



Report Issue Date: 12/16/2013

Frank Ehrenfeld  
International Asbestos Testing Laboratories (IATL)  
9000 Commerce Parkway  
Mt. Laurel, NJ 08054 Participant ID# 100188

Dear Frank Ehrenfeld,

Please find your organization's final Environmental Lead Proficiency Analytical Testing (ELPAT) **Round 85** results for Paint, Soil and Dust. It is the participant's responsibility to thoroughly review results and to immediately contact the AIHA Proficiency Analytical Testing Programs in writing, if any errors are found in your report.

The proficiency demonstrated by the results of this ELPAT round is valid until the results of the retest round are available on February 14, 2014, if the participant chooses to enroll, or until March 17, 2014 when the next ELPAT report will be available. Unacceptable performance may be improved by correctly analyzing a set of retest samples. Retest Order Forms and the PAT Programs Schedule are available online at [www.aihapat.org](http://www.aihapat.org). The deadline to order a retest is January 2, 2014.

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. Round results are only released to the participant and those entities requiring this information for accreditation 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 Round 86 sample kits will be mailed to participants around February 1, 2014. An email will be sent out upon shipment of round 86 samples. If you do not receive samples within fifteen (15) days please contact the AIHA PAT Programs. Your organization's data will be due by 11:59PM EST on March 3, 2014. Please note that the PT Program Schedule is available at [www.aihapat.org](http://www.aihapat.org).

Samples are generated, characterized, packaged, and shipped by RTI International, Research Triangle Park, NC under contract with AIHA Proficiency Analytical Testing Programs. Unless otherwise noted, sample homogeneity and stability criteria were satisfied for all samples.

I encourage you to contact me with any feedback, questions or if you wish to contest your results at [nmugambwa@aiha.org](mailto:nmugambwa@aiha.org).

Sincerely,

Natasha Mugambwa, MS  
Manager, AIHA PAT Programs

## Environmental Lead Proficiency Analytical Testing Results

This document contains three sub-reports relating to ELPAT Round 85. The first report contains your organization's results listed per contaminant, per sample. The second report contains your past proficiency data for 2 and 4 rounds respectively (where applicable), and the final report contains summary results for all participants for ELPAT round 85.

### Testing Results for ELPAT Round 85

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

Contaminant	Units	#	Result	Reference Value	Lower Limit	Upper Limit	z-Score	Rating
Paint Chips	%	1	1.7908	1.8423	1.5308	2.1539	-0.5	A
	%	2	0.0401	0.0473	0.0359	0.0588	-1.9	A
	%	3	0.6287	0.5971	0.5003	0.6939	1.0	A
	%	4	3.7166	3.6502	2.9907	4.3096	0.3	A
Soil	mg/kg	1	141.3	149.3	123.5	175.1	-0.9	A
	mg/kg	2	68.9	77.4	56.9	97.8	-1.2	A
	mg/kg	3	329.4	344.1	287.2	401.0	-0.8	A
	mg/kg	4	234.4	241.6	202.6	280.7	-0.6	A
Dust Wipe	ug	1	352.0	309.6	226.8	392.5	1.5	A
	ug	2	129.5	126.8	94.1	159.6	0.2	A
	ug	3	81.0	83.1	63.1	103.0	-0.3	A
	ug	4	214.5	211.6	168.5	254.7	0.2	A

**Statistical Analysis Interpretation Note:**

Reference value is the mean of the results of the reference group

Lower limit: reference value - 3 standard deviations

Upper limit: reference value + 3 standard deviations

A – Acceptable\* Analysis; U – Unacceptable Analysis

Z – Score = (reported result - reference value)/standard deviation. Note: z-Scores are used to predict trends and to indicate how far a particular score is away from the mean.

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 performance limits.

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

## Overall Performance Summary Concluding with 85

The following table contains overall proficiency results for 2 and 4 rounds respectively (where applicable). For more information in regard to the determination of proficiency, please visit [www.aihapat.org](http://www.aihapat.org)

Sample	Round	Round Performance	2 Rounds	2 Round %	4 Rounds	4 Round %	Proficiency Status
Paint	82	4/4					
	83	4/4					
	84	4/4					
	85	4/4	8/8	100	16/16	100	P
Soil	82	4/4					
	83	4/4					
	84	4/4					
	85	4/4	8/8	100	16/16	100	P
Dust	82	4/4					
	83	4/4					
	84	4/4					
	85	4/4	8/8	100	16/16	100	P

### Interpretation Note:

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 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.

The following items are available in the [Environmental Lead Scheme Plan](#):

Procedures used to statistically analyze the data, establish any assigned value and standard deviation for proficiency assessment, or other criteria for evaluation; details of the metrological traceability and measurement uncertainty of any assigned value; information about design and implementation of PT scheme. Environmental Lead Scheme Plan available at <http://www.aihapat.org/documents-policies-fees/Pages/default.aspx>.

Measurement uncertainty of any assigned value is also available on the respective certificate of analysis for the round.

**Technical Comment:** No remarkable observations

## Performance of all Participants for ELPAT Round 85

The following table contains aggregate results for all participants for ELPAT round 85.

Contaminant	#	Ref. Value	Ref. Std. Dev.	RSD (%)	Uncertainty Measurement	Total Participants	Total Acceptable	Low*	High*
Paint Chips	1	1.8423	0.1038	5.6	0.010437	168	161	5	2
	2	0.0473	0.0038	8.1	0.000383	168	160	3	5
	3	0.5971	0.0323	5.4	0.003244	168	162	5	1
	4	3.6502	0.2198	6.0	0.022092	168	160	6	2
Soil	1	149.3	8.6	5.8	0.895602	134	130	2	2
	2	77.4	6.8	8.8	0.711319	134	129	3	2
	3	344.1	19.0	5.5	1.976748	134	132	2	0
	4	241.6	13.0	5.4	1.357330	134	128	5	1
Dust Wipe	1	309.6	27.6	8.9	2.761379	141	137	3	1
	2	126.8	10.9	8.6	1.091721	141	139	2	0
	3	83.1	6.6	8.0	0.664347	141	136	4	1
	4	211.6	14.4	6.8	1.437603	141	137	3	1

**\*Note: Low** – number of participant results that are less than the Lower Limit; **High** - number of participant results that are greater than the Upper Limit

Reference group/participant data sets for individual methods are not separated out during statistical analysis. Methods appear to be equivalent within the statistics available.

Additional technical comments or recommendations, when available, shall be shared with participants via the web and participants shall be notified via email.