Citybus Group Limited

Citybus Permanent Headquarters and Bus Maintenance Depot in Chai Wan

Quarterly Environmental Monitoring and Audit Summary Report September 2003 to November 2003

First Issue

Citybus Group Limited

Citybus Permanent Headquarters and Bus Maintenance Depot in Chai Wan

Environmental Monitoring and Audit

Quarterly Environmental Monitoring and Audit Summary Report September 2003 to November 2003

December 2003

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Job number 23420

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Project Proponent	Citybus Group Limited
Environmental Team	Ove Arup & Partners
Independent Environmental Checker	Westwood Hong & Associates
Report Name	Quarterly EM&A Summary Report – September 2003 to November 2003

This document is prepared to prove that the above said report is prepared by the Environmental Team and certified by the Independent Environmental Checker

Signature of ET Leader

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Signature of IEC

ARUP

Document Verification

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Detailed Air Quality (1-hour TSP) Monitoring Results

ABBREVIATIONS AND ACRONYMS

A/L Levels	Action and Limited Levels	
AQO	Air Quality Objectives	
Arup	Ove Arup & Partners Hong Kong Limited	
ASR	Area Sensitive Rating	
B&K	Brüel & Kjær	
CNP	Construction Noise Permit	
CR	Contractor	
DA-TM	Technical Memorandum on Noise from Construction Work in	
	Designated Areas	
EA	Environmental Auditor	
EM&A	Environmental Monitoring and Audit	
EPD	Environmental Protection Department	
ER	Engineer / Engineer's Representative	
ET	Environmental Team	
GW-TM	Technical Memorandum on Noise from Construction Work other than Percussive Piling	
HKSAR	Hong Kong Special Administrative Region	
HOKLAS	The Hong Kong Laboratory Accreditation Scheme	
HVS	High Volume Sampler	
IC(E)	Independent Environmental Checker	
IEC	International Electrotechnical Commission Publications	
IVE - CW	Institution of Vocational Education (Chai Wan)	
Κ	Degrees Kelvin	
LCP	Ling Chan + Partners Limited	
NAMAS	National Measurement Accreditation Service	
NSR	Noise Sensitive Receiver	
PSPS	Private Sector Participation Schemes	
SR	Sensitive Receiver	
TSP	Total Suspended Particulates	

EXECUTIVE SUMMARY

This quarterly EM&A report summaries the site inspection findings, air quality and noise impact monitoring works for the period between September 2003 to November 2003.

Daytime (0700 – 1900 hours) noise monitoring was conducted at 4 locations. The highest noise level was 69.9 dB(A) recorded at Tsui Wan Estate on 29 September 2003. The lowest noise level was 62.2 dB(A) recorded at Heng Fa Tsui on 27 October 2003. There was no exceedance of the A/L Levels during the monitoring period.

The highest average 1-hour TSP level was 245.3 μ g/m³ recorded at Hong Kong IVE Chai Wan on 23 October 2003 and the lowest average 1-hour TSP level was 142.9 μ g/m³ recorded at IVE on 6 September 2003. There was no exceedance of the A/L Levels during the monitoring period.

The highest 24-hour TSP level was 134.0 μ g/m³ recorded at Hong Kong IVE Chai Wan on 24 October 2003 and the lowest 24-hour TSP level was 56.5 μ g/m³ recorded at IVE on 17 November 2003. There was no exceedance of the A/L Levels during the monitoring period.

The major construction activity carried out by the Contractor from September 2003 to November 2003 was the construction of the building from ground level to roof level and the fitting out of the maintenance depot.

No inert material was disposed of at Quarry Bay Public Filling Barging Point from September 2003 to November 2003. A total of 346 loads of non-inert material has been disposed of at SENT Landfill from September 2003 to November 2003. The total quantity of the disposed non-inert material was 8,304 tonnes from September 2003 to November 2003.

No public complaint regarding the air quality and noise was received from September 2003 to November 2003.

There was no non-compliance recorded from September 2003 to November 2003.

1. INTRODUCTION

Ove Arup & Partners Hong Kong Limited (Arup) was appointed by Citybus Group Limited as the Environmental Team (ET) for Citybus Permanent Headquarters and Bus Depot in Chai Wan (hereafter called the "Project"). Environmental parameters including air quality and construction noise were selected for impact monitoring. The construction activities of the Project have commenced in December 2001 and is expected to last for about 18 months.

1.1 Purpose of the Report

The purpose of the quarterly EM&A summary report is to summarise the monitoring and audit results for the environmental issues including air quality, noise, and waste management due to the captioned construction project for the period from September 2003 to November 2003.

1.2 Site Description

The construction site is surrounded by Road 20/4, Road 20/6 and Shing Tai Road as shown in Figure 1-1. The total site area is approximately 1 hectare. The Project consists of five storeys with the bus depot located on G/F to 3/F for bus parking and maintenance, and depot office on 4/F to 5/F.

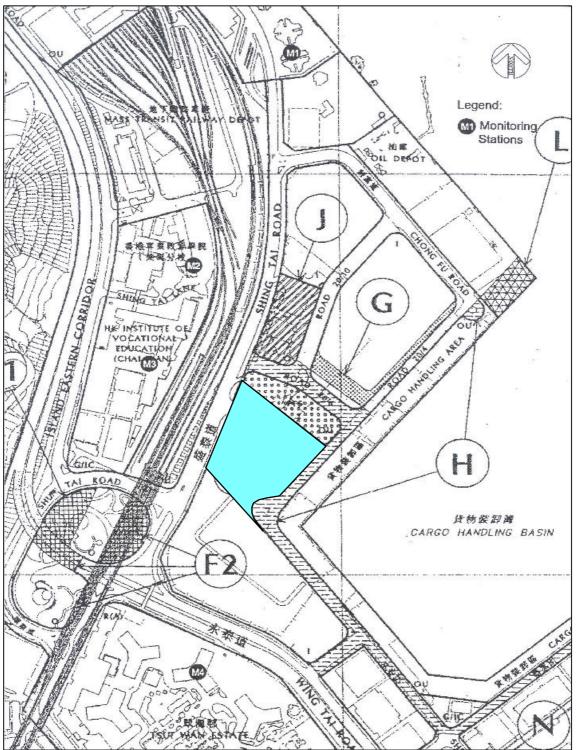


Figure 1-1 Site location plan of Citybus permanent headquarters and bus maintenance depot in Chai Wan

1.3 Organisation and Personnel

The primary responsibilities and duties of the respective parties in this EM&A programme are described in the following sub-sections: -

1.3.1 Project Manager

The entire construction of the Project is managed by *Citybus Group Limited* as the Project Manager. The Project Manager is supported by an Engineer's Representative (ER) and an Environmental Team (ET) to ensure that the environmental quality will comply with the project requirements.

1.3.2 Engineer's Representative

The Engineer is *Ling Chan* + *Partners Limited (LCP)*. The Engineer's Representative is responsible for:

- Supervising the Contractor (CR) activities and ensuring that the requirements in the Environmental Management Plan^[1] are fully complied with;
- Informing the CR when action is required to reduce impacts in accordance with the Event and Action Plans; and
- Adhering to the procedures for carrying out complaint investigation in accordance with Environmental Management Plan.

