

Limited Lead in Drinking Water Assessment

**Longview Public Schools
Longview, Washington
R.A. Long High School**



Assessment Date(s): June 3 & 16, 2022

Report Date: July 18th, 2022

Prepared for: Jason Reetz, Facilities Manager
Longview Public Schools

Facility Owner/Operator: Longview Public Schools



Prepared By:
Sterling Technologies, LLC
317 NE 144th Street
Vancouver, WA 98685



Limited Lead in Drinking Water Assessment

Introduction

Sterling Technologies (Sterling) has recently completed a limited lead in drinking water screening of the R.A. Long High School, Longview Public Schools, located at 2903 Nichols Boulevard in Longview, Washington. The purpose of the investigation was to identify the levels of lead in the various sources of drinking water throughout the school. Sample locations included drinking water fountains, classroom sink water faucets, restroom sink water faucets, and kitchen sink water faucets.

Background

The school district may be considered a water supply system from a water distribution perspective and may need to comply with the federal guidelines for water monitoring as specified in the Lead & Copper Rule (Federal Register: June 30, 1994, Part 5. 40 CFR Parts 141 and 142; Drinking Water; Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper) and be compelled to monitor the drinking water within the district on an ongoing basis after an effective treatment approach is implemented (56FR 26460 – Lead Copper Rule). Within 30 days of learning the lead level results, all water systems (schools in this case) must provide individual lead tap results to the people who receive water from the sites that were sampled, regardless of whether the results exceed the Lead Action Level, as required by 40 CFR 141.85(d).

Results Summary

Water samples were collected from 129 drinking water sources at the school.

121 samples were found to NOT contain elevated lead levels as they were below 15 ppb.

8 samples were found to contain elevated lead levels above 15 ppb.

Sampling

The samples were collected by EPA accredited inspectors provided by Sterling. Samples included representative amounts of water. The lead in drinking water samples were analyzed by Apex Laboratories by EPA Method 200.8. The sampling guidelines followed were based on the federal school standard with emphasis on the Lead Copper Rule for sampling sites chosen.

Assessment Results

Analytical Results: Lead in Drinking Water

Item	Sample ID.	Area/Building	Location	Result (µ/L)
1	RA-S-1	Stadium	2 nd Floor East, Drinking Fountain	2.19
2	RA-S-2	Stadium	2 nd Floor East Concessions, Sink Faucet	2.84



Item	Sample ID.	Area/Building	Location	Result (µ/L)
3	RA-S-3	Stadium	2 nd Floor West Boys Restroom, Sink Faucet	13.2
4	RA-S-4	Stadium	Ground Floor PT Room, Drinking Fountain	9.78
5	RA-S-5	Stadium	Office East Restroom, Sink Faucet	3.64
6	RA-S-6	Stadium	Locker Room, Sink Faucet	4.53
7	RA-S-7	Stadium	Locker Room, Drinking Fountain	10.8
8	RA-S-8	Stadium	Restroom West, Sink Faucet	4.67
9	RA-S-9	Stadium	Men's Restroom West Side, Sink Faucet	3.68
10	RA-S-10	Stadium	Showers	9.27
11	RA-S-11	Stadium	Women's Restroom Concession Side, Faucet	17.0
12	RA-S-12	Stadium	Concessions, Sink Faucet	1.80
13	RA-S-13	Stadium	Concessions, Drinking Fountain	3.99
14	RA-S-14	Stadium	Women's Restroom West Concession, Faucet	6.62
15	RA-G-1	Main Gym	Weight Room NE, Drinking Fountain	ND
16	RA-G-2	Main Gym	2 nd Floor Girls Restroom E, Sink Faucet	9.35
17	RA-G-3	Main Gym	2 nd Floor Girls Restroom SE, Sink Faucet	9.80
18	RA-G-4	Main Gym	Girls Locker Room, Sink Faucet	1.17
19	RA-G-5	Main Gym	Girls Locker Room, Shower Faucet	44.9
20	RA-G-6	Main Gym	Boys Locker Room, Sink Faucet	1.02
21	RA-G-7	Main Gym	Boys Locker Room, Shower Faucet	2.54
22	RA-G-8	Main Gym	Volleyball Office Restroom, Sink Faucet	2.14
23	RA-G-9	Main Gym	Staff Restroom Outside Room 11, Sink Faucet	1.88
24	RA-G-10	Main Gym	Main Entry, Drinking Fountain	4.13
25	RA-G-11	Main Gym	Girls Locker Room, Drinking Fountain	ND
26	RA-G-12	Main Gym	East Hallway, Drinking Fountain	0.399
27	RA-G-13	Main Gym	Main Hall Men's Restroom, Sink Faucet	1.01
28	RA-G-14	Main Gym	2 nd Floor E Men's Restroom, Sink Faucet	10.6
29	RA-G-15	Main Gym	2 nd Floor Men's Restroom by Concessions, Faucet	15.9
30	RA-14-1F		Classroom 14, Sink Faucet #1	2.99
31	RA-14-2F		Classroom 14, Sink Faucet #2	2.45
32	RA-14-3F		Classroom 14, Sink Faucet #3	1.27
33	RA-14-4F		Classroom 14, Sink Faucet #4	4.94
34	RA-14-5F		Classroom 14, Sink Faucet #5	5.25
35	RA-14-6F		Classroom 14, Sink Faucet #6	14.5
36	RA-14-SSF		Classroom 14 Storage Room, Sink Faucet	156
37	RA-C-BRR-F		Cafeteria Boys Restroom, Sink Faucet	3.87



Item	Sample ID.	Area/Building	Location	Result (µ/L)
38	RA-C-GRR-F		Cafeteria Girls Restroom, Sink Faucet	0.453
39	RA-C-DF		Cafeteria, Drinking Fountain	14.4
40	RA-113-F		Classroom 113, Sink Faucet	10.7
41	RA-107-LSF		Classroom 107 Left, Sink Faucet,	0.556
42	RA-107-RSF		Classroom 107 Right, Sink Faucet	0.607
43	RA-DD-GRRF	Drama	Dressing Room Girls Restroom, Sink Faucet	2.75
44	RA-DD-BRRF	Drama	Dressing Room Boys Restroom, Sink Faucet	4.42
45	RA-DD-F	Drama	Dressing Room, Sink Faucet	2.48
46	RA-DF-111	Drama	Hall by Classroom 111, Drinking Fountain	ND
47	RA-CC-F	Career	Career Center, Sink Faucet	6.54
48	RA-LC-SP-F	Learning	Learning Center Staff Prep, Sink Faucet	3.29
49	RA-LC-SP-WRRP	Learning	Staff Prep Women's Restroom, Sink Faucet	0.682
50	RA-130-L1	School	Classroom 130, Sink Faucet, Left 1	9.57
51	RA-130-L2	School	Classroom 130, Sink Faucet, Left 2	1.70
52	RA-130-L3	School	Classroom 130, Sink Faucet, Left 3	3.05
53	RA-130-L4	School	Classroom 130, Sink Faucet, Left 4	1.39
54	RA-130-L5	School	Classroom 130, Sink Faucet, Left 5	1.10
55	RA-130-L6	School	Classroom 130, Sink Faucet, Left 6	0.727
56	RA-130-L7	School	Classroom 130, Sink Faucet, Left 7	1.78
57	RA-135-F	School	Classroom 135, Sink Faucet, Front	9.00
58	RA-135-L1	School	Classroom 135, Sink Faucet, Left 1 (SE)	6.00
59	RA-135-L2	School	Classroom 135, Sink Faucet, Left 2 (S)	4.25
60	RA-135-L3	School	Classroom 135, Sink Faucet, Left 3 (S)	6.93
61	RA-135-L4	School	Classroom 135, Sink Faucet, Left 4 (S)	5.29
62	RA-135-L5	School	Classroom 135, Sink Faucet, Left 5 (S)	11.3
63	RA-135-L6	School	Classroom 135, Sink Faucet, Left 6 (S)	4.62
64	RA-135-L7	School	Classroom 135, Sink Faucet, Left 7 (NW)	12.4
65	RA-135-L8	School	Classroom 135, Sink Faucet, Left 8 (E)	8.75
66	RA-136-Front	School	Classroom 136, Sink Faucet, Front	12.2
67	RA-136-L1	School	Classroom 136, Sink Faucet, Left 1 (W)	3.81
68	RA-136-L2	School	Classroom 136, Sink Faucet, Left 2 (NE)	4.96
69	RA-136-L3	School	Classroom 136, Sink Faucet, Left 3 (E)	6.13
70	RA-136-L4	School	Classroom 136, Sink Faucet, Left 4 (SE)	7.34
71	RA-136-L5	School	Classroom 136, Sink Faucet, Left 5 (S)	5.70
72	RA-136-L6	School	Classroom 136, Sink Faucet, Left 6 (S)	1.31



Item	Sample ID.	Area/Building	Location	Result (µ/L)
73	RA-136-L7	School	Classroom 136, Sink Faucet, Left 7 (S)	3.69
74	RA-136-L8	School	Classroom 136, Sink Faucet, Left 8 (SW)	3.00
75	RA-143-F	School	Classroom 143, Sink Faucet, Front	8.02
76	RA-143-L1	School	Classroom 143, Sink Faucet, Left 1 (W)	1.78
77	RA-143-L2	School	Classroom 143, Sink Faucet, Left 2 (N)	25.9
78	RA-131-L1	School	Classroom 131, Sink Faucet, Left 1	6.15
79	RA-131-L2	School	Classroom 131, Sink Faucet, Left 2	2.83
80	RA-131-C	School	Classroom 131, Sink Faucet, Center	8.74
81	RA-132-L1	School	Classroom 132, Sink Faucet, Left 1	9.95
82	RA-132-L2	School	Classroom 132, Sink Faucet, Left 2	28.9
83	RA-132-L3	School	Classroom 132, Sink Faucet, Left 3	2.71
84	RA-132-L4	School	Classroom 132, Sink Faucet, Left 4	2.70
85	RA-132-L5	School	Classroom 132, Sink Faucet, Left 5	2.80
86	RA-132-L6	School	Classroom 132, Sink Faucet, Left 6	4.17
87	RA-132-L7	School	Classroom 132, Sink Faucet, Left 7	7.89
88	RA-132-L8	School	Classroom 132, Sink Faucet, Left 8	2.00
89	RA-N-F	School	Nurse's Office, Sink Faucet	40.0
90	RA-N-KS	School	Nurse's Office Kitchen, Sink Faucet	6.58
91	RA-N-RR	School	Nurse's Office Restroom, Sink Faucet	5.05
92	RA-104-F	School	Classroom 104, Sink Faucet	0.977
93	RA-104-RF	School	Classroom 104 Rear, Sink Faucet	2.05
94	RA-116-F	School	Classroom 116, Sink Faucet	7.44
95	RA-117-F	School	Classroom 117, Sink Faucet	4.53
96	RA-118-F	School	Classroom 118, Sink Faucet	5.67
97	RA-119-F	School	Classroom 119, Sink Faucet	8.54
98	RA-120-F	School	Classroom 120, Sink Faucet	14.4
99	RA-207-F	School	Classroom 207, Sink Faucet	2.12
100	RA-DF-119	School	Outside Classroom 119, Drinking Fountain	ND
101	RA-DF-131	School	Outside Classroom 131, Drinking Fountain	3.86
102	RA-137-DF	School	Outside Classroom 137, Drinking Fountain	0.986
103	RA-202-DF	School	Outside Classroom 202, Drinking Fountain	2.46
104	RA-205-DF	School	Outside Classroom 205, Drinking Fountain	3.98
105	RA-DF-209	School	Outside Classroom 209, Drinking Fountain	2.72
106	RA-DF-213	School	Outside Classroom 213, Drinking Fountain	5.33
107	RA-DF-CO	School	Outside Counselor's Office, Drinking Fountain	ND



Item	Sample ID.	Area/Building	Location	Result (µ/L)
108	RA-L-F	School	Library, Sink Faucet	120
109	RA-SSCP-F	School	Science Center Storage Prep, Sink Faucet	26.7
110	RA-SF-RR	School	Science Faculty Restroom, Sink Faucet	1.59
111	RA-WRR-116	School	Women's Restroom outside Classroom 116, Sink Faucet	3.65
112	RA-BRR-205	School	Boys Restroom outside Classroom 205, Sink Faucet	1.15
113	RA-WRR-209	School	Women's Restroom outside Classroom 209, Sink Faucet	0.838
114	RA-WRR-211	School	Women's Restroom outside Classroom 211, Sink Faucet	5.69
115	RA-MRR-212	School	Men's Restroom outside Classroom 212, Sink Faucet	5.15
116	RA-SCP-F	School	Science Enter Prep, Sink Faucet	1.00
117	RA-K-EP	School	Kitchen Prep East, Sink Faucet	1.83
118	RA-K-MP	School	Kitchen Mixer, Faucet	0.849
119	RA-KW-PR	School	Kitchen West Prep, Sink Faucet Right Side	0.847
120	RA-KW-PL	School	Kitchen West Prep, Sink Faucet Left Side	1.26
121	RA-KW-WS	School	Kitchen West Wash Sink, Faucet	1.18
122	RA-K-RR	School	Kitchen Restroom, Sink Faucet	4.56
123	RA-SCP-S	School	Science Center Prep South, Sink Faucet	3.00
124	RA-K-WS	School	Kitchen Wash Sink, Faucet	2.61
125	RA-K-ES	School	Kitchen East, Sink Faucet	0.770
126	RA-O-RR	School	Main Office Restroom, Sink Faucet	6.98
127	RA-O-LRR	School	Main Office Women's Restroom, Sink Faucet	1.36
128	RA-1	Small Gym	Restroom Sink F	4.60
129	RA-2	Small Gym	Drinking Fountain	7.93

ND = Non-Detect 11.9

As highlighted () in the above table, the lab results for 8 of the 129 drinking water samples collected was found to be at or above the 15 ppb action level for lead in drinking water. The remaining 121 drinking water samples were found to be below the 15 ppb action level.

