



Report
Round 60
October 2016



Asbestos In Material Scheme

Asbestos In Materials (AIMS) Scheme

Round 60 Sample Details

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 15 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 four manufactured samples of materials that may contain asbestos and would typically be submitted for analysis at an asbestos testing laboratory. Sample 1 was a non-asbestos paper sample containing ceramic fibre; Sample 2 was a non-asbestos painted board sample containing organic fibres within both the board and paint layer; Sample 3 was a cement sample containing crocidolite asbestos and Sample 4 was a plaster sample containing both chrysotile and amosite asbestos.

The majority of errors for this round were associated with sample 4. The errors mainly concerned failure to identify one or both of the asbestos types present. The sample consisted of a manufactured plaster material containing amosite and chrysotile asbestos. Analysts should ensure the whole sample is analysed thoroughly by breaking or crushing using a pestle and mortar to enable extraction of the fibres and to be aware there may be more than one asbestos type present.

Sample	Validation Number	Product Type	Target Component
1	259	Paper (Manufactured)	No Asbestos
2	260	Painted Board (Manufactured)	No Asbestos
3	261	Cement (Manufactured)	Crocidolite
4	262	Plaster (Manufactured)	Amosite & Chrysotile



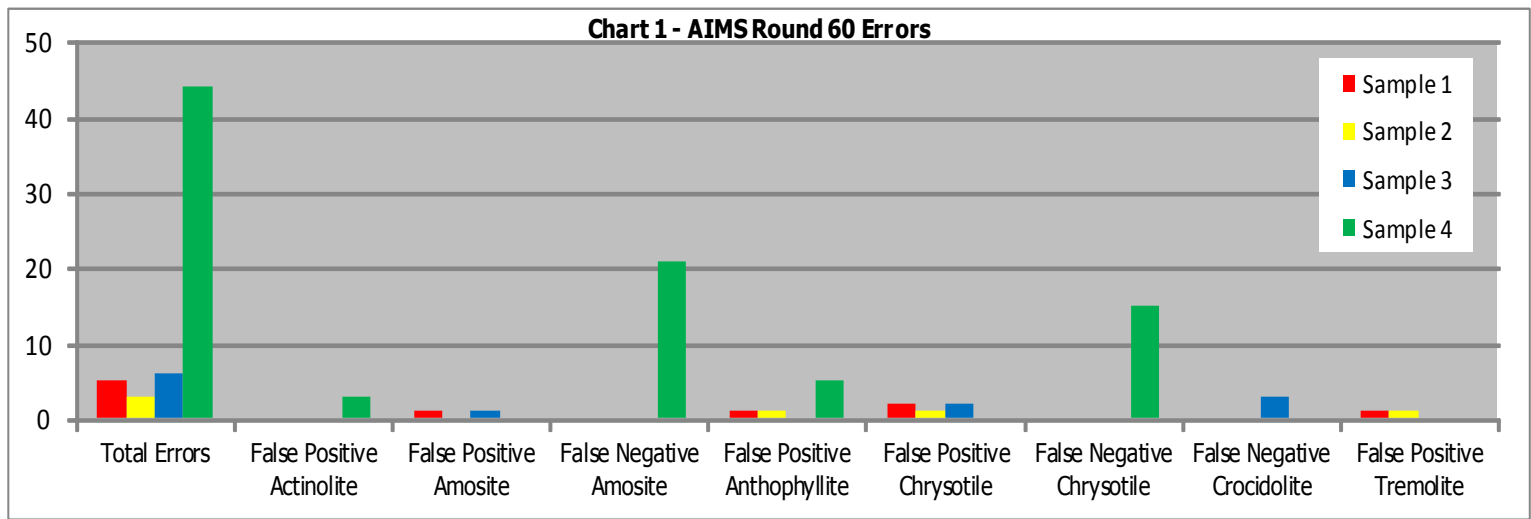
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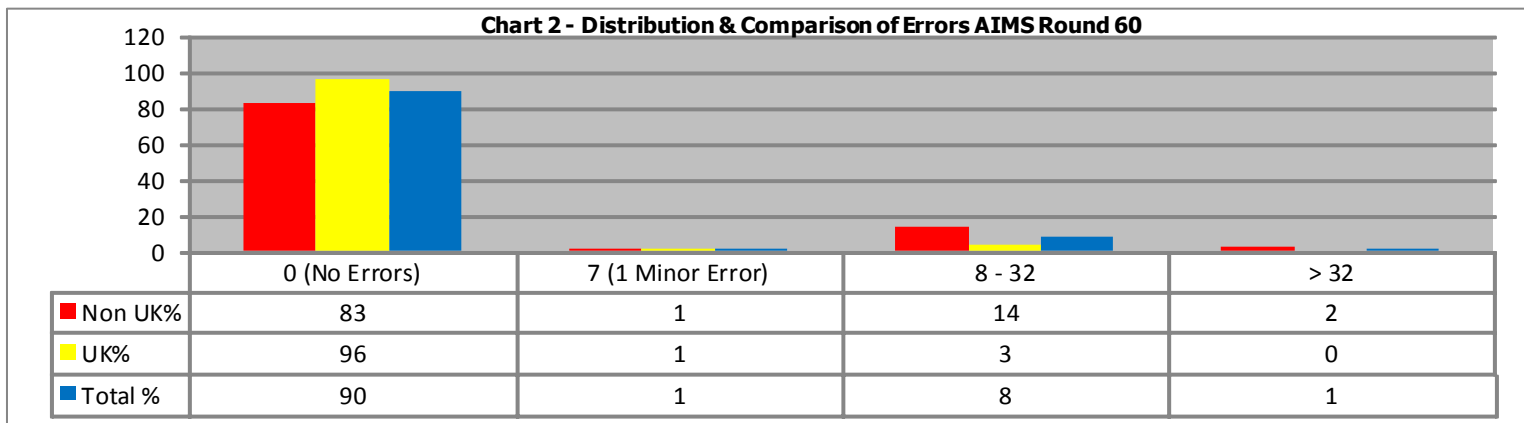
1. Type Of Errors Obtained



