

August 24, 2021

Thomas M. Hanna, P.E., LEED AP
Capital Projects Manager
Central Bucks School District
320 West Swamp Road
Doylestown, PA 18901

**Re: Lead in Drinking Water Re-Sample Collection and Reporting
Buckingham Elementary School
2414 Durham Road
Buckingham, PA 18912**

Dear Mr. Hanna:

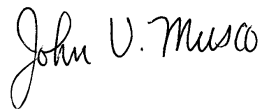
This document has been prepared by Langan to provide the results of the drinking water re-sampling activities at the above referenced school. The results of the initial drinking water sampling activities documented that total lead was present in two samples collected from drinking water fixtures (Sample Locations B8B, B54) at levels above the 15 micrograms per liter (ug/L) regulatory level. The re-sampling was conducted on August 12, 2021 after the fixtures were flushed. The collected samples were sent to the Pennsylvania certified environmental laboratory, PACE Analytical, and analyzed for total lead by USEPA Method 200.8, to meet Pennsylvania's action level requirements.

The re-sampling results did not detect any exceedances of the Pennsylvania Action Level of 15 ug/L with the exception of the following location:

<u>Location</u>	<u>Sample ID</u>	<u>Result</u>
Rm 54	B54R_081221	18.7 ug/L

A figure of the re-sampling locations and copy of the laboratory report is attached.

Sincerely,
Langan Engineering & Environmental Services, Inc.



John V. Musco
Associate

Enclosure

cc: B. Lambing - Langan

NJ Certificate of Authorization No. 24GA27996400

\\langan.com\data\DYL\data4\200130403\Project Data\Record Data\Reports\Resampling August 2021\Resampling Report\Buckingham\Buckingham_Lead_Re-Sampling_Report_2021.docx

August 18, 2021

Bill Lambing
Langan Engineering
2700 Kelly Road
Suite 200
Warrington, PA 18976

RE: Project: CENTRAL BUCKS SCHOOL(BUCKINGHA
Pace Project No.: 70184250

Dear Bill Lambing:

Enclosed are the analytical results for sample(s) received by the laboratory on August 14, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Melville

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Sophia Sparkes
sophia.sparkes@pacelabs.com
(631)694-3040
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: CENTRAL BUCKS SCHOOL(BUCKINGHA

Pace Project No.: 70184250

Pace Analytical Services Long Island

575 Broad Hollow Rd, Melville, NY 11747

Connecticut Certification #: PH-0435

Delaware Certification # NY 10478

Maryland Certification #: 208

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

New Jersey Certification #: NY158

New York Certification #: 10478 Primary Accrediting Body

Pennsylvania Certification #: 68-00350

Rhode Island Certification #: LAO00340

Virginia Certification # 460302

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ANALYTICAL RESULTS

Project: CENTRAL BUCKS SCHOOL(BUCKINGHA
Pace Project No.: 70184250

Sample: B8BR_081221	Lab ID: 70184250001	Collected: 08/12/21 06:41	Received: 08/14/21 10:40	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual

200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8 Pace Analytical Services - Melville							
Lead	3.4	ug/L	1.0	1		08/17/21 17:15	7439-92-1	

Sample: B54R_081221	Lab ID: 70184250002	Collected: 08/12/21 06:39	Received: 08/14/21 10:40	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual

200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8 Pace Analytical Services - Melville							
Lead	18.7	ug/L	1.0	1		08/17/21 17:16	7439-92-1	

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QUALITY CONTROL DATA

Project: CENTRAL BUCKS SCHOOL(BUCKINGHA
Pace Project No.: 70184250

QC Batch: 222172 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET No Prep Drinking Water
Laboratory: Pace Analytical Services - Melville

Associated Lab Samples: 70184250001, 70184250002

METHOD BLANK: 1120313 Matrix: Water
Associated Lab Samples: 70184250001, 70184250002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	<1.0	1.0	08/17/21 17:04	

LABORATORY CONTROL SAMPLE: 1120314

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	50	50.2	100	85-115	

MATRIX SPIKE SAMPLE: 1120316

Parameter	Units	70184249004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	490	50	528	77	70-130	

MATRIX SPIKE SAMPLE: 1120318

Parameter	Units	70184252002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	7.1	50	72.5	131	70-130	M1

SAMPLE DUPLICATE: 1120315

Parameter	Units	70184249004 Result	Dup Result	RPD	Qualifiers
Lead	ug/L	490	493	1	

SAMPLE DUPLICATE: 1120317

Parameter	Units	70184252002 Result	Dup Result	RPD	Qualifiers
Lead	ug/L	7.1	7.1	1	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: CENTRAL BUCKS SCHOOL(BUCKINGHA

Pace Project No.: 70184250

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CENTRAL BUCKS SCHOOL(BUCKINGHA
Pace Project No.: 70184250

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70184250001	B8BR_081221	EPA 200.8	222172		
70184250002	B54R_081221	EPA 200.8	222172		

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Sample Condition Upon Receipt

Client Name: _____

Project: _____

WO#: 70184250

PM: STS

Due Date: 08/19/21

CLIENT: LAN-PA

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 5295 6265 5280

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No

Packing Material: Bubble Wrap Bubble Bags Ziploc None Other

Thermometer Used: TH091

Correction Factor: +0.0

Cooler Temperature(°C): 21.0

Cooler Temperature Corrected(°C): 21.0

Temperature Blank Present: Yes No

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Date/Time 5035A kits placed in freezer _____

Temp should be above freezing to 6.0°C

USDA Regulated Soil (N/A, water sample)

Date and Initials of person examining contents: KO 8/14/21

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? Yes No

Did samples originate from a foreign source including Hawaii and Puerto Rico)? Yes No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		7.
Sufficient Volume: (Triple volume provided for)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		10.
Containers Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		11.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	Note if sediment is visible in the dissolved container.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		12.
-Includes date/time/ID, Matrix: <u>SL WT OIL</u>				
All containers needing preservation have been checked?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	13.
pH paper Lot # <u>HC55968</u>				
All containers needing preservation are found to be in compliance with method recommendation? (HNO ₃ , H ₂ SO ₄ , HCl, NaOH>9 Sulfide, NaOH>12 Cyanide)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	Sample #
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 [water].				
Per Method, VOA pH is checked after analysis				
Samples checked for dechlorination:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	14.
KI starch test strips Lot #				
Residual chlorine strips Lot #				
SM 4500 CN samples checked for sulfide?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	15.
Lead Acetate Strips Lot #				
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	16.
Trip Blank Present:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	17.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if applicable): _____				

Field Data Required? Y / N

Client Notification/ Resolution: _____

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____