# **Highways Department**

# Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin

Contract No. HY/2003/10 - Environmental Team for Lai Chi Kok Viaduct and Eagle's Nest Tunnel

Monthly EM&A Report
Part I – Lai Chi Kok Viaduct (Version 1.0) for

December 2008

Approved By

(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties.

# CINOTECH CONSULTANTS LTD

Room 1710, Technology Park, 18 On Lai Street, Shatin, NT, Hong Kong Tel: (852) 2151 2083 Fax: (852) 3107 1388 Email: info@cinotech.com.hk

# TABLE OF CONTENTS

EX	ECUTIVE SUMMARY	1
	Introduction  Environmental Monitoring and Audit Works  Environmental Licenses and Permits  Key Information in the Reporting Month  Operational Noise Monitoring  Cessation of Construction Phase EM&A Program	1 1 2
1.	INTRODUCTION	3
	Background	4 4
2.	AIR QUALITY	6
	Monitoring Requirements  Monitoring Locations  Monitoring Equipment  Monitoring Parameters, Frequency and Duration  Monitoring Methodology and QA/QC Procedure  Results and Observations	6 6 7
3.	NOISE	9
	Monitoring Requirements  Monitoring Locations  Monitoring Equipment  Monitoring Parameters, Frequency and Duration  Monitoring Methodology and QA/QC Procedures  Maintenance and Calibration  Results and Observations	9 10 10 10
4.	ENVIRONMENTAL AUDIT	. 12
	Site Audits  Review of Environmental Monitoring Procedures  Status of Environmental Licensing and Permitting  Implementation Status of Environmental Mitigation Measures  Summary of Exceedance  Implementation Status of Event Action Plans  Summary of Complaint and Prosecution	12 12 12 14
5.	FUTURE KEY ISSUES	. 14
	Key Issues for the Coming Month  Construction Program for the Next Month	
6.	CONCLUSIONS AND RECOMMENDATIONS	. 15
	Conclusions	

# LIST OF TABLES

Table I	Summary Table for Events Recorded in the Reporting Month
Table II	Summary Table for Key Information in the Reporting Month
Table 1.1	Key Project Contacts
Table 2.1	Locations for Air Quality Monitoring
Table 2.2	Air Quality Monitoring Equipment
Table 2.3	Impact Dust Monitoring Parameters, Frequency and Duration
Table 3.1	Noise Monitoring Stations
Table 3.2	Noise Monitoring Equipment
Table 3.3	Noise Monitoring Parameters, Frequency and Duration
Table 4.1	Summary of Environmental Licensing and Permit Status
Table 4.2	Observations and Recommendations of Site Audit for Civil Works
Table 4.3	Observations and Recommendations of Site Audits Followed up for Pervious Month
	for Civil Works

# LIST OF FIGURES

Figure 1 Locations of Monitoring Stations

# LIST OF APPENDICES

A	Action and Limit Levels for Air Quality and Noise
В	Copies of Calibration Certificates
C	Environmental Monitoring Schedule
D	Wind Data
E	1-hour TSP Monitoring Results and Graphical Presentations
F	24-hour TSP Monitoring Results and Graphical Presentations
G	Noise Monitoring Results and Graphical Presentations
H	Summary of Exceedance
I	Site Audit Summary
J	Event Action Plans
K	Environmental Mitigation Implementation Schedule (EMIS)
L	Construction Programme
M	Complaint Log

# ABBREVIATION AND ACRONYM

AL Levels Action and Limit Levels

CEDD Civil Engineering and Development Department

E / ER Engineer/Engineer's Representative

EIA Environmental Impact Assessment

EM&A Environmental Monitoring and Audit

EMIS Environmental Mitigation Implementation Schedule

EP Environmental Permit

EPD Environmental Protection Department

ET Environmental Team
HVS High Volume Sampler

HyD Highways Department

IEC Independent Environmental Checker

NOE Notification of Exceedancee

QA/QC Quality Assurance / Quality Control

RE Resident Engineer

RH Relative Humidity

SLM Sound Level Meter

TSP Total Suspended Particulates

# **EXECUTIVE SUMMARY**

# Introduction

This is the 61<sup>st</sup> monthly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for the "Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin, Lai Chi Kok Viaduct & Eagle's Nest Tunnel". This report documents the findings of EM&A Works conducted in December 2008 for Contract No. HY/2003/01, Lai Chi Kok Viaduct (the Project).

The major site activities for civil works undertaken in the reporting month included:

• Slope upgrading works for Feature No. 11NW-A/FR 54 & A/FR55.

# **Environmental Monitoring and Audit Works**

Environmental monitoring and audit works for the Project was performed regularly as stipulated in the updated EM&A Manual and the results were checked and reviewed. Site audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.

Summary of the events and action taken in the reporting month is tabulated in **Table I**.

Table I Summary Table for Events Recorded in the Reporting Month

Danamatan	No. of Events		No. of Events	Action Taken	
Parameter	Action Level	Limit Level	Due to the Project	Action Taken	
1-hr TSP	0	0	0	N/A	
24-hr TSP	0	0	0	N/A	
Noise	0	0	0	N/A	

#### **Environmental Licenses and Permits**

Licenses/Permits granted to the Project include the Environmental Permit (EP) for the Project, the Water Discharge Licenses (WDLs) and the Construction Noise Permits (CNPs). No new CNP was issued to the Project by EPD in the reporting month.

# **Key Information in the Reporting Month**

Summary of key information in this reporting month is tabulated in **Table II**.

Table II	Summary	Table for Ke	v Information	in the Re	porting Month
I and II	Duillillai v		, mm, mm, mm,		

E-vor-4	<b>Event Details</b>		A ation Talson	C4o4ma	D
Event	Number	Nature	Action Taken	Status	Remark
Complaint received	0	0	N/A	N/A	
Changes to the assumptions and key construction / operation activities recorded	0		N/A	N/A	
Status of submissions under EP	1	Monthly EM&A Report for November 08 (Version 1.0)	Submitted to EPD on 10 <sup>th</sup> December 2008 (EP condition 4.6).	No comment	
Notifications of any summons & prosecutions received	0		N/A	N/A	

#### **Future Key Issues:**

Major site activities for civil works in the coming months include:

- Minor defect rectification works; and
- Landscape establishment works.

No major environmental issue will be anticipated where accumulation of general refuse generated from the activities above should be avoided.

# **Cessation of Construction Phase EM&A Program**

Considering the substantial completion of the Project civil works, the Construction Phase EM&A Program for the Project has been ceased since 1<sup>st</sup> January 2009 to tie in with the expiry of the remaining Construction Noise Permits and Water Discharge licenses.

The ET's proposal of Cessation of Construction Phase EM&A Program has been approved by EPD according to the letter issued by EPD to Highways Department dated 6 January 2009.

In accordance with EP Condition 4.1, the foresaid proposal has also been justified by the IEC as conforming to the requirements set out in the two EM&A Manuals and information contained in 1998 EIA Report, 1999 EIA Report and the Application.

# **Operational Noise Monitoring**

The Operational Noise Monitoring shall be conducted simultaneously for the Main Portion and Entrusted Portion of Route 8 between Cheung Sha Wan and Sha Tin as per EPD's verbal comment.

As the permission from the Management Office of the two designated locations of another Project (Entrusted Portion of Route 8 between Cheung Sha Wan and Sha Tin - Sha Tin Heights Tunnel & Approaches) has not yet been successfully obtained, the first and second Operational Noise Monitoring are still arranging.

No Operational Noise Monitoring was conducted in the reporting month.

# 1. INTRODUCTION

# **Background**

- 1.1 Route 9 (Kowloon Section) (R9K) (hereinafter call the R9K-Project) forms part of the Route 9 between Cheung Sha Wan and Sha Tin (R9-CSWST) project, which will be a new expressway connecting West Kowloon and Sha Tin. It will be the fourth external link between Sha Tin and Kowloon and will form an important link between the northeast New Territories and the west Kowloon, Lantau Island and the western New Territories. R9K is being managed and implemented by the Highways Department (HyD).
- 1.2 The engineering design of R9K is covered under Agreement No. CE 50/98 "Route 9 between Cheung Sha Wan and Sha Tin Design Construction Assignment". The main consultant engaged under Agreement No. CE 50/98 is Maunsell Hyder Joint Venture (MHJV), who will act as the Engineer for the construction contracts. The works of R9K mainly comprise a 1.4km dual 3-lane Lai Chi Kok Viaduct from Lai Wan Interchange to Butterfly Valley; 0.5 km of dual 3-lane at-grade carriageway linking to the 2.1 km dual 3-lane twin-bore Eagle's Nest Tunnel with associated portal buildings; a toll plaza with an administration building located with the Sha Tin valley woodland; a ventilation building and an adit; associated noise barriers, noise enclosures, drainage, slope and landscape works; and electrical and mechanical works for the whole R9-CSWST. The remainder of the R9-CSWST forms the Sha Tin Section (R9S) of the project and is being managed and implemented separately by the Civil Engineering and Development Department (CEDD).
- 1.3 The R9-CSWST project is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). An environmental impact assessment (EIA) report has been prepared in 1998 for the R9-CSWST project (1998 R9 EIA) to consider the key issues of noise, air quality, water quality, ecological, construction waste, landscape and visual, land use and cultural impacts, and identify possible mitigation measures.
- 1.4 An Updated Final EIA report was subsequently completed in September 1999 for the R9-CSWST project (1999 R9 EIA), to cater for some changes in R9K portion as mentioned in paragraph 1 in the report. The 1999 R9 EIA was endorsed by Environmental Protection Department (EPD) in November 1999. The 1998 R9 EIA and the 1999 R9 EIA (R9 EIA Reports) were included in the EIA register under the EIAO as report no. EIA-135/BC and AEIAR-022/1999 respectively. Environmental Monitoring and Audit (EM&A) Manuals for each of the R9 EIA Reports (EM&A Manuals) were also included as part of the EIA reports in the register.
- 1.5 Subsequent to the endorsement of the R9 EIA Reports by EPD in November 1999, the project programme was deferred to start in 2002/2003 for completion by 2006/07. The implementation of the project was then separated into the R9S and R9K portion. An Environmental Permit (EP) No. EP-103/2001 was issued on 17 September 2001 for R9K to the HyD as Permit Holder and a varied EP No. EP-103/2001/D was subsequently issued on 19 March 2008.

- 1.6 The major construction activities of two civil contracts of the R9K project, Contract No. HY/2003/01 entitled "Route 9 Lai Chi Kok Viaduct" and Contract No. HY/2003/02 entitled "Route 9 Eagle's Nest Tunnel and Associated Works", were commenced in 15<sup>th</sup> December 2003 for completion in April 2007.
- 1.7 "Route 9" was recently re-titled as "Route 8 (previously known as Route 9)". Cinotech Consultants Limited (Cinotech) was commissioned by HyD to undertake the Environmental Monitoring and Audit works for "Route 8 between Cheung Sha Wan and Sha Tin Environmental Team (ET) for Lai Chi Kok Viaduct and Eagle's Nest Tunnel (Contract No. HY/2003/10)". Dr. Priscilla CHOY of Cinotech Consultants Ltd. was appointed as the ET Leader under Condition 2.2 of the EP. Mr. Damien Ku of CH2M HILL Hong Kong Ltd. was appointed as the IEC under Condition 2.1 of the EP. This is the 61<sup>st</sup> monthly EM&A report summarizing the EM&A works for the Project in December 2008.

# **Project Organizations**

- 1.8 Different parties with different levels of involvement in the project organization include:
  - Project Proponent Major Works Project Management Office (MWPMO) of Highways Department (HyD)
  - Engineer (E) / Engineer's Representative (ER) Maunsell-Hyder Joint Venture
  - Environmental Team (ET) Cinotech Consultants Limited
  - Independent Environmental Checker (IEC) CH2M HILL Hong Kong Limited
  - Contractor Acciona Infraestructuras S.A.
  - Engineer's Representative for TCSS works Ove Arup & Partners Hong Hong Limited
  - Contractor for TCSS works Delcan-Imtech-Gtech Joint Venture
- 1.9 The responsibilities of respective parties are detailed in Section 1.8.3 of the EM&A Manual (1999) of the Project.
- 1.10 The key contacts of the Project are shown in **Table 1.1**.

# **Construction Programme**

- 1.11 The site activities for civil works undertaken in the reporting month included:
  - Slope upgrading works for Feature No. 11NW-A/FR 54 & A/FR55.

Table	1.1	Key Pı	oject (	Cont	tacts

Party	Role	Name	Position	Phone No.	Fax No.	
		Mr. Kroc Leung	SE2/R8K	2762 3662		
H-D	D 5-11-11	Mr. Esther Yung	E1/R8K	2762 3677	2714 5198	
HyD	Permit Holder	Mr. LC Chung	E2/R8K	2762 3613		
		Mr. George Law	E4/R8K	2762 3675		
	Engineer	Mr. Conrad Ng	Project Manager	2605 6262	2691 2649	
MHJV	En sin san's	Mr. Patrick Lee	CRE	2959 0010		
IVIII V	Engineer's Representative	Mr. Alex Tam	RE	9856 0199	2959 0290	
		Mr. Alan Chan	IOW	9860 8791		
	Environmental Team	Dr. Priscilla Choy	ET Leader	2151 2089	3107 1388	
Cinotech		Mr. Robert Tsang	Project Coordinator & Audit Team Leader	2151 2099		
		Mr. Henry Leung	Monitoring Team Leader	2151 2087		
CH2M	Independent Environmental	Mr. Damien Ku	IEC	2872 2921	2507 2293	
0112111	Checker	Mr. Edward Yip	Assistant to IEC	2872 2951	2301 2293	
Acciona	Contractor	Mr. William D. Payne	Project Director	2956 3300	2056 2221	
Acciona		Mr. Lawrence Kwok	QA/E Manager	2930 3300	2956 3331	
ARUP	Engineer's Representative	Mr. Donald Leung	RE	2436 7489	2436 1803	
ARUP	(TCSS)	Mr. Daniel So	ARE	2436 7435	2430 1803	
DIGJV	Contractor (TCSS)	Ms. Joyce Chan	Quality Manager	2123 0845	2123 0889	
24-hour En	mergency Hotline		2370 9200	-		

# **Summary of EM&A Requirements**

- 1.12 The EM&A programme requires construction phase monitoring for air quality and construction noise, and environmental site audit. The EM&A requirements for each parameter are described in the following sections, including:
  - All monitoring parameters;
  - Action and Limit levels for all environmental parameters;
  - Event Action Plans;
  - Environmental mitigation measures, as recommended in the project EIA study final report; and
  - Environmental requirements in contract documents.
- 1.13 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 4 of this report.
- 1.14 This report presents the environmental monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the required monitoring parameters, namely dust and noise levels and audit works for the Project in the reporting month.

# 2. AIR QUALITY

# **Monitoring Requirements**

2.1 Monitoring of 1-hour and 24-hour TSP was conducted to monitor the air quality. **Appendix** A shows the established Action/Limit Levels for the environmental monitoring works.

# **Monitoring Locations**

2.2 One designated monitoring station, AM2 was selected for impact dust monitoring for the Project. **Table 2.1** describes the air quality monitoring location, which is also depicted in **Figures 1**.

**Table 2.1** Locations for Air Quality Monitoring

Monitoring Station	Description	Location
AM2	Lai Chi Kok Park Sports Centre	Rooftop

# **Monitoring Equipment**

2.3 **Table 2.2** summarizes the equipment used for the air quality monitoring. Copies of calibration certificates are attached in **Appendix B**.

**Table 2.2** Air Quality Monitoring Equipment

Equipment	Model and Make	Quantity
Calibrator	GMW25; S/N: 1536	1
HVS Sampler	Graseby GMW Model GS2310 High Volume TSP Sampler and associated equipment and shelter	1

# **Monitoring Parameters, Frequency and Duration**

2.4 **Table 2.3** summarizes the monitoring parameters and frequencies of impact dust monitoring for the whole construction period. The air quality monitoring schedule for the reporting period is shown in **Appendix C**.

**Table 2.3** Impact Dust Monitoring Parameters, Frequency and Duration

Parameters	Frequency
1-hr TSP	Three times / 6 days
24-hr TSP	Once / 6 days

# Monitoring Methodology and QA/QC Procedure

#### Instrumentation

2.5 Graseby GMW Model GS2310 TSP High Volume Sampler (HVS) was employed for 1-hour & 24-hour TSP monitoring. The sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50). Moreover, the HVS also met all the requirements in Sections 2.2 to 2.4 of the EM&A Manual (1999).

# Operating/Analytical Procedures

- 2.6 Operating/analytical procedures for the operation of HVS were as follows:
  - A horizontal platform was provided with appropriate support to secure the samplers against gusty wind.
  - No two samplers were placed less than 2 meters apart.
  - The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler.
  - A minimum of 2 meters of separation from walls, parapets and penthouses was required for rooftop samples.
  - A minimum of 2 meters separation from any supporting structure, measured horizontally was required.
  - No furnaces or incineration flues were nearby.
  - Airflow around the sampler was unrestricted.
  - The sampler was more than 20 meters from the drip line.
  - Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.
- 2.7 Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 1.1 m³/min. and 1.4 m³/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.
- 2.8 For TSP sampling, fiberglass filters (G810) were used.
- 2.9 The power supply was checked to ensure the sampler worked properly.
- 2.10 On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.
- 2.11 The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.
- 2.12 The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.

Monthly EM&A Report – December 2008

- 2.13 The shelter lid was closed and secured with the aluminum strip.
- 2.14 The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).
- 2.15 After sampling, the filter was removed and sent to the laboratory for weighing. The elapsed time was also recorded.
- 2.16 Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than ±3°C; the relative humidity (RH) should be < 50% and not vary by more than ±5%. A convenient working RH is 40%.

# Maintenance/Calibration

- 2.17 The following maintenance/calibration was required for the HVS:
  - The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working condition.
  - High volume samplers were calibrated at bi-monthly intervals using GMW-25 Calibration Kit throughout all stages of the air quality monitoring.

# **Results and Observations**

- 2.18 All TSP monitoring was conducted as scheduled in this reporting month. No Action/Limit Level exceedance for both 1-hour and 24-hour TSP was recorded.
- 2.19 Wind data monitoring equipment has been installed in Shatin Heights for logging wind speed and wind direction. These wind data for the reporting month is summarized in **Appendix D**.
- 2.20 The monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendices E** and **F**, respectively.

#### 3. NOISE

# **Monitoring Requirements**

- 3.1 Monitoring and audit of construction noise levels is required to be conducted, in accordance with the EM&A Manual, to ensure that any unacceptable noise impacts could be readily detected and timely and appropriate action be undertaken to rectify the situation.
- 3.2 The construction noise levels shall be measured in terms of the A-weighted equivalent continuous sound pressure level (Leq). Leq (30min) shall be used as the monitoring parameter for the time period between 0700-1900 hours on normal weekdays. For all other time periods, Leq (5min) shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. As supplementary information for data auditing, statistical results such as L<sub>10</sub> and L<sub>90</sub> shall also be obtained for reference.
- 3.3 Five designated noise monitoring stations, namely NM2, NM4, NM8a, NM8b and NM9 were selected for impact monitoring. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

# **Monitoring Locations**

3.4 Noise monitoring was conducted at five designated monitoring stations as summarized in **Table 3.1**. **Figures 1** show the locations of these stations.

**Table 3.1 Noise Monitoring Stations** 

Stations <sup>(1)</sup>	Description	Location
NM2	Lai Chi Kok Correctional Institution	Rooftop
NM4	Mei Foo Sun Chuen, Phase 5	Rooftop of Block 9
NM8a	Nob Hill	M/F of Car Park
NM8b	Nob Hill	3/F of Car Park
NM9	Hoi Lai Estate	G/F of Hoi Fai House

- (1) The Lai Chi Kok Hospital (NM3) was also found vacated and noise monitoring has been suspended since January 2005, as approved by EPD on 15<sup>th</sup> March 2005.
- 3.5 Stations NM8a and NM8b were installed at Nob Hill in May 2004. Station NM8b is located at 3/F of the car park of Nob Hill, which is strongly influenced by traffic noise from Ching Cheung Road. The measurement at this station is for reference purpose, but not for compliance check of construction noise. The measured noise level at Station NM8a, which is located at M/F of car park and closer to the construction site, acts as an indicator of the construction noise. Since the domestic premises are located above 5/F, noise assessment would be performed to assess the level of nuisance resulting from the construction noise at the domestic premises whenever the measured noise level at NM8a exceeds the noise limit level.

- 3.6 The noise monitoring at Lai Chi Kok Correctional Institution (NM2), which was formerly known as Lai Chi Kok Reception Centre, has been resumed since 8<sup>th</sup> September 2006 after the completion of the renovation works.
- 3.7 A new housing estate, Hoi Lai Estate, became one of the noise sensitive receivers close to the Project site. As recommended by the Regional (West) Office of EPD, noise monitoring at this location (Station NM9) was newly included in the EM&A programme. Approval for the change of EM&A programme was granted by EPD on 30<sup>th</sup> December 2004.

# **Monitoring Equipment**

3.8 **Table 3.2** summarizes the noise monitoring equipment model being used. Copies of calibration certificates are attached in **Appendix B**.

**Table 3.2** Noise Monitoring Equipment

Equipment	Model and Make	Qty.
Integrating Sound Level Meter	B&K Model 2238	2
Calibrator	B&K 4231	2
Wind Speed Anemometer	RS232 Integral Vane Digital Anemometer	1

# **Monitoring Parameters, Frequency and Duration**

3.9 **Table 3.3** summarizes the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule is shown in **Appendix C**.

**Table 3.3** Noise Monitoring Parameters, Frequency and Duration

Stations	Parameter	Period	Frequency	Measurement
NM2				Façade
NM4	L <sub>10</sub> (30 min.)dB(A) L <sub>90</sub> (30 min.)dB(A) L <sub>eq</sub> (30 min.)dB(A)			Façade
NM8a		0700-1900 hrs. on weekdays	Once per week	Façade
NM8b		on weekdays	Week	Façade
NM9				Façade

# Monitoring Methodology and QA/QC Procedures

- The Sound Level Meter was generally set on a tripod at a height of 1.2 m above the ground, depending to the actual monitoring condition.
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:

frequency weightingtime weighting<li: Fast</li>

time measurement : 30 minutes / 5 minutes

Monthly EM&A Report – December 2008

- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with the portable wind meter.
- At the end of the monitoring period, the  $L_{eq}$ ,  $L_{90}$  and  $L_{10}$  were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- Noise measurement was paused during periods of high intrusive noise if possible and observation was recorded when intrusive noise was not avoided.
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s.

# **Maintenance and Calibration**

- 3.10 The microphone head of the sound level meter and calibrator was cleaned with soft cloth regularly.
- 3.11 The meters were sent to the supplier to check and calibrate on a yearly interval.

#### **Results and Observations**

- 3.12 Noise monitoring was performed at the five designated locations (NM2, NM4, NM8a, NM8b and NM9) as scheduled in the reporting month.
- 3.13 All the Construction Noise Levels (CNLs) reported in this report, except those collected at Stations NM8a, NM8b and NM9, were adjusted with the corresponding baseline level (i.e. Measured Leq Baseline Leq = Measured CNL), in order to facilitate the interpretation of the noise exceedance.
- 3.14 Noise monitoring results and graphical presentations are shown in **Appendix G**.
- 3.15 No Action/Limit Level exceedance was recorded in the reporting month.
- 3.16 At Stations NM8a and NM8b, the major noise source identified during the monitoring exercises was mainly the road traffic noise.
- 3.17 At Stations NM2, NM4 and NM9, construction noise from the Project and occasionally the traffic noise were identified as the major noise source during monitoring.

# 4. ENVIRONMENTAL AUDIT

#### **Site Audits**

- 4.1 Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in **Appendix I**.
- 4.2 Site audits for Civil contract were conducted on 3<sup>rd</sup>, 10<sup>th</sup>, 17<sup>th</sup> and 24<sup>th</sup> December 2008 by the representatives of ER, the Contractor and the ET. A joint site audit with the representatives of IEC, ER, the Contractor and the ET was carried out on 10<sup>th</sup> December 2008. No non-compliance was observed during the site audits.

# **Review of Environmental Monitoring Procedures**

4.3 The monitoring works conducted by the monitoring team were inspected regularly. The following observations have been recorded for the monitoring works:

# Air Quality Monitoring

- The monitoring team recorded all observations around the monitoring stations within and outside the construction site.
- The monitoring team recorded the temperature and weather conditions on the monitoring days.

# Noise Monitoring

- The monitoring team recorded all observations around the monitoring stations, which might affect the monitoring result.
- Major noise sources were identified and recorded. Other intrusive noise attributing to the result was trimmed off by pausing the monitoring temporarily.

# Status of Environmental Licensing and Permitting

4.4 All valid permits/licenses obtained for the Project are summarized in **Table 4.1**. No new CNP was issued to the Project in the reporting month.

# **Implementation Status of Environmental Mitigation Measures**

4.5 According to the Environmental Permit and the EM&A Manuals, the mitigation measures detailed in the documents are required to be implemented. An updated summary of the EMIS is provided in **Appendix K**.

Table 4.1 Summary of Environmental Licensing and Permit Status

Permit No.	Valid 1	Period	Details	Status	
Permit No.	From	To	Details	Status	
Environmental Per	rmit (EP)				
EP-103/2001/D	22/07/05	N/A	Construction and operation of  (a) All civil works (including highways, traffic, geotechnical, drainage, structural, architectural and landscaping works) for the Lai Chi Kok Viaduct, the interchange with Ching Cheung Road, the main road within Butterfly Valley and the Eagle's Nest Tunnel;  (b) All E&M works (including ventilation, Traffic Control & Surveillance System (TCSS), toll collection system and lighting) for the whole Route 9 between Cheung Sha Wan and Sha Tin;  (c) The permanent slope works above the northern portal of the Eagle's Nest Tunnel; and  (d) The architectural works (including fitting out and furnishings) of the portal buildings of the Sha Tin Heights Tunnel.		
Registration of Ch	emical Was	te Producer		•	
WPN 5213-261- N2413-04	17/11/03	N/A	N/A	Valid	
Water Discharge I	isence				
EP482/260/251/1	05/12/03	31/12/08	Discharge of industrial trade effluent arising from the construction site at Route 8 (Previous known as Route 9) – Lai Po Road Section of Lai Chi Kok Viaduct (Contract HY/2003/01).	Expired	
EP482/260/251/2	15/12/03	31/12/08	Discharge of industrial trade effluent arising from the construction site at Route 8 (Previous known as Route 9) – Lai Chi Kok Viaduct excluding Lai Po Road Section.	Expired	
<b>Construction Noise</b>	e Permit (Cl	NP)			
GW-RW0279-08	29/06/08	28/12/08	Location: Ching Cheung Road Section between Ching Lai Court to Castle Peak Road, Lai Chi Kok, Kowloon., KLN Time Period: 00:00 - 24:00 (on general holidays including Sundays) and 00:00 - 07:00 & 19:00 - 24:00 (any day not being a general holiday)	Expired	
GW-RW0280-08	29/06/08	28/12/08	<u>Location:</u> Castle Peak Road Near Ching Cheung Road <u>Time Period</u> : 00:00 - 24:00 (on general holidays including Sundays) and 00:00 - 07:00 & 19:00 - 24:00 (any day not being a general holiday)	Expired	

4.6 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations are summarized in **Table 4.2**.

Table 4.2 Observations and Recommendations of Site Audits for Civil Works

Parameters	Date	Observations and Recommendations	Follow-up
Nil			

4.7 The observations and recommendations arising from pervious month and followed up in the reporting month are summarized in **Table 4.3**.

# Table 4.3 Observations and Recommendations of Site Audits Followed up for Pervious Month for Civil Works

Parameters	Date	Observations and Recommendations	Follow-up	
Nil				

## **Summary of Exceedance**

## 1-hr and 24-hr TSP Monitoring

4.8 No Action/Limit Level exceedance for both 1-hour and 24-hour TSP was recorded in the reporting month.

# **Construction Noise Monitoring**

4.9 No Action/Limit Level exceedance was recorded in the reporting month.

# **Implementation Status of Event Action Plans**

4.10 The Event Action Plans for air quality and construction noise are presented in **Appendix J**.

# **Summary of Complaint and Prosecution**

- 4.11 No public complaint was received in the reporting month.
- 4.12 There were in total 45 environmental complaints referred to the ET and 1 prosecution received since the commencement of the Project. The Complaint Log is attached in **Appendix M**.

