



Report
Round 66
October 2018



Asbestos In Material Scheme

Asbestos In Materials (AIMS) Scheme

This report is available to view on our website: <https://www.hsl.gov.uk/proficiency-testing-schemes/group-reports>

Round 66 Sample Details

390 labs were assigned to Round 66 with 384 labs submitting complete results. All samples were prepared for circulation following our normal internal screening process and were scanned using stereo-zoom microscopy to assess homogeneity and suitability. Approximately 10% of all samples prepared were validated by 17 independent laboratories using either PLM or SEM analytical techniques. All validation labs identified all asbestos components present in the samples and no additional asbestos components were identified.

The round consisted of three manufactured samples and one commercial sample of materials that may contain asbestos and would typically be submitted for analysis at an asbestos testing laboratory. Sample 1 was a non-asbestos roofing felt with a bitumen adhesive containing polypropylene fibres; Sample 2 was a painted non-asbestos board containing amosite and chrysotile asbestos within the paint layer; Sample 3 was a cement sample containing crocidolite and chrysotile asbestos and Sample 4 was a commercial textile sample containing chrysotile asbestos.

The majority of errors in this round involved samples 2 and 3 and in particular the failure to identify one or both of the two asbestos types present in each sample. Sample 2 was a manufactured board sample with 0.75% each by weight of both amosite and chrysotile asbestos in the paint layer only. Analysts should be aware that samples may contain up to three asbestos types. Commercial AIB samples typically contained amosite but often contained much smaller amounts of chrysotile as well. During analysis, once a suspected asbestos type has been found, keep looking and thoroughly search the whole sample to correctly identify all of its components. Sample 3 was a manufactured cement sample containing 0.1% each of crocidolite and chrysotile asbestos. Commercial asbestos cement samples typically contained chrysotile but occasionally contained in addition, smaller amounts of crocidolite and amosite asbestos. Again, when analysing samples analysts should be thorough and systematically check through the whole sample to identify all asbestos types present.

Sample	Validation Number	Product Type	Target Component	Asbestos Present (%)
1	283	Felt (Manufactured)	No Asbestos	N/A
2	284	Board (Manufactured)	Amosite & Chrysotile	0.75% each asbestos type (in the paint layer)
3	285	Cement (Manufactured)	Crocidolite & Chrysotile	0.1% each asbestos type
4	286	Textile (Commercial)	Chrysotile	Unknown



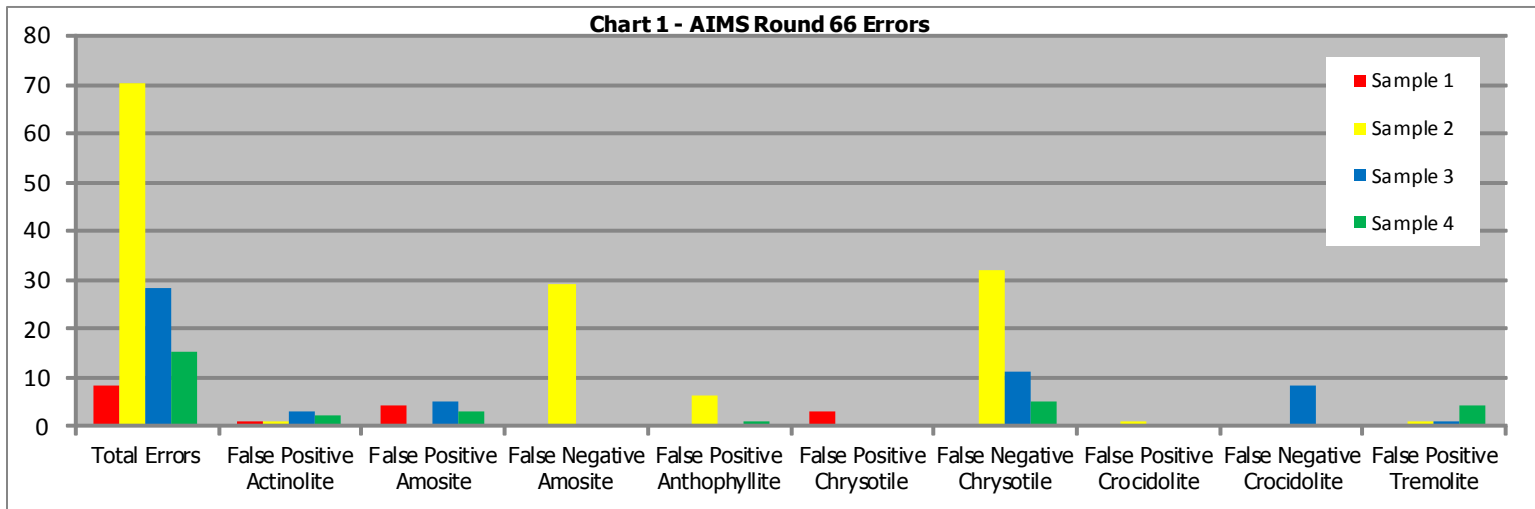
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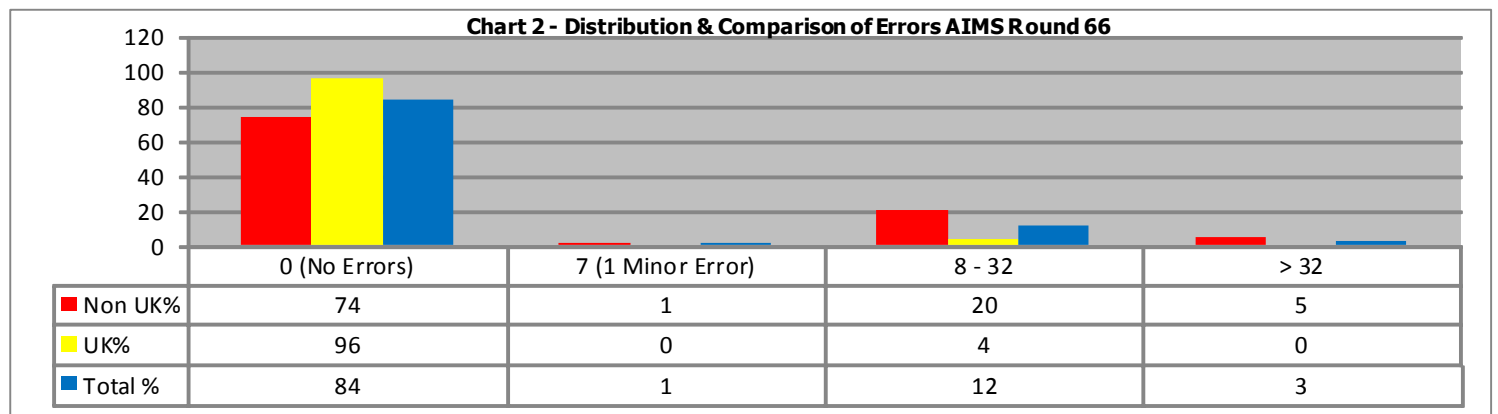
1. Type Of Errors Obtained



