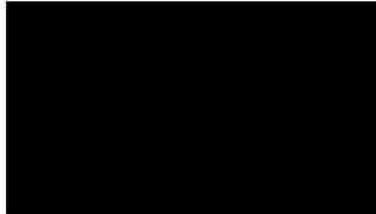




Customer:



Testing Facility:

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

Quotation  
Number:

DIF-ANU-10952  
(Period 3)

Samples  
Received:

12 April 2023

Customer  
Order Number:

Analysis  
Completed:

26 April 2023

Customer  
Reference:

Report Date:

27 April 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 NO<sub>2</sub> 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 <sup>-3</sup>	ppb	Comments
OCC/23A/NA3S1	1	01/03/2023 08:20	05/04/2023 08:55	840.58	1.34	22.9	11.9	
OCC/23A/NA3S2	2	01/03/2023 08:25	05/04/2023 08:57	840.53	1.15	19.7	10.2	
OCC/23A/NA3S3	3	01/03/2023 08:28	05/04/2023 09:00	840.53	1.67	28.4	14.8	
OCC/23A/NA3S4	4	01/03/2023 08:30	05/04/2023 09:04	840.57	1.51	25.7	13.4	
OCC/23A/NA3S5	5	01/03/2023 08:34	05/04/2023 09:08	840.57	1.59	27.2	14.1	
OCC/23A/NA3S6	6	01/03/2023 08:36	05/04/2023 09:10	840.57	1.61	27.4	14.3	
OCC/23A/NA3S7	7	01/03/2023 08:38	05/04/2023 09:12	840.57	1.19	20.2	10.5	
OCC/23A/NA3S8	8	01/03/2023 08:42	05/04/2023 09:15	840.55	1.59	27.1	14.1	
OCC/23A/NA3S9	9	01/03/2023 08:45	05/04/2023 09:17	840.53	1.66	28.2	14.7	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA3S10	10	01/03/2023 08:50	05/04/2023 09:20	840.50	2.08	35.4	18.4	
OCC/23A/NA3S11	11	01/03/2023 08:52	05/04/2023 09:23	840.52	1.34	22.9	11.9	
OCC/23A/NA3S12	12	01/03/2023 08:55	05/04/2023 09:25	840.50	1.71	29.2	15.2	
OCC/23A/NA3S13	13	01/03/2023 09:00	05/04/2023 09:28	840.47	0.74	12.6	6.6	
OCC/23A/NA3S14	14	01/03/2023 09:00	05/04/2023 09:28	840.47	0.67	11.4	5.9	
OCC/23A/NA3S15	15	01/03/2023 09:00	05/04/2023 09:28	840.47	0.65	11.1	5.8	
OCC/23A/NA3S16	16	01/03/2023 09:05	05/04/2023 09:33	840.47	1.33	22.7	11.8	
OCC/23A/NA3S17	17	01/03/2023 09:07	05/04/2023 09:37	840.50	1.96	33.4	17.4	
OCC/23A/NA3S18	18	01/03/2023 09:10	05/04/2023 09:40	840.50	1.6	27.2	14.2	



1252



Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA3S19	19	01/03/2023 09:12	05/04/2023 09:46	840.57	1.9	32.4	16.8	
OCC/23A/NA3S20	20	01/03/2023 09:15	05/04/2023 09:49	840.57	0.7	12	6.2	
OCC/23A/NA3S21	21	01/03/2023 09:27	05/04/2023 09:58	840.52	1.43	24.3	12.6	
OCC/23A/NA3S22	22	01/03/2023 09:30	05/04/2023 10:02	840.53	1.91	32.6	16.9	
OCC/23A/NA3S23	23	01/03/2023 09:35	05/04/2023 10:05	840.50	1.17	19.9	10.4	
OCC/23A/NA3S24	24	01/03/2023 09:42	05/04/2023 10:10	840.47	0.99	16.8	8.8	
OCC/23A/NA3S25	25	01/03/2023 09:44	05/04/2023 10:17	840.55	2.2	37.6	19.5	
OCC/23A/NA3S26	26	01/03/2023 09:47	05/04/2023 10:19	840.53	2.4	40.9	21.3	
OCC/23A/NA3S27	27	01/03/2023 09:50	05/04/2023 10:23	840.55	2.27	38.7	20.1	



1252



Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA3S28	28	01/03/2023 09:55	05/04/2023 10:25	840.50	2.22	37.8	19.7	
OCC/23A/NA3S29	29	01/03/2023 10:02	05/04/2023 10:30	840.47	1.18	20.1	10.5	
OCC/23A/NA3S30	30	01/03/2023 10:05	05/04/2023 10:35	840.50	1.79	30.5	15.9	
OCC/23A/NA3S31	31	01/03/2023 10:10	05/04/2023 10:40	840.50	2.19	37.3	19.4	
OCC/23A/NA3S32	32	01/03/2023 10:15	05/04/2023 10:41	840.43	1.09	18.6	9.7	
OCC/23A/NA3S33	33	01/03/2023 10:20	05/04/2023 10:42	840.37	2.08	35.4	18.4	
OCC/23A/NA3S34	34	01/03/2023 10:30	05/04/2023 10:43	840.22	2.61	44.5	23.1	
OCC/23A/NA3S35	35	01/03/2023 11:12	05/04/2023 13:20	842.13	3.08	52.4	27.3	
OCC/23A/NA3S36	36	01/03/2023 11:15	05/04/2023 13:23	842.13	2.71	46.1	24	



