

LIMITED LEAD IN DRINKING WATER JUNE 2021 RESAMPLING EVENT



ACPS MINNIE HOWARD SCHOOL

3801 WEST BRADDOCK ROAD
ALEXANDRIA, VIRGINIA 22302

ECS PROJECT NO. 47:11652-E

FOR: ALEXANDRIA CITY PUBLIC SCHOOLS

JULY 19, 2021





July 19, 2021

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

ECS Project No. 47:11652-E

Reference: Limited Lead in Drinking Water June 2021 Resampling Event, ACPS Minnie Howard School, 3801 West Braddock Road, Alexandria, Virginia

Dear Mr. Contreras:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide Alexandria City Public Schools with the results of the Limited Lead in Drinking Water June 2021 Resampling Event performed at ACPS Minnie Howard School located at 3801 West Braddock Road in Alexandria, Virginia. 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 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 black ink, appearing to read 'Jennifer Turner', written in a cursive style.

Jennifer Turner
Environmental Scientist
jturner@ecslimited.com
703-471-8400

A handwritten signature in black ink, appearing to read 'Michael Hamill', written in a cursive style.

Michael Hamill, CIH
Senior Project Manager
MHamill@ecslimited.com
703-471-8400

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1.0 SITE DESCRIPTION

The ACPS Minnie Howard School is a two-story school building with a lower level and a basement located at 3801 West Braddock Road in Alexandria, Virginia. The building is currently occupied and is used by Alexandria City Public Schools (ACPS) as a school. The site is located within Alexandria and is under the jurisdiction of the City of Alexandria and U.S. Environmental Protection Agency (EPA) drinking water regulations.

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). This ACPS building is connected to a public water system and therefore; does not have its own water supply nor is it considered a non-transient, non-community water system (NTNCWS) as defined by the EPA's Lead and Copper Rule.

2.0 PURPOSE

ECS previously provided lead and copper drinking water testing at the Minnie Howard School in December 2019, October 2020, and January 2021. The purpose of this water sampling event was to perform periodic testing of the high school to identify if the sinks, water fountains, bottle refilling stations, and/or bubblers within the above-referenced building contain lead and/or copper concentrations in excess of the EPA's Lead and Copper Rule action levels as a part of the ACPS 3-year rotating sampling plan. The purpose of this sampling event was a screening of the potable outlets (sinks, water fountains, bottle refilling stations, and bubblers excluding gang bathroom sinks) within the building.

The EPA created the Lead and Copper Rule under the SWDA. The EPA's Lead and Copper Rule established a lead action level of 0.015 mg/L (milligrams/liter) or 0.015 parts per million (PPM). The EPA's Lead and Copper Rule established a copper action level of 1.3 mg/L or 1.3 PPM. Note that ACPS buildings are not regulated by the EPA's Lead and Copper Rule because they do not meet the definition of a public water system as defined in EPA's 40 CFR Section 141 Subpart A.

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 (0.010 PPM), 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 or copper in drinking water but it does reference the action levels created for public water systems in the EPA's Lead and Copper Rule. The results of this water sampling event will be compared to the action levels set in the EPA's Lead and Copper Rule.

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 Drinking Water

Sample protocols were performed in general accordance with the US EPA's 3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance (EPA 815-B-18-007) and the US EPA's Lead and Copper Rule. Water samples were collected from approximately 20% of the accessible potable water sources within the building including sinks, water fountains, and bottle refilling stations, with a minimum of two samples per floor. Samples were not collected from the exterior of the building or from janitor slop sinks.

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 8 hours prior to sampling. ACPS personnel granted ECS access to the building. ECS attempted to access all drinking water sources within the building. 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 water samples were sealed and transported by courier to Maryland Spectral Services, Inc. located in Baltimore, Maryland. The water samples were submitted for lead and copper drinking water analysis per EPA Method 200.8.

Please note that efforts were made to collect samples from selected outlets in accordance with the methodology described above. Some areas within the building were locked. ECS was not able to sample outlets in the locked areas.

4.0 RESULTS

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

4.1 Lead in Drinking Water

None of the water samples collected were reported to have concentrations above the EPA lead action level of 0.015 mg/L (PPM). 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. Note that the analytical results displayed in the table have been converted to mg/L (PPM) 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.

4.2 Copper in Drinking Water

The water sample collected from the left sink at Table 4 in Room 109 was reported to have a concentration of copper above the EPA copper action level of 1.3 mg/L (PPM). 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. Note that the analytical results displayed in the table have been converted to mg/L (PPM) 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 Limited Lead in Drinking Water June 2021 Resampling Event, the results of laboratory analysis, and our findings and observations, ECS presents the following recommendations.

5.1 Lead in Drinking Water

The sample results were reported below the EPA's Lead and Copper Rule copper action level. No additional testing or remediation action in response to this copper drinking water sampling event is recommended at this time.

The EPA does not specify a specific time frame for which follow-up testing for schools needs to be performed. The EPA suggests 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. As good practice, ECS recommends including this building in a comprehensive periodic follow-up screening sampling plan in which screening samples should be collected from this building at a minimum of every three years. If additional guidelines or regulations are enacted at a state or federal level in the future, the frequency of testing should be modified to reflect these changes.

