



August 4, 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 Sample Collection and Reporting **Central Bucks East High School Stadium** 2804 Holicong Road Doylestown, PA 18902

Dear Mr. Hanna:

This document has been prepared by Langan to provide the results of the drinking water sampling activities at the above referenced school. Langan sampled the drinking water sources (e.g. bottle fillers, fountains, sink faucets, etc.) on June 22, 2021 as identified by the Central Bucks School District facility inventory. 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 results did not detect any exceedances at this school of the Pennsylvania Action Level of 15 micrograms per liter (ug/L).

John U. Musa

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

Sincerely.

Langan Engineering & Environmental Services, Inc.

John V. Musco

Associate

Enclosure

B. Lambing - Langan CC:

NJ Certificate of Authorization No. 24GA27996400 \langan.com\data\DYL\data4\200130403\Project Data\Record Data\Reports\Day 1\_6-22-2021\_Buck\_Linden\_Cold Spring\_East\_East Stad\5th\_East Stadium\East Stadium\_Lead\_Sampling\_Report\_2021.docx





July 07, 2021

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

RE: Project: CENTRAL BUCKS (EAST STADIUM)

Pace Project No.: 70178251

#### Dear Bill Lambing:

Enclosed are the analytical results for sample(s) received by the laboratory on June 23, 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

Sophia Sparkes

Project Manager

Enclosures



(631)694-3040



#### **CERTIFICATIONS**

Project: CENTRAL BUCKS (EAST STADIUM)

Pace Project No.: 70178251

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



Project: CENTRAL BUCKS (EAST STADIUM)

Pace Project No.: 70178251

Date: 07/07/2021 03:37 PM

Sample: CBE1-20	Lab ID: 701	78251001	Collected: 06/22/2	21 10:58	Received: 00	6/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Met	hod: EPA 20	00.8					
	Pace Analytica	al Services -	Melville					
Lead	1.1	ug/L	1.0	1		07/06/21 19:1	4 7439-92-1	
Sample: CBE2-20	Lab ID: 701	78251002	Collected: 06/22/2	21 10:58	Received: 00	6/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Met	hod: EPA 20	00.8					
	Pace Analytica	al Services -	Melville					
Lead	<1.0	ug/L	1.0	1		07/06/21 19:1	5 7439-92-1	



#### **QUALITY CONTROL DATA**

Reporting

CENTRAL BUCKS (EAST STADIUM) Project:

Pace Project No.: 70178251

QC Batch: 216486 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: 70178251001, 70178251002

METHOD BLANK: 1090102 Matrix: Water

Associated Lab Samples: 70178251001, 70178251002 Blank

> Parameter Units Result Limit Analyzed Qualifiers

Lead <1.0 1.0 07/06/21 18:53 ug/L

LABORATORY CONTROL SAMPLE: 1090103

Spike LCS LCS % Rec Conc. % Rec Limits Qualifiers Parameter Units Result Lead 50.6 101 85-115 ug/L

MATRIX SPIKE SAMPLE: 1090105

% Rec 70178244041 Spike MS MS Parameter Units Result Conc. Result % Rec Limits Qualifiers 1.3 Lead ug/L 50 53.7 105 70-130

MATRIX SPIKE SAMPLE: 1090107 70178244051 MS MS % Rec Spike % Rec Parameter Units Result Conc. Result Limits Qualifiers

1.9 Lead ug/L 50 52.8 102 70-130

SAMPLE DUPLICATE: 1090104

Date: 07/07/2021 03:37 PM

70178244041 Dup RPD Parameter Units Result Result Qualifiers 3

1.3 1.3 Lead ug/L

SAMPLE DUPLICATE: 1090106 70178244051 Dup

**RPD** Qualifiers Parameter Units Result Result 1.9 2.0 3 Lead ug/L

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.



#### **QUALIFIERS**

Project: CENTRAL BUCKS (EAST STADIUM)

Pace Project No.: 70178251

#### **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.

Date: 07/07/2021 03:37 PM



## **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: CENTRAL BUCKS (EAST STADIUM)

Pace Project No.: 70178251

Date: 07/07/2021 03:37 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70178251001	CBE1-20	EPA 200.8	216486		
70178251002	CBE2-20	EPA 200.8	216486		



## CHAIN-OF-CUSTODY / Analytical Request Doc The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be

WO#:70178251

Section B Section C Section A Invoice Information: Required Project Information: Required Client Information:

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arrington, PA 18976									_	Addres	1000000	2700 K			Suite 20						100	7.4		Re	gulato	ory Agend	У	
mail: blambing@la	ngan.com	Pu	urchase Or	der#:	20013040	3-400-001			_		Quote:				Langan		_											
none: 215-491-6	500 Fax 2015-491-	6501 Pr	roject Name	: Ce	entral Bucks	School Di	strict (East SI	ladium)		Pace F	Project	Manage	er:	soph	ia.spar	kes@p	acela	bs.com,				1		S		Location		
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SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:

Bill Lambing

DATE Signed:

6/23/2021

Received on TEMP in C

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Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client	Commo	ercial 🖼	ace 🗆 Othe	r	CLI	ENT: LAN-PA	
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Temp should be above freezing to 6.0°C USDA Regulated Soil ( N/A, water sample	<u>.</u> ]			Date and Init	ials of pers	on examining contents:	J.I 1926
USDA Regulated Soil ( NA, water Sample	ithin tha l	Initad State	os AL AR CA	FI GAID LA 1	MS. NC. [	oid samples orignate fror	n a foreign source
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NM, NY, OK, OR, SC, TN, TX, or VA (check map) If Yes to either question, fill out a Regulat	ייין כייון נון נ ה וה	s — Nu nacklist (F	-U-C-010) a	nd include wit	h SCUR/CO	C paperwork.	
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Chain of Custody Present:	√⊒Yes	□No		1.			
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Chain of Custody Priled Odt.  Chain of Custody Relinquished:	∠ Yes	□No		3.			
Sampler Name & Signature on COC:	Yes	□No	□N/A	4.			
Samples Arrived within Hold Time:	Yes	□No		5.			
Short Hold Time Analysis (<72hr):	□Yes	□N0		6.			
Rush Turn Around Time Requested:	□Yes	_ DN0		7.			
Sufficient Volume: (Triple volume provided for		□No		8.			
Correct Containers Used:	EYes	□No		9.			
-Pace Containers Used:	□Yes	□No					
Containers Intact:	EYes	□No	. ,	10.			
Filtered volume received for Dissolved tests		□No	EN/A	11. N	ote if sedim	ent is visible in the dissol	ved container.
Sample Labels match COC:	Yes	□No		12.			
-Includes date/time/ID, Matrix: SL WI	1						- 110l
All containers needing preservation have be	en ØYes	□No	□N/A	13.	HNO <sub>3</sub>	□H <sub>2</sub> SO <sub>4</sub> □NaOH	□ HCI
-hla-dO				1			
pH paper Lot # HC155968				Sample #			
All containers needing preservation are fou	nd to be			Sample #			
in compliance with method recommendation		<b>571</b> -	□N/A				
(HNO <sub>3</sub> , H₂SO <sub>4</sub> , HCl, NaOH>9 Sulfide,	✓Yes	□No	LIN/ A				
NAOH>12 Cyanide)	0						
Exceptions: VOA, Coliform, TOC/DOC, Oil and	Grease,			Initial when	completed:	Lot # of added	Date/Time preservative
DRO/8015 (water).	dia			line.g. mion		preservative:	added:
Per Method, VOA pH is checked after analys	□Yes	□No	PN/A	14.		<u> </u>	
Samples checked for dechlorination:	Піез						
KI starch test strips Lot # Residual chlorine strips Lot #				Po	sitive for Res	s. Chlorine? Y N	
SM 4500 CN samples checked for sulfide?	□Yes	□No	EN/A	15.			
Lead Acetate Strips Lot #			85.0				
Headspace in VOA Vials ( >6mm):	□Yes	□No	EN/A	16.			
Trip Blank Present:	□Yes	□No	.ØN/A	17.			
Trip Blank Custody Seals Present	□Yes	□No	₽N7A	1			
Pace Trip Blank Lot # (if applicable):							
Client Notification/ Resolution:				Field Data R		Y / N	
Person Contacted:					Date/Time:		
Comments/ Resolution:		Anal	y515	pulled	from	profile	
			•	· ·		2	

<sup>&</sup>lt;sup>3</sup> PM (Project Manager) review is documented electronically in LIMS



August 4, 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 Sample Collection and Reporting
Central Bucks East High School
2804 Holicong Road

2804 Holicong Road Doylestown, PA 18902

Dear Mr. Hanna:

This document has been prepared by Langan to provide the results of the drinking water sampling activities at the above referenced school. Langan sampled the drinking water sources (e.g. bottle fillers, fountains, sink faucets, etc.) on June 22, 2021 as identified by the Central Bucks School District facility inventory. 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 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:

Location	Sample ID	<u>Result</u>
Kitchen 2-bowl sink by hall door	A110A_062221	19.9 ug/L
Kitchen 1-bowl sink near coffee sales	A110C_062221	23.6 ug/L
Java sink (coffee)	A113A_062221	15.5 ug/L
Special Education	D108A_062221	18.6 ug/L
Room 225	D225_062221	37.3 ug/L
Room 221	D221_062221	18.3 ug/L

A figure of the 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





July 07, 2021

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

RE: Project: CENTRAL BUCKS (CB EAST)

Pace Project No.: 70178261

#### Dear Bill Lambing:

Enclosed are the analytical results for sample(s) received by the laboratory on June 23, 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

Sophia Sparkes

Project Manager

Enclosures



(631)694-3040



#### **CERTIFICATIONS**

Project: CENTRAL BUCKS (CB EAST)

Pace Project No.: 70178261

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



Project: CENTRAL BUCKS (CB EAST)

Pace Project No.: 70178261

Date: 07/07/2021 03:38 PM

Pace Project No.: 70178261								
Sample: A110A_062221	Lab ID:	70178261001	Collected: 06/22/2	21 09:05	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	Method: EPA 20 rtical Services -						
Lead	19.9	ug/L	1.0	1		07/06/21 19:1	9 7439-92-1	
Sample: A110B_062221	Lab ID:	70178261002	Collected: 06/22/2	21 09:06	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	Method: EPA 20 rtical Services -						
Lead	8.1	ug/L	1.0	1		07/06/21 19:2	22 7439-92-1	
Sample: A110C_062221	Lab ID:	70178261003	Collected: 06/22/2	21 09:09	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	,	Method: EPA 20 rtical Services -						
Lead	23.6	ug/L	1.0	1		07/06/21 19:2	23 7439-92-1	
Sample: A110D_062221	Lab ID:	70178261004	Collected: 06/22/2	21 09:12	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	Method: EPA 20 rtical Services -				•		
Lead	<1.0	ug/L	1.0	1		07/06/21 19:2	24 7439-92-1	
Sample: A110E_062221	Lab ID:	70178261005	Collected: 06/22/2	21 09:13	Received:	06/23/21 19:20	Matrix: Drinking	Water
	D 14 -	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Parameters	Results	Ullis	- Roport Emili					Quai
Parameters  200.8 MET ICPMS Drinking Water	Analytical I	Method: EPA 20	00.8					Qual



Project: CENTRAL BUCKS (CB EAST)