Note: Drinking water sources with lead levels above an approximate background level of 2.0 ppb have also been highlighted ().

Conclusions and Recommendations

Eight locations were noted to have elevated lead in drinking water.

No elevated lead in drinking water levels were noted in the other locations that were sampled at the school, and the results were below the lead in drinking water EPA standard under the Safe



Drinking Water Act of 15 ppb. Eighty-five drinking water locations did have residual lead levels above a background level of 2.0 ppb.

It is our recommendation that the Longview School District consider the installation of a combination drinking fountain and motion sensor water filling system using an ANSI 53 certified filter by the National Science Foundation (NSF). The Elkay EZH20 is a popular fixture and is advertised online for about \$1,500 per unit. Note that fixtures with refrigeration jump in price to around \$4,000. These systems have proven effective for the removal of lead particulates with our other school district clients.

Given the age of the older school plumbing systems (school built in 1970's) and the residual levels of lead noted in the drinking water sources in most of the water sources tested, Sterling recommends that the district consider replacement of all water fountains at the campus with fixtures that include a suitable lead filtration system. As the existing drinking water fountains do not have an electrical source, a mechanical system would be preferable. With the mechanical fixtures, required filter changes are noted on a counter that is based on the volume of water passed through the filter.

The district might also consider instituting an administrative policy that only those drinking water sources that include a lead filtration system be used for drinking water; discourage use of unfiltered water sources (e.g., classroom sink water faucets).

Limitations

This report is for the exclusive use of the client, applies only to the specific subject property detailed above, and shall not be relied upon by any other party without the prior written consent of the undersigned.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted practices in this area at the time this report was prepared. No other hazardous materials/wastes were investigated. No other conditions, expressed or implied, should be understood.

Recordkeeping

Additional copies of this report are available from Sterling Technologies upon request. Unless otherwise requested, samples will be retained for a period of 30 days, after which they will be discarded. If you have any questions about these results or would like additional information, please feel free to call our office.

Sterling Technologies thanks you for this opportunity to be of service.

Sincerely,



Thomas Nadermann, M.S., Principal
AHERA Inspector #155212, Lead Risk Assessor #0493



Appendix A

Inspector's Certification



STATE OF WASHINGTON

Department of Commerce
Lead-Based Paint Abatement Program

Thomas Heinrich Nadermann

*Has fulfilled the certification requirements of
WAC 365-230
and has been certified to conduct lead-based
paint activities as a
Risk Assessor*

<u>Certification #</u>	<u>Issuance Date</u>	<u>Expiration Date</u>
0493	02/08/2021	10/22/2023

STATE OF WASHINGTON

Department of Commerce
Lead-Based Paint Abatement Program

Edwin L Wilson

*Has fulfilled the certification requirements of
WAC 365-230
and has been certified to conduct lead-based
paint activities as a
Risk Assessor*

<u>Certification #</u>	<u>Issuance Date</u>	<u>Expiration Date</u>
8040	08/26/2021	07/22/2024



Appendix B

Field Data

Laboratory Results





ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Friday, June 24, 2022

Thomas Nadermann
Sterling Technologies LLC
317 NE 144th St
Vancouver, WA 98685

RE: A2F0216 - Drinking Water - 2022 - RA Long High School

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2F0216, which was received by the laboratory on 6/7/2022 at 12:44:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: DAuvil@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	19.8 degC
-----------	-----------

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Sterling Technologies LLC**317 NE 144th St
Vancouver, WA 98685Project: **Drinking Water - 2022**Project Number: RA Long High School
Project Manager: Thomas Nadermann**Report ID:**

A2F0216 - 06 24 22 1633

ANALYTICAL REPORT FOR SAMPLES**SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RA-130-L1	A2F0216-01	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-130-L2	A2F0216-02	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-130-L3	A2F0216-03	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-130-L4	A2F0216-04	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-130-L5	A2F0216-05	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-130-L6	A2F0216-06	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-130-L7	A2F0216-07	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-135-F	A2F0216-08	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-135-L1	A2F0216-09	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-135-L2	A2F0216-10	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-135-L3	A2F0216-11	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-135-L4	A2F0216-12	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-135-L5	A2F0216-13	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-135-L6	A2F0216-14	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-135-L7	A2F0216-15	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-135-L8	A2F0216-16	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-136-Front	A2F0216-17	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-136-L1	A2F0216-18	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-136-L2	A2F0216-19	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-136-L3	A2F0216-20	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-136-L4	A2F0216-21	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-136-L5	A2F0216-22	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-136-L6	A2F0216-23	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-136-L7	A2F0216-24	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-136-L8	A2F0216-25	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-143-F	A2F0216-26	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-143-L1	A2F0216-27	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-143-L2	A2F0216-28	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-131-L1	A2F0216-29	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-131-L2	A2F0216-30	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-131-C	A2F0216-31	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-132-L1	A2F0216-32	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-132-L2	A2F0216-33	Drinking Water	06/03/22 00:00	06/07/22 12:44

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Sterling Technologies LLC**317 NE 144th St
Vancouver, WA 98685Project: **Drinking Water - 2022**Project Number: RA Long High School
Project Manager: Thomas Nadermann**Report ID:**

A2F0216 - 06 24 22 1633

ANALYTICAL REPORT FOR SAMPLES**SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RA-132-L3	A2F0216-34	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-132-L4	A2F0216-35	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-132-L6	A2F0216-36	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-132-L7	A2F0216-37	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-132-L8	A2F0216-38	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-N-F	A2F0216-39	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-N-KS	A2F0216-40	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-N-RR	A2F0216-41	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-104-F	A2F0216-42	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-104-RF	A2F0216-43	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-105-F	A2F0216-44	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-116-F	A2F0216-45	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-117-F	A2F0216-46	Drinking Water	06/03/22 00:00	06/07/22 12:44
RAL-118-F	A2F0216-47	Drinking Water	06/03/22 00:00	06/07/22 12:44
RAL-119-F	A2F0216-48	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-120-F	A2F0216-49	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-207-F	A2F0216-50	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-DF-119	A2F0216-51	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-DF-131	A2F0216-52	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-137-DF	A2F0216-53	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-202-DF	A2F0216-54	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-205-DF	A2F0216-55	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-DF-209	A2F0216-56	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-DF-213	A2F0216-57	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-DF-CO	A2F0216-58	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-L-F	A2F0216-59	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-SSCP-F	A2F0216-60	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-SF-RR	A2F0216-61	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-WRR-116	A2F0216-62	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-BRR-205	A2F0216-63	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-WRR-209	A2F0216-64	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-WRR-211	A2F0216-65	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-MRR-212	A2F0216-66	Drinking Water	06/03/22 00:00	06/07/22 12:44

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Sterling Technologies LLC**317 NE 144th St
Vancouver, WA 98685Project: **Drinking Water - 2022**Project Number: **RA Long High School**
Project Manager: **Thomas Nadermann****Report ID:****A2F0216 - 06 24 22 1633****ANALYTICAL REPORT FOR SAMPLES****SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RA-SCP-F	A2F0216-67	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-K-EP	A2F0216-68	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-K-MP	A2F0216-69	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-KW-PR	A2F0216-70	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-KW-PL	A2F0216-71	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-KW-WS	A2F0216-72	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-K-RR	A2F0216-73	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-SCP-S	A2F0216-74	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-K-WS	A2F0216-75	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-K-ES	A2F0216-76	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-O-RR	A2F0216-77	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-O-LRR	A2F0216-78	Drinking Water	06/03/22 00:00	06/07/22 12:44

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022Project Number: RA Long High School
Project Manager: Thomas NadermannReport ID:

A2F0216 - 06 24 22 1633

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-130-L1 (A2F0216-01) Matrix: Drinking Water								
Batch: 22F0468								
Lead	9.57	---	0.200	ug/L	1	06/14/22 02:38	EPA 200.8	
RA-130-L2 (A2F0216-02) Matrix: Drinking Water								
Batch: 22F0468								
Lead	1.70	---	0.200	ug/L	1	06/14/22 02:42	EPA 200.8	
RA-130-L3 (A2F0216-03) Matrix: Drinking Water								
Batch: 22F0468								
Lead	3.05	---	0.200	ug/L	1	06/14/22 02:54	EPA 200.8	
RA-130-L4 (A2F0216-04) Matrix: Drinking Water								
Batch: 22F0468								
Lead	1.39	---	0.200	ug/L	1	06/14/22 02:58	EPA 200.8	
RA-130-L5 (A2F0216-05) Matrix: Drinking Water								
Batch: 22F0468								
Lead	1.10	---	0.200	ug/L	1	06/14/22 03:02	EPA 200.8	
RA-130-L6 (A2F0216-06) Matrix: Drinking Water								
Batch: 22F0468								
Lead	0.727	---	0.200	ug/L	1	06/14/22 03:06	EPA 200.8	
RA-130-L7 (A2F0216-07) Matrix: Drinking Water								
Batch: 22F0468								
Lead	1.78	---	0.200	ug/L	1	06/14/22 03:09	EPA 200.8	
RA-135-F (A2F0216-08) Matrix: Drinking Water								
Batch: 22F0473								
Lead	9.00	---	0.200	ug/L	1	06/14/22 16:36	EPA 200.8	
RA-135-L1 (A2F0216-09) Matrix: Drinking Water								
Batch: 22F0473								
Lead	6.00	---	0.200	ug/L	1	06/14/22 16:49	EPA 200.8	
RA-135-L2 (A2F0216-10) Matrix: Drinking Water								
Batch: 22F0473								

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022

Project Number: RA Long High School

Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-135-L2 (A2F0216-10)				Matrix: Drinking Water				
Lead	4.25	---	0.200	ug/L	1	06/14/22 16:53	EPA 200.8	
RA-135-L3 (A2F0216-11)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	6.93	---	0.200	ug/L	1	06/14/22 17:05	EPA 200.8	
RA-135-L4 (A2F0216-12)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	5.29	---	0.200	ug/L	1	06/14/22 17:09	EPA 200.8	
RA-135-L5 (A2F0216-13)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	11.3	---	0.200	ug/L	1	06/14/22 17:13	EPA 200.8	
RA-135-L6 (A2F0216-14)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	4.62	---	0.200	ug/L	1	06/14/22 17:17	EPA 200.8	
RA-135-L7 (A2F0216-15)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	12.4	---	0.200	ug/L	1	06/14/22 17:21	EPA 200.8	
RA-135-L8 (A2F0216-16)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	8.75	---	0.200	ug/L	1	06/14/22 17:26	EPA 200.8	
RA-136-Front (A2F0216-17)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	12.2	---	0.200	ug/L	1	06/14/22 17:30	EPA 200.8	
RA-136-L1 (A2F0216-18)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	3.81	---	0.200	ug/L	1	06/14/22 17:34	EPA 200.8	
RA-136-L2 (A2F0216-19)				Matrix: Drinking Water				
Batch: 22F0473								

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022Project Number: RA Long High School
Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-136-L2 (A2F0216-19)				Matrix: Drinking Water				
Lead	4.96	---	0.200	ug/L	1	06/14/22 17:38	EPA 200.8	
RA-136-L3 (A2F0216-20)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	6.13	---	0.200	ug/L	1	06/14/22 17:42	EPA 200.8	
RA-136-L4 (A2F0216-21)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	7.34	---	0.200	ug/L	1	06/14/22 17:54	EPA 200.8	
RA-136-L5 (A2F0216-22)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	5.70	---	0.200	ug/L	1	06/14/22 17:58	EPA 200.8	
RA-136-L6 (A2F0216-23)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	1.31	---	0.200	ug/L	1	06/14/22 18:02	EPA 200.8	
RA-136-L7 (A2F0216-24)				Matrix: Drinking Water				
Batch: 22F0545								
Lead	3.69	---	0.222	ug/L	1	06/15/22 20:50	EPA 200.8	DW-D, B
RA-136-L8 (A2F0216-25)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	3.00	---	0.200	ug/L	1	06/14/22 18:06	EPA 200.8	
RA-143-F (A2F0216-26)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	8.02	---	0.200	ug/L	1	06/14/22 18:10	EPA 200.8	
RA-143-L1 (A2F0216-27)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	1.78	---	0.200	ug/L	1	06/14/22 18:14	EPA 200.8	
RA-143-L2 (A2F0216-28)				Matrix: Drinking Water				
Batch: 22F0545								

