

LEAD AND COPPER IN DRINKING WATER SAMPLING REPORT

Prepared for:



222-05 56th Avenue, SER212,
Bayside, NY 11364

Site:

QUEENSBOROUGH COMMUNITY COLLEGE
MEDICAL ARTS BUILDING

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EXECUTIVE SUMMARY

ATC Group Services LLC (ATC) was retained by Queensborough Community College (QBCC) to perform drinking water sampling and laboratory analysis to evaluate the presence of lead and copper in drinking water at the Medical Arts building (the Site) located within QBCC main campus. QBCC voluntarily elected to undertake this sampling for the presence of lead and copper in drinking water at the Site as there is no requirement that such an assessment be performed at a college. This report presents the findings from the lead and copper in drinking water sampling conducted by ATC at the Site.

On June 18, 2018, licensed ATC representative Alexander Shechtman (US EPA Certification number NY-R-5034-5) collected water samples from eleven (11) drinking water sources within the Medical Arts building. As requested by QBCC, ATC collected representative drinking samples from every type of a drinking water fixture present within the Medical Arts building. Overall, ATC collected a total of twenty-two (22) 125-milliliter water samples from representative locations for subsequent analysis for lead and copper in drinking water.

ATC collected two samples from each selected water outlet: 1st draw, and 60-second flush sample, as recommended by US EPA sampling protocols for lead and copper in drinking water. The intent of 60-second flushing is to remove any standing water in outlets or distribution pipes that may have been present in order to establish conditions that resemble those in a normal day. When applicable, only the cold-water lines were used for sample collection, as recommended by the EPA lead and copper in drinking water sampling protocol.

The sampling was performed in accordance with the applicable United States Environmental Protection Agency (US EPA) and New York City Department of Health (NYC DOH) sampling protocols for metals in drinking water. All water samples were submitted to fully accredited third-party analytical laboratory New York Environmental Laboratory for analysis within two hours of samples' collection. New York Environmental Laboratory is certified by the New York State Department of Health's Environmental Laboratory Accreditation Program to perform the analysis of environmental samples (NYS DOH ELAP #11510). The laboratory utilized EPA analytical method 200.9 Rev. 2.2 for analysis of lead and copper in drinking water.

Based on the laboratory results of analysis, **one (1) water sample collected at the Site did not meet the applicable US EPA and NYC DOH threshold criteria for copper in drinking water.**

Based on the laboratory results of analysis, all water samples collected at the Site **meet the applicable US EPA and NYC DOH threshold criteria for lead in drinking water.**

Reports of Laboratory Analysis and Chain of Custody documentation for all samples collected at the Site may be found in *Appendix A*. Copies of laboratory accreditations, training certificates and licenses may be found in *Appendix B*.

1.0 SCOPE OF SERVICES

ATC Group Services LLC (ATC) was retained by Queensborough Community College (QBCC) to perform drinking water sampling and laboratory analysis to evaluate the presence of lead and copper in drinking water at the Medical Arts building (the Site) located within QBCC main campus. QBCC voluntarily elected to undertake this sampling for the presence of lead and copper in drinking water at the Site as there is no requirement that such an assessment be performed at a college. This report presents the findings from the lead and copper in drinking water sampling conducted by ATC at the Site.

As requested by QBCC, ATC collected representative drinking samples from every type of a drinking water fixture present within the Medical Arts building. On June 18, 2018, licensed ATC representative Alexander Shechtman (US EPA Certification number NY-R-5034-5) collected twenty-two (22) water samples from eleven (11) representative drinking water sources at the Medical Arts building. All samples were delivered to the analytical laboratory within 2 hours of collection.

The sampling was performed in accordance with the applicable United States Environmental Protection Agency (EPA), the United States Department of Housing and Urban Development's (HUD), and New York City Department of Health (NYC DOH) sampling protocols for lead and copper in drinking water. Copies of training certificates and licenses may be found in *Appendix B*.

