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TEST REPORT

Kaden Construction Limited

CONTRACT NO. DC/2007/18

**YUNG SHUE WAN AND
SOK KWU WAN VILLAGE SEWERAGE,
STAGE 1 WORKS**

**QUARTERLY EM&A
SUMMARY REPORT NO.4**

(MARCH TO MAY 2009)

Prepared by:

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Chief Engineer/Harbour Area Treatment Scheme
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Your reference:

Our reference: 05117/6/10/325410

Date: 19 June 2009

Attention: Mr. C K Au

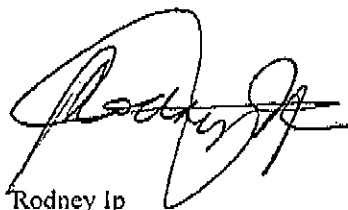
BY FAX ONLY

Dear Sir

Agreement No. CE20/2005 (DS)
Outlying Islands Sewerage Stage 1 Phase 1 Part 2 and Phase 2
Yung Shue Wan and Sok Kwu Wan Sewerage, Sewage Treatment and Disposal – Design and Construction
Quarterly EM&A Summary Report No. 4 (February 2009 to May 2009)

I refer to the Environmental Permit (EP-281/2007) and the email from the environmental team, ETS-Testconsult Limited with the revised report, dated 18 June 2009. I do not have further comment and have verified the captioned report.

Yours faithfully
SCOTT WILSON CDM JOINT VENTURE



Rodney Ip

ANCP/ancp

cc Kaden Construction Ltd (Attn: Mr Stephen Leung)
ETS-Testconsult (Attn: Ms Linda Law)
ER/LAMMA (Attn: Mr Ian Jones)
CDM (Attn: Mr Mark Sin)



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EXECUTIVE SUMMARY

This is the fourth Quarterly Environmental Monitoring and Audit (EM&A) Summary Report prepared by ETS-Testconsult Ltd (ET) for the "Contract No. DC/2007/18 Yung Shue Wan and Sok Kwu Wan Village Sewerage, Stage 1 Works" (the Project) under the requirements and specifications of "the Environmental Permit (Application No. AEP-281/2007)" (the EP) and "the Final EM&A Manual – Outlying Islands Sewerage Stage 1 Phase 2 Package J – Sok Kwu Wan Sewage Collection, Treatment and Disposal Facilities" (the EM&A Manual).

This report documents the findings of EM&A Works conducted during the construction phase of the Project from March to May 2009.

Construction Progress

The major construction works in this quarter were as below:

March 2009	<ul style="list-style-type: none">• Excavation of inspection pits;• Sewer construction including trench excavation;• PE pipe laying;• Backfilling and reinstatement of hard pavement; and• Trenchless excavation by Tunnel Boring Machine.
April 2009	<ul style="list-style-type: none">• Sewer & manhole construction (include open cut & trenchless method); and• Road reinstatement work.
May 2009	<ul style="list-style-type: none">• Sewer & manhole construction (include open cut & trenchless method); and• Road reinstatement work.

Environmental Monitoring Progress

The summary of the monitoring activities in this quarter is listed below:

- Noise Monitoring (Day-time): 13 Occasions at 4 designated locations;
- 24-hour TSP Monitoring: 16 Occasions at 3 designated locations;
- 1-hour TSP Monitoring: 48 Occasions at 3 designated locations.

Impact Air Quality Monitoring

No exceedances of Action and Limit levels were recorded for 24-hr and 1-hr TSP monitoring in the quarter.

Impact Noise Monitoring

No exceedance of Action and Limit Level were recorded in this quarter.

Environmental Complaints, Notifications of Summons and Successful Prosecutions

No environmental complaints, notifications of summons and successful prosecutions were received in this quarter.

Internet Website

This Quarterly EM&A Summary Report can be accessed on the web at <http://www.skwsewer.com..>



1.0 INTRODUCTION

The Customer, Kaden Construction Limited (Kaden), appointed Environmental Team of ETS-Testconsult Limited to undertake the environmental impact monitoring for "Contract No. DC/2007/18 Yung Shue Wan and Sok Kwu Wan Village Sewerage, Stage 1 Works" (the Project) under the requirements and specifications of "the Environmental Permit (Application No. AEP-281/2007)" (the EP) and "the Final EM&A Manual – Outlying Islands Sewerage Stage 1 Phase 2 Package J – Sok Kwu Wan Sewage Collection, Treatment and Disposal Facilities" (the EM&A Manual).

This Quarterly EM&A Summary Report documented the findings of EM&A Works conducted during the construction phase of the Project in March to May 2009.

2.0 PROJECT INFORMATION

2.1 Background

Under this Project, Kaden is required to construct village sewerage in Yung Shue Wan and Sok Kwu Wan, Lamma Island.

Village sewage works are undertaken in this Project. These will comprise laying approximately 1.4km of sewerage pipes from 220mm to 350mm diameter in Sok Kwu Wan Village. These works are carried out under a conventional Design, Bid, Build (DBB) contract, entirely separate from the single Design, Build and Operate (DBO) contract for Sewage Treatment Works (STW) construction.

As the main Contractor of the captioned project contracted by, Kaden will follow the environmental monitoring recommendation stated in the EM&A Manual that was prepared with reference to the EIA Report (Register No.: AEIAR-075/2003).

According to the EP and the EM&A Manual, the environmental programme is mainly focused on the construction activities of this Project in Sok Kwu Wan. At the same time, all air quality and noise monitoring stations proposed in the EM&A Manual are located in Sok Kwu Wan. The baseline report is prepared in accordance with EP (No. EP-281/2007) for the Designated Project "Outlying Islands Sewerage Stage 1 Phase 2 – Sok Kwu Wan Sewage Collection, Treatment and Disposal Facilities" and the EM&A Manual.

2.2 Site Description

The general layout plan of the project in Sok Kwu Wan is shown in Drawing No. 2005/C1/2004, 2005/C1/2005 and 2005/C1/2006.

Surrounding the construction site, there are air and noise sensitive receivers at Chung Mei Village, Sok Kwu Wan and Ta Shui Wan.

2.3 Construction Programme

The construction programme is shown in Appendix F.

2.4 Project Organization and Management Structure

The organization chart with respect to the on-site environmental management and monitoring program are shown in Appendix A.

2.5 Contact Details of Key Personnel

The key personnel contact names and telephone numbers, and construction programme are shown in table 2.1.



Table 2.1 Contact Details of Key Personnel

Organization	Project Role	Key Staff	Tel. No.	Fax No.
Scott Wilson CDM JV	Engineer Representative	Ir Ian J Jones	2982 0240	2982 4129
Scott Wilson CDM JV	Independent Environmental Checker	Mr. Rodney Ip	2410 3750	2428 9922
Kaden Construction Ltd	Contractor	Ir Stephen Leung	2454 9102	2465 1207
ETS-Testconsult Ltd	Environmental Team	Mr. C L Lau	2946 7791	2695 3944

3.0 SUMMARY OF EM&A REQUIREMENTS

3.1 EM&A Programme

In accordance with Section 5 of the EP, EM&A programme as set out in the EM&A Manual is required to be implemented. In accordance with the EM&A Manual, environmental monitoring of air quality and noise are required for the Project. The EM&A requirement for each parameter are described in details in subsequent 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 report;
- Environmental requirements in contract documents.

The implementation status of environmental mitigation measures is summarized in Section 5.2 of the Report.

3.2 Monitoring Stations and Parameters

The EM&A Manual designates several locations to monitor environmental impacts in terms of air quality and noise due to the Project. The description and detailed locations of monitoring stations for air quality and noise are shown in Figures 2005/C1/2004, 2005/C1/2005 and 2005/C1/2006 and relevant sections of this Report.

3.3 Monitoring Methodology and Calibration Details

All monitoring works were conducted and monitoring equipment was calibrated in accordance with the EM&A Manual.

3.4 Environmental Quality Performance Limits (Action/Limit Levels)

The environmental quality performance limits, i.e. Action/Limit Levels (AL Levels) were derived from the baseline monitoring results. If the measured environmental quality parameters exceed the AL Levels, the respective action plan will be implemented. The AL Levels for each monitoring parameter are given in Appendix D. The event action plan is given in Appendix E.

3.5 Environmental Mitigation Measures

Relevant mitigation measures were recommended in the EM&A Manual for the Contractor to implement. A list of mitigation measures is given in Appendix G.

4.0 MONITORING RESULTS

4.1 Air Quality

In accordance with the EM&A Manual, 1-hr and 24-hr TSP air quality monitoring are to be conducted three times and one time per six days correspondingly. In the reporting quarter, all the 1-hr and 24-hr TSP monitoring results complied with the AL Levels. The monitoring trends of air quality during the reporting quarter are given in Appendix B2.



Major dust sources in the Project were excavation works and vehicle used for moving sand, aggregates and construction waste.

Table 4.1 presents the number of exceedances recorded in each month of the reporting quarter.

Table 4.1 Summary of Number of Exceedances for 1-hr and 24-hr TSP Monitoring

Monitoring Parameter	Level of Exceedance	March 2009	April 2009	May 2009
24-hr TSP	No of monitoring events	5	6	5
	Action Level	0	0	0
	Limit Level	0	0	0
	Total	0	0	0
1-hr TSP	No of monitoring events	12	18	15
	Action Level	0	0	0
	Limit Level	0	0	0
	Total	0	0	0

4.2 Noise

Noise monitoring is required to be conducted at least once per week. Only daytime noise was monitored in the reporting quarter. All recorded noise levels complied with the AL Levels. The registered noise levels in the past three months are plotted in Appendix C2.

Table 4.2 presents the number of exceedances recorded in each month of the reporting quarter.

Table 4.2 Summary of Impact Monitoring results of Noise Daytime Monitoring

Level of Exceedance	March 2009	April 2009	May 2009
No of monitoring events	4	5	4
Action Level	0	0	0
Limit Level	0	0	0
Total	0	0	0

The major noise sources in the reporting quarter were excavation works and vehicle used for moving sand, aggregates and construction waste near the site egress.

In this quarter, no exceedances of Action Level were recorded in this quarter. Besides, no exceedances in Limit Level were recorded according to the results from Day-time noise monitoring.

5.0 INSPECTION RESULTS

5.1 Summary of site inspection findings and Action(s) taken by Kaden and ET in this quarter

ET conducted weekly site inspections to monitor the Contractor's implementation of environmental mitigation measures. After each site inspection, the Contractor was notified of ET's observations and recommendations and then the Contractor will arrange related remedial works.

Summary of the site inspection findings in this quarter is shown in Table 5.1.

Table 5.1 Summary of Site Inspection Findings and Action(s) taken by Kaden and ET

Item	Aspect	Finding	Action(s) to be taken by the Contractor	ET Verification
<i>March 2009</i>				
1	Water	Rocks and debris were found accumulated inside the drainage at S171 during the weekly site inspection on 23/03/09.	The Contractor replied to clean up the rocks and debris accumulated inside the drainage in order to avoid any blockage.	Since the finding was observed during the last weekly site inspection in this reporting month, it will be verified in the coming month.



Item	Aspect	Finding	Action(s) to be taken by the Contractor	ET Verification
March 2009				
2	Water	During the weekly site inspection on 23/03/09, the sedimentation tank at 165 was considered to be insufficient to treat the site runoff since the flow rate was found to be too large.	The Contractor replied to reduce the flow rate or modify the sedimentation tank in order to improve its performance.	Since the finding was observed during the last weekly site inspection in this reporting month, it will be verified in the coming month.
3	Chemical	Oil drums at storage area were found without labels and drip trays during the weekly site inspection on 23/03/09.	The Contractor replied to provide appropriate labels and proper drip trays for all chemicals.	Since the finding was observed during the last weekly site inspection in this reporting month, it will be verified in the coming month.
April 2009				
1	Water	Follow up action to the outstanding finding in the previous month, the flow rate of the outlet of the sedimentation tank at S165 was found reduced during the weekly site inspection on 02/04/09.	Since the finding was improved, no further action is required to be taken by the Contractor.	Since the finding was improved, no further verification is required to be taken by ET.
2	Water	Follow up action to the outstanding finding in the previous month, rocks and debris accumulated inside the drainage at S171 were found cleaned up during the weekly site inspection on 02/04/09.	Since the finding was improved, no further action is required to be taken by the Contractor.	Since the finding was improved, no further verification is required to be taken by ET.
3	Water	Wastewater from manhole S147-S148 was found partly treated by passing through the sedimentation tank and partly discharged to the drainage without treatment during the weekly site inspection on 09/04/09.	The Contractor replied to treat all wastewater properly by passing through sedimentation facilities before discharge.	During the next weekly site inspection on 14/04/09, no wastewater was noted discharged from S147-S148 to the drainage and hence no further ET verification was required.
4	Water	Stagnant water was observed accumulated at S63 and the sedimentation tank nearby during the weekly site inspections on 20/04/09 and 30/04/09.	The Contractor replied to drain the stagnant water or apply pesticide to avoid mosquito breeding.	Since the finding was still observed during the last weekly site inspection in this reporting month, it will be verified in the coming month.
5	Water	Re-design of sedimentation tank at manhole S165 was considered to be necessary in order to handle large amount of pumped-out seawater-site runoff mixture from the manhole in the short-time during the weekly site inspections on 20/04/09 and 30/04/09.	The Contractor replied to modify the sedimentation system to ensure all wastewater treated properly before discharge.	Since the finding was still observed during the last weekly site inspection in this reporting month, it will be verified in the coming month.



Item	Aspect	Finding	Action(s) to be taken by the Contractor	ET Verification
<i>April 2009</i>				
6	Chemical	Follow up action to the outstanding finding in the previous month, labels and drip tray were found provided for the oil drums at storage area during the weekly site inspection on 02/04/09.	Since the finding was improved, no further action is required to be taken by the Contractor.	Since the finding was improved, no further verification is required to be taken by ET.
7	Chemical	Chemical tanks at S90 were found without labels and drip trays during the weekly site inspection on 20/04/09.	The Contractor replied to provide appropriate labels and proper drip trays for all chemicals.	During the subsequent weekly site inspection on 30/04/09, no chemicals were found at S90 and hence no further ET verification was required.
8	Site Practice	C&D wastes were found at S141, S147, S137 and S171 during the weekly site inspection on 20/04/09.	The Contractor replied to collect and dispose all C&D wastes properly.	During the subsequent weekly site inspection on 30/04/09, the C&D wastes were collected and hence no further ET verification was required.
9	Site Practice	Damage to vegetation was observed at S52 during the weekly site inspection on 20/04/09.	The Contractor replied to maintain and protect the vegetation inside and near the site properly.	During the subsequent weekly site inspection on 30/04/09, the damaged vegetation was collected and no further damage was noted. Hence, no further ET verification was required.
<i>May 2009</i>				
1	Air	Stockpiles of filling materials at S81 were found without cover during weekly site inspection on 06/05/09.	The Contractor replied to cover the stockpiles or water them when in use.	During the subsequent weekly site inspection on 12/05/09, the stockpiles were found covered by using tarpaulin sheets.
2	Water	Follow up action to the outstanding finding in the previous month, stagnant water at S63 was drained and pesticide was also applied during weekly site inspection on 06/05/09.	Since the finding was improved, no further action is required to be taken by the Contractor.	Since the finding was improved, no further verification is required to be taken by ET.
3	Water	Follow up action to the outstanding finding in the previous month, wooden plate was installed inside the sedimentation tank at S165 in order to enhance the silting capacity during the weekly site inspection on 12/05/09.	Since the finding was improved, no further action is required to be taken by the Contractor.	Since the finding was improved, no further verification is required to be taken by ET.
4	Water	Wastewater was found leaked from a broken pipeline at S36 to the nearby environment during the weekly site inspection on 12/05/09.	The Contractor replied to repair the broken pipeline as soon as possible.	During the next weekly site inspection on 18/05/09, the broken pipeline was found repaired and no wastewater was observed leaked to the nearby environment.



