



Customer:



Testing Facility:

SOCOTEC
Unit 12
Moorbrook
Southmead Industrial
Park
Didcot
Oxfordshire
OX11 7HP

Quotation
Number:

DIF-ANU-10952
(Period 1)

Samples
Received:

07 February 2023

Customer
Order Number:

Analysis
Completed:

15 February 2023

Customer
Reference:

Report Date:

16 February 2023

Nitrogen Dioxide Diffusion Tube Analysis Report

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

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

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

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

This report shall not be reproduced except in full without approval of the laboratory.

Approved By



1252



Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA1S1	1	04/01/2023 08:28	01/02/2023 08:20	671.87	1.31	28	14.6	
OCC/23A/NA1S2	2	04/01/2023 08:30	01/02/2023 08:25	671.92	1.22	26.1	13.5	
OCC/23A/NA1S3	3	04/01/2023 08:32	01/02/2023 08:27	671.92	1.62	34.7	18	
OCC/23A/NA1S4	4	04/01/2023 08:34	01/02/2023 08:30	671.93	1.25	26.7	13.9	
OCC/23A/NA1S5	5	04/01/2023 08:36	01/02/2023 08:33	671.95	1.45	31	16.1	
OCC/23A/NA1S6	6	04/01/2023 08:38	01/02/2023 08:37	671.98	1.17	25	13	
OCC/23A/NA1S7	7	04/01/2023 08:40	01/02/2023 08:40	672.00	0.92	19.6	10.2	
OCC/23A/NA1S8	8	04/01/2023 08:42	01/02/2023 08:43	672.02	1.41	30	15.6	
OCC/23A/NA1S9	9	04/01/2023 08:45	01/02/2023 08:45	672.00	1.42	30.2	15.7	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA1S10	10	04/01/2023 08:48	01/02/2023 08:50	672.03	1.93	41.2	21.4	
OCC/23A/NA1S11	11	04/01/2023 08:55	01/02/2023 08:53	671.97	1.15	24.5	12.7	
OCC/23A/NA1S12	12	04/01/2023 09:00	01/02/2023 08:55	671.92	1.69	36.1	18.8	
OCC/23A/NA1S13	13	04/01/2023 09:17	01/02/2023 09:00	671.72	0.74	15.7	8.2	
OCC/23A/NA1S14	14	04/01/2023 09:17	01/02/2023 09:00	671.72	0.88	18.7	9.7	
OCC/23A/NA1S15	15	04/01/2023 09:17	01/02/2023 09:00	671.72	0.83	17.8	9.3	
OCC/23A/NA1S16	16	04/01/2023 09:17	01/02/2023 09:06	671.82	1.28	27.3	14.2	
OCC/23A/NA1S17	17	04/01/2023 09:23	01/02/2023 09:10	671.78	1.87	39.8	20.7	
OCC/23A/NA1S18	18	04/01/2023 09:25	01/02/2023 09:12	671.78	1.06	22.7	11.8	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA1S19	19	04/01/2023 09:28	01/02/2023 09:18	671.83	1.65	35.2	18.3	
OCC/23A/NA1S20	20	04/01/2023 09:33	01/02/2023 09:23	671.83	0.81	17.2	8.9	
OCC/23A/NA1S21	21	04/01/2023 09:42	01/02/2023 09:30	671.80	1.2	25.7	13.3	
OCC/23A/NA1S22	22	04/01/2023 09:48	01/02/2023 09:32	671.73	1.56	33.2	17.3	
OCC/23A/NA1S23	23	04/01/2023 09:54	01/02/2023 09:35	671.68	1.23	26.2	13.6	
OCC/23A/NA1S24	24	04/01/2023 10:00	01/02/2023 09:40	671.67	1.21	25.8	13.4	
OCC/23A/NA1S25	25	04/01/2023 10:10	01/02/2023 09:46	671.60	2.17	46.4	24.1	
OCC/23A/NA1S26	26	04/01/2023 10:12	01/02/2023 09:53	671.68	2.4	51.3	26.7	
OCC/23A/NA1S27	27	04/01/2023 10:15	01/02/2023 09:55	671.67	2.04	43.5	22.6	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA1S28	28	04/01/2023 10:20	01/02/2023 09:59	671.65	1.84	39.2	20.4	
OCC/23A/NA1S29	29							Missing
OCC/23A/NA1S30	30	04/01/2023 10:25	01/02/2023 10:08	671.72	1.55	33	17.2	
OCC/23A/NA1S31	31	04/01/2023 10:30	01/02/2023 10:10	671.67	1.18	25.1	13	
OCC/23A/NA1S32	32	04/01/2023 10:33	01/02/2023 10:15	671.70	1.69	36	18.7	
OCC/23A/NA1S33	33	04/01/2023 10:36	01/02/2023 10:20	671.73	1.76	37.6	19.5	
OCC/23A/NA1S34	34	04/01/2023 10:40	01/02/2023 10:23	671.72	2.11	45.1	23.5	
OCC/23A/NA1S35	35	04/01/2023 11:30	01/02/2023 13:13	673.72	2.01	42.7	22.2	
OCC/23A/NA1S36	36	04/01/2023 11:32	01/02/2023 13:17	673.75	2.08	44.2	23	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA1S37	37	04/01/2023 11:33	01/02/2023 13:20	673.78	1.97	42	21.8	
OCC/23A/NA1S38	38	04/01/2023 11:35	01/02/2023 13:26	673.85	1.27	27.1	14.1	
OCC/23A/NA1S39	39	04/01/2023 11:43	01/02/2023 13:30	673.78	1.44	30.7	16	
OCC/23A/NA1S40	40	04/01/2023 11:47	01/02/2023 13:33	673.77	1.6	34	17.7	
OCC/23A/NA1S41	41	04/01/2023 11:58	01/02/2023 13:35	673.62	1.5	32	16.6	Nº 14
OCC/23A/NA1S42	42	04/01/2023 12:05	01/02/2023 13:40	673.58	1.43	30.4	15.8	
OCC/23A/NA1S43	43	04/01/2023 12:08	01/02/2023 13:45	673.62	1.36	28.9	15	
OCC/23A/NA1S44	44	04/01/2023 12:20	01/02/2023 14:04	673.73	1.91	40.6	21.1	
OCC/23A/NA1S45	45	04/01/2023 12:23	01/02/2023 14:07	673.73	1.91	40.6	21.1	



