



COLUMBIA PUBLIC SCHOOLS
COLUMBIA, MO
LEAD AND COPPER MONITORING
SUMMARY REPORT

DATE: JANUARY 6, 2022

FACILITY NAME: **BATTLE HIGH SCHOOL**

A. SAMPLE COLLECTION

- | | |
|--|--------|
| 1. NUMBER OF SAMPLES COLLECTED AT THIS FACILITY | 44 |
| 2. PERCENTAGE OF SAMPLES BELOW COPPER ACTION LIMITS | 100.0% |
| 1. COPPER ACTION LIMIT = 1,300 UG/ | |
| 3. PERCENTAGE OF SAMPLES BELOW LEAD ACTION LIMITS | 100.0% |
| 1. LEAD ACTION LIMIT = 15 UG/L | |
| (The requirement in the USEPA Lead and Copper Rule for public water supplies is 90% passing) | |

B. SAMPLE EXCEEDANCE

- | | |
|--|---|
| 1. NUMBER OF SAMPLES EXCEEDING COPPER ACTION LIMIT | 0 |
| 2. NUMBER OF SAMPLES EXCEEDING LEAD ACTION LIMIT | 0 |

C. CONCLUSION

This facility meets the (recommended) requirements of the United States Environmental Protection Agency (USEPA) and the published Lead and Copper Rule (LCR) of 1991 (reference: 40 CFR Part 141 Subpart I). Public Run Water Suppliers must comply with the USEPA law and the LCR. Columbia Water & Light is the publicly run water utility that serves this school.

Initially failed tests were resampled using the first flush method and tested for verification. Should the laboratory analysis reveal results that exceed the LCR action limits, you can utilize the recommendations within the LCR to address those specific locations. They include but are not limited to: flushing prior to use (make it a practice to run the water at each tap before use), repairing and/or replacing fixtures and/or piping and by not using the water for consumption. All are recommended by the Lead and Copper Rule.

Although the Lead and Copper Rule may not directly apply to Columbia Public Schools and each of its schools or support buildings that are part of the 2020 City of Columbia Water Quality Assessment Report; it is a common practice for experts in the field and members of the known industry to use the standard as a guideline for water assessment studies.

Prepared By:

Joshua D. Lehmen, PE



August 25, 2021

Josh Lehmen
Engineering Surveys & Services
1113 Fay Street
Columbia, MO 65201

RE: L14571

Dear Josh Lehmen:

Please find enclosed the analytical results for the **42** sample(s) the laboratory received on **8/6/21 4:08 pm** and logged in under work order **EH01861**. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of PDC Laboratories, Inc.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

PDC Laboratories, Inc. appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the Director of Client Services, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lgrant@pdclab.com.

Sincerely,

Erin Lane
Project Manager



**SAMPLE RECEIPT CHECK LIST****Items not applicable will be marked as in compliance**

Work Order EH01861

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
NO	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
NO	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
NO	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
YES	Case narrative provided



ANALYTICAL RESULTS

Sample: EH01861-01
Name: 1. Custodial Office
Alias: BHS-D139-KF-1

Sampled: 08/04/21 06:43
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	87	ug/L		1300	08/17/21 13:06	TJJ	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 13:06	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-03
Name: 3. Boys Locker Room
Alias: BHS-D143-EWC-1

Sampled: 08/04/21 07:00
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	110	ug/L		1300	08/17/21 13:07	TJJ	EPA 200.8 REV 5.4
Lead	1.2	ug/L		15	08/17/21 13:07	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-04
Name: 4. Girls Locker Room
Alias: BHS-D144-EWC-2

Sampled: 08/04/21 07:00
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	250	ug/L		1300	08/17/21 13:09	TJJ	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 13:09	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-05
Name: 5. Teachers Lounge
Alias: BHS-D114-TLF-1

Sampled: 08/04/21 04:43
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	95	ug/L		1300	08/17/21 13:10	TJJ	EPA 200.8 REV 5.4
Lead	1.1	ug/L		15	08/17/21 13:10	TJJ	EPA 200.8 REV 5.4



ANALYTICAL RESULTS

Sample: EH01861-06
Name: 6. Teachers Workroom
Alias: BHS-E105-TLF-2

Sampled: 08/04/21 00:00
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	110	ug/L		1300	08/17/21 13:12	TJJ	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 13:12	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-07
Name: 7. Hall by F100
Alias: BHS-F100-EWC-3

