

WILLIAM RAMSEY LEAD IN DRINKING WATER SAMPLING JUNE 2023



WILLIAM RAMSEY ELEMENTARY SCHOOL

5700 SANGER AVENUE
ALEXANDRIA, VIRGINIA 22311

ECS PROJECT NO. 47:11652-E

FOR: ALEXANDRIA CITY PUBLIC SCHOOLS (ACPS)

OCTOBER 2, 2023





October 2, 2023

Mr. John Contreras
Alexandria City Public Schools (ACPS)
1340 Braddock Place
Alexandria, Virginia 22314
john.contreras@acps.k12.va.us

ECS Project No. 47:11652-E

Reference: William Ramsey Lead in Drinking Water Sampling June 2023, William Ramsey Elementary School, 5700 Sanger Avenue, Alexandria, Virginia

Dear Mr. Contreras:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide Alexandria City Public Schools (ACPS) with the results of the lead in drinking water sampling performed at William Ramsey Elementary School located at 5700 Sanger Avenue in Alexandria, Virginia. ECS also sampled the water for copper. This report summarizes our observations, analytical results, findings, and recommendations related to the work performed. The work described in this report was performed by ECS in general accordance with the Scope of Services described in ECS Proposal Number 47:16189-EP and the terms and conditions of the agreement authorizing those services.

ECS appreciates this opportunity to provide Alexandria City Public Schools (ACPS) with our services. If we can be of further assistance to you, please do not hesitate to contact us.

Sincerely,

ECS Mid-Atlantic, LLC

A handwritten signature in blue ink, reading 'Lauren E. Kessler'.

Lauren E. Kessler, CIH, CSP
Senior Project Manager
LKessler@ecslimited.com
703-471-8400

A handwritten signature in black ink, reading 'Chris Chapman'.

Christopher J. Chapman, CIH
Director of Industrial Hygiene
cchapman@ecslimited.com
703-471-8400

TABLE OF CONTENTS	PAGE
1.0 PROJECT DESCRIPTION	1
2.0 PURPOSE	1
3.0 METHODOLOGY	1
3.1 Lead and Copper in Drinking Water	1
4.0 RESULTS	2
4.1 Lead in Drinking Water	2
4.2 Copper in Drinking Water	2
5.0 RECOMMENDATIONS AND REGULATORY REQUIREMENTS	3
5.1 Lead in Drinking Water	3
5.2 Copper in Drinking Water	4
6.0 LIMITATIONS	5

TABLE OF APPENDICES

Appendix I: Drawings

Appendix II: Sample Table

Appendix III: Laboratory Report(s)

1.0 PROJECT DESCRIPTION

The William Ramsey Elementary School is a two-story school building located at 5700 Sanger Avenue in Alexandria, Virginia. The building is currently occupied and is used by the Alexandria City Public Schools (ACPS) as a school. The site is located within the City of Alexandria and is under the jurisdiction of the Environmental Protection Agency (EPA) and Commonwealth of Virginia Code of Regulations for lead in drinking water in schools.

The site receives water from Virginia American Water, which is classified as a public drinking water system by the EPA under the Safe Drinking Water Act (SDWA). Because the site is connected to a public water system, the site is not independently regulated as a water supplier by the EPA.

2.0 PURPOSE

The purpose of this water sampling event was to perform periodic re-testing of select drinking water sources within the school. This was not a comprehensive retesting of all drinking water sources in the school.

The EPA created the Lead and Copper Rule under the EPA Safe Drinking Water Act (SDWA). US EPA established a lead action level of 15 ppb (parts per billion) or 15 micrograms per liter ($\mu\text{g/L}$) and an action level of 1300 $\mu\text{g/L}$ for copper.

The Code of Virginia § 22.1-135.1 currently requires Virginia school boards to develop and implement a plan to test, and if necessary, remediate potable water sources identified by the US EPA as a high priority. Each local school board shall submit testing plans and laboratory results to the Department of Health. If potable water sources are detected at or above 10 parts per billion (10 $\mu\text{g/L}$), the school board shall notify parents of such results.

The US EPA's *3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance (EPA 815-B-18-007)* was created to provide recommendations on how to address lead in drinking water in schools and child care facilities. The procedures and response actions outlined in the EPA's 3Ts document are recommendations not requirements. The EPA's 3Ts guidance document does not set action levels for lead in drinking water but it does reference the action levels created for public water systems in the EPA's lead and copper rule (LCR). The results of this water sampling event were compared to the action levels set in the EPA's LCR.

3.0 METHODOLOGY

ECS performed the authorized Scope of Services in general accordance with our proposal, standard industry practice(s) and methods specified by regulation(s) for sampling drinking water.

3.1 Lead and Copper in Drinking Water

Sample protocols were performed following the guidance of the US EPA document, *3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance (EPA 815-B-18-007)*. For each facility, water samples were collected from priority drinking water sources that were previously sampled and shown to have elevated levels of lead within the water.

ECS coordinated the water sampling with ACPS officials, and it is ECS's understanding that all of the water sources sampled were not in use at least eight hours prior to sampling and were flushed by APS at the time they were taken out of service. For this sampling event, ECS attempted to sample 20% of the accessible potable water sources within the building, with a minimum of five samples per building and a minimum of two samples per floor. During sampling, initial draw samples were collected. The samples were collected in 250 mL bottles with a nitric acid preservative. These water bottles were provided to ECS by Maryland Spectral Services, Inc. The water samples were provided with unique identification labels which include the school initials, a sequential number identifier, and sample location identifier.

The collected samples were sealed and transported by courier to Maryland Spectral Services located in Baltimore, Maryland under chain of custody protocol for analysis per EPA Methodology for lead in drinking water.

Please note that efforts were made to collect samples from selected outlets in accordance with the methodology described above.

4.0 RESULTS

The following is a summary of laboratory results, findings and observations.

4.1 Lead in Drinking Water

All of the samples collected were below both the US EPA and Commonwealth of Virginia action levels with the exception of one sample. The sample collected from the faucet of the sink in the S2 art classroom back room exceeded the Virginia action level of 10 µg/L. In total, twenty one (21) water samples were collected from the building. A table of the collected samples and the associated analytical results can be found in the appendices. Please note that the analytical results displayed in the table have been converted to µg/L (PPB) for easy reference. A copy of the laboratory analytical results and chain of custody are attached to this report. A sketch identifying the approximate location of each water sample can also be found in the appendices.

