To the Participants in the Laboratory Intercomparisons within
the European Monitoring and Evaluation Programme (EMEP)

Your ref.: [...]
Our ref.: KAP/O-7726-QA

Kjeller, 24.09.2026

Laboratory Intercomparisons within EMEP

Please find enclosed the samples for the “44th Intercomparison of Methods within EMEP” and/or the “EMEP Analytical Intercomparison of Heavy Metals in Precipitation 2026”.

The deadline for reporting results is December 17, 2026

Further information regarding samples and the reporting of results is available on our webpage:
https://emep-ccc.nilu.no/intercomparison

Yours sincerely,

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Samples distributed to the participants

❒ **Sample type B:**
Six synthetic samples, including two blanks, were prepared to determine SO_2 and HNO_3 on impregnated filters. Whatman 40 filters were impregnated with 300 µL of a 1.0 M KOH / 10% glycerol in methanol solution. Varied amounts of H_2SO_4 and a nitrate salt solution were then spiked onto the filters. Results must be reported as µg S/filter for SO_2 and µg N/filter for HNO_3.

❒ **Sample type C:**
Four synthetic samples were prepared for the determination of NO_2. The samples consist of nitrite solutions that **must be diluted according to the enclosed instructions**. Results must be reported as µg N/mL.

❒ **Sample type G:**
Four synthetic precipitation samples were prepared using deionized water spiked with varying concentrations of sulfate, nitrate, ammonium, strong acid, magnesium, sodium, chloride, calcium, and potassium. Results for K, Na, Mg, Cl, and Ca must be reported in mg/L. SO_4 must be reported as mg S/L, while NH_4 and NO_3 are to be reported as mg N/L. Finally, report pH in pH units and conductivity in µS/cm.

❒ **Sample type H:**
Four synthetic precipitation samples were prepared in a matrix of 0.5% HNO_3 containing varying concentrations of Cr, Ni, Cu, Zn, As, Cd and Pb. All results must be reported in µg/L.

❒ **Sample type J:**
Six synthetic samples, including two blanks, were prepared for the determination of NH_3 via a wet chemical method on impregnated filters. Whatman 40 filters were impregnated with 300 µl 3% oxalic acid in methanol and spiked with varying amount of an ammonium salt solution. Results must be reported as µg N/filter.

Bottles and petri dishes are labeled to ensure proper sample identification and traceability

Analysis

Samples must be analyzed for the same parameters and using the same methods as the routine samples collected at your EMEP stations. Submit only one result per parameter.

Thank you for your co-operation.

Enclosure: Special Instructions for the Synthetic Nitrogen Dioxide Samples

Special instructions for the synthetic samples for nitrogen dioxide; sample type C

Because participating laboratories employ varying absorption methods for nitrogen dioxide, the distributed samples (C1–C4) **must be diluted 10-fold** prior to analysis to match each laboratory's specific matrix solution.

Results for this intercomparison must be reported as the concentration of NO_2-N in µg/mL within the final diluted sample.