



Microbac Laboratories, Inc. - Baltimore

CERTIFICATE OF ANALYSIS

18K1407

Tidewater

Project Name: Carroll Manor Elementary

Meneka Rodrigo
6625 Selnick Drive, Suite A
Elkridge, MD 21075

Project / PO Number: N/A
Received: 11/30/2018
Reported: 12/26/2018

Analytical Testing Parameters

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (W01A-01 1070 (DF), Drinking Water, 18K1407-01, etc.)

Table header for Metals, Total by EPA 200 Series Methods with columns: Result, Limit(s), RL, Units, Note, Prepared, Analyzed, Analyst

Method: EPA 200.2/EPA 200.8

Table row for Lead analysis: Result <1.0, Limit 20.0, RL 1.0, Units ppb, Prepared 12/14/18 0931, Analyzed 12/20/18 1603, Analyst LMH

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (W01A-06 1070 (DF), Drinking Water, 18K1407-02, etc.)

Table header for Metals, Total by EPA 200 Series Methods with columns: Result, Limit(s), RL, Units, Note, Prepared, Analyzed, Analyst

Method: EPA 200.2/EPA 200.8

Table row for Lead analysis: Result <1.0, Limit 20.0, RL 1.0, Units ppb, Prepared 12/14/18 0931, Analyzed 12/20/18 1604, Analyst LMH

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (W01A-11 1070 (DF), Drinking Water, 18K1407-03, etc.)

Table header for Metals, Total by EPA 200 Series Methods with columns: Result, Limit(s), RL, Units, Note, Prepared, Analyzed, Analyst

Method: EPA 200.2/EPA 200.8

Table row for Lead analysis: Result <1.0, Limit 20.0, RL 1.0, Units ppb, Prepared 12/14/18 0931, Analyzed 12/20/18 1605, Analyst LMH

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (W01A-12 1070 (DF), Drinking Water, 18K1407-04, etc.)

Table header for Metals, Total by EPA 200 Series Methods with columns: Result, Limit(s), RL, Units, Note, Prepared, Analyzed, Analyst

Method: EPA 200.2/EPA 200.8

Table row for Lead analysis: Result <1.0, Limit 20.0, RL 1.0, Units ppb, Prepared 12/14/18 0931, Analyzed 12/20/18 1607, Analyst LMH



Microbac Laboratories, Inc. - Baltimore

CERTIFICATE OF ANALYSIS

18K1407

Client Sample ID: W01A-03 1070 (DF)	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:23
Lab Sample ID: 18K1407-05	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
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Method: EPA 200.2/EPA 200.8								
Lead	<1.0	20.0	1.0	ppb		12/14/18 0931	12/20/18 1608	LMH

Client Sample ID: W01A-04 1070 (DF)	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:24
Lab Sample ID: 18K1407-06	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
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Method: EPA 200.2/EPA 200.8								
Lead	<1.0	20.0	1.0	ppb		12/14/18 0931	12/20/18 1609	LMH

Client Sample ID: W01A-05 1070 (DF)	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:35
Lab Sample ID: 18K1407-07	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
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Method: EPA 200.2/EPA 200.8								
Lead	<1.0	20.0	1.0	ppb		12/14/18 0931	12/20/18 1611	LMH

Client Sample ID: W01A-07 1070 (DF)	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:27
Lab Sample ID: 18K1407-08	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
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Method: EPA 200.2/EPA 200.8								
Lead	<1.0	20.0	1.0	ppb		12/14/18 0931	12/20/18 1612	LMH



Microbac Laboratories, Inc. - Baltimore

CERTIFICATE OF ANALYSIS

18K1407

Client Sample ID: W01A-08 1070 (DF)	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:25
Lab Sample ID: 18K1407-09	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	<1.0	20.0	1.0	ppb		12/14/18 0931	12/20/18 1613	LMH

Client Sample ID: W01A-09 1070 (DF)	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:32
Lab Sample ID: 18K1407-10	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	<1.0	20.0	1.0	ppb		12/14/18 0931	12/20/18 1614	LMH

Client Sample ID: W01A-10 1070 (DF)	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:33
Lab Sample ID: 18K1407-11	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	<1.0	20.0	1.0	ppb		12/14/18 0931	12/20/18 1615	LMH

Client Sample ID: K17-01 1070 (IM)	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:15
Lab Sample ID: 18K1407-12	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	<1.0	20.0	1.0	ppb		12/13/18 1724	12/14/18 1617	GHW



Microbac Laboratories, Inc. - Baltimore

CERTIFICATE OF ANALYSIS

18K1407

Client Sample ID: K31-01 1070 (KS)	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:11
Lab Sample ID: 18K1407-13	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	3.5	20.0	1.0	ppb		12/14/18 0931	12/20/18 1615	LMH