5.2 Copper in Drinking Water

The water sample collected from the left sink at Table 4 in Room 109 was reported above the copper action level. The other samples collected from the building were reported below the action level. The EPA's 3Ts document recommends that if initial testing results are reported above the action level, follow-up flush sampling should be performed to determine if the contamination is from the fixture or interior plumbing components.

ECS recommends follow-up flush testing be performed for the water outlet which was reported to have concentrations above the EPA copper action level of 1.3 mg/L (PPM) as described above or long term remediation actions should be implemented. For remediation actions, a group of professionals, including school administrators, plumbers, maintenance staff, and industrial hygienist, should be consulted.

Pending the result of the follow up testing, ECS recommends the following immediate steps:

- The water outlet that was reported to have an elevated level should be shut-off until additional remediation steps are established;
- A placard should be posted on the elevated outlet with a notice that water should not be consumed or used for cooking. The placard should use pictures if there are small children using the building; and,
- Consult the plumbing staff, facilities staff, and EPA's 3Ts document to determine whether short term control measures should be implemented prior to the receiving the follow-up flush sampling result.

In addition to the remediation efforts for the elevated outlets, ECS recommends periodic 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.

As good practice, ECS recommends including this building in a comprehensive periodic follow-up screening sampling plan in which screening samples should be collected from this building at a minimum of every three years. If additional guidelines or regulations are enacted at a state or federal level in the future, the frequency of testing should be modified to reflect these changes.

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.

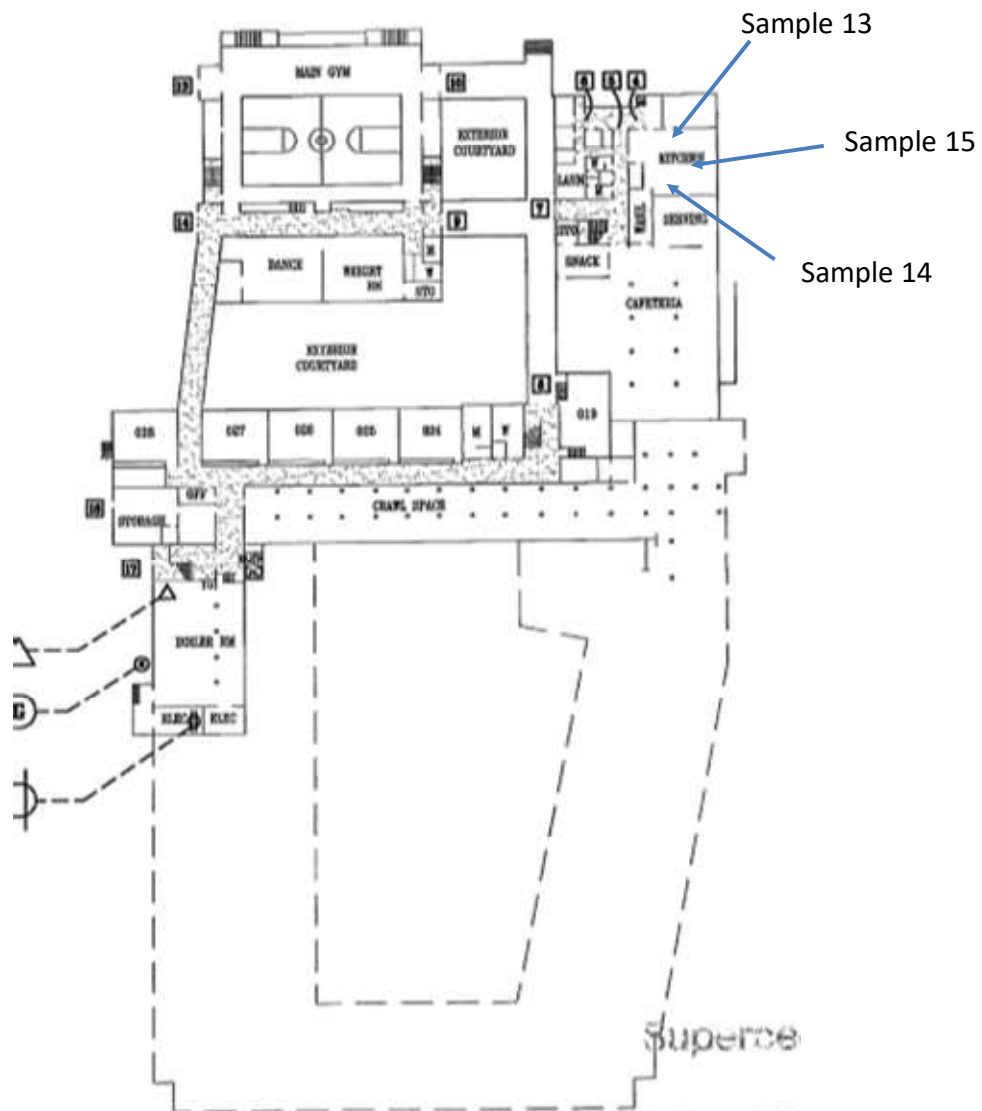
The water samples collected and analyzed are only reflective of conditions at the time of this sampling event for the date of this report and these parameters can vary rapidly over time, depending upon a number of conditions, including site-specific construction and environmental factors. As such, the sampling and results associated with this assessment is intended only as a description of available information at the dates and locations given. This report has been prepared in accordance with generally accepted environmental practices. Our conclusions and findings are based, in part, upon information provided to us by others and our site observations. We have not verified the completeness or accuracy of the information provided by others.