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022

Project Number: RA Long High School

Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-143-L2 (A2F0216-28)				Matrix: Drinking Water				
Lead	25.9	---	0.222	ug/L	1	06/15/22 20:54	EPA 200.8	DW-D, B
RA-131-L1 (A2F0216-29)				Matrix: Drinking Water				
Batch: 22F0473								
Lead	6.15	---	0.200	ug/L	1	06/14/22 18:22	EPA 200.8	
RA-131-L2 (A2F0216-30)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	2.83	---	0.200	ug/L	1	06/14/22 18:42	EPA 200.8	
RA-131-C (A2F0216-31)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	8.74	---	0.200	ug/L	1	06/14/22 18:54	EPA 200.8	
RA-132-L1 (A2F0216-32)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	9.95	---	0.200	ug/L	1	06/14/22 18:58	EPA 200.8	
RA-132-L2 (A2F0216-33)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	28.9	---	0.200	ug/L	1	06/14/22 19:03	EPA 200.8	
RA-132-L3 (A2F0216-34)				Matrix: Drinking Water				
Batch: 22F0545								
Lead	2.71	---	0.222	ug/L	1	06/15/22 20:59	EPA 200.8	DW-D, B
RA-132-L4 (A2F0216-35)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	2.70	---	0.200	ug/L	1	06/14/22 19:07	EPA 200.8	
RA-132-L6 (A2F0216-36)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	2.80	---	0.200	ug/L	1	06/14/22 19:11	EPA 200.8	
RA-132-L7 (A2F0216-37)				Matrix: Drinking Water				
Batch: 22F0481								

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022Project Number: RA Long High School
Project Manager: Thomas NadermannReport ID:

A2F0216 - 06 24 22 1633

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-132-L7 (A2F0216-37)				Matrix: Drinking Water				
Lead	4.17	---	0.200	ug/L	1	06/14/22 19:16	EPA 200.8	
RA-132-L8 (A2F0216-38)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	7.89	---	0.200	ug/L	1	06/14/22 19:20	EPA 200.8	
RA-N-F (A2F0216-39)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	2.00	---	0.200	ug/L	1	06/14/22 19:32	EPA 200.8	
RA-N-KS (A2F0216-40)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	40.0	---	0.200	ug/L	1	06/14/22 19:36	EPA 200.8	
RA-N-RR (A2F0216-41)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	6.58	---	0.200	ug/L	1	06/14/22 19:40	EPA 200.8	
RA-104-F (A2F0216-42)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	5.05	---	0.200	ug/L	1	06/14/22 19:44	EPA 200.8	
RA-104-RF (A2F0216-43)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	0.977	---	0.200	ug/L	1	06/14/22 19:48	EPA 200.8	
RA-105-F (A2F0216-44)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	2.05	---	0.200	ug/L	1	06/14/22 19:52	EPA 200.8	
RA-116-F (A2F0216-45)				Matrix: Drinking Water				
Batch: 22F0481								
Lead	7.44	---	0.200	ug/L	1	06/14/22 19:56	EPA 200.8	
RA-117-F (A2F0216-46)				Matrix: Drinking Water				
Batch: 22F0481								

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022Project Number: RA Long High School
Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-117-F (A2F0216-46) Matrix: Drinking Water								
Lead	4.53	---	0.200	ug/L	1	06/14/22 20:00	EPA 200.8	
RAL-118-F (A2F0216-47) Matrix: Drinking Water								
Batch: 22F0481								
Lead	5.67	---	0.200	ug/L	1	06/14/22 20:04	EPA 200.8	
RAL-119-F (A2F0216-48) Matrix: Drinking Water								
Batch: 22F0481								
Lead	8.54	---	0.200	ug/L	1	06/14/22 20:08	EPA 200.8	
RA-120-F (A2F0216-49) Matrix: Drinking Water								
Batch: 22F0481								
Lead	14.4	---	0.200	ug/L	1	06/14/22 20:20	EPA 200.8	
RA-207-F (A2F0216-50) Matrix: Drinking Water								
Batch: 22F0481								
Lead	2.12	---	0.200	ug/L	1	06/14/22 20:24	EPA 200.8	
RA-DF-119 (A2F0216-51) Matrix: Drinking Water								
Batch: 22F0505								
Lead	ND	---	0.200	ug/L	1	06/14/22 20:40	EPA 200.8	
RA-DF-131 (A2F0216-52) Matrix: Drinking Water								
Batch: 22F0545								
Lead	3.86	---	0.222	ug/L	1	06/15/22 21:04	EPA 200.8	DW-D, B
RA-137-DF (A2F0216-53) Matrix: Drinking Water								
Batch: 22F0505								
Lead	0.986	---	0.200	ug/L	1	06/14/22 20:51	EPA 200.8	
RA-202-DF (A2F0216-54) Matrix: Drinking Water								
Batch: 22F0505								
Lead	2.46	---	0.200	ug/L	1	06/14/22 20:55	EPA 200.8	
RA-205-DF (A2F0216-55) Matrix: Drinking Water								
Batch: 22F0505								

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022Project Number: RA Long High School
Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-205-DF (A2F0216-55) Matrix: Drinking Water								
Lead	3.98	---	0.200	ug/L	1	06/14/22 21:07	EPA 200.8	
RA-DF-209 (A2F0216-56) Matrix: Drinking Water								
Batch: 22F0505								
Lead	2.72	---	0.200	ug/L	1	06/14/22 21:11	EPA 200.8	
RA-DF-213 (A2F0216-57) Matrix: Drinking Water								
Batch: 22F0505								
Lead	5.33	---	0.200	ug/L	1	06/14/22 21:15	EPA 200.8	
RA-DF-CO (A2F0216-58) Matrix: Drinking Water								
Batch: 22F0505								
Lead	ND	---	0.200	ug/L	1	06/14/22 21:19	EPA 200.8	
RA-L-F (A2F0216-59RE1) Matrix: Drinking Water								
Batch: 22F0505								
Lead	120	---	2.00	ug/L	10	06/15/22 15:17	EPA 200.8	
RA-SSCP-F (A2F0216-60) Matrix: Drinking Water								
Batch: 22F0505								
Lead	26.7	---	0.200	ug/L	1	06/14/22 21:27	EPA 200.8	
RA-SF-RR (A2F0216-61) Matrix: Drinking Water								
Batch: 22F0505								
Lead	1.59	---	0.200	ug/L	1	06/14/22 21:31	EPA 200.8	
RA-WRR-116 (A2F0216-62) Matrix: Drinking Water								
Batch: 22F0505								
Lead	3.65	---	0.200	ug/L	1	06/14/22 21:35	EPA 200.8	
RA-BRR-205 (A2F0216-63) Matrix: Drinking Water								
Batch: 22F0505								
Lead	1.15	---	0.200	ug/L	1	06/14/22 21:39	EPA 200.8	
RA-WRR-209 (A2F0216-64) Matrix: Drinking Water								
Batch: 22F0505								

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022Project Number: RA Long High School
Project Manager: Thomas NadermannReport ID:

A2F0216 - 06 24 22 1633

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-WRR-209 (A2F0216-64)				Matrix: Drinking Water				
Lead	0.838	---	0.200	ug/L	1	06/14/22 21:42	EPA 200.8	
RA-WRR-211 (A2F0216-65)				Matrix: Drinking Water				
Batch: 22F0505								
Lead	5.69	---	0.200	ug/L	1	06/14/22 21:54	EPA 200.8	
RA-MRR-212 (A2F0216-66)				Matrix: Drinking Water				
Batch: 22F0505								
Lead	5.15	---	0.200	ug/L	1	06/14/22 21:58	EPA 200.8	
RA-SCP-F (A2F0216-67)				Matrix: Drinking Water				
Batch: 22F0505								
Lead	1.00	---	0.200	ug/L	1	06/14/22 22:02	EPA 200.8	
RA-K-EP (A2F0216-68)				Matrix: Drinking Water				
Batch: 22F0505								
Lead	1.83	---	0.200	ug/L	1	06/14/22 22:05	EPA 200.8	
RA-K-MP (A2F0216-69)				Matrix: Drinking Water				
Batch: 22F0505								
Lead	0.849	---	0.200	ug/L	1	06/14/22 22:09	EPA 200.8	
RA-KW-PR (A2F0216-70)				Matrix: Drinking Water				
Batch: 22F0505								
Lead	0.847	---	0.200	ug/L	1	06/14/22 22:13	EPA 200.8	
RA-KW-PL (A2F0216-71)				Matrix: Drinking Water				
Batch: 22F0505								
Lead	1.26	---	0.200	ug/L	1	06/14/22 22:16	EPA 200.8	
RA-KW-WS (A2F0216-72)				Matrix: Drinking Water				
Batch: 22F0509								
Lead	1.18	---	0.200	ug/L	1	06/14/22 22:39	EPA 200.8	
RA-K-RR (A2F0216-73)				Matrix: Drinking Water				
Batch: 22F0509								

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022Project Number: RA Long High School
Project Manager: Thomas NadermannReport ID:

A2F0216 - 06 24 22 1633

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-K-RR (A2F0216-73)				Matrix: Drinking Water				
Lead	4.56	---	0.200	ug/L	1	06/14/22 22:50	EPA 200.8	
RA-SCP-S (A2F0216-74)				Matrix: Drinking Water				
Batch: 22F0509								
Lead	3.00	---	0.200	ug/L	1	06/14/22 22:54	EPA 200.8	
RA-K-WS (A2F0216-75)				Matrix: Drinking Water				
Batch: 22F0509								
Lead	2.61	---	0.200	ug/L	1	06/14/22 22:58	EPA 200.8	
RA-K-ES (A2F0216-76)				Matrix: Drinking Water				
Batch: 22F0509								
Lead	0.770	---	0.200	ug/L	1	06/14/22 23:02	EPA 200.8	
RA-O-RR (A2F0216-77)				Matrix: Drinking Water				
Batch: 22F0509								
Lead	6.98	---	0.200	ug/L	1	06/14/22 23:06	EPA 200.8	
RA-O-LRR (A2F0216-78)				Matrix: Drinking Water				
Batch: 22F0509								
Lead	1.36	---	0.200	ug/L	1	06/14/22 23:10	EPA 200.8	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022Project Number: RA Long High School
Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0468 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0468-BLK1)			Prepared: 06/13/22 18:24		Analyzed: 06/14/22 01:24							
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0468-BS1)			Prepared: 06/13/22 18:24		Analyzed: 06/14/22 01:27							
EPA 200.8												
Lead	15.8	---	0.201	ug/L	1	15.0	---	105	85-115%	---	---	
Duplicate (22F0468-DUP1)			Prepared: 06/13/22 18:24		Analyzed: 06/14/22 01:36							
QC Source Sample: Non-SDG (A2F0105-83)												
Lead	11.9	---	0.200	ug/L	1	---	12.0	---	---	0.8	20%	
Matrix Spike (22F0468-MS1)			Prepared: 06/13/22 18:24		Analyzed: 06/14/22 01:40							
QC Source Sample: Non-SDG (A2F0105-83)												
EPA 200.8												
Lead	26.9	---	0.201	ug/L	1	15.0	12.0	99	70-130%	---	---	
Matrix Spike (22F0468-MS2)			Prepared: 06/13/22 18:24		Analyzed: 06/14/22 03:13							
QC Source Sample: RA-130-L7 (A2F0216-07)												
EPA 200.8												
Lead	16.6	---	0.201	ug/L	1	15.0	1.78	99	70-130%	---	---	
Batch 22F0473 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0473-BLK1)			Prepared: 06/14/22 08:05		Analyzed: 06/14/22 15:35							
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0473-BS1)			Prepared: 06/14/22 08:05		Analyzed: 06/14/22 15:39							
EPA 200.8												
Lead	14.7	---	0.201	ug/L	1	15.0	---	98	85-115%	---	---	
Duplicate (22F0473-DUP1)			Prepared: 06/14/22 08:05		Analyzed: 06/14/22 16:32							
QC Source Sample: RA-135-F (A2F0216-08)												