Sampled: 08/04/21 06:10
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	120	ug/L		1300	08/17/21 13:13	TJJ	EPA 200.8 REV 5.4
Lead	1.0	ug/L		15	08/17/21 13:13	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-08
Name: 8. Room F113
Alias: BHS-F113-CF-1

Sampled: 08/04/21 06:10
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	88	ug/L		1300	08/17/21 13:34	TJJ	EPA 200.8 REV 5.4
Lead	2.4	ug/L		15	08/17/21 13:34	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-09
Name: 9. Hall by G100
Alias: BHS-G100-EWC-4

Sampled: 08/04/21 05:45
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	250	ug/L		1300	08/17/21 13:35	TJJ	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 13:35	TJJ	EPA 200.8 REV 5.4



ANALYTICAL RESULTS

Sample: EH01861-10
Name: 10. Room G113
Alias: BHS-G113-CF-2

Sampled: 08/04/21 05:45
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	110	ug/L		1300	08/17/21 13:37	TJJ	EPA 200.8 REV 5.4
Lead	4.3	ug/L		15	08/17/21 13:37	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-11
Name: 11. Hall by H100
Alias: BHS-H100-EWC-5

Sampled: 08/04/21 05:17
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	190	ug/L		1300	08/17/21 13:38	TJJ	EPA 200.8 REV 5.4
Lead	1.2	ug/L		15	08/17/21 13:38	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-12
Name: 12. Room H114
Alias: BHS-H114-CF-3

Sampled: 08/04/21 05:17
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	140	ug/L		1300	08/17/21 13:40	TJJ	EPA 200.8 REV 5.4
Lead	14	ug/L		15	08/17/21 13:40	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-13
Name: 13. Room E113
Alias: BHS-E113-CF-4

Sampled: 08/04/21 05:24
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	75	ug/L		1300	08/17/21 13:41	TJJ	EPA 200.8 REV 5.4
Lead	1.2	ug/L		15	08/17/21 13:41	TJJ	EPA 200.8 REV 5.4



ANALYTICAL RESULTS

Sample: EH01861-14
Name: 14. Hall by J100
Alias: BHS-J100-EWC-6

Sampled: 08/04/21 04:58
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	360	ug/L		1300	08/17/21 13:43	TJJ	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 13:43	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-16
Name: 16. Hall by J200
Alias: BHS-J200-EWC-7

Sampled: 08/04/21 00:00
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	96	ug/L		1300	08/17/21 13:44	TJJ	EPA 200.8 REV 5.4
Lead	9.8	ug/L		15	08/17/21 13:44	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-17
Name: 17. Teachers Lounge
Alias: BHS-J204-TLF-3

Sampled: 08/04/21 00:00
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	110	ug/L		1300	08/17/21 14:19	TJJ	EPA 200.8 REV 5.4
Lead	1.6	ug/L		15	08/17/21 14:19	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-18
Name: 18. Room J218
Alias: BHS-J218-CF-6

Sampled: 08/04/21 00:00
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	170	ug/L		1300	08/17/21 14:21	TJJ	EPA 200.8 REV 5.4
Lead	2.2	ug/L		15	08/17/21 14:21	TJJ	EPA 200.8 REV 5.4



ANALYTICAL RESULTS

Sample: EH01861-19
Name: 19. Hall by H200
Alias: BHS-H200-EWC-8

Sampled: 08/04/21 00:00
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	140	ug/L		1300	08/17/21 14:22	TJJ	EPA 200.8 REV 5.4
Lead	1.1	ug/L		15	08/17/21 14:22	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-20
Name: 20. Teachers Lounge
Alias: BHS-H204-TLF-4

Sampled: 08/04/21 00:00
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	140	ug/L		1300	08/17/21 14:24	TJJ	EPA 200.8 REV 5.4
Lead	2.4	ug/L		15	08/17/21 14:24	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-21
Name: 21. Room H218
Alias: BHS-H218-CF-7

Sampled: 08/04/21 00:00
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	130	ug/L		1300	08/17/21 14:25	TJJ	EPA 200.8 REV 5.4
Lead	2.6	ug/L		15	08/17/21 14:25	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-22
Name: 22. Hall by G200
Alias: BHS-G200-EWC-9

