OHI

Occupational Health & Safety • Environmental Consultants

OccuHealth, Inc.
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August 22, 2016

Concord Public Schools
ATTN: Mr. Brian Schlegel
120 Meriam Road
Concord, MA 01742

RE: Water Quality Screening,
Concord Schools Ripley Building

Sent via email: Bschlegel@concordps.org

Dear Mr. Schlegel:

OccuHealth, Inc. (OHI) is submitting the enclosed report on the drinking water assessments conducted on August 13, 2016 in the Concord Schools Ripley building located at 120 Meriam Road, Concord, Massachusetts.

Please call either of the undersigned at (508) 339-9119 with any questions. Thank you for the opportunity to be of service.

Regards,
OCCUHEALTH, INC.

Jay McNeff, Sr. Project Manager

Thomas E. Hamilton, CIH

Enclosures

OccuHealth

DRINKING WATER ASSESSMENT
CONCORD PUBLIC SCHOOLS
CONCORD SCHOOLS RIPLEY BUILDING
120 MERIAM ROAD
CONCORD, MASSACHUSETTS

Prepared for:

MR. BRIAN SCHLEGEL
CONCORD PUBLIC SCHOOLS
120 MERIAM ROAD
CONCORD, MA 01742

Conducted by:

OCCUHEALTH, INC.
44 WOOD AVENUE
MANSFIELD, MA 02048
(508) 339-9119
OHI JOB 16-8990

Report Date:

AUGUST 22, 2016

DRINKING WATER ASSESSMENT
CONCORD PUBLIC SCHOOLS
CONCORD SCHOOLS RIPLEY BUILDING
120 MERIAM ROAD
CONCORD, MASSACHUSETTS

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Report Synopsis: On August 13, 2016, OccuHealth, Inc. (OHI) conducted a drinking water assessment in the Concord Schools Ripley building located at 120 Meriam Road, Concord, Massachusetts. A total of 10 water samples were collected for copper and lead analysis.

The copper and lead results were within the standards and guidelines for Massachusetts drinking water set by the EPA in their Lead and Copper Rule.

1.0 INTRODUCTION

OccuHealth, Inc. (OHI) was requested to conduct a drinking water assessment in the Concord Schools Ripley building located at 120 Meriam Road, Massachusetts.

The assessment and sampling were conducted on August 13, 2016 by Mr. Jay McNeff, Senior Project Manager, under the supervision of Mr. Thomas E. Hamilton, Certified Industrial Hygienist (CIH), both of OHI. Mr. McNeff was escorted by Mr. Brian Schlegel of the Concord Public Schools who requested and authorized this assessment.

2.0 WATER TESTING

Sampling and Analytical Methodology

The water samples were collected and submitted under chain-of-custody for analysis to Alpha Analytical of Westborough, MA. Copies of the Alpha Analytical laboratory report and chain-of-custody forms are attached. The laboratory used Prep Method EPA 3005A and Analytical Methods 3 and EPA 200.8 for copper and lead analysis in drinking water. Method 3 refers to the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

The Massachusetts DEP (Department of Environmental Protection) procedures entitled How to Collect a Drinking Water Sample for Lead & Copper Testing were followed. An EPA (Environmental Protection Agency) quick reference guide for schools and child care facilities entitled "Lead and Copper Rule" was also utilized. Both documents are attached at the end of the report for reference. Samples were collected between 9:09 am and 9:30 am on Saturday, August 13, 2016 so first draw samples would be from systems that were unused since the previous day.

The following data as provided by Brian Schlegel confirms the buildings were unused overnight from August 12th until the morning of August 13th. Some minor change in the meter readings can be attributed to minor leakage in the building such as toilet or urinal valves slowly leaking by. These changes are considered negligible.

Time/Date	Water meter reading (ft3)
6:34pm 08/12/2016	331512.6
09:09am 08/13/2016	331513.4
09:35am 08/13/2016	331513.8

Sampling Results

The results are summarized in the Table below. Both Copper and Lead results were below their respective Action Levels of 1.3 mg/L and 0.015 mg/L listed in the Massachusetts Maximum Contaminant Levels and EPA Lead and Copper Rule for drinking water. The Action Level is based on the 90th percentile level which means no more than 10% of the samples may be above the Action Level. There were no samples that were above the Action Level. Further definition and discussion of this rule can be found in the appendix.