Item	Aspect	Finding	Action(s) to be taken by the Contractor	ET Verification
<i>May 2009</i>				
5	Water	<i>In the weekly site inspection on 18/05/09, a sedimentation tanks at S143 was found too small and hence did not provide sufficient retention time for the suspended solids to settle down under such large flow rate. As a result, wastewater was considered to be treated improperly before discharged</i>	<i>The Contractor replied to re-design the sedimentation tank in order to enhance the desilting capacity.</i>	<i>During the subsequent weekly site inspection on 27/05/06, the sedimentation tank at S143 was found not in use since no construction works was carried out.</i>
6	Water	<i>During the weekly site inspection on 18/05/09, the design of sedimentation tank at S63 was found improperly, such that the inlet pipe was found to be too long (lengthen to the middle part of the tank) and the tank located in a slope. These affected the capacity of the sedimentation tank.</i>	<i>The Contractor replied to re-construct the sedimentation tank, e.g. relocating the sedimentation tank in a horizontal position and shorten the inlet pipe.</i>	<i>During the last weekly site inspection on 27/05/09, the sedimentation tank has been relocated back to the ground level. However, the inlet pipe was still so long that lengthen to the middle part of the tank and hence it will be verified in the coming month.</i>
7	Chemical	<i>Several chemical tanks at storage area S147 were found without labels and drip trays during the weekly site inspection on 18/05/09.</i>	<i>The Contractor replied to provide appropriate labels and drip tray for all chemicals.</i>	<i>Since the finding was still observed during the last weekly site inspection in this reporting month, it will be verified in the coming month.</i>
8	Site Practice	<i>Construction waste was noted along the channel at S63 during the weekly site inspection on 06/05/09.</i>	<i>The Contractor replied to collect and treat the waste properly.</i>	<i>During the subsequent weekly site inspection on 12/05/09, the construction waste was collected.</i>
9	Site Practice	<i>An idle air compressor at S70 was found without drip tray during the weekly site inspection on 18/05/09</i>	<i>The Contractor replied to provide drip tray for all air compressors.</i>	<i>During the following weekly site inspection on 27/05/09, a drip tray was noted provided for the air compressor.</i>

5.2 Implementation Status of Environmental Mitigation Measures

According to the summary of the weekly site inspections carried out in this quarter, it indicated that site practices of the Kaden were generally undertaken in an environmentally acceptable manner and the overall site environmental performance was satisfactory.

Excavation works and vehicle used for moving sand, aggregates and construction waste were the major dust sources in the Project. Generally, the Contractor implemented adequate dust mitigation measures in this quarter, such as dampening of unpaved areas and fill material prior to handling or delivery and well maintenance of plant and equipment to avoid black smoke emission.

Vehicle traffic and construction activities near the site egress were the major noise sources. The powered mechanical equipment were generally operated and maintained properly.

5.3 Status of Environmental Licensing and Permitting

The status of licences and permits is summarized in Table 5.2.



Table 5.2 Summary of environmental licensing and permit status

Description	Permit No.	Valid Period		Section
		From	To	
Environmental Permit	EP-281/2007	29/06/07	End of Project	Valid
Water Discharge Licence	EP890/W2/XD 026	23/05/08	31/03/12	Valid Discharge of Industrial Trade Effluent arising from Construction Site to communal storm water drain
Notification under APCO	Application had been submitted to EPD on 15 April 2008			

5.4 Advice on Solids and Liquid Waste Management Status

The Contractor usually disposed of non-inert wastes such as general refuses and materials segregated to Sok Kwu Wan Re-fill Transfer Station (SKWRTS).

Table 5.3 summarizes data on offsite waste disposal in this quarter.

Table 5.3 Offsite Waste Disposal in this Quarter

Type of Waste		Quantity	Disposal Location	Cumulative Quantity
Inert C&D Materials	Total Quantity Generated (in '000m ³)	0.1630		0.4183
	Broken Concrete (in '000m ³)	0.0122	N/A	0.0208
	Reused in the Contract (in '000m ³)	0.085	For Stockpile / Reuse	0.16
	Reused in other Projects (in '000m ³)	0	N/A	0.09
	Disposal as Public Fill (in '000m ³)	0.0780	SKWRTS	0.1683
C&D Waste	Metals (in '000kg)	0	N/A	0
	Paper/Cardboard Packaging (in '000kg)	0	N/A	0
	Plastics (in '000kg)	0	N/A	0
	Chemical Waste (in '000kg)	0	N/A	0
	Other, e.g. General Refuse (tonne)	2.24	SKWRTS	3.74

The Contractor should provide sufficient preventive measures during equipment maintenance works so as to avoid oil leakage on the ground. In the event of any oil leakage, the Contractor should clean up the polluted soil and handle all the materials used for this cleaning works as chemical waste.

The Contractor was reminded to increase the frequency of inspection and cleaning of the site drainage system and desilting facilities. Moreover, the Contractor should apply approved pesticides in the stagnant water ponds.

The Contractor should use suitable containers with proper labels to store chemical wastes in accordance with Code of Practice on the Packaging, Labeling and Storage of Chemical Waste. The Contractor should also advise their workers of the proper procedures in handling the chemical waste. All the trip tickets for chemical waste disposal were properly kept in the site office. No chemical waste disposal was undertaken in this quarter.

All the runoff should be pumped to the desilting facilities to remove suspended solids prior to discharge.

6.0 ECOLOGY

A comprehensive tree survey was carried out by Kaden in mid 2008. The two uncommon tree species (*Celtis timorensis* and *Celtis biondii*) could not be identified on site as per the Figure 4 of the EP.

A joint visit amongst EPD, AFCD, Kaden, DSD and RE was subsequently held on 24 March 2009 and some immature Celtic timorensis plants were identified at certain locations at Chung Mei. It was agreed that a full vegetation survey (in addition to the previous tree survey) should be conducted to identify the immature uncommon species.

Kaden had employed a landscape subcontractor "Bluet" and carried out a vegetation survey on 17 April 2009. Some immature uncommon species had been identified at Chung Mei near the Works Area. The vegetation survey report prepared by "Bluet" is attached in Appendix H.

No sewerage works have been taken place in the concerned areas as yet. A temporary access road is proposed to be built near the concerned areas and the temporary access plan is attached in Appendix I. The Contractor has used plastic rails to fence off the plants from the construction works and notices have been posted for warning the site personnel of the presence of the uncommon tree species. Photos attached in Appendix J present the fencing and protection provided for those uncommon species.

7.0 ARCHAEOLOGY AND CULTURAL HERITAGE

Refer to the Section 9 of EM&A Manual, a watching brief was conducted in Chung Mei, Sok Kwu Wan by Archaeological Assessments Limited on 01 September 2008.

The watching brief took place along the length of sewer trench alignment between manholes MH52 and MH54. In overview, the sewer trench between manholes MH52 and MH54 has seen little or no human activity in the past and can be considered to have no archaeological potential.

8.0 NON-COMPLIANCE OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

8.1 Summary of Non-compliance

No exceedances of Action and Limit Level of 24-hour and 1-hour TSP monitoring results were recorded during the reporting period.

No exceedance of Action Level of noise monitoring was recorded in this quarter since no complaint on noise issue was received. Besides, no exceedances in Limit Level were recorded according to the results from Day-time noise monitoring..

No evening-time, night-time and holiday noise monitoring were required since no construction works were processed during these periods.

8.2 Review of the Reasons for and the Implications of Non-compliance

Since there were no exceedances on air quality and noise monitoring parameters recorded in this monitoring quarter, the review of the reasons for the non-compliance was not required.

8.3 Summary of Actions Taken

Since no exceedances were recorded, no further actions were required.

8.4 Summary of Environmental Complaint, Notifications of Summons and Successful Prosecutions Handling

No environmental complaints, notifications of summons and successful prosecutions were received in this quarter.

A summary of environmental complaints and prosecutions was given in Table 6.1.

Table 8.1 Summary of Environmental Complaints and Prosecutions

Period	Complaints logged	Summon served	Successful Prosecution
March 2009	0	0	0
April 2009	0	0	0
May 2009	0	0	0
Cumulative	1	0	0

9.0 COMMENTS, CONCLUSIONS AND RECOMMENDATION

This report presents the fourth quarter of the Project. Major site activities were excavation and pipe-laying works. Noise and air quality were the major environmental issues in the Project. Generally, the Contractor implemented most of the mitigation measures to minimize the dust impact.

No exceedances of Action and Limit Level of air quality and noise monitoring were recorded in this quarter.

No environmental complaints, notification of summons and prosecutions with respect to environmental issues were received in this quarter.

According to the ET weekly site inspections carried out in this quarter, it was indicated that site practices of the Contractor were generally undertaken in an environmentally acceptable manner and the overall site environmental performance was up to standard. The Contractor generally implemented sufficient dust mitigation measures.

According to the environmental site inspections performed in this quarter, the following recommendations were provided:

Air Quality

- Ensure the frequency of water spraying on unpaved/unloading areas and stockpiles to be sufficient to suppress the dust sources;
- Undertake water spraying on stockpiling area;
- Provide proper maintenance for the powered mechanical equipment and barges to avoid emission of dark smoke;
- Erect adequate speed limit signs to advise the truck drivers of the speed limit; and
- Implement the dust mitigation measures for the construction activities.

Noise

- Conduct noisy activities at a farther location from the NSRs.

Water Quality

- Provide proper treatment for the wastewater discharged; and
- Remove the stagnant water or provide pesticide for the stagnant water in the permanent desilting chambers, if any.

Chemical and Waste Management

- Remove waste materials from the site to avoid accumulation regularly;
- Handle and store chemical wastes properly;
- Provide and maintain sufficient drip trays for diesel drums, chemical containers, chemical waste storage drums and diesel operated generator set;
- Maintain good housekeeping; and
- Avoid oil being polluted during oil filling and equipment maintenance; hence, properly remove and store the contaminated soil, if any.



Appendix A

Organization Chart and Lines of Communication

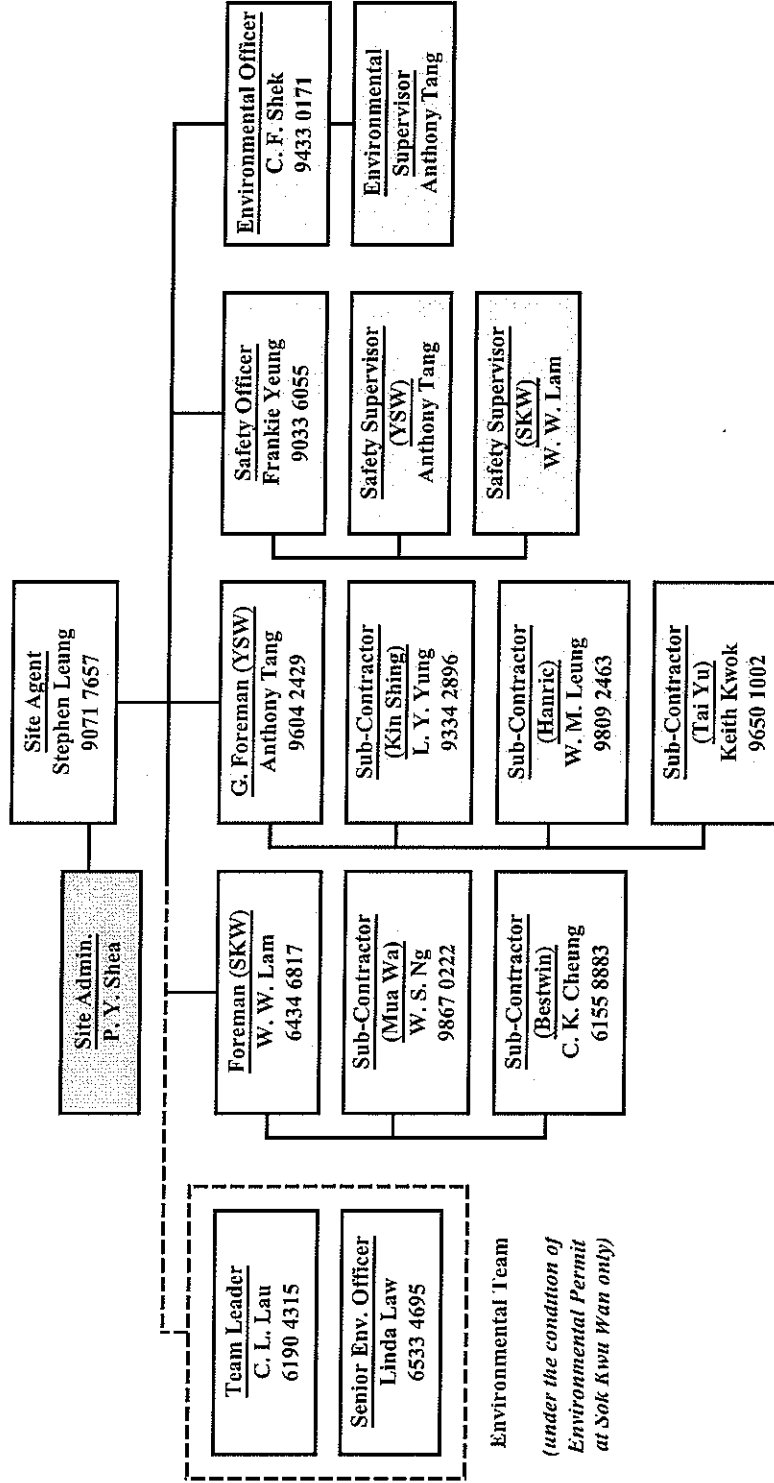
Kaden Construction Limited



DSD Contract No. DC/2007/18

Yung Shue Wan and Sok Kwu Wan Village Sewerage, Stage 1 Works

Organization Structure for Environmental Management (EMP Rev. 14.00)



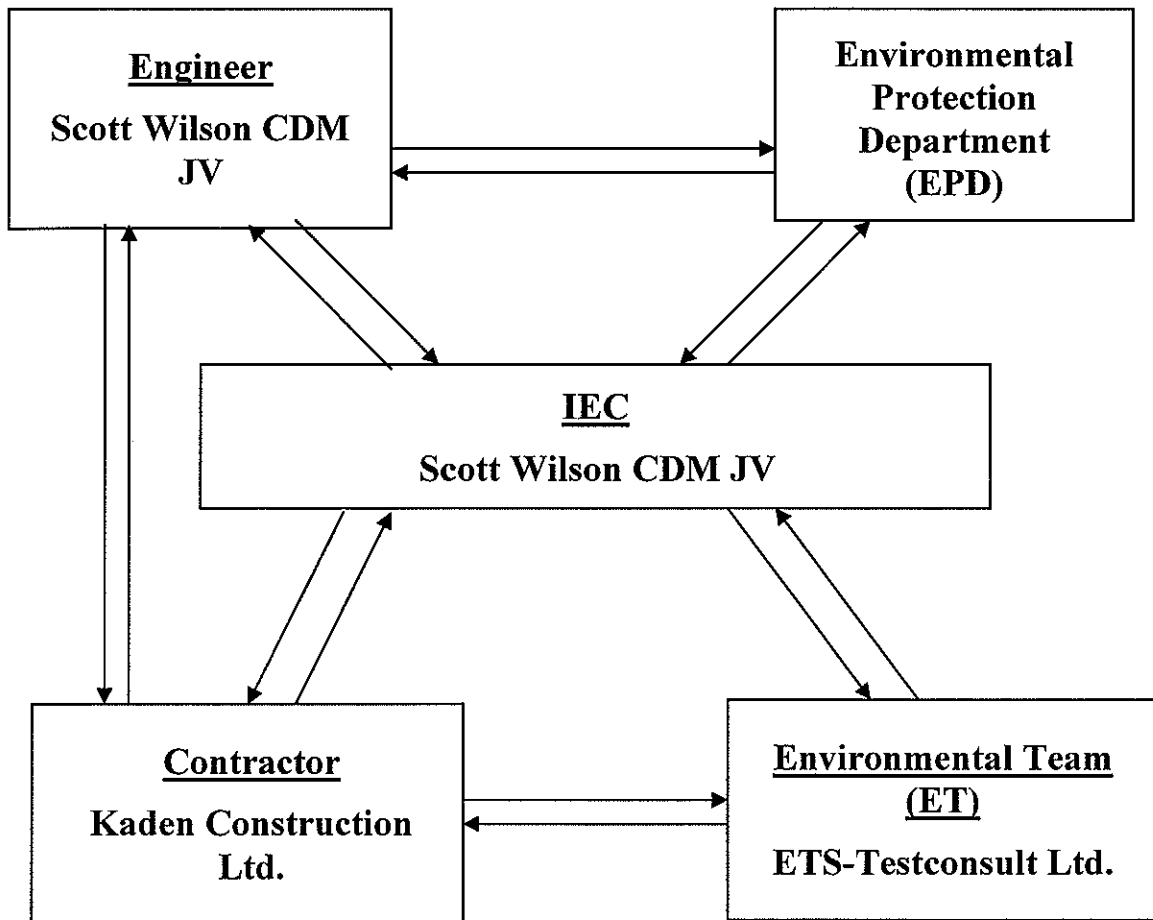
Team Leader
C. L. Lau
6190 4315

Senior Env. Officer
Linda Law
6533 4695

Environmental Team
*(under the condition of
Environmental Permit
at Sok Kwu Wan only)*



