



April 21, 2025

American Paradigm Schools
8101 Castor Avenue
Philadelphia, PA
Attn: Ms. Naimah Wimberly

Re: Lead in Drinking Water Sampling
Tacony Academy – High School
6201 Keystone Street
Philadelphia, PA 19135
Project No. 103701

Dear Ms. Wimberly:

The Vertex Companies, LLC (VERTEX) is pleased to provide this Letter Report summarizing the lead in drinking water sampling performed within the Tacony Academy – High School charter school located at 6201 Keystone Street in Philadelphia, Pennsylvania (the site).

VERTEX's services were performed on March 14, 2025 during the early morning hours prior to normal occupancy; thus, no water use for greater than six hours. Ten (10) sample locations were chosen from various water outlets including: hallway and cafeteria fountains, and kitchen prep, nurse's, office and classroom sinks. Sample collection methodology incorporated a 1st draw sample from each location.

Sampling bottle ware was provided by the laboratory. The samples were submitted under chain-of-custody to an NELAP certified laboratory (Pace Analytical Services of Mansfield, Massachusetts) and analyzed by inductively coupled plasma – mass spectrometry for lead in drinking water via USEPA Method 200.8.

Sample results were compared to the USEPA National Primary Drinking Water Regulations. The maximum contaminant level goal for lead is zero; which allow for a margin of safety and are non-enforceable public health goals. The maximum contaminant level for lead where treatment techniques would be required is 15 micrograms per liter (ug/L), the Action Level. In addition, results were compared to The School District of Philadelphia's Safe Water Testing Program which has set a Safety Limit of 10 ug/L for lead in drinking water.

Results for the lead in drinking water samples collected identified the following:

- Each of the ten (10) samples were below the USEPA Action Level for lead (15 ug/L).
- Each of the ten (10) samples were within the School District of Philadelphia's Safe Water Testing Program Safety Limit for lead (10 ug/L).
- Eight (8) of the ten (10) samples were below the analytical detection limit.

Conclusion: Based on the project findings, no samples exceeded the USEPA Action Level or The School District of Philadelphia's Safe Water Testing Program safety limit for lead in drinking water.

Limitations:

Professional opinions presented in this report are based on information made available to VERTEX either by review of data provided by others or data obtained by VERTEX personnel.

VERTEX affirms that data gathered and presented by VERTEX in this report was collected in an appropriate manner in accordance with generally accepted guidelines, methods and practices.

Changes in conditions which affect the site can occur over time. Should additional information become available which would affect the status of this report, we reserve the right to amend our opinions and professional judgments.

VERTEX appreciates the opportunity to assist you with respect to this project. Please do not hesitate to contact our office, should you have any questions. Thank you.

Sincerely,
The Vertex Companies, LLC



William Otten
Senior Project Manager

Attachments: Laboratory Results

cc: Ms. Jessica Bowers



ATTACHMENT A

LABORATORY RESULTS



ANALYTICAL REPORT

Lab Number:	L2514763
Client:	The Vertex Companies, Inc. 2501 Seaport Drive Ste. BH 110 Chester, PA 19013
ATTN:	William Otten
Phone:	(610) 558-8902
Project Name:	TACONY ACADEMY CHARTER HIGH SC
Project Number:	103727
Report Date:	03/21/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (9110), MN (025-999-495), NJ (MA015), NY (11627), NC (685), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708A1), USFWS (Permit #A24920).



Project Name: TACONY ACADEMY CHARTER HIGH SC
Project Number: 103727

Lab Number: L2514763
Report Date: 03/21/25

See chain of custody at the end of
this document for specific locations

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2514763-01	1	DW	Not Specified	03/14/25 06:31	03/14/25
L2514763-02	2	DW	Not Specified	03/14/25 06:33	03/14/25
L2514763-03	3	DW	Not Specified	03/14/25 06:35	03/14/25
L2514763-04	4	DW	Not Specified	03/14/25 06:36	03/14/25
L2514763-05	5	DW	Not Specified	03/14/25 06:38	03/14/25
L2514763-06	6	DW	Not Specified	03/14/25 06:40	03/14/25
L2514763-07	7	DW	Not Specified	03/14/25 06:43	03/14/25
L2514763-08	8	DW	Not Specified	03/14/25 06:45	03/14/25
L2514763-09	9	DW	Not Specified	03/14/25 06:48	03/14/25
L2514763-10	10	DW	Not Specified	03/14/25 06:51	03/14/25

Project Name: TACONY ACADEMY CHARTER HIGH SC
Project Number: 103727

Lab Number: L2514763
Report Date: 03/21/25

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: TACONY ACADEMY CHARTER HIGH SC
Project Number: 103727

Lab Number: L2514763
Report Date: 03/21/25

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Cristin Walker

Title: Technical Director/Representative

Date: 03/21/25

METALS

Project Name: TACONY ACADEMY CHARTER HIGH SC**Lab Number:** L2514763**Project Number:** 103727**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2514763-01