Table: Water Testing Results

Sample Number	Location	Copper mg/L	Lead mg/L	Comments
R-41	Pod E pre school room north side	0.1306	0.00369	Acceptable
R-42	Pod E pre school room north side - 2nd Draw	0.08147	0.00176	Acceptable
R-43	Pod A pre school room south side	0.1755	0.00118	Acceptable
R-44	Pod C pre school room	0.1780	0.00627	Acceptable
R-45	Pod C pre school room - 2nd Draw	0.1399	0.00344	Acceptable
R-46	Pod B Concord Children's Center south side	0.1338	0.00197	Acceptable
R-47	Bubbler by restrooms	0.4595	0.00178	Acceptable
R-48	SPED area sink	0.3368	0.02495	Acceptable
R-49	Superintendant's area sink	0.2171	0.00166	Acceptable
R-50	Business office sink	0.3309	0.00218	Acceptable

mg/L = milligrams per liter
ND = Non Detect value of 0.00100 mg/l for lead
*The action level is not a health-based value. Instead, exceeding the action level triggers a series of treatment techniques. The Treatment Technique for lead requires systems to control the corrosiveness of their water. If more than 10% of tap water samples exceed the copper Action Level of 1.3 mg/L or the lead Action Level of 0.015 mg/L, water systems must take additional steps (U.S. EPA, 2002).

3.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the water sampling, OHI concludes that the water quality parameters for this sampling event are within normal ranges and thus has no recommended actions to offer at this time. As stated in the EPA Lead and Copper Rule, the school district should monitor the water quality every six months until the 90th percentile measurement is below the Action Level for two consecutive 6 month sample periods.

4.0 LIMITATIONS

The contents of this report are based on OccuHealth, Inc.'s best professional judgement, comparison of collected data with established industry guidelines, and information obtained from representatives of our client.

ATTACHMENTS

Alpha Analytical Laboratory Report

Alpha Analytical Chain-of-Custody Forms

MA DEP Drinking Water Sample Collection Procedure

US EPA Lead and Copper Rule

How to Collect an Initial (First Draw) Sample

Collect the sample before any water has been used. Water should not be used for 8-18 hours before sampling.

Make sure you have clean hands.

Complete the sample recording form.

Only use containers (250 milliliter) supplied by your certified lab.

Containers should not be opened until you are ready to collect the sample.

Sampling containers that have been compromised in any way, e.g., by being touched on the threads or the interior surfaces, must not be used.

Keep food and drink away from the sample and its container.

Anything attached to the end of the faucet, e.g., hoses, should not be removed before taking samples.

Make sure no water has been withdrawn from the tap or water fountain before you collect the sample.

Place the container under the faucet or drinking water fountain that is being tested and collect 250 milliliters of water.

If a faucet is being tested make sure you turn on the cold water tap.

Turn on the water and fill the container without allowing any water to run down the drain.

Close the container according to the instructions from your certified lab.

Make sure the container is labeled with the same information from your sample recording form.

Prepare the container for shipping according to the certified lab's instructions. Ship containers according to the certified lab's instructions.

Samples must be delivered to the lab within 14 days of collection for proper testing.

ALPHA ANALYTICAL

ANALYTICAL REPORT

Lab Number:	L1625423
Client:	OccuHealth 44 Wood Avenue Mansfield, MA 02048
ATTN:	Jay McNeff
Phone:	(508) 339-9119
Project Name:	CONCORD SCHOOLS
Project Number:	Not Specified
Report Date:	08/19/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: CONCORD SCHOOLS
Project Number: Not Specified

