Customer:	[redacted]	Testing Facility:	SOCOTEC Unit 12 Moorbrook Southmead Industrial Park Didcot Oxfordshire OX11 7HP
Quotation Number:	DIF-ANU-10952 (Period 6)	Samples Received:	10 July 2023
Customer Order Number:		Analysis Completed:	17 July 2023
Customer Reference:		Report Date:	18 July 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.

Approved By

[redacted]

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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/NA6S1	1	31/05/2023 09:12	05/07/2023 08:35	839.38	0.84	14.4	7.5	
OCC/23A/NA6S2	2	31/05/2023 09:14	05/07/2023 08:37	839.38	0.7	11.9	6.2	
OCC/23A/NA6S3	3	31/05/2023 09:16	05/07/2023 08:40	839.40	1.23	21	10.9	
OCC/23A/NA6S4	4	31/05/2023 09:19	05/07/2023 08:43	839.40	1.11	19	9.9	
OCC/23A/NA6S5	5	31/05/2023 09:21	05/07/2023 08:45	839.40	1.1	18.8	9.8	
OCC/23A/NA6S6	6	31/05/2023 09:23	05/07/2023 08:50	839.45	1.12	19.1	9.9	
OCC/23A/NA6S7	7	31/05/2023 09:26	05/07/2023 08:55	839.48	1.04	17.7	9.2	
OCC/23A/NA6S8	8							Missing
OCC/23A/NA6S9	9	31/05/2023 09:32	05/07/2023 09:00	839.47	1.4	23.9	12.4	

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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/NA6S10	10	31/05/2023 09:36	05/07/2023 09:03	839.45	1.91	32.6	16.9	
OCC/23A/NA6S11	11	31/05/2023 09:42	05/07/2023 09:05	839.38	1.56	26.7	13.9	
OCC/23A/NA6S12	12	31/05/2023 09:45	05/07/2023 09:07	839.37	1.87	31.9	16.6	
OCC/23A/NA6S13	13	31/05/2023 10:00	05/07/2023 09:12	839.20	0.56	9.6	5	
OCC/23A/NA6S14	14	31/05/2023 10:00	05/07/2023 09:12	839.20	0.54	9.2	4.8	
OCC/23A/NA6S15	15	31/05/2023 10:00	05/07/2023 09:12	839.20	0.55	9.4	4.9	
OCC/23A/NA6S16	16	31/05/2023 10:07	05/07/2023 09:17	839.17	1.2	20.5	10.7	
OCC/23A/NA6S17	17	31/05/2023 10:11	05/07/2023 09:21	839.17	1.54	26.3	13.7	
OCC/23A/NA6S18	18	31/05/2023 10:15	05/07/2023 09:24	839.15	1.3	22.2	11.5	

Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m^{-3}	ppb	Comments
OCC/23A/NA6S19	19	31/05/2023 10:22	05/07/2023 09:28	839.10	1.74	29.8	15.5	
OCC/23A/NA6S20	20	31/05/2023 10:30	05/07/2023 09:35	839.08	0.46	7.8	4.1	
OCC/23A/NA6S21	21	31/05/2023 10:35	05/07/2023 09:41	839.10	1.07	18.3	9.5	
OCC/23A/NA6S22	22	31/05/2023 10:40	05/07/2023 09:44	839.07	1.83	31.3	16.3	
OCC/23A/NA6S23	23	31/05/2023 10:44	05/07/2023 09:50	839.10	0.94	16.1	8.4	
OCC/23A/NA6S24	24	31/05/2023 10:50	05/07/2023 09:55	839.08	0.95	16.2	8.4	
OCC/23A/NA6S25	25	31/05/2023 10:56	05/07/2023 10:00	839.07	1.82	31.1	16.2	
OCC/23A/NA6S26	26							Missing
OCC/23A/NA6S27	27	31/05/2023 11:00	05/07/2023 10:08	839.13	1.76	30.1	15.6	

Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m^{-3}	ppb	Comments
OCC/23A/NA6S28	28	31/05/2023 11:05	05/07/2023 10:10	839.08	1.65	28.2	14.6	
OCC/23A/NA6S29	29	31/05/2023 11:09	05/07/2023 10:15	839.10	0.96	16.5	8.6	
OCC/23A/NA6S30	30	31/05/2023 11:11	05/07/2023 10:18	839.12	1.89	32.4	16.8	
OCC/23A/NA6S31	31	31/05/2023 11:13	05/07/2023 10:21	839.13	1.05	17.9	9.3	
OCC/23A/NA6S32	32	31/05/2023 11:20	05/07/2023 10:24	839.07	1.85	31.5	16.4	
OCC/23A/NA6S33	33	31/05/2023 11:25	05/07/2023 10:30	839.08	2.01	34.4	17.9	
OCC/23A/NA6S34	34	31/05/2023 11:30	05/07/2023 10:40	839.17	2.21	37.8	19.6	
OCC/23A/NA6S35	35	31/05/2023 12:30	05/07/2023 12:52	840.37	3.12	53.2	27.7	
OCC/23A/NA6S36	36	31/05/2023 12:33	05/07/2023 12:55	840.37	2.33	39.8	20.7	

Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m^{-3}	ppb	Comments
OCC/23A/NA6S37	37	31/05/2023 12:35	05/07/2023 13:00	840.42	2.3	39.2	20.4	
OCC/23A/NA6S38	38	31/05/2023 12:40	05/07/2023 13:15	840.58	1.51	25.7	13.4	
OCC/23A/NA6S39	39	31/05/2023 12:42	05/07/2023 13:19	840.62	1.59	27.1	14.1	
OCC/23A/NA6S40	40	31/05/2023 12:48	05/07/2023 13:22	840.57	1.68	28.6	14.9	
OCC/23A/NA6S41	41	31/05/2023 12:50	05/07/2023 13:25	840.58	1.33	22.6	11.8	
OCC/23A/NA6S42	42	31/05/2023 12:52	05/07/2023 13:30	840.63	1.46	24.9	13	
OCC/23A/NA6S43	43	31/05/2023 12:55	05/07/2023 13:32	840.62	1.39	23.6	12.3	
OCC/23A/NA6S44	44	31/05/2023 13:08	05/07/2023 13:45	840.62	2.43	41.4	21.5	
OCC/23A/NA6S45	45	31/05/2023 13:10	05/07/2023 13:50	840.67	1.55	26.5	13.8	

Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m^{-3}	ppb	Comments
OCC/23A/NA6S46	46	31/05/2023 13:15	05/07/2023 13:55	840.67	1.41	24	12.5	
OCC/23A/NA6S47	47	31/05/2023 13:17	05/07/2023 14:00	840.72	1.68	28.6	14.9	
OCC/23A/NA6S48	48	31/05/2023 13:20	05/07/2023 14:03	840.72	1.63	27.8	14.4	
OCC/23A/NA6S49	49	31/05/2023 13:25	05/07/2023 14:05	840.67	1.83	31.2	16.2	
OCC/23A/NA6S50	50	31/05/2023 13:30	05/07/2023 14:11	840.68	0.96	16.3	8.5	
OCC/23A/NA6S51	51	31/05/2023 13:35	05/07/2023 14:15	840.67	0.9	15.4	8	
OCC/23A/NA6S52	52	31/05/2023 13:40	05/07/2023 14:20	840.67	0.69	11.7	6.1	
OCC/23A/NA6S53	53	31/05/2023 13:43	05/07/2023 14:33	840.83	0.84	14.3	7.4	
OCC/23A/NA6S54	54	31/05/2023 13:45	05/07/2023 14:35	840.83	1.18	20.2	10.5	

Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m^{-3}	ppb	Comments
OCC/23A/NA6S55	55	31/05/2023 13:50	05/07/2023 14:37	840.78	1.36	23.1	12	
OCC/23A/NA6S56	56	31/05/2023 14:00	05/07/2023 14:40	840.67	1.85	31.5	16.4	
OCC/23A/NA6S57	57	31/05/2023 14:05	05/07/2023 14:43	840.63	0.73	12.4	6.5	
OCC/23A/NA6S58	58	31/05/2023 14:07	05/07/2023 14:45	840.63	1.09	18.5	9.6	
OCC/23A/NA6S59	59	31/05/2023 14:09	05/07/2023 14:55	840.77	1.72	29.3	15.2	
OCC/23A/NA6S60	60	31/05/2023 14:13	05/07/2023 14:57	840.73	0.74	12.6	6.5	
OCC/23A/NA6S61	61	31/05/2023 14:10	05/07/2023 14:50	840.67	2.46	42	21.9	
OCC/23A/NA6S62	62	31/05/2023 14:10	05/07/2023 14:50	840.67	2.49	42.5	22.1	
OCC/23A/NA6S63	63	31/05/2023 14:10	05/07/2023 14:50	840.67	2.31	39.4	20.5	

Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m^{-3}	ppb	Comments
OCC/23A/NA6S64	64	31/05/2023 14:20	05/07/2023 15:00	840.67	1.71	29.1	15.1	
OCC/23A/NA6S65	65	31/05/2023 14:22	05/07/2023 15:03	840.68	1.32	22.5	11.7	
OCC/23A/NA6S66	66	31/05/2023 14:25	05/07/2023 15:06	840.68	0.77	13.2	6.8	
OCC/23A/NA6S67	67	31/05/2023 14:27	05/07/2023 15:08	840.68	1.88	32	16.6	
OCC/23A/NA6S68	68	31/05/2023 14:30	05/07/2023 15:11	840.68	1.36	23.3	12.1	
OCC/23A/NA6S69	69	31/05/2023 14:35	05/07/2023 15:12	840.62	1.37	23.3	12.1	
OCC/23A/NA6S70	70	31/05/2023 14:37	05/07/2023 15:14	840.62	1.01	17.3	9	
OCC/23A/NA6S71	71	31/05/2023 14:38	05/07/2023 15:16	840.63	1.65	28.2	14.7	
OCC/23A/NA6S72	72	31/05/2023 14:40	05/07/2023 15:20	840.67	1.43	24.4	12.7	

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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/NA6S73	73	31/05/2023 14:42	05/07/2023 15:22	840.67	2.03	34.6	18	
OCC/23A/NA6S74	74	31/05/2023 14:44	05/07/2023 15:24	840.67	1.39	23.8	12.4	
OCC/23A/NA6S75	75							Missing
OCC/23A/NA6S76	76	31/05/2023 14:17	05/07/2023 15:02	840.75	0.66	11.2	5.8	
OCC/23A/NA6S77	77	31/05/2023 14:15	05/07/2023 15:00	840.75	0.84	14.3	7.4	

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