



Trace Analytical Laboratories, Inc.  
 2241 Black Creek Road  
 Muskegon, MI 49444-2673  
 Phone: 231.773.5998 Fax: 888.979.4467  
 www.trace-labs.com

**State of Michigan Laboratory ID: 8001**

May 22, 2017

Mr. Stephen King  
 Birmingham Public Schools  
 2305 Cole Street  
 Birmingham, MI 48009

**PROJECT: Beverly**

**TRACE ID: T17E285-01**

<i>Sample Point Description</i>		<i>Collected</i>		<i>Collected By</i>		<i>Received at Laboratory</i>	
BV-07-HS		5/13/17 11:33		twb		5/15/17 8:57	
Metals, Total	RESULT	* MCL	PREPARED	ANALYZED	BY	METHOD	
Copper	0.32 mg/L	1.3	5/17/17 13:18	5/19/17 14:06	dtm	EPA 200.8 Rev. 5.4	
Lead	0.0020 mg/L	0.015	5/17/17 13:18	5/19/17 14:06	dtm	EPA 200.8 Rev. 5.4	

**TRACE ID: T17E285-02**

<i>Sample Point Description</i>		<i>Collected</i>		<i>Collected By</i>		<i>Received at Laboratory</i>	
BV-14-BF		5/13/17 11:30		twb		5/15/17 8:57	
Metals, Total	RESULT	* MCL	PREPARED	ANALYZED	BY	METHOD	
Copper	0.95 mg/L	1.3	5/17/17 13:18	5/19/17 15:30	dtm	EPA 200.8 Rev. 5.4	
Lead	0.0093 mg/L	0.015	5/17/17 13:18	5/19/17 14:09	dtm	EPA 200.8 Rev. 5.4	

**TRACE ID: T17E285-03**

<i>Sample Point Description</i>		<i>Collected</i>		<i>Collected By</i>		<i>Received at Laboratory</i>	
BV-22-CF		5/13/17 11:32		twb		5/15/17 8:57	
Metals, Total	RESULT	* MCL	PREPARED	ANALYZED	BY	METHOD	
Copper	0.78 mg/L	1.3	5/17/17 13:18	5/19/17 14:11	dtm	EPA 200.8 Rev. 5.4	
Lead	0.0035 mg/L	0.015	5/17/17 13:18	5/19/17 14:11	dtm	EPA 200.8 Rev. 5.4	

\* The MCL (Maximum Contamination Limit) is the maximum concentration allowed under the Federal Safe Drinking Water Act. Results that are reported in bold or red have equaled or exceeded the MCL.

Jon Mink  
 Senior Project Manager



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May 22, 2017

Mr. Stephen King  
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 Birmingham, MI 48009

PROJECT: Beverly

TRACE ID: T17E285-04

Sample Point Description	Collected	Collected By	Received at Laboratory			
BV-73-CF	5/13/17 11:38	twb	5/15/17 8:57			
Metals, Total	RESULT	* MCL	PREPARED	ANALYZED	BY	METHOD
Copper	0.46 mg/L	1.3	5/17/17 13:18	5/19/17 14:13	dtm	EPA 200.8 Rev. 5.4
Lead	0.0013 mg/L	0.015	5/17/17 13:18	5/19/17 14:13	dtm	EPA 200.8 Rev. 5.4

TRACE ID: T17E285-05

Sample Point Description	Collected	Collected By	Received at Laboratory			
BV-79-CF	5/13/17 11:41	twb	5/15/17 8:57			
Metals, Total	RESULT	* MCL	PREPARED	ANALYZED	BY	METHOD
Copper	0.29 mg/L	1.3	5/17/17 13:18	5/19/17 14:16	dtm	EPA 200.8 Rev. 5.4
Lead	<0.0010 mg/L	0.015	5/17/17 13:18	5/19/17 14:16	dtm	EPA 200.8 Rev. 5.4

TRACE ID: T17E285-06

Sample Point Description	Collected	Collected By	Received at Laboratory			
BV-83-CF	5/13/17 11:42	twb	5/15/17 8:57			
Metals, Total	RESULT	* MCL	PREPARED	ANALYZED	BY	METHOD
Copper	0.42 mg/L	1.3	5/17/17 13:18	5/19/17 14:18	dtm	EPA 200.8 Rev. 5.4
Lead	0.0043 mg/L	0.015	5/17/17 13:18	5/19/17 14:18	dtm	EPA 200.8 Rev. 5.4

