



November 27, 2017

Steven Lee  
Alameda Unified School District MOF  
2060 Challenger Drive  
Alameda, CA 94501

*transmitted via email to stlee@alameda.k12.ca.us*

Re: **Drinking Water Lead Sampling Results**  
**Alameda Unified School District (AUSD) – Paden Elementary School Drinking Fountains**  
**444 Central Ave, Alameda, CA**  
*ACC Project No. 3007-119.00*

Dear Mr. Lee:

Enclosed please find the laboratory test results for the drinking water sampling performed at the above-referenced site on November 5, 2017. The sampling was performed to determine lead concentrations in drinking water at drinking fountain locations throughout the school.

The intent of the testing was to collect drinking water samples to determine if lead concentrations at drinking water locations exceed the EPA and California Lead Action Levels. The EPA and State of California Lead Action Levels for lead in drinking water are concentrations exceeding 15 parts per billion (ppb). ACC collected drinking water samples from twenty-three (23) locations at the school. At each location, ACC collected water samples as “first-draw” and “post-flush” samples. First-draw samples were collected after non-use for a minimum of eight (8) continuous hours. Post-flush samples were collected after running the tap for at least thirty (30) seconds. The samples were collected in 125 milliliter bottles preserved with nitric acid and were submitted under standard chain of custody protocols to Forensic Analytical of Hayward, California, an American Industrial Hygiene Association (AIHA) accredited laboratory, for analysis. Samples were analyzed for lead in accordance with the EPA SM3113B Test Method.

ACC collected a total of 46 drinking water samples at 23 drinking fountain locations for analysis. Copies of the laboratory results are attached.

### **Drinking Water Sample Results**

The water samples were obtained from drinking fountain locations as listed herein. The sample numbers, locations, type of draw and lead concentrations are listed below. ACC collected drinking water samples from the main drinking water sources. Not all water sources were sampled.

Sample Number	Location	Type of Draw	Lead Concentration in Parts Per Billion (PPB)
WS-192-FD	Northeast End of Hallway 2 <sup>nd</sup> Floor	First Draw	<5
WS-192-PF		Post-Flush	<5
WS-193-FD	Room 20	First Draw	<5
WS-193-PF		Post-Flush	<5
WS-194-FD	Room 24	First Draw	<5
WS-194-PF		Post-Flush	<5
WS-195-FD	Room 21	First Draw	<5
WS-195-PF		Post-Flush	<5
WS-196-FD	Room 23	First Draw	<5
WS-196-PF		Post-Flush	<5
WS-197-FD	Room 22	First Draw	<5
WS-197-PF		Post-Flush	<5
WS-198-FD	Downstairs Hallway Adjacent to Conference Room Entrance	First Draw	<5
WS-198-PF		Post-Flush	<5
WS-199-FD	Room 1	First Draw	<5
WS-199-PF		Post-Flush	<5
WS-200-FD	Room 2	First Draw	<5
WS-200-PF		Post-Flush	<5
WS-201-FD	Room 3	First Draw	<5
WS-201-PF		Post-Flush	<5
WS-202-FD	Room 10	First Draw	<5
WS-202-PF		Post-Flush	<5
WS-203-FD	Room 4	First Draw	<5
WS-203-PF		Post-Flush	<5
WS-204-FD	Room 9	First Draw	<5
WS-204-PF		Post-Flush	<5
WS-205-FD	Room 5	First Draw	<5
WS-205-PF		Post-Flush	<5
WS-206-FD	Room 8	First Draw	<5
WS-206-PF		Post-Flush	<5

Sample Number	Location	Type of Draw	Lead Concentration in Parts Per Billion (PPB)
WS-207-FD	1 <sup>st</sup> Floor East End of Hallway Adjacent to Room 6	First Draw	8
WS-207-PF		Post-Flush	<5
WS-208-FD	Room 6	First Draw	<5
WS-208-PF		Post-Flush	<5
WS-209-FD	Room 7	First Draw	6
WS-209-PF		Post-Flush	<5
WS-210-FD	Room B	First Draw	<5
WS-210-PF		Post-Flush	<5
WS-211-FD	Room A	First Draw	11
WS-211-PF		Post-Flush	<5
WS-212-FD	Room D	First Draw	<5
WS-212-PF		Post-Flush	<5
WS-213-FD	Room C	First Draw	<5
WS-213-PF		Post-Flush	<5
WS-214-FD	Outside Fountain Exterior South Wall of Multi-Purpose Room between Boys/Girls Restroom Entrances	First Draw	<5
WS-214-PF		Post-Flush	<5

All first-draw and post-flush water sample concentrations were below the EPA and California Lead Action Level of 15 PPB. When the first-draw and post-flush samples are both elevated this may indicate leaching of lead from the fixture and distribution water lines in the building. When the pre-flush only is elevated, this usually indicates localized corrosion issues within the faucet, fittings and/or connections.