Lines of Communication





Appendix B1

Impact Air Quality Monitoring Results in this Quarter

Summary of 24-hr TSP Monitoring Results

Monitoring Station : AM1

Date	Time	Finish Date	Finish Time	Elapse Time		Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average (m ³ /min.)	Filter Weight (g)		Conc. (µg/m ³)	Weather Condition
				Initial	Final		Initial	Final		Initial	Final		
05/03/09	12:58	06/03/09	12:58	13847.25	13871.25	24.00	1.1148	1.1148	1.1148	2.8093	2.9079	61	Cloudy
11/03/09	12:18	12/03/09	12:17	13871.25	13895.24	23.99	1.1903	1.1903	1.1903	2.8070	2.9256	69	Cloudy
17/03/09	11:40	18/03/09	11:40	13895.24	13919.24	24.00	1.1400	1.1400	1.1400	2.7927	2.8908	60	Fine
23/03/09	12:30	24/03/09	12:30	13919.24	13943.24	24.00	1.1148	1.1148	1.1148	2.8283	2.9640	85	Cloudy
27/03/09	12:35	28/03/09	12:35	13943.24	13967.24	24.00	1.2154	1.2154	1.2154	2.8041	2.8910	50	Cloudy
02/04/09	12:12	03/04/09	12:12	13967.24	13991.24	24.00	1.1651	1.1651	1.1651	2.7933	2.9178	74	Cloudy
08/04/09	12:30	09/04/09	12:30	13991.24	14015.24	23.99	1.2657	1.2657	1.2657	2.7745	2.9089	74	Sunny
14/04/09	12:40	15/04/09	12:40	14015.24	14039.24	24.00	1.1651	1.1651	1.1651	2.8035	2.9029	59	Sunny
20/04/09	12:45	21/04/09	12:45	14039.24	14063.24	24.00	1.1551	1.1551	1.1551	2.7632	2.8495	52	Sunny
24/04/09	12:32	25/04/09	12:32	14063.24	14087.24	24.00	1.1551	1.1551	1.1551	2.7896	2.8527	38	Cloudy
30/04/09	12:26	01/05/09	12:26	14087.24	14111.24	24.00	1.0803	1.0803	1.0803	2.7812	2.8593	50	Fine
06/05/09	09:49	07/05/09	09:49	14111.24	14135.24	24.00	1.0554	1.0554	1.0554	2.7975	2.9020	69	Sunny
12/05/09	09:18	13/05/09	09:18	14135.24	14159.24	24.00	1.0554	1.0554	1.0554	2.7336	2.7855	34	Sunny
18/05/09	12:26	19/05/09	12:26	14159.24	14183.24	24.00	1.0304	1.0304	1.0304	2.7908	2.8324	28	Sunny
22/05/09	10:33	23/05/09	10:33	14183.24	14207.24	24.00	1.0554	1.0554	1.0554	2.8653	2.9161	33	Cloudy
27/05/09	09:20	28/05/09	09:21	14207.24	14231.25	24.01	1.1052	1.1052	1.1052	2.8399	2.9067	42	Cloudy

Monitoring Station : AM2

Date	Time	Finish Date	Finish Time	Elapse Time		Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average (m ³ /min.)	Filter Weight (g)		Conc. (µg/m ³)	Weather Condition
				Initial	Final		Initial	Final		Initial	Final		
05/03/09	12:51	06/03/09	12:51	17883.04	17907.04	24.00	1.2109	1.2109	1.2109	2.7959	2.8954	57	Cloudy
11/03/09	12:20	12/03/09	12:20	17907.04	17931.04	24.00	1.3012	1.3012	1.3012	2.8044	2.9362	70	Cloudy
17/03/09	11:42	18/03/09	11:42	17931.04	17955.04	24.00	1.2109	1.2109	1.2109	2.8327	2.9609	74	Fine
23/03/09	12:34	24/03/09	12:34	17955.04	17979.04	24.00	1.3012	1.3012	1.3012	2.8225	2.9570	72	Cloudy
27/03/09	12:38	28/03/09	12:50	17979.04	18003.24	24.20	1.3313	1.3313	1.3313	2.7855	2.8900	55	Cloudy
02/04/09	12:05	03/04/09	12:05	18003.24	18027.24	24.00	1.2109	1.2109	1.2109	2.7772	2.9092	76	Cloudy
08/04/09	12:35	09/04/09	12:35	18027.24	18051.24	23.99	1.2109	1.2109	1.2109	2.7590	2.9152	90	Sunny
14/04/09	12:40	15/04/09	12:40	18051.24	18075.24	24.00	1.2711	1.2711	1.2711	2.7856	2.8969	61	Sunny
20/04/09	12:50	21/04/09	12:50	18075.24	18099.24	24.00	1.2005	1.2005	1.2005	2.8029	2.9018	57	Sunny
24/04/09	12:37	25/04/09	12:37	18099.24	18123.24	24.00	1.2602	1.2602	1.2602	2.7693	2.8707	56	Cloudy
30/04/09	12:30	01/05/09	12:30	18123.24	18147.24	24.00	1.3198	1.3198	1.3198	2.8026	2.9054	54	Fine
06/05/09	10:00	07/05/09	10:00	18147.24	18171.24	24.00	1.3198	1.3198	1.3198	2.7979	2.9296	69	Sunny
12/05/09	09:24	13/05/09	09:24	18171.24	18195.24	24.00	1.3198	1.3198	1.3198	2.8019	2.8649	33	Sunny
18/05/09	12:30	19/05/09	12:30	18195.24	19219.24	24.00	1.2005	1.2005	1.2005	2.7853	2.8269	24	Sunny
22/05/09	10:36	23/05/09	10:36	18219.24	19243.24	24.00	1.2900	1.2900	1.2900	2.8838	2.9395	30	Cloudy
27/05/09	09:31	28/05/09	09:31	18243.24	18267.24	24.00	1.2602	1.2602	1.2602	2.8020	2.8689	37	Cloudy

Summary of 24-hr TSP Monitoring Results

Monitoring Station : AM3

Date	Start Time	Finish Date	Finish Time	Elapse Time		Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average (m ³ /min.)	Filter Weight (g)		Conc. (µg/m ³)	Weather Condition
				Initial	Final		Initial	Final		Initial	Final		
05/03/09	10:20	06/03/09	10:20	1943.51	1967.51	24.00	1.1159	1.1159	1.1159	2.7996	2.8654	41	Cloudy
11/03/09	11:45	12/03/09	11:45	1967.51	1991.51	24.00	1.1773	1.1773	1.1773	2.7703	2.9083	81	Cloudy
17/03/09	11:58	18/03/09	11:58	1991.51	2015.51	24.00	1.0546	1.0546	1.0546	2.8165	2.9153	65	Fine
23/03/09	16:00	24/03/09	16:00	2015.51	2039.51	24.00	0.9012	0.9012	0.9012	2.8270	2.9631	105	Cloudy
27/03/09	16:02	28/03/09	16:02	2039.51	3063.51	24.00	1.0546	1.0546	1.0546	2.7793	2.9018	81	Cloudy
02/04/09	12:38	03/04/09	12:38	2063.51	2087.51	24.00	1.3306	1.3306	1.3306	2.7589	2.9301	89	Cloudy
08/04/09	14:30	09/04/09	14:30	2087.51	2111.51	23.99	1.2386	1.2386	1.2386	2.7538	3.0635	174	Sunny
14/04/09	13:10	15/04/09	13:10	2111.51	2135.51	24.00	1.2080	1.2080	1.2080	2.8052	2.9782	99	Sunny
20/04/09	15:09	21/04/09	15:09	2135.51	2159.51	24.00	1.2280	1.2280	1.2280	2.7735	2.9227	84	Sunny
24/04/09	11:03	25/04/09	11:03	2159.51	2183.51	24.00	1.1672	1.1672	1.1672	2.7734	2.9634	113	Cloudy
30/04/09	13:05	01/05/09	13:05	2183.51	2207.51	24.00	1.1064	1.1064	1.1064	2.7984	2.9990	126	Fine
06/05/09	13:26	07/05/09	13:26	2207.51	2231.51	24.00	1.2584	1.2584	1.2584	2.8123	2.9592	82	Sunny
12/05/09	12:54	13/05/09	12:54	2231.51	2255.51	24.00	1.1064	1.1064	1.1064	2.7644	2.8966	83	Sunny
18/05/09	13:05	19/05/09	13:05	2255.51	2279.51	24.00	1.2584	1.2584	1.2584	2.7869	2.8320	25	Sunny
22/05/09	10:08	23/05/09	10:08	2279.51	2303.51	24.00	1.1976	1.1976	1.1976	2.8383	3.0665	132	Cloudy
27/05/09	13:00	28/05/09	13:00	2303.51	2327.51	24.00	1.1976	1.1976	1.1976	2.8238	2.9134	52	Cloudy

Summary of 1-hr TSP Monitoring Results

Monitoring Station : AM1

Date	Monitoring Period		1-hr TSP ($\mu\text{g}/\text{m}^3$)				Weather
	Start	Finish	Minimum	Maximum	Average		
05/03/09	09:10	10:10	44	368	91	Cloudy	
05/03/09	10:10	11:10	48	405	101	Cloudy	
05/03/09	11:10	12:10	47	421	106	Cloudy	
11/03/09	09:14	10:14	82	424	138	Cloudy	
11/03/09	10:14	11:14	90	406	130	Cloudy	
11/03/09	11:14	12:14	72	372	141	Cloudy	
17/03/09	09:20	10:20	81	406	148	Fine	
17/03/09	10:20	11:20	90	428	156	Fine	
17/03/09	13:00	14:00	72	387	137	Fine	
23/03/09	09:50	10:50	92	377	140	Cloudy	
23/03/09	10:50	11:50	84	406	154	Cloudy	
23/03/09	13:00	14:00	82	352	130	Cloudy	
27/03/09	09:22	10:22	95	365	117	Cloudy	
27/03/09	10:22	11:22	102	422	132	Cloudy	
27/03/09	11:22	12:22	90	384	103	Cloudy	
02/04/09	13:15	14:15	48	409	97	Cloudy	
02/04/09	14:15	15:15	50	419	102	Cloudy	
02/04/09	15:15	16:15	45	425	102	Cloudy	
08/04/09	09:25	10:25	85	427	132	Sunny	
08/04/09	10:25	11:25	106	416	142	Sunny	
08/04/09	11:25	12:25	112	407	148	Sunny	
14/04/09	09:20	10:20	87	502	161	Sunny	
14/04/09	10:20	11:20	95	476	184	Sunny	
14/04/09	11:20	12:20	100	482	173	Sunny	
20/04/09	13:00	14:00	107	590	167	Sunny	
20/04/09	14:00	15:00	89	582	158	Sunny	
20/04/09	15:00	16:00	95	534	176	Sunny	
24/04/09	09:30	10:30	82	422	142	Cloudy	
24/04/09	10:30	11:30	94	502	166	Cloudy	
24/04/09	13:15	14:15	86	465	156	Cloudy	
30/04/09	09:18	10:18	95	406	160	Fine	
30/04/09	10:18	11:18	115	412	175	Fine	
30/04/09	11:18	12:18	105	398	135	Fine	
06/05/09	09:20	10:20	102	479	166	Fine	
06/05/09	10:20	11:20	98	507	147	Fine	
06/05/09	11:20	12:20	90	426	153	Fine	
12/05/09	09:15	10:15	107	543	185	Sunny	
12/05/09	10:15	11:15	98	569	163	Sunny	
12/05/09	11:15	12:15	115	412	148	Sunny	
18/05/09	09:12	10:12	106	516	187	Sunny	
18/05/09	10:12	11:12	95	549	219	Sunny	
18/05/09	11:12	12:12	100	502	161	Sunny	
22/05/09	09:13	10:13	96	412	178	Cloudy	
22/05/09	10:13	11:13	109	467	209	Cloudy	
22/05/09	11:13	12:13	99	406	193	Cloudy	
27/05/09	09:13	10:13	102	412	193	Cloudy	
27/05/09	10:13	11:13	98	436	214	Cloudy	
27/05/09	11:13	12:13	100	406	183	Cloudy	

Summary of 1-hr TSP Monitoring Results

Monitoring Station : AM2

Date	Monitoring Period		1-hr TSP ($\mu\text{g}/\text{m}^3$)			Weather
	Start	Finish	Minimum	Maximum	Average	
05/03/09	13:00	14:00	40	414	90	Cloudy
05/03/09	14:00	15:00	37	410	80	Cloudy
05/03/09	15:00	16:00	41	435	101	Drizzle
11/03/09	09:16	10:16	75	429	121	Cloudy
11/03/09	10:16	11:16	68	395	115	Cloudy
11/03/09	11:16	12:16	65	356	116	Cloudy
17/03/09	09:30	10:30	78	396	130	Fine
17/03/09	10:30	11:30	96	432	146	Fine
17/03/09	13:10	14:10	87	415	140	Fine
23/03/09	09:53	10:53	91	399	140	Cloudy
23/03/09	10:53	11:53	100	422	153	Cloudy
23/03/09	13:00	14:00	97	376	126	Cloudy
27/03/09	09:20	10:20	107	373	112	Cloudy
27/03/09	10:20	11:20	96	402	130	Cloudy
27/03/09	11:20	12:20	102	411	107	Cloudy
02/04/09	13:28	14:28	43	398	86	Cloudy
02/04/09	14:28	15:28	39	388	78	Cloudy
02/04/09	15:28	16:28	44	410	87	Cloudy
08/04/09	09:28	10:28	99	435	136	Sunny
08/04/09	10:28	11:28	95	429	141	Sunny
08/04/09	11:28	12:28	109	440	123	Sunny
14/04/09	09:25	10:25	87	512	154	Sunny
14/04/09	10:25	11:25	102	506	151	Sunny
14/04/09	11:25	12:25	96	492	163	Sunny
20/04/09	13:04	14:04	106	622	141	Sunny
20/04/09	14:04	15:04	96	573	135	Sunny
20/04/09	15:04	16:04	87	568	159	Sunny
24/04/09	09:40	10:40	73	395	118	Cloudy
24/04/09	10:40	11:40	102	513	155	Cloudy
24/04/09	13:20	14:20	95	471	151	Cloudy
30/04/09	09:20	10:20	107	419	146	Fine
30/04/09	10:20	11:20	99	440	171	Fine
30/04/09	11:20	12:20	106	407	128	Fine
06/05/09	09:23	10:23	111	490	157	Fine
06/05/09	10:23	11:23	107	526	142	Fine
06/05/09	11:23	12:23	98	441	135	Fine
12/05/09	09:18	10:18	122	521	171	Sunny
12/05/09	10:18	11:18	106	578	151	Sunny
12/05/09	11:18	12:18	118	406	141	Sunny
18/05/09	09:15	10:15	110	537	156	Sunny
18/05/09	10:15	11:15	107	569	175	Sunny
18/05/09	11:15	12:15	100	524	149	Sunny
22/05/09	09:16	10:16	95	430	178	Cloudy
22/05/09	10:16	11:16	110	492	208	Cloudy
22/05/09	11:16	12:16	102	188	180	Cloudy
27/05/09	09:16	10:16	97	438	180	Cloudy
27/05/09	10:16	11:16	106	451	202	Cloudy
27/05/09	11:16	12:16	112	440	172	Cloudy

