

13 June 2023

Michael Twardy
Director, Facilities and Transportation
Haldane Central School District
15 Craigsides Drive
Cold Spring, New York 10516

**Re: Lead Testing of School Drinking Water
Haldane High School
15 Craigsides Drive
Cold Spring, NY 10516
Langan Project No.: 170755313**

Dear Mr. Twardy:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) completed the testing program for lead in water for Haldane High School located at 15 Craigsides Drive in Cold Spring, New York. Langan's team of industrial hygienists completed a visual assessment of the space on 26 April 2023.

Langan is providing the following New York State Department of Health (NYS DOH) required documentation: Laboratory Results, Exceedance Table, a draft Parents Notification Letter and notification to the local department of health of exceedances, when applicable. When requested by the district, Langan will complete the required reporting into the NYS Health Electronic Response Data System (HERDS).

Project Background

On September 6, 2016, the Governor signed legislation requiring all school districts in NYS to test potable water systems for lead contamination and to take responsive actions. To implement this new law, the DOH issued emergency regulations, titled Lead Testing in School Drinking Water. On May 9, 2018, the Lead Testing in School Drinking Water final regulation was published in the State Register, replacing the emergency regulation:

- By September 30, 2016, all school buildings serving children in pre-K through grade 5 were required collect a sample from each outlet for testing.
- By October 31, 2016, all school buildings serving children in grades 6 through 12 must collect a sample from each outlet for testing.
- Schools must complete initial first-draw sampling for Compliance Year 2020 between January 1, 2020 – December 31, 2020, and every 5 years thereafter or at an earlier time as determined by the Commissioner of Health. On October 13, 2020, NYS DOH provided an Extension of School Lead Testing Requirements to June 30, 2021.

On December 22, 2022, revisions to the Public Health Law (PHL) which governs potable water testing and standards in schools went into effect. The key revisions to the law requiring changes included:

- Revised action level of lead in drinking water to 5 parts per billion (ppb), reduced from 15 ppb.
- School buildings deemed “lead free” are no longer exempt from testing requirements:
- Should it be necessary to provide water to school occupants following an outlet being taken out of service due to an action level exceedance, it will be provided free of charge.
- Copies of the lead sampling results, including lab results and any lead remediation plans, must be made available to the public and posted on the schools website.
- Compliance testing will occur on a triennial (every 3 years) schedule.

KEY DEFINITIONS IN THE LAW/REGULATIONS

1. Outlet means a potable water fixture currently or potentially used for drinking or cooking purposes, including but not limited to a bubbler, drinking fountain, hose bib, sinks or faucets.
2. “Applicable” outlets: Outlets that should be sampled may be located anywhere on school property including external outlets (hose bibs) if the outlet may be used for drinking or cooking (including food preparation). Superintendents or their designees have the responsibility to identify which outlets on a school property meet the regulation requirements for sampling (“applicable outlets”). If a Superintendent or their designee determines that they have outlets that fall outside of the scope of the regulation (outlets not used or potentially used for drinking or cooking), the school must remediate or/and have a remedial action plan that includes details on how those outlets will not be accessed and/or utilized for drinking or cooking purposes (“non-applicable outlets”).
3. “Non-applicable” outlets: The Rule of Thumb is that generally, any outlet in a room or office within a school that is not used by students (pre-kindergarten through grade 12) and does not provide water for drinking or cooking does not require sampling.
4. Action level means 5 parts per billion (ppb). Lead test results greater than 5 ppb exceeds the lead action level and requires the outlet to be taken out of service and a remediation action plan be implemented.
5. For additional guidance regarding applicable vs. non-applicable outlets, and other requirements please see the Appendices for NYS DOH Lead Testing in School Drinking Water 2022 Compliance Requirements, and NYS DOH Frequently Asked Questions (FAQs).

Sampling Methodology

1. The NYS DOH Emergency Regulation, Section 67-4.3 – Monitoring states:
 - First-draw samples shall be collected from all “applicable” outlets. A first-draw sample volume shall be 250 milliliters (mL), collected from a cold-water outlet before any water is used. The water shall be motionless in the pipes for a minimum of 8 hours, but no more than 18 hours, before sample collection. Note: The NYS DOH requires that for outlets

which do not have regular use and water remains motionless in the pipes for greater than 18 hours, the outlets were to be sampled as well (to represent “normal use patterns”).

- All first-draw samples shall be analyzed by a laboratory approved to perform such analyses by the Department’s Environmental Laboratory Approval Program (ELAP).
- Although not required by the NYS DOH Emergency Regulation, Langan also followed additional methodologies included in Environmental Protection Agency (EPA) document entitled “3Ts for Reducing Lead in Drinking Water in Schools”.

2. Sampling Plan

- In developing a sampling plan before sample collection took place at the School, Langan determined the location of the water service line. Sampling at the School started from a location closest to the service line entrance and proceeded outwards from that point.
- A map, depicting the location of the service line entrance, and arrows indicating the direction of sampling was provided to and used by the sampling team. The sampling team verified the location of the service line entrance prior to sampling.

3. Laboratory Analysis: Samples were submitted to York Analytical (Stratford, CT) for analysis under chain-of-custody. The laboratory is certified through the NYS DOH Environmental Laboratory Approval Program (ELAP) and are approved for analysis of lead in potable water.

4. Re-sampling can be performed provided corrective action or remediation options, as reviewed in the Recommendation section, are complete. Proper flushing of new equipment (e.g. pipes, faucets etc.) is recommended.

5. Flushing Program and Resampling: when routine flushing programs are implemented, the school plumbing system should be flushed according to an establish protocol. After flushing and before sampling or resampling, a period of 3-4 days of normal use is recommended. First-draw lead water sampling can be performed after the required hold time of 8-18 hours is completed.

6. In accordance with the NYS DOH, the following post-remediation testing requirements apply:
- Follow-up samples collected after an outlet has been remediated must also be “first-draw” samples. Schools may choose to perform additional sampling (i.e., 30-second flush, etc.) to determine the contribution of lead from plumbing to guide remediation decisions.
 - Only those outlets that exceed the action level need to be resampled (following remediation).
 - All remediated outlets will likely require flushing before being placed back into service.
 - Post-remediation tests results need to be reported in the Department’s HERDS application on HCS, and on the school website within the same reporting timeframes/requirements as specified for the initial sampling.

RESULTS DISCUSSION

The Assessment Results Exceedance Table provides details on the date of sampling, sample identification, location and laboratory results that exceeded 5 ppb. A copy of the full laboratory results and the chain of custody are presented at the end of this report in Appendix A. Laboratory approvals can be found in Appendix B.

Of the **34** samples collected at Haldane High School, **3 (8.8%)** had lead concentrations that exceeded 5 ppb. The table on the following page details the sample locations and the laboratory results.

Haldane High School				
Sample Date	Sample ID	Floor	Location	Lead Level (ppb)
4/25/23	02-217-BF-P-1	2	2 nd Fl, Class Sink 1 (lab prep right)	47.9
4/25/23	02-214-CF-P-3	2	2 nd Fl, Class Sink 3 (lab prep)	101
4/25/23	02-Offices-CF-P-4	2	2 nd Fl, Class Sink 4 (top of stairs)	106

Upon receipt of the results, Langan is making the following recommendations to the district as required by Subpart 67-4 of Title 10 (Health) of the Official Compilation of Codes, Rules and Regulations of the State of New York:

- Review the Exceedance Table, Laboratory Results and Notification Letter, indicating lead water sample results exceeding the NYSDOH Action Level of 5 ppb, and require these outlets to be taken out of service and a remediation action plan be implemented.
- Please see Lead Testing in School Drinking Water, 10 NYCRR Subpart 67-4, adopted May 9, 2018 for applicable requirements
- (https://www.health.ny.gov/environmental/water/drinking/lead/lead_testing_of_school_drinking_water.htm)

RECOMMENDATIONS

When lead concentrations exceeded 5 ppb, Langan offers the following recommendations to Haldane Central School District for remediation:

In accordance with Subpart 67-4, Section 67-4.4 Response, the following immediate Response Actions are necessary:

- Prohibit the use of the outlet immediately (take outlet out of service or turn off) until:
 1. A lead remedial action plan is implemented to mitigate the lead level at the outlet, and
 2. Post-remediation test results indicate that the lead levels are at or below the action level;
- Provide building occupants with an adequate supply of water for drinking and cooking until remediation is performed;
- Report the test results to the local health department as soon as practicable, but no more than 1 business day after the school received the laboratory report **(Notification issued by Langan via email on 5/9/2023);**
- Notify all staff and all persons in parental relation to students of the test results, in writing, as soon as practicable but no more than 10 business days after the school received the laboratory report **(See Attached Draft Letter for issuance by District).**

If an outlet tested above the “action level”, it can still be used for cleaning and handwashing.