Sampled: 08/04/21 05:55
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	170	ug/L		1300	08/17/21 14:27	TJJ	EPA 200.8 REV 5.4
Lead	1.1	ug/L		15	08/17/21 14:27	TJJ	EPA 200.8 REV 5.4



ANALYTICAL RESULTS

Sample: EH01861-23
Name: 23. Teachers Lounge
Alias: BHS-G204-TLF-5

Sampled: 08/04/21 05:55
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	94	ug/L		1300	08/17/21 14:28	TJJ	EPA 200.8 REV 5.4
Lead	1.6	ug/L		15	08/17/21 14:28	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-24
Name: 24. Room G218
Alias: BHS-G218-CF-8

Sampled: 08/04/21 05:55
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	170	ug/L		1300	08/17/21 14:30	TJJ	EPA 200.8 REV 5.4
Lead	3.8	ug/L		15	08/17/21 14:30	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-25
Name: 25. Hall by F200
Alias: BHS-F200-EWC-10

Sampled: 08/04/21 06:25
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	130	ug/L		1300	08/17/21 14:39	TJJ	EPA 200.8 REV 5.4
Lead	1.4	ug/L		15	08/17/21 14:39	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-26
Name: 26. Room F204
Alias: BHS-F204-TLF-26

Sampled: 08/04/21 06:26
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	99	ug/L		1300	08/17/21 14:40	TJJ	EPA 200.8 REV 5.4
Lead	2.1	ug/L		15	08/17/21 14:40	TJJ	EPA 200.8 REV 5.4



ANALYTICAL RESULTS

Sample: EH01861-27
Name: 27. Room F218
Alias: BHS-F218-CF-9

Sampled: 08/04/21 06:25
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	120	ug/L		1300	08/17/21 14:42	TJJ	EPA 200.8 REV 5.4
Lead	6.7	ug/L		15	08/17/21 14:42	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-28
Name: 28. Teachers Lounge
Alias: BHS-D220-TLF-27

Sampled: 08/04/21 07:25
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	95	ug/L		1300	08/17/21 14:43	TJJ	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 14:43	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-29
Name: 29. Workroom
Alias: BHS-D218-CF-10

Sampled: 08/04/21 07:50
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	72	ug/L		1300	08/17/21 14:45	TJJ	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 14:45	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-30
Name: 30. Nurses Office
Alias: BHS-D221-NSF-1

Sampled: 08/04/21 07:55
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	96	ug/L		1300	08/17/21 14:46	TJJ	EPA 200.8 REV 5.4
Lead	1.5	ug/L		15	08/17/21 14:46	TJJ	EPA 200.8 REV 5.4



ANALYTICAL RESULTS

Sample: EH01861-31
Name: 31. Cooking Classroom
Alias: BHS-D231-CF-11

Sampled: 08/04/21 07:55
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	87	ug/L		1300	08/17/21 14:48	TJJ	EPA 200.8 REV 5.4
Lead	2.0	ug/L		15	08/17/21 14:48	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-32
Name: 32. Kitchen
Alias: BHS-D237-KF-2

Sampled: 08/04/21 08:00
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	140	ug/L		1300	08/17/21 14:49	TJJ	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 14:49	TJJ	EPA 200.8 REV 5.4

Sample: EH01861-33
Name: 33. Hall by D200
Alias: BHS-D200-EWC-11

Sampled: 08/04/21 07:40
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	92	ug/L		1300	08/17/21 10:15	KMC	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 10:15	KMC	EPA 200.8 REV 5.4

Sample: EH01861-34
Name: 34. Room C113
Alias: BHS-C113-EWC-12

Sampled: 08/04/21 07:20
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	100	ug/L		1300	08/17/21 10:17	KMC	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 10:17	KMC	EPA 200.8 REV 5.4



ANALYTICAL RESULTS

Sample: EH01861-35
Name: 35. Room 107
Alias: BHS-C107-EWC-13

Sampled: 08/04/21 07:10
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	590	ug/L		1300	08/17/21 10:18	KMC	EPA 200.8 REV 5.4
Lead	2.4	ug/L		15	08/17/21 10:18	KMC	EPA 200.8 REV 5.4

Sample: EH01861-36
Name: 36. Room C106
Alias: BHS-C106-CF-12

Sampled: 08/04/21 07:15
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	100	ug/L		1300	08/17/21 10:20	KMC	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 10:20	KMC	EPA 200.8 REV 5.4

