

# POST-FIXTURE REPLACEMENT SAMPLING RESULTS REPORT

Flatrock Manor of Flint



August 17, 2016

## INTRODUCTION

During the week of May 16, 2016, the Department of Licensing and Regulatory Affairs completed replacement of drinking water fixtures at Flatrock Manor of Flint. These fixture replacements were required because testing results indicated that the older fixtures at most schools were imparting lead to the drinking water. After the fixtures were replaced, a more thorough flushing of the plumbing lines was completed to remove any remaining material from the building's water supply system.

On Saturday, May 21, 2016, the Department of Environmental Quality conducted a post-fixture sampling assessment of the plumbing system at the facility.

### Water Main Description

An inspection of the water main yielded a one inch copper line and three quarter inch copper distribution lines through the building.

## SAMPLING METHODS

### Fixture Sampling

There are five drinking water fixtures that were identified at the facility. After a minimum six-hour stagnation period, four samples were collected at each of the fixtures identified. Two initial samples were collected immediately after turning on the tap. The water was then flushed for 30 seconds and a third sample was collected. Finally, the water was flushed for another two minutes, and the fourth sample was collected. These samples were used to determine the impact of any lead sources in and around each specific fixture and its connecting plumbing.

### Deep Plumbing Sampling

A different sampling method is used to determine the impact of any lead sources located deep in the supply plumbing of the building. During this method, ten bottles are collected in a row (consecutively). These bottles are one liter in size, which is larger than those used for the fixture sampling method.

### Sampling Notes

- At the time of inspection, each aeator was observed and all were clean.

- The standard "Fixture Sampling Method" with the minimum six-hour stagnation period was not possible due to the residents' consistent water use needs. Sampling is representative of usual water use at the facility.
- Twenty samples from the five fixtures were collected and sent to the lab for analysis.
- Ten samples from one fixture selected to test the deeper part of the plumbing system were collected and sent to the lab for analysis.

## SAMPLING RESULTS

### Post-Fixture Replacement

May 21, 2016  
Of the 30 samples:

- Lead Range: Non-Detected (ND) to 8 parts per billion (ppb)
- Copper Range: ND to 80 ppb

\* Where the result is non-detected for lead it means that the amount of lead in the water was less than 1 ppb.

\* Where the result is non-detected for copper it means that the amount of copper in the water was less than 50 ppb.



# Flatrock Manor of Flint

May 21, 2016

Lead	Result (ppb)	Sample Description	Site Code	Copper	Result (ppb)
Lead	ND	02BF001	P1	Copper	ND
Lead	ND	02BF001	P2	Copper	ND
Lead	ND	02BF001	F01	Copper	ND
Lead	ND	02BF001	F02	Copper	ND
Lead	ND	01KC002	P1	Copper	70
Lead	ND	01KC002	P2	Copper	ND
Lead	ND	01KC002	F01	Copper	ND
Lead	ND	01KC002	F02	Copper	ND
Lead	ND	01BF003	P1	Copper	50
Lead	ND	01BF003	P2	Copper	60
Lead	ND	01BF003	F01	Copper	ND
Lead	ND	01BF003	F02	Copper	ND
Lead	ND	01KC004	P1	Copper	60
Lead	ND	01KC004	P2	Copper	70
Lead	ND	01KC004	F01	Copper	50
Lead	ND	01KC004	F02	Copper	ND
Lead	1	01BF005	P1	Copper	80
Lead	8	01BF005	P2	Copper	60
Lead	ND	01BF005	F01	Copper	ND
Lead	ND	01BF005	F02	Copper	ND
Lead	ND	01KC002	A1	Copper	ND
Lead	ND	01KC002	A2	Copper	ND
Lead	ND	01KC002	A3	Copper	ND
Lead	ND	01KC002	A4	Copper	ND
Lead	ND	01KC002	A5	Copper	ND
Lead	ND	01KC002	A6	Copper	ND
Lead	ND	01KC002	A7	Copper	ND
Lead	ND	01KC002	A8	Copper	ND
Lead	ND	01KC002	A9	Copper	ND
Lead	ND	01KC002	A10	Copper	ND

\* The result of non-detected (ND) means: for lead the amount in water is less than 1 ppb, for copper the amount in water is less than 50 ppb.