Field Environmental
consulting

8612 Eagle Creek Parkway, Savage, MN 55378-1284
Tel: 952 746-5880 ◆ Fax: 952 746-5882
mailbox@FieldConsultingInc.com

October 29, 2018

ISD #831
6100 North 210th Street
Forest Lake, MN 55025
Attn: Bill Schwartz

RE: **Addendum to Final Report: First Draw Lead in Drinking Water Sampling (May 2018)**

SITES: **Columbus, Forest View, and Forest Lake Elementary**

PROJECT #: **18111**

I. INTRODUCTION

Field Environmental Consulting, Inc. (FIELD ENVIRONMENTAL) tested drinking water outlets for lead concentration at Columbus, Forest Lake, and Forest View Elementary per District request in May 2018. In a Final Report dated May 18, 2018, the following results were communicated to ISD #831:

Columbus Elementary:
One (1) out of the fifty-nine (59) collected samples was above the recommended limit of 20 ppb. The elevated result was from a sink faucet located in the kitchen.

Forest View Elementary:
One (1) out of the eighty-three (83) collected samples was above the recommended limit of 20 ppb. The elevated result was from a sink faucet located in the kitchen.

Forest Lake Elementary:
None of the forty-five (45) collected samples were above the recommended limit of 20 ppb.

Since the Final Report provided in May 2018, the District replaced the elevated water fixtures at Columbus and Forest View Elementary. After these tasks were performed, FIELD ENVIRONMENTAL resampled these fixtures in September and October 2018.

II. SCOPE OF WORK

The scope of work for this project was to resample for lead in drinking water at the elevated taps within Columbus and Forest View Elementary schools using the Minnesota Department of Health (MDH) "Reducing Lead in Drinking Water: A Technical Guidance and Model Plan for Minnesota's Public Schools (April 2018 Revision)."

Testing included the following tasks:

- Sampling water using first draw methodology. At Columbus Elementary, the decision was made to also collect a flush sample.
- Analysis at a certified laboratory.
- Preparation of a final report to include results, floor plans with resample locations, and corrective measures.

III. METHODOLOGY

FIELD ENVIRONMENTAL collected first draw samples. First draw samples consist of water emitted from a fixture after the outlet has been sitting for a period of 8 hours or more (not exceeding 18 hours). Water was collected immediately in the morning before it could be used for other purposes. First draw samples were collected using clean 250 milliliter (mL) sampling bottles. The bottles were filled to the top, capped, recorded, and transported to a certified drinking water laboratory. Results from first draw sampling indicate lead levels for water that has been

in direct contact with the faucet or drinking fountain and the section of plumbing closest to the outlet. Analysis was conducted by Pace Analytical Services, Inc. of Minneapolis, Minnesota using EPA Method 200.8 ICPMS for determination of trace elements in drinking water.

A flush sample was collected at Columbus Elementary. A flush sample is water emitted from an outlet after a stated flush time. This sample is representative of the water that is in the plumbing upstream from the tap. Analysis was conducted by Pace Analytical Services, Inc. of Minneapolis, Minnesota using EPA Method 200.8 ICPMS for determination of trace elements in drinking water.

IV. RESULTS

Pace Analytical laboratory reports are provided in Appendix A. Updated building maps indicating resampling locations and results are provided in Appendix B.

Columbus Elementary:
The first draw sample collected on October 4, 2018 remained above the recommended limit of 20 ppb. After this result was received, FIELD ENVIRONMENTAL instructed ISD #831 to flush this tap for three (3) minutes prior to using each day. ISD #831 cleaned the aerator on the sink faucet and flushed. FIELD ENVIRONMENTAL resampled after these aforementioned tasks were completed by ISD #831. The first draw sample collected on October 17, 2018 was below the action level of 20 ppb. Furthermore, the three (3) minute flush sample collected was well below the level of 20 ppb.

School Name: **Columbus Elementary (CB)**
Date: **5/3/2018**
Resample Date: **10/4/2018**, **10/17/2018**

Floor	Room Number	Location	Sample ID	Type DF = Drinking Fountain S = Sink WC = Water Cooler BF = Bottle Filler K=Kettle	Lead Result (ppb) 5/3/2018	Lead Result (ppb) 10/4/2018	Lead Result (ppb) 10/17/2018	3 Min Flush - Lead Result (ppb) 10/17/2018
First Floor	-	Kitchen	3	S	**36.8**	**83**	18.4	0.61

Forest View Elementary:
The first draw sample collected on September 11, 2018 was below the action level of 20 ppb.