1.3.3 Environmental Team

Ove Arup & Partners Hong Kong Limited (Arup), has been appointed by Citybus to take up the role of the Environmental Team (ET), and ET is responsible for:

- Sampling, analysis and statistical evaluation of monitoring parameters with reference to the EIA study recommendations and requirements with respect of noise, dust and water quality.
- Conducting environmental site surveillance.
- Auditing the compliance with environmental protection and pollution prevention and control regulations.
- Monitoring the implementation of environmental mitigation measures.
- Monitoring the compliance with the environmental protection clauses/specifications in the Contract.
- Reviewing construction programme and providing comment as necessary.
- Reviewing construction methodology and providing comment as necessary.
- Conducting complaint investigation, evaluation and identification of corrective measures.
- Auditing of the EMS and recommending and implementing any changes as appropriate.
- Liasing with the Independent Environmental Checker (IC((E)) on all environmental performance matters.

- Advising the Contractor on environmental improvement, awareness, enhancement matter, etc. on site.
- Submitting the designated EM&A reports timely to the ER, the IC(E) and the EPD as appropriate.

1.3.4 Contractors

The site formation works are undertaken by *Vibro (HK) Limited* and construction of superstructure are undertaken by *W. Hing Construction Co. Ltd*, the Contractors (CR). In this EM&A programme, the CR is responsible for:

- Submitting the proposals on mitigation measures in cases of exceedance of Action and Limit levels and in accordance with the Event and Action Plans;
- Implementing measures to reduce impact where Action and Limit levels are exceeded; and
- Adhering the procedures for carrying out complaint investigation in accordance with the Environmental Management Plan.

2. ENVIRONMENTAL STATUS

2.1 Construction Programme

The construction has been commenced in December 2001, and is anticipated to be completed in 18 months. The construction programme is given in the Monthly EM&A Report – December 2001.

2.2 Construction Activities of the Quarter

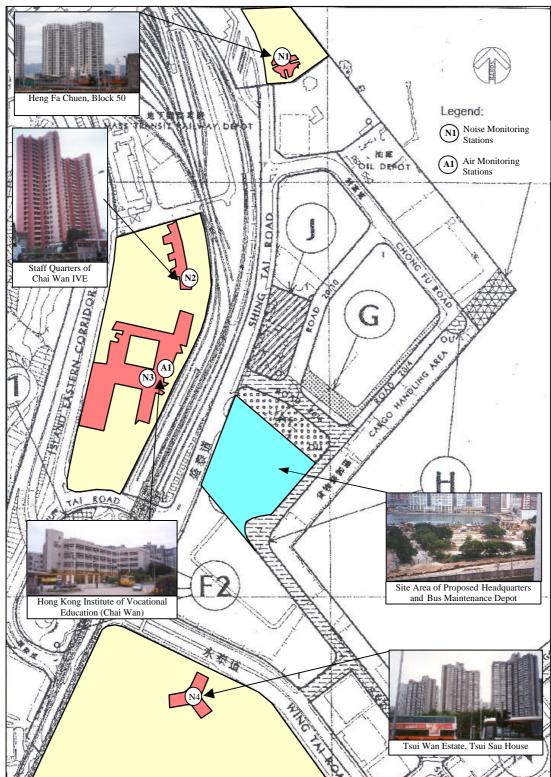
The major construction activities carried out by the CR in the period September 2003 to November 2003 were the construction of the building from ground level to roof level and the fitting out of the maintenance depot.

2.3 Environmental Sensitive Receivers

Several residential buildings and educational institution close to the site have been identified as environmental sensitive receivers in the EIA Report. The identified sensitive receivers are summarised in Table 2-1 and shown in Figure 2-1.

Sensitive Receivers No.	Description	
N1	Heng Fa Chuen	
N2	Staff Quarters of Chai Wan IVE	
N3/A1	Hong Kong IVE Chai Wan	
N4	Tsui Wan Estate	

 Table 2-1
 Identified sensitive receivers





3. SUMMARY OF EM&A REQUIREMENTS

Construction noise and air quality were significant environmental impacts identified for the construction period of the project. In accordance with the Environmental Management Plan, air quality and noise impact monitoring shall be performed by the ET at all specified monitoring locations during the construction stage.

3.1 Construction Noise Monitoring

3.1.1 Monitoring Parameters

Construction noise monitoring shall be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). L_{10} and L_{90} will also be recorded as supplementary reference information for data auditing.

3.1.2 Monitoring Frequency

Construction noise measurements were required to be taken on a weekly basis according to the Environmental Management Plan. The monitoring time periods, monitoring parameters and frequency are specified in Table 3-1.

Time Period (when construction activity is found)	Parameters	Monitoring Frequency	No. of measurements for each monitoring
Between 0700-1900 hours on normal weekdays	L _{eq} (30 min)		1
Between 1900-2300 hours on normal weekdays		Once per week	
Between 2300-0700 hours of next day	Leq(5 min)*		3 (consecutive)
Between 0700-1900 hours on holidays			

 Table 3-1
 Construction noise monitoring parameters and frequency requirements

Remarks: The L_{eq(5 min)} will only be measured if construction activities are conducted on general holidays and between the period of 1900 and 0700 hours during normal weekdays.

3.1.3 Monitoring Locations

A total of 4 monitoring locations were specified. They are given in Table 3-2. The measurements were taken at 1m from the building facade and maintained at a height 1.2m above floor. Photos showing the noise monitoring work in action are given in Figure 3-1.

NSR No.	Location	Monitoring Point
N1	Heng Fa Chuen	Block 50
N2	Staff Quarters of IVE Chai Wan	Roof-top (Block C,D)
N3	Hong Kong IVE Chai Wan	Roof-top
N4	Tsui Wan Estate	Tsui Sau House

Table 3-2 Noise impact monitoring locations	Table 3-2 Nois	e impact monitoring location	ons
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Figure 3-1 Noise monitoring in progress



3.2 Air Quality Monitoring

3.2.1 Monitoring Parameters

Air monitoring shall be measured in terms of the TSP levels for both 24-hour and 1-hour periods.

3.2.2 Monitoring Frequency

24-hour TSP and 1-hour TSP levels shall be monitored during the course of construction according to the Environmental Management Plan. The monitoring parameters and frequencies are specified in Table 3-3.

Parameters	Monitoring Frequency	Time Period	No. of measurement for each monitoring
24-hour TSP	Once every six days	0000 - 2400	1
1-hour TSP	Three times per every six days	0700 - 1900	1

 Table 3-3
 TSP monitoring parameters and frequency

3.2.3 Monitoring Locations

One monitoring location was specified for air quality impact and it is presented in Table 3-4.

