



Laboratory Quality Assurance Program
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2/17/2009

Santiago Martinez
Environ Cientifica Ltda.
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Lab ID# 102800

Dear Santiago Martinez,

Please find your laboratory's Industrial Hygiene Proficiency Analytical Testing (IHPAT) results for **Round 176**. The proficiency demonstrated by the results of this IHPAT round is valid until the close of the retest round on April 15, 2009 if the laboratory chooses to participate or until May 15, 2009 when the next IHPAT report will be available.

Unacceptable performance may be improved by correctly analyzing a set of retest samples. The deadline to order a retest is February 27, 2009. Retest sample kits are mailed via USPS Mail within five days after the order deadline.

IHPAT **Round 177** sample kits will be mailed to laboratories around April 1, 2009. Your laboratory's data will be due by 11:59pm EST on May 1, 2009. The analytes for round 177 are:

- **Metals - cadmium, lead, zinc**
- **Asbestos - chrysotile**
- **Silica - calcite background**
- **Organics - methanol(MOH)**

Please handle, store and analyze your laboratory's PAT samples in the same manner as routine client samples. To submit your laboratory's data, please visit the Proficiency Analytical Testing (PAT) page and click on the PAT Data Entry Portal:
<http://www.aiha.org/Content/LQAP/PT/pt.htm>

Your laboratory's password needed to access the PAT Data Entry Portal is provided in the upper right hand corner (next to your lab ID#) of the address label on the results submission form included with your PAT samples.

Print and save the confirmation page after submitting data via the AIHA PAT Data Entry Portal.

The AIHA Laboratory Quality Assurance Programs Policies and Application for AIHA accreditation are available on-line.

<http://www.aiha.org/Content/LQAP/documents/documents.htm>

Note: The Policies for 2008 comply with ISO/IEC 17025: 2005.

I encourage you to contact me with any feedback, questions or if you wish to contest your results at (703) 846-0797.

Sincerely,

Natasha S. Mugambwa
PAT Data Specialist.

Industrial Hygiene Proficiency Analytical Testing Results

This document contains three sub-reports relating to IHPAT Round 176. The first report contains your laboratory's results listed per contaminant, per sample. The second report contains your current and 2 previous test round performance respectively (where applicable), and the final report contains summary results for all laboratories for IHPAT round 176.

