



Environmental Services, Inc.

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12330 Perry Highway, Suite 240 • Wexford, PA 15090 • Voice: 412.463.6576

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**DRINKING WATER TESTING REPORT  
(COPPER AND LEAD)**

**(Results of Testing Conducted on April 29, 2016)**

**PERFORMANCE ENVIRONMENTAL SERVICES  
Project # 161313**

FOR

**Ms. Regan Hamilton  
Director of Facilities  
Cornerstone Charter Schools  
P.O. Box 2000  
Taylor, Michigan 48180**

AT

**Cornerstone Schools Association  
6861 E. Nevada  
Detroit, MI**

**Report Date: May 10, 2016**

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## 1.0 SUMMARY OF FINDINGS

In accordance with your request, Performance Environmental Services, Inc. (*Performance*) conducted drinking water testing on April 29, 2016 at Cornerstone Schools Association located at 6861 E. Nevada in Detroit, Michigan. The purpose of the testing was to document the absence or presence of potential health hazards associated with the exposure of copper and lead in the drinking water. The study included the collection of representative drinking water samples.

The results of the drinking water testing do not indicate a need for response actions to reduce exposure at this time.

Enclosed, please find the Drinking Water Testing Report. If there are any questions or comments concerning this report or our recommendations, please do not hesitate to contact us.

Respectfully,

PERFORMANCE ENVIRONMENTAL SERVICES, INC.



Dennis A. Wood  
Senior Project Manager

DAW:hr

## 2.0 BACKGROUND

In accordance with your request, Performance Environmental Services, Inc. (*Performance*) conducted drinking water testing for copper and lead at Cornerstone Schools Association located at 6861 E. Nevada in Detroit, Michigan. The purpose of the testing was to document the absence or presence of potential health hazards associated with copper and lead in the drinking water as described in the EPA document entitled “3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance” for facilities not defined as a public water system who are required to adhere to the EPA Lead and Copper Rule (40 CFR Part 141 Subpart I). The study included the collection of representative drinking water samples. *Performance* conducted the drinking water testing on April 29, 2016.

## 3.0 ASSESSMENT METHODOLOGY

### 3.1 Drinking Water Testing

*Performance* implemented sampling methodologies as described in section 4 of the “3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance” to collect drinking water samples for concentrations of copper and lead. The samples were collected first draw (stagnant sample) using laboratory provided 250 ml containers. The samples were maintained under a chain-of-custody record and submitted to a laboratory for analysis by Inductively Coupled Plasma – Mass Spectrometry (EPA method 200.8). The samples were analyzed by Brighton Analytical, L.L.C. located at 2105 Pless Drive, Brighton, MI 48116 (810)229-7575.

## 4.0 RESULTS

### 4.1 Drinking Water Analysis

Twenty-one (21) samples were collected for concentrations of copper and lead. The EPA Lead and Copper rule requires that copper concentrations not exceed an action level of 1.3 ppm (1,300 ppb) and lead concentrations not exceed an action level of 20 ppb. The results are as follows:

#### Copper Results:

Sample ID	Location	Result (ppb)	EPA Action Level (ppb)
6861-1	North 1st floor drinking fountain by teacher's lounge	120	1,300
6861-2	South 1st floor drinking fountain by teacher's lounge	130	1,300
6861-3	Sink in recruiter office – 1st floor	440	1,300
6861-4	Sink in faculty lounge by room 120 – 1st floor	250	1,300
6861-5	East 1st floor drinking fountain by office 124	160	1,300
6861-6	West 1st floor drinking fountain by office 124	150	1,300
6861-7	Sink in teacher/parent lounge by gym – 1st floor	110	1,300
6861-8	North 1st floor drinking fountain by counseling department	130	1,300
6861-9	South 1st floor drinking fountain by counseling department	120	1,300
6861-10	Drinking fountain on floor 1R	80	1,300