ECS returned to the site on September 15, 2023 to re-test the sink in the S2 art room. The re-test sample was also above the Virginia action level.

4.2 Copper in Drinking Water

None of the water samples collected were reported to have concentrations above the EPA and VA action level of 1300 µg/L. In total, twenty one (21) water samples were collected from the building. A table of the collected samples and the associated analytical results can be found in the appendices. Please note that the analytical results displayed in the table have been converted to µg/L (PPB) for easy reference. A copy of the laboratory analytical results and chain of custody are attached to this report. A sketch identifying the approximate location of each water sample can also be found in the appendices.

5.0 RECOMMENDATIONS AND REGULATORY REQUIREMENTS

Based on our understanding of the purpose of the William Ramsey Lead in Drinking Water Sampling June 2023, the results of laboratory analysis, and our findings and observations, ECS presents the following recommendations.

5.1 Lead in Drinking Water

The water sample collected from the sink in the S2 art classroom back room was reported to be above the Virginia lead action level. The other water samples collected were reported below the Virginia action level. The EPA's 3Ts document recommends choosing one of several short-term or permanent control measures. The following are the recommended short-term and permanent control measure options:

Short-Term Control Options:

- Mark the sink as hand wash only
- Provide Filters at Problem Taps - Point-of-use (POU) units are commercial available, can be relatively inexpensive, and quickly installed. The effectiveness of POU's can vary. POU's should be tested and certified against the NSF/ANSI Standard 53 (for lead removal) prior to installation. If POU's are installed, they should be incorporated into a routine maintenance plan;
- Flush Taps Prior to Use - Flushing individual outlets or all outlets may be used as a short term option; and,
- Provide Bottled Water - This control option is expensive and ECS does not recommend its use because of the relatively small number of elevated outlets.

Permanent Control Measures:

- Replacement of Problem Outlets - This option is recommended as a cost effective permanent control measure if there are only a few elevated outlets;
- Pipe Replacement;
- Provide Filters at Problem Taps: and,
- Reconfigure Plumbing.

After the implementation of a control option, ECS recommends follow-up sampling of the elevated outlets to evaluate effectiveness of the control option.

In addition to the remediation efforts for the elevated outlets, ECS recommends period follow-up screening be performed for the building. The EPA does not specify a specific time frame for which follow-up testing for schools needs to be performed. The EPA suggest that schools and child care facilities make testing a part of their routine building operations and states that annual monitoring provides information on changing concentrations and the effectiveness of remediation or treatment options.

No specific time frame is given in which follow-up testing for the schools needs to be performed. As good practice, ECS recommends performing follow-up periodic testing every three years. If additional guidelines or regulations are enacted at a state or federal level, the frequency of testing should be modified to reflect these changes.

In the US EPA 3Ts document, routine control measures are recommended as general good practice for over-all drinking water safety. The routine control measures that should be conducted to prevent exposure to elevated levels of lead, include the following:

- Clean debris from all accessible screens frequently. If you discovered sediments in faucet screens, have the sediments tested for lead and continue to clean your screens frequently, even if the analysis finds no lead.
- Use only cold water for food and beverage preparation. Hot water will dissolve lead more quickly than cold water and is likely to contain increased lead levels. If hot water is needed, it should be taken from the cold water tap and heated on a stove or in a microwave oven.
- Instruct the users (students and staff) to run the water before drinking or staff could run the water before students arrive, so they are drinking water that has not been in contact with the faucet interior since faucets are often a major source of lead in drinking water.
- Placard bathroom sinks with notices that water should not be consumed. You should use pictures if there are small children using bathrooms.
- US EPA recommends public notification of the findings of this sample event to the public and school staff. EPA has described different procedures for dissemination of this information which are described in Section III.6 of the 3 Ts document. The school should review the different methods described and choose the most appropriate method for the school.

5.2 Copper in Drinking Water

The sample results were below the action level, and no further testing or remediation is indicated at this time.

No specific time frame is given in which follow-up testing for the schools needs to be performed. As good practice, ECS recommends performing follow-up periodic testing every three years. If additional guidelines or regulations are enacted at a state or federal level, the frequency of testing should be modified to reflect these changes.

In the US EPA 3Ts document, routine control measures are recommended as general good practice for over-all drinking water safety. The routine control measures that should be conducted to prevent exposure to elevated levels of lead, include the following:

- Clean debris from all accessible screens frequently. If you discovered sediments in faucet screens, have the sediments tested for lead and continue to clean your screens frequently, even if the analysis finds no lead.
- Use only cold water for food and beverage preparation. Hot water will dissolve lead more quickly than cold water and is likely to contain increased lead levels. If hot water is needed, it should be taken from the cold water tap and heated on a stove or in a microwave oven.

- Instruct the users (students and staff) to run the water before drinking or staff could run the water before students arrive, so they are drinking water that has not been in contact with the faucet interior since faucets are often a major source of lead in drinking water.
- Placard bathroom sinks with notices that water should not be consumed. You should use pictures if there are small children using bathrooms.
- US EPA recommends public notification of the findings of this sample event to the public and school staff. EPA has described different procedures for dissemination of this information which are described in Section III.6 of the 3 Ts document. The school should review the different methods described and choose the most appropriate method for the school.