2.0 THRESHOLD LEVELS FOR LEAD AND COPPER IN DRINKING WATER

The United States Environmental Protection Agency (US EPA) has established the following thresholds for metals in drinking water in public water systems:

| | |
|----------------|--|
| Lead: | 15 micrograms per liter ($\mu\text{g/l}$), or 15 ppb (parts per billion) |
| Copper: | 1.3 milligrams per liter (mg/l), or 1,300 ppb (parts per billion) |

3.0 SAMPLING FOR LEAD AND COPPER IN DRINKING WATER

Queensborough Community College (QBCC) had requested ATC to collect drinking water samples at eleven (11) separate drinking water sources within the Medical Arts building. ATC coordinated with QBCC to insure that the water sources selected for sampling were left unused for no less than six (6) hours prior to this sampling.

3.1 Sampling Methodology

On June 18, 2018, US EPA licensed ATC representative Alexander Shechtman (US EPA Certification number NY-R-5034-5) collected twenty-two (22) 125-milliliter water samples from eleven (11) drinking water sources within various faculty buildings throughout the main campus for subsequent analysis for lead and copper in drinking water.

At each selected water outlet ATC collected two water samples: 1st draw, and 60-second flush sample, as recommended by US EPA sampling protocols for lead and copper in drinking water. The intent of the 60-second flushing is to remove any standing water in outlets or distribution pipes that may have been present in order to establish conditions that resemble those in a normal day. Water samples were collected using disposable 125-milliliter wide-mouth sampling containers with secure screw-on caps.

All samples were delivered to an analytical laboratory for analysis within 2 hours of samples' collection. When applicable, only the cold-water lines were used for sample collection, as recommended by the EPA lead and copper in drinking water sampling protocol. Each sample was assigned a unique number, which was also recorded on the Chain of Custody form. The Chain of Custody also indicated the location of each drinking water source sampled. Reports of Laboratory Analysis and Chain of Custody documentation for all samples collected at the Site may be found in *Appendix A*.

3.2 Analytical Methods

All water samples were submitted to the third-party analytical laboratory for analysis. ATC utilized New York Environmental Laboratory for professional analytical services in support of this project. New York Environmental Laboratory is certified by the New York State Department of Health's Environmental Laboratory Accreditation Program to perform the lead and copper analysis in environmental samples (NYS DOH ELAP #11510). The laboratory utilized EPA analytical method 200.9 Rev. 2.2 for analysis of lead and copper in drinking water.

3.3 Summary of Water Sampling Results

On June 18, 2018, ATC collected a total of twenty-two (22) 125-milliliter water samples for subsequent analysis for lead and copper. Based on the laboratory results of analysis, **all one (1) water sample collected at the Site did not meet the applicable US EPA and NYC DOH threshold criteria for copper in drinking water.**

All water samples collected at the Site **meet** the applicable US EPA and NYC DOH threshold criteria for lead in drinking water. The following table summarizes laboratory results for lead and copper in water samples collected at the Site:

Table 3.3.1: June 18, 2018, Lead (Pb) and Copper (Cu) in Drinking Water Sampling Summary - Medical Arts Building

| Location # | Sample # | Sample Location | Sample Type | Pb Results | Cu Results |
|------------|----------|---|----------------------|------------|------------|
| 1 | 01 | 4 th FL, Corridor near Stairway 2; | 1 st Draw | Pass | Pass |



