



Low Asbestos Content Scheme Individual Results : Round 003 LACS Round 3

For Laboratory Number : 1640 CRB Analyse Service GmbH

From : 08/01/2018 To : 16/02/2018

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| Sample | Your Result | Assigned Result | Score |
|--------|-------------------------------------|------------------------------------|---------------|
| 1 | Amosite, Total Asbestos = 0.022% | Amosite, Total Asbestos = 0.07% | 0 Z : -1.2 |

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Round 3 Sample Details

BACKGROUND

This report covers Round 3 of the Low Asbestos Content Scheme (LACS). Round 3 was open to laboratories worldwide. Laboratory participation was as follows: 4 UK, 98 Rest of Europe and 1 RoW.

103 laboratories subscribed to this round, with 100 submitting results.

SAMPLES

One sample was circulated as follows: Sample LACS003 – This sample was a marble powder containing UICC amosite.

SCREENING & VALIDATOR INFORMATION

The sample was prepared for circulation following our normal internal screening process of samples with representative sub-samples scanned using stereo-zoom and polarised light microscopy to assess homogeneity and suitability. Approximately 10% of the total number of samples despatched were validated by 4 independent laboratories.

INFORMATION SUBMITTED BY LABORATORIES

Laboratories used the HSL web-based PT data entry system to submit their results for this round. Results were submitted as asbestos type(s) present and for the Quantitative element, the total % asbestos.

ERRORS

Only four laboratories of the 100 who submitted results recorded errors for sample LACS003. One laboratory identified amosite and actinolite and three laboratories identified actinolite.

LACS QUALITATIVE RESULTS

Sample LACS003

Ninety-six laboratories correctly reported amosite.

One laboratory reported amosite and actinolite.

Three laboratories reported actinolite.

Three laboratories did not submit a result.

These results are presented graphically in Charts 1 and 2.

LACS QUANTITATIVE RESULTS

The median of quantitative results submitted was 0.09%. For the purposes of the z score we are using 40% of the median - 0.04%. Forty-two laboratories submitted quantitative results;

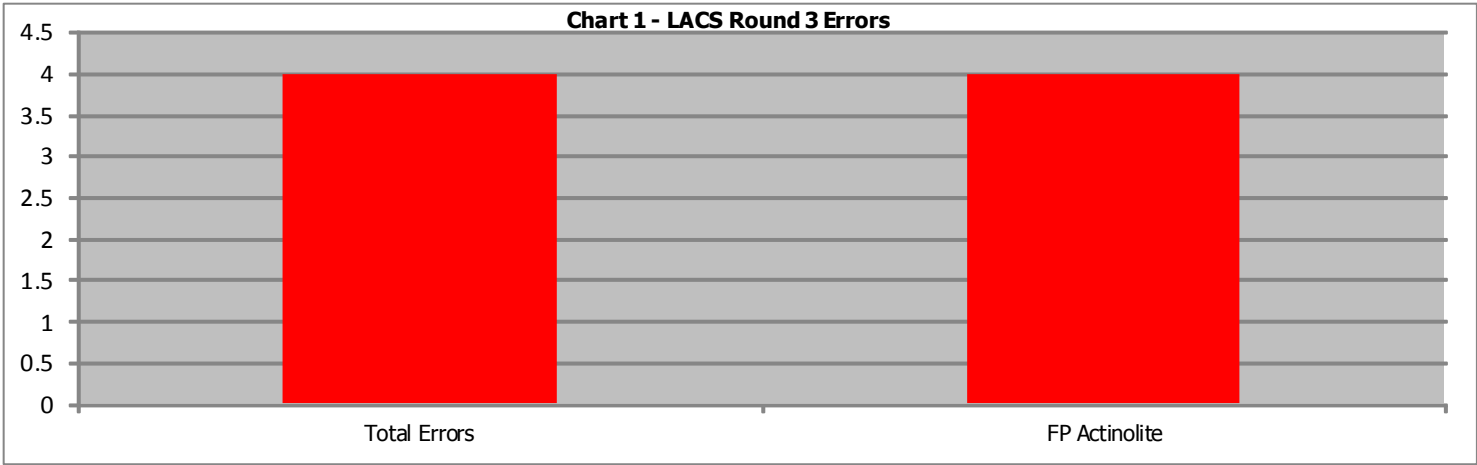
- 31 (74%) laboratories achieved a z-score of $< \pm 2$, this is normally considered to represent “Satisfactory” performance
- 0 (0%) laboratory achieved a z-score of between $\pm 2 - \pm 3$, this is normally considered to represent “Questionable” performance
- 11 (26%) laboratories achieved a z-score of $> \pm 3$, this is normally considered to represent “Unsatisfactory” performance.

These results are presented graphically in Charts 3 and 4.



