

# Bexley Diffusion Tube Monitoring Survey

London Borough of Bexley

Project number: 60716944

April 2025

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|----------|---------------|-------------------------------------------|------------|--------------|-----------------|
| 1        | April 2025    | Draft                                     | NE         | Nichola Egan | Project Manager |
| 2        | May 2025      | Minor amendments following client comment | NE         | Nichola Egan | Project Manager |

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## Table of Contents

|    |                                                                                   |    |
|----|-----------------------------------------------------------------------------------|----|
| 1. | Introduction.....                                                                 | 1  |
| 2. | Policy and Legislation.....                                                       | 2  |
| 3. | Current Monitoring.....                                                           | 3  |
| 4. | Monitoring Methodology .....                                                      | 5  |
| 5. | Data Processing .....                                                             | 10 |
| 6. | Monitoring Results.....                                                           | 12 |
| 7. | Summary .....                                                                     | 13 |
|    | References.....                                                                   | 14 |
|    | Appendix A Annualisation, Bias Adjustment and Fall off with Distance Details..... | 16 |
|    | Appendix B Raw Monitoring Results .....                                           | 18 |
|    | Appendix C Mapped Data Results .....                                              | 21 |
|    | Appendix D Photographs of Monitoring Locations .....                              | 23 |
|    | Appendix E Gradko Laboratory Result Certificates .....                            | 45 |

## Figures

|           |                                                                                      |    |
|-----------|--------------------------------------------------------------------------------------|----|
| Figure 1  | Map of LBoB Automatic Monitoring Site Locations .....                                | 4  |
| Figure 2  | Locations of Diffusion Tube Survey Monitoring Sites – Erith.....                     | 8  |
| Figure 3  | Locations of Diffusion Tube Survey Monitoring Sites – Falconwood.....                | 9  |
| Figure 4  | Local Bias Adjustment Factor Calculation .....                                       | 17 |
| Figure 5  | National Bias Adjustment Factor Calculation .....                                    | 17 |
| Figure 6  | Mapped Annual Mean NO <sub>2</sub> Concentrations for Survey Sites - Falconwood..... | 21 |
| Figure 7  | Mapped Annual Mean NO <sub>2</sub> Concentrations for Survey Sites - Erith.....      | 22 |
| Figure 8  | GIS Monitoring Report for Site BEX_SG.....                                           | 23 |
| Figure 9  | GIS Monitoring Report for Site BEX_FW .....                                          | 24 |
| Figure 10 | GIS Monitoring Report for Site BEX_1 .....                                           | 25 |
| Figure 11 | GIS Monitoring Report for Site BEX_2 .....                                           | 26 |
| Figure 12 | GIS Monitoring Report for Site BEX_3.....                                            | 27 |
| Figure 13 | GIS Monitoring Report for Site BEX_4.....                                            | 28 |
| Figure 14 | GIS Monitoring Report for Site BEX_5.....                                            | 29 |
| Figure 15 | GIS Monitoring Report for Site BEX_6.....                                            | 30 |
| Figure 16 | GIS Monitoring Report for Site BEX_7 .....                                           | 31 |
| Figure 17 | GIS Monitoring Report for Site BEX_8.....                                            | 32 |
| Figure 18 | GIS Monitoring Report for Site BEX_9.....                                            | 33 |
| Figure 19 | GIS Monitoring Report for Site BEX_10 .....                                          | 34 |
| Figure 20 | GIS Monitoring Report for Site BEX_11 .....                                          | 35 |
| Figure 21 | GIS Monitoring Report for Site BEX_12 .....                                          | 36 |
| Figure 22 | GIS Monitoring Report for Site BEX_13.....                                           | 37 |
| Figure 23 | GIS Monitoring Report for Site BEX_14.....                                           | 38 |
| Figure 24 | GIS Monitoring Report for Site BEX_15.....                                           | 39 |
| Figure 25 | GIS Monitoring Report for Site BEX_16.....                                           | 40 |
| Figure 26 | GIS Monitoring Report for Site BEX_17 .....                                          | 41 |
| Figure 27 | GIS Monitoring Report for Site BEX_18.....                                           | 42 |
| Figure 28 | GIS Monitoring Report for Site BEX_19.....                                           | 43 |
| Figure 29 | GIS Monitoring Report for Site BEX_20.....                                           | 44 |
| Figure 30 | Gradko Laboratory Analysis Report - Month 1 .....                                    | 45 |
| Figure 31 | Gradko Laboratory Analysis Report - Month 2 .....                                    | 47 |
| Figure 32 | Gradko Laboratory Analysis Report - Month 3 .....                                    | 49 |
| Figure 33 | Gradko Laboratory Analysis Report - Month 4 .....                                    | 51 |
| Figure 34 | Gradko Laboratory Analysis Report - Month 5 .....                                    | 53 |
| Figure 35 | Gradko Laboratory Analysis Report - Month 6 .....                                    | 55 |
| Figure 36 | Gradko Laboratory Analysis Report - Month 7 .....                                    | 57 |

|                                                              |    |
|--------------------------------------------------------------|----|
| Figure 37 Gradko Laboratory Analysis Report - Month 8 .....  | 59 |
| Figure 38 Gradko Laboratory Analysis Report - Month 9 .....  | 61 |
| Figure 39 Gradko Laboratory Analysis Report - Month 10 ..... | 63 |
| Figure 40 Gradko Laboratory Analysis Report - Month 11 ..... | 65 |
| Figure 41 Gradko Laboratory Analysis Report - Month 12 ..... | 67 |

## Tables

|                                                                                                |    |
|------------------------------------------------------------------------------------------------|----|
| Table 1 Relevant AQS Objectives for this study .....                                           | 2  |
| Table 2 Annual Mean NO <sub>2</sub> Concentrations at Automatic Monitoring Sites in LBoB ..... | 3  |
| Table 3 Survey Monitoring Locations .....                                                      | 5  |
| Table 4 Sampling Timetable .....                                                               | 6  |
| Table 5 Processed Annual Mean NO <sub>2</sub> Concentrations, 2024 .....                       | 12 |
| Table 6 Annualisation Factors .....                                                            | 16 |
| Table 7 Local Bias Adjustment Factor Calculation.....                                          | 16 |
| Table 8 National Bias Adjustment Factor Calculation .....                                      | 17 |
| Table 9 Full raw monthly diffusion tube survey results .....                                   | 18 |

# 1. Introduction

## Overview

- 1.1 This air quality monitoring report has been prepared by AECOM Ltd on behalf of the London Borough of Bexley (LBoB) to provide information regarding nitrogen dioxide (NO<sub>2</sub>) concentrations around the Greater London Authority (GLA) Air Quality Focus Areas (AQFA) at the A2 Road in Welling and the Northend Road in Erith.
- 1.2 LBoB currently monitor NO<sub>2</sub> at four automatic monitoring sites across the borough (Figure 1) however, they had not undertaken any non-automatic (passive) monitoring of NO<sub>2</sub>, in recent years.
- 1.3 For this study, AECOM undertook monitoring of NO<sub>2</sub>, using passive diffusion tubes, at locations in and around the A2 Rochester Way Road in Erith and Welling, an AQFA in the borough. Monitoring was undertaken for a 12-month period from January 2024 to January 2025, where diffusion tubes were exposed for monthly periods and sent for laboratory analysis.

## Report Scope

- 1.4 This report presents the results of the air quality monitoring study undertaken between January 2024 to January 2025.
- 1.5 The scope of this report is as follows:
  - Legislation and Policy Review (Section 2);
  - Review of Baseline Air Quality (Section 3);
  - Monitoring Methodology (Section 4);
  - Results of the monitoring survey (Section 5); and
  - Summary (Section 6).

## 2. Policy and Legislation

### National Air Quality Strategy

- 2.1 The UK National AQS was initially published in 2000 (Ref. 11), under the requirements of the Environment Act (Ref. 2). An addendum was published in 2007 (Ref. 12) which tightened several of the existing objectives and introduced a new objective. A revised AQS was published in 2023 (Ref. 13) which set objectives for key pollutants as a tool to help Local Authorities manage local air quality improvements.
- 2.2 The current assessment criteria applicable to the protection of human health and Local Air Quality Management (LAQM) are outlined in the UK's AQS 2007 (Ref. 12). Under the LAQM regime, local authorities have a duty to carry out regular assessments of air quality against the AQS objective values and if it is unlikely that the AQS objective values will be met in the given timescale, they must designate an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) with the aim of achieving the objective values. The boundary of an AQMA is set by the local authority to define the geographical area that is to be subject to the management measures to be set out in a subsequent action plan. It is not unusual for the boundary of an AQMA to include within it, relevant locations where air quality is not at risk of exceeding an AQS objective. The AQS objective values for the pollutants of relevance to this assessment are presented in Table 1.
- 2.3 LBoB designated the whole borough an AQMA in 2007, on account of exceedances of the annual mean AQS objective for NO<sub>2</sub> and the annual and 24-hr AQS objectives for PM<sub>10</sub>. Road traffic has been identified as the prominent source of air pollution.

**Table 1 Relevant AQS Objectives for this study**

| Pollutant                           | AQS Objective Concentration (µg/m <sup>3</sup> ) | Measured as                                                                                     |
|-------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------|
|                                     | 40                                               | Annual mean                                                                                     |
| Nitrogen dioxide (NO <sub>2</sub> ) | 200                                              | 1-hour mean, not to be exceeded more than 18 times a year (i.e. 99.79 <sup>th</sup> percentile) |

### Air Quality Focus Areas

- 2.4 The GLA has identified 160 Air Quality Focus Areas (AQFAs) across London (Ref. 23). These are regions which exceed the NO<sub>2</sub> annual mean objective and have relevant human exposure. These areas try to address concerns raised by boroughs when implementing their air quality reviews and forecasts.
- 2.5 There are two AQFAs within LBoB: A2 East Rochester Way, Falconwood and Queen's Road Roundabout to Northend Roundabout, Erith.

### London Local Air Quality Management

- 2.6 The London Local Air Quality Management (LLAQM) is Part IV of the Environment Act 1995, which sets out the London authorities' LAQM functions, together with the Mayor's responsibilities and statutory guidance from the Secretary of State for the Environment, Food, and Rural Affairs. The purpose of the LLAQM system is to put in place a framework that gives confidence to authorities, the Mayor, and the Secretary of State that they are fulfilling their Part IV duties.
- 2.7 LLAQM has been developed as a London-specific LAQM. Whilst other parts of the UK follow LAQM. TG(22) (Ref. 25). The London LAQM Policy Guidance (LLAQM.PG(19)) (Ref. 26) and the accompanying Technical Guidance LLAQM.TG(19) (Ref. 24) are the documents to which the London authorities must have regard.

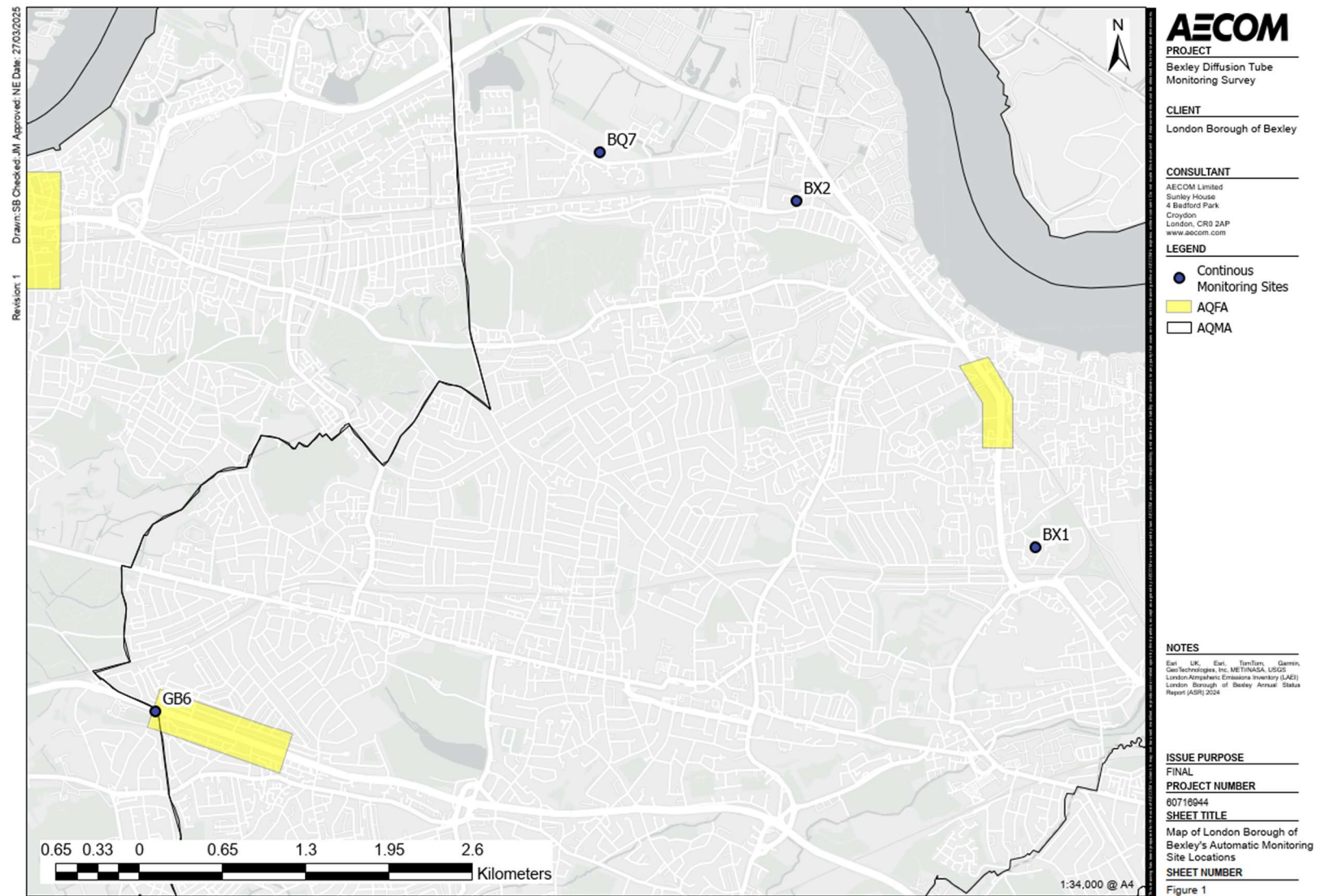
## 3. Current Monitoring

3.1 Annual mean NO<sub>2</sub> concentrations at LBoB's four automatic locations (indicated in Figure 1) are shown in Table 2. Concentrations at all sites are well within the AQS objective value for NO<sub>2</sub> (40 µg/m<sup>3</sup>) for the last six years.

**Table 2 Annual Mean NO<sub>2</sub> Concentrations at Automatic Monitoring Sites in LBoB**

| Site ID | Site Name                | X      | Y      | Location Type       | Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> ) |      |      |      |      |      |      |
|---------|--------------------------|--------|--------|---------------------|----------------------------------------------------------------|------|------|------|------|------|------|
|         |                          |        |        |                     | 2018                                                           | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| BX1     | Slade Green              | 551864 | 176379 | Suburban background | 23                                                             | 22   | 18   | 19   | 18   | 16   | 14   |
| BX2     | Belvedere Primary School | 549999 | 179090 | Suburban background | 28                                                             | 23   | 18   | 16   | 16   | 15   | 15   |
| BQ7     | Bexley Business Academy  | 548465 | 179469 | Urban background    | 21                                                             | 21   | 17   | 17   | 16   | 14   | 13   |
| GB6     | A2 at Falconwood         | 544997 | 175098 | Kerbside            | 39                                                             | 36   | 27   | 27   | 22   | 17   | 17   |

### Figure 1 Map of LBoB Automatic Monitoring Site Locations



## 4. Monitoring Methodology

### Monitoring Equipment

- 4.1 The NO<sub>2</sub> diffusion tubes used in the monitoring survey were prepared, supplied, and analysed by Gradko Environmental, a UKAS accredited laboratory (accreditation number 2187). Preparation was undertaken using 50% triethanolamine (TEA) in acetone.

### Monitoring Locations

#### Scoping

- 4.2 To determine suitable locations for monitor installation, an initial desktop scoping exercise was undertaken. Twenty duplicate diffusion tube locations (e.g. suitable street furniture/lampposts) were considered that were near the A2 East Rochester Way, with ten locations chosen within Falconwood and ten within Erith. Locations were chosen to be as representative of worst-case residential exposure as was possible, and where possible not at kerbside sites.
- 4.3 In addition to these twenty locations, two triplicate locations were co-located with reference monitoring stations at Slade Green and Falconwood, centred on the AQFAs where possible.

#### Chosen Locations

- 4.4 The site details of the chosen diffusion tube locations are shown in Table 3.

**Table 3 Survey Monitoring Locations**

| Unit ID | Site name          | Co-located with Continuous Monitor? | X      | Y      | Distance to Relevant Exposure (m) | Distance to Kerb of Nearest Road (m) | Height (m) |
|---------|--------------------|-------------------------------------|--------|--------|-----------------------------------|--------------------------------------|------------|
| BEX_SG  | Bexley Deaf Centre | Yes                                 | 551864 | 176382 | >50                               | >50                                  | 2.7        |
| BEX_FW  | Orchard Rise West  | Yes                                 | 545003 | 175099 | 12.0                              | 2.0                                  | 2.5        |
| BEX_1   | 2 Queens Street    | No                                  | 551430 | 177811 | 20.0                              | 5.0                                  | 2.5        |
| BEX_2   | 97 Compton Place   | No                                  | 551609 | 177573 | 5.0                               | 12.0                                 | 2.4        |
| BEX_3   | Thanet Road        | No                                  | 551585 | 177374 | 3.0                               | 2.0                                  | 2.5        |
| BEX_4   | Dell view Road     | No                                  | 551570 | 177244 | 3.0                               | 3.0                                  | 2.5        |
| BEX_5   | Boundary Street    | No                                  | 551627 | 177213 | 10.0                              | 10.0                                 | 2.4        |
| BEX_6   | 3 The Nursery      | No                                  | 551614 | 177060 | 5.0                               | 12.0                                 | 2.4        |
| BEX_7   | 1 Peareswood Road  | No                                  | 551595 | 176965 | 5.0                               | 12.0                                 | 2.6        |
| BEX_8   | Colyers Lane       | No                                  | 551546 | 176850 | 7.0                               | 3.0                                  | 2.4        |

| Unit ID | Site name                  | Co-located with Continuous Monitor? | X      | Y      | Distance to Relevant Exposure (m) | Distance to Kerb of Nearest Road (m) | Height (m) |
|---------|----------------------------|-------------------------------------|--------|--------|-----------------------------------|--------------------------------------|------------|
| BEX_9   | Defoe Close                | No                                  | 551549 | 176767 | 5.0                               | 12.0                                 | 2.5        |
| BEX_10  | 3 Bridge Road              | No                                  | 551660 | 176478 | 10.0                              | 20.0                                 | 2.4        |
| BEX_11  | 18 Winscroft Drive         | No                                  | 544760 | 175232 | 7.5                               | 12.0                                 | 2.5        |
| BEX_12  | 30 Winscroft Drive         | No                                  | 544867 | 175192 | 7.5                               | 12.0                                 | 2.5        |
| BEX_13  | 135 Orchard Rise West      | No                                  | 545090 | 174988 | 5.0                               | 45.0                                 | 2.5        |
| BEX_14  | 143 Orchard Rise West      | No                                  | 545085 | 175019 | 5.0                               | 30.0                                 | 2.6        |
| BEX_15  | Orchard Rise West Footpath | No                                  | 545092 | 175065 | 7.5                               | 1.0                                  | 2.4        |
| BEX_16  | 97 Buckingham Avenue       | No                                  | 545272 | 175057 | 7.5                               | 15.0                                 | 2.4        |
| BEX_17  | 247 Hook Lane              | No                                  | 545600 | 174928 | 20.0                              | 5.0                                  | 2.5        |
| BEX_18  | 251 Hook Lane              | No                                  | 545623 | 174960 | 10.0                              | 25.0                                 | 2.5        |
| BEX_19  | 1 Chester Road             | No                                  | 545644 | 174859 | 10.0                              | 5.0                                  | 2.7        |
| BEX_20  | 41 Leechcroft Avenue       | No                                  | 545748 | 174825 | 10.0                              | 7.5                                  | 2.5        |

4.5 The diffusion tubes were changed every four to five weeks, in line with laboratory guidance, and aligned to the Department for Environment, Food & Rural Affairs (Defra)'s diffusion tube calendar<sup>1</sup>. The full schedule is outlined in Table 4. At the end of each sampling period, the diffusion tubes from each sampling location were replaced, notes made on any factors which may impact the result, and the exposed tube sent to the laboratory for analysis.

**Table 4 Sampling Timetable**

| Month | Defra Recommended Exposure Period | Actual Exposure Period  |
|-------|-----------------------------------|-------------------------|
| 1     | 03/01/2024 – 31/01/2024           | 05/01/2024 – 01/02/2024 |
| 2     | 31/01/2024 – 06/03/2024           | 01/02/2024 – 06/03/2024 |
| 3     | 06/03/2024 – 03/04/2024           | 06/03/2024 – 03/04/2024 |
| 4     | 03/04/2024 – 01/05/2024           | 03/04/2024 – 30/04/2024 |
| 5     | 01/05/2024 – 05/06/2024           | 30/04/2024 – 05/06/2024 |
| 6     | 05/06/2024 – 03/07/2024           | 05/06/2024 – 01/07/2024 |
| 7     | 03/07/2024 – 31/07/2024           | 01/07/2024 – 29/07/2024 |
| 8     | 31/07/2024 – 04/09/2024           | 29/07/2024 – 03/09/2024 |

<sup>1</sup> Defra (2024) NO<sub>2</sub> Diffusion Tube Monitoring Calendar. Available at: <https://laqm.defra.gov.uk/air-quality/air-quality-assessment/diffusion-tube-monitoring-calendar/>

| Month | Defra Recommended Exposure Period | Actual Exposure Period  |
|-------|-----------------------------------|-------------------------|
| 9     | 04/09/2024 – 02/10/2024           | 03/09/2024 – 30/09/2024 |
| 10    | 02/10/2024 – 06/11/2024           | 30/09/2024 – 07/11/2024 |
| 11    | 06/11/2024 – 04/12/2024           | 07/11/2024 – 03/12/2024 |
| 12    | 04/12/2024 – 08/01/2025           | 03/12/2024 – 06/01/2025 |

Figure 2 Locations of Diffusion Tube Survey Monitoring Sites – Erith

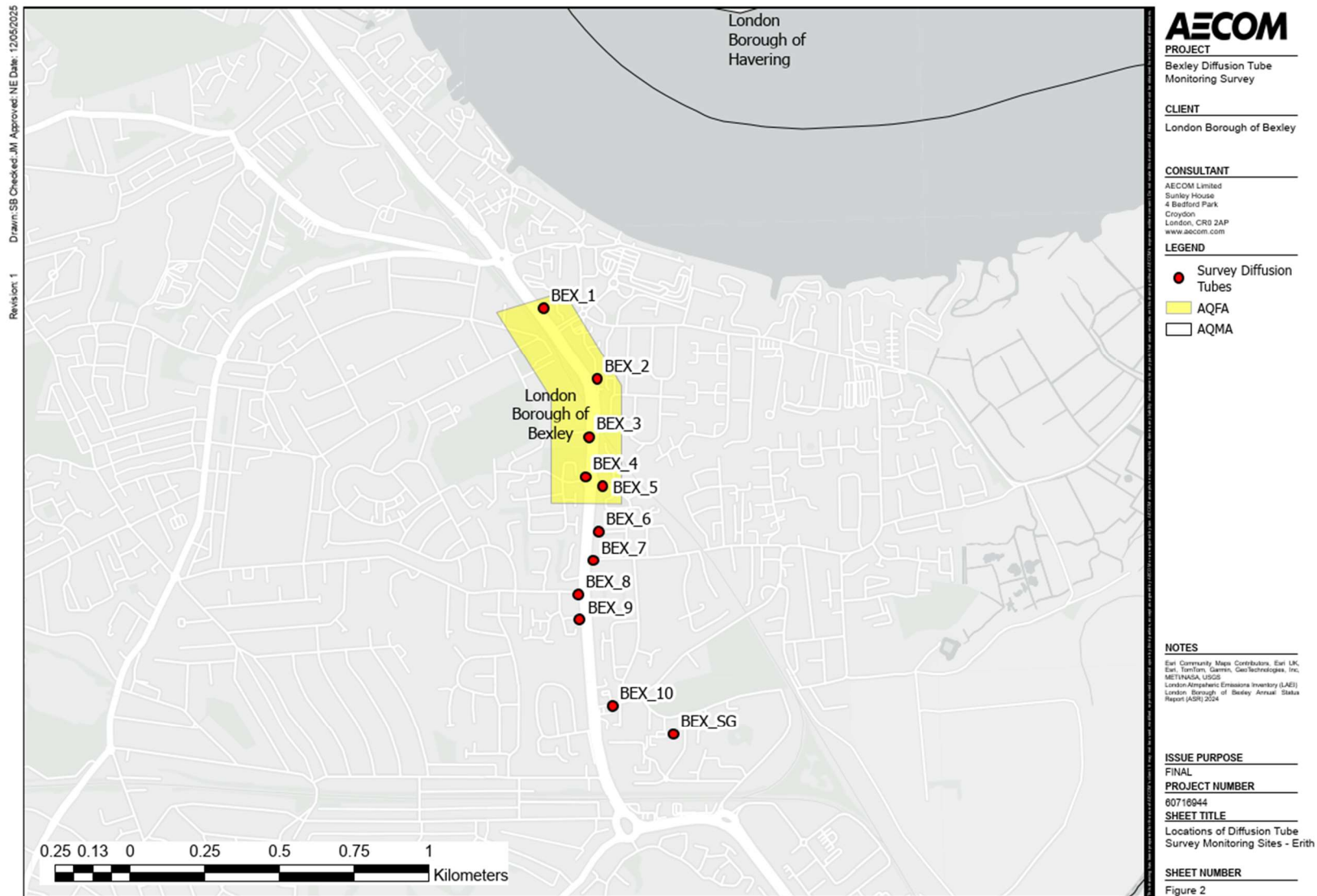
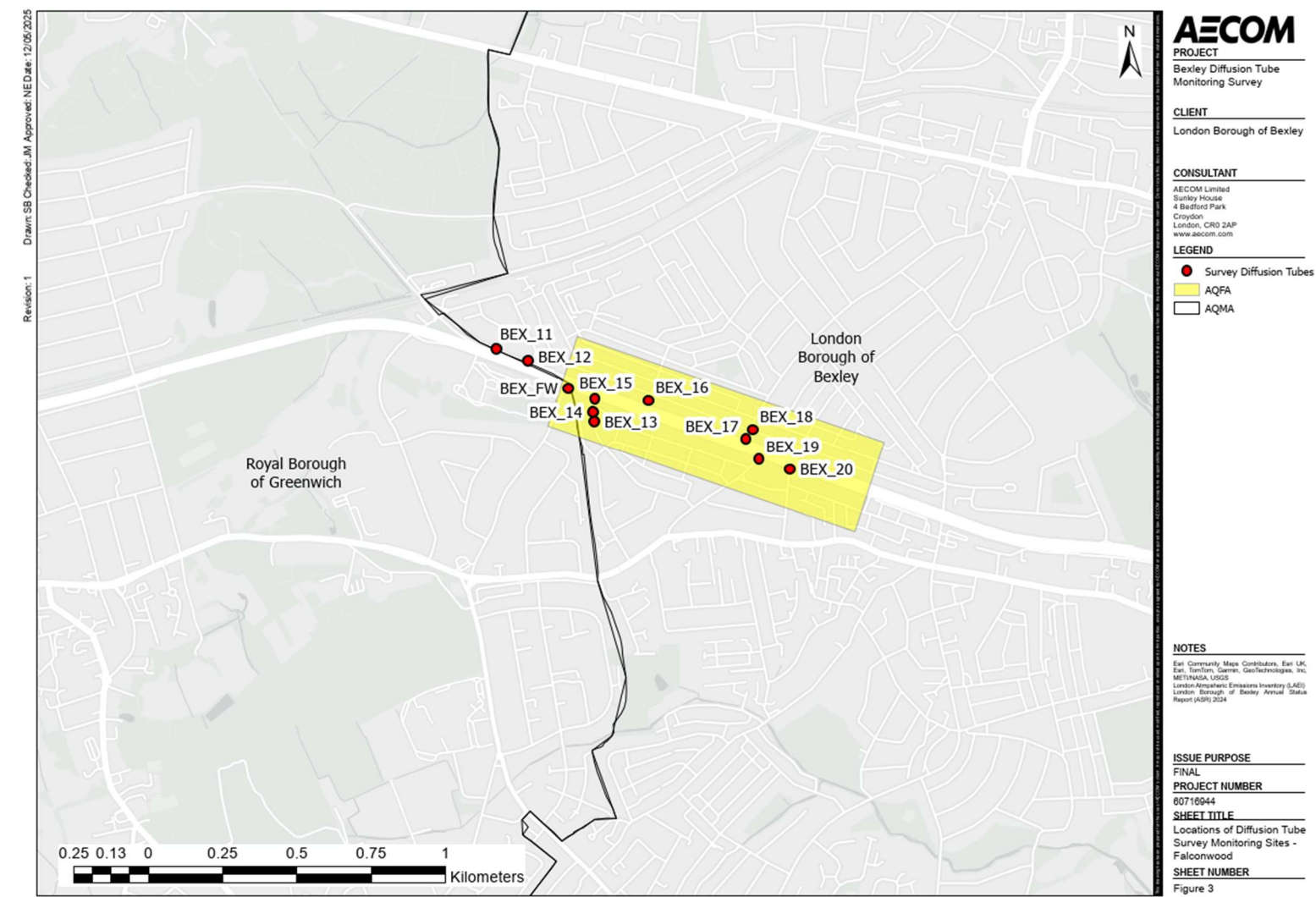


Figure 3 Locations of Diffusion Tube Survey Monitoring Sites – Falconwood



## 5. Data Processing

- 5.1 The precision between duplicate diffusion tubes was calculated using Defra's precision and accuracy bias sheet<sup>2</sup>. Outlier values were noted, and a decision made where relevant to remove them from the analysis.

