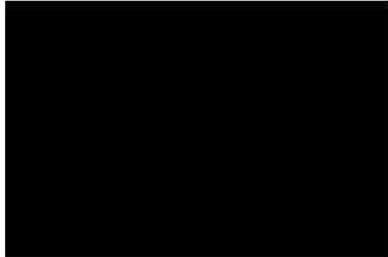




Customer:



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

Quotation Number: DIF-ANU-10952
(Period 7)

Samples Received: 03 August 2023

Customer Order Number:

Analysis Completed: 09 August 2023

Customer Reference:

Report Date: 10 August 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 autoanalyser with ultraviolet detection. All samples were received in good condition, unless otherwise stated in the comments field of results table. Please note:

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

This analysis of diffusion tube samples to determine the amount of nitrogen dioxide present on the tube is within the scope of our UKAS schedule. Any further calculations and assessments requiring exposure details and conditions fall outside the scope of our accreditation. In the 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



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Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA7S1	1	05/07/2023 08:35	01/08/2023 08:48	648.22	0.66	14.6	7.6	
OCC/23A/NA7S2	2	05/07/2023 08:37	01/08/2023 08:50	648.22	0.5	11	5.7	
OCC/23A/NA7S3	3	05/07/2023 08:40	01/08/2023 08:52	648.20	0.88	19.6	10.2	
OCC/23A/NA7S4	4	05/07/2023 08:43	01/08/2023 08:54	648.18	0.52	11.5	6	
OCC/23A/NA7S5	5	05/07/2023 08:45	01/08/2023 08:56	648.18	0.79	17.5	9.1	
OCC/23A/NA7S6	6	05/07/2023 08:50	01/08/2023 08:58	648.13	0.86	18.9	9.8	
OCC/23A/NA7S7	7	05/07/2023 08:55	01/08/2023 09:00	648.08	0.53	11.7	6.1	
OCC/23A/NA7S8	8	05/07/2023 08:58	01/08/2023 09:02	648.07	0.82	18.1	9.4	
OCC/23A/NA7S9	9	05/07/2023 09:00	01/08/2023 09:05	648.08	0.73	16.1	8.4	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA7S10	10	05/07/2023 09:03	01/08/2023 09:08	648.08	1.32	29.1	15.1	
OCC/23A/NA7S11	11	05/07/2023 09:05	01/08/2023 09:10	648.08	0.63	13.9	7.2	
OCC/23A/NA7S12	12	05/07/2023 09:07	01/08/2023 09:12	648.08	1.06	23.5	12.2	
OCC/23A/NA7S13	13	05/07/2023 09:12	01/08/2023 09:17	648.08	0.38	8.4	4.4	
OCC/23A/NA7S14	14	05/07/2023 09:12	01/08/2023 09:17	648.08	0.35	7.8	4	
OCC/23A/NA7S15	15	05/07/2023 09:12	01/08/2023 09:17	648.08	0.36	8	4.2	
OCC/23A/NA7S16	16	05/07/2023 09:17	01/08/2023 09:29	648.20	0.75	16.6	8.6	
OCC/23A/NA7S17	17	05/07/2023 09:21	01/08/2023 09:33	648.20	1.24	27.4	14.2	
OCC/23A/NA7S18	18							missing





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA7S19	19	05/07/2023 09:28	01/08/2023 09:43	648.25	1.18	26.2	13.6	
OCC/23A/NA7S20	20	05/07/2023 09:35	01/08/2023 09:45	648.17	0.31	6.8	3.5	
OCC/23A/NA7S21	21	05/07/2023 09:41	01/08/2023 09:56	648.25	0.71	15.6	8.1	
OCC/23A/NA7S22	22	05/07/2023 09:44	01/08/2023 10:00	648.27	1.09	24.1	12.5	
OCC/23A/NA7S23	23	05/07/2023 09:50	01/08/2023 10:05	648.25	0.61	13.5	7	
OCC/23A/NA7S24	24	05/07/2023 09:55	01/08/2023 10:09	648.23	0.55	12.2	6.3	
OCC/23A/NA7S25	25	05/07/2023 10:00	01/08/2023 10:12	648.20	1.32	29.1	15.2	
OCC/23A/NA7S26	26	05/07/2023 10:05	01/08/2023 10:15	648.17	1.71	37.8	19.7	
OCC/23A/NA7S27	27							missing/lampost missing