Sample: EH01861-37
Name: 39. Hall By A100
Alias: BHS-A100-EWC-15

Sampled: 08/04/21 07:20
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	130	ug/L		1300	08/17/21 10:21	KMC	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 10:21	KMC	EPA 200.8 REV 5.4

Sample: EH01861-38
Name: 40. Hall by A145
Alias: BHS-A145-EWC-16

Sampled: 08/04/21 07:05
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	100	ug/L		1300	08/17/21 10:23	KMC	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 10:23	KMC	EPA 200.8 REV 5.4



ANALYTICAL RESULTS

Sample: EH01861-39
Name: 41. Room A112
Alias: BHS-A112-EWC-17

Sampled: 08/04/21 07:30
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	110	ug/L		1300	08/17/21 10:31	KMC	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		15	08/17/21 10:31	KMC	EPA 200.8 REV 5.4

Sample: EH01861-40
Name: 42. Room 126
Alias: BHS-A126-EWC-18

Sampled: 08/04/21 07:30
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	130	ug/L		1300	08/17/21 10:32	KMC	EPA 200.8 REV 5.4
Lead	1.2	ug/L		15	08/17/21 10:32	KMC	EPA 200.8 REV 5.4

Sample: EH01861-41
Name: 43. Room A101
Alias: BHS-A101-CF-13

Sampled: 08/04/21 07:25
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	88	ug/L		1300	08/17/21 10:34	KMC	EPA 200.8 REV 5.4
Lead	2.7	ug/L		15	08/17/21 10:34	KMC	EPA 200.8 REV 5.4

Sample: EH01861-42
Name: 44. A106 Restroom
Alias: BHS-A106-RRF-1

Sampled: 08/04/21 07:30
Received: 08/06/21 16:08
Matrix: Drinking Water - Grab

Parameter	Result	Unit	Qualifier	MCL	Analyzed	Analyst	Method
Total Metals - PIA							
Copper	110	ug/L		1300	08/17/21 10:35	KMC	EPA 200.8 REV 5.4
Lead	1.7	ug/L		15	08/17/21 10:35	KMC	EPA 200.8 REV 5.4



NOTES

Specifications regarding method revisions and method modifications used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050

TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553

Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)

Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807

USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050

Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Certified by: Erin Lane, Project Manager





CHAIN OF CUSTODY RECORD

STATE WHERE SAMPLE COLLECTED MO

ALL HIGHLIGHTED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

Location:	Battle High School
Sample Date:	8/4/2021
Sample Time:	Various
Sampled By:	Kyle Vidusic