# 5. FUTURE KEY ISSUES

# **Key Issues for the Coming Month**

- 5.1 Key issues to be considered in the coming months include:
  - Accumulation of general refuse generated from the remaining activities and site clearance.

# **Construction Program for the Next Month**

- 5.2 The major construction activities for civil works in the coming months include:
  - Maintenance and defect fixing works; and
  - Landscape establishment works.
- 5.3 The tentative construction program for civil works is provided in **Appendix L**.

Monthly EM&A Report – December 2008

#### 6. CONCLUSIONS AND RECOMMENDATIONS

# **Conclusions**

- 6.1 Environmental monitoring works were conducted in the reporting month and all monitoring results were checked and reviewed.
- 6.2 No Action/Limit Level exceedance for both 1-hour and 24-hour TSP was recorded in the reporting month.
- 6.3 No Action/Limit Level exceedance for noise was recorded in the reporting month.
- 6.4 No public complaint and prosecution was received in the reporting month.
- 6.5 Considering the substantial completion of the Project civil works, the Construction Phase EM&A Program for the Project has been ceased since 1<sup>st</sup> January 2009 to tie in with the expiry of the remaining Construction Noise Permits and Water Discharge licenses.

#### Recommendations

6.6 According to the environmental audit performed in the reporting month, the following recommendations were made:

#### Water Impact

- To ensure properly maintenance for de-silting facilities; and
- To avoid stagnant water accumulation on site.

# Noise Impact

- To provide temporary noise barriers for noisy activities to be carried out close to premises and public; and
- To reduce the number of noisy equipment in concurrent operation.

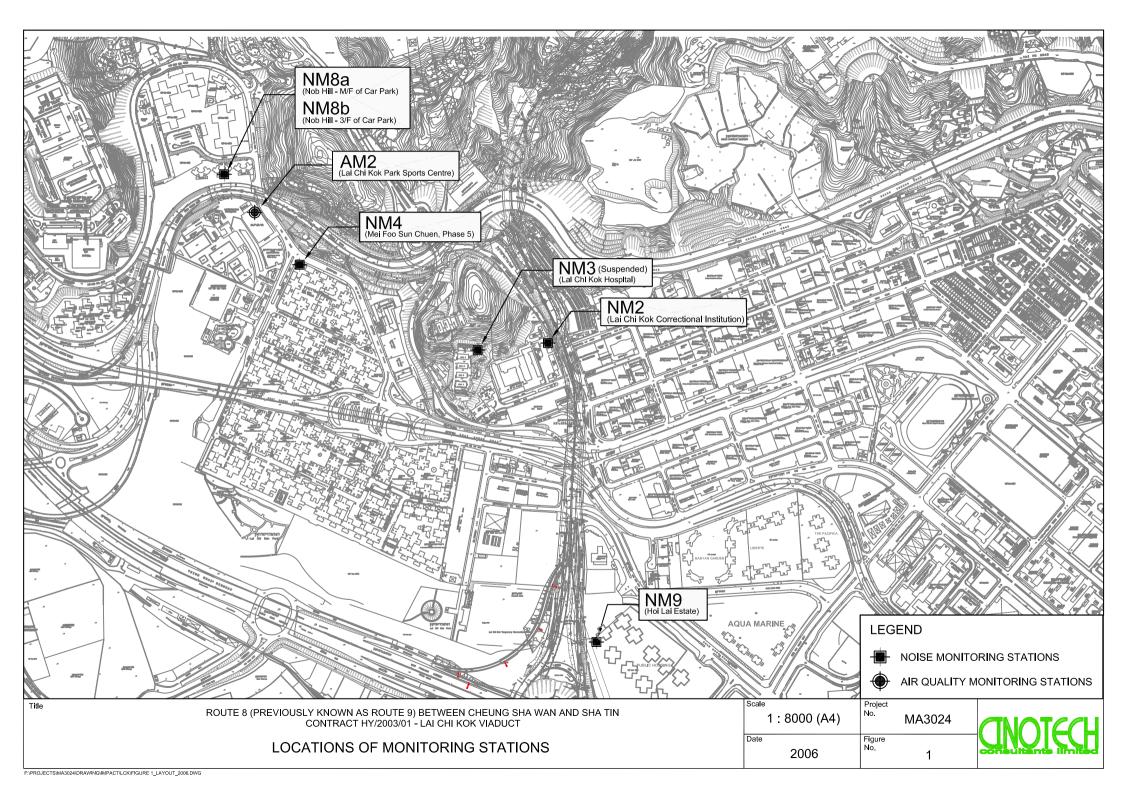
#### **Dust Impact**

- To ensure all vehicles carrying dusty material are properly covered before leaving the site;
- To ensure water spray is applied for the dust emissive works and loading and unloading of dusty materials; and
- To cover dusty stockpiles and exposed surface by impervious sheets or other means.

# Waste / Chemical Management

- To ensure proper storage of any chemical or chemical waste on site;
- To check for any accumulation of waste materials or rubbish on site.
- To avoid any discharge or accidental spillage of chemical waste or oil directly.

# **FIGURES**



# APPENDIX A ACTION AND LIMIT LEVELS

# Appendix A - Action and Limit Levels (LCKV)

# 1-Hour TSP

Location	Action Level, μg/m <sup>3</sup>	Limit Level, μg/m³
AM2	301	500

# 24-Hour TSP

Location	Action Level, μg/m <sup>3</sup>	Limit Level, μg/m³
AM2	177	260

# **Construction Noise**

Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays		75 dB(A)
0700-2300 hrs on holidays & 1900-2300 hrs on all other days	When one documented complaint is received	70* dB(A)
2300-0700 hrs of next day		55* dB(A)

<sup>(\*)</sup> The Area Sensitivity Rating for the noise monitoring stations (NM4, NM8a, NM8b and NM9) is taken as C, according to Table 1 of EPD's Technical Memorandum on Noise from Construction Work other than Percussive Piling.

APPENDIX B COPIES OF CALIBRATION CERTIFCATES

# High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA3024/20/0032 WK Station Lai Chi Kok Sport Centre (AM2) Operator: 12-Jan-09 Date: Next Due Date: 13-Nov-08 0818 Equipment No.: A-01-20 Serial No. **Ambient Condition** 293.7 Pressure, Pa (mmHg) 767.8 Temperature, Ta (K) Orifice Transfer Standard Information A-04-06 Slope, mc 0.0575 Intercept, bc 0.0395 Equipment No.: mc x Qstd + bc =  $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ Last Calibration Date: 10-Mar-08 Qstd =  $\{ |\Delta H \times (Pa/760) \times (298/Ta) \}^{1/2} - bc \} / mc$ 9-Mar-09 Next Calibration Date: **Calibration of TSP Sampler** HVS Orfice Calibration  $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$  Y-ΔH (orifice), Ostd (CFM)  $\Delta W$ Point [ΔH x (Pa/760) x (298/Ta)]<sup>1/2</sup> in. of water (HVS), in. of oil X - axis axis 11.9 3.49 60.05 8.0 2.86 I 2.58 9.4 3.10 53.30 6.5 2 3 7.1 2.70 46.23 4.8 2.22 39.47 3.3 1.84 4 5.2 2.31 1.9 1.40 5 3.0 1.75 29.81 By Linear Regression of Y on X Slope, mw = \_\_\_\_\_\_0.0495 -0.0845 Intercept, bw :\_\_\_\_ Correlation coefficient\* = 0.9991 \*If Correlation Coefficient < 0.990, check and recalibrate. **Set Point Calculation** From the TSP Field Calibration Curve, take Qstd = 43 CFM From the Regression Equation, the "Y" value according to mw x Qstd + bw =  $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Therefore, Set Point;  $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$  4.07 Remarks: Conducted by: Wh. Tang Signature: Signature: Date:



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#### AIR POLLUTION MONITORING EQUIPMENT

#### ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - M Operator		8 Rootsmeter Orifice I.		833640 0999	Ta (K) - Pa (mm)	295 - 746.76
PLATE OR Run #	VOLUME START	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H20 (in.)
1 2 3 4	NA NA NA NA	NA NA NA NA	1.00 1.00 1.00 1.00	1.3890 0.9850 0.8810 0.8410	3.2 6.3 7.8 8.6	2.00 4.00 5.00 5.50
5	AN	ДИ	1.00	0.6950	12.5	8.00

# DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
0.9917 0.9876 0.9854 0.9844 0.9792	0.7139 1.0026 1.1185 1.1706 1.4090	1.4113 1.9959 2.2315 2.3405 2.8227		0.9957 0.9916 0.9894 0.9884 0.9832	0.7168 1.0067 1.1231 1.1753 1.4147	0.8874 1.2549 1.4030 1.4715 1.7747
Ostd slo intercep coeffici y axis =	t (b) = ent (r) = 	2.03154 -0.03970 0.99999	[a]	Qa slop intercep coeffici y axis =	t (b) =	1.27212 -0.02496 0.99999

#### CALCULATIONS

Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta)

Qstd = Vstd/Time .

Va = Diff Vol [(Pa-Diff Hg)/Pa]

Qa = Va/Time

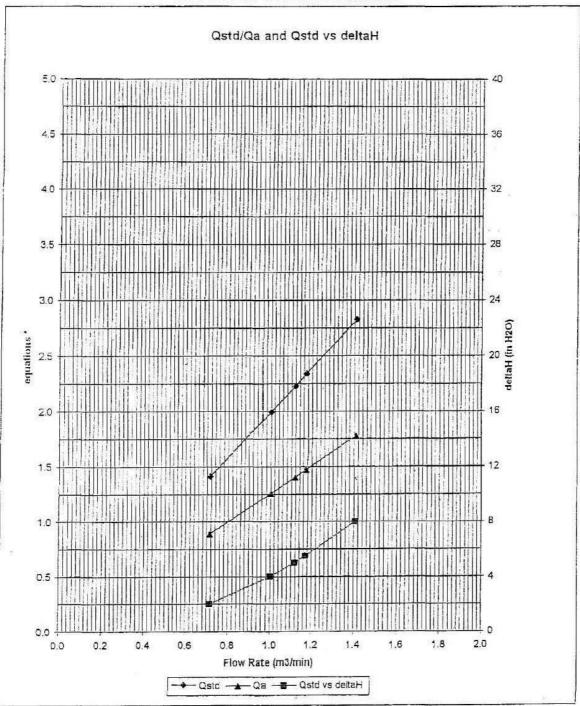
For subsequent flow rate calculations:

Qstd =  $1/m\{[SQRT(H2O(Pa/760)(298/Ta))] - b\}$ Qa =  $1/m\{[SQRT H2O(Ta/Pa)] - b\}$ 



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#### AIR POLLUTION MONITORING EQUIPMENT



\* y-axis equations:

Qstd series:

$$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right) \left(\frac{Tstd}{Ta}\right)}$$

Qa series:

$$\sqrt{(\Delta H (Ta / Pa))}$$



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# TEST REPORT

APPLICANT: Cinotech Consultants Limited

Room 1710, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	C/07/80502
Date of Issue:	2008-05-03
Date Received:	2008-05-02
Date Tested:	2008-05-02
Date Completed:	2008-05-03
Next Due Date:	2009-05-02

ATTN:

Mr. Henry Leung

Page:

1 of 1

# **Certificate of Calibration**

#### Item for calibration:

Description

: RS232 Integral Vane Digital Anemometer

Manufacturer

: AZ Instrument

Model No.

: 451104

Serial No.

: 9020746

Equipment No.

: A-03-01

#### Test conditions:

Room Temperature

: 21 degree Celsius

Relative Humidity

: 65%

Pressure

: 101.3 kPa

#### Methodology:

The anemometer has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

#### Results:

The second secon	Reference Set Point	Instrument Readings
Measuring Air Velocity, m/s	2.00	2.00
Temperature, °C	21.0	21.0

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Laboratory Manager

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# TEST REPORT

APPLICANT: Cinotech Consultants Limited

Room 1710, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: C/N/71213/1
Date of Issue: 2007-12-14
Date Received: 2007-12-13
Date Tested: 2007-12-14
Date Completed: 2007-12-14
Next Due Date: 2008-12-13

ATTN:

Mr. Henry Leung

Page:

1 of 1

# **Certificate of Calibration**

#### Item for calibration:

Description

: Integrating Sound Level Meter

Manufacturer Model No.

: Brüel & Kjær : B&K 2238

Serial No. Microphone No. : 2337665 : 2289749

Equipment No.

: N-01-01

#### Test conditions:

Room Temperatre

: 20 degree Celsius

Relative Humidity

: 60%

# **Test Specifications:**

Performance checking at 94 and 114 dB

### Methodology:

In-house method, according to manufacturer instruction manual

#### Results:

Reference Set Point, dB	Instrument Readings, dB	
94	94.0	
114	114.0	191

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Senior Chemist



Rms 816, 1516 & 1701, Technology Park 18 On Lai Street, Stattu, N.T., Hong Kong Tel: 2898 "388 Fax: 2898 7076 Website, http://www.wellab.com.hk E-mail: wellab@wellab.com.hk

# TEST REPORT

APPLICANT: Cinotech Consultants Limited

Room 1710, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: C/N/81215/1
Date of Issue: 2008-12-16
Date Received: 2008-12-15
Date Tested: 2008-12-15
Date Completed: 2008-12-16
Next Due Date: 2009-12-15

ATTN:

Mr. Henry Leung

Page:

1 of 1

# **Certificate of Calibration**

#### Item for calibration:

Description

: Integrating Sound Level Meter

Manufacturer

: Brüel & Kjær

Model No.

: B&K 2238 : 2337665

Serial No. Microphone No.

: 2289749

Equipment No.

: N-01-01

#### **Test conditions:**

Room Temperatre

: 20 degree Celsius

Relative Humidity

: 60%

# **Test Specifications:**

Performance checking at 94 and 114 dB

# Methodology:

In-house method, according to manufacturer instruction manual

#### **Results:**

Reference Set Point, dB	Instrument Readings, dB	
94	94.0	
114	114.0	

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE



Room 1516 & 816, Technology Park 18 On Lai Street, Shatin, N.T., Hong Kong Tel: 2898 7338 Fay: 2898 7076 Websile http://www.wellab.com.hk E-mail: wellab@wellab.com.hk

# TEST REPORT

APPLICANT: Cinotech Consultants Limited

Room 1710, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: C/N/80903-1

Date of Issue: 2008-09-03

Date Received: 2008-09-02 Date Tested: 2008-09-02

Date Tested: 2008-09-02

Date Completed: 2008-09-03

Next Due Date:

2008-09-03

ATTN:

Mr. Henry Leung

Page:

1 of 1

# **Certificate of Calibration**

#### Item for calibration:

Description

: Integrating Sound Level Meter

Manufacturer

: Brüel & Kjær

Model No.

: B&K 2238

Serial No.

: 2359311

Microphone No.

: 2346382

Equipment No.

: N-01-03

#### Test conditions:

Room Temperatre

: 21 degree Celsius

Relative Humidity

: 61%

# **Test Specifications:**

Performance checking at 94 and 114 dB

# Methodology:

In-house method, according to manufacturer instruction manual

#### Results:

Reference Set Point, dB	Instrument Readings, dB	
94	94.0	
114	114.0	

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# TEST REPORT

APPLICANT: Cinotech Consultants Limited

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18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: C/N/80903-2

Date of Issue: 2008-09-03 Date Received: 2008-09-02

Date Tested: 2008-09-02

Date Completed: 2008-09-03

Next Due Date:

2009-09-02

ATTN:

Mr. Henry Leung

Page:

1 of 1

# **Certificate of Calibration**

#### Item for calibration:

Description

: Integrating Sound Level Meter

Manufacturer

: Brüel & Kjær

Model No.

: B&K 2238 : 2359303

Serial No. Equipment No.

: N-01-04

#### Test conditions:

Room Temperatre

: 21 degree Celsius

Relative Humidity

: 61%

# **Test Specifications:**

Performance checking at 94 and 114 dB

## Methodology:

In-house method, according to manufacturer instruction manual

#### Results:

Reference Set Point, dB	Instrument Readings, dB	
94	94.0	
114	114.0	

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PATRICK TSE



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# TEST REPORT

APPLICANT: Cinotech Consultants Limited

Room 1710, Technology Park,

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Shatin, NT, Hong Kong

Test Report No.: C/N/81013/1 Date of Issue: 2007-10-15 Date Received: 2008-10-13 Date Tested: 2008-10-13 Date Completed: 2008-10-14 2009-10-14 Next Due Date:

1 of 1

Mr. Henry Leung ATTN: Page:

**Certificate of Calibration** 

### Item for calibration:

Description

: Integrating Sound Level Meter

Manufacturer Model No.

: Brüel & Kjær : B&K 2238

Serial No. Microphone No.

: 2394976 : 2407349

Equipment No.

: N-01-05

#### Test conditions:

Room Temperatre

: 21 degree Celsius

Relative Humidity

: 60%

# **Test Specifications:**

Performance checking at 94 and 114 dB

# Methodology:

In-house method, according to manufacturer instruction manual

# Results:

Reference Set Point, dB	Instrument Readings, dB 94.0	
94		
114	114.0	

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Laboratory Manager

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# **TEST REPORT**

APPLICANT: Cinotech Consultants Limited

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Shatin, NT, Hong Kong

Test Report No.:	C/N/81115/1
Date of Issue:	2008-11-15
Date Received:	2008-11-14
Date Tested:	2008-11-14
Date Completed:	2008-11-15
Next Due Date:	2009-11-14

ATTN:

Mr. Henry Leung

Page:

1 of 1

# Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: Brüel & Kjær

Model No.

: 4231

Serial No.

: 2326353

Duciact Ma

: C13

Project No. Equipment No.

: N-02-01

#### **Test conditions:**

Room Temperatre

: 20 degree Celsius

Relative Humidity

: 59%

Pressure

: 1015.2 hPa

# Methodology:

The sound calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

## Results:

Sound Pressure Level	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB

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PATRICK TSE

Laboratory Manager

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#### TEST REPORT

APPLICANT: Cinotech Consultants Limited

Room 1710, Technology Park,

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Test Report No.:	C/06/80305
Date of Issue:	2008-03-05
Date Received:	2008-03-03
Date Tested:	2008-03-03
Date Completed:	2008-03-05
Next Due Date:	2009-03-04

ATTN:

Mr. Henry Leung

Page:

1 of 1

#### Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: Brüel & Kjær

Model No. Serial No. : 4231

Serial No.

: 2343007 : C13

Project No. Equipment No.

: N-02-02

#### Test conditions:

Room Temperatre

: 20 degree Celsius

Relative Humidity

: 65%

Pressure

: 1020.1hPa

#### Methodology:

The sound calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

#### Results:

Sound Pressure Level	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.2 dB

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# TEST REPORT

APPLICANT: Cinotech Consultants Limited

Room 1710, Technology Park,

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Shatin, NT, Hong Kong

C/N/80903-3	
2008-09-03	
2008-09-02	
2008-09-02	
2008-09-03	
	2008-09-03 2008-09-02 2008-09-02

ATTN:

Mr. Henry Leung

Page:

Next Due Date:

1 of 1

2009-09-02

Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: Brüel & Kjær

Model No.

: 4231

Serial No.

: 2412367

Equipment No.

: N-02-03

Test conditions:

Room Temperatre

: 21 degree Celsius

Relative Humidity

: 61%

# Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

#### Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

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APPENDIX C ENVIRONMENTAL MONITORING AND AUDIT SCHEDULE

#### Environmental Monitoring for Lai Chi Kok Viaduct Air Quality and Noise Monitoring Schedule for December 2008

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-Dec	2-Dec	3-Dec	4-Dec	5-Dec	6-Dec
	1 hr TSP	1 hr TSP Noise	24 hr TSP	1 hr TSP		
7-Dec	8-Dec	9-Dec	10-Dec	11-Dec	12-Dec	13-Dec
		1 hr TSP Noise 24 hr TSP	1 hr TSP	1 hr TSP		
14-Dec	15-Dec	16-Dec	17-Dec	18-Dec	19-Dec	20-Dec
	24 hr TSP	1 hr TSP	1 hr TSP	1 hr TSP Noise		24 hr TSP
21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec	27-Dec
	1 hr TSP	1 hr TSP Noise	1 hr TSP			
28-Dec	29-Dec	30-Dec	31-Dec	1-Jan	2-Jan	3-Jan
	1 hr TSP		1 hr TSP			
		24 hr TSP				

AM2 Lai Chi Kok Sports Centre NM2 Lai Chi Kok Correctional Institution

NM4 Mei Foo Sun Chuen, Phase 5

NM8a M/F of Nob Hill NM8b 3/F of Nob Hill

NM9 G/F, Hoi Fai House, Hoi Lai Estate

#### APPENDIX D WIND DATA

Date	Time	Wind Speed m/s	Direction
1-Dec-2008	00:00	0.6	ESE
1-Dec-2008	01:00	0.6	ESE
1-Dec-2008	02:00	0.1	ESE
1-Dec-2008	03:00	0.1	ESE
1-Dec-2008	04:00	0.4	ESE
1-Dec-2008	05:00	0.6	SW
1-Dec-2008	06:00	0.7	W
1-Dec-2008	07:00	1.3	W
1-Dec-2008	08:00	1.2	WNW
1-Dec-2008	09:00	1.6	WNW
1-Dec-2008	10:00	2.1	WNW
1-Dec-2008	11:00	2.2	WSW
1-Dec-2008	12:00	2.4	SSW
1-Dec-2008	13:00	1.9	S
1-Dec-2008	14:00	1.5	SSE
1-Dec-2008	15:00	1.8	SSE
1-Dec-2008	16:00	1.6	ENE
1-Dec-2008	17:00	1.5	W
1-Dec-2008	18:00	0.9	SW
1-Dec-2008	19:00	0.3	S
1-Dec-2008	20:00	0.1	ENE
1-Dec-2008	21:00	0.1	ENE
1-Dec-2008	22:00	0.1	ENE
1-Dec-2008	23:00	0.1	ENE
2-Dec-2008	00:00	0.1	ENE
2-Dec-2008	01:00	0.1	ENE
2-Dec-2008	02:00	0.1	ENE
2-Dec-2008	03:00	0.4	ENE
2-Dec-2008	04:00	0.4	NE NE
2-Dec-2008	05:00	0.6	ENE
2-Dec-2008	06:00	1.0	NE NE
2-Dec-2008	07:00	0.9	NE NE
2-Dec-2008	08:00	0.7	NE NE
2-Dec-2008	09:00	1.0	NE NE
2-Dec-2008	10:00	2.4	NE NE
2-Dec-2008	11:00	2.2	ENE
2-Dec-2008	12:00	2.5	ENE
2-Dec-2008	13:00	1.6	ENE
2-Dec-2008	14:00	1.8	NE NE
2-Dec-2008	15:00	1.9	NE NE
2-Dec-2008	16:00	2.0	NE NE
2-Dec-2008	17:00	2.1	ENE
2-Dec-2008	18:00	1.4	NNE
2-Dec-2008	19:00	1.0	NNE
2-Dec-2008	20:00	1.1	NNE
2-Dec-2008	21:00	1.3	N
2-Dec-2008	22:00	1.3	N N
2-Dec-2008	23:00	1.0	SE
3-Dec-2008	00:00	0.8	SE SE
3-Dec-2008	01:00	0.6	SE SE
	02:00	0.4	SE SE
3-Dec-2008			
3-Dec-2008	03:00	0.7	SE
3-Dec-2008	04:00	0.7	NNE
3-Dec-2008	05:00	0.4	E

Date	Time	Wind Speed m/s	Direction
3-Dec-2008	06:00	0.4	Е
3-Dec-2008	07:00	0.3	N
3-Dec-2008	08:00	0.4	WSW
3-Dec-2008	09:00	0.4	ENE
3-Dec-2008	10:00	1.0	ENE
3-Dec-2008	11:00	1.2	ENE
3-Dec-2008	12:00	1.6	ENE
3-Dec-2008	13:00	1.9	ENE
3-Dec-2008	14:00	2.1	ENE
3-Dec-2008	15:00	2.1	ENE
3-Dec-2008	16:00	1.9	ENE
3-Dec-2008	17:00	1.8	ENE
3-Dec-2008	18:00	1.9	NE NE
3-Dec-2008	19:00	1.3	E
3-Dec-2008	20:00	0.7	ENE
3-Dec-2008	21:00	0.6	ENE
3-Dec-2008	22:00	0.6	ENE
3-Dec-2008	23:00	0.7	ESE
4-Dec-2008	00:00	0.4	ENE
4-Dec-2008	01:00	0.7	NE
4-Dec-2008	02:00	0.7	NE NE
4-Dec-2008	03:00	0.9	ENE
4-Dec-2008	04:00	0.7	ENE
4-Dec-2008	05:00	1.0	SW
4-Dec-2008	06:00	0.9	SW
4-Dec-2008	07:00	0.9	SW
4-Dec-2008	08:00	1.3	SW
4-Dec-2008 4-Dec-2008	09:00	1.8	SSW
4-Dec-2008	10:00	3.0	ESE
4-Dec-2008	11:00	2.5	SSW
	12:00	2.2	SW
4-Dec-2008			ENE
4-Dec-2008	13:00	2.4	
4-Dec-2008	14:00	2.4	<u> </u>
4-Dec-2008	15:00 16:00	1.6	<u>S</u>
4-Dec-2008			
4-Dec-2008	17:00	1.8	NE NE
4-Dec-2008	18:00	1.3	NE N
4-Dec-2008	19:00	0.7	N
4-Dec-2008	20:00	0.4	NE ENE
4-Dec-2008	21:00	1.2	ENE
4-Dec-2008	22:00	1.6	ENE
4-Dec-2008	23:00	2.1	NE NE
5-Dec-2008	00:00	2.4	NE
5-Dec-2008	01:00	2.7	ENE
5-Dec-2008	02:00	2.8	ENE
5-Dec-2008	03:00	3.1	NE
5-Dec-2008	04:00	1.9	NE
5-Dec-2008	05:00	2.4	NE
5-Dec-2008	06:00	2.2	NE
5-Dec-2008	07:00	1.9	NE NE
5-Dec-2008	08:00	1.8	NE
5-Dec-2008	09:00	2.4	ENE
5-Dec-2008	10:00	2.5	NE
5-Dec-2008	11:00	2.7	NE

Date	Time	Wind Speed m/s	Direction
5-Dec-2008	12:00	2.8	ENE
5-Dec-2008	13:00	2.7	ENE
5-Dec-2008	14:00	2.5	NE
5-Dec-2008	15:00	2.1	NE
5-Dec-2008	16:00	2.1	ENE
5-Dec-2008	17:00	1.9	NE
5-Dec-2008	18:00	1.6	NE
5-Dec-2008	19:00	1.6	NE
5-Dec-2008	20:00	2.1	NE
5-Dec-2008	21:00	2.2	NE
5-Dec-2008	22:00	2.1	NE
5-Dec-2008	23:00	1.6	ENE
6-Dec-2008	00:00	1.3	NE
6-Dec-2008	01:00	1.2	NE
6-Dec-2008	02:00	0.9	NE
6-Dec-2008	03:00	0.7	NE
6-Dec-2008	04:00	0.7	ENE
6-Dec-2008	05:00	0.7	ENE
6-Dec-2008	06:00	0.6	ENE
6-Dec-2008	07:00	0.6	ENE
6-Dec-2008	08:00	0.9	ENE
6-Dec-2008	09:00	1.2	ENE
6-Dec-2008	10:00	1.3	ENE
6-Dec-2008	11:00	1.0	NE NE
6-Dec-2008	12:00	1.0	NE NE
6-Dec-2008	13:00	1.6	NNE
6-Dec-2008	14:00	1.8	N
6-Dec-2008	15:00	1.8	N
6-Dec-2008	16:00	1.3	W
6-Dec-2008	17:00	1.2	N
6-Dec-2008	18:00	0.7	N
6-Dec-2008	19:00	0.3	ENE
6-Dec-2008	20:00	0.3	ENE
6-Dec-2008	21:00	0.1	ENE
6-Dec-2008	22:00	0.1	ENE
6-Dec-2008	23:00	0.3	NE NE
7-Dec-2008	00:00	0.5	ENE
7-Dec-2008	01:00	0.8	NE
7-Dec-2008	02:00	1.1	SW
7-Dec-2008	03:00	1.6	SW
7-Dec-2008	04:00	0.6	SW
7-Dec-2008	05:00	1.0	SW
7-Dec-2008	06:00	0.7	SW
7-Dec-2008	07:00	1.0	SW
7-Dec-2008	08:00	1.3	SSE
7-Dec-2008	09:00	1.5	SSE
7-Dec-2008	10:00	1.8	SSE
7-Dec-2008	11:00	1.6	SW
7-Dec-2008	12:00	1.9	SW
7-Dec-2008	13:00	2.2	SW
7-Dec-2008	14:00	1.5	WSW
7-Dec-2008	15:00	1.5	SW
7-Dec-2008	16:00	1.3	ENE
	10.00	1.0	LINL

