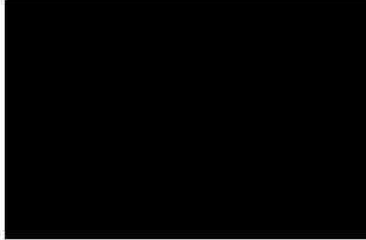




Customer:



Testing Facility:

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

Quotation
Number:

DIF-ANU-10952
(Period 11)

Samples
Received:

11 December 2023

Customer
Order Number:

Analysis
Completed:

27 December 2023

Customer
Reference:

Report Date:

28 December 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.'

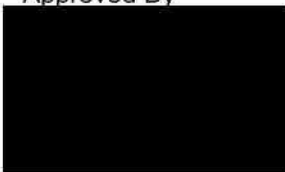
The tubes were prepared by spiking acetone:triethanolamine (50:50) onto the grids prior to the tubes being assembled. The tubes were desorbed with distilled water and the extract analysed using a segmented flow autoanalyser with ultraviolet detection. All samples were received in good condition, unless 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/NA11S1	1	01/11/2023 08:35	06/12/2023 08:30	839.92	1.24	21.1	11	
OCC/23A/NA11S2	2	01/11/2023 08:38	06/12/2023 08:32	839.90	1.3	22.2	11.6	
OCC/23A/NA11S3	3	01/11/2023 08:40	06/12/2023 08:35	839.92	1.88	32.2	16.7	
OCC/23A/NA11S4	4	01/11/2023 08:42	06/12/2023 08:37	839.92	1.2	20.5	10.6	
OCC/23A/NA11S5	5	01/11/2023 08:44	06/12/2023 08:40	839.93	1.84	31.4	16.3	
OCC/23A/NA11S6	6	01/11/2023 08:45	06/12/2023 08:42	839.95	1.64	27.9	14.5	
OCC/23A/NA11S7	7	01/11/2023 08:47	06/12/2023 08:45	839.97	1.2	20.6	10.7	
OCC/23A/NA11S8	8							MISSING
OCC/23A/NA11S9	9	01/11/2023 08:52	06/12/2023 08:53	840.02	1.65	28.1	14.6	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA11S10	10	01/11/2023 08:55	06/12/2023 08:55	840.00	2.09	35.7	18.6	
OCC/23A/NA11S11	11	01/11/2023 08:57	06/12/2023 08:58	840.02	1.59	27.1	14.1	
OCC/23A/NA11S12	12	01/11/2023 09:00	06/12/2023 09:01	840.02	1.83	31.2	16.2	
OCC/23A/NA11S13	13	01/11/2023 09:10	06/12/2023 09:10	840.00	0.98	16.7	8.7	
OCC/23A/NA11S14	14	01/11/2023 09:10	06/12/2023 09:10	840.00	0.84	14.3	7.4	
OCC/23A/NA11S15	15	01/11/2023 09:10	06/12/2023 09:10	840.00	0.92	15.7	8.2	
OCC/23A/NA11S16	16	01/11/2023 09:30	06/12/2023 09:17	839.78	1.55	26.4	13.7	
OCC/23A/NA11S17	17	01/11/2023 09:35	06/12/2023 09:20	839.75	2.38	40.6	21.1	
OCC/23A/NA11S18	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/NA11S19	19	01/11/2023 09:43	06/12/2023 09:28	839.75	1.88	32.1	16.7	
OCC/23A/NA11S20	20	01/11/2023 09:50	06/12/2023 09:30	839.67	0.71	12.2	6.3	
OCC/23A/NA11S21	21	01/11/2023 09:54	06/12/2023 09:45	839.85	1.66	28.3	14.7	
OCC/23A/NA11S22	22	01/11/2023 10:00	06/12/2023 09:48	839.80	2.12	36.3	18.9	
OCC/23A/NA11S23	23	01/11/2023 10:04	06/12/2023 09:55	839.85	1.53	26.1	13.5	
OCC/23A/NA11S24	24	01/11/2023 10:06	06/12/2023 10:00	839.90	1.63	27.9	14.5	
OCC/23A/NA11S25	25	01/11/2023 10:09	06/12/2023 10:02	839.88	1.66	28.4	14.7	
OCC/23A/NA11S26	26	01/11/2023 10:13	06/12/2023 10:05	839.87	2.48	42.3	22	
OCC/23A/NA11S27	27	01/11/2023 10:20	06/12/2023 10:10	839.83	2.4	40.9	21.3	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA11S28	28	01/11/2023 10:25	06/12/2023 10:15	839.83	2.36	40.3	21	
OCC/23A/NA11S29	29	01/11/2023 10:29	06/12/2023 10:22	839.88	1.53	26.2	13.6	
OCC/23A/NA11S30	30	01/11/2023 10:33	06/12/2023 10:25	839.87	1.69	28.8	15	
OCC/23A/NA11S31	31	01/11/2023 10:36	06/12/2023 10:28	839.87	1.09	18.6	9.7	
OCC/23A/NA11S32	32	01/11/2023 10:39	06/12/2023 10:32	839.88	2.73	46.7	24.3	
OCC/23A/NA11S33	33	01/11/2023 10:41	06/12/2023 10:35	839.90	2.16	36.9	19.2	
OCC/23A/NA11S34	34	01/11/2023 10:45	06/12/2023 10:40	839.92	2.76	47.2	24.5	
OCC/23A/NA11S35	35	01/11/2023 12:50	06/12/2023 13:00	840.17	3.1	52.8	27.5	
OCC/23A/NA11S36	36	01/11/2023 12:52	06/12/2023 13:01	840.15	2.92	49.9	25.9	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA11S37	37	01/11/2023 12:54	06/12/2023 13:03	840.15	2.54	43.3	22.5	
OCC/23A/NA11S38	38	01/11/2023 13:00	06/12/2023 13:01	840.02	1.69	28.8	15	
OCC/23A/NA11S39	39	01/11/2023 13:04	06/12/2023 13:10	840.10	1.01	17.2	8.9	
OCC/23A/NA11S40	40	01/11/2023 13:06	06/12/2023 13:15	840.15	2.58	44	22.9	
OCC/23A/NA11S41	41	01/11/2023 13:09	06/12/2023 13:17	840.13	1.5	25.7	13.3	
OCC/23A/NA11S42	42	01/11/2023 13:11	06/12/2023 13:21	840.17	1.82	31	16.1	
OCC/23A/NA11S43	43	01/11/2023 13:17	06/12/2023 13:24	840.12	1.66	28.2	14.7	
OCC/23A/NA11S44	44	01/11/2023 13:30	06/12/2023 13:38	840.13	2.44	41.6	21.7	
OCC/23A/NA11S45	45	01/11/2023 13:35	06/12/2023 13:41	840.10	1.87	31.9	16.6	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA11S46	46	01/11/2023 13:37	06/12/2023 13:44	840.12	1.78	30.4	15.8	
OCC/23A/NA11S47	47	01/11/2023 13:39	06/12/2023 13:45	840.10	1.83	31.3	16.3	
OCC/23A/NA11S48	48	01/11/2023 13:42	06/12/2023 13:49	840.12	2.22	37.8	19.7	
OCC/23A/NA11S49	49	01/11/2023 13:45	06/12/2023 13:52	840.12	2.12	36.1	18.8	
OCC/23A/NA11S50	50	01/11/2023 13:50	06/12/2023 13:55	840.08	1.49	25.5	13.3	
OCC/23A/NA11S51	51	01/11/2023 14:00	06/12/2023 14:05	840.08	1.8	30.8	16	
OCC/23A/NA11S52	52	01/11/2023 14:04	06/12/2023 14:10	840.10	1.09	18.7	9.7	
OCC/23A/NA11S53	53	01/11/2023 14:17	06/12/2023 14:20	840.05	1.24	21.1	11	
OCC/23A/NA11S54	54	01/11/2023 14:20	06/12/2023 14:22	840.03	1.58	26.9	14	



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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/NA11S55	55	01/11/2023 14:23	06/12/2023 14:23	840.00	1.9	32.5	16.9	
OCC/23A/NA11S56	56	01/11/2023 14:25	06/12/2023 14:24	839.98	2.49	42.4	22.1	
OCC/23A/NA11S57	57	01/11/2023 14:30	06/12/2023 14:26	839.93	0.79	13.5	7	
OCC/23A/NA11S58	58	01/11/2023 14:33	06/12/2023 14:34	840.02	1.58	26.9	14	
OCC/23A/NA11S59	59	01/11/2023 14:43	06/12/2023 14:39	839.93	1.81	30.9	16.1	
OCC/23A/NA11S60	60	01/11/2023 14:45	06/12/2023 14:41	839.93	0.87	14.9	7.7	
OCC/23A/NA11S61	61	01/11/2023 14:40	06/12/2023 14:36	839.93	2.51	42.8	22.3	
OCC/23A/NA11S62	62	01/11/2023 14:40	06/12/2023 14:36	839.93	2.26	38.6	20.1	
OCC/23A/NA11S63	63	01/11/2023 14:40	06/12/2023 14:36	839.93	2.2	37.5	19.5	MOISTURE





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA11S64	64	01/11/2023 14:51	06/12/2023 14:46	839.92	2	34.2	17.8	
OCC/23A/NA11S65	65	01/11/2023 14:53	06/12/2023 14:53	840.00	2.04	34.8	18.1	
OCC/23A/NA11S66	66	01/11/2023 14:55	06/12/2023 14:55	840.00	1.39	23.7	12.3	
OCC/23A/NA11S67	67	01/11/2023 14:56	06/12/2023 14:59	840.05	2.21	37.8	19.6	
OCC/23A/NA11S68	68	01/11/2023 14:58	06/12/2023 15:01	840.05	1	17.1	8.9	
OCC/23A/NA11S69	69							MISSING
OCC/23A/NA11S70	70	01/11/2023 15:01	06/12/2023 15:07	840.10	1.46	24.9	12.9	
OCC/23A/NA11S71	71	01/11/2023 12:00	06/12/2023 15:10	843.17	2.11	35.8	18.6	
OCC/23A/NA11S72	72							MISSING





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA11S73	73	01/11/2023 19:19	06/12/2023 15:15	835.93	2.29	39.3	20.4	
OCC/23A/NA11S74	74	01/11/2023 15:18	06/12/2023 15:17	839.98	1.74	29.7	15.4	
OCC/23A/NA11S75	75	01/11/2023 15:20	06/12/2023 15:20	840.00	1.7	29	15.1	
OCC/23A/NA11S76	76	01/11/2023 14:48	06/12/2023 14:45	839.95	1.76	30.1	15.7	
OCC/23A/NA11S77	77	01/11/2023 14:46	06/12/2023 14:43	839.95	0.99	16.9	8.8	

