

# HORIZON ENVIRONMENTAL GROUP, INC.

P.O. Box 316  
Thorofare, NJ 08086

Phone: 856-848-0800  
Fax: 856-848-0838

March 9, 2022

Mr. John Swanson  
Paulsboro Board of Education  
662 North Delaware Street  
Paulsboro, NJ 08066

Reference: Lead in Water Testing at Billingsport Early Childhood Center  
Repair Samples - 220204 / Repair Samples - 220218

Dear Mr. Swanson:

Pursuant to your request, collection and analysis of three (3) water samples from the domestic water supply system at the Billingsport Early Childhood Center facility have been completed. In accordance with applicable New Jersey guidelines, the samples were performed after repairs were made to the affected fixture(s) and collected on Friday, February 4, 2022, by personnel from Horizon Environmental Group, Inc., and submitted for analysis for the presence of lead using inductively coupled plasma mass spectrometry (ICP-MS) in accordance with USEPA Method 200.8. The results of the analyses of the samples are as follows:

Sample No.	Location	Lead Concentration ( $\mu\text{g/L}$ )	Reporting Limit ( $\mu\text{g/L}$ )
B-DW-12A (Repair)	Hall near Room 9 (Filler)	19.0	1.00
B-DW-12B (Repair)	Hall near Room 9 (Cooler)	14.6	1.00
220204-B-BLANK	BLANK	ND	1.00

Note: "ND" equals none detected; " $\mu\text{g/L}$ " equals micrograms per liter which is equivalent to parts per billion (ppb)

As you can see, the sample collected from the filler outlet on the fixture exceeded the "action level" of 15  $\mu\text{g/L}$  (ppb) established by the United States Environmental Protection Agency and adopted by the State of New Jersey. In addition, the sample collected from the bubbler outlet on the fixture was very close to the "action level". The "action level" of 15  $\mu\text{g/L}$  (ppb) does not necessarily signal a violation, but does trigger additional monitoring, maintenance, treatment and/or mitigation requirements.

Based on the results of the samples from February 4, additional repairs were performed for the fixture in the hallway near room 9. In addition, repairs were performed on the sink in the nurse's office. Upon completion of the repairs, samples were collected from the fixtures on February 18, 2022, by personnel from Horizon Environmental Group, Inc. The samples were submitted for analysis for the presence of lead using inductively coupled plasma mass spectrometry (ICP-MS) in accordance with USEPA Method 200.8. The results of the analyses of the samples are as follows:

Sample No.	Location	Lead Concentration (µg/L)	Reporting Limit (µg/L)
B-DW-06 (Repair)	Nurse's Office - Sink	1.19	1.00
B-DW-12A (Repair)	Hall near Room 9 (Filler)	9.18	1.00
B-DW-12B (Repair)	Hall near Room 9 (Cooler)	4.85	1.00
220204-B-BLANK	BLANK	ND	1.00

Note: "ND" equals none detected; "µg/L" equals micrograms per liter which is equivalent to parts per billion (ppb)

Please note that none of the results for the samples collected on February 18 exceeded the "action level" of 15 µg/L (ppb) established by the United States Environmental Protection Agency and adopted by the State of New Jersey.

All laboratory analysis was performed by the trained staff at EMSL Analytical, Inc. in Cinnaminson, New Jersey and a copy of the analysis document is attached. If you have any questions or need more information, please do not hesitate to contact us at (856) 848-0800.

Sincerely,  
HORIZON ENVIRONMENTAL GROUP, INC.



Steven J. Flanigan  
Vice President



**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone: (856) 303-2500 Fax: (856) 858-4571 Email: EnvChemistry2@emsl.com

Attn: **David Flanigan**  
**Horizon Environmental Group, Inc.**  
**P.O. Box 316**  
**Thorofare, NJ 08086**  
Phone: (609) 221-4660  
Fax: (856) 848-0838

2/15/2022

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 2/4/2022. The results are tabulated on the attached data pages for the following client designated project:

**94015-65 / Billingsport ECC**

The reference number for these samples is EMSL Order #012201834. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (856) 303-2500.