The EPA and California Lead Action Levels are used to protect the public from metals that can adversely affect their health. These laws require water systems to monitor lead levels at the consumers' taps. If Action Levels for lead (15 ppb) are exceeded, installation or modifications to corrosion control treatment is required. In addition, if the action level for lead is exceeded, public notification is required.

### Recommendations

Based on the results of the drinking water investigation, ACC makes the following recommendations:

- ACC recommends performing periodic water sampling to ensure lead in drinking water concentrations remain below the action level.

### Limitations

ACC shall not be responsible for claims that may arise out of failure to correct problems or to identify problems that may exist at this location. ACC assumes no responsibility for damages for work performed or errors in documentation or missing information. ACC does not guarantee the accuracy of information provided by other

parties. All statements and/or recommendations are based on conditions observed and tested at the time of the inspection. The scope of the investigation for this report was to collect representative drinking water samples from several locations at the school. ACC has not investigated and does not possess any opinion regarding other drinking water locations within the building. This report does not intend to identify all hazards or unsafe conditions, or to indicate that other hazards or unsafe conditions do not exist at the subject site.


Please contact me at (510) 638-8400 ext. 109 if you have any questions.

Sincerely,

ACC ENVIRONMENTAL CONSULTANTS, INC.



Ben Schulte-Bisping  
Project Manager  
California Department of Public Health Lead I/A/M #24564



Mark A. Sanchez, CHMM  
President  
California Department of Public Health Lead I/A/M/S #5150

Attachments: Forensic Analytical Metals Analysis of Drinking Water Report #M191468, dated 11/16/17.

# Metals Analysis of Drinking Water

ACC Environmental Consultants

Ben Schulte Bisping

7977 Capwell Dr., Suite 100

Oakland, CA 94621

**Client ID:** 1117

**Report Number:** M191468

**Date Received:** 11/09/17

**Date Analyzed:** 11/14/17

**Date Printed:** 11/16/17

**First Reported:** 11/16/17

**Job ID / Site:** 3007-119.00, AUSD Water Sampling, Paden Elementary, 444 Central Ave.,  
Alameda, CA 94501

**FALI Job ID:** 1117-1506

**Date(s) Collected:** 11/5/17

**Total Samples Submitted:** 46

**Total Samples Analyzed:** 46

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
WS-192-FD	30784132	Pb	< 5	ppb	5	SM 3113B
WS-192-PF	30784133	Pb	< 5	ppb	5	SM 3113B
WS-193-FD	30784134	Pb	< 5	ppb	5	SM 3113B
WS-193-PF	30784135	Pb	< 5	ppb	5	SM 3113B
WS-194-FD	30784136	Pb	< 5	ppb	5	SM 3113B
WS-194-PF	30784137	Pb	< 5	ppb	5	SM 3113B
WS-195-FD	30784138	Pb	< 5	ppb	5	SM 3113B
WS-195-PF	30784139	Pb	< 5	ppb	5	SM 3113B
WS-196-FD	30784140	Pb	< 5	ppb	5	SM 3113B
WS-196-PF	30784141	Pb	< 5	ppb	5	SM 3113B
WS-197-FD	30784142	Pb	< 5	ppb	5	SM 3113B
WS-197-PF	30784143	Pb	< 5	ppb	5	SM 3113B
WS-198-FD	30784144	Pb	< 5	ppb	5	SM 3113B
WS-198-PF	30784145	Pb	< 5	ppb	5	SM 3113B
WS-199-FD	30784146	Pb	< 5	ppb	5	SM 3113B
WS-199-PF	30784147	Pb	< 5	ppb	5	SM 3113B
WS-200-FD	30784148	Pb	< 5	ppb	5	SM 3113B
WS-200-PF	30784149	Pb	< 5	ppb	5	SM 3113B
WS-201-FD	30784150	Pb	< 5	ppb	5	SM 3113B
WS-201-PF	30784151	Pb	< 5	ppb	5	SM 3113B
WS-202-FD	30784152	Pb	< 5	ppb	5	SM 3113B
WS-202-PF	30784153	Pb	< 5	ppb	5	SM 3113B
WS-203-FD	30784154	Pb	< 5	ppb	5	SM 3113B
WS-203-PF	30784155	Pb	< 5	ppb	5	SM 3113B
WS-204-FD	30784156	Pb	< 5	ppb	5	SM 3113B
WS-204-PF	30784157	Pb	< 5	ppb	5	SM 3113B