School Name: **Forest View Elementary (FV)**
Date: **5/3/2018**
Resample Date: **9/11/2018**

Floor	Room Number	Location	Sample ID	Type DF = Drinking Fountain S = Sink WC = Water Cooler BF = Bottle Filler K=Kettle	Lead Result (ppb) 5/3/2018	Lead Result (ppb) 9/11/2018
First Floor	-	Kitchen	1	S	**21.5**	0.82

V. CONCLUSIONS

The resampled kitchen sink faucets at Columbus and Forest View Elementary are below the action level of 20 ppb for lead concentration. However, at Columbus Elementary, though the first draw result (18.4 ppb) is below the action level, the three (3) minute flush sample result (.61 ppb) is much closer to none detected. These results indicate that water in contact with the sink faucet, shut-off valve, and connecting pipe is a contributing factor to the lead concentration. The upstream plumbing consisting of headers, laterals, and service line do not appear to be a contributing factor as the flush sample is much lower than the first draw result.

ISD #831 should continue practices to keep lead in drinking water concentrations as low as possible. Recommended tasks include cleaning aerator screens on a periodic basis and flushing after weekends or long holiday breaks.

Minnesota Statutes section 121A.335, subdivision 5 requires a school district to "make the results of testing available to the public for review and must notify parents of the availability of the information."

VI. REMARKS

The environmental services performed by FIELD ENVIRONMENTAL's technicians, analysts and project managers for this project have been conducted in a manner consistent with the degree of care and technical skill exercised by environmental professionals currently practicing in this area under similar budget and time constraints. Recommendations contained in this report represent our professional judgment at the time the project was performed.

No warranty or guarantee, expressed or implied, is made regarding the findings, conclusions, or recommendations contained in this report.

FIELD ENVIRONMENTAL appreciates the opportunity to provide services to meet your environmental needs. Any questions regarding the fieldwork, sample results or presented findings should be directed to Field Environmental Consulting, Inc.

PREPARED and REVIEWED BY:

Field Environmental Consulting, Inc.

Amy Weinzierl, CSP (#27824)
EHS Manager
Amy@fieldconsultinginc.com

Parker Nordeen
Safety & IAQ Specialist
parker@fieldconsultinginc.com

Attachments
Appendix A: Laboratory Reports
Appendix B: Drawings

APPENDIX A

Laboratory Report

Field Environmental
consulting

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

October 09, 2018

Amy Weinzierl
Field Environmental Consulting
8612 Eagle Creek Parkway
Savage, MN 55378

RE: Project: 18111 Columbus Elementary Resa
Pace Project No.: 10450366

Dear Amy Weinzierl:
Enclosed are the analytical results for sample(s) received by the laboratory on October 04, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Jared Dickinson
jared.dickinson@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: General Mailbox, Field Environmental Consulting

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 18111 Columbus Elementary Resa
Pace Project No.: 10450366

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon NwTPH Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia DEP Certification #: 382
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: 18111 Columbus Elementary Resa
Pace Project No.: 10450366

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10450366001	**Col-Resample Kitchen-S**	Drinking Water	10/04/18 08:00	10/04/18 11:00

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: 18111 Columbus Elementary Resa
Pace Project No.: 10450366

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10450366001	**Col-Resample Kitchen-S**	EPA 200.8	PW1	1

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18111 Columbus Elementary Resa
Pace Project No.: 10450366

Sample: Col-Resample Kitchen-S **Lab ID: 10450366001** Collected: 10/04/18 08:00 Received: 10/04/18 11:00 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, DW	Analytical Method: EPA 200.8							
Lead	**83.0**	ug/L	0.10	1		10/09/18 10:32	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 18111 Columbus Elementary Resa
Pace Project No.: 10450366

QC Batch: 567751 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: ICPMS Metals, Drinking Water
Associated Lab Samples: 10450366001

METHOD BLANK: 3081457 Matrix: Water
Associated Lab Samples: 10450366001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	0.10	10/09/18 10:28	