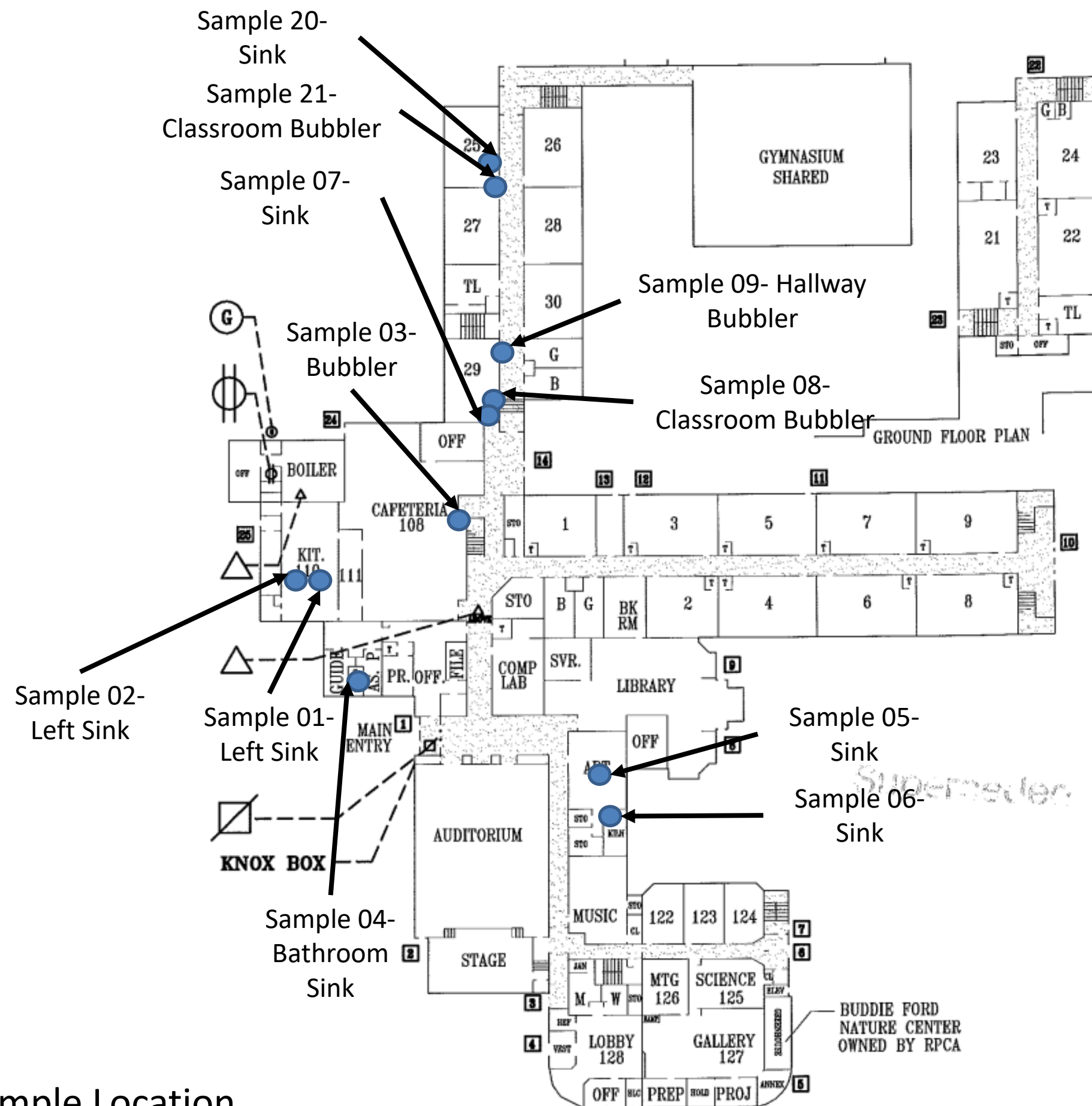
6.0 LIMITATIONS

The conclusions and recommendations presented within this report are based upon a reasonable level of assessment within normal bounds and standards of professional practice for a site in this particular geographic setting. ECS is not responsible or liable for the discovery and elimination of hazards that may potentially cause damage, accidents, or injuries.

The observations, conclusions, and recommendations pertaining to environmental conditions at the subject site are necessarily limited to conditions observed, and/or materials reviewed at the time this study was undertaken. No warranty, expressed or implied, is made with regard to the conclusions and recommendations presented within this report. This report is provided for the exclusive use of the client. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties without the written consent of ECS and the client.

Our recommendations are in part based on federal, state, and local regulations and guidelines. ECS does not assume the responsibility of the person(s) in charge of the site, or otherwise undertake responsibility for reporting to any local, state, or federal public agencies, any conditions at the site that may present a potential danger to public health, safety, or the environment. Under this scope of services, ECS assumes no responsibility regarding any response actions initiated as a result of these findings. General compliance with regulations and response actions are the sole responsibility of the Client and should be conducted in accordance with local, state, and/or federal requirements.