However, please note:

- Signage must be placed at such outlets stating that the water should not be used for drinking (only handwashing and cleaning).
- Pictures should be used if there are small children using the water outlets, and staff should ensure the children understand what the signs mean and monitor the outlets to ensure they are not used for drinking.

Corrective Actions / Remediation Options

- Permanent removal of an outlet
- Outlet replacement with “lead-free” plumbing materials
- Pipe replacement with “lead-free” plumbing materials
- Remove other sources of lead (lead pipe, lead solder joints, and brass plumbing components with “lead-free” materials)
- Flushing (systematic flushing program)
- Point of Use (POU) Filters*
- Supervision
- Engineering controls
- Education
- Signage. Signage used at outlets are considered to be a temporary measure and cannot be used as a permanent measure.

Non-Applicable Outlets

- Tempered Outlets. These outlets should be clearly posted with signs (“Do Not Drink” or equivalent), provide awareness education to students and staff and implement appropriate remedial actions to prevent drinking from these outlets.
- Science/Art sinks: as noted by NYSDOL, typically these classroom settings prohibit eating and/or drinking. The school Superintendent has the authority to determine whether these outlets may be used for drinking or cooking or whether they require sampling. Management controls such as restricted/secured access (e.g. locked doors), signage, required supervision and other management controls are part of the overall safety and health program elements that should be in place.

LIMITATIONS, EXCEPTIONS AND ASSUMPTIONS

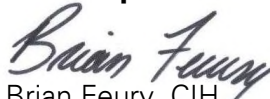
Opinions and recommendations presented in this report apply to site conditions and features as they existed at the time of Langan’s site visits, and those reasonably foreseeable. They cannot necessarily apply to conditions and features of which Langan is unaware and has not had the opportunity to evaluate. The conclusions presented in this report are professional opinions based solely upon Langan’s visual observations of accessible areas and sampling data. These conclusions are intended exclusively for the purpose state herein, at the sites indicated, and for the project indicated. No expressed or implied representation or warranty is included or intended in our reports, except that our services were performed, within the limits prescribed by our client, with the customary thoroughness and competence of our profession.

CLOSURE

We trust that the information and recommendations provided in this report adequately address your concerns. If you have any questions, please do not hesitate to contact us.

Very Truly Yours,

**Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.**



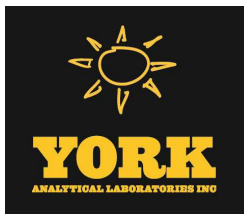
Brian Feury, CIH
Senior Project Manager



Craig Napolitano, CHMM
Associate

\\langan.com\data\NYC\data3\170755313\Project Data\Discipline\Environmental\Reports\Haldane HS lead report.doc

APPENDIX A
Laboratory Results and Chain of Custody



Technical Report

prepared for:

Langan Engineering & Environmental Services (NJ)

300 Kimball Drive, 4th Floor

Parsipanny NJ, 07054-2172

Attention: Brian Feury

Report Date: 05/05/2023

Client Project ID: 170755313

York Project (SDG) No.: 23D1479



CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037

New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

Langan Engineering & Environmental Services (NJ)
300 Kimball Drive, 4th Floor
Parsipanny NJ, 07054-2172
Attention: Brian Feury

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on April 25, 2023 and listed below. The project was identified as your project: **170755313**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
23D1479-01	01-Women-BF-P-1	Drinking Water	04/25/2023	04/25/2023
23D1479-02	01-Women-BF-P2	Drinking Water	04/25/2023	04/25/2023
23D1479-03	01-Women-BF-P3	Drinking Water	04/25/2023	04/25/2023
23D1479-04	01-Women-BF-P4	Drinking Water	04/25/2023	04/25/2023
23D1479-05	01-Women-BF-P5	Drinking Water	04/25/2023	04/25/2023
23D1479-06	01-Men-BF-P6	Drinking Water	04/25/2023	04/25/2023
23D1479-07	01-Men-BF-P7	Drinking Water	04/25/2023	04/25/2023
23D1479-08	01-Men-BF-P8	Drinking Water	04/25/2023	04/25/2023
23D1479-09	01-Men-BF-P9	Drinking Water	04/25/2023	04/25/2023
23D1479-10	01-Men-BF-P10	Drinking Water	04/25/2023	04/25/2023
23D1479-11	01-Hall-WB-P-1	Drinking Water	04/25/2023	04/25/2023
23D1479-12	02-Womens-BF-P11	Drinking Water	04/25/2023	04/25/2023
23D1479-13	02-Womens-BF-P12	Drinking Water	04/25/2023	04/25/2023
23D1479-14	02-Womens-BF-P13	Drinking Water	04/25/2023	04/25/2023
23D1479-15	02-Womens-BF-P14	Drinking Water	04/25/2023	04/25/2023
23D1479-16	02-Womens-BF-P15	Drinking Water	04/25/2023	04/25/2023
23D1479-17	02-Womens-BF-P16	Drinking Water	04/25/2023	04/25/2023
23D1479-18	02-Hall-WB-P2	Drinking Water	04/25/2023	04/25/2023
23D1479-19	02-Mens-BF-P17	Drinking Water	04/25/2023	04/25/2023
23D1479-20	02-Mens-BF-P18	Drinking Water	04/25/2023	04/25/2023
23D1479-21	02-Mens-BF-P19	Drinking Water	04/25/2023	04/25/2023
23D1479-22	02-Mens-BF-P20	Drinking Water	04/25/2023	04/25/2023

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
23D1479-23	02-Mens-BF-P21	Drinking Water	04/25/2023	04/25/2023
23D1479-24	02-Staff-BF-P22	Drinking Water	04/25/2023	04/25/2023
23D1479-25	02-217-BF-P1	Drinking Water	04/25/2023	04/25/2023
23D1479-26	02-217-CF-P2	Drinking Water	04/25/2023	04/25/2023
23D1479-27	02-214-CF-P3	Drinking Water	04/25/2023	04/25/2023
23D1479-28	01-Men-BF-P23	Drinking Water	04/25/2023	04/25/2023
23D1479-29	01-Hall-WB-P3	Drinking Water	04/25/2023	04/25/2023
23D1479-30	01-Women-BE-P24	Drinking Water	04/25/2023	04/25/2023
23D1479-31	02-Staff-BF-P25	Drinking Water	04/25/2023	04/25/2023
23D1479-32	02-Offices-CF-P4	Drinking Water	04/25/2023	04/25/2023
23D1479-33	02-Offices-CF-P5	Drinking Water	04/25/2023	04/25/2023
23D1479-34	00-MMB4-BF-P26	Drinking Water	04/25/2023	04/25/2023

General Notes for York Project (SDG) No.: 23D1479

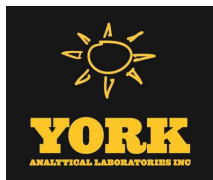
1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By 

Date: 05/05/2023

Cassie L. Mosher
Laboratory Manager





Sample Information

Client Sample ID: 01-Women-BF-P-1

York Sample ID: 23D1479-01

York Project (SDG) No.

23D1479

Client Project ID

170755313

Matrix

Drinking Water

Collection Date/Time

April 25, 2023 5:03 am

Date Received

04/25/2023

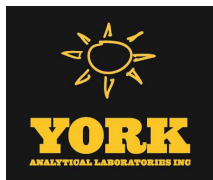
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:52	05/05/2023 15:46	AJL



Sample Information

Client Sample ID: 01-Women-BF-P2

York Sample ID: 23D1479-02

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:04 am

Date Received
04/25/2023

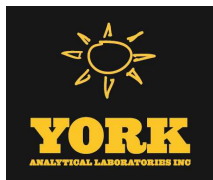
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:52	05/05/2023 15:47	AJL



Sample Information

Client Sample ID: 01-Women-BF-P3

York Sample ID: 23D1479-03

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:05 am

Date Received
04/25/2023

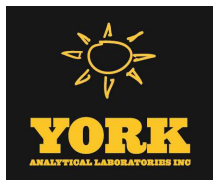
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:52	05/05/2023 15:48	AJL



Sample Information

Client Sample ID: 01-Women-BF-P4

York Sample ID: 23D1479-04

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:06 am

Date Received
04/25/2023

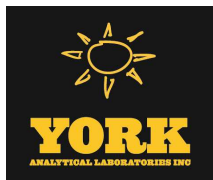
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:52	05/05/2023 15:52	AJL



Sample Information

Client Sample ID: 01-Women-BF-P5

York Sample ID: 23D1479-05

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:07 am

Date Received
04/25/2023

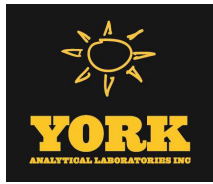
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:52	05/05/2023 15:53	AJL



