ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

46555 Humboldt Drive
Novi, Michigan 48377
Telephone 248-669-5140
www.atcgroupservices.com

September 5, 2018

Mathew Sam
Detroit Public Schools
1601 Farnsworth
Detroit, Michigan 48202

SUBMITTED VIA EMAIL TO: mathew.sam@detroitk12.org

SUBJECT: **Drinking Water Screening Report**
Law
19411 Cliff Avenue
Detroit, Michigan

Dear Mr. Sam:

ATC Group Services, LLC (ATC) is pleased to submit this Drinking Water Screening Report for the subject school. The drinking water samples collected from the school were submitted to Pace Analytical Services, LLC, for Michigan Department of Environmental Quality (MDEQ) Drinking Water Certified lead and copper analysis.

SCOPE OF WORK

At the request of the Detroit Public Schools (DPS), ATC collected drinking water samples as a general screening for copper and lead at the subject school. The water sampling conducted included the sampling of fixtures within teacher's lounges, kitchens, water fountains and pre-k classrooms. One (1) sample was collected at each outlet: a first draw (Primary) sample. The Primary samples were collected from outlets that had been inactive for a minimum of eight to eighteen hours. The fixture inventory locations including the sample locations are shown on the Fixture Inventory Locations Map included under Attachment A and fixture inventory photos including the sample location photos are included in a Fixture Inventory Photo Log under Attachment B.

The drinking water samples were collected in 125 milliliter, wide-mouth sample containers, containing nitric acid (preservative). Each sample container was labeled utilizing a unique coding system that identified: the type of drinking outlet sampled as well as the location.

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

46555 Humboldt Drive
Novi, Michigan 48377
Telephone 248-669-5140
www.atcgroupservices.com

The samples were transported under chain of custody to Pace Analytical Services, LLC, located at 5560 Corporate Exchange Ct. SE Grand Rapids, MI for MDEQ drinking water certified lead and copper analysis, using analytical method EPA 200.8 rev 5.4.

FINDINGS

Analytical results indicate that 1 of the samples analyzed were above the EPA recommended limits of 15 micrograms per liter (ug/L) for lead. Additionally, three (3) of the samples analyzed were above the EPA recommended limits of 1300 micrograms per liter (ug/L) for copper. The table below summarizes the analytical results for the samples submitted. The laboratory analytical reports and chain of custody are provided in Attachment C.

Table 1 – Water Testing Results (August 20, 2018)

Sample Number	Location	Description	Total Lead (ug/l)	Total Copper (ug/l)
2-Hall-DWF-1	Next to elevator 2	Drinking water fountain	<1.0 ug/L	**1340 ug/L**
2-Hall-DWF- 2	Next to elevator 2	Drinking water fountain	<1.0 ug/L	**1440 ug/L**
2-Hall-DWF- 3	Next to elevator 2	Drinking water fountain	<1.0 ug/L	509 ug/L
2-Hall-DWF- 4	Next to elevator 2	Drinking water fountain	<1.0 ug/L	416 ug/L
2-204-B-5	Room 204	Bubbler	<1.0 ug/L	355 ug/L
2-205-B-6	Room 205	Bubbler	<1.0 ug/L	193 ug/L
2-208- 8	Room 208	Bubbler	1.2 ug/L	397 ug/L
2-209-B- 9	Room 209	Bubbler	9.5 ug/L	941 ug/L
2-210-B- 10	Room 210	Bubbler	3.7 ug/L	283 ug/L
2-211-B- 11	Room 211	Bubbler	<1.0 ug/L	212 ug/L

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

46555 Humboldt Drive
Novi, Michigan 48377
Telephone 248-669-5140
www.atcgroupservices.com

Sample Number	Location	Description	Total Lead (ug/l)	Total Copper (ug/l)
2-212-B- 12	Room 212	Bubbler	6.3 ug/L	447 ug/L
2-214-B- 16	Room 214	Bubbler	3.7 ug/L	10.3 ug/L
2-216-B-18	Room 216	Bubbler	11.8 ug/L	485 ug/L
2-215-B-19	Room 215	Bubbler	1.9 ug/L	443 ug/L
2-217-B-20	Room 217	Bubbler	2.3 ug/L	455 ug/L
2-218-B-21	Room 218	Bubbler	6.0 ug/L	213 ug/L
1-121-B-22	Room 121	Bubbler	1.3 ug/L	180 ug/L
1-122-B-23	Room 122	Bubbler	2.2 ug/L	707 ug/L
1-119-B-24	Room 119	Bubbler	1.5 ug/L	172 ug/L
1-120-B-25	Room 120	Bubbler	<1.0 ug/L	68.1 ug/L
1-117-B-26	Room 117	Bubbler	1.8 ug/L	243 ug/L
1-118-B-27	Room 118	Bubbler	<1.0 ug/L	40.3ug/L
1-115-B-28	Room 115	Bubbler	5.2 ug/L	245 ug/L
1-101-B-29	Room 101	Bubbler	9.5 ug/L	241 ug/L
1-103-B-30	Room 103	Bubbler	<1.0 ug/L	48.5 ug/L
1-105-B-31	Room 105	Bubbler	1.6 ug/L	103 ug/L

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

46555 Humboldt Drive
Novi, Michigan 48377
Telephone 248-669-5140
www.atcgroupservices.com

Sample Number	Location	Description	Total Lead (ug/l)	Total Copper (ug/l)
1-106-B-32	Room 106	Bubbler	<1.0 ug/L	72.4 ug/L
1-108-B-36	Room 108	Bubbler	3.0 ug/L	45.5 ug/L
1-110-B-40	Room 110	Bubbler	<1.0 ug/L	23.2 ug/L
1-111-B-44	Room 111	Bubbler	<1.0 ug/L	69.5 ug/L
1-109-B-48	Room 109	Bubbler	1.1 ug/L	292 ug/L
1-107-B-51	Room 107	Bubbler	3.2 ug/L	71.1 ug/L
1-Hall-DWF-54	Across from restroom & Next to gym.	Right side	<1.0 ug/L	286 ug/L
1-K-KS-56	Kitchen	Kitchen sink	1.8 ug/L	335 ug/L
1-K-KS-57	Kitchen	Kitchen sink	1.0 ug/L	229 ug/L
1-K-KS-58	Kitchen	Kitchen sink	**75.5 ug/L**	508 ug/L
1-K-KS-59	Kitchen	Kitchen sink	1.3 ug/L	268 ug/L
1-K-KS-60	Kitchen	Kitchen sink	3.1 ug/L	458 ug/L
1-K-KS-61	Kitchen	Kitchen sink	1.3 ug/L	306 ug/L
1-K-KS-62	Kitchen	Kitchen sink	2.2 ug/L	379 ug/L
1-Hall-DWF-63	Hall behind kitchen area	Left	<1.0 ug/L	268 ug/L
1-Hall-DWF-64	Hall behind kitchen area	Right	<1.0 ug/L	144 ug/L

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

46555 Humboldt Drive
Novi, Michigan 48377
Telephone 248-669-5140
www.atcgroupservices.com

Sample Number	Location	Description	Total Lead (ug/l)	Total Copper (ug/l)
1-SL-SRF-65	Staff lounge- first sink closest to entrance	Staff sink	<1.0 ug/L	86.3 ug/L
1-SL-SRF-66	Staff lounge	Staff sink	4.4 ug/L	**1360 ug/L**
2-206-B-67	Room 206	Bubbler	5.2 ug/L	8.0 ug/L

Key: NA - Not Analyzed

ug/L- micrograms per liter /parts per billion (ppb)

Analysis of samples of the kitchen sink indicate that lead levels were above the MCL. Analysis of samples of the two drinking water fountains next to elevator #2 and the staff lounge fountain on the 1st floor indicate that copper levels were above the MCL. See recommendations below.

RECOMMENDATIONS

For drinking water fixtures that exceed the MCL after the initial sampling, ATC recommends the following:

1. Implement a plan in accordance with MDEQ Guidance on Drinking Water Sampling for Lead and Copper, April, 2016 Version2; OR
2. Remove fixture from service.
3. Implement a flush plan for fixtures that exceed the MCL of the initial sample according to MDEQ Guidance and the EPA's 3T's for Reducing Lead in Drinking Water in Schools.

LIMITATIONS

The sampling and analysis completed was: a preliminary screening for lead and copper only, to assess lead and copper concentrations (ug/L) at drinking water outlets in the school designated as high use by DPS, and may not be representative of all drinking water outlets within the school. If lead or copper concentrations were identified above their respective MCL's at any of the drinking water outlets tested, further review of the plumping system, fixtures affected, and testing may be completed to assess the source of the elevated levels of lead and/or copper, as well as, any other response actions deemed necessary by DPS.

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

46555 Humboldt Drive
Novi, Michigan 48377
Telephone 248-669-5140
www.atcgroupservices.com

Future drinking water evaluation and sampling in accordance with the recommendations may be predicated on applicable guidelines by the MDEQ or EPA and will be determined prior to developing a sampling plan for the school.