Lab Number: L1625423
Report Date: 08/19/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1625423-01	HS-1	DW	CONCORD, MA	08/13/16 06:44	08/13/16
L1625423-02	HS-2	DW	CONCORD, MA	08/13/16 06:46	08/13/16
L1625423-03	HS-3	DW	CONCORD, MA	08/13/16 06:48	08/13/16
L1625423-04	HS-4	DW	CONCORD, MA	08/13/16 06:25	08/13/16
L1625423-05	HS-5	DW	CONCORD, MA	08/13/16 06:41	08/13/16
L1625423-06	HS-6	DW	CONCORD, MA	08/13/16 06:31	08/13/16
L1625423-07	HS-7	DW	CONCORD, MA	08/13/16 06:33	08/13/16
L1625423-08	HS-8	DW	CONCORD, MA	08/13/16 06:28	08/13/16
L1625423-09	HS-9	DW	CONCORD, MA	08/13/16 06:36	08/13/16
L1625423-10	HS-10	DW	CONCORD, MA	08/13/16 06:39	08/13/16
L1625423-11	HS-11	DW	CONCORD, MA	08/13/16 07:19	08/13/16
L1625423-12	HS-12	DW	CONCORD, MA	08/13/16 07:12	08/13/16
L1625423-13	HS-13	DW	CONCORD, MA	08/13/16 07:14	08/13/16
L1625423-14	HS-14	DW	CONCORD, MA	08/13/16 07:16	08/13/16
L1625423-15	HS-15	DW	CONCORD, MA	08/13/16 07:23	08/13/16
L1625423-16	HS-16	DW	CONCORD, MA	08/13/16 06:52	08/13/16
L1625423-17	HS-17	DW	CONCORD, MA	08/13/16 06:55	08/13/16
L1625423-18	HS-18	DW	CONCORD, MA	08/13/16 07:01	08/13/16
L1625423-19	HS-19	DW	CONCORD, MA	08/13/16 07:07	08/13/16
L1625423-20	HS-20	DW	CONCORD, MA	08/13/16 07:08	08/13/16
L1625423-21	A-21	DW	CONCORD, MA	08/13/16 08:00	08/13/16
L1625423-22	A-22	DW	CONCORD, MA	08/13/16 08:02	08/13/16
L1625423-23	A-23	DW	CONCORD, MA	08/13/16 08:03	08/13/16
L1625423-24	A-24	DW	CONCORD, MA	08/13/16 08:05	08/13/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1625423-25	A-25	DW	CONCORD, MA	08/13/16 08:07	08/13/16
L1625423-26	A-26	DW	CONCORD, MA	08/13/16 08:10	08/13/16
L1625423-27	A-27	DW	CONCORD, MA	08/13/16 08:12	08/13/16
L1625423-28	A-28	DW	CONCORD, MA	08/13/16 08:13	08/13/16
L1625423-29	A-29	DW	CONCORD, MA	08/13/16 08:16	08/13/16
L1625423-30	A-30	DW	CONCORD, MA	08/13/16 08:19	08/13/16
L1625423-31	A-31	DW	CONCORD, MA	08/13/16 08:24	08/13/16
L1625423-32	A-32	DW	CONCORD, MA	08/13/16 08:26	08/13/16
L1625423-33	A-33	DW	CONCORD, MA	08/13/16 08:28	08/13/16
L1625423-34	A-34	DW	CONCORD, MA	08/13/16 08:31	08/13/16
L1625423-35	A-35	DW	CONCORD, MA	08/13/16 08:34	08/13/16
L1625423-36	A-36	DW	CONCORD, MA	08/13/16 08:36	08/13/16
L1625423-37	A-37	DW	CONCORD, MA	08/13/16 08:38	08/13/16
L1625423-38	A-38	DW	CONCORD, MA	08/13/16 08:40	08/13/16
L1625423-39	A-39	DW	CONCORD, MA	08/13/16 08:42	08/13/16
L1625423-40	A-40	DW	CONCORD, MA	08/13/16 08:44	08/13/16
L1625423-41	R-41	DW	CONCORD, MA	08/13/16 09:09	08/13/16
L1625423-42	R-42	DW	CONCORD, MA	08/13/16 09:11	08/13/16
L1625423-43	R-43	DW	CONCORD, MA	08/13/16 09:13	08/13/16
L1625423-44	R-44	DW	CONCORD, MA	08/13/16 09:15	08/13/16
L1625423-45	R-45	DW	CONCORD, MA	08/13/16 09:17	08/13/16
L1625423-46	R-46	DW	CONCORD, MA	08/13/16 09:20	08/13/16
L1625423-47	R-47	DW	CONCORD, MA	08/13/16 09:23	08/13/16
L1625423-48	R-48	DW	CONCORD, MA	08/13/16 09:25	08/13/16
L1625423-49	R-49	DW	CONCORD, MA	08/13/16 09:27	08/13/16
L1625423-50	R-50	DW	CONCORD, MA	08/13/16 09:30	08/13/16

Project Name: CONCORD SCHOOLS
Project Number: Not Specified

Lab Number: L1625423
Report Date: 08/19/16

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 Alpha 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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha'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 Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

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: Melissa Cripps Melissa Cripps

Title: Technical Director/Representative

Date: 08/19/16

METALS

Project Name:	CONCORD SCHOOLS	**Lab Number:**	L1625423
Project Number:	Not Specified	**Report Date:**	08/19/16

SAMPLE RESULTS

Lab ID:	L1625423-41	Date Collected:	08/13/16 09:09
Client ID:	R-41	Date Received:	08/13/16
Sample Location:	CONCORD, MA	Field Prep:	Not Specified
Matrix:	Dw		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Copper, Total	0.1306		mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 17:51	EPA 3005A	3,200.8	BV
Lead, Total	0.00369		mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 17:51	EPA 3005A	3,200.8	BV

Project Name:	CONCORD SCHOOLS	**Lab Number:**	L1625423
Project Number:	Not Specified	**Report Date:**	08/19/16

SAMPLE RESULTS

Lab ID:	L1625423-42	Date Collected:	08/13/16 09:11
Client ID:	R-42	Date Received:	08/13/16
Sample Location:	CONCORD, MA	Field Prep:	Not Specified
Matrix:	Dw		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Copper, Total	0.08147		mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 17:55	EPA 3005A	3,200.8	BV
Lead, Total	0.00176		mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 17:55	EPA 3005A	3,200.8	BV

