



Microbac Laboratories, Inc. - Baltimore

CERTIFICATE OF ANALYSIS

18J1211

Tidewater

Project Name: Frederick County Public Schools

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

Project / PO Number: Thurmont Middle
Received: 10/23/2018
Reported: 11/21/2018

Analytical Testing Parameters

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (W01A-01 2044 (DF) Test Point, Drinking Water, 18J1211-01, etc.)

Metals, Total by EPA 200 Series Methods

Method: EPA 200.2/EPA 200.8

Table with 9 columns: Lead, Result (<1.0), Limit(s) (20.0), RL (1.0), Units (ppb), Note, Prepared (10/24/18 1113), Analyzed (10/24/18 1434), Analyst (LMH)

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (W01A-02 2044 (DF) Test Point, Drinking Water, 18J1211-02, etc.)

Metals, Total by EPA 200 Series Methods

Method: EPA 200.2/EPA 200.8

Table with 9 columns: Lead, Result (1.9), Limit(s) (20.0), RL (1.0), Units (ppb), Note, Prepared (10/24/18 1113), Analyzed (10/24/18 1437), Analyst (LMH)

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (W01A-08 2044 (DF) Test Point, Drinking Water, 18J1211-03, etc.)

Metals, Total by EPA 200 Series Methods

Method: EPA 200.2/EPA 200.8

Table with 9 columns: Lead, Result (<1.0), Limit(s) (20.0), RL (1.0), Units (ppb), Note, Prepared (10/24/18 1113), Analyzed (10/24/18 1438), Analyst (LMH)

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (W01A-07 2044 (DF) Test Point, Drinking Water, 18J1211-04, etc.)

Metals, Total by EPA 200 Series Methods

Method: EPA 200.2/EPA 200.8

Table with 9 columns: Lead, Result (<1.0), Limit(s) (20.0), RL (1.0), Units (ppb), Note, Prepared (10/24/18 1113), Analyzed (10/24/18 1438), Analyst (LMH)



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Client Sample ID: W01A-04 2044 (DF) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 3:23
Lab Sample ID: 18J1211-05	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	1.2	20.0	1.0	ppb		10/24/18 1113	10/24/18 1439	LMH

Client Sample ID: W01A-03 2044 (DF) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 3:37
Lab Sample ID: 18J1211-06	

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		10/24/18 1113	10/24/18 1440	LMH

Client Sample ID: K17-02 2044 (IM) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 3:49
Lab Sample ID: 18J1211-07	

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		10/24/18 1113	10/24/18 1441	LMH

Client Sample ID: K17-01 2044 (IM) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 3:28
Lab Sample ID: 18J1211-08	

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		10/24/18 1113	10/24/18 1443	LMH



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Client Sample ID: K31-01 2044 (IM) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 3:32
Lab Sample ID: 18J1211-09	

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	16.8	20.0	1.0	ppb		10/24/18 1113	10/24/18 1448	LMH

Client Sample ID: W01A-05 2044 (DF) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 3:42
Lab Sample ID: 18J1211-10	

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	2.1	20.0	1.0	ppb		10/24/18 1113	10/24/18 1449	LMH

Client Sample ID: W01A-06 2044 (DF) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 3:43
Lab Sample ID: 18J1211-11	

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	1.5	20.0	1.0	ppb		10/24/18 1113	10/24/18 1450	LMH

Client Sample ID: S23-114 2044 (NO) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 3:53
Lab Sample ID: 18J1211-12	

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	1.5	20.0	1.0	ppb		10/24/18 1113	10/24/18 1450	LMH



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Client Sample ID: S23-01 2044 (HE) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 4:06
Lab Sample ID: 18J1211-13	

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	6.6	20.0	1.0	ppb		10/24/18 1113	10/24/18 1451	LMH

Client Sample ID: S23-02 2044 (HE) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 4:07
Lab Sample ID: 18J1211-14	

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	5.1	20.0	1.0	ppb		10/24/18 1113	10/24/18 1452	LMH

Client Sample ID: S23-03 2044 (HE) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 4:08
Lab Sample ID: 18J1211-15	

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	14.2	20.0	1.0	ppb		10/24/18 1113	10/24/18 1453	LMH

Client Sample ID: S23-04 2044 (HE) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 4:09
Lab Sample ID: 18J1211-16	

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	5.9	20.0	1.0	ppb		10/24/18 1113	10/24/18 1454	LMH



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Client Sample ID: S23-05 2044 (HE) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 4:10
Lab Sample ID: 18J1211-17	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	4.9	20.0	1.0	ppb		10/24/18 1113	10/24/18 1454	LMH

Client Sample ID: S23-06 2044 (HE) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 4:11
Lab Sample ID: 18J1211-18	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	11.1	20.0	1.0	ppb		10/24/18 1113	10/24/18 1457	LMH

Client Sample ID: S23-07 2044 (HE) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 4:12
Lab Sample ID: 18J1211-19	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	15.4	20.0	1.0	ppb		10/24/18 1113	10/24/18 1500	LMH

Client Sample ID: S23-119 2044 (TL) Test Point	Collected By: kevin Rodgers
Sample Matrix: Drinking Water	Collection Date: 10/23/2018 3:56
Lab Sample ID: 18J1211-20	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.2/EPA 200.8								
Lead	3.4	20.0	1.0	ppb		10/24/18 1113	10/24/18 1501	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: 11.5°C