Sincerely,

ATC Group Services, LLC

Martin K. Gamble
Senior Project Manager

Robert C. Smith
Building Science Department Manager

Attachments

Attachment A: Fixture Inventory Locations Map/Form
Attachment B: Fixture Inventory Photo Log
Attachment C: Laboratory Analytical Report

School Name: Law

Address 19411 Cliff Avenue

Fixture Identification	Fixture Location	Fixture Description	Photo #
2-Hall-DWF-1	Next to elevator 2	Drinking water fountain	1
2-Hall-DWF- 2	Next to elevator 2	Drinking water fountain	2
2-Hall-DWF- 3	Next to elevator 2	Drinking water fountain	3
2-Hall-DWF- 4	Next to elevator 2	Drinking water fountain	4
2-204-B-5	Room 204	Bubbler	5
2-205-B-6	Room 205	Bubbler	6
2-207-B- 7	Room 207	Doesn’t work	7
2-208-B- 8	Room 208	Bubbler	8
2-209-B- 9	Room 209	Bubbler	9
2-210-B- 10	Room 210	Bubbler	10
2-211-B- 11	Room 211	Bubbler	11
2-212-B- 12	Room 212	Bubbler	12

2- Science-CF- 13	Science room	classroom faucet	13
2- Science-CF- 14	Science room	classroom faucet	14
2- Science-CF- 15	Science room	classroom faucet	15
2-214-B- 16	Room 214	Bubbler	16
2-213-B-17	Room 213	Not Working	17
2-216-B-18	Room 216	Bubbler	18
2-215-B-19	Room 215	Bubbler	19
2-217-B-20	Room 217	Bubbler	20
2-218-B-21	Room 218	Bubbler	21
1-121-B-22	Room 121	Bubbler	22
1-122-B-23	Room 122	Bubbler	23
1-119-B-24	Room 119	Bubbler	24
1-120-B-25	Room 120	Bubbler	25
1-117-B-26	Room 117	Bubbler	26
1-118-B-27	Room 118	Bubbler	27
1-115-B-28	Room 115	Bubbler	28
1-101-B-29	Room 101	Bubbler	29
1-103-B-30	Room 103	Bubbler	30
1-105-B-31	Room 105	Bubbler	31
1-106-B-32	Room 106	Bubbler	32
1-106-CF-33	Room 106 pre-k/kindergarten	classroom faucet	33
1-106-CF-34	Room 106	classroom faucet	34
1-106-CF-35	Room 106	classroom faucet	35
1-108-B-36	Room 108	Bubbler	36
1-108-CF-37	Room 108 pre-k/kindergarten	classroom faucet	37
1-108-CF-38	Room 108	classroom faucet	38
1-108-CF-39	Room 108	classroom faucet	39
1-110-B-40	Room 110	Bubbler	40
1-110-CF-41	Room 110 pre-k/kindergarten	classroom faucet	41
1-110-CF-42	Room 110	classroom faucet	42
1-110-CF-43	Room 110	classroom faucet	43
1-111-B-44	Room 111	Bubbler	44
1-111-CF-45	Room 111 pre-k/kindergarten	classroom faucet	45
1-111-CF-46	Room 111	classroom faucet	46

1-111-CF-47	Room 111	classroom faucet	47
1-109-B-48	Room 109	Bubbler	48
1-109-CF-49	Room 109 pre-k/kindergarten	classroom faucet	49
1-109-BF-50	Room 109	bathroom faucet	50
1-107-B-51	Room 107	Bubbler	51
1-107-CF-52	Room 107 pre-k/kindergarten	classroom faucet	52
1-107-BF-53	Room 107	bathroom faucet	53
1-Hall-DWF-54	Across from restroom & Next to gym. Right side	Drinking water fountain	54
1-Hall-DWF-55	Across from restroom & Next to gym. Left side	Not Working	55
1-K-KS-56	Kitchen	kitchen sink	56
1-K-KS-57	Kitchen	kitchen sink	57
1-K-KS-58	Kitchen	kitchen sink	58
1-K-KS-59	Kitchen	kitchen sink	59
1-K-KS-60	Kitchen	kitchen sink	60
1-K-KS-61	Kitchen	kitchen sink	61
1-K-KS-62	Kitchen	kitchen sink	62
1-Hall-DWF-63	Hall behind kitchen area	Drinking water fountain	63
1-Hall-DWF-64	Hall behind kitchen area	Drinking water fountain	64
1-SL-SRF-65	Staff lounge- first sink closest to entrance	staff sink	65
1-SL-SRF-66	Staff lounge	staff sink	66

Photo 1: Left drinking water fountain, located next to elevator 2.

Photo 2: Right drinking water fountain, located next to elevator 2.

Photo 3: Left drinking water fountain, located next to elevator 2.

Photo 4. Right drinking water fountain, located next to elevator 2.

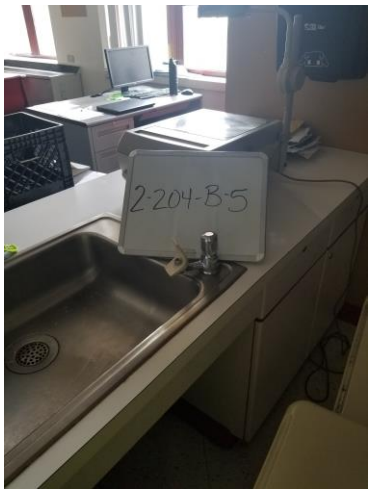

Photo 5: Bubbler in room 204.

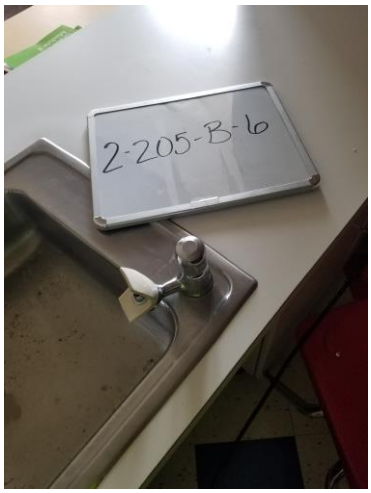

Photo 6: Bubbler in room 205.

Photo 7: Bubbler in room 207.

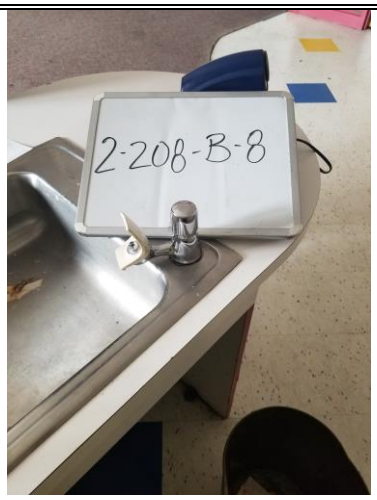

Photo 8: Bubbler in room 208.

Photo 9: Bubbler in room 209.

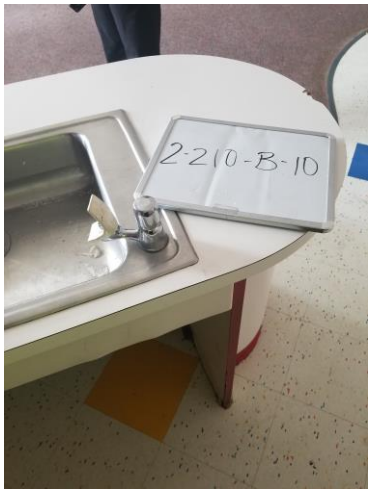

Photo 10: Bubbler in room 210.

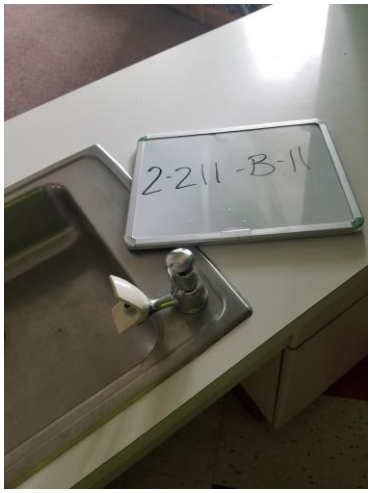

Photo 11: Bubbler in room 211.

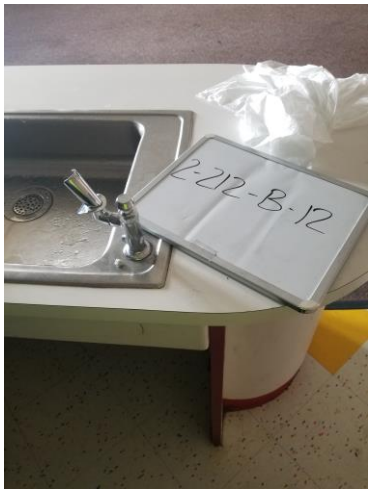

Photo 12: Bubbler in room 212.

Photo 13: Classroom faucet in the science room.

Photo 14: Classroom faucet in the science room.

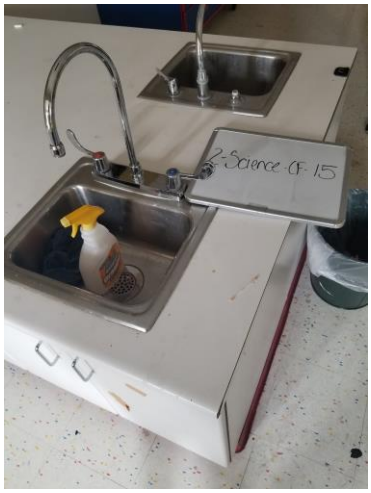

Photo 15: Classroom faucet in the science room.

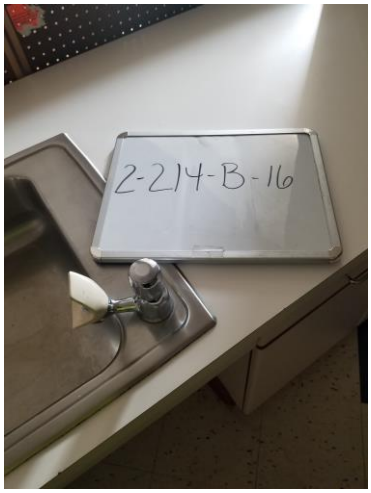

Photo 16: Bubbler faucet in room 214.

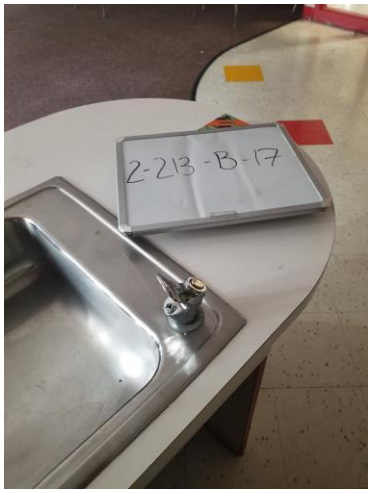

Photo 17: Bubbler in room 213.