Approved By:

Owen McKenna, Chemistry Laboratory Director



The test results contained within this report meet the requirements of NELAP and/or the specific certification program that is applicable, unless otherwise noted.  
NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, CA ELAP 1877

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements established by the NELAP, unless specifically indicated. All results for soil samples are reported on a dry weight basis, unless otherwise noted. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 858-4571

<http://www.EMSL.com>[EnvChemistry2@emsl.com](mailto:EnvChemistry2@emsl.com)

EMSL Order: 012201834

CustomerID: MDS50

CustomerPO:

ProjectID:

Attn: **David Flanigan**  
**Horizon Environmental Group, Inc.**  
**P.O. Box 316**  
**Thorofare, NJ 08086**

Phone: (609) 221-4660  
Fax: (856) 848-0838  
Received: 2/4/2022 09:45 AM

Project: 94015-65 / Billingsport ECC

**Analytical Results**

<b>Client Sample Description</b>	B-DW-12A (Repair) Hall Near Room 9 (Filler)	<b>Collected:</b>	2/4/2022 7:55:00 AM	<b>Lab ID:</b>	012201834-0001
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<b>Method</b>	<b>Parameter</b>	<b>Result</b>	<b>RL Units</b>	<b>Prep Date &amp; Analyst</b>	<b>Analysis Date &amp; Analyst</b>
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**METALS**

200.8	Lead	19.0	1.00 µg/L	2/8/2022 KB	2/9/2022 04:35 KB
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<b>Client Sample Description</b>	B-DW-12B (Repair) Hall Near Room 9 (Cooler)	<b>Collected:</b>	2/4/2022 7:53:00 AM	<b>Lab ID:</b>	012201834-0002
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<b>Method</b>	<b>Parameter</b>	<b>Result</b>	<b>RL Units</b>	<b>Prep Date &amp; Analyst</b>	<b>Analysis Date &amp; Analyst</b>
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**METALS**

200.8	Lead	14.6	1.00 µg/L	2/8/2022 KB	2/9/2022 04:36 KB
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<b>Client Sample Description</b>	220204-B-Blank Blank	<b>Collected:</b>	2/4/2022 7:43:00 AM	<b>Lab ID:</b>	012201834-0003
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<b>Method</b>	<b>Parameter</b>	<b>Result</b>	<b>RL Units</b>	<b>Prep Date &amp; Analyst</b>	<b>Analysis Date &amp; Analyst</b>
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**METALS**

200.8	Lead	ND	1.00 µg/L	2/8/2022 KB	2/9/2022 04:38 KB
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**Definitions:**

MDL - method detection limit

J - Result was below the reporting limit, but at or above the MDL

ND - indicates that the analyte was not detected at the reporting limit

RL - Reporting Limit (Analytical)

D - Dilution Sample required a dilution which was used to calculate final results





## Lead (Pb) Chain of Custody

EMSL Order ID (Lab Use Only):

