Round 17 Sample Details

BACKGROUND

This report covers Round 17 of the Asbestos in Soils Scheme (AISS). Round 17 was open to laboratories worldwide. Laboratory participation was as follows: 35 UK, 26 Rest of Europe and 2 RoW.

SAMPLES

Two samples were circulated as follows:

Sample S033 – This sample contained 0.03% tremolite asbestos (loose fibre) by weight in top soil containing sand, cement and sawdust.

Sample S034 – This sample contained crocidolite asbestos (loose fibre) at 0.03% by weight. Each sample was individually made by mixing known weights of asbestos in a top soil, plaster, sand and cement matrix.

SCREENING & VALIDATOR INFORMATION

Both samples were prepared for circulation following our normal internal screening process of samples with representative sub-samples scanned using stereo-zoom microscopy to assess homogeneity and suitability. Approximately 10% of the total number of samples despatched were validated by 3 independent laboratories.

INFORMATION SUBMITTED BY LABORATORIES

63 laboratories submitted results for AISS Round 17. 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 option, the % asbestos in ACM's, as loose fibres and the total % asbestos.

AISS QUALITATIVE RESULTS

Sample 1 (S033)

Fifty-one laboratories correctly reported tremolite asbestos
One laboratory reported tremolite & anthophyllite (no error score)
Seven laboratories report anthophyllite (no error score)
Two laboratories reported chrysotile and tremolite
Two laboratories reported no asbestos

Sample 2 (S034)

Sixty-one laboratories correctly reported crocidolite asbestos
One laboratory reported amosite & crocidolite
One laboratory reported no asbestos

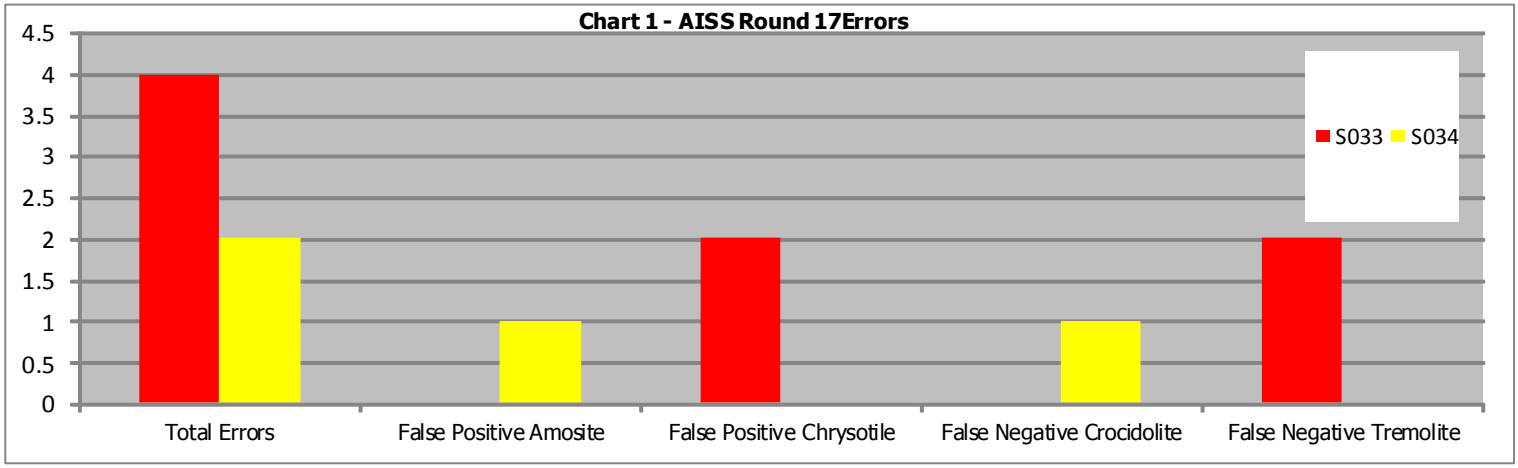
AISS QUANTITATIVE RESULTS

The median of quantitative results submitted was 0.0426. For the purposes of the z score we are using 40% of the median - 0.017. Fifty-one laboratories submitted quantitative results for S034;

- 41 (80%) laboratories achieved a z-score of < ± 2, Satisfactory
- 1 (2%) laboratory achieved a z-score of between ± 2 - ± 3, Questionable
- 9 (18%) laboratories achieved a z-score of > ± 3, Unsatisfactory

