



# AIR



## ***Ambient, Indoor, Workplace Air and Stack Emissions Proficiency Testing Scheme***

Version 1  
Issue Date 21/03/2019

### **Instructions for Handling Test Materials and Recording Results – Round 32**

#### ***General Instructions***

##### **Sample Storage**

All samples should be stored in accordance with the instructions provided on the sample labels from the time of arrival at your laboratory. If a preservative is routinely added to the type of sample provided, as part of your laboratory procedures, a suitable aliquot should be preserved as soon as possible in the normal way. Any dilutions that result from addition of preservatives should be corrected for before submission of results.

All samples should be stored, prior to analysis, in the format provided to minimise potential from contamination. VOC samples on sorbent tubes should be stored away from other potential sources of solvent in the laboratory.

##### **Sample Preparation**

All samples should be equilibrated at room temperature  $20(\pm 5)^\circ\text{C}$  before any analyses are performed. Samples should be prepared in accordance with the specific instructions for the group. These procedures should be followed exactly to ensure comparability of results

##### **Sample Analysis**

Samples should be analysed by the normal method or methods used by your laboratory. Replicate determinations can be made if this is normal laboratory procedure, although only one value per method can be submitted to LGC Standards Proficiency Testing for statistical analysis and reporting on laboratory performance.

All samples should be treated like any other samples and all normal quality control procedures should be adopted.

Results should be corrected for recovery and blank, if appropriate, and if this is the normal practice in the laboratory. **If the sample is diluted as part of the analytical process, such dilutions should be corrected for.**



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#### **Distribution Schedule**

For the dust filter samples (3, 4, 17 and 40), four quartz filters are despatched to participants in order for them to weigh. Participants then ship the filters back to LGC Standards Bury for spiking. LGC Standards Bury re-send the spiked filters back to the participants for reweighing who then report the results (mass of solids, which equals the calculated difference between the initial weight of the filters and their weight on receipt, after spiking) to LGC Standards Bury via PORTAL for assessment. Dust filter sample specific dates:

Round	Despatch Date (week commencing)	Filters required back at LGC by	Filters re-despatch date (week commencing)	Reporting Deadline
AR032	29 Apr 2019	24 May 2019	17 Jun 2019	05 Jul 2019

#### **Returning the samples to LGC**

Please retain the box and packaging in which you receive the filters, and use this to return the samples to LGC once the initial weighing has been completed. This will ensure the maximum protection for the samples and help to maintain their integrity during transportation.

#### **Please return the filters to:**

Despatch Manager  
LGC Standards Proficiency Testing  
1 Chamberhall Business Park  
Chamberhall Green  
Bury, Lancashire  
BL9 0AP  
United Kingdom

Please return the samples to LGC using your preferred courier method; we would suggest the use of a reputable courier with a tracking service. Please note that LGC must receive the returned filters by:

**24 May 2019**

#### **For participants outside of the EU only:**

- When returning the boxes from non-EU countries, please:
- Mark the parcels as "Returned Samples for laboratory proficiency testing – no commercial value"
- Declare a nominal value (£1)

**Failure to do this will result in custom and excise importation charges, which will be passed onto the laboratory together with a £50 administration fee.**



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#### Workplace Air Samples

##### Sample 3

##### Materials Supplied

- 4 x 25mm diameter glass fibre (GFA) filters spiked with sodium borate salt as a mass surrogate plus 3 x blank filters.

Analyte	Sample Label	Instructions
Mass of solids	Sample 3 A-D Dust Sample 3 E-G Blanks	Analyse each sample by your chosen instrumental technique.

Calculation: Weight of filters after spiking – initial weight = mass of solids

*N.B: Participants are encouraged, to return the filters in the casing and secure band as initially received to avoid filters falling out of casing during transportation back to LGC Standards, Bury. Participants are also asked not to cover LGC sample labelling with their own sample labels.*

##### Sample 4

##### Materials Supplied

- 4 x 37mm diameter glass fibre (GFA) filters spiked with sodium borate salt as a mass surrogate plus 3 x blank filters.

Analyte	Sample Label	Instructions
Mass of solids	Sample 4 A-D Dust Sample 4 E-G Blanks	Analyse each sample by your chosen instrumental technique.

Calculation: Weight of filters after spiking – initial weight = mass of solids

*N.B: Participants are encouraged, to return the filters in the casing and secure band as initially received to avoid filters falling out of casing during transportation back to LGC Standards, Bury. Participants are also asked not to cover LGC sample labelling with their own sample labels.*

#### Ambient Air Samples

##### Sample 17

##### Materials Supplied

- 4 x 47 mm diameter quartz fibre filters spiked with sodium borate salt as a mass surrogate plus 3 x blank filters (for analysis in accordance with EN 12341).

Analyte	Sample Label	Instructions
Mass of solids	Sample 17 A-D Dust Sample 17 E-G Blanks	Analyse each sample by your chosen instrumental technique.

Calculation: Weight of filters after spiking – initial weight = mass of solids

*N.B: Participants are encouraged, to return the filters in the casing and secure band as initially received to avoid filters falling out of casing during transportation back to LGC Standards, Bury. Participants are also asked not to cover LGC sample labelling with their own sample labels.*



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#### STACK EMISSION Samples

Sample 40

##### Materials Supplied

- 4 x 47mm diameter quartz filters spiked with potassium hydrogen phthalate salt as mass surrogate (for analysis in accordance with EN 13284-1)

Analyte	Sample Label	Instructions
Mass of solids	Sample 40 A-D Dust	Analyse each sample by your chosen instrumental technique.

**Calculation: Weight of filters after spiking – initial weight = mass of solids**

**N.B: Participants are also asked not to cover LGC sample labelling with their own sample labels.**