Summary of 1-hr TSP Monitoring Results

Monitoring Station : AM3

Date	Monitoring Period		1-hr TSP ($\mu\text{g}/\text{m}^3$)			Weather
	Start	Finish	Minimum	Maximum	Average	
05/03/09	13:15	14:15	62	554	138	Cloudy
05/03/09	14:15	15:15	60	537	126	Cloudy
05/03/09	15:15	16:15	65	560	145	Drizzle
11/03/09	13:00	14:00	72	422	115	Cloudy
11/03/09	14:00	15:00	74	384	126	Cloudy
11/03/09	15:00	16:00	82	402	132	Cloudy
17/03/09	14:30	15:30	64	353	120	Fine
17/03/09	15:30	16:30	69	364	132	Fine
17/03/09	16:30	17:30	75	375	143	Fine
23/03/09	14:15	15:15	72	356	146	Cloudy
23/03/09	15:15	16:15	83	381	140	Cloudy
23/03/09	16:15	17:15	85	367	121	Cloudy
27/03/09	13:00	14:00	122	406	140	Cloudy
27/03/09	14:00	15:00	102	452	127	Cloudy
27/03/09	15:00	16:00	95	427	112	Cloudy
02/04/09	09:08	10:08	63	563	126	Cloudy
02/04/09	10:08	11:08	69	580	131	Cloudy
02/04/09	11:08	12:08	60	577	124	Cloudy
08/04/09	13:00	14:00	96	426	155	Sunny
08/04/09	14:00	15:00	107	418	141	Sunny
08/04/09	15:00	16:00	102	471	144	Sunny
14/04/09	13:00	14:00	106	533	175	Sunny
14/04/09	14:00	15:00	95	526	186	Sunny
14/04/09	15:00	16:00	100	506	187	Sunny
20/04/09	09:15	10:15	88	596	187	Sunny
20/04/09	10:15	11:15	107	546	176	Sunny
20/04/09	11:15	12:15	103	498	163	Sunny
24/04/09	14:40	15:40	127	595	226	Cloudy
24/04/09	15:40	16:40	115	536	207	Cloudy
24/04/09	16:40	17:40	104	529	194	Cloudy
30/04/09	13:00	14:00	112	593	180	Fine
30/04/09	14:00	15:00	106	612	206	Fine
30/04/09	15:00	16:00	102	552	161	Fine
06/05/09	13:00	14:00	109	552	192	Fine
06/05/09	14:00	15:00	112	569	214	Fine
06/05/09	15:00	16:00	97	520	203	Fine
12/05/09	13:00	14:00	111	549	226	Sunny
12/05/09	14:00	15:00	106	498	213	Sunny
12/05/09	15:00	16:00	98	507	220	Sunny
18/05/09	13:00	14:00	99	509	166	Sunny
18/05/09	14:00	15:00	113	537	193	Sunny
18/05/09	15:00	16:00	88	488	203	Sunny
22/05/09	13:00	14:00	106	422	168	Cloudy
22/05/09	14:00	15:00	98	476	216	Cloudy
22/05/09	15:00	16:00	89	417	197	Cloudy
27/05/09	13:00	14:00	106	397	167	Cloudy
27/05/09	14:00	15:00	121	422	201	Cloudy
27/05/09	15:00	16:00	100	415	191	Cloudy

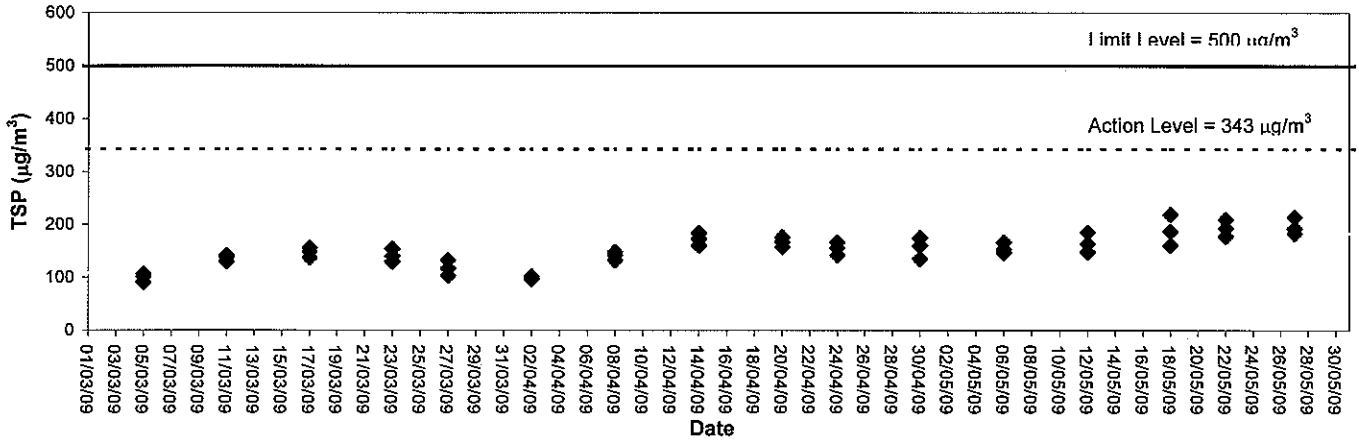


Appendix B2

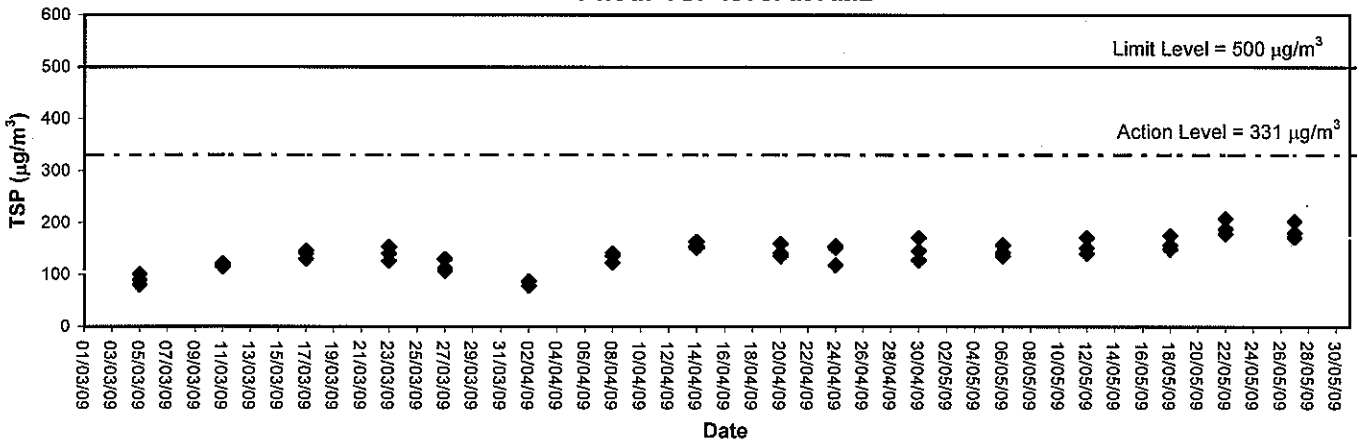
Graphical Plots of Impact Air Quality Monitoring Data in this Quarter



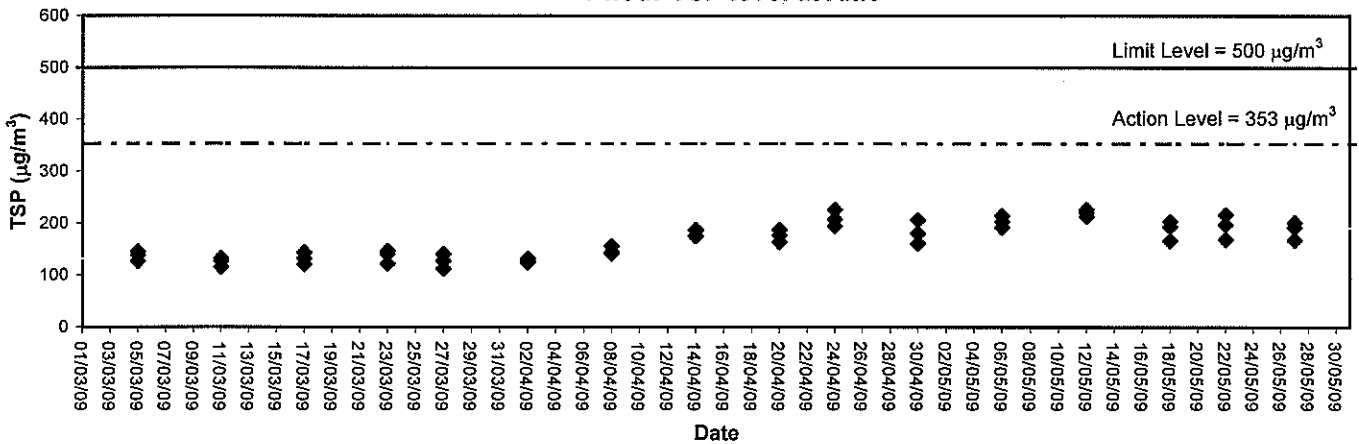
1-hour TSP level at AM1



1-hour TSP level at AM2

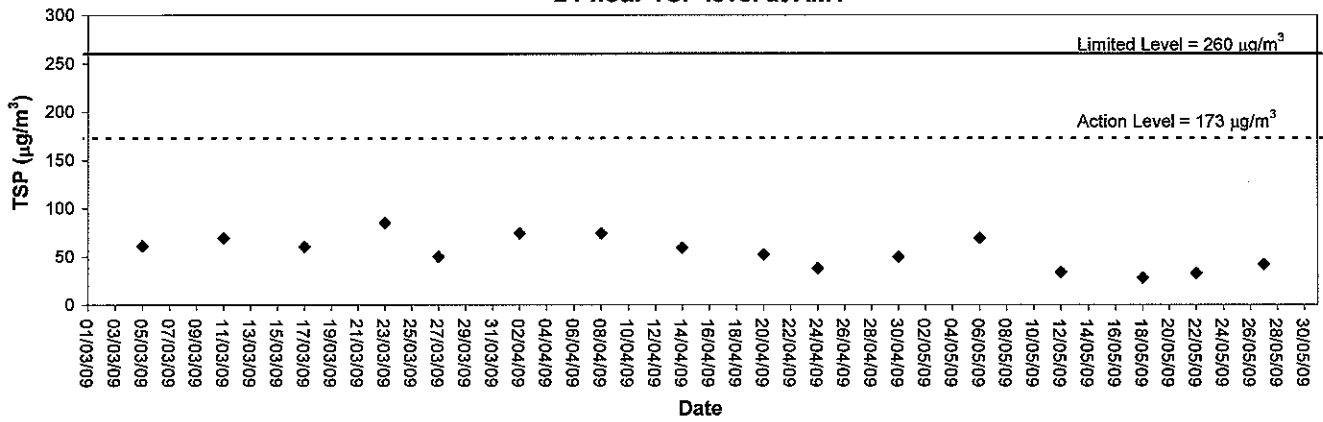


1-hour TSP level at AM3

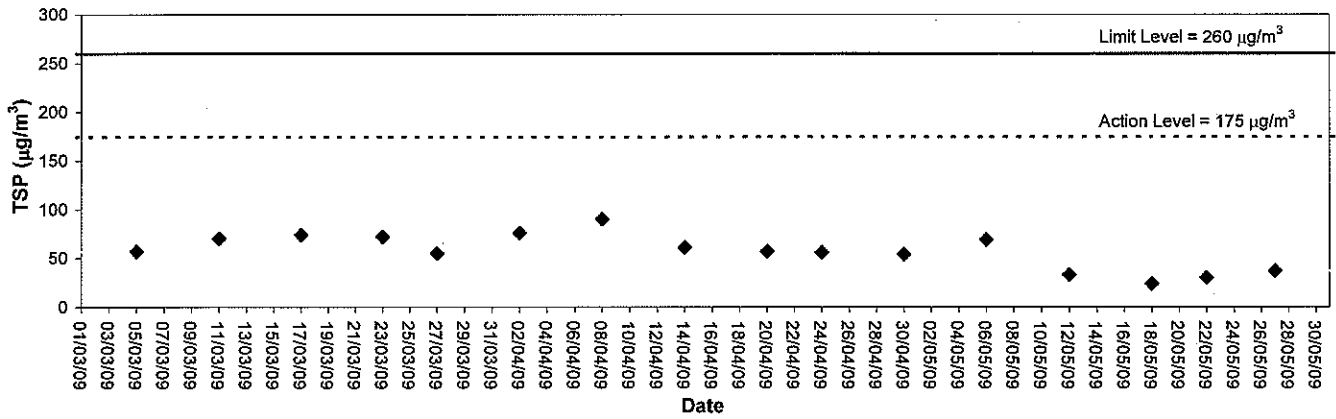




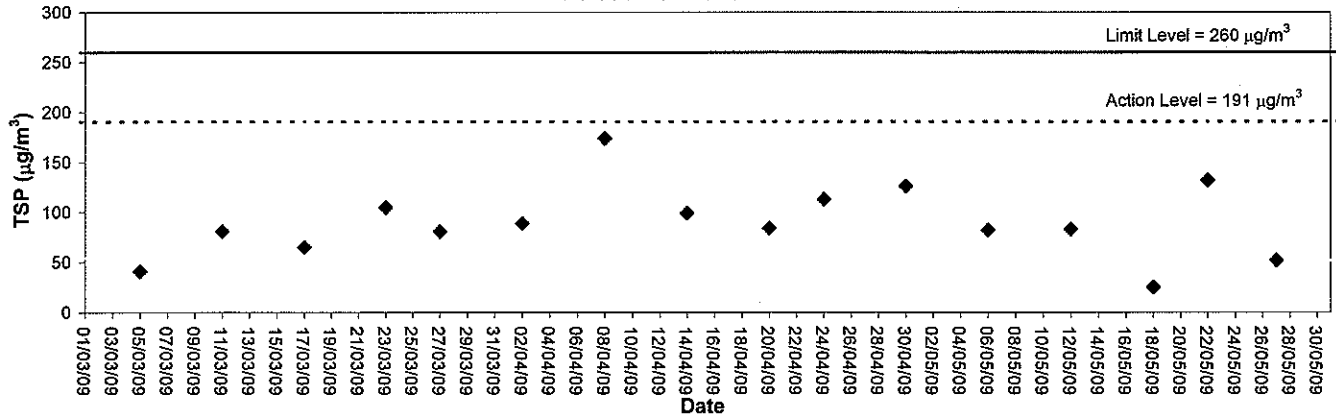
24-hour TSP level at AM1



24-hour TSP level at AM2



24-hour TSP level at AM3





Appendix C1

Impact Noise Monitoring Results in this Quarter



Day-time Noise Monitoring

Monitoring Station: NM1

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
05/03/09	Cloudy	09:20	09:50	51.9	55.2	49.7	1.2
11/03/09	Cloudy	09:20	09:50	64.4	66.1	47.5	0.4
17/03/09	Fine	13:15	13:45	62.3	65.0	59.4	1.2
23/03/09	Cloudy	11:12	11:42	68.5	70.3	59.1	0.4
02/04/09	Cloudy	13:40	14:10	54.2	58.1	46.3	2.0
08/04/09	Sunny	09:40	10:10	57.9	63.0	42.9	0.2
14/04/09	Sunny	14:30	15:00	55.2	56.7	49.2	0.2
20/04/09	Sunny	15:20	15:50	54.7	56.1	49.2	0.2
30/04/09	Fine	09:45	10:15	59.2	61.1	52.6	1.0
06/05/09	Fine	10:00	10:30	67.3	68.4	47.6	0.5
12/05/09	Sunny	09:30	10:00	58.2	59.7	49.5	0.5
18/05/09	Sunny	14:50	15:20	61.9	63.0	58.1	0.5
27/05/09	Cloudy	09:40	10:10	64.5	67.3	51.6	0.1