Sample Information

Client Sample ID: 01-Men-BF-P6

York Sample ID: 23D1479-06

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23D1479

170755313

Drinking Water

April 25, 2023 5:13 am

04/25/2023

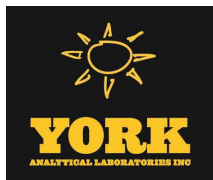
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8	05/05/2023 11:52	05/05/2023 15:54	AJL
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		



Sample Information

Client Sample ID: 01-Men-BF-P7

York Sample ID: 23D1479-07

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:14 am

Date Received
04/25/2023

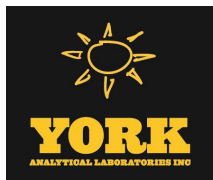
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:00	AJL



Sample Information

Client Sample ID: 01-Men-BF-P8

York Sample ID: 23D1479-08

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:15 am

Date Received
04/25/2023

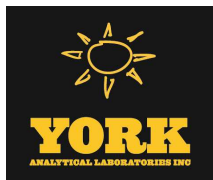
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:02	AJL



Sample Information

Client Sample ID: 01-Men-BF-P9

York Sample ID: 23D1479-09

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:16 am

Date Received
04/25/2023

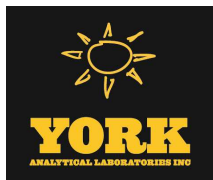
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.01	M-CCV 1	ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:06	AJL



Sample Information

Client Sample ID: 01-Men-BF-P10

York Sample ID: 23D1479-10

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23D1479

170755313

Drinking Water

April 25, 2023 5:17 am

04/25/2023

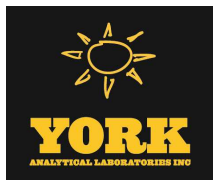
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:07	AJL



Sample Information

Client Sample ID: 01-Hall-WB-P-1

York Sample ID: 23D1479-11

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:20 am

Date Received
04/25/2023

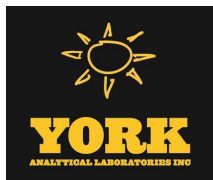
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:09	AJL



Sample Information

Client Sample ID: 02-Womens-BF-P11

York Sample ID: 23D1479-12

York Project (SDG) No.

23D1479

Client Project ID

170755313

Matrix

Drinking Water

Collection Date/Time

April 25, 2023 5:27 am

Date Received

04/25/2023

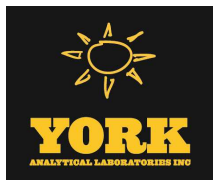
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:10	AJL



Sample Information

Client Sample ID: 02-Womens-BF-P12

York Sample ID: 23D1479-13

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:28 am

Date Received
04/25/2023

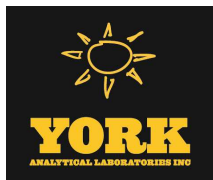
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:11	AJL



Sample Information

Client Sample ID: 02-Womens-BF-P13

York Sample ID: 23D1479-14

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:29 am

Date Received
04/25/2023

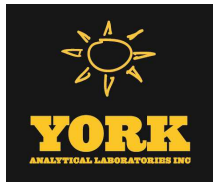
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.09	M-CCV 1	ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:12	AJL



Sample Information

Client Sample ID: 02-Womens-BF-P14

York Sample ID: 23D1479-15

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23D1479

170755313

Drinking Water

April 25, 2023 5:30 am

04/25/2023

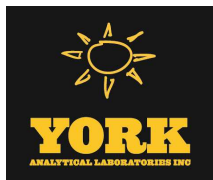
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.58	M-CCV 1	ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:13	AJL



Sample Information

Client Sample ID: 02-Womens-BF-P15

York Sample ID: 23D1479-16

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:31 am

Date Received
04/25/2023

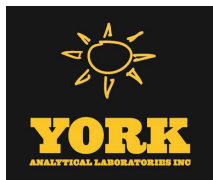
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.96	M-CCV 1	ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:15	AJL



Sample Information

Client Sample ID: 02-Womens-BF-P16

York Sample ID: 23D1479-17

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:32 am

Date Received
04/25/2023

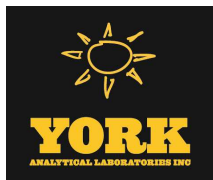
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.60	M-CCV 1	ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:16	AJL



Sample Information

Client Sample ID: 02-Hall-WB-P2

York Sample ID: 23D1479-18

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:33 am

Date Received
04/25/2023

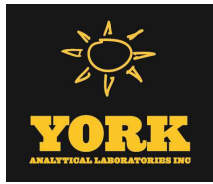
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.04	M-CCV 1	ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:17	AJL



Sample Information

Client Sample ID: 02-Mens-BF-P17

York Sample ID: 23D1479-19

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23D1479

170755313

Drinking Water

April 25, 2023 5:34 am

04/25/2023

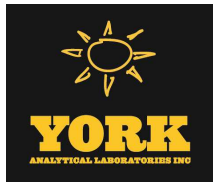
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:29	AJL



Sample Information

Client Sample ID: 02-Mens-BF-P18

York Sample ID: 23D1479-20

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23D1479

170755313

Drinking Water

April 25, 2023 5:35 am

04/25/2023

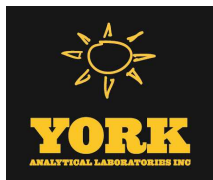
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8	05/05/2023 11:53	05/05/2023 16:30	AJL
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		



Sample Information

Client Sample ID: 02-Mens-BF-P19

York Sample ID: 23D1479-21

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:36 am

Date Received
04/25/2023

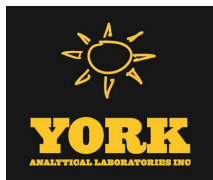
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:31	AJL



Sample Information

Client Sample ID: 02-Mens-BF-P20

York Sample ID: 23D1479-22

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:37 am

Date Received
04/25/2023

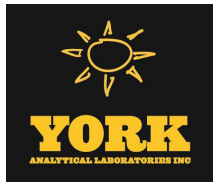
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:32	AJL



Sample Information

Client Sample ID: 02-Mens-BF-P21

York Sample ID: 23D1479-23

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23D1479

170755313

Drinking Water

April 25, 2023 5:38 am

04/25/2023

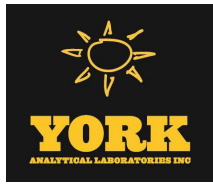
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.18		ug/L	1.00	1	EPA 200.8	05/05/2023 11:53	05/05/2023 16:34	AJL
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		



Sample Information

Client Sample ID: 02-Staff-BF-P22

York Sample ID: 23D1479-24

York Project (SDG) No.

23D1479

Client Project ID

170755313

Matrix

Drinking Water

Collection Date/Time

April 25, 2023 5:47 am

Date Received

04/25/2023

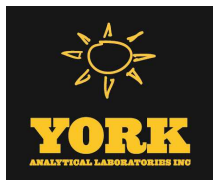
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	2.36		ug/L	1.00	1	EPA 200.8	05/05/2023 11:53	05/05/2023 16:35	AJL
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		



Sample Information

Client Sample ID: 02-217-BF-P1

York Sample ID: 23D1479-25

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:50 am

Date Received
04/25/2023

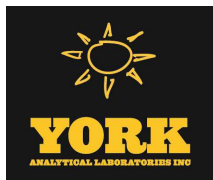
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	47.9	M-PbE X	ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:36	AJL



Sample Information

Client Sample ID: 02-217-CF-P2

York Sample ID: 23D1479-26

York Project (SDG) No.

