



CERTIFICATE OF ANALYSIS

Chain of Custody: 611172
Client: Howard County Public School System
Address: 10910 Route 108
Ellicott City, MD 21042
Attention: Jeff Klenk

Job Name: Atholton Elementary School
Job Location: 6700 Seneca Drive, Columbia, MD
21046
Job Number: 13.030
P.O. Number: Not Provided

Date Submitted: 11/02/2018
Date Analyzed: 11/09/2018
Report Date: 11/09/2018
Date Sampled: 11/01/2018 - 11/02/2018
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					
611172-1	AES 2 1st Draw	11/01/2018 5:05 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-2	AES 3F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-3	AES 4F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-4	AES 8F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	4.1 ug/L	
611172-5	AES 10F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	6.8 ug/L	
611172-6	AES 11F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-7	AES 12 1st Draw	11/01/2018 5:05 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-8	AES 13F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	3.5 ug/L	
611172-9	AES 15F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-10	AES 16 1st Draw	11/01/2018 5:05 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-11	AES 17F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-12	AES 21F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-13	AES 22F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-14	AES 23F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-15	AES 25 1st Draw	11/01/2018 5:05 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-16	AES 26F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-17	AES 27F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-18	AES 28F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-19	AES 29F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-20	AES 30 1st Draw	11/01/2018 5:05 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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611172-21	AES 31F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-22	AES 32F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-23	AES 33F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-24	AES 34F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-25	AES 35F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-26	AES 26F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-27	AES 37F 1st Draw	11/01/2018 5:05 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
611172-28	AES 1 1st Draw	11/02/2018 5:05 am	KS	ICP	Lead	0.5 ug/L	10 ug/L	10.4 ug/L.
611172-29	AES 3s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	2.6 ug/L	
611172-30	AES 4s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	3.1 ug/L	
611172-31	AES 5 1st Draw	11/02/2018 5:05 am	NO	ICP	Lead	0.5 ug/L	1.7 ug/L	
611172-32	AES 6 1st Draw	11/02/2018 5:05 am	TL	ICP	Lead	0.5 ug/L	9.2 ug/L	
611172-33	AES 7 1st Draw	11/02/2018 5:05 am	OT.2	ICP	Lead	0.5 ug/L	1 ug/L	
611172-34	AES 8s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	7.7 ug/L	
611172-35	AES 9 1st Draw	11/02/2018 5:05 am	CR	ICP	Lead	0.5 ug/L	9.2 ug/L	
611172-36	AES 10s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	4.5 ug/L	
611172-37	AES 11s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	6.6 ug/L	
611172-38	AES 13s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	4.1 ug/L	
611172-39	AES 14 1st Draw	11/02/2018 5:05 am	OT.7	ICP	Lead	0.5 ug/L	0.93 ug/L	
611172-40	AES 15s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	19 ug/L	19.5 ug/L.



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		Date/Time	Location					
611172-41	AES 17s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	4.1 ug/L	
611172-42	AES 18 1st Draw	11/02/2018 5:05 am	CR	ICP	Lead	0.5 ug/L	1.3 ug/L	
611172-43	AES 19 1st Draw	11/02/2018 5:05 am	CR	ICP	Lead	0.5 ug/L	0.54 ug/L	
611172-44	AES 20 1st Draw	11/02/2018 5:05 am	CR	ICP	Lead	0.5 ug/L	0.98 ug/L	
611172-45	AES 21s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	2.6 ug/L	
611172-46	AES 22s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	2.5 ug/L	
611172-47	AES 23s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	3.8 ug/L	
611172-48	AES 24 1st Draw	11/02/2018 5:05 am	CR	ICP	Lead	0.5 ug/L	0.67 ug/L	
611172-49	AES 26s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	4 ug/L	
611172-50	AES 27s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	4.6 ug/L	
611172-51	AES 28s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	1.3 ug/L	
611172-52	AES 29s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	4.4 ug/L	
611172-53	AES 31s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	4.2 ug/L	
611172-54	AES 32s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	1.1 ug/L	
611172-55	AES 33s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	6.1 ug/L	
611172-56	AES 34s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	15 ug/L	15.1 ug/L.
611172-57	AES 35s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	2.3 ug/L	
611172-58	AES 36s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	2.4 ug/L	
611172-59	AES 37s 1st Draw	11/02/2018 5:05 am	CC/S	ICP	Lead	0.5 ug/L	18 ug/L	17.5 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)				Sample Collector: Jeff Klenk					
mg/L = Parts Per Million (ppm), N/A = Not Applicable, µg/L = Parts Per Billion, N/P = Not Provided				Certification:					
Analyst(s): Jean-Paul Littleton				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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