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Alameda, CA 94501

**FALI Job ID:** 1117-1506

**Date(s) Collected:** 11/5/17

**Total Samples Submitted:** 46

**Total Samples Analyzed:** 46

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
WS-205-FD	30784158	Pb	< 5	ppb	5	SM 3113B
WS-205-PF	30784159	Pb	< 5	ppb	5	SM 3113B
WS-206-FD	30784160	Pb	< 5	ppb	5	SM 3113B
WS-206-PF	30784161	Pb	< 5	ppb	5	SM 3113B
WS-207-FD	30784162	Pb	8	ppb	5	SM 3113B
WS-207-PF	30784163	Pb	< 5	ppb	5	SM 3113B
WS-208-FD	30784164	Pb	< 5	ppb	5	SM 3113B
WS-208-PF	30784165	Pb	< 5	ppb	5	SM 3113B
WS-209-FD	30784166	Pb	6	ppb	5	SM 3113B
WS-209-PF	30784167	Pb	< 5	ppb	5	SM 3113B
WS-210-FD	30784168	Pb	< 5	ppb	5	SM 3113B
WS-210-PF	30784169	Pb	< 5	ppb	5	SM 3113B
WS-211-FD	30784170	Pb	11	ppb	5	SM 3113B
WS-211-PF	30784171	Pb	< 5	ppb	5	SM 3113B
WS-212-FD	30784172	Pb	< 5	ppb	5	SM 3113B
WS-212-PF	30784173	Pb	< 5	ppb	5	SM 3113B
WS-213-FD	30784174	Pb	< 5	ppb	5	SM 3113B
WS-213-PF	30784175	Pb	< 5	ppb	5	SM 3113B
WS-214-FD	30784176	Pb	< 5	ppb	5	SM 3113B
WS-214-PF	30784177	Pb	< 5	ppb	5	SM 3113B



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**Total Samples Submitted:** 46

**Total Samples Analyzed:** 46

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
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\* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

*Daniele Siu*

Daniele Siu, Laboratory Supervisor, Hayward Laboratory

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977 46



# BULK SAMPLE CHAIN-OF-CUSTODY

Report to:	Ben Schulte Bisping	Email:	Bshulte@accenv.com	Phone:	510.773.0708
Project Name:	AUSD Water Sampling				
Project Address:	Paden Elementary, 444 Central Ave, Alameda, CA 94501			Project Number:	3007-119.00
Collected by:	Gus Valerian			Date Collected:	11/5/2017
Sample Analysis:	PLM	✓ Lead	GFAA	Stop at 1 <sup>st</sup> Positive Layer	Turnaround Time: 5 Day
Comments:	ANALYZE WATER SAMPLES FOR LEAD VIA GFAA				
Sample ID	Material Size-Color-Pattern-Material-Post Description	Material Location [Quantity] Building or Floor: Area(s) - Component	Sample Location Area - Component	Size	
WS-192-FD	POTABLE WATER- FIRST DRAW	NE end hallway 2nd floor	Solo silver, wall mount fountain		
WS-192-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-193-FD	POTABLE WATER- FIRST DRAW	Room 20	Fountain		
WS-193-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-194-FD	POTABLE WATER- FIRST DRAW	Room 24	Fountain		
WS-194-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-195-FD	POTABLE WATER- FIRST DRAW	Room 21	Fountain		
WS-195-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-196-FD	POTABLE WATER- FIRST DRAW	Room 23	Fountain		
WS-196-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-197-FD	POTABLE WATER- FIRST DRAW	Room 22	Fountain		
WS-197-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
Released:	Signature:		Date:	Time:	
Received:	Signature:		Date:	Time: NOV 08 2017	
Lab Info:	EMSL Analytical, Inc. (EMSL): 464 McCormick Street, San Leandro, California 94577, (510) 895-3675 ✓ Forensic Analytical Laboratories, Inc. (FALI): 3777 Depot Road # 409, Hayward, California 94545, (510) 887-8828				





