Asbestos In Materials (AIMS) Scheme

Round 62 Sample Details

356 labs were assigned to Round 62 with 350 labs submitting 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 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 commercially produced MMMF fire blanket containing no asbestos; Sample 2 was a plaster sample containing polypropylene fibres and no asbestos; Sample 3 was a dyed (blue) Portland cement sample with amosite and chrysotile asbestos and Sample 4 was a commercial marble powder with approximately 5% acicular wollastonite added - no asbestos was present.

The majority of errors for this round were associated with samples 3 and 4.
For sample 3, which contained amosite and chrysotile, most of the errors concerned failure to identify one of the two asbestos types present, although two laboratories failed to detect any asbestos.

Sample 4 consisted of powdered marble, with approximately 5% of acicular wollastonite added. The wollastonite is not fibrous, but elongated crystals are present and yellow/purple dispersion staining colours can be observed in some crystals in 1.605 RI liquid. Analysts should note that the presence of dispersion staining colours does not by itself confirm the presence of asbestos and that all other physical and optical properties should be taken into account. Analysts should refer to HSG 248, Appendix 2, paragraph A2.52 for more information.

Sample	Validation Number	Product Type	Target Component	Asbestos Present (%)
1	267	Textile (Commercial)	No Asbestos	N/A
2	268	Plaster (Manufactured)	No Asbestos	N/A
3	269	Cement (Manufactured)	Amosite & Chrysotile	0.1% amosite 0.1% chrysotile
4	270	Powder (Manufactured)	No Asbestos	N/A

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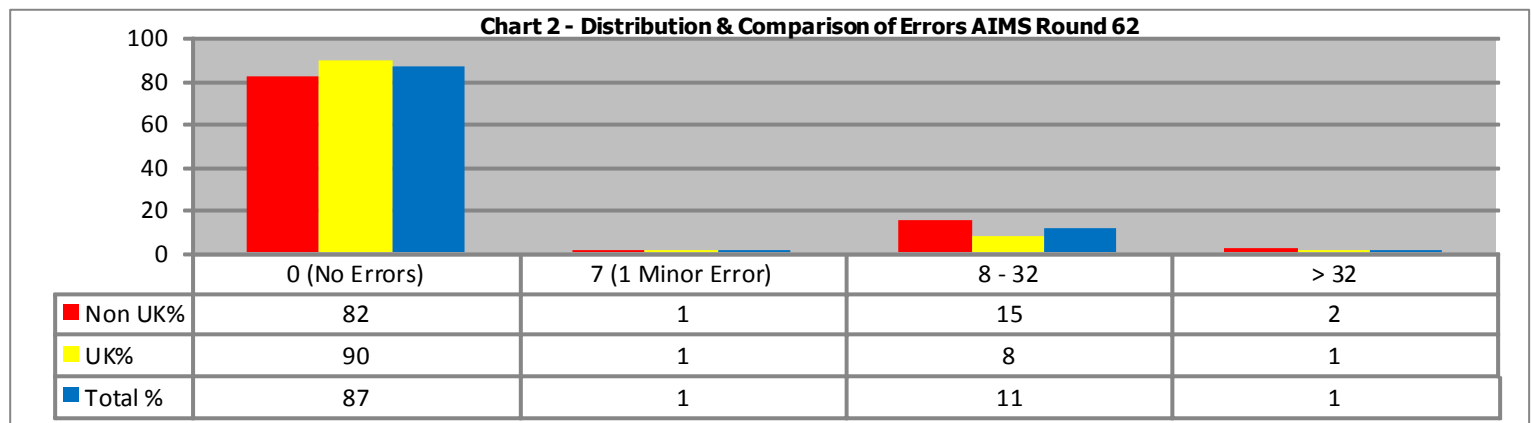
1. Type Of Errors Obtained

