



CERTIFICATE OF ANALYSIS

Chain of Custody: 632727
Client: Howard County Public School System
Address: 10910 Route 108
Ellicott City, MD 21042
Attention: Jeff Klenk

Job Name: Waterloo Elementary School
Job Location: 5940 Waterloo Road, Columbia, MD
21045
Job Number: 13.062
P.O. Number: Not Provided

Date Submitted: 02/04/2022
Date Analyzed: 02/14/2022
Report Date: 02/14/2022
Date Sampled: 01/28/2022
Person Submitting: Jeff Klenk

Summary of Drinking Water Analysis for Metals

AMA Sample Number	Client Sample Number	Sample Collection Information		Analysis Type	Sample Analyte	Reporting Limit	Final Result	Comments
		Date/Time	Location					
632727-1	WATES-1 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Nurse's Office/Health Room, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.55 ug/L	
632727-2	WATES-2 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Kitchen, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.71 ug/L	
632727-3	WATES-3 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Kitchen, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.85 ug/L	
632727-4	WATES-4 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Hallway, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.67 ug/L	
632727-5	WATES-5 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Hallway, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.62 ug/L	
632727-6	WATES-6 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.6 ug/L	
632727-7	WATES-7 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Hallway, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-8	WATES-8 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Hallway, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-9	WATES-9 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Teachers' Lounge/Break Room, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.62 ug/L	
632727-10	WATES-10 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Hallway, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-11	WATES-11 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.62 ug/L	
632727-12	WATES-12 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-13	WATES-13 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	1 ug/L	1.0 ug/L
632727-14	WATES-14 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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632727-15	WATES-15 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-16	WATES-16 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.51 ug/L	
632727-17	WATES-17 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.56 ug/L	
632727-18	WATES-18 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	2 ug/L	2.0 ug/L
632727-19	WATES-19 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-20	WATES-20 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-21	WATES-21 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.73 ug/L	
632727-22	WATES-22 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	2.6 ug/L	
632727-23	WATES-23 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	1.1 ug/L	
632727-24	WATES-24 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.82 ug/L	
632727-25	WATES-25 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.76 ug/L	
632727-26	WATES-26 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.57 ug/L	
632727-27	WATES-27 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	1.3 ug/L	
632727-28	WATES-28 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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632727-29	WATES-29 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-30	WATES-30 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.75 ug/L	
632727-31	WATES-31 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-32	WATES-32 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-33	WATES-33 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-34	WATES-34 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	3 ug/L	3.0 ug/L
632727-35	WATES-35 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	1.5 ug/L	
632727-36	WATES-36 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.62 ug/L	
632727-37	WATES-37 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Hallway, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-38	WATES-38 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Hallway, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-39	WATES-39 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-40	WATES-40 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-41	WATES-41 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-42	WATES-42 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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632727-43	WATES-43 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-44	WATES-44 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Hallway, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-45	WATES-45 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Hallway, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-46	WATES-46 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-47	WATES-47 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	1 ug/L	1.0 ug/L
632727-48	WATES-48 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-49	WATES-49 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	2.6 ug/L	
632727-50	WATES-50 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.64 ug/L	
632727-51	WATES-51 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.55 ug/L	
632727-52	WATES-52 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.73 ug/L	
632727-53	WATES-53 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
632727-54	WATES-54 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	13 ug/L	12.7 ug/L. This result exceeds the Maryland action level of 5.5 ppb for lead in drinking water



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		Date/Time	Location					
632727-55	WATES-55 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Classroom, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	2.1 ug/L	
632727-56	WATES-56 First-Draw	01/28/2022 5:06 am	Faucet, Cold, Consumption, Conference Room, See Floor Plan, Sink, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	0.84 ug/L	
632727-57	WATES-57 First-Draw	01/28/2022 5:06 am	Drinking Water Fountain - Cooler/Chiller Style (Refrigerated), Consumption, Classroom, See Floor Plan, Fountain, Main Bldg, 1st Floor	ICP	Lead	0.5 ug/L	< 0.5 ug/L	

Analysis Methods: Flame AA: APHA SM3111B (1999, 22nd Ed.), Furnace AA: APHA SM3113B (2010, 22nd Ed.), ICP: EPA 200.8 (Rev. 5.4)

Sample Collector: Jeff Klenk

Certification:

mg/L = Parts Per Million (ppm), N/A = Not Applicable, µg/L = Parts Per Billion, N/P = Not Provided

All results are to be considered preliminary and subject to change unless signed by the Technical Director or Deputy.

Analyst(s): George Land

Technical Director Jean-Paul Littleton

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