Client Sample ID: K31-02 1070 (KS) LEFT	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:09
Lab Sample ID: 18K1407-14	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	2.7	20.0	1.0	ppb		12/14/18 0931	12/20/18 1618	LMH

Client Sample ID: K31-02 1070 (KS) RIGHT	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:10
Lab Sample ID: 18K1407-15	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	2.3	20.0	1.0	ppb		12/14/18 0931	12/20/18 1622	LMH

Client Sample ID: W01A-02 1070 (DF)	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:14
Lab Sample ID: 18K1407-16	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	<1.0	20.0	1.0	ppb		12/14/18 0931	12/20/18 1623	LMH



Microbac Laboratories, Inc. - Baltimore

CERTIFICATE OF ANALYSIS

18K1407

Client Sample ID: S23-71 1070 (NO)	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:19
Lab Sample ID: 18K1407-17	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	<1.0	20.0	1.0	ppb		12/14/18 0931	12/20/18 1623	LMH

Client Sample ID: S23-39 1070 (TL)	Collected By: Kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 11/30/2018 4:21
Lab Sample ID: 18K1407-18	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	<1.0	20.0	1.0	ppb		12/14/18 0931	12/20/18 1624	LMH

Results in **bold** have exceeded a limit defined for this project. Limits are provided for reference but as regulatory limits change frequently, Microbac Laboratories, Inc. advises the recipient of this report to confirm such limits and units of concentration with the appropriate Federal, state or local authorities before acting on the data.

Definitions

RL: Reporting Limit

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 17.9°C

Cooler Inspection Checklist

Ice Present or not required?	Yes	Shipping containers sealed or not required?	Yes
Custody seals intact or not required?	Yes	Chain of Custody (COC) Present?	Yes
COC includes customer information?	Yes	Relinquished and received signature on COC?	Yes
Sample collector identified on COC?	Yes	Sample type identified on COC?	Yes
Correct containers listed on COC?	Yes	Correct number of containers listed on COC?	Yes
Containers Intact?	No	COC includes requested analyses?	No
Enough sample volume for indicated tests received?	No	Sample labels match COC (Name, Date & Time?)	No
Samples arrived within hold time?	No	Correct preservatives on COC or not required?	No
Chemical preservations checked or not required?	No	Preservation checks meet method requirements?	No
VOA vials have zero headspace, or not recd.?	No	Trip Blank(s) Present or not required?	No

Project Requested Certification(s)

Microbac Laboratories, Inc. - Baltimore
109

State of Maryland (Drinking Water)



Microbac Laboratories, Inc. - Baltimore

CERTIFICATE OF ANALYSIS

18K1407

Report Comments

Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included.

Reviewed and Approved By:

A handwritten signature in black ink, appearing to read "Caliesha A. Scott".

Caliesha A. Scott

Project Manager

Reported: 12/26/2018 10:38



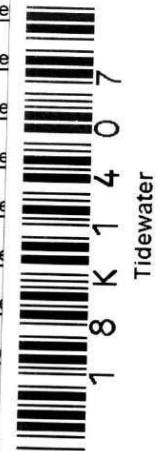
18121407

Multiple Sample COC

Site: **Carroll Manor Elementary: 5624 Adamstown Road, Office Ph.: Adamstown, MD 21710**