### Annualisation

- 5.2 Data capture for the 12 months was generally good with the majority of sites having a data capture above 75% for the monitoring period. However, monitoring sites BEX\_5, BEX\_13, BEX\_14 and BEX\_16, had a poorer data capture which was below 75%, due to diffusion tubes going missing during or access issues during the monitoring period.
- 5.3 Annualisation was carried out in line with Defra's LAQM.TG(22) guidance. The following three sites: London Bexley, Thurrock and Southwark A2 Old Kent Road, were used to calculate an average annualisation factor ranging from 0.9786 to 1.0854 as described Appendix A. Raw data are provided in Appendix B.

### Bias Adjustment

- 5.4 Defra's National Diffusion Tube Bias Adjustment Factors sheet<sup>3</sup> (v04/25) was used to determine the appropriate national bias adjustment factor for 2024. A national bias adjustment factor of 0.88 for the laboratory used, Gradko and the analysis method 50% TEA in Acetone, was used at all sites. Further details are shown in Appendix A.
- 5.5 A combined Local Bias Adjustment Factor of 0.74 was also calculated, details of which are given in Appendix A.

### Fall off with Distance

- 5.6 Fall off with distance adjustments were not required.

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<sup>2</sup> Defra (2025). Diffusion Tube Precision Accuracy Bias Spreadsheet. Available at: <https://laqm.defra.gov.uk/air-quality/air-quality-assessment/local-bias>

<sup>3</sup> Defra (2025). National Bias Adjustment Factor. Available at: <https://laqm.defra.gov.uk/air-quality/air-quality-assessment/national-bias/>



## 6. Monitoring Results

### Monitoring Data

- 6.1 The raw NO<sub>2</sub> diffusion tube results are presented in Appendix C.
- 6.2 Following projection, annualisation and bias adjustment, 2024 annual mean NO<sub>2</sub> concentrations are presented in Table 5.
- 6.3 No diffusion tube locations recorded annual mean NO<sub>2</sub> concentration greater than the AQS objective of 40 µg/m<sup>3</sup>. The highest concentration recorded was 30.1 µg/m<sup>3</sup> at BEX\_3 (Thanet Road, Erith). As there were no diffusion tube sites where the annual mean NO<sub>2</sub> concentration exceeded 60 µg/m<sup>3</sup>, the 1-hour mean NO<sub>2</sub> AQO is therefore anticipated to have been achieved at all sites.

### Data processing

**Table 5 Processed Annual Mean NO<sub>2</sub> Concentrations, 2024**

| Tube   | Raw Period Mean<br>(µg/m <sup>3</sup> ) | Annualised Mean 2024<br>(µg/m <sup>3</sup> ) | National Bias Adjusted<br>and Annualised Mean<br>2024 (µg/m <sup>3</sup> ) |
|--------|-----------------------------------------|----------------------------------------------|----------------------------------------------------------------------------|
| BEX_FW | 16.4                                    | -                                            | 14.5                                                                       |
| BEX_SG | 25.7                                    | -                                            | 22.6                                                                       |
| BEX_1  | 30.8                                    | -                                            | 27.1                                                                       |
| BEX_2  | 24.8                                    | -                                            | 21.8                                                                       |
| BEX_3  | 34.2                                    | -                                            | 30.1                                                                       |
| BEX_4  | 23.8                                    | -                                            | 20.9                                                                       |
| BEX_5  | 21.4                                    | 23.3                                         | 20.5                                                                       |
| BEX_6  | 21.3                                    | -                                            | 18.8                                                                       |
| BEX_7  | 23.6                                    | -                                            | 20.8                                                                       |
| BEX_8  | 27.3                                    | -                                            | 24.0                                                                       |
| BEX_9  | 20.6                                    | -                                            | 18.2                                                                       |
| BEX_10 | 25.1                                    | -                                            | 22.1                                                                       |
| BEX_11 | 21.9                                    | -                                            | 19.3                                                                       |
| BEX_12 | 21.0                                    | -                                            | 18.5                                                                       |
| BEX_13 | 17.3                                    | 16.9                                         | 14.9                                                                       |
| BEX_14 | 17.6                                    | 17.7                                         | 15.6                                                                       |
| BEX_15 | 27.6                                    | -                                            | 24.3                                                                       |
| BEX_16 | 20.5                                    | 20.1                                         | 17.7                                                                       |
| BEX_17 | 22.7                                    | -                                            | 20.0                                                                       |
| BEX_18 | 19.0                                    | -                                            | 16.8                                                                       |
| BEX_19 | 19.8                                    | -                                            | 17.4                                                                       |
| BEX_20 | 20.1                                    | -                                            | 17.7                                                                       |

## 7. Summary

- 7.1 NO<sub>2</sub> monitoring was conducted during 2024 in Falconwood and Erith, Bexleyheath to indicate potential air quality levels around the AQFAs at the A2 Road in Falconwood and the Northend Road in Erith.
- 7.2 Monitoring was conducted at 22 diffusion tube locations, with two of these co-located with existing LBoB continuous monitoring locations, and the results have been presented in this report for the 2024 calendar year.
- 7.3 The results show that there were no exceedances of the annual mean NO<sub>2</sub> AQS Objective of 40 µg/m<sup>3</sup> at any of the sites. The highest annual mean NO<sub>2</sub> concentration of 30.1 µg/m<sup>3</sup> was recorded at BEX\_3. This is well below the AQS Objective.
- 7.4 When reviewing the annual mean NO<sub>2</sub> concentrations at the urban background continuous monitors, a decreasing trend in NO<sub>2</sub> concentrations can be observed from 2018 to 2024. Due to the COVID-19 pandemic, concentrations between 2019 and 2020 decreased drastically from 36 µg/m<sup>3</sup> to 27 µg/m<sup>3</sup> at Falconwood and 22 µg/m<sup>3</sup> to 18 µg/m<sup>3</sup> at Slade Green monitoring stations. These concentrations then decreased slightly in 2021 and 2022 post pandemic due to pandemic restrictions being lifted but have stayed below 2019 pre-pandemic levels in 2023 and 2024.
- 7.5 The low NO<sub>2</sub> concentrations measured across the Falconwood and Erith diffusion tube monitoring locations is therefore considered likely to be attributable to both wider improvements in air quality conditions, due to factors such as emissions improvements in the vehicle fleet.
- 7.6 Diffusion tube sites BEX\_FW and BEX\_SG which were co-located at the Falconwood and Slade Green continuous monitoring measured similar annual mean NO<sub>2</sub> concentrations in 2024, as indicated below: Diffusion tube BEX\_SG was 14.5 µg/m<sup>3</sup>, and the Slade Green continuous monitoring annual mean concentration in 2024 was 14.0 µg/m<sup>3</sup>. Diffusion tube BEX\_FW measured 22.5 µg/m<sup>3</sup>, and the Falconwood continuous monitoring station measured 17.0 µg/m<sup>3</sup>.

# References

- Ref. 1 HM Government, (2016). The Air Quality Standards (Amendment) Regulations 2016
- Ref. 2 HM Government, (2020). The Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020
- Ref. 3 Council of the European Union, (2008). Directive 2008/50/EC on Ambient Air Quality and Cleaner Air for Europe
- Ref. 4 UK Legislation, (2010). The Air Quality Standards Regulations 2010, no. 1001 (as amended)
- Ref. 5 H.M. Government, (1995). The Environment Act 1995
- Ref. 6 H.M Government, (2021). The Environment Act 2021
- Ref. 7 Department of Environment, Food and Rural Affairs (Defra), (2023). Air Quality Strategy: Framework for Local Authority Delivery.
- Ref. 8 H. M. Government, (2018). A Green Future: Our 25 Year Plan to Improve the Environment
- Ref. 9 Department of Environment, Food and Rural Affairs (Defra), (2023). Environmental Improvement Plan 2023
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- Ref. 12 Department of Environment, Food and Rural Affairs (Defra), (2007). The Air Quality Strategy 2007 for England, Scotland, Wales and Northern Ireland
- Ref. 13 Department of Environment, Food and Rural Affairs (Defra), (2023). Air Quality Strategy: Framework for Local Authority Delivery
- Ref. 14 Department of Environment, Food and Rural Affairs (Defra), (2019). UK Clean Air Strategy 2019
- Ref. 15 World Health Organisation (WHO), (2021). WHO global air quality guidelines: particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulphur dioxide and carbon monoxide
- Ref. 16 Department for Communities and Local Government (DCLG), (2023). The National Planning Policy Framework.
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- Ref. 18 Mayor of London, (2021). The London Plan – The Spatial Development Strategy for Greater London.
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- Ref. 20 Transport for London (TfL), (2021). Healthy Streets. Available at: <https://content.tfl.gov.uk/healthy-streets-for-london.pdf>
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- Ref. 23 Greater London Authority (GLA), (2019). London Atmospheric Emissions Inventory (LAEI) 2019 Air Quality Focus Areas
- Ref. 24 Greater London Authority (GLA), (2019). London Local Air Quality Management Technical Guidance (LLAQM.TG(19)).
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- Ref. 28 Institute of Air Quality Management (IAQM), (2024). Guidance on the assessment of dust from demolition and construction v2.2.
- Ref. 29 London Borough of Bexley, (2023). Available at: <https://www.bexley.gov.uk/sites/default/files/2023-08/London-borough-of-bexley-air-quality-annual-status-report-for-2022.pdf>
- Ref. 30 IAQM & EPUK, (2017). Land-Use Planning & Development Control: Planning for Air Quality.

# Appendix A Annualisation, Bias Adjustment and Fall off with Distance Details

## Annualisation

- 7.7 Sites were annualised using background continuous monitoring data from three sites: London Bexley, Southwark A2 Old Kent Road and Thurrock. This was considered the most representative and robust way to determine the annualisation factor of the Falconwood and Erith area. Table 6 details the annualisation factors calculated for each site with a data capture rate of <75%.

**Table 6 Annualisation Factors**

| Site ID | Annualisation Factor<br>London Bexley | Annualisation Factor<br>Southwark A2 Old Kent<br>Road | Annualisation Factor<br>Thurrock | Average<br>Annualisation Factor |
|---------|---------------------------------------|-------------------------------------------------------|----------------------------------|---------------------------------|
| BEX_5   | 1.1062                                | 1.0917                                                | 1.0582                           | 1.0854                          |
| BEX_13  | 1.0183                                | 1.0078                                                | 0.9935                           | 1.0065                          |
| BEX_14  | 0.9574                                | 0.9826                                                | 0.9959                           | 0.9786                          |
| BEX_16  | 1.1062                                | 1.0917                                                | 1.0582                           | 1.0854                          |

## Bias Adjustment

- 7.8 The diffusion tube data have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM TG.22 provides guidance with regard to the application of a bias adjustment factor to correct diffusion tube monitoring. The national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.
- 7.9 Triplicate co-location studies can be used to determine a local bias factor based on the comparison of diffusion tube results with data taken from NO<sub>x</sub>/NO<sub>2</sub> continuous analysers.
- 7.10 A combined local bias adjustment factor of 0.74 was calculated from the two co-located sites at Slade Green and Falconwood continuous monitoring stations. This factor is lower than the national bias adjustment factor of 0.88 in 2024. This calculation of the local bias adjustment factor is presented in Table 7 and Figure 4.

**Table 7 Local Bias Adjustment Factor Calculation**

|                                          | Local Bias Adjustment Input 1<br>– Slade Green | Local Bias Adjustment Input 2<br>– Falconwood |
|------------------------------------------|------------------------------------------------|-----------------------------------------------|
| Periods used to calculate bias           | 9                                              | 11                                            |
| Bias Factor A                            | 0.81 (0.74 - 0.91)                             | 0.69 (0.59 - 0.80)                            |
| Bias Factor B                            | 23% (10% - 36%)                                | 48% (25% - 71%)                               |
| Diffusion Tube Mean (µg/m <sup>3</sup> ) | 16.2                                           | 25.1                                          |
| Mean CV (Precision)                      | 6.1%                                           | 6.5%                                          |
| Automatic Mean (µg/m <sup>3</sup> )      | 13.2                                           | 17.0                                          |
| Data Capture                             | 90%                                            | 86%                                           |
| Adjusted Tube Mean (µg/m <sup>3</sup> )  | 13 (12 - 15)                                   | 17 (15 - 20)                                  |
| Combined Local Bias Adjustment Fator     | 0.74                                           |                                               |

Figure 4 Local Bias Adjustment Factor Calculation

| Local Bias Adjustment Outputs - Information Only            |                                       |                                                                                                                                                                      |                                       |                                       |                                       |                                       |                                       |
|-------------------------------------------------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Go back to STEP 3 - Bias Adjustment to define factor        |                                       |                                                                                                                                                                      |                                       |                                       |                                       |                                       |                                       |
|                                                             | STEP 3a Local Bias Adjustment Input 1 | STEP 3b Local Bias Adjustment Input 2                                                                                                                                | STEP 3c Local Bias Adjustment Input 3 | STEP 3d Local Bias Adjustment Input 4 | STEP 3e Local Bias Adjustment Input 5 | STEP 3f Local Bias Adjustment Input 6 | STEP 3g Local Bias Adjustment Input 7 |
| Periods used to calculate bias                              | 9                                     | 11                                                                                                                                                                   |                                       |                                       |                                       |                                       |                                       |
| Bias Adjustment Factor A                                    | 0.81 (0.74 - 0.91)                    | 0.88 (0.82 - 0.9)                                                                                                                                                    |                                       |                                       |                                       |                                       |                                       |
| Diffusion Tube Bias B                                       | 23% (10% - 36%)                       | 48% (25% - 71%)                                                                                                                                                      |                                       |                                       |                                       |                                       |                                       |
| Diffusion Tube Mean (µg/m³)                                 | 16.2                                  | 25.1                                                                                                                                                                 |                                       |                                       |                                       |                                       |                                       |
| Mean CV (Precision)                                         | 6.1%                                  | 6.5%                                                                                                                                                                 |                                       |                                       |                                       |                                       |                                       |
| Automatic Mean (µg/m³) (for periods used to calculate bias) | 13.2                                  | 17.0                                                                                                                                                                 |                                       |                                       |                                       |                                       |                                       |
| Data Capture (for periods used to calculate bias)           | 95%                                   | 93%                                                                                                                                                                  |                                       |                                       |                                       |                                       |                                       |
| Overall Data Capture                                        | 95%                                   | 89%                                                                                                                                                                  |                                       |                                       |                                       |                                       |                                       |
| Adjusted Tube Mean (µg/m³)                                  | 13 (12 - 15)                          | 17 (15 - 20)                                                                                                                                                         |                                       |                                       |                                       |                                       |                                       |
| Overall Diffusion Tube Precision                            | Good Overall Precision                | Good Overall Precision                                                                                                                                               |                                       |                                       |                                       |                                       |                                       |
| Overall Continuous Monitor Data Capture                     | Good Overall Data Capture             | Poor Overall Data Capture                                                                                                                                            |                                       |                                       |                                       |                                       |                                       |
| Combined Local Bias Adjustment Factor                       | 0.74                                  | Warning - One or more Co-location studies has Poor Overall Continuous Monitor Data Capture (i.e. <90%). Local Bias Adjustment Factor should be treated with caution. |                                       |                                       |                                       |                                       |                                       |

7.11 The NO<sub>2</sub> data at the continuous monitoring site at Falconwood is considered provisional from January 2024 onwards and has overall poor data capture for diffusion tube precision and poor overall data capture for the continuous monitor, during the monitoring period. There is therefore some uncertainty with this calculated factor and it should be treated with caution. Therefore, the more conservative national bias adjustment factor of 0.88 was used at all sites.

7.12 A national bias adjustment factor of 0.88 was calculated using the Defra's National Diffusion Tube Bias Adjustment Factors sheet<sup>4</sup> (v04/25).

7.13 Calculation of the local bias adjustment factor is presented in Figure 5 and Table 8.

Table 8 National Bias Adjustment Factor Calculation

## Analysis Method

## Bias Factor

Gradko 50% TEA in Acetone

0.88

Figure 5 National Bias Adjustment Factor Calculation

| National Diffusion Tube Bias Adjustment Factor Spreadsheet                                                                                                                             |  |                                                                                           |  |                                                             | Spreadsheet Version Number: 04/25                                                                             |                                                                                                                                                                                                                                         |                                          |                          |                                                     |                                                                                                               |          |                             |                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------|--|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------|-----------------------------|------------------------------------|
| Follow the steps below in the correct order to show the results of relevant co-location studies                                                                                        |  |                                                                                           |  |                                                             |                                                                                                               |                                                                                                                                                                                                                                         |                                          |                          |                                                     | This spreadsheet will be updated at the end of June 2025                                                      |          |                             |                                    |
| Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods                                                                  |  |                                                                                           |  |                                                             |                                                                                                               |                                                                                                                                                                                                                                         |                                          |                          |                                                     | LAQM Helpdesk Website                                                                                         |          |                             |                                    |
| Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet                                                                      |  |                                                                                           |  |                                                             |                                                                                                               |                                                                                                                                                                                                                                         |                                          |                          |                                                     | Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd. |          |                             |                                    |
| This spreadsheet will be updated every few months: the factors may therefore be subject to change. This should not discourage their immediate use.                                     |  |                                                                                           |  |                                                             |                                                                                                               |                                                                                                                                                                                                                                         |                                          |                          |                                                     |                                                                                                               |          |                             |                                    |
| The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory. |  |                                                                                           |  |                                                             | Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd. |                                                                                                                                                                                                                                         |                                          |                          |                                                     |                                                                                                               |          |                             |                                    |
| Step 1:                                                                                                                                                                                |  | Step 2:                                                                                   |  | Step 3:                                                     |                                                                                                               | Step 4:                                                                                                                                                                                                                                 |                                          |                          |                                                     |                                                                                                               |          |                             |                                    |
| Select the Laboratory that Analyses Your Tubes from the Drop-Down List                                                                                                                 |  | Select a Preparation Method from the Drop-Down List                                       |  | Select a Year from the Drop-Down List                       |                                                                                                               | Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor <sup>2</sup> shown in blue at the foot of the final column. |                                          |                          |                                                     |                                                                                                               |          |                             |                                    |
| If a laboratory is not shown, we have no data for this laboratory.                                                                                                                     |  | If a preparation method is not shown, we have no data for this method at this laboratory. |  | If a year is not shown, we have no data.                    |                                                                                                               | If you have your own co-location study then see footnote <sup>1</sup> . If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953                                |                                          |                          |                                                     |                                                                                                               |          |                             |                                    |
| Analysed By <sup>1</sup>                                                                                                                                                               |  | Method <sup>2</sup><br>To include your location, choose (All) from the pop-up list        |  | Year <sup>2</sup><br>To include your location, choose (All) |                                                                                                               | Site Type                                                                                                                                                                                                                               | Local Authority                          | Length of Study (months) | Diffusion Tube Mean Conc. (Dm) (µg/m <sup>3</sup> ) | Automatic Monitor Mean Conc. (Cm) (µg/m <sup>3</sup> )                                                        | Bias (B) | Tube Precision <sup>3</sup> | Bias Adjustment Factor (A) (Cm/Dm) |
| -Y                                                                                                                                                                                     |  | -Y                                                                                        |  | -Y                                                          |                                                                                                               |                                                                                                                                                                                                                                         |                                          |                          |                                                     |                                                                                                               |          |                             |                                    |
| Gradko                                                                                                                                                                                 |  | 50% TEA in Acetone                                                                        |  | 2024                                                        |                                                                                                               | R                                                                                                                                                                                                                                       | City Of London Corporation               | 12                       | 34                                                  | 30                                                                                                            | 12.1%    | G                           | 0.89                               |
| Gradko                                                                                                                                                                                 |  | 50% TEA in Acetone                                                                        |  | 2024                                                        |                                                                                                               | UB                                                                                                                                                                                                                                      | Falkirk Council                          | 11                       | 13                                                  | 13                                                                                                            | -1.6%    | G                           | 1.02                               |
| Gradko                                                                                                                                                                                 |  | 50% TEA in acetone                                                                        |  | 2024                                                        |                                                                                                               | SU                                                                                                                                                                                                                                      | Redcar And Cleveland Borough Council     | 12                       | 12                                                  | 9                                                                                                             | 35.4%    | G                           | 0.74                               |
| Gradko                                                                                                                                                                                 |  | 50% TEA in acetone                                                                        |  | 2024                                                        |                                                                                                               | KS                                                                                                                                                                                                                                      | Maylebone Road Intercomparison           | 11                       | 43                                                  | 36                                                                                                            | 20.8%    | G                           | 0.83                               |
| Gradko                                                                                                                                                                                 |  | 50% TEA in acetone                                                                        |  | 2024                                                        |                                                                                                               | R                                                                                                                                                                                                                                       | Sandwell Mbc                             | 12                       | 30                                                  | 25                                                                                                            | 24.2%    | G                           | 0.81                               |
| Gradko                                                                                                                                                                                 |  | 50% TEA in acetone                                                                        |  | 2024                                                        |                                                                                                               | UB                                                                                                                                                                                                                                      | Sandwell Mbc                             | 12                       | 19                                                  | 17                                                                                                            | 8.0%     | G                           | 0.93                               |
| Gradko                                                                                                                                                                                 |  | 50% TEA in acetone                                                                        |  | 2024                                                        |                                                                                                               | R                                                                                                                                                                                                                                       | Sandwell Mbc                             | 12                       | 20                                                  | 20                                                                                                            | -2.6%    | S                           | 1.03                               |
| Gradko                                                                                                                                                                                 |  | 50% TEA in Acetone                                                                        |  | 2024                                                        |                                                                                                               | R                                                                                                                                                                                                                                       | London Borough Of Merton                 | 12                       | 27                                                  | 22                                                                                                            | 25.7%    | G                           | 0.80                               |
| Gradko                                                                                                                                                                                 |  | 50% TEA in acetone                                                                        |  | 2024                                                        |                                                                                                               | UB                                                                                                                                                                                                                                      | London Borough Of Wandsworth             | 10                       | 19                                                  | 14                                                                                                            | 31.7%    | G                           | 0.76                               |
| Gradko                                                                                                                                                                                 |  | 50% TEA in acetone                                                                        |  | 2024                                                        |                                                                                                               | R                                                                                                                                                                                                                                       | London Borough Of Richmond Upon Thames   | 12                       | 18                                                  | 19                                                                                                            | -9.1%    | G                           | 1.10                               |
| Gradko                                                                                                                                                                                 |  | 50% TEA in acetone                                                                        |  | 2024                                                        |                                                                                                               | B                                                                                                                                                                                                                                       | London Borough Of Richmond Upon Thames   | 12                       | 13                                                  | 13                                                                                                            | 5.0%     | G                           | 0.95                               |
| Gradko                                                                                                                                                                                 |  | 50% TEA in acetone                                                                        |  | 2024                                                        |                                                                                                               |                                                                                                                                                                                                                                         | Overall Factor <sup>2</sup> (12 studies) |                          |                                                     |                                                                                                               | Use      |                             | 0.88                               |

## Fall off with Distance

7.14 Fall off with distance adjustments are not required.

<sup>4</sup> Defra (2025). National Bias Adjustment Factor. Available at: <https://laqm.defra.gov.uk/air-quality/air-quality-assessment/national-bias/>

# Appendix B Raw Monitoring Results

Table 9 Full Raw Monthly Diffusion Tube Survey Results

| Tube ID | X      | Y      | NO <sub>2</sub> Monthly Mean Concentrations (µg/m <sup>3</sup> ) |          |       |       |      |      |      |        |           |         |          |          | Annual Mean (µg/m <sup>3</sup> ) |                                              |
|---------|--------|--------|------------------------------------------------------------------|----------|-------|-------|------|------|------|--------|-----------|---------|----------|----------|----------------------------------|----------------------------------------------|
|         |        |        | January                                                          | February | March | April | May  | June | July | August | September | October | November | December | Raw Data                         | Annualised and National Bias Adjusted (0.88) |
| BEX1a   | 551430 | 177811 | 35.6                                                             | 34.2     | 34.7  | 28.6  | 29.1 | 27.6 | 27.1 | 25.7   | 29.9      | 33.9    | 33.4     | 27.9     | -                                | -                                            |
| BEX1b   | 551430 | 177811 | 35.3                                                             | 32.8     | 34.4  | 30.0  | 27.3 | 24.7 | 29.7 | 28.3   | 30.6      | 32.9    | 39.5     | 26.1     | 30.8                             | 27.1                                         |
| BEX2a   | 551609 | 177573 | 29.0                                                             | 29.8     | 25.5  | 23.6  | 20.0 | 21.9 | 22.9 | 24.6   | 25.4      |         | 28.6     | 14.2     | -                                | -                                            |
| BEX2b   | 551609 | 177573 | 29.6                                                             | 27.7     | 27.2  | 24.3  | 21.8 | 22.6 | 25.2 | 21.7   | 24.5      |         | 32.6     | 21.8     | 24.8                             | 21.8                                         |
| BEX4a   | 551570 | 177244 | 29.3                                                             | 25.2     | 25.1  | 15.1  | 26.4 | 20.7 | 20.1 | 19.4   | 22.3      | 31.0    | 38.1     | 18.2     | -                                | -                                            |
| BEX4b   | 551570 | 177244 | 26.9                                                             | 22.7     | 24.7  | 17.5  | 22.0 | 20.8 | 20.8 | 20.5   | 23.0      |         | 29.1     | 20.3     | 23.8                             | 20.9                                         |
| BEX3a   | 551585 | 177374 | 31.7                                                             | 32.7     | 36.9  | 27.6  | 33.3 | 31.7 | 36.3 | 33.2   | 35.0      | 36.6    | 34.2     | 29.0     | -                                | -                                            |
| BEX3b   | 551585 | 177374 | 35.8                                                             | 36.7     | 35.7  | 32.9  | 35.4 | 33.5 | 34.8 | 32.4   | 33.3      | 40.7    | 41.7     | 29.9     | 34.2                             | 30.1                                         |
| BEX6a   | 551614 | 177060 | 26.5                                                             | 21.4     | 22.3  | 15.9  | 20.3 | 16.9 | 17.6 | 18.4   | 21.9      | 26.9    | 26.7     | 19.5     | -                                | -                                            |
| BEX6b   | 551614 | 177060 | 27.8                                                             | 23.7     | 20.7  | 17.6  | 18.2 | 17.4 | 17.8 | 18.8   | 19.9      | 24.5    | 31.9     | 19.4     | 21.3                             | 18.8                                         |
| BEX7a   | 551595 | 176965 | 30.7                                                             | 24.7     | 25.4  | 20.2  | 21.5 | 21.4 | 20.9 | 19.8   | 23.0      | 26.9    | 27.2     | 20.8     | -                                | -                                            |
| BEX7b   | 551595 | 176965 | 34.1                                                             | 23.4     | 24.0  | 18.8  | 22.7 | 19.9 | 18.4 | 19.3   | 24.0      | 25.0    | 32.7     | 21.2     | 23.6                             | 20.8                                         |
| BEX10a  | 551660 | 176478 |                                                                  |          | 27.0  |       |      | 24.3 | 19.3 | 15.1   | 27.1      | 28.5    | 31.5     | 21.2     | -                                | -                                            |
| BEX10b  | 551660 | 176478 | 30.1                                                             |          | 25.0  |       |      | 22.7 | 23.1 | 16.2   | 26.3      | 31.4    | 32.2     | 21.3     | 25.1                             | 22.1                                         |
| BEX_SGa | 551864 | 176382 | 22.2                                                             | 17.4     | 20.4  | 12.7  | 16.7 | 14.1 | 13.8 | 21.1   | 16.1      |         |          | 15.7     | -                                | -                                            |
| BEX_SGb | 551864 | 176382 | 19.3                                                             | 20.3     | 19.4  | 13.0  | 15.0 | 14.3 | 12.6 | 19.9   | 17.0      |         |          | 13.3     | -                                | -                                            |
| BEX_SGc | 551864 | 176382 | 21.7                                                             | 16.8     | 18.8  | 11.5  | 15.5 | 13.6 | 13.1 | 14.1   | 17.6      |         |          | 15.8     | 16.4                             | 14.5                                         |
| BEX8a   | 551546 | 176850 | 36.2                                                             | 27.2     | 30.8  | 23.3  | 20.7 | 28.0 | 25.5 | 15.9   | 29.2      | 33.0    | 38.4     | 26.5     | -                                | -                                            |