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Jon Mink  
 Senior Project Manager

**Birmingham Schools Fixture Inventory**

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Building: **Beverly**

Date Collected: 5/13/17  
Sampler's Initials: TWB

Trace ID: T17E-285  
Logged by: GH  
Checked by: JM

Trace No.	Time Taken	Sample Point	Location	Photo(s)	Aerator?	Connecting Plumbing	Notes
1		BV-01-KF	Main Office- Clinic	3222/23	Y	Br, Cu	
2		BV-02-BF	Main Office	3224	Y	Br, Cu	
3		BV-03-KF	Main Office Workroom	3225/26	Y	Br, Cu	
4		BV-04-KF	Kitchen Triple Sink- Left	3227/28	N	Br, Cu	
5		BV-05-KF	Kitchen Triple Sink- Right	3227/28	Y	Br, Cu	
6		BV-06-KF	Kitchen- Island	3229/30	Y	Br, Cu	
7	11:33	BV-07-HS	Kitchen Hand Sink	3231	Y	Br, Cu	
8		BV-08-HS	Cafeteria/Multi Purpose Rm	3232	Y	Unknown	
9		BV-09-DF	Cafeteria/Multi Purpose Rm	3232	N	Unknown	
10		BV-10-DS	Custodial- Community Ed	3233	N	Unknown	
11		BV-11-BF	Receiving Restroom	3234	Y	Br, Cu	
12		BV-12-EW	Receiving	3235	N	Unknown	
13		BV-13-DS	Receiving	3235	N	Cu	
14	11:30	BV-14-BF	Receiving	3236/37	Y	Br, Cu	
15		BV-15-KF	Media Center	3238	Y	Br, Cu	
16		BV-16-DF	By Staff Lounge-Left	3239	N	Unknown	
17		BV-17-DF	By Staff Lounge-Right	3239	N	Unknown	
18		BV-18-KF	Staff Lounge	3240/41	Y	Br, Cu	
19		BV-19-BF	Rm 101	3242	Y	Br, Cu	
20		BV-20-CF	Rm 101	3243	Y	Br, Cu	
21		BV-21-B	Rm 101	3243	N	Br, Cu	
22	11:30	BV-22-CF	Rm 102	3244/45	Y	Br, Cu	
23		BV-23-B	Rm 102	3244/45	N	Br, Cu	
24		BV-24-CF	Rm 103- Front sink	3246	Y	Br, Cu	
25		BV-25-CF	Rm 103-Backside sink	3247/48	Y	Br, Cu	
26		BV-26-CF	Rm 103- Back wall	3249/50	Y	Br, Cu	
27		BV-27-Bottle	By Stairwell	3251	N	Unknown	
28		BV-28-DF	By Stairwell	3251	N	Unknown	
29		BV-29-EW	Boiler Rm	3252	N	Unknown	
30		BV-30-DS	Boiler Rm	3252	N	Unknown	
31		BV-31-CF	Rm 105	3253/54	Y	Br, Cu	
32		BV-32-B	Rm 105	3253/54	N	Br, Cu	
33		BV-33-BF	Rm 105	3255	Y	Br, Cu	
34		BV-34-BF	Rm 107	3256	Y	Br, Cu	
35		BV-35-CF	Rm 107	3257/58	Y	Br, Cu	
36		BV-36-B	Rm 107	3257/58	N	Br, Cu	
37		BV-37-BF	Rm 109	3259	Y	Br, Cu	
38		BV-38-CF	Rm 109	3260/61	Y	Br, Cu	
39		BV-39-B	Rm 109	3260/61	N	Unknown	

Released by: TWB

Received by: [Signature]

Date: 5/16/17 Time: 8:57



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**Birmingham Schools Fixture Inventory**

Building: **Beverly**

Date Collected: 5/13/17  
 Sampler's Initials: TMB

Trace ID: T17E285  
 Logged by: GH  
 Checked by: [Signature]