Date Sampled: **Friday, November 30, 2018**

Row	Area Number/Room/Space	From Item Description	Sample Name:	Date/Time Sampled (ex: 03/01/2018 13:28)	Sampler's Name
1	Front Office Hall	Drinking Fountain, Refrigerated	W01A-01 1070 (DF) 4:18 AM	Friday, November 30, 2018	Kevin Rodgers
2	Gym	Drinking Fountain, Refrigerated	W01A-06 1070 (DF) 4:36 AM	Friday, November 30, 2018	Kevin Rodgers
3	Hall between RM 229-231	Drinking Fountain, Refrigerated	W01A-11 1070 (DF) 4:22 AM	Friday, November 30, 2018	Kevin Rodgers
4	Hall between RM 229-231	Drinking Fountain, Refrigerated	W01A-12 1070 (DF) 4:30 AM	Friday, November 30, 2018	Kevin Rodgers
5	Hall by RM 110	Drinking Fountain, Refrigerated	W01A-03 1070 (DF) 4:23 AM	Friday, November 30, 2018	Kevin Rodgers
6	Hall by RM 117	Drinking Fountain, Refrigerated	W01A-04 1070 (DF) 4:24 AM	Friday, November 30, 2018	Kevin Rodgers
7	Hall by RM 137	Drinking Fountain, Refrigerated	W01A-05 1070 (DF) 4:35 AM	Friday, November 30, 2018	Kevin Rodgers
8	Hall by RM 219	Drinking Fountain, Refrigerated	W01A-07 1070 (DF) 4:27 AM	Friday, November 30, 2018	Kevin Rodgers
9	Hall by RM 219	Drinking Fountain, Refrigerated	W01A-08 1070 (DF) 4:25 AM	Friday, November 30, 2018	Kevin Rodgers
10	Hall by RM 219	Drinking Fountain, Refrigerated	W01A-09 1070 (DF) 4:32 AM	Friday, November 30, 2018	Kevin Rodgers
11	Hall by RM 219	Drinking Fountain, Refrigerated	W01A-10 1070 (DF) 4:33 AM	Friday, November 30, 2018	Kevin Rodgers
12	Health Room	Ice Machine	K17-01 1070 (IM) 4:15 AM	Friday, November 30, 2018	Kevin Rodgers
13	Kitchen	Sink, Kitchen	K31-01 1070 (KS) 4:11 AM	Friday, November 30, 2018	Kevin Rodgers
14	Kitchen	Sink, Kitchen	K31-02 1070 (KS) Left 4:09 AM	Friday, November 30, 2018	Kevin Rodgers
15	Kitchen	Sink, Kitchen	K31-02 1070 (KS) Right 4:10 AM	Friday, November 30, 2018	Kevin Rodgers
16	Main Office Hall	Drinking Fountain, Refrigerated	W01A-02 1070 (DF) 4:14 AM	Friday, November 30, 2018	Kevin Rodgers
17	Room 156	Non-Kitchen lavatory/Sink	S23-71 1070 (NO) 4:19 AM	Friday, November 30, 2018	Kevin Rodgers
18	Room 158	Non-Kitchen lavatory/Sink	S23-39 1070 (TL) 4:21 AM	Friday, November 30, 2018	Kevin Rodgers
-	-	-	-	-	-
-	-	-	-	-	-



Samples Relinquished By: *[Signature]* 11-30-18
 Samples Received By: *[Signature]* 11-30-18
 Temp: 17.9

Cooler Receipt Form / Sample Acceptance & Noncompliance Form

Microbac Laboratories, Inc., Baltimore Division
 Control # 606-03
 Effective Date: 11/30/2016
 Page 1 of 1

Number of Coolers Received: 1
 Client: Tide water
 Form Completed By: Erlynn Mistry
 Shipper:
 Custody Tape Intact:
 Containers Intact:
 Sample Received on Ice or refrigerated:
 Chain of Custody Present with shipment:
 Sample Bottle IDs agree with COC:
 Preservation requirements met:
 Correct Number of Containers / Sample Volume:
 Headspace in container:
 Type of Sample:

Receipt Date / Time: 11-30-18 800
 Work Order # 18121407
 Microbac Client UPS FedEx
 YES / NO / NA
 YES / NO
 YES / NO / NA
 Infrared (IR) Temperature: 17.9 °C
 YES / NO
 YES / NO
 YES / NO / Not Checked
 YES / NO (If No, contact client immediately)
 YES / NO / NA
 Water Soil Wipes Oil Filter Solid
 Sludge Food Swab Other

Container Type / Quantity:							
A -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid:	If preserved pH <2, pH >10
B -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
C -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
D -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
E -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
H -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
K -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
L -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
M -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
P -	Unpreserved	H2SO4	<u>18</u> HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2 <u>18</u> , pH >10
W -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
V -	Unpreserved	HCl	HCl / Ascorbic Acid	HCl / NaTHIO	(Checked at time of Analysis)		
F -	Unpreserved	NaTHIO (Checked at time of Analysis)					
S -	Unpreserved	NaTHIO (Checked at time of Analysis)					
SN -	Unpreserved	NaTHIO NaTHIO/EDTA (Checked at time of Analysis)					
	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10

Describe preservation requirements not met:
All Acid preserved <2 pH NaOH preserved >12 pH All others >2 and <10 (usually 4-8)
 Sample ID: _____ H₂SO₄ HNO₃ NaOH _____ mls added
 Sample ID: _____ H₂SO₄ HNO₃ NaOH _____ mls added
 Sample ID: _____ H₂SO₄ HNO₃ NaOH _____ mls added
 Sample ID: _____ H₂SO₄ HNO₃ NaOH _____ mls added
H₂SO₄ - Sulfuric Acid, HNO₃ - Nitric Acid, NaOH - Sodium Hydroxide, ASC - Ascorbic Acid, NaTHIO - Sodium Thiosulfate

Describe Anomalies: _____

Contact information / Summary of Actions:
 Date / Time: _____ Contact: _____ Contact By: _____
 Comments: _____

