

October 18, 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
Central Bucks East High School
2804 Holicong Road
Doylestown, PA 18902**

Dear Mr. Hanna:

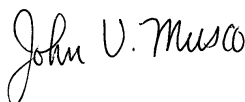
This document has been prepared by Langan to provide the results of the drinking water re-sampling activities at the above referenced school. Two water samples (A113AR3, D221R3) were collected from the school. The re-sampling activities were conducted on October 6, 2021 after the drinking water fixtures were replaced. The collected samples were sent to a 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 at this school of the Pennsylvania Action Level of 15 micrograms per liter (ug/L) with the exception of the following location:

<u>Location</u>	<u>Sample ID</u>	<u>Result</u>
Java sink (coffee)	A113AR3_100621	32.5 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 - October 6 2021\CB East\East_Lead_Re-Sampling_Report_10-2021.docx

October 13, 2021

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

RE: Project: CBSD - CB EAST #200130402
Pace Project No.: 70190270

Dear Bill Lambing:

Enclosed are the analytical results for sample(s) received by the laboratory on October 07, 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: CBSD - CB EAST #200130402

Pace Project No.: 70190270

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: CBSD - CB EAST #200130402

Pace Project No.: 70190270

Sample: A113AR3_100621	Lab ID: 70190270001	Collected: 10/06/21 06:29	Received: 10/07/21 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	32.5	ug/L	1.0	1		10/13/21 14:25	7439-92-1	
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Sample: D221R3_100621	Lab ID: 70190270002	Collected: 10/06/21 06:32	Received: 10/07/21 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	11.7	ug/L	1.0	1		10/13/21 14:28	7439-92-1	
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QUALITY CONTROL DATA

Project: CBSD - CB EAST #200130402

Pace Project No.: 70190270

QC Batch: 228996

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: 70190270001, 70190270002

METHOD BLANK: 1155212

Matrix: Water

Associated Lab Samples: 70190270001, 70190270002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	<1.0	1.0	10/13/21 14:22	

LABORATORY CONTROL SAMPLE: 1155213

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	50	51.8	104	85-115	

MATRIX SPIKE SAMPLE: 1155215

Parameter	Units	70190270001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	32.5	50	85.1	105	70-130	

MATRIX SPIKE SAMPLE: 1155217

Parameter	Units	70190270002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	11.7	50	74.7	126	70-130	

SAMPLE DUPLICATE: 1155214

Parameter	Units	70190270001 Result	Dup Result	RPD	Qualifiers
Lead	ug/L	32.5	31.7	3	

SAMPLE DUPLICATE: 1155216

Parameter	Units	70190270002 Result	Dup Result	RPD	Qualifiers
Lead	ug/L	11.7	11.9	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: CBSD - CB EAST #200130402

Pace Project No.: 70190270

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.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CBSD - CB EAST #200130402

Pace Project No.: 70190270

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70190270001	A113AR3_100621	EPA 200.8	228996		
70190270002	D221R3_100621	EPA 200.8	228996		

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CHAIN-OF-CUSTODY / An
The Chain-of-Custody is a LEGAL DOCUMENT

WO#: 70190270



1 Of 1

Section A
Required Client Information:
 Company: Langan Engineering
 Address: 2700 Kelly Road, Suite 200
 Warrington, PA 18976
 Email: blambling@langan.com
 Phone: 215-491-6500 Fax: 2015-491-6501
 Requested Due Date: 72 hour (3 day) Turn Around

Section B
Required Project Information:
 Report To: Bill Lambing
 Copy To:
 Purchase Order #: 200130402-400-001
 Project Name: Central Bucks School District (CB East)
 Project #: 200130402

Section C
Invoice Information:
 Attention: Bill Lambing
 Company Name: Langan Engineering
 Address: 2700 Kelly Road, Suite 200
 Pace Quote: See Langan-Pace MSA
 Pace Project Manager: sophia.sparkes@pacelabs.com
 Pace Profile #: 7983

Regulatory Agency
 State / Location
 PA

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H2SO4 HNO3 HCl NaOH Na2S2O3 Methanol Other	Analyses Test Y/N 2007 Metals (PB)	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
			START DATE	START TIME						
1	DW G	G	10/6/2021	629	10/6/2021	629	X	X		
2	DW G	G	10/6/2021	632	10/6/2021	632	X	X		
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										

ADDITIONAL COMMENTS
 RELINQUISHED BY / AFFILIATION: *Bill Lambing*
 DATE: 10/6/2021
 ACCEPTED BY / AFFILIATION: *Bill Lambing*
 DATE: 10/7/2021
 SAMPLE CONDITIONS
 Received on: (Y/N)
 Custody Sealed Cooler (Y/N)
 Intact Samples (Y/N)
 TEMP in C: 10/6/2021

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Bill Lambing
 SIGNATURE of SAMPLER: *Bill Lambing*
 DATE Signed: 10/6/2021



Sample Condition Upon Receipt

WO#: 70190270
PM: STS
CLIENT: LAN-PA
Due Date: 10/21/21

Client Name: Langan Engineering Project

Courier: Fed Ex UPS USPS Client Commercial Pace Other
 Tracking #: 7745 5034 5150
 Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No N/A
 Packing Material: Bubble Wrap Bubble Bags Ziploc None Other
 Thermometer Used: TH091 Correction Factor: ± 0.0
 Cooler Temperature(°C): 20.7 Cooler Temperature Corrected(°C): 20.7
 Temp should be above freezing to 6.0°C
 USDA Regulated Soil (N/A, water sample)

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

Date and Initials of person examining contents: KW 10/21/21

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 I)	<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>HC155908</u>		Sample #
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	
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water).		Initial when completed: Lot # of added preservative: Date/Time preservative added:
Per Method, VOA pH is checked after analysis		
Samples checked for dechlorination: KI starch test strips Lot #	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #		
SM 4500 CN samples checked for sulfide? Lead Acetate Strips Lot #	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15. Positive for Sulfide? Y N
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if applicable):		

Client Notification/ Resolution: _____ Field Data Required? Y / N
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____