| Tube ID | X      | Y      | NO <sub>2</sub> Monthly Mean Concentrations (µg/m <sup>3</sup> ) |          |       |       |      |      |      |        |           |         |          |          | Annual Mean (µg/m <sup>3</sup> ) |                                              |
|---------|--------|--------|------------------------------------------------------------------|----------|-------|-------|------|------|------|--------|-----------|---------|----------|----------|----------------------------------|----------------------------------------------|
|         |        |        | January                                                          | February | March | April | May  | June | July | August | September | October | November | December | Raw Data                         | Annualised and National Bias Adjusted (0.88) |
| BEX8b   | 551546 | 176850 | 35.6                                                             | 28.7     | 30.4  | 25.8  | 20.7 | 27.1 | 26.7 | 16.7   | 21.4      | 28.9    | 32.2     | 25.3     | 27.3                             | 24.0                                         |
| BEX9a   | 551549 | 176767 | 19.9                                                             | 19.7     | 20.2  | 13.9  | 29.0 | 16.4 | 16.6 | 20.9   | 19.9      | 22.7    | 26.2     | 19.1     | -                                | -                                            |
| BEX9b   | 551549 | 176767 | 21.6                                                             | 18.2     | 20.8  | 14.6  | 30.1 | 15.5 | 15.6 | 19.2   | 21.1      | 24.8    | 32.2     | 17.3     | 20.6                             | 18.2                                         |
| BEX20a  | 545748 | 174825 | 27.9                                                             | 19.8     | 18.7  | 16.7  | 19.9 | 16.7 | 15.1 | 14.7   | 24.7      | 22.4    | 29.4     | 17.6     | -                                | -                                            |
| BEX20b  | 545748 | 174825 | 20.4                                                             | 20.6     | 21.1  | 18.0  | 18.7 | 16.5 | 15.1 | 13.7   | 20.6      | 23.9    | 29.8     | 21.6     | 20.1                             | 17.7                                         |
| BEX19a  | 545644 | 174859 | 25.6                                                             | 17.4     | 21.4  | 16.4  | 20.2 | 16.0 | 14.8 | 14.3   | 21.7      | 21.6    | 30.2     | 17.8     | -                                | -                                            |
| BEX19b  | 545644 | 174859 | 27.4                                                             | 19.1     | 20.5  | 16.8  | 20.5 | 15.8 | 14.7 | 13.4   | 21.2      | 23.3    | 27.5     | 17.6     | 19.8                             | 17.4                                         |
| BEX_FWa | 545003 | 175099 | 30.9                                                             | 25.2     | 28.7  | 22.0  | 26.2 | 23.9 |      | 33.8   | 27.3      | 29.5    | 31.7     | 23.6     | -                                | -                                            |
| BEX_FWb | 545003 | 175099 | 24.5                                                             | 25.8     | 27.8  | 21.4  | 28.9 | 24.8 | 21.8 | 22.9   | 28.1      | 29.1    | 30.8     | 17.5     | -                                | -                                            |
| BEX_FWc | 545003 | 175099 | 23.8                                                             | 24.6     | 23.2  | 19.3  | 29.3 | 23.9 | 21.2 | 22.1   | 30.0      | 31.4    | 28.3     | 20.9     | 25.7                             | 22.6                                         |
| BEX15a  | 545092 | 175065 | 35.0                                                             | 28.0     | 29.3  | 22.8  | 28.0 | 23.9 | 22.9 | 25.0   | 29.7      | 31.0    | 38.9     | 25.6     | -                                | -                                            |
| BEX15b  | 545092 | 175065 | 32.3                                                             | 25.4     | 25.5  | 20.6  | 28.3 | 26.9 | 24.3 | 24.4   | 30.9      | 20.6    | 33.0     | 29.3     | 27.6                             | 24.3                                         |
| BEX14a  | 545085 | 175019 | 24.0                                                             | 16.3     | 17.6  | 12.2  | 15.5 | 12.9 |      |        |           |         |          |          | -                                | -                                            |
| BEX14b  | 545085 | 175019 | 23.7                                                             | 17.6     | 19.1  | 13.6  | 17.3 | 13.4 |      | 12.0   |           |         | 27.1     |          | 17.6                             | 15.6                                         |
| BEX13a  | 545090 | 174988 |                                                                  | 17.8     | 15.2  | 11.5  | 15.3 |      |      | 11.9   |           |         | 22.0     |          | -                                | -                                            |
| BEX13b  | 545090 | 174988 | 25.4                                                             | 16.1     | 17.8  | 12.3  | 16.2 |      |      | 12.8   |           |         |          |          | 17.3                             | 14.9                                         |
| BEX11a  | 544760 | 175232 | 23.9                                                             | 22.0     | 19.4  | 16.5  | 21.5 | 19.6 | 21.2 | 19.4   | 23.1      | 25.7    | 26.6     | 16.3     | -                                | -                                            |
| BEX11b  | 544760 | 175232 | 26.6                                                             | 25.2     | 26.2  | 17.1  | 20.8 | 20.6 | 19.9 | 20.0   | 21.9      | 25.7    | 29.5     | 17.4     | 21.9                             | 19.3                                         |
| BEX12a  | 544867 | 175192 | 26.4                                                             | 25.1     | 22.5  | 15.8  | 19.4 | 17.9 | 20.4 | 18.4   | 19.4      | 25.0    | 26.6     | 21.2     | -                                | -                                            |
| BEX12b  | 544867 | 175192 | 26.0                                                             | 17.8     | 21.8  |       | 19.8 | 19.8 | 19.0 | 19.5   | 19.2      | 24.6    | 24.3     | 18.1     | 21.0                             | 18.5                                         |
| BEX16a  | 545272 | 175057 | 23.6                                                             |          | 23.2  | 16.0  | 19.7 |      |      | 18.1   |           |         | 26.7     | 18.6     | -                                | -                                            |
| BEX16b  | 545272 | 175057 | 22.5                                                             |          | 22.8  | 16.0  | 18.4 |      |      | 20.8   |           |         | 24.0     | 17.4     | 20.5                             | 17.7                                         |

| Tube ID | X      | Y      | NO <sub>2</sub> Monthly Mean Concentrations (µg/m <sup>3</sup> ) |          |       |       |      |      |      |        |           |         |          |          | Annual Mean (µg/m <sup>3</sup> ) |                                              |
|---------|--------|--------|------------------------------------------------------------------|----------|-------|-------|------|------|------|--------|-----------|---------|----------|----------|----------------------------------|----------------------------------------------|
|         |        |        | January                                                          | February | March | April | May  | June | July | August | September | October | November | December | Raw Data                         | Annualised and National Bias Adjusted (0.88) |
| BEX18a  | 545623 | 174960 | 25.2                                                             | 20.1     | 21.3  | 14.9  |      | 15.4 | 15.2 | 15.7   | 18.7      | 20.3    | 24.6     | 21.5     | -                                | -                                            |
| BEX18b  | 545623 | 174960 | 27.0                                                             | 21.0     | 21.8  | 14.2  | 16.0 | 15.4 | 14.7 | 16.2   | 17.0      | 21.1    | 27.8     | 15.7     | 19.0                             | 16.8                                         |
| BEX17a  | 545600 | 174928 | 26.9                                                             | 23.8     | 21.1  | 15.5  | 20.7 | 20.5 | 19.4 | 19.8   | 19.3      | 28.0    | 31.3     | 24.3     | -                                | -                                            |
| BEX17b  | 545600 | 174928 | 27.1                                                             | 25.9     | 25.1  | 17.8  | 22.1 | 18.7 | 19.4 | 18.6   | 23.0      | 27.3    | 28.1     | 21.4     | 22.7                             | 20.0                                         |
| BEX5a   | 551627 | 177213 |                                                                  |          | 23.7  | 16.6  | 21.5 | 20.6 | 21.4 | 19.9   |           |         |          | 20.8     | -                                | -                                            |
| BEX5b   | 551627 | 177213 |                                                                  |          | 22.8  | 17.6  | 20.9 | 21.2 | 20.8 |        |           |         | 26.4     | 22.5     | 21.4                             | 20.5                                         |

# Appendix C Mapped Data Results

Figure 6 Mapped Annual Mean NO<sub>2</sub> Concentrations for Survey Sites - Falconwood

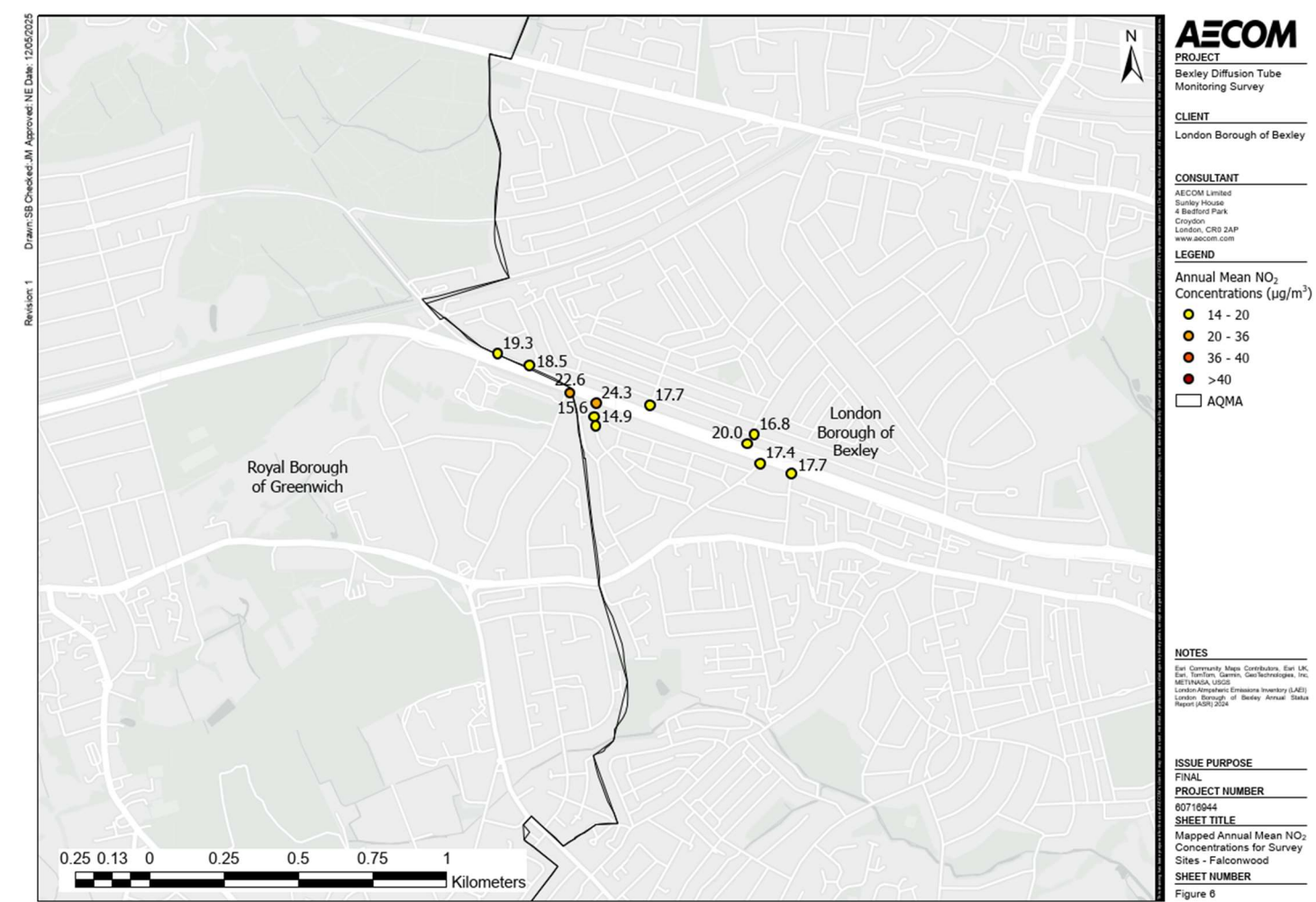
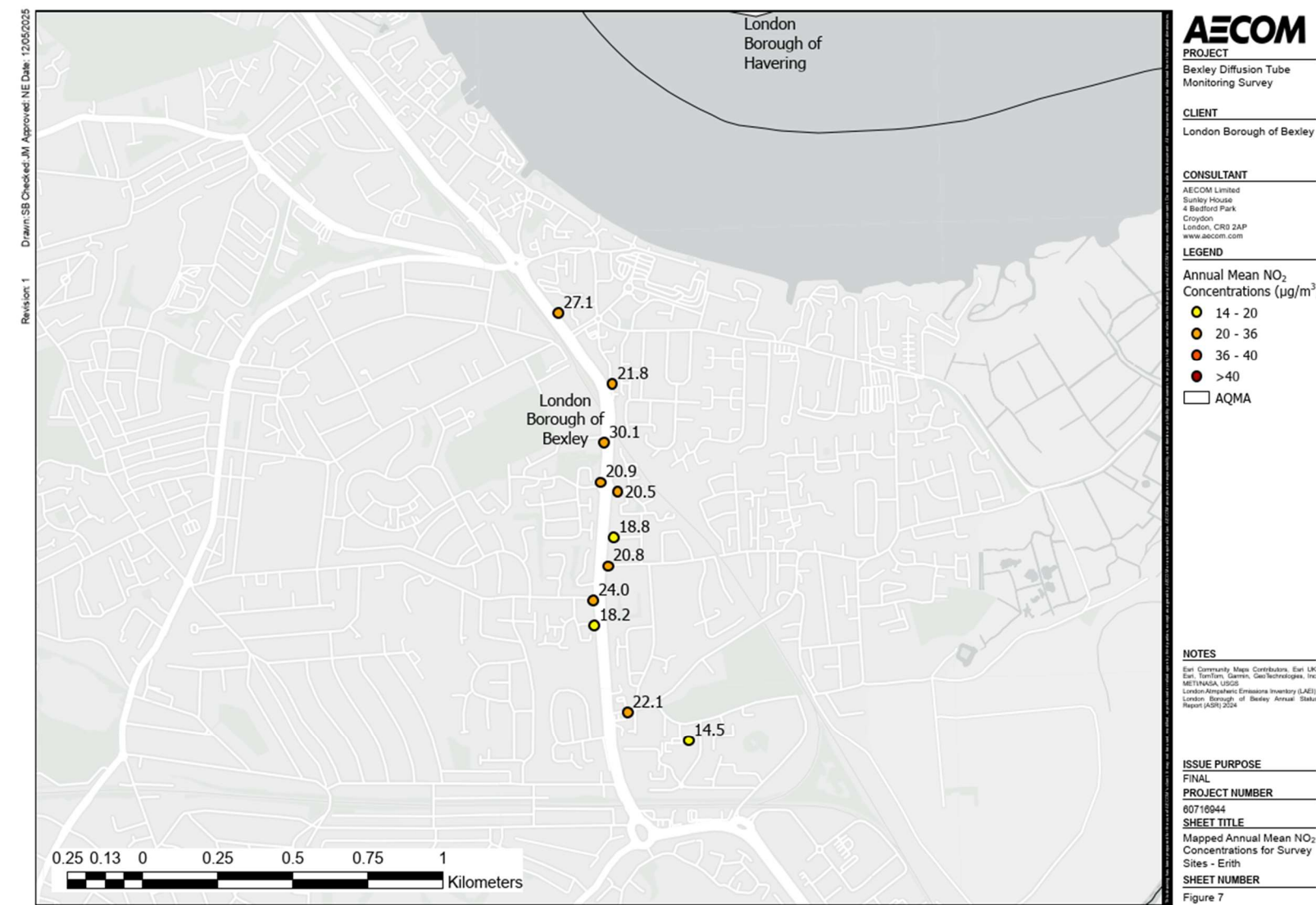


Figure 7 Mapped Annual Mean NO<sub>2</sub> Concentrations for Survey Sites - Erith

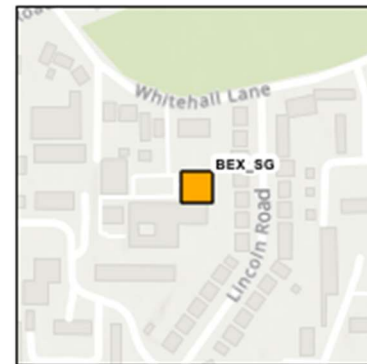


# Appendix D Photographs of Monitoring Locations

Figure 8 GIS Monitoring Report for Site BEX\_SG

## AECOM

**Project:** Bexley  
**Site ID:** BEX\_SG  
**Location Information:**  
**Location Status:** Confirmed  
**Tube Type:** NO<sub>2</sub>  
**Number of Tubes:** 3  
**Height (m):** 2.7  
**Distance from road (m):** >50  
**GPS Accuracy:**  
**Easting:** 551864  
**Northing:** 176382  
**Notes:** Nearest exposure >50m



### Diffusion Tube Records

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes                                    | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|-----------------------------------------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 11:54  | 1 Feb 2024, 14:01  | 650                   |         |                                               | 2372008   | 2372007   | 2372009   |
| 2             | 1 Feb 2024, 14:01  | 6 Mar 2024, 12:11  | 814                   |         |                                               | 2382266   | 2382267   | 2382265   |
| 3             | 6 Mar 2024, 12:11  | 3 Apr 2024, 10:59  | 670                   |         |                                               | 2402334   | 2402335   | 2402336   |
| 4             | 3 Apr 2024, 11:59  | 30 Apr 2024, 13:06 | 649                   |         |                                               | 2420895   | 2420896   | 2420897   |
| 5             | 30 Apr 2024, 13:06 | 5 Jun 2024, 12:29  | 863                   |         |                                               | 2438777   | 2438778   | 2438779   |
| 6             | 5 Jun 2024, 12:29  | 1 Jul 2024, 12:56  | 624                   |         |                                               | 2457122   | 2457123   | 2457124   |
| 7             | 1 Jul 2024, 12:56  | 29 Jul 2024, 12:35 | 671                   |         |                                               | 2474942   | 2474941   | 2474943   |
| 8             | 29 Jul 2024, 12:35 | 3 Sep 2024, 12:05  | 863                   |         |                                               | 2492920   | 2492921   | 2492922   |
| 9             | 3 Sep 2024, 12:05  | 30 Sep 2024, 11:25 | 647                   |         |                                               | 2512263   | 2512264   | 2512265   |
| 10            | 30 Sep 2024, 11:25 | 3 Dec 2024, 12:39  | 1537                  | 3 of 3  | Tubes could not be accessed on October visit  | 2530478   | 2530476   | 2530477   |
| 11            | 7 Nov 2024, 12:48  | 3 Dec 2024, 12:07  | 623                   | 3 of 3  | Tubes could not be accessed on November visit |           |           |           |
| 12            | 3 Dec 2024, 12:39  | 6 Jan 2025, 13:10  | 600                   |         |                                               | 2571143   | 2571145   | 2571144   |

Figure 9 GIS Monitoring Report for Site BEX\_FW

# AECOM

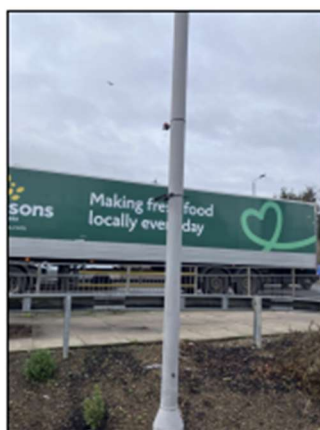
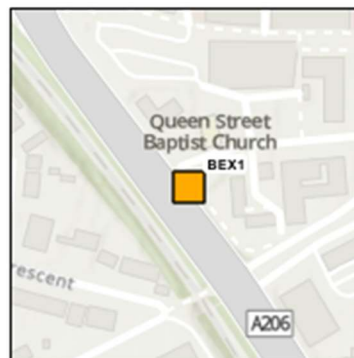
**Project:** Bexley  
**Site ID:** BEX\_FW  
**Location Information:**  
**Location Status:** Confirmed  
**Tube Type:** NO<sub>2</sub>  
**Number of Tubes:** 3  
**Height (m):** 2.5  
**Distance from road (m):** 2  
**GPS Accuracy:**  
**Easting:** 545003  
**Northing:** 175099  
**Notes:** Closest exposure 12m



## Diffusion Tube Records

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes                           | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|--------------------------------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 13:57  | 1 Feb 2024, 10:28  | 644                   |         |                                      | 2372032   | 2372030   | 2372031   |
| 2             | 1 Feb 2024, 10:28  | 6 Mar 2024, 14:53  | 820                   |         |                                      | 2382238   | 2382239   | 2382240   |
| 3             | 6 Mar 2024, 14:53  | 3 Apr 2024, 12:38  | 669                   |         |                                      | 2402363   | 2402364   | 2402365   |
| 4             | 3 Apr 2024, 12:38  | 30 Apr 2024, 10:03 | 645                   |         |                                      | 2420909   | 2420908   | 2420910   |
| 5             | 30 Apr 2024, 10:03 | 5 Jun 2024, 13:52  | 867                   |         |                                      | 2438752   | 2438753   | 2438754   |
| 6             | 5 Jun 2024, 13:52  | 1 Jul 2024, 9:53   | 620                   |         |                                      | 2457135   | 2457136   | 2457137   |
| 7             | 1 Jul 2024, 9:54   | 29 Jul 2024, 9:55  | 672                   | 1 of 3  | One tube was lost on delivery to lab | 2474919   | 2474917   | 2474918   |
| 8             | 29 Jul 2024, 9:55  | 3 Sep 2024, 13:37  | 867                   |         |                                      | 2492903   | 2492904   | 2492905   |
| 9             | 3 Sep 2024, 13:37  | 30 Sep 2024, 12:35 | 646                   |         |                                      | 2512285   | 2512286   | 2512284   |
| 10            | 30 Sep 2024, 12:35 | 7 Nov 2024, 11:18  | 910                   |         |                                      | 2530489   | 2530491   | 2530490   |
| 11            | 7 Nov 2024, 11:18  | 3 Dec 2024, 13:38  | 626                   |         |                                      | 2551176   | 2551177   | 2551178   |
| 12            | 3 Dec 2024, 13:38  | 6 Jan 2025, 13:41  | 600                   |         |                                      | 2571156   | 2571157   | 2571158   |

Figure 10 GIS Monitoring Report for Site BEX\_1

**AECOM****Project:** Bexley**Site ID:** BEX\_1**Location Information:****Location Status:** Confirmed**Tube Type:** NO<sub>2</sub>**Number of Tubes:** 2**Height (m):** 2.5**Distance from road (m):** 5**GPS Accuracy:****Easting:** 551430**Northing:** 177811**Notes:** Distance to exposure 20m**Diffusion Tube Records**

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 10:52  | 1 Feb 2024, 13:24  | 650                   |         |            | 2371987   | 2371988   |           |
| 2             | 1 Feb 2024, 13:25  | 6 Mar 2024, 10:48  | 813                   |         |            | 2382255   | 2382256   |           |
| 3             | 6 Mar 2024, 10:48  | 3 Apr 2024, 10:17  | 671                   |         |            | 2402321   | 2402320   |           |
| 4             | 3 Apr 2024, 10:17  | 30 Apr 2024, 12:13 | 649                   |         |            | 2420882   | 2420881   |           |
| 5             | 30 Apr 2024, 12:13 | 5 Jun 2024, 11:21  | 863                   |         |            | 2438768   | 2438767   |           |
| 6             | 5 Jun 2024, 11:21  | 1 Jul 2024, 12:19  | 624                   |         |            | 2457108   | 2457109   |           |
| 7             | 1 Jul 2024, 12:19  | 29 Jul 2024, 11:56 | 671                   |         |            | 2474934   | 2474933   |           |
| 8             | 29 Jul 2024, 11:56 | 3 Sep 2024, 11:10  | 863                   |         |            | 2492925   | 2492926   |           |
| 9             | 3 Sep 2024, 11:10  | 30 Sep 2024, 10:37 | 647                   |         |            | 2512252   | 2512251   |           |
| 10            | 30 Sep 2024, 10:37 | 7 Nov 2024, 12:03  | 913                   |         |            | 2530462   | 2530463   |           |
| 11            | 7 Nov 2024, 12:03  | 3 Dec 2024, 11:49  | 623                   |         |            | 2551185   | 2551186   |           |
| 12            | 3 Dec 2024, 11:49  | 6 Jan 2025, 12:34  | 600                   |         |            | 2571127   | 2571128   |           |

Figure 11 GIS Monitoring Report for Site BEX\_2

**AECOM****Project:** Bexley**Site ID:** BEX\_2**Location Information:****Location Status:** Confirmed**Tube Type:** NO<sub>2</sub>**Number of Tubes:** 2**Height (m):** 2.35**Distance from road (m):** 12**GPS Accuracy:****Easting:** 551609**Northing:** 177573**Notes:** Distance to relevant exposure 5m**Diffusion Tube Records**

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes                            | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|---------------------------------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 9:57   | 1 Feb 2024, 13:34  | 651                   |         |                                       | 2371990   | 2371989   |           |
| 2             | 1 Feb 2024, 13:34  | 6 Mar 2024, 11:05  | 813                   |         |                                       | 2382258   | 2382257   |           |
| 3             | 6 Mar 2024, 11:05  | 3 Apr 2024, 10:24  | 671                   |         |                                       | 2402323   | 2402322   |           |
| 4             | 3 Apr 2024, 10:24  | 30 Apr 2024, 12:31 | 650                   |         |                                       | 2420883   | 2420884   |           |
| 5             | 30 Apr 2024, 12:31 | 5 Jun 2024, 11:31  | 862                   |         |                                       | 2438769   | 2438770   |           |
| 6             | 5 Jun 2024, 11:31  | 1 Jul 2024, 12:29  | 624                   |         |                                       | 2457110   | 2457111   |           |
| 7             | 1 Jul 2024, 12:29  | 29 Jul 2024, 11:48 | 671                   |         |                                       | 2474935   | 2474936   |           |
| 8             | 29 Jul 2024, 11:48 | 3 Sep 2024, 11:19  | 863                   |         |                                       | 2492927   | 2492928   |           |
| 9             | 3 Sep 2024, 11:19  | 30 Sep 2024, 10:45 | 647                   |         |                                       | 2512253   | 2512254   |           |
| 10            | 30 Sep 2024, 10:45 | 7 Nov 2024, 12:34  | 913                   | 1 of 2  | Missing and tubes could not be put up | 2530464   | 2530465   |           |
| 11            | 7 Nov 2024, 12:34  | 3 Dec 2024, 11:56  | 623                   |         |                                       | 2551187   | 2551188   |           |
| 12            | 3 Dec 2024, 11:56  | 6 Jan 2025, 12:37  | 600                   |         |                                       | 2571131   | 2571132   |           |

Figure 12 GIS Monitoring Report for Site BEX\_3

**AECOM**

**Project:** Bexley  
**Site ID:** BEX\_3  
**Location Information:**  
**Location Status:** Confirmed  
**Tube Type:** NO<sub>2</sub>  
**Number of Tubes:** 2  
**Height (m):** 2.48  
**Distance from road (m):** 2  
**GPS Accuracy:**  
**Easting:** 551585  
**Northing:** 177374  
**Notes:** Distance to exposure 3m

**Diffusion Tube Records**

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 10:37  | 1 Feb 2024, 14:14  | 651                   |         |            | 2371992   | 2371991   |           |
| 2             | 1 Feb 2024, 14:14  | 6 Mar 2024, 12:37  | 814                   |         |            | 2382253   | 2382254   |           |
| 3             | 6 Mar 2024, 12:37  | 3 Apr 2024, 10:09  | 669                   |         |            | 2402342   | 2402341   |           |
| 4             | 3 Apr 2024, 10:09  | 30 Apr 2024, 12:03 | 649                   |         |            | 2420879   | 2420880   |           |
| 5             | 30 Apr 2024, 12:03 | 5 Jun 2024, 11:11  | 863                   |         |            | 2438765   | 2438766   |           |
| 6             | 5 Jun 2024, 11:11  | 1 Jul 2024, 11:52  | 624                   |         |            | 2457106   | 2457107   |           |
| 7             | 1 Jul 2024, 11:52  | 29 Jul 2024, 11:41 | 671                   |         |            | 2474931   | 2474932   |           |
| 8             | 29 Jul 2024, 11:41 | 3 Sep 2024, 12:21  | 864                   |         |            | 2492914   | 2492915   |           |
| 9             | 3 Sep 2024, 12:21  | 30 Sep 2024, 13:25 | 649                   |         |            | 2512270   | 2512271   |           |
| 10            | 30 Sep 2024, 13:25 | 7 Nov 2024, 11:54  | 910                   |         |            | 2530499   | 2530498   |           |
| 11            | 7 Nov 2024, 11:54  | 3 Dec 2024, 11:38  | 623                   |         |            | 2551183   | 2551184   |           |
| 12            | 3 Dec 2024, 11:38  | 6 Jan 2025, 12:26  | 600                   |         |            | 2571125   | 2571126   |           |

Figure 13 GIS Monitoring Report for Site BEX\_4

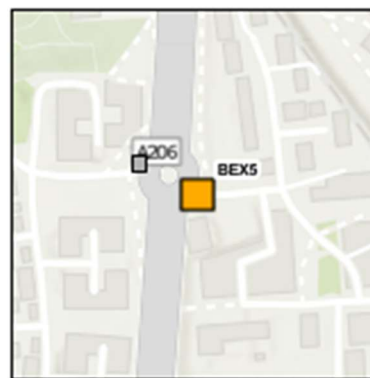
**AECOM****Project:** Bexley**Site ID:** BEX\_4**Location Information:****Location Status:** Confirmed**Tube Type:** NO<sub>2</sub>**Number of Tubes:** 2**Height (m):** 2.5**Distance from road (m):** 3**GPS Accuracy:****Easting:** 551570**Northing:** 177244**Notes:** Distance to exposure 3m**Diffusion Tube Records**