LABORATORY CONTROL SAMPLE: 3081458

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3082669 3082670

Parameter	Units	10450366001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	83.0	100	100	174	185	91	102	70-130	6	20	

MATRIX SPIKE SAMPLE: 3082671

Parameter	Units	10450381051 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	39.1	100	138	99	70-130	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 18111 Columbus Elementary Resa
Pace Project No.: 10450366

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 18111 Columbus Elementary Resa
Pace Project No.: 10450366

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10450366001	**Col-Resample Kitchen-S**	EPA 200.8	567751		

Pace Analytical®

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Field Environmental Consulting, Inc.
8612 Eagle Creek Parkway
Savage, MN 55378

Attn: Amy Weinzierl
952-746-5880
Mailbox@fieldconsultinginc.com

Page: 1 of 1

2107398

Section B — Required Project Information:

Report To: Amy Weinzierl
Copy To:
Purchase Order No.:
Project Name: 18111 Columbus Elementary Resample
Project Number: 18111 ISD 831

Section C — Invoice Information:

Attention: Jenny Field
Company Name: Same
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 17781.1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☒ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: MN

Section D — Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE)

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

WO# : 10450366

10450366

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	Pb lead	Residu	Pace Project No./ Lab I.D.
1	~~GRAB~~ -																				
2	Col - Resample Kitchen - S	DW	G			10-4-18	800		1										X		001
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		10-4-18	1030	Pace	10/04/18	1100	19.7	N	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Parker Nordeen
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 10-4-18

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 02May2018 Page 1 of 2
	Document No.: F-MN-L-213-rev.23	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt **Client Name:** FIELD ENVIRONMENTAL CONSULTING **Project #:** WO#: 10450366

PM: JDD Due Date: 10/11/18 CLIENT: FIELD ENV

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other: _____

Tracking Number: _____

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No **Optional:** Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other: PB **Temp Blank?** ☐ Yes ☒ No

Thermometer Used: ☒ G87A9170600254 ☐ G87A9155100842 **Type of Ice:** ☐ Wet ☐ Blue ☒ None ☐ Dry ☐ Melted

Cooler Temp Read (°C): 19.5 **Cooler Temp Corrected (°C):** 19.7 **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6°C **Correction Factor:** +0.2 **Date and Initials of Person Examining Contents:** EPT 10/04/18

USDA Regulated Soil (☒ N/A, water sample)

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

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

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☒ Yes	☐ No		1.
Chain of Custody Filled Out?	☒ Yes	☐ No		2.
Chain of Custody Relinquished?	☒ Yes	☐ No		3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No		5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		6.
Rush Turn Around Time Requested?	☐ Yes	☒ No		7.
Sufficient Volume?	☒ Yes	☐ No		8.
Correct Containers Used? -Pace Containers Used?	☒ Yes ☒ Yes	☐ No ☐ No		9.
Containers Intact?	☒ Yes	☐ No		10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11. Note if sediment is visible in the dissolved container
Is sufficient information available to reconcile the samples to the COC? Matrix: WT	☒ Yes	☐ No		12.
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☒ Yes ☐ Yes ☐ Yes	☐ No ☒ No ☐ No	☐ N/A ☐ N/A ☒ N/A	13. ☒ HNO_3 ☐ H_2SO_4 ☐ NaOH Positive for Res. Chlorine? Y N Sample #: 1 Initial when completed: EPT Lot # of added preservative: 1115040
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased): N/A				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: _____ **Date:** 10/8/18

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

LABELED BY: EPT

SCUR Exceptions:

Workorder #:

Issue	Sample ID	Container Type/#

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH Upon Receipt	Date Preservation Adjusted	Time Preservation Adjusted	Amount of Additional Preservative Added	Lot # of Preservative Added	pH After Adjustment	Initials
COL-RESAMPLE LOTTION-5	HNO_3	>6	10/04/18	1625	1 mL	1118040	1.5	CPT

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

October 26, 2018

Amy Weinzierl
Field Environmental Consulting
8612 Eagle Creek Parkway
Savage, MN 55378

RE: Project: 18111 Columbus Elementary-Revised Report
Pace Project No.: 10452338

Dear Amy Weinzierl:
Enclosed are the analytical results for sample(s) received by the laboratory on October 17, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This report was revised on October 26, 2018 to change the project name.

