



# CERTIFICATE OF ANALYSIS

**Chain of Custody:** 611927  
**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:** 12/10/2018  
**Date Analyzed:** 12/17/2018  
**Report Date:** 12/17/2018  
**Date Sampled:** 12/07/2018  
**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					
611927-1	WATES 4 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-2	WATES 5 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-3	WATES 7 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-4	WATES 8 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-5	WATES 10 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-6	WATES 14 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-7	WATES 20 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-8	WATES 32 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-9	WATES 37 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-10	WATES 38 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-11	WATES 39 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	1 ug/L	
611927-12	WATES 40 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-13	WATES 41 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-14	WATES 42 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-15	WATES 44 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-16	WATES 45 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-17	WATES 46 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-18	WATES 49 1st Draw	12/07/2018 5:28 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-19	WATES 1 1st Draw	12/07/2018 5:28 am	NO	ICP	Lead	0.5 ug/L	0.57 ug/L	
611927-20	WATES 2 1st Draw	12/07/2018 5:28 am	KS	ICP	Lead	0.5 ug/L	0.66 ug/L	



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611927-21	WATES 3 1st Draw	12/07/2018 5:28 am	KS	ICP	Lead	0.5 ug/L	1.1 ug/L	
611927-22	WATES 6 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	0.67 ug/L	
611927-23	WATES 9 1st Draw	12/07/2018 5:28 am	TL	ICP	Lead	0.5 ug/L	0.54 ug/L	
611927-24	WATES 11 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-25	WATES 12 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-26	WATES 13 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-27	WATES 15 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-28	WATES 16 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	1.2 ug/L	
611927-29	WATES 17 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	0.93 ug/L	
611927-30	WATES 18 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	1.2 ug/L	
611927-31	WATES 19 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	1.8 ug/L	
611927-32	WATES 21 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	0.73 ug/L	
611927-33	WATES 22 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	0.66 ug/L	
611927-34	WATES 23 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	1.1 ug/L	
611927-35	WATES 24 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	25 ug/L	25.2 ug/L. This sample has an elevated level of lead (above 20.5 ppb).
611927-36	WATES 25 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	0.81 ug/L	
611927-37	WATES 26 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-38	WATES 27 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	1.4 ug/L	
611927-39	WATES 28 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	0.7 ug/L	
611927-40	WATES 29 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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611927-41	WATES 30 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	1.1 ug/L	
611927-42	WATES 31 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-43	WATES 33 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-44	WATES 34 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	2.2 ug/L	
611927-45	WATES 35 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	1.3 ug/L	
611927-46	WATES 36 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	0.65 ug/L	
611927-47	WATES 43 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-48	WATES 47 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-49	WATES 48 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-50	WATES 50 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-51	WATES 51 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-52	WATES 52 1st Draw	12/07/2018 5:28 am	OT.7	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-53	WATES 53 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611927-54	WATES 54 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	1.4 ug/L	
611927-55	WATES 55 1st Draw	12/07/2018 5:28 am	CR	ICP	Lead	0.5 ug/L	0.95 ug/L	
611927-56	WATES 56 1st Draw	12/07/2018 5:28 am	OT.5	ICP	Lead	0.5 ug/L	1.6 ug/L	



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

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

**Analyst(s):** Jean-Paul Littleton

**Sample Collector:** Jeff Klenk  
**Certification:**

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

**Technical Director** G. Edward Carney

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