23D1479

Client Project ID

170755313

Matrix

Drinking Water

Collection Date/Time

April 25, 2023 5:51 am

Date Received

04/25/2023

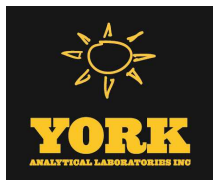
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.96		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:53	05/05/2023 16:37	AJL



Sample Information

Client Sample ID: 02-214-CF-P3

York Sample ID: 23D1479-27

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 5:52 am

Date Received
04/25/2023

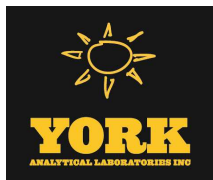
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	101	M-BS, M-PbE X	ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:54	05/05/2023 16:46	AJL



Sample Information

Client Sample ID: 01-Men-BF-P23

York Sample ID: 23D1479-28

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 6:01 am

Date Received
04/25/2023

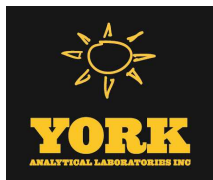
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.93	M-BS	ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:54	05/05/2023 16:48	AJL



Sample Information

Client Sample ID: 01-Hall-WB-P3

York Sample ID: 23D1479-29

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 6:02 am

Date Received
04/25/2023

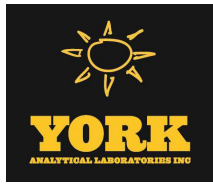
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:54	05/05/2023 16:49	AJL



Sample Information

Client Sample ID: 01-Women-BE-P24

York Sample ID: 23D1479-30

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23D1479

170755313

Drinking Water

April 25, 2023 6:03 am

04/25/2023

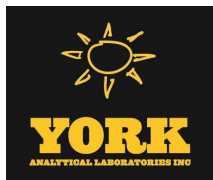
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.38	M-BS	ug/L	1.00	1	EPA 200.8	05/05/2023 11:54	05/05/2023 16:50	AJL
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		



Sample Information

Client Sample ID: 02-Staff-BF-P25

York Sample ID: 23D1479-31

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 6:04 am

Date Received
04/25/2023

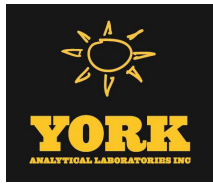
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.98	M-BS	ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:54	05/05/2023 16:52	AJL



Sample Information

Client Sample ID: 02-Offices-CF-P4

York Sample ID: 23D1479-32

York Project (SDG) No.

23D1479

Client Project ID

170755313

Matrix

Drinking Water

Collection Date/Time

April 25, 2023 6:05 am

Date Received

04/25/2023

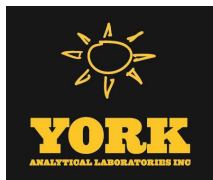
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	106	M-BS, M-PbE X	ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:54	05/05/2023 16:53	AJL



Sample Information

Client Sample ID: 02-Offices-CF-P5

York Sample ID: 23D1479-33

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 6:07 am

Date Received
04/25/2023

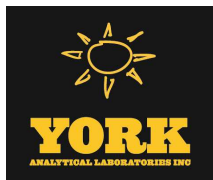
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1.05	M-BS	ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:54	05/05/2023 16:54	AJL



Sample Information

Client Sample ID: 00-MMB4-BF-P26

York Sample ID: 23D1479-34

York Project (SDG) No.
23D1479

Client Project ID
170755313

Matrix
Drinking Water

Collection Date/Time
April 25, 2023 6:08 am

Date Received
04/25/2023

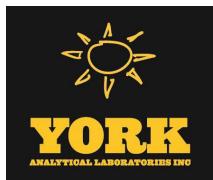
Lead by EPA 200.8

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.8

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/L	1.00	1	EPA 200.8 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	05/05/2023 11:54	05/05/2023 17:00	AJL



Analytical Batch Summary

Batch ID: BE30388

Preparation Method: EPA 200.8

Prepared By: AJL

YORK Sample ID	Client Sample ID	Preparation Date
23D1479-01	01-Women-BF-P-1	05/05/23
23D1479-02	01-Women-BF-P2	05/05/23
23D1479-03	01-Women-BF-P3	05/05/23
23D1479-04	01-Women-BF-P4	05/05/23
23D1479-05	01-Women-BF-P5	05/05/23
23D1479-06	01-Men-BF-P6	05/05/23
BE30388-BLK1	Blank	05/05/23
BE30388-BS1	LCS	05/05/23
BE30388-DUP1	Duplicate	05/05/23
BE30388-MS1	Matrix Spike	05/05/23
BE30388-MS2	Matrix Spike	05/05/23

Batch ID: BE30389

Preparation Method: EPA 200.8

Prepared By: AJL

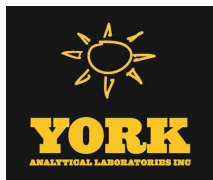
YORK Sample ID	Client Sample ID	Preparation Date
23D1479-07	01-Men-BF-P7	05/05/23
23D1479-08	01-Men-BF-P8	05/05/23
23D1479-09	01-Men-BF-P9	05/05/23
23D1479-10	01-Men-BF-P10	05/05/23
23D1479-11	01-Hall-WB-P-1	05/05/23
23D1479-12	02-Womens-BF-P11	05/05/23
23D1479-13	02-Womens-BF-P12	05/05/23
23D1479-14	02-Womens-BF-P13	05/05/23
23D1479-15	02-Womens-BF-P14	05/05/23
23D1479-16	02-Womens-BF-P15	05/05/23
23D1479-17	02-Womens-BF-P16	05/05/23
23D1479-18	02-Hall-WB-P2	05/05/23
23D1479-19	02-Mens-BF-P17	05/05/23
23D1479-20	02-Mens-BF-P18	05/05/23
23D1479-21	02-Mens-BF-P19	05/05/23
23D1479-22	02-Mens-BF-P20	05/05/23
23D1479-23	02-Mens-BF-P21	05/05/23
23D1479-24	02-Staff-BF-P22	05/05/23
23D1479-25	02-217-BF-P1	05/05/23
23D1479-26	02-217-CF-P2	05/05/23
BE30389-BLK1	Blank	05/05/23
BE30389-BS1	LCS	05/05/23
BE30389-DUP1	Duplicate	05/05/23
BE30389-MS1	Matrix Spike	05/05/23
BE30389-MS2	Matrix Spike	05/05/23

Batch ID: BE30390

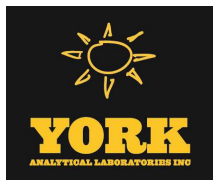
Preparation Method: EPA 200.8

Prepared By: AJL

YORK Sample ID	Client Sample ID	Preparation Date
23D1479-27	02-214-CF-P3	05/05/23

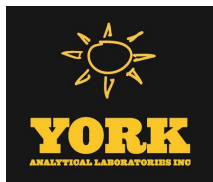


23D1479-28	01-Men-BF-P23	05/05/23
23D1479-29	01-Hall-WB-P3	05/05/23
23D1479-30	01-Women-BE-P24	05/05/23
23D1479-31	02-Staff-BF-P25	05/05/23
23D1479-32	02-Offices-CF-P4	05/05/23
23D1479-33	02-Offices-CF-P5	05/05/23
23D1479-34	00-MMB4-BF-P26	05/05/23
BE30390-BLK1	Blank	05/05/23
BE30390-BS1	LCS	05/05/23
BE30390-DUP1	Duplicate	05/05/23
BE30390-MS1	Matrix Spike	05/05/23
BE30390-MS2	Matrix Spike	05/05/23



Metals by ICP/MS - Quality Control Data
York Analytical Laboratories, Inc. - Stratford

Analyte		Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BE30388 - EPA 200.8												
Blank (BE30388-BLK1)	Blank									Prepared & Analyzed: 05/05/2023		
Lead		ND	1.00	ug/L								
LCS (BE30388-BS1)	LCS									Prepared & Analyzed: 05/05/2023		
Lead		53.0		ug/L	50.0		106	85-115				
Duplicate (BE30388-DUP1)	Duplicate	*Source sample: 23D1479-06 (01-Men-BF-P6)								Prepared & Analyzed: 05/05/2023		
Lead		ND	1.00	ug/L		ND					20	
Matrix Spike (BE30388-MS1)	Matrix Spike	*Source sample: 23D1479-06 (01-Men-BF-P6)								Prepared & Analyzed: 05/05/2023		
Lead		59.3		ug/L	50.0	0.233	118	75-125				
Matrix Spike (BE30388-MS2)	Matrix Spike	*Source sample: 23D1456-01 (Matrix Spike)								Prepared & Analyzed: 05/05/2023		
Lead		58.9		ug/L	50.0	1.71	114	75-125				
Batch BE30389 - EPA 200.8												
Blank (BE30389-BLK1)	Blank									Prepared & Analyzed: 05/05/2023		
Lead		ND	1.00	ug/L								
LCS (BE30389-BS1)	LCS									Prepared & Analyzed: 05/05/2023		
Lead		59.5		ug/L	50.0		119	85-115	High Bias			
Duplicate (BE30389-DUP1)	Duplicate	*Source sample: 23D1479-26 (02-217-CF-P2)								Prepared & Analyzed: 05/05/2023		
Lead		2.03	1.00	ug/L		1.96				3.39	20	
Matrix Spike (BE30389-MS1)	Matrix Spike	*Source sample: 23D1479-26 (02-217-CF-P2)								Prepared & Analyzed: 05/05/2023		
Lead		61.0		ug/L	50.0	1.96	118	75-125				



Metals by ICP/MS - Quality Control Data
York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
---------	--------	--------------------	-------	----------------	-------------------	------	----------------	------	-----	--------------	------