Pace Project No.: 70178261

Date: 07/07/2021 03:38 PM

Sample: A113A_062221	Lab ID: 7	70178261006	Collected: 06/22/	21 09:17	Received: 0	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical N	Method: EPA 20	00.8					
	Pace Analy	tical Services -	Melville					
Lead	15.5	ug/L	1.0	1		07/06/21 19:2	6 7439-92-1	
Sample: A109_062221	Lab ID: 7	70178261007	Collected: 06/22/	21 09:19	Received: 0	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	Method: EPA 20 tical Services -						
Lead	3.1	ug/L	1.0	1		07/06/21 19:2	7 7439-92-1	
Sample: A109A_062221	Lab ID: 7	70178261008	Collected: 06/22/	21 09:20	Received: 0	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	,	Method: EPA 20 tical Services -						
Lead	<1.0	ug/L	1.0	1		07/06/21 19:2	8 7439-92-1	
Sample: A107D_062221	Lab ID: 7	70178261009	Collected: 06/22/	21 09:22	Received: 0	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	Nethod: EPA 20						
Lead	5.1	ug/L	1.0	1		07/06/21 19:3	1 7439-92-1	
Sample: C104B_062221	Lab ID: 7	70178261010	Collected: 06/22/	21 09:28	Received: 0	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	Method: EPA 20 tical Services						
Lead	<1.0	ug/L	1.0	1		07/06/21 19:3	2 7439-92-1	



Project: CENTRAL BUCKS (CB EAST)

Pace Project No.: 70178261

Date: 07/07/2021 03:38 PM

Sample: C105E_062221	Lab ID: 701	79261011	Collected: 06/22/2	1 00:21	Possived: 0	06/23/21 19:20	Matrix: Drinking	Mator
• –							J	
Parameters	Results —	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Meth	nod: EPA 20	00.8					
	Pace Analytica	I Services -	- Melville					
Lead	5.9	ug/L	1.0	1		07/06/21 19:3	3 7439-92-1	
Sample: D127D_062221	Lab ID: 701	78261012	Collected: 06/22/2	1 09:34	Received: 0	6/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Meth Pace Analytica							
Lead	2.1	ug/L	1.0	1		07/06/21 19:3	6 7439-92-1	
Sample: B116B_062221	Lab ID: 701	78261013	Collected: 06/22/2	1 09:36	Received: 0	6/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Meth Pace Analytica							
Lead	<1.0	ug/L	1.0	1		07/06/21 19:3	7439-92-1	
Sample: GLB_062221	Lab ID: 701	78261014	Collected: 06/22/2	1 09:39	Received: 0	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Meth Pace Analytica							
Lead	<1.0	ug/L	1.0	1		07/06/21 19:3	88 7439-92-1	
Sample: GLC_062221	Lab ID: 701	78261015	Collected: 06/22/2	1 09:40	Received: 0	6/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Meth							
Lead	2.2	ug/L	1.0	1		07/06/21 19:3	9 7439-92-1	



Project: CENTRAL BUCKS (CB EAST)

Pace Project No.: 70178261

Date: 07/07/2021 03:38 PM

Sample: B109F_062221	Lab ID: 701	78261016	Collected: 06/22/2	21 09:41	Received: 00	6/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Meth	nod: EPA 20	00.8					
	Pace Analytica	al Services -	Melville					
Lead	<1.0	ug/L	1.0	1		07/06/21 19:40	0 7439-92-1	
Sample: B108_062221	Lab ID: 701	78261017	Collected: 06/22/2	21 09:48	Received: 00	6/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Meth							
Lead	1.5	ug/L	1.0	1		07/06/21 19:43	3 7439-92-1	
Sample: B105_062221	Lab ID: 701	78261018	Collected: 06/22/2	21 09:57	Received: 00	6/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Meth							
Lead	8.1	ug/L	1.0	1		07/06/21 19:4:	3 7439-92-1	
Sample: B102_062221	Lab ID: 701	78261019	Collected: 06/22/2	21 09:55	Received: 00	6/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Meth							
Lead	<1.0	ug/L	1.0	1		07/06/21 19:44	4 7439-92-1	
Sample: B104A_062221	Lab ID: 701	78261020	Collected: 06/22/2	21 09:53	Received: 00	6/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
	Analytical Meth	hod: EPA 20						
200.8 MET ICPMS Drinking Water	Pace Analytica							



Project: CENTRAL BUCKS (CB EAST)

Pace Project No.: 70178261

Date: 07/07/2021 03:38 PM

Pace Project No.: 70178261								
Sample: D108A_062221	Lab ID:	70178261021	Collected: 06/22/2	21 10:02	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	Method: EPA 20 rtical Services -						
Lead	18.6	ug/L	1.0	1		07/06/21 19:4	18 7439-92-1	
Sample: D108B_062221	Lab ID:	70178261022	Collected: 06/22/2	21 10:02	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	Method: EPA 20 rtical Services -						
Lead	14.8	ug/L	1.0	1		07/06/21 19:5	51 7439-92-1	
Sample: A210A_062221	Lab ID:	70178261023	Collected: 06/22/2	21 10:08	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	,	Method: EPA 20 rtical Services -						
Lead	<1.0	ug/L	1.0	1		07/06/21 19:5	54 7439-92-1	
Sample: A210B_062221	Lab ID:	70178261024	Collected: 06/22/2	21 10:08	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	Method: EPA 20 rtical Services -				,		
Lead	<1.0	ug/L	1.0	1		07/06/21 19:5	55 7439-92-1	
Sample: A216_062221	Lab ID:	70178261025	Collected: 06/22/2	21 10:10	Received:	06/23/21 19:20	Matrix: Drinking	Water
	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
Parameters	Nesuits	UIIII3						Quai
200.8 MET ICPMS Drinking Water	Analytical I	Method: EPA 20	00.8					- Qua



Project: CENTRAL BUCKS (CB EAST)

