HEALTH & SAFETY LABORATORY

LACS

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Low Asbestos Content Scheme Individual Results : Round 006 LACS R6

For Laboratory Number : 1640 CRB Analyse Service GmbH

From : 07/01/2019 To : 15/02/2019

Report Issued 16/04/2019

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Sample	Your Result	Assigned Result	Score
1	Crocidolite , Total Asbestos = 0.009%	Crocidolite , Total Asbestos = 0.03%	0 Z : -1.05

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Round 6 Sample Details

BACKGROUND

This report covers Round 6 of the Low Asbestos Content Scheme (LACS). Round 6 was open to laboratories worldwide. Laboratory participation was as follows: 4 UK, 112 Europe and 1 Rest of the World.

117 laboratories subscribed to this round, with 109 submitting results.

SAMPLES

One sample was circulated as follows: Sample LACS006 – This sample was plaster containing 0.03% UICC crocidolite.

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

Of the 109 laboratories who submitted results one reported crocidolite and anthophyllite and two reported no asbestos for sample LACS006.

LACS QUALITATIVE RESULTS

Sample LACS006

One hundred and six laboratories correctly reported crocidolite.
One laboratory reported crocidolite and anthophyllite.
Two laboratories reported no asbestos.
Eight laboratories did not submit a result.
These results are presented graphically in Charts 1 and 2.

LACS QUANTITATIVE RESULTS

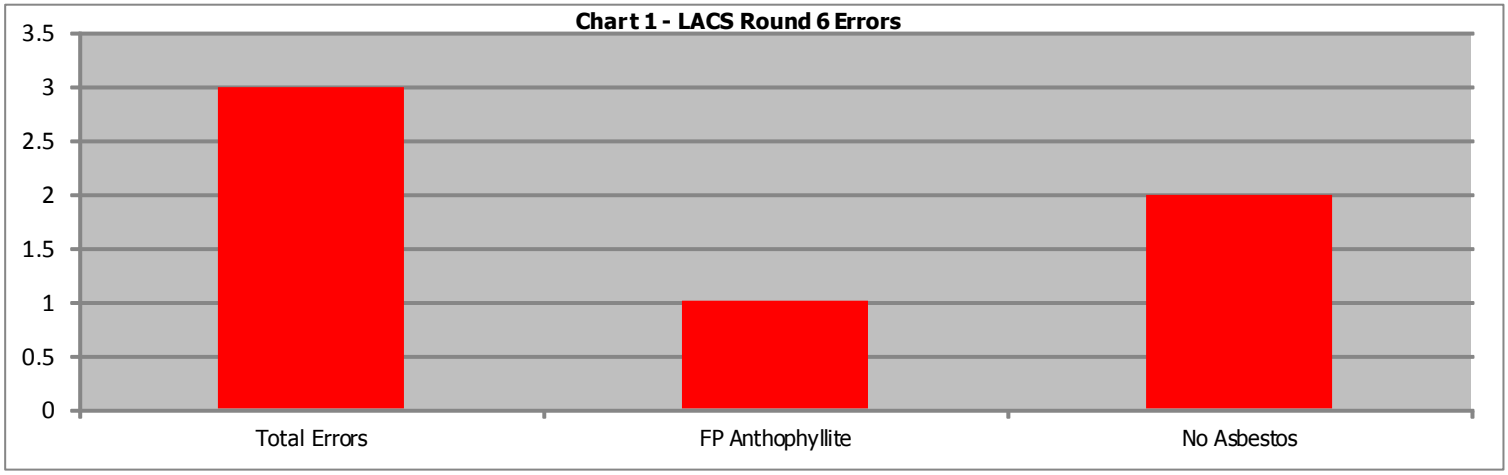
The median of quantitative results submitted was 0.05%. For the purposes of the z score we are using 40% of the median - 0.02%. Forty-five laboratories submitted quantitative results;

- 31 (62%) laboratories achieved a z-score of < ± 2, this is normally considered to represent “Satisfactory” performance
- 1 (2%) laboratory achieved a z-score of between ± 2 - ± 3, this is normally considered to represent “Questionable” performance
- 18 (36%) laboratories achieved a z-score of > ± 3, this is normally considered to represent “Unsatisfactory” performance.

These results are presented graphically in Charts 3-5.

1. Type Of Errors Obtained

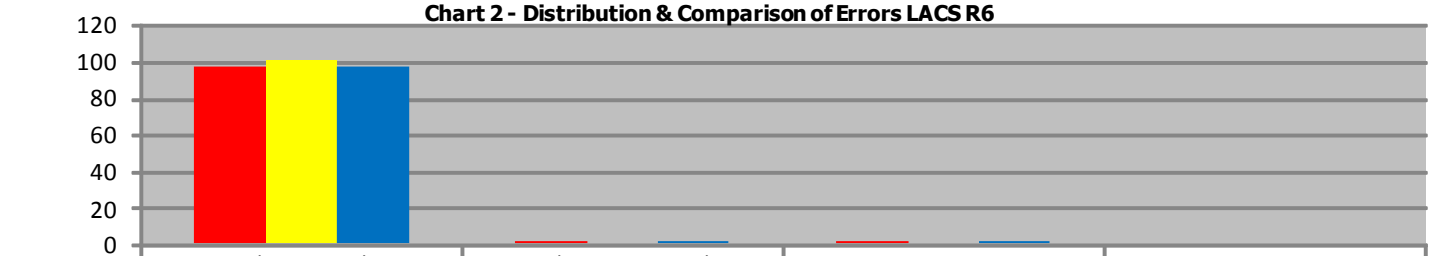
Chart 1 illustrates the errors made by participating laboratories. Three errors were made by laboratories on sample LACS006. One lab reported anthophyllite asbestos present along with crocidolite and two labs failed to report crocidolite asbestos present.