Date	Time	Wind Speed m/s	Direction
7-Dec-2008	18:00	0.6	NE
7-Dec-2008	19:00	1.2	WSW
7-Dec-2008	20:00	1.2	WSW
7-Dec-2008	21:00	1.6	WSW
7-Dec-2008	22:00	1.6	SSW
7-Dec-2008	23:00	1.9	S
8-Dec-2008	00:00	1.9	SW
8-Dec-2008	01:00	2.1	WSW
8-Dec-2008	02:00	2.2	W
8-Dec-2008	03:00	1.7	SW
8-Dec-2008	04:00	1.5	SW
8-Dec-2008	05:00	0.6	ENE
8-Dec-2008	06:00	0.8	ENE
8-Dec-2008	07:00	0.1	ENE
8-Dec-2008	08:00	0.1	ENE
8-Dec-2008	09:00	0.3	SW
8-Dec-2008	10:00	0.9	SW
8-Dec-2008	11:00	1.9	SW
8-Dec-2008	12:00	1.9	SW
8-Dec-2008	13:00	1.5	SW
8-Dec-2008	14:00	1.3	ENE
8-Dec-2008	15:00	1.5	ENE
8-Dec-2008	16:00	1.3	ENE
8-Dec-2008	17:00	1.2	ENE
8-Dec-2008	18:00	0.6	ENE
8-Dec-2008	19:00	0.1	ESE
8-Dec-2008	20:00	0.0	
8-Dec-2008	21:00	0.1	SSE
8-Dec-2008	22:00	0.0	
8-Dec-2008	23:00	0.0	
9-Dec-2008	00:00	0.0	
9-Dec-2008	01:00	0.0	
9-Dec-2008	02:00	0.0	
9-Dec-2008	03:00	0.0	
9-Dec-2008	04:00	0.5	NE
9-Dec-2008	05:00	0.5	NE NE
9-Dec-2008	06:00	0.6	NE NE
9-Dec-2008	07:00	0.4	NE NE
9-Dec-2008	08:00	0.4	ENE
9-Dec-2008	09:00	0.1	ENE
9-Dec-2008	10:00	0.9	ENE
9-Dec-2008	11:00	0.9	SSW
9-Dec-2008	12:00	1.2	W
9-Dec-2008	13:00	1.8	WNW
9-Dec-2008	14:00	1.2	W
9-Dec-2008	15:00	0.9	SSW
9-Dec-2008	16:00	0.9	WSW
	17:00	0.6	
9-Dec-2008			<u> </u>
9-Dec-2008	18:00	0.4	
9-Dec-2008	19:00	0.1	SSW WNW
			WWINIWW
9-Dec-2008	20:00	0.1	
	20:00 21:00 22:00	0.1 0.3 0.1	SW WNW

Date	Time	Wind Speed m/s	Direction
10-Dec-2008	00:00	0.6	WSW
10-Dec-2008	01:00	1.5	W
10-Dec-2008	02:00	1.9	WSW
10-Dec-2008	03:00	2.1	W
10-Dec-2008	04:00	2.9	W
10-Dec-2008	05:00	2.9	SW
10-Dec-2008	06:00	3.4	WNW
10-Dec-2008	07:00	2.1	N
10-Dec-2008	08:00	1.7	NNE
10-Dec-2008	09:00	0.4	N
10-Dec-2008	10:00	0.7	NNE
10-Dec-2008	11:00	1.0	NNE
10-Dec-2008	12:00	1.5	WNW
10-Dec-2008	13:00	1.2	WNW
10-Dec-2008	14:00	1.6	WSW
10-Dec-2008	15:00	1.5	SW
10-Dec-2008	16:00	1.3	SW
10-Dec-2008	17:00	0.7	S
10-Dec-2008	18:00	0.3	S
10-Dec-2008	19:00	1.8	SSW
10-Dec-2008	20:00	1.5	WNW
10-Dec-2008	21:00	2.0	WNW
10-Dec-2008	22:00	2.5	SW
10-Dec-2008	23:00	0.1	WSW
11-Dec-2008	00:00	0.7	WSW
11-Dec-2008	01:00	0.9	WNW
11-Dec-2008	02:00	0.9	WNW
11-Dec-2008	03:00	0.3	WNW
11-Dec-2008	04:00	0.3	W
11-Dec-2008	05:00	0.5	WNW
		0.5	WNW
11-Dec-2008	06:00	0.1	WNW
11-Dec-2008	07:00	-	WNW
11-Dec-2008	08:00	0.1	
11-Dec-2008	09:00 10:00	0.3	W WNW
11-Dec-2008			WNW
11-Dec-2008	11:00	0.9	
11-Dec-2008	12:00	2.1	WSW
11-Dec-2008	13:00	1.8	W
11-Dec-2008	14:00	1.3	WSW
11-Dec-2008	15:00	1.6	SW
11-Dec-2008	16:00	1.2	SW
11-Dec-2008	17:00	0.4	SSW
11-Dec-2008	18:00	0.1	WNW
11-Dec-2008	19:00	0.3	WNW
11-Dec-2008	20:00	0.1	WNW
11-Dec-2008	21:00	0.6	WNW
11-Dec-2008	22:00	0.1	NW
11-Dec-2008	23:00	0.6	W
12-Dec-2008	00:00	0.3	WNW
12-Dec-2008	01:00	0.1	WNW
12-Dec-2008	02:00	0.8	NNE
12-Dec-2008	03:00	0.4	SW
12-Dec-2008	04:00	0.7	W
12-Dec-2008	05:00	0.7	W

Date	Time	Wind Speed m/s	Direction
12-Dec-2008	06:00	1.2	WNW
12-Dec-2008	07:00	1.3	WNW
12-Dec-2008	08:00	1.9	SSW
12-Dec-2008	09:00	2.1	SSW
12-Dec-2008	10:00	3.1	SSW
12-Dec-2008	11:00	3.6	SW
12-Dec-2008	12:00	3.6	WNW
12-Dec-2008	13:00	3.4	WNW
12-Dec-2008	14:00	3.1	WNW
12-Dec-2008	15:00	3.0	WNW
12-Dec-2008	16:00	2.7	W
12-Dec-2008	17:00	2.1	W
12-Dec-2008	18:00	1.9	ENE
12-Dec-2008	19:00	1.6	ENE
12-Dec-2008	20:00	1.5	ENE
12-Dec-2008	21:00	2.2	S
12-Dec-2008	22:00	2.5	WSW
12-Dec-2008	23:00	2.4	WSW
13-Dec-2008	00:00	2.1	WSW
13-Dec-2008	01:00	1.6	WSW
13-Dec-2008	02:00	1.6	WSW
13-Dec-2008	03:00	1.9	WSW
13-Dec-2008	04:00	1.9	WSW
13-Dec-2008	05:00	1.3	WSW
13-Dec-2008	06:00	1.2	WSW
13-Dec-2008	07:00	1.2	WSW
13-Dec-2008	08:00	1.3	W
13-Dec-2008	09:00	2.2	W
13-Dec-2008	10:00	2.7	W
13-Dec-2008	11:00	2.5	W
13-Dec-2008	12:00	2.4	W
13-Dec-2008	13:00	2.1	SSE
13-Dec-2008	14:00	1.9	WSW
13-Dec-2008	15:00	1.9	WSW
13-Dec-2008	16:00	2.2	SW
13-Dec-2008	17:00	1.9	SW
13-Dec-2008	18:00	1.8	SSW
13-Dec-2008	19:00	1.0	W
13-Dec-2008	20:00	1.0	SSW
			SSW
13-Dec-2008	21:00	0.4	
13-Dec-2008	22:00	0.6	SW
13-Dec-2008	23:00	1.3	SW
14-Dec-2008	00:00	1.3	SSW
14-Dec-2008	01:00	1.3	SW
14-Dec-2008	02:00	1.2	W
14-Dec-2008	03:00	1.3	W
14-Dec-2008	04:00	1.2	WNW
14-Dec-2008	05:00	1.2	WNW
14-Dec-2008	06:00	1.2	W
14-Dec-2008	07:00	1.3	W
14-Dec-2008	08:00	1.3	W
14-Dec-2008	09:00	1.3	W
14-Dec-2008	10:00	1.6	W
14-Dec-2008	11:00	1.8	N

Date	Time	Wind Speed m/s	Direction
14-Dec-2008	12:00	2.2	N
14-Dec-2008	13:00	1.9	N
14-Dec-2008	14:00	2.1	N
14-Dec-2008	15:00	2.1	N
14-Dec-2008	16:00	1.8	NNE
14-Dec-2008	17:00	1.8	NNE
14-Dec-2008	18:00	1.9	NNE
14-Dec-2008	19:00	0.4	NNE
14-Dec-2008	20:00	0.4	W
14-Dec-2008	21:00	0.3	W
14-Dec-2008	22:00	0.4	WNW
14-Dec-2008	23:00	0.4	W
15-Dec-2008	00:00	0.6	WNW
15-Dec-2008	01:00	0.7	WNW
15-Dec-2008	02:00	0.7	W
15-Dec-2008	03:00	1.0	WNW
15-Dec-2008	04:00	0.9	WNW
15-Dec-2008	05:00	0.4	WSW
15-Dec-2008	06:00	0.3	SW
15-Dec-2008	07:00	0.1	SW
15-Dec-2008	08:00	1.0	NNE
15-Dec-2008	09:00	1.6	NNE
15-Dec-2008	10:00	1.9	NE
15-Dec-2008	11:00	2.2	NE
15-Dec-2008	12:00	2.5	NE
15-Dec-2008	13:00	3.0	S
15-Dec-2008	14:00	1.9	S
15-Dec-2008	15:00	1.3	S
15-Dec-2008	16:00	1.3	NNE
15-Dec-2008	17:00	1.2	NNE
15-Dec-2008	18:00	0.7	NNE
15-Dec-2008	19:00	0.1	NNE
15-Dec-2008	20:00	0.3	SSE
15-Dec-2008	21:00	0.1	SW
15-Dec-2008	22:00	0.3	SSE
15-Dec-2008	23:00	0.4	S
16-Dec-2008	00:00	0.0	
16-Dec-2008	01:00	0.6	SSW
16-Dec-2008	02:00	0.1	SW
16-Dec-2008	03:00	0.1	SSW
16-Dec-2008	04:00	0.5	WSW
16-Dec-2008	05:00	0.0	
16-Dec-2008	06:00	0.0	S
16-Dec-2008	07:00	0.1	SSW
16-Dec-2008	08:00	0.3	SSW
16-Dec-2008	09:00	0.3	SSW
16-Dec-2008	10:00	0.6	W
16-Dec-2008	11:00	0.7	WNW
16-Dec-2008	12:00	1.3	WSW
16-Dec-2008	13:00	1.0	SW
16-Dec-2008	14:00	1.0	WSW
16-Dec-2008	15:00	1.5	SW
16-Dec-2008	16:00	0.9	SW
16-Dec-2008	17:00	0.6	SW

Date	Time	Wind Speed m/s	Direction
16-Dec-2008	18:00	0.3	W
16-Dec-2008	19:00	0.1	WSW
16-Dec-2008	20:00	0.1	WSW
16-Dec-2008	21:00	1.6	SW
16-Dec-2008	22:00	1.5	SW
16-Dec-2008	23:00	2.3	SW
		2.0	SW
17-Dec-2008	00:00 01:00	1.8	WSW
17-Dec-2008	02:00	1.5	
17-Dec-2008			W W
17-Dec-2008	03:00	0.6	
17-Dec-2008	04:00	0.7	SW
17-Dec-2008	05:00	0.7	WSW
17-Dec-2008	06:00	0.8	W
17-Dec-2008	07:00	0.1	SSW
17-Dec-2008	08:00	0.1	SSW
17-Dec-2008	09:00	0.4	W
17-Dec-2008	10:00	0.4	W
17-Dec-2008	11:00	1.3	SSW
17-Dec-2008	12:00	1.8	W
17-Dec-2008	13:00	1.9	WNW
17-Dec-2008	14:00	1.3	W
17-Dec-2008	15:00	1.8	W
17-Dec-2008	16:00	1.9	W
17-Dec-2008	17:00	1.3	W
17-Dec-2008	18:00	0.7	W
17-Dec-2008	19:00	0.7	SW
17-Dec-2008	20:00	0.1	SW
17-Dec-2008	21:00	0.1	WNW
17-Dec-2008	22:00	1.1	W
17-Dec-2008	23:00	1.5	W
18-Dec-2008	00:00	1.0	WSW
18-Dec-2008	01:00	1.8	ESE
18-Dec-2008	02:00	1.3	ESE
18-Dec-2008	03:00	1.3	SE
18-Dec-2008	04:00	0.2	SE
18-Dec-2008	05:00	0.8	S
18-Dec-2008	06:00	0.6	NNE
18-Dec-2008	07:00	0.4	E
	08:00	0.2	ENE
18-Dec-2008 18-Dec-2008		0.6	ENE ENE
	09:00		
18-Dec-2008	10:00	1.1	N
18-Dec-2008	11:00	1.8	N
18-Dec-2008	12:00	1.3	N
18-Dec-2008	13:00	1.1	NNE
18-Dec-2008	14:00	1.6	NNE
18-Dec-2008	15:00	1.1	SSE
18-Dec-2008	16:00	0.9	NNE
18-Dec-2008	17:00	1.1	NNE
18-Dec-2008	18:00	1.3	NNE
18-Dec-2008	19:00	2.5	NNE
18-Dec-2008	20:00	1.8	NNE
18-Dec-2008	21:00	1.8	NNE
18-Dec-2008	22:00	1.8	NNE
18-Dec-2008	23:00	2.3	NNE

19-Dec-2008	Date	Time	Wind Speed m/s	Direction
19-Dec-2008	19-Dec-2008	00:00		
19-Dec-2008         02:00         1.6         NNE           19-Dec-2008         03:00         1.1         NE           19-Dec-2008         04:00         0.5         E           19-Dec-2008         05:00         1.1         ENE           19-Dec-2008         06:00         1.1         ENE           19-Dec-2008         07:00         1.4         NE           19-Dec-2008         09:00         2.0         E           19-Dec-2008         10:00         2.3         ENE           19-Dec-2008         10:00         2.3         ENE           19-Dec-2008         11:00         2.5         ENE           19-Dec-2008         12:00         2.9         ENE           19-Dec-2008         13:00         3.8         NE           19-Dec-2008         14:00         3.8         NE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         19:00         2.5         W <td< td=""><td></td><td></td><td>1.4</td><td>NNE</td></td<>			1.4	NNE
19-Dec-2008				NNE
19-Dec-2008				
19-Dec-2008         05:00         1.1         ENE           19-Dec-2008         06:00         1.1         ENE           19-Dec-2008         07:00         1.4         NE           19-Dec-2008         08:00         1.8         E           19-Dec-2008         09:00         2.0         E           19-Dec-2008         10:00         2.3         ENE           19-Dec-2008         11:00         2.5         ENE           19-Dec-2008         12:00         2.9         ENE           19-Dec-2008         13:00         3.8         NE           19-Dec-2008         14:00         3.8         NE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         18:00         2.5         W           19-Dec-2008         19:00         2.5         W           19-Dec-2008         20:00         1.8         W           19-Dec-2008         22:00         1.4         W           19-D				
19-Dec-2008         06:00         1.1         ENE           19-Dec-2008         07:00         1.4         NE           19-Dec-2008         08:00         1.8         E           19-Dec-2008         09:00         2.0         E           19-Dec-2008         10:00         2.3         ENE           19-Dec-2008         11:00         2.5         ENE           19-Dec-2008         12:00         2.9         ENE           19-Dec-2008         13:00         3.8         NE           19-Dec-2008         14:00         3.8         NE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         19:00         2.5         W           19-Dec-2008         19:00         2.5         W           19-Dec-2008         21:00         1.8         W           19-Dec-2008         21:00         1.4         W           19-Dec-2008         22:00         1.4         W           20-Dec			1.1	ENE
19-Dec-2008         07:00         1.4         NE           19-Dec-2008         08:00         1.8         E           19-Dec-2008         09:00         2.0         E           19-Dec-2008         10:00         2.3         ENE           19-Dec-2008         11:00         2.5         ENE           19-Dec-2008         13:00         3.8         NE           19-Dec-2008         13:00         3.8         NE           19-Dec-2008         14:00         3.8         NE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         18:00         2.5         W           19-Dec-2008         19:00         2.5         W           19-Dec-2008         21:00         1.8         W           19-Dec-2008         21:00         1.1         W           19-Dec-2008         21:00         1.4         W           20-Dec-			1.1	ENE
19-Dec-2008         09:00         2.0         E           19-Dec-2008         10:00         2.3         ENE           19-Dec-2008         11:00         2.5         ENE           19-Dec-2008         12:00         2.9         ENE           19-Dec-2008         13:00         3.8         NE           19-Dec-2008         14:00         3.8         NE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         18:00         2.5         W           19-Dec-2008         19:00         2.5         W           19-Dec-2008         20:00         1.8         W           19-Dec-2008         20:00         1.4         W           19-Dec-2008         22:00         1.4         W           20-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-20	19-Dec-2008	07:00	1.4	NE
19-Dec-2008         09:00         2.0         E           19-Dec-2008         10:00         2.3         ENE           19-Dec-2008         11:00         2.5         ENE           19-Dec-2008         12:00         2.9         ENE           19-Dec-2008         13:00         3.8         NE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         18:00         2.5         W           19-Dec-2008         19:00         2.5         W           19-Dec-2008         20:00         1.8         W           19-Dec-2008         21:00         1.1         W           19-Dec-2008         22:00         1.4         W           20-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2	19-Dec-2008	08:00	1.8	Е
19-Dec-2008         11:00         2.5         ENE           19-Dec-2008         12:00         2.9         ENE           19-Dec-2008         13:00         3.8         NE           19-Dec-2008         14:00         3.8         NE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         18:00         2.5         W           19-Dec-2008         19:00         2.5         W           19-Dec-2008         20:00         1.8         W           19-Dec-2008         21:00         1.1         W           19-Dec-2008         22:00         1.4         W           19-Dec-2008         22:00         1.4         W           19-Dec-2008         22:00         1.4         W           20-Dec-2008         20:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008 </td <td></td> <td>09:00</td> <td>2.0</td> <td>Е</td>		09:00	2.0	Е
19-Dec-2008         12:00         2.9         ENE           19-Dec-2008         13:00         3.8         NE           19-Dec-2008         14:00         3.8         NE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         18:00         2.5         W           19-Dec-2008         19:00         2.5         W           19-Dec-2008         20:00         1.8         W           19-Dec-2008         21:00         1.1         W           19-Dec-2008         22:00         1.4         W           19-Dec-2008         22:00         1.4         W           20-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         SSW           20-Dec-2008	19-Dec-2008	10:00	2.3	ENE
19-Dec-2008         13:00         3.8         NE           19-Dec-2008         14:00         3.8         NE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         18:00         2.5         W           19-Dec-2008         20:00         1.8         W           19-Dec-2008         21:00         1.1         W           19-Dec-2008         22:00         1.4         W           19-Dec-2008         23:00         1.8         W           20-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         SSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-20	19-Dec-2008	11:00	2.5	ENE
19-Dec-2008         14:00         3.8         NE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         18:00         2.5         W           19-Dec-2008         20:00         1.8         W           19-Dec-2008         21:00         1.1         W           19-Dec-2008         22:00         1.4         W           19-Dec-2008         22:00         1.8         W           20-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2	19-Dec-2008	12:00	2.9	ENE
19-Dec-2008         14:00         3.8         NE           19-Dec-2008         15:00         3.4         NNE           19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         18:00         2.5         W           19-Dec-2008         20:00         1.8         W           19-Dec-2008         21:00         1.1         W           19-Dec-2008         22:00         1.4         W           19-Dec-2008         22:00         1.8         W           20-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2	19-Dec-2008	13:00	3.8	NE
19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         18:00         2.5         W           19-Dec-2008         19:00         2.5         W           19-Dec-2008         20:00         1.8         W           19-Dec-2008         21:00         1.1         W           19-Dec-2008         22:00         1.4         W           19-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-				NE
19-Dec-2008         16:00         3.1         NNE           19-Dec-2008         17:00         3.8         NNE           19-Dec-2008         18:00         2.5         W           19-Dec-2008         19:00         2.5         W           19-Dec-2008         20:00         1.8         W           19-Dec-2008         21:00         1.1         W           19-Dec-2008         22:00         1.4         W           19-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-	19-Dec-2008	15:00	3.4	NNE
19-Dec-2008         18:00         2.5         W           19-Dec-2008         19:00         2.5         W           19-Dec-2008         20:00         1.8         W           19-Dec-2008         21:00         1.1         W           19-Dec-2008         22:00         1.4         W           19-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         WSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-		16:00	3.1	NNE
19-Dec-2008         19:00         2.5         W           19-Dec-2008         20:00         1.8         W           19-Dec-2008         21:00         1.1         W           19-Dec-2008         22:00         1.4         W           19-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-De	19-Dec-2008		3.8	NNE
19-Dec-2008         20:00         1.8         W           19-Dec-2008         21:00         1.1         W           19-Dec-2008         22:00         1.4         W           19-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         14:00         1.3         SE           20-D	19-Dec-2008	18:00	2.5	W
19-Dec-2008         21:00         1.1         W           19-Dec-2008         22:00         1.4         W           19-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         15:00         0.7         SE           20	19-Dec-2008	19:00	2.5	W
19-Dec-2008         22:00         1.4         W           19-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20	19-Dec-2008	20:00	1.8	W
19-Dec-2008         23:00         1.8         W           20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         16:00         1.4         SE           2	19-Dec-2008	21:00	1.1	W
20-Dec-2008         00:00         0.9         W           20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         18:00         0.7         ESE <t< td=""><td>19-Dec-2008</td><td>22:00</td><td>1.4</td><td>W</td></t<>	19-Dec-2008	22:00	1.4	W
20-Dec-2008         01:00         0.9         W           20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         19:00         0.7         ESE	19-Dec-2008	23:00	1.8	W
20-Dec-2008         02:00         1.6         W           20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         18:00         0.7         ESE           20-Dec-2008         19:00         0.7         ESE			0.9	W
20-Dec-2008         03:00         1.3         WSW           20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         19:00         0.7         ESE           20-Dec-2008         20:00         0.5         NNE           20-Dec-2008         21:00         1.3         ESE	20-Dec-2008	01:00	0.9	W
20-Dec-2008         04:00         1.1         WSW           20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         19:00         0.7         ESE           20-Dec-2008         20:00         0.5         NNE           20-Dec-2008         20:00         0.5         NNE           20-Dec-2008         21:00         1.3         ESE	20-Dec-2008	02:00	1.6	W
20-Dec-2008         05:00         1.4         WSW           20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         18:00         0.7         ESE           20-Dec-2008         19:00         0.7         ESE           20-Dec-2008         20:00         0.5         NNE           20-Dec-2008         21:00         1.3         ESE           20-Dec-2008         21:00         0.7         E           20-Dec-2008         21:00         0.7         E	20-Dec-2008	03:00	1.3	WSW
20-Dec-2008         06:00         1.4         SSW           20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         18:00         0.7         ESE           20-Dec-2008         19:00         0.7         ESE           20-Dec-2008         20:00         0.5         NNE           20-Dec-2008         21:00         1.3         ESE           20-Dec-2008         21:00         0.7         E           20-Dec-2008         21:00         0.7         E	20-Dec-2008	04:00	1.1	WSW
20-Dec-2008         07:00         1.4         SSW           20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         18:00         0.7         ESE           20-Dec-2008         19:00         0.7         ESE           20-Dec-2008         20:00         0.5         NNE           20-Dec-2008         21:00         1.3         ESE           20-Dec-2008         21:00         0.7         E           20-Dec-2008         21:00         0.7         E	20-Dec-2008	05:00	1.4	WSW
20-Dec-2008         08:00         1.1         SSW           20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         18:00         0.7         ESE           20-Dec-2008         19:00         0.7         ESE           20-Dec-2008         20:00         0.5         NNE           20-Dec-2008         21:00         1.3         ESE           20-Dec-2008         21:00         0.7         E           20-Dec-2008         21:00         0.7         E           20-Dec-2008         21:00         0.7         E	20-Dec-2008	06:00	1.4	SSW
20-Dec-2008         09:00         1.6         SSE           20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         18:00         0.7         ESE           20-Dec-2008         19:00         0.7         ESE           20-Dec-2008         20:00         0.5         NNE           20-Dec-2008         21:00         1.3         ESE           20-Dec-2008         21:00         0.7         E           20-Dec-2008         22:00         0.7         E           20-Dec-2008         22:00         0.7         E	20-Dec-2008	07:00	1.4	SSW
20-Dec-2008         10:00         1.8         SSW           20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         18:00         0.7         ESE           20-Dec-2008         19:00         0.7         ESE           20-Dec-2008         20:00         0.5         NNE           20-Dec-2008         21:00         1.3         ESE           20-Dec-2008         22:00         0.7         E           20-Dec-2008         22:00         0.7         E           20-Dec-2008         22:00         0.7         E	20-Dec-2008	08:00	1.1	SSW
20-Dec-2008         11:00         1.1         SSW           20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         18:00         0.7         ESE           20-Dec-2008         19:00         0.7         ESE           20-Dec-2008         20:00         0.5         NNE           20-Dec-2008         21:00         1.3         ESE           20-Dec-2008         22:00         0.7         E           20-Dec-2008         23:00         0.7         E	20-Dec-2008	09:00	1.6	SSE
20-Dec-2008         12:00         1.3         WSW           20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         18:00         0.7         ESE           20-Dec-2008         19:00         0.7         ESE           20-Dec-2008         20:00         0.5         NNE           20-Dec-2008         21:00         1.3         ESE           20-Dec-2008         22:00         0.7         E           20-Dec-2008         23:00         0.7         E	20-Dec-2008	10:00	1.8	SSW
20-Dec-2008         13:00         1.6         SSW           20-Dec-2008         14:00         1.3         SE           20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         18:00         0.7         ESE           20-Dec-2008         19:00         0.7         ESE           20-Dec-2008         20:00         0.5         NNE           20-Dec-2008         21:00         1.3         ESE           20-Dec-2008         22:00         0.7         E           20-Dec-2008         23:00         0.7         E	20-Dec-2008	11:00	1.1	SSW
20-Dec-2008       14:00       1.3       SE         20-Dec-2008       15:00       0.7       SE         20-Dec-2008       16:00       1.4       SE         20-Dec-2008       17:00       1.1       ESE         20-Dec-2008       18:00       0.7       ESE         20-Dec-2008       19:00       0.7       ESE         20-Dec-2008       20:00       0.5       NNE         20-Dec-2008       21:00       1.3       ESE         20-Dec-2008       22:00       0.7       E         20-Dec-2008       23:00       0.7       E	20-Dec-2008	12:00	1.3	WSW
20-Dec-2008         15:00         0.7         SE           20-Dec-2008         16:00         1.4         SE           20-Dec-2008         17:00         1.1         ESE           20-Dec-2008         18:00         0.7         ESE           20-Dec-2008         19:00         0.7         ESE           20-Dec-2008         20:00         0.5         NNE           20-Dec-2008         21:00         1.3         ESE           20-Dec-2008         22:00         0.7         E           20-Dec-2008         23:00         0.7         E	20-Dec-2008	13:00	1.6	SSW
20-Dec-2008       16:00       1.4       SE         20-Dec-2008       17:00       1.1       ESE         20-Dec-2008       18:00       0.7       ESE         20-Dec-2008       19:00       0.7       ESE         20-Dec-2008       20:00       0.5       NNE         20-Dec-2008       21:00       1.3       ESE         20-Dec-2008       22:00       0.7       E         20-Dec-2008       23:00       0.7       E	20-Dec-2008	14:00	1.3	SE
20-Dec-2008       17:00       1.1       ESE         20-Dec-2008       18:00       0.7       ESE         20-Dec-2008       19:00       0.7       ESE         20-Dec-2008       20:00       0.5       NNE         20-Dec-2008       21:00       1.3       ESE         20-Dec-2008       22:00       0.7       E         20-Dec-2008       23:00       0.7       E	20-Dec-2008	15:00	0.7	SE
20-Dec-2008     18:00     0.7     ESE       20-Dec-2008     19:00     0.7     ESE       20-Dec-2008     20:00     0.5     NNE       20-Dec-2008     21:00     1.3     ESE       20-Dec-2008     22:00     0.7     E       20-Dec-2008     23:00     0.7     E	20-Dec-2008		1.4	
20-Dec-2008       19:00       0.7       ESE         20-Dec-2008       20:00       0.5       NNE         20-Dec-2008       21:00       1.3       ESE         20-Dec-2008       22:00       0.7       E         20-Dec-2008       23:00       0.7       E	20-Dec-2008	17:00		
20-Dec-2008       20:00       0.5       NNE         20-Dec-2008       21:00       1.3       ESE         20-Dec-2008       22:00       0.7       E         20-Dec-2008       23:00       0.7       E	20-Dec-2008		0.7	
20-Dec-2008       21:00       1.3       ESE         20-Dec-2008       22:00       0.7       E         20-Dec-2008       23:00       0.7       E	20-Dec-2008		0.7	
20-Dec-2008         22:00         0.7         E           20-Dec-2008         23:00         0.7         E		20:00		
20-Dec-2008 23:00 0.7 E	20-Dec-2008			
21-Dec-2008 00:00 0.5 E	20-Dec-2008			
2, 500 2000   0.00   L	21-Dec-2008	00:00	0.5	Е
21-Dec-2008 01:00 0.5 E	21-Dec-2008	01:00	0.5	Е
21-Dec-2008 02:00 0.5 E	21-Dec-2008	02:00	0.5	Е
21-Dec-2008 03:00 0.2 E	21-Dec-2008	03:00	0.2	E
21-Dec-2008 04:00 0.5 N	21-Dec-2008			N
21-Dec-2008 05:00 0.2 ENE	21-Dec-2008	05:00	0.2	ENE