Appendix I: Drawings



ACPS William Ramsay Elementary School
5700 Sanger Ave.
Alexandria, VA 22311



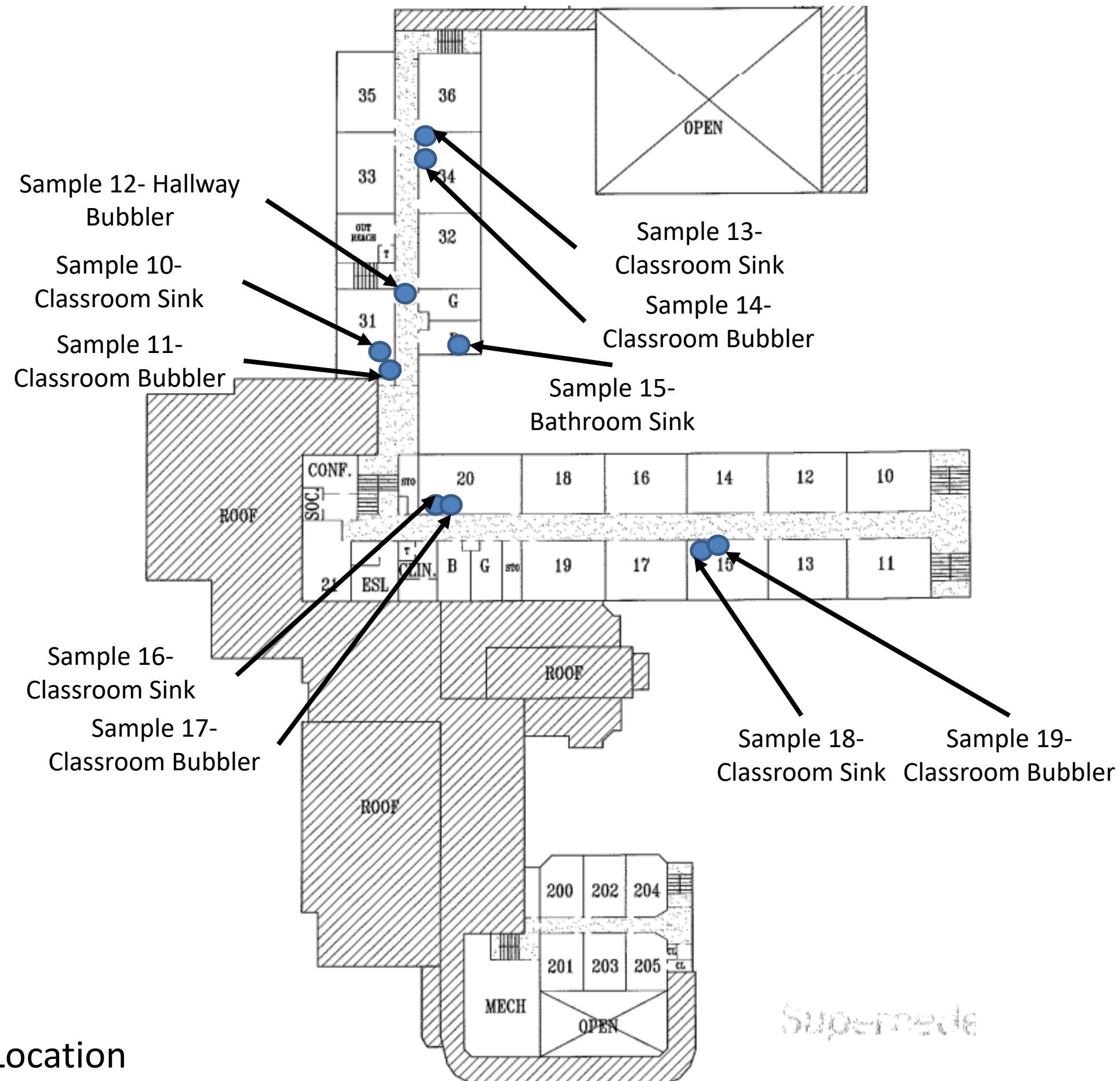
Water Sampling Map- Level 1

Scale: NTS

Project No.
47:11652-E

Site Visit:
6/20/23

● Sample Location



ACPS William Ramsay Elementary School
5700 Sanger Ave.
Alexandria, VA 22311



Water Sampling Map- Level 2

Scale: NTS

Project No.
47:11652-E

Site Visit:
6/20/23

Appendix II: Sample Table



Copper and Lead Drinking Water Results Table		
Sample Number	Copper Result (µg/L)	Lead Result (µg/L)
3072831-01	62.3	ND
3072831-02	59	ND
3072831-03	155	ND
3072831-04	70.4	ND
3072831-05	144	ND
3072831-06	306	10.3
3072831-07	81.6	ND
3072831-08	115	ND
3072831-09	277	ND
3072831-10	124	ND
3072831-11	104	ND
3072831-12	312	ND
3072831-13	188	ND
3072831-14	111	ND
3072831-15	116	2.17
3072831-16	150	ND
3072831-17	72	ND
3072831-18	91.5	ND

Table Notes:

Red = Above the EPA Action Level

Orange = Exceeds VA Action Level for Lead

ND= None Detected



Sample Number	Copper Result (µg/L)	Lead Result (µg/L)
3072831-19	97.9	ND
3072831-20	181	ND
3072831-21	102	ND
The EPA's Lead and Copper Rule set an action level of 15 µg/L for lead and an action level of 1300 µg/L for copper. Note these levels are related to public water systems (PWSs). The Code of Virginia requires school boards notify parents if testing results exceed 10 µg/L of Lead (Pb).		

Table Notes:

Red = Above the EPA Action Level

Orange = Exceeds VA Action Level for Lead

ND= None Detected

Appendix III: Laboratory Report(s)

04 August 2023

Michael Hamill
ECS-Chantilly
14026 Thunderbolt Place, Suite 100
Chantilly, VA 20151
RE: ACPS-WR

Enclosed are the results of analyses for samples received by the laboratory on 07/28/23 15:50.

Please visit our website at www.mdspectral.com for a complete listing of our accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Brewington
President

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
MD DW LabID 153

Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
01		3072831-01	Drinking Water	06/20/23 05:01	07/28/23 15:50
02		3072831-02	Drinking Water	06/20/23 05:02	07/28/23 15:50
03		3072831-03	Drinking Water	06/20/23 05:04	07/28/23 15:50
04		3072831-04	Drinking Water	06/20/23 05:10	07/28/23 15:50
05		3072831-05	Drinking Water	06/20/23 05:16	07/28/23 15:50
06		3072831-06	Drinking Water	06/20/23 05:17	07/28/23 15:50
07		3072831-07	Drinking Water	06/20/23 05:18	07/28/23 15:50
08		3072831-08	Drinking Water	06/20/23 05:18	07/28/23 15:50
09		3072831-09	Drinking Water	06/20/23 05:20	07/28/23 15:50
10		3072831-10	Drinking Water	06/20/23 05:24	07/28/23 15:50
11		3072831-11	Drinking Water	06/20/23 05:25	07/28/23 15:50
12		3072831-12	Drinking Water	06/20/23 05:27	07/28/23 15:50
13		3072831-13	Drinking Water	06/20/23 05:28	07/28/23 15:50
14		3072831-14	Drinking Water	06/20/23 05:29	07/28/23 15:50
15		3072831-15	Drinking Water	06/20/23 05:32	07/28/23 15:50
16		3072831-16	Drinking Water	06/20/23 05:35	07/28/23 15:50
17		3072831-17	Drinking Water	06/20/23 05:36	07/28/23 15:50
18		3072831-18	Drinking Water	06/20/23 05:38	07/28/23 15:50
19		3072831-19	Drinking Water	06/20/23 05:39	07/28/23 15:50
20		3072831-20	Drinking Water	06/20/23 05:44	07/28/23 15:50
21		3072831-21	Drinking Water	06/20/23 05:45	07/28/23 15:50

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Will Brewington, President

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Baltimore MD 21227
410-247-7600
www.mdspectral.com
MD DW LabID 153

Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

01

3072831-01 (Drinking Water)
Sampled on: 06/20/23 05:01

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	62.3		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:17	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:17	VVD



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Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

02

3072831-02 (Drinking Water)
Sampled on: 06/20/23 05:02

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	59.0		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:19	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:19	VVD



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Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

03

3072831-03 (Drinking Water)
Sampled on: 06/20/23 05:04

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	155		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:20	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:20	VVD



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Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

04

3072831-04 (Drinking Water)
Sampled on: 06/20/23 05:10

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	70.4		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:22	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:22	VVD



Will Brewington, President

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Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

05

3072831-05 (Drinking Water)
Sampled on: 06/20/23 05:16

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	144		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:24	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:24	VVD



