



Customer:	John Williams ECO2 Ltd Vision House Oak Tree Court, Mulberry Drive Cardiff Gate Business Park Cardiff CF23 8RS	Testing Facility:	ESG Unit 12 Moorbrook Southmead Industrial Estate Didcot Oxfordshire OX11 7HP
Quotation Number:	DIF-ANU-8557 (Period 3)	Samples Received:	06 June 2016
Customer Order Number:		Analysis Completed:	09 June 2016
Customer Reference:		Report Date:	16 June 2016

Nitrogen Dioxide Diffusion Tube Analysis Report

The samples have been analysed in accordance with ESG's standard operating procedure ANU/SOP/1015 Issue 1. This method meets the guidelines set out in DEFRA's 'Diffusion Tubes For Ambient NO₂ Monitoring: Practical Guidance.'

The tubes were prepared by spiking acetone:triethanolamine (50:50) onto the grids prior to the tubes being assembled. The tubes were desorbed with distilled water and the extract analysed using a segmented flow autoanalyser with ultraviolet detection. All samples were received in good condition, unless otherwise stated in the comments field of results table. Please note:

- (i) As set out in the practical guidance, the results were initially calculated assuming an ambient temperature of 11°C, the reported values **have** been adjusted to 20°C to allow for direct comparison with EU limits.
- (ii) The reported results have not been bias adjusted.

This analysis of diffusion tube samples to determine the amount of nitrogen dioxide present on the tube is within the scope of our UKAS schedule. Any further calculations and assessments requiring exposure details and conditions fall outside the scope of our accreditation. In the WASP intercomparison scheme for comparing spiked Nitrogen Dioxide diffusion tubes, ESG currently holds the highest rank of a **Satisfactory** laboratory.

Approved By

Marta O'Brien
Senior Analyst



Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
ECO/16A/NA3S1	Margam	20/04/2016 09:00	23/05/2016 10:30	793.50	1.34	24.1	12.5	Spider in tube
ECO/16A/NA3S2	Margam	20/04/2016 09:00	23/05/2016 10:30	793.50	1.34	24.2	12.6	
ECO/16A/NA3S3	Margam	20/04/2016 09:00	23/05/2016 10:30	793.50	1.08	19.5	10.1	Spider in tube