Date	Time	Wind Speed m/s	Direction
21-Dec-2008	06:00	0.2	ENE
21-Dec-2008	07:00	0.2	ENE
21-Dec-2008	08:00	0.2	ENE
21-Dec-2008	09:00	0.4	ENE
21-Dec-2008	10:00	0.5	ENE
21-Dec-2008	11:00	0.9	SSE
21-Dec-2008	12:00	0.9	S
21-Dec-2008	13:00	1.4	SE
21-Dec-2008	14:00	1.1	SW
21-Dec-2008	15:00	0.9	SW
21-Dec-2008	16:00	1.1	SW
21-Dec-2008	17:00	0.9	WNW
21-Dec-2008	18:00	0.9	SW
21-Dec-2008	19:00	0.4	SW
21-Dec-2008	20:00	0.2	SW
21-Dec-2008	21:00	0.2	SSE
21-Dec-2008	22:00	0.3	SSE
21-Dec-2008	23:00	0.5	NE
22-Dec-2008	00:00	0.6	ENE
22-Dec-2008	01:00	0.0	N
22-Dec-2008	02:00	1.2	NW
22-Dec-2008	03:00	1.3	WSW
22-Dec-2008	04:00	1.3	ENE
22-Dec-2008	05:00	1.7	E
22-Dec-2008	06:00	1.9	NE
22-Dec-2008 22-Dec-2008	07:00	2.2	WNW
22-Dec-2008 22-Dec-2008	08:00	2.6	WNW
22-Dec-2008 22-Dec-2008	09:00	2.1	W
22-Dec-2008	10:00	2.4	NE
22-Dec-2008 22-Dec-2008	11:00	0.2	N N
	12:00		NNE
22-Dec-2008		0.5	NE
22-Dec-2008	13:00		ESE
22-Dec-2008	14:00	0.9	
22-Dec-2008	15:00	0.9	ESE SSW
22-Dec-2008	16:00		
22-Dec-2008	17:00	0.9	W W
22-Dec-2008	18:00	0.7	
22-Dec-2008	19:00	0.5	W
22-Dec-2008	20:00	0.5	W
22-Dec-2008	21:00	0.5	N
22-Dec-2008	22:00	0.2	NNE
22-Dec-2008	23:00	0.2	NE
23-Dec-2008	00:00	1.2	NNE
23-Dec-2008	01:00	1.1	NE
23-Dec-2008	02:00	0.2	ENE
23-Dec-2008	03:00	1.6	ENE
23-Dec-2008	04:00	1.6	NE
23-Dec-2008	05:00	1.9	NNE
23-Dec-2008	06:00	0.5	E
23-Dec-2008	07:00	0.5	ESE
23-Dec-2008	08:00	0.3	ESE
23-Dec-2008	09:00	0.8	ESE
23-Dec-2008	10:00	1.1	W
23-Dec-2008	11:00	0.4	W

Date	Time	Wind Speed m/s	Direction
23-Dec-2008	12:00	0.2	W
23-Dec-2008	13:00	0.2	W
23-Dec-2008	14:00	0.2	WSW
23-Dec-2008	15:00	0.2	WSW
23-Dec-2008	16:00	0.2	W
23-Dec-2008	17:00	0.2	SSW
		0.7	SSW
23-Dec-2008	18:00		SSW
23-Dec-2008	19:00	0.4	
23-Dec-2008	20:00	0.9	W
23-Dec-2008	21:00	0.2	W
23-Dec-2008	22:00	0.5	WSW
23-Dec-2008	23:00	0.5	W
24-Dec-2008	00:00	0.7	SW
24-Dec-2008	01:00	0.7	SW
24-Dec-2008	02:00	0.7	NE
24-Dec-2008	03:00	0.9	NE
24-Dec-2008	04:00	0.7	NE
24-Dec-2008	05:00	0.7	NE
24-Dec-2008	06:00	0.7	NE
24-Dec-2008	07:00	0.5	NE
24-Dec-2008	08:00	0.2	ENE
24-Dec-2008	09:00	0.5	E
24-Dec-2008	10:00	1.1	SW
24-Dec-2008	11:00	1.5	SW
24-Dec-2008	12:00	1.0	SW
24-Dec-2008	13:00	1.8	SW
24-Dec-2008	14:00	0.2	SW
24-Dec-2008	15:00	0.5	SSW
24-Dec-2008	16:00	0.5	SSW
		0.5	SW
24-Dec-2008	17:00		
24-Dec-2008	18:00	0.2	SW
24-Dec-2008	19:00	1.4	SW
24-Dec-2008	20:00	0.2	W
24-Dec-2008	21:00	0.2	WSW
24-Dec-2008	22:00	0.7	WNW
24-Dec-2008	23:00	0.5	W
25-Dec-2008	00:00	0.5	WNW
25-Dec-2008	01:00	0.5	SE
25-Dec-2008	02:00	0.7	ESE
25-Dec-2008	03:00	0.7	SE
25-Dec-2008	04:00	0.7	SE
25-Dec-2008	05:00	0.5	ESE
25-Dec-2008	06:00	0.5	ESE
25-Dec-2008	07:00	0.5	SE
25-Dec-2008	08:00	0.2	ESE
25-Dec-2008	09:00	0.4	ESE
25-Dec-2008	10:00	0.7	ESE
25-Dec-2008	11:00	0.9	W
25-Dec-2008	12:00	0.9	SSW
25-Dec-2008	13:00	1.1	ESE
25-Dec-2008	14:00	1.1	ESE
25-Dec-2008	15:00	1.1	<u> </u>
25-Dec-2008	16:00	0.9	<u> </u>
25-Dec-2008	17:00	0.7	E

Date	Time	Wind Speed m/s	Direction
25-Dec-2008	18:00	0.5	ENE
25-Dec-2008	19:00	0.4	NE
25-Dec-2008	20:00	0.4	NE
25-Dec-2008	21:00	0.5	ENE
25-Dec-2008	22:00	0.2	NE
25-Dec-2008	23:00	0.5	NNE
26-Dec-2008	00:00	0.5	ENE
26-Dec-2008	01:00	0.5	ENE
26-Dec-2008	02:00	0.5	ENE
26-Dec-2008	03:00	0.7	Е
26-Dec-2008	04:00	0.7	SE
26-Dec-2008	05:00	0.5	SE
26-Dec-2008	06:00	0.2	ESE
26-Dec-2008	07:00	0.7	SE
26-Dec-2008	08:00	0.2	SE
26-Dec-2008	09:00	0.2	SSE
26-Dec-2008	10:00	0.2	ESE
26-Dec-2008	11:00	0.9	E
26-Dec-2008	12:00	1.1	SSE
26-Dec-2008	13:00	1.1	SSE
26-Dec-2008	14:00	1.4	E
26-Dec-2008	15:00	1.1	SE
26-Dec-2008	16:00	0.7	SSE
26-Dec-2008	17:00	0.7	SSE
26-Dec-2008	18:00	0.2	ENE
26-Dec-2008	19:00	0.2	ENE
26-Dec-2008	20:00	0.7	ENE
26-Dec-2008	21:00	0.5	NE NE
26-Dec-2008	22:00	0.5	ESE
26-Dec-2008	23:00	0.7	ENE
27-Dec-2008	00:00	0.9	WSW
27-Dec-2008	01:00	0.7	SSW
27-Dec-2008	02:00	0.7	W
27-Dec-2008	03:00	0.2	WNW
27-Dec-2008	04:00	0.5	SSW
27-Dec-2008	05:00	0.2	S
27-Dec-2008	06:00	0.8	S
27-Dec-2008	07:00	0.8	S
27-Dec-2008	08:00	0.0	NW
27-Dec-2008	09:00	0.2	NW
27-Dec-2008	10:00	0.3	NW
27-Dec-2008 27-Dec-2008	11:00	0.3	SSW
27-Dec-2008	12:00	0.7	S
27-Dec-2008 27-Dec-2008	13:00	0.7	WSW
27-Dec-2008	14:00	0.2	WNW
27-Dec-2008	15:00	0.7	N
27-Dec-2008	16:00	1.1	SSW
27-Dec-2008 27-Dec-2008	17:00	1.8	S
27-Dec-2008	18:00	1.5	SSW
27-Dec-2008 27-Dec-2008	19:00	1.6	S
	20:00	0.2	S
27-Dec-2008			
27-Dec-2008	21:00	0.5	WSW
27-Dec-2008	22:00	1.1	WNW
27-Dec-2008	23:00	1.1	WNW

Date	Time	Wind Speed m/s	Direction
28-Dec-2008	00:00	0.7	NW
28-Dec-2008	01:00	0.7	WNW
28-Dec-2008	02:00	0.5	NNE
28-Dec-2008	03:00	0.5	N
28-Dec-2008	04:00	0.7	NNE
28-Dec-2008	05:00	0.2	NNE
28-Dec-2008	06:00	1.8	NNE
28-Dec-2008	07:00	1.0	N
28-Dec-2008	08:00	0.2	NW
28-Dec-2008	09:00	0.7	NW
28-Dec-2008	10:00	1.1	WSW
28-Dec-2008	11:00	0.7	WNW
28-Dec-2008	12:00	2.1	WNW
28-Dec-2008	13:00	0.2	NNE
28-Dec-2008	14:00	1.1	NNE
28-Dec-2008	15:00	1.3	SSW
28-Dec-2008	16:00	1.2	SSW
28-Dec-2008	17:00	0.2	SSW
28-Dec-2008	18:00	0.2	WNW
28-Dec-2008	19:00	0.2	WNW
28-Dec-2008	20:00	0.2	WNW
28-Dec-2008	21:00	0.2	WNW
28-Dec-2008	22:00	0.7	WNW
28-Dec-2008	23:00	0.9	W
29-Dec-2008	00:00	0.9	W
	01:00	0.7	WSW
29-Dec-2008 29-Dec-2008	02:00	0.7	W
		0.7	WNW
29-Dec-2008	03:00	0.9	WNW
29-Dec-2008	04:00 05:00	0.4	N
29-Dec-2008		0.2	WNW
29-Dec-2008	06:00	0.2	N
29-Dec-2008	07:00		
29-Dec-2008	08:00	0.5	ENE
29-Dec-2008 29-Dec-2008	09:00	0.2	NNE N
	10:00		WNW
29-Dec-2008	11:00	0.5	
29-Dec-2008	12:00	0.7	WNW
29-Dec-2008	13:00	0.7	WNW
29-Dec-2008	14:00	0.9	WNW
29-Dec-2008	15:00	0.9	WNW
29-Dec-2008	16:00	0.9	WNW
29-Dec-2008	17:00	0.9	W
29-Dec-2008	18:00	0.7	W
29-Dec-2008	19:00	0.2	W
29-Dec-2008	20:00	1.4	W
29-Dec-2008	21:00	0.2	W
29-Dec-2008	22:00	0.5	SSE
29-Dec-2008	23:00	0.2	SSW
30-Dec-2008	00:00	0.7	SSW
30-Dec-2008	01:00	0.7	SSW
30-Dec-2008	02:00	0.2	WSW
30-Dec-2008	03:00	0.9	WSW
30-Dec-2008	04:00	0.8	ENE
30-Dec-2008	05:00	0.2	WSW

Date	Time	Wind Speed m/s	Direction
30-Dec-2008	06:00	0.5	SW
30-Dec-2008	07:00	0.7	SW
30-Dec-2008	08:00	0.5	SW
30-Dec-2008	09:00	0.2	NE
30-Dec-2008	10:00	0.1	W
30-Dec-2008	11:00	0.4	S
30-Dec-2008	12:00	0.5	SSW
30-Dec-2008	13:00	0.5	WSW
30-Dec-2008	14:00	0.5	SW
30-Dec-2008	15:00	0.7	SW
30-Dec-2008	16:00	0.5	SW
30-Dec-2008	17:00	0.2	SW
30-Dec-2008	18:00	0.4	NE
30-Dec-2008	19:00	0.2	WSW
30-Dec-2008	20:00	0.4	SW
30-Dec-2008	21:00	0.4	SW
30-Dec-2008	22:00	0.1	SW
30-Dec-2008	23:00	0.2	SW
31-Dec-2008	00:00	2.5	N
31-Dec-2008	01:00	2.2	N
31-Dec-2008	02:00	1.6	Е
31-Dec-2008	03:00	1.6	N
31-Dec-2008	04:00	1.3	N
31-Dec-2008	05:00	0.9	N
31-Dec-2008	06:00	0.9	N
31-Dec-2008	07:00	0.5	NNE
31-Dec-2008	08:00	0.2	NNE
31-Dec-2008	09:00	0.9	ENE
31-Dec-2008	10:00	1.1	N
31-Dec-2008	11:00	1.3	NNE
31-Dec-2008	12:00	0.7	N
31-Dec-2008	13:00	1.3	E
31-Dec-2008	14:00	0.4	NNE
31-Dec-2008	15:00	0.4	NE
31-Dec-2008	16:00	0.9	NE
31-Dec-2008	17:00	1.1	NE
31-Dec-2008	18:00	1.1	NE
31-Dec-2008	19:00	0.9	NE
31-Dec-2008	20:00	0.9	NE
31-Dec-2008	21:00	0.5	NE
31-Dec-2008	22:00	0.4	NE
31-Dec-2008	23:00	0.7	NE

#### APPENDIX E 1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

# Appendix E - 1-hour TSP Monitoring Results

#### Location AM 2 - Lai Chi Kok Sports Centre

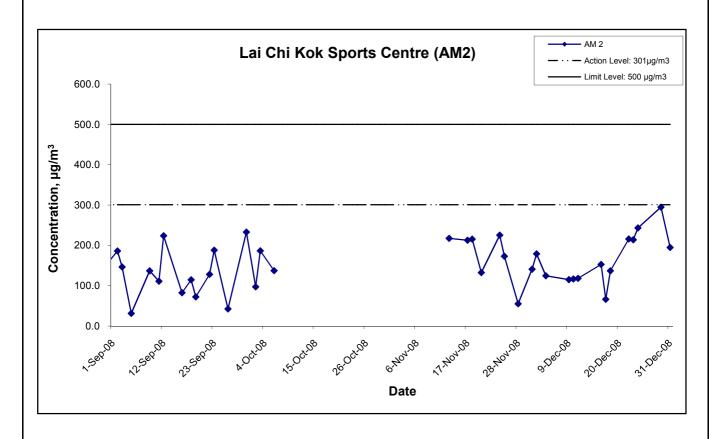
Date	Weather	Filter We	eight (g)	Flow Rate	e (m³/min.)	Elaps	se Time	Air	Atmospheric	Particulate	Av. flow	Total vol.	Sampling	Conc.
	Condition	Initial	Final	Initial	Final	Initial	Final	Temp. (K)	Pressure(Pa)	weight(g)	(m <sup>3</sup> /min)	$(m^3)$	Time(hrs.)	$(\mu g/m^3)$
1-Dec-08	Sunshine	2.8489	2.8593	1.23	1.23	8399.1	8400.1	290.6	771.5	0.0104	1.23	73.8	1.0	141.0
2-Dec-08	Sunshine	2.8528	2.8660	1.23	1.23	8400.1	8401.1	289.1	769.0	0.0132	1.23	73.8	1.0	178.8
4-Dec-08	Sunshine	2.8001	2.8092	1.22	1.22	8425.1	8426.1	295.2	766.5	0.0091	1.22	73.0	1.0	124.7
9-Dec-08	Sunshine	2.8110	2.8195	1.23	1.23	8426.1	8427.1	288.1	768.2	0.0085	1.23	73.9	1.0	115.0
10-Dec-08	Sunshine	2.8694	2.8779	1.21	1.21	8451.1	8452.1	296.1	765.3	0.0085	1.21	72.8	1.0	116.7
11-Dec-08	Sunshine	2.8329	2.8416	1.23	1.23	8452.1	8453.1	290.0	767.5	0.0087	1.23	73.7	1.0	118.1
16-Dec-08	Sunshine	2.8143	2.8256	1.23	1.23	8477.1	8478.1	288.5	769.4	0.0113	1.23	73.9	1.0	152.9
17-Dec-08	Sunshine	2.8800	2.8849	1.23	1.23	8478.1	8479.1	288.2	769.8	0.0049	1.23	74.0	1.0	66.2
18-Dec-08	Sunshine	2.8677	2.8778	1.23	1.23	8479.1	8480.1	290.0	769.4	0.0101	1.23	73.7	1.0	137.0
22-Dec-08	Sunshine	2.8299	2.8458	1.23	1.23	8504.1	8505.1	291.2	769.2	0.0159	1.23	73.6	1.0	216.1
23-Dec-08	Sunshine	2.7809	2.7969	1.25	1.25	8505.1	8506.1	283.1	772.7	0.0160	1.25	74.8	1.0	214.0
24-Dec-08	Sunshine	2.8683	2.8863	1.23	1.23	8506.1	8507.1	287.9	769.8	0.0180	1.23	74.0	1.0	243.2
29-Dec-08	Cloudy	2.8601	2.8817	1.22	1.22	8531.1	8532.1	292.9	766.5	0.0216	1.22	73.3	1.0	294.8
31-Dec-08	Cloudy	2.8279	2.8423	1.23	1.23	8556.1	8557.1	288.2	769.2	0.0144	1.23	74.0	1.0	194.7
	_						_						Min	66.2

 Min
 66.2

 Max
 294.8

 Average
 165.2

#### 1-hr TSP Levels



The 1-hr TSP monitoring from 8 October 2008 to 12 November 2008 were cancelled due to the suspension of electricity supply of Lai Chi Kok Park Sports Centre (AM2) for internal work of itself.

Contract HY/2003/01 - Lai Chi Kok Viaduct
Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin
Graphical Presentation of 1-hour TSP Impact Monitoring
Results

Scale
N.T.S
Project
No.
MA3024

Date
Dec 08
Project
No.
MA3024

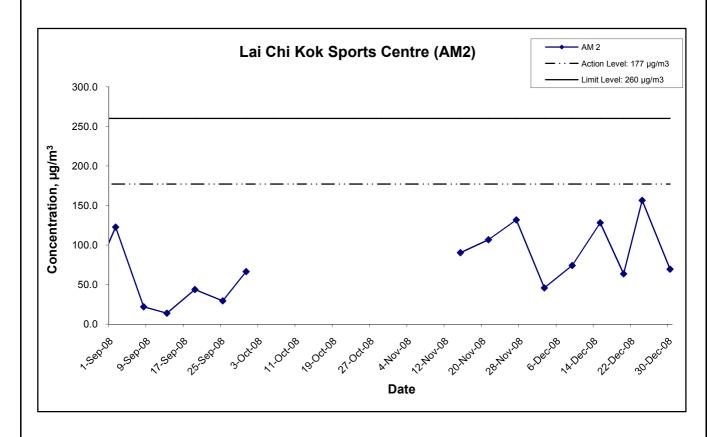
APPENDIX F 24-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

### Appendix F - 24-hour TSP Monitoring Results

#### Location AM 2 - Lai Chi Kok Sports Centre

Date	Weather	Filter We	eight (g)	Flow Rate	(m³/min.)	Elaps	se Time	Air	Atmospheric	Particulate	Av. flow	Total vol.	Sampling	Conc.
	Condition	Initial	Final	Initial	Final	Initial	Final	Temp. (K)	Pressure(Pa)	weight(g)	(m <sup>3</sup> /min)	(m <sup>3</sup> )	Time(hrs.)	$(\mu g/m^3)$
3-Dec-08	Sunshine	2.7804	2.8610	1.22	1.22	8401.1	8425.1	292.1	4366.0	0.0806	1.22	1760.0	24.0	45.8
9-Dec-08	Sunshine	2.8423	2.9736	1.23	1.23	8427.1	8451.1	288.3	768.0	0.1313	1.23	1773.3	24.0	74.0
15-Dec-08	Sunshine	2.8507	3.0788	1.24	1.24	8453.1	8477.1	286.8	770.2	0.2281	1.24	1780.1	24.0	128.1
20-Dec-08	Sunshine	2.8768	2.9889	1.23	1.23	8480.1	8504.1	291.1	768.9	0.1121	1.23	1766.1	24.0	63.5
24-Dec-08	Sunshine	2.8488	3.1262	1.23	1.23	8507.1	8531.1	288.7	769.2	0.2774	1.23	1773.4	24.0	156.4
30-Dec-08	Cloudy	2.8813	3.0045	1.23	1.23	8532.1	8556.1	288.0	768.7	0.1232	1.23	1774.9	24.0	69.4
_													Min	45.8
													Max	156.4
													Average	89.5

#### 24-hr TSP Levels



The 24-hr TSP monitoring from 6 October 2008 to 10 November 2008 were cancelled due to the suspension of electricity supply of Lai Chi Kok Park Sports Centre (AM2) for internal work of itself.

Title Contract HY/2003/01 - Lai Chi Kok Viaduct
Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin
Graphical Presentation of 24-hour TSP Impact Monitoring Results

Scale Project
No. MA3024

Date Dec 08

Appendix
F

APPENDIX G NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

#### Appendix G - Noise Monitoring Results

Location N	Location NM2 - Lai Chi Kok Reception Centre											
						Unit: dB (A) (30						
Date	Time	Weather	Measu	Measured Noise Level E		Baseline Level	Construction Noise Level	Remarks				
			L <sub>eq</sub>			L <sub>eq</sub>	L <sub>eq</sub>					
2-Dec-08	09:00	Sunny	65.2	68.2	62.7		65.2, Measured ≦ Baseline					
9-Dec-08	09:00	Sunny	66.3	69.2	64.2	68.4	66.3, Measured ≤ Baseline	Resumed since September 2006				
18-Dec-08	09:00	Sunny	66.6	69.2	65.2	00.4	66.6, Measured ≤ Baseline	Resumed since September 2000				
23-Dec-08	09:10	Sunny	67.1	68.7	64.2		67.1, Measured ≤ Baseline					

Location N	Location NM4 - Mei Foo Sun Chuen, Phase 5										
						Unit: dB (A) (30					
Date	Time	Weather	Measured Noise Level			Baseline Level	Construction Noise Level	Remarks			
			L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>				
2-Dec-08	13:40	Sunny	72.1	74.5	69.0		72.1, Measured ≤ Baseline	Dead traffic raise from Ohio			
9-Dec-08	09:40	Sunny	71.9	74.5	68.5	73.8	71.9, Measured ≤ Baseline	Road traffic noise from Ching			
18-Dec-08	09:40	Sunny	72.1	76.0	69.0	13.0	72.1, Measured ≤ Baseline	Cheung Road was identified as the major noise source.			
23-Dec-08	10:10	Sunny	74.1	76.0	70.0		62.3	major noise source.			

Location NM8a - M/F of Nob Hill									
Date	Date Time Weather		Unit: c	IB (A) (3	0-min)	Remarks			
			L <sub>eq</sub>	L <sub>10</sub>	L 90				
2-Dec-08	10;20	Sunny	71.6	73.5	69.0				
9-Dec-08	10:20	Sunny	72.3	75.0	69.0	Road traffic noise from Ching Cheung Road			
18-Dec-08	10:20	Sunny	69.9	72.5	68.0	was identified as the major noise source.			
23-Dec-08	11:00	Sunny	73.9	76.0	70.5				

Location NM8b - 3/F of Nob Hill								
Date	Time	Weather	Unit: dB (A) (30-min)			Remarks		
			L <sub>eq</sub>	L <sub>10</sub>	L 90			
2-Dec-08	11:00	Sunny	72.9	76.0	69.5	This Station (NM8b) which is strongly		
9-Dec-08	11:00	Sunny	72.9	76.0		influenced by road traffic noise from Ching Cheung Road. The measurement at this station		
18-Dec-08	11:00	Sunny	72.6	75.0		is for reference purpose, but not for compliance		
23-Dec-08	11:35	Sunny	74.3	76.5	71.5	check for construction noise.		

