

2006 Updating and Screening Assessment of Air Quality in Peterborough

Appendix 1

Nitrogen Dioxide Diffusion Tube Monitoring

September 2006

Nitrogen dioxide diffusion tube monitoring

Peterborough City Council nitrogen dioxide diffusion tubes are provided and analysed by Harwell Scientifics Limited. Harwell Scientifics Limited diffusion tubes analysis are fully accredited to BS ENISO 9001 with UKAS accreditation. The tubes are prepared by spiking acetone: triethanolamine (50:50) onto the grids prior to the tubes being assembled. The tubes are desorbed with distilled water and the extract analysed using a segmented flow autoanalyser with ultraviolet detection.

Laboratory bias must be determined and allowed for when using diffusion tubes, as there is considerable difference nationally in the performance of tubes prepared by different laboratories. In the results sent to the council from Harwell Scientifics Ltd the local bias correction is included. Peterborough City Council takes an average of the reporting period from these bias results and uses this as the bias correction. The bias used for the figures in the report was 0.71.

Figures 12 and 13 show the different locations of the diffusion tubes and their descriptions.