Sample ID	Location	Result (ppb)	EPA Action Level (ppb)
6861-11	Sink by dishwasher in cafeteria on floor 1R	80	1,300
6861-12	Hand washing sink by dishwasher in cafeteria on floor 1R	620	1,300
6861-13	Sink across from stove in cafeteria on floor 1R	50	1,300
6861-14	Salad preparation sink in cafeteria on floor 1R	350	1,300
6861-15	Sink in teacher's lounge on floor 1R	950	1,300
6861-16	Kitchen sink in apartments on floor 1R	360	1,300
6861-17	2nd floor drinking fountain	190	1,300
6861-18	Sink in floor 2R kitchen	250	1,300
6861-19	High school drinking fountain on floor 2R	240	1,300
6861-20	High school drinking fountain in basement	440	1,300
6861-21	Sink in receiving area in basement	130	1,300

**Lead Results:**

Sample ID	Location	Result (ppb)	EPA Action Level (ppb)
6861-1	North 1st floor drinking fountain by teacher's lounge	Not detected	20
6861-2	South 1st floor drinking fountain by teacher's lounge	Not detected	20
6861-3	Sink in recruiter office – 1st floor	Not detected	20
6861-4	Sink in faculty lounge by room 120 – 1st floor	Not detected	20
6861-5	East 1st floor drinking fountain by office 124	Not detected	20
6861-6	West 1st floor drinking fountain by office 124	Not detected	20
6861-7	Sink in teacher/parent lounge by gym – 1st floor	Not detected	20
6861-8	North 1st floor drinking fountain by counseling department	Not detected	20
6861-9	South 1st floor drinking fountain by counseling department	Not detected	20
6861-10	Drinking fountain on floor 1R	Not detected	20
6861-11	Sink by dishwasher in cafeteria on floor 1R	Not detected	20
6861-12	Hand washing sink by dishwasher in cafeteria on floor 1R	Not detected	20
6861-13	Sink across from stove in cafeteria on floor 1R	Not detected	20
6861-14	Salad preparation sink in cafeteria on floor 1R	15	20

Sample ID	Location	Result (ppb)	EPA Action Level (ppb)
6861-15	Sink in teacher's lounge on floor 1R	8	20
6861-16	Kitchen sink in apartments on floor 1R	Not detected	20
6861-17	2nd floor drinking fountain	Not detected	20
6861-18	Sink in floor 2R kitchen	Not detected	20
6861-19	High school drinking fountain on floor 2R	Not detected	20
6861-20	High school drinking fountain in basement	Not detected	20
6861-21	Sink in receiving area in basement	Not detected	20

## 5.0 BACKGROUND INFORMATION

### 5.1 Health Effects of Lead Exposure

Lead can cause serious health problems if too much enters your body from drinking water or other sources. Some facts about lead exposure include:

- Infants, young children and pregnant women are at greatest risk to lead exposure;
- Increased lead levels have been shown to cause damage to the brain and kidneys;
- Increased lead levels interfere with the production of red blood cells that carry oxygen to all parts of your body;
- Scientists have linked the effects of lead on the brain to lowered intelligence quotient (IQ) in children;
- Adults with kidney problems and high blood pressure can be affected by lower levels of lead more than healthy adults;
- Lead is stored in the bones and it can be released later in life; and,
- During pregnancy, the fetus can receive lead from the mother's bones which may affect brain development.

### 5.2 Health Effects of Copper Exposure

Excess copper exposure can cause stomach and intestinal distress, liver or kidney damage, and complications of Wilson's disease. In addition, children's bodies absorb more copper than the average adult because of their rapid development and higher metabolism.

## 6.0 LIMITATIONS

The results of our tests represent conditions only at the time sampling occurred; thus, this report should not be relied on to represent conditions at other locations, times, or dates. Our opinions are based upon findings and upon our professional expertise with no warranty or guarantee implied herein. This report is intended for the sole use of your firm and its assigned agents. *Performance* accepts no responsibility for interpretation of this report by others. Its content shall not be used or relied on by other parties without prior written authorization of *Performance*.