Pace Project No.: 70178261

Date: 07/07/2021 03:38 PM

Pace Project No.: 70178261								
Sample: A208_062221	Lab ID: 7	0178261026	Collected: 06/22/2	21 10:14	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical M	lethod: EPA 20	00.8					
	Pace Analyt	tical Services -	- Melville					
Lead	8.7	ug/L	1.0	1		07/06/21 19:5	7439-92-1	
Sample: A201_062221	Lab ID: 7	0178261027	Collected: 06/22/2	21 10:16	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	lethod: EPA 20						
Lead	10.1	ug/L	1.0	1		07/06/21 19:5	58 7439-92-1	
Sample: C204A_062221	Lab ID: 7	0178261028	Collected: 06/22/2	21 10:18	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	,	lethod: EPA 20						
Lead	3.4	ug/L	1.0	1		07/06/21 19:5	59 7439-92-1	
Sample: C204B_062221	Lab ID: 7	0178261029	Collected: 06/22/2	21 10:18	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	lethod: EPA 20 tical Services -						
Lead	3.4	ug/L	1.0	1		07/06/21 20:0	00 7439-92-1	
Sample: C209E_062221	Lab ID: 7	0178261030	Collected: 06/22/2	21 10:20	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	,	lethod: EPA 20						
Lead	3.4	ug/L	1.0	1		07/06/21 20:0	)1 7439-92-1	



Project: CENTRAL BUCKS (CB EAST)

Pace Project No.: 70178261

Date: 07/07/2021 03:38 PM

Pace Project No.: 70178261								
Sample: D225A_062221	Lab ID: 70	0178261031	Collected: 06/22	/21 10:22	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Me Pace Analytic	ethod: EPA 20						
Lead	<1.0	ug/L	1.0	1		07/06/21 20:0	02 7439-92-1	
Sample: D225B_062221	Lab ID: 70	)178261032	Collected: 06/22	/21 10:22	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Me Pace Analytic	ethod: EPA 20						
Lead	<1.0	ug/L	1.0	1		07/06/21 20:0	06 7439-92-1	
Sample: D208A_062221	Lab ID: 70	0178261033	Collected: 06/22	/21 10:34	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	ethod: EPA 20						
Lead	4.1	ug/L	1.0	1		07/06/21 20:0	08 7439-92-1	
Sample: D208B_062221	Lab ID: 70	0178261034	Collected: 06/22	/21 10:34	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	ethod: EPA 20 cal Services -						
Lead	<1.0	ug/L	1.0	1		07/06/21 20:0	09 7439-92-1	
Sample: D208_062221	Lab ID: 70	178261035	Collected: 06/22	/21 10:38	Received:	06/23/21 19:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	ethod: EPA 20				,		
Lead	4.4	ug/L	1.0	1		07/06/21 20:1	10 7439-92-1	



Project: CENTRAL BUCKS (CB EAST)

Pace Project No.: 70178261

Date: 07/07/2021 03:38 PM

Sample: D207_062221	Lab ID: 701	78261036	Collected: 06/22/2	21 10:40	Received: 0	6/23/21 19:20 I	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Meth							
Lead	<1.0	ug/L	1.0	1		07/06/21 20:10	7439-92-1	
Sample: D225_062221	Lab ID: 701	78261037	Collected: 06/22/2	21 10:42	Received: 0	06/23/21 19:20 <b>I</b>	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Meth							
Lead	37.3	ug/L	1.0	1		07/06/21 20:11	7439-92-1	
Sample: D222_062221	Lab ID: 701	78261038	Collected: 06/22/2	21 10:43	Received: 0	06/23/21 19:20 I	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Meth							
Lead	11.1	ug/L	1.0	1		07/06/21 20:12	2 7439-92-1	
Sample: D221_062221	Lab ID: 701	78261039	Collected: 06/22/2	21 10:44	Received: 0	06/23/21 19:20 I	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Meth							
			1.0					



#### **QUALITY CONTROL DATA**

Project: CENTRAL BUCKS (CB EAST)

Pace Project No.: 70178261

Date: 07/07/2021 03:38 PM

QC Batch: 216502 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: 70178261001, 70178261002, 70178261003, 70178261004, 70178261005, 70178261006, 70178261007,

70178261008, 70178261009, 70178261010, 70178261011, 70178261012, 70178261013, 70178261014,

70178261015, 70178261016, 70178261017, 70178261018, 70178261019, 70178261020

METHOD BLANK: 1090202 Matrix: Water

Associated Lab Samples: 70178261001, 70178261002, 70178261003, 70178261004, 70178261005, 70178261006, 70178261007,

70178261008, 70178261009, 70178261010, 70178261011, 70178261012, 70178261013, 70178261014,

70178261015, 70178261016, 70178261017, 70178261018, 70178261019, 70178261020 Blank Reporting Limit Parameter Units Result Analyzed Qualifiers 07/06/21 19:16 Lead ug/L < 1.0 LABORATORY CONTROL SAMPLE: 1090203 LCS LCS % Rec Spike Parameter Units Conc. Result % Rec Limits Qualifiers Lead 50 49.8 100 85-115 ug/L MATRIX SPIKE SAMPLE: 1090205 70178261001 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers 19.9 105 70-130 Lead 50 72.4 ug/L MATRIX SPIKE SAMPLE: 1090207 70178261011 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers 5.9 Lead ug/L 50 63.0 114 70-130 SAMPLE DUPLICATE: 1090204 70178261001 Dup Parameter Units Result Result **RPD** Qualifiers 19.9 19.7 Lead ug/L 1 SAMPLE DUPLICATE: 1090206 70178261011 Dup RPD Result Parameter Units Result Qualifiers Lead 5.9 0 ug/L

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.



