



Environmental Lead-in-Air Round 119  
Proficiency Testing Performance for Participant ID: PAT-101812

Page 1 of 2  
Report Issue Date: 05/15/2022

Hawaii Analytical Laboratory, LLC  
3615 Harding Ave Ste 308  
Honolulu, HI 96816-3759

This report contains your organization's Environmental Lead-in-Air Proficiency Analytical Testing results for **ELPAT-Air Round 119**. It is the participant's responsibility to thoroughly review the information in this final report and to immediately contact the AIHA Proficiency Analytical Testing Programs, in writing, if any errors are found.

**Environmental Lead-in-Air Proficiency Analytical Testing Results**

The final report is comprised of two sections relating to ELPAT-Air Round 119. The first section contains your organization's results listed per analyte, per sample. The second section contains your current performance and performance from the two previous rounds, respectively (where applicable). Summary results for all participants for ELPAT-Air Round 119 are located in a separate report.

**Testing Results for ELPAT-Air Round 119**

This part of the report contains your organization's results listed per analyte, per sample.

Contaminant	Unit	#	Result	Ref. Value	Lower Limit	Upper Limit	z-Score	Rating
Lead in Air (AIR)	mg/m <sup>3</sup>	1	0.2132	0.2195	0.1781	0.2608	-0.5	A
	mg/m <sup>3</sup>	2	0.2112	0.2152	0.1756	0.2548	-0.3	A
	mg/m <sup>3</sup>	3	0.2244	0.2228	0.1821	0.2634	0.1	A
	mg/m <sup>3</sup>	4	0.0162	0.0168	0.0132	0.0203	-0.5	A

**Statistical Analysis Interpretation Note:**

Reference value is the mean of the reference group.

Lower limit = reference value - 3 standard deviations; Upper limit = reference value + 3 standard deviations

z-Score = (reported result - reference value)/standard deviation. Note: z-Scores indicate how far a particular score is away from the mean.

A - Acceptable\* Analysis; U - Unacceptable Analysis; E - Excused Absence

Both the assigned values and acceptance limits are based on consensus of the reference group.

\*The acceptability of reported results is based on upper and lower acceptance limits. This is why a reported result may appear unacceptable according to z-Score, but be identified as acceptable.

Any non-participation or non-reporting of PAT data will result in unacceptable results (see PAT Programs Participation Policies, Section 2.1.6.2.).

**Technical Comment:** No remarkable observations.

**Overall Performance Summary Concluding with ELPAT-Air Round 119**

The following table contains your organization's current and two previous test rounds performance respectively (where applicable). For more information in regard to the determination of proficiency, please visit: [www.aihapat.org](http://www.aihapat.org).

Analyte Class	Round	Round Score	Round Performance	Proficiency Status - Four Round Score
Air	116	4/4	PASS	
	117	4/4	PASS	
	118	4/4	PASS	
	119	4/4	PASS	PROFICIENT

**Interpretation Notes:**

The denominators represent the total number of samples analyzed.

The numerators represent the number of acceptable results.

P - Proficient; NP - Non-proficient; I - Indeterminate (not enough rounds to determine proficiency)

A participant is rated proficient for the applicable ELPAT matrix if the participant's performance meets any of the following:(1) In the last two rounds, all samples are analyzed and the results are 100% acceptable; or (2) three fourths (75%) or more of the accumulated results over four (4) rounds are acceptable. A participant is rated non-proficient for the applicable matrix if the participant's performance does not meet either of the proficiency categories mentioned above.

Additional information on the following items are available in the Environmental Lead Scheme Plan:

Procedures used to statistically analyze the data, establish the assigned value and standard deviation for proficiency assessment, or other criteria for evaluation; details of the metrological traceability and measurement uncertainty of the assigned value; information about design and implementation of PT scheme. The Environmental Lead Scheme Plan is available in the PAT Portal. Measurement uncertainty of any assigned value is also available on the respective certificate of analysis for the round.

Participants shall not describe their proficiency status in a manner that implies accreditation, certification or variations thereof. PAT results pertain only to the participant organization at the location listed on this results report. AIHA PAT Programs makes every effort to ensure that individual participant results are kept confidential and are not made public. Round results are only released to the participant and those entities requiring this information for accreditation, regulatory and contract purposes. New participants are made aware of the arrangement in advance of participation and consent is sought prior to the release of records for participants. PAT reports may not be reproduced or distributed unless copied in its entirety.

ELPAT Air samples are generated, verified, packaged, and shipped by RTI International under contract with AIHA Proficiency Analytical Testing Programs. Unless otherwise noted, sample homogeneity and stability criteria were satisfied for all samples.

Authorized by:  
David Clawson  
Technical and Quality Manager  
AIHA PAT Programs  
dclawson@aiha.org