 Table 3-4
 Air quality monitoring location

ASR No.	Location	Monitoring Point
A1	Hong Kong IVE Chai Wan	Roof-top

3.3 Performance Limits and Event-Action Plans

The monitoring results were checked against appropriate standards and requirements. A two-tier system performance limits has been established in Environmental Management Plan. The "Action Level" and the "Limit Level" are established according to the EPD requirements. Corresponding actions will be taken by ET, ER and CR in accordance with the Event-Action Plans if the monitoring results exceed the performance limits.

3.3.1 Construction Noise Impact

The Action and Limit (A/L) levels for the construction noise have been established in accordance with the Generic EM&A Manual and they are tabulated in Table 3-5.

Time Period	Action Level	Limit Level dB(A)
0700 - 1900 hours on weekdays		75*
0700 - 2300 hours on General Holidays; & 1900 - 2300 hours on all other days	When one documented complaint is received	60/65/70**
2300 - 0700 hours of next day		45/50/55**

10

Table 3-5 Action and Limit levels for construction noise

Remarks:

* reduced to 70dB(A) for schools and 65dB(A) during school examination periods.

** to be selected based on Area Sensitivity Rating

Note: If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed

Table 3-6 details the actions required to be carried out by different parties in the case of an exceedance of performance limits being detected.

Event	Action	
Lvent	ET or ER	Contractor
Action Level	 Notify Contractor Analyse investigation Require Contractor to propose measures for the analysed noise problem Increase monitoring frequency to check mitigation effectiveness 	 Submit noise mitigation proposals to ET / ER Implement noise mitigation proposals
Limit Level	 Notify Contractor Notify EPD Require Contractor to implement mitigation measures, increase monitoring frequency to check mitigation effectiveness 	 Implement mitigation measures Prove to ET / ER effectiveness of measures applied

Table 3-6 Event-action plan for construction noise

3.3.2 Air Quality

The A/L levels for air quality have been established in the Environmental Management Plan and they are tabulated in Table 3-7

Parameters	Action Level	Limit Level
24 Hour TSD Lovel in wa/m ³	 For baseline level < 200µg/m³, Action Level = (baseline level plus 30% + Limit Level)/2 	260
24 Hour TSP Level in μg/m ³	 For baseline level > 200µg/m³, Action Level = Limit Level 	200
1 Hour TSP Level in μg/m ³	 For baseline level 384µg/m³, Action Level = (baseline level plus 30% + Limit Level)/2 	500
	 For baseline level > 384µg/m³, Action Level = Limit Level 	

In accordance with the Baseline Monitoring Report ^[2], the Action and Limit levels for 24-hour TSP and 1-hour TSP at monitoring location A1 were established and they are tabulated in Table 3-8 and Table 3-9 respectively.

ASR No. Monitoring Location		24-hour TSP	Level in ng /m ³
ASK NO.		Action Level	Limit Level
A1	Hong Kong IVE Chai Wan	220.8	260.0

Table 3-8 Action and Limit levels for 24-hour TSP

Table 3-9 Action and Limit levels for 1-hour TSP

ASR No.	Monitoring Location	1-hour TSP	Level in ng /m³
ASIX NO.		Action Level	Limit Level
A1	Hong Kong IVE Chai Wan	303.2	500.0

Table 3-10 details the actions required to be carried out by different parties in case of an exceedance of performance limits being detected.

Event	Action			
LVOIR	ET	ER	Contractor	
Action Level				
1. Exceedance for one sample	 Identify source Inform ER Repeat measurement to confirm finding Increase monitoring frequency to daily 	 Notify Contractor Check monitoring data and Contractor's working methods 	 Rectify any unacceptable practice Amend working methods if appropriate 	
2. Exceedance for two or more consecutive samples	 Identify source Inform ER Repeat measurement to confirm findings Increase monitoring frequency to daily Discuss with ER for remedial actions required If exceedance continues, arrange meeting with ER If exceedance stops, cease additional monitoring 	 Confirm receipt of notification of failure in writing Notify Contractor Check monitoring data and Contractor's working methods Discuss with Environmental Supervisor and Contractor on potential remedial actions Ensure remedial actions properly implemented 	 Submit proposals for remedial actions to ER within 3 working days of notification Implement the agreed proposals Amend proposal if appropriate 	

Table 3-10a Event-action plan for air quality (Action Level)

Event	Action		
	ET	ER	Contractor
Limit Level			
1. Exceedance for one sample	 Identify source Inform ER and EPD Repeat measurement to confirm finding Increase monitoring frequency to daily Assess effectiveness of Contractor's remedial actions and keep EPD and ER informed of the results 	 Confirm receipt of notification of failure in writing Notify Contractor Check monitoring data and Contractor's working methods Discuss with Environmental Supervisor and Contractor on potential remedial actions Ensure remedial actions properly implemented 	 Take immediate action to avoid further exceedance Submit proposals for remedial actions to ER within 3 working days of notification Implement the agreed proposals Amend proposal if appropriate
2. Exceedance for two or more consecutive samples	 Identify source Inform ER and EPD the causes & actions taken for the exceedances Repeat measurement to confirm findings Increase monitoring frequency to daily Investigate the causes of exceedance Arrange meeting with EPD and ER to discuss the remedial actions to be taken Assess effectiveness of Contractor's remedial actions and keep EPD and ER informed of the results If exceedance stops, cease additional monitoring 	 Confirm receipt of notification of failure in writing Notify Contractor Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented Discuss amongst Environmental Team Leader and the Contractor potential remedial actions Review Contractor's remedial actions whenever necessary to assure their effectiveness If exceedance continues, consider what portion of the works is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated 	 Take immediate action to avoid further exceedance Submit proposals for remedial actions to ER within 3 working days of notification Implement the agreed proposals Resubmit proposals Resubmit proposals if problem still not under control Stop the relevant portion of works as determined by the ER until the exceedance is abated

 Table 3-10b
 Event-action plan for air quality (Limit Level)

4. NOISE

4.1 Noise Monitoring Results

All the noise measurements were taken between 0700-1900 hours on normal weekdays during which the construction site was under normal operation. The construction noise monitoring results from September 2003 to November 2003 is summarised in Table 4-1. The detailed construction noise monitoring results from September 2003 to November 2003 are given in Appendix A. The trend of the noise levels at each monitoring location are plotted and presented in Figure 4-1.

