N	N	N	N	N	N	NA	NA	
04	Water Fountain	Basement	04	Y	N	Y	N	N	N	Y	Elkay	NA	
05	Water Fountain	1st Floor Lobby	05	Y	N	Y	N	N	N	Y	Elkay	NA	
06	Sink	1 <sup>st</sup> Floor Teacher's Lounge	06	Y	N	N	N	Y	N	N	NA	NA	
07	Sink	Nurses Office – Main Sink	07	Y	N	N	N	Y	N	N	NA	NA	
08	Sink	Nurses Office – Exam Room Sink	08	Y	N	N	N	Y	N	N	NA	NA	

<sup>&</sup>lt;sup>1</sup> Number outlets starting at the closest outlet to the Point of Entry (POE).

<sup>&</sup>lt;sup>2</sup> Document if permanently or temporarily out of service on the Attachment B- Plumbing Profile.

<sup>&</sup>lt;sup>3</sup> Signs of corrosion detected, such as but not limited to frequent leaks, rust-colored water, or stained fixtures, dishes, or laundry.

<sup>&</sup>lt;sup>4</sup> Document on Attachment D- Filter Inventory.

# **Attachment D - Filter Inventory**

Name of School: <u>Jefferson Elementary School</u> Grade Levels: <u>3-5</u>

Address: 336 Lake Avenue Lyndhurst, New Jersey 07071

Individual School Project Officer Signature: Gary Clare Date: 05/23/2022

Sample Location /	Brand	Туре	Date	Replacement	NSF
Code		(Make &	Installed	Frequency	Certified
		Model)	or		for Lead
			Replaced		Reduction
					Y/N
01	NA	NA	NA	NA	NA
02	NA	NA	NA	NA	NA
03	NA	NA	NA /	NA	NA
04	Elkay	NA	NA	NA	NA
05	Elkay	NA	NA	NA	NA
06	NA	NA	/ NA	NA	NA
07	NA	NA /	NA	NA	NA
08	NA	NA	NA	NA	NA

# **Attachment E - Flushing Log**

Name of School: <u>Jefferson Elementary School</u>

Address: 336 Lake Avenue Lyndhurst, New Jersey 07071

Grade Levels: 3-5

Individual School Project Officer Signature: Gary Clare Date: 05/23/2022

Sample Location Description	Sample Location Code	Date	Time	Duration of Flushing	Reason for Flushing
Boiler Room Slop Sink	DW-01	04/19/22	3:00pm	3 Minutes	Water Sampling
Boiler Room Slop Sink	DW-02	04/19/22	3:00pm	3 Minutes	Water Sampling
Boiler Room Slop Sink	DW-03	04/19/22	3:00pm	3 Minutes	Water Sampling
Basement Water Fountain	DW-04	04/19/22	3:00pm	3 Minutes	Water Sampling
First Floor Lobby Water Fountain	DW-05	04/19/22	3:00pm	3 Minutes	Water Sampling
First Floor Teacher's Lounge Sink	DW-06	04/19/22	3:00pm	3 Minutes	Water Sampling
Nurse's Office Main Sink	DW-07	04/19/22	3:00pm	3 Minutes	Water Sampling
Nurse's Office Exam Room Sink	DW-08	04/19/22	3:00pm	3 Minutes	Water Sampling

# **Attachment F - Pre - Sampling Water Use Certification**

TO BE COMPLETED BY THE LYNDHURST BOE DISTRICT REPRESENTATIVE:

School Name: <u>Jefferson Elementary School</u>

Sample collection address: <u>336 Lake Avenue Lyndhurst</u>,

New Jersey 07071

Water was last used: Time: 3:00pm Date: 04/19/22

Sample commencement: Time:11:00am Date: 04/20/22

I have read the Lead Drinking Water Testing Sampling Plan and Quality Assurance Project Plan

and I am certifying that samples were collected in accordance with these plans.

Gary Clare 05/23/2022

Signature Date