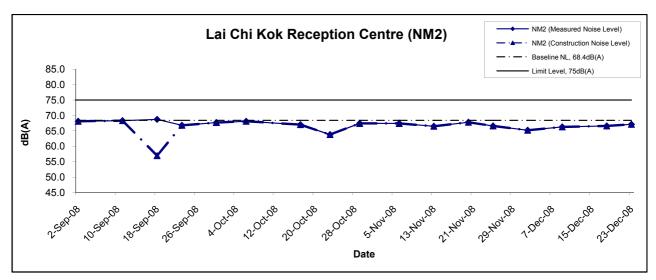
Location NM9 - Hoi Lai Estate									
Date	Time Weather		Unit: d	IB (A) (3	0-min)	Remarks			
			L <sub>eq</sub>	L <sub>10</sub>	L 90				
2-Dec-08	13:00	Sunny	66.4	69.0	61.5				
9-Dec-08	13:00	Sunny	69.1	72.5	68.0				
18-Dec-08	13:00	Sunny	69.2	72.5	68.0	-			
23-Dec-08	13:30	Sunny	66.6	68.0	64.5				

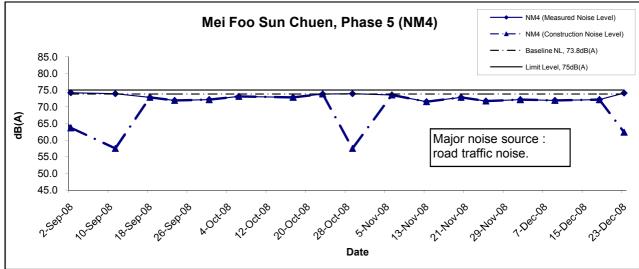
#### Appendix G - Noise Monitoring Results

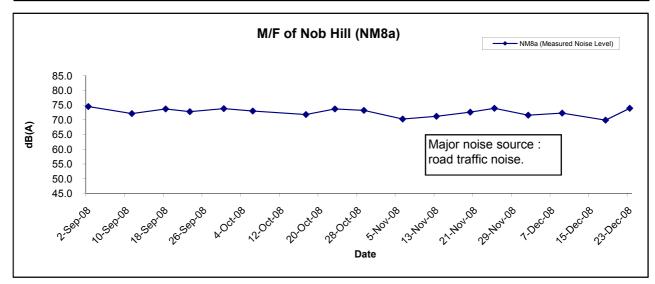
### Restricted Hours - 19:00 to 23:00 on normal weekdays

Location N	M9 - Ho	i Lai Estat	е						
Data	T:	\^/a a 4 la a 4		dB (A) (5-min)					
Date	Time	Weather	L <sub>eq</sub>	L <sub>10</sub>	L 90	Average L <sub>eq</sub>			
	19:00		63.6	65.5	61.0				
2-Dec-08	19:05	Cloudy	63.7	65.5	61.0	63.5			
	19:10		63.1	65.0	61.0				
	19:00		61.7	64.5	58.0				
12-Dec-08	19:05	Cloudy	61.2	64.0	58.0	61.4			
	19:10		61.3	64.0	58.0				
	19:15		63.4	66.0	61.0				
16-Dec-08	19;20	Cloudy	63.7	66.0	61.0	63.7			
	19:25		63.9	66.0	61.0				
	19:00		63.7	65.0	61.0				
23-Dec-08	19:05	Cloudy	63.8	65.0	61.0	63.8			
	19:10		63.9	65.0	61.0				
	19:00		62.9	65.0	60.5				
30-Dec-08	19:05	Cloudy	63.5	66.5	61.0	63.3			
	19:10		63.4	66.5	61.0				









\* Construction Noise Level = Measured Noise Level - Baseline Level

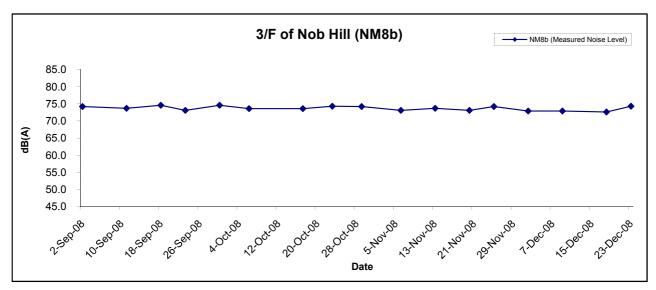
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

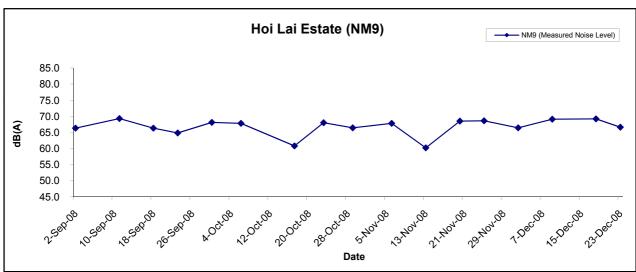
Title Contract HY/2003/01 - Lai Chi Kok Viaduct
Route 8 (previously known as Route 9) between Cheung Sha Wan and
Sha Tin
Graphical Presentation of Construction Noise Monitoring
Results

Scale		Project
	N.T.S	No. MA3024
Date		Appendix
	Dec 08	G



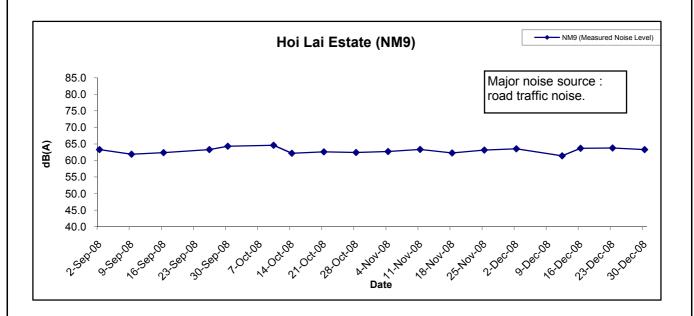
#### **Noise Levels**





Title	Contract HY/2003/01 - Lai Chi Kok Viaduct	Scale		Project	
	Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin		N.T.S	No. MA3024	CINOTE
	Graphical Presentation of Construction Noise Monitoring Results	Date	Dec 08	Appendix G	

#### Restricted Hours (19:00 to 23:00 ) - Noise Levels



Contract HY/2003/01 - Lai Chi Kok Viaduct Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin Graphical Presentation of Construction Noise Monitoring Results

Title

Project Scale N.T.S MA3024 Date Appendix Dec 08 G



#### APPENDIX H SUMMARY OF EXCEEDANCE

### **APPENDIX H - Summary of Exceedances Recorded in the Reporting Month**

#### a) Exceedance Report for 1-hr TSP

- No Action/Limit Level exceedance was recorded in the reporting month.

#### b) Exceedance Report for 24-hr TSP

- No Action/Limit Level exceedance was recorded in the reporting month.

#### c) Exceedance Report for Construction Noise

- No Action/Limit Level exceedance was recorded in the reporting month.

#### APPENDIX I SITE AUDIT SUMMARY

#### Weekly Site Inspection Record Summary

**Inspection Information** 

Checklist Reference Number	81203-LCKV
Date	3 December 2008 (Wed)
Time	11:15-11:50

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during the site inspection.	
	B. Air Quality	
	No environmental deficiency was identified during the site inspection.	
	C. Noise	
	No environmental deficiency was identified during the site inspection.	:
	D. Waste / Chemical Management	
	No environmental deficiency was identified during the site inspection.	
	F. Others	
	No environmental deficiency was identified during the site inspection.	
	Follow-up on previous audit (Ref. No.:81125-LCKV), no environmental deficiency was identified during site inspection.	
	Covering of loaded truck leaving the site was checked during the site inspection. No uncovered truck leaving the construction site was observed without cover.	

	Name	Signature	Date
Recorded by	Robert Tsang	Taig	3 December 2008
Checked by	Dr. Priscilla Choy	NT	3 December 2008

CINOTECH MA3024 81203\_LCKV

#### Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	81210-LCKV
Date	10 December 2008 (Wed)
Time	11:00-12:00

Ref. No.	Non-Compliance	Related Item No.
_	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
·	A. Water Quality	
·	No environmental deficiency was identified during the site inspection.	
	B. Air Quality	:
	No environmental deficiency was identified during the site inspection.	
	C. Noise	
:	No environmental deficiency was identified during the site inspection.	
	D. Waste / Chemical Management	
	No environmental deficiency was identified during the site inspection.	
	F. Others	
	No environmental deficiency was identified during the site inspection.	
	• Follow-up on previous audit (Ref. No.:81203-LCKV), no environmental deficiency was identified during site inspection.	
	Covering of loaded truck leaving the site was checked during the site inspection. No uncovered truck leaving the construction site was observed without cover.	

	Name	Signature	Date
Recorded by	Robert Tsang	F	10 December 2008
Checked by	Dr. Priscilla Choy	WIL	10 December 2008

CINOTECH MA3024 81210\_LCKV

### Weekly Site Inspection Record Summary

**Inspection Information** 

Checklist Reference Number	81217-LCKV
Date	17 December 2008 (Wed)
Time	11:15-11:45

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
<u> </u>	4	

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during the site inspection.	
	B. Air Quality	
	No environmental deficiency was identified during the site inspection.	
	C. Noise	
	No environmental deficiency was identified during the site inspection.	
	D. Waste / Chemical Management	
	No environmental deficiency was identified during the site inspection.	
	F. Others	
	No environmental deficiency was identified during the site inspection.	
	• Follow-up on previous audit (Ref. No.:81210-LCKV), no environmental	
	deficiency was identified during site inspection.	
	No loaded truck was observed leaving the site and therefore no uncovered	
	truck leaving the construction site was observed during the site inspection.	

	Name	Signature	Date
Recorded by	Robert Tsang	Tex	17 December 2008
Checked by	Dr. Priscilla Choy	WI	17 December 2008

#### Weekly Site Inspection Record Summary

**Inspection Information** 

Checklist Reference Number	81224-LCKV
Date	24 December 2008 (Wed)
Time	09:00 - 09:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	<del>-</del>

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during the site inspection.	
	B. Air Quality	
	No environmental deficiency was identified during the site inspection.	
	C. Noise	
	• No environmental deficiency was identified during the site inspection.	
	D. Waste / Chemical Management	****
	No environmental deficiency was identified during the site inspection.	
	F. Others	
	• No environmental deficiency was identified during the site inspection.	
	• Follow-up on previous audit (Ref. No.:81217-LCKV), no environmental deficiency was identified during site inspection.	
	No loaded truck was observed leaving the site and therefore no uncovered	
	truck leaving the construction site was observed during the site inspection.	

	Name	Signature	Date
Recorded by	Robert Tsang	This	24 December 2008
Checked by	Dr. Priscilla Choy	THE STATE OF THE S	24 December 2008

CINOTECH MA3024 81224\_LCKV

#### APPENDIX J EVENT ACTION PLANS

## Appendix J - Event Action Plans

### Event/Action Plan for Air Quality

EVENT		ACTIO:	N		
EVENT	ET	IEC	ER	Contractor	
ACTION LEVEL					
1. Exceedance for one	1. Identify source	1. Check monitoring data submitted by ET	1. Notify Contractor	1. Rectify any unacceptable practice	
sample	2. Inform ER & IEC	2. Check Contractor's working methods	2. Check monitoring data and Contractor's	2. Amend working methods if	
	3. Repeat measurement to confirm finding		working methods	appropriate	
	4. Increase monitoring frequency to daily				
2. Exceedance for two or	1. Identify source	1. Checking monitoring data submitted by	1. Confirm receipt of notification of failure	1. Submit proposals for remedial	
more consecutive samples	2. Inform ER & IEC	ET	in writing	actions to ER within 3 working days	
	3. Repeat measurement to confirm findings	2. Check Contractor's working methods	2. Notify Contractor	of notification	
	4. Increase monitoring frequency to daily	3. Discuss with ET and Contractor on	3. Check Contractor's working methods	2. Implement the agreed proposals	
	5. Discuss with ER & for remedial actions	possible remedial measure	4. Discuss with ET, IEC and Contractor on	3. Amend proposal if appropriate	
	required	4. Advise the ER & ET on the effectiveness	proposed remedial actions		
	6. If exceedance continues, arrange	of the proposed remedial measures	5. Ensure remedial actions properly		
	meeting with ER & IEC	5. Supervise the implementation of the	implemented		
	7. If exceedance stops, cease additional	remedial measures			
	monitoring				
LIMIT LEVEL					
1. Exceedance for one	1. Identify source	1. Checking monitoring data submitted by	1. Confirm receipt of notification of failure	1. Take immediate action to avoid	
sample	2. Inform ER & IEC and EPD	ET	in writing	further exceedance	
	3. Repeat measurement to confirm finding	2. Check Contractor's working methods	2. Notify Contractor	2. Submit proposals for remedial	
	4. Increase monitoring frequency to daily	3. Discuss with ET and Contractor on	3. Check Contractor's working methods	actions to ER within 3 working days	
	5. Assess effectiveness of Contractor's	possible remedial measure	4. Discuss with ET, IEC and Contractor on	of notification	

EVENT		ACTION									
EVENI	ET	IEC	ER	Contractor							
	remedial actions and keep EPD and ER &	4. Advise the ER & ET on the effectiveness	proposed remedial actions	3. Implement the agreed proposals							
	IEC informed of the results	of the proposed remedial measures	5. Ensure remedial actions properly	4. Amend proposal if appropriate							
		5. Supervise the implementation of the	implemented								
		remedial measures									
2. Exceedance for two or	1. Identify source	1. Checking monitoring data submitted by	1. Confirm receipt of notification of failure	1. Take immediate action to avoid							
more consecutive samples	2. Inform ER, IEC, Contractor and EPD	ET	in writing	further exceedance							
	the cause & actions taken for the	2. Discuss amongst ER, ET and Contractor	2. Notify Contractor	2. Submit proposals for remedial							
	exceedances	on possible remedial measures	3. Carry out analysis of Contractor's	actions to IEC, ER within 3 working							
	3. Repeat measurement to confirm findings	3. Review Contractor's remedial measures	working procedures to determine possible	days of notification							
	4. Increase monitoring frequency to daily	whenever necessary to ensure their	mitigation to be implemented	3. Implement the agreed proposals							
	5. Investigate the causes of exceedance	effectiveness and advise the ER	4. Discuss amongst ET, IEC and the	4. Resubmit proposals if problem							
	6. Carry out analysis of contractor's	accordingly	Contractor on proposed remedial actions	still not under control							
	working procedures to determine possible	4. Supervise the implementation of the	5. In consultation with IEC, agree with the	5. Stop the relevant portion of works							
	mitigation to be implemented.	remedial measures	contractor remedial measures to be	as determined by the ER until the							
	7. Arrange meeting with EPD, IEC and ER		implemented	exceedance is abated							
	to discuss the remedial actions to be taken		6. Ensure remedial measure are properly								
	8. Assess effectiveness of Contractor's		implemented								
	remedial actions and keep EPD and ER &		7. If exceedance continues, consider what								
	IEC informed of the results		portion of the work is responsible and								
	9. If exceedance stops, cease additional		instruct the Contractor to stop that portion								
	monitoring		of work until the exceedance is abated								

#### Event/Action Plan for Construction Noise

Exceedance		ACTIO	N		
Exceedance	ET	.IEC	ER	Contractor	
Action Level	1. Discuss with the IEC and ER and seek to	1. Review the analyzed results submitted	1. Confirm receipt of notification of	1. Submit proposals for remedial	
	identify potential noise source	by the ET	complaint and notify Contractor	actions to ER within three working	
			immediately	days of notification	
	2. Undertake noise measurement to	2. Review the proposed remedial measures	2. Check monitoring data trends and	2. Amend proposals if required by	
	confirm the validity of complaint	by the Contractor and advise the ER & ET	Contractor's working methods	the Engineer	
		accordingly			
3. Inform ER&IEC in writing		3. Supervise the implementation of	3. Remind the Contractor of his contractual	3. Implement the remedial actions	
	Discuss remedial actions required with	remedial measures	obligations and discuss with ET, IEC and	immediately upon instruction	
	ER&IEC if an exceedance is recorded		Contractor on proposed remedial actions		
	4. Increase monitoring frequency to		4. Assess the efficacy of remedial actions	4. Liaise with the ER to optimize the	
	demonstrate efficacy of remedial measures		and keep the Contractor informed	effectiveness of the agreed	
				mitigation	
	5. If exceedance continues, meet with		5. Inform complainant of actions taken	5. Amend proposal if appropriate	
	ER&IEC to review implementation of				
	appropriate mitigation measures.				
	6. If exceedance stops, cease additional				
	monitoring				

Exceedance		ACTIO	N	
Exceedance	ET	IEC	ER	Contractor
Limit Level	1. Repeat measurement to confirm findings	1. Check monitoring data submitted by ET	1. Confirm receipt of notification of	1. Take immediate action to avoid
			exceedance and notify Contractor	further exceedance
	2. Investigate the cause of the exceedance	2. Review Contractor's remedial actions to	2. Check monitoring data trends and	2. Submit proposals for remedial
	and identify the main source(s) of impact	assure their effectiveness and advise the	Contractor's working methods	actions to ER immediately not more
		ER &ET accordingly		than 3 working days of notification
	3. Inform ER&IEC and EPD in writing	3. Supervise the implementation of the	3. Discuss with ET, IEC and Contractor on	3. Amend proposals if required by
		remedial measures	proposed remedial actions to be	the ER
			implemented	
	4. Discuss remedial actions required with		4. Assess the efficacy of remedial actions	4. Implement remedial actions
	ER&IEC		and keep the Contractor informed	immediately upon instruction
	5. Increase monitoring frequency to		5. If exceedance continuous, consider what	5. Liaise with the ER to optimize the
	demonstrate efficacy of remedial measures		portion of the work is responsible and	effectiveness of the agreed
			instruct the Contractor to stop that portion	mitigation
			of work until the exceedance is aborted	
	6. Assess efficacy of remedial actions and			6. Resubmit proposals if problem
	keep ER & IEC informed of the results			still not under control
	7. If exceedance continues, meet with			7. Stop the relevant portion of works
	ER&IEC to identify appropriate mitigation			as determined by the ER until the
	measures			exceedance is aborted
	8. If exceedance stops, cease additional			
	monitoring			

APPENDIX K ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

## Appendix K - Summary of Environmental Mitigation Implementation Schedule

Types of Impacts	Mitigation Measures	Status
•	<ul> <li>Any stockpile of dusty materials or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water so as to maintain the entire surface wet.</li> </ul>	*
	<ul> <li>A stockpile of dusty materials should not extend beyond the pedestrian barriers, fencing or traffic cones.</li> </ul>	٨
	<ul> <li>Vehicle washing facilities should be provided at every exit point.</li> </ul>	٨
	• The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.	^
	• Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.	^
Construction Dust	<ul> <li>Every main haul road should be sprayed with water or a dust suppression chemical so as to maintain the entire road surface wet.</li> </ul>	^
Dust	• The portion of any road leading only to a construction site that is within 30m of a discernible or designated vehicle entrance or exit should be kept clear of dusty materials.	^
	• Any stockpile of dusty materials should be either covered entirely be impervious sheeting, placed in an area sheltered on the top and the 3 sides or sprayed with water or a dust suppression chemical so as to maintain the entire surface wet.	*
	<ul> <li>All dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet.</li> </ul>	^
	<ul> <li>Every vehicle should be washed to remove any dusty materials from its body and wheels immediately before leaving a construction site.</li> </ul>	۸
	• The working area of any excavation should be sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation so as to maintain the entire surface wet.	۸
	• Only well-maintained plant should be operated on –site and plant should be serviced regularly during the construction works.	٨
	• Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	^
	• Plant know to emit noise strongly in one direction, should where possible, be orientated to direct noise away from the NSRS.	٨
Construction	<ul> <li>Mobile plant should be sited as far away from NSRs as possible.</li> </ul>	٨
Noise	<ul> <li>Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> </ul>	^
	Use quite plant and Working Method	^
	Reduce the number of plant operating in critical areas close NSRs.	٨
	<ul> <li>Construct temporary and movable noise barriers</li> </ul>	^

	Construction Runoff and Drainage	
	Use of sediment traps and the adequate maintenance of drainage systems to prevent flooding and overflow.	^
	• Boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection.  Temporary ditches should be provided to facilities runoff discharge into the appropriate watercourses, via a silt retention pond.  Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates.	٨
	<ul> <li>All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge should be adequately designed for the controlled release of storm flows. All sediment traps should be regularly cleaned and maintained. The temporarily diverted drainage should be reinstated to its original condition when the construction works has finished or the temporary diversion is no longer required</li> </ul>	۸
	• Sand silt in the wash water from the wheel washing facilities, which ensure no earth, mud and debris is deposited on roads, should be settled out the removed before discharging into storm drains. A section of the road between the wheel washing bay and the public road should be paved with backfill to prevent wash water or other site runoff form entering public road drains.	^
	• Oil interceptors should be provided in the drainage system and regularly emptied to prevent the release of oils and grease into the storm water drainage system after accidental spillage. The interceptor should have a bypass to prevent flushing during periods of heavy rain.	N/A
	Catchpits and perimeter channels shall be constructed in advance of site formation works and earthworks.	^
Water Quality	• Silt removal facilities, channels and manholes shall be suitably maintained with the deposited silt and grit being removed at least once a week, and at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	^
	• Earthworks final surfaces shall be well compacted and the subsequent permanent work or surface protection shall be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate intercepting channels shall be provided along the site boundary or at the locations agreed with the ET Leader. Rainwater pumped out from trenches or foundation excavations shall be discharged into silt removal facilities before discharge into storm drains.	۸
	<ul> <li>All generators, fuel and oil storage shall be within bunded areas. Drainage from the areas shall be connected to storm drains via a petrol interceptor.</li> </ul>	۸
	Tunnelling Work	
	<ul> <li>Temporary open storage of excavated materials should be covered with tarpaulin or similar fabric during rainstorms. Any washout of construction or excavated materials form the drill and blast tunnelling work should be diverted to the drainage system via appropriate sediment traps.</li> </ul>	N/A
	<ul> <li>Ground water pumped out of tunnels should be discharged into the drainage channels which incorporated sediment traps to enhance deposition rates and to remove silt.</li> </ul>	N/A
	<ul> <li>Spend grouts used in diaphragm wall construction should be collected in a separate slurry collection system, reconditioned and reused wherever practicable. The disposal of used grouting materials will only be permitted if it is treated to the TM standards before discharge to the storm drains or disposal to landfill.</li> </ul>	N/A

	General Construction Activities						
	Debris and rubbish on site should be collected, handled and disposed of properly to avoid entering the water column and cause	۸					
	water quality impacts.						
	• All fuel tanks and storage areas will be provided with locks and be located on sealed areas (within bunds of a capacity equal to 110% of the storage capacity of the largest tank or 20% by volume of the fuel stored in that areas, whichever in the greatest).	^					
	Sewage Effluent	•					
	<ul> <li>Construction work force sewage discharges form fixed toilet facilities on-site should be connected to the nearby existing trunk sewer wherever feasible. However, for areas where existing trunk sewer is not available, it is recommended that appropriate and adequate on site portable chemical toilets should be provided by a licensed contractor who will be responsible for appropriate disposal and maintenance of these facilities.</li> </ul>	۸					
	• It is considered that sewage discharges could also be treated by on-site septic tanks and soakaway. Minimum clearance away form streams and catchments and other requirements for the proposed septic tank and soakaway should be referred to EPD's Practice Note for Professional Persons, Drainage Plans.	N/A					
	General						
	<ul> <li>Training and instruction shall be given at a site to construction staff to increase awareness and draw attention to waste management issues and the need to minimise waste generation. The training requirement shall be included in the site waste management plan.</li> </ul>	^					
	Storage, Collection and Transportation of Waste						
	Wastes shall be handled and stored in a manner to ensure that they are held securely without loss or leakage.	٨					
	<ul> <li>Authorised or licensed waste hauliers shall be used and they shall only collect wastes prescribed by their permits.</li> </ul>						
	Waste shall be removed on a daily basis.	^					
	Waste storage area shall be maintained and cleaned on a daily basis.	٨					
Waste	<ul> <li>Windblown litter and dust during transportation shall be minimised by either covering trucks or transporting wastes in enclosed containers.</li> </ul>	^					
waste	<ul> <li>Obtain necessary waste disposal permits from the appropriate authorities if they are required.</li> </ul>	^					
	Wastes shall be disposed of at licensed waste disposal facilities.	^					
	<ul> <li>Develop procedure such as ticketing system to facilitate tracking of loads, particularly for chemical waste, and to ensure that illegal disposal of wastes does not occur.</li> </ul>	^					
	Maintain records of the quantities of wastes generated, recycled and disposed.	٨					
	Surplus Excavated Materials						
	• Due to the high risk of loose material being washed into the existing nullah, stockpile materials should be properly compacted and covered from water erosion and located at least 10m away from the nullah wall.	^					
	Construction and Demolition (C&D) Waste						
	<ul> <li>Careful design, planning and good site management shall be adopted to minimise over-ordering and generation of waste materials such as concrete grouts.</li> </ul>	^					

<ul> <li>The handling and disposal of bentonite slurries shall be undertaken in accordance with Practice Note for Professional Persons – Construction Site Drainage (ProPECC PN 1/94) on construction site drainage.</li> </ul>	N/A
• Construction and demolition (C&D) material shall be segregated to inert and non-inert parts. The inert portion shall re-used at areas of reclamation or land formation, or to public filling area shall such allocation is deemed necessary. The non-inert portion shall be disposed of to landfill.	٨
Chemical Waste	
<ul> <li>Chemical waste that is produce during construction shall be handled in accordance with the Cod of Practice on the Packaging, Handling and Storage of Chemical Wastes.</li> </ul>	^
<ul> <li>Containers used for the storage of chemical wastes should:</li> <li>a. Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;</li> <li>b. Have a capacity of less than 450 litres unless the specifications have been approved by the EPD;</li> <li>c. Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Chemical Waste Regulations.</li> </ul>	^
<ul> <li>The storage area for chemical wastes should:</li> <li>a. Be clearly labelled and used solely for the storage of chemical waste;</li> <li>b. Be enclosed on at least 3 sides;</li> <li>c. Have an impermeable floor and bunding of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in the area, whichever is largest;</li> <li>d. Have adequate ventilation;</li> <li>e. Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary);</li> </ul>	٨
<ul> <li>f. Be arranged so that incompatible materials are adequately separated.</li> <li>Disposal of chemical waste shall be via a licensed waste collector; and to a facility licensed to receive chemical waste; or a reuser of the waste (under approval from EPD).</li> </ul>	٨
General Refuse	
<ul> <li>General refuse generated on-site shall be stored in enclosed bins or compaction unit separate from C&amp;D and chemical wastes.         A reputable waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&amp;D and chemical wastes, on a daily for every second day basis to minimise odour, pest and litter impacts. The burning of refuse on construction sites is prohibited by law.     </li> </ul>	*
Reusable rather than disposable dishware shall be used if feasible.	^

	• A sediment barrier shall be erected to minimize stream sedimentation at downstream of the project boundary of the Toll Plaza.	N/A
	<ul> <li>Conduct a tree survey before commencement of the construction work.</li> </ul>	^
Eaglegy	• All measures recommended in the approved landscape proposals under Condition 2.4 in EP above shall be fully implemented in accordance with the details and time schedule set out in the submission.	^
Ecology	<ul> <li>Loss of the adjacent woodland due to temporary land take shall be returned to the original status immediately.</li> </ul>	N/A
	Wild and uncontrolled fire shall be strictly prohibited	٨
	• Fences shall be erected along the boundary of the construction sites at the Toll Plaza before commencement of works, to prevent tipping, vehicle movements, and encroachment of personnel onto adjacent wooded areas.	N/A
	• Landscape mitigation measure 1 (LMM1) – Construction programming and management. The periphery of the works areas at street level shall be managed so that they do not appear cluttered, untidy and unattractive and inconvenient to pedestrians. For example, all hoarding shall be colorfully designed with interesting motifs demonstrating the work of Highways Department. Hoardings with bland colours shall be avoided.	۸
Landscape and Visual Impact	• Landscape mitigation measure 2 (LMM2) – Advanced planting and erosion control works. Where possible, the transplantation of existing valuable trees, the stockpiling of topsoil, new planting and erosion control works shall be carried out as early as possible in the construction period instead of at the end. This will assist in maximizing the time for carrying out transplantation and new planting, resulting in a higher success rate for the survival of transplantation and new planting, resulting in a higher success rate for the survival of transplanted trees and the establishment of new screen trees. The stockpiling of topsoil will provide an abundant use of on-site material for growing media. During detailed design, the issue of stockpiling of topsoil in a manner that would avoid washing into the drainage scheme should be examined comprehensively.	^
	<ul> <li>Measurement of vibration would also be carried out on a need basis during the piling work</li> </ul>	٨

Remarks:

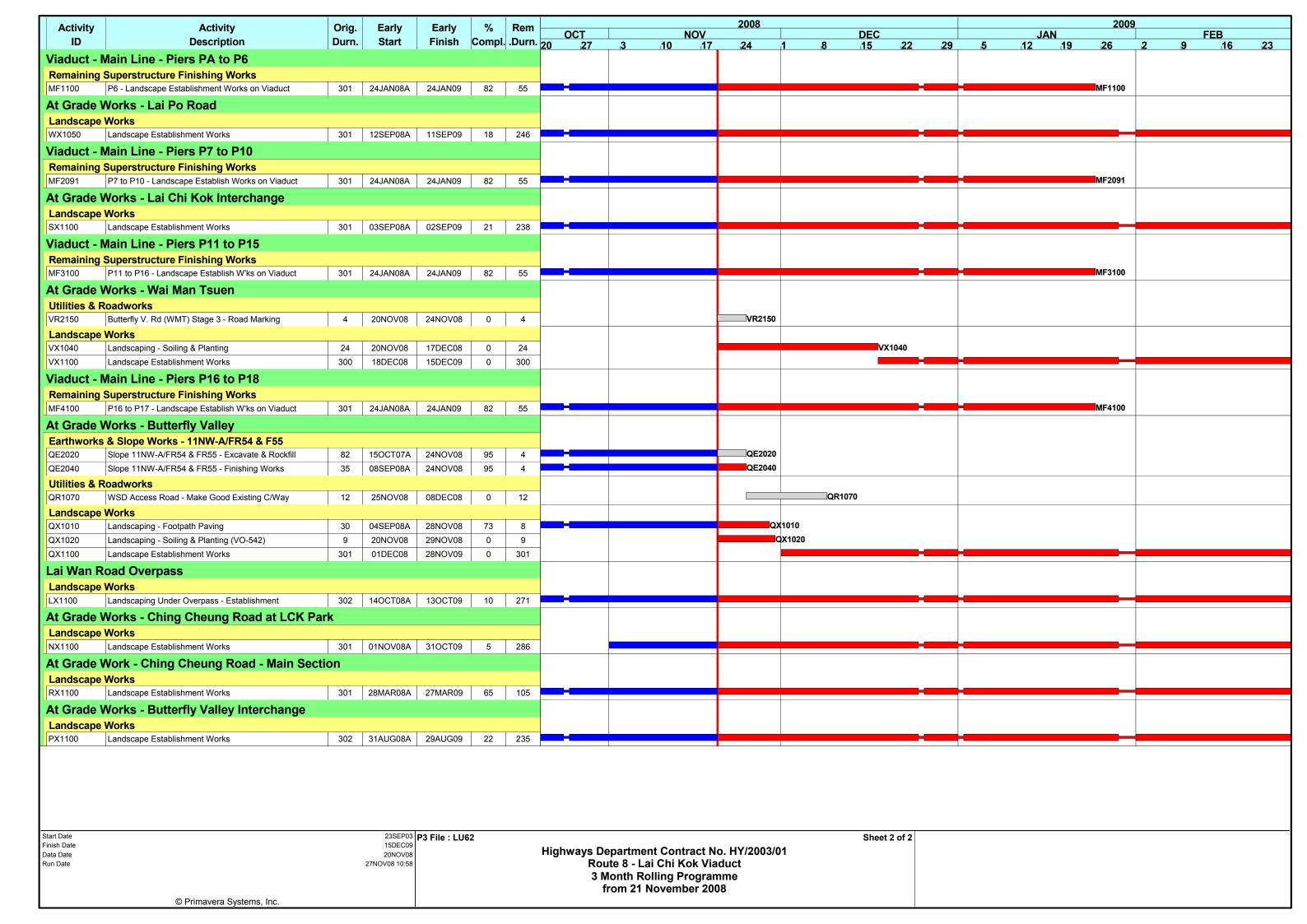
Compliance of mitigation measure; Not Applicable; ^

N/A

Non-compliance of mitigation measure; Non-compliance but rectified by the contractor X

# APPENDIX L CONSTRUCTION PROGRAMME

Activity	Activity	Orig.	Early	Early	%	Rem			2008	2009
ID	Description	Durn.	Start	Finish				NOV		DEC JAN FEB
	ries & General Requirments	Barri	Otart	T IIIIOII	Compi	.Darrii	20 27	3 10 17	24	1 8 15 22 29 5 12 19 26 2 9 16 23
Key Dates										
KD1040	KD-4: Completion of Section 2 of the Works	0		29NOV08	0	0				♦KD1040
Portion Va										
VD1000	Vacate Portion A	0		19NOV08*	0	0			VD1000	
VD1010	Vacate Portion B	0		19NOV08*	0	0	-		VD1010	
VD1020	Vacate Portion C	0		19NOV08*	0	0	1		VD1020	
VD1030	Vacate Portion D1	0		19NOV08*	0	0			VD1030	
VD1040	Vacate Portion D2	0		19NOV08*	0	0			VD1040	
VD1050	Vacate Portion E1	0		19NOV08*	0	0			VD1050	
VD1060	Vacate Portion E2	0		19NOV08*	0	0	-		VD1060	
VD1070	Vacate Portion E3	0		28NOV08*	0	0	-		•	◆VD1070
VD1080	Vacate Portion E4	0		19NOV08*	0	0	-		VD1080	◆VD1090
VD1090 VD1100	Vacate Portion E5  Vacate Portion G1	0		28NOV08* 19NOV08*	0	0			VD1100	▼vD1030
VD1100	Vacate Portion F1	0		19NOV08*	0	0	-		VD1100 VD1110	
VD1110	Vacate Portion F2	0		19NOV08*	0	0	-		VD1110 VD1120	
VD1130	Vacate Portion F3	0		19NOV08*	0	0	1		VD1130	
VD1140	Vacate Portion G2	0		19NOV08*	0	0	=		VD1140	
VD1150	Vacate Portion G3	0		19NOV08*	0	0			VD1150	
VD1160	Vacate Portion G4	0		19NOV08*	0	0			VD1160	
VD1170	Vacate Portion K1	0		19NOV08*	0	0			VD1170	
VD1180	Vacate Portion K2 & K3	0		19NOV08*	0	0			VD1180	
VD1190	Vacate Portion K4 & K8	0		19NOV08*	0	0			VD1190	
VD1200	Vacate Portion K5 & K6	0		19NOV08*	0	0	=		VD1200	
VD1210	Vacate Portion J1	0		28NOV08*	0	0	-		•	◆VD1210
VD1220 VD1230	Vacate Portion K7, K9, K10  Vacate Portion J2	0		19NOV08* 28NOV08*	0	0	_		VD1220	♦VD1230
VD1250 VD1250	Vacate Portion W	0		19NOV08*	0	0	+		VD1250	▼VD1230
VD1250	Vacate Portion R1	0		19NOV08*	0	0			VD1260	
Initial Subi				10110100						
	Continuous Upating of Works & 3 Month Progs	927	09OCT03A	29NOV08	99	9				■SU1075
	& Instrumentation - New Works									
IM3010	Install Instrumentation @ Cut Slope CCR-S1	12	20NOV08	03DEC08	0	12				IM3010
IM3020	Install Instrumentation @ Cut Slope CCR-S2	12	20NOV08	03DEC08	0	12				IM3020
IM3030	Install Instrumentation @ Cut Slope CCR-S3	12	20NOV08	03DEC08	0	12				IM3030
IM3040	Install Instrumentation @ Cut Slope CCR-S4	12	20NOV08	03DEC08	0	12				IM3040
IM3050	Install Instrumentation @ Cut Slope CCR-S5	12	20NOV08	03DEC08	0	12				IM3050
IM3060	Install Instrumentation @ Cut Slope CCR-S6	12	20NOV08	03DEC08	0	12	-			IM3060
IM3080	Install Instrumentation @ Slope 11NW-A/C26	12	20NOV08	03DEC08	0	12	-			IM3080
IM3090	Install Instrumentation @ Slope 11NW-A/FR54 & 55	12	25NOV08	08DEC08	0	12	-			IM3090
IM3110	Install Instrumentation @ Slip Road A Embankment Install Instrumentation @ Slip Road B Embankment	12 12	20NOV08 20NOV08	03DEC08 03DEC08	0	12	-			IM3110 IM3120
IM3120 IM3130	Install Instrumentation @ Silp Road B Embankment Install Instrumentation @ Piers P1 to P6	12	20NOV08 20NOV08	03DEC08	0	12 12				IM3130
IM3140	Install Instrumentation @ Piers P1 to P0  Install Instrumentation @ Piers P7 to P10	12	20NOV08	03DEC08	0	12				IM3140
IM3150	Install Instrumentation @ Piers P11 to P15	12	20NOV08	03DEC08	0	12	1			IM3150
IM3160	Install Instrumentation @ Piers P16 to P18	12	20NOV08	03DEC08	0	12	1			IM3160
IM3170	Install Instrumentation @ Piers P19 to Abut. M	12	20NOV08	03DEC08	0	12	1			IM3170
IM3180	Install Instrumentation @ Piers on Slip Road A	12	20NOV08	03DEC08	0	12				IM3180
IM3190	Install Instrumentation @ Piers on Slip Road B	12	20NOV08	03DEC08	0	12				IM3190
IM3200	Install Instrumentation @ Piers on Slip Road C	12	20NOV08	03DEC08	0	12				IM3200
IM3210	Install Instrumentation @ Piers on Slip Road D	12	20NOV08	03DEC08	0	12				IM3210
Start Date			23SEP03	P3 File : LU6	62					Sheet 1 of 2
Finish Date Data Date			15DEC09 20NOV08					epartment Contract N		3/01
Run Date			27NOV08 10:58					ute 8 - Lai Chi Kok Vi		
								Month Rolling Progra from 21 November 20		
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#### APPENDIX M COMPLAINT LOG

### APPENDIX M- COMPLAINT LOG

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
40318	Nob Hill	18 March 2004	Kwai Tsing District Officer (KTDO) recently received a public noise complaint about construction noise generated from the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, near Nob Hill, Lai Chi Kok. KTDO referred the complaint to the Highways Department (HyD) on the same day. HyD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 18 March 2004.  The complaint was raised by the Citybase Property Management Ltd. (the management company of Nob Hill) and the Secretarty of Nob Hill Owners Committee (Mr. Kevin Tse) about construction noise generated from the R8-LCKV Project at the work areas near Nob Hill. Mr. Kevin Tse mentioned that residents living in Nob Hill have greatly been affected by the noise impacts generating from the R8-LCKV construction works. He also requested relevant government departments to consider installing noise barrier along Ching Cheung Road and to work out possible measures to minimize the noise nuisances to the residents living in the vicinity.	Based on the information provided by the ER, the construction activities conducted in the vicinity of Nob Hill in the period between 2 and 18 March 2004 were:  Item 1 – Breaking off existing planter and excavate trial trench to expose underground utilities (using one to two backhoes)  Item 2 – Erect rock fall fence & forming platform for pre-drilling (using one backhoe and occasionally one crane lorry)  Item 4 – Excavate further to expose all underground utilities (using hand tools)  Item 5 – Pre-drilling works (using one drilling rig)  Considering the scale of work and the PMEs adopted, the ET believed that the construction noise impact at Nob Hill from the above construction activities of R8-LCKV was not significant.  The bored piling work (Item 3) using one crawler crane and one oscillator was started on 19 March 2004, which was two days after the issue date of this complaint, so this activity was not considered in this report.  According to the EM&A Manuals, Nob Hill was not selected as Noise Monitoring Location (NML) for the Project. Therefore, no direct noise monitoring data could be provided for the complaint investigation. However, there was no noise level exceedance recorded at the nearby NML (NM4 – Mei Foo Sun Chuen, Phase 5) since the commencement of the project according to ET's inventory.  During ET's weekly environmental site inspections on 3, 10, 17 March 2004, no serious noise nuisance induced by the Project works was observed at the sites near Nob Hill.  Based on the joint site visit with the representative of HyD, IEC, RSS and ET to the Nob Hill on 30 March 2004, the major noise source at Nob Hill was identified as traffic noise on Ching Cheung Road, which is located very close to this building, especially at or above the Podium Floor (i.e. 5/F).	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				<ul> <li>Based on the information obtained, this noise complaint is not considered due to the construction activities of the Project.</li> <li>Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise, such as: <ul> <li>To space out noisy equipment and position it as far away as possible from the sensitive receivers;</li> <li>To avoid concurrent uses of noisy equipment near the sensitive area;</li> <li>To ensure the equipment are maintaining in good operation condition; and</li> <li>To turned off any idle equipment on site.</li> </ul> </li> <li>Adding to that, ET is proposed to install one to two noise monitoring stations at Nob Hill in order to monitor the noise impact generated from the R8-LCKV Project to the resident of Nob Hill or the nearby</li> </ul>	
40330	Site Areas near Nob Hill	30 March 2004	Highways Department (HyD) recently received a public noise complaint about construction noise generated from the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, near Nob Hill, Lai Chi Kok. HyD referred the complaint to the RSS and subsequently referred to the ET Leader of the Project on 30 March 2004.  The complaint was raised by Mr. Yau, the Office of DCV Member Mr. Cheung Wing Shum, regarding the high pitch construction noise generated at the R8-LCKV site which cause serious nuisance to the residents at Mei Foo.	buildings.  Based on the information provided by the RSS, the Contractor was not aware of any high pitched construction noise arising from plant employed for their works. The noise complaint referred to may be originated from the damage of a gas main valve on the afternoon of 29 March 2004 in the vicinity of the junction of Mai Lai Road with Lai King Hill Road. The high pitched whistle apparently resulted from the damage which was repaired by TownGas in that afternoon.  Based on the information obtained, this noise complaint is considered not due to the construction activities of the Project. Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise, such as:  To space out noisy equipment and position it as far away as possible from the sensitive receivers;  To avoid concurrent uses of noisy equipment near the sensitive area;  To ensure the equipment are maintaining in good operation condition; and  To turned off any idle equipment on site.	Closed

Log Ref.	Location	Received Date	<b>Details of Complaint</b>	Investigation/Mitigation Action	Status
40402	Nob Hill	06 April 2004	A public noise complaint was received by the Contractor (NECSO) on 02 April 2004 regarding the noise generated from the Ching Cheung Road Widening Works of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, near Nob Hill, Lai Chi Kok.  NECSO referred the complaint to the RSS and subsequently referred to the ET Leader of the Project on 6 April 2004	The complaint was raised by Ms Wong, regarding the noise generated from the Ching Cheung Road Widening Works of the R8-LCKV Project, which cause serious nuisance to her.  Based on the information provided by the RSS, the plants employed by the Contractor for carrying out bored piling works in front of Nob Hill should not generate excessive noise. The RSS had also checked against the site records that no piling works was in progress in front of Nob Hill on 1-3 April 2004.  According to telephone communication between the complainant (Ms Wong) and the RSS on 8 April 2004, the RSS reported that Ms Wong was not complaining about the construction noise generated by the R8-LCKV Project. She was actually complaining about the traffic noise she anticipated to be generated after completion of widening work at Ching Cheung Road in front of Nob Hill.  During ET's weekly environmental site inspections on 17, 24 & 31 March 2004 and 7 April 2004, no serious noise nuisance induced by the Project works was observed at the construction sites near Nob Hill.  Based on the joint site visit with the representative of HyD, IEC, RSS and ET to the Nob Hill on 30 March 2004, the major noise source at Nob Hill was identified as traffic noise on Ching Cheung Road, which is located very close to this building, especially at or above the Podium Floor (i.e. 5/F).  Based on the information obtained, this noise complaint is considered not due to the construction activities of the Project.  Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise, such as  To space out noisy equipment and position it as far away as possible from the sensitive receivers;  To avoid concurrent uses of noisy equipment near the sensitive area;  To ensure the equipment are maintaining in good operation condition; and	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
40710	Pier P7 in Portion E1	10 July 2004	A public complaint was raised on 30 <sup>th</sup> June 2004 regarding the washout of muddy water from the site area of the Route 8 – Lai Chi Kok Viaduet (R8- LCKV) Project, at Pier P7 onto Lai Chi Kok Road.  The complaint was referred to the RSS on 3 <sup>rd</sup> July 2004 and subsequently referred to the ET Leader of the Project on 10 <sup>th</sup> July 2004.  The complaint was raised by Mr. Chan, regarding the washout of muddy water from the works area of the R8-LCKV Project onto Lai Chi Kok Road. The washout caused nuisance to the drivers utilizing the road, and may also cause danger to the motorbikes.	Based on the information provided by the RSS, the spillage of muddy water was in fact due to a burst in a temporary water pipe being utilized in the piling operations at Pier P7 in Portion E1.  Emergency remedial works were undertaken preventing further spillage of muddy water. The remaining ponding water within the works area arising from the burst was all removed from the area on 5th July 2004.  During ET's weekly environmental site inspection on 14th July 2004, no serious water quality nuisance induced by the Project works was observed at the construction sites near Pier P7. It was also noted that the back of profile barriers along the site boundary had been sealed up by cement as preventive measures.  During ET's weekly environmental site inspections on 17, 24 & 31 March 2004 and 7 April 2004, no serious noise nuisance induced by the Project works was observed at the construction sites near Nob Hill.  Based on the information obtained, the complaint is considered due to the construction activities of the Project. Emergency remedial works had been taken by the Contractor to rectify the situation and preventive measures had also been implemented.  Nevertheless, the Contractor was recommended to adopt the following measures to avoid re-occurrence of similar incidents:  • to enhance surface runoff control measures along the site boundary;  • to provide adequate training to the frontline workers; and  • to regularly inspect temporary water supply equipment, such as hose pipe to make sure the equipment is in good condition.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
40809	Ching Cheung Road area near Nob Hill	22-Jul-04 (by EPD) 09-Aug-04 (by ET Leader)	EPD received a public noise complaint on 22 July 2004 about construction noise and dust generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, at the Ching Cheung Road Area near Nob Hill. EPD subsequently referred the complaint to the ET Leader of the Project on 9 August 2004.  The complaint was about the construction noise and dust observed at the Ching Cheung Road area near Nob Hill. The locations of the works areas being concerned by the complainant include:  1. Area A: Works area between Nob Hill and Lai Chi Kok Park Swimming Pool 2. Area B: Works area between Ching Cheung Road and Mei Lai Road / Lai Wan Road opposite to Mei Foo Sun Cheung (Phase 5) and Lai Chi Kok Public Library.	Information Provided by RSS Information (construction activities and equipment adopted) in a 2-week period before the date of complaint, i.e. 7 to 21 July 2004, was obtained from the Resident Site Staff.  Area A:  Item 1 – Drainage works by using 1 x backhoe;  Item 2 – Bored piling works by using 1 x crawler crane, 1 x air compressor, 1 x reverse circulation drill and 1 x power pack;  Item 3 – Trial trench excavation by man power;  Item 4 – Gas main diversion by 1 x backhoe (performed by TGC's Contractor)  Area B: No construction activity was undertaken in the concerned period.  Review of Environmental Monitoring Results  The routine monitoring stations, which are in the vicinity of the concerned works areas, include:  Noise Monitoring  NM4: R/F of Mei Foo Sun Chuen (Phase 5)  NM8a: M/F of Nob Hill  NM8b: 3/F of Nob Hill  Air Quality (1-hr TSP / 24-hr TSP) Monitoring  AM2: R/F of Lai Chi Kok Sports Centre  No Action / Limit level exceedance was identified in July 2004.  Environmental Site Inspection  During the ET site inspections on 8th, 14th and 20th July 04, no major environmental deficiency with regard to noise and air quality was identified by the auditors.  Conclusions  Based on the RSS's information, environmental monitoring results as well as the observations made during site inspections, this complaint is considered to be invalid and not due to the construction activities of the Project. Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise and dust impacts, such as:  To space out noisy equipment and position it as far away as possible from the sensitive receivers;	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				<ul> <li>To avoid concurrent uses of noisy equipment near the sensitive area;</li> <li>To ensure the equipment are maintaining in good operation condition;</li> <li>To turn off any idle equipment on site.</li> <li>To cover excavated dusty materials by impervious sheeting;</li> <li>To provide water spray for haul roads, loading/unloading and concrete breaking operations;</li> <li>To perform wheel wash for every vehicle immediately before leaving the site.</li> </ul>	
50215	Mei Foo Sun Chuen, Phase 5 (Retaining Wall CC-R3)	15-Feb-05 (by ET Leader)	A public complaint was raised on 8 <sup>th</sup> Feb 2005 regarding construction noise from the site area of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project near Mei Foo Sun Chuen. The complaint was referred to the Resident Site Staff on 14 <sup>th</sup> Feb 2005 and subsequently referred to the ET Leader of the Project on 15 <sup>th</sup> Feb 2005.  The complaint was raised by a resident in Mei Foo Sun Chuen, regarding the noise generation from the piling work at Retaining Wall CC-R3, adjacent to Po Leung Kuk Tong Nai Kan College.	Construction Activities  During the weekly site inspection on 17 Feb 05, piling work was being conducted at the concerned. The major powered mechanical equipment (PME) in operation included a mobile crane, an air compressor, a reverse circulation drill and a generator.  In view of the separation of the site area and the residential building (around 40 m) and also the high traffic noise from Ching Cheung Road as well as Mei Lai Road, the noise generated from the operation of the PME was believed to be insignificant.  Environmental Monitoring  The noise monitoring results at Station NM4 (Mei Foo Sun Chuen, Phase 5) for the last 3 months were reviewed in order to evaluate the noise impact from the Project on the noise sensitive receiver. The measured noise levels in last three threes were ranged from 70.8 to 75.8 dB(A). It was observed that the measured noise levels were well within the range of baseline noise levels (69.2 to 75.8 dB(A)).  The corrected construction noise levels were found to be ranged from 63.5 to 71.5 dB(A), which were well below the noise criterion of 75 dB(A).  Conclusions  Based on the information obtained and the noise monitoring results, this complaint is considered to be invalid and not due to the construction activities of the Project.	Closed

Log Ref. Locati	on Received Date	Details of Complaint	Investigation/Mitigation Action	Status
Seung	Lai 11-Mar-05	Environmental Protection Department (EPD) received a public noise complaint on 11 Mar 05 about daytime construction noise generation from R8-LCKV. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 22 Mar 05.  The complaint was raised by a resident of Seung Lai House of Wah Lai Estate, regarding the daytime (0800-1800 hrs) construction noise generated from the slope work and road work of R8-LCKV Project. As advised by EPD, the complainant is living on 20/F or above in Seung Lai House.	Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise impacts.  **Construction Activities**  As advised by the RSS, the major construction work during 25 Feb 05 to 11 Mar 05 (2 weeks before the date of complaint) in the vicinity of Wah Lai Estate included excavation work, soil nail work and installation of u-channel and manholes. The major powered mechanical equipment included excavators, drilling machine and air compressor.  In view of the separation of the site area (Slope S1) and the Seung Lai House (around 140 m) and also the traffic noise from Ching Cheung Road, the noise generated from the construction activities at Slope S1 was believed to be insignificant.  **Environmental Monitoring**  Ad-hoc noise measurement was conducted at Seung Lai House on 30th Mar 05 and the measured noise level (Leq-30min) was 66.9	Status
Seung House, W Estat (Slope	tai ah Lai e (by EPD)	Seung Lai House.	Ad-hoc noise measurement was conducted at Seung Lai House on 30 <sup>th</sup> Mar 05 and the measured noise level (Leq-30min) was 66.9 dB(A), which was well below the criterion for daytime construction noise of 75 dB(A). The construction noise level (with reduction of background noise level) is expected to be even lower.  **Conclusion**  Based on the information obtained and the noise measurement results, this complaint is considered not justifiable. Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise impact.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50330, 50331, 50404 & 50407	Wah Lai Estate	30-Mar-05, 31- Mar-05, 4-Apr-05 & 7-Apr-05 (by ET Leader via RSS)	Four public complaints were lodged by the residents of Wah Lai Estate regarding the construction noise from the site area of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project near Wah Lai Estate. The complaints were referred by the Resident Site Staff to the Environmental Team (ET) Leader on 30 <sup>th</sup> , 31 <sup>st</sup> March, 4 <sup>th</sup> and 7 <sup>th</sup> April 2005, respectively.	The site of concern was likely to be Slope S1, which is around 140 m away from Wah Lai Estate. The major construction work at Slope S1 included trimming of slope, soil nail work and erection of u-channels and step channels.  **Environmental Monitoring**  Ad-hoc noise measurement was conducted at Seung Lai House on 30th Mar 05 and 7th Apr 05 and the measured noise levels (Leq-30min) were ranged from 66.9 to 69.1 dB(A), which were well below the criterion for daytime construction noise of 75 dB(A). The construction noise level (with reduction of background noise level) is expected to be even lower.  **Conclusion**  Based on the results of the ad-hoc noise measurements at Wah Lai Estate, no exceedance of daytime noise criterion of 75 dB(A) was recorded. The complaints lodged are therefore considered not justifiable.  **Mitigation**  The Contractor agreed to arrange the noisy activities to commence after 8:00 am. This arrangement could effectively reduce the disturbance to the residents within the more sensitive time period (7:00 am to 8:00 am).	Closed

Log Ref. Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
Log Ref. Location  50404-v2 Mei Foo Sun Chuen	4-Apr-05 (by ET Leader via RSS)	A public complaint was raised on 1 <sup>st</sup> April 2005 regarding construction noise from the site area of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project near Mei Foo Sun Chuen. The complaint was referred to the Resident Site Staff and the ET Leader on 4 <sup>th</sup> April 2005.	Investigation/Mitigation Action  Construction Activities  The site of concern was likely to Retaining Wall CC-R3, adjacent to Po Leung Kuk Tong Nai Kan College. The major construction works at this area included bored piling works and excavation works.  Environmental Monitoring  According to the EM&A Manual, Mei Foo Sun Chuen, Phase 5 (NM4) is designated as one of the noise monitoring stations.  Since the commencement of the impact monitoring programme, the construction noise levels recorded at this station were all below the noise criterion.  Conclusion  Based on the noise monitoring results at Station NM4 (Mei Foo Sun Chuen), no exceedance of daytime noise criterion of 75 dB(A) was recorded since the commencement of the impact monitoring programme. The complaint lodged is therefore considered not justifiable.  Mitigation  The Contractor has agreed to arrange the noisy activities to commence after 8:00 am. This arrangement could effectively reduce the disturbance to the residents within the more sensitive time period (7:00 am to 8:00 am). The Contractor also agreed to provide some temporary noise barriers for the noisy machinery if found necessary.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
<b>Log Ref.</b> 50613	Mei Foo Sun Chuen	7-Jun-05 (by EPD) 13-Jun-05 (by ET Leader)	According to EPD, the complaint was raised by a resident of Mei Foo Sun Chuen (Block 7, Phase 5) on 7 June 2005. It was about construction dust emitted intermittently from the slope works undertaken on the other side of Mei Lai Road.  The complainant was particularly concerned about the fugitive dust emission during rock / concrete breaking activities.	The site of concern was likely to be CCR-R3. Bored piling works and demolition of existing retaining walls were undertaken at this area in the period between 1 and 7 June 2005. It was believed that the demolition of existing retaining wall, which involved concrete breaking, was the activity of concern.  **Observations**  On 1 Jun 05, one of the environmental deficiencies noted by the ET was about fugitive dust emission from breaking activities at CCR-R3. The Contractor was reminded to provide sufficient dust mitigation measures for the breaking works. Immediate action was taken by the Contractor to apply water spray for the works as observed during the audit session.  On 9 Jun 05, the breaking works were still being taken at CCR-R3. Water spray as a dust mitigation measure was being adopted by the Contractor during the audit. No observable dust emission was noted from the breaking works or other site activities.  On 15 Jun 05, the same area was re-inspected due to the receipt of the complaint from EPD. The demolition works had been finished and	Status
		(by ET Leader)		complaint from EPD. The demolition works had been finished and no other dust emissive activity was being taken. No other dust source from the construction site was observed during the inspection.  Conclusion  Based on the observations noted during our site inspections, this	
				complaint is considered to be valid and related to the construction activities of the Project.  However, corrective action had been taken by the Contractor and the situation was found improved during the follow-up inspections.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50721	Hei Lai House, Wah Lai Estate	21-Jul-05 (by ET Leader)	The complaint was lodged by a resident of Hei Lai House of Wah Lai Estate through a Legislative Council member. The complaint was about construction noise nuisance caused by rock breaking work, which claimed to be started from 8:30am daily, carried out at Ching Cheung Road near Wah Lai Estate.  The complainant hoped that the rock breaking work could start later i.e. be carried out from noon to afternoon and the site could be fully enclosed.  The Environmental Team (ET) of the Project received the complaint on 21 July 2005 and forwarded it to the Resident Site Staff (RSS) to obtain necessary information.	The slope work at Slope S1 was likely to be the activity of concern. The work at Slope S1 recently included the operation of excavator mounted breakers, excavators and dump trucks.  The time period of concern was within normal working hours (7am to 7pm) on a weekday not being a public holiday. The noise criterion is 75 dB(A) for domestic premises.  Noise Measurement  Ad-hoc measurements were carried out on the roof of Hei Lai House on 25 July 2005.  The results show that the measured noise level is well below the noise criterion of 75 dB(A). The construction noise level (with reduction of background noise) is expected to be even lower.  Conclusion  Since the noise measurement results at Wah Lai Estate were below 75 dB(A), the complaint was considered not justifiable.  Nevertheless, noise mitigation measures have been implemented by the Contractor to minimize the noise impact arising from the breaking activities:  1. Employment of silenced-type breakers; 2. Temporary noise barriers, attached with sound adsorption materials, were erected to screen the site of breaking from sensitive receivers 3. While the permitted hours for construction works are 7am to 7pm on non-holidays, the Contractor has commenced the rock breaking activity after 8:30am.	Closed