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. 312 (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; 171 (96%) UK laboratories and 141 (83%) 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. 39 laboratories (11%) in total had not yet completed 3 rounds and therefore did not accumulate a score. Following this round, 249 laboratories (70%) obtained a good cumulative score (0 – 7 penalty points cumulatively). 54 laboratories (15%) obtained an acceptable cumulative score (8 – 32 penalty points cumulatively) and 14 laboratories (4%) obtained an unsatisfactory cumulative score (33 or more penalty points cumulatively).

Chart 3 - Distribution & Comparison of Cumulative Scores Following AIMS Round 60

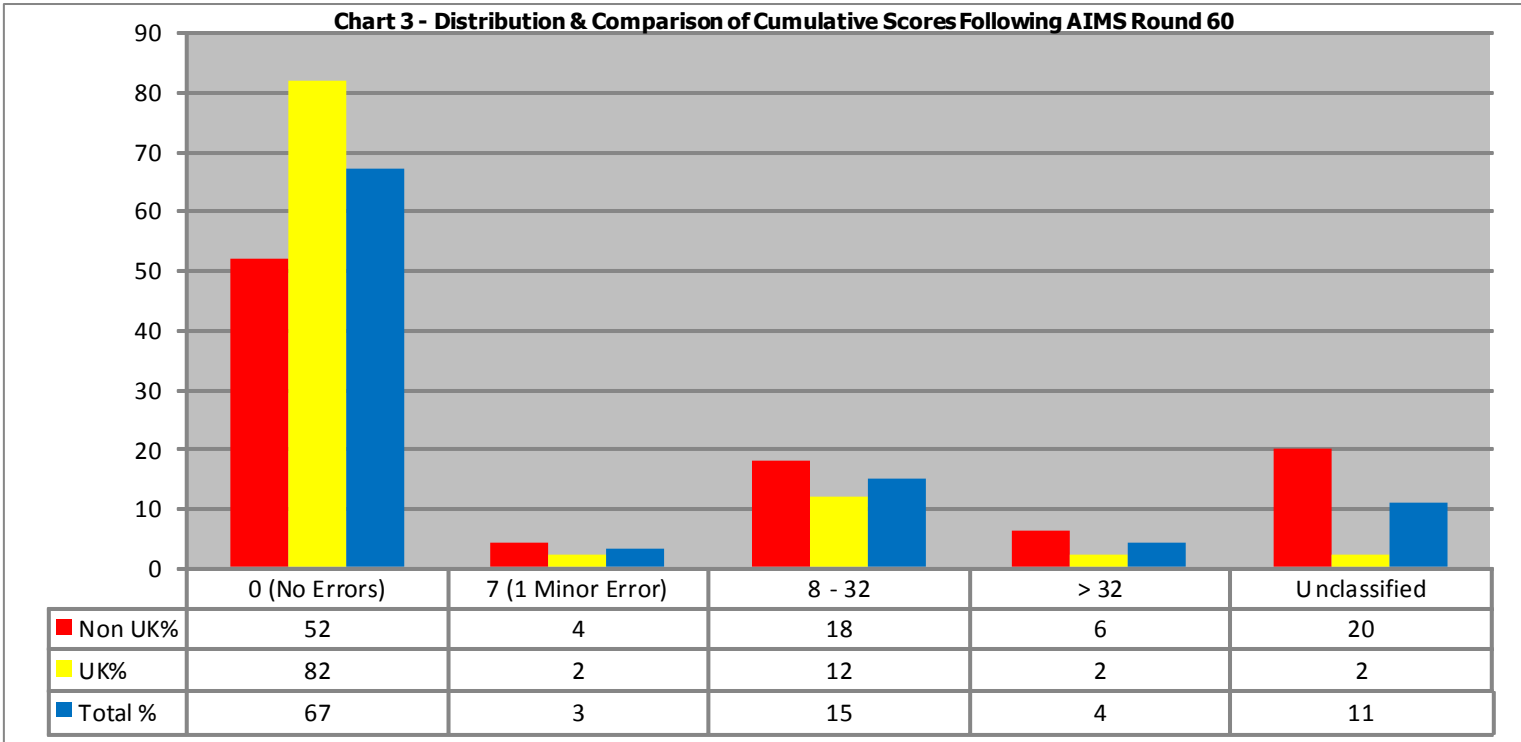
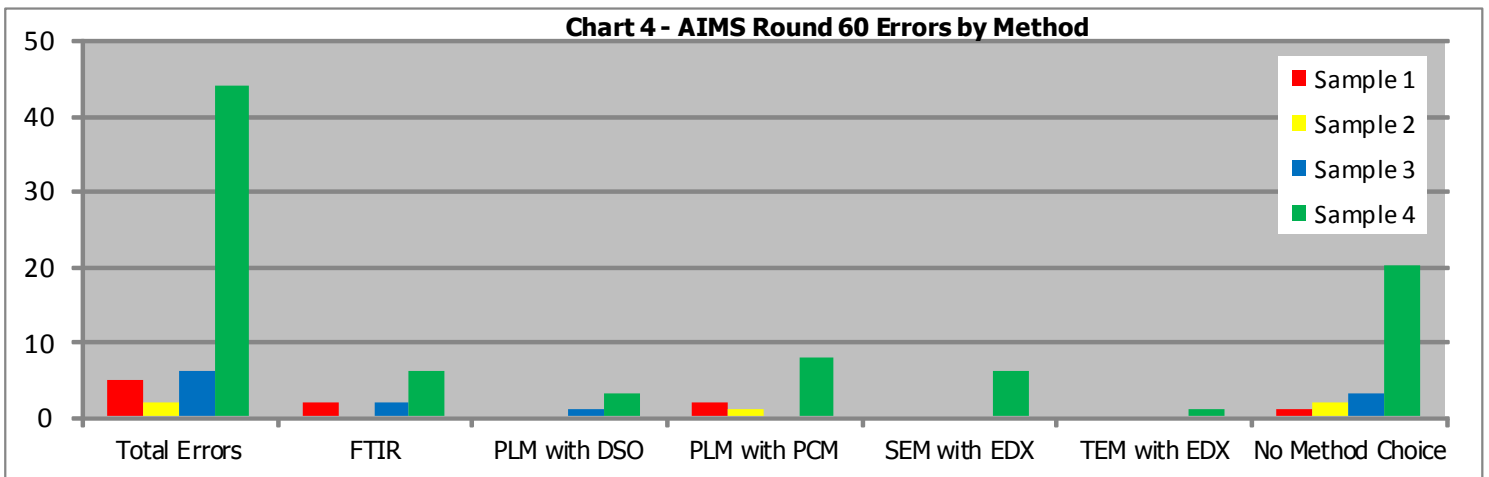


Chart 4 shows the number of errors made on each sample for all UK and Non-UK laboratories.