Photo 18: Bubbler in room 216.

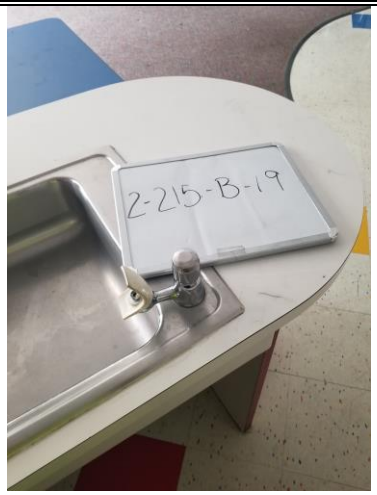

Photo 19: Bubbler in room 215.

Photo 20: Bubbler in room 217.

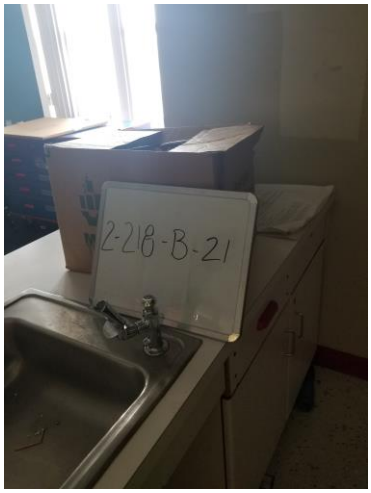

Photo 21: Bubbler in room 218.

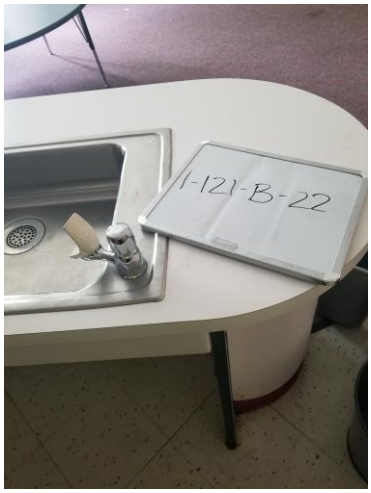

Photo 22: Bubbler in room 121.

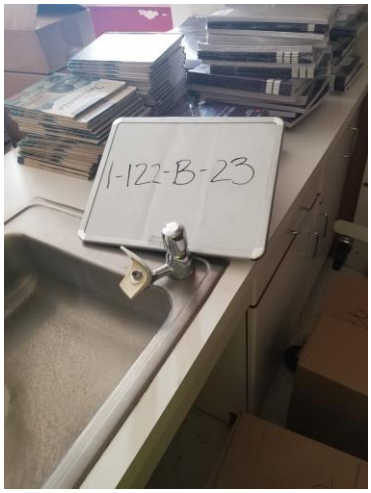

Photo 23: Bubbler in room 122.

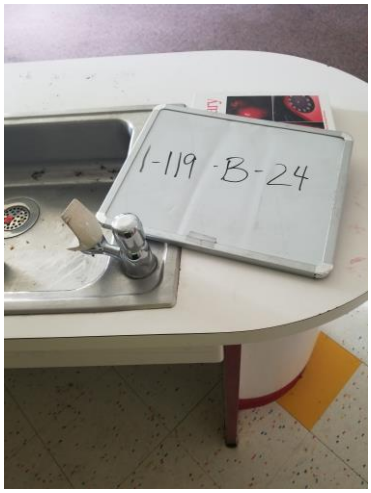

Photo 24: Bubbler in room 119.

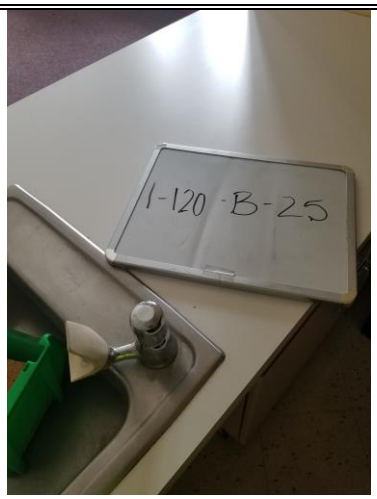

Photo 25: Bubbler in room 120.

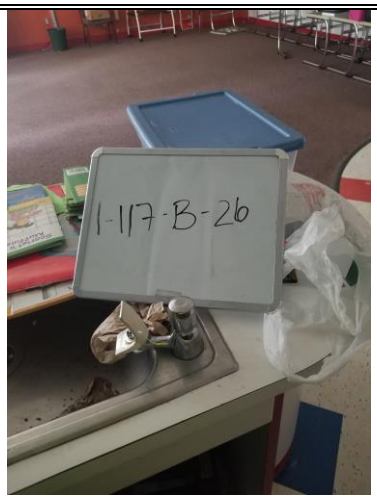

Photo 26: Bubbler in room 117.

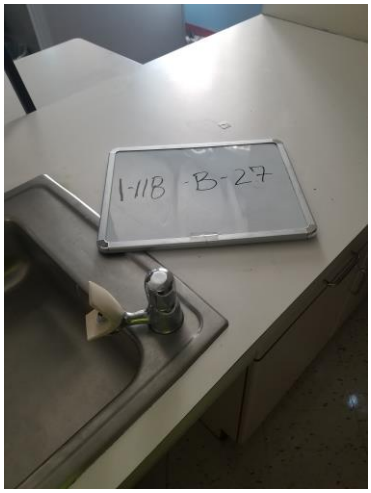

Photo 27: Bubbler in room 118.

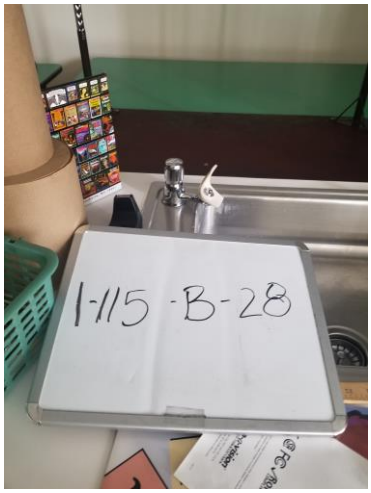

Photo 28: Bubbler in room 115.

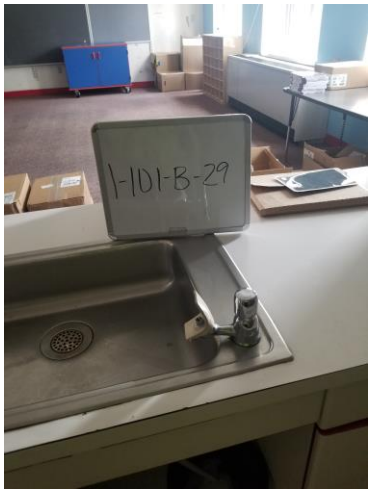

Photo 29: Bubbler in room 101.

Photo 30: Bubbler in room 103. .

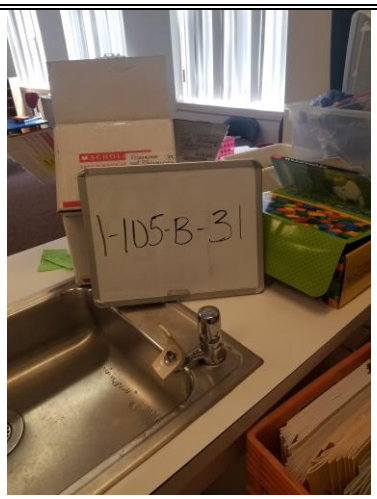

Photo 31: Bubbler in room 105.

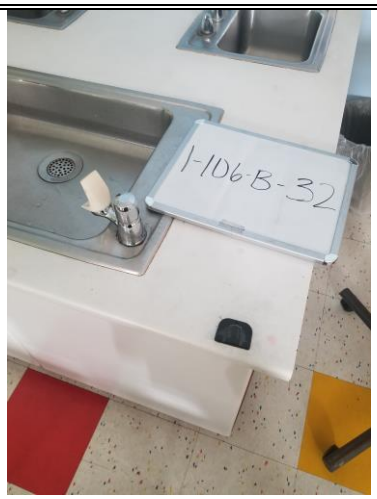

Photo 32: Bubbler in room 106.

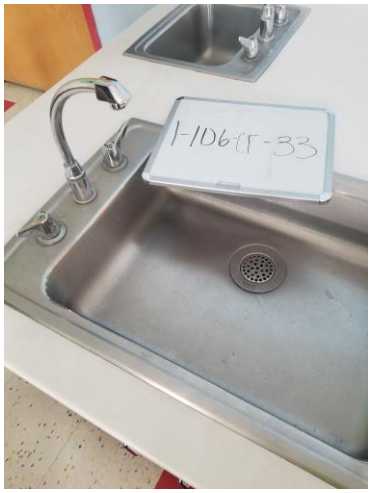

Photo 33: Classroom faucet in room 106.

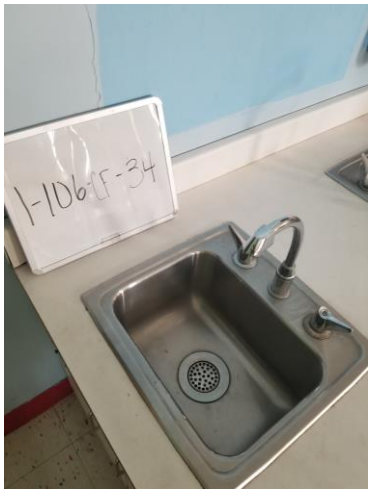

Photo 34: Classroom faucet in room 106.

Photo 35: Classroom faucet in room 106.

Photo 36: Bubbler in room 108.

Photo 37: Classroom faucet in room 108.

Photo 38: Classroom faucet in room 108.

Photo 39: Classroom faucet in room 108.

Photo 40: Bubbler in room 110.

Photo 41: Classroom faucet in room 110.

