



Round 16 Sample Details

BACKGROUND

This report covers Round 16 of the Asbestos in Soils Scheme (AISS). Round 16 was open to laboratories worldwide. Laboratory participation was as follows: 33 UK, 25 Rest of Europe and 1 RoW.

SAMPLES

Two samples were circulated as follows:

Sample S031 – This sample contained 0.03% amosite asbestos (loose fibre) by weight in top soil containing sand, cement, plaster and plastic fibres.

Sample S032 – This sample contained chrysotile asbestos (loose fibre) at 0.01% by weight. Each sample was individually made by mixing known weights of the asbestos containing material in a top soil, plaster, sand and cement.

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

59 laboratories submitted results for AISS Round 16. 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 031

Fifty-nine laboratories correctly reported amosite asbestos.

Sample 032

Fifty-seven laboratories correctly reported chrysotile asbestos.

One laboratory reported amosite & chrysotile.

One laboratory reported no asbestos.

AISS QUANTITATIVE RESULTS

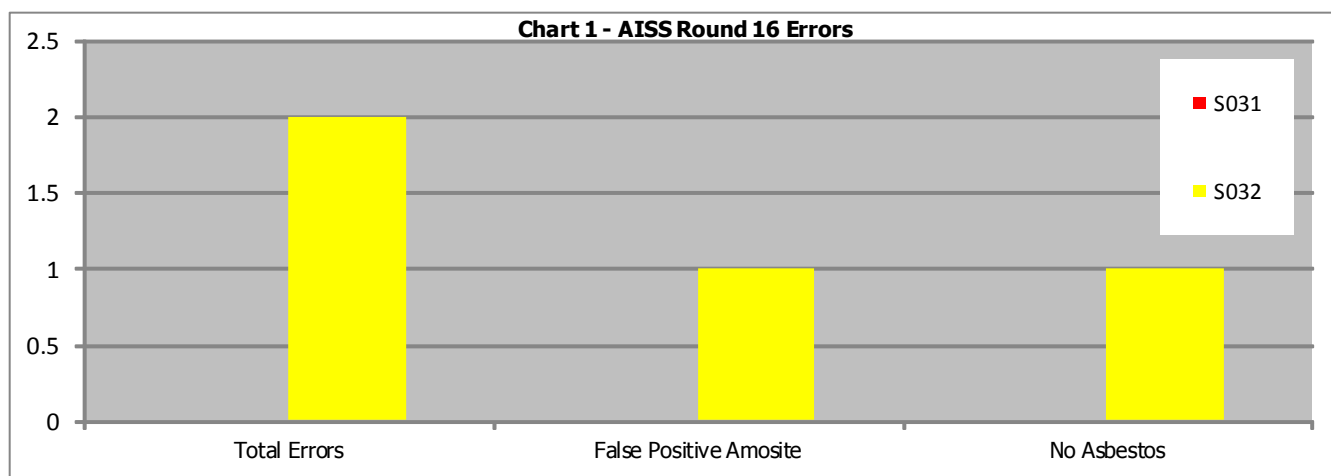
The median of quantitative results submitted was 0.02. For the purposes of the z score we are using 40% of the median - 0.008.

Forty-five laboratories submitted quantitative results for S032;

- 35 (78%) laboratories achieved a z-score of $< \pm 2$, Satisfactory
- 4 (9%) laboratory achieved a z-score of between $\pm 2 - \pm 3$, Questionable
- 6 (13%) laboratories achieved a z-score of $> \pm 3$, Unsatisfactory