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Cooler Inspection Checklist

Custody Seals Intact	Yes	Containers Intact	Yes
Received on ice or not required.	Yes	Radiation Scan Acceptable or not required.	Yes
COC Present	Yes	COC/Containers Agree	Yes
Correct Preservation	No	Correct Number of Containers Received	Yes
Sufficient Sample Volume	Yes	Proper Condition	Yes

Project Requested Certification(s)

Microbac Laboratories, Inc. - Baltimore
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State of Maryland (Drinking Water)

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:

Isang Isang
Client Relations

Reported: 11/21/2018 15:37



Reviewed By: II

Date: 10/23/18

Multiple Sample COC

Site: **Thurmont Middle: 408 East Main Street, Thurmont, MD 21788, Office Ph.: 240-236-5100**

Date Sampled: **Tuesday, October 23, 2018**

1851211

Row	Area Number/Room/Space	From Item Description	Sample Name:	Date/Time Sampled (ex: 03/01/2018 13:28)	Sampler's Name
1	2nd Floor Boys Restroom	Drinking Fountain, Refrigerated	W01A-01 2044 (DF) Test Point	10/23/2018 3:05 AM	Kiven Rodgers
2	2nd Floor Girls Restroom	Drinking Fountain, Refrigerated	W01A-02 2044 (DF) Test Point	10/23/2018 3:08 AM	Kiven Rodgers
3	Boys Locker Room	Drinking Fountain, Refrigerated	W01A-08 2044 (DF) Test Point	10/23/2018 3:15 AM	Kiven Rodgers
4	Girls Locker Room	Drinking Fountain, Refrigerated	W01A-07 2044 (DF) Test Point	10/23/2018 3:18 AM	Kiven Rodgers
5	Hall by Boiler Room	Drinking Fountain, Refrigerated	W01A-04 2044 (DF) Test Point	10/23/2018 3:23 AM	Kiven Rodgers
6	Hall by RM 605	Drinking Fountain, Refrigerated	W01A-03 2044 (DF) Test Point	10/23/2018 3:32 AM	Kiven Rodgers
7	Health Room	Ice Machine	K17-02 2044 (IM) Test Point	10/23/2018 3:44 AM	Kiven Rodgers
8	Kitchen	Ice Machine	K17-01 2044 (IM) Test Point	10/23/2018 3:28 AM	Kiven Rodgers
9	Kitchen	Sink, Kitchen	K31-01 2044 (KS) Test Point	10/23/2018 3:32 AM	Kiven Rodgers
10	Lobby 305	Drinking Fountain, Refrigerated	W01A-05 2044 (DF) Test Point	10/23/2018 3:42 AM	Kiven Rodgers
11	Lobby 305	Drinking Fountain, Refrigerated	W01A-06 2044 (DF) Test Point	10/23/2018 3:43 AM	Kiven Rodgers
12	Nurse Office	Non-Kitchen lavatory/Sink	S23-114 2044 (NO) Test Point	10/23/2018 3:53 AM	Kiven Rodgers
13	RM 110	Non-Kitchen lavatory/Sink	S23-01 2044 (HE) Test Point	10/23/2018 4:06 AM	Kiven Rodgers
14	RM 110	Non-Kitchen lavatory/Sink	S23-02 2044 (HE) Test Point	10/23/2018 4:07 AM	Kiven Rodgers
15	RM 110	Non-Kitchen lavatory/Sink	S23-03 2044 (HE) Test Point	10/23/2018 4:08 AM	Kiven Rodgers
16	RM 110	Non-Kitchen lavatory/Sink	S23-04 2044 (HE) Test Point	10/23/2018 4:09 AM	Kiven Rodgers
17	RM 110	Non-Kitchen lavatory/Sink	S23-05 2044 (HE) Test Point	10/23/2018 4:10 AM	Kiven Rodgers
18	RM 110	Non-Kitchen lavatory/Sink	S23-06 2044 (HE) Test Point	10/23/2018 4:11 AM	Kiven Rodgers
19	RM 110	Non-Kitchen lavatory/Sink	S23-07 2044 (HE) Test Point	10/23/2018 4:18 AM	Kiven Rodgers
20	Teacher Lounge	Non-Kitchen lavatory/Sink	S23-119 2044 (TL) Test Point	10/23/2018 3:56 AM	Kiven Rodgers

Samples Relinquished By: Kiven Rodgers

Samples Received By: Eublynn Smith

Temp: 11.5

10-23-18
10/23/18
8:40



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Cooler Receipt Form / Sample Acceptance & Noncompliance Form

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

Client: Tide-water

Form Completed By: Howling

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: 10/23/18 0840
 Work Order # 18J1211

Microbac Client UPS FedEx

YES / NO / NA

YES / NO

YES / NO / NA

Infrared (IR) Temperature: 11.5 °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	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, 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: All bottles H₂SO₄ (HNO₃) NaOH _____ mls added to preserve for analysis requested. How

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 0844

Describe Anomalies: _____

Contact information / Summary of Actions:

Date / Time: _____ Contact: _____ Contact By: _____

Comments: _____