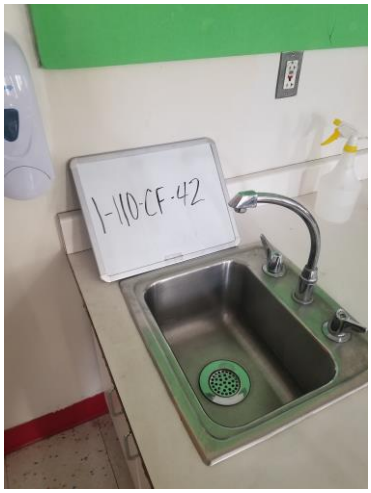

Photo 42: Classroom faucet in room 110.

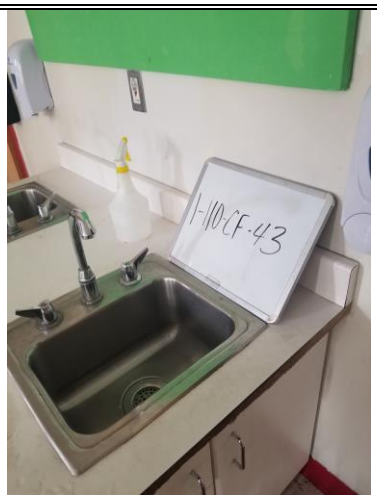

Photo 43: Classroom faucet in room 110.

Photo 44: Bubbler in room 111.

Photo 45: Classroom faucet in room 111.

Photo 46: Classroom faucet in room 111.

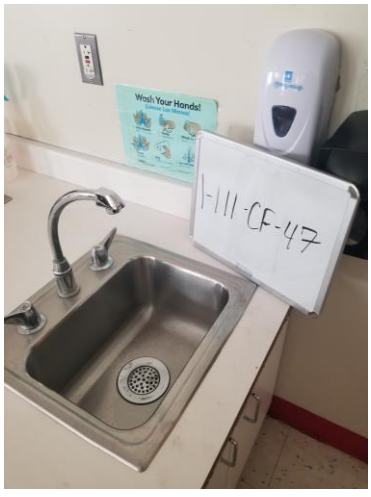

Photo 47: Classroom faucet in room 111.

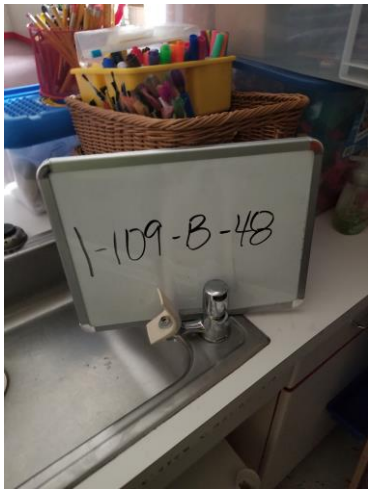

Photo 48: Bubbler in room 109.

Photo 49: Classroom faucet in room 109.

Photo 50: Bathroom faucet in room 109.

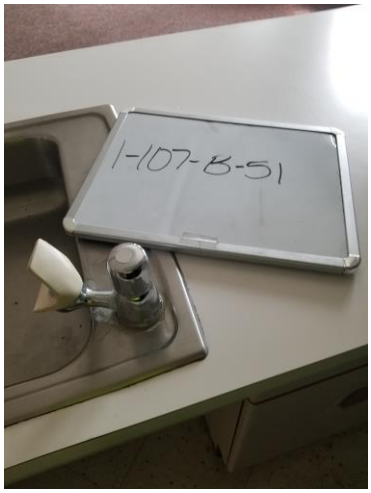

Photo 51: Bubbler in room 107.

Photo 52: Classroom faucet in room 107.

Photo 53: Bathroom faucet in room 107.

Photo 54: Drinking water fountain, next to the gym. On the right side.

Photo 55: Drinking water fountain, next to the gym. On the left side.

Photo 56: Kitchen sink, located in the kitchen, closest to the door.

Photo 57 Kitchen sink, located in the kitchen.

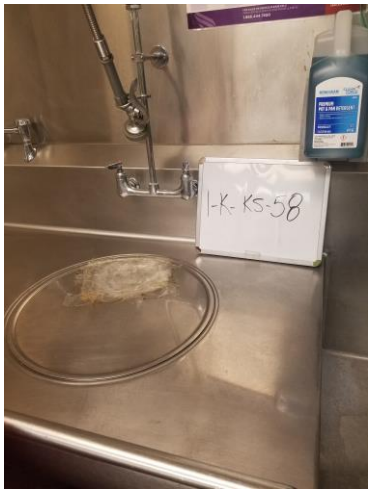

Photo 58: Kitchen sink, located in the kitchen.

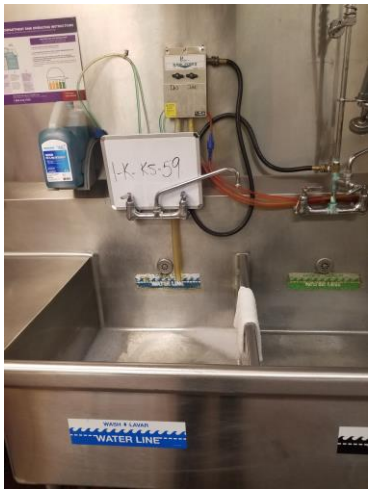

Photo 59: Kitchen sink, located in the kitchen.

Photo 60: Kitchen sink, located in the kitchen.

Photo 61: Kitchen sink, located in the kitchen.

Photo 62: Kitchen sink, located in the kitchen.

Photo 63: Left drinking water fountain, behind the kitchen area.

Photo 64: Right drinking water fountain, behind the kitchen area.

Photo 65: Staff room faucet, located in the staff lounge on the 1st floor. Room closest to the main entrance. .

Photo 66: Staff room faucet, located in the staff lounge on the 1st floor..

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

August 20, 2018

Robert Smith
ATC Group Services
46555 Humboldt
Suite 100
Novi, MI 48377

RE: Project: DW-Law
Pace Project No.: 4616071

Dear Robert Smith:
Enclosed are the analytical results for sample(s) received by the laboratory on August 08, 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,

Will Cole
will.cole@pacelabs.com
(616)975-4500
Project Manager

Enclosures

cc: AP c/o Abigail Jardine, ATC Group Services
Michael Hauswirth, ATC Group Services

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

CERTIFICATIONS

Project: DW-Law
Pace Project No.: 4616071

Grand Rapids Certification ID's

5560 Corporate Exchange Ct SE, Grand Rapids, MI 49512
Minnesota Department of Health, Certificate #1385941
Arkansas Department of Environmental Quality, Certificate #18-046-0
Georgia Environmental Protection Division, Stipulation
Illinois Environmental Protection Agency, Certificate #004325
Michigan Department of Environmental Quality, Laboratory #0034
New York State Department of Health, Serial #57971 and 57972
North Carolina Division of Water Resources, Certificate #659
Virginia Department of General Services, Certificate #9780
Wisconsin Department of Natural Resources, Laboratory #999472650
U.S. Department of Agriculture Permit to Receive Soil, Permit #P330-17-00278

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

SAMPLE SUMMARY

Project: DW-Law
Pace Project No.: 4616071

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4616071001	**2-Hall-DWF-1**	Drinking Water	08/02/18 09:12	08/08/18 17:35
4616071002	**2-Hall-DWF-2**	Drinking Water	08/02/18 09:13	08/08/18 17:35
4616071003	**2-Hall-DWF-3**	Drinking Water	08/02/18 09:15	08/08/18 17:35
4616071004	**2-Hall-DWF-4**	Drinking Water	08/02/18 09:16	08/08/18 17:35
4616071005	**2-204-B-5**	Drinking Water	08/02/18 09:20	08/08/18 17:35
4616071006	**2-205-B-6**	Drinking Water	08/02/18 09:21	08/08/18 17:35
4616071007	**2-208-8**	Drinking Water	08/02/18 09:23	08/08/18 17:35
4616071008	**2-209-B-9**	Drinking Water	08/02/18 09:24	08/08/18 17:35
4616071009	**2-210-B-10**	Drinking Water	08/02/18 09:25	08/08/18 17:35
4616071010	**2-211-B-11**	Drinking Water	08/02/18 09:26	08/08/18 17:35
4616071011	**2-212-B-12**	Drinking Water	08/02/18 09:27	08/08/18 17:35
4616071012	**2-214-B-16**	Drinking Water	08/02/18 09:30	08/08/18 17:35
4616071013	**2-216-B-18**	Drinking Water	08/02/18 09:32	08/08/18 17:35
4616071014	**2-215-B-19**	Drinking Water	08/02/18 09:33	08/08/18 17:35
4616071015	**2-217-B-20**	Drinking Water	08/02/18 09:34	08/08/18 17:35
4616071016	**2-218-B-21**	Drinking Water	08/02/18 09:35	08/08/18 17:35
4616071017	**1-121-B-22**	Drinking Water	08/02/18 09:40	08/08/18 17:35
4616071018	**1-122-B-23**	Drinking Water	08/02/18 09:41	08/08/18 17:35
4616071019	**1-119-B-24**	Drinking Water	08/02/18 09:42	08/08/18 17:35
4616071020	**1-120-B-25**	Drinking Water	08/02/18 09:43	08/08/18 17:35
4616071021	**1-117-B-26**	Drinking Water	08/02/18 09:44	08/08/18 17:35
4616071022	**1-118-B-27**	Drinking Water	08/02/18 09:46	08/08/18 17:35
4616071023	**1-115-B-28**	Drinking Water	08/02/18 09:47	08/08/18 17:35
4616071024	**1-101-B-29**	Drinking Water	08/02/18 09:48	08/08/18 17:35
4616071025	**1-103-B-30**	Drinking Water	08/02/18 09:50	08/08/18 17:35
4616071026	**1-105-B-31**	Drinking Water	08/02/18 09:51	08/08/18 17:35
4616071027	**1-106-B-32**	Drinking Water	08/02/18 09:53	08/08/18 17:35
4616071028	**1-108-B-36**	Drinking Water	08/02/18 09:55	08/08/18 17:35
4616071029	**1-110-B-40**	Drinking Water	08/02/18 09:57	08/08/18 17:35
4616071030	**1-111-B-44**	Drinking Water	08/02/18 09:59	08/08/18 17:35
4616071031	**1-109-B-48**	Drinking Water	08/02/18 10:00	08/08/18 17:35
4616071032	**1-107-B-51**	Drinking Water	08/02/18 10:02	08/08/18 17:35
4616071033	**1-Hall-DWF-54**	Drinking Water	08/02/18 10:03	08/08/18 17:35
4616071034	**1-K-KS-56**	Drinking Water	08/02/18 10:10	08/08/18 17:35
4616071035	**1-K-KS-57**	Drinking Water	08/02/18 10:11	08/08/18 17:35
4616071036	**1-K-KS-58**	Drinking Water	08/02/18 10:12	08/08/18 17:35
4616071037	**1-K-KS-59**	Drinking Water	08/02/18 10:13	08/08/18 17:35