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RA Long High School
Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0473 - EPA 200.8 Direct Analysis						Drinking Water						
Duplicate (22F0473-DUP1)			Prepared: 06/14/22 08:05		Analyzed: 06/14/22 16:32							
<u>QC Source Sample: RA-135-F (A2F0216-08)</u>												
<u>EPA 200.8</u>												
Lead	9.01	---	0.200	ug/L	1	---	9.00	---	---	0.1	20%	
Matrix Spike (22F0473-MS1)			Prepared: 06/14/22 08:05		Analyzed: 06/14/22 16:40							
<u>QC Source Sample: RA-135-F (A2F0216-08)</u>												
<u>EPA 200.8</u>												
Lead	24.0	---	0.201	ug/L	1	15.0	9.00	100	70-130%	---	---	
Matrix Spike (22F0473-MS2)			Prepared: 06/14/22 08:05		Analyzed: 06/14/22 18:18							
<u>QC Source Sample: RA-143-L1 (A2F0216-27)</u>												
<u>EPA 200.8</u>												
Lead	16.4	---	0.201	ug/L	1	15.0	1.78	97	70-130%	---	---	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC
317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**
Project Number: **RA Long High School**
Project Manager: **Thomas Nadermann**

Report ID:
A2F0216 - 06 24 22 1633

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0481 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0481-BLK1)			Prepared: 06/14/22 09:28		Analyzed: 06/14/22 18:27							
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0481-BS1)			Prepared: 06/14/22 09:28		Analyzed: 06/14/22 18:30							
EPA 200.8												
Lead	14.9	---	0.201	ug/L	1	15.0	---	100	85-115%	---	---	
Duplicate (22F0481-DUP1)			Prepared: 06/14/22 09:28		Analyzed: 06/14/22 18:46							
QC Source Sample: RA-131-L2 (A2F0216-30)												
EPA 200.8												
Lead	2.88	---	0.200	ug/L	1	---	2.83	---	---	2	20%	
Matrix Spike (22F0481-MS1)			Prepared: 06/14/22 09:28		Analyzed: 06/14/22 18:50							
QC Source Sample: RA-131-L2 (A2F0216-30)												
EPA 200.8												
Lead	17.4	---	0.201	ug/L	1	15.0	2.83	97	70-130%	---	---	
Matrix Spike (22F0481-MS2)			Prepared: 06/14/22 09:28		Analyzed: 06/14/22 20:29							
QC Source Sample: RA-207-F (A2F0216-50)												
EPA 200.8												
Lead	17.2	---	0.201	ug/L	1	15.0	2.12	101	70-130%	---	---	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Sterling Technologies LLC**317 NE 144th St
Vancouver, WA 98685Project: **Drinking Water - 2022**Project Number: **RA Long High School**Project Manager: **Thomas Nadermann****Report ID:****A2F0216 - 06 24 22 1633**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0505 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0505-BLK1)			Prepared: 06/14/22 15:45		Analyzed: 06/14/22 20:33							
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0505-BS1)			Prepared: 06/14/22 15:45		Analyzed: 06/14/22 20:36							
EPA 200.8												
Lead	15.6	---	0.201	ug/L	1	15.0	---	104	85-115%	---	---	
Duplicate (22F0505-DUP1)			Prepared: 06/14/22 15:45		Analyzed: 06/14/22 20:44							
QC Source Sample: RA-DF-119 (A2F0216-51)												
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	ND	---	---	---	20%	
Matrix Spike (22F0505-MS1)			Prepared: 06/14/22 15:45		Analyzed: 06/14/22 20:47							
QC Source Sample: RA-DF-119 (A2F0216-51)												
EPA 200.8												
Lead	14.9	---	0.201	ug/L	1	15.0	ND	99	70-130%	---	---	
Matrix Spike (22F0505-MS2)			Prepared: 06/14/22 15:45		Analyzed: 06/14/22 22:19							
QC Source Sample: RA-KW-PL (A2F0216-71)												
EPA 200.8												
Lead	16.6	---	0.201	ug/L	1	15.0	1.26	102	70-130%	---	---	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RA Long High School
Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0509 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0509-BLK1)			Prepared: 06/14/22 17:01		Analyzed: 06/14/22 22:24							
<u>EPA 200.8</u>												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0509-BS1)			Prepared: 06/14/22 17:01		Analyzed: 06/14/22 22:27							
<u>EPA 200.8</u>												
Lead	15.5	---	0.201	ug/L	1	15.0	---	103	85-115%	---	---	
Duplicate (22F0509-DUP1)			Prepared: 06/14/22 17:01		Analyzed: 06/14/22 22:42							
<u>QC Source Sample: RA-KW-WS (A2F0216-72)</u>												
<u>EPA 200.8</u>												
Lead	1.17	---	0.200	ug/L	1	---	1.18	---	---	1	20%	
Matrix Spike (22F0509-MS1)			Prepared: 06/14/22 17:01		Analyzed: 06/14/22 22:46							
<u>QC Source Sample: RA-KW-WS (A2F0216-72)</u>												
<u>EPA 200.8</u>												
Lead	16.2	---	0.201	ug/L	1	15.0	1.18	100	70-130%	---	---	
Matrix Spike (22F0509-MS2)			Prepared: 06/14/22 17:01		Analyzed: 06/15/22 00:15							
<u>QC Source Sample: Non-SDG (A2F0225-01)</u>												
<u>EPA 200.8</u>												
Lead	15.3	---	0.201	ug/L	1	15.0	ND	102	70-130%	---	---	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022

Project Number: RA Long High School

Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0545 - EPA 3015A						Drinking Water						
Blank (22F0545-BLK1)			Prepared: 06/15/22 11:56 Analyzed: 06/15/22 19:37									
EPA 200.8												
Lead	0.235	---	0.222	ug/L	1	---	---	---	---	---	---	B
LCS (22F0545-BS1)			Prepared: 06/15/22 11:56 Analyzed: 06/15/22 19:42									
EPA 200.8												
Lead	16.6	---	0.222	ug/L	1	16.7	---	100	85-115%	---	---	B
Duplicate (22F0545-DUP1)			Prepared: 06/15/22 11:56 Analyzed: 06/15/22 19:51									
QC Source Sample: Non-SDG (A2F0100-41)												
Lead	21.3	---	0.222	ug/L	1	---	20.9	---	---	2	20%	B
Matrix Spike (22F0545-MS1)			Prepared: 06/15/22 11:56 Analyzed: 06/15/22 19:56									
QC Source Sample: Non-SDG (A2F0100-41)												
EPA 200.8												
Lead	36.5	---	0.222	ug/L	1	16.7	20.9	93	70-130%	---	---	B
Matrix Spike (22F0545-MS2)			Prepared: 06/15/22 11:56 Analyzed: 06/15/22 21:14									
QC Source Sample: Non-SDG (A2F0227-16)												
EPA 200.8												
Lead	30.3	---	0.222	ug/L	1	16.7	13.8	99	70-130%	---	---	B

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC317 NE 144th St
Vancouver, WA 98685Project: **Drinking Water - 2022**Project Number: **RA Long High School**Project Manager: **Thomas Nadermann****Report ID:****A2F0216 - 06 24 22 1633****SAMPLE PREPARATION INFORMATION****Total Metals in Drinking Water by EPA 200.8 (ICPMS)****Prep: EPA 200.8 Direct Analysis**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0468							
A2F0216-01	Drinking Water	EPA 200.8	06/03/22 00:00	06/13/22 18:24	10mL/10mL	10mL/10mL	1.00
A2F0216-02	Drinking Water	EPA 200.8	06/03/22 00:00	06/13/22 18:24	10mL/10mL	10mL/10mL	1.00
A2F0216-03	Drinking Water	EPA 200.8	06/03/22 00:00	06/13/22 18:24	10mL/10mL	10mL/10mL	1.00
A2F0216-04	Drinking Water	EPA 200.8	06/03/22 00:00	06/13/22 18:24	10mL/10mL	10mL/10mL	1.00
A2F0216-05	Drinking Water	EPA 200.8	06/03/22 00:00	06/13/22 18:24	10mL/10mL	10mL/10mL	1.00
A2F0216-06	Drinking Water	EPA 200.8	06/03/22 00:00	06/13/22 18:24	10mL/10mL	10mL/10mL	1.00
A2F0216-07	Drinking Water	EPA 200.8	06/03/22 00:00	06/13/22 18:24	10mL/10mL	10mL/10mL	1.00
Batch: 22F0473							
A2F0216-08	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-09	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-10	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-11	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-12	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-13	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-14	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-15	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-16	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-17	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-18	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-19	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-20	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-21	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-22	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-23	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-25	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-26	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-27	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
A2F0216-29	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 08:05	10mL/10mL	10mL/10mL	1.00
Batch: 22F0481							
A2F0216-30	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-31	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-32	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-33	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-35	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-36	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long High School**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0216 - 06 24 22 1633

SAMPLE PREPARATION INFORMATION

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Prep: EPA 200.8 Direct Analysis

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2F0216-37	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-38	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-39	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-40	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-41	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-42	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-43	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-44	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-45	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-46	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-47	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-48	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-49	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00
A2F0216-50	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 09:28	10mL/10mL	10mL/10mL	1.00

Batch: 22F0505

A2F0216-51	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-53	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-54	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-55	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-56	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-57	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-58	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-59RE1	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-60	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-61	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-62	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-63	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-64	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-65	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-66	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-67	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-68	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-69	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-70	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00
A2F0216-71	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 15:45	10mL/10mL	10mL/10mL	1.00

Batch: 22F0509

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC317 NE 144th St
Vancouver, WA 98685Project: **Drinking Water - 2022**Project Number: **RA Long High School**Project Manager: **Thomas Nadermann****Report ID:****A2F0216 - 06 24 22 1633****SAMPLE PREPARATION INFORMATION****Total Metals in Drinking Water by EPA 200.8 (ICPMS)****Prep: EPA 200.8 Direct Analysis**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A2F0216-72	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 17:01	10mL/10mL	10mL/10mL	1.00
A2F0216-73	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 17:01	10mL/10mL	10mL/10mL	1.00
A2F0216-74	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 17:01	10mL/10mL	10mL/10mL	1.00
A2F0216-75	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 17:01	10mL/10mL	10mL/10mL	1.00
A2F0216-76	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 17:01	10mL/10mL	10mL/10mL	1.00
A2F0216-77	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 17:01	10mL/10mL	10mL/10mL	1.00
A2F0216-78	Drinking Water	EPA 200.8	06/03/22 00:00	06/14/22 17:01	10mL/10mL	10mL/10mL	1.00

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 22F0545</u>							
A2F0216-24	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 11:56	45mL/50mL	10mL/10mL	1.11
A2F0216-28	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 11:56	45mL/50mL	10mL/10mL	1.11
A2F0216-34	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 11:56	45mL/50mL	10mL/10mL	1.11
A2F0216-52	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 11:56	45mL/50mL	10mL/10mL	1.11

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long High School**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0216 - 06 24 22 1633

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- B** Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
- DW-D** Turbidity greater than 1 NTU. Sample was digested per EPA Method 200.8.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long High School**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0216 - 06 24 22 1633

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long High School**
Project Manager: **Thomas Nadermann**

Report ID:

A2F0216 - 06 24 22 1633

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long High School**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0216 - 06 24 22 1633

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -
EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RA Long High School

Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

Chain of Custody

Field Sampling Log

A2F0216



Project Name:

Site Location:

Date:

Project Contact:

RA Long High School
2903 Nichols Blvd., Longview WA
6.3.2022
T. Nadermann

Sterling Technologies, LLC
Providing technical consulting support to the
environmental and manufacturing industries

317 NE 144th Street Vancouver, WA 98685
360.576.6331

Pg 1 of 7

Turnaround Time:

Normal: X

Other: _____

Sample ID	Location/Description	Analysis	Comments
RA-130-L1	Class 130 Sink	Pb	
RA-130-L2	" " " Faucet Left 1	Pb	
RA-130-L3	" " " " Left 2	Pb	
RA-130-L4	" " " " Left 3	Pb	
RA-130-L5	" " " " Left 4	Pb	
RA-130-L6	" " " " Left 5	Pb	
RA-135-F	" " " " Left 6	Pb	
RA-135-L1	" " " " Front	Pb	
RA-135-L2	" " " " Left 1 (SE)	Pb	
RA-135-L3	" " " " Left 2 (S)	Pb	
RA-135-L4	" " " " Left 3 (S)	Pb	
RA-135-L5	" " " " Left 4 (S)	Pb	
RA-135-L6	" " " " Left 5 (S)	Pb	

Sampled by:

T. Nadermann

Date:

6.3.2022

6/9/22 1244 ST

1745

Apex

Shawn Thompson

6-7-22

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RA Long High School

Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

Sterling Technologies, LLC

Providing technical consulting support to the
environmental and manufacturing industries

317 NE 144th Street Vancouver, WA 98685
360.576.6331

Pg 2 of 7

Turnaround Time:

Normal: ☒

Other: ☐

Chain of Custody

Field Sampling Log

Project Name:

Site Location:

Date:

Project Contact:

RA Long High School

2903 Nichols Blvd, Longview, WA

6.3.2022

T. Nadermann

Sample ID	Location/Description	Analysis	Comments
RA-135-L7	Glass Sink Rm# 135. Faucet Left (NW)	Pb	
RA-135-L8	" " " " Left (E)	Pb	
RA-136-Front	" " " " Front	Pb	
RA-136-L1	" " " " Left (W)	Pb	
RA-136-L2	" " " " Left (NE)	Pb	
RA-136-L3	" " " " Left (E)	Pb	
RA-136-L4	" " " " Left (SE)	Pb	
RA-136-L5	" " " " Left (S)	Pb	
RA-136-L6	" " " " Left (S)	Pb	
RA-136-L7	" " " " Left (S)	Pb	
RA-136-L8	" " " " Left (SW)	Pb	
~~RA-136-L9~~	~~" " " " "~~	~~Pb~~	
RA-143-F	" " " " Front	Pb	

Sampled by:

T. Nadermann
E. Wilson

Date:

6.3.2022

6-7-22

Shawn Thompson

1244

Apex

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long High School**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0216 - 06 24 22 1633

Chain of Custody

Field Sampling Log

A2F0216



Project Name:

Site Location:

Date:

Project Contact:

RA Long High School
2903 Nichols Blvd. Longview, WA

6.3.2022
T. Nadermann

Sterling Technologies, LLC
Providing technical consulting support to the
environmental and manufacturing industries

317 NE 144th Street Vancouver, WA 98685
360.576.6331

Pg 3 of 7

Turnaround Time:

Normal: ☒

Other:

Sample ID	Location/Description	Analysis	Comments
RA-143-L1	Class 143 Sink	Pb	
RA-143-L2	" " " " Left 2(N)	Pb	
RA-131-L1	" " " " Left 1	Pb	
RA-131-L2	" " " " Left 2	Pb	
RA-131-C	" " " " Center	Pb	
RA-132-L1	" " " " Left 1	Pb	
RA-132-L2	" " " " Left 2	Pb	
RA-132-L3	" " " " Left 3	Pb	
RA-132-L4	" " " " Left 4	Pb	
RA-132-L6	" " " " Left 6	Pb	
RA-132-L7	" " " " Left 7	Pb	
RA-132-L8	" " " " Left 8	Pb	
RA-N-F	Murphy Sink Office Faucet	Pb	

Sampled by:

E. Wilson

Date:

6.3.2022

1244 ST 48/22
1244 ST 48/22
1244 ST 48/22

Shawn Thompson

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RA Long High School

Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

Chain of Custody
Field Sampling Log

RA-0216
Sterling Technologies, LLC
Providing technical consulting support to the
environmental and manufacturing industries
317 NE 144th Street Vancouver, WA 98685
360.576.6331
Pg 4 of 7

Project Name:

Site Location:

Date:

Project Contact:

RA Long High School
2903 Nichols Blvd, Longview, WA
6.3.2022
T. Nadermann

Turnaround Time:

Normal: ☒

Other:

Sample ID	Location/Description	Analysis	Comments
RA-N-KS	Nurses - Kitchen Sink/Faucet	Pb	
RA-N-RR	" Rest. Sink/Faucet	Pb	
RA-104-F	Class Room #104 Sink/Faucet	Pb	
RA-104-RF	" " Rear Sink/Faucet	Pb	
RA-105-F	" " 105 Sink/Faucet	Pb	
RA-116-F	" " 116 "	Pb	
RA-117-F	" " 117 "	Pb	
RA-118-F	" " 118 "	Pb	
RA-119-F	" " 119 "	Pb	
RA-120-F	" " 120 "	Pb	
RA-207-F	" " 207 "	Pb	
RA-DF-119	Drinking outside. Glass Bottle #119	Pb	
RA-DF-131	" " " " #131	Pb	

Sampled by:

Date:

6-7-22 Rh Oh Shawn Thompson
T. Nadermann
E. Wilson
1244 ST 6/6/22
1245- Apex

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RA Long High School

Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

Chain of Custody
Field Sampling Log

A2F0216

Project Name:
RA Long High School

Site Location:
2903 Nichols Blvd, Longview, WA

Date:
6.3.2022

Project Contact:
T. Nadermann

RA Long High School
2903 Nichols Blvd, Longview, WA
6.3.2022
T. Nadermann

Sterling Technologies, LLC
Providing technical consulting support to the
environmental and manufacturing industries

317 NE 144th Street Vancouver, WA 98685
360.576.6331

Pgs 5 of 7

Turnaround Time:

Normal: ☒

Other: ☐

Sample ID	Location/Description	Analysis	Comments
RA-137-DF	Drinking Fountain outside Rm 137	Pb	
RA-202-DF	" " " " 202	Pb	
RA-205-DF	" " " " 205	Pb	
~~RA-209-DF~~	~~" " " " 209~~	~~Pb~~	
RA-DF-209	" " " " 209	Pb	
RA-DF-213	" " " " 213	Pb	
RA-DF-CO	" " " " Corridor	Pb	
RA-L-F	Library Sink	Pb	
RA-SSCP-F	Science Storage Sink	Pb	
RA-SF-RR	Science Rest. " "	Pb	
RA-WRR-116	Women's outside Rm 116 Sink	Pb	
RA-BRR-205	Boys Rest. " " 205	Pb	
RA-WRR-209	Women's Rest. " " 209	Pb	

Sampled by:

T. Nadermann

Date:

6.3.2022

1244 ST 6/3/22
1245 Apex

Shawn Thompson

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RA Long High School

Project Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

Chain of Custody
Field Sampling Log

WJF 0216

Project Name:

Site Location:

Date:

Project Contact:

RA Long High School
2903 Nichols Blvd., Longview, WA
6.3.2022
T. Nadermann

Sterling Technologies, LLC
Providing technical consulting support to the
environmental and manufacturing industries

317 NE 144th Street Vancouver, WA 98685
360.576.6331

Pg 6 of 7

Turnaround Time:

Normal: X

Other:

Sample ID	Location/Description	Analysis	Comments
RA-WRR-211	Women's Rest Rm. outside. Sink	Pb	
RA-MRR-212	Men's Rest Rm. " " " 212. "	Pb	
RA-SCP-F	Science Center Prep. Sink	Pb	
RA-K-EP	Kitchen. Prep. Sink. East. Faucet	Pb	
RA-K-M-P	" " Mixer. Faucet	Pb	
RA-KW-PR	Kitchen. West. Sink. Right Side	Pb	Faucet
RA-KW-PL	" " " Left Side	Pb	"
RA-KW-WS	" " Wash Sink	Pb	"
RA-K-RR	Kitchen. Rest. Sink. Faucet	Pb	
~~RA-KW-PS~~	~~Science Center Prep. Sink~~	~~Pb~~	<del></del>
RA-SCP-S	Science Center Prep. South. Sink	Pb	
RA-K-WS	Kitchen. Wash Sink	Pb	Faucet
RA-K-ES	" " East. Sink. Faucet	Pb	

Sampled by:

T. Nadermann
E. Wilson

Date: 6.3.2022

1244 5th W/12
1245 Apex

6.7.22 Sh Oh Shawn Thompson

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

Project: Drinking Water - 2022Project Number: RA Long High SchoolProject Manager: Thomas Nadermann

Report ID:

A2F0216 - 06 24 22 1633

APEX LABS COOLER RECEIPT FORM

Client: Sterling Element WO#: A2F0216Project/Project #: RA LONG HIGH SCHOOL

Delivery Info:

Date/time received: 6-7-22 @ 1244 By: SATDelivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 6-7-22 @ 1421 By: SATChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>19.8</u>						
Received on ice? (Y/N)	<u>N</u>						
Temp. blanks? (Y/N)	<u>N</u>						
Ice type: (Gel/Real/Other)	<u>N/A</u>						
Condition:	<u>Good</u>						

Cooler out of temp? ☒ Possible reason why: Drinking WaterGreen dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 6/7/22 @ 17:45 By: 2KMAll samples intact? Yes ☒ No ☐ Comments:Bottle labels/COCs agree? Yes ☐ No ☒ Comments: received container RA 130 LT

but is listed on COC. No container marked RA 130 LT but container marked RA 130 LT.
Container RA 130 LT marked RA 130 LT.

COC/container discrepancies form initiated? Yes ☒ No ☐ Comments: 2KM 6/7/22Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments:Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒

Comments:

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments:

Additional information: See Discrepancies formLabeled by: 2KM Witness: JK Cooler Inspected by: 2KM

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager

Page 36 of 36



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Thursday, June 23, 2022

Thomas Nadermann

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

RE: A2F0225 - Drinking Water - 2022 - RA Long HS Main Gym

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2F0225, which was received by the laboratory on 6/7/2022 at 12:44:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: DAuvil@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	19.8 degC
-----------	-----------

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: RA Long HS Main Gym
Project Manager: Thomas Nadermann

Report ID:

A2F0225 - 06 23 22 1752

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RA-G-1	A2F0225-01	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-2	A2F0225-02	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-3	A2F0225-03	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-4	A2F0225-04	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-5	A2F0225-05	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-6	A2F0225-06	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-7	A2F0225-07	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-8	A2F0225-08	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-9	A2F0225-09	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-10	A2F0225-10	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-11	A2F0225-11	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-12	A2F0225-12	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-13	A2F0225-13	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-14	A2F0225-14	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-G-15	A2F0225-15	Drinking Water	06/02/22 00:00	06/07/22 12:44

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long HS Main Gym**
Project Manager: **Thomas Nadermann**

Report ID:

A2F0225 - 06 23 22 1752

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-G-1 (A2F0225-01)		Matrix: Drinking Water						
Batch: 22F0509								
Lead	ND	---	0.200	ug/L	1	06/15/22 00:11	EPA 200.8	
RA-G-2 (A2F0225-02)		Matrix: Drinking Water						
Batch: 22F0513								
Lead	9.35	---	0.200	ug/L	1	06/15/22 00:26	EPA 200.8	
RA-G-3 (A2F0225-03)		Matrix: Drinking Water						
Batch: 22F0513								
Lead	9.80	---	0.200	ug/L	1	06/15/22 00:39	EPA 200.8	
RA-G-4 (A2F0225-04)		Matrix: Drinking Water						
Batch: 22F0513								
Lead	1.17	---	0.200	ug/L	1	06/15/22 00:43	EPA 200.8	
RA-G-5 (A2F0225-05)		Matrix: Drinking Water						
Batch: 22F0513								
Lead	44.9	---	0.200	ug/L	1	06/15/22 00:55	EPA 200.8	
RA-G-6 (A2F0225-06)		Matrix: Drinking Water						
Batch: 22F0513								
Lead	1.02	---	0.200	ug/L	1	06/15/22 00:59	EPA 200.8	
RA-G-7 (A2F0225-07)		Matrix: Drinking Water						
Batch: 22F0513								
Lead	2.54	---	0.200	ug/L	1	06/15/22 01:02	EPA 200.8	
RA-G-8 (A2F0225-08)		Matrix: Drinking Water						
Batch: 22F0513								
Lead	2.14	---	0.200	ug/L	1	06/15/22 01:06	EPA 200.8	
RA-G-9 (A2F0225-09)		Matrix: Drinking Water						
Batch: 22F0513								
Lead	1.88	---	0.200	ug/L	1	06/15/22 01:10	EPA 200.8	
RA-G-10 (A2F0225-10)		Matrix: Drinking Water						
Batch: 22F0513								

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022Project Number: RA Long HS Main Gym
Project Manager: Thomas NadermannReport ID:

A2F0225 - 06 23 22 1752

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-G-10 (A2F0225-10)		Matrix: Drinking Water						
Lead	4.13	---	0.200	ug/L	1	06/15/22 01:14	EPA 200.8	
RA-G-11 (A2F0225-11)		Matrix: Drinking Water						
Batch: 22F0513								
Lead	ND	---	0.200	ug/L	1	06/15/22 01:19	EPA 200.8	
RA-G-12 (A2F0225-12)		Matrix: Drinking Water						
Batch: 22F0513								
Lead	0.399	---	0.200	ug/L	1	06/15/22 01:22	EPA 200.8	
RA-G-13 (A2F0225-13)		Matrix: Drinking Water						
Batch: 22F0513								
Lead	1.01	---	0.200	ug/L	1	06/15/22 01:25	EPA 200.8	
RA-G-14 (A2F0225-14)		Matrix: Drinking Water						
Batch: 22F0513								
Lead	10.6	---	0.200	ug/L	1	06/15/22 01:29	EPA 200.8	
RA-G-15 (A2F0225-15)		Matrix: Drinking Water						
Batch: 22F0513								
Lead	15.9	---	0.200	ug/L	1	06/15/22 01:41	EPA 200.8	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RA Long HS Main Gym