Project Name:	CONCORD SCHOOLS	**Lab Number:**	L1625423
Project Number:	Not Specified	**Report Date:**	08/19/16

SAMPLE RESULTS

Lab ID:	L1625423-43	Date Collected:	08/13/16 09:13
Client ID:	R-43	Date Received:	08/13/16
Sample Location:	CONCORD, MA	Field Prep:	Not Specified
Matrix:	Dw		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Copper, Total	0.1755		mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 17:59	EPA 3005A	3,200.8	BV
Lead, Total	0.00118		mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 17:59	EPA 3005A	3,200.8	BV

Project Name:	CONCORD SCHOOLS	**Lab Number:**	L1625423
Project Number:	Not Specified	**Report Date:**	08/19/16

SAMPLE RESULTS

Lab ID:	L1625423-44	Date Collected:	08/13/16 09:15
Client ID:	R-44	Date Received:	08/13/16
Sample Location:	CONCORD, MA	Field Prep:	Not Specified
Matrix:	Dw		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Copper, Total	0.1780		mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 18:04	EPA 3005A	3,200.8	BV
Lead, Total	0.00627		mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 18:04	EPA 3005A	3,200.8	BV

Project Name:	CONCORD SCHOOLS	**Lab Number:**	L1625423
Project Number:	Not Specified	**Report Date:**	08/19/16

SAMPLE RESULTS

Lab ID:	L1625423-45	Date Collected:	08/13/16 09:17
Client ID:	R-45	Date Received:	08/13/16
Sample Location:	CONCORD, MA	Field Prep:	Not Specified
Matrix:	Dw		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Copper, Total	0.1399		mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 18:08	EPA 3005A	3,200.8	BV
Lead, Total	0.00344		mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 18:08	EPA 3005A	3,200.8	BV

Project Name:	CONCORD SCHOOLS	**Lab Number:**	L1625423
Project Number:	Not Specified	**Report Date:**	08/19/16

SAMPLE RESULTS

Lab ID:	L1625423-46	Date Collected:	08/13/16 09:20
Client ID:	R-46	Date Received:	08/13/16
Sample Location:	CONCORD, MA	Field Prep:	Not Specified
Matrix:	Dw		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Copper, Total	0.1338		mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 18:12	EPA 3005A	3,200.8	BV
Lead, Total	0.00197		mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 18:12	EPA 3005A	3,200.8	BV

Project Name:	CONCORD SCHOOLS	**Lab Number:**	L1625423
Project Number:	Not Specified	**Report Date:**	08/19/16

SAMPLE RESULTS

Lab ID:	L1625423-47	Date Collected:	08/13/16 09:23
Client ID:	R-47	Date Received:	08/13/16
Sample Location:	CONCORD, MA	Field Prep:	Not Specified
Matrix:	Dw		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Copper, Total	0.4595		mg/l	0.00100	--	1	08/16/16 09:40	08/17/16 10:28	EPA 3005A	3,200.8	BV
Lead, Total	0.00178		mg/l	0.00100	--	1	08/16/16 09:40	08/17/16 10:28	EPA 3005A	3,200.8	BV

Project Name:	CONCORD SCHOOLS	**Lab Number:**	L1625423
Project Number:	Not Specified	**Report Date:**	08/19/16

SAMPLE RESULTS

Lab ID:	L1625423-48	Date Collected:	08/13/16 09:25
Client ID:	R-48	Date Received:	08/13/16
Sample Location:	CONCORD, MA	Field Prep:	Not Specified
Matrix:	Dw		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Copper, Total	0.3368		mg/l	0.00100	--	1	08/16/16 09:40	08/17/16 10:39	EPA 3005A	3,200.8	BV
Lead, Total	0.02495		mg/l	0.00100	--	1	08/16/16 09:40	08/17/16 10:39	EPA 3005A	3,200.8	BV

Project Name:	CONCORD SCHOOLS	**Lab Number:**	L1625423
Project Number:	Not Specified	**Report Date:**	08/19/16

SAMPLE RESULTS

Lab ID:	L1625423-49	Date Collected:	08/13/16 09:27
Client ID:	R-49	Date Received:	08/13/16
Sample Location:	CONCORD, MA	Field Prep:	Not Specified
Matrix:	Dw		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Copper, Total	0.2171		mg/l	0.00100	--	1	08/16/16 09:40	08/17/16 10:43	EPA 3005A	3,200.8	BV
Lead, Total	0.00166		mg/l	0.00100	--	1	08/16/16 09:40	08/17/16 10:43	EPA 3005A	3,200.8	BV

Project Name:	CONCORD SCHOOLS	**Lab Number:**	L1625423
Project Number:	Not Specified	**Report Date:**	08/19/16