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Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

06

3072831-06 (Drinking Water)

Sampled on: 06/20/23 05:17

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	306		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:25	VVD
Lead	10.3		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:25	VVD



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Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

07

3072831-07 (Drinking Water)
Sampled on: 06/20/23 05:18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	81.6		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:30	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:30	VVD



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Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

08

3072831-08 (Drinking Water)
Sampled on: 06/20/23 05:18

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	115		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:32	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:32	VVD



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Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

09

3072831-09 (Drinking Water)
Sampled on: 06/20/23 05:20

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	277		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:33	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:33	VVD



Will Brewington, President

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Project: ACPS-WR

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Project Manager: Michael Hamill

Reported:
08/04/23 16:27

10

3072831-10 (Drinking Water)
Sampled on: 06/20/23 05:24

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	124		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:35	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:35	VVD



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MD DW LabID 153

Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

11

3072831-11 (Drinking Water)
Sampled on: 06/20/23 05:25

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	104		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:43	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:43	VVD



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Will Brewington, President

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410-247-7600
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MD DW LabID 153

Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

12

3072831-12 (Drinking Water)
Sampled on: 06/20/23 05:27

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	312		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:45	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:45	VVD



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MD DW LabID 153

Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

13

3072831-13 (Drinking Water)
Sampled on: 06/20/23 05:28

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	188		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:50	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:50	VVD



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MD DW LabID 153

Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

14

3072831-14 (Drinking Water)
Sampled on: 06/20/23 05:29

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	111		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:51	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:51	VVD



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Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

15

3072831-15 (Drinking Water)
Sampled on: 06/20/23 05:32

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	116		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:53	VVD
Lead	2.17		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:53	VVD



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MD DW LabID 153

Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

16

3072831-16 (Drinking Water)
Sampled on: 06/20/23 05:35

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	150		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:55	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:55	VVD



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MD DW LabID 153

Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

17

3072831-17 (Drinking Water)
Sampled on: 06/20/23 05:36

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	72.0		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:56	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:56	VVD



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MD DW LabID 153

Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

18

3072831-18 (Drinking Water)
Sampled on: 06/20/23 05:38

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	91.5		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:58	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 19:58	VVD



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Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

19

3072831-19 (Drinking Water)
Sampled on: 06/20/23 05:39

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	97.9		ug/L	1.00	1.00	1	08/03/23	08/03/23 20:00	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 20:00	VVD



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MD DW LabID 153

Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

20

3072831-20 (Drinking Water)
Sampled on: 06/20/23 05:44

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	181		ug/L	1.00	1.00	1	08/03/23	08/03/23 20:01	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 20:01	VVD



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MD DW LabID 153

Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

21

3072831-21 (Drinking Water)
Sampled on: 06/20/23 05:45

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Copper	102		ug/L	1.00	1.00	1	08/03/23	08/03/23 20:13	VVD
Lead	ND		ug/L	1.00	1.00	1	08/03/23	08/03/23 20:13	VVD



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Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

Total Metals Analysis by EPA 200.8DW - Quality Control

Analyte	Result	Notes	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B308091 - 200.8-No Digestion Metals										
Blank (B308091-BLK1)					Prepared & Analyzed: 08/03/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B308091-BLK2)					Prepared & Analyzed: 08/03/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B308091-BLK3)					Prepared & Analyzed: 08/03/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B308091-BLK4)					Prepared & Analyzed: 08/03/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B308091-BLK5)					Prepared & Analyzed: 08/03/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B308091-BLK6)					Prepared & Analyzed: 08/03/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B308091-BLK7)					Prepared & Analyzed: 08/03/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B308091-BLK8)					Prepared & Analyzed: 08/03/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						

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Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

Total Metals Analysis by EPA 200.8DW - Quality Control

Analyte	Result	Notes	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B308091 - 200.8-No Digestion Metals										
Blank (B308091-BLK9)					Prepared & Analyzed: 08/03/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B308091-BLKA)					Prepared & Analyzed: 08/03/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B308091-BLKB)					Prepared & Analyzed: 08/03/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B308091-BLKC)					Prepared: 08/03/23 Analyzed: 08/04/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B308091-BLKD)					Prepared: 08/03/23 Analyzed: 08/04/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B308091-BLKE)					Prepared: 08/03/23 Analyzed: 08/04/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B308091-BLKF)					Prepared: 08/03/23 Analyzed: 08/04/23					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
LCS (B308091-BS1)					Prepared & Analyzed: 08/03/23					
Copper	10.4		1.00	ug/L	10.00		104	85-115		
Lead	9.73		1.00	ug/L	10.00		97	85-115		

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Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

Total Metals Analysis by EPA 200.8DW - Quality Control

Analyte	Result	Notes	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B308091 - 200.8-No Digestion Metals										
LCS (B308091-BS2)					Prepared & Analyzed: 08/03/23					
Copper	10.5		1.00	ug/L	10.00		105	85-115		
Lead	10.1		1.00	ug/L	10.00		101	85-115		
LCS (B308091-BS3)					Prepared & Analyzed: 08/03/23					
Copper	11.2		1.00	ug/L	10.00		112	85-115		
Lead	10.6		1.00	ug/L	10.00		106	85-115		
LCS (B308091-BS4)					Prepared & Analyzed: 08/03/23					
Copper	10.5		1.00	ug/L	10.00		105	85-115		
Lead	9.93		1.00	ug/L	10.00		99	85-115		
LCS (B308091-BS5)					Prepared & Analyzed: 08/03/23					
Copper	10.6		1.00	ug/L	10.00		106	85-115		
Lead	10.8		1.00	ug/L	10.00		108	85-115		
LCS (B308091-BS6)					Prepared & Analyzed: 08/03/23					
Copper	10.5		1.00	ug/L	10.00		105	85-115		
Lead	9.90		1.00	ug/L	10.00		99	85-115		
LCS (B308091-BS7)					Prepared & Analyzed: 08/03/23					
Copper	10.7		1.00	ug/L	10.00		107	85-115		
Lead	10.0		1.00	ug/L	10.00		100	85-115		
LCS (B308091-BS8)					Prepared & Analyzed: 08/03/23					
Copper	10.4		1.00	ug/L	10.00		104	85-115		
Lead	9.76		1.00	ug/L	10.00		98	85-115		
LCS (B308091-BS9)					Prepared & Analyzed: 08/03/23					
Copper	10.7		1.00	ug/L	10.00		107	85-115		
Lead	10.1		1.00	ug/L	10.00		101	85-115		