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 60 Errors by Method





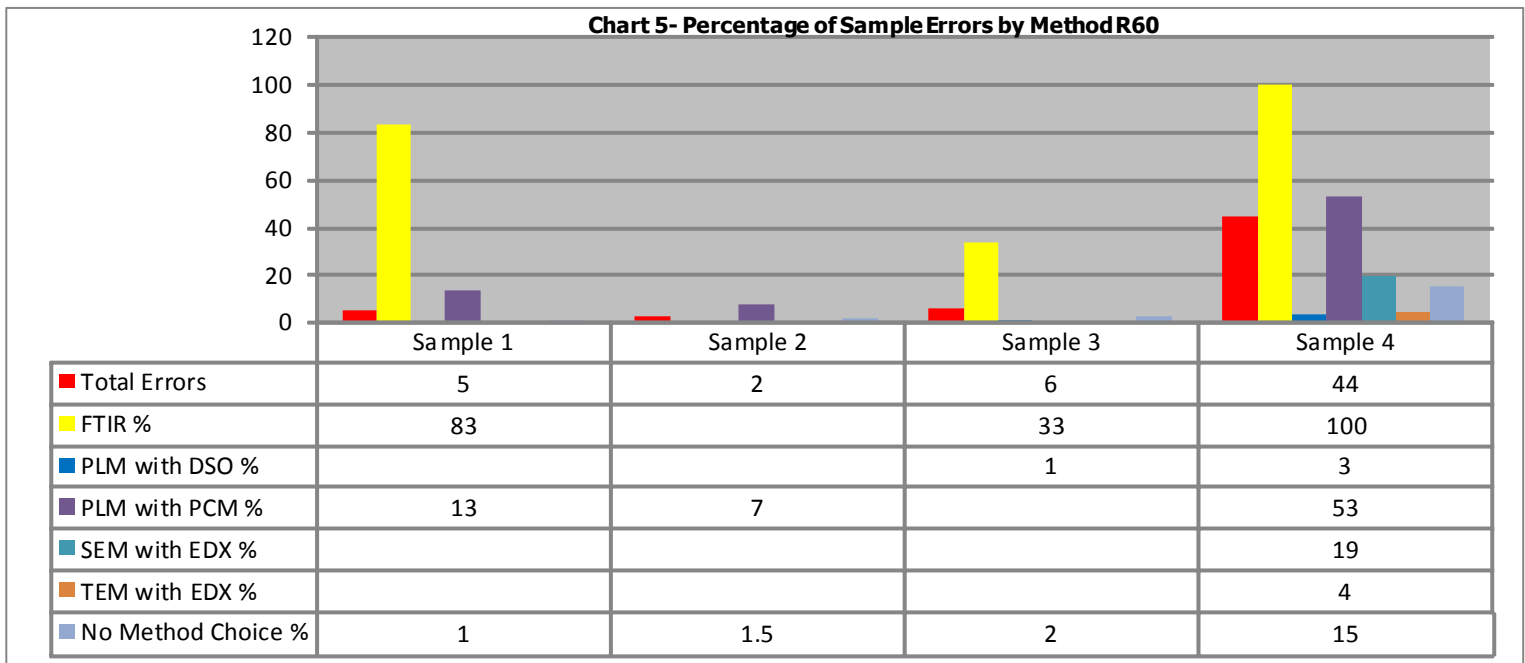
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Chart 5 shows the percentage of sample errors by method. Of the 348 participating labs in R60 the method used in terms of number of labs was as follows: FTIR, 6 labs; PLM with DSO, 114 labs; PLM with PCM, 15 labs; SEM with EDX, 32 labs; TEM with EDX, 28 labs; PLM with DSO & TEM with EDX, 13 labs; PLM with PCM & FTIR, 3 labs; No method choice specified, 135 labs and Other method, 2 labs.



3. For Your Information - AIMS NEWS !!

We now have new AIMS QC samples (HSL 042) which are available for laboratories to purchase. The samples of a known low concentration of asbestos (e.g. 0.1%, 0.05% & 0.01%) are produced by mixing known weights of dry cement or plaster and UICC asbestos (amosite or chrysotile). The asbestos is suspended in acetone before being placed in an ultrasonic bath to separate the fibres. The asbestos and cement or plaster are then thoroughly mixed before water is added and the matrix allowed to set. These samples are subject to availability. A copy of the order form can be obtained by contacting the PT team on the email address below.

In December a questionnaire will be sent out via SurveyMonkey to gather feedback on all of our asbestos schemes. Your participation is greatly appreciated and we hope you find it a useful tool to feedback any suggestions/ improvements. Please remember that feedback can be sent to the PT Team at any time via email.

Anyone wishing to query a sample result should contact the PT administration team within 10 working days of the Individual Reports being issued. Further details can be found in the Information Book for Participants available on our website.

<http://www.hsl.gov.uk/proficiency-testing-schemes/aims>

For laboratories which have scored within AIMS R60 and would like to replace the round are able to do this by purchasing a Replacement Round. Full details are available in our Information Book for Participants, or by contacting the Proficiency Testing Team the email address below.

The next round (R61) will be despatched week commencing 9th January 2017.

Melanie Clunas
 AIMS Scheme Co-ordinator



Email: proficiency.testing@hsl.gsi.gov.uk

Telephone: +44 (0)1298 218553



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