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

Sincerely,

Jared Dickinson
jared.dickinson@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: General Mailbox, Field Environmental Consulting

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 18111 Columbus Elementary-Revised Report
Pace Project No.: 10452338

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon NwTPH Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia DEP Certification #: 382
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: 18111 Columbus Elementary-Revised Report
Pace Project No.: 10452338

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10452338001	**O3R-CB-S**	Drinking Water	10/17/18 08:00	10/17/18 10:20
10452338002	**O3R-CB-S-3MINS**	Drinking Water	10/17/18 08:00	10/17/18 10:20

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: 18111 Columbus Elementary-Revised Report
Pace Project No.: 10452338

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10452338001	**O3R-CB-S**	EPA 200.8	AJM	1
10452338002	**O3R-CB-S-3MINS**	EPA 200.8	AJM	1

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18111 Columbus Elementary-Revised Report
Pace Project No.: 10452338

Sample: O3R-CB-S **Lab ID: 10452338001** Collected: 10/17/18 08:00 Received: 10/17/18 10:20 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, DW	Analytical Method: EPA 200.8							
Lead	**18.4**	ug/L	0.10	1		10/24/18 16:52	7439-92-1	

Sample: O3R-CB-S-3MINS **Lab ID: 10452338002** Collected: 10/17/18 08:00 Received: 10/17/18 10:20 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, DW	Analytical Method: EPA 200.8							
Lead	**0.61**	ug/L	0.10	1		10/24/18 17:01	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 18111 Columbus Elementary-Revised Report
Pace Project No.: 10452338

QC Batch: 570354 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: ICPMS Metals, Drinking Water
Associated Lab Samples: 10452338001, 10452338002

METHOD BLANK: 3094796 Matrix: Water
Associated Lab Samples: 10452338001, 10452338002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	0.10	10/24/18 16:47	

LABORATORY CONTROL SAMPLE: 3094797

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	100	96.9	97	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3099103 3099104

Parameter	Units	10452338001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	18.4	100	100	111	110	93	92	70-130	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 18111 Columbus Elementary-Revised Report
Pace Project No.: 10452338

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 18111 Columbus Elementary-Revised Report
Pace Project No.: 10452338

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10452338001	**O3R-CB-S**	EPA 200.8	570354		
10452338002	**O3R-CB-S-3MINS**	EPA 200.8	570354		

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Pace Analytical® www.pacelabs.com

Field Environmental Consulting, Inc.
8612 Eagle Creek Parkway
Savage, MN 55378

Attn: Amy Weinzierl
952-746-5880
Mailbox@fieldconsultinginc.com

Page: 1 of 1

2297551

Section B Required Project Information:
Report To: Amy Weinzierl
Copy To:
Purchase Order No.: 19044 Columbus Elementary Re-Sample
Project Name: ~~ISA 831 Pb in Dw~~
Project Number: 19044-CB
Requested Due Date/TAT: 2wk

Section C Invoice Information:
Attention: Jenny Field
Company Name: SAME
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 17781.1

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☒ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: MN

Requested Analysis Filtered (Y/N)

WO#: 10452338

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: Pb Lead	Res	Pace Project No./ Lab I.D.
1	03R-CB-5	AW	G			10/17/18	8		1									Y		001
2	03R-CB-5-3 MS/MSD	DW	✓			10/17/18	8		1									Y		002
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		10-17	1015	Pace	10/17/18	1020	14.2	N	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Parker Worden
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 10-17-18

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-C-010-rev.00, 09Nov2017

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 02May2018 Page 1 of 2
	Document No.: **F-MN-L-213-rev.23**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Field Env Consult

Project #: WO#: 10452338

PM: JDD Due Date: 10/24/18

CLIENT: FIELD ENV

Courier: ☐Fed Ex ☐UPS ☐USPS ☒Client ☐Commercial ☐Pace ☐SpeeDee ☐Other:

Tracking Number:

Custody Seal on Cooler/Box Present? ☐Yes ☒No **Seals Intact?** ☐Yes ☑No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐Bubble Wrap ☐Bubble Bags ☒None ☐Other: **Temp Blank?** ☐Yes ☑No