#### **QUALITY CONTROL DATA**

CENTRAL BUCKS (CB EAST) Project:

Pace Project No.: 70178261

Date: 07/07/2021 03:38 PM

QC Batch: 216503 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

70178261021, 70178261022, 70178261023, 70178261024, 70178261025, 70178261026, 70178261027, Associated Lab Samples:

70178261028, 70178261029, 70178261030, 70178261031, 70178261032, 70178261033, 70178261034,

70178261035, 70178261036, 70178261037, 70178261038, 70178261039

METHOD BLANK: 1090208 Matrix: Water

Associated Lab Samples:

7017826	, 701782610	29, 70178261030, 36, 70178261037,	70178261031,	70178261032, 7			
		Blank	Reporting				
Parameter	Units	Result	Limit	Analyzed	Qualifier	S	
Lead	ug/L	<1.0	1.	0 07/06/21 19:	46		
LABORATORY CONTROL SAMPLE:	1090209						
Davamatan	Links	Spike	LCS	LCS	% Rec	O !:f:	
Parameter	Units	Conc.	Result	% Rec		Qualifiers	
Lead	ug/L	50	50.9	102	85-115		
MATRIX SPIKE SAMPLE:	1090211						
Parameter	Units	7017826102 Result	1 Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L		8.6 50	77.4	118	70-130	Qualifiers
Leau	ug/L	ı	0.0 50	77.4	110	70-130	
MATRIX SPIKE SAMPLE:	1090213						
Parameter	Units	7017826103 Result	1 Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
	_						Quailliers
Lead	ug/L	<	1.0 50	60.3	119	70-130	
SAMPLE DUPLICATE: 1090210							
Parameter	Units	70178261021 Result	Dup Result	RPD	Qualifiers		
Lead	ug/L	18.6	18.	7	0	-	
SAMPLE DUPLICATE: 1090212							
Parameter	Units	70178261031 Result	Dup Result	RPD	Qualifiers		
Lead	ug/L	<1.0	<1.	0	_	_	

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.



#### **QUALIFIERS**

Project: CENTRAL BUCKS (CB EAST)

Pace Project No.: 70178261

#### **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.

Date: 07/07/2021 03:38 PM



## **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: CENTRAL BUCKS (CB EAST)

Pace Project No.: 70178261

Date: 07/07/2021 03:38 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70178261001	A110A_062221	EPA 200.8	216502		
70178261002	A110B_062221	EPA 200.8	216502		
70178261003	A110C_062221	EPA 200.8	216502		
70178261004	A110D_062221	EPA 200.8	216502		
70178261005	A110E_062221	EPA 200.8	216502		
70178261006	A113A_062221	EPA 200.8	216502		
70178261007	A109_062221	EPA 200.8	216502		
70178261008	A109A_062221	EPA 200.8	216502		
70178261009	A107D_062221	EPA 200.8	216502		
70178261010	C104B_062221	EPA 200.8	216502		
70178261011	C105E_062221	EPA 200.8	216502		
70178261012	D127D_062221	EPA 200.8	216502		
70178261013	B116B_062221	EPA 200.8	216502		
70178261014	GLB_062221	EPA 200.8	216502		
70178261015	GLC_062221	EPA 200.8	216502		
70178261016	B109F_062221	EPA 200.8	216502		
70178261017	B108_062221	EPA 200.8	216502		
70178261018	B105_062221	EPA 200.8	216502		
70178261019	B102_062221	EPA 200.8	216502		
70178261020	B104A_062221	EPA 200.8	216502		
70178261021	D108A_062221	EPA 200.8	216503		
70178261022	D108B_062221	EPA 200.8	216503		
70178261023	A210A_062221	EPA 200.8	216503		
70178261024	A210B_062221	EPA 200.8	216503		
70178261025	A216_062221	EPA 200.8	216503		
70178261026	A208_062221	EPA 200.8	216503		
70178261027	A201_062221	EPA 200.8	216503		
70178261028	C204A_062221	EPA 200.8	216503		
70178261029	C204B_062221	EPA 200.8	216503		
70178261030	C209E_062221	EPA 200.8	216503		
70178261031	D225A_062221	EPA 200.8	216503		
70178261032	D225B_062221	EPA 200.8	216503		
70178261033	D208A_062221	EPA 200.8	216503		
70178261034	D208B_062221	EPA 200.8	216503		
70178261035	D208_062221	EPA 200.8	216503		
70178261036	D207_062221	EPA 200.8	216503		
70178261037	D225_062221	EPA 200.8	216503		
70178261038	D222_062221	EPA 200.8	216503		
70178261039	D221_062221	EPA 200.8	216503		



## CHAIN-OF-CUSTODY / Analytical Request Do The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mus

WO#:70178261

Section B Section A Required Project Information: Required Client Information:

Section C Invoice Information:

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none:	215-491-6500 Fax 2015-491-6501 ed Due Date: Standard Turn Around (5 day)	Project #: 20		entral Bucks S	chool Dis	sinci (CB Ea	St)	_		ofile #:		983	sopi	па зра	rkes@	paci	elaus,co	JII1,		-			State	PA		_
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1	A110A_062221		DW G	6/22/2021	905	6/22/2021	905	1	╀	₩	х	-	ļ	-	-	×	+	-	-	-	+	+++	-1 '			_
2	A110B_062221		DW G	6/22/2021	906	6/22/2021	906	1			x					$I_{x}$										
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3	A110C_062221		DW G	6/22/2021	909	6/22/2021	909	1	1	+	Х	$\perp$	<u> </u>	$\perp$		×	+		$\rightarrow$	+	+	+++	-			
4	A110D_062221		DW G	6/22/2021	912	6/22/2021	912	1			x					l <sub>×</sub>										
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5	A110E_062221		DW G	6/22/2021	913	6/22/2021	913	+	+	+	X	+	H	+	-	H	++	-	$\Box$		$\top$		7			
6	A113A_062221		DW G	6/22/2021	917	6/22/2021	917	1		1	х	+			_	L×	+	-	H		+	-				
7	A109_062221		DW G	6/22/2021	919	6/22/2021	919	1			х					L							_			
8	A109A_062221		DW G	6/22/2021	920	6/22/2021	920	1		П	x					×										
										П					1											
9	A107D_062221		DW G	6/22/2021	922	6/22/2021	922	+1	+	+	X	+		$\vdash$	-	<u> </u>	++		$\vdash$		+	-	7			
10	C104B_062221		DW G	6/22/2021	928	6/22/2021	928	1	-	$\perp$	х	4			_	×			$\vdash$	$\rightarrow$	$\dashv$		_	<u> </u>		
11	C105E_062221		DW G	6/22/2021	931	6/22/2021	931	1			х					<u></u>			Ш		$\perp$		_			
12	D127D_062221		DW G	6/22/2021	934	6/22/2021	934	1			x					,										
	ADDITIONAL COMMENTS			QUISHED BY /		-	DATE		TIM	ΙE	200		ACC	EPTED	BY/A	FFIL	IATION	2 ido		DATE		TIME		SAMPLE	CONDITIONS	s
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Page					SAMPL	ER NAME A	ND SIGNAT	URE	W.			V2.)		100	-	1						AL TEN		ļ		
25						RINT Name				b		- 0				_		-					C ⊑	ed on	ž.	se
으						CNATURE	of CAMBIE	0.		4		0	7)	_		Bill	Lambin	g Signed	ı.		_		TEMP in	Ş Ş	Custody Sealed Cooler (Y/N)	Samples
19					1 5	GNATURE	JI SAMPLE	- /	3	ill	N	anul	le			1	DATE	. Jignet		6	6/23/2	2021	_ <u> </u>	S 6 8	ರ೫೮೭	Sal



# CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT, All relevant fields must be completed accurately.

Section .	A I Client Information:	ation:			S Invoic	ection		ion:												P	age	 e):	2	Of	4			
Company		Required Pro	_	ambing		_			-	ntion		ill Lam	bina	_	_	_							<u> </u>					
Address:	3 0 0	Copy To:	Din E						Con	pany		e: Lar		ngine	ering	3			7									
	on, PA 18976								Add	ress:	- 2	700 Ke	lly Ro	ad, Si	uite 2	200							2 1	Re	gulate	ory Agen	су	
Email:	blambing@langan.com	Purchase Or	der#:	201	0130402-4	400-001			Pac	e Quo	ote:			See L	anga	n-Pa	ce N	//SA										
Phone:	215-491-6500 Fax 2015-491-6501	Project Name	: (	Central	Bucks Sc	hool Dis	trict (CB Ea	st)	Pac	e Pro	ject N	lanager	: :	sophi	a.spa	arkes(	@pa	celabs cor	n,					S	itate /	Location	OU.	
Request	ed Due Date: Standard Turn Around (5 day)	Project #: 20	13040	02					Pac	e Pro	file #:	798	3													PA		
																		Req	uested	Analy	sis Filt	ered	(Y/N)					15
	MATRIX Drinking W	CODE aler DW	des to left)	C=COMP)		COLL	ECTED	NO.				Prese	rvativ	es	-1	N/A	W/A											
	Water Waste Wat Product Soll/Solid Oil	P SL OL	(see valid codes to left)	(G=GRAB (	STAR	RT	EN	D D	RS								1881	PB)							rine (Y/N)			
ITEM #	One Character per box. Wipo (A-Z, 0-9 / , -) Air Othor Sample lds must be unique Tissue	WP AR OT TS	MATRIX CODE	SAMPLE TYPE	DATE	TIME	DATE	TIME SAMPIE TEMPA		Unpreserved	H2S04	HN03	NaOH	Na2S2O3	Methanol	Other	Analyses	200 7 Metals (PB)							Residual Chlorine (Y/N)			
1	B116B_062221		DW	G 6/2	22/2021	936	6/22/2021	936	1			х						x										
2	GLB_062221		DW	G 6/2	22/2021	939	6/22/2021	939	1			х				_		x							11			
3	GLC_062221		DW	G 6/2	22/2021	940	6/22/2021	940	1			х		_			l	x	$\perp$									
4	B109F_062221		DW	G 6/2	22/2021	941	6/22/2021	941	. 1			х				$\Box$		х	$\perp$						]			
5	B108_062221		DW	G 6/2	22/2021	948	6/22/2021	948	1		Ц	х		_				х							11			
6	B105_062221		DW	G 6/2	22/2021	957	6/22/2021	957	1			х					-	х			_				4			
7	B102_062221		DW	G 6/	22/2021	955	6/22/2021	955	1	L		х				_		х							]			
8	B104A_062221		DW	G 6/	22/2021	953	6/22/2021	953	1			х			$\downarrow$	4		x				_		L	11			
9	D108A_062221		DW	G 6/	22/2021	1002	6/22/2021	1002	1	_		х				4	-	х	_	Ц	-		++		11			
10	D108B_062221		DW	G 6/:	22/2021	1002	6/22/2021	1002	1			х	-		_	4	ŀ	x		Н	$\perp$			H	11			
11	A210A_062221		DW	G 6/	/22/2021	1008	6/22/2021	1008	1	-		х			4	4	ŀ	х	-	_	+-	Н		H	11			
12	A210B_062221			_	/22/2021	1008	6/22/2021	1008	1			x	$\perp$	1005			1	X			DATE		TIME		Ш	CAMPIE	CONDITION	e e
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Page						SAMPL	FR NAME A	ND SIGNAT	URE	7			B 17	000		., 3			27/2		12.50			1		_		
16 of						PF	RINT Name	of SAMPLER	₹:								В	II Lambing							MP in C	Received on ce	stody led sler	Samples Intact (Y/N)
19			SI	GNATURE	of SAMPLER	Ze	u	V	an 1						DATE	Signed:	:		6/23/:	2021		TEMP	Receir Ice (Y/N)	Custody Sealed Cooler	Sar			



## CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO#:70178261

PM: STS

Due Date: 07/09/21

CLIENT: LAN-PA

## Section A Section B Section C

Invoice Information: Required Project Information: Required Client Information: Attention: Bill Lambing Langan Engineering Report To: Bill Lambing Copy To: Company Name: Langan Engineering Address: 2700 Kelly Road, Suite 200 Regulatory Agency Address: 2700 Kelly Road, Suite 200 Warrington, PA 18976 Pace Quote: See Langan-Pace MSA Email: blambing@langan.com Purchase Order #: 200130402-400-001 Pace Project Manager: State / Location Project Name: Central Bucks School District (CB East) sophia sparkes@pacelabs.com, Phone: 215-491-6500 Fax 2015-491-6501 Pace Profile #: Project #: 200130402 Requested Due Date: Standard Turn Around (5 day)

																			Requested A	Analys	is Filter	red (Y	(/N)	2				
	MATRIX	CODE	to left)	C=COMP)		COLLE	ECTED		7			Pre	serv	ative	s		N/A										Topic	
ITEM #	SAMPLE ID  One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique  Soul Soul Soul Soul Soul Soul Soul Soul		MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=C	STAF		EN		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved H2SO4	HNO3	ŦĊ.	NaOH	Methanol	Other	Analyses Test	200.7 Metals (PB)							Residual Chlorine (Y/N)			
	1)1		$\top$	$\Box$	DATE	TIME	DATE		8 :	# -	) I	$\Box$	픠	Z 2	2 2	0		П	+++	+-	$\vdash$	+	-		1 12			
1	A216_062221		DW	G	6/22/2021	1010	6/22/2021	1010	+	1	+	×	$\dashv$	+	+	+	1	Х	+++		++		+	$\vdash$	-			
2	A208_062221		DW	G	6/22/2021	1014	6/22/2021	1014	+	1	-	X	+	+	+	-	-	Х		-	++	-4-	+		-	-		
3	A201_062221		DW	G	6/22/2021	1016	6/22/2021	1016	$\dashv$	1	+	X	4	+	-	-		х	+++	-	$\vdash$	4	+		-			
4	C204A_062221		DW	G	6/22/2021	1018	6/22/2021	1018	4	1	_	X	_	-		-		Х			Н		-		4			
5	C204B_062221		DW	G	6/22/2021	1018	6/22/2021	1018	$\perp$	1	1	x		1				х				4	$\perp$					
6	C209E_062221		DW	G	6/22/2021	1020	6/22/2021	1020		1		x				L		х		_	Ш		$\perp$	Ц	_			
7	D225A_062221		DW	G	6/22/2021	1022	6/22/2021	1022		1		X		1		$\perp$		х			Ш							
8	D225B_062221		DW	G	6/22/2021	1022	6/22/2021	1022		1.		X				L	]	х							Ц			
9	D208A_062221		DW	G	6/22/2021	1034	6/22/2021	1034		1		x						х							_			
10	D208B_062221		DW	G	6/22/2021	1034	6/22/2021	1034		1		x						х			Ш			Ш				
11	D208_062221		DW	G	6/22/2021	1038	6/22/2021	1038		1		x						х										
112	D207_062221		DW	G	6/22/2021	1040	6/22/2021	1040		1		x						х										
- 18	ADDITIONAL COMMENTS		REL	INQU	IISHED BY I A	AFFILIATIO	ON	DATE	W	-	ME	ir.	1	) A	CCEPT	TED B	YIAF	FILIA	ION	-	DATE		TIME			SAMPLE	CONDITIONS	
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19						SK	GNATURE o	T SAMPLE	:K:	13	el	(0	an		_				OATE Signed:		6/	/23/20	021			_8 5 €	ડે ટું ટું	Sa Inta



# CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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Compan		Report To: Copy To:	Bill	ambir	ng								II Lam		Engin	eering	7	_	_	_	_	_	_	-								
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	ton, PA 18976	Purchase Or	der#		00130402-	400.001			-	Pace			700 100			Langa		ice l	MSA	_								M-15			_	
Email: Phone:	215-491-6500 Fax 2015-491-6501	Project Name					trict (CB Eas	-11		-			anagei							bs.con	1	_		-		1		State	/ Locat	tion	0.0	
	215-491-6500 Fax 2015-491-6501 ed Due Date: Standard Turn Around (5 day)	Project #: 20			ai bucks Sc	JIOOI DISI	ilici (OD Las	31)				ile #:			ЗОРІ	пазор	u 1100	e p	10010	00.00				-					PA			
Request	ed bde bate. Standard Turri Around (5 day)	110,000 #. 20	0100	102		_			_				, , ,	-						Reg	ueste	i Ana	lysis l	Filtere	ed (Y/I	N)			1 20.	100		
	MATRIX Drinking W Waler Waste Wa	WT ler WW	(see valid codes to left)	(G=GRAB C=COMP)		COLLE	ECTED		AT COLLECTION			F	Prese	rvati	ves			N/N										(N)	T ST		To a	
	SAMPLE ID Product Soll/Solid	P SL	e va	E. C.	STAF	эт	ENI	_	S S								- 1.	Test						1		П		ے ا	1			- 1
	Oil Oil	OL WP		1 6	SIA	XI	LIVI		AT.	ERS							ı l'	ပ္က	B						1	Ш		Chlorine (Y/N)	1			- 1
ITEM #	One Character per box, Wipe (A-Z, 0-9 / , -) Air. Other Sample lds must be unique Tissue	AR OT TS	MATRIX CODE	SAMPLE TYPE	DATE	TIME	DATE	TIME	SAMPLE TEMP	# OF CONTAINERS	Unpreserved	H2SO4	HCI HCI	NaOH	Na2S203	Methanol	Other	Analyses	200.7 Metals (PB)									Residual Chl				
1	D225_062221		DW	G 6	3/22/2021	1042	6/22/2021	1042		1			x						x							Ш						
2	D222_062221		DW	G E	5/22/2021	1043	6/22/2021	1043		1			x				_		х					_	_			_				
3	D221_062221		DW	G E	5/22/2021	1044	6/22/2021	1044		1			x				4	_	х			Ц		$\perp$								
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18 of 19	) ,				:		GNATURE C			- 04			1		1		_	В		mbing		d:					$\dashv$	TEMP in C	Received of	Y/N)	Sealed Cooler (Y/N)	Samples Intact (Y/N)
ပ	)									1-	EL	15	Ta	w										6/2	23/202	21			TE 0	_ D	S O 5	N E C