# **APPENDIX**

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## **ANALYTICAL RESULTS**

### **CONTENTS**

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- ▶ **CERTIFICATES OF LABORATORY ANALYSIS**
- ▶ **CHAIN OF CUSTODY RECORDS**

May 09, 2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

Subject: CornerstoneSchools Assoc.6861 E. Nevada, Detroit  
161313

Dear Mr. Carpenter :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Attached are the results for the samples submitted on 04/29/2016 for the above mentioned project. NELAP/TNI Accredited Analysis and MDEQ Drinking Water Certified Analysis will be identified in their respective reporting formats. Hard copies can be supplied at your request for a fee of \$20.00 per copy.

The invoice for this project will be emailed separately. If you have any questions concerning the data or invoice, please don't hesitate to contact our office. We welcome your comments and suggestions to improve our quality systems. Please reference Brighton Analytical, L.L.C. Project ID 38812 when calling or emailing. We thank you for this opportunity to partner with you on this project and hope to work with you again in the future.

Sincerely,  
Brighton Analytical, L.L.C.





		<b>Brighton Analytical, L.L.C.</b> <small>Email: bai-brighton@shgglobal.net</small> 2105 Pless Drive Brighton, MI 48114 Phone: 810-229-7575 Fax: 810-229-8650		BA PROJECT #: <b>38812</b> ABBREVIATIONS FOR MATRIX: S = Solid L = Liquid DW = Drinking H <sub>2</sub> O O = Oil P = Wipe A = Air (Tedlar Bag) F = Filter T = Tube M = Misc.		Analysis Requested/Method <div style="border: 1px solid black; padding: 5px; margin: 5px 0;">Copper and Lead</div>		COMPANY/MAILING ADDRESS: Performance Environmental 30553 S. Wixom Rd. Wixom, MI 48393 ATTN: Lab data PHONE: 248-976-3800 FAX OR EMAIL:		PAGE <b>1</b> OF <b>3</b>	
PROJECT NAME: <b>Cornerstone Schools Association</b> <b>6861 E. Newbury Detroit MI</b> PROJECT #: <b>161313</b>		PO #: (PLEASE NOTE IF DIFFERENT BILLING ADDRESS)		Sample collected by: <b>Thomas W. Carpenter</b>		Container Type & Quantity MECH PRESERVED Y N STERILIZED BACTERIA GLASS, NO PRESERVATIVE AMBER PRESERVED? HDPE NAOH HDPE H <sub>2</sub> SO <sub>4</sub> HDPE HNO <sub>3</sub> HDPE UNPRESERVED VOAS (PRES) Y N N/A		REQUESTED TURNAROUND: (circle one) Rush: 1 - 3 business days (verify with lab & specify date needed) 1 Day - 2.5X Cost 2 Day - 2X Cost 3 Day - 1.5X Cost Standard: 5 business days		IF RUSH, approved by:	
Brighton ID #		Sample Description		Date		Time		Sample Coll.		Trans. #	
1) 653		6861-1 DF		4-29		10:25		X		X	
2) 54		6861-2 DF		10:27		X		X		X	
3) 55		6861-3 Sink		10:28		X		X		X	
4) 56		6861-4 Sink		10:29		X		X		X	
5) 57		6861-5 DF		10:31		X		X		X	
6) 58		6861-6 DF		10:32		X		X		X	
7) 59		6861-7 Sink		10:34		X		X		X	
8) 60		6861-8 DF		10:36		X		X		X	
9) 61		6861-9 DF		10:38		X		X		X	
10) 62		6861-10 DF		10:40		X		X		X	

**Special Instructions:**

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	RELINQUISHED BY:	DATE:	TIME:
1	Thomas W. Carpenter		4-29-16	2:50 PM			
2							