Thermometer Used: ☒G87A9170600254 ☐G87A9155100842

Type of Ice: ☐Wet ☐Blue ☒None ☐Dry ☐Melted

Cooler Temp Read (°C): 14.0 **Cooler Temp Corrected (°C):** 14.2 **Biological Tissue Frozen?** ☐Yes ☐No ☒N/A

Temp should be above freezing to 6°C **Correction Factor:** +0.2 **Date and Initials of Person Examining Contents:** KV 10/17/18

USDA Regulated Soil (☒N/A, water sample)

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

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

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑Yes	☐No		1.
Chain of Custody Filled Out?	☒Yes	☐No		2.
Chain of Custody Relinquished?	☒Yes	☐No		3.
Sampler Name and/or Signature on COC?	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time?	☒Yes	☐No		5.
Short Hold Time Analysis (<72 hr)?	☐Yes	☒No		6.
Rush Turn Around Time Requested?	☐Yes	☒No		7.
Sufficient Volume?	☑Yes	☐No		8.
Correct Containers Used? -Pace Containers Used?	☒Yes ☒Yes	☐No ☐No		9.
Containers Intact?	☒Yes	☐No		10.
Filtered Volume Received for Dissolved Tests?	☐Yes	☐No	☒N/A	11. Note if sediment is visible in the dissolved container
Is sufficient information available to reconcile the samples to the COC? Matrix: WT	☒Yes	☐No		12.
All containers needing acid/base preservation have been checked?	☒Yes	☐No	☐N/A	13. ☒HNO_3 ☐H_2SO_4 ☐NaOH Positive for Res. Chlorine? Y N
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide)	☐Yes	☒No	☐N/A	Sample # 1-2 Y
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☐Yes	☐No	☒N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐Yes	☐No	☒N/A	14.
Trip Blank Present?	☐Yes	☐No	☒N/A	15.
Trip Blank Custody Seals Present?	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased): N/A				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐Yes ☐No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: **Date:** 10/19/18

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

SCUR Exceptions: **Workorder #:**

Issue	Sample ID	Container Type/#

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH Upon Receipt	Date Preservation Adjusted	Time Preservation Adjusted	Amount of Additional Preservative Added	Lot # of Preservative Added	pH After Adjustment	Initials
1-2	HNO3	>6	10/17/18	2:12	1.0ml	1118040	1	KV

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

September 17, 2018

Amy Weinzierl
Field Environmental Consulting
8612 Eagle Creek Parkway
Savage, MN 55378

RE: Project: 18111 ISD 831 Forestview Eleme
Pace Project No.: 10446963

Dear Amy Weinzierl:
Enclosed are the analytical results for sample(s) received by the laboratory on September 11, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Jared Dickinson
jared.dickinson@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: General Mailbox, Field Environmental Consulting

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 18111 ISD 831 Forestview Eleme
Pace Project No.: 10446963

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon NwTPH Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia DEP Certification #: 382
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: 18111 ISD 831 Forestview Eleme
Pace Project No.: 10446963

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10446963001	**OIR-FV-S**	Drinking Water	09/11/18 05:45	09/11/18 11:38

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: 18111 ISD 831 Forestview Eleme
Pace Project No.: 10446963

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10446963001	**OIR-FV-S**	EPA 200.8	WBS	1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 18111 ISD 831 Forestview Eleme
Pace Project No.: 10446963

Sample: OIR-FV-S **Lab ID: 10446963001** Collected: 09/11/18 05:45 Received: 09/11/18 11:38 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS, DW	Analytical Method: EPA 200.8							
Lead	**0.82**	ug/L	0.10	1		09/12/18 17:14	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 18111 ISD 831 Forestview Eleme
Pace Project No.: 10446963

QC Batch: 562146
QC Batch Method: EPA 200.8
Associated Lab Samples: 10446963001

Analysis Method: EPA 200.8
Analysis Description: ICPMS Metals, Drinking Water

METHOD BLANK: 3051373
Associated Lab Samples: 10446963001

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	0.10	09/12/18 17:00	

LABORATORY CONTROL SAMPLE: 3051374

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	100	92.6	93	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3052568 3052569

Parameter	Units	10446873002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	ug/L	ND	100	100	88.1	86.1	88	86	70-130	2	20	