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

2. Round Scores

Chart 2 illustrates the distribution of scores for all participating laboratories. 322 (84%) 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; 171 (96%) UK laboratories and 151 (74%) Non-UK laboratories obtained a score of zero for the round.



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Chart 3 shows the percentage distribution of cumulative three round scores for all UK and Non-UK laboratories. 34 laboratories (9%) in total had not yet completed 3 rounds and therefore did not accumulate a score. Following this round, 262 laboratories (67%) obtained a good cumulative score (0 – 7 penalty points cumulatively). 82 laboratories (21%) obtained an acceptable cumulative score (8 – 32 penalty points cumulatively) and 12 laboratories (3%) obtained an unsatisfactory cumulative score (33 or more penalty points cumulatively).

Chart 3 - Distribution & Comparison of Cumulative Scores Following AIMS Round 66

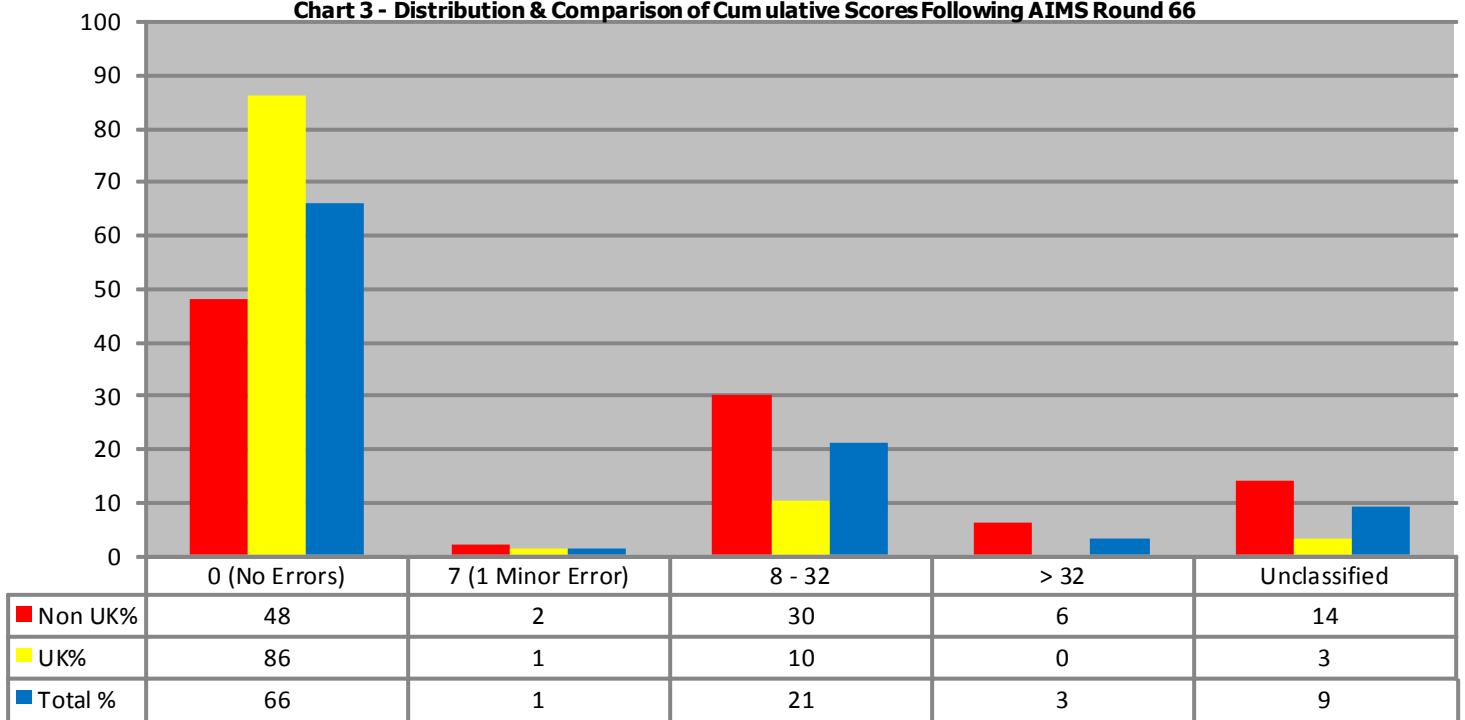
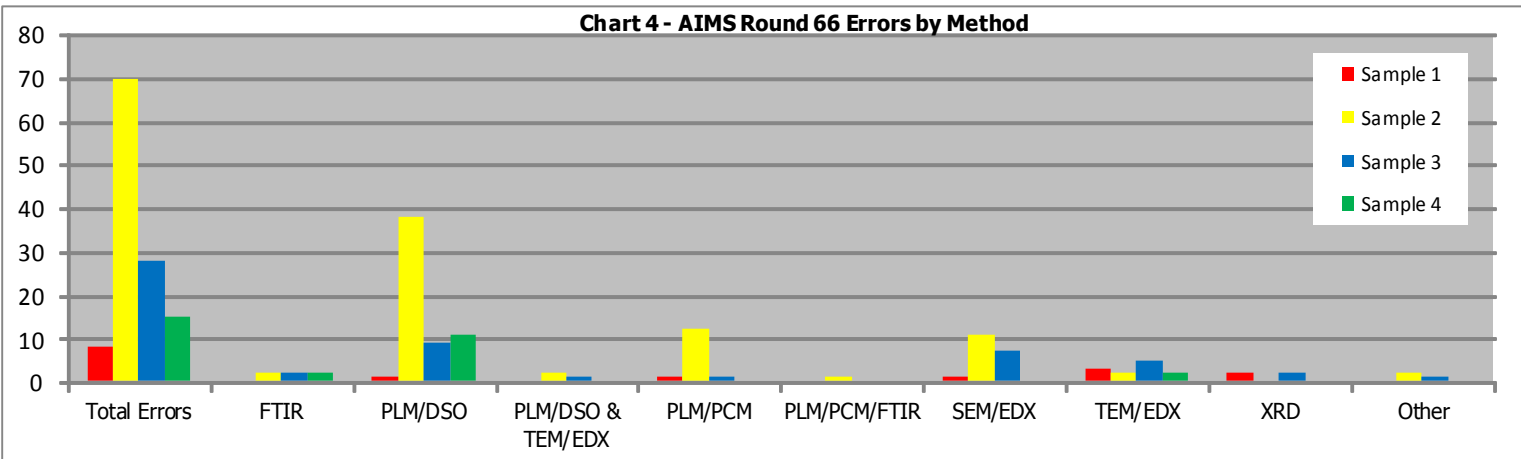


Chart 4 shows the number of errors made on each sample for all UK and Non-UK laboratories.

PLM - polarised light microscopy. DSO - dispersion staining objective. SEM - scanning electron microscopy. EDX - energy dispersive X-ray. TEM - transmission electron microscopy. FTIR - Fourier transform infra-red.