Monitoring Station: NM2

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
05/03/09	Cloudy	10:08	10:38	64.7	67.6	62.3	1.0
11/03/09	Cloudy	09:55	10:25	71.2	75.1	57.8	0.7
17/03/09	Fine	14:00	14:30	69.9	74.4	65.8	0.6
23/03/09	Cloudy	13:30	14:00	69.2	71.1	58.2	0.5
02/04/09	Cloudy	14:35	15:05	61.8	66.9	59.5	1.7
08/04/09	Sunny	10:20	10:50	68.3	70.4	57.7	0.0
14/04/09	Sunny	10:23	10:53	65.5	66.9	58.0	0.4
20/04/09	Sunny	14:35	15:05	63.2	65.1	56.1	0.3
30/04/09	Fine	10:20	10:50	65.1	66.8	57.3	1.5
06/05/09	Fine	10:35	11:05	69.0	70.8	57.3	0.6
12/05/09	Sunny	10:05	10:35	73.6	74.8	66.1	0.4
18/05/09	Sunny	11:10	11:40	65.1	66.1	58.0	0.6
27/05/09	Cloudy	10:15	10:45	65.1	66.1	54.8	0.0

Monitoring Station: RNM3

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
05/03/09	Cloudy	10:55	11:25	63.5	68.8	61.7	1.0
11/03/09	Cloudy	10:30	11:00	68.3	70.2	60.6	1.0
17/03/09	Fine	14:42	15:12	67.3	69.8	64.7	0.9
23/03/09	Cloudy	14:10	14:40	66.1	68.4	58.0	0.6
02/04/09	Cloudy	10:18	10:48	62.5	57.4	60.0	2.0
08/04/09	Sunny	10:55	11:25	65.2	66.7	55.1	0.5
14/04/09	Sunny	11:00	11:30	63.4	64.4	56.6	0.2
20/04/09	Sunny	13:55	14:25	60.8	62.5	55.5	0.3
30/04/09	Fine	10:55	11:25	61.1	62.6	56.1	1.2
06/05/09	Fine	13:33	14:03	66.4	69.3	55.1	0.2
12/05/09	Sunny	13:20	13:50	74.0	75.2	68.2	0.2
18/05/09	Sunny	13:05	13:35	70.0	71.1	60.3	0.4
27/05/09	Cloudy	14:15	14:45	61.7	62.9	54.7	0.4

Monitoring Station: NM4

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
05/03/09	Cloudy	11:35	12:05	50.7	56.7	45.8	1.5
11/03/09	Cloudy	11:10	11:40	51.8	53.6	46.3	0.5
17/03/09	Fine	15:25	15:55	52.6	55.0	49.9	1.7
23/03/09	Cloudy	14:50	15:20	60.2	63.1	55.1	1.0
02/04/09	Cloudy	09:25	09:55	52.8	55.7	45.9	2.3
08/04/09	Sunny	11:30	12:00	48.6	50.0	40.8	0.5
14/04/09	Sunny	09:45	10:15	52.3	54.1	47.9	0.2
20/04/09	Sunny	13:20	13:50	54.0	56.2	42.3	0.3
30/04/09	Fine	11:30	12:00	55.0	56.7	43.5	1.0
06/05/09	Fine	14:30	15:00	63.7	65.8	42.7	0.3
12/05/09	Sunny	14:30	15:00	73.7	74.6	65.6	0.3
18/05/09	Sunny	13:45	14:15	52.1	53.8	43.0	0.4
27/05/09	Cloudy	13:15	13:45	63.8	66.8	43.3	0.3



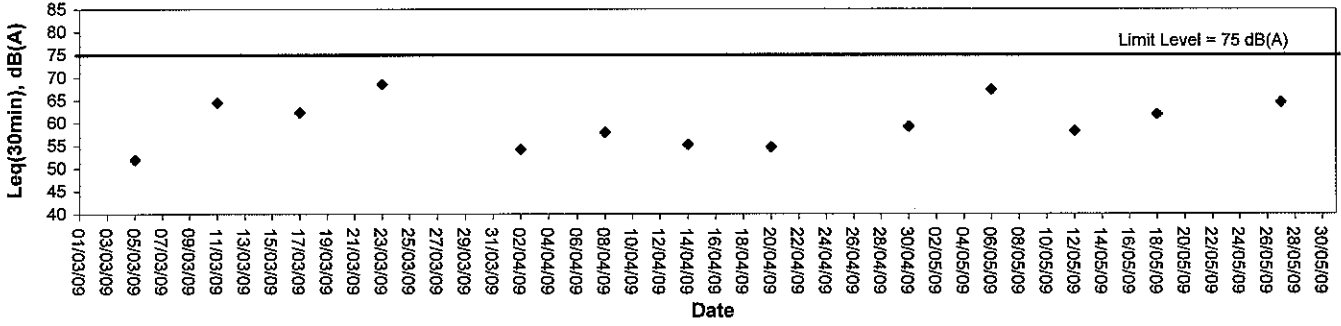
Appendix C2

Graphical Plots of Impact Noise Monitoring Data in this Quarter

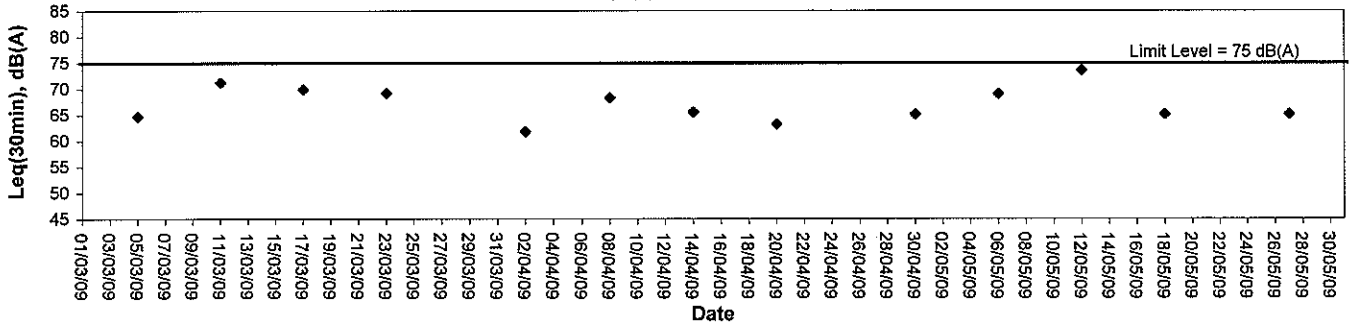


Noise Monitoring (Day-time)

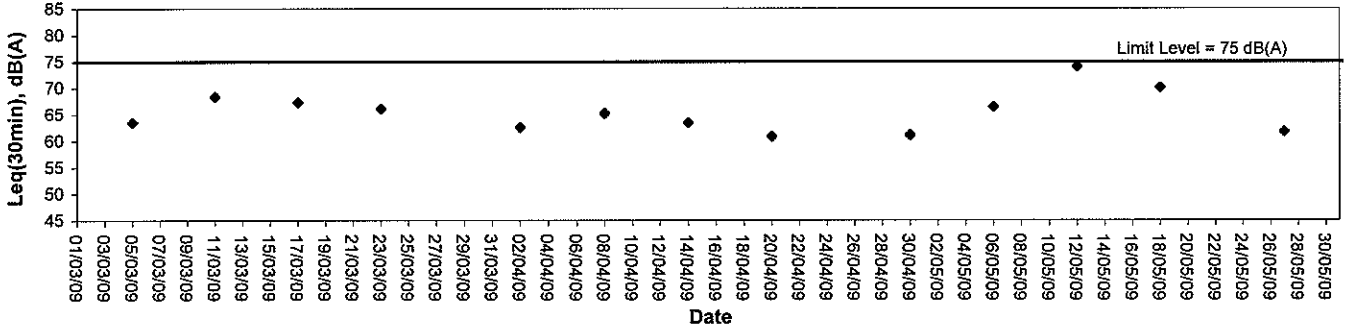
Noise level at NM1



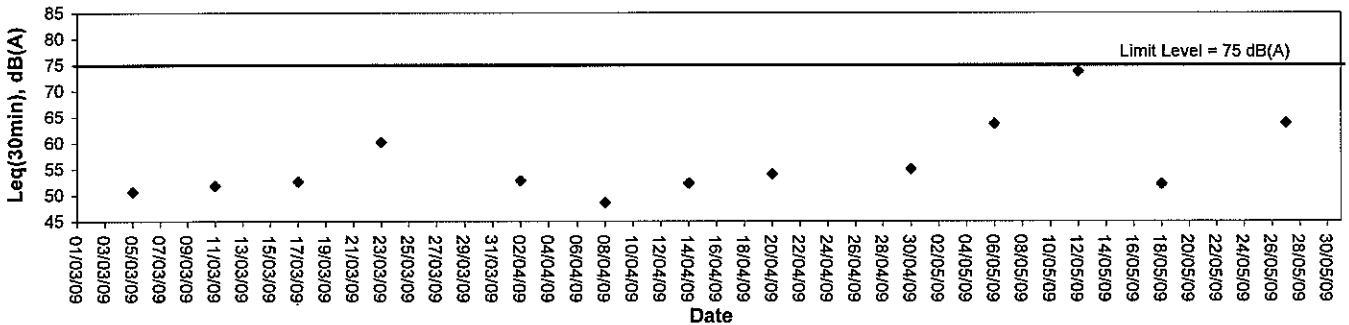
Noise level at NM2



Noise level at RNM3



Noise level at NM4





Appendix D

Environmental Quality Performance (Action / Limit Levels)



Action and Limit levels for 24-hr TSP and 1-hr TSP

Monitoring Station	24-hr TSP ($\mu\text{g}/\text{m}^3$)		1-hr TSP ($\mu\text{g}/\text{m}^3$)	
	Action Level	Limit Level	Action Level	Limit Level
AM1	173	260	343	500
AM2	175	260	331	500
AM3	191	260	353	500

Action and Limit Levels for Noise Monitoring

Time Period	Action	Limit
0700 – 1900 hrs normal weekdays	When one documented complaint is received	75 dB(A)



Appendix E

Event-Action Plans



Event / Action Plan for Air Quality

EVENT	ACTION			CONTRACTOR
	ET	IC(E)	ER	
Action Level				
Action Level being exceeded for one sample	<ol style="list-style-type: none"> Identify source, investigate the causes of Exceedance and propose remedial measures; Inform IC(E) and ER; Repeat measurement to confirm finding; Increase monitoring frequency to daily 	<ol style="list-style-type: none"> Check monitoring data submitted by ET; Check Contractor's working method. 	<ol style="list-style-type: none"> Notify Contractor. 	<ol style="list-style-type: none"> Rectify any unacceptable practice; Amend working methods if appropriate.
Action Level being exceeded for two or more consecutive samples	<ol style="list-style-type: none"> Same as the above; Advise the ER on the effectiveness of the proposed remedial measures; Discuss with IC(E) and Contractor on remedial actions required; If exceedance continues, arrange meeting with IC(E) and ER; If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> Same as the above; Discuss with ET and Contractor on possible remedial measures; Advise the ET on the effectiveness of the proposed remedial measures; Supervise implementation of remedial measures. 	<ol style="list-style-type: none"> Same as the above; Confirm receipt of notification of failure in writing; Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> Submit proposals for remedial actions to ER within 3 working days of notification; Implement the agreed proposals; Amend proposal if appropriate.
Limit Level				
Limit Level being exceeded for one sample	<ol style="list-style-type: none"> Identify source; Inform ER, Contractor and EPD; Repeat measurement to confirm finding; Increase monitoring frequency to daily; Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results. 	<ol style="list-style-type: none"> Checking monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on the possible remedial measures; Advise the ER on the effectiveness of the proposed remedial measures; Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial actions properly implemented. 	<ol style="list-style-type: none"> Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IC(E) within 3 working days of notification; Implement the agreed proposals; Amend proposal if appropriate.
Limit Level being exceeded for two or more consecutive samples	<ol style="list-style-type: none"> Same as the above; Carry our analysis of Contractor's working procedures to determine possible mitigation to be implemented; Arrange meeting with IC(E) and ER to discuss the remedial actions to be taken; If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> Discuss with ER, ET and Contractor on the potential remedial actions; Review Contractor's remedial actions whenever necessary to assume their effectiveness and advise the ER accordingly; Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> Same as the above; In consolidation with the IC(E), agree with the Contractor on the remedial measures to be implemented; If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	<ol style="list-style-type: none"> Same as the above; Resubmit proposals if problem still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is abated.



Event / Action Plan for Construction Noise

EVENT	ACTION				CONTRACTOR
	ET	IC(E)	ER	ER	
Action level	<ol style="list-style-type: none"> 1. Notify IC(E) and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IC(E), ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures ; 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review and investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure proper implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposal to IC(E); 2. Implement noise mitigation proposals. 	
Limit level	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IC(E), ER, EPD and Contractor; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IC(E), ER and EPD the causes and actions taken for the exceedances; 7. Assess the effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions to ensure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Same as above; 2. If exceedances continue, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IC(E); 3. Implement the agreed proposals; 4. Resubmit proposals if problem still out of control; 5. Stop the relevant portion of works as determined by ER, until the exceedance is abated. 	



Appendix F

Construction Programme

YOUNG SHUE WAN

WO 005 (S148-S165 Trenchless and SRW2nd St.)

Act ID	Activity Description	Room Dur	Early Start	Early Finish	Late Start	Late Finish	Free Float
MT4707	Enhancement of TTMS / Application of XP		04 JUN 08	04 JUN 08	04 JUN 08	04 JUN 08	0
MT4708	Implementation of TTA		05 JUN 08	12 JUN 08	12 JUN 08	12 JUN 08	0
MT4709	Inspection P1 / Liaison with UUI/ UU Diverison		14 JUL 08	17 JUL 08	17 JUL 08	17 JUL 08	0
MT4710	S148 (Locking Pt Construction)		17 JUL 08	18 AUG 08	18 AUG 08	18 AUG 08	0
MT4711	S148-150 (Excavation)		18 AUG 08	13 OCT 08	13 OCT 08	13 OCT 08	0
MT4712	S150-151 (Excavation)		14 OCT 08	23 NOV 08	23 NOV 08	23 NOV 08	0
MT4720	S155 (Locking Pt Construction)		20 NOV 08	23 DEC 08	23 DEC 08	23 DEC 08	0
MT4721	S151-152 (Pipa Laying)		24 DEC 08	31 JAN 09	31 JAN 09	31 JAN 09	0
MT4730	S148-S145 (Manholes Construction)		02 FEB 09	25 FEB 09	25 FEB 09	25 FEB 09	0
MT4730	S148-S145 (Manholes Construction)		25 FEB 09	11 MAY 09	11 MAY 09	11 MAY 09	0

WO 010 (SKW 3rd Branches & CM S37-S60-S57)

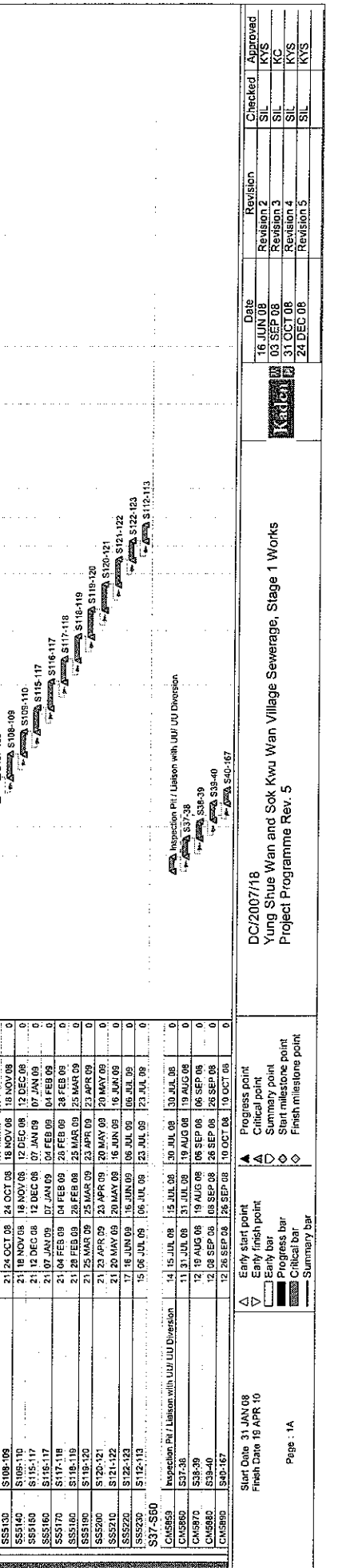
Act ID	Activity Description	Room Dur	Early Start	Early Finish	Late Start	Late Finish	Free Float
S54819	Inspection P1 / Liaison with UUI/ UU Diverison		28 APR 08	28 APR 08	28 APR 08	28 APR 08	0
S54820	S132-133		08 FEB 08	08 FEB 08	08 FEB 08	08 FEB 08	0
S54830	S133-134		31 DEC 08	05 FEB 09	05 FEB 09	05 FEB 09	0
S54840	S134-135		28 OCT 08	28 NOV 08	28 NOV 08	28 NOV 08	0
S54850	S135-140		28 NOV 08	31 DEC 08	31 DEC 08	31 DEC 08	0
S54870	S137-138		28 NOV 08	20 AUG 08	20 AUG 08	20 AUG 08	0
S54880	S138-139		15 JUL 08	30 SEP 08	30 SEP 08	30 SEP 08	0
S54890	S139-140		28 AUG 08	20 AUG 08	20 AUG 08	20 AUG 08	0
S140-S148			23 SEP 08	30 SEP 08	27 OCT 08	27 OCT 08	0