012201834

Cinnaminson, NJ 08077

PHONE 1-800-220-3675

FAX (856) 786-5974

Company: Horizon Environmental Group, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same <small>If Bill to is Different note instructions in Comments**</small>	
Street: P. O. Box 316		Third Party Billing requires written authorization from third party	
City: Thorofare	State/Province: NJ	Zip/Postal Code: 08086	Country: US
Report To (Name): David Flanigan		Telephone #: 856-848-0800	
Email Address: horizonenvgroup@gmail.com		Fax #: 856-848-0838	Purchase Order:
Project Name/Number: 94015-65 / Billingsport ECC		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: NJ		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input type="checkbox"/> 1 Week <input checked="" type="checkbox"/> 2 Week			
<small>*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide</small>			
Matrix	Method	Instrument	Reporting Limit
Chips <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm	SW846-7000B	Flame Atomic Absorption	0.01%
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter
	NIOSH 7300 modified	ICP-AES/ICP-MS	0.5 µg/filter
Wipe* <input type="checkbox"/> ASTM <input type="checkbox"/> non ASTM <input type="checkbox"/> <small>*If no box is checked, non-ASTM Wipe is assumed</small>	SW846-7000B	Flame Atomic Absorption	10 µg/wipe
	SW846-6010B or C	ICP-AES	1.0 µg/wipe
	SW846-7000B/7010	Graphite Furnace AA	0.075 µg/wipe
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)
	SW846-1131/SW846-6010B or C	ICP-AES	0.1 mg/L (ppm)
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)
	SW846-7010	Graphite Furnace AA	0.3 mg/kg (ppm)
	SW846-6010B or C	ICP-AES	2 mg/kg (ppm)
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)
	EPA 200.7	ICP-AES	0.020 mg/L (ppm)
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input checked="" type="checkbox"/>	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)
	EPA 200.8	ICP-MS	0.001 mg/L (ppm)
TSP/SPM Filter	40 CFR Part 50	ICP-AES	12 µg/filter
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter
Other:			
Name of Sampler:		Signature of Sampler:	
Sample #	Location	Volume/Area	Date/Time Sampled
19.0	B-DW-12A (Repair)	Hall near Room 9 (Fence)	2/4/22/7:55
19.6	B-DW-12B (Repair)	Hall near Room 9 (Cooler)	2/4/22/7:53
ND	220204-B-BLANK	BLANK	2/4/22/7:43
Client Sample #'s		Total # of Samples: 3	
Relinquished (Client):	Date: 2-4-22	Time: 9:48	
Received (Lab):	Date: 2/4/22	Time: 9:45	
Comments: <i>Ellynn</i> 2/4/22 9:45 ~			



**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone: (856) 303-2500 Fax: (856) 858-4571 Email: EnvChemistry2@emsl.com

Attn: **David Flanigan**  
**Horizon Environmental Group, Inc.**  
**P.O. Box 316**  
**Thorofare, NJ 08086**  
Phone: (609) 221-4660  
Fax: (856) 848-0838

3/4/2022

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 2/18/2022. The results are tabulated on the attached data pages for the following client designated project:

**94015-65 / Billingsport ECC**

The reference number for these samples is EMSL Order #012202652. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (856) 303-2500.

Approved By:

Owen McKenna, Chemistry Laboratory Director



The test results contained within this report meet the requirements of NELAP and/or the specific certification program that is applicable, unless otherwise noted.  
NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, CA ELAP 1877

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements established by the NELAP, unless specifically indicated. All results for soil samples are reported on a dry weight basis, unless otherwise noted. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 858-4571

<http://www.EMSL.com>[EnvChemistry2@emsl.com](mailto:EnvChemistry2@emsl.com)

EMSL Order: 012202652

CustomerID: MDS50

CustomerPO:

ProjectID:

Attn: **David Flanigan**  
**Horizon Environmental Group, Inc.**  
**P.O. Box 316**  
**Thorofare, NJ 08086**

Phone: (609) 221-4660  
 Fax: (856) 848-0838  
 Received: 2/18/2022 09:30 AM

Project: 94015-65 / Billingsport ECC

**Analytical Results**

<b>Client Sample Description</b>		<b>Collected:</b>		<b>Lab ID:</b>	
B-DW-06 (Repair) Nurse's Office-Sink		2/18/2022 7:37:00 AM		012202652-0001	
<b>Method</b>	<b>Parameter</b>	<b>Result</b>	<b>RL Units</b>	<b>Prep Date &amp; Analyst</b>	<b>Analysis Date &amp; Analyst</b>
<b>METALS</b>					
200.8	Lead	1.19	1.00 µg/L	2/28/2022 VD	2/28/2022 VD 20:19
<b>Client Sample Description</b>		<b>Collected:</b>		<b>Lab ID:</b>	
B-DW-12A (Repair) Hall Near Room 9 (Filler)		2/18/2022 7:34:00 AM		012202652-0002	
<b>Method</b>	<b>Parameter</b>	<b>Result</b>	<b>RL Units</b>	<b>Prep Date &amp; Analyst</b>	<b>Analysis Date &amp; Analyst</b>
<b>METALS</b>					
200.8	Lead	9.18	1.00 µg/L	2/28/2022 VD	2/28/2022 VD 20:20
<b>Client Sample Description</b>		<b>Collected:</b>		<b>Lab ID:</b>	
B-DW-12B (Repair) Hall Near Room 9 (Cooler)		2/18/2022 7:34:00 AM		012202652-0003	
<b>Method</b>	<b>Parameter</b>	<b>Result</b>	<b>RL Units</b>	<b>Prep Date &amp; Analyst</b>	<b>Analysis Date &amp; Analyst</b>
<b>METALS</b>					
200.8	Lead	4.85	1.00 µg/L	2/28/2022 VD	2/28/2022 VD 20:22
<b>Client Sample Description</b>		<b>Collected:</b>		<b>Lab ID:</b>	
220218-B-Blank Blank		2/18/2022 7:32:00 AM		012202652-0004	
<b>Method</b>	<b>Parameter</b>	<b>Result</b>	<b>RL Units</b>	<b>Prep Date &amp; Analyst</b>	<b>Analysis Date &amp; Analyst</b>
<b>METALS</b>					
200.8	Lead	ND	1.00 µg/L	2/28/2022 VD	2/28/2022 VD 20:23