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes                            | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|---------------------------------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 10:15  | 1 Feb 2024, 12:58  | 650                   |         |                                       | 2371993   | 2371994   |           |
| 2             | 1 Feb 2024, 12:58  | 6 Mar 2024, 11:16  | 814                   |         |                                       | 2382249   | 2382250   |           |
| 3             | 6 Mar 2024, 11:16  | 3 Apr 2024, 10:33  | 671                   |         |                                       | 2402324   | 2402325   |           |
| 4             | 3 Apr 2024, 10:33  | 30 Apr 2024, 11:54 | 649                   |         |                                       | 2420887   | 2420888   |           |
| 5             | 30 Apr 2024, 11:54 | 5 Jun 2024, 11:44  | 863                   |         |                                       | 2438763   | 2438764   |           |
| 6             | 5 Jun 2024, 11:44  | 1 Jul 2024, 11:38  | 623                   |         |                                       | 2457114   | 2457115   |           |
| 7             | 1 Jul 2024, 11:38  | 29 Jul 2024, 11:25 | 671                   |         |                                       | 2474927   | 2474928   |           |
| 8             | 29 Jul 2024, 11:25 | 3 Sep 2024, 11:31  | 864                   |         |                                       | 2492912   | 2492913   |           |
| 9             | 3 Sep 2024, 11:31  | 30 Sep 2024, 10:54 | 647                   |         |                                       | 2512256   | 2512255   |           |
| 10            | 30 Sep 2024, 10:54 | 7 Nov 2024, 12:48  | 913                   | 1 of 2  | Missing and tubes could not be put up | 2530468   | 2530469   |           |
| 11            | 7 Nov 2024, 12:48  | 3 Dec 2024, 12:07  | 623                   |         |                                       | 2551189   | 2551190   |           |
| 12            | 3 Dec 2024, 12:07  | 6 Jan 2025, 12:46  | 600                   |         |                                       | 2571135   | 2571136   |           |

Figure 14 GIS Monitoring Report for Site BEX\_5

# AECOM

**Project:** Bexley  
**Site ID:** BEX\_5  
**Location Information:**  
**Location Status:** Confirmed  
**Tube Type:** NO<sub>2</sub>  
**Number of Tubes:** 2  
**Height (m):** 2.4  
**Distance from road (m):** 10  
**GPS Accuracy:**  
**Easting:** 551627  
**Northing:** 177213  
**Notes:** Distance to exposure 10m



## Diffusion Tube Records

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes                             | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|----------------------------------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 10:08  | 1 Feb 2024, 12:55  | 650                   | 2 of 2  | Tubes were lost in delivery to the lab | 2371996   | 2371995   |           |
| 2             | 1 Feb 2024, 12:55  | 6 Mar 2024, 11:13  | 814                   | 2 of 2  | Tubes were lost on delivery to the lab | 2382251   | 2382252   |           |
| 3             | 6 Mar 2024, 11:13  | 3 Apr 2024, 10:30  | 671                   |         |                                        | 2402326   | 2402327   |           |
| 4             | 3 Apr 2024, 10:30  | 30 Apr 2024, 11:53 | 649                   |         |                                        | 2420885   | 2420886   |           |
| 5             | 30 Apr 2024, 11:53 | 5 Jun 2024, 11:41  | 863                   |         |                                        | 2438761   | 2438760   |           |
| 6             | 5 Jun 2024, 11:41  | 1 Jul 2024, 11:32  | 623                   |         |                                        | 2457112   | 2457113   |           |
| 7             | 1 Jul 2024, 11:32  | 29 Jul 2024, 11:27 | 671                   |         |                                        | 2474925   | 2474926   |           |
| 8             | 29 Jul 2024, 11:27 | 3 Sep 2024, 11:28  | 864                   | 1 of 2  | Missing                                | 2492910   | 2492911   |           |
| 9             | 3 Sep 2024, 11:28  | 7 Nov 2024, 12:44  | 1561                  | 2 of 2  | Missing and tubes could not be put up  | 2512258   | 2512257   |           |
| 10            | -                  | -                  | -                     | 2 of 2  | Missing                                |           |           |           |
| 11            | 7 Nov 2024, 12:44  | 3 Dec 2024, 12:04  | 623                   | 1 of 2  | Missing                                | 2551191   | 2551192   |           |
| 12            | 3 Dec 2024, 12:04  | 6 Jan 2025, 12:44  | 600                   |         |                                        | 2571133   | 2571134   |           |

Figure 15 GIS Monitoring Report for Site BEX\_6

**AECOM**

**Project:** Bexley  
**Site ID:** BEX\_6  
**Location Information:**  
**Location Status:** Confirmed  
**Tube Type:** NO<sub>2</sub>  
**Number of Tubes:** 2  
**Height (m):** 2.4  
**Distance from road (m):** 20  
**GPS Accuracy:**  
**Easting:** 551614  
**Northing:** 177060  
**Notes:** Distance to exposure 1.5m

**Diffusion Tube Records**

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 11:02  | 1 Feb 2024, 13:47  | 650                   |         |            | 2371997   | 2371998   |           |
| 2             | 1 Feb 2024, 13:47  | 6 Mar 2024, 11:45  | 813                   |         |            | 2382259   | 2382260   |           |
| 3             | 6 Mar 2024, 11:45  | 3 Apr 2024, 10:41  | 670                   |         |            | 2402328   | 2402329   |           |
| 4             | 3 Apr 2024, 10:41  | 30 Apr 2024, 12:46 | 650                   |         |            | 2420889   | 2420890   |           |
| 5             | 30 Apr 2024, 12:46 | 5 Jun 2024, 11:52  | 863                   |         |            | 2438771   | 2438766   |           |
| 6             | 5 Jun 2024, 11:52  | 1 Jul 2024, 11:45  | 623                   |         |            | 2457116   | 2457117   |           |
| 7             | 1 Jul 2024, 11:45  | 29 Jul 2024, 11:35 | 671                   |         |            | 2474930   | 2474929   |           |
| 8             | 29 Jul 2024, 11:35 | 3 Sep 2024, 11:40  | 864                   |         |            | 2492916   | 2492917   |           |
| 9             | 3 Sep 2024, 11:40  | 30 Sep 2024, 11:03 | 647                   |         |            | 2512260   | 2512259   |           |
| 10            | 30 Sep 2024, 11:03 | 7 Nov 2024, 12:55  | 913                   |         |            | 2530470   | 2530471   |           |
| 11            | 7 Nov 2024, 12:55  | 3 Dec 2024, 12:16  | 623                   |         |            | 2551193   | 2551194   |           |
| 12            | 3 Dec 2024, 12:16  | 6 Jan 2025, 12:52  | 600                   |         |            | 2571137   | 2571138   |           |

Figure 16 GIS Monitoring Report for Site BEX\_7

# AECOM

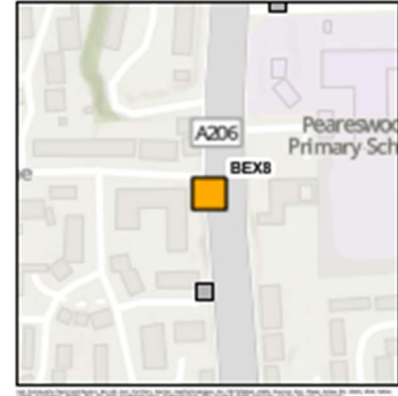
**Project:** Bexley  
**Site ID:** BEX\_7  
**Location Information:**  
**Location Status:** Confirmed  
**Tube Type:** NO<sub>2</sub>  
**Number of Tubes:** 2  
**Height (m):** 2.6  
**Distance from road (m):** 12  
**GPS Accuracy:**  
**Easting:** 551595  
**Northing:** 176965  
**Notes:** Distance to exposure - 5m to nursery



## Diffusion Tube Records

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 11:21  | 1 Feb 2024, 13:42  | 650                   |         |            | 2372000   | 2371999   |           |
| 2             | 1 Feb 2024, 13:42  | 6 Mar 2024, 11:53  | 814                   |         |            | 2382262   | 2382261   |           |
| 3             | 6 Mar 2024, 11:53  | 3 Apr 2024, 10:47  | 670                   |         |            | 2402330   | 2402331   |           |
| 4             | 3 Apr 2024, 10:47  | 30 Apr 2024, 12:54 | 650                   |         |            | 2420892   | 2420891   |           |
| 5             | 30 Apr 2024, 12:54 | 5 Jun 2024, 11:58  | 863                   |         |            | 2438773   | 2438774   |           |
| 6             | 5 Jun 2024, 11:58  | 1 Jul 2024, 12:37  | 624                   |         |            | 2457119   | 2457118   |           |
| 7             | 1 Jul 2024, 12:37  | 29 Jul 2024, 12:21 | 671                   |         |            | 2474937   | 2474938   |           |
| 8             | 29 Jul 2024, 12:21 | 3 Sep 2024, 11:48  | 863                   |         |            | 2492918   | 2492917   |           |
| 9             | 3 Sep 2024, 11:48  | 30 Sep 2024, 11:11 | 647                   |         |            | 2512262   | 2512261   |           |
| 10            | 30 Sep 2024, 11:11 | 7 Nov 2024, 12:58  | 913                   |         |            | 2530473   | 2530472   |           |
| 11            | 7 Nov 2024, 12:58  | 3 Dec 2024, 12:25  | 623                   |         |            | 2551195   | 2551196   |           |
| 12            | 3 Dec 2024, 12:25  | 6 Jan 2025, 12:59  | 600                   |         |            | 2571140   | 2571139   |           |

Figure 17 GIS Monitoring Report for Site BEX\_8

**AECOM****Project:** Bexley**Site ID:** BEX\_8**Location Information:****Location Status:** Confirmed**Tube Type:** NO<sub>2</sub>**Number of Tubes:** 2**Height (m):** 2.4**Distance from road (m):** 3**GPS Accuracy:****Easting:** 551546**Northing:** 176850**Notes:** Distance to exposure 7m**Diffusion Tube Records**

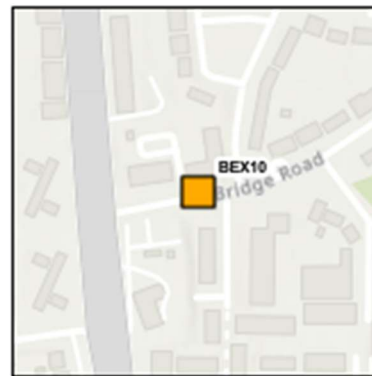
| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 12:06  | 1 Feb 2024, 12:37  | 648                   |         |            | 2372001   | 2372002   |           |
| 2             | 1 Feb 2024, 12:37  | 6 Mar 2024, 12:26  | 815                   |         |            | 2382247   | 2382248   |           |
| 3             | 6 Mar 2024, 12:26  | 3 Apr 2024, 10:00  | 669                   |         |            | 2402337   | 2402338   |           |
| 4             | 3 Apr 2024, 10:00  | 30 Apr 2024, 11:42 | 649                   |         |            | 2420877   | 2420878   |           |
| 5             | 30 Apr 2024, 11:42 | 5 Jun 2024, 11:02  | 863                   |         |            | 2438757   | 2438758   |           |
| 6             | 5 Jun 2024, 11:02  | 1 Jul 2024, 11:15  | 624                   |         |            | 2457102   | 2457103   |           |
| 7             | 1 Jul 2024, 11:15  | 29 Jul 2024, 11:17 | 672                   |         |            | 2474922   | 2474921   |           |
| 8             | 29 Jul 2024, 11:17 | 3 Sep 2024, 12:13  | 864                   |         |            | 2492906   | 2492907   |           |
| 9             | 3 Sep 2024, 12:13  | 30 Sep 2024, 13:44 | 649                   |         |            | 2512266   | 2512267   |           |
| 10            | 30 Sep 2024, 13:44 | 7 Nov 2024, 11:46  | 910                   |         |            | 2530501   | 2530500   |           |
| 11            | 7 Nov 2024, 11:46  | 3 Dec 2024, 12:52  | 625                   |         |            | 2551181   | 2551182   |           |
| 12            | 3 Dec 2024, 12:52  | 6 Jan 2025, 12:16  | 600                   |         |            | 2571124   | 2571123   |           |

Figure 18 GIS Monitoring Report for Site BEX\_9

**AECOM****Project:** Bexley**Site ID:** BEX\_9**Location Information:****Location Status:** Confirmed**Tube Type:** NO<sub>2</sub>**Number of Tubes:** 2**Height (m):** 2.5**Distance from road (m):** 12**GPS Accuracy:****Easting:** 551549**Northing:** 176767**Notes:** Distance to exposure 5m**Diffusion Tube Records**

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 12:13  | 1 Feb 2024, 12:36  | 648                   |         |            | 2372003   | 2372004   |           |
| 2             | 1 Feb 2024, 12:36  | 6 Mar 2024, 12:23  | 815                   |         |            | 2382245   | 2382246   |           |
| 3             | 6 Mar 2024, 12:23  | 3 Apr 2024, 10:01  | 669                   |         |            | 2402339   | 2402340   |           |
| 4             | 3 Apr 2024, 10:01  | 30 Apr 2024, 11:41 | 649                   |         |            | 2420876   | 2420875   |           |
| 5             | 30 Apr 2024, 11:41 | 5 Jun 2024, 11:03  | 863                   |         |            | 2438759   | 2438760   |           |
| 6             | 5 Jun 2024, 11:03  | 1 Jul 2024, 11:20  | 624                   |         |            | 2457104   | 2457105   |           |
| 7             | 1 Jul 2024, 11:20  | 29 Jul 2024, 11:18 | 671                   |         |            | 2474924   | 2474923   |           |
| 8             | 29 Jul 2024, 11:18 | 3 Sep 2024, 12:10  | 864                   |         |            | 2492906   | 2492909   |           |
| 9             | 3 Sep 2024, 12:10  | 30 Sep 2024, 13:41 | 649                   |         |            | 2512268   | 2512269   |           |
| 10            | 30 Sep 2024, 13:41 | 7 Nov 2024, 11:44  | 910                   |         |            | 2530503   | 2530502   |           |
| 11            | 7 Nov 2024, 11:44  | 3 Dec 2024, 12:49  | 625                   |         |            | 2551179   | 2551180   |           |
| 12            | 3 Dec 2024, 12:49  | 6 Jan 2025, 12:13  | 599                   |         |            | 2571121   | 2571122   |           |

Figure 19 GIS Monitoring Report for Site BEX\_10

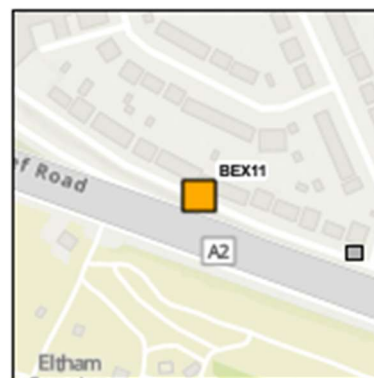
**AECOM****Project:** Bexley**Site ID:** BEX\_10**Location Information:****Location Status:** Confirmed**Tube Type:** NO<sub>2</sub>**Number of Tubes:** 2**Height (m):** 2.4**Distance from road (m):** 20**GPS Accuracy:****Easting:** 551660**Northing:** 176478**Notes:** Distance to exposure 10 m**Diffusion Tube Records**

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes                     | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|--------------------------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 11:37  | 1 Feb 2024, 13:54  | 650                   | 1 of 2  | Missing                        | 2372006   | 2372005   |           |
| 2             | 1 Feb 2024, 13:54  | 6 Mar 2024, 12:03  | 814                   | 2 of 2  | Missing                        | 2382263   | 2382264   |           |
| 3             | 6 Mar 2024, 12:03  | 3 Apr 2024, 10:53  | 670                   |         | One found on floor             | 2402333   | 2402332   |           |
| 4             | 3 Apr 2024, 10:53  | 30 Apr 2024, 13:01 | 650                   | 1 of 2  | Missing and one found on floor | 2420893   | 2420894   |           |
| 5             | 30 Apr 2024, 13:01 | 5 Jun 2024, 12:19  | 863                   | 2 of 2  | Missing                        | 2438775   | 2438776   |           |
| 6             | 5 Jun 2024, 12:19  | 1 Jul 2024, 12:45  | 624                   |         |                                | 2457120   | 2457121   |           |
| 7             | 1 Jul 2024, 12:45  | 29 Jul 2024, 12:31 | 671                   |         |                                | 2474939   | 2474940   |           |
| 8             | 29 Jul 2024, 12:31 | 3 Sep 2024, 11:56  | 863                   |         |                                | 2492924   | 2492923   |           |
| 9             | 3 Sep 2024, 11:56  | 30 Sep 2024, 11:21 | 647                   |         |                                | 2512272   | 2512273   |           |
| 10            | 30 Sep 2024, 11:21 | 7 Nov 2024, 13:04  | 913                   |         |                                | 2530475   | 2530474   |           |
| 11            | 7 Nov 2024, 13:04  | 3 Dec 2024, 12:33  | 623                   |         |                                | 2551198   | 2551197   |           |
| 12            | 3 Dec 2024, 12:33  | 6 Jan 2025, 13:03  | 600                   |         |                                | 2571142   | 2571141   |           |

Figure 20 GIS Monitoring Report for Site BEX\_11

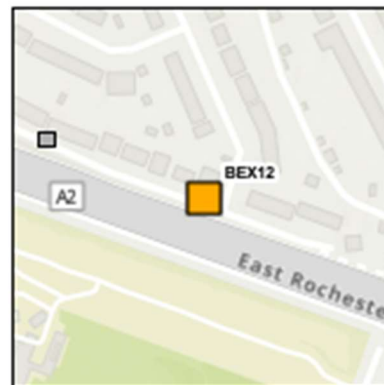
**AECOM**

**Project:** Bexley  
**Site ID:** BEX\_11  
**Location Information:**  
**Location Status:** Confirmed  
**Tube Type:** NO<sub>2</sub>  
**Number of Tubes:** 2  
**Height (m):** 2.47  
**Distance from road (m):** 12  
**GPS Accuracy:**  
**Easting:** 544760  
**Northing:** 175232  
**Notes:** Closest exposure 7.5m

**Diffusion Tube Records**

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 14:36  | 1 Feb 2024, 10:02  | 643                   |         |            | 2372029   | 2372028   |           |
| 2             | 1 Feb 2024, 10:02  | 6 Mar 2024, 13:52  | 819                   |         |            | 2382230   | 2382231   |           |
| 3             | 6 Mar 2024, 13:52  | 3 Apr 2024, 9:10   | 667                   |         |            | 2402343   | 2402344   |           |
| 4             | 3 Apr 2024, 9:10   | 30 Apr 2024, 8:50  | 647                   |         |            | 2420867   | 2420868   |           |
| 5             | 30 Apr 2024, 8:50  | 5 Jun 2024, 10:16  | 866                   |         |            | 2438739   | 2438738   |           |
| 6             | 5 Jun 2024, 10:16  | 1 Jul 2024, 9:11   | 622                   |         |            | 2457093   | 2457092   |           |
| 7             | 1 Jul 2024, 9:11   | 29 Jul 2024, 9:05  | 671                   |         |            | 2474899   | 2474900   |           |
| 8             | 29 Jul 2024, 9:05  | 3 Sep 2024, 9:52   | 864                   |         |            | 2492883   | 2492884   |           |
| 9             | 3 Sep 2024, 9:52   | 30 Sep 2024, 12:46 | 650                   |         |            | 2512243   | 2512244   |           |
| 10            | 30 Sep 2024, 12:46 | 7 Nov 2024, 10:38  | 909                   |         |            | 2530492   | 2530493   |           |
| 11            | 7 Nov 2024, 10:38  | 3 Dec 2024, 10:51  | 624                   |         |            | 2551158   | 2551159   |           |
| 12            | 3 Dec 2024, 10:51  | 6 Jan 2025, 11:24  | 600                   |         |            | 2571113   | 2571114   |           |

Figure 21 GIS Monitoring Report for Site BEX\_12

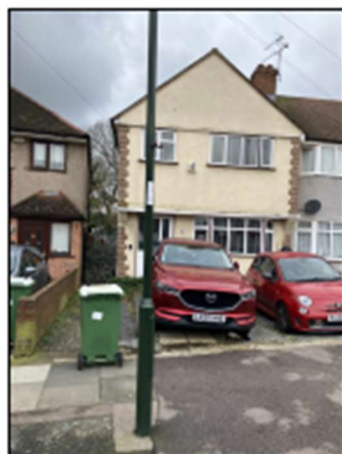
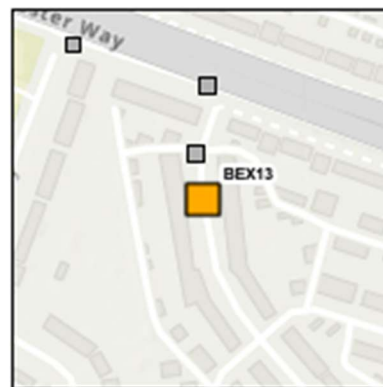
**AECOM****Project:** Bexley**Site ID:** BEX\_12**Location Information:****Location Status:** Confirmed**Tube Type:** NO<sub>2</sub>**Number of Tubes:** 2**Height (m):** 2.5**Distance from road (m):** 12**GPS Accuracy:****Easting:** 544867**Northing:** 175192**Notes:** Closest exposure 7.5m**Diffusion Tube Records**

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 14:41  | 1 Feb 2024, 9:53   | 643                   |         |            | 2372027   | 2372026   |           |
| 2             | 1 Feb 2024, 9:53   | 6 Mar 2024, 13:48  | 819                   | 1 of 2  | Missing    | 2382228   | 2382229   |           |
| 3             | 6 Mar 2024, 13:48  | 3 Apr 2024, 9:11   | 667                   |         |            | 2402346   | 2402345   |           |
| 4             | 3 Apr 2024, 9:11   | 30 Apr 2024, 9:11  | 647                   | 1 of 2  | Missing    | 2420865   | 2420866   |           |
| 5             | 30 Apr 2024, 9:11  | 5 Jun 2024, 10:18  | 865                   |         |            | 2438737   | 2438736   |           |
| 6             | 5 Jun 2024, 10:18  | 1 Jul 2024, 9:07   | 622                   |         |            | 2457094   | 2457095   |           |
| 7             | 1 Jul 2024, 9:07   | 29 Jul 2024, 9:01  | 671                   |         |            | 2474897   | 2474898   |           |
| 8             | 29 Jul 2024, 9:01  | 3 Sep 2024, 9:46   | 864                   |         |            | 2492888   | 2492889   |           |
| 9             | 3 Sep 2024, 9:46   | 30 Sep 2024, 12:50 | 651                   |         |            | 2512241   | 2512242   |           |
| 10            | 30 Sep 2024, 12:50 | 7 Nov 2024, 10:37  | 909                   |         |            | 2530494   | 2530495   |           |
| 11            | 7 Nov 2024, 10:37  | 3 Dec 2024, 10:54  | 624                   |         |            | 2551156   | 2551157   |           |
| 12            | 3 Dec 2024, 10:54  | 6 Jan 2025, 11:28  | 599                   |         |            | 2571111   | 2571112   |           |

Figure 22 GIS Monitoring Report for Site BEX\_13

# AECOM

**Project:** Bexley  
**Site ID:** BEX\_13  
**Location Information:**  
**Location Status:** Confirmed  
**Tube Type:** NO<sub>2</sub>  
**Number of Tubes:** 2  
**Height (m):** 2.5  
**Distance from road (m):** 45  
**GPS Accuracy:**  
**Easting:** 545090  
**Northing:** 174988  
**Notes:** Distance to exposure 5m

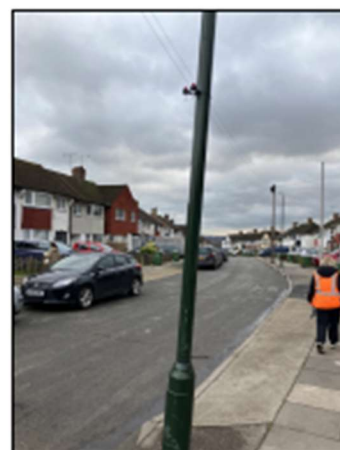
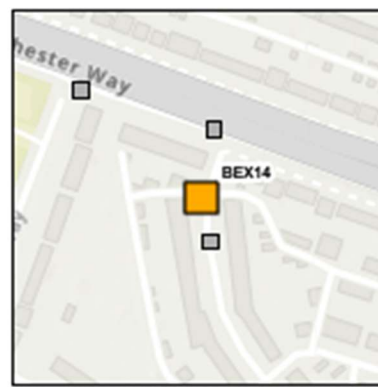


## Diffusion Tube Records

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes                                | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|-------------------------------------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 14:21  | 1 Feb 2024, 10:23  | 644                   | 1 of 2  | Missing                                   | 2372014   | 2372015   |           |
| 2             | 1 Feb 2024, 10:23  | 6 Mar 2024, 14:53  | 820                   |         |                                           | 2382234   | 2382235   |           |
| 3             | 6 Mar 2024, 14:53  | 3 Apr 2024, 12:36  | 669                   |         |                                           | 2402358   | 2402357   |           |
| 4             | 3 Apr 2024, 12:36  | 30 Apr 2024, 10:10 | 645                   |         |                                           | 2420905   | 2420904   |           |
| 5             | 30 Apr 2024, 10:11 | 5 Jun 2024, 13:47  | 867                   |         |                                           | 2438751   | 2438750   |           |
| 6             | 5 Jun 2024, 13:47  | 1 Jul 2024, 9:53   | 620                   | 2 of 2  | Both tubes were never received by the lab | 2457132   | 2457131   |           |
| 7             | 1 Jul 2024, 9:53   | 29 Jul 2024, 9:48  | 671                   | 2 of 2  | Missing                                   | 2474911   | 2474912   |           |
| 8             | 29 Jul 2024, 9:48  | 3 Sep 2024, 13:32  | 867                   |         |                                           | 2492899   | 2492900   |           |
| 9             | 3 Sep 2024, 13:32  | 7 Nov 2024, 11:12  | 1557                  | 2 of 2  | Missing and new tubes could not be put up | 2512278   | 2512279   |           |
| 10            | -                  | -                  | -                     | 2 of 2  | Missing                                   |           |           |           |
| 11            | 7 Nov 2024, 11:12  | 3 Dec 2024, 13:33  | 626                   | 1 of 2  | Missing                                   | 2551170   | 2551171   |           |
| 12            | 3 Dec 2024, 13:33  | 6 Jan 2025, 13:36  | 600                   | 2 of 2  | Missing                                   | 2571151   | 2571150   |           |

Figure 23 GIS Monitoring Report for Site BEX\_14

# AECOM

**Project:** Bexley**Site ID:** BEX\_14**Location Information:****Location Status:** Confirmed**Tube Type:** NO<sub>2</sub>**Number of Tubes:** 2**Height (m):** 2.6**Distance from road (m):** 30**GPS Accuracy:****Easting:** 545085**Northing:** 175019**Notes:** Distance to exposure 5m

## Diffusion Tube Records

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes                            | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|---------------------------------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 14:17  | 1 Feb 2024, 10:24  | 644                   |         |                                       | 2372016   | 2372017   |           |
| 2             | 1 Feb 2024, 10:24  | 6 Mar 2024, 14:55  | 820                   |         |                                       | 2382232   | 2382233   |           |
| 3             | 6 Mar 2024, 14:55  | 3 Apr 2024, 12:34  | 669                   |         |                                       | 2402360   | 2402359   |           |
| 4             | 3 Apr 2024, 12:34  | 30 Apr 2024, 10:10 | 645                   |         |                                       | 2420903   | 2420902   |           |
| 5             | 30 Apr 2024, 10:10 | 5 Jun 2024, 13:49  | 867                   |         |                                       | 2438749   | 2438748   |           |
| 6             | 5 Jun 2024, 13:49  | 1 Jul 2024, 9:54   | 620                   |         |                                       | 2457129   | 2457130   |           |
| 7             | 1 Jul 2024, 9:54   | 29 Jul 2024, 9:44  | 671                   | 2 of 2  | Missing                               | 2474913   | 2474914   |           |
| 8             | 29 Jul 2024, 9:44  | 3 Sep 2024, 13:34  | 867                   |         |                                       | 2492897   | 2492898   |           |
| 9             | 3 Sep 2024, 13:34  | 7 Nov 2024, 11:14  | 1557                  | 2 of 2  | Missing and tubes could not be put up | 2512280   | 2512281   |           |
| 10            | -                  | -                  | -                     | 2 of 2  | Missing                               |           |           |           |
| 11            | 7 Nov 2024, 11:14  | 3 Dec 2024, 13:29  | 626                   | 1 of 2  | Missing                               | 2551172   | 2551173   |           |
| 12            | 3 Dec 2024, 13:29  | 6 Jan 2025, 13:36  |                       | 2 of 2  | Missing                               | 2571153   | 2571152   |           |

Figure 24 GIS Monitoring Report for Site BEX\_15

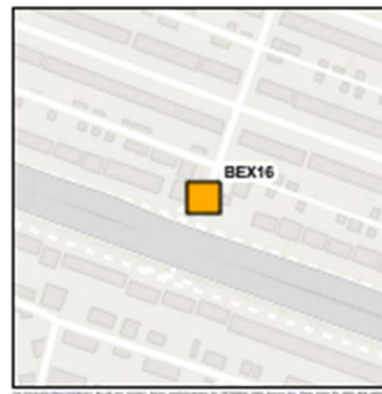
**AECOM****Project:** Bexley**Site ID:** BEX\_15**Location Information:****Location Status:** Confirmed**Tube Type:** NO<sub>2</sub>**Number of Tubes:** 2**Height (m):** 2.4**Distance from road (m):** 1**GPS Accuracy:****Easting:** 545092**Northing:** 175065**Notes:** Closest exposure 7.5m**Diffusion Tube Records**