SAMPLE RESULTS

Lab ID:	L1625423-50	Date Collected:	08/13/16 09:30
Client ID:	R-50	Date Received:	08/13/16
Sample Location:	CONCORD, MA	Field Prep:	Not Specified
Matrix:	Dw		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Copper, Total	0.3309		mg/l	0.00100	--	1	08/16/16 09:40	08/17/16 10:47	EPA 3005A	3,200.8	BV
Lead, Total	0.00218		mg/l	0.00100	--	1	08/16/16 09:40	08/17/16 10:47	EPA 3005A	3,200.8	BV

Project Name: CONCORD SCHOOLS
Project Number: Not Specified

Lab Number: L1625423
Report Date: 08/19/16

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): 01-04 Batch: WG922805-1										
Copper, Total	ND		mg/l	0.00100	--	1	08/15/16 13:20	08/16/16 12:52	3,200.8	BV
Lead, Total	ND		mg/l	0.00100	--	1	08/15/16 13:20	08/16/16 12:52	3,200.8	BV

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 05-13 Batch: WG922864-1										
Copper, Total	ND		mg/l	0.00100	--	1	08/15/16 14:05	08/16/16 10:16	3,200.8	BV
Lead, Total	ND		mg/l	0.00100	--	1	08/15/16 14:05	08/16/16 10:16	3,200.8	BV

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 14-22 Batch: WG922865-1										
Copper, Total	ND		mg/l	0.00100	--	1	08/15/16 14:05	08/16/16 11:28	3,200.8	BV
Lead, Total	ND		mg/l	0.00100	--	1	08/15/16 14:05	08/16/16 11:28	3,200.8	BV

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 23-28 Batch: WG923046-1										
Copper, Total	ND		mg/l	0.00100	--	1	08/16/16 08:00	08/16/16 15:19	3,200.8	BV
Lead, Total	ND		mg/l	0.00100	--	1	08/16/16 08:00	08/16/16 15:19	3,200.8	BV

Project Name: CONCORD SCHOOLS
Project Number: Not Specified

Lab Number: L1625423
Report Date: 08/19/16

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 29-37 Batch: WG923083-1									
Copper, Total	ND	mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 16:10	3,200.8	BV
Lead, Total	ND	mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 16:10	3,200.8	BV

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 38-46 Batch: WG923084-1									
Copper, Total	ND	mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 17:13	3,200.8	BV
Lead, Total	ND	mg/l	0.00100	--	1	08/16/16 09:15	08/16/16 17:13	3,200.8	BV

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 47-50 Batch: WG923116-1									
Copper, Total	ND	mg/l	0.00100	--	1	08/16/16 09:40	08/16/16 18:16	3,200.8	BV
Lead, Total	ND	mg/l	0.00100	--	1	08/16/16 09:40	08/16/16 18:16	3,200.8	BV

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: CONCORD SCHOOLS
Project Number: Not Specified

Lab Number: L1625423
Report Date: 08/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG922805-2								
Copper, Total	106		-		85-115	-		
Lead, Total	100		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 05-13 Batch: WG922864-2								
Copper, Total	111		-		85-115	-		
Lead, Total	105		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 14-22 Batch: WG922865-2								
Copper, Total	112		-		85-115	-		
Lead, Total	106		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 23-28 Batch: WG923046-2								
Copper, Total	114		-		85-115	-		
Lead, Total	107		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 29-37 Batch: WG923083-2								
Copper, Total	115		-		85-115	-		
Lead, Total	109		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 38-46 Batch: WG923084-2								
Copper, Total	110		-		85-115	-		
Lead, Total	104		-		85-115	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: CONCORD SCHOOLS
Project Number: Not Specified

Lab Number: L1625423
Report Date: 08/19/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 47-50 Batch: WG923116-2					
Copper, Total	112	-	85-115	-	
Lead, Total	108	-	85-115	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: CONCORD SCHOOLS
Project Number: Not Specified