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Project: ACPS-WR

Project Number: 47:11652-E
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Reported:
08/04/23 16:27

Total Metals Analysis by EPA 200.8DW - Quality Control

Analyte	Result	Notes	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B308091 - 200.8-No Digestion Metals										
LCS (B308091-BSA)					Prepared & Analyzed: 08/03/23					
Copper	10.7		1.00	ug/L	10.00		107	85-115		
Lead	9.90		1.00	ug/L	10.00		99	85-115		
LCS (B308091-BSB)					Prepared & Analyzed: 08/03/23					
Copper	11.0		1.00	ug/L	10.00		110	85-115		
Lead	10.2		1.00	ug/L	10.00		102	85-115		
LCS (B308091-BSC)					Prepared: 08/03/23 Analyzed: 08/04/23					
Copper	10.5		1.00	ug/L	10.00		105	85-115		
Lead	9.85		1.00	ug/L	10.00		98	85-115		
LCS (B308091-BSD)					Prepared: 08/03/23 Analyzed: 08/04/23					
Copper	10.6		1.00	ug/L	10.00		106	85-115		
Lead	9.95		1.00	ug/L	10.00		100	85-115		
LCS (B308091-BSE)					Prepared: 08/03/23 Analyzed: 08/04/23					
Copper	10.6		1.00	ug/L	10.00		106	85-115		
Lead	9.93		1.00	ug/L	10.00		99	85-115		
LCS (B308091-BSF)					Prepared: 08/03/23 Analyzed: 08/04/23					
Copper	10.9		1.00	ug/L	10.00		109	85-115		
Lead	10.1		1.00	ug/L	10.00		101	85-115		
Duplicate (B308091-DUP1)			Source: 3072617-01		Prepared & Analyzed: 08/03/23					
Copper	35.5		1.00	ug/L		35.7			0.4	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B308091-DUP2)			Source: 3072831-11		Prepared & Analyzed: 08/03/23					
Copper	104		1.00	ug/L		104			0.2	20
Lead	ND		1.00	ug/L		ND				20

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Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

Total Metals Analysis by EPA 200.8DW - Quality Control

Analyte	Result	Notes	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B308091 - 200.8-No Digestion Metals										
Duplicate (B308091-DUP3)			Source: 3072831-20		Prepared & Analyzed: 08/03/23					
Copper	179		1.00	ug/L		181			0.9	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B308091-DUP4)			Source: 3072832-10		Prepared & Analyzed: 08/03/23					
Copper	554		1.00	ug/L		554			0.0001	20
Lead	2.23		1.00	ug/L		2.01			10	20
Duplicate (B308091-DUP5)			Source: 3072832-20		Prepared & Analyzed: 08/03/23					
Copper	379		1.00	ug/L		383			0.9	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B308091-DUP6)			Source: 3072833-10		Prepared & Analyzed: 08/03/23					
Copper	190		1.00	ug/L		193			2	20
Lead	19.8		1.00	ug/L		19.8			0.4	20
Duplicate (B308091-DUP7)			Source: 3072833-20		Prepared & Analyzed: 08/03/23					
Copper	214		1.00	ug/L		212			1	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B308091-DUP8)			Source: 3072834-10		Prepared & Analyzed: 08/03/23					
Copper	235		1.00	ug/L		233			1	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B308091-DUP9)			Source: 3072834-20		Prepared & Analyzed: 08/03/23					
Copper	242		1.00	ug/L		240			0.9	20
Lead	3.04		1.00	ug/L		3.01			1	20
Duplicate (B308091-DUPA)			Source: 3072835-10		Prepared & Analyzed: 08/03/23					
Copper	157		1.00	ug/L		156			0.4	20
Lead	ND		1.00	ug/L		ND				20

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Project: ACPS-WR

Project Number: 47:11652-E
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Reported:
08/04/23 16:27

Total Metals Analysis by EPA 200.8DW - Quality Control

Analyte	Result	Notes	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B308091 - 200.8-No Digestion Metals										
Duplicate (B308091-DUPB)			Source: 3072835-20		Prepared & Analyzed: 08/03/23					
Copper	366		1.00	ug/L		370			0.9	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B308091-DUPC)			Source: 3072836-10		Prepared: 08/03/23 Analyzed: 08/04/23					
Copper	323		1.00	ug/L		319			1	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B308091-DUPD)			Source: 3072836-20		Prepared: 08/03/23 Analyzed: 08/04/23					
Copper	247		1.00	ug/L		246			0.6	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B308091-DUPE)			Source: 3080108-01		Prepared: 08/03/23 Analyzed: 08/04/23					
Copper	451		1.00	ug/L		451			0.05	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B308091-DUPF)			Source: 3080108-05		Prepared: 08/03/23 Analyzed: 08/04/23					
Copper	5.50		1.00	ug/L		5.52			0.4	20
Lead	ND		1.00	ug/L		ND				20
Matrix Spike (B308091-MS1)			Source: 3072617-01		Prepared & Analyzed: 08/03/23					
Copper	44.7		1.00	ug/L	10.00	35.7	90	70-130		
Lead	11.3		1.00	ug/L	10.00	ND	113	70-130		
Matrix Spike (B308091-MS2)			Source: 3072831-11		Prepared & Analyzed: 08/03/23					
Copper	113		1.00	ug/L	10.00	104	87	70-130		
Lead	10.4		1.00	ug/L	10.00	ND	104	70-130		
Matrix Spike (B308091-MS3)			Source: 3072831-20		Prepared & Analyzed: 08/03/23					
Copper	200	QM-4X	1.00	ug/L	10.00	181	189	70-130		
Lead	10.4		1.00	ug/L	10.00	ND	104	70-130		

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Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