Log Ref. Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
Ching Che Road near Foo Sun C	Mei /-Nov-us	Environmental Protection Department (EPD) received a public complaint about environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 7 November 2005.  According to EPD, the complaint was raised by a resident of Mei Foo Sun Chuen. The complaint was about dark smoke, dust and noise nuisance caused by the construction work of R8-LCKV near Mei Foo Sun Chuen.	The site of concern was likely to be CCR-S4 and CCR-R3. According to RSS's records, bored piling works and soil nail drilling at CCR-R3, excavation works at CCR-S4 in the concerned period.  Site Inspection  After receipt of the complaint, an ad-hoc site inspection was carried by ET on 9 November 2005 and the following observations were made:  1. Breaking activities were undertaken at CCR-R2 and R3. Continuous water spray was applied by the workers for dust suppression. Movable noise barriers were erected to alleviate the noise impact.  2. The haul roads and exposed works areas were observed wet. A water sprinkler was installed at the CCR-S4 for water spraying.  3. Most of the slope was shot-creted to avoid wind erosion.  4. Bored piling work was carried out near the site exit of CCR-R3. Since bored piling mainly involves handling of wet materials, dust nuisance causing by this type of work is not anticipated. Gas exhaust from the machines was visually clear and no dark smoke was identified.  Environmental Monitoring  Air quality monitoring was conducted at Lai Chi Kok Sports Centre and noise monitoring is conducted at Mei Foo Sun Chuen. No exceedance was recorded for both monitoring.  Conclusion  Based on the ad-hoc site inspection and the environmental monitoring results, this complaint was considered not justifiable.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
60118 Lai	i Po Road near Ioi Lai Estate	18-Jan-06 (by the ET Leader)	Environmental Protection Department (EPD) received a public complaint about environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 18 January 2006.  According to EPD, the complaint was lodged by a resident of Hoi Ming House of Hoi Lai Estate. The complaint was about construction noise nuisance caused by construction work of R8-LCKV carried out at Lai Po Road near Hoi Lai Estate. The noise nuisance was noted since 14 January 2006 during the periods from 2330 hrs to 0600 hrs.	According to the RSS's records, night works were carried out by the Contractor between 2000 hrs on 14 January 2006 and 0530 hrs on 15 January 2006:  • Delivery of segment from storage yard near Pier P5/L to Pier 15 for erection;  • Stressing to temporary PT bars of segments at Pier B3.  The above night works, which involved operation of tractor, mobile crane, lifting frame and generator, were undertaken under the two construction noise permits CNP no. GW-RW0739-05 and GW-RW0740-05.  Environmental Monitoring  In order to evaluate the noise impact onto the residents of Hoi Lai Estate, nighttime noise monitoring was carried out on 18 January 2006 at 23:00. The above monitoring results revealed that the measured noise levels were close to the reference background levels. After correction of the mean background level, all corrected noise levels were below the noise criterion of 55 dB(A).  Conclusion  Based on the information collected and the monitoring results, the complaint is considered not justifiable.  Nevertheless, the Contractor was reminded to take sufficient noise mitigation measures to minimize the environmental impact on the nearby community.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
60119	Mei Foo Sun Chuen (Phase 5)	18-Jan-06 (by the ET Leader)	Environmental Protection Department (EPD) received a public complaint about environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 19 January 2006.  According to EPD, the complaint was raised by a resident of Mei Foo Sun Chuen via a Sham Shui Po District Council Member's Office. The complaint mentioned that residents of Mei Foo Sun Chuen Stage 5 were adversely affected by construction dust caused by the Route 8 work carried out at the slopes adjacent to Ching Cheung Road.	Site Activities  The site of concern was likely to be CCR-S4, CCR-R2 and CCR-R3. According to RSS's records, site activities included:  • Trimming of existing rock slope at CCR-S4;  • Excavation and rock dowel installation at CCR-R2; and  • Construction of cable trough at CCR-R3 by CLP's contractor.  Site Inspection  After receipt of the complaint, an ad-hoc site inspection was carried by ET on 19 January 2006. No environmental deficiency regarding construction dust was identified during the inspection.  Environmental Monitoring  All monitoring results in Jan 06 revealed that no exceedance was recorded for the air quality (1-hr and 24-hr TSP) criteria.  Contractor's Action  The Contractor of R8-LCKV had implemented several dust mitigation measures:  • Haul roads, exposed slope surface and soil stockpiles were watered regularly by hose pipes and sprinklers;  • Idled exposed slope were shot-creted; and  • Watering was applied for the dust emissive activities, such as loading and unloading of dusty materials, excavation and breaking works.  Conclusion  Based on the ad-hoc site inspection and the environmental monitoring results, this complaint was considered not justifiable. Nevertheless, the Contractor was reminded to keep on the dust mitigation measures being implemented and step up the measures if necessary.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
60213 60216 60220 60222	Location  Hoi Lai Estate (Lai Po Road)	13-Feb-06 16-Feb-06 20-Feb-06 22-Feb-06 (by the ET Leader)	Four environmental complaints were received in this reporting month. Three of them were referred by EPD on 13 <sup>th</sup> , 20 <sup>th</sup> and 22 <sup>nd</sup> Feb 06 and the other one was referred by HyD via MHJV on 16 <sup>th</sup> Feb 06.  All about construction noise due to night works at Lai Po Road near Hoi Lai Estate.	Since around mid-January 2006, segments were transported to Piers P15 and B4, under the permission of construction noise permit (CNP).  It was suspected that the sound of concern was generated from tractors for precast segment transportation. In view of the safety of workers, an alert sound and flashing are maintained during backing action of the tractors.  Site Inspection  An ad-hoc inspection was carried out by the ET on 16 Feb 06 from 00:30 to 02:30 am. Noise measurement was carried out during the inspection to evaluate the noise impact onto the residents of Hoi Lai Estate. During the monitoring, the major noise source identified was the road traffic noise from Sham Mong Road and Lai Po Road. No alarm sound or alike from the construction equipment was noted. The above monitoring results revealed that the measured noise levels were close to the reference baseline level. After correction of the mean background level, most of data were below the noise criterion of 55 dB(A).  Conclusion  Based on the information collected and the monitoring results, the complaints are considered not justifiable.  It was suspected that the nuisance was caused by the alert sound of tractors during backward movement which servers as a safety measure. However, the RSS and the Contractor are considering the possibility of lowering the alert sound level or replacing by a less disturbing pitch in order to minimize the noise nuisance to residents	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
60420	Near both Hoi Lai Estate and West Kowloon Highway	20-Apr-06 (by the ET Leader)	Environmental Protection Department (EPD) received a public complaint about environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. EPD subsequently referred the complaint to the ET Leader on 20 April 2006.  The complaint is about construction noise nuisance caused by construction work of night works at location near both Hoi Lai Estate and West Kowloon Highway between 14 and 17 April 2006.	According to the Resident Site Staff (RSS)'s records, the construction works were carried out by the Contractor from daytime to 2230 hours on 14 April and from 2000 hours to 0600 hours16 April 2006.  The construction activities near Hoi Lai estate included: -  • Erecting segments at column PA/R; • Stressing of top tendon wires of segments and erecting segments at column P1/R; and • Transporting segments to storage yard.  The above construction activities were undertaken under a construction noise permit CNP no. GW-RW0172-06.  Base on the RSS's preliminary investigation, it was suspected that the noise nuisance of concern was caused by loading and unloading of materials, hammering and/or dropping of materials on ground during the stressing works and transportation of precast segment by tractors.  Contractor's Action  The Contractor had implemented a short term mitigation measures:-  • Turned off the alert sound of tractors during backward movement in order to reduce the potential for noise impact;  • Strengthened their management on worker's working manner such as avoid dropping of material on ground, wrapping up of hammering equipment and etc.; and  • Conducted training of worker in order to reducing noise nuisance during the night works.	Closed
				Conclusion  Based on the information collected and the monitoring results, the	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				complaints are considered not justified.	
				It was suspected that the nuisance was caused by loading and unloading of materials, hammering and/or dropping of materials on ground during the stressing works and transportation of precast segment by tractors.	
				The Contractor has strictly complied with PME allowed in the CNP No. GW-RW0172-06. Besides, night work at the concerned location was completed. No further construction work at night at this location is anticipated.	
				Site Activities	
	Between Ching Cheung Road and Mei Lai Road (near Phase 5 of Mei Foo Sun Chuen)	(EPD) received a public complaint at tree cutting in the area between Cl Cheung Road and Mei Lai Road (Phase 5 of Mei Foo Sun Chuen). It subsequently referred the complaint the ET Leader on 28 April 2006.  The complaint was about the Contract cut rees in the area between Ching Cheung Road and Mei Lai Road (near Phase 5 of Mei Foo Sun Chuen). This had removed the traffic noise barrier effect of the trees and hence made the residents of Mei Foo Sun Chuen	The complaint was about the Contractor cu trees in the area between Ching Cheung Road and Mei Lai Road (near Phase 5 of Mei Foo Sun Chuen). This had removed the traffic noise barrier effect of the trees and hence made the residents of Mei Foo Sun Chuen becoming being seriously affected by the	According to the Resident Site Staff (RSS)'s records, current construction activities included segment erection works for Slip Road D, excavation works for cut slope CCR-S4 and retaining wall construction at CCR-R2 and CCR-R3.  Since excavation for cut slopes and construction of slip road D are required at this area, tree cutting is unavoidable. Tree felling	
				application was approved by DLO/KW.  Contractor Action	
60428				Under the EP condition and EIA, there is no need for this project to mitigate the traffic noise barrier effect due to the removal of tress.	Closed
				No follow up action was required for this complaint.	
				Conclusion	
				Under the EP conditions and EIAO, there is no need for this project to mitigate the traffic noise barrier effect due to the removal of trees.	
				Based on the information collected, the complaint is considered not justifiable.	
				Since excavation for cut slopes and construction of slip road D are required at this area, tree cutting is unavoidable. Tree felling	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				application was approved by DLO/KW.  Compensatory planting will be provided at the concerned area after completion of the construction works in order to improve the landscape and visual impacts.	
				No follow up action will be required for this complaint.	
60522	Hoi Lai Estate (Hoi Fai House)	22-May-06 (by ET Leader)	Environmental Protection Department (EPD) received a public complaints about noise nuisance generated from Route 8 – Lai Chi Kok Viaduct Project. EPD subsequently referred the complaint to ET Leader on 22 May 2006.  The complaint was concerned about the noise produced from construction work during the period between 2300 hours and 0100 hours every night since 3 weeks ago. The complaint described the noise being like sound of poring concrete.	According to the RSS's records, only precast segment transportation works at the concerned area which was used as the segment storage yard near Pier P5L to Piers near Mui Kong Tsuen.  No concreting activities were carried out at the abovementioned area between 2300 hours and 0100 hours every night in concerned period. In addition, the transportation works were usually carried out from 2000 hours to 0300 hours (or before 0300 hours).  Contractor Action  The idle and backup equipments such as tractors has turned off or throttled down in order to reduce the noise impact since the last complaint on this issue near Hoi Lai Estaet.  Besides, the above night works were undertaken with three construction noise permits.  Site Inspection  An ad-hoc inspection was carried out by the ET at 2300 on 26 May 2006. During the inspection, no construction activities were carried out at the concerned area, where the tractor and mobile crane were throttled down.  Conclusion  According to RSS's information, no concreting activities were carried out at the concerned area. Therefore, the major noise nuisance (pouring concrete) might not be generated from the abovementioned area. Besides, the Contractor strictly complied with PME allowed in	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				the CNP No. GW-RW0172-06. In addition, the Contractor had turned off the alert sound of tractors during backward movement.  Based on the information collected, the complaint is considered not justifiable.  However, the Contractor was reminded to continuously implement their practice to prevent noise nuisance generation due to the construction works. The site situation will be continuously reviewed by ET and RSS also.	
60609	Near Phase 5 of Mei Foo Sun Chuen	9-Jun-06 (by ET Leader)	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint about environment nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LVKC). Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 9 June 2006.  The complaint was about the noise generated from rock excavation work from 9 a.m. to 6 p.m. at the area between Ching Cheung Road and Mei Lai Road (near Phase 5 of Mei Foo Sun Cheun).	As advised by the RSS, the site of concerned area was likely to be CCR-S4.  According to the RSS's records, 1 number of excavator mounted breaker was unsed to carry out rock breaking work at CCR-S4 during the period between 9 a.m. and 6 p.m.  The excavation and rock breaking activities at the concerned area will likely be completed by end of September 2006.  Contractor Action  The silent rock breaking equipment has been used and noise barriers were erected to minimize the noise impact generated from the breaking activity.  Site Inspection and Environmental Monitoring  An ad-hoc inspection was carried out by ET on 14 June 2006 from 1:30 p.m. to 4:30 p.m. and 16 June 2006 from 4:00 p.m. to 4:45 p.m.  During the inspections, the construction activities at CCR-S4 included handheld breaking, excavation and rock breaking activities were carried out at CCR-S4. However, the temporary noise barriers were erected at the abovementioned location as same as RSS's mentioned.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				Noise measurement was carried out during the inspection to evaluate the noise impact onto the residents of Mei Foo Sun Chuen. The monitoring location was original monitoring location NM4 (Mei Foo Sun Chuen Phase 5).	
				The measured monitoring results were close to the reference baseline level. After correction of the mean background level, the monitoring data were below the noise criterion of 75 dB(A).	
				Conclusion	
				Base on the information collection and the monitoring result, the complaint was considered not justifiable.	
				The Contractor had implemented noise mitigation measures to minimize the noise impact. Besides, the monitoring result were below the noise criteria of 75dB(A). However, the Contractor was still reminded to continuously implement their practice to prevent noise nuisance generation from the construction works.	
				The environmental conditions of the site will be continuously reviewed by the RSS and the ET.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
••			The Integrated Complaint Centre (ICC) of HKSAR received a public complaint	Site Activities	
			through a facsimile on 12 June 2006 about an environmental nuisance generated from Route 8 – Lai Chi Kok	As advised by the RSS, the site of concerned area was likely to be CCR-S4.	
			Viaduct 9R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 26 June 2006.	According to the RSS's records, 1 number of excavator mounted breaker was unsed to carry out rock breaking work at CCR-S4 during the period between 9 a.m. and 6 p.m.	
			According to the explanation from the RSS, this complaint was indeed the same	The excavation and rock breaking activities at the concerned area will likely be completed by end of September 2006.	
			as that received by the ET on 9 June 2006. The complaint initiated the	Contractor Action	
	complaint verbally to the ICC on 8 June 2006 and then also issued a facsimile to the ICC. The facsimile was transferred to the RSS on 12 June 06 and eventually reached the ET on 26 June 2006.  Near Phase 5 of Mei Foo Sun Chuen  26-Jun-06 (by ET Leader)  The silent rock breaking equipment has been used and were erected to minimize the noise impact generated for breaking activity.  Site Inspection and Environmental Monitoring  As the complaint was identical to the one received on the ET, the ad-hoc inspections carried out on 14 June 2006 from 9 a.m. to 6 p.m. at the area between still applicable to this report. In addition, further ad-hoc		complaint verbally to the ICC on 8 June 2006 and then also issued a facsimile to the ICC. The facsimile was transferred to		
60626		As the complaint was identical to the one received on 9 June 06 by the ET, the ad-hoc inspections carried out on 14 June 2006 from 1:30 p.m. to 4:30 p.m. and 16 June 2006 from 4:00 p.m. to 4:45 p.m. were still applicable to this report. In addition, further ad-hoc inspections were carried out on 28 June 2006 from 1:30 p.m. to 4:00 p.m. and 3 July 2006 from 9:30 a.m. to 11:30 a.m.	Closed		
			This complaint was made by the same complainant to the ICC through two different channels (by phone and by facsimile) and the ET of the Project was firstly notified on 9 June 2006. A	During the aforesaid inspections, the construction activities at CCR-S4 included handheld breaking, excavation and rock breaking activities were carried out at CCR-S4. However, the temporary noise barriers were erected at the abovementioned location.	
			complaint investigation report was issued on 22 June 06.	In addition to the noise measurement conducted on 14 and 16 June 2006, further noise measurement was carried out on 30 June 2006 to evaluate the noise impact onto the residents of Mei Foo Sun Chuen.	
			As the ET received this separate complaint after the issue of the complaint investigation report and	The monitoring location was original monitoring location NM4 (Mei Foo Sun Chuen Phase 5).	
			complaint investigation report and considered the nature of the complained event (general construction during daytime but not single event at a particular moment), the complaint	Noise measurement carried out on 30 June 06, after correction of the mean background level, the monitoring data were below the noise criterion of 75 dB(A)	

y the ET on 9 June nt to the ICC acsimile). The 5 and eventually	
ring result, the	
measures to g result were Contractor was ctice to prevent orks.	
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Log Ref.	Location	Received Date	<b>Details of Complaint</b>	Investigation/Mitigation Action	Status
60830	Near Mei Foo and Lai King Hill Road	30-Aug-06 (by ET Leader)	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint on 25 August 2006 about an environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct 9R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 30 August 2006.  The complaint was concerned about dust generated from the rock drilling works affected the nearby ASRs. The complaint described that spraying of water during rock drilling works was not implemented.	According to RSS's record, rock dowel installation for slope stabilization at CCR-S1 was commenced on 22 August 2006 and would likely last for at least 6 months.  Contractor Action  After receiving the complaint, the Contractor has further enhanced the dust mitigation measures as follows:  • Enclosing the rock dowel drilling work on three sides, i.e. top, back and the left hand side, with tarpaulin sheets;  • Spraying of water at the hole during drilling;  • Wrapping the head of the drilling rig with a wet thick towel.  Site Inspection and Environmental Monitoring  During the monthly site inspection on 4th September 2006, rock drilling at the slope CCR-S1 was carrying out. The ET observed that the work area was enclosed by tarpaulin sheets at three sides. Water was sprayed continuously at the drilling hole and head of the drilling rig was enclosed with a wet thick towel. All the mitigation measures mentioned by the RSS were implemented.  Conclusion  Base on the information collected and the monitoring results, the complaints are considered not justifiable.  It was because there was no exceedance of the air quality monitoring results and dust mitigation measures were implemented by the Contractor during the rock drilling works.  However, the Contractor was still reminded to take sufficient dust mitigation measures to minimize the environmental impact on the nearby community:  • Enclose dusty activity such as rock drilling with tarpaulin sheet;	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				<ul> <li>Apply water spraying for any dust emissive activities, such as breaking, excavation, loading and unloading of dusty materials;</li> </ul>	
				Cover long-term idle exposed slope surfaces and stockpiles with tarpaulin sheets.	
				The environmental conditions of the site will be continuously reviewed by the RSS and the Environmental Team through site inspections and monitoring exercises.	
60831	Between Lai Wan Road and Lai King Hill Road	31-Aug-06 (by ET Leader)	Environmental Protection Department (EPD) received a public complaint about environment nuisance generated from Route 8 – Lai Chi Kok Viaduct Project. EPD subsequently referred the complaint to ET Leader on 31 August 2006.  The complaint was concerned about construction noise, dust and waste water generated from the construction work affect the nearby NSRs after 19.00 hrs, the nearby ASRs and discharged to exiting road respectively	Site Activities  According to RSS's record, rock dowel installation for slope stabilization at CCR-S1 was commenced on 22 August 2006 and would likely last for at least 6 months.  Contractor Action  With reference to RSS's site diary, all site activities including drilling works at the concerned area were conducted between 8:00 and 18:00 daily. Ad hoc site observation carried out by the RSS confirmed that no construction activity was carried out after 18:00.  As advised by the RSS, tarpaulin sheet covering and water spraying were provided by the Contractor to mitigate the dust nuisance generated from the rock drilling works. On 31 August 2006, the Contractor was further enhanced the dust mitigation measures as follows:-  • Enclosing the rock dowel drilling work on three sides, i.e. top, back and the left hand side (LHS) with tarpaulin sheets;  • Spraying water at the hole during drilling;  • Wrapping the head of the drilling rig with a wet thick towel.  Site Inspection and Environmental Monitoring  During the monthly site inspection on 4 <sup>th</sup> September 2006, rock drilling at the slope CCR-S1 was carrying out. The ET observed that the work area was enclosed by tarpaulin sheets at three sides. Water was sprayed continuously at the drilling hole and head of the drilling	Closed

Log Ref.	Location	Received Date	<b>Details of Complaint</b>	Investigation/Mitigation Action	Status
				rig was enclosed with a wet thick towel. All the mitigation measures	
				mentioned by the RSS were implemented.	
				Conclusion	
				Base on the information collected and the monitoring results, the complaint was considered not justifiable.	
				It was because there was no exceedance of the air quality monitoring results and dust mitigation measures were implemented by the Contractor during the rock drilling works. No construction activities were carried after 18:00 in the period mentioned by the complainant. In addition, no wastewater discharge was observed.	
				However, the Contractor was still recommended to take the following mitigation measures to minimize the environmental impact on the nearby community:	
				<u>Dust Nuisance</u>	
				Enclose dusty activity such as rock drilling by tarpaulin sheet;	
				• Apply water spraying for any dust emissive activities, such as breaking, excavation, loading and unloading of dusty materials;	
				Cover long-term idle exposed slope surfaces and stockpiles with tarpaulin sheets.	
				Construction Noise	
				The Contractor was reminded that construction activities during restricted hours could only be carried out with a valid Construction Noise Permit (CNP). In addition, appropriate noise mitigation measures described in the CNP should be implemented in order to minimize the noise impact on the nearby noise sensitive receivers.	
				Wastewater Discharge	
				• Fill up the gaps under the footings of hoarding fence along Lai King Hill Road so as to prevent spillage of muddy water during heavy rain onto the existing road.	
				The environmental conditions of the site will be continuously reviewed by the Resident Site Staff and the Environmental Team through site inspections and monitoring exercises.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			The Integrated Complaint Centre (ICC) of HKSAR received a public complaint on 25 September 2006 about the an environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct 9R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 25	Site Activities  According to RSS's record, rock dowel installation for slope stabilization at the Slope CCR-S1 was commenced on 22 August 2006 and would last for at least 6 months and the first batch of rock drilling works at the Slope CCR-S4 was commenced on 19 September 2006 and completed on 23 September 2006.	
			September 2006.	Contractor Action	
			The complaint was concerned about the noise generated from the construction works after 19:00 at the area near Ching Cheung Road, Nob Hill and Mei Lai	After receiving the complaint, the Contractor has further enhanced the noise mitigation measures as follows:  Placing of a wooden box to cover the head of drilling;  Spraying of water at the hole during drilling and erecting of	
		Nob Hill and (by ET Leader)	Road	<ul><li>nylon sheets;</li><li>Providing silent type drilling rigs for the drilling works at both</li></ul>	
	Near Ching			Slopes CCR-S1 and CCR-S4	
60925	Cheung Road, Nob Hill and			Site Inspection and Environmental Monitoring	Closed
	Mei Lai Road			During the weekly site inspection on 27 September 2006, rock drilling at the Slope CCR-S1 was not carrying out. The ET observed that the work area was enclosed by tarpaulin sheets at three sides. Temporary noise barrier was erected at the working platform of the Slope CCR-S1.	
				The ET also undertook an ad hoc site inspection at the concerned areas after 19:00 on 27 September 2006. No construction activities were observed and noise monitoring was not conducted.	
				Conclusion	
				Base on the information collected and the monitoring results, there was no exceedance of the noise monitoring results and noise mitigation measures were implemented by the Contractor during the rock drilling works.	
				However, the Contractor was still reminded to carry out construction activities only within the permitted working hours (i.e. 07:00 – 19:00	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				on weekday) and to take sufficient noise mitigation measures to minimize the environmental impact on the nearby community:  Provide silent type drilling rigs for the drilling works;  Placing of wooden box to cover the head of drilling;  Apply water spraying for at the hole during drilling;  The environmental conditions of the site will be continuously reviewed by the RSS and the Environmental Team through site inspections and monitoring exercises.	
61025	Lai Chi Kok Road Flyover near PCCW building	25-Oct-06 (by ET Leader)	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint on 25 <sup>th</sup> October 2006 regarding noise nuisance generated from Route 8 – Lai Chi Kok Viaduct R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 25 <sup>th</sup> October 2006.  The complaint was concerned about the noise nuisance generated from workers and construction vehicles during the mid-night between 0100 and 0200 on both 19 <sup>th</sup> and 20 <sup>th</sup> October 2006 at Lai Chi Kok Road Flyover near PCCW building.	Site Activities:  According to RSS's record, installation of catchfan at Pier P5/L to P6 near PCCW was carried out at around 0115 to 0500 at both nights of 19 <sup>th</sup> and 20 <sup>th</sup> October 2006. The construction equipment used in both nights included one mobile crane, one crane lorry and one generator.  Contractor Action  According to RSS' record, acoustic material wrapping the head of chain blocks and hessian bags placing on ground around catchfans to suppress noise generation when hand tools were dropped onto ground.  Environmental Monitoring  An ad-hoc site observation and noise monitoring at Hoi Fai House of Hoi Lai Estate were conducted by the Contractor on 26 <sup>th</sup> October 2006 between 0100 and 0130. The ET also carried out an ad-hoc inspection on 28 <sup>th</sup> October 2006 from 0100 to 0200. During the inspection, segment erection work was carried out at Pier P5 to P6, which involved the operation of mobile crane and movement of lorry and trucks.  During the monitoring, the major noise source identified was the road traffic noise. The monitoring results revealed that the measured noise levels were close to the reference background levels. After correction of the mean background level, all corrected noise levels were below the noise criterion of 55 dB (A) which consists with the noise monitoring results from the Contractor.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				Conclusion	
				Based on the information collected, the complaint is considered justifiable although the monitoring results complied with the noise criteria.	
				Nevertheless, the Contractor was reminded to take sufficient noise mitigation measures to minimize the environmental impact on the nearby community:  To strengthen management on worker's working manner, such as avoiding dropping materials on ground;  No hammering is allowed during restricted hours; and  To provide adequate training to workers working, esp. for night works.	
				The environmental conditions of the site will be continuously reviewed by the Resident Site Staff and the Environmental Team.	
61103	Pier C13 and C14 at Lai Wan Road Overpass	3-Nov-06 (by ET Leader)	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint on 28 <sup>th</sup> October 2006 regarding noise nuisance generated from Route 8 – Lai Chi Kok Viaduct R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 3 <sup>rd</sup> November 2006.  The complaint was concerned about noise generated from the general cleaning work of deck surface using water jet between Pier C13 and C14 at Lai Wan Road Overpass, at the evening of 28 <sup>th</sup> October 2006.	According to the RSS's record, there is a CNP (CNP no. GW-RW0563-06) at the concerned location. Construction activities were allowed to be carried out between 19:00hr and 23:00hr (any day not being a general holiday) under the CNP.  Environmental Monitoring  During the weekly site inspections in October 2006, no non-compliance or observation on noise was recorded. Accordance to the EM&A program, two noise monitoring stations at Nob Hill, namely (NM8a and NM8b), have been set up in order to monitor the noise level generated from the construction activities. The Station (NM8b) is strongly influenced by road traffic noise from Ching Cheung Road. The measurement at this station is for reference purpose, but not for compliance check for construction noise. All measured value were lower than the noise criterion of 75 dB(A). No exceedance of noise level has been recorded in October 2006. Moreover, based on our site observation record during monitoring, road traffic noise from Ching Cheung Road was the major noise source.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				Conclusion	
				Based on the information collected, the complaint is considered not justifiable.	
				Nevertheless, the Contractor was reminded to take sufficient noise mitigation measures to minimize the environmental impact on the nearby community:	
				As the general cleaning work could be carried out during normal working hours (i.e. 07:00 to 19:00hr) instead as the work was not critical. RSS would remind the Contractor to programme their works better in order to minimize nuisance to nearby residents. The environmental conditions of the site will be continuously reviewed by the Resident Site Staff and the Environmental Team.	
61121-1	Area near Lai Chi Kok Swimming Pool	21-Nov-06 (by ET Leader)	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint through telephone on 18 <sup>th</sup> November 2006 regarding noise nuisance generated from Route 8 – Lai Chi Kok Viaduct R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 21 <sup>st</sup> November 2006.  The complaint was concerned about noise generated from the construction works between 09:00 and 18:30 at the area near Lai Chi Kok Swimming Pool.	Site Activities  According to RSS's record, rebar fixing, formwork erection, placing concrete and preparation work for construction joint were carried out at the concerned site during the period of 13 <sup>th</sup> to 18 <sup>th</sup> November 2006 and the construction works within the mentioned period were occasionally finished at 18:30.  As advised by the RSS, the RSS has recommended the Contractor to finish the construction works at the concerned areas before 18:00 in order to minimize the noise nuisance to the public.  Environmental Monitoring  During the weekly site inspections in November 2006, no noncompliance or observation on noise was recorded.  Accordance to the EM&A programme, one noise monitoring station at Mei Foo Sun Chuen, Phase 5 (NM4) and two noise monitoring stations at Nob Hill, namely (NM8a and NM8b), were set up in order to monitor the noise level generated from the construction activities. The Station (NM8b) is strongly influenced by road traffic noise from Ching Cheung Road. The measurement at this station is for reference purpose, but not for compliance check for construction noise.  The noise monitoring results in the period between 1 <sup>st</sup> and 21 <sup>st</sup> November 2006 at the M/F of Nob Hill and at Mei Foo Sun Chuen,	Closed