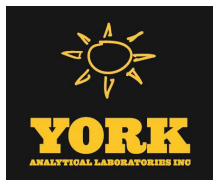
Batch BE30389 - EPA 200.8

Matrix Spike (BE30389-MS2)	Matrix Spike	*Source sample: 23D1479-07 (01-Men-BF-P7)						Prepared & Analyzed: 05/05/2023			
Lead		63.1	ug/L	50.0	0.268	126	75-125	High Bias			

Batch BE30390 - EPA 200.8

Blank (BE30390-BLK1)	Blank							Prepared & Analyzed: 05/05/2023			
Lead		ND	1.00	ug/L							
LCS (BE30390-BS1)	LCS							Prepared & Analyzed: 05/05/2023			
Lead		59.6	ug/L	50.0		119	85-115	High Bias			
Duplicate (BE30390-DUP1)	Duplicate	*Source sample: 23D1522-03 (Duplicate)						Prepared & Analyzed: 05/05/2023			
Lead		ND	1.00	ug/L	ND					20	
Matrix Spike (BE30390-MS1)	Matrix Spike	*Source sample: 23D1522-03 (Matrix Spike)						Prepared & Analyzed: 05/05/2023			
Lead		58.1	ug/L	50.0	0.077	116	75-125				
Matrix Spike (BE30390-MS2)	Matrix Spike	*Source sample: 23D1479-27 (02-214-CF-P3)						Prepared & Analyzed: 05/05/2023			
Lead		153	ug/L	50.0	101	103	75-125				





Sample and Data Qualifiers Relating to This Work Order

M-PbEX	Lead result exceeds regulatory limit
M-CCV1	The recovery for this element in the Continuing Calibration Verification (CCV) exceeded 110% of the expected value. Positive detections may be biased high.
M-BS	The recovery for this element in the batch blank spike recovered slightly outside of control limits

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

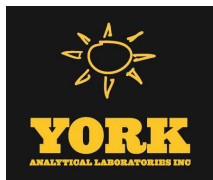
If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.



For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.



LANGAN

300 Kimball Drive
Parsippany, NJ 07054
Phone: 973-560-4900
Fax: 973-560-4901

CHAIN OF CUSTODY RECORD / ANALYSIS REQUEST

1 OF 2

23D1479

Project Name:	Haldane High School			Analysis Requested for Lead (EPA 200.8)
Address:	15 Craigside Drive Cold Spring, NY 170755313	Auth. By:	Craig Napolitano 646-210-6500	
Langan Job No.:	170755313	Phone No.:	646-210-6500	
Sampled By/License #:	DIEGO MARTINEZ NYS 18-50252 BRIAN FEURY	Sampling Date:		

Lab ID #	Sample ID	Description of Sample	Volume	Date/Time Sampled	
01	01-woman-BF-P1	1st, Bathroom Sink 1 (far left by main entrance)	250 mL	4/25/23 0503	X
02	01-woman-BF-P2	1st, Bathroom Sink 2 (middle left by main entrance)	250 mL	4/25/23 0504	X
03	01-woman-BF-P3	1st, Bathroom Sink 3 (middle by main entrance)	250 mL	4/25/23 0505	X
04	01-woman-BF-P4	1st, Bathroom Sink 4 (middle right by main entrance)	250 mL	4/25/23 0506	X
05	01-woman-BF-P5	1st, Bathroom Sink 5 (far right by main entrance)	250 mL	4/25/23 0507	X
06	01-men-BF-P6	1st, Bathroom Sink 6 (far right by main entrance)	250 mL	4/25/23 0513	X
07	01-men-BF-P7	1st, Bathroom Sink 7 (middle right by main entrance)	250 mL	4/25/23 0514	X
08	01-men-BF-P8	1st, Bathroom Sink 8 (middle by main entrance)	250 mL	4/25/23 0515	X
09	01-men-BF-P9	1st, Bathroom Sink 9 (middle left by main entrance)	250 mL	4/25/23 0516	X
10	01-men-BF-P10	1st, Bathroom Sink 10 (far left by main entrance)	250 mL	4/25/23 0517	X
11	01-Hall-WB-P1	1st, Bottle Filler 1 (by main entrance)	250 mL	4/25/23 0520	X
12	02-women-BF-P11	2nd, Bathroom Sink 11 (far left by Rn 224)	250 mL	4/25/23 0527	X
13	02-women-BF-P12	2nd, Bathroom Sink 12 (middle left by Rn 224)	250 mL	4/25/23 0528	X
14	02-women-BF-P13	2nd, Bathroom Sink 13 (middle by Rn 224)	250 mL	4/25/23 0529	X
15	02-women-BF-P14	2nd, Bathroom Sink 14 (middle right by Rn 224)	250 mL	4/25/23 0530	X
16	02-women-BF-P15	2nd, Bathroom Sink 15 (far right by Rn 224)	250 mL	4/25/23 0531	X
17	02-inclusive-BF-P16	2nd, Bathroom Sink 16 (gender inclusive by Rn 224)	250 mL	4/25/23 0532	X

Total No. of Samples: 17

Request:

5 day

48 hours

72 hours

X

Laboratory
Instructions:

Please email results to dmartinez@langan.com; bfeury@langan.com and cnapolitano@langan.com

DW - drinking water fountain; WB - water bottle filler; CF - classroom sink faucet; KF - kitchen faucet; BF - bathroom sink faucet; NS - Nurse's office faucet

Relinquished By:

DIEGO MARTINEZ

Date:

4/25/23

Time:

0737

Date:

Company: LANGAN

Andrew S. York

4/25/23

10:00

Laboratory Name: York Analytical

Relinquished by Andrew S. York

4/25/23

1610

Rec: [Signature]

4/25/23

1610

2.1

LANGAN

300 Kimball Drive
Parsippany, NJ 07054
Phone: 973-560-4900
Fax: 973-560-4901

CHAIN OF CUSTODY RECORD / ANALYSIS REQUEST

...2 OF 2

2301479

Project Name:	Haldane High School		
Address:	15 Craigside Drive Cold Spring, NY 170755313	Auth. By:	Craig Napolitano
Langan Job No.:	170755313	Phone No:	646-210-6500
Sampled By/License #:	DIEGO MARTINEZ NYS 18-50252 BRIAN FEURY	Sampling Date:	

Analysis Requested for Lead
(EPA 200.8)

Lab ID #	Sample ID	Description of Sample	Volume	Date/Time Sampled	
18	02-Hall-WB-P2	2nd, Bottle Filler 2 (by Rm 212)	250 mL	4/25/23 0533	✓
19	02-Hall-BF-P17	2nd, Bathroom Sink 17 (by Rm 212 far right)	250 mL	4/25/23 0534	✓
20	02-Hall-BF-P18	2nd, Bathroom Sink 18 (by Rm 212 middle right)	250 mL	4/25/23 0535	✓
21	02-Hall-BF-P19	2nd, Bathroom Sink 19 (by Rm 212 middle)	250 mL	4/25/23 0536	✓
22	02-Hall-BF-P20	2nd, Bathroom Sink 20 (by Rm 212 middle left)	250 mL	4/25/23 0537	✓
23	02-Hall-BF-P21	2nd, Bathroom Sink 21 (by Rm 212 far left)	250 mL	4/25/23 0538	✓
24	02-Staff-BF-P22	2nd, Bathroom Sink 22 (by Rm 212-Staff)	250 mL	4/25/23 0547	✓
25	02-217-CF-P1	2nd, Class Sink 1 (lab prep - right)	250 mL	4/25/23 0550	✓
26	02-217-CF-P2	2nd, Class Sink 2 (lab prep left)	250 mL	4/25/23 0551	✓
27	02-214-CF-P3	2nd, Class Sink 3 (lab prep)	250 mL	4/25/23 0552	✓
28	01-Men-BF-P23	1st, MM, Bathroom Sink 23 (by Rm 11103)	250 mL	4/25/23 0601	✓
29	01-Hall-WB-P3	1st, MM, Bottle Filler 3 (by cust closet)	250 mL	4/25/23 0602	✓
30	01-Woman-BF-P24	1st, MM, Bathroom Sink 24 (by cust closet)	250 mL	4/25/23 0603	✓
31	02-Staff-BF-P25	2nd, MM, Bathroom Sink 25 (top of stairs)	250 mL	4/25/23 0604	✓
32	02-Offices-CF-P4	2nd, MM, Class Sink 4 (top of stairs)	250 mL	4/25/23 0605	✓
33	02-Offices-CF-P5	00, MM, Class Sink 5	250 mL	4/25/23 0607	✓
34	00-MM-BF-P26	00, MM, Bathroom Sink 26	250 mL	4/25/23 0608	✓

Total No. of Samples: 17

Request:

5 day	48 hours	72 hours
☒		

Laboratory
Instructions:

Please email results to dmartinez@langan.com; bfeury@langan.com and cnapolitano@langan.com

DW - drinking water fountain; WB - water bottle filler; CF - classroom sink faucet; KF - kitchen faucet; BF - bathroom sink faucet; NS - Nurse's office faucet

Relinquished By:	DIEGO MARTINEZ	Date:	4/25/23	Time:	0737
Company:	LANGAN	Signature:	Andrew S. Lark	Date:	4/25/23
				Time:	10.00

Laboratory Name: York Analytical

Relinquished - Andrew S. Lark 4/25/23 1610
Rec: ALH 4/25/23 1610 2.1

APPENDIX B

Certifications and Accreditations

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2024
Issued April 01, 2023
Revised April 04, 2023

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MS. CATHERINE L. MOSHER
YORK ANALYTICAL LABORATORIES INC
120 RESEARCH DRIVE
STRATFORD, CT 06615

NY Lab Id No: 10854

*is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2016) for the category
ENVIRONMENTAL ANALYSES POTABLE WATER
All approved analytes are listed below:*

Fuel Additives

Methyl tert-butyl ether	EPA 524.2
Naphthalene	EPA 524.2

Metals I

Arsenic, Total	EPA 200.8 Rev. 5.4
Barium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Cadmium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Chromium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Copper, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Iron, Total	EPA 200.7 Rev. 4.4
Lead, Total	EPA 200.8 Rev. 5.4
Manganese, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Mercury, Total	EPA 245.1 Rev. 3.0
Silver, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Zinc, Total	EPA 200.7 Rev. 4.4

Metals II

Aluminum, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Antimony, Total	EPA 200.8 Rev. 5.4
Beryllium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4

Serial No.: 67728

Property of the New York State Department of Health. Certificates are valid only at the address shown and must be conspicuously posted by the laboratory. Continued accreditation depends on the laboratory's successful ongoing participation in the Program. Consumers may verify a laboratory's accreditation status online at <https://apps.health.ny.gov/pubdoh/applinks/wc/elappublicweb/>, by phone (518) 485-5570 or by email to elap@health.ny.gov.



NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2024
Issued April 01, 2023
Revised April 04, 2023

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MS. CATHERINE L. MOSHER
YORK ANALYTICAL LABORATORIES INC
120 RESEARCH DRIVE
STRATFORD, CT 06615

NY Lab Id No: 10854

*is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2016) for the category
ENVIRONMENTAL ANALYSES POTABLE WATER
All approved analytes are listed below:*

Metals II

Molybdenum, Total	EPA 200.8 Rev. 5.4
Nickel, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4
Thallium, Total	EPA 200.8 Rev. 5.4
Vanadium, Total	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4

Metals III

Calcium, Total	EPA 200.7 Rev. 4.4
Magnesium, Total	EPA 200.7 Rev. 4.4
Potassium, Total	EPA 200.7 Rev. 4.4
Sodium, Total	EPA 200.7 Rev. 4.4

Miscellaneous

1,4-Dioxane	EPA 522
Turbidity	EPA 180.1 Rev. 2.0

Non-Metals

Alkalinity	SM 21-23 2320B (-97)
Calcium Hardness	EPA 200.7 Rev. 4.4
Chloride	EPA 300.0 Rev. 2.1
Color	SM 21-23 2120B (-01)
Fluoride, Total	EPA 300.0 Rev. 2.1
Orthophosphate (as P)	SM 19, 21-23 4500-P E (-99)
Solids, Total Dissolved	SM 21-23 2540C (-97)
Specific Conductance	EPA 120.1 Rev. 1982
Sulfate (as SO ₄)	EPA 300.0 Rev. 2.1

Trihalomethanes

Bromodichloromethane	EPA 524.2
----------------------	-----------

Serial No.: 67728

Property of the New York State Department of Health. Certificates are valid only at the address shown and must be conspicuously posted by the laboratory. Continued accreditation depends on the laboratory's successful ongoing participation in the Program. Consumers may verify a laboratory's accreditation status online at <https://apps.health.ny.gov/pubdoh/applinks/wc/elappublicweb/>, by phone (518) 485-5570 or by email to elap@health.ny.gov.



NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2024
Issued April 01, 2023
Revised April 04, 2023

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MS. CATHERINE L. MOSHER
YORK ANALYTICAL LABORATORIES INC
120 RESEARCH DRIVE
STRATFORD, CT 06615

NY Lab Id No: 10854

*is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2016) for the category
ENVIRONMENTAL ANALYSES POTABLE WATER
All approved analytes are listed below:*

Trihalomethanes

Bromoform	EPA 524.2
Chloroform	EPA 524.2
Dibromochloromethane	EPA 524.2

Volatile Aromatics

1,2,3-Trichlorobenzene	EPA 524.2
1,2,4-Trichlorobenzene	EPA 524.2
1,2,4-Trimethylbenzene	EPA 524.2
1,2-Dichlorobenzene	EPA 524.2
1,3,5-Trimethylbenzene	EPA 524.2
1,3-Dichlorobenzene	EPA 524.2
1,4-Dichlorobenzene	EPA 524.2
2-Chlorotoluene	EPA 524.2
4-Chlorotoluene	EPA 524.2
Benzene	EPA 524.2
Bromobenzene	EPA 524.2
Chlorobenzene	EPA 524.2
Ethyl benzene	EPA 524.2
Hexachlorobutadiene	EPA 524.2
Isopropylbenzene	EPA 524.2
n-Butylbenzene	EPA 524.2
n-Propylbenzene	EPA 524.2
p-Isopropyltoluene (P-Cymene)	EPA 524.2
sec-Butylbenzene	EPA 524.2
Styrene	EPA 524.2
tert-Butylbenzene	EPA 524.2
Toluene	EPA 524.2
Total Xylenes	EPA 524.2



Serial No.: 67728

Property of the New York State Department of Health. Certificates are valid only at the address shown and must be conspicuously posted by the laboratory. Continued accreditation depends on the laboratory's successful ongoing participation in the Program. Consumers may verify a laboratory's accreditation status online at <https://apps.health.ny.gov/pubdoh/applinks/wc/elappublicweb/>, by phone (518) 485-5570 or by email to elap@health.ny.gov.



NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2024
Issued April 01, 2023
Revised April 04, 2023

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MS. CATHERINE L. MOSHER
YORK ANALYTICAL LABORATORIES INC
120 RESEARCH DRIVE
STRATFORD, CT 06615

NY Lab Id No: 10854

*is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2016) for the category
ENVIRONMENTAL ANALYSES POTABLE WATER
All approved analytes are listed below:*

Volatile Halocarbons

1,1,1,2-Tetrachloroethane	EPA 524.2
1,1,1-Trichloroethane	EPA 524.2
1,1,2-Trichloroethane	EPA 524.2
1,1-Dichloroethane	EPA 524.2
1,1-Dichloroethene	EPA 524.2
1,1-Dichloropropene	EPA 524.2
1,2,3-Trichloropropane	EPA 524.2
1,2-Dichloroethane	EPA 524.2
1,2-Dichloropropane	EPA 524.2
1,3-Dichloropropane	EPA 524.2
2,2-Dichloropropane	EPA 524.2
Bromochloromethane	EPA 524.2
Bromomethane	EPA 524.2
Carbon tetrachloride	EPA 524.2
Chloroethane	EPA 524.2
Chloromethane	EPA 524.2
cis-1,2-Dichloroethene	EPA 524.2
cis-1,3-Dichloropropene	EPA 524.2
Dibromomethane	EPA 524.2
Dichlorodifluoromethane	EPA 524.2
Methylene chloride	EPA 524.2
Tetrachloroethene	EPA 524.2
trans-1,2-Dichloroethene	EPA 524.2
trans-1,3-Dichloropropene	EPA 524.2
Trichloroethene	EPA 524.2
Trichlorofluoromethane	EPA 524.2
Vinyl chloride	EPA 524.2



Serial No.: 67728

Property of the New York State Department of Health. Certificates are valid only at the address shown and must be conspicuously posted by the laboratory. Continued accreditation depends on the laboratory's successful ongoing participation in the Program. Consumers may verify a laboratory's accreditation status online at <https://apps.health.ny.gov/pubdoh/applinks/wc/elappublicweb/>, by phone (518) 485-5570 or by email to elap@health.ny.gov.



APPENDIX C

NYS DOH Lead Testing in School Drinking Water 2023 Compliance Requirements and NYS DOH Frequently Asked Questions (FAQs)



**Department
of Health**

Lead Testing in School Drinking Water

10 NYCRR Subpart 67-4

Program Review and Updates

2023

Bureau of Water Supply Protection
NYS Department of Health

Background

- On September 6, 2016, Governor Cuomo signed into law a bill passed by the New York State Legislature (A10740/S8158).
- The law requires the New York State Department of Health (NYS DOH) to develop regulations to require all public school districts and Boards of Cooperative Educational Services (BOCES) - collectively, “schools” - to test all potable water outlets for lead contamination, and to take action if lead levels exceed 15 micrograms per liter.