WO 010 (SKW 3rd Branches & CM S37-S60-S57)

Act ID	Activity Description	Room Dur	Early Start	Early Finish	Late Start	Late Finish	Free Float
S55119	Inspection P1 / Liaison with UUI/ UU Diverison		15 JUL 08	15 JUL 08	30 SEP 08	30 SEP 08	0
S55120	S107-108		20 SEP 08	24 OCT 08	24 OCT 08	24 OCT 08	0
S55130	S108-109		21 OCT 08	18 NOV 08	18 NOV 08	18 NOV 08	0
S55140	S109-110		18 NOV 08	12 DEC 08	12 DEC 08	12 DEC 08	0
S55150	S115-117		12 DEC 08	07 JAN 09	07 JAN 09	07 JAN 09	0
S55160	S118-117		27 JAN 09	04 FEB 09	04 FEB 09	04 FEB 09	0
S55170	S117-116		21 OCT 08	04 FEB 09	28 FEB 09	28 FEB 09	0
S55180	S116-119		21 FEB 09	25 MAR 09	25 MAR 09	25 MAR 09	0
S55190	S119-120		21 MAR 09	23 APR 09	23 APR 09	23 APR 09	0
S55200	S120-121		23 APR 09	20 MAY 09	20 MAY 09	20 MAY 09	0
S55210	S121-122		21 MAY 09	16 JUN 09	16 JUN 09	16 JUN 09	0
S55220	S122-123		17 JUN 09	06 JUL 09	06 JUL 09	06 JUL 09	0
S55230	S123-123		15 JUL 08	23 JUL 09	23 JUL 09	23 JUL 09	0

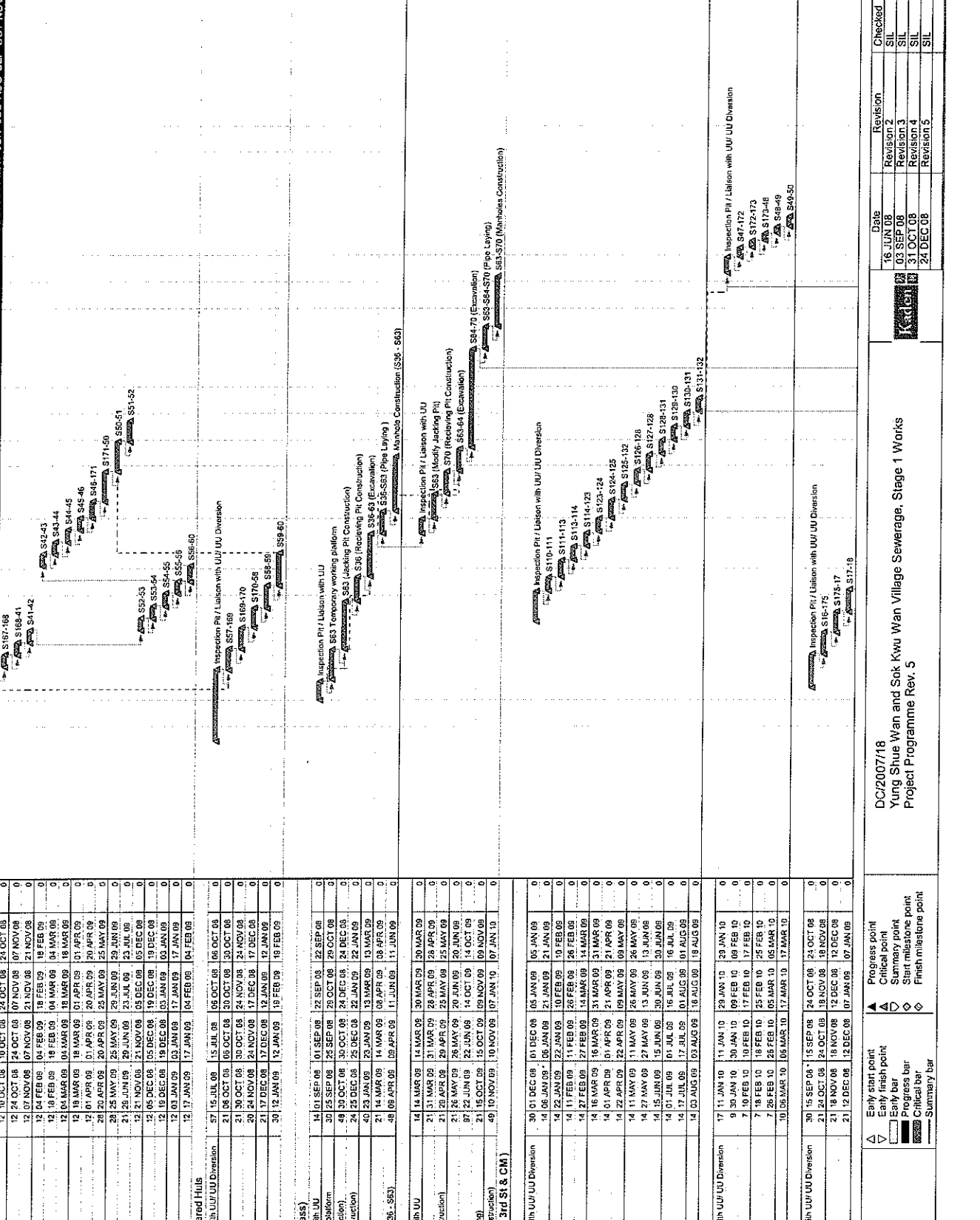
WO 010 (SKW 3rd Branches & CM S37-S60-S57)

Act ID	Activity Description	Room Dur	Early Start	Early Finish	Late Start	Late Finish	Free Float
CM5959	Inspection P1 / Liaison with UUI/ UU Diverison		14 JUL 08	15 JUL 08	30 JUL 08	30 JUL 08	0
CM5960	S37-38		11 JUL 08	19 AUG 08	19 AUG 08	19 AUG 08	0
CM5970	S38-39		12 AUG 08	06 SEP 08	06 SEP 08	06 SEP 08	0
CM5980	S39-40		12 SEP 08	28 SEP 08	28 SEP 08	28 SEP 08	0
CM5990	S40-41		28 SEP 08	10 OCT 08	10 OCT 08	10 OCT 08	0



Date	Revision	Checked	Approved
16 JUN 08	Revision 2	SIL	KYS
03 SEP 08	Revision 3	SIL	KC
31 OCT 08	Revision 4	SIL	KYS
24 DEC 08	Revision 5	SIL	KYS

Act ID	Activity Description	Room Dur	Early Start	Early Finish	Late Start	Late Finish	From
CM5900	S167-168	12	10 OCT 08	10 OCT 08	24 OCT 08	24 OCT 08	0
CM5910	S168-171	12	24 OCT 08	24 OCT 08	07 NOV 08	07 NOV 08	0
CM5920	S141-42	12	07 NOV 08	07 NOV 08	21 NOV 08	21 NOV 08	0
CM5930	S42-43	12	04 FEB 09	04 FEB 09	18 FEB 09	18 FEB 09	0
CM5940	S43-44	12	18 FEB 09	18 FEB 09	04 MAR 09	04 MAR 09	0
CM5950	S44-45	12	04 MAR 09	04 MAR 09	18 MAR 09	18 MAR 09	0
CM5960	S45-46	12	18 MAR 09	18 MAR 09	01 APR 09	01 APR 09	0
CM5970	S46-47	12	01 APR 09	01 APR 09	20 APR 09	20 APR 09	0
CM5980	S171-50	12	20 APR 09	20 APR 09	25 MAY 09	25 MAY 09	0
CM5981	S50-51	24	25 MAY 09	25 MAY 09	29 JUN 09	29 JUN 09	0
CM5982	S51-52	24	29 JUN 09	29 JUN 09	23 JUL 09	23 JUL 09	0
CM5983	S52-53	24	23 JUL 09	23 JUL 09	05 DEC 09	05 DEC 09	0
CM5984	S53-54	12	05 DEC 09	05 DEC 09	19 DEC 09	19 DEC 09	0
CM5985	S54-55	12	19 DEC 09	19 DEC 09	03 JAN 09	03 JAN 09	0
CM5986	S55-56	12	03 JAN 09	03 JAN 09	17 JAN 09	17 JAN 09	0
CM5987	S56-57	12	17 JAN 09	17 JAN 09	04 FEB 09	04 FEB 09	0
CM5988	S57-58	12	04 FEB 09	04 FEB 09	18 FEB 09	18 FEB 09	0
CM5989	S59-60	12	18 FEB 09	18 FEB 09	05 OCT 08	05 OCT 08	0
CM6070	S57-68	21	06 OCT 08	06 OCT 08	30 OCT 08	30 OCT 08	0
CM6080	S168-170	21	30 OCT 08	30 OCT 08	24 NOV 08	24 NOV 08	0
CM6090	S170-56	20	24 NOV 08	24 NOV 08	17 DEC 08	17 DEC 08	0
CM6100	S58-59	21	17 DEC 08	17 DEC 08	12 MAR 09	12 MAR 09	0
CM6110	S59-60	30	12 JAN 09	12 JAN 09	19 FEB 09	19 FEB 09	0
WO 015 (Trenchless S16-S70)							
S30-S53 (Trenchless)							
CM6209	Inspection Pit / Liaison with UU	14	01 SEP 08	01 SEP 08	22 SEP 08	22 SEP 08	0
CM6210	S63 Temporary working platform	30	25 SEP 08	25 SEP 08	29 OCT 08	29 OCT 08	0
CM6211	S63 (Jacking Pit Construction)	48	30 OCT 08	30 OCT 08	24 DEC 08	24 DEC 08	0
CM6212	S63 (Receiving Pit Construction)	24	25 DEC 08	25 DEC 08	22 JAN 09	22 JAN 09	0
CM6220	S38-S53 (Excavation)	40	23 JAN 09	23 JAN 09	13 MAR 09	13 MAR 09	0
CM6270	S38-S53 (Pipe Laying)	21	14 MAR 09	14 MAR 09	08 APR 09	08 APR 09	0
CM6280	Manholes Construction (S36 - S53)	48	08 APR 09	08 APR 09	11 JUN 09	11 JUN 09	0
CM6290	Inspection Pit / Liaison with UU	14	14 MAR 09	14 MAR 09	30 MAR 09	30 MAR 09	0
CM6320	S70 (Receiving Pit Construction)	21	31 MAR 09	31 MAR 09	28 APR 09	28 APR 09	0
CM6340	S64-S70 (Excavation)	1	28 APR 09	28 APR 09	25 MAY 09	25 MAY 09	0
CM6350	S64-S70 (Pipe Laying)	97	25 JUN 09	25 JUN 09	20 JUN 09	20 JUN 09	0
CM6360	S64-S70 (Manholes Construction)	21	15 OCT 09	15 OCT 09	09 NOV 09	09 NOV 09	0
CM6370	S64-S70 (Manholes Construction)	49	10 NOV 09	10 NOV 09	07 JAN 10	07 JAN 10	0
WO 017 (SKW2nd Branches to 3rd St & CM)							
S110-S132 (Trenchless)							
SS4979	Inspection Pit / Liaison with UU/ UU Diversion	30	01 DEC 08	01 DEC 08	05 JAN 09	05 JAN 09	0
SS4980	S110-111	14	06 JAN 09	06 JAN 09	21 JAN 09	21 JAN 09	0
SS4990	S111-113	14	22 JAN 09	22 JAN 09	10 FEB 09	10 FEB 09	0
SS5000	S113-114	14	11 FEB 09	11 FEB 09	26 FEB 09	26 FEB 09	0
SS5010	S114-122	14	27 FEB 09	27 FEB 09	14 MAR 09	14 MAR 09	0
SS5020	S122-124	14	16 MAR 09	16 MAR 09	31 MAR 09	31 MAR 09	0
SS5030	S124-125	14	01 APR 09	01 APR 09	21 APR 09	21 APR 09	0
SS5040	S125-132	14	22 APR 09	22 APR 09	09 MAY 09	09 MAY 09	0
SS5050	S126-128	14	11 MAY 09	11 MAY 09	26 MAY 09	26 MAY 09	0
SS5070	S127-128	14	27 MAY 09	27 MAY 09	13 JUN 09	13 JUN 09	0
SS5080	S129-131	14	15 JUN 09	15 JUN 09	30 JUN 09	30 JUN 09	0
SS5090	S130-131	14	01 JUL 09	01 JUL 09	16 JUL 09	16 JUL 09	0
SS5100	S130-131	14	17 JUL 09	17 JUL 09	01 AUG 09	01 AUG 09	0
SS5110	S131-132	14	03 AUG 09	03 AUG 09	18 AUG 09	18 AUG 09	0
SS47-S50							
AW6269	Inspection Pit / Liaison with UU/ UU Diversion	17	11 JAN 10	11 JAN 10	29 JAN 10	29 JAN 10	0
AW6270	S47-172	9	30 JAN 10	30 JAN 10	09 FEB 10	09 FEB 10	0
AW6280	S172-173	7	10 FEB 10	10 FEB 10	17 FEB 10	17 FEB 10	0
AW6290	S173-48	7	18 FEB 10	18 FEB 10	25 FEB 10	25 FEB 10	0
AW6300	S48-49	7	26 FEB 10	26 FEB 10	05 MAR 10	05 MAR 10	0
AW6310	S49-50	10	05 MAR 10	05 MAR 10	17 MAR 10	17 MAR 10	0
S16-S36							
CM6539	Inspection Pit / Liaison with UU/ UU Diversion	30	15 SEP 08	15 SEP 08	24 OCT 08	24 OCT 08	0
CM6540	S16-175	21	24 OCT 08	24 OCT 08	18 NOV 08	18 NOV 08	0
CM6550	S175-17	21	18 NOV 08	18 NOV 08	12 DEC 08	12 DEC 08	0
CM6560	S17-18	21	12 DEC 08	12 DEC 08	07 JAN 09	07 JAN 09	0



Start Date	Finish Date	Early start point	Early finish point	Progress bar	Critical bar	Summary bar	Progress point	Critical point	Summary point	Start milestone point	Finish milestone point
31 JAN 08	19 APR 10	▲	▼	▬	▬	▬	▲	▼	▬	▬	▬