Log Ref.	Location	Received Date	<b>Details of Complaint</b>	Investigation/Mitigation Action	Status
				No exceedance of noise level has been recorded in the above mentioned period. Moreover, based on our site observation record during monitoring, road traffic noise from Ching Cheung Road was the major noise source.	
				Conclusion  Base on the information collected and the monitoring results, the complaint was considered not justifiable.	
				However, the Contractor was still reminded to finish the construction works at the concerned areas before $18:00$ and to carry out construction activities only within the permitted working hours (i.e. $07:00-19:00$ on weekday).	
				The environmental conditions of the site will be continuously reviewed by the RSS and the Environmental Team through site inspections and monitoring exercises.	
			The Integrated Complaint Centre (ICC) of HKSAR received a public complaint through telephone on 17 <sup>th</sup> November 2006 regarding dust and noise nuisance generated from Route 8 – Lai Chi Kok Viaduct R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 21 <sup>st</sup> November 2006.	Site Activities According to RSS's record, construction works adjacent to Tong Nai Kan College in the past years included the construction of Retaining Wall CCR-R3 and Slip Road D.	
				As advised by the RSS, noise and dust mitigation measures such as provision of noise barriers and acoustic materials at drill pit, dust suppression system and water browser were provided in order to minimize the noise and dust nuisance generated from the above mentioned construction activities.	
61121-2	Construction works opposite	21-Nov-06	The complaint was concerned about dust and noise generated from the	Environmental Monitoring	Closed
	Tong Nai Kan College		construction works opposite Tong Nai Kan College in the past years.	During the weekly site inspections in November 2006, no non-compliance or observation on noise and air at the concerned site was recorded.	
				Accordance to the EM&A programme, one noise monitoring station at Mei Foo Sun Chuen, Phase 5 (NM4) and one air monitoring station at Lai Chi Kok Sports Centre (AM2), were set up in order to monitor the noise and dust level generated from the construction activities.	
				The monitoring results revealed that no exceedance was recorded for the noise and air quality (1-hr and 24-hr TSP).	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				Conclusion  Base on the information collected and the monitoring results, the complaint was considered not justifiable.  However, the Contractor was still reminded to continuously implement their practice, such as providing noise barrier with acoustic materials at drill pit and applying water spraying for any dust emissive activities to minimize the noise and dust nuisance generated from these construction activities.  The environmental conditions of the site will be continuously reviewed by the RSS and the Environmental Team through site inspections and monitoring exercises.	
61205	Banyan Garden	5 <sup>th</sup> December 2006 (by ET Leader)	Environmental Protection Department (EPD) received a public complaint about environment nuisance generated from Route 8 – Lai Chi Kok Viaduct Project. EPD subsequently referred the complaint to ET Leader on 5 <sup>th</sup> December 2006.  The complaint was concerned construction noise near Banyan Garden within the period of 01:00 – 02:00hr on 29 <sup>th</sup> November 2006.	Site Activities  According to RSS's record, a catchfan was moved from bay (AL-62) to (AL-58) from 22:00 to 02:00hr. Installation of catchfan at parapet bay (MS-R-74) was carried out from 00.00 to 04:00hr on 29 <sup>th</sup> November 2006.  As advised by the RSS, the Contractor has been requested to:  - Wrapping of tools with acoustic material  - Erection of noise barrier (mill barrier with acoustic material) adjacent to isolated noise source  - Placing of hessin bags on ground to mitigate noise generated as a result of the dropping of tools on ground.  According to the RSS, there is no evidence of hammering of metals on site.  Conclusion  Based on the information collected, the complaint is considered unjustifiable.  Nevertheless, the Contractor was reminded to take sufficient noise mitigation measures to minimize the environmental impact on the nearby community:  - To strengthen management on worker's working manner, such as avoiding dropping materials on ground;  - No hammering is allowed during restricted hours; and	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				- To provide adequate training to workers working, esp. for night works.	
				The environmental conditions of the site will be continuously reviewed by the Resident Site Staff and the Environmental Team.	
			The Integrated Complaint Centre (ICC) of HKSAR received a public complaint through telephone on 16 <sup>th</sup> January 2007 regarding noise nuisance generated from Route 8 – Lai Chi Kok Viaduct R8-LCKV) Project. Resident Site Staff	Site Activities According to RSS's record, the construction activities at the concerned area was mainly central stitch construction and parapet erection and similar works will be carried out in the concerted site in coming one month.	
	P6 – P8 near Lai		(RSS) subsequently referred the complaint to the ET Leader on 17 <sup>th</sup> January 2007.  The complaint was concerned about noise generated from the P6 – P8 near Lai Chi Kok Road Interchange in the	The equipment used on site during the complaint period was covered under the construction noise permit (CNP) no. GW-RW0624-06.	
		ai .		Based on the RSS's record of PME used in the concerned area from 15 November 2006 to 30 December 2006, the construction works complied with the CNP no. GW-RW0624-06.	
70117-1	Chi Kok Road Interchange	17 <sup>th</sup> January 2007 (by ET Leader)	past months.	Conclusion Based on the information collected, the complaint is considered unjustifiable as the equipment used complied with the CNP conditions.	Closed
				Nevertheless, the Contractor was recommended to take further noise mitigation measures to minimize the environmental impact on the nearby community:  - To strengthen management on worker's working manner, such as avoiding dropping materials on ground;  - No hammering is allowed during restricted hours; and	
				<ul> <li>No naminering is allowed during restricted nours, and</li> <li>To provide adequate training to workers working, esp. for night works.</li> </ul>	

Based on the information collected, the complaint is considered unjustifiable as the equipment used complied with the CNP conditions.  Nevertheless, the Contractor was recommended to take further noise mitigation measures to minimize the environmental impact on the nearby community:  To strengthen management on worker's working manner, such as avoiding dropping materials on ground;  No hammering is allowed during restricted hours; and  To provide adequate training to workers working, esp. for night works.  Site Activities  The Integrated Complaint Centre (ICC) of HKSAR received a public complaint through telephone on 21 July 2007 about an environment nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. Resident Site Staff  (RSS) appropriately appropriate through Logical Control of the concerned site was likely the Slope CCR-S4 near Ching Cheung Road. A location plan is provided in Appendix A and the work programme near Slope CCR-S4 from February 2007 to September 2007 is provided in Appendix B.	Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
of HKSAR received a public complaint through telephone on 21 July 2007 about an environment nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 23 July 2007  of HKSAR received a public complaint through telephone on 21 July 2007 about an environment nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 23 July 2007  of HKSAR received a public complaint through telephone on 21 July 2007 about an environment nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 23 July 2007 stabilization near the Slope CCR-S4 near Ching Cheung Road. A location plan is provided in Appendix A and the work programme near Slope CCR-S4 from February 2007 to September 2007 is provided in Appendix B.	70117-2			(EPD) received a public complaint about environment nuisance generated from Route 8 – Lai Chi Kok Viaduct Project. EPD subsequently referred the complaint to ET Leader on 17 <sup>th</sup> January 2007.  The complaint was concerned construction noise near Banyan Garden within the period of 01:00 – 02:00hr on	According to RSS's record, the construction activities at the concerned area was mainly central stitch construction and parapet erection and similar works will be carried out in the concerned site in coming one month.  The equipment used on site during the complaint period was covered under the construction noise permit (CNP) no. GW-RW0624-06.  Based on the RSS's record of PME used in the concerned area from 1st December 2006 to 13th January 2007, the construction works complied with the CNP no. GW-RW0624-06.  Conclusion  Based on the information collected, the complaint is considered unjustifiable as the equipment used complied with the CNP conditions.  Nevertheless, the Contractor was recommended to take further noise mitigation measures to minimize the environmental impact on the nearby community:  To strengthen management on worker's working manner, such as avoiding dropping materials on ground;  No hammering is allowed during restricted hours; and  To provide adequate training to workers working, esp. for night	Closed
The complaint was concerned about noise generated from the construction works near Mei Lei Board and Tong Nei	70723	near Mei Lai Road and Tong		of HKSAR received a public complaint through telephone on 21 July 2007 about an environment nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 23 July 2007.  The complaint was concerned about	The concerned site was likely the Slope CCR-S4 near Ching Cheung Road. A location plan is provided in Appendix A and the work programme near Slope CCR-S4 from February 2007 to September 2007 is provided in Appendix B.  According to RSS's record and the above mentioned work programme, excavation and rock breaking works for slope stabilization near the Slope CCR-S4 was begun on early of July 2007 and to be completed on early of August 2007.  As advised by the RSS, noise mitigation measures implemented at the	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			Kan College.	<ul> <li>installing a line of noise barriers formed by acoustic materials in front of the noise sources;</li> <li>warping the breaker with acoustic material; and</li> <li>deploying silence type of breaker.</li> </ul> Environmental Monitoring	
				During the weekly site inspections in July 2007, no non-compliance or observation on noise was recorded.	
				Accordance to the EM&A programme, one noise monitoring station at Mei Foo Sun Chuen, Phase 5 (NM4) was set up in order to monitor the noise level generated from the construction activities.	
				The noise monitoring results in the period between 3 <sup>rd</sup> and 23 <sup>rd</sup> July 2007 at Mei Foo Sun Chuen, Phase 5 are all lower than or equal to the noise criterion of 75 dB(A). No exceedance of noise level has been recorded in the above mentioned period.	
				Conclusion  Base on the information collected and the monitoring result, the complaints are considered not justifiable.	
				It was suspected that the nuisance was caused by the breaking activities. However, the Contractor has implemented the mitigation measures to minimize the noise generation from construction activities.	
	Construction site		The Integrated Complaint Centre (ICC) of HKSAR received a public complaint through telephone on 1 October 2007 about an environment nuisance generated from Route 8 – Lai Chi Kok	Site Activities According to RSS's record, approximately 100m long asphalt material on carriageway was removed on 30 <sup>th</sup> September and 1 <sup>st</sup> October 2007.	
71003	near Ching Cheung Road and Tong Nai	3 <sup>rd</sup> October 2007 (by ET Leader)	Viaduct (R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the Environmental	The equipment used on site during the complaint period was covered under the construction noise permit (CNP) no. GW-RW0469-07.	Closed
	Kan College		Team (ET) Leader of the Project on 3 October 2007	Environmental Monitoring	
			The complaint was concerned construction noise near Tong Nai Kan	During the weekly site inspections in September 2007, no non-compliance or observation on noise was recorded.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			College and Ching Cheung Road during public holiday on 1 <sup>st</sup> October 2007.	Accordance to the EM&A programme, one noise monitoring station at Mei Foo Sun Chuen, Phase 5 (NM4) was set up in order to monitor the noise level generated from the construction activities. The noise monitoring results on 25 September 2007 and 2 October 207 at Mei Foo Sun Chuen, Phase 5 are all lower than the noise criterion of 75 dB(A). No exceedance of noise level has been recorded in the above mentioned period  *Conclusion*  Based on the information collected, the complaint is considered unjustifiable as the equipment used complied with the CNP conditions.  Nevertheless, the Contractor was recommended to implement a good sit practice and mitigation measures to prevent noise nuisance generated from the construction work to minimize the environmental impact on the nearby community:  - wrapping the breaker with acoustic material; and  - deploying silence type of breaker.	
71119	Construction site near Nob Hill	19 <sup>th</sup> November 2007 (by ET Leader)	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint through telephone on 16 November 2007 about a noise nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 19 November 2007  The complaint was concerned the noise generated from breaking the footpath on King Lai Path opposite to Nob Hill on 16 November 2007	According to the RSS, footpath breaking by hand-held breaker was carried out on 16 November 2007.  Environmental Monitoring  During the weekly site inspections on November 2007, no noncompliance or observation on noise was recorded.  Accordance to the EM&A programme, noise monitoring was conducted at Nob Hill M/F of Car Park (NM8a) and 3/F of Car Park (NM8b) in order to monitor the noise level generated from the construction activities. There was no Action/Limit Level exceedance identified, except the noise monitoring conducted at Station NM8b on 12 November 2007, which is strongly influenced by the road traffic noise from Ching Cheung Road. The measurements at these two stations are for reference purpose but not for compliance check for construction noise.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				Conclusion  Base on the information collected and the monitoring result, the complaints are considered not justifiable.  Nevertheless, the Contractor was recommended to implement a good sit practice and mitigation measures to prevent noise nuisance generated from the construction work to minimize the environmental impact on the nearby community:  - wrapping the breaker with acoustic material; and - deploying silence type of breaker.	
71121	Construction site at Lai Wan Road opposite to the Lai Chi Kok Park Sports Centre	21 <sup>st</sup> November 2007 (by ET Leader)	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint through telephone on 21st November 2007 about the construction dust nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 21st November 2007  The complaint was raised by a resident via the ICC hotline and EPD about the construction dust generated from the lorry (JA2315) leaving the works site opposite to Lai Chi Kok Park Sports Centre at 8.35am on 21st November 2007	Site Activities  According to the information provided by RSS, the site of the concern was likely to be the site access at R2 opposite to Lai Chi Kok Park Sports Centre. The construction works at the sports centre included the masonry on retaining wall, surface drain along slope toe, road work at the footpath, street furniture and reinstatement the pavement.  Environmental Monitoring  During the weekly site inspection on 21 November 2007, no noncompliance or major dust generation construction activity was recorded.  Accordance to the EM&A programme, the air monitoring station at Lai Chi Kok Sports Centre (AM2), was set up in order to monitor the dust level generated from the construction activities. There was no exceedance of the air quality monitoring results and dust mitigation measures were implemented by the Contractor.  Conclusion  Base on the information collected and the monitoring results, the complaints are considered not justifiable.  It was because there was no exceedance of the air quality monitoring results. After receiving the complaint, the Contractor has further enhanced the dust mitigation measures as follows:  • Spraying of water for any dust emissive activities;  The environmental conditions of the site will be continuously reviewed by the RSS and the Environmental Team through site	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				inspections and monitoring exercises.	
80103	Construction site near the junction of King Lai Path and Lai Wan Road	3 <sup>rd</sup> January 2008 (by ET Leader)	Environmental Protection Department (EPD) received a public complaint about the construction dust generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project near the Junction of King Lai Path and Lai Wan Road. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 3 January 2008  The complaint was raised by a resident via the EPD about the construction dust of slope works near the junction of King Lai Path and Lai Wan Road on 3rd January 2008.	Site Activities Based on the information provided by the ER, the construction site was likely to be the slope CCR-S1 between Lai Wan Road and Lai King Hill Road. According to RSS's record, rock slope stabilization measures was carried on at batter 8 of slope CCR-S1. Rock drilling for installation of rock dowels (6m long) at CCR-S1 was commenced on 20 December 2007 and would likely last up to the 2 February 2008  Environmental Monitoring  During the ET's weekly environmental site inspection on 28 December 2007 and 9 January 2008 and the monthly site inspection on the 2 January 2008. There was no serious dust nuisance induced by the Projects at slope CCR-S1 while rock drilling was carrying out at the slope.  As advised by the RSS, a three side's tarpaulin covering sheets were provided by the Contractor to suppress the dust nuisance generated from the rock drilling works. On 5 January 2008, the drilling rig was wrapped with a we thick towel and the speed of the drill was controlled. Besides, there was no Action/Limit Level exceedance for both 1-hr and 24-hr TSP identified during the period in between the 20 December2007 and 9 January 2008.  Conclusion  Base on the information collected and the monitoring results, the complaint was considered not justifiable.  It was because there was no exceedance of the air quality monitoring results and dust mitigation measures were implemented by the Contractor during the rock drilling works. After receiving the complaint, the Contractor has further enhanced the dust mitigation measures as follows:  Apply water spraying for any dust emissive activities, such as breaking, excavation, loading and unloading of dusty materials  Cover long-term idle exposed slope surfaces and stockpiles with tarpaulin sheets;  The environmental conditions of the site will be continuously reviewed by the RSS and the Environmental Team through site inspections and monitoring exercises.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
8			The Resident Site Staff (RSS) received a verbal complaint from a Legislative Council member, Mr. Cheung, on 21 January 2008. The complaint was about the construction noise and dust generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project near Nob Hill. The RSS subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on the same day  The complaint was raised by a	Site Activities According to RSS's record, rock dowel installation for slope stabilization at CCR-S1 was commenced on 20 December 2007 and would likely last up to the 2 February 2008.  Contractor Action As advised by the RSS, tarpaulin covering, water spraying and temporary noise absorbent materials were provided by the Contractor to suppress the dust and noise nuisance generated from the rock drilling works. Besides, the working hours was lie in between the normal working hours from 7am to 7pm  Environmental Monitoring	
80121	Construction site near Nob Hill	21st January 2008 (by ET Leader)	Legislative Council member, Mr. Cheung, via the RSS about the construction noise and dust nuisances generated near Nob Hill on 21st January 2008.	Weekly site inspection was performed by ET on 28 <sup>th</sup> December 2007, 2 <sup>nd</sup> , 9 <sup>th</sup> , 16 <sup>th</sup> , 23 <sup>rd</sup> January 2008. A joint environmental site audit was also conducted on 2 <sup>nd</sup> January 2008 with the representatives of IEC, RSS, the Contractor and ET. There was no non-compliance or observation with regard to noise and dust nuisance at the concerned site was recorded by the auditors during the site inspections carried out in December and January 2008.  **Review of Environmental Monitoring Results**  The routine monitoring stations, which are in the vicinity of the concerned works areas, include:  Noise Monitoring  NM8a: M/F of Nob Hill  NM8b: 3/F of Nob Hill  Air Quality (1-hr TSP / 24-hr TSP) Monitoring  AM2: R/F of Lai Chi Kok Sports Centre  No Action / Limit level exceedance was identified in the period between 20 <sup>th</sup> December 2007 and 24 January 2008.	Closed
				Conclusion  Based on the RSS's information, environmental monitoring results as well as the observations made during site inspections, this complaint is considered to be invalid and not due to the construction activities of the Project.  It was because there was no exceedance of the air quality monitoring results and dust mitigation measures were implemented by the Contractor during the rock drilling works.	

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				However, the Contractor was still recommended to take the following mitigation measures to minimize the environmental impact on the nearby community:	
				<u>Dust Nuisance</u>	
				To cover excavated dusty materials by impervious sheeting;	
				<ul> <li>To provide water spray for haul roads, loading/unloading and concrete breaking operations;</li> </ul>	
				• To perform wheel wash for every vehicle immediately before leaving the site;	
				<ul> <li>Apply water spraying for any dust emissive activities, such as breaking, excavation, loading and unloading of dusty materials; and</li> </ul>	
				• Cover long-term idle exposed slope surfaces and stockpiles with tarpaulin sheets.	
				Construction Noise	
				<ul> <li>To space out noisy equipment and position it as far away as possible from the sensitive receivers;</li> </ul>	
				• To avoid concurrent uses of noisy equipment near the sensitive area;	
				• To ensure the equipment are maintaining in good operation condition;	
				<ul> <li>To turn off any idle equipment on site;</li> </ul>	
				• Silence-type breakers were employed for the rock breaking work close to the sensitive receivers;	
				To wrap the breaker with acoustic material; and	
				• While the permitted hours for construction works are 7am to 7pm on non-holidays, the Contractor has commenced the rock breaking activity after 8:30am. This arrangement could effectively reduce the disturbance to the residents within the more sensitive time period (7:00 am to 8:30 am).	
				The environmental conditions of the site will be continuously reviewed by the Resident Site Staff and the Environmental Team through site inspections and monitoring exercises.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
80229	Ching Cheung Road near Nob Hill	29 <sup>th</sup> February 2008 (by ET Leader)	The Highways Department (HyD) received a public complaint through telephone on 29 February 2008 about the noise nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project near Nob Hill. The Resident Site Staff (RSS) subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on the same day.  The complaint was concerned the noise nuisance generated when vehicles passing over the movement joints at both bound of the Ching Cheung Road carriageway at night.	Information from RSS According to RSS's record, the movement joints have been installed for about half year under the Project design and satisfactory procedures.  Environmental Monitoring The recent weekly site inspection was performed by ET on 27th February 2008. No abnormal noise nuisance was noticed during the site inspection. The major noise source was identified to be traffic noise.  Review of Environmental Monitoring Results Regular construction noise monitoring works were performed by ET, in accordance with the EM&A Manual. The monitoring stations, which are in the vicinity of the concerned works areas, include:  Noise Monitoring Stations NM8a: M/F of Nob Hill NM8b: 3/F of Nob Hill NM8b: 3/F of Nob Hill The time period of construction noise monitoring was within normal working hours (7am to 7pm) on a weekday not being a public holiday. There is no control of construction noise based on the Noise Control Ordinance within this time period. However, according to the EM&A Manual of the Project, the criterion of construction noise in term of Leq-30min within this period is 75 dB(A) for domestic premises.  Stations NM8a and NM8b were newly installed at Nob Hill in May 2004. Station NM8b is located at 3/F of the car park of Nob Hill, which is strongly influenced by traffic noise from Ching Cheung Road. The measurement at this station is for reference purpose, but not for compliance check of construction noise. The measured noise level at Station NM8a, which is located at M/F of car park and closer to the construction site, acts as an indicator of the construction noise.  The monitoring result for NM8a in the period between 3rd January 2007 and 26th February 2008 are summarized quarterly as below:	Closed

Log Ref.	Location	Received Date	<b>Details of Complaint</b>	I	nvestigation/Mi	tigation Action		Status
			<u> </u>		e Monitoring Ro	esults at NM8a, N		
					Measured		Measured	
				Date	Noise	Date	Noise	
					Level, dB(A)		Level, dB(A)	
				3-Jan-07	75.9	2-Oct-07	73.1	
				11-Jan-07	70.6	8-Oct-07	73.4	
				16-Jan-07	74.3	15-Oct-07	71.2	
				23-Jan-07	70.8	23-Oct-07	72.6	
						30-Oct-07	73.8	
				2-Apr-07	73.7	4-Jan-08	73.7	
				10-Apr-07	74.2	8-Jan-08	72.7	
				17-Apr-07	73.5	15-Jan-08	73.8	
				24-Apr-07	74.6	22-Jan-08	72.4	
						29-Jan-08	73.5	
				3-Jul-07	71.9	4-Feb-08	73.8	
				10-Jul-07	73.8	12-Feb-08	73.6	
				17-Jul-07	74.7	21-Feb-08	72.6	
				23-Jul-07	73.8	26-Feb-08	72.8	
				30-Jul-07	72.5			
				The results show the the criterion for day measured noise lever construction noise. Observed after the in Cheung Road near and Conclusion  Based on the RSS's well as the observation is considered to be movement joints of	rtime construction els were mainly No obvious incressible incressi	on noise of 75 dB( due to traffic nois ease of measured movement joints avironmental mon ng site inspection	A) and the high e instead of noise level was at Ching itoring results as s, this complaint	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				It was because there was no obvious difference on the measured noise level before and after the installation of movement joints at the concerned area.  The noise nuisance should be only comparatively noisy due to the silent background at night instead of abnormal functioning of the movement joints.  Nevertheless, the Contractor was recommended to adopt good site practice to minimize the noise generated from the movement joints, such as:  • Check and maintain the movement joints regularly to ensure they are functioning well;  • Provide lubricant oil to the movement joints to minimize noise nuisance when necessary;  • Provide noise absorbent (e.g. sponge) as a damper within the movement joints to reduce noise nuisance when necessary.  The environmental conditions of the site will be continuously reviewed by the Resident Site Staff and the Environmental Team through site inspections and monitoring exercises.	
80411	Ching Cheung Road near Lai Chi Lok Park, Kowloon.	11 <sup>th</sup> Apr 2008	Environmental Protection Department (EPD)received a public complaint from Sham Shui Po DC member's Office about the construction noise generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project around Widening of Ching Cheung Road near Lai Chi Lok Park, Kowloon. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 11 April 2008.  The complaint was concerned the construction noise occurring on public holidays and at early morning on	Information from RSS  The major works around Widening of Ching Cheung Road near Nob Hill in the past three months included laying of bituminous paving; installation of gully pot & grating; modification of central median; installation of road marking; road studs; parapet top rails at Lai Wan Overpass; and traffic signs & modification of gantry sign face. All the above-mentioned works have been completed for Route 8 opening on 21 March 2008. The Contractor has obtained the Construction Noise Permits (GW-RW0478-07), (GW-RW0656-07), (GW-RW0669-07), (GW-RW0723-07), (GW-RW0111-08) for carrying out the construction activities during restricted hour on normal weekdays or general holidays including Sundays at the concerned area.  Environmental Monitoring Weekly site inspections were performed by ET on every Wednesday	

Log Ref.	Location	Received Date	Details of Complaint			Mitigation Action		Status
			weekdays.	audit was also of IEC, RSS, noticed during  Review of En Regular constin accordance which are in t  Nois NM4 NM8  The monitori 2008 are sum	ne past three month to conducted on 9th the Contractor and g the site inspection wironmental Monit truction noise monie with the EM&A the vicinity of the company of the co	ns. A recent joint envir April 2008 with the r ET. No abnormal noise Foring Results toring works were perf Manual. The monito concerned works areas, it ons ien, Phase 5 Car Park	formed by ET, oring stations, nclude:	
				-	1 1 1	1	1	
				Date	Measured Leq- 30min, dB(A)	Date	Measured Leq- 30min, dB(A)	
				4-Jan-08	72.7	4-Jan-08	73.7	
				8-Jan-08	70.6	8-Jan-08	72.7	
				15-Jan-08	70.3	15-Jan-08	73.8	
				22-Jan-08	63.6	22-Jan-08	72.4	
				29-Jan-08	71.5	29-Jan-08	73.5	
				4-Feb-08	73.3	4-Feb-08	73.8	
				12-Feb-08	70.3	12-Feb-08	73.6	
				21-Feb-08	73.2	21-Feb-08	72.6	
				26-Feb-08	62.3	26-Feb-08	72.8	
				4-Mar-08	73.2	4-Mar-08	72.7	
				11-Mar-08	65.8	11-Mar-08	69.9	
				18-Mar-08	67.8	18-Mar-08	69.8	
				27-Mar-08	72.8	27-Mar-08	72.3	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				There was no Action/Limit Level exceedance identified. Road traffic noise from Ching Cheung Road was identified as the major noise source in the morning at station NM4 and NM8a.	
				Conclusion  Based on the information collected and the monitoring results, the complaint was considered not justifiable as no Action/Limit Level exceedance on construction noise monitoring was identified as well as construction activities were carried out with Construction Noise Permit at night and during public holidays.	
				Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise, such as:	
				To space out noisy equipment and position it as far away as possible from the sensitive receivers;	
				• To avoid concurrent uses of noisy equipment near the sensitive area;	
				To ensure the equipment are maintaining in good operation condition;	
				To turn off any idle equipment on site;	
				Wrapping of tools with acoustic material as far as possible;	
				• Erection of mill barriers with acoustic material adjacent to noise source; and	
				Laying of hessin bags on ground to absorb noise generated due to accidental falling of hand tools on ground.	
				The environmental conditions of the site will be continuously reviewed by the Resident Site Staff and the Environmental Team.	