MATRIX SPIKE SAMPLE: 3052570

Parameter	Units	10447005001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	0.14	100	96.8	97	70-130	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 18111 ISD 831 Forestview Eleme
Pace Project No.: 10446963

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 18111 ISD 831 Forestview Eleme
Pace Project No.: 10446963

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10446963001	**OIR-FV-S**	EPA 200.8	562146		

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Docu

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed ac

WO# : 10446963

10446963

2299994

Section A
Required Client Information:

Company: Field Environmental Consultants
Address: 8612 Eagle Creek Pkwy
Email To: amy@fieldconsultinginc.com
Phone: 746-5880 Fax:
Requested Due Date/TAT:

Section B
Required Project Information:

Report To: Amy Weinzierl
Copy To: amy@fieldconsultinginc.com
Purchase Order No.:
Project Name: ISD 831 Forestview Elementary
Project Number: 18111

Section C
Invoice Information:

Attention: Jenny Field
Company Name: Same
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 17781

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☒ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: MN

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes
MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Pb Lead 200.8	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	01R-FV-S	DW	G			9-11-18	545		1	X									X		001
2	~~02R-FV-S~~						~~556~~		~~1~~	~~X~~									~~X~~		
3	~~03R-FV-S~~						600												X		
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		9-11-18	1146	Pace	9/11/18	1150	22.7	N	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Parker Nordeen
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 9-11-18

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 02May2018 Page 1 of 2
	Document No.: **F-MN-L-213-rev.23**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Field Environ

Project #: **WO#: 10446963**

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

PM: JDD **Due Date: 09/18/18**

CLIENT: FIELD ENV

Tracking Number:

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other: PB **Temp Blank?** ☐ Yes ☒ No

Thermometer Used: ☒ G87A9170600254 ☐ G87A9155100842 **Type of Ice:** ☐ Wet ☐ Blue ☒ None ☐ Dry ☐ Melted

Cooler Temp Read (°C): 22.9 **Cooler Temp Corrected (°C):** 22.7 **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6°C **Correction Factor:** -0.2 **Date and Initials of Person Examining Contents:** RG 9/11/18

USDA Regulated Soil (☒ N/A, water sample)

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

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

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☒ Yes	☐ No		1.
Chain of Custody Filled Out?	☒ Yes	☐ No		2.
Chain of Custody Relinquished?	☒ Yes	☐ No		3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No		5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		6.
Rush Turn Around Time Requested?	☐ Yes	☒ No		7.
Sufficient Volume?	☒ Yes	☐ No		8.
Correct Containers Used?	☒ Yes	☐ No		9.
-Pace Containers Used?	☒ Yes	☐ No		
Containers Intact?	☒ Yes	☐ No		10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11. Note if sediment is visible in the dissolved container
Is sufficient information available to reconcile the samples to the COC? Matrix: WT	☒ Yes	☐ No		12.
All containers needing acid/base preservation have been checked?	☑ Yes	☐ No	☐ N/A MD 9/11/18	13. ☑ HNO_3 ☐ H_2SO_4 ☐ NaOH Positive for Res. Chlorine? Y N Sample # 1:1/1
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☑ No	☐ N/A	
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☐ Yes	☐ No	☒ N/A	Initial when completed: MD Lot # of added preservative: 111712 D
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: **Date:** 9/11/18