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

SAMPLE SUMMARY

Project: DW-Law
Pace Project No.: 4616071

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4616071038	**1-K-KS-60**	Drinking Water	08/02/18 10:14	08/08/18 17:35
4616071039	**1-K-KS-61**	Drinking Water	08/02/18 10:15	08/08/18 17:35
4616071040	**1-K-KS-62**	Drinking Water	08/02/18 10:16	08/08/18 17:35
4616071041	**1-Hall-DWF-63**	Drinking Water	08/02/18 10:17	08/08/18 17:35
4616071042	**1-Hall-DWF-64**	Drinking Water	08/02/18 10:18	08/08/18 17:35
4616071043	**1-SL-SRF-65**	Drinking Water	08/02/18 09:05	08/08/18 17:35
4616071044	**1-SL-SRF-66**	Drinking Water	08/02/18 09:06	08/08/18 17:35
4616071045	**2-206-B-67**	Drinking Water	08/02/18 09:22	08/08/18 17:35

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

SAMPLE ANALYTE COUNT

Project: DW-Law
Pace Project No.: 4616071

Lab ID	Sample ID	Method	Analysts	Analytes Reported
4616071001	2-Hall-DWF-1	EPA 200.8	CKD	2
4616071002	2-Hall-DWF-2	EPA 200.8	CKD	2
4616071003	2-Hall-DWF-3	EPA 200.8	CKD	2
4616071004	2-Hall-DWF-4	EPA 200.8	CKD	2
4616071005	2-204-B-5	EPA 200.8	CKD	2
4616071006	2-205-B-6	EPA 200.8	CKD	2
4616071007	2-208-8	EPA 200.8	CKD	2
4616071008	2-209-B-9	EPA 200.8	CKD	2
4616071009	2-210-B-10	EPA 200.8	CKD	2
4616071010	2-211-B-11	EPA 200.8	CKD	2
4616071011	2-212-B-12	EPA 200.8	CKD	2
4616071012	2-214-B-16	EPA 200.8	CKD	2
4616071013	2-216-B-18	EPA 200.8	CKD	2
4616071014	2-215-B-19	EPA 200.8	CKD	2
4616071015	2-217-B-20	EPA 200.8	DWJ	2
4616071016	2-218-B-21	EPA 200.8	CKD	2
4616071017	1-121-B-22	EPA 200.8	CKD	2
4616071018	1-122-B-23	EPA 200.8	CKD	2
4616071019	1-119-B-24	EPA 200.8	CKD	2
4616071020	1-120-B-25	EPA 200.8	CKD	2
4616071021	1-117-B-26	EPA 200.8	CKD	2
4616071022	1-118-B-27	EPA 200.8	CKD	2
4616071023	1-115-B-28	EPA 200.8	CKD	2
4616071024	1-101-B-29	EPA 200.8	CKD	2
4616071025	1-103-B-30	EPA 200.8	CKD	2
4616071026	1-105-B-31	EPA 200.8	CKD	2
4616071027	1-106-B-32	EPA 200.8	CKD	2
4616071028	1-108-B-36	EPA 200.8	CKD	2
4616071029	1-110-B-40	EPA 200.8	CKD	2
4616071030	1-111-B-44	EPA 200.8	CKD	2
4616071031	1-109-B-48	EPA 200.8	CKD	2
4616071032	1-107-B-51	EPA 200.8	CKD	2
4616071033	1-Hall-DWF-54	EPA 200.8	CKD	2
4616071034	1-K-KS-56	EPA 200.8	CKD	2
4616071035	1-K-KS-57	EPA 200.8	CKD	2
4616071036	1-K-KS-58	EPA 200.8	CKD	2
4616071037	1-K-KS-59	EPA 200.8	CKD	2

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

SAMPLE ANALYTE COUNT

Project: DW-Law
Pace Project No.: 4616071

Lab ID	Sample ID	Method	Analysts	Analytes Reported
4616071038	**1-K-KS-60**	EPA 200.8	CKD	2
4616071039	**1-K-KS-61**	EPA 200.8	CKD	2
4616071040	**1-K-KS-62**	EPA 200.8	CKD	2
4616071041	**1-Hall-DWF-63**	EPA 200.8	CKD	2
4616071042	**1-Hall-DWF-64**	EPA 200.8	CKD	2
4616071043	**1-SL-SRF-65**	EPA 200.8	CKD	2
4616071044	**1-SL-SRF-66**	EPA 200.8	CKD	2
4616071045	**2-206-B-67**	EPA 200.8	CKD	2