Total Metals Analysis by EPA 200.8DW - Quality Control

Analyte	Result	Notes	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B308091 - 200.8-No Digestion Metals										
Matrix Spike (B308091-MS4)			Source: 3072832-10			Prepared & Analyzed: 08/03/23				
Copper	545	QM-4X	1.00	ug/L	10.00	554	NR	70-130		
Lead	12.1		1.00	ug/L	10.00	2.01	101	70-130		
Matrix Spike (B308091-MS5)			Source: 3072832-20			Prepared & Analyzed: 08/03/23				
Copper	382	QM-4X	1.00	ug/L	10.00	383	NR	70-130		
Lead	10.3		1.00	ug/L	10.00	ND	103	70-130		
Matrix Spike (B308091-MS6)			Source: 3072833-10			Prepared & Analyzed: 08/03/23				
Copper	195	QM-4X	1.00	ug/L	10.00	193	23	70-130		
Lead	29.9		1.00	ug/L	10.00	19.8	101	70-130		
Matrix Spike (B308091-MS7)			Source: 3072833-20			Prepared & Analyzed: 08/03/23				
Copper	219	QM-4X	1.00	ug/L	10.00	212	67	70-130		
Lead	10.5		1.00	ug/L	10.00	ND	105	70-130		
Matrix Spike (B308091-MS8)			Source: 3072834-10			Prepared & Analyzed: 08/03/23				
Copper	240		1.00	ug/L	10.00	233	74	70-130		
Lead	10.1		1.00	ug/L	10.00	ND	101	70-130		
Matrix Spike (B308091-MS9)			Source: 3072834-20			Prepared & Analyzed: 08/03/23				
Copper	247		1.00	ug/L	10.00	240	78	70-130		
Lead	13.9		1.00	ug/L	10.00	3.01	109	70-130		
Matrix Spike (B308091-MSA)			Source: 3072835-10			Prepared & Analyzed: 08/03/23				
Copper	164		1.00	ug/L	10.00	156	74	70-130		
Lead	11.2		1.00	ug/L	10.00	ND	112	70-130		
Matrix Spike (B308091-MSB)			Source: 3072835-20			Prepared & Analyzed: 08/03/23				
Copper	370	QM-4X	1.00	ug/L	10.00	370	5	70-130		
Lead	10.9		1.00	ug/L	10.00	ND	109	70-130		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Will Brewington, President

Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

Total Metals Analysis by EPA 200.8DW - Quality Control

Analyte	Result	Notes	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B308091 - 200.8-No Digestion Metals

Matrix Spike (B308091-MSC)			Source: 3072836-10			Prepared: 08/03/23 Analyzed: 08/04/23				
Copper	324	QM-4X	1.00	ug/L	10.00	319	51	70-130		
Lead	11.0		1.00	ug/L	10.00	ND	110	70-130		
Matrix Spike (B308091-MSD)			Source: 3072836-20			Prepared: 08/03/23 Analyzed: 08/04/23				
Copper	252	QM-4X	1.00	ug/L	10.00	246	64	70-130		
Lead	10.7		1.00	ug/L	10.00	ND	107	70-130		
Matrix Spike (B308091-MSE)			Source: 3080108-01			Prepared: 08/03/23 Analyzed: 08/04/23				
Copper	453	QM-4X	1.00	ug/L	10.00	451	25	70-130		
Lead	12.2		1.00	ug/L	10.00	ND	122	70-130		
Matrix Spike (B308091-MSF)			Source: 3080108-05			Prepared: 08/03/23 Analyzed: 08/04/23				
Copper	15.6		1.00	ug/L	10.00	5.52	101	70-130		
Lead	10.5		1.00	ug/L	10.00	ND	105	70-130		

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Will Brewington, President

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
MD DW LabID 153

Project: ACPS-WR

Project Number: 47:11652-E
Project Manager: Michael Hamill

Reported:
08/04/23 16:27

Notes and Definitions

QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
RE	Sample reanalyses are done at the laboratory's discretion as a mechanism to improve data quality. Any client requested reanalysis will be identified with a sample qualifier.
ND	Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
%-Solids	Percent Solids is a supportive test and as such does not require accreditation



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Will Brewington, President

Company Name: ECS Mid-Atlantic LLC		Project Manager:		Analysis Requested								CHAIN-OF-CUSTODY RECORD							
Project Name: ACPS Drinking Water Periodic Monitoring		Project ID: 47-11652-E/William Ramsey																	
Sampler(s): Zach Harrell		P.O. Number:										Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410-247-7600 * Fax 410-247-7602 reporting@mdspectral.com							
State of Origin: VA												Matrix Codes: NPW - non-potable water DW - drinking water							
Field Sample ID:	Date	Time	DW	NPW	Soil	Other	Grab	Composite	# of containers								Preservative	Field Notes	MSS Lab ID
01	6-20-00	5:01								Level	Copper							Kitchen-Left	3072831-01 A
02		10:02																Kitchen-Right	-02
03		10:04																Cafeteria-Bulldoz	-03
04		10:10																Main Office-Bathroom Sink	-04
05		10:16																Art 51-Rm Room	-05
06		10:17																Art 52-Back Room	-06
07		10:18																29 Sink	-07
08		10:18																29 Bubble	-08
09		10:20																Outside 29 Bathroom Shower	-09
10		10:24																31 Sink	-10
Relinquished by: (Signature) <i>Zach Harrell</i>		Date/Time		Relinquished by: (Signature)		Please indicate if any of the following certifications are required:										<input type="checkbox"/> Virginia VELAP <input type="checkbox"/> Pennsylvania NELAP <input type="checkbox"/> West Virginia DEP		<input type="checkbox"/> MD Drinking Water <input type="checkbox"/> VA Drinking Water <input type="checkbox"/> Other _____	
(Printed) Zach Harrell				(Printed)		Turn Around Time:										Delivery Method:		Lab Use:	
Relinquished by: (Signature)		Date/Time		Received by lab: (Signature)		<input type="checkbox"/> Normal (7 day) <input type="checkbox"/> 5 day <input type="checkbox"/> 4 day <input type="checkbox"/> 3 day <input type="checkbox"/> Rush (2 day) <input type="checkbox"/> Next Day <input type="checkbox"/> Other: _____ <input type="checkbox"/> Specific Due Date: _____										<input type="checkbox"/> Courier <input type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> Fed Ex <input type="checkbox"/> USPS <input type="checkbox"/> Other _____		Temp: 23.6°C <input type="checkbox"/> Received on Ice <input type="checkbox"/> Received Same Day	
(Printed)		7-28-23 15:50		(Printed) Lori Foster														Sample Disposal:	
Special Instructions / QC Requirements & Comments:																		<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by lab <input type="checkbox"/> Archive for ___ days	