	Sa	mple C	conditio	n Upor	Rece	Î.J.C	#:70	178	261
Face Analytical "	Client Na	ma.			Projec				Date: 07/09/21
/ door wary eres	Client No	1			,		STS		Jace: 01/09/21
/ Courier:□Fed Ex□ UPS□ USPS □Client		ercial P	ace ∏Othe	!r		CLI	ENT: LAN-P	Ή	
	Псоппп	10101	30						
Tracking #: Custody Seal on Cooler/Box Present:	os 🗆 No	Seals int	act: 🗹 Yes	No		T	emperature (	Blank Pres	sent: Yes No
Packing Material: Bubble Wrap Bubble	Bans 🗆	7inloc 대	√one 🖂 Otl	ner		Ţ	ype of Ice:	Wet Blue	e None
Thermometer Used: TH091	Correcti	on Factor:	+0.	0		□ſS	amples on ice	, cooling p	rocess has begun
Cooler Temperature(°C): 23, 2	Cooler T	emperatu	re Correcte	ed(°C): 4	23.2		ate/Time 503	55A kits pl	aced in freezer
Temp should be above freezing to 6.0°C	_								6/83/21
USDA Regulated Soil ( $\square$ N/A, water sample	el			Date and	Initials o	f pers	on examining	contents	J.I 1926
Did samples originate in a quarantine zone w	ithin tha 11	nited State	es AL AR CA	. FL. GA, ID,	LA, MS, NO	C, [	oid samples or	ignate fror	n a foreign source
ou on on THE TY VA (about mon)	) IIVo	e I IMO					ncluding Hawa	ii and Pue	rto Rico)? 🗆 Yes🛛 No
NM, NY, OK, OR, SC, TN, TX, or VA (check map) If Yes to either question, fill out a Regulat	th ling ha	ecklist (F	-LI-C-010) a	ınd include	e with SCl	JR/CO	C paperwork.		
If yes to either question, in our a keguia	100 0011 01	100111101					COMME	NTS:	
Chain of Custody Present:	√⊒Yes	□No		1.					
Chain of Custody Filled Out:	Yes	□No		2.					
Chain of Custody Pilled Gust	. ⊠Yes	□No		3.					
Sampler Name & Signature on COC:	ElYes	□No	□N/A	4.					
Samples Arrived within Hold Time:	. ElYes	□No		5.					
Short Hold Time Analysis (<72hr):	□Yes	DNO		6.					
Rush Turn Around Time Requested:	□Yes	_DM6		7.					
Sufficient Volume: (Triple volume provided for	or 🗷 Yes	□No		8.					
Correct Containers Used:	∠⊒Yes	□No		9.					
-Pace Containers Used:	<u></u> ∠¥es	□No		110					
Containers Intact:	HYES	□No		10.	Note if	andim	ont ic vicible in	the disse	lved container.
Filtered volume received for Dissolved tests	□Yes	□No	ÆN/A	11.	Note II	Seulm	ELLC IS AISIDIE III	Tule disso	IVED COTTON
Sample Labels match COC:	Yes	□No		12.					
-Includes date/time/ID, Matrix: SL (WT			501/A	13.	☐ HNO:		□ H <sub>2</sub> SO <sub>4</sub> I	□ NaOH	□ HCl
All containers needing preservation have be	endres	□No	□N/A	13.	LI HINO	3	L112304	LJ Maon	
checked?									
pH paper Lot # HC 155968	nd to be			Sample	#				
All containers needing preservation are fou in compliance with method recommendation	nn?								
(HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl, NaOH>9 Sulfide,	∠Yes	□No	□N/A						
NAOH>12 Cyanide)									
Exceptions: VOA, Coliform, TOC/DOC, Oil and	Grease.								I - (=:
DRO/8015 (water).	,			Initial w	hen compl	leted:	Lot # of adde	d	Date/Time preservative
Per Method, VOA pH is checked after analys	sis						preservative:		added:
Samples checked for dechlorination:	□Yes	□No	_DN/A	14.					
KI starch test strips Lot #							011-307	M	
Residual chlorine strips Lot #				15	Positive	for Ke	s. Chlorine? Y	N	
SM 4500 CN samples checked for sulfide?	□Yes	□No	ZN/A	15.					
Lead Acetate Strips Lot #			- /I.	10		_			
Headspace in VOA Vials ( >6mm):	□Yes	□No	EN/A	16.					
Trip Blank Present:	□Yes	□No	EN/A	11/2					
Trip Blank Custody Seals Present	□Yes	□No	_DAT/A						Laberta Company
Pace Trip Blank Lot # (if applicable):				Field Dr	ata Require	2d2	γ	/ N	
Client Notification/ Resolution:				rieiu Da	Date/			,	
Person Contacted:		PU	led from	n Prof.	-	111116.	-		
Comments/ Resolution:	naly siè	s you	itd tion	v hou	100				
	31								

<sup>\*</sup> PM (Project Manager) review is documented electronically in LIMS.