Chart 1 - AIMS Round 62 Errors
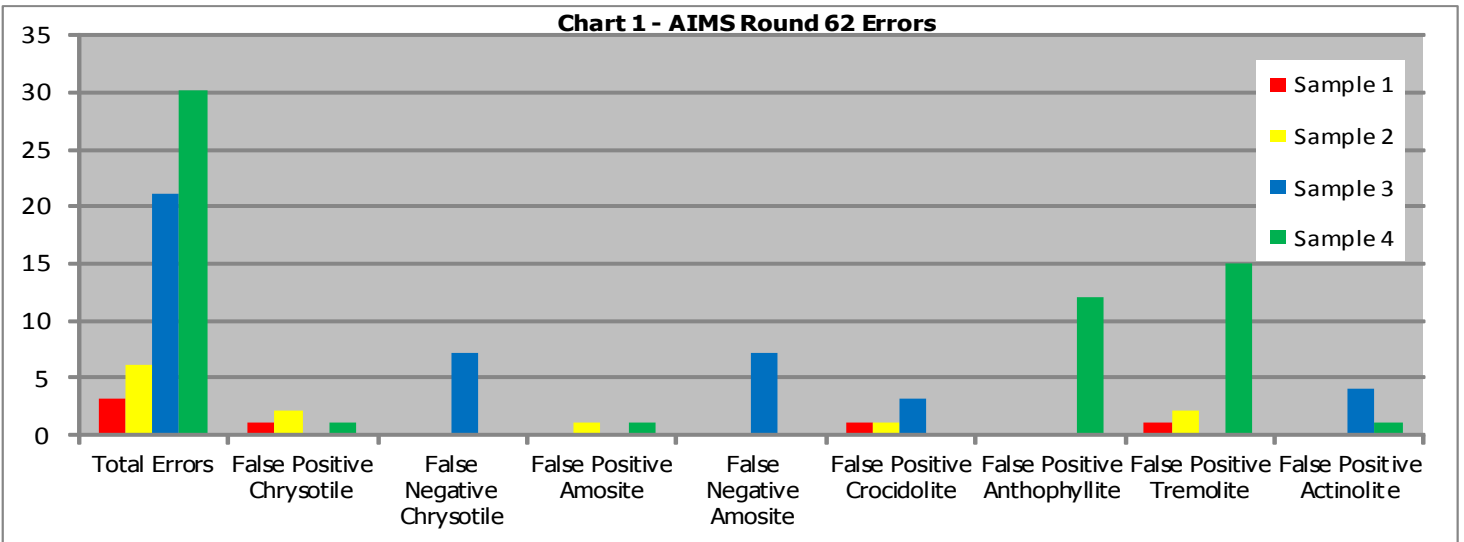
False Negative = Component has been missed. False Positive = Component has been incorrectly identified as present.

2. Round Scores

Chart 2 illustrates the distribution of scores for all participating laboratories. 303 (87%) 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; 162 (90%) UK laboratories and 141 (82%) Non-UK laboratories obtained a score of zero for the round.