Trace No.	Time Taken	Sample Point	Location	Photo(s)	Aerator?	Connecting Plumbing	Notes
40		BV-40-BF	Rm 111	3262	Y	Br, Cu, P	
41		BV-41-CF	Rm 111	3263/64	Y	Br, Cu, P	
42		BV-42-B	Rm 111	3263/64	N	Br, Cu, P	
43		BV-43-BF	Offices	3265	Y	Br, Cu	
44		BV-44-DS	Custodial by 107	3266	N	Unknown	
45		BV-45-CF	Rm 110	3267	Y	Br, Cu	
46		BV-46-B	Rm 110	3267	N	Br, Cu	
47		BV-47-BF	Rm 110	3268	Y	Br, Cu	
48		BV-48-CF	Rm 108	3269/70	Y	Br, Cu, P	
49		BV-49-B	Rm 108	3269/70	Y	Br, Cu, P	
50		BV-50-BF	Rm 108	3271	Y	Br, Cu	
51		BV-51-CF	Rm 106	3272/73	Y	Br, Cu	
52		BV-52-B	Rm 106	3272/73	N	Br, Cu	
53		BV-53-BF	Rm 106	3304	Y	Br, Cu	
54		BV-54-BF	Rm 104	3274	Y	Br, Cu	
55		BV-55-CF	Rm 104	3275/76	Y	Br, Cu	
56		BV-56-B	Rm 104	3275/76	N	Br, Cu	
57		BV-57-BF	Girls Restroom-Left	3277	Y	Br, Cu	
58		BV-58-BF	Girls Restroom- Left Middle	3277	Y	Br, Cu	
59		BV-59-BF	Girls Restroom- Right Middle	3277	Y	Br, Cu	
60		BV-60-BF	Girls Restroom- Right	3277	Y	Br, Cu	
61		BV-61-BF	Boys Restroom- Left	3278	Y	Br, Cu	
62		BV-62-BF	Boys Restroom- Left Middle	3278	Y	Br, Cu	
63		BV-63-BF	Boys Restroom- Right Middle	3278	Y	Br, Cu	
64		BV-64-BF	Boys Restroom- Right	3278	Y	Br, Cu	
65		BV-65-BF	Staff Restroom	3279	Y	Br,Cu	
66		BV-66-BF	2nd Fl Boys-Left	3280	Y	Br, Cu	
67		BV-67-BF	2nd Fl Boys- Left Middle	3280	Y	Br, Cu	
68		BV-68-BF	2nd Fl Boys- Right Middle	3280	Y	Br, Cu	
69		BV-69-BF	2nd Fl Boys-Right	3280	Y	Br, Cu	
70		BV-70-BF	Custodial Rm 2nd Fl	3281	N	Unknown	
71		BV-71-CF	Rm 201	3282/83	Y	Br, Cu	
72		BV-72-B	Rm 201	3282/83	N	Br, Cu	
4 73	11:38	BV-73-CF	Rm 203	3284/85	Y	Br, Cu	
74		BV-74-B	Rm 203	3284/85	N	Br, Cu	
75		BV-75-CF	Rm 205	3286/87	Y	Br, Cu	
76		BV-76-B	Rm 205	3286/87	N	Br, Cu	
77		BV-77-CF	Rm 207	3288/89	Y	Br, Cu	
78		BV-78-B	Rm 207	3288/89	N	Br, Cu	

Released by: [Signature]

Received by: [Signature]

Date: 5/15/17 Time: 8:57



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**Birmingham Schools Fixture Inventory**