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

SCUR Exceptions: **Workorder #:**

Issue	Sample ID	Container Type/#

pH Adjustment Log for Preserved Samples

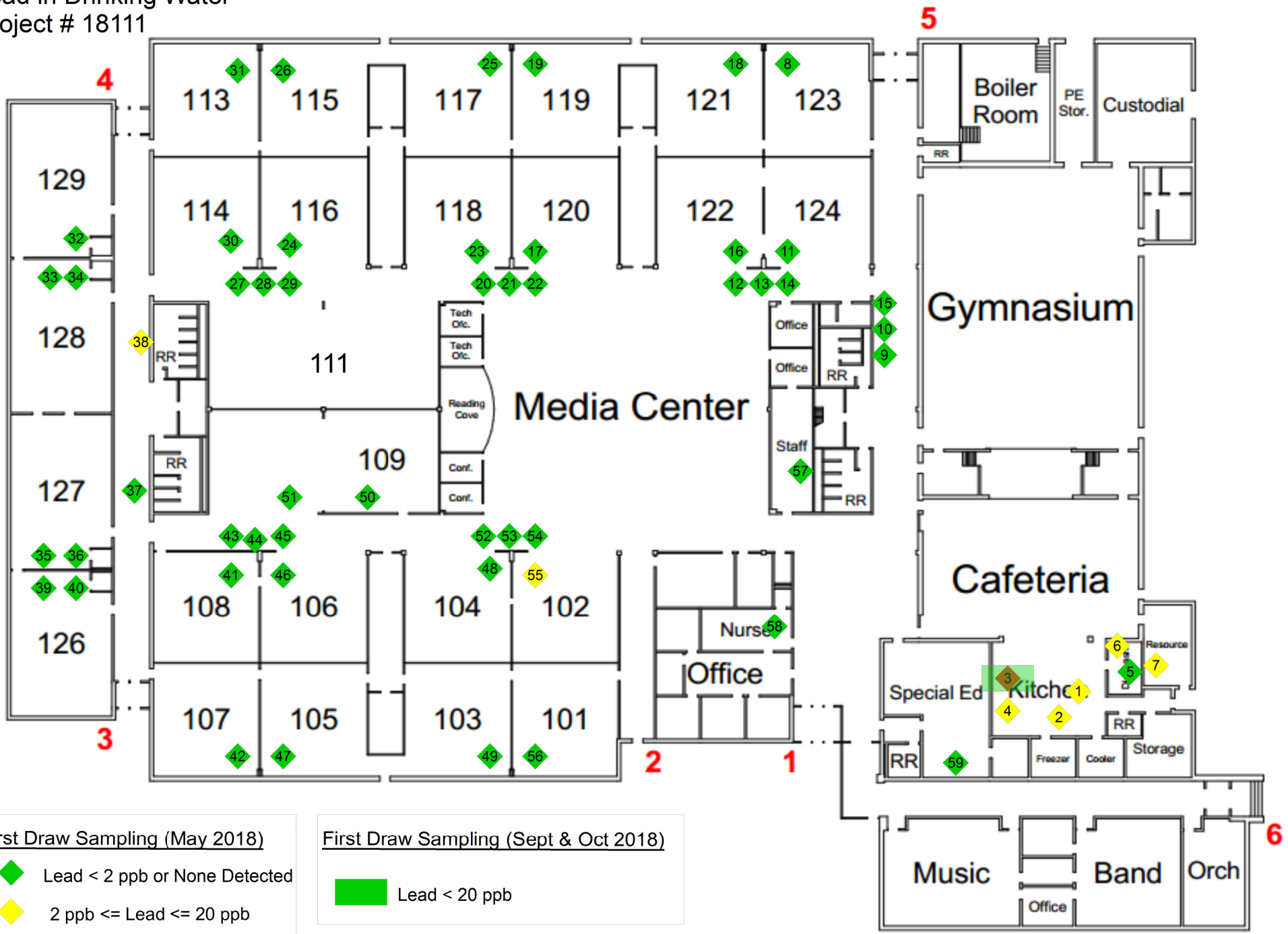
Sample ID	Type of Preservative	pH Upon Receipt	Date Preservation Adjusted	Time Preservation Adjusted	Amount of Additional Preservative Added	Lot # of Preservative Added	pH After Adjustment	Initials
FV-S	HNO3	6.0	9/11/18	1256	1mL	1117120	1.0	RG