<b>BA</b> <b>Brighton Analytical, L.L.C.™</b> <small>Email: bai-brighton@sbglobal.net</small> 2105 Pless Drive Brighton, MI 48114 Phone: 810-229-7575 Fax: 810-229-8650		<b>BA PROJECT #:</b> <b>33312</b>		<b>Analysis Requested/Method</b>		<b>COMPANY/MAILING ADDRESS:</b> Performance Environmental 30553 S. Wixom Rd Wixom, MI 48393 ATTN: Lab data PHONE: 248-926-3800 FAX OR EMAIL:															
<b>PROJECT NAME:</b> Cornerstone Schools Association 6861 E. Nevada, Detroit, MI		<b>ABBREVIATIONS FOR MATRIX</b> S = Solid L = Liquid DW = Drinking H <sub>2</sub> O O = Oil P = Wipe A = Air (Tedlar Bag) F = Filter T = Tube M = Misc.		<b>Sample Matrix</b>		Samples received within hold time? yes <input type="checkbox"/> no <input type="checkbox"/> Temperature of samples °C: pHs verified in login? yes <input type="checkbox"/> no <input type="checkbox"/> Headspace/bubbles in VOA's? yes <input type="checkbox"/> no <input type="checkbox"/> n/a <input type="checkbox"/> Sample containers and COC match? yes <input type="checkbox"/> no <input type="checkbox"/>															
<b>PROJECT #:</b> 161313		<b>PO #:</b> (PLEASE NOTE IF DIFFERENT BILLING ADDRESS)																			
<b>Sample collected by:</b> Thomas W. Carpenter		<b>Container Type &amp; Quantity</b>		<b>BILLING ADDRESS (IF REQUIRED):</b>		<b>Drinking H<sub>2</sub>O:</b> Fax to LCHD? yes <input type="checkbox"/> no <input type="checkbox"/> Chlorinated Water Supply? yes <input type="checkbox"/> no <input type="checkbox"/> AMT.: _____ MCL Failure: yes <input type="checkbox"/> no <input type="checkbox"/> Client Notified (date/time/initials): _____															
<b>REQUESTED TURNAROUND: (circle one)</b> Rush: 1-3 business days (verify with lab & specify date needed) 1 Day = 2.5X Cost 2 Day = 2X Cost 3 Day = 1.5X Cost Standard: 5 business days		<b>IF RUSH, approved by:</b> Sample Coll.																			
<b>Brighton ID #</b>		<b>Sample Description</b>		<b>VOA'S (PRES) Y N N/A</b>		<b>HDPE UNPRESERVED</b>		<b>HDPE HNO<sub>3</sub></b>		<b>HDPE H<sub>2</sub>SO<sub>4</sub></b>		<b>HDPE NaOH</b>		<b>AMBER PRESERVED?</b>		<b>GLASS, NO PRESERVATIVE</b>		<b>STERILIZED BACTERIA</b>		<b>MEOH Preserved Y N</b>	
2) 64 6861-11 Sink 4-29 10:45		6861-12 10:48		6861-13 10:50		6861-14 10:52		6861-15 10:54		6861-16 10:58		6861-17 DF 10:59		6861-18 Sink 11:02		6861-19 DF 11:04		6861-20 DF 11:24		6861-21	
<b>Special Instructions:</b>																					

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	Thomas W. Carpenter	Jul 14 4:29:14		2:50pm	3				
2					4				





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2105 Pless Drive  
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Phone: (810)229-7575 (810)229-8650  
e-mail: bai-brighton@sbcglobal.net  
MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 4/29/2016 10:25  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01653**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-1 DF**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	120	ug/L	20	1300	EPA 200.8 rev5.4	19:25	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	19:25	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by alt opol  
Date 5/9/16



