

Air Quality Report

Produced by AQDM on behalf of Herefordshire

HEREFORD VICTORIA STREET 2022

Fully ratified by AQDM to the LAQM TG22 standards using the AURN methodology

Site Environment and Description

ROADSIDE: Corner of Victoria Street and King Street

[Map](#)

[Photo](#)

Statistical Summary Report

This 2022 report contains all the statistics required for the LAQM reporting.

Gravimetric PM₁₀

BAM instrument PM₁₀ x 0.833 to 15 August 2022

Smart Heated BAM instrument PM₁₀ / 1.035 from 16 August 2022

Daily Air Quality Index (DAQI)

The table below shows the duration within the bands of the Daily Air Quality Index (DAQI). The DAQI was introduced by Defra in January 2012 and revised April 2013.

DAQI Pollutant	Moderate	High	Very High
Nitrogen Dioxide	0 hours	0	0
PM ₁₀ Particulate Matter	0 days	0	0
PM _{2.5} Particulate Matter	0 days	0	0

Air Quality Exceedances of the AQS Objectives

NO₂ - annual data capture was 56.7 %

The annual mean was 31 $\mu\text{g m}^{-3}$ which did not exceed the 40 $\mu\text{g m}^{-3}$ Objective.

The maximum hourly mean was 117 $\mu\text{g m}^{-3}$ so there were no exceedances of the NO₂ hourly limit of 200 $\mu\text{g m}^{-3}$. There is an annual allowance of 18 hours so the Objective was not exceeded.

Gravimetric PM₁₀ - annual data capture was 62.2 %

The annual mean was 18 $\mu\text{g m}^{-3}$ which did not exceed the 40 $\mu\text{g m}^{-3}$ Objective.

The maximum daily mean was 48 $\mu\text{g m}^{-3}$ so there were no exceedances of the PM₁₀ daily limit of 50 $\mu\text{g m}^{-3}$. There is an annual allowance of 35 days so the Objective was not exceeded.

Gravimetric PM_{2.5} - annual data capture was 37.7 % and 99.6 % for the monitored period

The annual mean was 9 $\mu\text{g m}^{-3}$ which did not exceed the 25 $\mu\text{g m}^{-3}$ Objective. Note that the PM_{2.5} standard is not set in the regulations.

There should be a 15% cut in urban background exposure (annual mean) for all Local Authorities from 2010 to 2020.

Air Quality Report

HEREFORD VICTORIA STREET 2022

Air Quality Statistics

Pollutant	NO ₂	NO	NO _x	Grav PM ₁₀ ⁺	Grav PM _{2.5} [~]
Number Very High #	0	-	-	0	0
Number High #	0	-	-	0	0
Number Moderate #	0	-	-	0	0
Number Low #	4967	-	-	222	137
Maximum 15-min mean	142 µg m ⁻³	501 µg m ⁻³	901 µg m ⁻³	-	-
Maximum hourly mean	117 µg m ⁻³	397 µg m ⁻³	723 µg m ⁻³	154 µg m ⁻³	74 µg m ⁻³
Maximum running 8-hr mean	93 µg m ⁻³	248 µg m ⁻³	469 µg m ⁻³	83 µg m ⁻³	45 µg m ⁻³
Maximum running 24-hr mean	66 µg m ⁻³	182 µg m ⁻³	342 µg m ⁻³	52 µg m ⁻³	32 µg m ⁻³
Maximum daily mean	64 µg m ⁻³	169 µg m ⁻³	319 µg m ⁻³	48 µg m ⁻³	30 µg m ⁻³
99.8 th percentile of hourly means [†]	103 µg m ⁻³	-	-	-	-
90.4 th percentile of daily means [†]	-	-	-	25 µg m ⁻³	-
90 th percentile of daily means [†]	-	-	-	25 µg m ⁻³	-
98.1 st percentile of daily means [†]	-	-	-	37 µg m ⁻³	-
Average	31 µg m ⁻³	39 µg m ⁻³	91 µg m ⁻³	18 µg m ⁻³	9 µg m ⁻³
Data capture	56.7 %	56.7 %	56.7 %	62.2 %	37.7 %
Data capture from 16 th August	-	-	-	-	99.6 %

Daily Air Quality Index (DAQI) as defined by COMEAP January 2012 and revised April 2013

† Percentile required for annual data capture < 85%

+ Gravimetric PM₁₀ instruments:

BAM instrument using 0.833 gravimetric factor to 15 August 2022

Smart Heated BAM instrument using 0.96618 gravimetric factor from 16 August 2022

~ Gravimetric PM_{2.5} as measured by a Smart Heated BAM instrument using 1 gravimetric factor

Mass units for the gases are at 20°C and 1013mb

NO_x mass units are NO_x as NO₂ µg m⁻³

Air Quality Exceedances

Pollutant	Air Quality (England) Regulations 2000 & (Amendment) Regulations 2002	Max Conc	Number	Days	Allowed	Exceeded
Nitrogen Dioxide	Annual mean > 40 µg m ⁻³	31 µg m ⁻³	0	-	-	No
Nitrogen Dioxide	Hourly mean > 200 µg m ⁻³	117 µg m ⁻³	0	0	18 hours	No
PM ₁₀ Particulate Matter (Gravimetric)	Annual mean > 40 µg m ⁻³	18 µg m ⁻³	0	-	-	No
PM ₁₀ Particulate Matter (Gravimetric)	Daily mean > 50 µg m ⁻³	48 µg m ⁻³	0	0	35 days	No
PM _{2.5} Particulate Matter (Gravimetric) *	Annual mean > 25 µg m ⁻³	9 µg m ⁻³	0	-	-	No

* Not set in regulations

Air Quality Report

HEREFORD VICTORIA STREET 2022

Monthly Data Captures %

Pollutant	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Nitrogen Dioxide	88.4	0.0	0.0	0.0	0.0	64.0	72.6	53.6	99.4	99.5	99.0	99.5
Grav PM ₁₀	32.8	0.0	18.4	14.2	36.8	92.5	94.5	53.9	99.7	99.9	99.9	99.9
Grav PM _{2.5}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.4	99.9	99.9	99.9	99.9

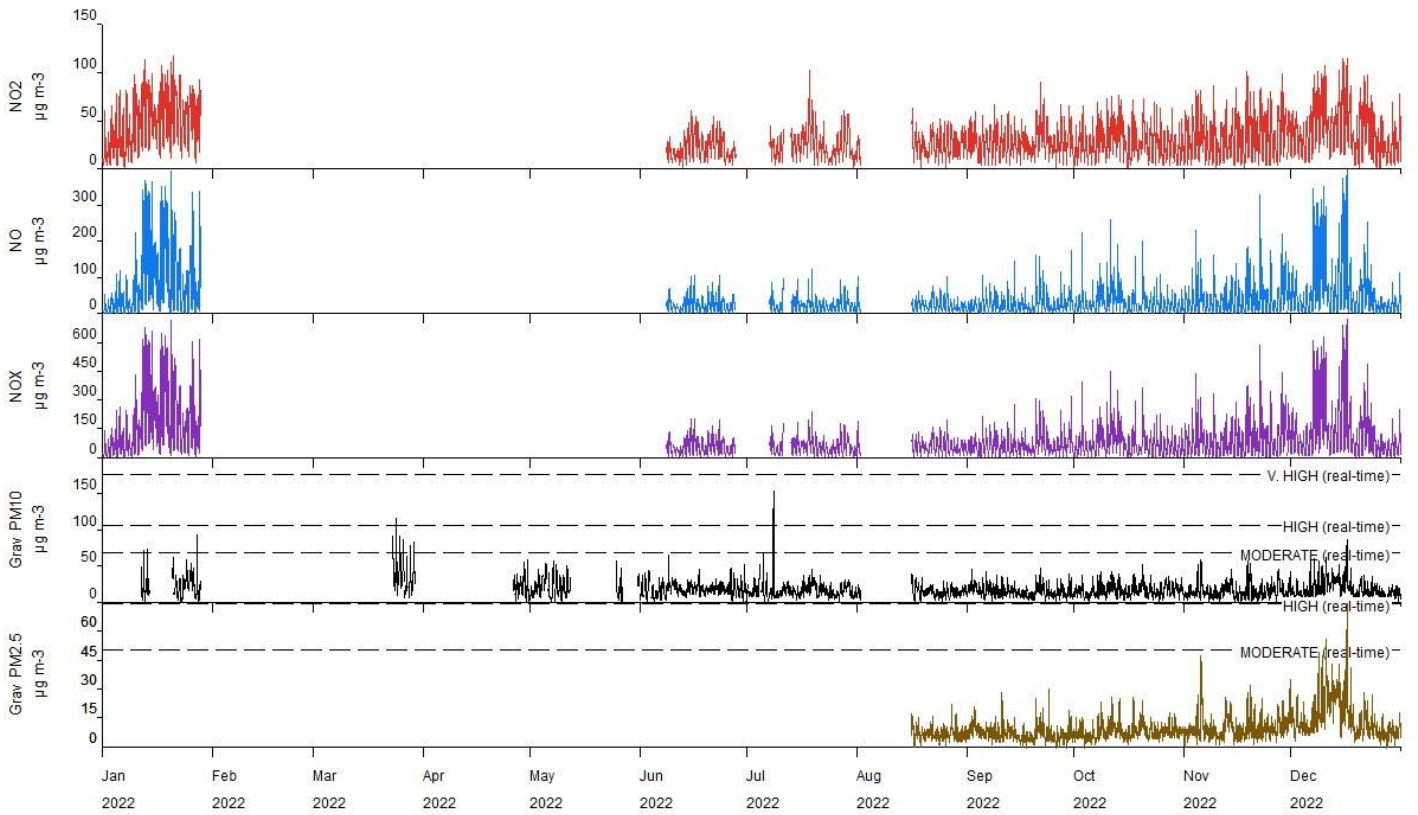
Monthly Means

Pollutant	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Nitrogen Dioxide $\mu\text{g m}^{-3}$	44	-	-	-	-	22	24	24	27	28	34	39
Grav PM ₁₀ $\mu\text{g m}^{-3}$	23	-	39	22	20	18	16	15	15	17	16	19
Grav PM _{2.5} $\mu\text{g m}^{-3}$	-	-	-	-	-	-	-	7	7	8	10	15

Air Quality Report

HEREFORD VICTORIA STREET 2022

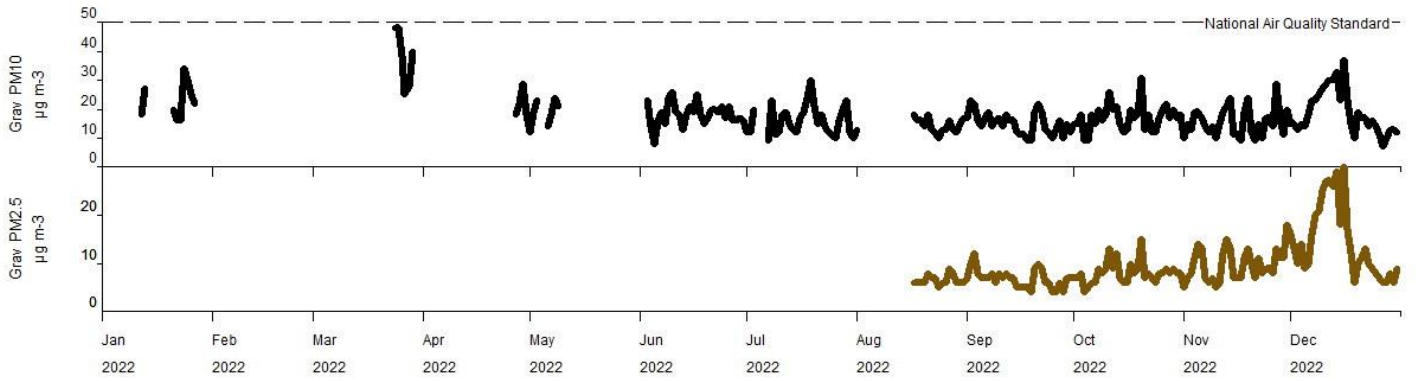
Hourly Means



Air Quality Report

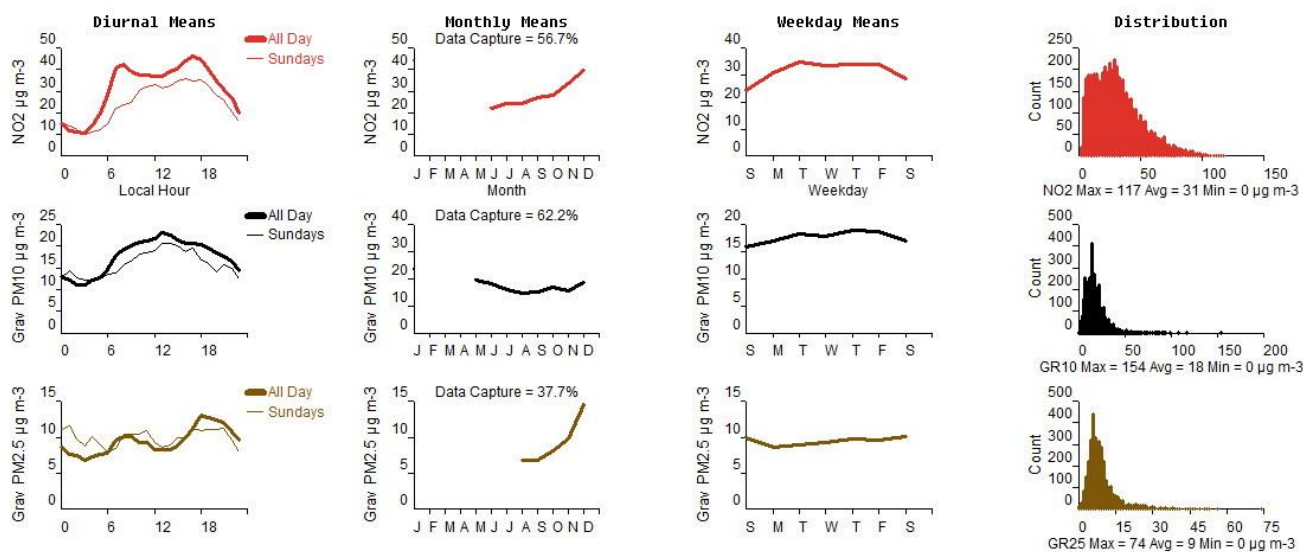
HEREFORD VICTORIA STREET 2022

Daily Means



Air Quality Report

HEREFORD VICTORIA STREET 2022



Hereford Victoria Street Air Quality Report produced by:

Geoff Broughton

Air Quality Data Management (AQDM)

Tel: 01235 559761

Geoff.Broughton@aqdm.co.uk

<http://www.aqdm.co.uk>

<http://uk.linkedin.com/pub/geoff-broughton/22/187/87/>

<http://www.UKAirQuality.net>