APPENDIX B

Drawings

Field Environmental
consulting

Columbus Elementary
Lead in Drinking Water
Project # 18111

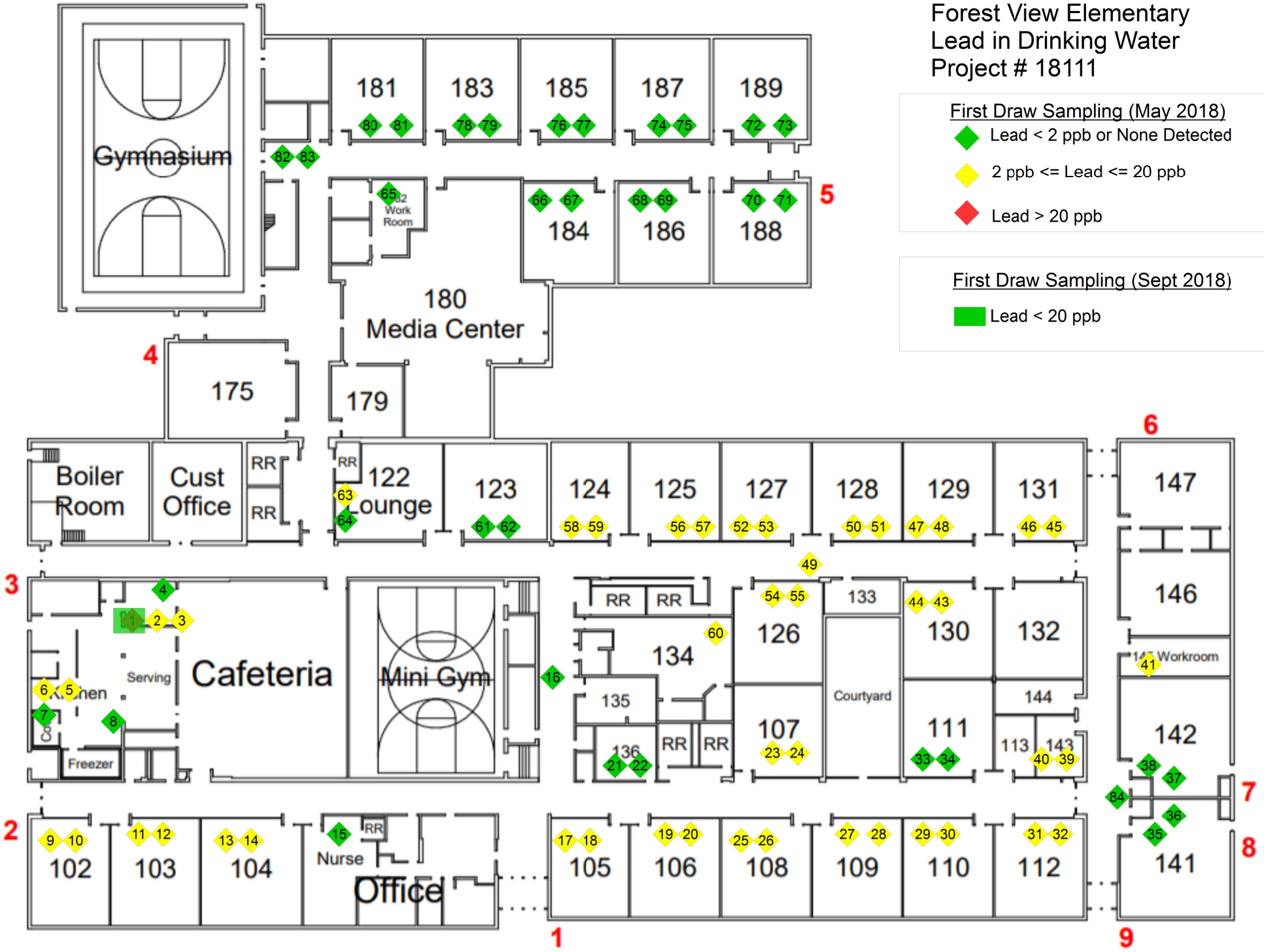


First Draw Sampling (May 2018)

- Lead < 2 ppb or None Detected
- 2 ppb <= Lead <= 20 ppb
- Lead > 20 ppb

First Draw Sampling (Sept & Oct 2018)

- Lead < 20 ppb


Forest View Elementary
Lead in Drinking Water
Project # 18111
First Draw Sampling (May 2018)
Lead < 2 ppb or None Detected
2 ppb <= Lead <= 20 ppb
Lead > 20 ppb
First Draw Sampling (Sept 2018)
Lead < 20 ppb
Gymnasium
181
183
185
187
189
180
Media Center
184
186
188
175
179
Boiler Room
Cust Office
122
Lounge
123
124
125
127
128
129
131
147
146
Workroom
142
141
Cafeteria
Mini Gym
Serving
Freezer
134
126
107
130
132
111
144
Courtyard
135
136
133
102
103
104
Nurse Office
105
106
108
109
110
112
RR
1
2
3
4
5
6
7
8
9