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November 24, 2021

Pine-Richland School District
702 Warrendale Road
Gibsonia, PA 15044-9534
Attention: Mr. Jeffrey Zimmerman
Maintenance Supervisor

Re: Potable Water Lead Screening
Pine Richland School District
Gibsonia, Allegheny County, Pennsylvania
PSI Project No. 08165069-1

Dear Mr. Zimmerman:

In accordance with your request, Professional Service Industries, Inc. (PSI), an Intertek company, conducted a lead water screening of client-defined potable water sources at the Pine Richland School District facilities. PSI's sampling included fifty (50) water sources, with "first draw" samples collected from each location in the following school buildings at the Pine Richland School District:

- Pine Richland High School (12)
- Pine Richland Middle School (4)
- Eden Hall School (12)
- Richland Elementary School (7)
- Wexford Elementary School (5)
- Hance Elementary School (6)
- Stadium/Athletics (4)

PSI was given authorization to conduct the lead-in-water screening by Mr. Jeffrey Zimmerman, Maintenance Supervisor for the Pine Richland School District, referencing PSI Proposal 0816-358767, dated October 14, 2021.





SCOPE

Water samples were collected from the identified potable water outlets selected by the client in the Pine Richland School District. The samples were collected from fifty (50) potable water sources, including faucets, water fountains and ice machines. In all, 50 “first draw” samples were collected. A “first draw” sample is defined as the first water to come out of the tap after an 8-hour period of inactivity, but no more than 18-hours. “Flush” samples require running water through the water source for one minute and re-sample. The number of samples and the sample locations were determined by the client. Of the 50 samples collected, two (2) had a lead concentration above the proposed PA State recommended upper limit of 5.0 ppb. None of the samples had concentrations above the EPA Action Level of 15.0 ppb or the EPA Recommended Limit of 20 ppb.

METHODOLOGY

PSI’s inspector James Davis collected 50 water samples from potable drinking water outlets on November 12, 2021. The “first draw” water samples were collected directly from water fountains, faucets (cold water spigots) or ice machines which had been isolated from service for approximately 8-18 hours. “Flush” samples require running water through the water source for one minute and re-sample. The samples were collected directly into laboratory-supplied 250 ml bottles containing a HNO₃ preservative solution.

The samples were packed in a cooler and transmitted under chain of custody to Pace Analytical Laboratories located at 575 Broad Hollow Road, in Melville, NY 11747 for analysis. This laboratory is a PA certified drinking water laboratory (PA Cert # 68-00350) accredited by the PA Department of Environmental Protection (PA DEP). The samples were analyzed for lead content by laboratory method EPA 200.8.

While the EPA drinking water recommended ‘action level’ for lead in Schools for drinking water at the tap is 0.020 milligrams per liter (mg/L) or 20 ug/L or 20 ppb, the **proposed PA Statewide Standard** for Lead in School drinking water maximum contaminant level is **5 ppb**. The EPA’s “Lead and Copper Rule” (LCR) for Public Water suppliers (5CFR26460-26564) established an Action Level of 0.015 mg/L (15 ug/L or 15 ppb) for lead based on the 90th percentile level of tap water samples (1 L samples).

Public Water Supply Testing vs. Testing at Schools

- It is important to note that the lead testing protocol used by public water systems is aimed at identifying system-wide problems rather than problems at outlets in individual buildings. Moreover, the protocols for sample size and sampling procedures are different. Under the LCR for public water systems, a lead action level of 15 ppb is established for 1 L samples taken by public water systems at high risk residences. If more than 10 percent of the samples at residences exceed 15 ppb, system-wide corrosion control treatment may be necessary. The 15-ppb action level for public water systems is therefore a trigger for treatment rather than an exposure level.