Lab Number: L1625423
Report Date: 08/19/16

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): 01-04 QC Batch ID: WG922805-4 QC Sample: L1625158-08 Client ID: MS Sample												
Copper, Total	0.00984	0.25	0.2887	112		-	-		70-130	-		20
Lead, Total	0.04907	0.51	0.5752	103		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 05-13 QC Batch ID: WG922864-4 QC Sample: L1625423-05 Client ID: HS-5												
Copper, Total	0.06162	0.25	0.3456	114		-	-		70-130	-		20
Lead, Total	0.00140	0.51	0.5416	106		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 14-22 QC Batch ID: WG922865-4 QC Sample: L1625423-14 Client ID: HS-14												
Copper, Total	0.1092	0.25	0.3832	110		-	-		70-130	-		20
Lead, Total	0.00453	0.51	0.5510	107		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 23-28 QC Batch ID: WG923046-4 QC Sample: L1625423-23 Client ID: A-23												
Copper, Total	0.5222	0.25	0.7840	105		-	-		70-130	-		20
Lead, Total	0.00276	0.51	0.5577	109		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 29-37 QC Batch ID: WG923083-4 QC Sample: L1625423-29 Client ID: A-29												
Copper, Total	0.5374	0.25	0.7944	103		-	-		70-130	-		20
Lead, Total	ND	0.51	0.5407	106		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 38-46 QC Batch ID: WG923084-4 QC Sample: L1625423-39 Client ID: A-39												
Copper, Total	0.6588	0.25	0.9151	102		-	-		70-130	-		20
Lead, Total	ND	0.51	0.5440	107		-	-		70-130	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: CONCORD SCHOOLS
Project Number: Not Specified

Lab Number: L1625423
Report Date: 08/19/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 47-50 QC Batch ID: WG923116-4 QC Sample: L1625434-05 Client ID: MS Sample									
Copper, Total	0.2825	0.25	0.5636	112	-	-	70-130	-	20
Lead, Total	0.00121	0.51	0.5192	102	-	-	70-130	-	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: CONCORD SCHOOLS
Project Number: Not Specified

Lab Number: L1625423
Report Date: 08/19/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG922805-3 QC Sample: L1625158-08 Client ID: DUP Sample						
Copper, Total	0.00984	0.01025	mg/l	4		20
Lead, Total	0.04907	0.04996	mg/l	2		20
Total Metals - Mansfield Lab Associated sample(s): 05-13 QC Batch ID: WG922864-3 QC Sample: L1625423-05 Client ID: HS-5						
Copper, Total	0.06162	0.06319	mg/l	3		20
Lead, Total	0.00140	0.00139	mg/l	1		20
Total Metals - Mansfield Lab Associated sample(s): 14-22 QC Batch ID: WG922865-3 QC Sample: L1625423-14 Client ID: HS-14						
Copper, Total	0.1092	0.1048	mg/l	4		20
Lead, Total	0.00453	0.00452	mg/l	0		20
Total Metals - Mansfield Lab Associated sample(s): 23-28 QC Batch ID: WG923046-3 QC Sample: L1625423-23 Client ID: A-23						
Lead, Total	0.00276	0.00270	mg/l	2		20
Total Metals - Mansfield Lab Associated sample(s): 23-28 QC Batch ID: WG923046-3 QC Sample: L1625423-23 Client ID: A-23						
Copper, Total	0.5222	0.5280	mg/l	1		20
Total Metals - Mansfield Lab Associated sample(s): 29-37 QC Batch ID: WG923083-3 QC Sample: L1625423-29 Client ID: A-29						
Lead, Total	ND	ND	mg/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 29-37 QC Batch ID: WG923083-3 QC Sample: L1625423-29 Client ID: A-29						
Copper, Total	0.5374	0.5491	mg/l	2		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: CONCORD SCHOOLS
Project Number: Not Specified

Lab Number: L1625423
Report Date: 08/19/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 38-46 QC Batch ID: WG923084-3 QC Sample: L1625423-39 Client ID: A-39					
Lead, Total	ND	ND	mg/l	NC	20
Total Metals - Mansfield Lab Associated sample(s): 38-46 QC Batch ID: WG923084-3 QC Sample: L1625423-39 Client ID: A-39					
Copper, Total	0.6588	0.6931	mg/l	5	20
Total Metals - Mansfield Lab Associated sample(s): 47-50 QC Batch ID: WG923116-3 QC Sample: L1625434-05 Client ID: DUP Sample					
Copper, Total	0.2825	0.2802	mg/l	1	20
Lead, Total	0.00121	0.00116	mg/l	4	20

Project Name: CONCORD SCHOOLS
Project Number: Not Specified

Lab Number: L1625423
Report Date: 08/19/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1625423-01A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-02A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-03A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-04A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-05A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-06A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-07A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-08A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-09A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-10A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-11A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-12A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-13A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-14A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-15A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-16A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-17A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-18A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-19A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-20A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-21A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-22A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-23A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-24A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-25A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-26A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-27A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-28A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-29A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)

*Values in parentheses indicate holding time in days

Project Name: CONCORD SCHOOLS
Project Number: Not Specified

Lab Number: L1625423
Report Date: 08/19/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1625423-30A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-31A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-32A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-33A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-34A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-35A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-36A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-37A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-38A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-39A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-40A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-41A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-42A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-43A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-44A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-45A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-46A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-47A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-48A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-49A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)
L1625423-50A	Plastic 250ml HNO3 preserved	A	<2	4.0	Y	Absent	CU-2008T(180),PB-2008T(180)

*Values in parentheses indicate holding time in days

GLOSSARY

Acronyms

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).