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 14:13  | 1 Feb 2024, 10:26  | 644                   |         |            | 2372019   | 2372018   |           |
| 2             | 1 Feb 2024, 10:27  | 6 Mar 2024, 14:58  | 820                   |         |            | 2382236   | 2382237   |           |
| 3             | 6 Mar 2024, 14:58  | 3 Apr 2024, 12:35  | 669                   |         |            | 2402362   | 2402361   |           |
| 4             | 3 Apr 2024, 12:35  | 30 Apr 2024, 9:58  | 645                   |         |            | 2420907   | 2420906   |           |
| 5             | 30 Apr 2024, 9:58  | 5 Jun 2024, 13:48  | 867                   |         |            | 2438756   | 2438755   |           |
| 6             | 5 Jun 2024, 13:48  | 1 Jul 2024, 9:50   | 620                   |         |            | 2457133   | 2457134   |           |
| 7             | 1 Jul 2024, 9:50   | 29 Jul 2024, 9:50  | 672                   |         |            | 2474915   | 2474916   |           |
| 8             | 29 Jul 2024, 9:50  | 3 Sep 2024, 13:33  | 867                   |         |            | 2492901   | 2492902   |           |
| 9             | 3 Sep 2024, 13:33  | 30 Sep 2024, 12:34 | 647                   |         |            | 2512282   | 2512283   |           |
| 10            | 30 Sep 2024, 12:34 | 7 Nov 2024, 11:16  | 910                   |         |            | 2530487   | 2530488   |           |
| 11            | 7 Nov 2024, 11:16  | 3 Dec 2024, 13:36  | 626                   |         |            | 2551174   | 2551175   |           |
| 12            | 3 Dec 2024, 13:36  | 6 Jan 2025, 13:39  | 600                   |         |            | 2571155   | 2571154   |           |

Figure 25 GIS Monitoring Report for Site BEX\_16

# AECOM

**Project:** Bexley  
**Site ID:** BEX\_16  
**Location Information:**  
**Location Status:** Confirmed  
**Tube Type:** NO<sub>2</sub>  
**Number of Tubes:** 2  
**Height (m):** 2.4  
**Distance from road (m):** 15  
**GPS Accuracy:**  
**Easting:** 545272  
**Northing:** 175057  
**Notes:** Closest exposure 7.5m



## Diffusion Tube Records

| Period Number | Date and Time On  | Date and Time Off | Exposure Time (Hours) | Missing | Site Notes                            | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|-------------------|-------------------|-----------------------|---------|---------------------------------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 14:53 | 1 Feb 2024, 9:45  | 642                   |         |                                       | 2372021   | 2372020   |           |
| 2             | 1 Feb 2024, 9:45  | 6 Mar 2024, 13:59 | 820                   | 2 of 2  | Missing                               | 2382226   | 2382227   |           |
| 3             | 6 Mar 2024, 13:59 | 3 Apr 2024, 9:19  | 667                   |         |                                       | 2402348   | 2402347   |           |
| 4             | 3 Apr 2024, 9:19  | 30 Apr 2024, 9:22 | 648                   |         |                                       | 2420869   | 2420870   |           |
| 5             | 30 Apr 2024, 9:22 | 5 Jun 2024, 10:26 | 865                   |         |                                       | 2438735   | 2438734   |           |
| 6             | 5 Jun 2024, 10:26 | 1 Jul 2024, 9:19  | 622                   | 2 of 2  | Missing                               | 2457096   | 2457097   |           |
| 7             | 1 Jul 2024, 9:19  | 29 Jul 2024, 9:13 | 671                   | 2 of 2  | Missing                               | 2474901   | 2474902   |           |
| 8             | 29 Jul 2024, 9:14 | 3 Sep 2024, 10:00 | 864                   |         |                                       | 2492886   | 2492887   |           |
| 9             | 3 Sep 2024, 10:00 | 7 Nov 2024, 10:47 | 1560                  | 2 of 2  | Missing and tubes could not be put up | 2512245   | 2512246   |           |
| 10            | -                 | -                 | -                     | 2 of 2  | Missing                               |           |           |           |
| 11            | 7 Nov 2024, 10:47 | 3 Dec 2024, 11:03 | 624                   |         |                                       | 2551160   | 2551161   |           |
| 12            | 3 Dec 2024, 11:03 | 6 Jan 2025, 11:42 | 599                   |         |                                       | 2571129   | 2571130   |           |

Figure 26 GIS Monitoring Report for Site BEX\_17

# AECOM

**Project:** Bexley  
**Site ID:** BEX\_17  
**Location Information:**  
**Location Status:** Confirmed  
**Tube Type:** NO<sub>2</sub>  
**Number of Tubes:** 2  
**Height (m):** 2.5  
**Distance from road (m):** 5  
**GPS Accuracy:**  
**Easting:** 545600  
**Northing:** 174928  
**Notes:** Closest exposure 20m



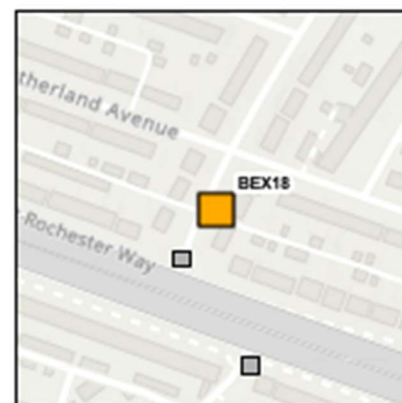
## Diffusion Tube Records

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 15:03  | 1 Feb 2024, 9:35   | 642                   |         |            | 2372023   | 2372022   |           |
| 2             | 1 Feb 2024, 9:35   | 6 Mar 2024, 14:08  | 820                   |         |            | 2382222   | 2382223   |           |
| 3             | 6 Mar 2024, 14:08  | 3 Apr 2024, 9:26   | 667                   |         |            | 2402349   | 2402350   |           |
| 4             | 3 Apr 2024, 9:26   | 30 Apr 2024, 9:26  | 648                   |         |            | 2420871   | 2420872   |           |
| 5             | 30 Apr 2024, 9:26  | 5 Jun 2024, 10:36  | 865                   |         |            | 2438740   | 2438741   |           |
| 6             | 5 Jun 2024, 10:36  | 1 Jul 2024, 9:23   | 622                   |         |            | 2457099   | 2457098   |           |
| 7             | 1 Jul 2024, 9:23   | 29 Jul 2024, 9:18  | 671                   |         |            | 2474903   | 2474904   |           |
| 8             | 29 Jul 2024, 9:18  | 3 Sep 2024, 10:07  | 864                   |         |            | 2492885   | 2492890   |           |
| 9             | 3 Sep 2024, 10:07  | 30 Sep 2024, 14:14 | 652                   |         |            | 2512247   | 2512248   |           |
| 10            | 30 Sep 2024, 14:15 | 7 Nov 2024, 10:52  | 908                   |         |            | 2530507   | 2530506   |           |
| 11            | 7 Nov 2024, 10:52  | 3 Dec 2024, 11:13  | 624                   |         |            | 2551164   | 2551165   |           |
| 12            | 3 Dec 2024, 11:13  | 6 Jan 2025, 11:51  | 600                   |         |            | 2571119   | 2571120   |           |

Figure 27 GIS Monitoring Report for Site BEX\_18

# AECOM

**Project:** Bexley  
**Site ID:** BEX\_18  
**Location Information:**  
**Location Status:** Confirmed  
**Tube Type:** NO<sub>2</sub>  
**Number of Tubes:** 2  
**Height (m):** 2.5  
**Distance from road (m):** 25  
**GPS Accuracy:**  
**Easting:** 545623  
**Northing:** 174960  
**Notes:** Closest exposure 10m



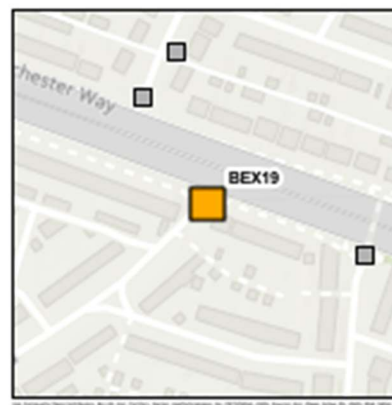
## Diffusion Tube Records

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 15:00  | 1 Feb 2024, 9:32   | 642                   |         |            | 2372024   | 2372025   |           |
| 2             | 1 Feb 2024, 9:32   | 6 Mar 2024, 14:08  | 820                   |         |            | 2382224   | 2382225   |           |
| 3             | 6 Mar 2024, 14:08  | 3 Apr 2024, 9:25   | 667                   |         |            | 2402351   | 2402352   |           |
| 4             | 3 Apr 2024, 9:25   | 30 Apr 2024, 9:28  | 648                   |         |            | 2420874   | 2420873   |           |
| 5             | 30 Apr 2024, 9:28  | 5 Jun 2024, 10:33  | 865                   | 1 of 2  | Missing    | 2438743   | 2438742   |           |
| 6             | 5 Jun 2024, 10:33  | 1 Jul 2024, 9:26   | 622                   |         |            | 2457101   | 2457100   |           |
| 7             | 1 Jul 2024, 9:26   | 29 Jul 2024, 9:20  | 671                   |         |            | 2474905   | 2474906   |           |
| 8             | 29 Jul 2024, 9:20  | 3 Sep 2024, 10:09  | 864                   |         |            | 2492891   | 2492892   |           |
| 9             | 3 Sep 2024, 10:09  | 30 Sep 2024, 14:17 | 652                   |         |            | 2512249   | 2512250   |           |
| 10            | 30 Sep 2024, 14:17 | 7 Nov 2024, 10:53  | 908                   |         |            | 2530504   | 2530505   |           |
| 11            | 7 Nov 2024, 10:53  | 3 Dec 2024, 11:14  | 624                   |         |            | 2551162   | 2551163   |           |
| 12            | 3 Dec 2024, 11:14  | 6 Jan 2025, 11:51  | 599                   |         |            | 2571117   | 2571118   |           |

Figure 28 GIS Monitoring Report for Site BEX\_19

# AECOM

**Project:** Bexley  
**Site ID:** BEX\_19  
**Location Information:**  
**Location Status:** Confirmed  
**Tube Type:** NO<sub>2</sub>  
**Number of Tubes:** 2  
**Height (m):** 2.65  
**Distance from road (m):** 5  
**GPS Accuracy:**  
**Easting:** 545644  
**Northing:** 174859  
**Notes:** Distance to nearest exposure 10m



## Diffusion Tube Records

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 13:30  | 1 Feb 2024, 10:45  | 645                   |         |            | 2372012   | 2372013   |           |
| 2             | 1 Feb 2024, 10:45  | 6 Mar 2024, 14:25  | 819                   |         |            | 2382241   | 2382242   |           |
| 3             | 6 Mar 2024, 14:25  | 3 Apr 2024, 12:23  | 669                   |         |            | 2402356   | 2402355   |           |
| 4             | 3 Apr 2024, 12:23  | 30 Apr 2024, 9:45  | 645                   |         |            | 2420900   | 2420901   |           |
| 5             | 30 Apr 2024, 9:45  | 5 Jun 2024, 13:38  | 867                   |         |            | 2438746   | 2438747   |           |
| 6             | 5 Jun 2024, 13:38  | 1 Jul 2024, 9:38   | 620                   |         |            | 2457128   | 2457127   |           |
| 7             | 1 Jul 2024, 9:38   | 29 Jul 2024, 9:34  | 671                   |         |            | 2474909   | 2474910   |           |
| 8             | 29 Jul 2024, 9:35  | 3 Sep 2024, 13:17  | 867                   |         |            | 2492895   | 2492896   |           |
| 9             | 3 Sep 2024, 13:17  | 30 Sep 2024, 12:24 | 647                   |         |            | 2512277   | 2512276   |           |
| 10            | 30 Sep 2024, 12:24 | 7 Nov 2024, 11:04  | 910                   |         |            | 2530482   | 2530481   |           |
| 11            | 7 Nov 2024, 11:04  | 3 Dec 2024, 13:21  | 626                   |         |            | 2551168   | 2551169   |           |
| 12            | 3 Dec 2024, 13:21  | 6 Jan 2025, 13:31  | 600                   |         |            | 2571148   | 2571149   |           |

Figure 29 GIS Monitoring Report for Site BEX\_20

**AECOM**

**Project:** Bexley  
**Site ID:** BEX\_20  
**Location Information:**  
**Location Status:** Confirmed  
**Tube Type:** NO<sub>2</sub>  
**Number of Tubes:** 2  
**Height (m):** 2.45  
**Distance from road (m):** 7.5  
**GPS Accuracy:**  
**Easting:** 545748  
**Northing:** 174825  
**Notes:** Distance to exposure 10m



### Diffusion Tube Records

| Period Number | Date and Time On   | Date and Time Off  | Exposure Time (Hours) | Missing | Site Notes | Barcode 1 | Barcode 2 | Barcode 3 |
|---------------|--------------------|--------------------|-----------------------|---------|------------|-----------|-----------|-----------|
| 1             | 5 Jan 2024, 13:16  | 1 Feb 2024, 10:37  | 645                   |         |            | 2372010   | 2372011   |           |
| 2             | 1 Feb 2024, 10:38  | 6 Mar 2024, 14:20  | 819                   |         |            | 2382243   | 2382244   |           |
| 3             | 6 Mar 2024, 14:20  | 3 Apr 2024, 12:17  | 669                   |         |            | 2402354   | 2402353   |           |
| 4             | 3 Apr 2024, 12:17  | 30 Apr 2024, 9:39  | 645                   |         |            | 2420898   | 2420899   |           |
| 5             | 30 Apr 2024, 9:39  | 5 Jun 2024, 13:32  | 867                   |         |            | 2438745   | 2438744   |           |
| 6             | 5 Jun 2024, 13:32  | 1 Jul 2024, 9:34   | 620                   |         |            | 2457125   | 2457126   |           |
| 7             | 1 Jul 2024, 9:34   | 29 Jul 2024, 9:28  | 671                   |         |            | 2474907   | 2474908   |           |
| 8             | 29 Jul 2024, 9:29  | 3 Sep 2024, 13:13  | 867                   |         |            | 2492893   | 2492894   |           |
| 9             | 3 Sep 2024, 13:13  | 30 Sep 2024, 12:18 | 647                   |         |            | 2512274   | 2512275   |           |
| 10            | 30 Sep 2024, 12:18 | 7 Nov 2024, 11:01  | 910                   |         |            | 2530480   | 2530479   |           |
| 11            | 7 Nov 2024, 11:01  | 3 Dec 2024, 13:17  | 626                   |         |            | 2551166   | 2551167   |           |
| 12            | 3 Dec 2024, 13:17  | 6 Jan 2025, 13:27  | 599                   |         |            | 2571146   | 2571147   |           |

# Appendix E Gradko Laboratory Result Certificates

Figure 30 Gradko Laboratory Analysis Report - Month 1



(A division of Gradko International Ltd.)  
St. Martins House, 77 Wales Street Winchester, Hampshire SO23 0RH  
tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk




2187

## LABORATORY ANALYSIS REPORT

NITROGEN DIOXIDE IN DIFFUSION TUBES BY U.V.SPECTROPHOTOMETRY

**REPORT NUMBER** S01200R  
**BOOKING IN REFERENCE** S01200  
**DESPATCH NOTE** 104605  
**CUSTOMER** AECOM Ltd Attn: Sage Boyman  
 10th Floor  
 Sunley House  
 4 Bedford Park  
 Croydon  
 CR0 2AP

**DATE SAMPLES RECEIVED** 06/02/2024

| Location | Sample Number | Exposure Data |            | Time* (hr.) | µg/m³ * | ppb * | µg NO₂ on tube |
|----------|---------------|---------------|------------|-------------|---------|-------|----------------|
|          |               | Date On*      | Date Off*  |             |         |       |                |
| BEX1     | 2371987       | 05/01/2024    | 01/02/2024 | 650.53      | 35.60   | 18.58 | 1.68           |
| BEX1     | 2371988       | 05/01/2024    | 01/02/2024 | 650.53      | 35.26   | 18.40 | 1.67           |
| BEX2     | 2371990       | 05/01/2024    | 01/02/2024 | 651.62      | 29.01   | 15.14 | 1.37           |
| BEX2     | 2371989       | 05/01/2024    | 01/02/2024 | 651.62      | 29.62   | 15.46 | 1.40           |
| BEX4     | 2371993       | 05/01/2024    | 01/02/2024 | 650.72      | 29.28   | 15.28 | 1.39           |
| BEX4     | 2371994       | 05/01/2024    | 01/02/2024 | 650.72      | 26.85   | 14.02 | 1.27           |
| BEX3     | 2371992       | 05/01/2024    | 01/02/2024 | 651.62      | 31.67   | 16.53 | 1.50           |
| BEX3     | 2371991       | 05/01/2024    | 01/02/2024 | 651.62      | 35.77   | 18.67 | 1.69           |
| BEX6     | 2371997       | 05/01/2024    | 01/02/2024 | 650.75      | 26.47   | 13.82 | 1.25           |
| BEX6     | 2371998       | 05/01/2024    | 01/02/2024 | 650.75      | 27.80   | 14.51 | 1.32           |
| BEX7     | 2372000       | 05/01/2024    | 01/02/2024 | 650.35      | 30.68   | 16.01 | 1.45           |
| BEX7     | 2371999       | 05/01/2024    | 01/02/2024 | 650.35      | 34.06   | 17.78 | 1.61           |
| BEX10    | 2372006       | 05/01/2024    | 01/02/2024 | 650.28      | 30.11   | 15.71 | 1.42           |
| BEX_SG   | 2372008       | 05/01/2024    | 01/02/2024 | 650.12      | 22.18   | 11.58 | 1.05           |
| BEX_SG   | 2372007       | 05/01/2024    | 01/02/2024 | 650.12      | 19.26   | 10.05 | 0.91           |
| BEX_SG   | 2372009       | 05/01/2024    | 01/02/2024 | 650.12      | 21.71   | 11.33 | 1.03           |
| BEX8     | 2372001       | 05/01/2024    | 01/02/2024 | 648.52      | 36.24   | 18.91 | 1.71           |
| BEX8     | 2372002       | 05/01/2024    | 01/02/2024 | 648.52      | 35.60   | 18.58 | 1.68           |
| BEX9     | 2372003       | 05/01/2024    | 01/02/2024 | 648.38      | 19.95   | 10.41 | 0.94           |
| BEX9     | 2372004       | 05/01/2024    | 01/02/2024 | 648.38      | 21.56   | 11.25 | 1.02           |
| BEX20    | 2372010       | 05/01/2024    | 01/02/2024 | 645.35      | 27.93   | 14.58 | 1.31           |
| BEX20    | 2372011       | 05/01/2024    | 01/02/2024 | 645.35      | 20.42   | 10.66 | 0.96           |
| BEX19    | 2372012       | 05/01/2024    | 01/02/2024 | 645.25      | 25.57   | 13.34 | 1.20           |
| BEX19    | 2372013       | 05/01/2024    | 01/02/2024 | 645.25      | 27.42   | 14.31 | 1.29           |
| BEX_FW   | 2372032       | 05/01/2024    | 01/02/2024 | 644.52      | 30.93   | 16.14 | 1.45           |
| BEX_FW   | 2372030       | 05/01/2024    | 01/02/2024 | 644.52      | 24.53   | 12.80 | 1.15           |
| BEX_FW   | 2372031       | 05/01/2024    | 01/02/2024 | 644.52      | 23.82   | 12.43 | 1.12           |
| BEX15    | 2372019       | 05/01/2024    | 01/02/2024 | 644.22      | 35.01   | 18.27 | 1.64           |
| BEX15    | 2372018       | 05/01/2024    | 01/02/2024 | 644.22      | 32.27   | 16.84 | 1.51           |
| BEX14    | 2372016       | 05/01/2024    | 01/02/2024 | 644.12      | 23.99   | 12.52 | 1.12           |
| BEX14    | 2372017       | 05/01/2024    | 01/02/2024 | 644.12      | 23.67   | 12.35 | 1.11           |
| BEX13    | 2372014       | 05/01/2024    | 01/02/2024 | 644.03      | 25.44   | 13.28 | 1.19           |
| BEX11    | 2372029       | 05/01/2024    | 01/02/2024 | 643.43      | 23.95   | 12.50 | 1.12           |
| BEX11    | 2372028       | 05/01/2024    | 01/02/2024 | 643.43      | 26.64   | 13.91 | 1.25           |

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 – November 2021

Report Number S01200R

Page 1 of 2

REPORT OFFICIALLY CHECKED

Gradko International Ltd

This signature confirms the authenticity of these results

Signed: 

L. Gates, Laboratory Manager



(A division of Gradko International Ltd.)  
 St. Martins House, 77 Wales Street Winchester, Hampshire SO23 0RH  
 tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk



### LABORATORY ANALYSIS REPORT

|                  |         |            |            |        |       |       |        |
|------------------|---------|------------|------------|--------|-------|-------|--------|
| BEX12            | 2372027 | 05/01/2024 | 01/02/2024 | 643.20 | 26.40 | 13.78 | 1.23   |
| BEX12            | 2372026 | 05/01/2024 | 01/02/2024 | 643.20 | 25.99 | 13.57 | 1.22   |
| BEX16            | 2372021 | 05/01/2024 | 01/02/2024 | 642.87 | 23.56 | 12.30 | 1.10   |
| BEX16            | 2372020 | 05/01/2024 | 01/02/2024 | 642.87 | 22.47 | 11.73 | 1.05   |
| BEX18            | 2372024 | 05/01/2024 | 01/02/2024 | 642.53 | 25.25 | 13.18 | 1.18   |
| BEX18            | 2372025 | 05/01/2024 | 01/02/2024 | 642.53 | 27.00 | 14.09 | 1.26   |
| BEX17            | 2372023 | 05/01/2024 | 01/02/2024 | 642.53 | 26.92 | 14.05 | 1.26   |
| BEX17            | 2372022 | 05/01/2024 | 01/02/2024 | 642.53 | 27.07 | 14.13 | 1.26   |
| Not on sheet     | 2372033 |            |            | 651.62 | <0.78 | <0.41 | <0.037 |
| Not on sheet     | 2382251 |            |            | 651.62 | <0.78 | <0.41 | <0.037 |
| Not on sheet     | 2382252 |            |            | 651.62 | <0.78 | <0.41 | <0.037 |
| Laboratory Blank |         |            |            | 651.62 | 0.44  | 0.23  | 0.021  |

**Comment: Results are not blank subtracted**

**Customer noted missing tubes: 2372005 & 2372015.**

**Tubes 2371995 & 2371996 were missing on arrival.**

**Tubes 2372033, 2382251 & 2382252 were received but not listed on the exposure sheet. Maximum exposure times were used.**

**Results reported as <0.037 are below the reporting limit.**

**Results have been corrected to a temperature of 293 K (20°C)**

**Overall M.U.** ±9.7%

**Limit of Detection** 0.037 µgNO<sub>2</sub>

The reported expanded uncertainty is based on a standard uncertainty multiplied by a factor of  $k=2$ , providing a level of confidence of approximately 95%. Uncertainty of measurement has not been applied to the reported results.

**Tube Preparation: 50% TEA /Acetone**

**Analysed on UV CARY3**

**Analyst Name** Alison Wright

**Report Checked By** Jon Hall

**Date of Analysis** 20/02/2024

**Date of Report** 21/02/2024

**Analysis carried out in accordance with documented in-house Laboratory Method GLM7**

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 – November 2021

Report Number S01200R

Page 2 of 2

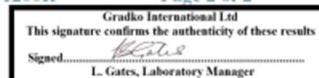


Figure 31 Gradko Laboratory Analysis Report - Month 2



(A division of Gradko International Ltd.)

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tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk

2187

### LABORATORY ANALYSIS REPORT

#### NITROGEN DIOXIDE IN DIFFUSION TUBES BY U.V.SPECTROPHOTOMETRY

REPORT NUMBER S01870R  
BOOKING IN REFERENCE S01870  
DESPATCH NOTE 104982  
CUSTOMER AECOM Ltd Attn: Sage Boyman  
10th Floor, Sunley House,  
4 Bedford Park, Croydon, CR0 2AP  
DATE SAMPLES RECEIVED 08/03/2024  
JOB REFERENCE Bexleyheath - 60716944

| Location     | Sample Number | Exposure Data |            | Time*  | µg/m³ * | ppb * | µg NO <sub>2</sub> on tube |
|--------------|---------------|---------------|------------|--------|---------|-------|----------------------------|
|              |               | Date On*      | Date Off*  | (hr.)  |         |       |                            |
| Not on sheet | 2371995       |               |            | 820.60 | 38.18   | 19.93 | 2.28                       |
| Not on sheet | 2371996       |               |            | 820.60 | 46.31   | 24.17 | 2.76                       |
| BEX18        | 2382224       | 01/02/2024    | 06/03/2024 | 820.60 | 20.05   | 10.47 | 1.20                       |
| BEX18        | 2382225       | 01/02/2024    | 06/03/2024 | 820.60 | 20.98   | 10.95 | 1.25                       |
| BEX17        | 2382222       | 01/02/2024    | 06/03/2024 | 820.55 | 23.84   | 12.44 | 1.42                       |
| BEX17        | 2382223       | 01/02/2024    | 06/03/2024 | 820.55 | 25.91   | 13.52 | 1.55                       |
| BEX12        | 2382228       | 01/02/2024    | 06/03/2024 | 819.92 | 25.14   | 13.12 | 1.50                       |
| BEX12        | 2382229       | 01/02/2024    | 06/03/2024 | 819.92 | 17.84   | 9.31  | 1.06                       |
| BEX11        | 2382230       | 01/02/2024    | 06/03/2024 | 819.83 | 21.95   | 11.46 | 1.31                       |
| BEX11        | 2382231       | 01/02/2024    | 06/03/2024 | 819.83 | 25.21   | 13.16 | 1.50                       |
| BEX13        | 2382234       | 01/02/2024    | 06/03/2024 | 820.50 | 17.83   | 9.30  | 1.06                       |
| BEX13        | 2382235       | 01/02/2024    | 06/03/2024 | 820.50 | 16.05   | 8.38  | 0.96                       |
| BEX14        | 2382232       | 01/02/2024    | 06/03/2024 | 820.52 | 16.25   | 8.48  | 0.97                       |
| BEX14        | 2382233       | 01/02/2024    | 06/03/2024 | 820.52 | 17.57   | 9.17  | 1.05                       |
| BEX15        | 2382236       | 01/02/2024    | 06/03/2024 | 820.52 | 28.04   | 14.63 | 1.67                       |
| BEX15        | 2382237       | 01/02/2024    | 06/03/2024 | 820.52 | 25.37   | 13.24 | 1.51                       |
| BEX_FW       | 2382238       | 01/02/2024    | 06/03/2024 | 820.42 | 25.81   | 13.47 | 1.54                       |
| BEX_FW       | 2382239       | 01/02/2024    | 06/03/2024 | 820.42 | 25.16   | 13.13 | 1.50                       |
| BEX_FW       | 2382240       | 01/02/2024    | 06/03/2024 | 820.42 | 24.62   | 12.85 | 1.47                       |
| BEX20        | 2382243       | 01/02/2024    | 06/03/2024 | 819.70 | 19.77   | 10.32 | 1.18                       |
| BEX20        | 2382244       | 01/02/2024    | 06/03/2024 | 819.70 | 20.60   | 10.75 | 1.23                       |
| BEX19        | 2382241       | 01/02/2024    | 06/03/2024 | 819.67 | 17.42   | 9.09  | 1.04                       |
| BEX19        | 2382242       | 01/02/2024    | 06/03/2024 | 819.67 | 19.10   | 9.97  | 1.14                       |
| BEX9         | 2382245       | 01/02/2024    | 06/03/2024 | 815.78 | 19.68   | 10.27 | 1.17                       |
| BEX9         | 2382246       | 01/02/2024    | 06/03/2024 | 815.78 | 18.15   | 9.47  | 1.08                       |
| BEX8         | 2382247       | 01/02/2024    | 06/03/2024 | 815.82 | 27.22   | 14.21 | 1.61                       |
| BEX8         | 2382248       | 01/02/2024    | 06/03/2024 | 815.82 | 28.74   | 15.00 | 1.70                       |
| BEX4         | 2382249       | 01/02/2024    | 06/03/2024 | 814.30 | 22.66   | 11.83 | 1.34                       |
| BEX4         | 2382250       | 01/02/2024    | 06/03/2024 | 814.30 | 25.18   | 13.14 | 1.49                       |
| BEX1         | 2382255       | 01/02/2024    | 06/03/2024 | 813.38 | 32.78   | 17.11 | 1.94                       |
| BEX1         | 2382256       | 01/02/2024    | 06/03/2024 | 813.38 | 34.15   | 17.83 | 2.02                       |
| BEX2         | 2382258       | 01/02/2024    | 06/03/2024 | 813.52 | 27.69   | 14.45 | 1.64                       |
| BEX2         | 2382257       | 01/02/2024    | 06/03/2024 | 813.52 | 29.83   | 15.57 | 1.76                       |
| BEX7         | 2382262       | 01/02/2024    | 06/03/2024 | 814.18 | 23.37   | 12.20 | 1.38                       |
| BEX7         | 2382261       | 01/02/2024    | 06/03/2024 | 814.18 | 24.71   | 12.89 | 1.46                       |
| BEX6         | 2382259       | 01/02/2024    | 06/03/2024 | 813.97 | 23.65   | 12.34 | 1.40                       |
| BEX6         | 2382260       | 01/02/2024    | 06/03/2024 | 813.97 | 21.37   | 11.15 | 1.26                       |

