



Progress Report

AIR QUALITY

APRIL 2005

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Introduction

This is the is Wychavon District Council's progress report for 2004

The Stage 1 and 2 Review and Assessment of Air Quality published in November 2000 and the Updating and Screening Assessment published in May 2003 both concluded that the National Air Quality Objectives will not be exceeded in Wychavon District Council. These reports and the Progress Report published in April 2004 can be viewed on www.wychavon.gov.uk

There have been no developments during 2004 that would change the conclusions that the objectives for Benzene, 1-3 Butadiene, Carbon Monoxide, Lead, and Sulphur Dioxide are unlikely to be exceeded.

The objectives for Nitrogen Dioxide and Particulates (PM₁₀) are continually considered because of their relationship to road transport and also in the case of particulates, developments such as landfill sites and quarrying and currently it is considered that there will be no exceedences of these objectives.

Monitoring

Nitrogen Dioxide levels using Diffusion Tubes continues to be the only air quality monitoring carried out by Wychavon District Council.

Nitrogen Dioxide Diffusion Tube Monitoring

Gradko International Ltd continued to supply and analyse the 30 diffusion tubes.

Following the review of the nitrogen dioxide monitoring sites in 2003, 2004 was the first year of having triple tubes at three sites close to the M5 motorway

All the sites are listed and the locations shown on the maps in Appendix 1.

The results of the four sites in Pershore are submitted to NETCEN as part of the National Survey.

During the year there was an increase in the number of tubes that have disappeared during the exposure period. This has resulted in gaps in the results at some sites.

Results of the Monitoring

The annual averages from 1997 to 2004 at sites are set out in Appendix 2.

The 2004 results have been have been adjusted by using this overall bias factor derived from the results from 7 studies that have co-located diffusion tubes and where the exposed tubes have been prepared using the 20% TEA/ Water method and analysed by Gradko.

The roadside results have also been projected forward to 2005 and 2010 using the factors derived from the Technical guidance LAQM. TG(03) and are set out in Appendix 3a.

The average of the triple tube roadside results is 43.23µg/m³ at Swan Whittington that is above the objective in 2005 but at 35.11 µg/m³ in 2010 is below the objective.

The average of the triple tube roadside results is 48.33µg/m³ at Worcester Road Wychbold that is above the objective in 2005 but at 39.86µg/m³ in 2010 is below the objective.

The triple sites and Mayflower Road and Tagwell close are below the objectives for 2005 and 2010.

All the roadside sites bias adjusted results have been corrected by applying the factors for distance to receptor. The results for 2004 are set out in Appendix 3

The results indicate that the levels of Nitrogen dioxide at the receptor are below the annual mean objective of $40\mu\text{g}/\text{m}^3$ in 2005 and 2010,

New Local Developments

Industrial Processes

Part A1 Processes

Applications were lodged with the Environment Agency in respect of the following A1 activities

Baxendon Chemicals Ltd, Union Lane, Droitwich (existing)	Production of polyster resins and other products.
BIFFA Waste Services, Whitlence Lane Hartlebury.	Landfill
Hill and Moor	Landfill

Part A2 Processes

During 2004 two existing authorised Part B processes that manufacture bricks submitted applications for Intergrated Pollution Prevention and Control (IPPC) permits as required by the Pollution Prevention and Control Regulations 2000 as they are classed as A2 premises.

Baggeridge Brick Plc Hartlebury Works Whitlence Lane Hartlebury	Brickworks
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Baggeridge Brick Plc Hartlebury Industrial Estate Hartlebury	Brickworks
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TPL Printers (UK) Ltd Unit 111 Hartlebury Trading Estate Hartlebury who had applied for an A2 permit during 2003 closed down.

A2 permits were approved for Amcor Flexibles Orleans Close Evesham and Baggeridge Brick Plc Hartlebury Industrial Estate Hartlebury Brickworks.

The two outstanding permits are in final draft and should be issued in the near future.

Part B Processes

Existing authorised Part B processes in the coating and metal melting sectors were deemed to have submitted applications to change to permits. The conditions in the permits were reviewed against the revised sector guidance that includes the implementation of the Solvent Emissions Directive and Regulations.

During the year a Part B application was received from

SMH Fleet Solutions Ltd Church Lane Norton Worcester	Refinishing of Motor Vehicles
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New Retail Development

During 2004 no new retail development that would have an adverse effect on air quality received planning approval. A new supermarket commenced construction in Droitwich but it is not considered that it will have an adverse effect on Air Quality.

New Road Development

In Evesham a section of the A44 was realigned so that traffic leaving the Evesham Bypass at the Twyford roundabout heading for Worcester and the M5 does not have to travel up Greenhill and turn right into The Squires. This will improve the air quality in this area as it will stop the queuing in Greenhill and The Squires. The area had not been considered to be at risk of breaching the Air Quality Objectives.

Worcestershire County Council with its partners failed to attract funding from central Government to carry out improvements to the B4084 through Pershore and to improve the traffic flow along the High Street in Evesham.

Following construction of the Wyre Piddle Bypass the road through Wrye Piddle has now been closed to through traffic.

New Mineral Development

Preparation works continued to bring into production the new clay pit at New House Farm Walton Lane Hartlebury which will provide clay for the Hartlebury Works of Baggeridge Brick Plc. Currently the development has not had an impact on air quality and when it is in operation it is considered that the PM₁₀ particulate objective will not be exceeded. This will be reviewed in future update and screening assessments.

New Landfill Development

The proposed landfill activity at Hartlebury Quarry has had its A1 permit application refused.

Mixed use development (residential/ commercial)

During 2004 no new mixed use developments were commenced that would have an adverse effect on air quality.

Conclusion

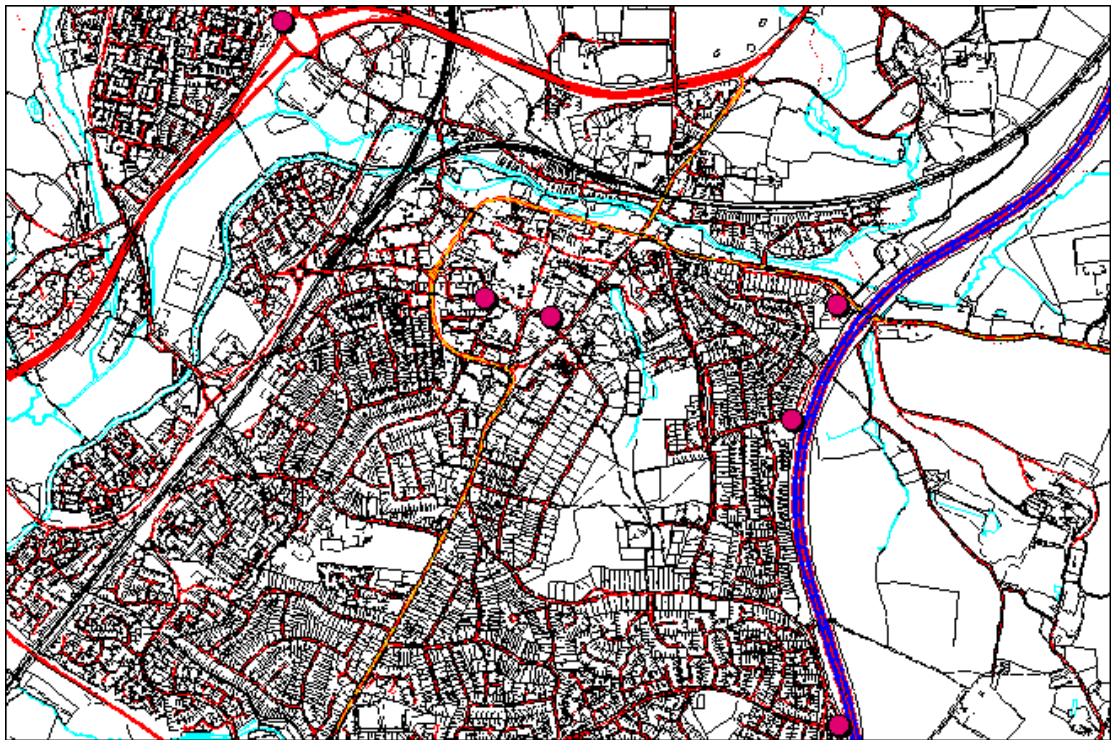
We continue to believe that the National Air Quality Objectives will not be exceeded the air in Wychavon District Council.

We will continue diffusion tube monitoring for Nitrogen dioxide.

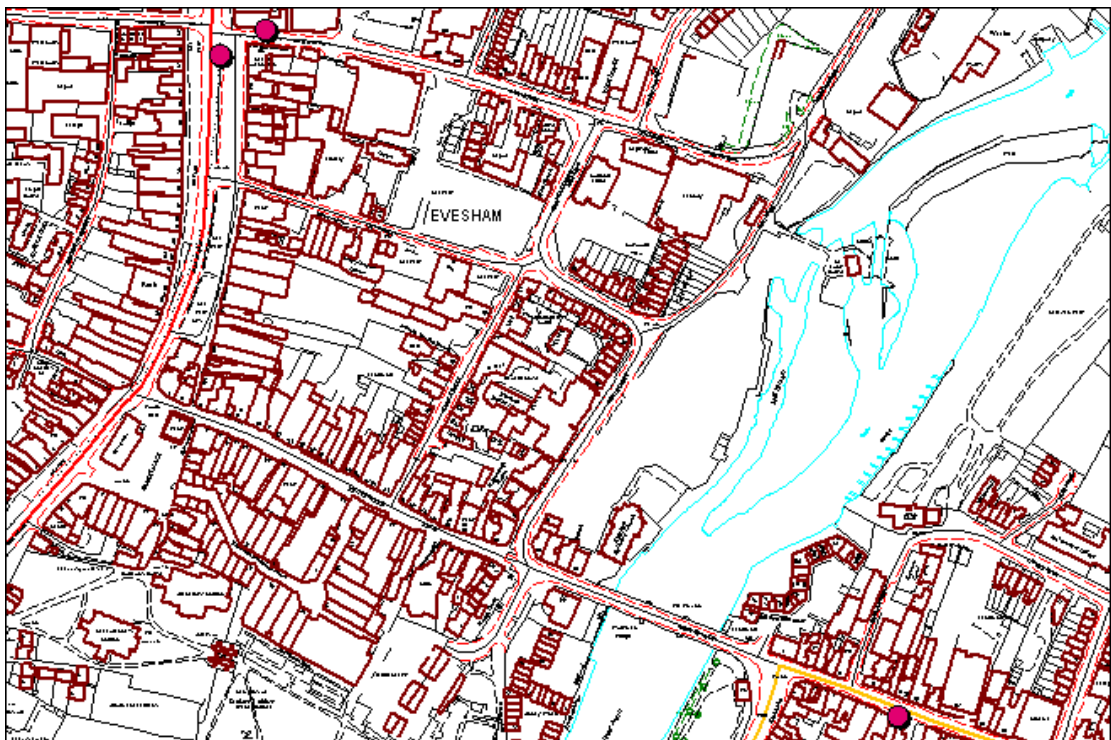
APPENDIX 1

Nitrogen Dioxide Diffusion	Tube Sites	Description of Sites
Norton	Church Lane	Roadside near M5
Whittington	Nr Swan (LP 50)	Roadside
Whittington	Nr Swan (LP50)	Roadside
Whittington	Nr Swan (LP50)	Roadside
Swinesherd	Homeleigh	At house M5 30 metres away
Pershore	Civic Centre	Urban Background
Pershore	High Street	Roadside
Pershore	40 High Street	Roadside
Pershore	St. Andrews Road	Urban Background
Pershore	Broad Street	Roadside
Broadway	High Street	Roadside
Broadway	Leamington Road	Roadside
Evesham	Swan Lane	Roadside Evesham Town Centre
Evesham	Port Street	Roadside Evesham Town Centre
Evesham	High Street	Roadside Evesham Town Centre
Droitwich	Ombersley Street East	Roadside Droitwich Town Centre
Droitwich	St. Andrews Road	Roadside Droitwich Town Centre
Droitwich	Hanbury Road (LP34)	Residential Area M5 50 metres
Droitwich	Mayflower Road (1)	Residential Area M5 40 metres
Droitwich	Mayflower Road (2)	Residential Area M5 40 metres
Droitwich	Mayflower Road (3)	Residential Area M5 40 metres
Droitwich	Tagwell Close (LP4) - (1)	Residential Area M5 30 metres
Droitwich	Tagwell Close (LP4) - (2)	Residential Area M5 30 metres
Droitwich	Tagwell Close (LP4) - (3)	Residential Area M5 30 metres
Droitwich	Westlands	Roadside at roundabout
Wychbold	A38 Road	Roadside slip road M5
Wychbold	Worcester Road (1)	Roadside off M5 junction
Wychbold	Worcester Road (2)	Roadside off M5 junction
Wychbold	Worcester Road (3)	Roadside off M5 junction
Blank	Reference Tube	

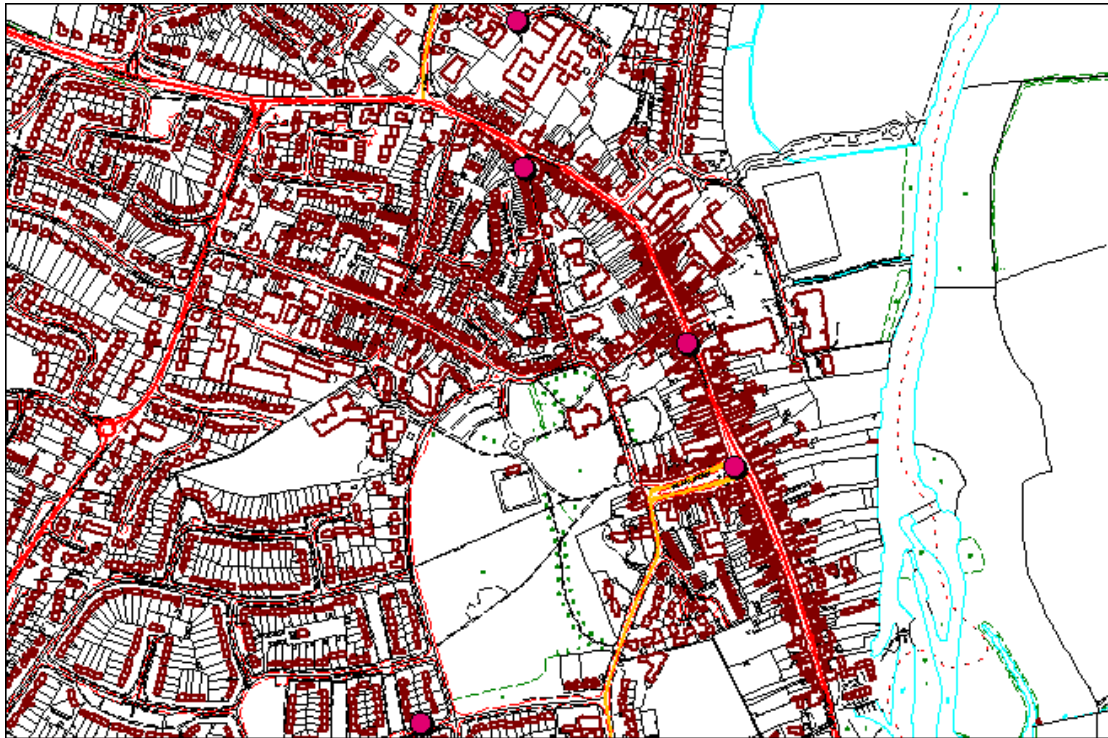
Droitwich NO₂ Diffusion Tube Sites



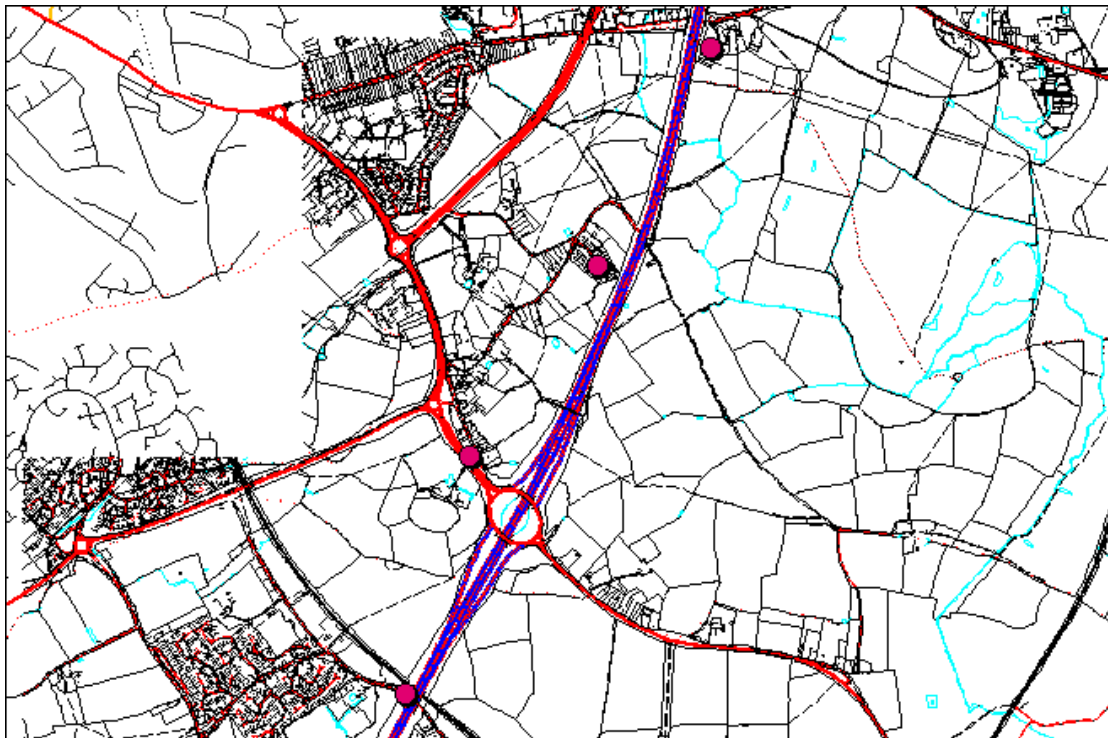
Evesham NO₂ Diffusion Tube Sites



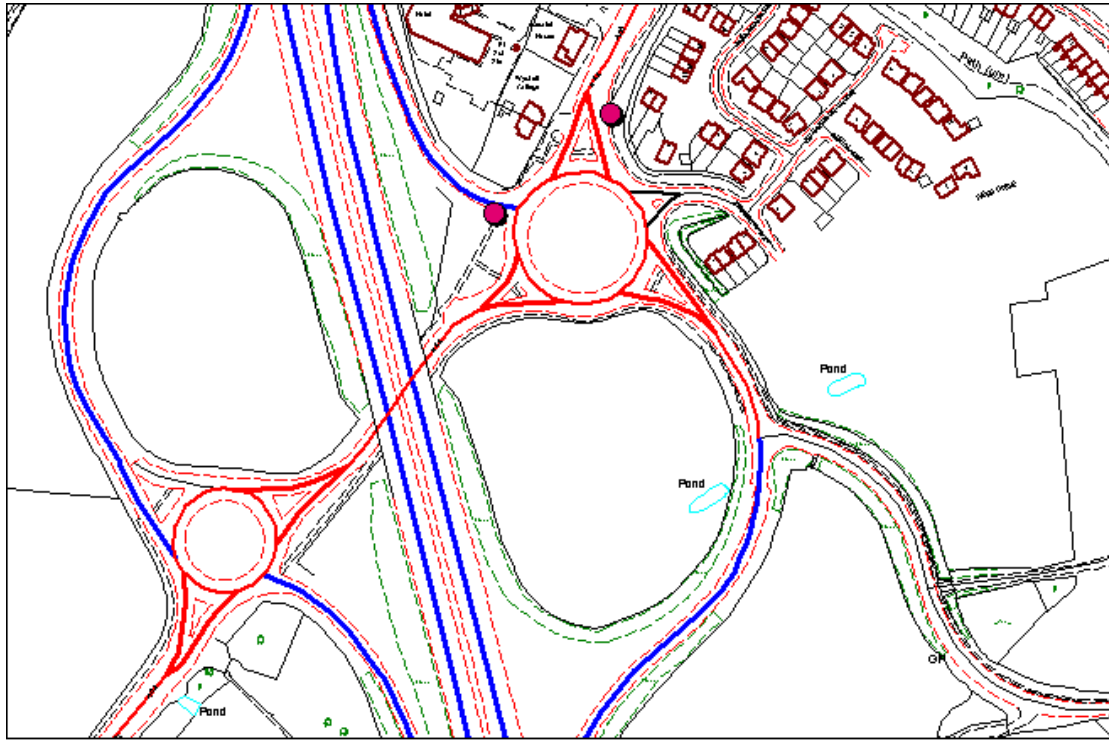
Pershore NO₂ Diffusion Tube Sites



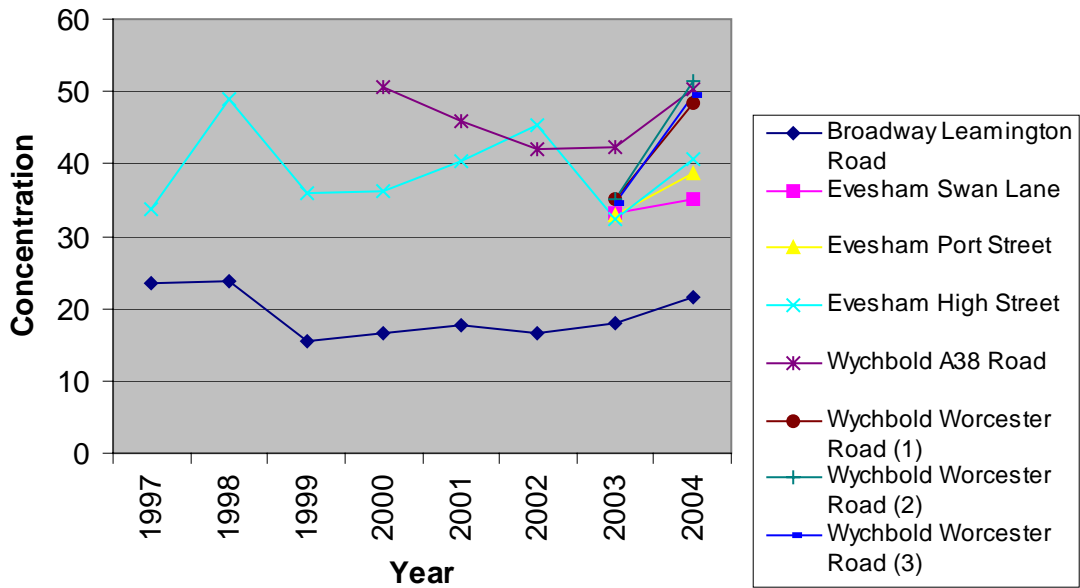
Worcester NO₂ Diffusion Tube



Evesham NO₂ Diffusion Tube Sites



Roadside Diffusion Tube Results 1997 to 2004



Appendix 3

Roadside Result corrected for distance to building facade					
		2004	Series 1		Series 2
				Distance	
			ug/m3	Correction	ug/m3
1	Norton	Church Lane	29.79	0.9	26.81
2	Whittington	Nr Swan (LP 50)	55.19	0.75	41.39
3	Whittington	Nr Swan (LP50)	38.26	0.75	28.70
4	Whittington	Nr Swan (LP50)	38.2	0.75	28.65
5	Swinesherd	Homeleigh	27.98	1	27.98
6	Pershore	Civic Centre	27.29	1	27.29
7	Pershore	High Street	30.61	0.9	27.55
8	Pershore	40 High Street	37.95	0.95	36.05
9	Pershore	St. Andrews Road	23.49	1	23.49
10	Pershore	Broad Street	27.79	0.75	20.84
11	Broadway	High Street	18.77	0.95	17.83
12	Broadway	Leamington Road	21.69	0.9	19.52
13	Evesham	Swan Lane	35.17	0.95	33.41
14	Evesham	Port Street	38.58	0.95	36.65
15	Evesham	High Street	40.76	0.9	36.68
16	Droitwich	Ombersley Street East	33.93	0.9	30.54
17	Droitwich	St. Andrews Road	29.86	0.9	26.87
18	Droitwich	Hanbury Road (LP34)	28.17	0.9	25.35
19	Droitwich	Mayflower Road (1)	29.47	0.75	22.10
20	Droitwich	Mayflower Road (2)	30.13	0.75	22.60
21	Droitwich	Mayflower Road (3)	25.98	0.75	19.49
22	Droitwich	Tagwell Close (LP4) - (1)	27.68	0.75	20.76
23	Droitwich	Tagwell Close (LP4) - (2)	24.82	0.75	18.62
24	Droitwich	Tagwell Close (LP4) - (3)	27.76	0.75	20.82
25	Droitwich	Westlands	39.72	0.75	29.79
26	Wychbold	A38 Road	50.22	0.75	37.67
27	Wychbold	Worcester Road (1)	48.52	0.75	36.39
28	Wychbold	Worcester Road (2)	51.33	0.75	38.50
29	Wychbold	Worcester Road (3)	49.62	0.75	37.22
30	Blank	Reference Tube	0	0	0

Appendix 3a

	Roadside result corrected for year			
		2004	2005	2010
		$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
			0.97	0.80
Norton	Church Lane	29.79	28.90	23.83
Whittington	Nr Swan (LP 50)	55.19	53.53	44.15
Whittington	Nr Swan (LP50)	38.26	37.11	30.61
Whittington	Nr Swan (LP50)	38.20	37.05	30.56
Swinesherd	Homeleigh	27.98	27.14	22.38
Pershore	Civic Centre	27.29	26.47	21.83
Pershore	High Street	30.61	29.69	24.49
Pershore	40 High Street	37.95	36.81	30.36
Pershore	St. Andrews Road	23.49	22.79	18.79
Pershore	Broad Street	27.79	26.96	22.23
Broadway	High Street	18.77	18.21	15.02
Broadway	Leamington Road	21.69	21.04	17.35
Evesham	Swan Lane	35.17	34.11	28.14
Evesham	Port Street	38.58	37.42	30.86
Evesham	High Street	40.76	39.54	32.61
Droitwich	Ombersley Street East	33.93	32.91	27.14
Droitwich	St. Andrews Road	29.86	28.96	23.89
Droitwich	Hanbury Road (LP34)	28.17	27.32	22.54
Droitwich	Mayflower Road (1)	29.47	28.59	23.58
Droitwich	Mayflower Road (2)	30.13	29.23	24.10
Droitwich	Mayflower Road (3)	25.98	25.20	20.78
Droitwich	Tagwell Close (LP4) - (1)	27.68	26.85	22.14
Droitwich	Tagwell Close (LP4) - (2)	24.82	24.08	19.86
Droitwich	Tagwell Close (LP4) - (3)	27.76	26.93	22.21
Droitwich	Westlands	39.72	38.53	31.78
Wychbold	A38 Road	50.22	48.71	40.18
Wychbold	Worcester Road (1)	48.52	47.06	38.82
Wychbold	Worcester Road (2)	51.33	49.79	41.06
Wychbold	Worcester Road (3)	49.62	48.13	39.70
Blank	Reference Tube	0	0	0

Roadside results corrected for distance to building facade 2004