- EPA recommends that schools collect 250 ml first-draw samples from water fountains and outlets, and that the water fountains and/or outlets be taken out of service if the lead level exceeds 20 ppb. The sample was designed to pinpoint specific fountains and outlets that require remediation (e.g. water cooler replacement). The school sampling protocol maximizes the likelihood that the highest concentrations of lead are found because the first 250 ml are analyzed for lead after overnight stagnation.
- Some other local, State (such as NY State), and other agencies have adopted the more conservative lead action level of 15 ug/L (ppb).
- Women for a Healthy Environment recommends that the outlet be remediated if lead concentrations are between 5 and 10 ppb, and the outlet be taken out of service if the lead exceeds 10 ppb.

Lead was detected above the laboratory analytical detection limit in 11 of the 50 samples collected. Of those 11 samples with lead concentrations above the analytical detection limit, two (2) had a concentration above the Women for a Healthy Environment recommended upper limit of 5.0 ppb. None of the samples exceeded the EPA Action Level of 15.0 ppb. The locations above the recommended levels were:

High School

- Kitchen sink 8.8 ppb

Eden Hall

- Office break room sink 10.7 ppb

Upon receipt of the analytical results, PSI contacted the school to notify the District of the results.

Detailed sample summary tables for each of the buildings sampled, including sample numbers and sources sampled, sample location and the laboratory results, are provided as attachments to this report, along with the laboratory analytical reports.

CONCLUSIONS

The EPA's "Lead and Copper Rule" (LCR) for Public Water suppliers (5CFR26460-26564) established an Action Level of 0.015 mg/L (15 ug/L or 15 ppb) for lead based on the 90th percentile level of tap water samples (1 L samples). EPA has recommended that schools collect 250 ml first draw water samples with an action Level of 20 ppb. New York State has further recommended that an Action Level for lead in drinking water be set at 15 ppb. For purposes of this report, the Woman for a Healthy Environment Action Level of 5 ppb has been set.

Lead was detected above the laboratory analytical detection limit in 11 of the 50 samples collected. Of those 11 samples with lead concentrations above the analytical detection limit, two (2) had a concentration above the Women for a Healthy Environment recommended upper limit of 5.0 ppb. None of the samples had a lead concentration above



the EPA Action Level (15 ppb). If desired, a filter can be installed at the locations that exceeded 5.0 ppb and the outlets re-tested.

RECOMMENDATIONS

Upon receipt of the sampling results, PSI recommended that the outlets with concentrations exceeding the EPA recommended limit of 20 ppb be isolated, removed from service, cleaned or replaced, and then re-sampled. PSI also recommended remediating the potable water outlets that exceeded 5 ppb and re-sampling to verify concentrations.

The EPA recommends that “at a minimum, every outlet that is regularly used for cooking and drinking should be sampled.” Periodic, routine testing is recommended. Regular testing can be valuable because it establishes a record of the water quality.

If any changes are made in the plumbing system, PSI recommends testing the outlets prior to regular use.

WARRANTY

The field observations, measurements, and research reported herein are considered sufficient in detail and scope to form for the analysis of the selected water quality parameters. The investigation and conclusions presented herein are based upon the subjective evaluation of limited data. They may not represent all conditions at the subject site as they reflect the information gathered from specific locations. PSI warrants that the findings and conclusions contained herein have been promulgated in accordance with generally accepted environmental investigation methodology and only for the site described in this report.

The water quality sampling and analysis has been developed to provide the client with information regarding select parameter concentrations in the water samples collected at the subject property. It is necessarily limited to the conditions observed and to the information available at the time of the work.

Due to the limited nature of the work, there is a possibility that there may exist conditions which could not be identified within the scope of the assessment or which were not apparent at the time of report preparation. It is also possible that the testing methods employed at the time of the report may later be superseded by other methods. PSI does not accept responsibility for changes in the state of the art, nor for changes in the regulations. PSI believes that the findings and conclusions provided in this report are reasonable. However, no other warranties are implied or expressed.

This report for the above referenced property represents the product of PSI's professional expertise and judgment in the environmental and industrial hygiene consulting industry. This report is certified to, can be relied upon by, and has been prepared for the exclusive use of the client.