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: Sample Location Sketch

<div data-bbox="73 1003 777 1079" data-label="Text"> <p>*Note: No basement level samples were collected due to water fountains being turned off.</p> </div> <div data-bbox="73 1209 472 1388" data-label="List-Group"> <ul style="list-style-type: none"> ● Elevated Lead ● Elevated Copper 1014 ● Elevated Lead & Copper ● Notifiable Lead Concentration </div> <div data-bbox="735 284 1396 1299" data-label="Diagram"> <p>The diagram is a floor plan sketch of a basement. It shows a large rectangular area with a dashed outline. Inside, there are several smaller rooms and corridors. At the top, there are two rooms labeled 'BOY'S LOCKERS' and 'GIRL'S LOCKERS'. Below these are two rooms labeled 'OFFICE'. A central staircase is indicated by a set of parallel lines. A large 'Supersede' stamp is visible in the lower right corner of the plan.</p> </div>	<div data-bbox="1879 251 1984 544" data-label="Text"> <p>Minnie Howard School 3801 West Braddock Road Alexandria, VA 22302</p> </div>
	<div data-bbox="1837 633 2026 787" data-label="Image"> </div>
	<div data-bbox="1858 860 2005 1144" data-label="Section-Header"> <p>Sample Location Sketch Basement</p> </div>
	<div data-bbox="1848 1201 1974 1242" data-label="Text"> <p>Scale: NTS</p> </div>
	<div data-bbox="1848 1274 1984 1339" data-label="Text"> <p>Project No. 47:11652-E</p> </div>
	<div data-bbox="1869 1364 1984 1429" data-label="Text"> <p>Site Visit: 06/15/21</p> </div>



- Elevated Lead
- Elevated Copper 1014
- Elevated Lead & Copper
- Notifiable Lead Concentration