1252



Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA1S46	46	04/01/2023 12:27	01/02/2023 14:10	673.72	1.42	30.3	15.8	
OCC/23A/NA1S47	47	04/01/2023 12:30	01/02/2023 14:12	673.70	1.45	30.8	16	
OCC/23A/NA1S48	48	04/01/2023 12:33	01/02/2023 14:15	673.70	2.04	43.5	22.6	
OCC/23A/NA1S49	49	04/01/2023 12:35	01/02/2023 14:17	673.70	1.26	26.8	14	
OCC/23A/NA1S50	50	04/01/2023 12:37	01/02/2023 14:21	673.73	1.37	29.3	15.2	
OCC/23A/NA1S51	51	04/01/2023 12:45	01/02/2023 14:28	673.72	1.29	27.4	14.3	
OCC/23A/NA1S52	52	04/01/2023 12:50	01/02/2023 14:35	673.75	0.87	18.5	9.6	
OCC/23A/NA1S53	53	04/01/2023 13:00	01/02/2023 14:44	673.73	1.05	22.4	11.6	
OCC/23A/NA1S54	54	04/01/2023 13:05	01/02/2023 14:47	673.70	1.16	24.6	12.8	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA1S55	55	04/01/2023 13:07	01/02/2023 14:50	673.72	1.65	35.1	18.3	
OCC/23A/NA1S56	56							Missing
OCC/23A/NA1S57	57	04/01/2023 13:12	01/02/2023 14:55	673.72	1.14	24.3	12.7	
OCC/23A/NA1S58	58	04/01/2023 13:15	01/02/2023 14:58	673.72	1.21	25.7	13.4	
OCC/23A/NA1S59	59	04/01/2023 13:20	01/02/2023 15:05	673.75	1.51	32	16.7	
OCC/23A/NA1S60	60	04/01/2023 13:23	01/02/2023 15:07	673.73	1.06	22.6	11.7	
OCC/23A/NA1S61	61	04/01/2023 13:40	01/02/2023 15:00	673.33	2.69	57.4	29.8	
OCC/23A/NA1S62	62	04/01/2023 13:40	01/02/2023 15:00	673.33	1.91	40.6	21.1	
OCC/23A/NA1S63	63	04/01/2023 13:40	01/02/2023 15:00	673.33	2.25	47.9	24.9	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA1S64	64	04/01/2023 14:11	01/02/2023 15:17	673.10	1.34	28.6	14.9	
OCC/23A/NA1S65	65	04/01/2023 14:13	01/02/2023 15:20	673.12	1.59	33.9	17.6	
OCC/23A/NA1S66	66	04/01/2023 14:15	01/02/2023 15:21	673.10	1.16	24.6	12.8	
OCC/23A/NA1S67	67	04/01/2023 14:16	01/02/2023 15:23	673.12	1.53	32.7	17	
OCC/23A/NA1S68	68	04/01/2023 14:18	01/02/2023 15:24	673.10	1.41	30.1	15.6	
OCC/23A/NA1S69	69	04/01/2023 14:20	01/02/2023 15:27	673.12	1.8	38.4	20	
OCC/23A/NA1S70	70	04/01/2023 14:22	01/02/2023 15:28	673.10	1.25	26.7	13.9	
OCC/23A/NA1S71	71	04/01/2023 14:24	01/02/2023 15:30	673.10	1.7	36.1	18.8	
OCC/23A/NA1S72	72	04/01/2023 14:26	01/02/2023 15:33	673.12	1.7	36.1	18.8	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA1S73	73	04/01/2023 14:30	01/02/2023 15:35	673.08	1.89	40.3	21	
OCC/23A/NA1S74	74	04/01/2023 14:33	01/02/2023 15:40	673.12	1.33	28.3	14.7	
OCC/23A/NA1S75	75	04/01/2023 14:38	01/02/2023 15:45	673.12	1.52	32.4	16.8	
OCC/23A/NA1S76	76							Missing
OCC/23A/NA1S77	77	04/01/2023 13:30	01/02/2023 15:10	673.67	1.26	26.9	14	