Date Collected: 03/14/25 06:31

Client ID: 1

Date Received: 03/14/25

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	ND		ug/l	1.000	0.3430	1	03/20/25 14:32	03/20/25 16:59	NA	3,200.8	BLR



Project Name: TACONY ACADEMY CHARTER HIGH SC**Lab Number:** L2514763**Project Number:** 103727**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2514763-02

Date Collected: 03/14/25 06:33

Client ID: 2

Date Received: 03/14/25

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	ND		ug/l	1.000	0.3430	1	03/20/25 14:32	03/20/25 17:13	NA	3,200.8	BLR



Project Name: TACONY ACADEMY CHARTER HIGH SC**Lab Number:** L2514763**Project Number:** 103727**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2514763-03

Date Collected: 03/14/25 06:35

Client ID: 3

Date Received: 03/14/25

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	ND		ug/l	1.000	0.3430	1	03/20/25 14:32	03/20/25 17:27	NA	3,200.8	BLR



Project Name: TACONY ACADEMY CHARTER HIGH SC**Lab Number:** L2514763**Project Number:** 103727**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2514763-04

Date Collected: 03/14/25 06:36

Client ID: 4

Date Received: 03/14/25

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	1.900		ug/l	1.000	0.3430	1	03/20/25 14:32	03/20/25 17:56	NA	3,200.8	BLR



Project Name: TACONY ACADEMY CHARTER HIGH SC**Lab Number:** L2514763**Project Number:** 103727**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2514763-05

Date Collected: 03/14/25 06:38

Client ID: 5

Date Received: 03/14/25

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	ND		ug/l	1.000	0.3430	1	03/20/25 14:32	03/20/25 18:01	NA	3,200.8	BLR



Project Name: TACONY ACADEMY CHARTER HIGH SC**Lab Number:** L2514763**Project Number:** 103727**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2514763-06

Date Collected: 03/14/25 06:40

Client ID: 6

Date Received: 03/14/25

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	ND		ug/l	1.000	0.3430	1	03/20/25 14:32	03/20/25 18:06	NA	3,200.8	BLR



Project Name: TACONY ACADEMY CHARTER HIGH SC**Lab Number:** L2514763**Project Number:** 103727**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2514763-07

Date Collected: 03/14/25 06:43

Client ID: 7

Date Received: 03/14/25

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	ND		ug/l	1.000	0.3430	1	03/20/25 14:32	03/20/25 22:21	NA	3,200.8	BLR



Project Name: TACONY ACADEMY CHARTER HIGH SC**Lab Number:** L2514763**Project Number:** 103727**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2514763-08

Date Collected: 03/14/25 06:45

Client ID: 8

Date Received: 03/14/25

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	ND		ug/l	1.000	0.3430	1	03/20/25 14:32	03/20/25 22:26	NA	3,200.8	BLR



Project Name: TACONY ACADEMY CHARTER HIGH SC**Lab Number:** L2514763**Project Number:** 103727**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2514763-09

Date Collected: 03/14/25 06:48

Client ID: 9

Date Received: 03/14/25

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	ND		ug/l	1.000	0.3430	1	03/20/25 14:32	03/20/25 22:30	NA	3,200.8	BLR



Project Name: TACONY ACADEMY CHARTER HIGH SC**Lab Number:** L2514763**Project Number:** 103727**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2514763-10

Date Collected: 03/14/25 06:51

Client ID: 10

Date Received: 03/14/25

Sample Location: Not Specified

Field Prep: Not Specified

Sample Depth:

Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	1.698		ug/l	1.000	0.3430	1	03/20/25 14:32	03/20/25 22:35	NA	3,200.8	BLR



Project Name: TACONY ACADEMY CHARTER HIGH SC**Lab Number:** L2514763**Project Number:** 103727**Report Date:** 03/21/25

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-10 Batch: WG2042355-1										
Lead, Total	ND		ug/l	1.000	0.3430	1	03/20/25 14:32	03/20/25 16:44	3,200.8	BLR

Prep Information

Digestion Method: NA



Lab Control Sample Analysis**Batch Quality Control****Project Name:** TACONY ACADEMY CHARTER HIGH SC**Lab Number:** L2514763**Project Number:** 103727**Report Date:** 03/21/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10 Batch: WG2042355-2								
Lead, Total	96		-		85-115	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: TACONY ACADEMY CHARTER HIGH SC

Lab Number: L2514763

Project Number: 103727

Report Date: 03/21/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10			QC Batch ID: WG2042355-3			QC Sample: L2514763-01			Client ID: 1			
Lead, Total	ND	53	51.92	98		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-10			QC Batch ID: WG2042355-5			QC Sample: L2514763-02			Client ID: 2			
Lead, Total	ND	53	52.24	98		-	-		70-130	-		20