Project Manager: Thomas Nadermann

Report ID:

A2F0225 - 06 23 22 1752

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0509 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0509-BLK1)			Prepared: 06/14/22 17:01		Analyzed: 06/14/22 22:24							
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0509-BS1)			Prepared: 06/14/22 17:01		Analyzed: 06/14/22 22:27							
EPA 200.8												
Lead	15.5	---	0.201	ug/L	1	15.0	---	103	85-115%	---	---	
Duplicate (22F0509-DUP1)			Prepared: 06/14/22 17:01		Analyzed: 06/14/22 22:42							
QC Source Sample: Non-SDG (A2F0216-72)												
Lead	1.17	---	0.200	ug/L	1	---	1.18	---	---	1	20%	
Matrix Spike (22F0509-MS1)			Prepared: 06/14/22 17:01		Analyzed: 06/14/22 22:46							
QC Source Sample: Non-SDG (A2F0216-72)												
EPA 200.8												
Lead	16.2	---	0.201	ug/L	1	15.0	1.18	100	70-130%	---	---	
Matrix Spike (22F0509-MS2)			Prepared: 06/14/22 17:01		Analyzed: 06/15/22 00:15							
QC Source Sample: RA-G-1 (A2F0225-01)												
EPA 200.8												
Lead	15.3	---	0.201	ug/L	1	15.0	ND	102	70-130%	---	---	
Batch 22F0513 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0513-BLK1)			Prepared: 06/14/22 18:13		Analyzed: 06/15/22 00:19							
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0513-BS1)			Prepared: 06/14/22 18:13		Analyzed: 06/15/22 00:22							
EPA 200.8												
Lead	15.8	---	0.201	ug/L	1	15.0	---	105	85-115%	---	---	
Duplicate (22F0513-DUP1)			Prepared: 06/14/22 18:13		Analyzed: 06/15/22 00:31							
QC Source Sample: RA-G-2 (A2F0225-02)												

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long HS Main Gym**
Project Manager: **Thomas Nadermann**

Report ID:

A2F0225 - 06 23 22 1752

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0513 - EPA 200.8 Direct Analysis						Drinking Water						
Duplicate (22F0513-DUP1)			Prepared: 06/14/22 18:13		Analyzed: 06/15/22 00:31							
QC Source Sample: RA-G-2 (A2F0225-02)												
EPA 200.8												
Lead	9.46	---	0.200	ug/L	1	---	9.35	---	---	1	20%	
Matrix Spike (22F0513-MS1)			Prepared: 06/14/22 18:13		Analyzed: 06/15/22 00:35							
QC Source Sample: RA-G-2 (A2F0225-02)												
EPA 200.8												
Lead	24.6	---	0.201	ug/L	1	15.0	9.35	101	70-130%	---	---	
Matrix Spike (22F0513-MS2)			Prepared: 06/14/22 18:13		Analyzed: 06/15/22 02:08							
QC Source Sample: Non-SDG (A2F0226-06)												
EPA 200.8												
Lead	16.5	---	0.201	ug/L	1	15.0	1.22	102	70-130%	---	---	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long HS Main Gym**
Project Manager: **Thomas Nadermann**

Report ID:

A2F0225 - 06 23 22 1752

SAMPLE PREPARATION INFORMATION

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Prep: EPA 200.8 Direct Analysis

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0509							
A2F0225-01	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 17:01	10mL/10mL	10mL/10mL	1.00
Batch: 22F0513							
A2F0225-02	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00
A2F0225-03	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00
A2F0225-04	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00
A2F0225-05	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00
A2F0225-06	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00
A2F0225-07	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00
A2F0225-08	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00
A2F0225-09	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00
A2F0225-10	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00
A2F0225-11	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00
A2F0225-12	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00
A2F0225-13	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00
A2F0225-14	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00
A2F0225-15	Drinking Water	EPA 200.8	06/02/22 00:00	06/14/22 18:13	10mL/10mL	10mL/10mL	1.00

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RA Long HS Main Gym

Project Manager: Thomas Nadermann

Report ID:

A2F0225 - 06 23 22 1752

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

There are No Qualifiers on Sample or QC Data for this report

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long HS Main Gym**
Project Manager: **Thomas Nadermann**

Report ID:

A2F0225 - 06 23 22 1752

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long HS Main Gym**
Project Manager: **Thomas Nadermann**

Report ID:

A2F0225 - 06 23 22 1752

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long HS Main Gym**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0225 - 06 23 22 1752

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -
EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

Project: Drinking Water - 2022Project Number: RA Long HS Main GymProject Manager: Thomas Nadermann

Report ID:

A2F0225 - 06 23 22 1752

Chain of Custody

Field Sampling Log

A2F0225
Sterling Technologies, LLC
Providing technical consulting support to the
environmental and manufacturing industries
317 NE 144th Street Vancouver, WA 98685
360.576.6331

Project Name:

Site Location:

Date:

Project Contact:

Turnaround Time:

Normal: ☒Other: ☐

RA Long HS Main Gym

2903 Nichols Blvd, Longview WA

6.2.2022

T. Nadermann

Pg 1 of 2

Sample ID	Location/Description	Analysis	Comments
RA-G-1	Weight- Drinking - NE	Pb	
RA-G-2	Room - Fountain - East	Pb	Sink Faucet
RA-G-3	" - " - SE	Pb	" "
RA-G-4	Girls Locker-Rm Sink Faucet	Pb	
RA-G-5	" - Shower Faucets	Pb	
RA-G-6	Boys Locker-Rm Sink Faucet	Pb	
RA-G-7	" - Shower Faucet	Pb	
RA-G-8	Volleyball - Rest Room	Pb	Sink Faucet
RA-G-9	Staircase - Outside - Rest Room	Pb	" "
RA-G-10	Main - Drinking Fountain	Pb	
RA-G-11	Drinking - Girls Locker-Rm Side	Pb	
RA-G-12	East Hallway - Drinking Fountain	Pb	
RA-G-13	Main Hall - Rest Room	Pb	Sink Faucet

Sampled by:

1244 ST 6-8-22
Date: 6.2.2022T. Nadermann
E. Wilson

6-7-22 Ph Sh Shawna Thompson 1244# APEX

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvel, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RA Long HS Main Gym

Project Manager: Thomas Nadermann

Report ID:

A2F0225 - 06 23 22 1752

APEX LABS COOLER RECEIPT FORM

Client: Sterling Element WO#: A2 F0225

Project/Project #: RA LONG HIGH SCHOOL - Main Gym

Delivery Info:

Date/time received: 6-7-22 @ 1244 By: SAT

Delivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐

Cooler Inspection Date/time inspected: 6-7-22 @ 1421 By: SAT

Chain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒

Signed/dated by client? Yes ☒ No ☐

Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>19.8</u>						
Received on ice? (Y/N)	<u>N</u>						
Temp. blanks? (Y/N)	<u>N</u>						
Ice type: (Gel/Real/Other)	<u>N/A</u>						
Condition:	<u>Good</u>						

Cooler out of temp? ☒ Possible reason why: Drinking Water

Green dots applied to out of temperature samples? Yes ☒ No ☐

Out of temperature samples form initiated? Yes ☒ No ☐

Sample Inspection: Date/time inspected: 6/8/22 @ 838 By: LS

All samples intact? Yes ☒ No ☐ Comments: _____

Bottle labels/COCs agree? Yes ☒ No ☐ Comments: _____

COC/container discrepancies form initiated? Yes ☐ No ☒

Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: _____

Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒

Comments: _____

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments: _____

Additional information: _____

Labeled by: _____ Witness: _____ Cooler Inspected by: _____

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Friday, June 24, 2022

Thomas Nadermann
Sterling Technologies LLC
317 NE 144th St
Vancouver, WA 98685

RE: A2F0229 - Drinking Water - 2022 - RA Long High School

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2F0229, which was received by the laboratory on 6/7/2022 at 12:44:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: DAuvil@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	19.8 degC
-----------	-----------

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Sterling Technologies LLC**317 NE 144th St
Vancouver, WA 98685Project: **Drinking Water - 2022**Project Number: **RA Long High School**Project Manager: **Thomas Nadermann****Report ID:****A2F0229 - 06 24 22 1701****ANALYTICAL REPORT FOR SAMPLES****SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RA-14-1F	A2F0229-01	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-14-2F	A2F0229-02	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-14-3F	A2F0229-03	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-14-4F	A2F0229-04	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-14-5F	A2F0229-05	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-14-6F	A2F0229-06	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-14-SSF	A2F0229-07	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-C-BRR-F	A2F0229-08	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-C-GRR-F	A2F0229-09	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-C-DF	A2F0229-10	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-113-F	A2F0229-11	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-107-LSF	A2F0229-12	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-107-RSF	A2F0229-13	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-DD-GRRF	A2F0229-14	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-DD-BRRF	A2F0229-15	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-DD-F	A2F0229-16	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-DF-111	A2F0229-17	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-CC-F	A2F0229-18	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-LC-SP-F	A2F0229-19	Drinking Water	06/02/22 00:00	06/07/22 12:44
RA-LC-SP-WRRF	A2F0229-20	Drinking Water	06/02/22 00:00	06/07/22 12:44

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Sterling Technologies LLC317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022Project Number: RA Long High School
Project Manager: Thomas NadermannReport ID:

A2F0229 - 06 24 22 1701

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-14-1F (A2F0229-01) Matrix: Drinking Water								
Batch: 22F0564								
Lead	2.99	---	0.200	ug/L	1	06/15/22 22:15	EPA 200.8	
RA-14-2F (A2F0229-02) Matrix: Drinking Water								
Batch: 22F0564								
Lead	2.45	---	0.200	ug/L	1	06/15/22 22:19	EPA 200.8	
RA-14-3F (A2F0229-03) Matrix: Drinking Water								
Batch: 22F0564								
Lead	1.27	---	0.200	ug/L	1	06/15/22 22:23	EPA 200.8	
RA-14-4F (A2F0229-04) Matrix: Drinking Water								
Batch: 22F0564								
Lead	4.94	---	0.200	ug/L	1	06/15/22 22:26	EPA 200.8	
RA-14-5F (A2F0229-05) Matrix: Drinking Water								
Batch: 22F0564								
Lead	5.25	---	0.200	ug/L	1	06/15/22 22:30	EPA 200.8	
RA-14-6F (A2F0229-06) Matrix: Drinking Water								
Batch: 22F0564								
Lead	14.5	---	0.200	ug/L	1	06/15/22 22:34	EPA 200.8	
RA-14-SSF (A2F0229-07RE1) Matrix: Drinking Water								
Batch: 22F0564								
Lead	156	---	2.00	ug/L	10	06/16/22 20:27	EPA 200.8	
RA-C-BRR-F (A2F0229-08) Matrix: Drinking Water								
Batch: 22F0564								
Lead	3.87	---	0.200	ug/L	1	06/15/22 22:43	EPA 200.8	
RA-C-GRR-F (A2F0229-09) Matrix: Drinking Water								
Batch: 22F0564								
Lead	0.453	---	0.200	ug/L	1	06/16/22 16:01	EPA 200.8	
RA-C-DF (A2F0229-10) Matrix: Drinking Water								
Batch: 22F0564								

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022Project Number: RA Long High School
Project Manager: Thomas Nadermann

Report ID:

A2F0229 - 06 24 22 1701

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-C-DF (A2F0229-10)		Matrix: Drinking Water						
Lead	14.4	---	0.200	ug/L	1	06/16/22 16:04	EPA 200.8	
RA-113-F (A2F0229-11)		Matrix: Drinking Water						
Batch: 22F0564								
Lead	10.7	---	0.200	ug/L	1	06/16/22 16:08	EPA 200.8	
RA-107-LSF (A2F0229-12)		Matrix: Drinking Water						
Batch: 22F0566								
Lead	0.556	---	0.200	ug/L	1	06/16/22 16:24	EPA 200.8	
RA-107-RSF (A2F0229-13)		Matrix: Drinking Water						
Batch: 22F0566								
Lead	0.607	---	0.200	ug/L	1	06/16/22 16:35	EPA 200.8	
RA-DD-GRRF (A2F0229-14)		Matrix: Drinking Water						
Batch: 22F0566								
Lead	2.75	---	0.200	ug/L	1	06/16/22 16:50	EPA 200.8	
RA-DD-BRRF (A2F0229-15)		Matrix: Drinking Water						
Batch: 22F0566								
Lead	4.42	---	0.200	ug/L	1	06/16/22 16:54	EPA 200.8	
RA-DD-F (A2F0229-16)		Matrix: Drinking Water						
Batch: 22F0566								
Lead	2.48	---	0.200	ug/L	1	06/16/22 16:58	EPA 200.8	
RA-DF-111 (A2F0229-17)		Matrix: Drinking Water						
Batch: 22F0566								
Lead	ND	---	0.200	ug/L	1	06/16/22 17:02	EPA 200.8	
RA-CC-F (A2F0229-18)		Matrix: Drinking Water						
Batch: 22F0566								
Lead	6.54	---	0.200	ug/L	1	06/16/22 17:43	EPA 200.8	
RA-LC-SP-F (A2F0229-19)		Matrix: Drinking Water						
Batch: 22F0566								