Company Name:		Project Manager:		Analysis Requested										CHAIN-OF-CUSTODY RECORD							
FCS Mid-Atlantic LLC.		Project ID: 47:11652-E / William Rensay												Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410-247-7600 * Fax 410-247-7602 reporting@mdspectral.com							
Project Name: ACBS Drinking Water Penetration Monitoring		P.O. Number:												Matrix Codes: NPW - non-potable water DW - drinking water							
Sampler(s): Zach Harrell		State of Origin: VA												Preservative		Field Notes		MSS Lab ID			
Field Sample ID:	Date	Time	DW	NPW	Soil	Other	Grab	Composite	# of containers												
11	6-28-20	5:25														31 Bubbler	3072831-11				
12		1:27														34 Sink	-12				
13		1:28														34 Sink	-13				
14		1:29														34 Sink	-14				
15		1:32														34 Sink	-15				
16		1:35														20 Sink	-16				
17		1:36														20 Sink	-17				
18		1:38														15 Sink	-18				
19		1:39														15 Sink	-19				
20		1:44														25 Sink	-20				
Relinquished by: (Signature)		Date / Time		Relinquished by: (Signature)		(Printed)		Please indicate if any of the following certifications are required:										MD Drinking Water		VA Drinking Water	
Zach Harrell								<input type="checkbox"/> Virginia VELAP <input type="checkbox"/> Pennsylvania NELAP <input type="checkbox"/> West Virginia DEP										<input type="checkbox"/> MD Drinking Water <input type="checkbox"/> VA Drinking Water <input type="checkbox"/> Other			
Relinquished by: (Signature)		Date / Time		Received by lab: (Signature)		(Printed)		Turn Around Time:										Delivery Method:		Lab Use:	
Zach Harrell								<input type="checkbox"/> Normal (7 day) <input type="checkbox"/> 5 day <input type="checkbox"/> 4 day <input type="checkbox"/> 3 day <input type="checkbox"/> Rush (2 day) <input type="checkbox"/> Next Day <input type="checkbox"/> Other:										<input type="checkbox"/> Courier <input type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> Fed Ex <input type="checkbox"/> USPS <input type="checkbox"/> Other		Temp: °C <input type="checkbox"/> Received on Ice <input type="checkbox"/> Received Same Day	
Relinquished by: (Signature)		Date / Time		Received by lab: (Signature)		(Printed)		Special Instructions / QC Requirements & Comments:										Sample Disposal:		Return to Client	
Zach Harrell																		<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by lab <input type="checkbox"/> Archive for ___ days			

21 September 2023

Lauren Kesslak
ECS-Chantilly
14026 Thunderbolt Place, Suite 100
Chantilly, VA 20151
RE: ACPS LEAD WATER SAMPLING WILLIAM RAMSEY

Enclosed are the results of analyses for samples received by the laboratory on 09/15/23 14:40.

Maryland Spectral Services, Inc. is a TNI 2009 Standard accredited laboratory and as such, all analyses performed at Maryland Spectral Services included in this report are 2009 TNI certified except as indicated at the end of this report. Please visit our website at www.mdspectral.com for a complete listing of our TNI 2009 Standard accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Brewington
President

Analytical Results

Project: ACPS LEAD WATER SAMPLING WILLIAM RAMSEY

Project Number: 47:11652-E

Project Manager: Lauren Kesslak

1500 Caton Center Dr Suite G

Baltimore MD 21227

410-247-7600

www.mdspectral.com

Reported:

09/21/23 12:30

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
01-A		3091515-01	Drinking Water	09/15/23 05:08	09/15/23 14:40



Will Brewington, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Analytical Results

Project: ACPS LEAD WATER SAMPLING WILLIAM RAMSEY

Project Number: 47:11652-E
Project Manager: Lauren Kesslak

01-A

3091515-01 (Drinking Water)

Sampled on: 09/15/23 05:08

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals									
Lead	11.6		ug/L	1.00	1.00	1	09/20/23	09/20/23 13:51	AWH



Will Brewington, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Analytical Results

Project: ACPS LEAD WATER SAMPLING WILLIAM RAMSEY

Project Number: 47:11652-E

Project Manager: Lauren Kesslak

Notes and Definitions

RE	Sample reanalyses are done at the laboratory's discretion as a mechanism to improve data quality. Any client requested reanalysis will be identified with a sample qualifier.
ND	Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
%-Solids	Percent Solids is a supportive test and as such does not require accreditation

If this report contains any samples analyzed for gasoline range organics (GRO) by EPA Method 8015C and no trip blank was shipped, stored, and received with the sample(s) as required by Section 3.1 of the EPA Method, the sample analysis contained in this report cannot exclude the possibility that any reportable GRO measurement was due to environmental contamination of the sample during shipping or storage.



Will Brewington, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Company Name: ECS (Va)		Project Manager: Lauren Kessler		Analysis Requested												CHAIN-OF-CUSTODY RECORD											
Project Name: ACPS Lead Water Sampling William Ramsey		Project ID: 11652-E														No. of Containers Lead									Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410-247-7600 • Fax 410-247-7602 labman@mdspectral.com		
Sampler(s): William Sargeant		P.O. Number:																									
Field Sample ID		Date	Time																								
01-A	9/15	5:08 AM	X				X							HNO ₃		3091515-01											
Relinquished by: (Signature) <i>William Sargeant</i>		Date/Time 9/15		Received by: (Signature)				Relinquished by: (Signature)				Date/Time		Received by: (Signature)													
(Printed) William Sargeant		12:00 PM		(Printed)				(Printed)						(Printed)													
Relinquished by: (Signature)		Date/Time		Received by Lab: (Signature)				Turn Around Time:				Lab Use:															
(Printed)		9-15-23		14:40 <i>Lori Foster</i>				<input type="checkbox"/> Normal (7 day) <input checked="" type="checkbox"/> 5 day <input type="checkbox"/> 4 day <input type="checkbox"/> 3 day <input type="checkbox"/> Rush (2 day) <input type="checkbox"/> Next Day <input type="checkbox"/> Other: _____ <input type="checkbox"/> Specific Due Date: _____				Temp: _____ °C <i>23.5</i> <input type="checkbox"/> Received on Ice <input checked="" type="checkbox"/> Received same day <input type="checkbox"/> Preservation Appropriate															
Delivery Method: <input checked="" type="checkbox"/> Courier <input type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Other: _____		Special Instructions/QC Requirements & Comments:																									