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Project Name:	AUSD Water Sampling				
Project Address:	Paden Elementary, 444 Central Ave, Alameda, CA 94501			Project Number:	3007-119.00
Collected by:	Gus Valerian			Date Collected:	11/5/2017
Sample Analysis:	PLM	<input checked="" type="checkbox"/> Lead	GFAA	Stop at 1 <sup>st</sup> Positive Layer	Turnaround Time: 5 Day
Comments:	ANALYZE WATER SAMPLES FOR LEAD VIA GFAA				
Sample ID	Material Size-Color-Pattern-Material-Post Description	Material Location [Quantity] Building or Floor: Area(s) - Component	Sample Location Area - Component	Size	
WS-198-FD	POTABLE WATER- FIRST DRAW	Downstairs hallway adjacent to conference room entrance	Solo silver wall mount fountain, under fire hose		
WS-198-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-199-FD	POTABLE WATER- FIRST DRAW	Room 1	Fountain		
WS-199-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-200-FD	POTABLE WATER- FIRST DRAW	Room 2	Fountain		
WS-200-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-201-FD	POTABLE WATER- FIRST DRAW	Room 3	Fountain		
WS-201-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-202-FD	POTABLE WATER- FIRST DRAW	Room 10	Fountain		
WS-202-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-203-FD	POTABLE WATER- FIRST DRAW	Room 4	Fountain		
WS-203-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
Released:	Signature:		Date:	Time:	
Received:	Signature: <i>S. Hollister</i>		Date:	Time: <i>NOV 09 2017</i>	
Lab Info:	<b>EMSL Analytical, Inc. (EMSL):</b> 464 McCormick Street, San Leandro, California 94577, (510) 895-3675 <input checked="" type="checkbox"/> <b>Forensic Analytical Laboratories, Inc. (FAL):</b> 3777 Depot Road # 409, Hayward, California 94545, (510) 887-8828				



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Project Address:	Paden Elementary, 444 Central Ave, Alameda, CA 94501			Project Number:	3007-119.00
Collected by:	Gus Valerian			Date Collected:	11/5/2017
Sample Analysis:	PLM	✓ Lead	GFAA	Stop at 1 <sup>st</sup> Positive Layer	Turnaround Time: 5 Day
Comments:	ANALYZE WATER SAMPLES FOR LEAD VIA GFAA				
Sample ID	Material Size-Color-Pattern-Material-Post Description	Material Location [Quantity] Building or Floor: Area(s) - Component	Sample Location Area - Component	Size	
WS-204-FD	POTABLE WATER- FIRST DRAW	Room 9	Fountain		
WS-204-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-205-FD	POTABLE WATER- FIRST DRAW	Room 5	Fountain		
WS-205-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-206-FD	POTABLE WATER- FIRST DRAW	Room 8	Fountain		
WS-206-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-207-FD	POTABLE WATER- FIRST DRAW	1st floor, East end of Hallway, adjacent to room 6	Silver, wall mount fountain		
WS-207-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-208-FD	POTABLE WATER- FIRST DRAW	Room 6	Fountain		
WS-208-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-209-FD	POTABLE WATER- FIRST DRAW	Room 7	Fountain		
WS-209-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
Released:	Signature:		Date:	Time:	
Received:	Signature: <i>S. Hollister</i>		Date:	Time: <i>NOV 09 2017</i>	
Lab Info:	EMSL Analytical, Inc. (EMSL): 464 McCormick Street, San Leandro, California 94577, (510) 895-3675 ✓ Forensic Analytical Laboratories, Inc. (FALI): 3777 Depot Road # 409, Hayward, California 94545, (510) 887-8828				

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Project Address:	Paden Elementary, 444 Central Ave, Alameda, CA 94501			Project Number:	3007-119.00
Collected by:	Gus Valerian			Date Collected:	11/5/2017
Sample Analysis:	PLM	<input checked="" type="checkbox"/> Lead	GFAA	Stop at 1 <sup>st</sup> Positive Layer	Turnaround Time: 5 Day

Comments: ANALYZE WATER SAMPLES FOR LEAD VIA GFAA

Sample ID	Material Size-Color-Pattern-Material-Post Description	Material Location [Quantity] Building or Floor: Area(s) - Component	Sample Location Area - Component	Size
WS-210-FD	POTABLE WATER- FIRST DRAW	Room B	Fountain	
WS-210-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE	
WS-211-FD	POTABLE WATER- FIRST DRAW	Room A	Fountain	
WS-211-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE	
WS-212-FD	POTABLE WATER- FIRST DRAW	Room D	Fountain	
WS-212-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE	
WS-213-FD	POTABLE WATER- FIRST DRAW	Room C	Fountain	
WS-213-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE	
WS-214-FD	POTABLE WATER- FIRST DRAW	Outside fountain, exterior south wall of multi purpose room , between boys and girls restroom entrances	Dual silver wall mount fountains, right side	
WS-214-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE	

Released:	Signature:	Date:	Time:
Received:	Signature:	Date:	Time:
EMSL Analytical, Inc. (EMSL): 464 McCormick Street, San Leandro, California 94577, (510) 895-3675 Forensic Analytical Laboratories, Inc. (FALI): 3777 Depot Road # 409, Hayward, California 94545, (510) 887-8828			