Sample No.	Coding System	Description	Sample Collected
1	BHS-D139-KF-1	Costodial Office - Kitchen Faucet	Yes
2	BHS-D138-RRF-1	Hall by 138 - Restroom Faucet (Not Located)	No
3	BHS-D143-EWC-1	Locker Room - Electric Water Cooler	Yes
4	BHS-D144-EWC-2	Locker Room - Electric Water Cooler	Yes
5	BHS-D114-TLF-1	Teachers Lounge Faucet	Yes
6	BHS-E105-TLF-2	Teachers Lounge Faucet - Workroom	Yes
7	BHS-F100-EWC-3	Hall by F100 - Electric Water Cooler	Yes
8	BHS-F113-CF-1	Room F113 - Classroom Faucet	Yes
9	BHS-G100-EWC-4	Hall by G100 - Electric Water Cooler	Yes
10	BHS-G113-CF-2	Room G113 - Classroom Faucet	Yes
11	BHS-H100-EWC-5	Hall by H100 - Electric Water Cooler	Yes
12	BHS-H114-CF-3	Room H114 - Classroom Faucet	Yes
13	BHS-E113-CF-4	Room E113 - Classroom Faucet	Yes
14	BHS-J100-EWC-6	Hall by J100 - Electric Water Cooler	Yes
15	BHS-J114-CF-5	Room J114 - Classroom Faucet (Not Located)	No
16	BHS-J200-EWC-7	Hall by J200 - Electric Water Cooler	Yes
17	BHS-J204-TLF-3	Teachers Lounge Fucet	Yes
18	BHS-J218-CF-6	Room J218 - Classroom Faucet	Yes
19	BHS-H200-EWC-8	Hall by H200 - Electric Water Cooler	Yes
20	BHS-H204-TLF-4	Teachers Lounge Faucet	Yes
21	BHS-H218-CF-7	Room H218 - Classroom Faucet	Yes
22	BHS-G200-EWC-9	Hall by G200 - Electric Water Cooler	Yes
23	BHS-G204-TLF-5	Teachers Lounge Faucet	Yes
24	BHS-G218-CF-8	Room G218 - Classroom Faucet	Yes
25	BHS-F200-EWC-10	Hall by Room F200 - Electric Water Cooler	Yes
26	BHS-F204-TLF-26	Room 200 - Teachers Lounge Faucet	Yes
27	BHS-F218-CF-9	Room F218 - Classroom Faucet	Yes
28	BHS-D220-TLF-27	Room D220- Teachers Lounge Faucet	Yes
29	BHS-D218-CF-10	Room D218 - Classroom Faucet	Yes
30	BHS-D221-NSF-1	Room D221 - Nurse Station Faucet	Yes
31	BHS-D231-CF-11	Room D231 - Classroom Faucet	Yes
32	BHS-D237-KF-2	Room D237 - Kitchen Faucet	Yes
33	BHS-D200-EWC-11	Hall by Room D200 - Electric Water Cooler	Yes
34	BHS-C113-EWC-12	Hall by Room C113 - Electric Water Cooler	Yes
35	BHS-C107-EWC-13	Hall by Room C107 - Electric Water Cooler	Yes
36	BHS-C106-CF-12	Room C106 - Classroom Faucet	Yes
37	BHS-B100-EWC-14	Hall by B100 - Electric Water Cooler (Not Loc.)	No
38	BHS-B109-KF-3	Kitchen Faucet (Hand Wash Station Not Samp.)	No
39	BHS-A100-EWC-15	Hall By A100 - Electric Water Cooler	Yes
40	BHS-A145-EWC-16	Hall by A145 - Electric Water Cooler	Yes

41	BHS-A112-EWC-17	Room A112 - Electric Water Cooler	Yes
42	BHS-A126-EWC-18	Room 126 - Electric Water Cooler	Yes
43	BHS-A101-CF-13	Room A101 - Classroom Faucet	Yes
44	BHS-A106-RRF-1	A106 Restroom Faucet	Yes
45	BHS-S100-RRF-2	S100 Restroom Faucet - (Not Located)	No
46	BHS-P100-KF-4	Kitchen Faucet	Yes
47	BHS-PB-DWF-1	Pressbox - Drinking Water Fountain (Off)	No
48	BHS-SR-DWF-2	Softball DWF - Drinking Water Fountain (Off)	No
49	BHS-		
50	BHS-		
51	BHS-		
52	BHS-		
53	BHS-		
54	BHS-		
55	BHS-		
56	BHS-		
57	BHS-		
58	BHS-		



Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

April 13, 2022

Josh Lehmen
Engineering Surveys & Services
1113 Fay Street
Columbia, MO 65201

RE: L14571

Dear Josh Lehmen:

Please find enclosed the analytical results for the **3** sample(s) the laboratory received on **4/4/22 2:50 pm** and logged in under work order **FD00532**. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the Director of Client Services, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

A handwritten signature in black ink that reads 'Erin M. Lane'.

Erin Lane
Project Manager
(309)683-1767
erin.lane@pacelabs.com

**SAMPLE RECEIPT CHECK LIST**

Items not applicable will be marked as in compliance

Work Order FD00532

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
NO	COC completed & legible
NO	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
NO	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided



ANALYTICAL RESULTS

Sample: FD00532-01
Name: Hall by Room 138
Alias: BHS 2

Sampled: 03/31/22 13:22
Received: 04/04/22 14:50
Matrix: Drinking Water - Regular Sample

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Total Metals - PIA									
Copper	200	ug/L		04/11/22 12:52	1	3.0	04/11/22 16:19	KMC	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		04/11/22 12:52	1	1.0	04/11/22 16:19	KMC	EPA 200.8 REV 5.4

Sample: FD00532-02
Name: B100 Corridor EWC
Alias: BHS 37

Sampled: 03/31/22 13:24
Received: 04/04/22 14:50
Matrix: Drinking Water - Regular Sample

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Total Metals - PIA									
Copper	390	ug/L		04/11/22 12:52	1	3.0	04/11/22 16:20	KMC	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		04/11/22 12:52	1	1.0	04/11/22 16:20	KMC	EPA 200.8 REV 5.4