Chart 2 - Distribution & Comparison of Errors AIMS Round 62

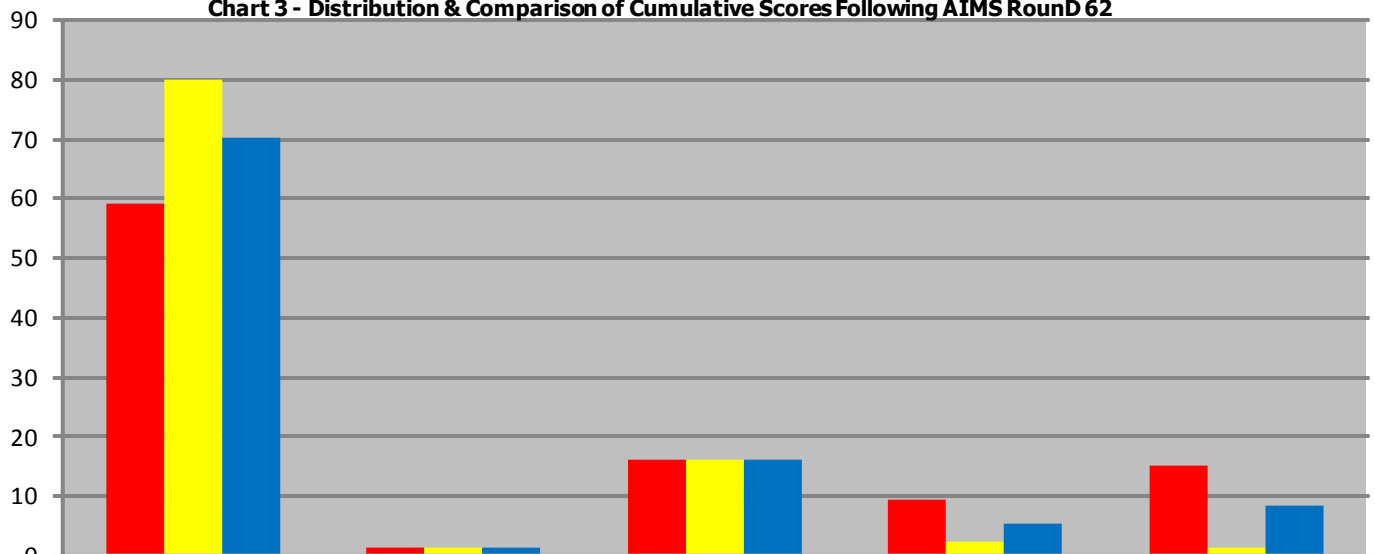|	0 (No Errors)	7 (1 Minor Error)	8 - 32	> 32
Non UK%	82	1	15	2
UK%	90	1	8	1
Total %	87	1	11	1

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Chart 3 shows the percentage distribution of cumulative three round scores for all UK and Non-UK laboratories. 27 laboratories (8%) in total had not yet completed 3 rounds and therefore did not accumulate a score. Following this round, 251 laboratories (71%) obtained a good cumulative score (0 – 7 penalty points cumulatively). 59 laboratories (16%) obtained an acceptable cumulative score (8 – 32 penalty points cumulatively) and 19 laboratories (5%) obtained an unsatisfactory cumulative score (33 or more penalty points cumulatively).

**Chart 3 - Distribution & Comparison of Cumulative Scores Following AIMS RounD 62**

	0 (No Errors)	7 (1 Minor Error)	8 - 32	> 32	Unclassified
Non UK%	59	1	16	9	15
UK%	80	1	16	2	1
Total %	70	1	16	5	8