PSI appreciates you selecting our services for your needs. Please contact us at 412-922-4001 x 0383 should you have any questions regarding this report.

Respectfully Submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

A handwritten signature in blue ink that reads "Jennifer E. Jacobs".

Jennifer Jacobs
Environmental Tech I

A handwritten signature in blue ink that reads "Michael Kopar".

Michael Kopar, CIE
Project Manager, Environmental Services

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Attachments: Drinking Water Sampling Tables
Laboratory Analysis Report & Chain of Custody Records

TABLE 1.0
DRINKING WATER SAMPLES
Pine Richland School District
Sample Date: November 12, 2021

Sample No.	Source	Sample Location	Analytical Result (Pb) (ug/L = ppb)
1	BF	HS Cafeteria entrance	<1.0
2	Faucet	HS Kitchen sink	8.8
3	BF	HS Gym hall by weight room	<1.0
4	Faucet	HS Office Break Room	<1.0
5	BF	HS Gym Hallway	<1.0
6	BF	HS Band Area	<1.0
7	Faucet	HS Teacher's Lounge	<1.0
8	BF	HS 300 wing near restroom	<1.0
9	BF	HS 300 wing near Room 325	<1.0
10	BF	HS 300 STEAM breakroom	1.5
11	BF	HS 400 STEAM breakroom	1.2
12	WF	HS 200 wing near stairs	<1.0
13	Faucet	MS Cafeteria kitchen sink	2.2
14	BF	MS Restroom near main office	<1.0
15	Faucet	MS Office breakroom	<1.0
16	Faucet	MS 300 Teacher's lounge	<1.0
17	BF	STAD RAM GAGE	<1.0
18	Faucet	STAD Concession room	<1.0
19	Faucet	STAD Home training room	<1.0
20	Faucet	STAD upstairs side training room	<1.0
21	Faucet	EDEN Teacher's lounge	<1.0
22	BF	EDEN Restroom by Teacher's lounge	<1.0
23	Faucet	EDEN Cafeteria Kitchen	2.8
24	Faucet	EDEN Office Break Room	10.7
25	BF	EDEN Restroom by 314	<1.0

WF - Water Fountain

ND - No Lead Detected (<1.0 ug/L)

Bolded results exceeded the EPA Recommended Action Level of 15 ppb





TABLE 1.0
DRINKING WATER SAMPLES
Pine Richland School District
Sample Date: November 12, 2021

Sample No.	Source	Sample Location	Analytical Result (Pb) (ug/L = ppb)
26	BF	EDEN Restroom near 322	<1.0
27	BF	EDEN Restroom near 614	<1.0
28	BF	EDEN Restroom near 622	<1.0
29	BF	EDEN Restroom near 814	<1.0
30	BF	EDEN Restroom near 823	<1.0
31	BF	EDEN Restroom near 514	<1.0
32	BF	EDEN Restroom near 523	<1.0
33	Faucet	RICH Kitchen sink	1.3
34	BF	RICH Near 112	<1.0
35	Faucet	RICH Breakroom	<1.0
36	BF	RICH Near 103	<1.0
37	BF	RICH Near 201	<1.0
38	BF	RICH Near 219	<1.0
39	Faucet	RICH 2 nd Floor Teacher's lounge	1.2
40	Faucet	HANCE Kitchen	<1.0
41	BF	HANCE Cafeteria	1.0
42	Faucet	HANCE Office Breakroom	<1.0
43	BF	HANCE Near Gym	<1.0
44	Faucet	HANCE Teacher's lounge	<1.0
45	BF	HANCE Near 139	<1.0
46	Faucet	WEX Cafeteria sink	1.8
47	Faucet	WEX Office Breakroom	<1.0
48	BF	WEX Restrooms in Main Lobby	<1.0
49	Faucet	WEX Teacher's lounge	1.8
50	BF	WEX 3 rd Grade near ballfield	<1.0

WF - Water Fountain

ND - No Lead Detected (<1.0 ug/L)

Bolded results exceeded the EPA Recommended Action Level of 15 ppb