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.

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.

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.

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.

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.

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

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.

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.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

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

Project Name:	CONCORD SCHOOLS	**Lab Number:**	L1625423
Project Number:	Not Specified	**Report Date:**	08/19/16

Data Qualifiers

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.

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.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

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.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: CONCORD SCHOOLS **Lab Number:** L1625423
Project Number: Not Specified **Report Date:** 08/19/16

REFERENCES

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

LIMITATION OF LIABILITIES

Alpha Analytical 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 Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical 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 Alpha Analytical.

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.

Certification Information

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

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
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.
Biological Tissue Matrix: ***EPA 3050B***

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

Westborough Facility:

Drinking Water
EPA 300.0: 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**
EPA 332: Perchlorate; **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, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N, **EPA 351.1, 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 624: Volatile Halocarbons & Aromatics,
EPA 608: 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: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

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, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

CHAIN OF CUSTODY

PAGE 1 OF 5

Date Rec'd in Lab: 8/13/16

ALPHA Job #: L1625423

ALPHA ANALYTICAL
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: CONCORD SCHOOLS
Project Location: CONCORD, MA
Project #:
Project Manager: JAY MONAFF
ALPHA Quote #: DAVE SIMPSON

Report Information - Data Deliverables

☐ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #: 10941

Client Information

Client: OCCUHEALTH, INC
Address: 44 WOOD AVE
MANSFIELD, MA 02048
Phone: 508 339-9119
Email: RESULTS@OCCUHEALTH.COM

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due:

Additional Project Information:

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; TOTAL Cu, Pb

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	TOTAL Cu, Pb	Sample Comments	TOTAL # BOTTLES
25423-01	HS-1	8/13/16	6:44	DW	JTM	1		
-02	HS-2		6:46			1		
-03	HS-3		6:48			1		
-04	HS-4		6:25			1		
-05	HS-5		6:41			1		
-06	HS-6		6:31			1		
-07	HS-7		6:33			1		
-08	HS-8		6:28			1		
-09	HS-9		6:36			1		
-10	HS-10		6:39			1		
					Container Type	P		
					Preservative	C		

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/13/16 11am	[signature]	8/13/16 11am

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FORM NO: 01-01 (rev. 12-Mar-2012)

CHAIN OF CUSTODY

PAGE 2 OF 5

Date Rec'd in Lab: 8/13/16

ALPHA Job #: 21625423

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: OCCUHEALTH, INC.
Address: 44 WOOD AVE, MANSFIELD, MA 02048
Phone: 508 339-9119
Email: RESULTS@OCCUHEALTH.COM

Project Information

Project Name: CONCORD SCHOOLS
Project Location: CONCORD, MA
Project #:
Project Manager: JIM MENAFE
ALPHA Quote #: DAN GUNFORD

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due:

Report Information - Data Deliverables

☐ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #: 10941

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; TOTAL Cu, Pb

SAMPLE INFO: Filtration ☐ Field ☐ Lab to do; Preservation ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	TOTAL Cu, Pb	Sample Comments	TOTAL # BOTTLES
25423-11	HS-11	8/13/16	7:19	DW	JTM	1		
-12	HS-12	↓	7:12	↓	↓	1		
-13	HS-13	↓	7:14	↓	↓	1		
-14	HS-14	↓	7:16	↓	↓	1		
-15	HS-15	↓	7:23	↓	↓	1		
-16	HS-16	↓	6:52	↓	↓	1		
-17	HS-17	↓	6:55	↓	↓	1		
-18	HS-18	↓	7:01	↓	↓	1		
-19	HS-19	↓	7:07	↓	↓	1		
-20	HS-20	↓	7:08	↓	↓	1		
					Container Type	P		
					Preservative	C		

Container Type: P= Plastic, A= Amber glass, V= Vial, G= Glass, B= Bacteria cup, C= Cube, O= Other, E= Encore, D= BOD Bottle

Preservative: A= None, B= HCl, C= HNO_3, D= H_2SO_4, E= NaOH, F= MeOH, G= $NaHSO_4$, H= $Na_2S_2O_3$, I= Ascorbic Acid, J= NH_4Cl, K= Zn Acetate, O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/13/16 11:00am	[signature]	8/13/16 11am

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FORM NO 01-01 (rev. 12-Mar-2012)

CHAIN OF CUSTODY

PAGE 3 OF 5

Date Rec'd in Lab: 8/13/16

ALPHA Job #: 21625423

ALPHA ANALYTICAL
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: OCCUHEALTH, INC
Address: 44 WOOD AVE
MANSFIELD, MA 02048
Phone: 508 339 9119
Email: RESULTS@OCCUHEALTH.COM