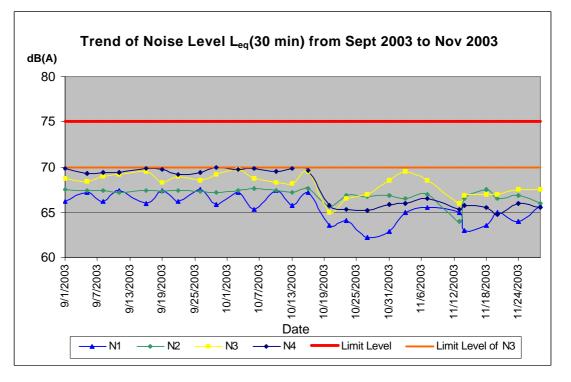
Date of	Monitoring Monitoring Results, dB(A) (30 m		llts, dB(A) (30 min)		
Monitoring	Parameters	N1	N2	N3	N4
	L _{eq}	66.2	67.5	68.7	69.8
01/09/03 (Mon)	L ₁₀	70.6	70.1	72.1	73.6
	L90	61.6	66.6	64.6	63.6
	Leq	67.2	67.4	68.4	69.3
05/09/03 (Fri)	L ₁₀	72.1	70.1	72.1	74.6
	L90	62.6	66.1	63.1	62.1
	Leq	66.2	67.4	69.0	69.4
08/09/03 (Mon)	L ₁₀	70.1	70.1	73.6	73.6
	L90	61.6	66.1	63.6	63.6
	Leq	67.4	67.2	69.2	69.4
11/09/03 (Thu)	L ₁₀	72.6	70.1	74.1	74.6
	L90	62.1	66.1	63.1	62.6
	L _{eq}	66.0	67.4	69.5	69.8
16/09/03 (Tue)	L ₁₀	70.1	70.6	74.1	73.6
	L ₉₀	61.1	66.1	63.6	63.1
	L _{eq}	67.4	67.3	68.3	69.7
19/09/03 (Fri)	L ₁₀	72.6	70.1	72.1	74.1
	L ₉₀	62.6	66.1	63.1	62.1
	L _{eq}	66.2	67.4	68.9	69.2
22/09/03 (Mon)	L ₁₀	70.1	70.1	73.1	73.1
	L90	61.6	66.1	64.1	62.6
	Leq	67.5	67.3	68.5	69.4
26/09/03 (Fri)	L ₁₀	73.1	70.1	73.1	74.6
	L90	62.6	66.1	62.6	62.1

Table 4-1Daytime noise monitoring results (0700 – 1900 hours on normal weekdays)from September 2003 to November 2003

Date of	Monitoring	Monitoring Results, dB(A) (30 min)			
Monitoring	Parameters	N1	N2	N3	N4
	Leq	65.9	67.2	69.2	69.9
29/09/03 (Mon)	L ₁₀	70.1	70.1	74.1	74.1
	L90	60.6	66.1	63.6	63.6
	Leq	67.2	67.4	69.7	69.7
03/10/03 (Fri)	L10	72.1	70.1	75.1	74.6
	L90	62.6	66.6	63.1	62.6
	Leq	65.3	67.6	68.7	69.8
06/10/03 (Mon)	L10	68.6	70.6	73.6	74.1
	L90	57.1	66.6	64.1	63.1
	Leq	67.4	67.4	68.3	69.5
10/10/03 (Fri)	L ₁₀	72.6	70.6	73.1	74.1
	L90	62.6	66.1	63.6	62.1
	L _{eq}	65.8	67.2	68.2	69.8
13/10/03 (Mon)	L ₁₀	69.6	70.1	73.6	74.1
	L90	61.1	66.1	63.1	63.1
	L _{eq}	67.2	67.6	69.5	69.6
16/10/03 (Thu)	L ₁₀	72.1	71.1	74.1	74.1
	L90	62.6	66.6	64.1	62.1
	L _{eq}	63.5	65.6	65.0	65.8
20/10/03 (Mon)	L ₁₀	66.0	67.5	68.5	68.5
	L90	58.0	63.5	60.5	60.5
	L _{eq}	64.1	66.8	66.5	65.3
23/10/03 (Thu)	L ₁₀	67.0	69.0	69.0	68.0
	L90	59.0	64.5	62.0	59.5
	L _{eq}	62.2	66.7	67.0	65.2
27/10/03 (Mon)	L ₁₀	65.0	68.5	70.0	68.0
	L90	56.5	64.0	61.5	60.0
	L _{eq}	62.9	66.8	68.5	65.9
31/10/03 (Fri)	L ₁₀	65.5	68.5	71.0	68.5
	L90	58.5	65.0	63.0	60.0
	Leq	65.0	66.5	69.5	66.0
03/11/03 (Mon)	L ₁₀	68.0	69.0	72.5	69.0
	L90	61.5	63.0	66.0	61.5
	L _{eq}	65.5	67.0	68.5	66.5
07/11/03 (Fri)	L ₁₀	68.0	69.5	70.5	69.5
	L90	61.5	62.0	62.5	62.0

Date of	Monitoring	Monitoring Results, dB(A) (30 min)				
Monitoring Parameters		N1	N2	N3	N4	
	L _{eq}	65.0	64.0	66.0	65.3	
13/11/03 (Thu)	L ₁₀	68.0	68.0	71.0	68.5	
	L90	61.0	62.0	61.0	60.0	
	L _{eq}	63.0	66.5	66.8	65.8	
14/11/03 (Fri)	L ₁₀	67.0	69.0	71.5	67.5	
	L90	61.0	63.5	62.0	61.0	
	Leq	63.5	67.5	67.0	65.5	
18/11/03 (Tue)	L ₁₀	66.0	70.0	71.0	69.0	
	L90	61.0	62.5	64.5	62.0	
	Leq	64.0	66.8	67.5	66.0	
20/11/03 (Thu)	L ₁₀	67.5	69.0	72.5	69.5	
	L90	61.0	62.5	65.0	64.0	
	L _{eq}	65.0	66.5	67.0	64.8	
24/11/03 (Mon)	L10	68.5	69.0	69.5	67.5	
	L90	61.0	62.0	65.5	62.0	
	L _{eq}	65.8	66.0	67.5	65.5	
28/11/03 (Fri)	L ₁₀	69.0	68.5	70.0	68.5	
	L90	62.5	64.0	65.5	62.0	





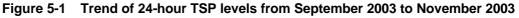
5. AIR QUALITY

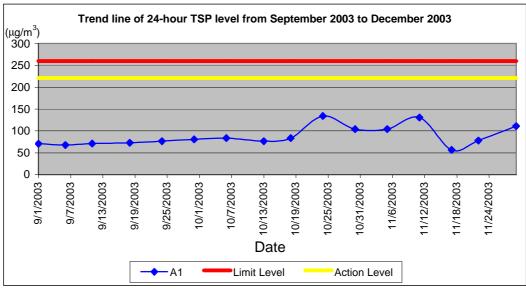
5.1 24-hour TSP Monitoring Results

The monitoring result of 24-hour TSP during the period from September 2003 to November 2003 is summarised in Table 5-1. The trend of the 24-hour TSP levels at each monitoring location are plotted and presented in Figure 5-1. The details of the 24-hour monitoring results are given in Appendix B.