Regulatory History

- The NYS DOH established a regulation to conform with the law - introduced as an emergency regulation, effective on September 6, 2016
- Title: ***Lead Testing in School Drinking Water***
10 NYCRR Subpart 67-4 (Subpart 67-4)
- The regulation was adopted on May 9, 2018
- Public Health Law Section 1110 was amended by Governor Hochul on December 23, 2021, requiring changes to Subpart 67-4
- Revisions to the Public Health Law (PHL) Section 1110 went into effect on **December 22, 2022**





Summary of PHL Revisions

Monitoring

- Action Level lowered from 15 ppb to **5 ppb**
- Compliance monitoring will be every **3 years** (previously every 5 years)
- “**Lead-free**” **buildings no longer exempt** from testing requirements

Response

- All water provided to school staff/students in response to an outlet being taken out of service must be **free** of charge

Reporting

- Schools must now include copies of **lab reports** of the lead testing results on their websites

“Lead-Free” Buildings *No Longer Exempt*

The original legislation for 67-4 had an exemption from sampling for any school building, facility, addition, or wing with **internal plumbing** that met the new definition of “lead-free” (as defined by Section 1417 of the Federal Safe Drinking Water Act) from sampling.



A building was deemed lead-free if:

- The building was built after January 4, 2014, - OR -
- A NYS Professional Engineer or Architect certifies the building to be lead-free.



- The revisions to Public Health Law removes this exemption.
- All buildings will be required to conduct lead testing at all applicable outlets.

Changes to Key elements of Subpart 67-4

- Action Level – **now 5 ppb**
- Sampling requirements – no change
- Response - must supply water **free** of charge when appropriate
- Public Notification – no change
- Reporting – **must include lab reports on school website**
- Recordkeeping – no change



Compliance Period 2023 - 2025

Schools must complete *initial first-draw* sampling
for the 2023-2025 Compliance Period between:

January 1, 2023 – December 31, 2025



Sampling Locations



"Applicable" sampling locations requiring sampling may be located anywhere on school property including external outlets (hose bibs) if the outlet may be used for drinking or cooking (including food preparation). Samples must be collected at all outlets used or potentially used for drinking or cooking.

“Applicable” vs. “Non-applicable” outlets

Superintendents or their designees have the responsibility to identify which outlets on a school property meet the regulation requirements for sampling (“applicable outlets”).

If a Superintendent or their designee determines they have some “non-applicable” outlets, the school must develop a plan that details how those outlets will not be accessed and/or utilized for drinking or cooking purposes.

Examples "Applicable" Outlets

- bubblers/drinking fountains
- classroom sinks
- classroom combination sinks and drinking fountains
- kitchen sinks
- kitchen kettle filler outlets
- ice machines
- family and consumer sciences room sinks
- teachers' lounge sinks
- nurse's office sinks
- athletic field outlets
- Any other sink known to be or potentially used for consumption (e.g., used to make coffee in the office, etc.)

“Non-applicable outlets”

Rule of Thumb:

In general, any outlet in a room or office within a school that is not used by students (pre-kindergarten through grade 12) and does not provide water for drinking or cooking does not require sampling.



Examples of possible “Non-applicable outlets”

- **Dishwashing sinks:** If an outlet is designated for dish washing only and involves no opportunity for drinking or cooking (including food preparation), the outlet does not require sampling
- **Bus garage:** Outlets in bus garage buildings do not require sampling for lead unless the building is occupied by students (e.g., BOCES classes)
- **Point of entry:** Samples from the point of entry are not required under Subpart 67-4. Point of entry is the location where water *enters* the building from the distribution system of a public water system
- **Science/Art sinks:** Typically, classrooms in these settings prohibit eating and/or drinking. The school Superintendent has the authority to determine whether these outlets may be used for drinking or cooking and whether they require sampling

Guidance on Bathroom Sinks

Lavatory / Bathroom Sinks

Toilet rooms and bathrooms are building environments that can present unique challenges to water potability. These challenges are reflected in various code provisions that prohibit the installation of drinking facilities, drinking fountains, water coolers and water dispensers within toilet rooms and bathrooms.

NYS DOH would not object to designating these outlets nonapplicable where controls (e.g. education and signage) exist to prevent the consumption of water.

The school should include these outlets in the Remedial Action Plan with details on how their potential use will be mitigated.

Guidance for Classroom Sinks

Classroom sinks: If the outlet is used for drinking and/or cooking, it must be sampled.

However, if the school has controls in place to prevent the consumption of water, these outlets may be excluded from sampling. Superintendents, or their designees, have the responsibility to identify which outlets meet the regulation requirements for testing (“applicable outlets”). If a Superintendent or their designee determines that a school has outlets that fall outside the scope of the regulation (outlets not used or potentially used for drinking or cooking (“nonapplicable outlets”), the school must develop a Remedial Action Plan that includes details on how those outlets will not be accessed and utilized for drinking or cooking purposes.

Guidance on Tempered Outlets

“Non-applicable outlets”

Tempered outlet: an outlet that provides water with a temperature between 80 -110°F; generally, applies to bathroom fixtures in schools, gymnasiums, hotels, airports, bus and railroad stations.

The DOH and the US EPA recommend that hot or tempered water ***not*** be used for drinking or cooking as warm or hot water increase the leaching of lead into the water.

Tempered outlets are not required to be sampled. However, all tempered water outlets should be clearly posted with signs (“Do Not Drink” or equivalent), education should be provided to the students and staff to ensure awareness, and the remedial action plan should address, document, and describe continued management of the controls in place for these outlets.

“First-draw” Samples

Any sample collected for compliance under Subpart 67-4 must be a “first-draw” sample.

First-draw sample:

- A water sample collected from a cold water outlet before any water is used from that outlet
- Water must be motionless in pipes for a minimum of 8 - 18 hours before sample collection
 - This timeframe represents water that would be consumed during normal operating conditions on any school day.
- Recommended sampling times
 - While school is in session; not during or immediately after weekends, vacations or routine flushing programs;
 - following normal operation of school (e.g. Tuesday – Saturday mornings)





Lead Action Level



The action level for lead in school drinking water is **5 micrograms per liter** ($\mu\text{g/L}$) or parts per billion (ppb).

- Lead test results ≤ 5 ppb do *not* exceed the lead action level, and therefore do not require further testing or remediation until the next compliance cycle.
- Lead test results > 5 ppb (i.e., 5.1 ppb, or greater) *exceeds* the lead action level, and will require the outlet to be taken out of service and a remediation action plan to be implemented.



Guidance for outlets with test results > 5 ppb from previous compliance testing

Sampling at outlets where results from previous compliance testing (prior to December 22, 2022) have exceeded 5 ppb should be a priority.

First-draw tap testing at these outlets should be completed as soon as practicable and mitigation/remediation commenced where levels are detected above the new action level of 5 ppb.

Corrective Actions / Remediation Options

- Permanent removal of an outlet
- Outlet replacement with “lead-free” plumbing materials
- Pipe replacement with “lead-free” plumbing materials
- Remove other sources of lead (lead pipe, lead solder joints, and brass plumbing components with “lead-free” materials)
- Flushing (systematic flushing program)
- Point of Use (POU) Filters*
- Supervision
- Engineering controls
- Education
- Signage

If an outlet tested above the “action level”, can it still be used for cleaning and handwashing?

