

Group Report Round 75 February 2022



Asbestos In Materials 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 75 Sample Details

368 labs were assigned to Round 75 with 359 laboratories submitting complete results. All samples were prepared for circulation following our normal internal screening process and were scanned using stereozoom microscopy to assess homogeneity and suitability. Approximately 10% of all samples prepared were validated by 19 independent laboratories using either PLM or SEM analytical techniques.

The round consisted of one commercial sample and three manufactured samples of materials that may contain asbestos and would typically be submitted for analysis at an asbestos testing laboratory. Sample 1 was a manufactured floor tile sample containing 2% chrysotile asbestos within a bitumen layer; Sample 2 was a mortar sample containing 0.1% each of crocidolite, amosite and chrysotile asbestos; Sample 3 was a commercial non-asbestos fire blanket sample containing glass fibre and Sample 4 was a manufactured plaster sample containing 0.2% amosite asbestos.

The largest number of errors occurred on Sample 2 with analysts missing one or more of the three asbestos types present. Analysts need to be aware that commercially produced asbestos products, including asbestos cement, may contain up to three asbestos types in varying quantities. Analysts should break the sample and if necessary utilise other sample preparation treatments to ensure the whole sample is assessed and all fibres present are extracted and analysed.

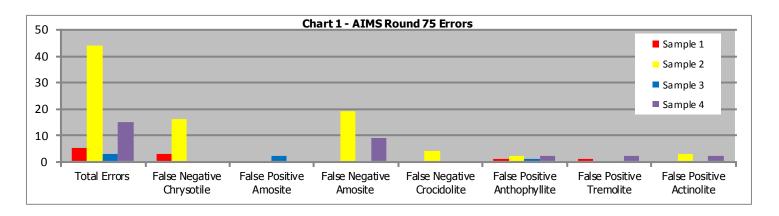
Sample	Validation Number	Product Type Target Component		Asbestos Present (%)
1	319	Floor Tile (Manufactured)	Chrysotile	2% (within the bitumen layer)
2	320	Mortar (Manufactured)	Chrysotile, Crocidolite, Amosite	0.1% (of each asbestos type)
3	323	Textile (Commercial)	No Asbestos	N/A
4	322	Plaster (Manufactured)	Amosite	0.2%

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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. 319 (89%) 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; 163 (99%) UK laboratories and 156 (80%) Non-UK laboratories obtained a score of zero for the round.

100	Chart 2 - Distribution & Comparison of Errors AIMS Round 75						
80 -							
60 -	_						
40 -	_						
20 -	_						
0	0 (No Errors)	7 (1 Minor Error)	8 - 32	> 32			
Non UK%	80	2	16	2			
U K%	99		1				
Total %	89	1	9	1			

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Chart 3 shows the percentage distribution of cumulative three round scores for all UK and Non-UK laboratories. 10 laboratories (3%) in total had not yet completed 3 rounds and therefore did not accumulate a score. Following this round, 311 laboratories (84%) obtained a good cumulative score (0 – 7 penalty points cumulatively). 37 laboratories (10%) obtained an acceptable cumulative score (8 – 32 penalty points cumulatively) and 10 laboratories (3%) obtained an unsatisfactory cumulative score (33 or more penalty points cumulatively).

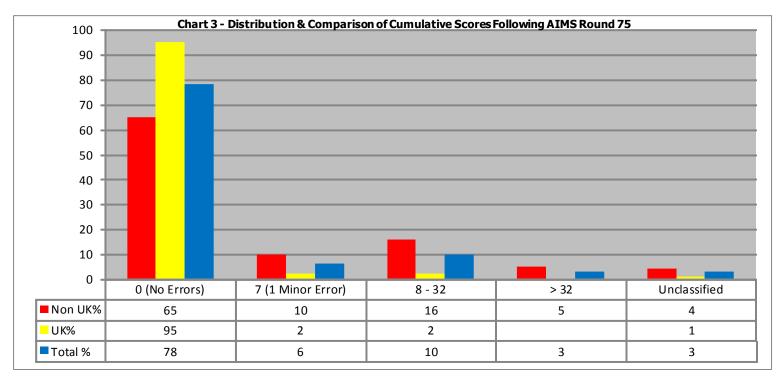
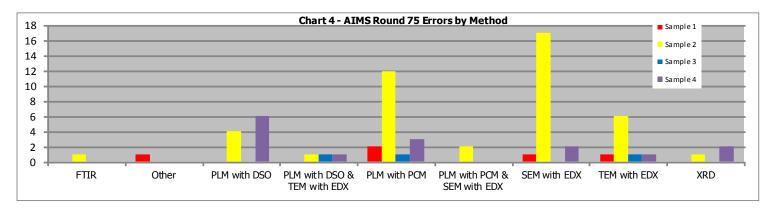


Chart 4 shows the number of errors made on each sample for all UK and Non-UK laboratories.

PLM - polarised light microscopy. DSO - dispersion staining objective, SEM - scanning electron microscopy. EDX - energy dispersive X-ray. XRD - X-ray diffraction.



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Chart 5 shows the percentage of sample errors by method.

Of the 359 participating labs in R75 the method used in terms of the number of labs was as follows : FTIR, 2 labs; PLM with DSO, 186 labs; PLM with PCM, 36 labs; SEM with EDX, 57 labs; TEM with EDX, 30 labs; PLM with DSO & TEM with EDX, 28 labs; PLM with PCM & FTIR, 1 lab; PLM with PCM & SEM with EDX, 6 labs; PLM with PCM & TEM with EDX, 8 labs; XRD, 1 lab and Other, 4 labs. (Please note: some labs use different methods for different samples within the round.)

120 🗕	120							
100 -								
80 -								
60 -								
40								
20 -	_							
0								
Ŭ	Sample 1	Sample 2	Sample 3	Sample 4				
FTIR %		50						
Other %	25							
PLM with DSO %		2		3				
PLM with DSO & TEM with EDX %		4	4	4				
PLM with PCM %	6	33	3	9				
PLM with PCM & SEM with EDX %		29						
SEM with EDX %	2	30		3				
TEM with EDX %	3	20	3	3				
XRD %		100		100				

3. For Your Information - AIMS NEWS !!

Subscriptions are now available for 2022/23, please log on to the PT Online Data Entry System and click on 'Schemes' to subscribe. The next round of AIMS will be despatched week commencing 25th April 2022. Samples will not be despatched until full payment has been received. Please ensure your contact details are kept up to date and inform us straight away if anything needs amending prior to despatch.

Our courier company has advised that overseas laboratories **<u>must</u>** provide their EORI (Economic Operators Registration & Identification) and VAT number to assist customs processing their packages in a timely manner. If you haven't provided this information to us already, please email the PT Team with the details - including your PT Lab number.

If you require a sample to be investigated by HSE following completion of a round, please remember to advise the PT Team within 10 working days of your report being issued so we can let you know the process for returning it to us.

Following R74 no samples were returned to HSE for investigation. A reminder that we are still mainly working from home, so if you need to contact us please send an email and we will respond as soon as we can.

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