Minnie Howard School
3801 West Braddock Road
Alexandria, VA 22302



**Sample Location
Sketch
Lower Level**

Scale: NTS

Project No.
47:11652-E

Site Visit:
06/15/21

- 1014

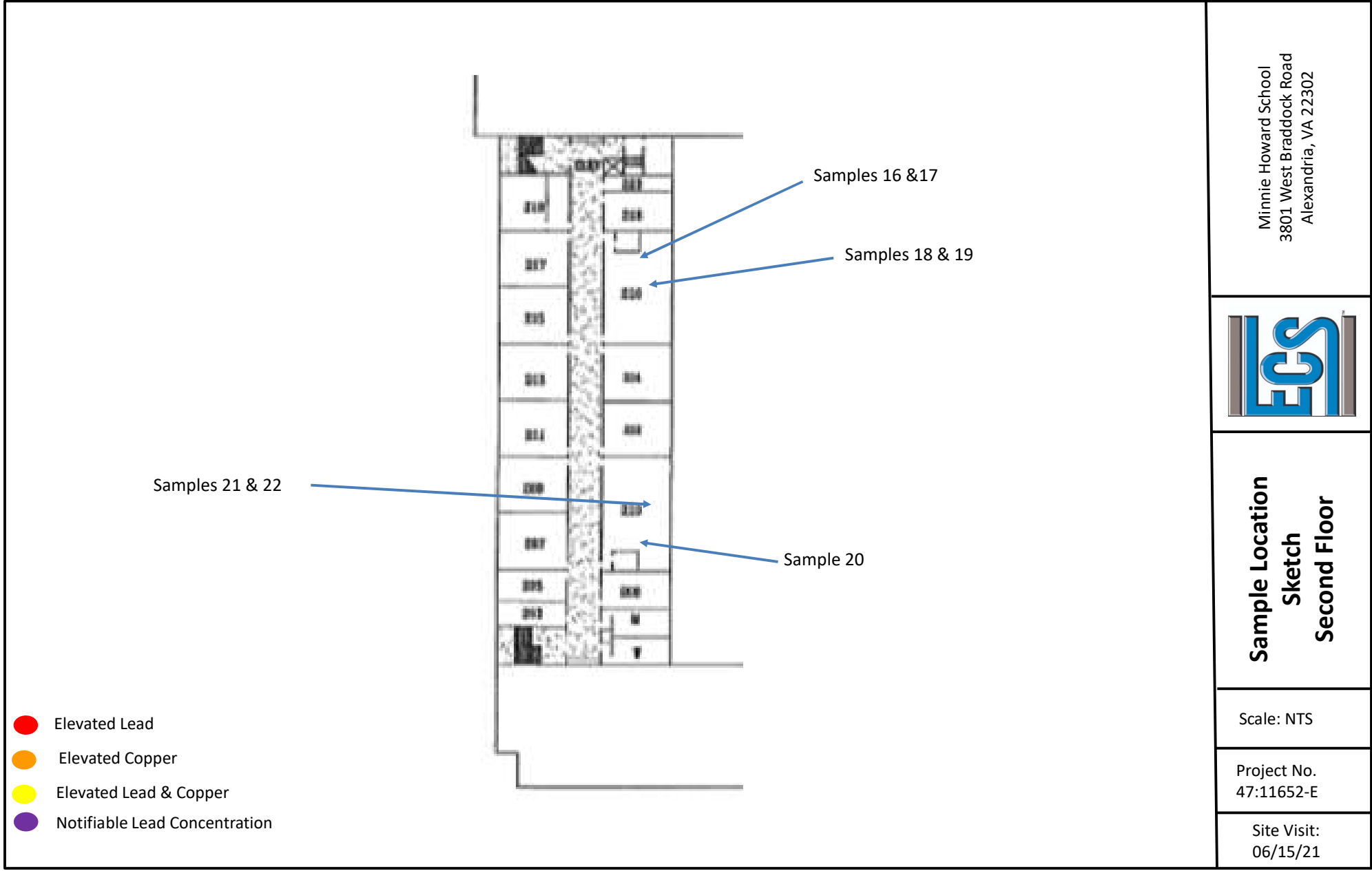


Sample Location
Sketch
First Floor

Scale: NTS

Project No.
47:11652-E

Site Visit:
06/15/21



Appendix II: Lead and Copper Drinking Water Sample Results



Minnie Howard School Copper and Lead Drinking Water Results Table		
Sample Number	Copper Result (mg/L)	Lead Result (mg/L)
061521MH-01-115 S	0.510	0.002
061521MH-02-115 SL	0.941	0.002
061521MH-03-115 SR	1.170	0.002
061521MH-04-105 S	0.186	<0.001
061521MH-05-156 SL	0.371	<0.001
061521MH-06-156 SR	0.622	0.009
061521MH-07-155 SL	0.422	0.002
061521MH-08-155 SR	0.507	0.002
061521MH-09-142 SL	0.383	0.004
061521MH-10-142 SR	0.357	0.004
061521MH-11-109 SL	1.420	0.009
061521MH-12-109 SR	0.540	0.006
061521MH-13-BACK KITCHEN	0.367	<0.001
061521MH-14-FRONT KITCHEN	0.501	0.003
061521MH-15-MIDDLE KITCHEN	0.701	0.004
061521MH-16-216 SL	1.100	0.004
061521MH-17-216 SR	0.814	0.004
061521MH-18-216 SL	0.661	0.004
061521MH-19-216 SR	0.717	0.004

Table Notes:

Red = Above the Action Level

Orange = Above 0.010 mg/L and below 0.015 mg/L



Sample Number	Copper Result (mg/L)	Lead Result (mg/L)
061521MH-20- SR	0.359	<0.001
061521MH-21-210 SL	0.821	<0.001
The EPA's Lead and Copper Rule set an action level of 0.015 mg/L for lead and an action level of 1.3 mg/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 0.01 mg/L of Lead (Pb).		

Table Notes:

Red = Above the Action Level

Orange = Above 0.010 mg/L and below 0.015 mg/L

Appendix III: Laboratory Report(s)

23 June 2021

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

Enclosed are the results of analyses for samples received by the laboratory on 06/15/21 14:39.

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,



Rabecka Koons
Quality Assurance Officer

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

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
061521MH-01-115 S		1061519-01	Nonpotable Water	06/15/21 05:18	06/15/21 14:39
061521MH-02-115 SL		1061519-02	Nonpotable Water	06/15/21 05:20	06/15/21 14:39
061521MH-03-115 SR		1061519-03	Nonpotable Water	06/15/21 05:20	06/15/21 14:39
061521MH-04-105 S		1061519-04	Nonpotable Water	06/15/21 05:26	06/15/21 14:39
061521MH-05-156 SL		1061519-05	Nonpotable Water	06/15/21 05:32	06/15/21 14:39
061521MH-06-156 SR		1061519-06	Nonpotable Water	06/15/21 05:32	06/15/21 14:39
061521MH-07-155 SL		1061519-07	Nonpotable Water	06/15/21 05:34	06/15/21 14:39
061521MH-08-155 SR		1061519-08	Nonpotable Water	06/15/21 05:34	06/15/21 14:39
061521MH-09-142 SL		1061519-09	Nonpotable Water	06/15/21 05:36	06/15/21 14:39
061521MH-10-142 SR		1061519-10	Nonpotable Water	06/15/21 05:36	06/15/21 14:39
061521MH-11-109 SL		1061519-11	Nonpotable Water	06/15/21 05:45	06/15/21 14:39
061521MH-12-109 SR		1061519-12	Nonpotable Water	06/15/21 05:45	06/15/21 14:39
061521MH-13-BACK KITCHEN		1061519-13	Nonpotable Water	06/15/21 05:48	06/15/21 14:39
061521MH-14-FRONT KITCHEN		1061519-14	Nonpotable Water	06/15/21 05:49	06/15/21 14:39
061521MH-15-MIDDLE KITCHEN		1061519-15	Nonpotable Water	06/15/21 05:50	06/15/21 14:39
061521MH-16-216 SL		1061519-16	Nonpotable Water	06/15/21 06:03	06/15/21 14:39
061521MH-17-216 SR		1061519-17	Nonpotable Water	06/15/21 06:03	06/15/21 14:39
061521MH-18-216 SL		1061519-18	Nonpotable Water	06/15/21 06:04	06/15/21 14:39
061521MH-19-216 SR		1061519-19	Nonpotable Water	06/15/21 06:05	06/15/21 14:39
061521MH-20- SR		1061519-20	Nonpotable Water	06/15/21 06:05	06/15/21 14:39
061521MH-21-210 SL		1061519-21	Nonpotable Water	06/15/21 06:10	06/15/21 14:39

Rabecka Koons

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.