Lab Duplicate Analysis*Batch Quality Control***Project Name:** TACONY ACADEMY CHARTER HIGH SC**Project Number:** 103727**Lab Number:** L2514763**Report Date:** 03/21/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-10 QC Batch ID: WG2042355-4 QC Sample: L2514763-01 Client ID: 1						
Lead, Total	ND	ND	ug/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-10 QC Batch ID: WG2042355-6 QC Sample: L2514763-02 Client ID: 2						
Lead, Total	ND	ND	ug/l	NC		20

Project Name: TACONY ACADEMY CHARTER HIGH SC**Lab Number:** L2514763**Project Number:** 103727**Report Date:** 03/21/25**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2514763-01A	Plastic 950ml HNO3 preserved	A	<2	<2	3.1	Y	Absent		PB-2008T-PPB(180)
L2514763-02A	Plastic 950ml HNO3 preserved	A	<2	<2	3.1	Y	Absent		PB-2008T-PPB(180)
L2514763-03A	Plastic 950ml HNO3 preserved	A	<2	<2	3.1	Y	Absent		PB-2008T-PPB(180)
L2514763-04A	Plastic 950ml HNO3 preserved	A	<2	<2	3.1	Y	Absent		PB-2008T-PPB(180)
L2514763-05A	Plastic 950ml HNO3 preserved	A	<2	<2	3.1	Y	Absent		PB-2008T-PPB(180)
L2514763-06A	Plastic 950ml HNO3 preserved	A	<2	<2	3.1	Y	Absent		PB-2008T-PPB(180)
L2514763-07A	Plastic 950ml HNO3 preserved	A	<2	<2	3.1	Y	Absent		PB-2008T-PPB(180)
L2514763-08A	Plastic 950ml HNO3 preserved	A	<2	<2	3.1	Y	Absent		PB-2008T-PPB(180)
L2514763-09A	Plastic 950ml HNO3 preserved	A	<2	<2	3.1	Y	Absent		PB-2008T-PPB(180)
L2514763-10A	Plastic 950ml HNO3 preserved	A	<2	<2	3.1	Y	Absent		PB-2008T-PPB(180)

Project Name: TACONY ACADEMY CHARTER HIGH SC
Project Number: 103727

Lab Number: L2514763
Report Date: 03/21/25

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: TACONY ACADEMY CHARTER HIGH SC
Project Number: 103727

Lab Number: L2514763
Report Date: 03/21/25

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Project Name: TACONY ACADEMY CHARTER HIGH SC
Project Number: 103727

Lab Number: L2514763
Report Date: 03/21/25

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: TACONY ACADEMY CHARTER HIGH SC
Project Number: 103727

Lab Number: L2514763
Report Date: 03/21/25

REFERENCES

- 3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Pace Analytical Services LLC

ID No.:17873

Facility: **Northeast**

Revision 27

Department: **Quality Assurance**

Published Date: 01/24/2025

Title: **Certificate/Approval Program Summary**

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

MADEP-APH.**Nonpotable Water:** EPA RSK-175 Dissolved Gases**Biological Tissue Matrix:** EPA 3050B**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048****EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048**Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)**

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables).**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

Pace Analytical Services LLCID No.: **17873**Facility: **Northeast**

Revision 27

Department: **Quality Assurance**

Published Date: 01/24/2025

Title: Certificate/Approval Program Summary

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Certification IDs:**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

For a complete listing of analytes and methods, please contact your Project Manager.



CHAIN OF CUSTODY

PAGE 1 OF 1

WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

MANSFIELD, MA
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: The Vertex Companies, LLC

Address: 2501 Seaport Drive,
Suite BH 110 Chester PA 19013

Phone:

Fax:

Email: labresults@vertxeng.com

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Project Information

Project Name:	Tacony Academy
Project Location:	Charter High School

Project #: 103701

Project Manager:

ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: 1 Week Time: TAT

Date Rec'd in Lab:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Regulatory Requirements/Report Limits

State /Fed Program	Criteria
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ALPHA Job #: L2514763

Billing Information

<input type="checkbox"/> Same as Client info	PO #:
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SAMPLE HANDLING

Filtration

☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do

(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection <i>mm</i>		Sample Matrix	Sampler's Initials	<i>✓</i>												<input type="checkbox"/> Lab to do (Please specify below)	Sample Specific Comments
		Date	Time																
14763-01	1	3/14/25	6:31	DW	WC	✓													Hall Fountain, 1 st Floor
-02	2		6:33			✓													Faculty Lounge Sink
-03	3		6:35			✓													Cafeteria Fountain
-04	4		6:36			✓													Kitchen Sink
-05	5		6:38			✓													Nurse's Sink
-06	6		6:40			✓													Gymnasium Fountain
-07	7		6:43			✓													Hall Fountain, 2 nd Floor
-08	8		6:45			✓													Art Rm Sink, 2 nd Floor
-09	9		6:48			✓													Hall Fountain, 3 rd Floor
-10	10		6:51			✓													Science (Rm 314) Sink 3 rd Floor

Container Type

Preservative

Relinquished By:

Date/Time

Received By _____

Date/Time

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.



The Vertex Companies, LLC

For All Inquiries call (888) 298-5162

vertexeng.com