Act ID	Activity Description	Rem Dur		Early Start		Late Start		Early Finish		Late Finish		Free Float
		Start	End	Start	End	Start	End	Start	End			
CM5489	Inspection Pit / Liaison with UJU DU Diwaterch	48	02 MAR 09	02 MAR 09	30 APR 09	30 APR 09	30 APR 09	30 APR 09	30 APR 09	30 APR 09	0	
CM5490	S1-2	21	04 MAY 09	04 MAY 09	27 MAY 09	27 MAY 09	27 MAY 09	27 MAY 09	27 MAY 09	27 MAY 09	0	
CM5500	S2-3	21	29 MAY 09	29 MAY 09	23 JUN 09	23 JUN 09	23 JUN 09	23 JUN 09	23 JUN 09	23 JUN 09	0	
CM5510	S3-4	21	24 JUN 09	24 JUN 09	17 JUL 09	17 JUL 09	17 JUL 09	17 JUL 09	17 JUL 09	17 JUL 09	0	
CM5520	S4-5	21	18 JUL 09	18 JUL 09	11 AUG 09	11 AUG 09	11 AUG 09	11 AUG 09	11 AUG 09	11 AUG 09	0	
CM5530	S5-6	21	12 AUG 09	12 AUG 09	04 SEP 09	04 SEP 09	04 SEP 09	04 SEP 09	04 SEP 09	04 SEP 09	0	
CM5540	S6-7	21	05 SEP 09	05 SEP 09	29 SEP 09	29 SEP 09	29 SEP 09	29 SEP 09	29 SEP 09	29 SEP 09	0	
CM5550	S7-8	21	30 SEP 09	30 SEP 09	27 OCT 09	27 OCT 09	27 OCT 09	27 OCT 09	27 OCT 09	27 OCT 09	0	
CM5560	S8-9	14	28 OCT 09	28 OCT 09	12 NOV 09	12 NOV 09	12 NOV 09	12 NOV 09	12 NOV 09	12 NOV 09	0	
CM5570	S9-10	14	13 NOV 09	13 NOV 09	28 NOV 09	28 NOV 09	28 NOV 09	28 NOV 09	28 NOV 09	28 NOV 09	0	
CM5580	S10-11	14	30 NOV 09	30 NOV 09	19 DEC 09	19 DEC 09	19 DEC 09	19 DEC 09	19 DEC 09	19 DEC 09	0	
CM5590	S11-12	14	16 DEC 09	16 DEC 09	02 JAN 10	02 JAN 10	02 JAN 10	02 JAN 10	02 JAN 10	02 JAN 10	0	
CM5600	S12-13	14	09 JAN 10	09 JAN 10	19 JAN 10	19 JAN 10	19 JAN 10	19 JAN 10	19 JAN 10	19 JAN 10	0	
CM5610	S13-14	14	26 JAN 10	26 JAN 10	04 FEB 10	04 FEB 10	04 FEB 10	04 FEB 10	04 FEB 10	04 FEB 10	0	
CM5620	S14-15	14	09 FEB 10	09 FEB 10	20 FEB 10	20 FEB 10	20 FEB 10	20 FEB 10	20 FEB 10	20 FEB 10	0	
CM5630	S15-16	14	27 FEB 10	27 FEB 10	09 MAR 10	09 MAR 10	09 MAR 10	09 MAR 10	09 MAR 10	09 MAR 10	0	
CM5639	S17-17.5 (Trenchless)	87	15 OCT 09	15 OCT 09	27 JAN 10	27 JAN 10	27 JAN 10	27 JAN 10	27 JAN 10	27 JAN 10	0	
CM6250	S17-7.5	70	29 JAN 10	29 JAN 10	19 APR 10	19 APR 10	19 APR 10	19 APR 10	19 APR 10	19 APR 10	0	
CM6260	S17-7.5	70	29 JAN 10	29 JAN 10	19 APR 10	19 APR 10	19 APR 10	19 APR 10	19 APR 10	19 APR 10	0	



Start Date 31 JAN 09 Finish Date 19 APR 10 Page : 4A	Legend: ▲ Early start point ▼ Early finish point ◊ Progress bar ◊ Critical bar — Summary bar	▲ Progress point ▼ Critical point ◊ Summary point ◊ Start milestone point ◊ Finish milestone point	DC/2007/18 Young Shue Wan and Sok Kwu Wan Village Sewerage, Stage 1 Works Project Programme Rev. 5	Checked: SIL SIL SIL SIL	Revision: Revision 2 Revision 3 Revision 4 Revision 5	Date: 16 JUN 08 03 SEP 08 31 OCT 08 24 DEC 08	Approved: KYS KC KYS KYS
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Appendix G

Summary of Implementation Status of Mitigation Measures during Site Inspection



Environmental Mitigation Implementation Schedule

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
Air Quality					
<ul style="list-style-type: none"> ▪ Stockpiles of imported material kept on site should be contained within hoarding, dampened and / or covered during dry and windy weather. ▪ Material stockpiled alongside trenches should be covered with tarpaulins whenever works are close to village houses. ▪ Water sprays should be used during the delivery and handling of cement, sands, aggregates and the like. ▪ Any vehicle used for moving sands, aggregates and construction waste should have properly fitting side and tail boards. Materials should not be loaded to a level higher than the side and tail boards, and should be covered by a clean tarpaulin. ▪ Unpaved areas should be watered regularly to avoid dust generation. ▪ The enclosures should be around the main dust-generating activities. ▪ All plant and equipment should be well maintained e.g. without black smoke emission. ▪ Open burning should be prohibited. 	All areas		√		
Noise Impact					
<ul style="list-style-type: none"> ▪ Quite powered mechanical equipment (PME) or method should be used. ▪ The number plant should be restricted (1 item for each type of plant). ▪ Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works. ▪ Mobile plant, if any, should be sited as far away from NSRs as possible. ▪ Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. ▪ Plant known to emit noise strongly should be orientated so that the noise is directed away from nearby NSRs. ▪ The constructions works should be scheduled to minimize noise nuisance. ▪ Air compressors and hand held breakers should have noise labels. ▪ Compressors and generators should operate with door closed. 	All areas	√			
Water Quality					
General Construction Works					
<ul style="list-style-type: none"> ▪ Debris and rubbish generated on-site should be collected, handled and disposed of properly to avoid entering the nearby coastal water and stormwater drains. ▪ All fuel tanks and storage areas should be provided with locks and be sited on sealed area, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. ▪ Open drainage channels and culverts near the works areas should be covered to block the entrance of large debris and refuse. 	All areas	√			
	All areas	√			√



Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
Waste Management					
General Site Wastes					
• Appropriate measures, such as transporting wastes in enclosed containers, should be taken to minimize windblown litter and dust to nearby environment.	All areas	√			
• Sufficient waste disposal points and regular waste collection for disposal should be provided.	All areas	√			
• A collection area for construction site waste should be provided where waste can be stored prior to removal from site.	All areas	√			
• Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	All areas	√			
• Records of the quantities of waste generated, recycled and disposed should be kept and maintained.	All areas	√			
• Different types of waste should be segregated and stored in different containers, skips or stockpiles to enhance reuse or recycling of material and their proper disposal.	All areas	√			
Chemical Wastes					
• After use, chemical waste should be handled according to the Code of Practice on the Package, Labelling and Storage of Chemical Wastes.	All areas		√		
• Any unused chemicals or those with remaining functional capacity should be recycled.	All areas	√			
• Waste should be properly stored on site within suitably designed containers and should be collected by an approved licensed waste collectors for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation under the Waste Disposal Ordinance.	All areas	√			
• Any service shop and minor maintenance facilities should be located on hard standing within a bunded area, and sumps and oil interceptors should be provided.	All areas	√			
• Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should be undertaken within the designated areas equipped control these discharges.	All areas		√		
Construction and Demolition (C&D) Wastes					
• C&D waste should be separated on site before disposal.	All areas	√			
• Inert material, such as concrete and rubble, should be re-used on site.	All areas	√			
• Steel and other metals should be separated for re-use and / or recycling prior to disposal of C&D material.	All areas	√			
Ecological Impact					
• Labelling and fencing of the uncommon tree species.	All areas	√			
• Avoidance of use of woodland habitats as Works Area, in particular where trees located.	All areas	√			

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
Landscape and Visual Impact					
• Existing trees should be retained.	All areas	√			
• Damage to vegetation should be minimized by close coordination and on site alignment adjusted of rising main and gravity sewer pipelines.	All areas	√			
• Short excavation and immediate backfilling section upon completion of works should be performed to reduce active site area.	All areas	√			
Site Practice					
• The Contractor assigned worker is responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.	All areas		√		
• Proper storage and site practices to minimise the potential for damage or contamination of construction materials.	All areas	√			
• All generators, fuel and oil storage are within bundle areas.	All areas		√		
• Oil leakage from machinery, vehicle and plant should be prevented.	All areas	√			
• The Environmental Permit should be displaced conspicuously on site.	All areas	√			



Appendix H

Vegetation Survey Report

Your Ref.: DC200718/R05/600/O00941 & DC/200718/M45/200/O0
 Our Ref.: K0801/01.01.00.00/1876/L
 Date: 2 June 2009



Scott Wilson CDM Joint Venture
 38/F, Metroplaza Tower 1
 223 Hing Fong Road
 Kwai Fong, N.T.
 Hong Kong

Attn: Ir. Ian J. Jones

By Hand

Dear Sir,

Drainage Services Department
Contract No. DC/2007/18
Yung Shue Wan and Sok Kwu Wan Village Sewerage, Stage 1 Works
V.O. No. 016 – Vegetation and Plant Species Survey

We refer to your above referenced letters dated 27 March & 2 June 2009 and site discussions during Progress Meeting on 11 May 09 regarding the captioned. Please be informed that the vegetation survey has been carried out by our landscape sub-contractor "Bluet" on 17 April 09. Enclosed please find the vegetation report including the photographic records and as-built survey for the uncommon species "Celtis Timorensis (假玉桂)" found at Sok Kwu Wan with proposed protective measures for your reference.

On the other hand, the uncommon species nearby our working areas have also been fenced off with plastic barriers and identified on site as shown in the enclosed photos

Thank you for your kind attention.

Yours faithfully,
 For and on behalf of
Kaden Construction Limited

Stephen Leung
Site Agent

StL/pys

Encl.

c.c. IEC Attn: Mr. Rodney Ip
 ETS Attn: Mr. C. L. Lau
 Kaden – CFS/JC/IS

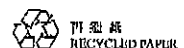
(By Fax only: 2428 9922)
 (By Fax only: 2695 3944)

Kaden Construction Limited

Units 1001 - 1015, 10/F Grand Central Plaza, Tower 1, 138 Shatin Rural Committee Road, Sha Tin, N.T., Hong Kong

Tel (852) 2272 3670 Fax (852) 2528 1751

A MEMBER OF BUILD KING HOLDINGS 利基控股有限公司



BLUET HYDROSEEDING LTD.

LOT 128, NINE MILESTONE, CLEAR WATER BAY ROAD, KOWLOON, HONG KONG

TEL: (852) 2719 3935 FAX: (852) 2358 0192 EMAIL: bluet@netvigator.com

By Fax: 2370 3413
Tel: 2307 4629

Our ref.: BH7588/09
Date: 30 May, 2009

Kaden Construction Ltd.
Units 1601-1605, 16/F
Grand Central Plaza Tower 2
138 Shatin Rural Committee Road
New Territories, Hong Kong

Attn: Mr. Ir Stephen Leung

Dear Sirs,

RE : Contract No. DC/2007/18
Yung Shue Wan and Sok Kwu Wan Village Swerage, Stage I Works
Re: Protection of Uncommon Plants

Further to our site visit on the captioned site, we would like to suggest the protection works for uncommon plants as follows:

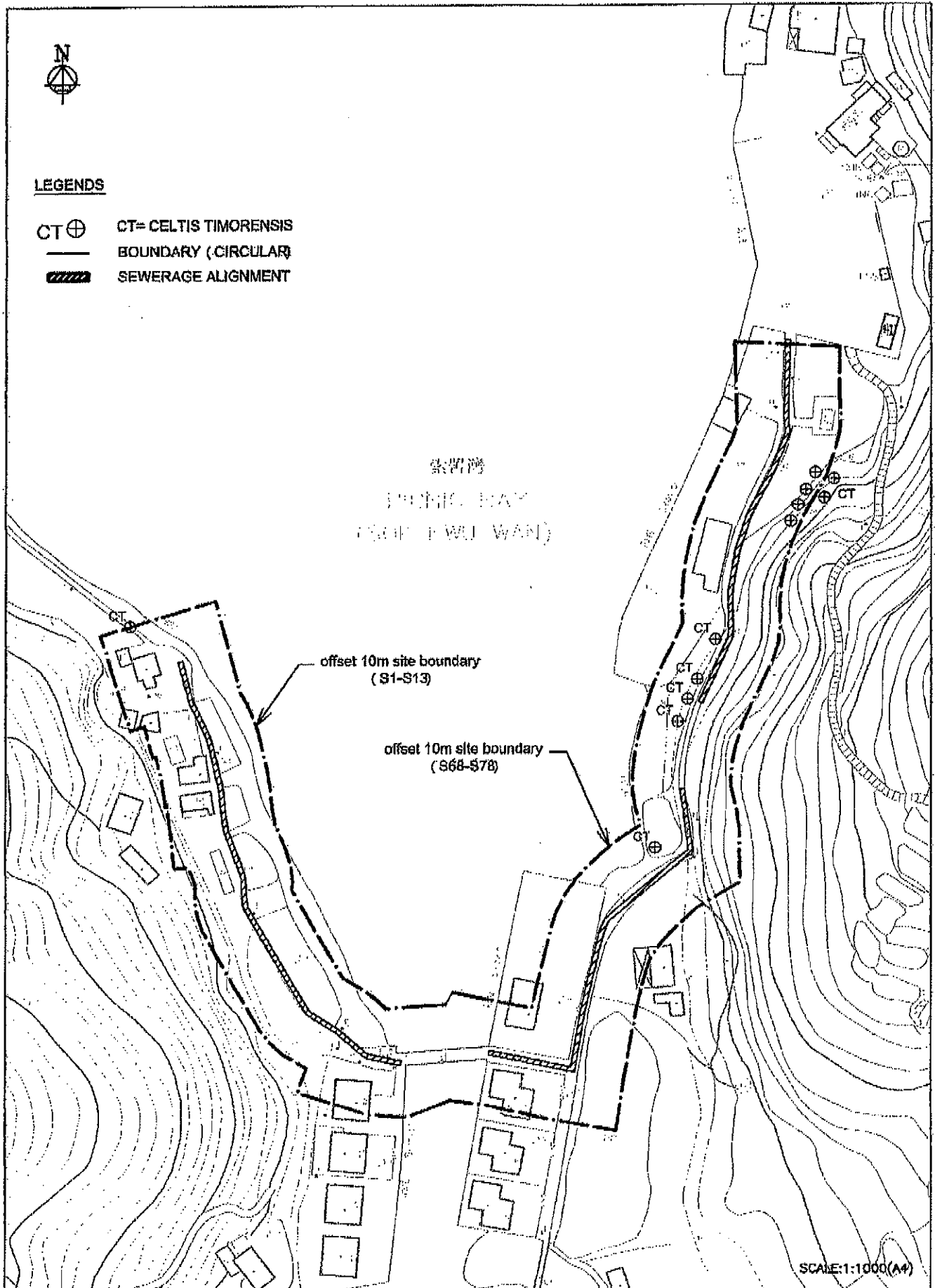
1. Fence-off the area of uncommon plants and sufficient notice.
2. Provide training for workers about the identification of uncommon plants.

Thanks for your kind attention.

Yours truly
For and on behalf of
BLUET HYDROSEEDING LTD.