- Yes
- Signage must be placed at such outlets stating that the water should not be used for drinking (only handwashing and cleaning)
- Pictures should be used if there are small children using the water outlets, and staff should ensure the children understand what the signs mean and monitor the outlets to ensure they are not used for drinking



Corrective Actions / Remediation Options

Signage



Post-Remediation Testing

- Follow-up samples collected after an outlet has been remediated must also be “first-draw” samples. Schools may choose to perform additional sampling (i.e., 30-second flush, etc.) to determine the contribution of lead from plumbing to guide remediation decisions.
- Post-remediation tests results need to be reported:
 - In the DOH’s HERDS application on HCS
 - On the school’s website within the same reporting timeframes/ requirements as specified for the initial sampling

Public Notification Requirements

- Within 1 business day of receipt of laboratory reports:
 - ✓ Report all exceedances (lead result greater than 5 ppb) to the local health department
- Within 10 business days of receipt of laboratory reports:
 - ✓ Report all exceedances to all staff, parents, and guardians in writing.
 - ✓ Report test results (including post-remediation results) in the DOH's electronic reporting system, HERDS accessed through HCS. This information is posted on the DOH's website for the public
- Within 6 weeks of receipt of laboratory reports:
 - ✓ Post copies of lab reports of test results and information about remediation actions taken to address outlets where lead exceeded the action level on the school's website. This should remain posted on the school's website for the duration of the compliance period (i.e. 2023-25)



<http://www>



NEW



Department
of Health

Recordkeeping Requirements

- Per Subpart 67-4, schools must retain records for **10 years** following document creation.
Note: other agencies may have additional records retention requirements (i.e., SED, NYS Department of Labor)
- Copies of documents must be provided to the DOH, the SED, or the local health department upon request



Best Management Practices to Reduce Lead in Drinking Water

- Aerator cleaning
- Routine flushing practices (after vacations and long weekends)
- Use only certified lead-free materials when performing plumbing work
- Follow the manufacturer's recommendations for water softener settings to ensure an appropriate level of hardness
- Educating staff and students of the benefits of running water at a tap briefly prior to using it for drinking or food preparation. Letting the water run for 30-60 seconds or until the water feels cold can reduce the potential levels of lead in the drinking water

Electronic Reporting in HCS/HERDS

- Within 10 business days of receipt of laboratory reports
Summary of data and sampling information must be reported in the DOH's electronic reporting system, **HERDS**, accessed through HCS. Summary data includes:
 - General information, website address
 - Number of outlets sampled, sampling information
 - Summary of Lead analysis results
 - Response and remediation status
- A new HERDS reporting form for the 2023-2025 compliance period is now live.



Level Selector

Home

Activity Management

Permission Profiles

Forms Management

Data Entry

Reports

Admin

Message Center

Click Here To Minimize Sidebar

User: kem01 (State)

[About](#) | [Comments](#) | [Help](#)

Session idle time expires in 60 min

General Information

1. I understand that the information I am reporting is for the lead testing in school drinking water program for the 2023-2025 compliance period. ☒ ? 

2. Enter the website address where the laboratory reports are posted for the results of your school's lead testing of drinking water program. ?

Sampling Information

3. I acknowledge that all samples must be analyzed by an environmental laboratory certified by the NYS DOH's Environmental Laboratory Approval Program (ELAP) to conduct lead in drinking water analysis. ☐ ?

4. How many total outlets have been identified by the school that require sampling for lead? ?

5. How many outlets were sampled for initial first-draw compliance testing in 2023? ?

6. How many outlets were sampled for initial first-draw compliance testing in 2024? ?

7. How many outlets were sampled for initial first-draw compliance testing in 2025? ?

8. Is all sampling complete for the 2023-2025 compliance period? ?

Lead Results

9. Enter the total number of outlets with a lead result less than or equal to the action level (5 ppb): ?
(This number should be updated throughout the compliance period to reflect the current number of outlets with a lead test result less than or equal to 5 ppb).

10. Enter the total number of outlets with a lead result greater than the action level (5 ppb): ?
(This number should be updated throughout the compliance period to reflect the current number of outlets with a lead test result greater than 5 ppb).

11. Has your school received laboratory reports for all initial first-draw samples collected for this compliance period? ?

Response and Remediation

12. Have the outlets with lead results greater than the action level (5 ppb) been taken out of service, remediated, or are appropriate controls in place to ensure water is not used for drinking or cooking? ?

13. Identify the status of remediation. (Examples of remediation include but are not limited to: permanent removal of outlets; replacing outlets and/or plumbing; or employing other engineering controls.) ?

Attestation

By clicking the 'Save and Submit' button, I attest that all the data entered above is true and correct to the best of my knowledge, that I understand that such information shall be used for assessing regulatory compliance, and that I am authorized to submit this data on behalf of the school district or BOCES.

Tying up Loose Ends

- Report lead data for the 2020-21 compliance period *if not already done*.
- Update data in HERDS to reflect the current status
- Update Roles in HCS to reflect current staff assignments for reporting Lead data:
 - School Lead in Drinking Water Reporter role
 - HPN/HCS Coordinator
- The new 2023-25 compliance period is here!
 - Be sure to report data on School website with required timeframes
- Future webinars and outreach activities coming soon...

Questions?

Email Contact:

lead.in.school.drinking.water@health.ny.gov

Phone: 518-402-7650

APPENDIX D
Draft Parent Letter

A NOTICE TO PARENTS, GUARDIANS, and STAFF

Haldane High School

Lead Testing of School Drinking Water

06/13/2023

Safe and healthy school environments can foster healthy and successful children. To protect public health, the Public Health Law and New York State Health Department (NYSDOH) regulations require that all public schools and boards of cooperative educational services (BOCES) test lead levels in water from every outlet that is being used, or could potentially be used, for drinking or cooking. If lead is found at any water outlet at levels above 5 parts per billion (ppb), the NYSDOH requires that the school take action to reduce the exposure to lead.

What is first draw testing of school drinking water for lead?

The “on-again, off-again” nature of water use at most schools can raise lead levels in school drinking water. Water that remains in pipes overnight, over a weekend, or over vacation periods stays in contact with lead pipes or lead solder and, as a result, could contain higher levels of lead. This is why schools are required to collect a sample after the water has been sitting in the plumbing system for a certain period of time. This “first draw” sample is likely to show higher levels of lead for that outlet than what you would see if you sampled after using the water continuously. However, even if the first draw sample does not reflect what you would see with continuous usage, it is still important because it can identify outlets that have elevated lead levels.

What are the results of the first draw testing?

Haldane High School - Haldane Central School District				
Date	Sample ID	Floor	Location	Lead Level (ppb)
4/25/2023	02-217-BF-P1	2	2 nd Floor, Classroom Sink 1 (Lab Prep-right)	47.9
4/25/2023	02-214-CF-P3	2	2 nd Floor, Classroom Sink 3 (Lab Prep)	101
4/25/2023	02-Offices-CF-P4	2	2 nd Floor, Mabel Merrit Blg Class Sink 4 (top of stairs)	106

What is being done in response to the results?

Outlets that tested with lead levels above the action level (5 ppb) were removed from service, unless an outlet is a sink faucet needed for handwashing. In that case, a sign was posted at the outlet indicating that the sink is not to be used for drinking. Outlets that tested below the action level remain in service with no restrictions.

The District will institute engineering controls in the form of a routine flushing program to remove any stagnant water which could increase the amount of lead within the water. This flushing program will remain in place until additional testing indicates it is no longer necessary.

What are the health effects of lead?

Lead is a metal that can harm children and adults when it gets into their bodies. Lead is a known neurotoxin, particularly harmful to the developing brain and nervous system of children under 6 years old. Lead can harm a young child's growth, behavior, and ability to learn. Lead exposure during pregnancy may contribute to low birth weight and developmental delays in infants. There are many sources of lead exposure in the environment, and it is important to reduce all lead exposures as much as possible. Water testing helps identify and correct possible sources of lead that contribute to exposure from drinking water.

What are the other sources of lead exposure?

Lead is a metal that has been used for centuries for many purposes, resulting in widespread distribution in the environment. Major sources of lead exposure include lead-based paint in older housing, and lead that built up over decades in soil and dust due to historical use of lead in gasoline, paint, and manufacturing. Lead can also be found in a number of consumer products, including certain types of pottery, pewter, brass fixtures, foods, plumbing materials, and cosmetics. Lead seldom occurs naturally in water supplies but drinking water could become a possible source of lead exposure if the building's plumbing contains lead. The primary source of lead exposure for most children with elevated blood-lead levels is lead-based paint.

Should your child be tested for lead?

The risk to an individual child from past exposure to elevated lead in drinking water depends on many factors; for example, a child's age, weight, amount of water consumed, and the amount of lead in the water. Children may also be exposed to other significant sources of lead including paint, soil and dust. Since blood lead testing is the only way to determine a child's blood lead level, parents should discuss their child's health history with their child's physician to determine if blood lead testing is appropriate. Pregnant women or women of childbearing age should also consider discussing this matter with their physician.

Additional Resources

For more information regarding the testing program or sampling results,
contact [Mike Twardy at \(845\) 265-9254, ext 170, or](tel:8452659254) go to our school website:
www.haldaneschool.org

For information about lead in school drinking water, go to:

http://www.health.ny.gov/environmental/water/drinking/lead/lead_testing_of_school_drinking_water.htm

<http://www.p12.nysed.gov/facplan/LeadTestinginSchoolDrinkingWater.html>

For information about NYS Department of Health Lead Poisoning Prevention, go to:

<http://www.health.ny.gov/environmental/lead/>

For more information on blood lead testing and ways to reduce your child's risk of exposure to lead, see "What Your Child's Blood Lead Test Means":

<http://www.health.ny.gov/publications/2526/> (available in ten languages).