Chart 4 - AIMS Round 66 Errors by Method





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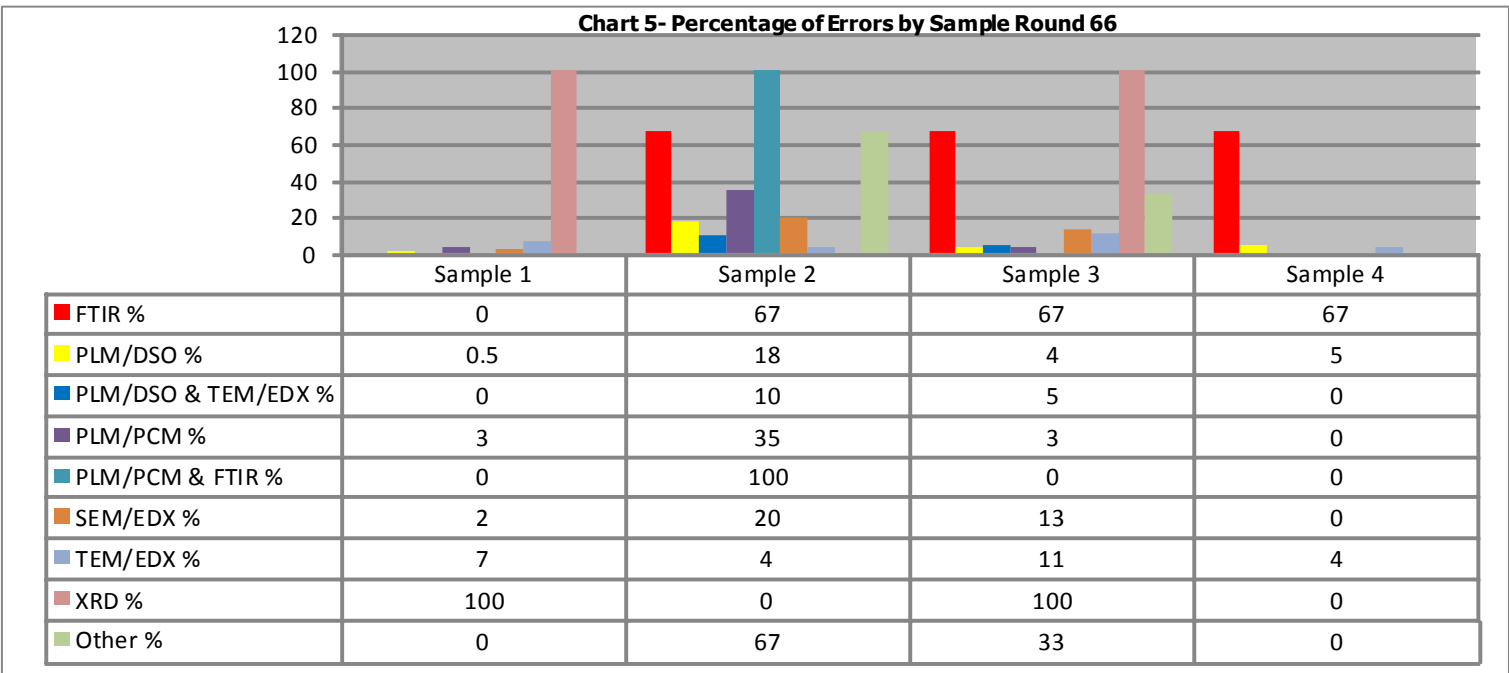


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Chart 5 shows the percentage of sample errors by method.

Of the 384 participating labs in R66 the method used in terms of the number of labs was as follows : FTIR, 3 labs; PLM with DSO, 216 labs; PLM with PCM, 33 labs; SEM with EDX, 55 labs; TEM with EDX, 45 labs; PLM with DSO & TEM with EDX, 20 labs; PLM with PCM & FTIR, 1 lab; PLM with PCM & TEM with EDX, 5 labs; PLM with PCM & SEM with EDX, 2 labs; Other, 3 labs and XRD, 1 lab.



3. For Your Information - AIMS NEWS !!

Following R65 a participant raised an appeal through the Fibre Proficiency Testing Steering Committee (FPTSC) following an investigation conducted by HSL for samples 1 & 3. Anonymised data was emailed to all the committee members who then met at the bi-annual FPTSC meeting in June 2018. The decision to uphold the scores was made and the participant informed.

There were two samples returned for investigation following R65 (sample 1 & 3). HSL carried out their investigation and the scores were upheld. No appeals have been requested.

The current AIMS QC order form can be found on our website. Water absorption samples are now available to purchase, please see order form for further details: <https://www.hsl.gov.uk/proficiency-testing-schemes/hsl-pt-quality-control-samples>

The SurveyMonkey Annual Questionnaire will be issued in December, an email will be sent nearer the time with further information.

The next round of AIMS will be despatched week commencing 7th January 2019 - please ensure any outstanding payments are made promptly to ensure continued participation in the scheme.

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