

LABORATORY ANALYSIS REPORT

NITROGEN DIOXIDE IN DIFFUSION TUBES BY U.V.SPECTROPHOTOMETRY

REPORT NUMBER Q00640R
BOOKING IN REFERENCE Q00640
DESPATCH NOTE 70209
CUSTOMER Tewkesbury Borough Council Attn: Philip Grist
Environmental Health Dept.
Gloucester Road
Tewkesbury 'A'
Gloucestershire
GL20 5TT

DATE SAMPLES RECEIVED 12/01/2022

Location	Sample Number	Exposure Data			$\mu\text{g}/\text{m}^3$ *	ppb *	$\mu\text{g NO}_2$ on tube
		Date On*	Date Off*	Time* (hr.)			
21/12/(3)1N	1884842	03/12/2021	07/01/2022	840.00	25.72	13.42	1.57
21/12/(3)2N	1884843	03/12/2021	05/01/2022	795.33	15.78	8.23	0.91
21/12/ 5N	1884844	03/12/2021	05/01/2022	795.25	23.29	12.15	1.35
21/12/ 6N	1884845	03/12/2021	07/01/2022	840.00	28.58	14.92	1.75
21/12/ 14N	1884846	03/12/2021	05/01/2022	797.25	20.30	10.59	1.18
21/12/ 15N	1884847	03/12/2021	05/01/2022	797.25	21.12	11.02	1.22
21/12/ 16N	1884848	03/12/2021	05/01/2022	797.50	19.10	9.97	1.11
21/12/ 20N	1884849	03/12/2021	06/01/2022	818.00	5.67	2.96	0.34
21/12/35N	1884850	03/12/2021	07/01/2022	840.00	27.34	14.27	1.67
21/12/37N	1884851	03/12/2021	07/01/2022	840.00	22.42	11.70	1.37
21/12/38N	1884852	03/12/2021	07/01/2022	840.00	24.60	12.84	1.50
21/12/41N	1884853	03/12/2021	05/01/2022	795.53	27.40	14.30	1.58
21/12/47N	1884854	03/12/2021	05/01/2022	795.58	26.01	13.58	1.50
21/12/50N	1884855	03/12/2021	06/01/2022	817.00	17.57	9.17	1.04
21/12/52N	1884856	03/12/2021	05/01/2022	797.00	18.42	9.61	1.07
21/12/53N	1884857	03/12/2021	07/01/2022	843.50	16.77	8.75	1.03
21/12/55N	1884858	03/12/2021	06/01/2022	818.00	21.92	11.44	1.30
21/12/56N	1884859	03/12/2021	05/01/2022	795.92	12.62	6.59	0.73
21/12/57N	1884860	03/12/2021	07/01/2022	842.00	19.90	10.39	1.22
Not on sheet	1900794			843.50	<0.60	<0.31	<0.037
Laboratory Blank				843.50	0.23	0.12	0.014

Comment: Results are not blank subtracted

Results reported as <0.037 are below the reporting limit.

Tube 1884861 was missing on arrival.

Tube 1900794 was received but not listed on the exposure sheet. Maximum exposure time was used.

Tube 1884846 contained water droplets. Result may be compromised.

Results have been corrected to a temperature of 293 K (20°)

Overall M.U. $\pm 9.7\%$

The reported expanded uncertainty is based on a standard uncertainty multiplied by a factor of $k=2$, providing a level of confidence of approximately 95%. Uncertainty of measurement has not been applied to the reported results.

Tube Preparation: 50% TEA /Acetone

Analyst Name Kumuthu Amaradasa

Date of Analysis 21/01/2022

Limit of Detection 0.037 μgNO_2

Analysed on UV CARY3

Report Checked By Adam Robinson

Date of Report 21/01/2022

Analysis carried out in accordance with documented in-house Laboratory Method GLM7

Samples have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures. Results within this report relate only to samples as received. Data provided by the client and any subsequent calculations shall be indicated by an asterisk (*), these calculations and results are not within the scope of our UKAS accreditation. Any queries concerning data in this report should be directed to the Laboratory Manager Gradko International Ltd. This report is not to be reproduced, except in full, without the written permission of Gradko International Ltd.

Form LQF32b Issue 10 – November 2021

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REPORT OFFICIALLY CHECKED

Gradko International Ltd
This signature confirms the authenticity of these results
Signed.....
L. Gates, Laboratory Manager