Table 5-1	24-hour TSP monitoring results from September 2003 to November 2003

Date of Monitoring	24-hour TSP Monitoring Results (mg/m ³)	
Date of Morntoning	Weather	Averaged Result
01/09/2003 (Mon)	Fine	70.7
06/09/2003 (Sat)	Overcast	67.6
11/09/2003 (Thu)	Fine	71.0
18/09/2003 (Thu)	Fine	72.8
24/09/2003 (Wed)	Fine	76.5
30/09/2003 (Tue)	Fine	80.5
06/10/2003 (Mon)	Fine	83.6
13/10/2003 (Mon)	Overcast	76.5
18/10/2003 (Sat)	Sunny	83.6
24/10/2003 (Fri)	Sunny	134.0
3010/2003 (Thu)	Sunny	104.2
05/11/2003 (Wed)	Fine	104.4
11/11/2003 (Tue)	Sunny	130.6
17/11/2003 (Mon)	Sunny	56.5
22/11/2003 (Sat)	Sunny	78.2
29/11/2003 (Sat)	Sunny	110.9



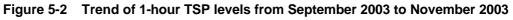


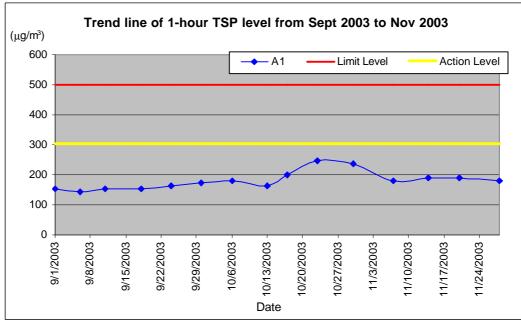
5.2 1-hour TSP Monitoring Results

The monitoring result of 1-hour TSP during the period from September 2003 to November 2003 is summarised in Table 5-2. The trend of the 1-hour TSP levels at each monitoring location are plotted and presented in Figure 5-2. The details of the 1-hour monitoring results are given in Appendix C.

Data of Monitoring	1-hour TSP Monito	oring Results (µg/m³)
Date of Monitoring	Weather	Averaged Result
01/09/2003 (Mon)	Fine	153.4
06/09/2003 (Sat)	Overcast	142.9
11/09/2003 (Thu)	Overcast	151.9
18/09/2003 (Thu)	Overcast	154.6
24/09/2003 (Wed)	Overcast	162.0
30/09/2003 (Tue)	Overcast	173.5
06/10/2003 (Mon)	Overcast	178.9
13/10/2003 (Mon)	Overcast	162.8
17/10/2003 (Fri)	Sunny	200.4
23/10/2003 (Wed)	Sunny	245.3
30/10/2003 (Thu)	Sunny	236.3
07/11/2003 (Fri)	Sunny	179.3
14/11/2003 (Fri)	Sunny	190.8
20/11/2003 (Thu)	Sunny	189.2
28/11/2003 (Fri)	Sunny	178.8

Table 5-2 1-hour TSP monitoring results from September 2003 to November 2003





6. QUARTERLY SUMMARY, ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE RECORDS

6.1 Summary of Waste Disposal

No inert material was disposed of at Quarry Bay Public Filling Barging Point by from September 2003 to November 2003. A total of 346 loads of non-inert material was disposed of at SENT Landfill from September 2003 to November 2003. The total quantity of the disposed non-inert material was 8,304 tonnes from September 2003 to November 2003. The total quantities of the waste disposal to Quarry Bay Public Filling Barging Point are summarised in Table 6-1.

Month	No. of Loads to Quarry Bay Public Filling Barging Point	Total Disposed Quantity (m ³)	No. of Loads to SENT Landfill	Total Disposed Quantity (Tonnes)		
February 2002	254	1,524	-	-		
March 2002	362	2,172	-	-		
April 2002	521	3,126	-	-		
May 2002	478	2,868	-	-		
June 2002	33	198	-	-		
July 2002	5	30	-	-		
August 2002	72	432	-	-		
September 2002	133	798	-	-		
October 2002	417	2,502	-	-		
November 2002	682	4,092	-	-		
December 2002	476	2,856	-	-		
January 2003	439	2,364	-	-		
February 2003	136	816	-	-		
March 2003	159	954	5	120		
April 2003	185	1,110	26	624		
May 2003	20	180	31	744		
June 2003	-	-	42	1,008		
July 2003	-	-	89	2,136		
August 2003	-	-	115	2,760		
September 2003	-	-	118	2,832		
October 2003	-	-	120	2,880		
November 2003	-	-	108	2,592		
Total	4,372	26,022	654	15,696		

Table 6-1 Waste disposal summary

Noted: An average of 6m³ soil per load is assumed for the estimation of the disposed quantity.

6.2 Complaint Record

No public complaint regarding the air quality and noise were received from September 2003 to November 2003.

6.3 Non-compliance Record

There was no non-compliance recorded from September 2003 to November 2003.

7. REFERENCES

- [1] Environmental Management Plan for Proposed Headquarters and Bus Maintenance Depot in Chai Wan. Ref : R0474-3.01. CH2M HILL (China) Limited.
- [2] Environmental Baseline Monitoring Report Citybus Chai Wan Permanent Depot Environmental Team Services. Ove Arup & Partners Hong Kong Limited.

