



GROUP REPORT
Round 29



March 2023

ASBESTOS IN SOILS SCHEME

Round 29 Sample Details

BACKGROUND

This report covers Round 29 of the Asbestos in Soils Scheme (AISS). Round 29 was open to laboratories worldwide. Laboratory participation was as follows: 25 UK & 53 NON UK

SAMPLES

Two samples were circulated as follows:

Sample S057 – This sample contained chrysotile asbestos, in a topsoil, compost, aggregate, sand, cement, blue roll and wood flour matrix.

Sample S058 – This sample contained amosite asbestos (0.05% loose fibre) in a topsoil, compost, aggregate, sand and wood shavings 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 were validated by 3 independent laboratories.

INFORMATION SUBMITTED BY LABORATORIES

Seventy-eight laboratories submitted results for AISS Round 29. Laboratories used the PT online 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 (S057)

Seventy laboratories correctly reported chrysotile
One laboratory reported chrysotile & amosite
One laboratory reported chrysotile & tremolite
One laboratory reported amosite
One laboratory reported tremolite & actinolite
Four laboratories reported no asbestos

Sample 2 (S058)

Seventy-six laboratories correctly reported amosite
Two laboratories reported chrysotile

AISS QUANTITATIVE RESULTS

The median of quantitative results submitted was 0.0603. For the purposes of the z score we are using 40% of the median - 0.02412. Fifty one laboratories submitted quantitative results for S058;

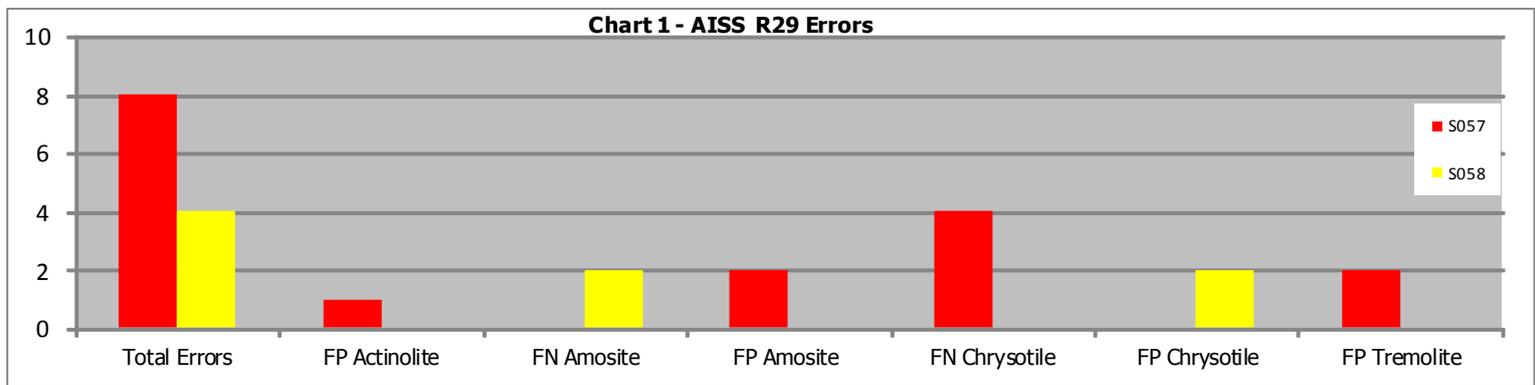
- 42 (82%) laboratories achieved a z-score of $< \pm 2$, Satisfactory
- 2 (4%) laboratories achieved a z-score of between $\pm 2 - \pm 3$, Questionable
- 7 (14%) laboratories achieved a z-score of $> \pm 3$, Unsatisfactory

1. Type Of Errors Obtained

Chart 1 illustrates the errors made by participating laboratories.

Nine errors were made on sample S057 (chrysotile) with two laboratories falsely reporting amosite, two falsely reporting tremolite, one falsely reporting actinolite and four reporting no asbestos.