Sample: FD00532-03
Name: B109 Concessions Kitchen Faucet
Alias: BHS 38

Sampled: 03/31/22 13:08
Received: 04/04/22 14:50
Matrix: Drinking Water - Regular Sample

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Total Metals - PIA									
Copper	180	ug/L		04/11/22 12:52	1	3.0	04/11/22 16:22	KMC	EPA 200.8 REV 5.4
Lead	< 1.0	ug/L		04/11/22 12:52	1	1.0	04/11/22 16:22	KMC	EPA 200.8 REV 5.4



NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050

TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615

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Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050

Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050



Certified by: Erin Lane, Project Manager

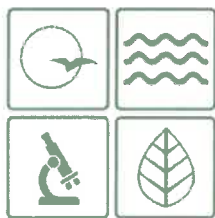


CHAIN OF CUSTODY RECORD
STATE WHERE SAMPLE COLLECTED MO

[illegible]

OAKLAND MIDDLE SCHOOL	OMS	8	Room 175 - Classroom Faucet
OAKLAND MIDDLE SCHOOL	OMS	12	Girls Locker Room - Electric Water Cooler
OAKLAND MIDDLE SCHOOL	OMS	13	Girls Locker Room - Faucet
OAKLAND MIDDLE SCHOOL	OMS	15	Boys Locker Room - Faucet
OAKLAND MIDDLE SCHOOL	OMS	28	Room 131 - Podium - Classroom Faucet
OAKLAND MIDDLE SCHOOL	OMS	28	Room 131 - Podium - Classroom Faucet
OAKLAND MIDDLE SCHOOL	OMS	29	Room 131 - Wall - Classroom Faucet
OAKLAND MIDDLE SCHOOL	OMS	33	Room 130 - West - Classroom Faucet
OAKLAND MIDDLE SCHOOL	OMS	34	Room 132 - Classroom Faucet
OAKLAND MIDDLE SCHOOL	OMS	42	Room 147 - Classroom Faucet
OAKLAND MIDDLE SCHOOL	OMS	47	Room 150 - Classroom Faucet
OAKLAND MIDDLE SCHOOL	OMS	53	Room 135 West Wall - Classroom Faucet
OAKLAND MIDDLE SCHOOL	OMS	54	Room 25 - Classroom Faucet
OAKLAND MIDDLE SCHOOL	OMS	55	Room 127 Podium - Classroom Faucet
Roseta-Quest East	RQE	1	Room 7 - Classroom Faucet
Roseta-Quest East	RQE	2	Room 8B - Classroom Faucet
Roseta-Quest East	RQE	3	Room 9R Nurse Office Faucet
Roseta-Quest East	RQE	4	Room 9R Work Room Faucet
Roseta-Quest East	RQE	5	Room 11TB Lounge Faucet
Roseta-Quest East	RQE	6	Room 11TA Workroom Faucet
Roseta-Quest East	RQE	7	Room 2 - Classroom Faucet
Roseta-Quest East	RQE	8	Room 3 - Drinking Water Fountain
Roseta-Quest East	RQE	9	Room 12RB Hall - Electric Water Cooler
Roseta-Quest East	RQE	10	Room 5 - Classroom Faucet
Roseta-Quest East	RQE	11	Room 6 - Classroom Faucet
Roseta-Quest East	RQE	12	Room 5C Outside Gym - Electric Water Cooler
Battle High School 1322	BHS	2	Hall by Room 138
Battle High School 1324	BHS	37	B100 corridor EWC
Battle High School 1308	BHS	38	B109 Concessions Kitchen Faucet

03/31/22 {



Missouri Department of dnr.mo.gov
NATURAL RESOURCES

Michael L. Parson, Governor

Dru Buntin, Director

January 6, 2022

Mr. Michael Travis
Corporate Director of Quality Assurance
Pace Analytical Services, LLC – Peoria, Illinois (Lab #870)
2231 West Altorfer Drive
Peoria, IL 61615-1807

Dear Mr. Travis:

The Missouri Department of Natural Resources has received your notification that PDC Laboratories, LLC was purchased by Pace Analytical Services, LLC effective December 13, 2021 and that the new laboratory name is Pace Analytical Services, LLC – Peoria, Illinois. The Department has also received a copy of the new Environmental Laboratory Accreditation granted by the State of Illinois with your new laboratory name. Therefore, the Department hereby reciprocally certifies Pace Analytical Services, LLC – Peoria, Illinois under the provisions of the Missouri Safe Drinking Water Regulations to perform chemical analyses for public water systems in the State of Missouri.

