



# CERTIFICATE OF ANALYSIS

**Chain of Custody:** 613500  
**Client:** Howard County Public School System  
**Address:** 10910 Route 108  
Ellicott City, MD 21042  
**Attention:** Jeff Klenk

**Job Name:** Phelps Luck Elementary School  
**Job Location:** 5370 Old Stone Court, Columbia, MD  
21045  
**Job Number:** 13.024  
**P.O. Number:** Not Provided

**Date Submitted:** 03/08/2019  
**Date Analyzed:** 03/13/2019  
**Report Date:** 03/14/2019  
**Date Sampled:** 03/26/2019  
**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					
613500-1	PLES 3 1st Draw	02/26/2019 5:03 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-2	PLES 4 1st Draw	02/26/2019 5:03 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-3	PLES 5F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-4	PLES 6F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-5	PLES 7F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-6	PLES 8F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-7	PLES 9F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-8	PLES 10F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-9	PLES 11F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-10	PLES 12F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-11	PLES 13F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-12	PLES 14F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-13	PLES 15F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-14	PLES 16F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-15	PLES 17F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-16	PLES 18F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-17	PLES 19F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-18	PLES 20F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-19	PLES 21F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-20	PLES 22F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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613500-21	PLES 23F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-22	PLES 24F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-23	PLES 27F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-24	PLES 28F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-25	PLES 29F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-26	PLES 30F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-27	PLES 31F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-28	PLES 32F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-29	PLES 33F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-30	PLES 34F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-31	PLES 35F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-32	PLES 36F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-33	PLES 37F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-34	PLES 38F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-35	PLES 39F 1st Draw	02/26/2019 5:03 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-36	PLES 1 1st Draw	02/27/2019 5:15 am	KS	ICP	Lead	0.5 ug/L	12 ug/L	11.6 ug/L.
613500-37	PLES 2 1st Draw	02/27/2019 5:15 am	KS	ICP	Lead	0.5 ug/L	47 ug/L	47.3 ug/L. This sample has an elevated level of lead (above 20.5 ppb).
613500-38	PLES 5S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-39	PLES 6S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-40	PLES 7S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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613500-41	PLES 8S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-42	PLES 9S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-43	PLES 10S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-44	PLES 11S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-45	PLES 12S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-46	PLES 13S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-47	PLES 14S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	0.53 ug/L	
613500-48	PLES 15S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-49	PLES 16S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-50	PLES 17S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-51	PLES 18S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-52	PLES 19S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	0.72 ug/L	
613500-53	PLES 20S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	0.7 ug/L	
613500-54	PLES 21S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-55	PLES 22S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-56	PLES 23S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-57	PLES 24S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-58	PLES 25 1st Draw	02/27/2019 5:15 am	TL	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-59	PLES 26 1st Draw	02/27/2019 5:15 am	OT.4	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-60	PLES 27S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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		Date/Time	Location					
613500-61	PLES 28S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	0.88 ug/L	
613500-62	PLES 29S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-63	PLES 30S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-64	PLES 31S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-65	PLES 32S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-66	PLES 33S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-67	PLES 34S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-68	PLES 35S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-69	PLES 36S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-70	PLES 37S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-71	PLES 38S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-72	PLES 39S 1st Draw	02/27/2019 5:15 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-73	PLES 40 1st Draw	02/27/2019 5:15 am	NO	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613500-74	PLES 41 1st Draw	02/27/2019 5:15 am	NO	ICP	Lead	0.5 ug/L	< 0.5 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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