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 62 Errors by Method
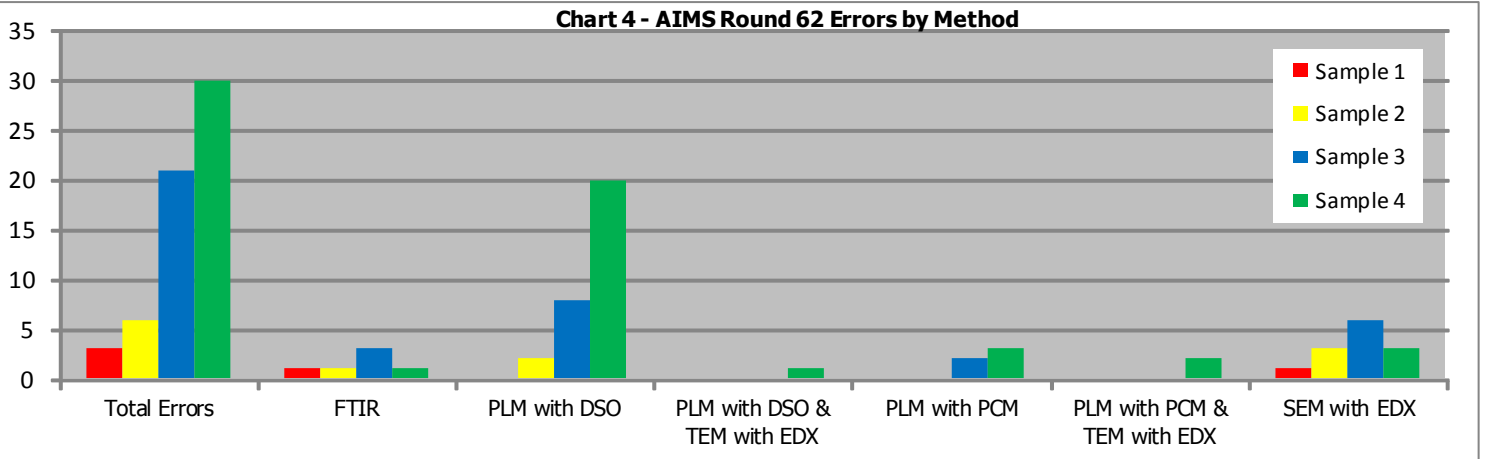
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Chart 5 shows the percentage of sample errors by method. Of the 350 participating labs in R62 the method used in terms of number of labs was as follows: FTIR, 5 labs; PLM with DSO, 202 labs; PLM with PCM, 26 labs; SEM with EDX, 47 labs; TEM with EDX, 39 labs; PLM with DSO & TEM with EDX, 17 labs; PLM with PCM & FTIR, 2 labs; PLM with PCM & TEM with EDX, 4 labs and Other method, 8 labs.

Chart 5- Percentage of Errors by Sample R62
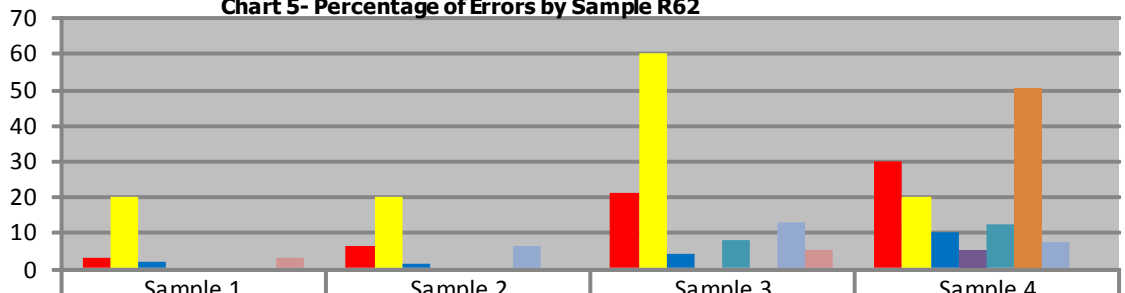
	Sample 1	Sample 2	Sample 3	Sample 4
■ Total Errors	3	6	21	30
■ FTIR %	20	20	60	20
■ PLM with DSO %	2	1	4	10
■ PLM with DSO & TEM with EDX				5
■ PLM with PCM %			8	12
■ PLM with PCM & TEM with EDX				50
■ SEM with EDX %		6	13	7
■ TEM with EDX %	3		5	

3. For Your Information - AIMS NEWS !!

Thank you to everyone for subscribing to AIMS 2017/18 using the Online Data Entry System - I hope you found the process straightforward. If you do have any comments/ suggestions for improvement, please let me know by sending an email to the address below.

Following R61, 4 laboratories queried their results. Two sample scores were withheld and two were amended and the reports re-issued. Further details on our sample investigation procedure can be found in the Information Book for Participants, available on our website.

We had a great response to our Low Asbestos Content Scheme (LACS). If anyone is interested in joining for the remainder of the year, or would like some more information, please contact the PT Team on the email address below.

The next round of AIMS (R63) will be despatched week commencing 4th September 2017.

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