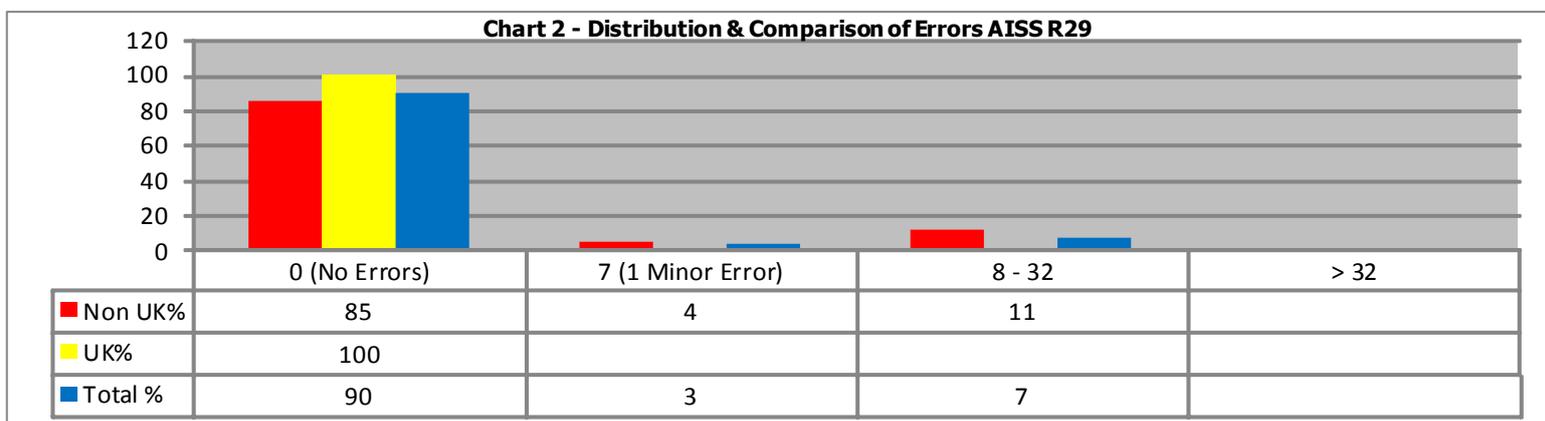
Four errors were made on sample S058 (amosite) with two laboratories falsely identifying chrysotile and not reporting amosite.



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

2. Errors for UK & Non-UK Laboratories

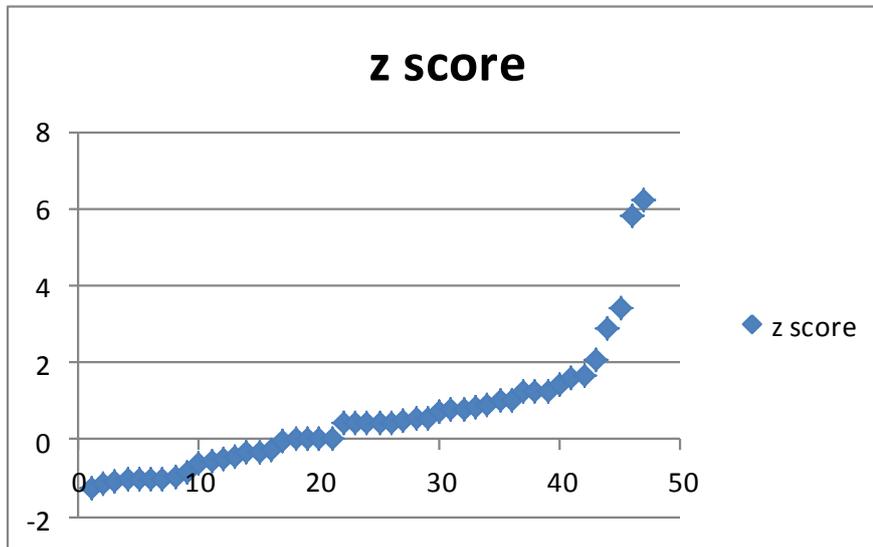
Chart 2 illustrates the distribution of scores for all participating laboratories. 70 (90%) laboratories obtained a score of zero in this round. The distribution of scores obtained by UK (United Kingdom) and Non-UK laboratories is also compared; 25 (100%) UK laboratories and 45 (85%) Non-UK laboratories obtained a score of zero for the round.





3. Quantitative Results - z scores

Chart 3 - scatter graph of z-scores for the fifty one laboratories who submitted a quantification result for sample S058. (four z-score of 12.9, 13.3, 21.3 & 124.0 were removed as outliers)



4. Quantitative Results

Chart 4 illustrates of the fifty one laboratories who submitted a quantification result for sample S058, 42 labs (82%) achieved a satisfactory result i.e. a z score of $< \pm 2$. 2 labs (4%) achieved a questionable result with a z score of between ± 2 and ± 3 . 7 labs (14%) achieved an unsatisfactory result with a z score of $> \pm 3$.

