



CERTIFICATE OF ANALYSIS

Chain of Custody: 613139
Client: Howard County Public School System
Address: 10910 Route 108
Ellicott City, MD 21042
Attention: Jeff Klenk

Job Name: Thunder Hill Elementary School
Job Location: 9357 Mellenbrook Road, Columbia,
MD 21045
Job Number: 13.075
P.O. Number: Not Provided

Date Submitted: 02/15/2019
Date Analyzed: 02/21/2019
Report Date: 02/22/2019
Date Sampled: 02/14/2019 - 02/15/2019
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					
613139-1	THES 3 1st Draw	02/14/2019 5:17 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-2	THES 4 1st Draw	02/14/2019 5:17 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-3	THES 5F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-4	THES 6F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-5	THES 7F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-6	THES 8F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-7	THES 9F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-8	THES 10F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-9	THES 11F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-10	THES 12F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-11	THES 13 1st Draw	02/14/2019 5:17 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-12	THES 15F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-13	THES 16F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-14	THES 17F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-15	THES 20F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-16	THES 21F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-17	THES 22F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-18	THES 23F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-19	THES 24F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-20	THES 25F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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		Date/Time	Location					
613139-21	THES 26F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-22	THES 27F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-23	THES 29F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-24	THES 30F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-25	THES 31F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-26	THES 33 1st Draw	02/14/2019 5:17 am	DF/C	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-27	THES 35F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-28	THES 36F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-29	THES 37F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-30	THES 38F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-31	THES 40F 1st Draw	02/14/2019 5:17 am	CC/B	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-32	THES 1 1st Draw	02/15/2019 5:05 am	KS	ICP	Lead	0.5 ug/L	7.4 ug/L	
613139-33	THES 2 1st Draw	02/15/2019 5:05 am	KS	ICP	Lead	0.5 ug/L	8.8 ug/L	
613139-34	THES 5S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-35	THES 6S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-36	THES 7S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-37	THES 8S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-38	THES 9S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-39	THES 10S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-40	THES 11S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	



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		Date/Time	Location					
613139-41	THES 12S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	0.76 ug/L	
613139-42	THES 14 1st Draw	02/15/2019 5:05 am	TL	ICP	Lead	0.5 ug/L	2.9 ug/L	
613139-43	THES 15S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-44	THES 16S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-45	THES 17S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	0.55 ug/L	
613139-46	THES 18 1st Draw	02/15/2019 5:05 am	CR	ICP	Lead	0.5 ug/L	0.94 ug/L	
613139-47	THES 19 1st Draw	02/15/2019 5:05 am	CR	ICP	Lead	0.5 ug/L	1.1 ug/L	
613139-48	THES 20S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-49	THES 21S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-50	THES 22S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-51	THES 23S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-52	THES 24S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-53	THES 25S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-54	THES 26S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-55	THES 27S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-56	THES 28 1st Draw	02/15/2019 5:05 am	CR	ICP	Lead	0.5 ug/L	0.86 ug/L	
613139-57	THES 29S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-58	THES 30S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-59	THES 31S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-60	THES 32 1st Draw	02/15/2019 5:05 am	TL	ICP	Lead	0.5 ug/L	0.61 ug/L	



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AMA Sample Number	Client Sample Number	Sample Collection Information		Analysis Type	Sample Analyte	Reporting Limit	Final Result	Comments
		Date/Time	Location					
613139-61	THES 35S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	0.76 ug/L	
613139-62	THES 36S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-63	THES 37S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-64	THES 38S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-65	THES 39 1st Draw	02/15/2019 5:05 am	OT.7	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-66	THES 40S 1st Draw	02/15/2019 5:05 am	CC/S	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-67	THES 41 1st Draw	02/15/2019 5:05 am	TL	ICP	Lead	0.5 ug/L	< 0.5 ug/L	
613139-68	THES 42 1st Draw	02/15/2019 5:05 am	NO	ICP	Lead	0.5 ug/L	0.58 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)

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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