Rabecka Koons, Quality Assurance Officer

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

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-01-115 S

1061519-01 (Nonpotable Water)
Sample Date: 06/15/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.2-Digested Metals									
Copper	510		ug/L	1.00	1.00	1	06/18/21	06/21/21 18:18	VVD
Lead	1.58		ug/L	1.00	1.00	1	06/18/21	06/21/21 18:18	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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Baltimore MD 21227
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MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-02-115 SL

1061519-02 (Nonpotable Water)
Sample Date: 06/15/21

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	941		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:06	VVD
Lead	2.44		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:06	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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www.mdspectral.com
MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-03-115 SR

1061519-03 (Nonpotable Water)
Sample Date: 06/15/21

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	1170		ug/L	10.0	10.0	10	06/21/21	06/22/21 18:06	VVD
Lead	1.84		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:08	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-04-105 S

1061519-04 (Nonpotable Water)

Sample Date: 06/15/21

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	186		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:11	VVD
Lead	ND		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:11	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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1500 Caton Center Dr Suite G
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www.mdspectral.com
MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-05-156 SL

1061519-05 (Nonpotable Water)
Sample Date: 06/15/21

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	371		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:13	VVD
Lead	ND		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:13	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-06-156 SR

1061519-06 (Nonpotable Water)
Sample Date: 06/15/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.2-Digested Metals									
Copper	622		ug/L	1.00	1.00	1	06/18/21	06/21/21 18:21	VVD
Lead	9.17		ug/L	1.00	1.00	1	06/18/21	06/21/21 18:21	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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1500 Caton Center Dr Suite G
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www.mdspectral.com
MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-07-155 SL

1061519-07 (Nonpotable Water)
Sample Date: 06/15/21

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	422		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:15	VVD
Lead	1.77		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:15	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-08-155 SR

1061519-08 (Nonpotable Water)
Sample Date: 06/15/21

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	507		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:18	VVD
Lead	1.69		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:18	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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Baltimore MD 21227
410-247-7600
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MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-09-142 SL

1061519-09 (Nonpotable Water)
Sample Date: 06/15/21

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	383		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:20	VVD
Lead	3.62		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:20	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-10-142 SR

1061519-10 (Nonpotable Water)
Sample Date: 06/15/21

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	357		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:28	VVD
Lead	3.80		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:28	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-11-109 SL

1061519-11 (Nonpotable Water)
Sample Date: 06/15/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DW Prepared by 200.2-Digested Metals									
Copper	1420		ug/L	10.0	10.0	10	06/18/21	06/22/21 17:50	VVD
Lead	8.95		ug/L	1.00	1.00	1	06/18/21	06/21/21 18:23	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-12-109 SR

1061519-12 (Nonpotable Water)
Sample Date: 06/15/21

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	540		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:40	VVD
Lead	5.83		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:40	VVD

Rabecka Koons

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MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-13-BACK KITCHEN

1061519-13 (Nonpotable Water)
Sample Date: 06/15/21

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	367		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:42	VVD
Lead	ND		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:42	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-14-FRONT KITCHEN

1061519-14 (Nonpotable Water)
Sample Date: 06/15/21

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	501		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:45	VVD
Lead	2.95		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:45	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-15-MIDDLE KITCHEN

**1061519-15 (Nonpotable Water)
Sample Date: 06/15/21**

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	701		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:47	VVD
Lead	4.33		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:47	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-16-216 SL

1061519-16 (Nonpotable Water)
Sample Date: 06/15/21

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	1100		ug/L	10.0	10.0	10	06/21/21	06/22/21 18:09	VVD
Lead	4.48		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:49	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-17-216 SR

1061519-17 (Nonpotable Water)
Sample Date: 06/15/21

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	814		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:57	VVD
Lead	3.52		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:57	VVD

Rabecka Koons

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MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-18-216 SL

1061519-18 (Nonpotable Water)
Sample Date: 06/15/21

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	661		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:59	VVD
Lead	4.22		ug/L	1.00	1.00	1	06/21/21	06/21/21 22:59	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-19-216 SR

1061519-19 (Nonpotable Water)
Sample Date: 06/15/21

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	717		ug/L	1.00	1.00	1	06/21/21	06/21/21 23:01	VVD
Lead	4.08		ug/L	1.00	1.00	1	06/21/21	06/21/21 23:01	VVD

Rabecka Koons

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Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-20- SR

1061519-20 (Nonpotable Water)
Sample Date: 06/15/21

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	359		ug/L	1.00	1.00	1	06/21/21	06/21/21 23:04	VVD
Lead	ND		ug/L	1.00	1.00	1	06/21/21	06/21/21 23:04	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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MD DW LabID 153

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

061521MH-21-210 SL

1061519-21 (Nonpotable Water)
Sample Date: 06/15/21

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	821		ug/L	1.00	1.00	1	06/21/21	06/21/21 23:06	VVD
Lead	ND		ug/L	1.00	1.00	1	06/21/21	06/21/21 23:06	VVD