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APPENDIX A

Detailed Noise Monitoring Results

Details of Noise Impact Monitoring

T		NSR	Time p	eriods	Weather	No	ise Level dB	(A)	Influencing factors/		
Month	Date	No.	Start Finish		condition	Leq	L ₁₀	L ₉₀	Site condition		
Sep-03	1-Sep-03	N1	8:00	8:30	Fine	66.2	70.6	61.6	Work in Progress		
Sep-03	1-Sep-03	N2	15:15	15:45	Fine	67.5	70.1	66.6	Work in Progress		
Sep-03	1-Sep-03	N3	11:00	11:30	Fine	68.7	72.1	64.6	Work in Progress		
Sep-03	1-Sep-03	N4	8:50	9:20	Fine	69.8	73.6	63.6	Work in Progress		
Sep-03	5-Sep-03	N1	15:15	15:45	Overcast	67.2	72.1	62.6	Work in Progress		
Sep-03 Sep-03	5-Sep-03 5-Sep-03	N2 N3	14:30 11:00	15:00 11:30	Overcast Overcast	67.4 68.4	70.1 72.1	66.1 63.1	Work in Progress		
Sep-03 Sep-03	5-Sep-03	N3 N4	16:00	16:30	Overcast	69.3	74.6	62.1	Work in Progress Work in Progress		
Sep-03	8-Sep-03	N1	8:00	8:30	Fine	66.2	70.1	61.6	Work in Progress		
Sep-03	8-Sep-03	N2	13:45	14:15	Fine	67.4	70.1	66.1	Work in Progress		
Sep-03	8-Sep-03	N3	11:00	11:30	Fine	69.0	73.6	63.6	Work in Progress		
Sep-03	8-Sep-03	N4	8:50	9:20	Fine	69.4	73.6	63.6	Work in Progress		
Sep-03	11-Sep-03	N1	14:45	15:15	Fine	67.4	72.6	62.1	Work in Progress		
Sep-03	11-Sep-03	N2	14:00	14:30	Fine	67.2	70.1	66.1	Work in Progress		
Sep-03	11-Sep-03	N3	11:00	11:30	Fine	69.2	74.1	63.1	Work in Progress		
Sep-03 Sep-03	11-Sep-03 16-Sep-03	N4 N1	15:30 8:00	16:00 8:30	Fine Overcast	69.4 66.0	74.6 70.1	62.6 61.1	Work in Progress		
Sep-03 Sep-03	16-Sep-03	N2	14:00	14:30	Overcast	67.4	70.1	66.1	Work in Progress Work in Progress		
Sep-00	16-Sep-03	N3	11:00	11:30	Overcast	69.5	74.1	63.6	Work in Progress		
Sep-03	16-Sep-03	N4	8:50	9:20	Overcast	69.8	73.6	63.1	Work in Progress		
Sep-03	19-Sep-03	N1	14:55	15:25	Fine	67.4	72.6	62.6	Work in Progress		
Sep-03	19-Sep-03	N2	14:10	14:40	Fine	67.3	70.1	66.1	Work in Progress		
Sep-03	19-Sep-03	N3	11:00	11:30	Fine	68.3	72.1	63.1	Work in Progress		
Sep-03	19-Sep-03	N4	15:35	16:05	Fine	69.7	74.1	62.1	Work in Progress		
Sep-03 Sep-03	22-Sep-03 22-Sep-03	N1 N2	8:00 14:45	8:30 15:15	Overcast Overcast	66.2 67.4	70.1 70.1	61.6	Work in Progress		
Sep-03 Sep-03	22-Sep-03 22-Sep-03	N2 N3	11:00	11:30	Overcast	67.4 68.9	70.1	66.1 64.1	Work in Progress Work in Progress		
Sep-03	22-Sep-03	N4	8:50	9:20	Overcast	69.2	73.1	62.6	Work in Progress		
Sep-03	26-Sep-03	N1	14:50	15:20	Fine	67.5	73.1	62.6	Work in Progress		
Sep-03	26-Sep-03	N2	14:00	14:30	Fine	67.3	70.1	66.1	Work in Progress		
Sep-03	26-Sep-03	N3	11:00	11:30	Fine	68.5	73.1	62.6	Work in Progress		
Sep-03	26-Sep-03	N4	15:30	16:00	Fine	69.4	74.6	62.1	Work in Progress		
Sep-03	29-Sep-03	N1	8:00	8:30	Fine	65.9	70.1	60.6	Work in Progress		
Sep-03 Sep-03	29-Sep-03 29-Sep-03	N2 N3	14:30 11:00	15:00 11:30	Fine Fine	67.2 69.2	70.1 74.1	66.1 63.6	Work in Progress Work in Progress		
Sep-03	29-Sep-03	N4	8:50	9:20	Fine	69.9	74.1	63.6	Work in Progress		
Oct-03	3-Oct-03	N1	15:15	15:45	Fine	67.2	72.1	62.6	Work in Progress		
Oct-03	3-Oct-03	N2	14:30	15:00	Fine	67.4	70.1	66.6	Work in Progress		
Oct-03	3-Oct-03	N3	11:00	11:30	Fine	69.7	75.1	63.1	Work in Progress		
Oct-03	3-Oct-03	N4	16:00	16:30	Fine	69.7	74.6	62.6	Work in Progress		
Oct-03	6-Oct-03	N1	8:00	8:30	Fine	65.3	68.6	57.1	Work in Progress		
Oct-03 Oct-03	6-Oct-03 6-Oct-03	N2 N3	16:00 11:00	16:30 11:30	Fine Fine	67.6 68.7	70.6 73.6	66.6 64.1	Work in Progress		
Oct-03	6-Oct-03	N4	8:50	9:20	Fine	69.8	73.0	63.1	Work in Progress Work in Progress		
Oct-03	10-Oct-03	N1	14:15	14:45	Overcast	67.4	72.6	62.6	Work in Progress		
Oct-03	10-Oct-03	N2	13:30	14:00	Overcast	67.4	70.6	66.1	Work in Progress		
Oct-03	10-Oct-03	N3	11:00	11:30	Overcast	68.3	73.1	63.6	Work in Progress		
Oct-03	10-Oct-03	N4	15:00	15:30	Overcast	69.5	74.1	62.1	Work in Progress		
Oct-03	13-Oct-03	N1	8:00	8:30	Fine	65.8	69.6	61.1	Work in Progress		
Oct-03 Oct-03	13-Oct-03 13-Oct-03	N2	13:45	14:15	Fine	67.2	70.1	66.1	Work in Progress		
Oct-03 Oct-03	13-Oct-03 13-Oct-03	N3 N4	11:00 8:50	11:30 9:20	Fine Fine	68.2 69.8	73.6 74.1	63.1 63.1	Work in Progress Work in Progress		
Oct-03	16-Oct-03	N1	14:55	15:25	Fine	67.2	74.1	62.6	Work in Progress		
Oct-03	16-Oct-03	N2	14:10	14:40	Fine	67.6	71.1	66.6	Work in Progress		
Oct-03	16-Oct-03	N3	11:00	11:30	Fine	69.5	74.1	64.1	Work in Progress		
Oct-03	16-Oct-03	N4	15:35	16:05	Fine	69.6	74.1	62.1	Work in Progress		
Oct-03	20-Oct-03	N1	8:56	9:26	Sunny	63.5	66.0	58.0	Normal Operation		
Oct-03	20-Oct-03	N2	10:29	10:59	Sunny	65.6	67.5	63.5	Normal Operation		
Oct-03 Oct-03	20-Oct-03	N3	11:02	11:32	Sunny	65.0	68.5	60.5	Normal Operation		
Oct-03 Oct-03	20-Oct-03 23-Oct-03	N4 N1	9:44 10:06	10:14 10:36	Sunny Sunny	65.8 64.1	68.5 67.0	60.5 59.0	Normal Operation Normal Operation		
Oct-03 Oct-03	23-Oct-03 23-Oct-03	N1 N2	9:26	9:56	Sunny	66.8	69.0	64.5	Normal Operation		
Oct-03	23-Oct-03	N3	11:00	11:30	Sunny	66.5	69.0	62.0	Normal Operation		
Oct-03	23-Oct-03	N4	11:38	12:08	Sunny	65.3	68.0	59.5	Normal Operation		
Oct-03	27-Oct-03	N1	8:48	9:18	Sunny	62.2	65.0	56.5	Normal Operation		
Oct-03	27-Oct-03	N2	10:28	10:58	Sunny	66.7	68.5	64.0	Normal Operation		
Oct-03	27-Oct-03	N3	11:00	11:30	Sunny	67.0	70.0	61.5	Normal Operation		
Oct-03	27-Oct-03	N4	9:48	10:18 9:35	Sunny Fine	65.2 62.9	68.0	60.0	Normal Operation		
				1 U.SP	I FINE	679	65.5	58.5	Normal Operation		
Oct-03	31-Oct-03	N1 N2	9:05		1						
	31-Oct-03 31-Oct-03 31-Oct-03	N2 N3	10:28 11:00	10:58 11:30	Fine	66.8 68.5	68.5 71.0	65.0 63.0	Normal Operation Normal Operation & 1 Helicopter		