| Location # | Sample # | Sample Location | Sample Type | Pb Results | Cu Results |
|------------|----------|--|----------------------|------------|------------|
| | 02 | Bottle Filling Station | 60-sec. Flush | Pass | Pass |
| 2 | 03 | 3 rd FL, Corridor near entry to Stairway 2; | 1 st Draw | Pass | Fail |
| | 04 | Bottle Filling Station | 60-sec. Flush | Pass | Pass |
| 3 | 05 | 2 nd FL, Corridor near entry to Stairway 2; | 1 st Draw | Pass | Pass |
| | 06 | Bottle Filling Station | 60-sec. Flush | Pass | Pass |
| 4 | 07 | 1 st FL, Lobby near Room 146; | 1 st Draw | Pass | Pass |
| | 08 | Bottle Filling Station | 60-sec. Flush | Pass | Pass |
| 5 | 09 | Basement; MC21, between Restrooms, | 1 st Draw | Pass | Pass |
| | 10 | Drinking Water Station | 60-sec. Flush | Pass | Pass |
| 6 | 11 | Basement; MC18, between Restrooms, | 1 st Draw | Pass | Pass |
| | 12 | Bottle Filling Station | 60-sec. Flush | Pass | Pass |
| 7 | 13 | Basement; Massage Office, near | 1 st Draw | Pass | Pass |
| | 14 | Room 09, Bottle Filling Station | 60-sec. Flush | Pass | Pass |
| 8 | 15 | 4 th FL, Corridor near Room 467; | 1 st Draw | Pass | Pass |
| | 16 | Bottle Filling Station | 60-sec. Flush | Pass | Pass |
| 9 | 17 | 3 rd FL, Corridor near Room 355; | 1 st Draw | Pass | Pass |
| | 18 | Bottle Filling Station | 60-sec. Flush | Pass | Pass |
| 10 | 19 | 2 nd FL, Corridor near Room 222; | 1 st Draw | Pass | Pass |
| | 20 | Bottle Filling Station | 60-sec. Flush | Pass | Pass |
| 11 | 21 | 1 st FL, Corridor near Room 114; | 1 st Draw | Pass | Pass |
| | 22 | Bottle Filling Station | 60-sec. Flush | Pass | Pass |

Reports of Laboratory Analysis and Chain of Custody documentation for all samples collected at the Site may be found in *Appendix A*. Copies of laboratory accreditations, training certificates and licenses may be found in *Appendix B*.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the laboratory results of analysis, **one (1) water sample collected at the Site did not meet the applicable US EPA and NYC DOH threshold criteria for copper in drinking water.**

Based on the laboratory results of analysis, all water samples collected at the Site **meet the applicable US EPA and NYC DOH threshold criteria for lead in drinking water.**

Due to the presence of elevated copper level in the 1st draw water sample at the 3rd floor bottle filling station near Staircase #2 at the Site, ATC concludes that the possible contamination at the 3rd floor bottle filling station near Staircase #2 has a localized origin. ATC recommends to remove and replace the existing 3rd floor bottle filling station and associated plumbing near Staircase #2 with new bottle filling station. New plumbing lines to be installed shall be marked "MADE IN USA".

After the bottle filling station replacement work on the 3rd floor near Staircase #2 has been completed, ATC recommends a follow-up copper in drinking water sampling of the new bottle filling station to evaluate the effectiveness of copper in drinking water reduction measures at this location.

ATC does not recommend additional water sampling for lead in drinking at the Site within the current scope of work at this time.

5.0 LIMITATIONS OF THE INVESTIGATION

ATC Group Services LLC (ATC) lead and copper water testing results are applicable for the locations tested at time that the testing was conducted and for the condition of drinking water sources at the time they were tested. As requested by QBCC, ATC collected representative drinking samples from every type of a drinking water fixture present within the Medical Arts building.

If questions arise regarding the content of lead and copper in the particular water sources within the Medical Arts building that were not tested by ATC, then additional testing services should be procured to test those particular water sources for lead and copper. ATC makes no representation or warranty concerning the standards and specifications provided in applicable regulations.

6.0 CERTIFICATION OF RESULTS

This report has been prepared for the exclusive use of Queensborough Community College. Photocopying of this document, in part or whole, by parties other than those designated by the Queensborough Community College, or use of this document for purposes other than it is intended, is prohibited.



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June 25, 2018

Date



Mark Terjesen
Operations Manager

June 25, 2018

Date



APPENDIX A

Laboratory Reports of Analysis Chain of Custody Documentation



APPENDIX B

Report Certifications