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-Hall-DWF-1 **Lab ID: 4616071001** Collected: 08/02/18 09:12 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**1340**	ug/L	20.0	1300	20		08/16/18 15:08	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 13:40	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-Hall-DWF-2 **Lab ID: 4616071002** Collected: 08/02/18 09:13 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**1440**	ug/L	20.0	1300	20		08/16/18 15:13	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 13:45	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-Hall-DWF-3 **Lab ID: 4616071003** Collected: 08/02/18 09:15 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**509**	ug/L	10.0	1300	10		08/16/18 15:50	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 13:46	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-Hall-DWF-4 **Lab ID: 4616071004** Collected: 08/02/18 09:16 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**416**	ug/L	5.0	1300	5		08/16/18 15:51	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 13:47	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-204-B-5 **Lab ID: 4616071005** Collected: 08/02/18 09:20 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**355**	ug/L	5.0	1300	5		08/16/18 15:52	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 13:48	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-205-B-6 **Lab ID: 4616071006** Collected: 08/02/18 09:21 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**193**	ug/L	5.0	1300	5		08/16/18 15:53	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 13:53	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-208-8 **Lab ID: 4616071007** Collected: 08/02/18 09:23 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**397**	ug/L	5.0	1300	5		08/16/18 15:54	7440-50-8	
Lead	**1.2**	ug/L	1.0	15	1		08/16/18 13:54	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-209-B-9 **Lab ID: 4616071008** Collected: 08/02/18 09:24 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**941**	ug/L	20.0	1300	20		08/16/18 15:55	7440-50-8	
Lead	**9.5**	ug/L	1.0	15	1		08/16/18 13:55	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-210-B-10 **Lab ID: 4616071009** Collected: 08/02/18 09:25 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**283**	ug/L	5.0	1300	5		08/16/18 15:56	7440-50-8	
Lead	**3.7**	ug/L	1.0	15	1		08/16/18 13:57	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-211-B-11 **Lab ID: 4616071010** Collected: 08/02/18 09:26 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**212**	ug/L	5.0	1300	5		08/16/18 15:57	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 13:58	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-212-B-12 **Lab ID: 4616071011** Collected: 08/02/18 09:27 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**447**	ug/L	10.0	1300	10		08/16/18 15:58	7440-50-8	
Lead	**6.3**	ug/L	1.0	15	1		08/16/18 13:59	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-214-B-16 **Lab ID: 4616071012** Collected: 08/02/18 09:30 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**10.3**	ug/L	1.0	1300	1		08/16/18 14:03	7440-50-8	
Lead	**3.7**	ug/L	1.0	15	1		08/16/18 14:03	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-216-B-18 **Lab ID: 4616071013** Collected: 08/02/18 09:32 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**485**	ug/L	10.0	1300	10		08/16/18 17:05	7440-50-8	
Lead	**11.8**	ug/L	1.0	15	1		08/16/18 14:07	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-215-B-19 **Lab ID: 4616071014** Collected: 08/02/18 09:33 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**443**	ug/L	10.0	1300	10		08/16/18 17:06	7440-50-8	
Lead	**1.9**	ug/L	1.0	15	1		08/16/18 14:08	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-217-B-20 **Lab ID: 4616071015** Collected: 08/02/18 09:34 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 ICPMS Metals, Total	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
Copper	**455**	ug/L	10.0	1300	10	08/10/18 07:19	08/14/18 09:24	7440-50-8	
Lead	**2.3**	ug/L	1.0	15	1	08/10/18 07:19	08/14/18 08:26	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-218-B-21 **Lab ID: 4616071016** Collected: 08/02/18 09:35 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**213**	ug/L	5.0	1300	5		08/16/18 17:08	7440-50-8	
Lead	**6.0**	ug/L	1.0	15	1		08/16/18 14:09	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-121-B-22 **Lab ID: 4616071017** Collected: 08/02/18 09:40 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**180**	ug/L	5.0	1300	5		08/16/18 17:09	7440-50-8	
Lead	**1.3**	ug/L	1.0	15	1		08/16/18 14:10	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-122-B-23 **Lab ID: 4616071018** Collected: 08/02/18 09:41 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**707**	ug/L	10.0	1300	10		08/16/18 17:10	7440-50-8	
Lead	**2.2**	ug/L	1.0	15	1		08/16/18 14:11	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-119-B-24 **Lab ID: 4616071019** Collected: 08/02/18 09:42 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**172**	ug/L	5.0	1300	5		08/16/18 17:13	7440-50-8	
Lead	**1.5**	ug/L	1.0	15	1		08/16/18 14:12	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-120-B-25 **Lab ID: 4616071020** Collected: 08/02/18 09:43 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**68.1**	ug/L	1.0	1300	1		08/16/18 14:13	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 14:13	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-117-B-26 **Lab ID: 4616071021** Collected: 08/02/18 09:44 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**243**	ug/L	5.0	1300	5		08/16/18 17:14	7440-50-8	
Lead	**1.8**	ug/L	1.0	15	1		08/16/18 14:17	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-118-B-27 **Lab ID: 4616071022** Collected: 08/02/18 09:46 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**40.3**	ug/L	1.0	1300	1		08/16/18 14:24	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 14:24	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-115-B-28 **Lab ID: 4616071023** Collected: 08/02/18 09:47 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**245**	ug/L	5.0	1300	5		08/16/18 17:19	7440-50-8	
Lead	**5.2**	ug/L	1.0	15	1		08/16/18 14:25	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-101-B-29 **Lab ID: 4616071024** Collected: 08/02/18 09:48 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**241**	ug/L	5.0	1300	5		08/16/18 17:20	7440-50-8	
Lead	**9.5**	ug/L	1.0	15	1		08/16/18 14:27	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-103-B-30 **Lab ID: 4616071025** Collected: 08/02/18 09:50 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**48.5**	ug/L	1.0	1300	1		08/16/18 14:28	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 14:28	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-105-B-31 **Lab ID: 4616071026** Collected: 08/02/18 09:51 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**103**	ug/L	5.0	1300	5		08/16/18 17:21	7440-50-8	
Lead	**1.6**	ug/L	1.0	15	1		08/16/18 14:29	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-106-B-32 **Lab ID: 4616071027** Collected: 08/02/18 09:53 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**72.4**	ug/L	1.0	1300	1		08/16/18 14:30	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 14:30	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-108-B-36 **Lab ID: 4616071028** Collected: 08/02/18 09:55 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**45.5**	ug/L	1.0	1300	1		08/16/18 14:31	7440-50-8	
Lead	**3.0**	ug/L	1.0	15	1		08/16/18 14:31	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-110-B-40 **Lab ID: 4616071029** Collected: 08/02/18 09:57 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**23.2**	ug/L	1.0	1300	1		08/16/18 14:34	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 14:34	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-111-B-44 **Lab ID: 4616071030** Collected: 08/02/18 09:59 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**69.5**	ug/L	1.0	1300	1		08/16/18 14:36	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 14:36	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-109-B-48 **Lab ID: 4616071031** Collected: 08/02/18 10:00 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**292**	ug/L	5.0	1300	5		08/16/18 17:22	7440-50-8	
Lead	**1.1**	ug/L	1.0	15	1		08/16/18 14:37	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-107-B-51 **Lab ID: 4616071032** Collected: 08/02/18 10:02 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**71.1**	ug/L	1.0	1300	1		08/16/18 14:41	7440-50-8	
Lead	**3.2**	ug/L	1.0	15	1		08/16/18 14:41	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-Hall-DWF-54 **Lab ID: 4616071033** Collected: 08/02/18 10:03 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**286**	ug/L	5.0	1300	5		08/16/18 17:34	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 14:42	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-K-KS-56 **Lab ID: 4616071034** Collected: 08/02/18 10:10 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**335**	ug/L	5.0	1300	5		08/16/18 16:45	7440-50-8	
Lead	**1.8**	ug/L	1.0	15	1		08/16/18 14:43	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-K-KS-57 **Lab ID: 4616071035** Collected: 08/02/18 10:11 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**229**	ug/L	5.0	1300	5		08/16/18 16:46	7440-50-8	
Lead	**1.0**	ug/L	1.0	15	1		08/16/18 14:45	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-K-KS-58 **Lab ID: 4616071036** Collected: 08/02/18 10:12 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**508**	ug/L	10.0	1300	10		08/16/18 16:48	7440-50-8	
Lead	**75.5**	ug/L	1.0	15	1		08/16/18 14:48	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-K-KS-59 **Lab ID: 4616071037** Collected: 08/02/18 10:13 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**268**	ug/L	5.0	1300	5		08/16/18 16:49	7440-50-8	
Lead	**1.3**	ug/L	1.0	15	1		08/16/18 14:49	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-K-KS-60 **Lab ID: 4616071038** Collected: 08/02/18 10:14 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**458**	ug/L	10.0	1300	10		08/16/18 16:50	7440-50-8	
Lead	**3.1**	ug/L	1.0	15	1		08/16/18 14:50	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-K-KS-61 **Lab ID: 4616071039** Collected: 08/02/18 10:15 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**306**	ug/L	5.0	1300	5		08/16/18 16:51	7440-50-8	
Lead	**1.3**	ug/L	1.0	15	1		08/16/18 14:51	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-K-KS-62 **Lab ID: 4616071040** Collected: 08/02/18 10:16 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**379**	ug/L	5.0	1300	5		08/16/18 16:52	7440-50-8	
Lead	**2.2**	ug/L	1.0	15	1		08/16/18 14:52	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-Hall-DWF-63 **Lab ID: 4616071041** Collected: 08/02/18 10:17 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**268**	ug/L	5.0	1300	5		08/16/18 16:54	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 14:56	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-Hall-DWF-64 **Lab ID: 4616071042** Collected: 08/02/18 10:18 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**144**	ug/L	5.0	1300	5		08/16/18 17:01	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 15:04	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-SL-SRF-65 **Lab ID: 4616071043** Collected: 08/02/18 09:05 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**86.3**	ug/L	1.0	1300	1		08/16/18 15:05	7440-50-8	
Lead	**<1.0**	ug/L	1.0	15	1		08/16/18 15:05	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 1-SL-SRF-66 **Lab ID: 4616071044** Collected: 08/02/18 09:06 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**1360**	ug/L	20.0	1300	20		08/16/18 17:35	7440-50-8	
Lead	**4.4**	ug/L	1.0	15	1		08/16/18 15:06	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: DW-Law
Pace Project No.: 4616071

Sample: 2-206-B-67 **Lab ID: 4616071045** Collected: 08/02/18 09:22 Received: 08/08/18 17:35 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8								
Copper	**8.0**	ug/L	1.0	1300	1		08/16/18 15:07	7440-50-8	
Lead	**5.2**	ug/L	1.0	15	1		08/16/18 15:07	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA

Project: DW-Law
Pace Project No.: 4616071

QC Batch: 30963 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: ICPMS Metals, No Prep
Associated Lab Samples: 4616071001, 4616071002, 4616071003, 4616071004, 4616071005, 4616071006, 4616071007, 4616071008, 4616071009, 4616071010, 4616071011, 4616071012, 4616071013, 4616071014, 4616071016, 4616071017, 4616071018, 4616071019, 4616071020

METHOD BLANK: 124686 Matrix: Water
Associated Lab Samples: 4616071001, 4616071002, 4616071003, 4616071004, 4616071005, 4616071006, 4616071007, 4616071008, 4616071009, 4616071010, 4616071011, 4616071012, 4616071013, 4616071014, 4616071016, 4616071017, 4616071018, 4616071019, 4616071020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper	ug/L	<1.0	1.0	08/16/18 13:38	
Lead	ug/L	<1.0	1.0	08/16/18 13:38	

LABORATORY CONTROL SAMPLE: 124687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	20	20.5	103	85-115	
Lead	ug/L	20	20.6	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 124688 124689

Parameter	Units	4616071001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	ug/L	1340	400	400	1780	1770	111	107	70-130	1	20	
Lead	ug/L	<1.0	20	20	21.1	21.2	105	105	70-130	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 124691 124692

Parameter	Units	4616071011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	ug/L	447	200	200	651	643	102	98	70-130	1	20	
Lead	ug/L	6.3	20	20	27.3	27.1	105	104	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
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA

Project: DW-Law
Pace Project No.: 4616071

QC Batch: 30964 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: ICPMS Metals, No Prep
Associated Lab Samples: 4616071021, 4616071022, 4616071023, 4616071024, 4616071025, 4616071026, 4616071027, 4616071028, 4616071029, 4616071030, 4616071031, 4616071032, 4616071033, 4616071034, 4616071035, 4616071036, 4616071037, 4616071038, 4616071039, 4616071040

METHOD BLANK: 124694 Matrix: Water
Associated Lab Samples: 4616071021, 4616071022, 4616071023, 4616071024, 4616071025, 4616071026, 4616071027, 4616071028, 4616071029, 4616071030, 4616071031, 4616071032, 4616071033, 4616071034, 4616071035, 4616071036, 4616071037, 4616071038, 4616071039, 4616071040

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper	ug/L	<1.0	1.0	08/16/18 14:15	
Lead	ug/L	<1.0	1.0	08/16/18 14:15	

LABORATORY CONTROL SAMPLE: 124695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	20	20.8	104	85-115	
Lead	ug/L	20	20.6	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 124696 124697

Parameter	Units	4616071021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	ug/L	243	100	100	342	342	99	99	70-130	0	20	
Lead	ug/L	1.8	20	20	22.4	22.5	103	103	70-130	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 124699 124700

Parameter	Units	4616071031 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	ug/L	292	100	100	386	389	94	97	70-130	1	20	
Lead	ug/L	1.1	20	20	21.8	21.7	104	103	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
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA

Project: DW-Law
Pace Project No.: 4616071

QC Batch: 30965 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: ICPMS Metals, No Prep
Associated Lab Samples: 4616071041, 4616071042, 4616071043, 4616071044, 4616071045

METHOD BLANK: 124702 Matrix: Water
Associated Lab Samples: 4616071041, 4616071042, 4616071043, 4616071044, 4616071045

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper	ug/L	<1.0	1.0	08/16/18 14:54	
Lead	ug/L	<1.0	1.0	08/16/18 14:54	

LABORATORY CONTROL SAMPLE: 124703

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	20	21.4	107	85-115	
Lead	ug/L	20	21.2	106	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 124704 124705

Parameter	Units	4616071041 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	ug/L	268	100	100	372	370	104	102	70-130	1	20	
Lead	ug/L	<1.0	20	20	21.3	21.1	106	105	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
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA

Project: DW-Law
Pace Project No.: 4616071

QC Batch: 30323 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET
Associated Lab Samples: 4616071015

METHOD BLANK: 121990 Matrix: Water
Associated Lab Samples: 4616071015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper	ug/L	<1.0	1.0	08/14/18 08:24	
Lead	ug/L	<1.0	1.0	08/14/18 08:24	

LABORATORY CONTROL SAMPLE: 121991

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	50	49.0	98	85-115	
Lead	ug/L	50	48.9	98	85-115	

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
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

QUALIFIERS

Project: DW-Law
Pace Project No.: 4616071

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
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: DW-Law
Pace Project No.: 4616071

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4616071001	**2-Hall-DWF-1**	EPA 200.8	30963		
4616071002	**2-Hall-DWF-2**	EPA 200.8	30963		
4616071003	**2-Hall-DWF-3**	EPA 200.8	30963		
4616071004	**2-Hall-DWF-4**	EPA 200.8	30963		
4616071005	**2-204-B-5**	EPA 200.8	30963		
4616071006	**2-205-B-6**	EPA 200.8	30963		
4616071007	**2-208-8**	EPA 200.8	30963		
4616071008	**2-209-B-9**	EPA 200.8	30963		
4616071009	**2-210-B-10**	EPA 200.8	30963		
4616071010	**2-211-B-11**	EPA 200.8	30963		
4616071011	**2-212-B-12**	EPA 200.8	30963		
4616071012	**2-214-B-16**	EPA 200.8	30963		
4616071013	**2-216-B-18**	EPA 200.8	30963		
4616071014	**2-215-B-19**	EPA 200.8	30963		
4616071016	**2-218-B-21**	EPA 200.8	30963		
4616071017	**1-121-B-22**	EPA 200.8	30963		
4616071018	**1-122-B-23**	EPA 200.8	30963		
4616071019	**1-119-B-24**	EPA 200.8	30963		
4616071020	**1-120-B-25**	EPA 200.8	30963		
4616071021	**1-117-B-26**	EPA 200.8	30964		
4616071022	**1-118-B-27**	EPA 200.8	30964		
4616071023	**1-115-B-28**	EPA 200.8	30964		
4616071024	**1-101-B-29**	EPA 200.8	30964		
4616071025	**1-103-B-30**	EPA 200.8	30964		
4616071026	**1-105-B-31**	EPA 200.8	30964		
4616071027	**1-106-B-32**	EPA 200.8	30964		
4616071028	**1-108-B-36**	EPA 200.8	30964		
4616071029	**1-110-B-40**	EPA 200.8	30964		
4616071030	**1-111-B-44**	EPA 200.8	30964		
4616071031	**1-109-B-48**	EPA 200.8	30964		
4616071032	**1-107-B-51**	EPA 200.8	30964		
4616071033	**1-Hall-DWF-54**	EPA 200.8	30964		
4616071034	**1-K-KS-56**	EPA 200.8	30964		
4616071035	**1-K-KS-57**	EPA 200.8	30964		
4616071036	**1-K-KS-58**	EPA 200.8	30964		
4616071037	**1-K-KS-59**	EPA 200.8	30964		
4616071038	**1-K-KS-60**	EPA 200.8	30964		
4616071039	**1-K-KS-61**	EPA 200.8	30964		
4616071040	**1-K-KS-62**	EPA 200.8	30964		
4616071041	**1-Hall-DWF-63**	EPA 200.8	30965		
4616071042	**1-Hall-DWF-64**	EPA 200.8	30965		
4616071043	**1-SL-SRF-65**	EPA 200.8	30965		
4616071044	**1-SL-SRF-66**	EPA 200.8	30965		
4616071045	**2-206-B-67**	EPA 200.8	30965		
4616071015	**2-217-B-20**	EPA 200.8	30323	EPA 200.8	30607

REPORT OF LABORATORY ANALYSIS

WO# : 4616071

4616071

20243

HAIN-OF-CUSTODY / Analytical Request Document

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

Section A
Required Client Information:

Company:	ATC Group Services LLC	Report To:	Robert Smith
Address:	46555 Humboldt Drive, Suite 100	Copy To:	
Novi, MI 48377			
Email:	robert.smith@atcgs.com	Purchase Order #:	
Phone:	248-669-5140 Fax: 248-669-5147	Project Name:	Lead & Copper Testing
Requested Due Date:		Project #:	Law

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	Will Cole
Pace Profile #:	Profile 236 - Line 2

Regulatory Agency

State / Location
MI

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Lead & Copper	Residual Chlorine (Y/N)	41-15
1	2-Hall-DWF-1	DW	G	8/2/18	9:12				1			X							X		
2	2-Hall-DWF- 2	DW	G	8/2/18	9:13				1			X							X		
3	2-Hall-DWF- 3	DW	G	8/2/18	9:15				1			X							X		
4	2-Hall-DWF- 4	DW	G	8/2/18	9:16				1			X							X		
5	2-204-B-5	DW	G	8/2/18	9:20				1			X							X		
6	2-205-B-6	DW	G	8/2/18	9:21				1			X							X		
7	2-208- 8	DW	G	8/2/18	9:23				1			X							X		
8	2-209-B- 9	DW	G	8/2/18	9:24				1			X							X		
9	2-210-B- 10	DW	G	8/2/18	9:25				1			X							X		
10	2-211-B- 11	DW	G	8/2/18	9:26				1			X							X		
11	2-212-B- 12	DW	G	8/2/18	9:27				1			X							X		
12	2-214-B- 16	DW	G	8/2/18	9:30				1			X							X		

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

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
		8/8/18	1735		8/8/18	1400	
					08/08/18	1735	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Dominique Greer

SIGNATURE of SAMPLER:

DATE Signed: 8/2/2018

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace Analytical

WO# 4616071

CHAIN-OF-CUSTODY / Analytical Request Document

#20244

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	ATC Group Services LLC	Report To:	Robert Smith	Attention:	
Address:	46555 Humboldt Drive, Suite 100	Copy To:		Company Name:	
Novi, MI 48377				Address:	
Email:	robert.smith@atcgs.com	Purchase Order #:		Pace Quote:	
Phone:	248-669-5140 Fax: 248-669-5147	Project Name:	Lead & Copper Testing	Pace Project Manager:	Will Cole
Requested Due Date:		Project #:	Law	Pace Profile #:	Profile 236 - Line 2

Regulatory Agency	
State / Location	
	MI

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Lead & Copper	Residual Chlorine (Y/N)
13	2-216-B-18	DW	G	8/2/18	9:32				1			X							X	
14	2-215-B-19	DW	G	8/2/18	9:33				1			X							X	
15	2-217-B-20	DW	G	8/2/18	9:34				1			X							X	
16	2-218-B-21	DW	G	8/2/18	9:35				1			X							X	
17	1-121-B-22	DW	G	8/2/18	9:40				1			X							X	
18	1-122-B-23	DW	G	8/2/18	9:41				1			X							X	
19	1-119-B-24	DW	G	8/2/18	9:42				1			X							X	
20	1-120-B-25	DW	G	8/2/18	9:43				1			X							X	
21	1-117-B-26	DW	G	8/2/18	9:44				1			X							X	
22	1-118-B-27	DW	G	8/2/18	9:46				1			X							X	
23	1-115-B-28	DW	G	8/2/18	9:47				1			X							X	
24	1-101-B-29	DW	G	8/2/18	9:48				1			X							X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
					8/8/18	1420	
		8/8/18	1735	Watts/Pace	08/09/18	1735	

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Dominique Greer		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:	DATE Signed: 8/2/2018					

Pace Analytical

WO#46116071

CHAIN-OF-CUSTODY / Analytical Request Document

#20245

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	ATC Group Services LLC	Report To:	Robert Smith	Attention:	
Address:	46555 Humboldt Drive, Suite 100	Copy To:		Company Name:	
Novi, MI 48377				Address:	
Email:	robert.smith@atcgs.com	Purchase Order #:		Pace Quote:	
Phone:	248-669-5140 Fax: 248-669-5147	Project Name:	Lead & Copper Testing	Pace Project Manager:	Will Cole
Requested Due Date:		Project #:	Law	Pace Profile #:	Profile 236 - Line 2

Regulatory Agency	State / Location
	MI

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Lead & Copper	Residual Chlorine (Y/N)
25	1-103-B-30	DW	G	8/2/18	9:50				1			X							X	
26	1-105-B-31	DW	G	8/2/18	9:51				1			X							X	
27	1-106-B-32	DW	G	8/2/18	9:53				1			X							X	
28	1-108-B-36	DW	G	8/2/18	9:55				1			X							X	
29	1-110-B-40	DW	G	8/2/18	9:57				1			X							X	
30	1-111-B-44	DW	G	8/2/18	9:59				1			X							X	
31	1-109-B-48	DW	G	8/2/18	10:00				1			X							X	
32	1-107-B-51	DW	G	8/2/18	10:02				1			X							X	
33	1-Hall-DWF-54	DW	G	8/2/18	10:03				1			X							X	
34	1-K-KS-56	DW	G	8/2/18	10:10				1			X							X	
35	1-K-KS-57	DW	G	8/2/18	10:11				1			X							X	
36	1-K-KS-58	DW	G	8/2/18	10:12				1			X							X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
					8/8/18	1400	
		8/8/18	1735	Watts / Pace	08/08/18	1735	

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Dominique Greer		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:	DATE Signed: 8/2/2018					

Pace Analytical

WO# 46116071

CHAIN-OF-CUSTODY / Analytical Request Document

#20246

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	ATC Group Services LLC	Report To:	Robert Smith	Attention:	
Address:	46555 Humboldt Drive, Suite 100	Copy To:		Company Name:	
Novi, MI 48377				Address:	
Email:	robert.smith@atcgs.com	Purchase Order #:		Pace Quote:	
Phone:	248-669-5140 Fax: 248-669-5147	Project Name:	Lead & Copper Testing	Pace Project Manager:	Will Cole
Requested Due Date:		Project #:	Law	Pace Profile #:	Profile 236 - Line 2