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

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 B106348 - 200.2-Digested Metals										
Blank (B106348-BLK1)					Prepared: 06/18/21 Analyzed: 06/21/21					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B106348-BLK2)					Prepared: 06/18/21 Analyzed: 06/21/21					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B106348-BLK3)					Prepared: 06/18/21 Analyzed: 06/21/21					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
LCS (B106348-BS1)					Prepared: 06/18/21 Analyzed: 06/21/21					
Copper	9.72		1.00	ug/L	10.0		97	80-120		
Lead	8.89		1.00	ug/L	10.0		89	80-120		
LCS (B106348-BS2)					Prepared: 06/18/21 Analyzed: 06/21/21					
Copper	9.34		1.00	ug/L	10.0		93	80-120		
Lead	8.66		1.00	ug/L	10.0		87	80-120		
LCS (B106348-BS3)					Prepared: 06/18/21 Analyzed: 06/21/21					
Copper	9.50		1.00	ug/L	10.0		95	80-120		
Lead	8.83		1.00	ug/L	10.0		88	80-120		
Duplicate (B106348-DUP1)			Source: 1061413-17		Prepared: 06/18/21 Analyzed: 06/21/21					
Copper	419		1.00	ug/L		418			0.3	20
Lead	3.84		1.00	ug/L		3.86			0.7	20
Duplicate (B106348-DUP2)			Source: 1061519-01		Prepared: 06/18/21 Analyzed: 06/21/21					
Copper	505		1.00	ug/L		510			1	20
Lead	1.61		1.00	ug/L		1.58			2	20

Rabecka Koons

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Rabecka Koons, Quality Assurance Officer

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

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 B106348 - 200.2-Digested Metals

Duplicate (B106348-DUP3)			Source: 1061622-09		Prepared: 06/18/21 Analyzed: 06/21/21					
Copper	313		1.00	ug/L		311			0.5	20
Lead	5.91		1.00	ug/L		5.82			2	20
Matrix Spike (B106348-MS1)			Source: 1061413-17		Prepared: 06/18/21 Analyzed: 06/21/21					
Copper	426	QM-4X	1.00	ug/L	10.0	418	78	80-120		
Lead	12.8		1.00	ug/L	10.0	3.86	90	80-120		
Matrix Spike (B106348-MS2)			Source: 1061519-01		Prepared: 06/18/21 Analyzed: 06/21/21					
Copper	511	QM-4X	1.00	ug/L	10.0	510	14	80-120		
Lead	10.5		1.00	ug/L	10.0	1.58	89	80-120		
Matrix Spike (B106348-MS3)			Source: 1061622-09		Prepared: 06/18/21 Analyzed: 06/21/21					
Copper	314	QM-4X	1.00	ug/L	10.0	311	27	80-120		
Lead	14.8		1.00	ug/L	10.0	5.82	90	80-120		

Batch B106366 - 200.8-No Digestion Metals

Blank (B106366-BLK1)			Prepared & Analyzed: 06/21/21							
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B106366-BLK2)			Prepared & Analyzed: 06/21/21							
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B106366-BLK3)			Prepared & Analyzed: 06/21/21							
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						

Rabecka Koons

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Rabecka Koons, Quality Assurance Officer

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

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 B106366 - 200.8-No Digestion Metals										
Blank (B106366-BLK4)					Prepared & Analyzed: 06/21/21					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B106366-BLK5)					Prepared & Analyzed: 06/21/21					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B106366-BLK6)					Prepared & Analyzed: 06/21/21					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B106366-BLK7)					Prepared & Analyzed: 06/21/21					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B106366-BLK8)					Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B106366-BLK9)					Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B106366-BLKA)					Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B106366-BLKB)					Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						

Rabecka Koons

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Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

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 B106366 - 200.8-No Digestion Metals										
LCS (B106366-BS1)					Prepared & Analyzed: 06/21/21					
Copper	10.1		1.00	ug/L	10.0		101	80-120		
Lead	9.27		1.00	ug/L	10.0		93	80-120		
LCS (B106366-BS2)					Prepared & Analyzed: 06/21/21					
Copper	10.2		1.00	ug/L	10.0		102	80-120		
Lead	9.46		1.00	ug/L	10.0		95	80-120		
LCS (B106366-BS3)					Prepared & Analyzed: 06/21/21					
Copper	10.4		1.00	ug/L	10.0		104	80-120		
Lead	9.49		1.00	ug/L	10.0		95	80-120		
LCS (B106366-BS4)					Prepared & Analyzed: 06/21/21					
Copper	10.1		1.00	ug/L	10.0		101	80-120		
Lead	9.40		1.00	ug/L	10.0		94	80-120		
LCS (B106366-BS5)					Prepared & Analyzed: 06/21/21					
Copper	9.45		1.00	ug/L	10.0		95	80-120		
Lead	8.77		1.00	ug/L	10.0		88	80-120		
LCS (B106366-BS6)					Prepared & Analyzed: 06/21/21					
Copper	10.5		1.00	ug/L	10.0		105	80-120		
Lead	9.61		1.00	ug/L	10.0		96	80-120		
LCS (B106366-BS7)					Prepared & Analyzed: 06/21/21					
Copper	9.37		1.00	ug/L	10.0		94	80-120		
Lead	8.74		1.00	ug/L	10.0		87	80-120		
LCS (B106366-BS8)					Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	10.1		1.00	ug/L	10.0		101	80-120		
Lead	9.50		1.00	ug/L	10.0		95	80-120		

