School of
Health and
Life Sciences
Kings
Environmental
Research Group

KING'S College LONDON
Founded 1829
University of London

UK Automatic Urban Network
London Air Quality Network Affiliated Sites

Management Report
April to June 2001

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1. SEIPH Interface with the Data Dissemination Unit (DDU)

1.1. Data Handling

Between April and July 2001, King's College Environmental Research Group have estimated that over 99% of hourly E-mails arrived at the DDU to meet their timetabled requirements. Accurate figures of punctual e-mails can be obtained from the DDU.

2. Site Performance

2.1. Scaling of Data for April to June 2001

Scaling of data was carried out as in previous months using the zero and span readings from fortnightly calibration checks. Validation of data was carried out twice daily and reviewed again at the end of each month.

3. Quality Control / Quality Assurance (QA/QC)

The QA/QC Unit (NPL) carried out routine equipment audits at the London affiliated AURN sites during this quarter to assess the performance of the instruments.

Site	Audit Dates
Bromley Central	26/4/01
Camden Kerbside	16/6/01
Eltham	27/4/01
Haringey Roadside	9/5/01
London Haringey	9/5/01
Hackney	12/6/01
Hounslow Roadside	24/4/01
London North Kensington	9/5/01
Lewisham	18/6/01
Marylebone Road	14/6/01
London Southwark	25/4/01
Southwark Roadside	25/4/01
Sutton Roadside	24/4/01
London Sutton	24/4/01
Tower Hamlets Roadside	13/6/01
London Wandsworth	15/5/01

Table 1: QA/QC Audit Dates

4. Data for April to June 2001

Data capture rates for April, May and June are detailed in Tables 1 to 3. The data capture rates for each month are expressed as a percentage of valid hourly averages, after excluding data lost due to calibration and the faults discussed. The overall data capture rates for the quarter April to June are detailed in Table 4.

Specific issues affecting data collection and quality at each site are discussed in Sections 4.1 to 4.5. Details of faults are given where data capture rates fall below 95% for the quarter.

Site	Hourly Data Capture % for April 2001				
	CO	PM_{10}	NO_x	O_3	SO_2
Bromley Central	99		99		
Camden Kerbside		100	100		
Eltham		99	99	99	99
Haringey Roadside		100	99		
London Haringey				97	
Hackney	95		99	95	
Hounslow Roadside	99		99		
London North Kensington	99	99	99	99	99
Lewisham			100	100	100
Marylebone Road	100	87	100	100	100
London Southwark	99		99	99	99
Southwark Roadside	99		99		99
Sutton Roadside	99	98	99		99
London Sutton			99	99	
Tower Hamlets Roadside	99		71		
London Wandsworth			100	99	

Table 2: Hourly Data Capture % for April 2001

Site	Hourly Data Capture % for May 2001				
	CO	PM_{10}	NO_x	O_3	SO_2
Bromley Central	95		97		
Camden Kerbside		100	99		
Eltham		99	99	99	99
Haringey Roadside		99	86		
London Haringey				94	
Hackney	95		99	95	
Hounslow Roadside	99		99		
London North Kensington	92	99	96	96	97
Lewisham			98	81	98
Marylebone Road	100	99	100	100	100
London Southwark	99		99	99	99
Southwark Roadside	99		99		99
Sutton Roadside	99	99	100		99
London Sutton			100	100	
Tower Hamlets Roadside	99		76		
London Wandsworth			99	99	

Table 3: Hourly Data Capture % for May 2001

Site	Hourly Data Capture % for June 2001				
	CO	PM_{10}	NO_x	O_3	SO_2
Bromley Central	92		92		
Camden Kerbside		99	97		
Eltham		100	100	100	99
Haringey Roadside		99	100		
London Haringey				93	
Hackney	90		94	90	
Hounslow Roadside	99		99		
London North Kensington	59	100	99	100	99
Lewisham			56	38	56
Marylebone Road	99	98	99	99	99
London Southwark	94		94	94	94
Southwark Roadside	78		78		78
Sutton Roadside	99	99	99		99
London Sutton			99	98	
Tower Hamlets Roadside	99		99		
London Wandsworth			100	98	

Table 4: Hourly Data Capture % for June 2001

Site	Hourly Data Capture % for April to June 2001				
	CO	PM_{10}	NO_x	O_3	SO_2
Bromley Central	96		96		
Camden Kerbside		100	99		
Eltham		99	99	99	99
Haringey Roadside		99	95		
London Haringey				95	
Hackney	94		98	94	
Hounslow Roadside	99		99		
London North Kensington	83	99	98	98	98
Lewisham			85	73	85
Marylebone Road	100	95	100	100	100
London Southwark	97		97	97	97
Southwark Roadside	92		92		92
Sutton Roadside	99	98	99		99
London Sutton			99	99	
Tower Hamlets Roadside	99		82		
London Wandsworth			100	99	

Table 5: Hourly Data Capture % for April to June 2001

4.1. Hackney

4.1.1. Carbon Monoxide 94%

1st April – 30th June 2001 (91 hours).
Incompatibilities between the logger and auto-calibration system led to the loss of one hour of data from every day.
1st April – 30th June 2001 (29 hours)
A power failure between 28th and 29th June resulted in data loss from all analysers.

4.1.2. Ozone 94%

1st April – 30th June 2001 (91 hours).
Incompatibilities between the logger and auto-calibration system led to the loss of one hour of data from every day.
1st April – 30th June 2001 (29 hours)
A power failure between 28th and 29th June resulted in data loss from all analysers.

4.2. London North Kensington

4.2.1. Carbon Monoxide 83%

30th May – 1st June 2001 (140 hours)
The LSO found that the analyser pump mountings had degraded causing the pump to work loose. The analyser was switched off to prevent further damage until a repair could be made.
14th May – 15th May 2001 (20 hours)
The air conditioning unit was incorrectly set following the service leading to the loss of data from all analysers.
23rd June – 1st July 2001 (190 hours)
An internal pump failure led to the loss of data.

4.3. Lewisham

4.3.1. Nitrogen Oxides 85%

18th June – 1st July 2001 (301 hours)
All the analysers at this site were decommissioned due to construction work being undertaken in and around the room where the monitoring equipment is housed.

4.3.2. Ozone 73%

26th May – 6th June 2001 (258 hours)
Concentrations measured by the analyser were seen to differ from comparable sites on the network. The ESU found a fault in the 12-volt power supply.
18th June – 1st July 2001 (301 hours)
All the analysers at this site were decommissioned due to construction work being undertaken in and around the room where the monitoring equipment is housed.

4.3.3. Sulphur Dioxide 85%

18th June – 1st July 2001 (301 hours)
All the analysers at this site were decommissioned due to construction work being undertaken in and around the room where the monitoring equipment is housed.

4.4. Southwark Roadside

4.4.1. All Analysers 92%

11th June – 17th June 2001 (149 hours)
Power failure to the monitoring site resulted in the loss of data from all analysers.

4.5. Tower Hamlets Roadside

4.5.1. Nitrogen Oxides 82%

22nd April – 8th May 2001 (387 hours)
A faulty chopper motor led to the loss of all data from this analyser.