1. Type Of Errors Obtained

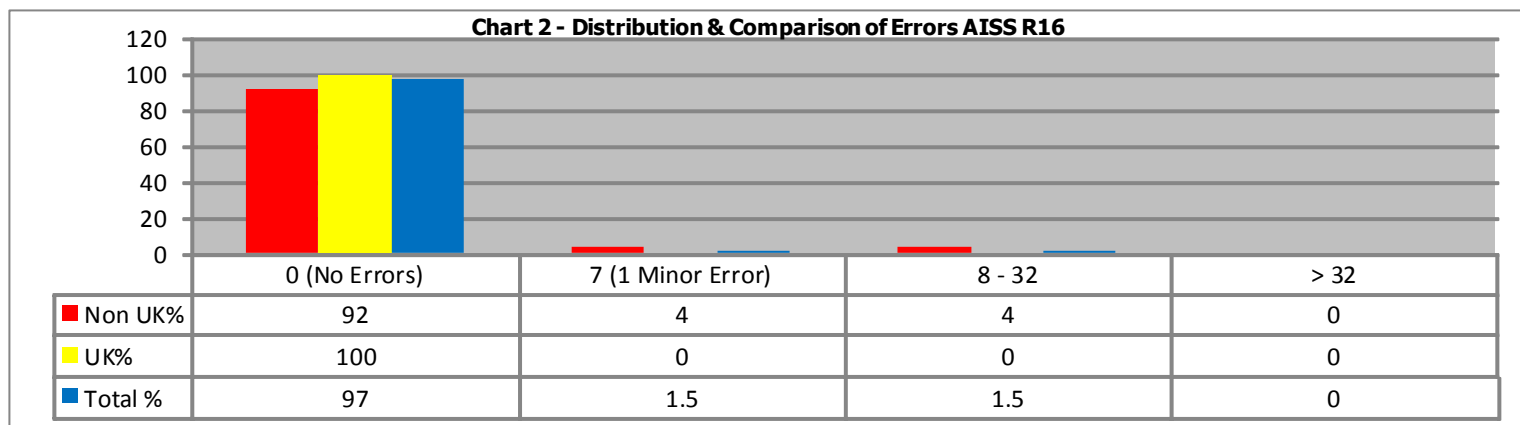
Chart 1 illustrates the errors made by participating laboratories. Zero errors were made by laboratories on sample S031 and two errors were made on sample S032. Two errors were made on sample S032 with one laboratory reporting amosite and chrysotile asbestos present and one laboratory reporting no asbestos.



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

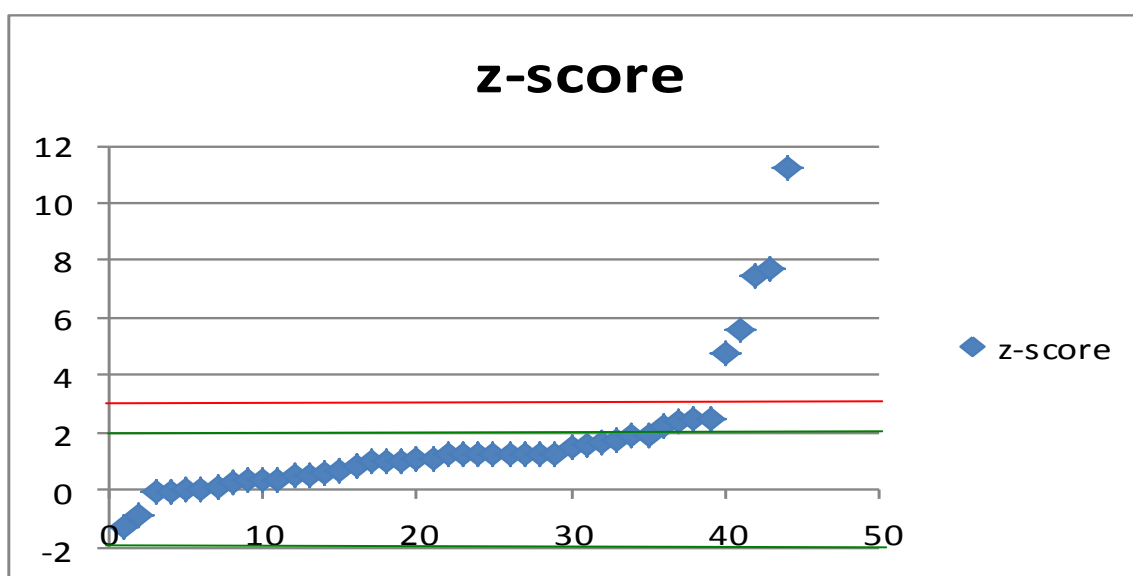
2. Errors for UK & Non-UK Laboratories

Chart 2 illustrates the distribution of scores for all participating laboratories. 57 (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; 33 (100%) UK laboratories and 24 (92%) Non-UK laboratories obtained a score of zero for the round.



3. Quantitative Results - z scores

Chart 3 - scatter graph of z scores (one z score of 41.25 removed as outlier) for the 45 labs who submitted a quantification result for sample S032.



4. Quantitative Results

Chart 4 illustrates that of the 45 labs who submitted a quantification result for sample S032, 35 labs (78%) achieved a satisfactory result i.e. a z score of $< \pm 2$. 4 labs (9%) achieved a questionable result with a z score of between ± 2 and ± 3 . 6 labs (13%) achieved an unsatisfactory result with a z score of $> \pm 3$.