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2105 Pless Drive  
Brighton, Michigan 48114  
Phone: (810)229-7575 (810)229-8650  
e-mail: bai-brighton@sbcglobal.net  
MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 4/29/2016 10:27  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01654**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-2 DF**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	130	ug/L	20	1300	EPA 200.8 rev5.4	19:29	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	19:29	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

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Date 5/9/16

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Sample Date/Time: 4/29/2016 10:29  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01656**

Project Name: **Cornerstone Schools Assoc. 6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-4 Sink**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	250	ug/L	20	1300	EPA 200.8 rev5.4	19:38	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	19:38	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by

Date

J. Wood  
5/9/16



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NELAC Accredited #176507

Sample Date/Time: 4/29/2016 10:31  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01657**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-5 DF**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	160	ug/L	20	1300	EPA 200.8 rev5.4	20:10	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	20:10	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

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Date 5/9/16





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NELAC Accredited #176507

Sample Date/Time: 4/29/2016 10:32  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01658**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-6 DF**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	150	ug/L	20	1300	EPA 200.8 rev5.4	20:14	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	20:14	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

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Released by   
Date 5/9/16



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MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 4/29/2016 10:34  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01659**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-7 Sink**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	110	ug/L	20	1300	EPA 200.8 rev5.4	20:19	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	20:19	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

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Date

5/9/16



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Phone: (810)229-7575 (810)229-8650  
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MDNRE Certified #9404  
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Sample Date/Time: 4/29/2016 10:36  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01660**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-8 DF**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	130	ug/L	20	1300	EPA 200.8 rev5.4	20:24	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	20:24	05/05/2016


RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

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5/9/16



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Phone: (810)229-7575 (810)229-8650  
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MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 4/29/2016 10:38  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01661**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-9 DF**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	120	ug/L	20	1300	EPA 200.8 rev5.4	20:28	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	20:28	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by

Date

  
5/9/16



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e-mail: bai-brighton@sbcglobal.net  
MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 4/29/2016 10:40  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01662**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-10 DF**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	80	ug/L	20	1300	EPA 200.8 rev5.4	20:33	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	20:33	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by \_\_\_\_\_

Date \_\_\_\_\_

*[Signature]*  
5/9/16





**Brighton Analytical LLC**  
2105 Pless Drive  
Brighton, Michigan 48114  
Phone: (810)229-7575 (810)229-8650  
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MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 4/29/2016 10:48  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01664**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-12 Sink**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	620	ug/L	20	1300	EPA 200.8 rev5.4	20:42	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	20:42	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

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Date 5/9/16



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MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 4/29/2016 10:50  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01665**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-13 Sink**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	50	ug/L	20	1300	EPA 200.8 rev5.4	20:46	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	20:46	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

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Date

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5/9/16





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MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 4/29/2016 10:52  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01666**

Project Name: **Cornerstone Schools Assoc. 6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-14 Sink**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	350	ug/L	20	1300	EPA 200.8 rev5.4	21:05	05/05/2016
Total Lead (Drinking Water)	15	ug/L	1	15	EPA 200.8 rev5.4	21:05	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

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Date 5/9/16



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MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 4/29/2016 10:54  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01667**

Project Name: **Cornerstone Schools Assoc. 6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-15 Sink**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	950	ug/L	20	1300	EPA 200.8 rev5.4	21:36	05/05/2016
Total Lead (Drinking Water)	8	ug/L	1	15	EPA 200.8 rev5.4	21:36	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by

Date

*[Signature]*  
5/9/16



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MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 4/29/2016 10:58  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01668**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-16 Sink**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	360	ug/L	20	1300	EPA 200.8 rev5.4	21:41	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	21:41	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

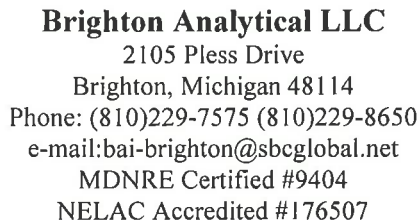
MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by \_\_\_\_\_