Project Information

Project Name: CONCORD SCHOOLS
Project Location: CONCORD, MA
Project #:
Project Manager: TIM MENAPP
ALPHA Quote #: DAVE SANFORD

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due:

Report Information - Data Deliverables

☐ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #: 10941

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; TOTAL Cu, Pb

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	TOTAL Cu, Pb	Sample Comments	TOTAL # BOTTLES
25423-21	A-21	8/13/16	8:00	DW	JTM	1		
-22	A-22	↓	8:02	↓	↓	1		
-23	A-23		8:03			1		
-24	A-24		8:05			1		
-25	A-25		8:07			1		
-26	A-26		8:10			1		
-27	A-27		8:12			1		
-28	A-28		8:13			1		
-29	A-29		8:16			1		
-30	A-30	↓	8:19	↓	↓	1		
					Container Type	P		
					Preservative	C		

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/13/16 11am	[signature]	8/13/16 11am

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FORM NO 01-01 (rev 12-Mar-2012)

CHAIN OF CUSTODY

PAGE 4 OF 5

Date Rec'd in Lab: 8/13/16

ALPHA Job #: L1625423

ALPHA ANALYTICAL
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: OCCUHEALTH, INC
Address: 44 WOOD AVE
MANSFIELD, MA 02048
Phone: 508 339-9119
Email: RESULTS@OCCUHEALTH.COM

Project Information

Project Name: CONCORD SCHOOLS
Project Location: CONCORD, MA
Project #:
Project Manager: JIM MCNAFF
ALPHA Quote #: DAVE SANFORD

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due:

Report Information - Data Deliverables

☐ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #: 10941

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; TOTAL Cu, Pb

SAMPLE INFO
Filtration: ☐ Field ☐ Lab to do
Preservation: ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	TOTAL Cu, Pb	Sample Comments	TOTAL # BOTTLES
25423 -31	A-31	8/13/16	8:24	DW	JTM	1		
-32	A-32		8:26			1		
-33	A-33		8:28			1		
-34	A-34		8:31			1		
-35	A-35		8:34			1		
-36	A-36		8:36			1		
-37	A-37		8:38			1		
-38	A-38		8:40			1		
-39	A-39		8:42			1		
-40	A-40		8:44			1		
					Container Type	P		
					Preservative	C		

Container Type: P= Plastic, A= Amber glass, V= Vial, G= Glass, B= Bacteria cup, C= Cube, O= Other, E= Encore, D= BOD Bottle

Preservative: A= None, B= HCl, C= HNO_3, D= H_2SO_4, E= NaOH, F= MeOH, G= $NaHSO_4$, H = $Na_2S_2O_3$, I= Ascorbic Acid, J = NH_4Cl, K= Zn Acetate, O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/13/16 11am	[signature]	8/13/16 11am

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FORM NO 01-01 (rev 12-Mar-2012)

CHAIN OF CUSTODY

PAGE 5 OF 5

Date Rec'd in Lab: 8/13/16

ALPHA Job #: L1625423

ALPHA ANALYTICAL
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: OCCUHEALTH, LLC.
Address: 44 WOOD AVE.
MANSFIELD, MA 02048
Phone: 508 339 9119
Email: RESULTS@OCCUHEALTH.COM

Additional Project Information:

Project Information

Project Name: CONCORD SCHOOLS
Project Location: CONCORD, MA
Project #:
Project Manager: JIM MENEFF
ALPHA Quote #: DAVE SANFORD

Turn-Around Time

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

Date Due:

Report Information - Data Deliverables

☐ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #: 10941

Regulatory Requirements & Project Information Requirements

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☐ Other State /Fed Program _____ Criteria _____

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; TOTAL Cu, Pb

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	TOTAL Cu, Pb	Sample Comments	TOTAL # BOTTLES
25423-41	R-41	8/13/16	9:09	DW	JTM	1		
-42	R-42		9:11			1		
-43	R-43		9:13			1		
-44	R-44		9:15			1		
-45	R-45		9:17			1		
-46	R-46		9:20			1		
-47	R-47		9:23			1		
-48	R-48		9:25			1		
-49	R-49		9:27			1		
-50	R-50		9:30			1		
					Container Type	P		
					Preservative	C		

Container Type: P= Plastic, A= Amber glass, V= Vial, G= Glass, B= Bacteria cup, C= Cube, O= Other, E= Encore, D= BOD Bottle

Preservative: A= None, B= HCl, C= HNO_3, D= H_2SO_4, E= NaOH, F= MeOH, G= $NaHSO_4$, H= $Na_2S_2O_3$, I= Ascorbic Acid, J= NH_4Cl, K= Zn Acetate, O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/13/16 11AM	[signature]	8/13/16 11am

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