Enclosed please find a certificate of approval and a certified parameter list for your laboratory. The certified parameter list references the parameters and methods of analysis that the Department has approved. Your certification will expire on June 30, 2022, and is contingent upon no changes of the approved methods or equipment and maintenance of certification from the primary certification authority.

Thank you for your efforts to comply with Missouri's laboratory certification requirements. Should there be any changes to your Illinois certification status, please notify this office within 30 days. Direct any notifications or inquiries related to the approval to Lauren Ferland of my staff, who may be reached at P.O. Box 176, Jefferson City, MO 65102, or by telephone at 573-526-0135.

Sincerely,

WATER PROTECTION PROGRAM

David J. Lamb
Public Drinking Water Branch Chief

DJL/lf

Enclosures

c: Mr. Richard Kirsch, Environmental Services Program



MISSOURI DEPARTMENT OF NATURAL RESOURCES

DRINKING WATER LABORATORY

CERTIFIED PARAMETER LIST

This is to certify that

Pace Analytical Services, LLC
- Peoria, Illinois

located at

2231 West Altorfer Drive, Peoria, Illinois 61615-1807

has been approved to perform the indicated procedures on drinking water under the Missouri Public Drinking Water Regulations (10 CSR 60-5.020). Specific method numbers or references are included in parenthesis when appropriate.

INORGANIC

SM 4500F-C

Fluoride

EPA 245.1

Mercury

SM 4500NO3-F

Nitrate, Nitrite

EPA 300.0

Fluoride, Nitrate, Nitrite

EPA 200.7

Barium, Beryllium, Cadmium,
Chromium, Copper, Nickel

EPA 335.4

Total cyanide

EPA 200.8

Antimony, Arsenic, Barium, Beryllium,
Cadmium, Chromium, Copper, Lead,
Mercury, Nickel, Selenium, Thallium

EPA 353.2

Nitrate, Nitrite, Total Nitrate and Nitrite

ORGANIC

EPA 504.1

Dibromochloropropane (DBCP), Ethylene dibromide (EDB)

EPA 515.3

2,4-D, Dalapon, Dinoseb, Pentachlorophenol, Picloram, 2,4,5-TP (Silvex)

EPA 524.2

Benzene, Carbon tetrachloride, Monochlorobenzene, o-Dichlorobenzene, para-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, cis-1-2-Dichloroethylene, trans-1-2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Styrene, Tetrachloroethylene, Toluene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, Vinyl Chloride, Xylenes (total), Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane, Total THMs

EPA 525.2

Alachlor, Atrazine, Chlordane, Di(2-ethylhexyl)adipate, Di(2-ethylhexyl)phthalate, Endrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Simazine, Toxaphene, PCBs (as Arochlors, qualitative, screening)

EPA 531.1

Carbofuran, Oxamyl (Vydate)

EPA 547

Glyphosate

EPA 548.1

Endothall

EPA 549.2

Diquat

EPA 550

Benzo(a)pyrene

EPA 552.2

Dibromoacetic acid, Dichloroacetic acid, Monobromoacetic acid, Monochloroacetic acid, Trichloroacetic acid

Pace Analytical Services, LLC – Peoria, Illinois

Expiration Date: June 30, 2022

Missouri Certificate No.: 870

Original Certifying State: Illinois

State of Missouri
Department of Natural Resources

**Certificate of Approval
for Chemical Laboratory Service**

This is to certify that

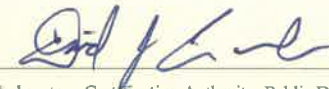
Pace Analytical Services, LLC – Peoria, Illinois

is hereby approved to perform the analysis of drinking water as specified on the
Certified Parameter List, which must accompany this certificate to be valid.

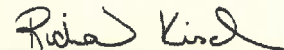
Certification Number 870

Date Issued January 6, 2022

Expiration Date June 30, 2022



Laboratory Certification Authority, Public Drinking Water Branch
Missouri Department of Natural Resources



Certification Program Manager, Environmental Services Program
Missouri Department of Natural Resources