Testing Results for IHPAT Round 176

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

| Contaminant | Units | # | Result | Ref. Value | Lower Limit | Upper Limit | z-Score | Rating |
|-----------------------|-------|---|---------|------------|-------------|-------------|---------|--------|
| Cadmium (CAD) | mg | 1 | 0.00400 | 0.00406 | 0.00323 | 0.00489 | -0.2 | A |
| | mg | 2 | 0.01040 | 0.01051 | 0.00896 | 0.01206 | -0.2 | A |
| | mg | 3 | 0.00790 | 0.00800 | 0.00682 | 0.00918 | -0.3 | A |
| | mg | 4 | 0.01420 | 0.01432 | 0.01260 | 0.01604 | -0.2 | A |
| Chromium (CHR) | mg | 1 | 0.1881 | 0.1871 | 0.1606 | 0.2136 | 0.1 | A |
| | mg | 2 | 0.0294 | 0.0317 | 0.0271 | 0.0363 | -1.5 | A |
| | mg | 3 | 0.0654 | 0.0677 | 0.0596 | 0.0759 | -0.9 | A |
| | mg | 4 | 0.1180 | 0.1168 | 0.1024 | 0.1313 | 0.2 | A |
| Lead (LEA) | mg | 1 | 0.1488 | 0.1486 | 0.1308 | 0.1665 | 0.0 | A |
| | mg | 2 | 0.0613 | 0.0609 | 0.0536 | 0.0682 | 0.2 | A |
| | mg | 3 | 0.0972 | 0.0969 | 0.0853 | 0.1085 | 0.1 | A |
| | mg | 4 | 0.0378 | 0.0386 | 0.0339 | 0.0432 | -0.5 | A |
| Silica (SIL) | mg | 1 | 0.0761 | 0.0828 | 0.0524 | 0.1132 | -0.7 | A |
| | mg | 2 | 0.1039 | 0.1141 | 0.0905 | 0.1377 | -1.3 | A |
| | mg | 3 | 0.1679 | 0.1803 | 0.1307 | 0.2298 | -0.7 | A |
| | mg | 4 | 0.0730 | 0.0692 | 0.0323 | 0.1061 | 0.3 | A |
| n-Butyl Acetate (BAC) | mg | 1 | 0.6250 | 0.6787 | 0.5898 | 0.7675 | -1.8 | A |
| | mg | 2 | 0.2955 | 0.3117 | 0.2635 | 0.3598 | -1.0 | A |
| | mg | 3 | 1.0030 | 1.0428 | 0.8896 | 1.1959 | -0.8 | A |
| | mg | 4 | 0.0999 | 0.1052 | 0.0862 | 0.1242 | -0.8 | A |
| Ethyl Acetate (EAC) | mg | 1 | 0.2291 | 0.2489 | 0.2165 | 0.2814 | -1.8 | A |
| | mg | 2 | 1.1005 | 1.1765 | 1.0260 | 1.3270 | -1.5 | A |
| | mg | 3 | 0.3917 | 0.4069 | 0.3571 | 0.4566 | -0.9 | A |
| | mg | 4 | 0.7912 | 0.8259 | 0.7268 | 0.9250 | -1.1 | A |
| 2-Propanol (IPA) | mg | 1 | 1.1562 | 1.2548 | 0.9716 | 1.5381 | -1.0 | A |
| | mg | 2 | 0.2773 | 0.2889 | 0.2207 | 0.3571 | -0.5 | A |
| | mg | 3 | 0.9967 | 1.0310 | 0.8362 | 1.2259 | -0.5 | A |
| | mg | 4 | 0.4837 | 0.4951 | 0.3874 | 0.6027 | -0.3 | A |
| | | | | | | | | |

Please note:

Reference value is the mean of the reference laboratories

*Lower limit = reference value - 3 standard deviations and Upper limit = reference value +3 standard deviations

*Z-score = (reported result - reference value)/standard deviation

*Asbestos is the exception because data are positively skewed therefore transformations are used to obtain approximately normal distributions.

A: Acceptable Analysis; U: Unacceptable Analysis

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

Overall Performance Summary Concluding with 176

The following table contains your laboratory's current and 2 previous test rounds performance respectively (where applicable). For more information in regard to the determination of proficiency, please see Policy Module 6B, Section 6B.2 for IHPAT and Policy Module 6C Section 6C.2 for ELPAT Lead-in-Air located at: <http://www.aiha.org/Content/LQAP/documents/accredpolicymods.htm>

| Sample | Round | Round Performance | Round Score | Proficiency Status -Three Round Score |
|------------------|-------|-------------------|-------------|---------------------------------------|
| Metals | 174 | 12/12 | Pass | |
| | 175 | 12/12 | Pass | |
| | 176 | 12/12 | Pass | P |
| Organic Solvents | 174 | 12/12 | Pass | |
| | 175 | 12/12 | Pass | |
| | 176 | 12/12 | Pass | P |
| Silica | 174 | 4/4 | Pass | |
| | 175 | 4/4 | Pass | |
| | 176 | 4/4 | Pass | P |
| | | | | |

Please note:

The denominators represent the total number of samples analyzed.

The numerators represent the number of acceptable results.

Pass: Round Score \geq 75% Fail: Round Score < 75%

P – Proficient; NP – Non-proficient.

A laboratory is rated proficient (P) for the associated FoT/Method(s), if the laboratory has a passing score for the applicable PT analyte class in two (2) of the last three (3) consecutive PT rounds. A laboratory is rated non-proficient (NP) for the applicable FoT/Method if the laboratory has failing scores for the associated PT analyte class in two (2) of the last three (3) consecutive PT rounds.

If a laboratory receives samples and does not report the data, the results will be treated as outliers.