		NSR	Time p	periods	Weather	No	ise Level dB	(A)	Influencing factors/
Month	Date	No.	Start	Finish	condition	Leq	L _{eq} L ₁₀		Site condition
Nov-03	3-Nov-03	N1	8:40	9:10	Sunny	65.0	68.0	61.5	Normal Operation
Nov-03	3-Nov-03	N2	9:20	9:50	Sunny	66.5	69.0	63.0	Normal Operation
Nov-03	3-Nov-03	N3	11:00	11:30	Sunny	69.5	72.5	66.0	Traffic Noise
Nov-03	3-Nov-03	N4	10:15	10:45	Sunny	66.0	69.0	61.5	Traffic Noise
Nov-03	7-Nov-03	N1	8:20	8:50	Sunny	65.5	68.0	61.5	Normal Operation
Nov-03	7-Nov-03	N2	10:10	10:40	Sunny	67.0	69.5	62.0	Normal Operation
Nov-03	7-Nov-03	N3	11:00	11:30	Sunny	68.5	70.5	62.5	Traffic Noise
Nov-03	7-Nov-03	N4	9:30	10:00	Sunny	66.5	69.5	62.0	Traffic Noise
Nov-03	13-Nov-03	N1	7:45	8:15	Sunny	65.0	68.0	61.0	Normal Operation
Nov-03	13-Nov-03	N2	10:00	10:30	Sunny	64.0	68.0	62.0	Normal Operation
Nov-03	13-Nov-03	N3	11:00	11:30	Sunny	66.0	71.0	61.0	Traffic Noise
Nov-03	13-Nov-03	N4	8:30	9:00	Sunny	65.3	68.5	60.0	Traffic Noise
Nov-03	14-Nov-03	N1	8:00	8:30	Sunny	63.0	67.0	61.0	Normal Operation
Nov-03	14-Nov-03	N2	9:55	10:25	Sunny	66.5	69.0	63.5	Normal Operation
Nov-03	14-Nov-03	N3	11:00	1.1:30	Sunny	66.8	71.5	62.0	Traffic Noise
Nov-03	14-Nov-03	N4	8:50	9:20	Sunny	65.8	67.5	61.0	Traffic Noise
Nov-03	18-Nov-03	N1	8:55	9:25	Sunny	63.5	66.0	61.0	Normal Operation
Nov-03	18-Nov-03	N2	8:00	8:30	Sunny	67.5	70.0	62.5	Normal Operation
Nov-03	18-Nov-03	N3	11:00	11:30	Sunny	67.0	71.0	64.5	Traffic Noise
Nov-03	18-Nov-03	N4	9:40	10:10	Sunny	65.5	69.0	62.0	Traffic Noise
Nov-03	20-Nov-03	N1	7:45	8:15	Sunny	65.0	68.5	61.0	Normal Operation
Nov-03	20-Nov-03	N2	8:45	9:15	Sunny	66.5	69.0	62.0	Normal Operation
Nov-03	20-Nov-03	N3	11:00	11:30	Sunny	67.0	69.5	65.5	Traffic Noise
Nov-03	20-Nov-03	N4	9:50	10:20	Sunny	64.8	67.5	62.0	Traffic Noise
Nov-03	24-Nov-03	N1	9:00	9:30	Sunny	64.0	67.5	61.0	Normal Operation
Nov-03	24-Nov-03	N2	8:05	8:35	Sunny	66.8	69.0	62.5	Normal Operation
Nov-03	24-Nov-03	N3	11:00	11:30	Sunny	67.5	72.5	65.0	Traffic Noise
Nov-03	24-Nov-03	N4	9:50	10:20	Sunny	66.0	69.5	64.0	Traffic Noise
Nov-03	28-Nov-03	N1	8:00	8:30	Sunny	65.8	69.0	62.5	Normal Operation
Nov-03	28-Nov-03	N2	9:00	9:30	Sunny	66.0	68.5	64.0	Normal Operation
Nov-03	28-Nov-03	N3	11:00	11:30	Sunny	67.5	70.0	65.5	Traffic Noise
Nov-03	28-Nov-03	N4	9:55	10:25	Sunny	65.5	68.5	62.0	Traffic Noise

Details of Noise Impact Monitoring

APPENDIX B Detailed Air Quality (24-hour TSP) Monitoring Results

		Receptor	Weather	Site	Filter W	eight (g)	TSP	Flow Rate	e (m³/min)	Average Flow	Elapse	Time	Sampling	Total	24-hour TSP	
Month	Date	No.	condition	condition	Initial	Final	weight (g)	Initial	Final	Rate (m ³ /min)	Start	Finish	Time (mins.)	vol. (m ³)	Level (µq/m³)	Remarks
Sep-03	1-Sep-03	A1	Fine	Work in progress	2.7493	2.9172	0.1679	1.6499	1.6499	1.6499	5267.26	5291.26	1440.00	2375.86	70.7	
Sep-03	6-Sep-03	A1	Overcast	Work in progress	2.7496	2.9091	0.1595	1.6379	1.6379	1.6379	5291.26	5315.26	1440.00	2358.58	67.6	
Sep-03	11-Sep-03	A1	Fine	Work in progress	2.7511	2.9202	0.1691	1.6539	1.6539	1.6539	5315.26	5339.26	1440.00	2381.62	71.0	
Sep-03	18-Sep-03	A1	Fine	Work in progress	2.7501	2.9222	0.1721	1.6547	1.6302	1.6425	5339.26	5363.26	1440.00	2365.13	72.8	
Sep-03	24-Sep-03	A1	Fine	Work in progress	2.7431	2.9287	0.1856	1.7095	1.6596	1.6846	5363.26	5387.26	1440.00	2425.75	76.5	
Sep-03	30-Sep-03	A1	Fine	Work in progress	2.7429	2.9311	0.1882	1.6350	1.6104	1.6227	5387.26	5411.26	1440.00	2336.69	80.5	
Oct-03	6-Oct-03	A1	Fine	Work in progress	2.7433	2.9432	0.1999	1.6849	1.6358	1.6604	5411.26	5435.26	1440.00	2390.90	83.6	
Oct-03	13-Oct-03	A1	Overcast	Work in progress	2.7492	2.9307	0.1815	1.6592	1.6346	1.6469	5435.26	5459.26	1440.00	2371.54	76.5	
Oct-03	18-Oct-03	A1	Sunny	Normal Operation	2.7646	2.9324	0.1678	1.4383	1.4396	1.4390	2743.36	2766.62	1395.60	2008.20	83.6	
Oct-03	24-Oct-03	A1	Sunny	Normal Operation	2.7432	3.0167	0.2735	1.4396	1.4433	1.4415	2766.62	2790.22	1416.00	2041.09	134.0	
Oct-03	30-Oct-03	A1	Sunny	Normal Operation	2.9212	3.1290	0.2078	1.4433	1.4430	1.4432	2790.22	2813.25	1381.80	1994.14	104.2	
Nov-03	5-Nov-03	A1	Fine	Normal Operation	2.8847	3.0756	0.1909	1.4183	1.4108	1.4146	2815.25	2836.79	1292.40	1828.16	104.4	
Nov-03	11-Nov-03	A1	Sunny	Normal Operation	2.8437	3.0410	0.1973	1.4287	1.4287	1.4287	2836.79	2854.41	1057.20	1510.42	130.6	
Nov-03	17-Nov-03	A1	Sunny	Normal Operation	2.8592	2.9765	0.1173	1.4183	1.4183	1.4183	2854.41	2878.81	1464.00	2076.39	56.5	
Nov-03	22-Nov-03	A1	Sunny	Normal Operation	2.8571	2.9682	0.1111	1.1168	1.1230	1.1199	2878.81	2899.96	1269.00	1421.15	78.2	
Nov-03	29-Nov-03	A1	Sunny	Normal Operation	2.9046	3.1249	0.2203	1.1709	1.1991	1.1850	2899.96	2927.91	1677.00	1987.24	110.9	