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long High School**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0229 - 06 24 22 1701

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-LC-SP-F (A2F0229-19)				Matrix: Drinking Water				
Lead	3.29	---	0.200	ug/L	1	06/16/22 17:47	EPA 200.8	
RA-LC-SP-WRRF (A2F0229-20)				Matrix: Drinking Water				
Batch: 22F0566								
Lead	0.682	---	0.200	ug/L	1	06/16/22 17:12	EPA 200.8	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Sterling Technologies LLC**317 NE 144th St
Vancouver, WA 98685Project: **Drinking Water - 2022**Project Number: **RA Long High School**Project Manager: **Thomas Nadermann****Report ID:****A2F0229 - 06 24 22 1701****QUALITY CONTROL (QC) SAMPLE RESULTS****Total Metals in Drinking Water by EPA 200.8 (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0564 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0564-BLK1)			Prepared: 06/15/22 16:49		Analyzed: 06/15/22 21:05							
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0564-BS1)			Prepared: 06/15/22 16:49		Analyzed: 06/15/22 21:20							
EPA 200.8												
Lead	14.0	---	0.201	ug/L	1	15.0	---	93	85-115%	---	---	
Duplicate (22F0564-DUP1)			Prepared: 06/15/22 16:49		Analyzed: 06/15/22 21:29							
QC Source Sample: Non-SDG (A2F0228-11)												
Lead	1.97	---	0.200	ug/L	1	---	1.99	---	---	0.8	20%	
Matrix Spike (22F0564-MS1)			Prepared: 06/15/22 16:49		Analyzed: 06/15/22 21:33							
QC Source Sample: Non-SDG (A2F0228-11)												
EPA 200.8												
Lead	15.1	---	0.201	ug/L	1	15.0	1.99	87	70-130%	---	---	
Matrix Spike (22F0564-MS2)			Prepared: 06/15/22 16:49		Analyzed: 06/16/22 16:12							
QC Source Sample: RA-113-F (A2F0229-11)												
EPA 200.8												
Lead	24.1	---	0.201	ug/L	1	15.0	10.7	89	70-130%	---	---	
Batch 22F0566 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0566-BLK1)			Prepared: 06/15/22 17:39		Analyzed: 06/16/22 16:16							
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0566-BS1)			Prepared: 06/15/22 17:39		Analyzed: 06/16/22 16:20							
EPA 200.8												
Lead	14.2	---	0.201	ug/L	1	15.0	---	94	85-115%	---	---	
Duplicate (22F0566-DUP1)			Prepared: 06/15/22 17:39		Analyzed: 06/16/22 16:27							
QC Source Sample: RA-107-LSF (A2F0229-12)												

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC
317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**
Project Number: **RA Long High School**
Project Manager: **Thomas Nadermann**

Report ID:
A2F0229 - 06 24 22 1701

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0566 - EPA 200.8 Direct Analysis						Drinking Water						
Duplicate (22F0566-DUP1)			Prepared: 06/15/22 17:39 Analyzed: 06/16/22 16:27									
QC Source Sample: RA-107-LSF (A2F0229-12)												
EPA 200.8												
Lead	0.559	---	0.200	ug/L	1	---	0.556	---	---	0.6	20%	
Matrix Spike (22F0566-MS1)			Prepared: 06/15/22 17:39 Analyzed: 06/16/22 16:31									
QC Source Sample: RA-107-LSF (A2F0229-12)												
EPA 200.8												
Lead	13.9	---	0.201	ug/L	1	15.0	0.556	89	70-130%	---	---	
Matrix Spike (22F0566-MS2)			Prepared: 06/15/22 17:39 Analyzed: 06/16/22 18:31									
QC Source Sample: Non-SDG (A2F0234-11)												
EPA 200.8												
Lead	30.0	---	0.201	ug/L	1	15.0	17.0	87	70-130%	---	---	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

Project: **Drinking Water - 2022**Project Number: **RA Long High School**Project Manager: **Thomas Nadermann****Report ID:****A2F0229 - 06 24 22 1701****SAMPLE PREPARATION INFORMATION****Total Metals in Drinking Water by EPA 200.8 (ICPMS)****Prep: EPA 200.8 Direct Analysis**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0564							
A2F0229-01	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 16:49	10mL/10mL	10mL/10mL	1.00
A2F0229-02	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 16:49	10mL/10mL	10mL/10mL	1.00
A2F0229-03	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 16:49	10mL/10mL	10mL/10mL	1.00
A2F0229-04	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 16:49	10mL/10mL	10mL/10mL	1.00
A2F0229-05	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 16:49	10mL/10mL	10mL/10mL	1.00
A2F0229-06	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 16:49	10mL/10mL	10mL/10mL	1.00
A2F0229-07RE1	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 16:49	10mL/10mL	10mL/10mL	1.00
A2F0229-08	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 16:49	10mL/10mL	10mL/10mL	1.00
A2F0229-09	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 16:49	10mL/10mL	10mL/10mL	1.00
A2F0229-10	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 16:49	10mL/10mL	10mL/10mL	1.00
A2F0229-11	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 16:49	10mL/10mL	10mL/10mL	1.00
Batch: 22F0566							
A2F0229-12	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0229-13	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0229-14	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0229-15	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0229-16	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0229-17	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0229-18	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0229-19	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0229-20	Drinking Water	EPA 200.8	06/02/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RA Long High School

Project Manager: Thomas Nadermann

Report ID:

A2F0229 - 06 24 22 1701

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

There are No Qualifiers on Sample or QC Data for this report

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long High School**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0229 - 06 24 22 1701

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long High School**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0229 - 06 24 22 1701

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long High School**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0229 - 06 24 22 1701

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long High School**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0229 - 06 24 22 1701

Chain of Custody Field Sampling Log

Project Name:

Site Location:

Date:

Project Contact:

RA Long High School
2903 Nichols Blvd, Longview, WA
6.2.2022
T. Nadermann

42 F 0229
Sterling Technologies, LLC

Providing technical consulting support to the
environmental and manufacturing industries

317 NE 144th Street Vancouver, WA 98685
360.576.6331

Pg 1 of 2

Turnaround Time:

Normal: ☒

Other:

Sample ID	Location/Description	Analysis	Comments
RA-14-1F	Class #14 Sink Faucet #1	Pb	
RA-14-2F	" " " " #2	Pb	
RA-14-3F	" " " " #3	Pb	
RA-14-4F	" " " " #4	Pb	
RA-14-5F	" " " " #5	Pb	
RA-14-6F	" " " " #6	Pb	
RA-14-SSF	" " " " Storage Sink Faucet	Pb	
RA-C-BRR-F	Cafeteria Boys Rest	Pb	
RA-C-GRR-F	" Girls " " "	Pb	
RA-C-DF	" Drinking Fountain	Pb	
RA-113-F	Class #113 Sink Faucet	Pb	
RA-107-LSF	" 107 " " Left	Pb	
RA-107-RSF	" 107 " " Right	Pb	

Sampled by:

Date: *6.2.2022*

6-7-22 Phil Oh Shawn Thompson
E. Wilson
1244 St 6/8/22

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auail

Darrell Auail, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

Project: Drinking Water - 2022Project Number: RA Long High SchoolProject Manager: Thomas Nadermann

Report ID:

A2F0229 - 06 24 22 1701

APEX LABS COOLER RECEIPT FORM

Client: Sterling Element WO#: A2 F0229Project/Project #: RA LONG HIGH SCHOOL - MAIN GYM

Delivery Info:

Date/time received: 6-7-22 @ 1244 By: SATDelivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 6-7-22 @ 1421 By: SATChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>19.8</u>						
Received on ice? (Y/N)	<u>N</u>						
Temp. blanks? (Y/N)	<u>N</u>						
Ice type: (Gel/Real/Other)	<u>N/A</u>						
Condition:	<u>Good</u>						

Cooler out of temp? ☒ (N) Possible reason why: Drinking WaterGreen dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 6/8/22 @ 1028 By: hAll samples intact? Yes ☒ No ☐ Comments: _____Bottle labels/COCs agree? Yes ☐ No ☒ Comments: Label reads RA-114-1F,
lot reads RA-14-1FCOC/container discrepancies form initiated? Yes ☒ No ☐Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: _____Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒

Comments: _____

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments: _____

Additional information:

Labeled by: h Witness: TS Cooler Inspected by: h

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Friday, June 24, 2022

Thomas Nadermann
Sterling Technologies LLC
317 NE 144th St
Vancouver, WA 98685

RE: A2F0234 - Drinking Water - 2022 - RALong HS Stadium

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2F0234, which was received by the laboratory on 6/7/2022 at 12:44:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: DAuvil@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	19.8 degC
-----------	-----------

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Sterling Technologies LLC**317 NE 144th St
Vancouver, WA 98685Project: **Drinking Water - 2022**Project Number: **RA Long HS Stadium**Project Manager: **Thomas Nadermann****Report ID:****A2F0234 - 06 24 22 1706****ANALYTICAL REPORT FOR SAMPLES****SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RA-S-1	A2F0234-01	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-S-2	A2F0234-02	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-S-3	A2F0234-03	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-S-4	A2F0234-04	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-S-5	A2F0234-05	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-S-6	A2F0234-06	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-S-7	A2F0234-07	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-S-8	A2F0234-08	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-S-9	A2F0234-09	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-S-10	A2F0234-10	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-S-11	A2F0234-11	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-S-12	A2F0234-12	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-S-13	A2F0234-13	Drinking Water	06/03/22 00:00	06/07/22 12:44
RA-S-14	A2F0234-14	Drinking Water	06/03/22 00:00	06/07/22 12:44

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long HS Stadium**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0234 - 06 24 22 1706

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-S-1 (A2F0234-01) Matrix: Drinking Water								
Batch: 22F0566								
Lead	2.19	---	0.200	ug/L	1	06/16/22 17:16	EPA 200.8	
RA-S-2 (A2F0234-02) Matrix: Drinking Water								
Batch: 22F0566								
Lead	2.84	---	0.200	ug/L	1	06/16/22 17:51	EPA 200.8	
RA-S-3 (A2F0234-03) Matrix: Drinking Water								
Batch: 22F0566								
Lead	13.2	---	0.200	ug/L	1	06/16/22 17:55	EPA 200.8	
RA-S-4 (A2F0234-04) Matrix: Drinking Water								
Batch: 22F0566								
Lead	9.78	---	0.200	ug/L	1	06/16/22 17:35	EPA 200.8	
RA-S-5 (A2F0234-05) Matrix: Drinking Water								
Batch: 22F0566								
Lead	3.64	---	0.200	ug/L	1	06/16/22 17:39	EPA 200.8	
RA-S-6 (A2F0234-06) Matrix: Drinking Water								
Batch: 22F0566								
Lead	4.53	---	0.200	ug/L	1	06/16/22 17:59	EPA 200.8	
RA-S-7 (A2F0234-07) Matrix: Drinking Water								
Batch: 22F0566								
Lead	10.8	---	0.200	ug/L	1	06/16/22 18:03	EPA 200.8	
RA-S-8 (A2F0234-08) Matrix: Drinking Water								
Batch: 22F0566								
Lead	4.67	---	0.200	ug/L	1	06/16/22 18:07	EPA 200.8	
RA-S-9 (A2F0234-09) Matrix: Drinking Water								
Batch: 22F0566								
Lead	3.68	---	0.200	ug/L	1	06/16/22 18:11	EPA 200.8	
RA-S-10 (A2F0234-10) Matrix: Drinking Water								
Batch: 22F0566								

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RALong HS Stadium**
Project Manager: **Thomas Nadermann**

Report ID:

A2F0234 - 06 24 22 1706

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-S-10 (A2F0234-10)		Matrix: Drinking Water						
Lead	9.27	---	0.200	ug/L	1	06/16/22 18:23	EPA 200.8	
RA-S-11 (A2F0234-11)		Matrix: Drinking Water						
Batch: 22F0566								
Lead	17.0	---	0.200	ug/L	1	06/16/22 18:27	EPA 200.8	
RA-S-12 (A2F0234-12)		Matrix: Drinking Water						
Batch: 22F0568								
Lead	1.80	---	0.200	ug/L	1	06/16/22 18:43	EPA 200.8	
RA-S-13 (A2F0234-13)		Matrix: Drinking Water						
Batch: 22F0568								
Lead	3.99	---	0.200	ug/L	1	06/16/22 18:55	EPA 200.8	
RA-S-14 (A2F0234-14)		Matrix: Drinking Water						
Batch: 22F0568								
Lead	6.62	---	0.200	ug/L	1	06/16/22 18:59	EPA 200.8	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022Project Number: RALong HS Stadium
Project Manager: Thomas Nadermann