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Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA7S28	28	05/07/2023 10:10	01/08/2023 10:20	648.17	1.01	22.3	11.6	
OCC/23A/NA7S29	29	05/07/2023 10:15	01/08/2023 10:25	648.17	0.74	16.3	8.5	
OCC/23A/NA7S30	30	05/07/2023 10:18	01/08/2023 10:34	648.27	0.9	20	10.4	
OCC/23A/NA7S31	31	05/07/2023 10:21	01/08/2023 10:38	648.28	0.54	12	6.2	
OCC/23A/NA7S32	32	05/07/2023 10:24	01/08/2023 10:40	648.27	1.22	26.9	14	
OCC/23A/NA7S33	33	05/07/2023 10:30	01/08/2023 10:42	648.20	1.01	22.2	11.6	
OCC/23A/NA7S34	34	05/07/2023 10:40	01/08/2023 10:45	648.08	1.59	35.2	18.3	
OCC/23A/NA7S35	35	05/07/2023 12:52	01/08/2023 11:40	646.80	2.08	46.2	24	
OCC/23A/NA7S36	36	05/07/2023 12:55	01/08/2023 11:43	646.80	1.82	40.4	21	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA7S37	37	05/07/2023 13:00	01/08/2023 11:55	646.92	1.17	25.9	13.5	
OCC/23A/NA7S38	38	05/07/2023 13:15	01/08/2023 11:54	646.65	0.75	16.5	8.6	
OCC/23A/NA7S39	39	05/07/2023 13:19	01/08/2023 11:57	646.63	0.98	21.7	11.3	
OCC/23A/NA7S40	40	05/07/2023 13:22	01/08/2023 12:00	646.63	1.62	35.9	18.7	
OCC/23A/NA7S41	41	05/07/2023 13:25	01/08/2023 12:03	646.63	0.92	20.4	10.6	
OCC/23A/NA7S42	42	05/07/2023 13:30	01/08/2023 12:05	646.58	0.83	18.5	9.6	
OCC/23A/NA7S43	43	05/07/2023 13:32	01/08/2023 12:09	646.62	0.57	12.6	6.6	
OCC/23A/NA7S44	44	05/07/2023 13:45	01/08/2023 12:23	646.63	1.01	22.3	11.6	
OCC/23A/NA7S45	45	05/07/2023 13:50	01/08/2023 12:26	646.60	1.22	27	14	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA7S46	46							missing/new lampost
OCC/23A/NA7S47	47	05/07/2023 14:00	01/08/2023 12:38	646.63	0.94	20.9	10.9	
OCC/23A/NA7S48	48	05/07/2023 14:03	01/08/2023 12:41	646.63	1.32	29.3	15.2	
OCC/23A/NA7S49	49	05/07/2023 14:05	01/08/2023 12:43	646.63	1.02	22.6	11.8	
OCC/23A/NA7S50	50	05/07/2023 14:11	01/08/2023 12:45	646.57	0.88	19.5	10.1	
OCC/23A/NA7S51	51	05/07/2023 14:15	01/08/2023 12:51	646.60	0.72	15.9	8.3	
OCC/23A/NA7S52	52	05/07/2023 14:20	01/08/2023 12:55	646.58	0.44	9.6	5	
OCC/23A/NA7S53	53	05/07/2023 14:33	01/08/2023 13:06	646.55	0.67	14.8	7.7	
OCC/23A/NA7S54	54	05/07/2023 14:35	01/08/2023 13:10	646.58	0.93	20.6	10.7	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA7S55	55	05/07/2023 14:37	01/08/2023 13:12	646.58	1.15	25.6	13.3	
OCC/23A/NA7S56	56	05/07/2023 14:40	01/08/2023 13:14	646.57	1.31	29	15.1	
OCC/23A/NA7S57	57	05/07/2023 14:43	01/08/2023 13:18	646.58	0.45	9.9	5.1	
OCC/23A/NA7S58	58	05/07/2023 14:45	01/08/2023 13:25	646.67	0.7	15.5	8	
OCC/23A/NA7S59	59	05/07/2023 14:55	01/08/2023 13:32	646.62	0.85	18.9	9.8	
OCC/23A/NA7S60	60	05/07/2023 14:57	01/08/2023 13:34	646.62	0.49	10.8	5.6	
OCC/23A/NA7S61	61	05/07/2023 14:50	01/08/2023 13:30	646.67	1.34	29.8	15.5	
OCC/23A/NA7S62	62	05/07/2023 14:50	01/08/2023 13:30	646.67	1.39	30.8	16	
OCC/23A/NA7S63	63	05/07/2023 14:50	01/08/2023 13:30	646.67	1.56	34.6	18	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA7S64	64	05/07/2023 15:00	01/08/2023 13:44	646.73	0.92	20.5	10.6	
OCC/23A/NA7S65	65	05/07/2023 15:03	01/08/2023 13:46	646.72	0.89	19.8	10.3	
OCC/23A/NA7S66	66	05/07/2023 15:06	01/08/2023 13:48	646.70	0.5	11.1	5.8	
OCC/23A/NA7S67	67	05/07/2023 15:08	01/08/2023 13:50	646.70	0.91	20.1	10.5	
OCC/23A/NA7S68	68	05/07/2023 15:11	01/08/2023 13:52	646.68	0.78	17.2	9	
OCC/23A/NA7S69	69	05/07/2023 15:12	01/08/2023 13:53	646.68	0.98	21.8	11.3	
OCC/23A/NA7S70	70	05/07/2023 15:14	01/08/2023 13:54	646.67	0.72	16	8.3	
OCC/23A/NA7S71	71	05/07/2023 15:16	01/08/2023 13:55	646.65	1.11	24.7	12.9	
OCC/23A/NA7S72	72	05/07/2023 15:20	01/08/2023 13:57	646.62	1.04	23	11.9	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA7S73	73	05/07/2023 15:22	01/08/2023 14:00	646.63	1.1	24.3	12.6	
OCC/23A/NA7S74	74	05/07/2023 15:24	01/08/2023 14:02	646.63	0.84	18.6	9.6	
OCC/23A/NA7S75	75	05/07/2023 15:00	01/08/2023 14:05	647.08	0.89	19.6	10.2	
OCC/23A/NA7S76	76	05/07/2023 15:02	01/08/2023 13:40	646.63	0.6	13.3	6.9	
OCC/23A/NA7S77	77	05/07/2023 15:00	01/08/2023 13:36	646.60	0.6	13.3	6.9	