1. Type Of Errors Obtained

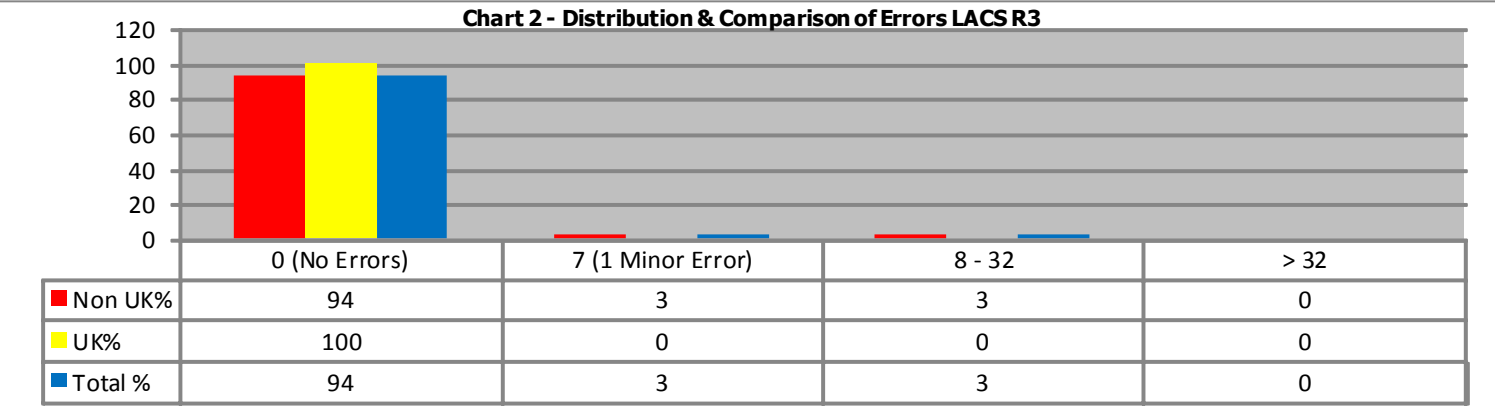
Chart 1 illustrates the errors made by participating laboratories. Four errors were made by laboratories on sample LACS003. All 4 errors were made by laboratories falsely identifying actinolite asbestos present. 1 lab identified amosite and actinolite with 3 labs identifying actinolite only.



False Negative = Component has been missed. False Positive = Component has been incorrectly identified as present.

2. Errors for UK & Non-UK Laboratories

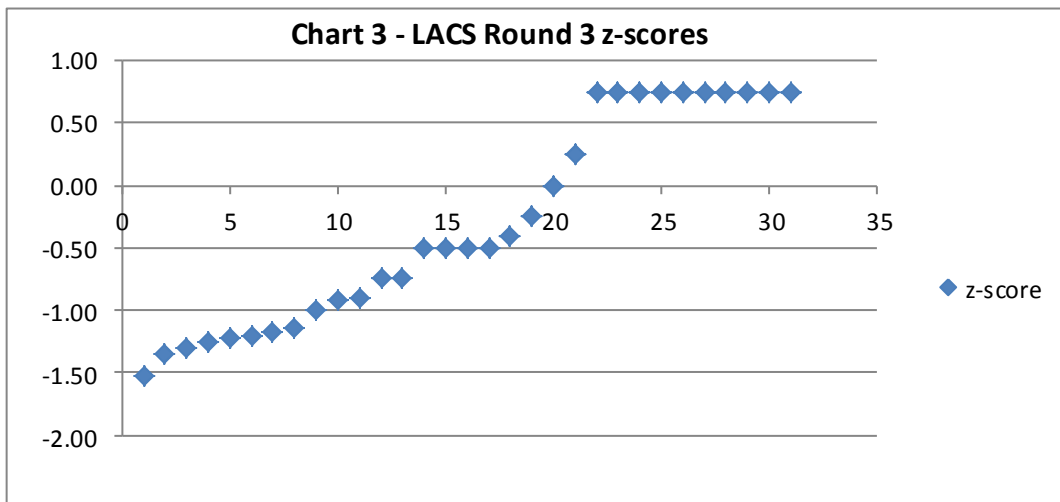
Chart 2 illustrates the distribution of scores for all participating laboratories. 94 (94%) laboratories obtained a score of zero in this round, indicating that these laboratories had not made any errors. The distribution of scores obtained by UK (United Kingdom) and Non-UK laboratories is also compared; 4 (100%) UK laboratories and 90 (94%) Non-UK laboratories obtained a score of zero for the round.



3. Quantitative Results - z scores

Chart 3

Scatter graph of z scores (eleven z scores ranging from 3.25 to 173.25 removed as outliers) for the forty-two laboratories who submitted a quantification result.



4. Quantitative Results

Chart 4 illustrates of the 42 laboratories who submitted a quantification result, 31 laboratories (74%) achieved a satisfactory result i.e. a z score of $< \pm 2$. 0 laboratories (0%) achieved a questionable result with a z score of between ± 2 and ± 3 . 11 laboratories (26%) achieved an unsatisfactory result with a z score of $> \pm 3$.