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

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 B106366 - 200.8-No Digestion Metals										
LCS (B106366-BS9)					Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	9.94		1.00	ug/L	10.0		99	80-120		
Lead	9.21		1.00	ug/L	10.0		92	80-120		
LCS (B106366-BSA)					Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	10.0		1.00	ug/L	10.0		100	80-120		
Lead	9.38		1.00	ug/L	10.0		94	80-120		
LCS (B106366-BSB)					Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	9.94		1.00	ug/L	10.0		99	80-120		
Lead	9.52		1.00	ug/L	10.0		95	80-120		
Duplicate (B106366-DUP1)			Source: 1061413-01		Prepared & Analyzed: 06/21/21					
Copper	280		1.00	ug/L		282			0.5	20
Lead	1.17		1.00	ug/L		1.05			11	20
Duplicate (B106366-DUP2)			Source: 1061413-20		Prepared & Analyzed: 06/21/21					
Copper	599		1.00	ug/L		602			0.5	20
Lead	2.56		1.00	ug/L		2.55			0.5	20
Duplicate (B106366-DUP3)			Source: 1061414-01		Prepared & Analyzed: 06/21/21					
Copper	74.2		1.00	ug/L		74.6			0.5	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B106366-DUP4)			Source: 1061519-02		Prepared & Analyzed: 06/21/21					
Copper	949		1.00	ug/L		941			0.8	20
Lead	2.44		1.00	ug/L		2.44			0.09	20
Duplicate (B106366-DUP5)			Source: 1061520-01		Prepared & Analyzed: 06/21/21					
Copper	411		1.00	ug/L		412			0.2	20
Lead	2.74		1.00	ug/L		2.77			1	20

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

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 B106366 - 200.8-No Digestion Metals										
Duplicate (B106366-DUP6)			Source: 1061603-01		Prepared & Analyzed: 06/21/21					
Copper	30.4		1.00	ug/L		30.5			0.4	20
Lead	2.03		1.00	ug/L		2.01			0.8	20
Duplicate (B106366-DUP7)			Source: 1061622-01		Prepared & Analyzed: 06/21/21					
Copper	102		1.00	ug/L		103			0.8	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B106366-DUP8)			Source: 1061622-20		Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	144		1.00	ug/L		146			0.9	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B106366-DUP9)			Source: 1061622-42		Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	128		1.00	ug/L		130			2	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B106366-DUPA)			Source: 1061622-60		Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	190		1.00	ug/L		185			3	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B106366-DUPB)			Source: 1061804-01		Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	17.2		1.00	ug/L		17.4			1	20
Lead	ND		1.00	ug/L		1.22				20
Matrix Spike (B106366-MS1)			Source: 1061413-01		Prepared & Analyzed: 06/21/21					
Copper	285	QM-4X	1.00	ug/L	10.0	282	34	80-120		
Lead	10.9		1.00	ug/L	10.0	1.05	98	80-120		
Matrix Spike (B106366-MS2)			Source: 1061413-20		Prepared & Analyzed: 06/21/21					
Copper	592	QM-4X	1.00	ug/L	10.0	602	NR	80-120		
Lead	12.1		1.00	ug/L	10.0	2.55	96	80-120		

Rabecka Koons

Rabecka Koons, Quality Assurance Officer

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Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

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 B106366 - 200.8-No Digestion Metals										
Matrix Spike (B106366-MS3)			Source: 1061414-01		Prepared & Analyzed: 06/21/21					
Copper	82.7		1.00	ug/L	10.0	74.6	81	80-120		
Lead	10.8		1.00	ug/L	10.0	ND	108	80-120		
Matrix Spike (B106366-MS4)			Source: 1061519-02		Prepared & Analyzed: 06/21/21					
Copper	923	QM-4X	1.00	ug/L	10.0	941	NR	80-120		
Lead	11.9		1.00	ug/L	10.0	2.44	94	80-120		
Matrix Spike (B106366-MS5)			Source: 1061520-01		Prepared & Analyzed: 06/21/21					
Copper	407	QM-4X	1.00	ug/L	10.0	412	NR	80-120		
Lead	11.5		1.00	ug/L	10.0	2.77	87	80-120		
Matrix Spike (B106366-MS6)			Source: 1061603-01		Prepared & Analyzed: 06/21/21					
Copper	39.0		1.00	ug/L	10.0	30.5	85	80-120		
Lead	11.6		1.00	ug/L	10.0	2.01	96	80-120		
Matrix Spike (B106366-MS7)			Source: 1061622-01		Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	110	QM-4X	1.00	ug/L	10.0	103	72	80-120		
Lead	9.68		1.00	ug/L	10.0	ND	97	80-120		
Matrix Spike (B106366-MS8)			Source: 1061622-20		Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	152	QM-4X	1.00	ug/L	10.0	146	62	80-120		
Lead	10.0		1.00	ug/L	10.0	ND	100	80-120		
Matrix Spike (B106366-MS9)			Source: 1061622-42		Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	135	QM-4X	1.00	ug/L	10.0	130	49	80-120		
Lead	10.0		1.00	ug/L	10.0	ND	100	80-120		
Matrix Spike (B106366-MSA)			Source: 1061622-60		Prepared: 06/21/21 Analyzed: 06/22/21					
Copper	198	QM-4X	1.00	ug/L	10.0	185	125	80-120		
Lead	8.97		1.00	ug/L	10.0	ND	90	80-120		

Rabecka Koons

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Rabecka Koons, Quality Assurance Officer

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

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

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 B106366 - 200.8-No Digestion Metals

Matrix Spike (B106366-MSB)

Source: 1061804-01

Prepared: 06/21/21 Analyzed: 06/22/21

Copper	26.6		1.00	ug/L	10.0	17.4	92	80-120		
Lead	4.62	QM-07	1.00	ug/L	10.0	1.22	34	80-120		