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 - November 2021

Report Number S01870R

Page 1 of 2

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2187

## LABORATORY ANALYSIS REPORT

|        |         |            |            |        |       |       |      |
|--------|---------|------------|------------|--------|-------|-------|------|
| BEX_SG | 2382266 | 01/02/2024 | 06/03/2024 | 814.17 | 20.33 | 10.61 | 1.20 |
| BEX_SG | 2382267 | 01/02/2024 | 06/03/2024 | 814.17 | 17.44 | 9.10  | 1.03 |
| BEX_SG | 2382265 | 01/02/2024 | 06/03/2024 | 814.17 | 16.80 | 8.77  | 0.99 |
| BEX3   | 2382253 | 01/02/2024 | 06/03/2024 | 814.38 | 32.74 | 17.09 | 1.94 |
| BEX3   | 2382254 | 01/02/2024 | 06/03/2024 | 814.38 | 36.73 | 19.17 | 2.17 |
| Blank  | 2382268 |            |            | 820.60 | 0.22  | 0.11  | 0.01 |

|                  |  |  |  |        |      |      |       |
|------------------|--|--|--|--------|------|------|-------|
| Laboratory Blank |  |  |  | 820.60 | 0.12 | 0.06 | 0.007 |
|------------------|--|--|--|--------|------|------|-------|

**Comment: Results are not blank subtracted****Tubes 2371995 & 2371996 were received but not listed on the exposure sheet. Maximum exposure times were used.****Customer noted missing tubes: 2382226, 2382227, 2382263 & 2382264.****Customer comment: 2382228, 2382229 - "1 of 2 missing (found on floor)".****Tube 2382229 was dirty when received. Result may be compromised.****Tube 2382249 contained a spider. Result may be compromised.****Tubes 2382251 & 2382252 were missing on arrival.****Tube 2382266 contained an insect. Result may be compromised.****Results have been corrected to a temperature of 293 K (20°)****Overall M.U.** ±9.7%**Limit of Detection** 0.043µgNO<sub>2</sub>The reported expanded uncertainty is based on a standard uncertainty multiplied by a factor of *k*=2, providing a level of confidence of approximately 95%. Uncertainty of measurement has not been applied to the reported results.**Tube Preparation: 50% TEA /Acetone****Analysed on** UV CARY1**Analyst Name** Ivelina Paldamova**Report Checked By** Marek Bianga**Date of Analysis** 14/03/2024**Date of Report** 14/03/2024**Analysis carried out in accordance with documented in-house Laboratory Method GLM7**

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Report Number S01870R

Page 2 of 2

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Figure 32 Gradko Laboratory Analysis Report - Month 3



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 tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk



2187

## LABORATORY ANALYSIS REPORT

### NITROGEN DIOXIDE IN DIFFUSION TUBES BY U.V.SPECTROPHOTOMETRY

**REPORT NUMBER** S02526R  
**BOOKING IN REFERENCE** S02526  
**DESPATCH NOTE** 104983  
**CUSTOMER** AECOM Ltd Attn: Sage Boyman  
 10th Floor  
 Sunley House  
 4 Bedford Park  
 Croydon  
 CR0 2AP  
**DATE SAMPLES RECEIVED** 05/04/2024  
**JOB REFERENCE** Bexleyheath - 60716944

| Location | Sample Number | Exposure Data |            | Time* (hr.) | µg/m³ * | ppb * | µg NO₂ on tube |
|----------|---------------|---------------|------------|-------------|---------|-------|----------------|
|          |               | Date On*      | Date Off*  |             |         |       |                |
| BEX1_a   | 2402320       | 06/03/2024    | 03/04/2024 | 672.48      | 34.74   | 18.13 | 1.70           |
| BEX1_b   | 2402321       | 06/03/2024    | 03/04/2024 | 672.48      | 34.39   | 17.95 | 1.68           |
| BEX2_a   | 2402322       | 06/03/2024    | 03/04/2024 | 672.32      | 25.52   | 13.32 | 1.25           |
| BEX2_b   | 2402323       | 06/03/2024    | 03/04/2024 | 672.32      | 27.24   | 14.22 | 1.33           |
| BEX4_a   | 2402324       | 06/03/2024    | 03/04/2024 | 672.28      | 25.05   | 13.07 | 1.22           |
| BEX4_b   | 2402325       | 06/03/2024    | 03/04/2024 | 672.28      | 24.70   | 12.89 | 1.21           |
| BEX5_a   | 2402326       | 06/03/2024    | 03/04/2024 | 672.28      | 23.66   | 12.35 | 1.16           |
| BEX5_b   | 2402327       | 06/03/2024    | 03/04/2024 | 672.28      | 22.80   | 11.90 | 1.11           |
| BEX6_a   | 2402328       | 06/03/2024    | 03/04/2024 | 671.93      | 22.32   | 11.65 | 1.09           |
| BEX6_b   | 2402329       | 06/03/2024    | 03/04/2024 | 671.93      | 20.72   | 10.82 | 1.01           |
| BEX7_a   | 2402330       | 06/03/2024    | 03/04/2024 | 671.90      | 25.35   | 13.23 | 1.24           |
| BEX7_b   | 2402331       | 06/03/2024    | 03/04/2024 | 671.90      | 23.98   | 12.52 | 1.17           |
| BEX10_a  | 2402332       | 06/03/2024    | 03/04/2024 | 671.83      | 26.99   | 14.09 | 1.32           |
| BEX10_b  | 2402333       | 06/03/2024    | 03/04/2024 | 671.83      | 25.05   | 13.07 | 1.22           |
| BEXSG_a  | 2402334       | 06/03/2024    | 03/04/2024 | 671.80      | 20.42   | 10.66 | 1.00           |
| BEXSG_b  | 2402335       | 06/03/2024    | 03/04/2024 | 671.80      | 19.40   | 10.12 | 0.95           |
| BEXSG_c  | 2402336       | 06/03/2024    | 03/04/2024 | 671.80      | 18.78   | 9.80  | 0.92           |
| BEX8_a   | 2402337       | 06/03/2024    | 03/04/2024 | 670.57      | 30.80   | 16.07 | 1.50           |
| BEX8_b   | 2402338       | 06/03/2024    | 03/04/2024 | 670.57      | 30.37   | 15.85 | 1.48           |
| BEX9_a   | 2402339       | 06/03/2024    | 03/04/2024 | 670.63      | 20.21   | 10.55 | 0.99           |
| BEX9_b   | 2402340       | 06/03/2024    | 03/04/2024 | 670.63      | 20.84   | 10.88 | 1.02           |
| BEX3_a   | 2402341       | 06/03/2024    | 03/04/2024 | 670.53      | 36.94   | 19.28 | 1.80           |
| BEX3_b   | 2402342       | 06/03/2024    | 03/04/2024 | 670.53      | 35.70   | 18.63 | 1.74           |
| BEX11_a  | 2402343       | 06/03/2024    | 03/04/2024 | 668.30      | 19.35   | 10.10 | 0.94           |
| BEX11_b  | 2402344       | 06/03/2024    | 03/04/2024 | 668.30      | 26.25   | 13.70 | 1.28           |
| BEX12_a  | 2402345       | 06/03/2024    | 03/04/2024 | 668.38      | 22.54   | 11.76 | 1.10           |
| BEX12_b  | 2402346       | 06/03/2024    | 03/04/2024 | 668.38      | 21.78   | 11.37 | 1.06           |
| BEX16_a  | 2402347       | 06/03/2024    | 03/04/2024 | 668.33      | 23.18   | 12.10 | 1.13           |
| BEX16_b  | 2402348       | 06/03/2024    | 03/04/2024 | 668.33      | 22.83   | 11.92 | 1.11           |
| BEX17_a  | 2402349       | 06/03/2024    | 03/04/2024 | 668.30      | 21.14   | 11.04 | 1.03           |
| BEX17_b  | 2402350       | 06/03/2024    | 03/04/2024 | 668.30      | 25.12   | 13.11 | 1.22           |
| BEX18_a  | 2402351       | 06/03/2024    | 03/04/2024 | 668.28      | 21.29   | 11.11 | 1.03           |
| BEX18_b  | 2402352       | 06/03/2024    | 03/04/2024 | 668.28      | 21.84   | 11.40 | 1.06           |
| BEX20_a  | 2402353       | 06/03/2024    | 03/04/2024 | 670.85      | 18.66   | 9.74  | 0.91           |

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Form LQF32b Issue 10 - November 2021

Report Number S02526R

Page 1 of 2

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2187

## LABORATORY ANALYSIS REPORT

|                  |         |            |            |        |       |       |       |
|------------------|---------|------------|------------|--------|-------|-------|-------|
| BEX20_b          | 2402354 | 06/03/2024 | 03/04/2024 | 670.85 | 21.13 | 11.03 | 1.03  |
| BEX19_a          | 2402355 | 06/03/2024 | 03/04/2024 | 670.95 | 21.43 | 11.18 | 1.05  |
| BEX19_b          | 2402356 | 06/03/2024 | 03/04/2024 | 670.97 | 20.53 | 10.71 | 1.00  |
| BEX13_a          | 2402357 | 06/03/2024 | 03/04/2024 | 670.72 | 15.24 | 7.96  | 0.74  |
| BEX13_b          | 2402358 | 06/03/2024 | 03/04/2024 | 670.72 | 17.85 | 9.31  | 0.87  |
| BEX14_a          | 2402359 | 06/03/2024 | 03/04/2024 | 670.65 | 17.64 | 9.21  | 0.86  |
| BEX14_b          | 2402360 | 06/03/2024 | 03/04/2024 | 670.65 | 19.06 | 9.95  | 0.93  |
| BEX15_a          | 2402361 | 06/03/2024 | 03/04/2024 | 670.62 | 29.30 | 15.29 | 1.43  |
| BEX15_b          | 2402362 | 06/03/2024 | 03/04/2024 | 670.62 | 25.50 | 13.31 | 1.24  |
| BEXFW_a          | 2402363 | 06/03/2024 | 03/04/2024 | 670.75 | 28.72 | 14.99 | 1.40  |
| BEXFW_b          | 2402364 | 06/03/2024 | 03/04/2024 | 670.75 | 27.82 | 14.52 | 1.36  |
| BEXFW_c          | 2402365 | 06/03/2024 | 03/04/2024 | 670.75 | 23.22 | 12.12 | 1.13  |
| Blank            | 2402366 |            |            | 672.48 | 0.65  | 0.34  | 0.03  |
| Blank 2          | 2402367 |            |            | 672.48 | 0.35  | 0.18  | 0.02  |
| Laboratory Blank |         |            |            | 672.48 | 0.47  | 0.25  | 0.023 |

Comment: Results are not blank subtracted

Tube 2402339 contained water droplets. Result may be compromised.

Tube 2402342 contained a insect. Result may be compromised.

Customer comment: 2402333 - "Found on floor by site"

Results have been corrected to a temperature of 293 K (20°)

Overall M.U.  $\pm 9.7\%$ Limit of Detection 0.040 $\mu\text{gNO}_2$ The reported expanded uncertainty is based on a standard uncertainty multiplied by a factor of  $k=2$ , providing a level of confidence of approximately 95%. Uncertainty of measurement has not been applied to the reported results.

Tube Preparation: 50% TEA /Acetone

Analysed on UV CARY2

Analyst Name Gordon Clemenson

Report Checked By Adam Robinson

Date of Analysis 10/04/2024

Date of Report 10/04/2024

Analysis carried out in accordance with documented in-house Laboratory Method GLM7

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

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Page 2 of 2

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Figure 33 Gradko Laboratory Analysis Report - Month 4



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2187

## LABORATORY ANALYSIS REPORT

### NITROGEN DIOXIDE IN DIFFUSION TUBES BY U.V.SPECTROPHOTOMETRY

**REPORT NUMBER** S03179R  
**BOOKING IN REFERENCE** S03179  
**DESPATCH NOTE** 104984  
**CUSTOMER** AECOM Ltd Attn: Sage Boyman  
 10th Floor  
 Sunley House  
 4 Bedford Park  
 Croydon  
 CR0 2AP  
**DATE SAMPLES RECEIVED** 02/05/2024  
**JOB REFERENCE** Bexleyheath - 60716944

| Location | Sample Number | Exposure Data |            |             | $\mu\text{g}/\text{m}^3$ * | ppb * | $\mu\text{g NO}_2$ on tube |
|----------|---------------|---------------|------------|-------------|----------------------------|-------|----------------------------|
|          |               | Date On*      | Date Off*  | Time* (hr.) |                            |       |                            |
| BEX1     | 2420882       | 03/04/2024    | 30/04/2024 | 649.93      | 28.64                      | 14.95 | 1.35                       |
| BEX1     | 2420881       | 03/04/2024    | 30/04/2024 | 649.93      | 29.96                      | 15.63 | 1.42                       |
| BEX2     | 2420883       | 03/04/2024    | 30/04/2024 | 650.12      | 23.56                      | 12.29 | 1.11                       |
| BEX2     | 2420884       | 03/04/2024    | 30/04/2024 | 650.12      | 24.32                      | 12.69 | 1.15                       |
| BEX5     | 2420885       | 03/04/2024    | 30/04/2024 | 649.38      | 16.61                      | 8.67  | 0.78                       |
| BEX5     | 2420886       | 03/04/2024    | 30/04/2024 | 649.38      | 17.61                      | 9.19  | 0.83                       |
| BEX4     | 2420887       | 03/04/2024    | 30/04/2024 | 649.35      | 15.13                      | 7.90  | 0.71                       |
| BEX4     | 2420888       | 03/04/2024    | 30/04/2024 | 649.35      | 17.46                      | 9.11  | 0.82                       |
| BEX7     | 2420892       | 03/04/2024    | 30/04/2024 | 650.12      | 20.17                      | 10.53 | 0.95                       |
| BEX7     | 2420891       | 03/04/2024    | 30/04/2024 | 650.12      | 18.79                      | 9.81  | 0.89                       |
| BEX10    | 2420894       | 03/04/2024    | 30/04/2024 | 650.13      | 9.93                       | 5.18  | 0.47                       |
| BEX_SG   | 2420895       | 03/04/2024    | 30/04/2024 | 649.12      | 12.68                      | 6.62  | 0.60                       |
| BEX_SG   | 2420896       | 03/04/2024    | 30/04/2024 | 649.12      | 12.95                      | 6.76  | 0.61                       |
| BEX_SG   | 2420897       | 03/04/2024    | 30/04/2024 | 649.12      | 11.47                      | 5.99  | 0.54                       |
| BEX9     | 2420876       | 03/04/2024    | 30/04/2024 | 649.67      | 13.85                      | 7.23  | 0.65                       |
| BEX9     | 2420875       | 03/04/2024    | 30/04/2024 | 649.67      | 14.57                      | 7.60  | 0.69                       |
| BEX8     | 2420877       | 03/04/2024    | 30/04/2024 | 649.70      | 23.34                      | 12.18 | 1.10                       |
| BEX8     | 2420878       | 03/04/2024    | 30/04/2024 | 649.70      | 25.79                      | 13.46 | 1.22                       |
| BEX3     | 2420879       | 03/04/2024    | 30/04/2024 | 649.90      | 27.63                      | 14.42 | 1.31                       |
| BEX3     | 2420880       | 03/04/2024    | 30/04/2024 | 649.90      | 32.88                      | 17.16 | 1.55                       |
| BEX12    | 2420865       | 03/04/2024    | 30/04/2024 | 648.00      | 15.80                      | 8.24  | 0.74                       |
| BEX11    | 2420867       | 03/04/2024    | 30/04/2024 | 647.67      | 16.51                      | 8.62  | 0.78                       |
| BEX11    | 2420868       | 03/04/2024    | 30/04/2024 | 647.67      | 17.10                      | 8.93  | 0.81                       |
| BEX16    | 2420869       | 03/04/2024    | 30/04/2024 | 648.05      | 16.01                      | 8.36  | 0.75                       |
| BEX16    | 2420870       | 03/04/2024    | 30/04/2024 | 648.05      | 16.01                      | 8.36  | 0.75                       |
| BEX17    | 2420871       | 03/04/2024    | 30/04/2024 | 648.00      | 15.54                      | 8.11  | 0.73                       |
| BEX17    | 2420872       | 03/04/2024    | 30/04/2024 | 648.00      | 17.79                      | 9.29  | 0.84                       |
| BEX18    | 2420874       | 03/04/2024    | 30/04/2024 | 648.05      | 14.90                      | 7.78  | 0.70                       |
| BEX18    | 2420873       | 03/04/2024    | 30/04/2024 | 648.05      | 14.18                      | 7.40  | 0.67                       |
| BEX20    | 2420898       | 03/04/2024    | 30/04/2024 | 645.37      | 16.69                      | 8.71  | 0.78                       |
| BEX20    | 2420899       | 03/04/2024    | 30/04/2024 | 645.37      | 17.95                      | 9.37  | 0.84                       |
| BEX19    | 2420900       | 03/04/2024    | 30/04/2024 | 645.37      | 16.35                      | 8.53  | 0.77                       |
| BEX19    | 2420901       | 03/04/2024    | 30/04/2024 | 645.37      | 16.84                      | 8.79  | 0.79                       |
| BEX13    | 2420905       | 03/04/2024    | 30/04/2024 | 645.57      | 11.45                      | 5.97  | 0.54                       |

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 - November 2021

Report Number S03179R

Page 1 of 2

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tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk

2187

## LABORATORY ANALYSIS REPORT

|                                   |         |            |            |        |       |       |       |
|-----------------------------------|---------|------------|------------|--------|-------|-------|-------|
| BEX13                             | 2420904 | 03/04/2024 | 30/04/2024 | 645.57 | 12.30 | 6.42  | 0.58  |
| BEXFW                             | 2420909 | 03/04/2024 | 30/04/2024 | 645.42 | 21.98 | 11.47 | 1.03  |
| BEXFW                             | 2420908 | 03/04/2024 | 30/04/2024 | 645.42 | 21.42 | 11.18 | 1.01  |
| BEXFW                             | 2420910 | 03/04/2024 | 30/04/2024 | 645.42 | 19.34 | 10.09 | 0.91  |
| BEX14                             | 2420903 | 03/04/2024 | 30/04/2024 | 645.60 | 12.15 | 6.34  | 0.57  |
| BEX14                             | 2420902 | 03/04/2024 | 30/04/2024 | 645.60 | 13.58 | 7.09  | 0.64  |
| BEX15                             | 2420907 | 03/04/2024 | 30/04/2024 | 645.38 | 22.75 | 11.87 | 1.07  |
| BEX15                             | 2420906 | 03/04/2024 | 30/04/2024 | 645.38 | 20.57 | 10.74 | 0.97  |
| BEX6                              | 2420889 | 03/04/2024 | 30/04/2024 | 650.08 | 15.89 | 8.30  | 0.75  |
| BEX6                              | 2420890 | 03/04/2024 | 30/04/2024 | 650.08 | 17.57 | 9.17  | 0.83  |
| "Blank" on tube cap, not on sheet | 2420911 |            |            | 650.13 | 0.53  | 0.28  | 0.03  |
| Laboratory Blank                  |         |            |            | 650.13 | 0.57  | 0.30  | 0.027 |

Comment: Results are not blank subtracted

Customer noted missing tubes: 2420866 &amp; 2420893.

Customer comment: 2420894 found on floor.

Tube 2420911 was received but not listed on the exposure sheet. Maximum exposure time was used.

Tube 2420894 was dirty when received. Result may be compromised.

Results have been corrected to a temperature of 293 K (20°)

Overall M.U.  $\pm 9.7\%$ Limit of Detection 0.037  $\mu\text{gNO}_2$ The reported expanded uncertainty is based on a standard uncertainty multiplied by a factor of  $k=2$ , providing a level of confidence of approximately 95%. Uncertainty of measurement has not been applied to the reported results.

Tube Preparation: 50% TEA /Acetone

Analysed on UV CARY3

Analyst Name Alison Wright

Report Checked By Adam Robinson

Date of Analysis 07/05/2024

Date of Report 07/05/2024

Analysis carried out in accordance with documented in-house Laboratory Method GLM7

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 – November 2021

Report Number S03179R

Page 2 of 2

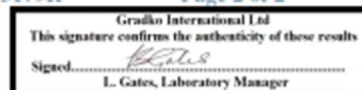


Figure 34 Gradko Laboratory Analysis Report - Month 5



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 tel.: 01962 860331 fax: 01962 841339 e-mail: diff@gradko.co.uk



2187

## LABORATORY ANALYSIS REPORT

### NITROGEN DIOXIDE IN DIFFUSION TUBES BY U.V.SPECTROPHOTOMETRY

**REPORT NUMBER** S04243R  
**BOOKING IN REFERENCE** S04243  
**DESPATCH NOTE** 104985  
**CUSTOMER** AECOM Ltd Attn: Sage Boyman  
 10th Floor  
 Sunley House  
 4 Bedford Park  
 Croydon  
 CR0 2AP  
**DATE SAMPLES RECEIVED** 13/06/2024  
**JOB REFERENCE** Bexleyheath-60716944

| Location | Sample Number | Exposure Data |            |             | $\mu\text{g}/\text{m}^3$ * | ppb * | $\mu\text{g NO}_2$ on tube |
|----------|---------------|---------------|------------|-------------|----------------------------|-------|----------------------------|
|          |               | Date On*      | Date Off*  | Time* (hr.) |                            |       |                            |
| BEX_FW_a | 2438752       | 30/04/2024    | 05/06/2024 | 867.82      | 26.24                      | 13.69 | 1.66                       |
| BEX_FW_b | 2438753       | 30/04/2024    | 05/06/2024 | 867.82      | 28.86                      | 15.06 | 1.82                       |
| BEX_FW_c | 2438754       | 30/04/2024    | 05/06/2024 | 867.82      | 29.33                      | 15.31 | 1.85                       |
| BEX_SG_a | 2438777       | 30/04/2024    | 05/06/2024 | 863.38      | 16.70                      | 8.72  | 1.05                       |
| BEX_SG_b | 2438778       | 30/04/2024    | 05/06/2024 | 863.38      | 15.01                      | 7.83  | 0.94                       |
| BEX_SG_c | 2438779       | 30/04/2024    | 05/06/2024 | 863.38      | 15.47                      | 8.08  | 0.97                       |
| BEX1_a   | 2438768       | 30/04/2024    | 05/06/2024 | 863.13      | 29.12                      | 15.20 | 1.83                       |
| BEX1_b   | 2438767       | 30/04/2024    | 05/06/2024 | 863.13      | 27.34                      | 14.27 | 1.72                       |
| BEX11_a  | 2438739       | 30/04/2024    | 05/06/2024 | 865.43      | 21.46                      | 11.20 | 1.35                       |
| BEX11_b  | 2438738       | 30/04/2024    | 05/06/2024 | 865.43      | 20.76                      | 10.84 | 1.31                       |
| BEX12_a  | 2438737       | 30/04/2024    | 05/06/2024 | 865.12      | 19.36                      | 10.10 | 1.22                       |
| BEX12_b  | 2438736       | 30/04/2024    | 05/06/2024 | 865.12      | 19.77                      | 10.32 | 1.24                       |
| BEX13_a  | 2438751       | 30/04/2024    | 05/06/2024 | 867.60      | 15.27                      | 7.97  | 0.96                       |
| BEX13_b  | 2438750       | 30/04/2024    | 05/06/2024 | 867.60      | 16.16                      | 8.43  | 1.02                       |
| BEX14_a  | 2438749       | 30/04/2024    | 05/06/2024 | 867.65      | 15.54                      | 8.11  | 0.98                       |
| BEX14_b  | 2438748       | 30/04/2024    | 05/06/2024 | 867.65      | 17.28                      | 9.02  | 1.09                       |
| BEX15_a  | 2438756       | 30/04/2024    | 05/06/2024 | 867.83      | 27.95                      | 14.59 | 1.76                       |
| BEX15_b  | 2438755       | 30/04/2024    | 05/06/2024 | 867.83      | 28.35                      | 14.80 | 1.79                       |
| BEX16_a  | 2438735       | 30/04/2024    | 05/06/2024 | 865.07      | 19.66                      | 10.26 | 1.24                       |
| BEX16_b  | 2438734       | 30/04/2024    | 05/06/2024 | 865.07      | 18.37                      | 9.59  | 1.16                       |
| BEX17_a  | 2438740       | 30/04/2024    | 05/06/2024 | 865.17      | 20.67                      | 10.79 | 1.30                       |
| BEX17_b  | 2438741       | 30/04/2024    | 05/06/2024 | 865.17      | 22.12                      | 11.55 | 1.39                       |
| BEX18_b  | 2438742       | 30/04/2024    | 05/06/2024 | 865.08      | 16.05                      | 8.38  | 1.01                       |
| BEX19_a  | 2438746       | 30/04/2024    | 05/06/2024 | 867.88      | 20.20                      | 10.54 | 1.27                       |
| BEX19_b  | 2438747       | 30/04/2024    | 05/06/2024 | 863.00      | 20.47                      | 10.68 | 1.28                       |
| BEX20_a  | 2438745       | 30/04/2024    | 05/06/2024 | 867.88      | 19.86                      | 10.37 | 1.25                       |
| BEX20_b  | 2438744       | 30/04/2024    | 05/06/2024 | 867.88      | 18.72                      | 9.77  | 1.18                       |
| BEX3_a   | 2438765       | 30/04/2024    | 05/06/2024 | 863.13      | 33.33                      | 17.40 | 2.09                       |
| BEX3_b   | 2438766       | 30/04/2024    | 05/06/2024 | 863.13      | 35.42                      | 18.49 | 2.22                       |
| BEX4_a   | 2438763       | 30/04/2024    | 05/06/2024 | 863.83      | 26.42                      | 13.79 | 1.66                       |
| BEX4_b   | 2438764       | 30/04/2024    | 05/06/2024 | 863.83      | 22.04                      | 11.51 | 1.38                       |
| BEX5_a   | 2438761       | 30/04/2024    | 05/06/2024 | 863.80      | 21.54                      | 11.24 | 1.35                       |
| BEX5_b   | 2438762       | 30/04/2024    | 05/06/2024 | 863.80      | 20.88                      | 10.90 | 1.31                       |
| BEX6_a   | 2438771       | 30/04/2024    | 05/06/2024 | 863.10      | 20.33                      | 10.61 | 1.28                       |

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 - November 2021

Report Number S04243R

Page 1 of 2

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Gradko International Ltd  
 This signature confirms the authenticity of these results  
 Signed:   
 L. Gates, Laboratory Manager



(A division of Gradko International Ltd.)

St. Martins House, 77 Wales Street Winchester, Hampshire SO23 0RH  
tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk

2187

## LABORATORY ANALYSIS REPORT

|              |         |            |            |        |       |       |        |
|--------------|---------|------------|------------|--------|-------|-------|--------|
| BEX7_a       | 2438773 | 30/04/2024 | 05/06/2024 | 863.07 | 21.52 | 11.23 | 1.35   |
| BEX7_b       | 2438774 | 30/04/2024 | 05/06/2024 | 863.07 | 22.73 | 11.86 | 1.43   |
| BEX8_a       | 2438757 | 30/04/2024 | 05/06/2024 | 863.33 | 20.65 | 10.78 | 1.30   |
| BEX8_b       | 2438758 | 30/04/2024 | 05/06/2024 | 863.33 | 20.73 | 10.82 | 1.30   |
| BEX9_a       | 2438759 | 30/04/2024 | 05/06/2024 | 863.37 | 29.02 | 15.15 | 1.82   |
| BEX9_b       | 2438760 | 30/04/2024 | 05/06/2024 | 863.37 | 30.06 | 15.69 | 1.89   |
| Not on sheet | 2438770 |            |            | 867.88 | 21.85 | 11.40 | 1.38   |
| Not on sheet | 2438780 |            |            | 867.88 | <0.68 | <0.36 | <0.043 |
| Not on sheet | 2438769 |            |            | 867.88 | 20.02 | 10.45 | 1.26   |
| Not on sheet | 2438772 |            |            | 867.88 | 18.17 | 9.48  | 1.15   |

|                  |  |  |  |        |      |      |       |
|------------------|--|--|--|--------|------|------|-------|
| Laboratory Blank |  |  |  | 867.88 | 0.17 | 0.09 | 0.011 |
|------------------|--|--|--|--------|------|------|-------|

Comment: Results are not blank subtracted

Customer noted missing tubes: 2438775, 243876 &amp; 2438743.

Tubes 2438769, 2438770, 2438772 &amp; 2438780 were received but not listed on the exposure sheet. Maximum exposure times were used.

Tube 2438749 contained a spider. Result may be compromised.

Result reported as &lt;0.043 is below the reporting limit.

Results have been corrected to a temperature of 293 K (20°)

Overall M.U. ±9.7%

Limit of Detection 0.043µgNO<sub>2</sub>

The reported expanded uncertainty is based on a standard uncertainty multiplied by a factor of k=2, providing a level of confidence of approximately 95%. Uncertainty of measurement has not been applied to the reported results.