1252



Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA3S37	37	01/03/2023 11:18	05/04/2023 13:25	842.12	2.23	38	19.7	
OCC/23A/NA3S38	38	01/03/2023 11:22	05/04/2023 13:29	842.12	1.41	23.9	12.4	
OCC/23A/NA3S39	39	01/03/2023 11:25	05/04/2023 13:33	842.13	1.76	29.9	15.5	
OCC/23A/NA3S40	40	01/03/2023 11:30	05/04/2023 13:38	842.13	2.13	36.3	18.9	
OCC/23A/NA3S41	41	01/03/2023 11:34	05/04/2023 13:40	842.10	1.24	21	10.9	
OCC/23A/NA3S42	42	01/03/2023 11:37	05/04/2023 13:42	842.08	1.65	28.1	14.6	
OCC/23A/NA3S43	43	01/03/2023 11:40	05/04/2023 13:44	842.07	1.49	25.3	13.2	
OCC/23A/NA3S44	44	01/03/2023 11:55	05/04/2023 13:50	841.92	2.19	37.3	19.4	
OCC/23A/NA3S45	45	01/03/2023 12:00	05/04/2023 14:00	842.00	2	34.1	17.7	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA3S46	46	01/03/2023 12:10	05/04/2023 14:03	841.88	1.66	28.3	14.7	
OCC/23A/NA3S47	47	01/03/2023 12:12	05/04/2023 14:06	841.90	1.48	25.2	13.1	
OCC/23A/NA3S48	48	01/03/2023 12:15	05/04/2023 14:08	841.88	2.19	37.4	19.4	
OCC/23A/NA3S49	49	01/03/2023 12:17	05/04/2023 14:10	841.88	1.87	31.9	16.6	
OCC/23A/NA3S50	50	01/03/2023 12:20	05/04/2023 14:15	841.92	1.67	28.5	14.8	
OCC/23A/NA3S51	51	01/03/2023 12:25	05/04/2023 14:25	842.00	1.35	23	12	
OCC/23A/NA3S52	52	01/03/2023 12:28	05/04/2023 14:30	842.03	0.85	14.5	7.5	
OCC/23A/NA3S53	53	01/03/2023 12:38	05/04/2023 14:35	841.95	1.29	22	11.4	
OCC/23A/NA3S54	54	01/03/2023 12:40	05/04/2023 14:38	841.97	1.09	18.6	9.7	



1252



Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA3S55	55	01/03/2023 12:44	05/04/2023 14:44	842.00	1.74	29.7	15.4	
OCC/23A/NA3S56	56	01/03/2023 12:48	05/04/2023 14:48	842.00	1.88	32.1	16.7	
OCC/23A/NA3S57	57	01/03/2023 12:53	05/04/2023 14:50	841.95	1.03	17.5	9.1	
OCC/23A/NA3S58	58	01/03/2023 12:55	05/04/2023 14:55	842.00	0.54	9.2	4.8	
OCC/23A/NA3S59	59	01/03/2023 13:00	05/04/2023 15:05	842.08	1.81	30.9	16.1	
OCC/23A/NA3S60	60	01/03/2023 13:03	05/04/2023 15:07	842.07	1.06	18	9.3	
OCC/23A/NA3S61	61	01/03/2023 12:57	05/04/2023 15:00	842.05	2.21	37.6	19.6	
OCC/23A/NA3S62	62	01/03/2023 12:57	05/04/2023 15:00	842.05	2.62	44.6	23.2	
OCC/23A/NA3S63	63	01/03/2023 12:57	05/04/2023 15:00	842.05	2.51	42.8	22.2	



1252





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA3S64	64	01/03/2023 13:15	05/04/2023 15:15	842.00	1.63	27.8	14.5	
OCC/23A/NA3S65	65	01/03/2023 13:20	05/04/2023 15:16	841.93	1.6	27.2	14.2	
OCC/23A/NA3S66	66	01/03/2023 13:25	05/04/2023 15:17	841.87	1.21	20.5	10.7	
OCC/23A/NA3S67	67	01/03/2023 13:27	05/04/2023 15:19	841.87	1.15	19.6	10.2	
OCC/23A/NA3S68	68	01/03/2023 13:30	05/04/2023 15:22	841.87	1.49	25.4	13.2	
OCC/23A/NA3S69	69	01/03/2023 13:32	05/04/2023 15:25	841.88	2.11	35.9	18.7	
OCC/23A/NA3S70	70	01/03/2023 13:35	05/04/2023 15:30	841.92	1.1	18.7	9.7	
OCC/23A/NA3S71	71	01/03/2023 13:40	05/04/2023 15:32	841.87	1.95	33.2	17.2	
OCC/23A/NA3S72	72	01/03/2023 13:42	05/04/2023 15:34	841.87	1.89	32.2	16.7	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA3S73	73	01/03/2023 13:44	05/04/2023 15:36	841.87	1.45	24.6	12.8	
OCC/23A/NA3S74	74	01/03/2023 13:46	05/04/2023 15:38	841.87	1.65	28	14.6	
OCC/23A/NA3S75	75	01/03/2023 13:50	05/04/2023 15:40	841.83	1.84	31.4	16.3	
OCC/23A/NA3S76	76	01/03/2023 13:13	05/04/2023 15:10	841.95	1.2	20.4	10.6	
OCC/23A/NA3S77	77	01/03/2023 13:06	05/04/2023 15:12	842.10	1.24	21.2	11	