APPENDIX C Detailed Air Quality (1-hour TSP) Monitoring Results

Details	of 1-Hour	TSP	Monitoring
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	1	Receptor		Time periods Start Finish		Weather	Site	Temp.	Pressure	1-hour TSP
Month	Date	No.	Set No.			condition	condition	(°C)	(mmHg)	Level (µg/m [°])
Sep-03	1-Sep-03	A1	1	10:00	11:00	Fine	Work in progress	32.0	761.0	153.6
Sep-03	1-Sep-03	A1	2	11:00	12:00	Fine	Work in progress	32.0	761.0	154.3
Sep-03	1-Sep-03	A1	3	12:00	13:00	Fine	Work in progress	32.0	761.0	152.4
Sep-03	6-Sep-03	A1	1	10:00	11:00	Overcast	Work in progress	27.0	764.0	142.4
Sep-03	6-Sep-03	A1	2	11:00	12:00	Overcast	Work in progress	27.0	764.0	142.8
Sep-03	6-Sep-03	A1	3	12:00	13:00	Overcast	Work in progress	27.0	764.0	143.4
Sep-03	11-Sep-03	A1	1	10:00	11:00	Overcast	Work in progress	32.0	766.0	151.8
Sep-03	11-Sep-03	A1	2	11:00	12:00	Overcast	Work in progress	32.0	766.0	153.2
Sep-03	11-Sep-03	A1	3	12:00	13:00	Overcast	Work in progress	32.0	766.0	150.7
Sep-03	18-Sep-03	A1	1	10:00	11:00	Overcast	Work in progress	32.0	767.0	153.7
Sep-03	18-Sep-03	A1	2	11:00	12:00	Overcast	Work in progress	32.0	767.0	155.1
Sep-03	18-Sep-03	A1	3	12:00	13:00	Overcast	Work in progress	32.0	767.0	154.9
Sep-03	24-Sep-03	A1	1	10:00	11:00	Overcast	Work in progress	30.0	768.0	161.2
Sep-03	24-Sep-03	A1	2	11:00	12:00	Overcast	Work in progress	30.0	768.0	161.6
Sep-03	24-Sep-03	A1	3	12:00	13:00	Overcast	Work in progress	30.0	768.0	163.1
Sep-03	30-Sep-03	A1	1	10:00	11:00	Overcast	Work in progress	30.0	768.0	172.9
Sep-03	30-Sep-03	A1	2	11:00	12:00	Overcast	Work in progress	30.0	768.0	173.1
Sep-03	30-Sep-03	A1	3	12:00	13:00	Overcast	Work in progress	30.0	768.0	174.4
Oct-03	6-Oct-03	A1	1	10:00	11:00	Overcast	Work in progress	30.0	769.0	178.7
Oct-03	6-Oct-03	A1	2	11:00	12:00	Overcast	Work in progress	30.0	769.0	179.6
Oct-03	6-Oct-03	A1	3	12:00	13:00	Overcast	Work in progress	30.0	769.0	178.3
Oct-03	13-Oct-03	A1	1	10:00	11:00	Overcast	Work in progress	31.0	770.0	163.5
Oct-03	13-Oct-03	A1	2	11:00	12:00	Overcast	Work in progress	31.0	770.0	161.6
Oct-03	13-Oct-03	A1	3	12:00	13:00	Overcast	Work in progress	31.0	770.0	163.3
Oct-03	17-Oct-03	A1	1	15:50	16:50	Sunny	Normal Operation	27.0	764.0	196.5
Oct-03	17-Oct-03	A1	2	16:50	17:50	Sunny	Normal Operation	27.0	764.0	202.6
Oct-03	17-Oct-03	A1	3	17:50	18:50	Sunny	Normal Operation	27.0	764.0	202.0
Oct-03	23-Oct-03	A1	1	8:58	9:58	Sunny	Normal Operation	26.0	764.0	237.5
Oct-03	23-Oct-03	A1	2	9:58	10:58	Sunny	Normal Operation	26.0	764.0	245.7
Oct-03	23-Oct-03	A1	3	10:58	11:58	Sunny	Normal Operation	26.0	764.0	252.6
Oct-03	30-Oct-03	A1	1	8:37	9:37	Sunny	Normal Operation	25.0	764.0	236.9
Oct-03 Oct-03	30-Oct-03 30-Oct-03	A1	2	9:37	10:37	Sunny	Normal Operation	25.0	764.0	235.4
		A1	3	10:37	11:37	Sunny	Normal Operation	25.0	764.0	236.5
Nov-03 Nov-03	7-Nov-03	A1	1	9:00	10:00	Sunny	Normal Operation	26.0	756.0	173.1
Nov-03 Nov-03	7-Nov-03 7-Nov-03	A1	2	10:00	11:00	Sunny	Normal Operation	26.0	756.0	176.3
Nov-03	14-Nov-03	A1 A1	3	11:00	12:00	Sunny	Normal Operation	26.0	756.0	188.5
Nov-03	14-Nov-03	A1 A1	1	8:55	9:55	Sunny	Normal Operation	25.0	754.0	219.8
Nov-03	14-Nov-03	A1 A1	2 3	9:55 10:55	10:55 11:55	Sunny	Normal Operation	25.0	754.0	181.2
Nov-03	20-Nov-03	A1 A1	3	7:39	8:39	Sunny Sunny	Normal Operation	25.0	754.0	171.4
Nov-03	20-Nov-03	A1 A1	2	8:39	9:39	Sunny Sunny	Normal Operation	24.0	752.0	184.8
Nov-03	20-Nov-03	A1 A1	2	9:39	9:39 10:39	Sunny Sunny	Normal Operation	24.0 24.0	752.0	190.1
Nov-03	28-Nov-03	A1 A1	1	8:22	9:22	Sunny	Normal Operation		752.0 750.0	192.6
Nov-03	28-Nov-03	A1 A1	2	9:22	9.22	Sunny	Normal Operation	23.0 23.0		173.9
Nov-03	28-Nov-03	A1	2	10:22	11:22	Sunny	Normal Operation	23.0	750.0 750.0	176.4 186.2
		L /\'	L V	10.22	11.22	Sunny	Hormal Operation	23.0	/ 50.0	100.2

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