Page 3 of 3

Building: Beverly

Date Collected: 5/13/17  
 Sampler's Initials: TWB

Trace ID: T1715285  
 Logged by: GH  
 Checked by: MU

Trace No.	Time Taken	Sample Point	Location	Photo(s)	Aerator?	Connecting Plumbing	Notes
79	<u>11:41</u>	BV-79-CF	Rm 209	3290	Y	Br, Cu P	
80		BV-80-B	Rm 209	3290	N	Br, Cu, P	
81		BV-81-CF	Rm 211	3291	Y	Br, Cu, P	
82		BV-82-B	Rm 211	3291	N	Br, Cu, P	
83	<u>11:42</u>	BV-83-CF	Rm 210	3292/93	Y	Br, Cu, P	
84		BV-84-B	Rm 210	3292/93	N	Br, Cu, P	
85		BV-85-CF	Rm 208	3294/95	Y	Br, Cu, P	
86		BV-86-B	Rm 208	3294/95	N	Br, Cu, P	
87		BV-87-CF	Rm 206	3296/97	Y	Br, Cu, P	
88		BV-88-B	Rm 206	3296/97	N	Br, Cu, P	
89		BV-89-CF	Rm 204A	3298/99	Y	Br, Cu, P	
90		BV-90-B	Rm 204A	3298/99	N	Br, Cu, P	
91		BV-91-CF	Rm 202	3300/01	Y	Br, Cu, P	
92		BV-92-B	Rm 202	3300/01	N	Br, Cu, P	
93		BV-93-BF	2nd Fl Staff Restroom	3302	Y	Br, Cu	
94		BV-94-BF	2nd Fl Girls- Left	3303	Y	Br, Cu	
95		BV-95-BF	2nd Fl Girls- Left Middle	3303	Y	Br, Cu	
96		BV-96-BF	2nd Fl Girls- Right Middle	3303	Y	Br, Cu	
97		BV-97-BF	2nd Fl Girls- Right	3303	Y	Br, Cu	

Abbreviations:  
 B= Classroom Bubbler  
 BF= Bathroom Faucet  
 Bottle= Bottle Filler  
 CF= Classroom Faucet  
 DF= Drinking Fountain  
 DS= Deep Sink  
 EW= Eye Wash  
 HS= Hand Sink  
 KF= Kitchen Faucet

Connecting Plumbing:  
 Br= Brass  
 Cu= Copper  
 G= Galvanized  
 P= Plastic  
 SS= Stainless Steel

Released by: TWB Received by: [Signature] Date: 5-15-17 Time: 8:57



the science of compliance

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BV

**SAMPLE LOG IN CHECKLIST**

Trace ID #: T17E285 Date: 5-15-17 Package Description: Cooler Temperature: 19.3  
 Client Name: Birmingham Time: 8:57 Logged In by: EH

**Cooler Receipt**

Cooler/samples delivered by: Trace courier   
 Hand delivered  Name of delivery person: \_\_\_\_\_  
 Commercial courier  UPS  FED EX  US Mail   
 Tracking Number:  Not Applicable  
 Tracking #: \_\_\_\_\_  
 COC Seals present and intact on cooler? No  Yes   Not Applicable  
 Custody seals signed by Client? No  Yes  Client custody seal # (if applicable): \_\_\_\_\_

**Coolant and Temperature**

<p><b>Type of Coolant Used</b></p> <p>Slurry w/ crushed, cubed, or chip ice? <input type="checkbox"/></p> <p>Multiple bags of ice around samples? <input type="checkbox"/></p> <p>Ice Packs/ Blue ice: <input type="checkbox"/></p> <p>No Coolant Present: <input checked="" type="checkbox"/></p> <p>Ice still present upon receipt (circle one):          Yes No <u>N/A</u></p>	<p><b>Cooler Temperature</b></p> <p>Correction Factors: •Digital Stick Thermometer CF = -0.8°C          •IR Thermometer CF = -0.4°C</p> <p>Temperature Blank: <u>N/A</u> °C (Digital Stick Thermometer)          Range of 3 samples: <u>19.3-19.4</u> °C (IR Thermometer)          Melt Water: <u>N/A</u> °C (Use Digital Stick Thermometer)</p>
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**General**

	Yes	No	NA	Comments
All bottles arrived unbroken with labels in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Each sample point is in a sealed plastic bag?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Labels filled out completely?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
All bottle labels agree with Chain of Custody (COC)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sufficient sample to run tests requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
pH checked and samples at correct pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Below*
Correct preservative added to samples?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Air bubbles absent from VOAs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
COC filled out properly and signed by client?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COC signed in by TRACE sample custodian?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was project manager called and samples discussed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**\*EMD pH Test Strips Used:**

pH 0-2.5       pH 11.0-13.0  
 Lot: HC563733      Lot: HC547328

Other: \_\_\_\_\_

Lot: HC563733 verified 02/1/16 AY  
 Lot: HC574781 verified 04/03/17 JS

Form 70-A.20  
 Effective 4/24/17

TRACE Analytical Laboratories, Inc.