Tube Preparation: 50% TEA /Acetone

Analysed on UV CARY4

Analyst Name Alison Wright

Report Checked By Adam Robinson

Date of Analysis 24/06/2024

Date of Report 25/06/2024

Analysis carried out in accordance with documented in-house Laboratory Method GLM7

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 – November 2021

Report Number S04243R

Page 2 of 2

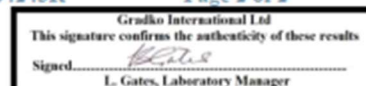


Figure 35 Gradko Laboratory Analysis Report - Month 6



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2187

## LABORATORY ANALYSIS REPORT

### NITROGEN DIOXIDE IN DIFFUSION TUBES BY U.V.SPECTROPHOTOMETRY

**REPORT NUMBER** S04594R  
**BOOKING IN REFERENCE** S04594  
**DESPATCH NOTE** 104986  
**CUSTOMER** AECOM Ltd Attn: Sage Boyman  
 10th Floor  
 Sunley House  
 4 Bedford Park  
 Croydon  
 CR0 2AP  
**DATE SAMPLES RECEIVED** 04/07/2024  
**JOB REFERENCE** Bexleyheath - 60716944

| Location | Sample Number | Exposure Data |            |             | $\mu\text{g}/\text{m}^3$ * | ppb * | $\mu\text{g NO}_2$ on tube |
|----------|---------------|---------------|------------|-------------|----------------------------|-------|----------------------------|
|          |               | Date On*      | Date Off*  | Time* (hr.) |                            |       |                            |
| BEX_FW_a | 2457135       | 05/06/2024    | 01/07/2024 | 620.02      | 23.86                      | 12.45 | 1.08                       |
| BEX_FW_b | 2457136       | 05/06/2024    | 01/07/2024 | 620.02      | 24.79                      | 12.94 | 1.12                       |
| BEX_FW_c | 2457137       | 05/06/2024    | 01/07/2024 | 620.02      | 23.94                      | 12.50 | 1.08                       |
| BEX_SG_a | 2457122       | 05/06/2024    | 01/07/2024 | 624.45      | 14.06                      | 7.34  | 0.64                       |
| BEX_SG_b | 2457123       | 05/06/2024    | 01/07/2024 | 624.45      | 14.32                      | 7.47  | 0.65                       |
| BEX_SG_c | 2457124       | 05/06/2024    | 01/07/2024 | 624.45      | 13.59                      | 7.10  | 0.62                       |
| BEX1_a   | 2457108       | 05/06/2024    | 01/07/2024 | 624.97      | 27.63                      | 14.42 | 1.26                       |
| BEX1_b   | 2457109       | 05/06/2024    | 01/07/2024 | 624.97      | 24.68                      | 12.88 | 1.12                       |
| BEX10_a  | 2457120       | 05/06/2024    | 01/07/2024 | 624.43      | 24.28                      | 12.67 | 1.10                       |
| BEX10_b  | 2457121       | 05/06/2024    | 01/07/2024 | 624.43      | 22.74                      | 11.87 | 1.03                       |
| BEX11_a  | 2457093       | 05/06/2024    | 01/07/2024 | 622.92      | 19.64                      | 10.25 | 0.89                       |
| BEX11_b  | 2457092       | 05/06/2024    | 01/07/2024 | 622.92      | 20.59                      | 10.74 | 0.93                       |
| BEX12_a  | 2457094       | 05/06/2024    | 01/07/2024 | 622.82      | 17.87                      | 9.33  | 0.81                       |
| BEX12_b  | 2457095       | 05/06/2024    | 01/07/2024 | 622.82      | 19.82                      | 10.34 | 0.90                       |
| BEX14_a  | 2457129       | 05/06/2024    | 01/07/2024 | 620.08      | 12.87                      | 6.72  | 0.58                       |
| BEX14_b  | 2457130       | 05/06/2024    | 01/07/2024 | 620.08      | 13.42                      | 7.01  | 0.61                       |
| BEX15_a  | 2457133       | 05/06/2024    | 01/07/2024 | 620.03      | 23.88                      | 12.46 | 1.08                       |
| BEX15_b  | 2457134       | 05/06/2024    | 01/07/2024 | 620.03      | 26.87                      | 14.03 | 1.21                       |
| BEX17_a  | 2457099       | 05/06/2024    | 01/07/2024 | 622.78      | 20.48                      | 10.69 | 0.93                       |
| BEX17_b  | 2457098       | 05/06/2024    | 01/07/2024 | 622.78      | 18.67                      | 9.74  | 0.85                       |
| BEX18_a  | 2457101       | 05/06/2024    | 01/07/2024 | 622.88      | 15.44                      | 8.06  | 0.70                       |
| BEX18_b  | 2457100       | 05/06/2024    | 01/07/2024 | 622.88      | 15.37                      | 8.02  | 0.70                       |
| BEX19_a  | 2457128       | 05/06/2024    | 01/07/2024 | 620.00      | 15.96                      | 8.33  | 0.72                       |
| BEX19_b  | 2457127       | 05/06/2024    | 01/07/2024 | 620.00      | 15.76                      | 8.22  | 0.71                       |
| BEX20_a  | 2457125       | 05/06/2024    | 01/07/2024 | 620.03      | 16.67                      | 8.70  | 0.75                       |
| BEX20_b  | 2457126       | 05/06/2024    | 01/07/2024 | 620.03      | 16.51                      | 8.62  | 0.74                       |
| BEX3_a   | 2457106       | 05/06/2024    | 01/07/2024 | 624.68      | 31.69                      | 16.54 | 1.44                       |
| BEX3_b   | 2457107       | 05/06/2024    | 01/07/2024 | 624.68      | 33.52                      | 17.50 | 1.52                       |
| BEX4_a   | 2457114       | 05/06/2024    | 01/07/2024 | 623.90      | 20.73                      | 10.82 | 0.94                       |
| BEX4_b   | 2457115       | 05/06/2024    | 01/07/2024 | 623.90      | 20.75                      | 10.83 | 0.94                       |
| BEX5_a   | 2457112       | 05/06/2024    | 01/07/2024 | 623.85      | 20.64                      | 10.77 | 0.94                       |
| BEX5_b   | 2457113       | 05/06/2024    | 01/07/2024 | 623.85      | 21.17                      | 11.05 | 0.96                       |
| BEX6_a   | 2457116       | 05/06/2024    | 01/07/2024 | 623.88      | 16.85                      | 8.79  | 0.76                       |
| BEX6_b   | 2457117       | 05/06/2024    | 01/07/2024 | 623.88      | 17.36                      | 9.06  | 0.79                       |

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 - November 2021

Report Number S04594R

Page 1 of 2

REPORT OFFICIALLY CHECKED

Gradko International Ltd  
 This signature confirms the authenticity of these results  
 Signed: L. Gates, Laboratory Manager



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tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk

2187

## LABORATORY ANALYSIS REPORT

|                               |         |            |            |        |       |       |       |
|-------------------------------|---------|------------|------------|--------|-------|-------|-------|
| BEX7_a                        | 2457118 | 05/06/2024 | 01/07/2024 | 624.65 | 21.43 | 11.19 | 0.97  |
| BEX7_b                        | 2457119 | 05/06/2024 | 01/07/2024 | 624.65 | 19.89 | 10.38 | 0.90  |
| BEX8_a                        | 2457102 | 05/06/2024 | 01/07/2024 | 624.22 | 27.99 | 14.61 | 1.27  |
| BEX8_b                        | 2457103 | 05/06/2024 | 01/07/2024 | 624.22 | 27.11 | 14.15 | 1.23  |
| BEX9_a                        | 2457104 | 05/06/2024 | 01/07/2024 | 624.28 | 16.42 | 8.57  | 0.75  |
| BEX9_b                        | 2457105 | 05/06/2024 | 01/07/2024 | 624.28 | 15.49 | 8.09  | 0.70  |
| BEX2_a                        | 2457110 | 05/06/2024 | 01/07/2024 | 624.97 | 21.93 | 11.44 | 1.00  |
| BEX2_b                        | 2457111 | 05/06/2024 | 01/07/2024 | 624.97 | 22.61 | 11.80 | 1.03  |
| Not on sheet ("Blank" on cap) | 2457138 |            |            | 624.97 | 0.77  | 0.40  | 0.04  |
| Laboratory Blank              |         |            |            | 624.97 | 0.11  | 0.06  | 0.005 |

Comment: Results are not blank subtracted

Customer noted missing tubes: 2457096 &amp; 2457097

Tubes 2457131 &amp; 2457132 were missing on arrival.

Tube 2457138 was received but not listed on the exposure sheet. Maximum exposure time was used.

Results have been corrected to a temperature of 293 K (20°)

Overall M.U.  $\pm 9.7\%$ Limit of Detection 0.040  $\mu\text{gNO}_2$ The reported expanded uncertainty is based on a standard uncertainty multiplied by a factor of  $k=2$ , providing a level of confidence of approximately 95%. Uncertainty of measurement has not been applied to the reported results.

Tube Preparation: 50% TEA /Acetone

Analysed on UV CARY2

Analyst Name Gordon Clemenson

Report Checked By Adam Robinson

Date of Analysis 08/07/2024

Date of Report 08/07/2024

Analysis carried out in accordance with documented in-house Laboratory Method GLM7

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 – November 2021

Report Number S04594R

Page 2 of 2

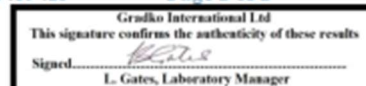


Figure 36 Gradko Laboratory Analysis Report - Month 7



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2187

## LABORATORY ANALYSIS REPORT

### NITROGEN DIOXIDE IN DIFFUSION TUBES BY U.V.SPECTROPHOTOMETRY

**REPORT NUMBER** S05293R  
**BOOKING IN REFERENCE** S05293  
**DESPATCH NOTE** 104987  
**CUSTOMER** AECOM Ltd Attn: Sage Boyman  
 10th Floor  
 Sunley House  
 4 Bedford Park  
 Croydon  
 CR0 2AP  
**DATE SAMPLES RECEIVED** 02/08/2024  
**JOB REFERENCE** Bexleyheath - 60716944

| Location | Sample Number | Exposure Data |            |             | $\mu\text{g}/\text{m}^3$ * | ppb * | $\mu\text{g NO}_2$ on tube |
|----------|---------------|---------------|------------|-------------|----------------------------|-------|----------------------------|
|          |               | Date On*      | Date Off*  | Time* (hr.) |                            |       |                            |
| BEX_FW_b | 2474917       | 01/07/2024    | 29/07/2024 | 672.02      | 21.76                      | 11.36 | 1.06                       |
| BEX_FW_c | 2474918       | 01/07/2024    | 29/07/2024 | 672.02      | 21.21                      | 11.07 | 1.04                       |
| BEX_SG_a | 2474942       | 01/07/2024    | 29/07/2024 | 671.65      | 13.77                      | 7.18  | 0.67                       |
| BEX_SG_b | 2474941       | 01/07/2024    | 29/07/2024 | 671.65      | 12.58                      | 6.56  | 0.61                       |
| BEX_SG_c | 2474943       | 01/07/2024    | 29/07/2024 | 671.65      | 13.07                      | 6.82  | 0.64                       |
| BEX1_a   | 2474933       | 01/07/2024    | 29/07/2024 | 671.62      | 27.08                      | 14.14 | 1.32                       |
| BEX1_b   | 2474934       | 01/07/2024    | 29/07/2024 | 671.62      | 29.73                      | 15.51 | 1.45                       |
| BEX10_a  | 2474940       | 01/07/2024    | 29/07/2024 | 671.77      | 19.25                      | 10.05 | 0.94                       |
| BEX10_b  | 2474939       | 01/07/2024    | 29/07/2024 | 671.77      | 23.08                      | 12.05 | 1.13                       |
| BEX11_a  | 2474900       | 01/07/2024    | 29/07/2024 | 671.90      | 21.17                      | 11.05 | 1.03                       |
| BEX11_b  | 2474899       | 01/07/2024    | 29/07/2024 | 671.90      | 19.90                      | 10.39 | 0.97                       |
| BEX12_a  | 2474898       | 01/07/2024    | 29/07/2024 | 671.90      | 20.35                      | 10.62 | 0.99                       |
| BEX12_b  | 2474897       | 01/07/2024    | 29/07/2024 | 671.90      | 19.02                      | 9.93  | 0.93                       |
| BEX15_a  | 2474915       | 01/07/2024    | 29/07/2024 | 672.00      | 22.93                      | 11.97 | 1.12                       |
| BEX15_b  | 2474916       | 01/07/2024    | 29/07/2024 | 672.00      | 24.30                      | 12.68 | 1.19                       |
| BEX17_a  | 2474903       | 01/07/2024    | 29/07/2024 | 671.92      | 19.43                      | 10.14 | 0.95                       |
| BEX17_b  | 2474904       | 01/07/2024    | 29/07/2024 | 671.92      | 19.39                      | 10.12 | 0.95                       |
| BEX18_a  | 2474905       | 01/07/2024    | 29/07/2024 | 671.90      | 15.19                      | 7.93  | 0.74                       |
| BEX18_b  | 2474906       | 01/07/2024    | 29/07/2024 | 671.90      | 14.70                      | 7.67  | 0.72                       |
| BEX19_a  | 2474909       | 01/07/2024    | 29/07/2024 | 671.93      | 14.76                      | 7.71  | 0.72                       |
| BEX19_b  | 2474910       | 01/07/2024    | 29/07/2024 | 671.93      | 14.70                      | 7.67  | 0.72                       |
| BEX2_a   | 2474935       | 01/07/2024    | 29/07/2024 | 671.32      | 22.85                      | 11.93 | 1.12                       |
| BEX2_b   | 2474936       | 01/07/2024    | 29/07/2024 | 671.32      | 25.19                      | 13.15 | 1.23                       |
| BEX20_a  | 2474907       | 01/07/2024    | 29/07/2024 | 671.90      | 15.13                      | 7.90  | 0.74                       |
| BEX20_b  | 2474908       | 01/07/2024    | 29/07/2024 | 671.90      | 15.07                      | 7.87  | 0.74                       |
| BEX3_a   | 2474931       | 01/07/2024    | 29/07/2024 | 671.82      | 36.27                      | 18.93 | 1.77                       |
| BEX3_b   | 2474932       | 01/07/2024    | 29/07/2024 | 671.82      | 34.82                      | 18.17 | 1.70                       |
| BEX4_a   | 2474927       | 01/07/2024    | 29/07/2024 | 671.78      | 20.11                      | 10.50 | 0.98                       |
| BEX4_b   | 2474928       | 01/07/2024    | 29/07/2024 | 671.78      | 20.83                      | 10.87 | 1.02                       |
| BEX5_a   | 2474925       | 01/07/2024    | 29/07/2024 | 671.92      | 21.42                      | 11.18 | 1.05                       |
| BEX5_b   | 2474926       | 01/07/2024    | 29/07/2024 | 671.92      | 20.78                      | 10.85 | 1.02                       |
| BEX6_a   | 2474930       | 01/07/2024    | 29/07/2024 | 671.83      | 17.57                      | 9.17  | 0.86                       |
| BEX6_b   | 2474929       | 01/07/2024    | 29/07/2024 | 671.83      | 17.84                      | 9.31  | 0.87                       |
| BEX7_a   | 2474937       | 01/07/2024    | 29/07/2024 | 671.73      | 20.93                      | 10.93 | 1.02                       |

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 - November 2021

Report Number S05293R

Page 1 of 2

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tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk

2187

## LABORATORY ANALYSIS REPORT

|                  |         |            |            |        |       |       |        |
|------------------|---------|------------|------------|--------|-------|-------|--------|
| BEX7_b           | 2474938 | 01/07/2024 | 29/07/2024 | 671.73 | 18.43 | 9.62  | 0.90   |
| BEX8_a           | 2474921 | 01/07/2024 | 29/07/2024 | 672.03 | 25.47 | 13.29 | 1.24   |
| BEX8_b           | 2474922 | 01/07/2024 | 29/07/2024 | 672.03 | 26.72 | 13.94 | 1.31   |
| BEX9_a           | 2474923 | 01/07/2024 | 29/07/2024 | 671.97 | 16.59 | 8.66  | 0.81   |
| BEX9_b           | 2474924 | 01/07/2024 | 29/07/2024 | 671.97 | 15.62 | 8.15  | 0.76   |
| Blank            | 2474944 |            |            | 672.03 | 0.31  | 0.16  | 0.02   |
| Not on sheet     | 2492903 |            |            | 672.03 | <0.88 | <0.46 | <0.043 |
| Laboratory Blank |         |            |            | 672.03 | 0.33  | 0.17  | 0.016  |

**Comment: Results are not blank subtracted****Customer noted missing tubes: 2474911-14 & 2474901-02.****Tubes 2474940, 2474941 & 2474942 contained spiders & webs. Results may be compromised.****Tube 2492903 was received but not listed on the exposure sheet. Maximum exposure time was used.****Tube 2474919 was missing on arrival.****Result reported as <0.043 is below the reporting limit.****Results have been corrected to a temperature of 293 K (20°)****Overall M.U.** ±9.7%**Limit of Detection** 0.043µgNO<sub>2</sub>The reported expanded uncertainty is based on a standard uncertainty multiplied by a factor of  $k=2$ , providing a level of confidence of approximately 95%. Uncertainty of measurement has not been applied to the reported results.**Tube Preparation: 50% TEA /Acetone****Analysed on UV CARY4****Analyst Name** Alison Wright**Report Checked By** Adam Robinson**Date of Analysis** 05/08/2024**Date of Report** 05/08/2024**Analysis carried out in accordance with documented in-house Laboratory Method GLM7**

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 – November 2021

Report Number S05293R

Page 2 of 2

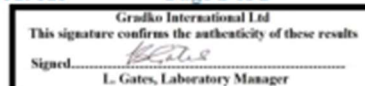


Figure 37 Gradko Laboratory Analysis Report - Month 8



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2187

## LABORATORY ANALYSIS REPORT

### NITROGEN DIOXIDE IN DIFFUSION TUBES BY U.V.SPECTROPHOTOMETRY

**REPORT NUMBER** S06293R  
**BOOKING IN REFERENCE** S06293  
**DESPATCH NOTE** 104988  
**CUSTOMER** AECOM Ltd Attn: Sage Boyman  
 10th Floor  
 Sunley House  
 4 Bedford Park  
 Croydon  
 CR0 2AP  
**DATE SAMPLES RECEIVED** 11/09/2024  
**JOB REFERENCE** Bexleyheath - 60716944

| Location | Sample Number | Exposure Data |            | Time* (hr.) | µg/m <sup>3</sup> * | ppb * | µg NO <sub>2</sub> on tube |
|----------|---------------|---------------|------------|-------------|---------------------|-------|----------------------------|
|          |               | Date On*      | Date Off*  |             |                     |       |                            |
| BEX_FW_b | 2492904       | 29/07/2024    | 03/09/2024 | 867.70      | 22.91               | 11.96 | 1.45                       |
| BEX_FW_c | 2492905       | 29/07/2024    | 03/09/2024 | 867.70      | 22.07               | 11.52 | 1.39                       |
| BEX_SG_a | 2492920       | 29/07/2024    | 03/09/2024 | 863.50      | 21.11               | 11.02 | 1.33                       |
| BEX_SG_b | 2492921       | 29/07/2024    | 03/09/2024 | 863.50      | 19.89               | 10.38 | 1.25                       |
| BEX_SG_c | 2492922       | 29/07/2024    | 03/09/2024 | 863.50      | 14.13               | 7.38  | 0.89                       |
| BEX1_a   | 2492926       | 29/07/2024    | 03/09/2024 | 863.23      | 25.73               | 13.43 | 1.61                       |
| BEX1_b   | 2492925       | 29/07/2024    | 03/09/2024 | 863.23      | 28.29               | 14.77 | 1.78                       |
| BEX10_a  | 2492923       | 29/07/2024    | 03/09/2024 | 863.42      | 15.09               | 7.88  | 0.95                       |
| BEX10_b  | 2492924       | 29/07/2024    | 03/09/2024 | 863.42      | 16.17               | 8.44  | 1.02                       |
| BEX11_a  | 2492884       | 29/07/2024    | 03/09/2024 | 864.78      | 19.35               | 10.10 | 1.22                       |
| BEX11_b  | 2492883       | 29/07/2024    | 03/09/2024 | 864.78      | 19.97               | 10.42 | 1.26                       |
| BEX12_a  | 2492889       | 29/07/2024    | 03/09/2024 | 864.75      | 18.44               | 9.62  | 1.16                       |
| BEX12_b  | 2492888       | 29/07/2024    | 03/09/2024 | 864.75      | 19.52               | 10.19 | 1.23                       |
| BEX13_a  | 2492899       | 29/07/2024    | 03/09/2024 | 867.73      | 11.94               | 6.23  | 0.75                       |
| BEX13_b  | 2492900       | 29/07/2024    | 03/09/2024 | 867.73      | 12.83               | 6.70  | 0.81                       |
| BEX14_b  | 2492898       | 29/07/2024    | 03/09/2024 | 867.83      | 11.95               | 6.24  | 0.75                       |
| BEX15_a  | 2492901       | 29/07/2024    | 03/09/2024 | 867.72      | 25.01               | 13.05 | 1.58                       |
| BEX15_b  | 2492902       | 29/07/2024    | 03/09/2024 | 867.72      | 24.39               | 12.73 | 1.54                       |
| BEX16_a  | 2492886       | 29/07/2024    | 03/09/2024 | 864.77      | 18.12               | 9.46  | 1.14                       |
| BEX16_b  | 2492887       | 29/07/2024    | 03/09/2024 | 864.77      | 20.83               | 10.87 | 1.31                       |
| BEX17_a  | 2492885       | 29/07/2024    | 03/09/2024 | 864.82      | 19.79               | 10.33 | 1.24                       |
| BEX17_b  | 2492890       | 29/07/2024    | 03/09/2024 | 864.82      | 18.60               | 9.71  | 1.17                       |
| BEX18_a  | 2492891       | 29/07/2024    | 03/09/2024 | 864.82      | 15.70               | 8.20  | 0.99                       |
| BEX18_b  | 2492892       | 29/07/2024    | 03/09/2024 | 864.82      | 16.24               | 8.48  | 1.02                       |
| BEX19_a  | 2492895       | 29/07/2024    | 03/09/2024 | 867.70      | 14.30               | 7.46  | 0.90                       |
| BEX19_b  | 2492896       | 29/07/2024    | 03/09/2024 | 867.70      | 13.38               | 6.98  | 0.84                       |
| BEX2_a   | 2492927       | 29/07/2024    | 03/09/2024 | 863.52      | 24.55               | 12.82 | 1.54                       |
| BEX2_b   | 2492928       | 29/07/2024    | 03/09/2024 | 863.52      | 21.67               | 11.31 | 1.36                       |
| BEX20_a  | 2492893       | 29/07/2024    | 03/09/2024 | 867.73      | 14.68               | 7.66  | 0.93                       |
| BEX20_b  | 2492894       | 29/07/2024    | 03/09/2024 | 867.73      | 13.72               | 7.16  | 0.87                       |
| BEX3_a   | 2492914       | 29/07/2024    | 03/09/2024 | 864.67      | 33.21               | 17.33 | 2.09                       |
| BEX3_b   | 2492915       | 29/07/2024    | 03/09/2024 | 864.67      | 32.35               | 16.88 | 2.03                       |
| BEX4_a   | 2492912       | 29/07/2024    | 03/09/2024 | 864.10      | 19.38               | 10.11 | 1.22                       |
| BEX4_b   | 2492913       | 29/07/2024    | 03/09/2024 | 864.10      | 20.52               | 10.71 | 1.29                       |
| BEX5_a   | 2492910       | 29/07/2024    | 03/09/2024 | 864.02      | 19.94               | 10.41 | 1.25                       |

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

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Report Number S06293R

Page 1 of 2

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## LABORATORY ANALYSIS REPORT

|                                       |         |            |            |        |       |       |      |
|---------------------------------------|---------|------------|------------|--------|-------|-------|------|
| BEX6_a                                | 2492916 | 29/07/2024 | 03/09/2024 | 864.08 | 18.38 | 9.59  | 1.15 |
| BEX6_b                                | 2492917 | 29/07/2024 | 03/09/2024 | 864.08 | 18.79 | 9.81  | 1.18 |
| BEX7_a                                | 2492918 | 29/07/2024 | 03/09/2024 | 863.45 | 19.82 | 10.35 | 1.24 |
| BEX7_b                                | 2492919 | 29/07/2024 | 03/09/2024 | 863.45 | 19.33 | 10.09 | 1.21 |
| BEX8_a                                | 2492907 | 29/07/2024 | 03/09/2024 | 864.93 | 15.89 | 8.29  | 1.00 |
| BEX8_b                                | 2492906 | 29/07/2024 | 03/09/2024 | 864.93 | 16.66 | 8.69  | 1.05 |
| BEX9_a                                | 2492909 | 29/07/2024 | 03/09/2024 | 864.87 | 20.87 | 10.89 | 1.31 |
| BEX9_b                                | 2492908 | 29/07/2024 | 03/09/2024 | 864.87 | 19.19 | 10.01 | 1.21 |
| Blank                                 | 2492929 |            |            | 867.83 | 0.41  | 0.22  | 0.03 |
| Not on sheet<br>("BEX FW" on red cap) | 2474919 | 29/07/2024 | 03/09/2024 | 867.83 | 33.79 | 17.63 | 2.13 |

|                  |  |  |        |      |      |       |
|------------------|--|--|--------|------|------|-------|
| Laboratory Blank |  |  | 867.83 | 0.17 | 0.09 | 0.011 |
|------------------|--|--|--------|------|------|-------|

Comment: Results are not blank subtracted

Tubes 2492897 &amp; 2492903 were missing on arrival.

Customer noted missing tube: 2492911.

Tube 2474919 was received but not listed on the exposure sheet. Maximum exposure time was used.

Tubes 2492920 &amp; 9242921 contained spiders. Results may be compromised.

Results have been corrected to a temperature of 293 K (20°)

Overall M.U. ±9.7%

Limit of Detection 0.040µgNO<sub>2</sub>

The reported expanded uncertainty is based on a standard uncertainty multiplied by a factor of k=2, providing a level of confidence of approximately 95%. Uncertainty of measurement has not been applied to the reported results.

Tube Preparation: 50% TEA /Acetone

Analysed on UV CARY2

Analyst Name Gordon Clemenson

Report Checked By Marek Bianga

Date of Analysis 20/09/2024

Date of Report 20/09/2024

Analysis carried out in accordance with documented in-house Laboratory Method GLM7

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 – November 2021

Report Number S06293R

Page 2 of 2

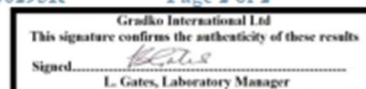


Figure 38 Gradko Laboratory Analysis Report - Month 9



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## LABORATORY ANALYSIS REPORT

## NITROGEN DIOXIDE IN DIFFUSION TUBES BY U.V. SPECTROPHOTOMETRY

REPORT NUMBER S06668R  
BOOKING IN REFERENCE S06668  
DESPATCH NOTE 104989  
CUSTOMER AECOM Ltd Attn: Sage Boyman  
10th Floor  
Sunley House  
4 Bedford Park  
Croydon  
CR0 2AP  
DATE SAMPLES RECEIVED 03/10/2024  
JOB REFERENCE Bexleyheath-60716944

| Location | Sample Number | Exposure Data<br>Date On* | Date Off*  | Time* (hr.) | µg/m <sup>3</sup> * | ppb * | µg NO <sub>2</sub><br>on tube |
|----------|---------------|---------------------------|------------|-------------|---------------------|-------|-------------------------------|
| BEX_FW_a | 2512284       | 03/09/2024                | 30/09/2024 | 646.97      | 27.29               | 14.24 | 1.28                          |
| BEX_FW_b | 2512285       | 03/09/2024                | 30/09/2024 | 646.97      | 28.05               | 14.64 | 1.32                          |
| BEX_FW_c | 2512286       | 03/09/2024                | 30/09/2024 | 646.97      | 30.03               | 15.67 | 1.41                          |
| BEX_SG_a | 2512263       | 03/09/2024                | 30/09/2024 | 647.33      | 16.11               | 8.41  | 0.76                          |
| BEX_SG_b | 2512264       | 03/09/2024                | 30/09/2024 | 647.33      | 16.98               | 8.86  | 0.80                          |
| BEX_SG_c | 2512265       | 03/09/2024                | 30/09/2024 | 647.33      | 17.60               | 9.19  | 0.83                          |
| BEX1_a   | 2512251       | 03/09/2024                | 30/09/2024 | 647.45      | 29.88               | 15.59 | 1.41                          |
| BEX1_b   | 2512252       | 03/09/2024                | 30/09/2024 | 647.45      | 30.64               | 15.99 | 1.44                          |
| BEX10_a  | 2512272       | 03/09/2024                | 30/09/2024 | 647.42      | 27.10               | 14.14 | 1.28                          |
| BEX10_b  | 2512273       | 03/09/2024                | 30/09/2024 | 647.42      | 26.31               | 13.73 | 1.24                          |
| BEX11_a  | 2512243       | 03/09/2024                | 30/09/2024 | 650.90      | 23.06               | 12.04 | 1.09                          |
| BEX11_b  | 2512244       | 03/09/2024                | 30/09/2024 | 650.90      | 21.88               | 11.42 | 1.04                          |
| BEX12_a  | 2512241       | 03/09/2024                | 30/09/2024 | 651.07      | 19.42               | 10.14 | 0.92                          |
| BEX12_b  | 2512242       | 03/09/2024                | 30/09/2024 | 651.07      | 19.23               | 10.04 | 0.91                          |
| BEX15_a  | 2512282       | 03/09/2024                | 30/09/2024 | 647.02      | 29.71               | 15.51 | 1.40                          |
| BEX15_b  | 2512283       | 03/09/2024                | 30/09/2024 | 647.02      | 30.86               | 16.10 | 1.45                          |
| BEX17_a  | 2512247       | 03/09/2024                | 30/09/2024 | 652.12      | 19.33               | 10.09 | 0.92                          |
| BEX17_b  | 2512248       | 03/09/2024                | 30/09/2024 | 652.12      | 23.04               | 12.03 | 1.09                          |
| BEX18_a  | 2512249       | 03/09/2024                | 30/09/2024 | 652.13      | 18.67               | 9.75  | 0.89                          |
| BEX18_b  | 2512250       | 03/09/2024                | 30/09/2024 | 652.13      | 17.03               | 8.89  | 0.81                          |
| BEX19_a  | 2512276       | 03/09/2024                | 30/09/2024 | 647.12      | 21.71               | 11.33 | 1.02                          |
| BEX19_b  | 2512277       | 03/09/2024                | 30/09/2024 | 647.12      | 21.16               | 11.04 | 1.00                          |
| BEX2_a   | 2512253       | 03/09/2024                | 30/09/2024 | 647.43      | 25.35               | 13.23 | 1.19                          |
| BEX2_b   | 2512254       | 03/09/2024                | 30/09/2024 | 647.43      | 24.52               | 12.80 | 1.15                          |
| BEX20_a  | 2512274       | 03/09/2024                | 30/09/2024 | 647.08      | 24.73               | 12.91 | 1.16                          |
| BEX20_b  | 2512275       | 03/09/2024                | 30/09/2024 | 647.08      | 20.60               | 10.75 | 0.97                          |
| BEX3_a   | 2512270       | 03/09/2024                | 30/09/2024 | 649.07      | 35.04               | 18.29 | 1.65                          |
| BEX3_b   | 2512271       | 03/09/2024                | 30/09/2024 | 649.07      | 33.34               | 17.40 | 1.57                          |
| BEX4_a   | 2512255       | 03/09/2024                | 30/09/2024 | 647.38      | 22.29               | 11.64 | 1.05                          |
| BEX4_b   | 2512256       | 03/09/2024                | 30/09/2024 | 647.38      | 23.00               | 12.00 | 1.08                          |
| BEX6_a   | 2512259       | 03/09/2024                | 30/09/2024 | 647.38      | 21.93               | 11.45 | 1.03                          |
| BEX6_b   | 2512260       | 03/09/2024                | 30/09/2024 | 647.38      | 19.85               | 10.36 | 0.93                          |
| BEX7_a   | 2512261       | 03/09/2024                | 30/09/2024 | 647.38      | 22.97               | 11.99 | 1.08                          |
| BEX7_b   | 2512262       | 03/09/2024                | 30/09/2024 | 647.38      | 23.97               | 12.51 | 1.13                          |

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

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Report Number S06668R

Page 1 of 2

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Gradko International Ltd  
This signature confirms the authenticity of these results  
Signed:   
L. Gates, Laboratory Manager



(A division of Gradko International Ltd.)