**Definitions:**

MDL - method detection limit

J - Result was below the reporting limit, but at or above the MDL

ND - indicates that the analyte was not detected at the reporting limit

RL - Reporting Limit (Analytical)

D - Dilution Sample required a dilution which was used to calculate final results





## Lead (Pb) Chain of Custody

EMSL Order ID (Lab Use Only):

012202652

Cinnaminson, NJ 08077  
Phone 1-800-220-3675  
Fax (856) 786-5974

Company: Horizon Environmental Group, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same If Bill to is Different note instructions in Comments**	
Street: P. O. Box 316		Third Party Billing requires written authorization from third party	
City: Thorofare	State/Province: NJ	Zip/Postal Code: 08086	Country: US
Report To (Name): David Flanigan		Telephone #: 856-848-0800	
Email Address: horizonenvgroup@gmail.com		Fax #: 856-848-0838	Purchase Order:
Project Name/Number: 94015-65 / Billingsport ECC		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: NJ		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input type="checkbox"/> 1 Week <input checked="" type="checkbox"/> 2 Week			
*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide			
Matrix	Method	Instrument	Reporting Limit
Chips <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm	SW846-7000B	Flame Atomic Absorption	0.01%
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter
	NIOSH 7300 modified	ICP-AES/ICP-MS	0.5 µg/filter
Wipe* <input type="checkbox"/> ASTM <input type="checkbox"/> non ASTM <input type="checkbox"/> *If no box is checked, non-ASTM Wipe is assumed	SW846-7000B	Flame Atomic Absorption	10 µg/wipe
	SW846-6010B or C	ICP-AES	1.0 µg/wipe
	SW846-7000B/7010	Graphite Furnace AA	0.075 µg/wipe
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)
	SW846-1131/SW846-6010B or C	ICP-AES	0.1 mg/L (ppm)
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)
	SW846-7010	Graphite Furnace AA	0.3 mg/kg (ppm)
	SW846-6010B or C	ICP-AES	2 mg/kg (ppm)
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)
	EPA 200.7	ICP-AES	0.020 mg/L (ppm)
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input checked="" type="checkbox"/>	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)
	EPA 200.8	ICP-MS	0.001 mg/L (ppm)
TSP/SPM Filter	40 CFR Part 50	ICP-AES	12 µg/filter
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter
Other:			
Name of Sampler:		Signature of Sampler:	
Sample #	Location	Volume/Area	Date/Time Sampled
1.19	B-DW-06 (Repair)	Nurses Office - Sink	2/18/22 737
2.18	B-DW-12A (Repair)	HALL near Room 9 (FLOOR)	739
3.85	B-DW-12B (Repair)	HALL near Room 9 (lower)	739
4.00	220218-B-BLANK	BLANK	732
Client Sample #'s		Total # of Samples: 4	
Relinquished (Client):	Date: 2-18-22	Time: 9:30	
Received (Lab):	Date: 2-16-22	Time: 9:30	
Comments:	2/18/22	930	