Date \_\_\_\_\_

  
5/9/16



Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number:**161313**  
Sample ID: **6861-17 DF**

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by W. H. [illegible]  
Date 5/9/14



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MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 4/29/2016 11:02  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01670**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-18 Sink**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	250	ug/L	20	1300	EPA 200.8 rev5.4	22:04	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	22:04	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by

Date

*[Signature]*  
5/9/16



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NELAC Accredited #176507

Sample Date/Time: 4/29/2016 11:04  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01671**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-19 DF**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	240	ug/L	20	1300	EPA 200.8 rev5.4	22:08	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	22:08	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

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Date 5/9/16



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NELAC Accredited #176507

Sample Date/Time: 4/29/2016 11:24  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01672**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-20 DF**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	440	ug/L	20	1300	EPA 200.8 rev5.4	22:13	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	22:13	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

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Date

*[Signature]*  
5/19/16



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NELAC Accredited #176507

Sample Date/Time: 4/29/2016 11:50  
Submit Date/Time: 4/29/2016 14:50  
Report Date: 5/9/2016

Performance Environmental  
30553 Wixom Road  
Suite 500  
Wixom, MI 48393

BA Project # **38812**  
BA Sample ID **CD01673**

Project Name: **CornerstoneSchools Assoc.6861 E. Nevada, Detroit**  
Project Number: **161313**  
Sample ID: **6861-21 Sink**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Copper (Drinking Water)	130	ug/L	20	1300	EPA 200.8 rev5.4	22:17	05/05/2016
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	22:17	05/05/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by

Date

*[Signature]*  
*5/9/16*





BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY  
CONTROL

# ICP-MS METHOD 6020

## REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 5/5/2016	Standard ID: 042216 H2O	Batch: 5/3/2016 W2
Matrix Spike Lab ID: CD01656	Matrix: Total	Analyst: LT

Metals	Matrix Spike - Precision *			Matrix Spike - Accuracy**				Miscellaneous***		
	Matrix Spike (ug/kg)	Matrix Spike Dup (ug/kg)	RPD (%)	Spk Conc (ug/kg)	MS Recovery (%)	MSD Recovery (%)	Sample Conc (ug/kg)	Method Blk (ug/kg)	LCS-Method STD (%)	Ind. Std. (%)
Copper	1236	1226	0.8	1000	98.9	97.9	247	<20	99.6	100.1
Barium	966	962	0.4	1000	95.2	94.8	14	<5	95.9	99.9
Lead	942	945	0.3	1000	94.2	94.5	0	<1	93.4	94.5

\* Matrix spike precision range +/- 20% RPD

\*\* Matrix spike accuracy range +/- 20% recovery

\*\*\* LCS accuracy range +/- 15% recovery / Ind std accuracy range +/- 10% recovery

Comments: \_\_\_\_\_

# ICP-MS METHOD 6020

## REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 5/5/2016

Standard ID: 042216 H2O

Batch: 5/3/2016 W3

Matrix Spike Lab ID: CD00555

Matrix: Total

Analyst: LT

Metals	Matrix Spike - Precision *			Matrix Spike - Accuracy**				Miscellaneous***		
	Matrix Spike (ug/kg)	Matrix Spike Dup (ug/kg)	RPD (%)	Spk Conc (ug/kg)	MS Recovery (%)	MSD Recovery (%)	Sample Conc (ug/kg)	Method Blk (ug/kg)	LCS-Method STD (%)	Ind. Std. (%)
Copper	988	972	1.6	1000	97.8	96.2	10	<20	98.0	100.1
Lead	931	916	1.6	1000	92.9	91.4	2	<1	97.2	94.5

\* Matrix spike precision range +/- 20% RPD

\*\* Matrix spike accuracy range +/- 20% recovery

\*\*\* LCS accuracy range +/- 15% recovery / Ind std accuracy range +/- 10% recovery

Comments: \_\_\_\_\_