



INTRODUCTION TO BUILDING 105 DRINKING WATER RESAMPLING AND SEQUENTIAL TESTING

Samples of drinking water taken from four sinks in a laboratory in Building 105 at the Goodfellow Federal Center in September 2021 resulted in levels of lead that exceeded the EPA action levels for lead, 15 parts per billion or micrograms per liter ($\mu\text{g/L}$). The sinks were removed from service. After cleaning and flushing of the sinks' aerators, the water was resampled at each sink on Oct. 29, 2021. No copper levels exceeded the action level in any sample, but lead action levels were exceeded in three of the four sinks. The results are as follows:

- Lab Room 324 - Northeast sink: 280 $\mu\text{g/L}$.
- Lab Room 328 - East island sink: 190 $\mu\text{g/L}$.
- Lab Room 328 - South wall sink: 24 $\mu\text{g/L}$.

The sinks remained out of service. In an attempt to locate the potential sources of lead and copper contamination in the drinking water, a sequential sampling protocol was followed in the resampling of the water in the four sinks on Dec. 8, 2021. For each sink, the sampling sequence is described below:

- First Draw (A): This sample tests the water that has been sitting in the line at the faucet/fixture.
- Second Draw (B): This sample is taken directly after the first sample and tests the water immediately upstream from the faucet.
- Third Draw (C): This sample is collected after the water turns cold or there is some other indication that the water is from the service line and not the fixture itself.
- Fourth Sample (D): This sample is collected after the water has been running full force for approximately 5 minutes. This sample is intended to test the water at the water main before it enters the building's plumbing system.

The results indicate that the issue at three of the sinks is likely within the fixtures themselves or plumbing immediately upstream of the fixtures. The results also demonstrate that when the water is allowed to run or be flushed, the levels of contaminants are below the action levels (3rd and 4th draw samples). No copper levels exceeded the action level on any draw. The samples that resulted in lead levels greater than 15 $\mu\text{g/L}$ (action level) are as follows:

- Lab Room 324 - Northeast sink: 1st Draw: 360 $\mu\text{g/L}$; 2nd Draw: 130 $\mu\text{g/L}$
- Lab Room 328 - East Island sink: 1st Draw: 35 $\mu\text{g/L}$
- Lab Room 328 - South Wall sink: 1st Draw: 130 $\mu\text{g/L}$; 2nd Draw: 21 $\mu\text{g/L}$

GSA will be replacing the sinks in Rooms 324 (1) and 328 (2). The fixtures have been ordered and should be available for installation in early February 2022. The results from the sink at the



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East wall in Lab Room 347 showed no lead levels above the action level. Once the new fixtures are installed, the water will be sampled and these results will be shared. None of the four sinks will be returned to service until levels of lead and copper are below the action levels.

To reduce the potential risk of elevated lead or copper, it is recommended to let the water from any faucet run for at least 15 to 30 seconds prior to use.

The full sampling reports are available at gsa.gov/goodfellowreadingroom, as well as in the GSA office in Building 107 at the Goodfellow Federal Center for review.