1. Type Of Errors Obtained

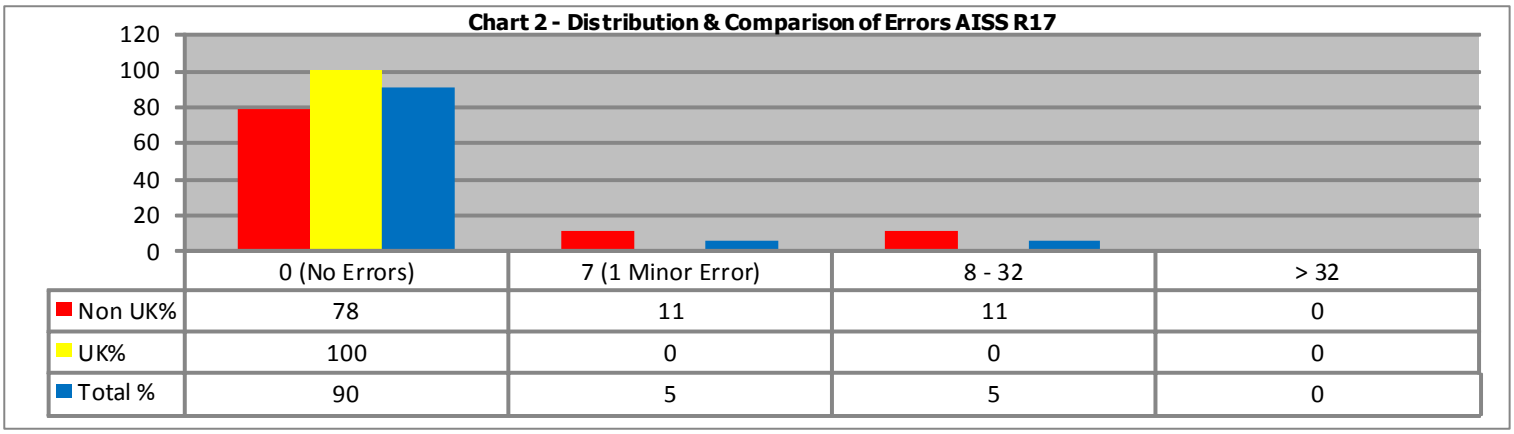
Chart 1 illustrates the errors made by participating laboratories. Four errors were made by laboratories on sample S033 with two laboratories reporting chrysotile as well as tremolite and two laboratories reporting no asbestos present. Two errors were made on sample S034 with one lab reporting amosite asbestos along with crocidolite and one lab reporting no asbestos present.



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

2. Errors for UK & Non-UK Laboratories

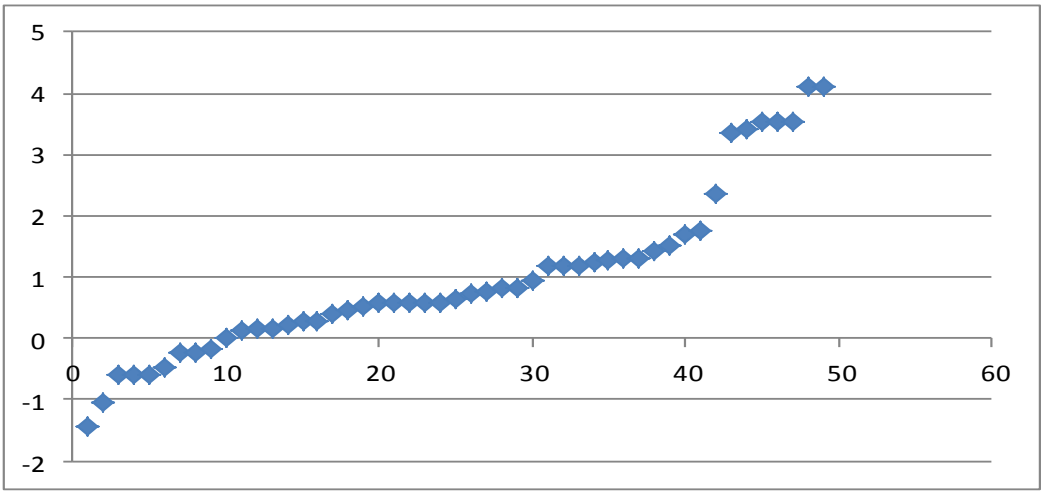
Chart 2 illustrates the distribution of scores for all participating laboratories. 57 (90%) laboratories obtained a score of zero in this round, indicating that these laboratories had not made any errors. The distribution of scores obtained by UK (United Kingdom) and Non-UK laboratories is also compared; 35 (100%) UK laboratories and 22 (78%) Non-UK laboratories obtained a score of zero for the round.



	0 (No Errors)	7 (1 Minor Error)	8 - 32	> 32
Non UK%	78	11	11	0
UK%	100	0	0	0
Total %	90	5	5	0

3. Quantitative Results - z scores

Chart 3 - scatter graph of z scores (two z scores of 46.47 & 62.35 removed as outliers) for the fifty-one laboratories who submitted a quantification result for sample S034.



4. Quantitative Results

Chart 4 illustrates of the 51 labs who submitted a quantification result for sample S034, 41 laboratories (80%) achieved a satisfactory result i.e. a z score of < ± 2. 1 laboratory (2%) achieved a questionable result with a z score of between ± 2 and ± 3. 9 laboratories (18%) achieved an unsatisfactory result with a z score of > ± 3.