Report ID:

A2F0234 - 06 24 22 1706

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0566 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0566-BLK1)			Prepared: 06/15/22 17:39		Analyzed: 06/16/22 16:16							
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0566-BS1)			Prepared: 06/15/22 17:39		Analyzed: 06/16/22 16:20							
EPA 200.8												
Lead	14.2	---	0.201	ug/L	1	15.0	---	94	85-115%	---	---	
Duplicate (22F0566-DUP1)			Prepared: 06/15/22 17:39		Analyzed: 06/16/22 16:27							
QC Source Sample: Non-SDG (A2F0229-12)												
Lead	0.559	---	0.200	ug/L	1	---	0.556	---	---	0.6	20%	
Matrix Spike (22F0566-MS1)			Prepared: 06/15/22 17:39		Analyzed: 06/16/22 16:31							
QC Source Sample: Non-SDG (A2F0229-12)												
EPA 200.8												
Lead	13.9	---	0.201	ug/L	1	15.0	0.556	89	70-130%	---	---	
Matrix Spike (22F0566-MS2)			Prepared: 06/15/22 17:39		Analyzed: 06/16/22 18:31							
QC Source Sample: RA-S-11 (A2F0234-11)												
EPA 200.8												
Lead	30.0	---	0.201	ug/L	1	15.0	17.0	87	70-130%	---	---	
Batch 22F0568 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0568-BLK1)			Prepared: 06/15/22 18:38		Analyzed: 06/16/22 18:36							
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0568-BS1)			Prepared: 06/15/22 18:38		Analyzed: 06/16/22 18:39							
EPA 200.8												
Lead	13.8	---	0.201	ug/L	1	15.0	---	92	85-115%	---	---	
Duplicate (22F0568-DUP1)			Prepared: 06/15/22 18:38		Analyzed: 06/16/22 18:47							
QC Source Sample: RA-S-12 (A2F0234-12)												

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC
317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**
Project Number: **RALong HS Stadium**
Project Manager: **Thomas Nadermann**

Report ID:
A2F0234 - 06 24 22 1706

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0568 - EPA 200.8 Direct Analysis							Drinking Water					
Duplicate (22F0568-DUP1)			Prepared: 06/15/22 18:38 Analyzed: 06/16/22 18:47									
QC Source Sample: RA-S-12 (A2F0234-12)												
EPA 200.8												
Lead	1.84	---	0.200	ug/L	1	---	1.80	---	---	2	20%	
Matrix Spike (22F0568-MS1)			Prepared: 06/15/22 18:38 Analyzed: 06/16/22 18:51									
QC Source Sample: RA-S-12 (A2F0234-12)												
EPA 200.8												
Lead	14.7	---	0.201	ug/L	1	15.0	1.80	86	70-130%	---	---	
Matrix Spike (22F0568-MS2)			Prepared: 06/15/22 18:38 Analyzed: 06/16/22 20:23									
QC Source Sample: Non-SDG (A2F0240-08)												
EPA 200.8												
Lead	18.0	---	0.201	ug/L	1	15.0	4.50	90	70-130%	---	---	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RALong HS Stadium**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0234 - 06 24 22 1706

SAMPLE PREPARATION INFORMATION

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Prep: EPA 200.8 Direct Analysis

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0566							
A2F0234-01	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0234-02	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0234-03	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0234-04	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0234-05	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0234-06	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0234-07	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0234-08	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0234-09	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0234-10	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
A2F0234-11	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 17:39	10mL/10mL	10mL/10mL	1.00
Batch: 22F0568							
A2F0234-12	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 18:38	10mL/10mL	10mL/10mL	1.00
A2F0234-13	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 18:38	10mL/10mL	10mL/10mL	1.00
A2F0234-14	Drinking Water	EPA 200.8	06/03/22 00:00	06/15/22 18:38	10mL/10mL	10mL/10mL	1.00

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RALong HS Stadium

Project Manager: Thomas Nadermann

Report ID:

A2F0234 - 06 24 22 1706

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

There are No Qualifiers on Sample or QC Data for this report

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RA Long HS Stadium**
Project Manager: **Thomas Nadermann**

Report ID:

A2F0234 - 06 24 22 1706

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RALong HS Stadium**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0234 - 06 24 22 1706

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **RALong HS Stadium**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0234 - 06 24 22 1706

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -
EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RA Long HS Stadium

Project Manager: Thomas Nadermann

Report ID:

A2F0234 - 06 24 22 1706

Chain of Custody Field Sampling Log

Project Name:

Site Location:

Date:

Project Contact:

RA Long HS Stadium

2903 Nichols Blvd, Longview WA

6.3.2022

T. Nadermann

A2F0234
Sterling Technologies, LLC

Providing technical consulting support to the
environmental and manufacturing industries

317 NE 144th Street Vancouver, WA 98685
360.576.6331

Turnaround Time:

Normal: X

Other:

Sample ID	Location/Description	Analysis	Comments
RA-S-1	End Floor - East Fountain	Pb	
RA-S-2	" " - Concession Stand	Pb	Sink Faucet
RA-S-3	" " - West Rest Room	Pb	" "
RA-S-4	Ground Floor - Rest Room Fountain	Pb	" "
RA-S-5	Rest Room - Office - East	Pb	" "
RA-S-6	Locker Room	Pb	" "
RA-S-7	Locker Room - Drinking Fountains	Pb	DWF
RA-S-8	Rest Room Vest	Pb	Sink Faucet
RA-S-9	Mens RR West side	Pb	" "
RA-S-10	Showers	Pb	Shower
RA-S-11	Womens RR Concession Side	Pb	Faucet
RA-S-12	Concessions Sink	Pb	" "
RA-S-13	Concessions - Drinking Water Fountains	Pb	DWF

Sampled by:

E. Wilson

Date:

6.3.2022

6-7-22 Shawn Thompson 1244 Apex

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auail

Darrell Auail, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: RALong HS Stadium

Project Manager: Thomas Nadermann

Report ID:

A2F0234 - 06 24 22 1706

APEX LABS COOLER RECEIPT FORM

Client: Sterling Technologies LLC Element WO#: A2 F0234

Project/Project #: Central warehouse RALong HS Stadium
in C/8

Delivery Info:

Date/time received: 6/7/22 @ 1244 By: SAT

Delivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐

Cooler Inspection Date/time inspected: 6/7/22 @ 1421 By: SAT

Chain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒

Signed/dated by client? Yes ☒ No ☐

Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>19.8</u>						
Received on ice? (Y/N)	<u>N</u>						
Temp. blanks? (Y/N)	<u>N</u>						
Ice type: (Gel/Real/Other)	<u>None</u>						
Condition:	<u>out</u>						

Cooler out of temp? (Y/N) Possible reason why: Drinking water

Green dots applied to out of temperature samples? Yes ☐ No ☒

Out of temperature samples form initiated? Yes ☐ No ☒

Sample Inspection: Date/time inspected: 6/8/22 @ 1125 By: h

All samples intact? Yes ☒ No ☐ Comments: _____

Bottle labels/COCs agree? Yes ☐ No ☒ Comments: Received Extra Sample,
not listed on coc. RA-S-14

COC/container discrepancies form initiated? Yes ☐ No ☒

Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: _____

Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒

Comments: _____

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments: _____

Additional information:

Labeled by: h Witness: DSS Cooler Inspected by: h

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Friday, July 1, 2022

Thomas Nadermann
Sterling Technologies LLC
317 NE 144th St
Vancouver, WA 98685

RE: A2F0834 - Drinking Water - 2022 - Longview SD/RA Long Small Gym

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2F0834, which was received by the laboratory on 6/17/2022 at 12:45:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: DAuvil@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler#1	16.4 degC
----------	-----------

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: Longview SD/RA Long Sma
Project Manager: Thomas Nadermann

Report ID:

A2F0834 - 07 01 22 1716

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RA-1	A2F0834-01	Drinking Water	06/16/22 00:00	06/17/22 12:45
RA-2	A2F0834-02	Drinking Water	06/16/22 00:00	06/17/22 12:45

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: Longview SD/RA Long Sma

Project Manager: Thomas Nadermann

Report ID:

A2F0834 - 07 01 22 1716

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RA-1 (A2F0834-01)								
Matrix: Drinking Water								
Batch: 22F1044								
Lead	4.60	---	0.200	ug/L	1	06/29/22 14:55	EPA 200.8	
RA-2 (A2F0834-02)								
Matrix: Drinking Water								
Batch: 22F1044								
Lead	7.93	---	0.200	ug/L	1	06/29/22 15:00	EPA 200.8	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022Project Number: Longview SD/RA Long Sma
Project Manager: Thomas Nadermann

Report ID:

A2F0834 - 07 01 22 1716

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F1044 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F1044-BLK1)			Prepared: 06/29/22 08:38		Analyzed: 06/29/22 14:03							
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F1044-BS1)			Prepared: 06/29/22 08:38		Analyzed: 06/29/22 14:06							
EPA 200.8												
Lead	14.5	---	0.201	ug/L	1	15.0	---	97	85-115%	---	---	
Duplicate (22F1044-DUP1)			Prepared: 06/29/22 08:38		Analyzed: 06/29/22 14:13							
QC Source Sample: Non-SDG (A2F0819-03)												
Lead	0.291	---	0.200	ug/L	1	---	0.277	---	---	5	20%	
Matrix Spike (22F1044-MS1)			Prepared: 06/29/22 08:38		Analyzed: 06/29/22 14:17							
QC Source Sample: Non-SDG (A2F0819-03)												
EPA 200.8												
Lead	14.2	---	0.201	ug/L	1	15.0	0.277	93	70-130%	---	---	
Matrix Spike (22F1044-MS2)			Prepared: 06/29/22 08:38		Analyzed: 06/29/22 15:50							
QC Source Sample: Non-SDG (A2F0836-10)												
EPA 200.8												
Lead	15.5	---	0.201	ug/L	1	15.0	1.94	91	70-130%	---	---	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **Longview SD/RA Long Sma**
Project Manager: **Thomas Nadermann**

Report ID:

A2F0834 - 07 01 22 1716

SAMPLE PREPARATION INFORMATION

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Prep: EPA 200.8 Direct Analysis

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F1044							
A2F0834-01	Drinking Water	EPA 200.8	06/16/22 00:00	06/29/22 08:38	10mL/10mL	10mL/10mL	1.00
A2F0834-02	Drinking Water	EPA 200.8	06/16/22 00:00	06/29/22 08:38	10mL/10mL	10mL/10mL	1.00

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: Longview SD/RA Long Sma
Project Manager: Thomas Nadermann

Report ID:

A2F0834 - 07 01 22 1716

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

There are No Qualifiers on Sample or QC Data for this report

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **Longview SD/RA Long Sma**
Project Manager: **Thomas Nadermann**

Report ID:

A2F0834 - 07 01 22 1716

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **Longview SD/RA Long Sma**
Project Manager: **Thomas Nadermann**

Report ID:

A2F0834 - 07 01 22 1716

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **Longview SD/RA Long Sma**
Project Manager: **Thomas Nadermann**

Report ID:

A2F0834 - 07 01 22 1716

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: Longview SD/RA Long Sma

Project Manager: Thomas Nadermann

Report ID:

A2F0834 - 07 01 22 1716

APEX LABS COOLER RECEIPT FORM

Client: Sterling Element WO#: A2 F0834

Project/Project #: RA Long-Small Gym

Delivery Info:

Date/time received: 4/17/22 @ 1245 By: SAT

Delivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐

Cooler Inspection Date/time inspected: 4/17/22 @ 1730 By: SAT

Chain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒

Signed/dated by client? Yes ☒ No ☐

Signed/dated by Apex? Yes ☒ No ☐

Cooler #1 Cooler #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6 Cooler #7

Temperature (°C) 16.4

Received on ice? (Y/N) N

Temp. blanks? (Y/N) N

Ice type: (Gel/Real/Other) n/A

Condition: good

Cooler out of temp? (Y/N) Possible reason why: Drinking Water

Green dots applied to out of temperature samples? Yes/No No

Out of temperature samples form initiated? Yes/No No

Sample Inspection: Date/time inspected: 4/17/22 @ 1348 By: JS

All samples intact? Yes ☒ No ☐ Comments:

Bottle labels/COCs agree? Yes ☐ No ☐ Comments: No time & date on
containers for all samples

COC/container discrepancies form initiated? Yes ☐ No ☒

Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments:

Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒

Comments:

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments:

Additional information:

Labeled by:

Witness:

Cooler Inspected by: