



London Air Quality Network Summary Report 2008

November 2012

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Environmental Research Group

King's College London

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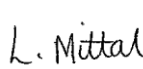
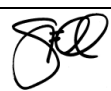
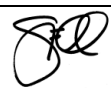
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1 Introduction

This report details the results of air pollution measurements made on the London Air Quality Network during 2008. Measurements have been presented with specific reference to the UK Air Quality Strategy (AQS) Objectives and the EU Limit Values.

The London Air Quality Network (LAQN) is a unique resource, providing robust air pollution measurements that are essential to underpin air quality management and health studies. The public face of the network, the London Air web site (www.londonair.org.uk), is visited by thousands of Londoners seeking hourly updated air pollution information.

The LAQN was formed in 1993 to coordinate and improve air pollution monitoring in London. The majority of London's 33 boroughs supply measurements to the network and in addition these data are increasingly being supplemented by measurements from local authorities surrounding London, thereby providing an overall perspective of air pollution in London and the Home Counties.

The LAQN is operated and managed by the Environmental Research Group (ERG) at King's College London. QA/QC audits are carried out by the National Physical Laboratory (NPL). Each borough funds air quality monitoring in its own area. The Department of Environment, Food and Rural Affairs (Defra) funds King's to operate the Marylebone Road site and to maintain several of the LAQN sites as affiliate sites to the UK Automatic Urban and Rural Network (AURN). This Defra support assists the operation of the overall LAQN. Analysis of LAQN measurements has been augmented by measurements from directly-funded Defra sites in London. Measurements from Defra sites were provided by AEA from the National Air Quality Archive and were included within the LAQN database. Transport for London has also funded monitoring to help assess the air pollution impacts of the Congestion Charging Scheme and Low Emission Zone.

2 Air quality Strategy Objectives and EU Limit Values

There is ample evidence of the adverse health effects caused by air pollution (WHO, 2006). In response to these health impacts, the Air Quality Strategy (AQS) for England, Scotland, Wales and Northern Ireland (Defra, 2008) sets out the UK's way forward on air quality issues, details objectives to be achieved, and proposes measures to help reach them. These UK objectives largely reflect EU Limit Values (EC, 2008). The GLA and the London boroughs and district councils outside the capital have responsibilities for the management of air quality and must work towards the attainment of AQS objectives. The AQS Objectives and EU Limit Values are detailed in Table 1. Monitoring progress towards the attainment of these Objectives and Limit Values forms a core activity for the LAQN.

Pollutant	Air Quality Objective Concentration	Measured as	To be achieved by
Carbon Monoxide (CO)	10.0 mg m ⁻³	Maximum daily running 8-hour mean	31 December 2003
Nitrogen Dioxide (NO ₂)	200 µg m ⁻³ not to be exceeded more than 18 times a year	1-hour mean	31 December 2005
	40 µg m ⁻³	Annual mean	31 December 2005
Sulphur dioxide (SO ₂)	350 µg m ⁻³ , not to be exceeded more than 24 times a year	1-hour mean	31 December 2004
	125 µg m ⁻³ , not to be exceeded more than 3 times a year	24-hour mean	31 December 2004
	266 µg m ⁻³ , not to be exceeded more than 35 times a year	15-minute mean	31 December 2005
Ozone (O ₃)	100 µg m ⁻³ not to be exceeded more than 10 times a year	8 hourly running or hourly mean	31 December 2005
Particles (PM ₁₀) (gravimetric)	50 µg m ⁻³ , not to be exceeded more than 35 times a year	Daily mean	31 December 2004
	40 µg m ⁻³	Annual mean	31 December 2004
Particles (PM _{2.5}) (gravimetric)	25 µg m ⁻³ (target)	Annual mean	2020
	20% cut in urban background exposure	Annual mean	2010 - 2020

Table 1: AQS Objectives and EU Limit Values.

3 Results

The AQS Objective results measured at LAQN sites during 2008 are detailed in Tables 2 to 8.

Key to site types:

RU	=	Rural
S	=	Suburban
U	=	Urban background
R	=	Roadside
K	=	Kerbside
I	=	Industrial

3.1 Carbon Monoxide

Site Name	Type	Capture Rate (%)	No occurrences of rolling 8hr mean $\geq 10\text{mgm}^{-3}$ (8.6ppb)	Achieved?
Bexley - Slade Green	S	97	0	yes
Brent - Kingsbury	S	93	0	yes
Bromley - Harwood Avenue	R	97	0	yes
Camden - Bloomsbury	U	99	0	yes
City of London - Walbrook Wharf	R	99	0	yes
Crystal Palace - Crystal Palace Parade	R	92	0	yes
Ealing - Acton Town Hall	R	98	0	yes
Elmbridge - Bell Farm Hersham	U	85	0	n/a
Enfield - Salisbury School	U	51	0	n/a
Hackney - Clapton	U	99	0	yes
Islington - Holloway Road	R	99	0	yes
Kensington and Chelsea - Cromwell Road	R	93	0	yes
Kensington and Chelsea - North Ken	U	98	0	yes
Newham - Cam Road	R	90	0	yes
Newham - Wren Close	U	89	0	n/a
Redbridge - Gardner Close	R	93	0	yes
Redbridge - South Woodford	R	96	0	yes
Richmond Mobile - Mortlake Rd Kew	R	93	0	yes
Sevenoaks - Greatness Park	U	93	0	yes
Southwark - Larcom Street	U	84	0	n/a
Thurrock - London Road (Grays)	U	19	0	n/a
Tower Hamlets - Mile End Road	R	85	0	n/a
Wandsworth - Wandsworth Town Hall	U	98	0	yes
Westminster - Horseferry Road	U	95	0	yes
Westminster - Marylebone Road	K	98	0	yes

Table 2: AQS Objective results for CO

3.2 Nitrogen Dioxide

Site Name	Type	Capture Rate (%)	Annual Mean < 40 μgm^{-3}	Annual Mean Achieved?	No more than 18 occurrences of hourly mean > 200 μgm^{-3} (104.7ppb)	Hourly Mean Achieved?
Barking and Dagenham - North Street	K	97	48	no	7	yes
Barking and Dagenham - Rush Green	S	96	25	yes	0	yes
Barking and Dagenham - Scrattons Farm	S	88	29	n/a	0	n/a
Barnet - Finchley	U	99	33	yes	0	yes
Barnet - Tally Ho Corner	K	97	66	no	4	yes
Bexley - Belvedere	S	96	30	yes	0	yes
Bexley - Erith	I	92	32	yes	0	yes
Bexley - Slade Green	S	97	33	yes	0	yes
Bexley - Thames Road North	R	98	45	no	0	yes
Bexley - Thames Road South	R	98	41	no	5	yes
Brent - Ikea	R	88	67	n/a	7	n/a
Brent - John Keble Primary School	R	87	47	n/a	1	n/a
Brent - Kingsbury	S	94	34	yes	0	yes
Brent - Neasden Lane	I	91	49	no	0	yes
Brent - St Marys Primary School	U	88	35	n/a	0	n/a
Brentwood - Brentwood Town Hall	U	95	31	yes	0	yes
Bromley - Harwood Avenue	R	96	46	no	0	yes
Camden - Bloomsbury	U	99	55	no	0	yes
Camden - Shaftesbury Avenue	R	98	80	no	9	yes
Camden - St Martins College (NOX 1)	U	93	61	no	0	yes
Camden - St Martins College (NOX 2)	U	93	57	no	0	yes
Camden - Swiss Cottage	K	94	76	no	70	no
Castle Point - Canvey Island	U	97	26	yes	0	yes
City of London - Senator House	U	93	49	no	0	yes
City of London - Sir John Cass School	U	98	55	no	0	yes
City of London - Walbrook Wharf	R	99	128	no	866	no
Croydon - Euston Road	S	94	33	yes	0	yes
Croydon - George Street	R	98	51	no	0	yes
Croydon - Norbury	K	95	67	no	52	no
Croydon - Purley Way	R	99	46	no	0	yes
Crystal Palace - Crystal Palace Parade	R	93	49	no	0	yes
Ealing - Acton Town Hall	R	87	59	n/a	26	no
Ealing - Ealing Town Hall	U	98	39	yes	0	yes
Ealing - Hanger Lane Gyratory	R	22	106	n/a	96	no
Ealing - Southall	U	77	31	n/a	0	n/a
Elmbridge - Bell Farm Hersham	U	75	22	n/a	0	n/a
Elmbridge - Esher High Street	R	54	39	n/a	0	n/a
Elmbridge - Hampton Court Parade	R	16	61	n/a	0	n/a
Elmbridge - Walton High Street	K	26	37	n/a	0	n/a
Enfield - Bowes Primary School	R	10	59	n/a	0	n/a
Enfield - Bush Hill Park	S	80	30	n/a	0	n/a
Enfield - Derby Road	R	99	46	no	0	yes
Enfield - Salisbury School	U	50	30	n/a	0	n/a
Greenwich - A206 Burrage Grove	R	97	51	no	1	yes

Site Name	Type	Capture Rate (%)	Annual Mean < 40 μgm^{-3}	Annual Mean Achieved?	No more than 18 occurrences of hourly mean > 200 μgm^{-3} (104.7ppb)	Hourly Mean Achieved?
Greenwich - Blackheath	R	99	46	no	0	yes
Greenwich - Eltham	S	95	26	yes	0	yes
Greenwich - Millennium Village	I	99	36	yes	2	yes
Greenwich - Plumstead High Street	R	99	44	no	0	yes
Greenwich - Trafalgar Road	R	99	53	no	2	yes
Greenwich - Westthorne Avenue	R	98	42	no	1	yes
Greenwich - Woolwich Flyover	R	99	70	no	41	no
Greenwich and Bexley - Falconwood	R	97	41	no	0	yes
Hackney - Clapton	U	98	51	no	22	no
Hackney - Old Street	R	84	70	n/a	0	n/a
Hammersmith and Fulham - Broadway	R	80	77	n/a	56	no
Hammersmith and Fulham - Brook Green	U	84	38	n/a	1	n/a
Haringey - Haringey Town Hall	R	99	37	yes	0	yes
Haringey - Priory Park	U	98	32	yes	0	yes
Harrow - Pinner Road	R	100	49	no	2	yes
Harrow - Stanmore	U	98	26	yes	0	yes
Havering - Rainham	R	85	38	n/a	0	n/a
Havering - Romford	R	70	42	n/a	0	n/a
Heathrow Airport	U	97	52	no	0	yes
Hillingdon - Hillingdon Hospital	R	100	36	yes	0	yes
Hillingdon - Oxford Avenue	R	90	42	no	0	yes
Hillingdon - Sipson Road	S	83	51	n/a	1	n/a
Hillingdon - South Ruislip	R	99	46	no	6	yes
Hounslow - Brentford	R	99	58	no	2	yes
Hounslow - Chiswick High Road	R	99	75	no	97	no
Hounslow - Cranford	S	85	37	n/a	1	n/a
Hounslow - Hatton Cross	U	89	31	n/a	0	n/a
Hounslow - Heston Road	R	73	54	n/a	3	n/a
Islington - Arsenal	U	97	38	yes	0	yes
Islington - Holloway Road	R	99	65	no	0	yes
Kensington and Chelsea - Cromwell Road	R	83	67	n/a	1	n/a
Kensington and Chelsea - Earls Court Rd	K	72	107	n/a	395	no
Kensington and Chelsea - Kings Road	R	98	93	no	122	no
Kensington and Chelsea - Knightsbridge	R	99	94	no	519	no
Kensington and Chelsea - North Ken	U	90	33	yes	0	yes
Lambeth - Bondway Interchange	I	94	83	no	38	no
Lambeth - Brixton Road	K	88	216	n/a	4012	no
Lambeth - Christchurch Road	R	99	58	no	2	yes
Lambeth - Loughborough Junct	U	86	34	n/a	0	n/a
Lewisham - Catford	U	94	53	no	1	yes
Lewisham - New Cross	R	94	64	no	5	yes
Mole Valley - Dorking	U	99	24	yes	0	yes
Newham - Cam Road	R	71	55	n/a	4	n/a
Newham - Wren Close	U	80	40	n/a	0	n/a
Reading - Caversham Road	R	92	39	yes	0	yes
Reading - Kings Road	R	94	55	no	4	yes

Site Name	Type	Capture Rate (%)	Annual Mean < 40 μgm^{-3}	Annual Mean Achieved?	No more than 18 occurrences of hourly mean > 200 μgm^{-3} (104.7ppb)	Hourly Mean Achieved?
Reading - New Town	U	98	22	yes	0	yes
Reading - Oxford Road	R	96	35	yes	1	yes
Redbridge - Fullwell Cross	K	92	54	no	5	yes
Redbridge - Gardner Close	R	94	47	no	0	yes
Redbridge - Perth Terrace	U	96	32	yes	0	yes
Redbridge - South Woodford	R	92	55	no	23	no
Reigate and Banstead - Horley	S	99	27	yes	0	yes
Reigate and Banstead - Horley South	S	93	33	yes	0	yes
Reigate and Banstead - Poles Lane	RU	99	19	yes	0	yes
Richmond Mobile - Mortlake Rd Kew	R	89	42	n/a	0	n/a
Richmond Mobile - Mortlake Rd Kew (low level)	R	92	45	no	0	yes
Richmond Upon Thames - Barnes Wetlands	S	99	29	yes	1	yes
Richmond Upon Thames - Castlenau	R	95	44	no	9	yes
Richmond Upon Thames - Ntl Physical Lab	S	97	25	yes	0	yes
Sevenoaks - Bat and Ball	R	86	32	n/a	0	n/a
Sevenoaks - Greatness Park	U	97	21	yes	0	yes
Southwark - Larcom Street	U	94	46	no	0	yes
Sutton - Beddington Lane north	I	87	39	n/a	6	n/a
Sutton - Carshalton	S	98	31	yes	0	yes
Sutton - Wallington	K	99	78	no	219	no
Sutton - Worcester Park	K	15	64	n/a	11	n/a
Thurrock - London Road (Grays)	U	97	32	yes	0	yes
Thurrock - London Road (Purfleet)	R	72	56	n/a	0	n/a
Thurrock - Purfleet	R	23	66	n/a	7	n/a
Thurrock - Stanford-le-Hope	R	97	36	yes	0	yes
Tower Hamlets - Bethnal Green	U	57	38	n/a	0	n/a
Tower Hamlets - Blackwall	R	91	63	no	3	yes
Tower Hamlets - Mile End Road	R	97	63	no	0	yes
Tower Hamlets - Poplar	U	99	38	yes	0	yes
Waltham Forest - Crooked Billet	K	92	68	no	6	yes
Waltham Forest - Dawlish Road	U	94	37	yes	1	yes
Waltham Forest - Leyton	R	97	44	no	6	yes
Wandsworth - Tooting	R	69	46	n/a	1	n/a
Wandsworth - Wandsworth Town Hall	U	99	48	no	1	yes
Westminster - Charing Cross Library	R	90	78	no	24	no
Westminster - Horseferry Road	U	98	40	no	1	yes
Westminster - Marylebone Road	K	99	115	no	812	no
Windsor and Maidenhead - Ascot	RU	98	31	yes	0	yes
Windsor and Maidenhead - Clarence Road	R	99	48	no	12	yes
Windsor and Maidenhead - Frascati Way	R	98	55	no	0	yes

Table 3: AQS Objective results for NO₂

3.3 Nitrogen Oxides

Site Name	Type	Capture Rate (%)	Annual Mean NO _x as NO ₂ µgm ⁻³
Barking and Dagenham - North Street	K	97	102
Barking and Dagenham - Rush Green	S	96	41
Barking and Dagenham - Scrattons Farm	S	88	57
Barnet - Finchley	U	99	54
Barnet - Tally Ho Corner	K	97	139
Bexley - Belvedere	S	96	49
Bexley - Erith	I	92	62
Bexley - Slade Green	S	97	57
Bexley - Thames Road North	R	98	106
Bexley - Thames Road South	R	98	84
Brent - Ikea	R	88	253
Brent - John Keble Primary School	R	87	104
Brent - Kingsbury	S	94	52
Brent - Neasden Lane	I	91	124
Brent - St Marys Primary School	U	88	53
Brentwood - Brentwood Town Hall	U	95	42
Bromley - Harwood Avenue	R	96	81
Camden - Bloomsbury	U	99	94
Camden - Shaftesbury Avenue	R	98	169
Camden - St Martins College (NOX 1)	U	93	104
Camden - St Martins College (NOX 2)	U	93	101
Camden - Swiss Cottage	K	94	177
Castle Point - Canvey Island	U	97	36
City of London - Senator House	U	93	80
City of London - Sir John Cass School	U	98	91
City of London - Walbrook Wharf	R	99	431
Croydon - Euston Road	S	94	59
Croydon - George Street	R	98	95
Croydon - Norbury	K	95	173
Croydon - Purley Way	R	99	127
Crystal Palace - Crystal Palace Parade	R	93	112
Ealing - Acton Town Hall	R	87	127
Ealing - Ealing Town Hall	U	98	67
Ealing - Hanger Lane Gyratory	R	22	370
Ealing - Southall	U	77	52
Elmbridge - Bell Farm Hersham	U	75	36
Elmbridge - Esher High Street	R	54	92
Elmbridge - Hampton Court Parade	R	16	161
Elmbridge - Walton High Street	K	26	84
Enfield - Bowes Primary School	R	10	171
Enfield - Bush Hill Park	S	80	47
Enfield - Derby Road	R	99	98
Enfield - Salisbury School	U	50	46
Greenwich - A206 Burrage Grove	R	97	101
Greenwich - Blackheath	R	99	112
Greenwich - Eltham	S	95	40

Site Name	Type	Capture Rate (%)	Annual Mean NO _x as NO ₂ µgm ⁻³
Greenwich - Millennium Village	I	99	73
Greenwich - Plumstead High Street	R	99	90
Greenwich - Trafalgar Road	R	99	101
Greenwich - Westthorne Avenue	R	98	101
Greenwich - Woolwich Flyover	R	99	223
Greenwich and Bexley - Falconwood	R	97	109
Hackney - Clapton	U	98	89
Hackney - Old Street	R	84	145
Hammersmith and Fulham - Broadway	R	80	186
Hammersmith and Fulham - Brook Green	U	84	61
Haringey - Haringey Town Hall	R	99	75
Haringey - Priory Park	U	98	49
Harrow - Pinner Road	R	100	111
Harrow - Stanmore	U	98	39
Havering - Rainham	R	85	80
Havering - Romford	R	70	76
Heathrow Airport	U	97	115
Hillingdon - Hillingdon Hospital	R	100	72
Hillingdon - Oxford Avenue	R	90	84
Hillingdon - Sipson Road	S	83	110
Hillingdon - South Ruislip	R	99	104
Hounslow - Brentford	R	99	145
Hounslow - Chiswick High Road	R	99	165
Hounslow - Cranford	S	85	66
Hounslow - Hatton Cross	U	89	63
Hounslow - Heston Road	R	73	130
Islington - Arsenal	U	97	58
Islington - Holloway Road	R	99	158
Kensington and Chelsea - Cromwell Road	R	83	156
Kensington and Chelsea - Earls Court Rd	K	72	295
Kensington and Chelsea - Kings Road	R	98	217
Kensington and Chelsea - Knightsbridge	R	99	229
Kensington and Chelsea - North Ken	U	90	49
Lambeth - Bondway Interchange	I	94	180
Lambeth - Brixton Road	K	88	519
Lambeth - Christchurch Road	R	99	115
Lambeth - Loughborough Junct	U	86	54
Lewisham - Catford	U	94	101
Lewisham - New Cross	R	94	148
Mole Valley - Dorking	U	99	40
Newham - Cam Road	R	71	114
Newham - Wren Close	U	80	63
Reading - Caversham Road	R	92	92
Reading - Kings Road	R	94	141
Reading - New Town	U	98	35
Reading - Oxford Road	R	96	82
Redbridge - Fullwell Cross	K	92	123

Site Name	Type	Capture Rate (%)	Annual Mean NO _x as NO ₂ µgm ⁻³
Redbridge - Gardner Close	R	94	95
Redbridge - Perth Terrace	U	96	57
Redbridge - South Woodford	R	92	115
Reigate and Banstead - Horley	S	99	44
Reigate and Banstead - Horley South	S	93	56
Reigate and Banstead - Poles Lane	RU	99	27
Richmond Mobile - Mortlake Rd Kew	R	89	101
Richmond Mobile - Mortlake Rd Kew (low level)	R	92	99
Richmond Upon Thames - Barnes Wetlands	S	99	43
Richmond Upon Thames - Castlenau	R	95	83
Richmond Upon Thames - Ntl Physical Lab	S	97	38
Sevenoaks - Bat and Ball	R	86	76
Sevenoaks - Greatness Park	U	97	34
Southwark - Larcom Street	U	94	78
Sutton - Beddington Lane north	I	87	84
Sutton - Carshalton	S	98	51
Sutton - Wallington	K	99	175
Sutton - Worcester Park	K	15	167
Thurrock - London Road (Grays)	U	97	55
Thurrock - London Road (Purfleet)	R	72	128
Thurrock - Purfleet	R	23	170
Thurrock - Stanford-le-Hope	R	97	79
Tower Hamlets - Bethnal Green	U	57	57
Tower Hamlets - Blackwall	R	91	166
Tower Hamlets - Mile End Road	R	97	141
Tower Hamlets - Poplar	U	99	56
Waltham Forest - Crooked Billet	K	92	189
Waltham Forest - Dawlish Road	U	94	61
Waltham Forest - Leyton	R	97	93
Wandsworth - Tooting	R	69	85
Wandsworth - Wandsworth Town Hall	U	99	94
Westminster - Charing Cross Library	R	90	191
Westminster - Horseferry Road	U	98	68
Westminster - Marylebone Road	K	99	312
Windsor and Maidenhead - Ascot	RU	98	44
Windsor and Maidenhead - Clarence Road	R	99	107
Windsor and Maidenhead - Frascati Way	R	98	128

Table 4: Annual Mean values for NO_x

3.4 Ozone

Site Name	Type	Capture Rate (%)	No more than 10 days where maximum rolling 8hr mean > 100 $\mu\text{g m}^{-3}$ (50ppb)	Achieved?
Bexley - Slade Green	S	97	21	no
Bexley - Thames Road North	R	98	10	yes
Bexley - Thames Road South	R	98	9	yes
Brent - Ikea	R	96	0	yes
Brent - Kingsbury	S	94	26	no
Bromley - Biggin Hill	S	97	29	no
Camden - Bloomsbury	U	98	1	yes
City of London - Senator House	U	93	9	yes
Croydon - Thornton Heath	S	97	21	no
Ealing - Acton Town Hall	R	95	0	yes
Ealing - Ealing Town Hall	U	99	10	yes
Elmbridge - Bell Farm Hersham	U	92	41	no
Enfield - Salisbury School	U	54	29	no
Greenwich - Eltham	S	97	16	no
Greenwich - Plumstead High Street	R	100	15	no
Greenwich - Westthorne Avenue	R	98	0	yes
Greenwich - Woolwich Flyover	R	100	10	yes
Greenwich and Bexley - Falconwood	R	100	5	yes
Hackney - Clapton	U	99	13	no
Hackney - Old Street	R	100	13	no
Haringey - Priory Park	U	98	24	no
Hillingdon - Sipson Road	S	99	15	no
Hounslow - Cranford	S	80	20	no
Kensington and Chelsea - North Ken	U	99	18	no
Kingston - Chessington	S	44	23	no
Lewisham - Catford	U	99	6	yes
Newham - Cam Road	R	80	16	no
Newham - Wren Close	U	90	19	no
Reading - New Town	U	97	19	no
Redbridge - Perth Terrace	U	89	18	no
Reigate and Banstead - Horley	S	50	30	no
Reigate and Banstead - Poles Lane	RU	99	41	no
Richmond Mobile - Mortlake Rd Kew	R	94	6	yes
Richmond Upon Thames - Barnes Wetlands	S	99	24	no
Richmond Upon Thames - Ntl Physical Lab	S	98	33	no
Sevenoaks - Greatness Park	U	98	49	no
Southwark - Larcom Street	U	50	0	n/a
Sutton - Carshalton	S	97	20	no
Thurrock - London Road (Grays)	U	96	12	no
Tower Hamlets - Blackwall	R	96	3	yes
Tower Hamlets - Poplar	U	99	26	no
Wandsworth - Wandsworth Town Hall	U	99	7	yes
Westminster - Horseferry Road	U	98	11	no
Westminster - Marylebone Road	K	97	2	yes
Windsor and Maidenhead - Ascot	RU	99	23	no

Table 5: AQS Objective results for O₃

3.5 Sulphur Dioxide

Site Name	Type	Capture Rate (%)	No more than 35 occurrences of 15min mean > 350 $\mu\text{g m}^{-3}$ (100ppb)	Achieved?
Barking and Dagenham - Rush Green	S	94	0	yes
Bexley - Slade Green	S	94	0	yes
Brent - Ikea	R	88	0	n/a
Brent - John Keble Primary School	R	93	0	yes
Brent - Kingsbury	S	87	0	n/a
Camden - Bloomsbury	U	99	0	yes
Castle Point - Canvey Island	U	88	0	n/a
City of London - Senator House	U	85	0	n/a
Crystal Palace - Crystal Palace Parade	R	91	0	yes
Ealing - Ealing Town Hall	U	84	0	n/a
Elmbridge - Bell Farm Hersham	U	87	0	n/a
Enfield - Derby Road	R	92	0	yes
Enfield - Salisbury School	U	56	0	n/a
Greenwich - Eltham	S	81	0	n/a
Haringey - Haringey Town Hall	R	97	0	yes
Harrow - Stanmore	U	90	0	yes
Havering - Romford	R	68	0	n/a
Hounslow - Chiswick High Road	R	99	0	yes
Hounslow - Cranford	S	91	0	yes
Kensington and Chelsea - Cromwell Road	R	88	0	n/a
Kensington and Chelsea - North Ken	U	97	0	yes
Lambeth - Bondway Interchange	I	98	0	yes
Lambeth - Brixton Road	K	86	0	n/a
Lambeth - Christchurch Road	R	97	0	yes
Lambeth - Loughborough Junct	U	89	0	n/a
Lewisham - Catford	U	98	0	yes
Lewisham - New Cross	R	94	0	yes
Newham - Cam Road	R	87	0	n/a
Newham - Wren Close	U	89	0	n/a
Redbridge - Gardner Close	R	94	0	yes
Richmond Mobile - Mortlake Rd Kew	R	94	0	yes
Sevenoaks - Greatness Park	U	96	0	yes
Southwark - Larcom Street	U	85	0	n/a
Thurrock - London Road (Grays)	U	95	0	yes
Thurrock - Stanford-le-Hope	R	99	0	yes
Tower Hamlets - Bethnal Green	U	98	0	yes
Tower Hamlets - Poplar	U	99	0	yes
Waltham Forest - Dawlish Road	U	92	0	yes
Waltham Forest - Leyton	R	87	0	n/a
Wandsworth - Wandsworth Town Hall	U	72	0	n/a
Westminster - Horseferry Road	U	95	0	yes
Westminster - Marylebone Road	K	93	0	yes

Table 6: AQS Objective results for SO₂

3.6 PM₁₀

Site Name	Type	Capture Rate (%)	Annual Mean < 40 µg m ⁻³	Annual Mean Achieved?	No more than 35 occurrences of daily mean > 50 µg m ⁻³	Daily Mean Achieved?
Barking and Dagenham - North Street	K	94	33	yes	43	no
Barking and Dagenham - Scrattons Farm	S	96	20	yes	6	yes
Barnet - Finchley	U	99	19	yes	5	yes
Barnet - Tally Ho Corner	K	99	24	yes	9	yes
Bexley - Belvedere	S	99	20	yes	12	yes
Bexley - Belvedere FDMS	S	64	21	n/a	7	n/a
Bexley - Erith	I	99	33	yes	73	no
Bexley - Slade Green	S	96	18	yes	6	yes
Bexley - Thames Road North	R	99	28	yes	33	yes
Bexley - Thames Road North FDMS	R	91	26	yes	25	yes
Bexley - Thames Road South	R	93	24	yes	32	yes
Brent - Ikea	R	93	33	yes	48	no
Brent - John Keble Primary School	R	94	24	yes	9	yes
Brent - Kingsbury	S	97	19	yes	5	yes
Brent - Neasden Lane	I	93	41	no	100	no
Brent - St Marys Primary School	U	85	21	n/a	10	n/a
Bromley - Harwood Avenue	R	77	23	n/a	5	n/a
Camden - Bloomsbury	U	80	23	n/a	13	n/a
Camden - Shaftesbury Avenue	R	99	30	yes	20	yes
Camden - Swiss Cottage	K	93	27	yes	19	yes
City of London - Sir John Cass School	U	92	26	yes	15	yes
City of London - Upper Thames Street	R	100	32	yes	42	no
Croydon - George Street	R	99	23	yes	14	yes
Croydon - Thornton Heath	S	93	21	yes	13	yes
Crystal Palace - Crystal Palace Parade	R	87	24	n/a	6	n/a
Ealing - Acton Town Hall	R	99	25	yes	19	yes
Ealing - Acton Town Hall FDMS	R	82	24	n/a	16	n/a
Ealing - Greenford	U	76	21	n/a	6	n/a
Ealing - Horn Lane	I	95	41	no	96	no
Ealing - Southall	U	88	19	n/a	4	n/a
Elmbridge - Bell Farm Hersham	U	62	17	n/a	4	n/a
Enfield - Bowes Primary School	R	72	26	n/a	18	n/a
Enfield - Derby Road	R	91	29	yes	39	no
Enfield - Salisbury School	U	53	18	n/a	1	n/a
Greenwich - A206 Burrage Grove	R	43	26	n/a	13	n/a
Greenwich - Blackheath	R	59	28	n/a	16	n/a
Greenwich - Eltham	S	93	21	yes	13	yes
Greenwich - Millennium Village	I	89	23	n/a	18	n/a
Greenwich - Plumstead High Street	R	88	20	n/a	14	n/a
Greenwich - Trafalgar Road	R	99	22	yes	13	yes
Greenwich - Westthorne Avenue	R	90	23	yes	22	yes
Greenwich - Woolwich Flyover	R	95	41	no	81	no
Greenwich and Bexley - Falconwood	R	97	24	yes	22	yes
Hackney - Old Street	R	95	28	yes	20	yes
Hammersmith and Fulham - Broadway	R	21	32	n/a	9	n/a

Site Name	Type	Capture Rate (%)	Annual Mean < 40 $\mu\text{g m}^{-3}$	Annual Mean Achieved?	No more than 35 occurrences of daily mean > 50 $\mu\text{g m}^{-3}$	Daily Mean Achieved?
Hammersmith and Fulham - Brook Green	U	86	22	n/a	16	n/a
Haringey - Haringey Town Hall	R	65	22	n/a	8	n/a
Haringey - Priory Park	U	97	20	yes	8	yes
Harrow - Pinner Road	R	99	25	yes	14	yes
Harrow - Stanmore	U	99	17	yes	4	yes
Havering - Romford	R	61	25	n/a	6	n/a
Heathrow Airport	U	97	24	yes	17	yes
Hillingdon - Hillingdon Hospital	R	96	21	yes	11	yes
Hillingdon - Oxford Avenue	R	95	22	yes	13	yes
Hillingdon - South Ruislip	R	99	23	yes	13	yes
Hounslow - Brentford	R	98	35	yes	60	no
Hounslow - Chiswick High Road	R	96	25	yes	17	yes
Hounslow - Cranford	S	93	18	yes	9	yes
Hounslow - Hatton Cross	U	81	20	n/a	7	n/a
Hounslow - Heston Road	R	62	27	n/a	15	n/a
Islington - Arsenal	U	99	21	yes	11	yes
Islington - Duncan Terrace	R	93	33	yes	39	no
Islington - Foxham Gardens	U	97	25	yes	18	yes
Islington - Holloway Road	R	99	30	yes	21	yes
Kensington and Chelsea - Cromwell Road	R	98	29	yes	17	yes
Kensington and Chelsea - Earls Court Rd	K	86	37	n/a	52	no
Kensington and Chelsea - North Ken	U	98	21	yes	12	yes
Kensington and Chelsea - North Ken FDMS	U	47	20	n/a	7	n/a
Lambeth - Bondway Interchange	I	91	52	no	160	no
Lambeth - Brixton Road	K	76	37	n/a	37	no
Lambeth - Christchurch Road	R	75	22	n/a	11	n/a
Lambeth - Loughborough Junct	U	76	22	n/a	16	n/a
Lewisham - New Cross	R	94	25	yes	16	yes
Mole Valley - Dorking	U	97	18	yes	7	yes
Newham - Cam Road	R	95	28	yes	19	yes
Newham - Wren Close	U	86	23	n/a	13	n/a
Reading - Caversham Road	R	86	24	n/a	13	n/a
Reading - Kings Road	R	63	23	n/a	3	n/a
Reading - New Town	U	9	18	n/a	1	n/a
Reading - Oxford Road	R	90	27	yes	16	yes
Redbridge - Fullwell Cross	K	99	23	yes	5	yes
Redbridge - Gardner Close	R	33	30	n/a	10	n/a
Redbridge - Perth Terrace	U	58	15	n/a	0	n/a
Redbridge - South Woodford	R	94	27	yes	15	yes
Reigate and Banstead - Horley	S	97	18	yes	5	yes
Richmond Mobile - Mortlake Rd Kew	R	65	25	n/a	13	n/a
Richmond Upon Thames - Barnes Wetlands	S	94	19	yes	8	yes
Richmond Upon Thames - Castlenau	R	99	21	yes	12	yes
Sevenoaks - Bat and Ball	R	95	23	yes	8	yes
Sevenoaks - Greatness Park	U	96	17	yes	3	yes
Southwark - Larcom Street	U	97	21	yes	13	yes
Sutton - Beddington Lane north	I	92	29	yes	20	yes

Site Name	Type	Capture Rate (%)	Annual Mean < 40 $\mu\text{g m}^{-3}$	Annual Mean Achieved?	No more than 35 occurrences of daily mean > 50 $\mu\text{g m}^{-3}$	Daily Mean Achieved?
Sutton - Wallington	K	98	26	yes	12	yes
Sutton - Worcester Park	K	13	27	n/a	4	n/a
Thurrock - London Road (Grays)	U	98	19	yes	3	yes
Thurrock - London Road (Purfleet)	R	70	25	n/a	9	n/a
Thurrock - Purfleet	R	20	35	n/a	14	n/a
Thurrock - Stanford-le-Hope	R	99	21	yes	7	yes
Thurrock - Stanford-le-Hope	R	99	21	yes	7	yes
Tower Hamlets - Bethnal Green	U	95	21	yes	13	yes
Tower Hamlets - Blackwall	R	95	36	yes	60	no
Tower Hamlets - Poplar	U	99	23	yes	15	yes
Waltham Forest - Crooked Billet	K	94	30	yes	24	yes
Waltham Forest - Dawlish Road	U	99	21	yes	9	yes
Waltham Forest - Leyton	R	63	25	n/a	12	n/a
Wandsworth - Tooting	R	68	21	n/a	5	n/a
Westminster - Marylebone Road TEOM	K	95	39	yes	68	no
Westminster - Marylebone Road FDMS	K	97	35	yes	42	no

Table 7: AQS Objective results for PM₁₀.

All PM₁₀ measurements have been converted to gravimetric equivalent by the methods recommended in Defra's Local Air Quality Management Technical Guidance (Defra, 2009), i.e. TEOM measurements have been corrected using the Volatile Correction Model (VCM) and BAM measurements have been multiplied by 0.83.

3.7 PM_{2.5}

Site Name	Type	Instrument	Capture Rate (%)	Annual Mean μgm^{-3} uncorrected
Bexley - Belvedere	S	TEOM	98	10
Bexley - Slade Green FDMS	S	FDMS	19	13
Bexley - Thames Road North	R	TEOM	98	13
Bexley - Thames Road South	R	TEOM	99	12
Bexley - Thamesmead	S	TEOM	100	11
Brent - Ikea	R	TEOM	98	16
Camden - Bloomsbury	U	FDMS	11	17
Ealing - Acton Town Hall	R	TEOM	85	12
Greenwich - A206 Burrage Grove	R	FDMS	46	17
Greenwich - Eltham	S	FDMS	62	14
Greenwich - Millennium Village	I	FDMS	83	15
Greenwich - Plumstead High Street	R	FDMS	85	16
Greenwich - Westthorne Avenue	R	FDMS	87	16
Greenwich - Woolwich Flyover	R	TEOM	98	19
Greenwich and Bexley - Falconwood	R	TEOM	98	14
Hackney - Clapton	U	TEOM	69	12
Hackney - Old Street	R	TEOM	79	14
Harrow - Stanmore	U	FDMS	3	18
Kensington and Chelsea - North Ken	U	FDMS	3	20
Reading - New Town	U	FDMS	26	13
Redbridge - Fullwell Cross	K	BAM	25	14
Redbridge - Gardner Close	R	BAM	95	18
Richmond Upon Thames - Ntl Physical Lab	S	FDMS	3	20
Tower Hamlets - Blackwall	R	FDMS	92	18
Westminster - Marylebone Road	K	TEOM	94	20

Table 8: AQS Objective results for PM_{2.5}

4 References

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