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. 106 (97%) 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 102 (97%) Non-UK laboratories obtained a score of zero for the round.

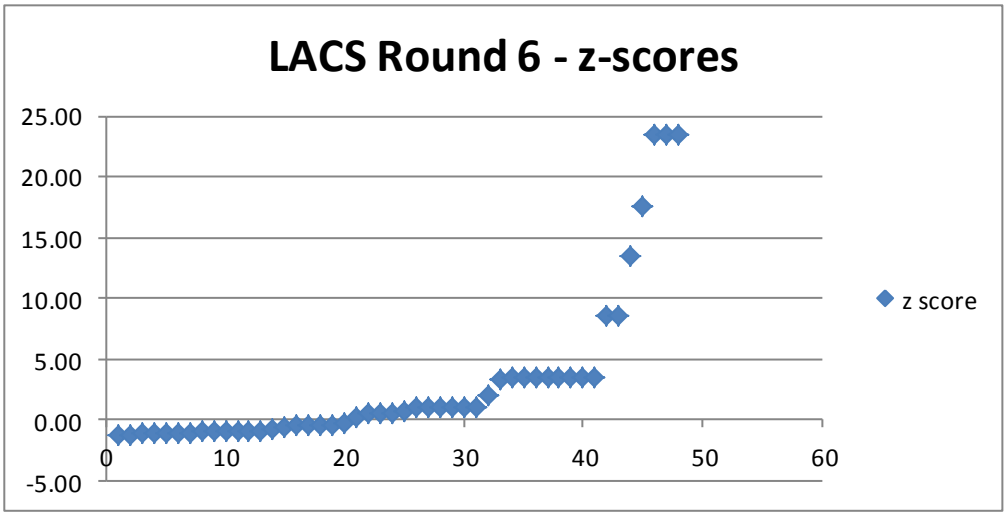


	0 (No Errors)	7 (1 Minor Error)	8 - 32	> 32
Non UK%	97	1	2	0
UK%	100	0	0	0
Total %	97	1	2	0

3. Quantitative Results - z scores

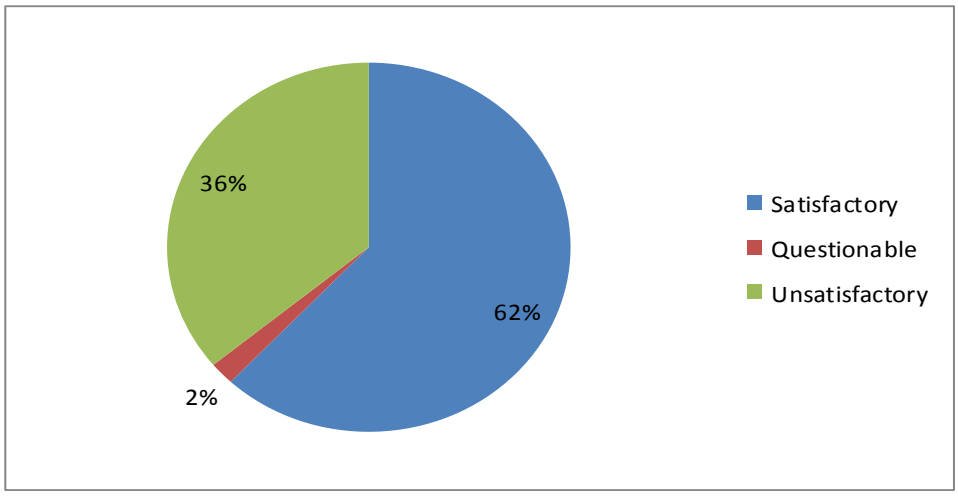
Chart 3

Scatter graph of z scores (two z score of 48.5 and 248.5 removed as outliers) for the 50 laboratories who submitted a quantification result.



4. Quantitative Results

Chart 4 illustrates of the 50 laboratories who submitted a quantification result, 31 laboratories (62%) achieved a satisfactory result i.e. a z score of < ± 2. 1 laboratoriy (2%) achieved a questionable result with a z score of between ± 2 and ± 3. 18 laboratories (36%) achieved an unsatisfactory result with a z score of > ± 3.



5 Quantitative Results by analytical method

The following charts illustrate the z-score results by method of the 50 laboratories who submitted a quantification result. The number of labs using each method were as follows: 22 labs used SEM/EXD; 25 labs used TEM/EDX/ED and 3 labs used PLM/ PCM.