Regulatory Agency	
State / Location	
	MI

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Lead & Copper	Residual Chlorine (Y/N)
37	1-K-KS-59	DW	G	8/2/18	10:13				1			X							X	
38	1-K-KS-60	DW	G	8/2/18	10:14				1			X							X	
39	1-K-KS-61	DW	G	8/2/18	10:15				1			X							X	
40	1-K-KS-62	DW	G	8/2/18	10:16				1			X							X	
41	1-Hall-DWF-63	DW	G	8/2/18	10:17				1			X							X	
42	1-Hall-DWF-64	DW	G	8/2/18	10:18				1			X							X	
43	1-SL-SRF-65	DW	G	8/2/18	9:05				1			X							X	
44	1-SL-SRF-66	DW	G	8/2/18	9:06				1			X							X	
45	2-206-B-67	DW	G	8/2/18	9:22				1			X							X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
					8/8/18	1400	
		8/8/18	1735	A Watts / Pace	08/08/18	1735	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Dominique Greer

SIGNATURE of SAMPLER: [signature] DATE Signed: 8/2/2018

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLE RECEIVING / LOG-IN CHECKLIST

Pace Analytical®

Client: ATC - LAW
Receipt Record Page/Line #: (41-15)
Work Order #: 46160071

Recorded by (initials/date): AW 08/08/18

☑ Cooler ☐ Box ☐ Other______ Qty Received

Thermometer Used: ☑ IR Gun (#202) ☐ Digital Thermometer (#54) ☐ IR Gun (#402)

Cooler #	Time	Cooler #	Time	Cooler #	Time	Cooler #	Time
—	2300						

Cooler 1

Custody Seals: ☑ None ☐ Present / Intact ☐ Present / Not Intact

Coolant Type: ☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☑ None

Coolant Location: Dispersed / Top / Middle / Bottom

Temp Blank Present: ☐ Yes ☑ No

If Present, Temperature Blank Location is: ☐ Representative ☐ Not Representative

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:	—	—	—
Sample 1:	24.6	/	24.6
Sample 2:	24.8	/	24.8
Sample 3:	24.7	/	24.7

When above 6 °C take a 3 Sample Average °C: 24.7

☐ VOC Trip Blank received?

Coolers 2–4 (blank)

Custody Seals: ☐ None ☐ Present / Intact ☐ Present / Not Intact

Coolant Type: ☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None

Coolant Location: Dispersed / Top / Middle / Bottom

Temp Blank Present: ☐ Yes ☐ No

If Present, Temperature Blank Location is: ☐ Representative ☐ Not Representative

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:			
Sample 1:			
Sample 2:			
Sample 3:			

When above 6 °C take a 3 Sample Average °C:

☐ VOC Trip Blank received?

If any shaded areas checked, complete Sample Receiving Non-Conformance

Paperwork Received

Yes	No	
☑	☐	Chain of Custody record(s)? If No, Initiated By ________
☑		Received for Lab Signed/Date/Time?
☐	☑	USDA Soil Documents?
☐	☑	Sampling / Field Forms?
☐	☑	Other ________

COC Information

☑ Pace COC ☐ Other ________

COC ID Numbers: 20243, 20244, 20245, 20246

Check COC for Accuracy

Yes	No	
☑	☐	Analysis Requested?
☑	☐	Sample ID matches COC?
☑	☐	Sample Date and Time matches COC?
☑	☐	All containers indicated are received?

Sample Condition Summary

N/A	Yes	No	
	☐	☑	Broken containers/lids?
	☐	☑	Missing or incomplete labels?
	☐	☑	Illegible information on labels?
	☐	☑	Low volume received?
	☐	☑	Inappropriate or non-Pace containers received?
☑	☐	☐	VOC vials have headspace?
	☐	☑	Extra sample locations?
	☐	☑	Containers not listed on COC?

Check Sample Preservation

N/A	Yes	No	
	☑	☐	Temperature Blank **OR** average sample temperature, ≥6° C?
☐	☑	☐	If "Yes" was thermal preservation required?
☐	☑	☐	If "Yes" were ALL samples collected the same day as receipt?
☐	☑		Completed Sample Preservation Verification Form?
☐	☑	☐	Samples chemically preserved correctly?
☑	☐		If "No", add wire tag and fill out Non-Conformance Form?
☑	☐		Received unpreserved Terracore kit?
			If "Yes" unpreserved vials must be frozen

Work Order Not Logged In with Short Hold / Rush

☐ Copies of COC To Lab Areas

Notes

Yes	No	
☑	☐	Were all samples logged into Epic?
☑	☐	Were all samples labelled?
☑	☐	Were samples placed on scan locations?

Initial / Date : AW 08/08/18

Pace Analytical®

AQUEOUS SAMPLE PRESERVATION VERIFICATION

Client: ATC - Law (41-15)

Receipt Log #:

Completed By (initials/date): CW 08/08/18

Work Order #: 41414071

COC ID #: 20243

Adjusted by: _____

Date: _____

pH Strip Reagent or Lot #

☑ HC739245

☐ Other

Container Type	BP3C or AG3O		BP1-4S		AG2S		3 BP1-4N Total		BP1-4N Dissolved			
Preservative	NaOH >12		H_2SO_4 <2		H_2SO_4 <2		HNO_3 <2		HNO_3 <2			
pH	Received	Adjusted	Received	Adjusted	Received	Adjusted	Received	Adjusted	Received	Adjusted	Received	Adjusted
COC Line #1							✓					
COC Line #2							✓					
COC Line #3							✓					
COC Line #4							✓					
COC Line #5							✓					
COC Line #6							✓					
COC Line #7							✓					
COC Line #8							✓					
COC Line #9							✓					
COC Line #10							✓					
COC Line #11							✓					
COC Line #12							✓					

Comments:

Place a check mark in the Received box if pH is acceptable. If pH is not acceptable, document the Received and Adjusted pH values in the appropriate columns (project manager will review all adjustments at work order release). Never add more than 2x the default preservation volume (see table below for default volumes). Complete and attach a wire tag to all adjusted samples. A Sample Receiving Non-Conformance Report must be completed if a pH adjustment was required.

COC ID #: 20244

Adjusted by: _____

Date: _____

Container Type	BP3C or AG3O		BP1-4S		AG2S		3 BP1-4N Total		BP1-4N Dissolved			
Preservative	NaOH >12		H_2SO_4 <2		H_2SO_4 <2		HNO_3 <2		HNO_3 <2			
pH	Received	Adjusted	Received	Adjusted	Received	Adjusted	Received	Adjusted	Received	Adjusted	Received	Adjusted
COC Line #1							✓					
COC Line #2							✓					
COC Line #3							✓					
COC Line #4							✓					
COC Line #5							✓					
COC Line #6							✓					
COC Line #7							✓					
COC Line #8							✓					
COC Line #9							✓					
COC Line #10							✓					
COC Line #11							✓					
COC Line #12							✓					

Comments:

Container Size (mL)	Default Preservative Volume (mL)
Container Types 5 / 23	NaOH
250	1.3
Container Type 4	H_2SO_4
125	0.5
250	1.0
500	2.0
1000	4.0
Container Type 13	H_2SO_4
500	2.5
Container Types 6 / 15	HNO_3
125	0.7
250	1.25
500	2.5
1000	5.0

Pace Analytical® AQUEOUS SAMPLE PRESERVATION VERIFICATION

Client: ATC - Law

Work Order #: 4116071

Receipt Log #: (41-15)

Completed By (initials/date): QW 08/08/18

COC ID #: 20245

Adjusted by: _____

Date: _____

pH Strip Reagent or Lot #: ☑ HC739245 ☐ Other ☐ _____

Container Type	BP3C or AG3O		BP1-4S		AG2S		BP1-4N Total		BP1-4N Dissolved			
Preservative	NaOH >12		H_2SO_4 <2		H_2SO_4 <2		HNO_3 <2		HNO_3 <2			
pH	Received	Adjusted	Received	Adjusted	Received	Adjusted	Received	Adjusted	Received	Adjusted	Received	Adjusted
COC Line #1							✓					
COC Line #2							✓					
COC Line #3							✓					
COC Line #4							✓					
COC Line #5							✓					
COC Line #6							✓					
COC Line #7							✓					
COC Line #8							✓					
COC Line #9							✓					
COC Line #10							✓					
COC Line #11							✓					
COC Line #12							✓					

Comments:

Place a check mark in the Received box if pH is acceptable. If pH is not acceptable, document the Received and Adjusted pH values in the appropriate columns (project manager will review all adjustments at work order release). Never add more than 2x the default preservation volume (see table below for default volumes). Complete and attach a wire tag to all adjusted samples. A Sample Receiving Non-Conformance Report must be completed if a pH adjustment was required.

COC ID #: 20246

Adjusted by: _____

Date: _____

Container Type	BP3C or AG3O		BP1-4S		AG2S		BP1-4N Total		BP1-4N Dissolved			
Preservative	NaOH >12		H_2SO_4 <2		H_2SO_4 <2		HNO_3 <2		HNO_3 <2			
pH	Received	Adjusted	Received	Adjusted	Received	Adjusted	Received	Adjusted	Received	Adjusted	Received	Adjusted
COC Line #1							✓					
COC Line #2							✓					
COC Line #3							✓					
COC Line #4							✓					
COC Line #5							✓					
COC Line #6							✓					
COC Line #7							✓					
COC Line #8							✓					
COC Line #9							✓					
COC Line #10												
COC Line #11												
COC Line #12												

Comments:

Container Size (mL)	Default Preservative Volume (mL)
Container Types 5 / 23	NaOH
250	1.3
Container Type 4	H_2SO_4
125	0.5
250	1.0
500	2.0
1000	4.0
Container Type 13	H_2SO_4
500	2.5
Container Types 6 / 15	HNO_3
125	0.7
250	1.25
500	2.5
1000	5.0