St. Martins House, 77 Wales Street Winchester, Hampshire SO23 0RH  
tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk

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## LABORATORY ANALYSIS REPORT

|        |         |            |            |        |       |       |      |
|--------|---------|------------|------------|--------|-------|-------|------|
| BEX8_a | 2512266 | 03/09/2024 | 30/09/2024 | 649.52 | 29.17 | 15.22 | 1.38 |
| BEX8_b | 2512267 | 03/09/2024 | 30/09/2024 | 649.52 | 21.42 | 11.18 | 1.01 |
| BEX9_a | 2512268 | 03/09/2024 | 30/09/2024 | 649.52 | 19.87 | 10.37 | 0.94 |
| BEX9_b | 2512269 | 03/09/2024 | 30/09/2024 | 649.52 | 21.14 | 11.03 | 1.00 |
| Blank  | 2512287 |            |            | 652.13 | 0.23  | 0.12  | 0.01 |

|                  |  |  |  |        |      |      |       |
|------------------|--|--|--|--------|------|------|-------|
| Laboratory Blank |  |  |  | 652.13 | 0.25 | 0.13 | 0.012 |
|------------------|--|--|--|--------|------|------|-------|

Comment: Results are not blank subtracted

Tube 2512267 contained a spider. Result may be compromised.

Tube 2512283 contained an insect. Result may be compromised.

Results have been corrected to a temperature of 293 K (20°)

Overall M.U.  $\pm 9.7\%$ Limit of Detection 0.043  $\mu\text{gNO}_2$ The reported expanded uncertainty is based on a standard uncertainty multiplied by a factor of  $k=2$ , providing a level of confidence of approximately 95%. Uncertainty of measurement has not been applied to the reported results.

Tube Preparation: 50% TEA /Acetone

Analysed on UV CARY4

Analyst Name Alison Wright

Report Checked By Adam Robinson

Date of Analysis 08/10/2024

Date of Report 08/10/2024

Analysis carried out in accordance with documented in-house Laboratory Method GLM7

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 – November 2021

Report Number S06668R

Page 2 of 2

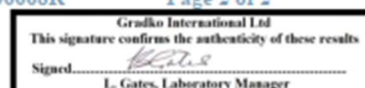


Figure 39 Gradko Laboratory Analysis Report - Month 10



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 tel: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk



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## LABORATORY ANALYSIS REPORT

### NITROGEN DIOXIDE IN DIFFUSION TUBES BY U.V.SPECTROPHOTOMETRY

**REPORT NUMBER** S07984R  
**BOOKING IN REFERENCE** S07984  
**DESPATCH NOTE** 104990  
**CUSTOMER** AECOM Ltd Attn: Sage Boyman  
 10th Floor  
 Sunley House  
 4 Bedford Park  
 Croydon  
 CR0 2AP  
**DATE SAMPLES RECEIVED** 21/11/2024  
**JOB REFERENCE** Bexleyheath - 60716944

| Location | Sample Number | Exposure Data |            |             | $\mu\text{g}/\text{m}^3$ * | ppb * | $\mu\text{g NO}_2$ on tube |
|----------|---------------|---------------|------------|-------------|----------------------------|-------|----------------------------|
|          |               | Date On*      | Date Off*  | Time* (hr.) |                            |       |                            |
| BEX1     | 2530462       | 30/09/2024    | 07/11/2024 | 912.43      | 33.88                      | 17.68 | 2.25                       |
| BEX1     | 2530463       | 30/09/2024    | 07/11/2024 | 912.43      | 32.87                      | 17.16 | 2.18                       |
| BEX4     | 2530469       | 30/09/2024    | 07/11/2024 | 912.90      | 31.05                      | 16.20 | 2.06                       |
| BEX6     | 2530470       | 30/09/2024    | 07/11/2024 | 912.87      | 26.86                      | 14.02 | 1.78                       |
| BEX6     | 2530471       | 30/09/2024    | 07/11/2024 | 912.87      | 24.49                      | 12.78 | 1.63                       |
| BEX7     | 2530472       | 30/09/2024    | 07/11/2024 | 912.78      | 26.94                      | 14.06 | 1.79                       |
| BEX7     | 2530473       | 30/09/2024    | 07/11/2024 | 912.78      | 25.01                      | 13.05 | 1.66                       |
| BEX10    | 2530474       | 30/09/2024    | 07/11/2024 | 912.72      | 28.49                      | 14.87 | 1.89                       |
| BEX10    | 2530475       | 30/09/2024    | 07/11/2024 | 912.72      | 31.42                      | 16.40 | 2.08                       |
| BEX20    | 2530479       | 30/09/2024    | 07/11/2024 | 909.72      | 22.37                      | 11.67 | 1.48                       |
| BEX20    | 2530480       | 30/09/2024    | 07/11/2024 | 909.72      | 23.87                      | 12.46 | 1.58                       |
| BEX19    | 2530481       | 30/09/2024    | 07/11/2024 | 909.67      | 21.55                      | 11.25 | 1.43                       |
| BEX19    | 2530482       | 30/09/2024    | 07/11/2024 | 909.67      | 23.34                      | 12.18 | 1.54                       |
| BEX15    | 2530487       | 30/09/2024    | 07/11/2024 | 909.70      | 31.02                      | 16.19 | 2.05                       |
| BEX15    | 2530488       | 30/09/2024    | 07/11/2024 | 909.70      | 20.63                      | 10.77 | 1.36                       |
| BEX_FW   | 2530489       | 30/09/2024    | 07/11/2024 | 909.72      | 29.52                      | 15.41 | 1.95                       |
| BEX_FW   | 2530490       | 30/09/2024    | 07/11/2024 | 909.72      | 29.14                      | 15.21 | 1.93                       |
| BEX_FW   | 2530491       | 30/09/2024    | 07/11/2024 | 909.72      | 31.40                      | 16.39 | 2.08                       |
| BEX11    | 2530492       | 30/09/2024    | 07/11/2024 | 908.87      | 25.66                      | 13.39 | 1.70                       |
| BEX11    | 2530493       | 30/09/2024    | 07/11/2024 | 908.87      | 25.72                      | 13.42 | 1.70                       |
| BEX12    | 2530494       | 30/09/2024    | 07/11/2024 | 908.78      | 25.01                      | 13.05 | 1.65                       |
| BEX12    | 2530495       | 30/09/2024    | 07/11/2024 | 908.78      | 24.60                      | 12.84 | 1.63                       |
| BEX3     | 2530498       | 30/09/2024    | 07/11/2024 | 909.48      | 36.58                      | 19.09 | 2.42                       |
| BEX3     | 2530499       | 30/09/2024    | 07/11/2024 | 909.48      | 40.73                      | 21.26 | 2.69                       |
| BEX8     | 2530500       | 30/09/2024    | 07/11/2024 | 909.03      | 32.98                      | 17.21 | 2.18                       |
| BEX8     | 2530501       | 30/09/2024    | 07/11/2024 | 909.03      | 28.88                      | 15.07 | 1.91                       |
| BEX9     | 2530502       | 30/09/2024    | 07/11/2024 | 909.05      | 22.72                      | 11.86 | 1.50                       |
| BEX9     | 2530503       | 30/09/2024    | 07/11/2024 | 909.05      | 24.76                      | 12.92 | 1.64                       |
| BEX18    | 2530504       | 30/09/2024    | 07/11/2024 | 907.60      | 20.31                      | 10.60 | 1.34                       |
| BEX18    | 2530505       | 30/09/2024    | 07/11/2024 | 907.60      | 21.06                      | 10.99 | 1.39                       |
| BEX17    | 2530506       | 30/09/2024    | 07/11/2024 | 907.63      | 27.95                      | 14.59 | 1.84                       |
| BEX17    | 2530507       | 30/09/2024    | 07/11/2024 | 907.63      | 27.33                      | 14.27 | 1.80                       |

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 - November 2021

Report Number S07984R

Page 1 of 2

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Gradko International Ltd  
 This signature confirms the authenticity of these results  
 Signed *[Signature]*  
 L. Gates, Laboratory Manager



(A division of Gradko International Ltd.)

St. Martins House, 77 Wales Street Winchester, Hampshire SO23 0RH  
tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk

2187

## LABORATORY ANALYSIS REPORT

|                  |         |        |      |      |       |
|------------------|---------|--------|------|------|-------|
| Blank            | 2530508 | 912.90 | 0.35 | 0.18 | 0.02  |
| Laboratory Blank |         | 912.90 | 0.20 | 0.10 | 0.013 |

**Comment: Results are not blank subtracted****Tubes 2530487 & 2530488 contained insects. Results may be compromised.****Tube 2530501 was dirty when received. Result may be compromised.****Results have been corrected to a temperature of 293 K (20°)****Overall M.U.** ±9.7%**Limit of Detection** 0.043µgNO<sub>2</sub>The reported expanded uncertainty is based on a standard uncertainty multiplied by a factor of  $k=2$ , providing a level of confidence of approximately 95%. Uncertainty of measurement has not been applied to the reported results.**Tube Preparation:** 50% TEA /Acetone

Analysed on UV CARY1

**Analyst Name** Ivelina Paldamova**Report Checked By** Marek Bianga**Date of Analysis** 05/12/2024**Date of Report** 05/12/2024**Analysis carried out in accordance with documented in-house Laboratory Method GLM7**

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 – November 2021

Report Number S07984R

Page 2 of 2

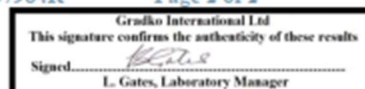


Figure 40 Gradko Laboratory Analysis Report - Month 11



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tel: 01962 860331 fax: 01962 841339 e-mail: diffuser@gradko.co.uk



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## LABORATORY ANALYSIS REPORT

NITROGEN DIOXIDE IN DIFFUSION TUBES BY U.V.SPECTROPHOTOMETRY

**REPORT NUMBER** S08187R  
**BOOKING IN REFERENCE** S08187  
**DESPATCH NOTE** 104991  
**CUSTOMER** AECOM Ltd Attn: Sage Boyman  
10th Floor  
Sunley House  
4 Bedford Park  
Croydon  
CR0 2AP  
**DATE SAMPLES RECEIVED** 05/12/2024  
**JOB REFERENCE** Bexleyheath - 60716944

| Location | Sample Number | Exposure Data |            | Time* (hr.) | µg/m³ * | ppb * | µg NO₂ on tube |
|----------|---------------|---------------|------------|-------------|---------|-------|----------------|
|          |               | Date On*      | Date Off*  |             |         |       |                |
| BEX12a   | 2551156       | 07/11/2024    | 03/12/2024 | 624.28      | 26.56   | 13.86 | 1.21           |
| BEX12b   | 2551157       | 07/11/2024    | 03/12/2024 | 624.28      | 24.29   | 12.68 | 1.10           |
| BEX11a   | 2551158       | 07/11/2024    | 03/12/2024 | 624.22      | 26.63   | 13.90 | 1.21           |
| BEX11b   | 2551159       | 07/11/2024    | 03/12/2024 | 624.22      | 29.49   | 15.39 | 1.34           |
| BEX16a   | 2551160       | 07/11/2024    | 03/12/2024 | 624.27      | 26.73   | 13.95 | 1.21           |
| BEX16b   | 2551161       | 07/11/2024    | 03/12/2024 | 624.27      | 23.96   | 12.50 | 1.09           |
| BEX18a   | 2551162       | 07/11/2024    | 03/12/2024 | 624.35      | 24.59   | 12.84 | 1.12           |
| BEX18b   | 2551163       | 07/11/2024    | 03/12/2024 | 624.35      | 27.83   | 14.53 | 1.26           |
| BEX17a   | 2551164       | 07/11/2024    | 03/12/2024 | 624.35      | 31.25   | 16.31 | 1.42           |
| BEX17b   | 2551165       | 07/11/2024    | 03/12/2024 | 624.35      | 28.10   | 14.66 | 1.28           |
| BEX20a   | 2551166       | 07/11/2024    | 03/12/2024 | 626.27      | 29.40   | 15.34 | 1.34           |
| BEX20b   | 2551167       | 07/11/2024    | 03/12/2024 | 626.27      | 29.75   | 15.53 | 1.35           |
| BEX19a   | 2551168       | 07/11/2024    | 03/12/2024 | 626.28      | 30.19   | 15.75 | 1.37           |
| BEX19b   | 2551169       | 07/11/2024    | 03/12/2024 | 626.28      | 27.53   | 14.37 | 1.25           |
| BEX13a   | 2551170       | 07/11/2024    | 03/12/2024 | 626.35      | 22.01   | 11.49 | 1.00           |
| BEX14b   | 2551173       | 07/11/2024    | 03/12/2024 | 626.25      | 27.11   | 14.15 | 1.23           |
| BEX15a   | 2551174       | 07/11/2024    | 03/12/2024 | 626.32      | 38.88   | 20.29 | 1.77           |
| BEX15b   | 2551175       | 07/11/2024    | 03/12/2024 | 626.32      | 33.04   | 17.24 | 1.50           |
| BEXFWa   | 2551176       | 07/11/2024    | 03/12/2024 | 626.33      | 31.68   | 16.53 | 1.44           |
| BEXFWb   | 2551177       | 07/11/2024    | 03/12/2024 | 626.33      | 30.78   | 16.06 | 1.40           |
| BEXFWc   | 2551178       | 07/11/2024    | 03/12/2024 | 626.33      | 28.32   | 14.78 | 1.29           |
| BEX9a    | 2551179       | 07/11/2024    | 03/12/2024 | 625.03      | 26.17   | 13.66 | 1.19           |
| BEX9b    | 2551180       | 07/11/2024    | 03/12/2024 | 625.03      | 32.21   | 16.81 | 1.46           |
| BEX8a    | 2551181       | 07/11/2024    | 03/12/2024 | 625.10      | 38.39   | 20.03 | 1.74           |
| BEX8b    | 2551182       | 07/11/2024    | 03/12/2024 | 625.10      | 32.16   | 16.78 | 1.46           |
| BEX3a    | 2551183       | 07/11/2024    | 03/12/2024 | 623.73      | 34.24   | 17.87 | 1.55           |
| BEX3b    | 2551184       | 07/11/2024    | 03/12/2024 | 623.73      | 41.67   | 21.75 | 1.89           |
| BEX1a    | 2551185       | 07/11/2024    | 03/12/2024 | 623.77      | 33.42   | 17.44 | 1.52           |
| BEX1b    | 2551186       | 07/11/2024    | 03/12/2024 | 623.77      | 39.51   | 20.62 | 1.79           |
| BEX2a    | 2551187       | 07/11/2024    | 03/12/2024 | 623.37      | 28.58   | 14.92 | 1.30           |
| BEX2b    | 2551188       | 07/11/2024    | 03/12/2024 | 623.37      | 32.62   | 17.03 | 1.48           |
| BEX4a    | 2551189       | 07/11/2024    | 03/12/2024 | 623.32      | 38.14   | 19.91 | 1.73           |
| BEX4b    | 2551190       | 07/11/2024    | 03/12/2024 | 623.32      | 29.07   | 15.17 | 1.32           |
| BEX5b    | 2551192       | 07/11/2024    | 03/12/2024 | 623.33      | 26.44   | 13.80 | 1.20           |

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 - November 2021

Report Number S08187R

Page 1 of 2

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Gradko International Ltd  
This signature confirms the authenticity of these results  
Signed:   
L. Gates, Laboratory Manager



(A division of Gradko International Ltd.)

St. Martins House, 77 Wales Street Winchester, Hampshire SO23 0RH  
tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk

2187

## LABORATORY ANALYSIS REPORT

|        |         |            |            |        |       |       |      |
|--------|---------|------------|------------|--------|-------|-------|------|
| BEX6a  | 2551193 | 07/11/2024 | 03/12/2024 | 623.35 | 26.71 | 13.94 | 1.21 |
| BEX6b  | 2551194 | 07/11/2024 | 03/12/2024 | 623.35 | 31.94 | 16.67 | 1.45 |
| BEX7a  | 2551195 | 07/11/2024 | 03/12/2024 | 623.45 | 27.19 | 14.19 | 1.23 |
| BEX7b  | 2551196 | 07/11/2024 | 03/12/2024 | 623.45 | 32.71 | 17.07 | 1.48 |
| BEX10a | 2551197 | 07/11/2024 | 03/12/2024 | 623.48 | 31.49 | 16.44 | 1.43 |
| BEX10b | 2551198 | 07/11/2024 | 03/12/2024 | 623.48 | 32.24 | 16.83 | 1.46 |
| Blank  | 2551202 |            |            | 626.35 | 0.48  | 0.25  | 0.02 |

|                  |  |  |  |        |      |      |       |
|------------------|--|--|--|--------|------|------|-------|
| Laboratory Blank |  |  |  | 626.35 | 0.31 | 0.16 | 0.014 |
|------------------|--|--|--|--------|------|------|-------|

Comment: Results are not blank subtracted

Tube 2551183 contained a spider. Result may be compromised.

Customer noted missing tubes: 2551171, 2551172 &amp; 2551191

Results have been corrected to a temperature of 293 K (20°)

Overall M.U.  $\pm 9.7\%$ Limit of Detection 0.037  $\mu\text{gNO}_2$ The reported expanded uncertainty is based on a standard uncertainty multiplied by a factor of  $k=2$ , providing a level of confidence of approximately 95%. Uncertainty of measurement has not been applied to the reported results.

Tube Preparation: 50% TEA /Acetone

Analyst Name Alison Wright

Analysed on UV CARY3

Report Checked By Jon Hall

Date of Analysis 12/12/2024

Date of Report 12/12/2024

Analysis carried out in accordance with documented in-house Laboratory Method GLM7

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 – November 2021

Report Number S08187R

Page 2 of 2

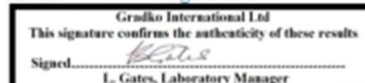


Figure 41 Gradko Laboratory Analysis Report - Month 12



(A division of Gradko International Ltd.)  
 St. Martins House, 77 Wales Street Winchester, Hampshire SO23 0RH  
 tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk



2187

## LABORATORY ANALYSIS REPORT

### NITROGEN DIOXIDE IN DIFFUSION TUBES BY U.V.SPECTROPHOTOMETRY

REPORT NUMBER T00069R  
 BOOKING IN REFERENCE T00069  
 DESPATCH NOTE 104992  
 CUSTOMER AECOM Ltd Attn: Sage Boyman

10th Floor  
 Sunley House  
 4 Bedford Park  
 Croydon  
 CR0 2AP

DATE SAMPLES RECEIVED 07/01/2025

JOB REFERENCE Bexleyheath - 60716944

| Location | Sample Number | Exposure Data |            | Time* (hr.) | µg/m³ * | ppb * | µg NO₂ on tube |
|----------|---------------|---------------|------------|-------------|---------|-------|----------------|
|          |               | Date On*      | Date Off*  |             |         |       |                |
| BEX12a   | 2571111       | 03/12/2024    | 06/01/2025 | 816.57      | 21.20   | 11.06 | 1.26           |
| BEX12b   | 2571112       | 03/12/2024    | 06/01/2025 | 816.57      | 18.08   | 9.44  | 1.07           |
| BEX11a   | 2571113       | 03/12/2024    | 06/01/2025 | 816.55      | 16.31   | 8.51  | 0.97           |
| BEX11b   | 2571114       | 03/12/2024    | 06/01/2025 | 816.55      | 17.36   | 9.06  | 1.03           |
| BEX16a   | 2571129       | 03/12/2024    | 06/01/2025 | 816.65      | 18.60   | 9.71  | 1.10           |
| BEX16b   | 2571130       | 03/12/2024    | 06/01/2025 | 816.65      | 17.35   | 9.06  | 1.03           |
| BEX18a   | 2571117       | 03/12/2024    | 06/01/2025 | 816.62      | 21.47   | 11.20 | 1.27           |
| BEX18b   | 2571118       | 03/12/2024    | 06/01/2025 | 816.62      | 15.72   | 8.20  | 0.93           |
| BEX17a   | 2571119       | 03/12/2024    | 06/01/2025 | 816.63      | 24.33   | 12.70 | 1.44           |
| BEX17b   | 2571120       | 03/12/2024    | 06/01/2025 | 816.63      | 21.45   | 11.19 | 1.27           |
| BEX9a    | 2571121       | 03/12/2024    | 06/01/2025 | 815.45      | 19.10   | 9.97  | 1.13           |
| BEX9b    | 2571122       | 03/12/2024    | 06/01/2025 | 815.45      | 17.31   | 9.04  | 1.03           |
| BEX8a    | 2571123       | 03/12/2024    | 06/01/2025 | 815.40      | 26.51   | 13.84 | 1.57           |
| BEX8b    | 2571124       | 03/12/2024    | 06/01/2025 | 815.40      | 25.34   | 13.23 | 1.50           |
| BEX3a    | 2571125       | 03/12/2024    | 06/01/2025 | 816.80      | 29.01   | 15.14 | 1.72           |
| BEX3b    | 2571126       | 03/12/2024    | 06/01/2025 | 816.80      | 29.90   | 15.61 | 1.78           |
| BEX1a    | 2571127       | 03/12/2024    | 06/01/2025 | 816.75      | 27.88   | 14.55 | 1.66           |
| BEX1b    | 2571128       | 03/12/2024    | 06/01/2025 | 816.75      | 26.08   | 13.61 | 1.55           |
| BEX2a    | 2571131       | 03/12/2024    | 06/01/2025 | 816.68      | 14.20   | 7.41  | 0.84           |
| BEX2b    | 2571132       | 03/12/2024    | 06/01/2025 | 816.68      | 21.78   | 11.37 | 1.29           |
| BEX5a    | 2571133       | 03/12/2024    | 06/01/2025 | 816.67      | 20.77   | 10.84 | 1.23           |
| BEX5b    | 2571134       | 03/12/2024    | 06/01/2025 | 816.67      | 22.46   | 11.72 | 1.33           |
| BEX4a    | 2571135       | 03/12/2024    | 06/01/2025 | 816.65      | 18.16   | 9.48  | 1.08           |
| BEX4b    | 2571136       | 03/12/2024    | 06/01/2025 | 816.65      | 20.30   | 10.60 | 1.21           |
| BEX6a    | 2571137       | 03/12/2024    | 06/01/2025 | 816.60      | 19.54   | 10.20 | 1.16           |
| BEX6b    | 2571138       | 03/12/2024    | 06/01/2025 | 816.60      | 19.36   | 10.10 | 1.15           |
| BEX7a    | 2571139       | 03/12/2024    | 06/01/2025 | 816.57      | 20.78   | 10.84 | 1.23           |
| BEX7b    | 2571140       | 03/12/2024    | 06/01/2025 | 816.57      | 21.18   | 11.05 | 1.26           |
| BEX10a   | 2571141       | 03/12/2024    | 06/01/2025 | 816.50      | 21.25   | 11.09 | 1.26           |
| BEX10b   | 2571142       | 03/12/2024    | 06/01/2025 | 816.50      | 21.30   | 11.12 | 1.26           |
| BEXSGa   | 2571143       | 03/12/2024    | 06/01/2025 | 816.52      | 15.74   | 8.21  | 0.93           |
| BEXSGb   | 2571144       | 03/12/2024    | 06/01/2025 | 816.52      | 13.33   | 6.96  | 0.79           |
| BEXSGc   | 2571145       | 03/12/2024    | 06/01/2025 | 816.52      | 15.82   | 8.26  | 0.94           |
| BEX20a   | 2571146       | 03/12/2024    | 06/01/2025 | 816.17      | 17.62   | 9.19  | 1.05           |

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 - November 2021

Report Number T00069R

Page 1 of 2

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Gradko International Ltd  
 This signature confirms the authenticity of these results  
 Signed: L. Gates, Laboratory Manager



(A division of Gradko International Ltd.)

St. Martins House, 77 Wales Street Winchester, Hampshire SO23 0RH  
tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk

2187

## LABORATORY ANALYSIS REPORT

|        |         |            |            |        |       |       |      |
|--------|---------|------------|------------|--------|-------|-------|------|
| BEX20b | 2571147 | 03/12/2024 | 06/01/2025 | 816.17 | 21.61 | 11.28 | 1.28 |
| BEX19a | 2571148 | 03/12/2024 | 06/01/2025 | 816.17 | 17.80 | 9.29  | 1.06 |
| BEX19b | 2571149 | 03/12/2024 | 06/01/2025 | 816.17 | 17.62 | 9.19  | 1.05 |
| BEX15a | 2571154 | 03/12/2024 | 06/01/2025 | 816.07 | 25.63 | 13.38 | 1.52 |
| BEX15b | 2571155 | 03/12/2024 | 06/01/2025 | 816.07 | 29.27 | 15.28 | 1.74 |
| BEXFWa | 2571156 | 03/12/2024 | 06/01/2025 | 816.05 | 23.62 | 12.33 | 1.40 |
| BEXFWb | 2571157 | 03/12/2024 | 06/01/2025 | 816.05 | 17.52 | 9.14  | 1.04 |
| BEXFWc | 2571158 | 03/12/2024 | 06/01/2025 | 816.05 | 20.91 | 10.91 | 1.24 |
| Blank  | 2571159 | 03/12/2024 | 06/01/2025 | 816.00 | 0.91  | 0.48  | 0.05 |

|                  |        |      |      |       |
|------------------|--------|------|------|-------|
| Laboratory Blank | 816.80 | 0.45 | 0.24 | 0.027 |
|------------------|--------|------|------|-------|

Comment: Results are not blank subtracted

Tube 2571114 contained a spider. Result may be compromised.

Tubes 2571112, 2571131, 2571113, 2571118 &amp; 2571130 contained water droplets. Results may be compromised.

Tube 2571144 contained a web. Result may be compromised.

Results have been corrected to a temperature of 293 K (20°)

Overall M.U.  $\pm 9.7\%$ Limit of Detection 0.043  $\mu\text{gNO}_2$ The reported expanded uncertainty is based on a standard uncertainty multiplied by a factor of  $k=2$ , providing a level of confidence of approximately 95%. Uncertainty of measurement has not been applied to the reported results.

Tube Preparation: 50% TEA /Acetone

Analyst Name Ivelina Paldamova

Analysed on UV CARY1

Report Checked By Jon Hall

Date of Analysis 15/01/2025

Date of Report 15/01/2025

Analysis carried out in accordance with documented in-house Laboratory Method GLM7

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (\*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 – November 2021

Report Number T00069R

Page 2 of 2