Rabecka Koons

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Rabecka Koons, Quality Assurance Officer

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

Project: ACPS-MH

Project Number: 47:1519-K
Project Manager: Michael Hamill

Reported:
06/23/21 13:06

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.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
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



Rabecka Koons, Quality Assurance Officer

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 Mid-Atlantic LLC 14026 Thunderbolt Place Suite 100 Chantilly VA 20151			Project Manager: Michael Hamill			Analysis Requested			CHAIN-OF-CUSTODY RECORD		
Project Name: ACPS Water Sampling			Project ID: 47:11652-E			No. of Containers			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):			P.O. Number: 47:11652-E			Matrix Codes: NW (nonpotable water) PW (potable water)			MSS Lab ID		
Field Sample ID	Date	Time	Water	Soil	Other	Lead (200.8 DW-Pb)	Copper (200.8 DW-Cu)	Preservative: 1+1 HCL, H ₂ SO ₄ , Methanol, Na ₂ S ₂ O ₃ , NaHCO ₃	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank		
061521MH-01-11S	6-15	8:18	X			X	X	HNO ₃	1061519-01	1061519-11	
061521MH-02-11S	6-15	8:20	X			X	X		-02	-12	
061521MH-03-11S	6-15	8:20	X			X	X		-03	-13	
061521MH-04-11S	6-15	8:26	X			X	X		-04	-14	
061521MH-05-15G	6-15	8:32	X			X	X		-05	-15	
061521MH-06-15G	6-15	8:32	X			X	X		-06	-16	
061521MH-07-15S	6-15	8:34	X			X	X		-07	-17	
061521MH-08-15S	6-15	8:34	X			X	X		-08	-18	
061521MH-09-14Z	6-15	8:36	X			X	X		-09	-19	
061521MH-10-14Z	6-15	8:36	X			X	X		-10	-20	
Relinquished by: (Signature) <i>Donna</i>			Date/Time 6/15			Received by: (Signature) (Printed)			Date/Time Received by: (Signature) (Printed)		
Relinquished by: (Signature) <i>Bright Rht</i>			Date/Time 6/15			Received by Lab: (Signature) (Printed)			Lab Use: Temp: _____ °C <input type="checkbox"/> Received on ice <input checked="" type="checkbox"/> Received same day <input type="checkbox"/> Preservation Appropriate		
Relinquished by: (Signature)			Date/Time 6-15-11			Turn Around Time: <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: _____			Sample Disposal: <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by lab <input type="checkbox"/> Archive for _____ days		
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: Lori Foster								

Company Name: ECS Mid-Atlantic LLC 14026 Thunderbolt Place Suite 100 Chantilly VA 20151				Project Manager: Michael Hamill				Analysis Requested				CHAIN-OF-CUSTODY RECORD							
Project Name: ACPS Water Sampling				Project ID: 47:11652-E				No. of Containers				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):				P.O. Number: 47:11652-E				Matrix Codes: NW (nonpotable water) PW (potable water)				MSS Lab ID							
Field Sample ID	Date	Time	Water	Soil	Other	Lead (200.8 DW-Pb)	Copper (200.8 DW-Cu)												
061521MH-11-109 SL	6-15	5:45	X			X	X	1					HNO ₃	1001519-11	1061519-01				
061521MH-12-109 SL	6-15	5:45	X			X	X	1						-12	-02				
061521MH-13-Kitchen	6-15	5:48	X			X	X	1						-13	-03				
061521MH-14-Kitchen	6-15	5:49	X			X	X	1						-14	-04				
061521MH-15-Middle	6-15	5:50	X			X	X	1						-15	-05				
061521MH-16-Kitchen	6-15	6:03	X			X	X	1						-16	-06				
061521MH-17-216 SR	6-15	6:03	X			X	X	1						-17	-07				
061521MH-18-216 SR	6-15	6:04	X			X	X	1						-18	-08				
061521MH-19-216 SR	6-15	6:05	X			X	X	1						-19	-09				
061521MH-20-216 SR	6-15	6:05	X			X	X	1						-20	-10				
Relinquished by: (Signature) <i>Bridget</i>				Date/Time 6/15				Received by: (Signature) <i>[Signature]</i>				Date/Time				Received by: (Signature) <i>[Signature]</i>			
(Printed) Bridget								(Printed)								(Printed)			
Relinquished by: (Signature)				Date/Time				Received by Lab: (Signature) <i>[Signature]</i>				Date/Time				Lab Use:			
(Printed)				14:39				(Printed)				Temp: 23.1 °C				<input type="checkbox"/> Received on ice <input checked="" type="checkbox"/> Received same day <input type="checkbox"/> Preservation Appropriate			
Special Instructions/QC Requirements & Comments: 6-15-21 L O L i F o s t e r				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:				Sample Disposal: <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by lab <input type="checkbox"/> Archive for ___ days				Turn Around Time: <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: ___				Relinquished by: (Signature) (Printed)			

Appendix IV: List of Previous Reports

List of Previous Reports:

- [47:1519-K ACPS Minnie Howard School Lead and Copper Drinking Water Sampling Report](#) dated January 31, 2020
- [47:1519-K Minnie Howard Lead and Copper Drinking Water October 2020 Resampling Report](#) dated November 10, 2020
- [47:1519-K1 Minnie Howard Lead Drinking Water January 2021 Resampling Report](#) dated February 11, 2021