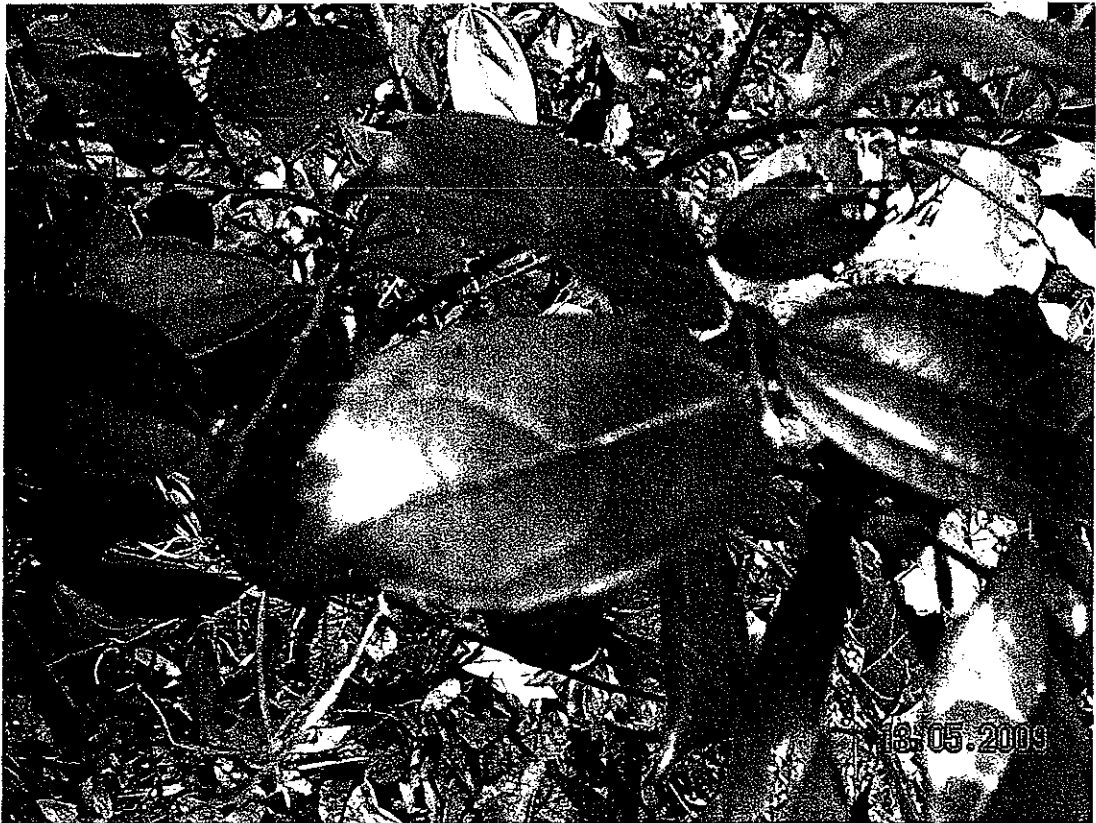
 Che Ping Hin
 Assistant Contracts Manager
 HC



V.O. No. 16 – Vegetation and Plant Species Survey



V.O. No. 16 – Vegetation and Plant Species Survey



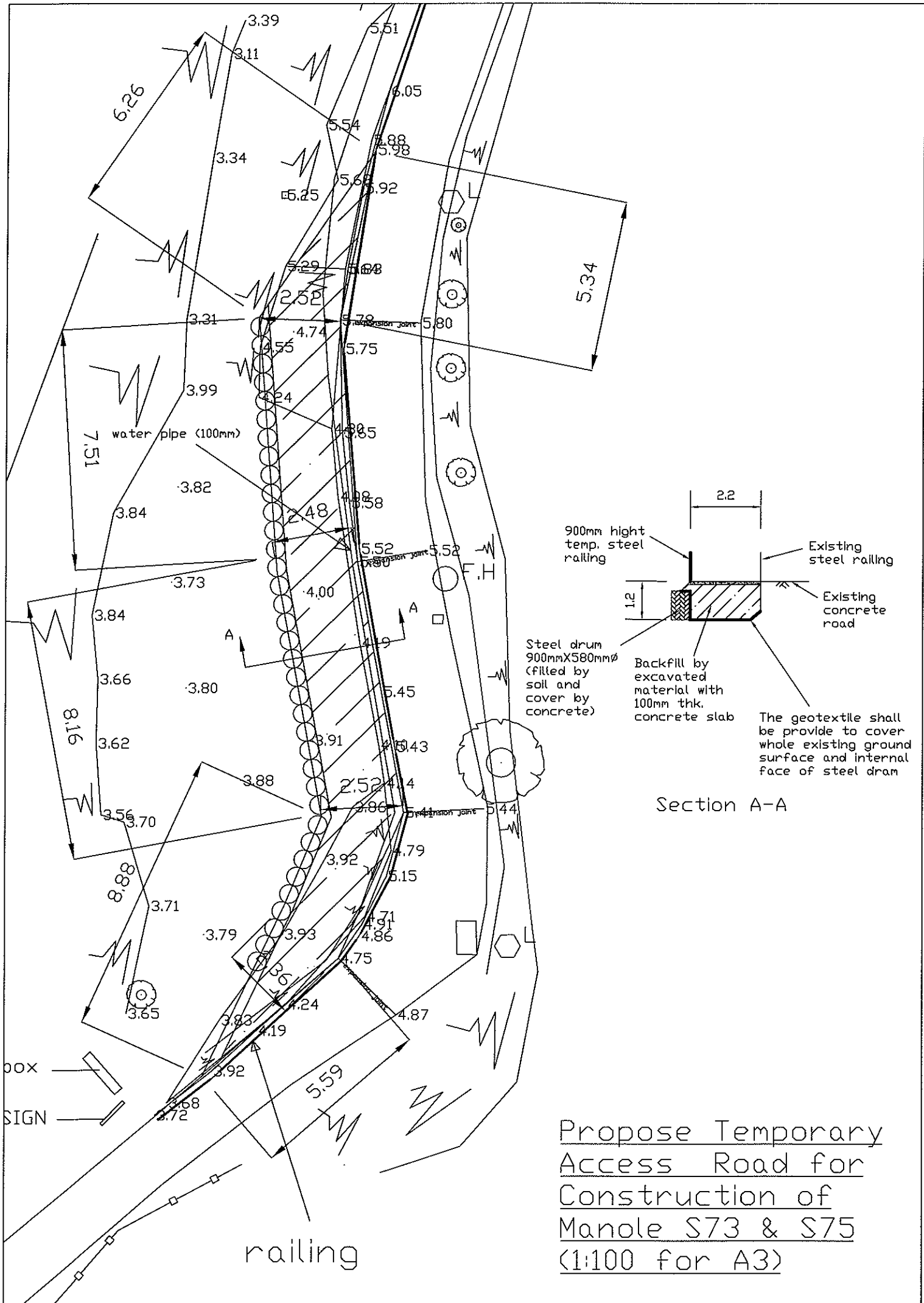
V.O. No. 16 – Vegetation and Plant Species Survey





Appendix I

Plan of Temporary Access





Appendix J

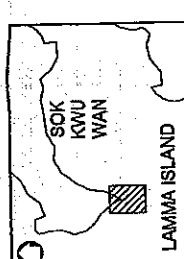
Photographic Records of the Uncommon Tree Species

Photos of Uncommon Tree Species





Figures



NOTES:
1. FOR GENERAL NOTES AND LEGEND, REFER TO DRAWING NO. DC/2007/1B.

CONTRACT NO. DC/2007/1B
YONG SHUE WAN AND SOK KWU WAN
VILLAGE SEWERAGE, STAGE 1 WORKS

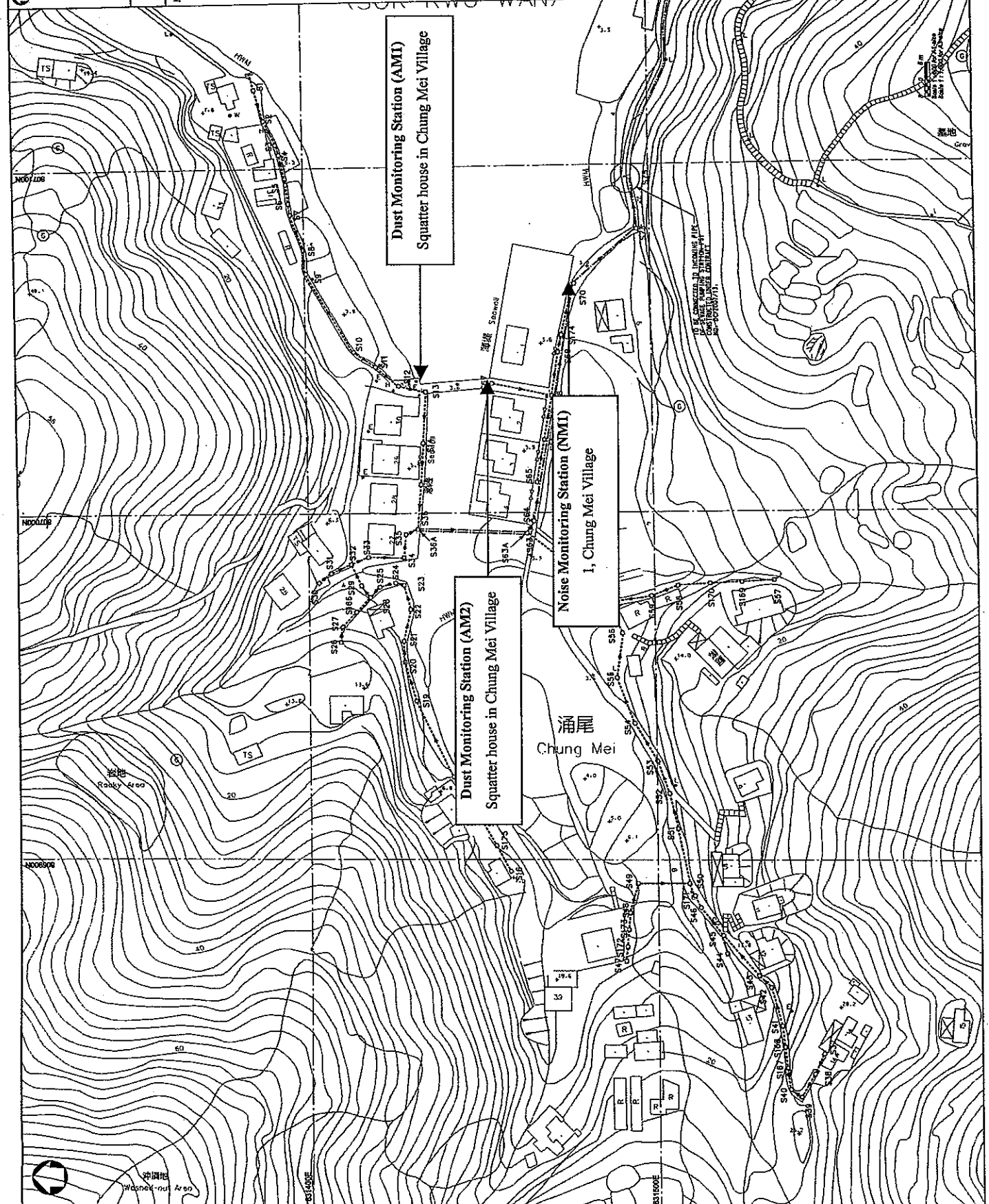
VILLAGE SEWERAGE LAYOUT
PLANS - SOK KWU WAN
(SHEET 1 OF 3)

Date: 2005/1/2004
Scale: As Shown

The Government of the Hong Kong
Special Administrative Region
Drainage Services Department

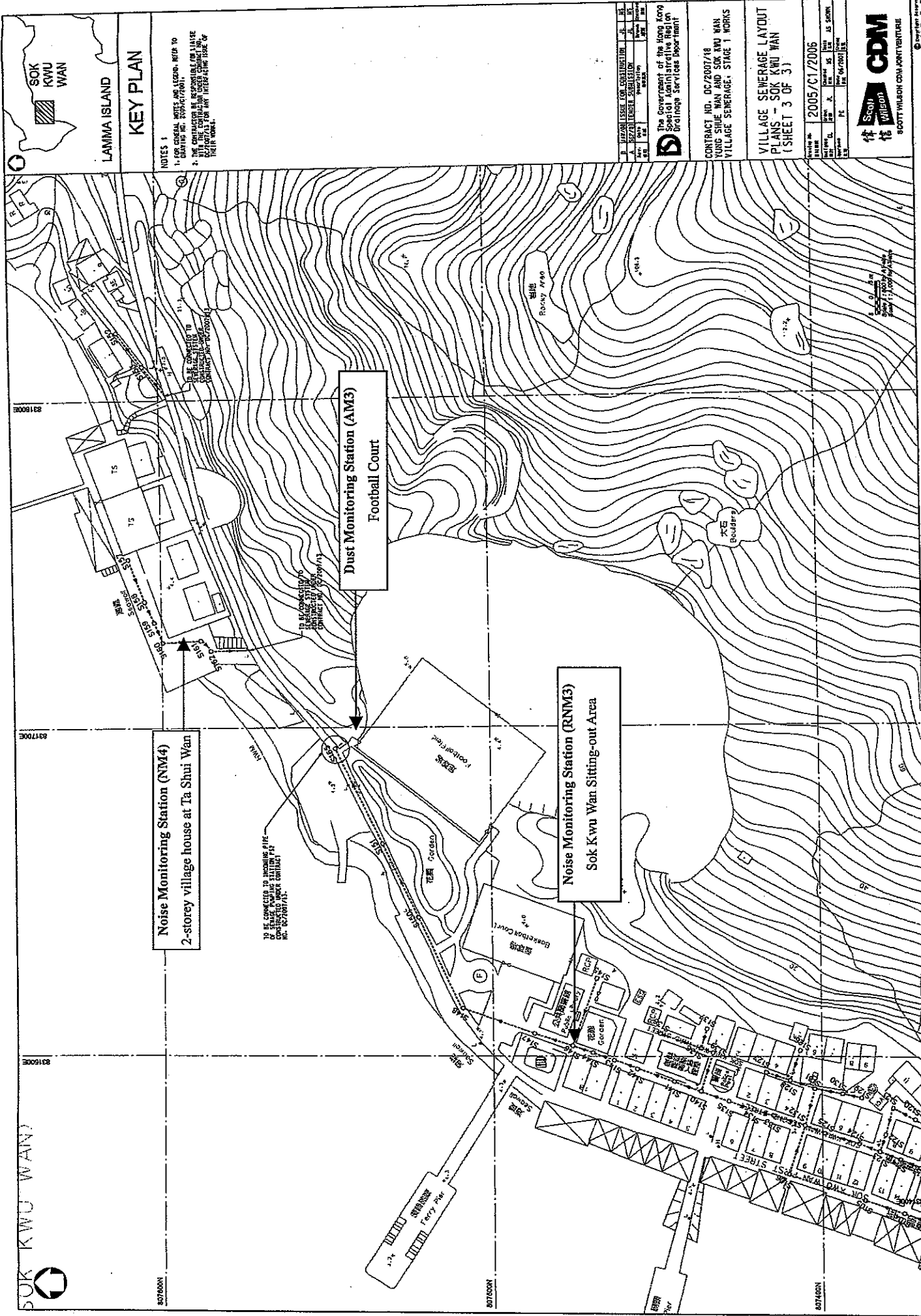
SCOTT WILSON CONSULTANTS
CIVIL ENGINEERS

CDM
SCOTT WILSON CONSULTANTS



20070120

20070120



KEY PLAN

LAMMA ISLAND

- NOTES 1**
1. FOR GENERAL NOTES AND LEGEND, REFER TO DRAWING NO. 2005/C1/2005.
 2. THE CONTRACTOR IS RESPONSIBLE FOR LIAISE WITH THE AUTHORITIES CONCERNED TO OBTAIN NECESSARY PERMITS FOR THEIR WORKS.

DATE	DESCRIPTION	BY	CHK
10/11/05	ISSUED FOR CONSTRUCTION	Y. W. CHAN	J. S. CHAN
10/11/05	ISSUED FOR PERMITS	Y. W. CHAN	J. S. CHAN
10/11/05	ISSUED FOR TENDER	Y. W. CHAN	J. S. CHAN
10/11/05	ISSUED FOR DESIGN	Y. W. CHAN	J. S. CHAN

The Government of the Hong Kong Special Administrative Region
 Drainage Services Department

CONTRACT NO. DC/2007/18
 YUNG SHUE WAN AND SOK KWU WAN
 VILLAGE SEWERAGE, STAGE 1 WORKS

VILLAGE SEWERAGE LAYOUT
 PLANS - SOK KWU WAN
 (SHEET 3 OF 3)

DATE: 2005/C1/2005

SCALE: AS SHOWN

PROJECT: DC/2007/18

DESIGNER: SCOTT WILSON CDM

SCOTT WILSON CDM JOINT VENTURE

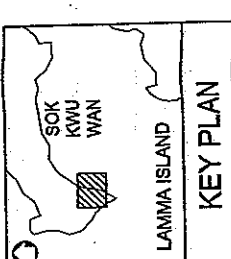
Noise Monitoring Station (NM4)
 2-storey village house at Ta Shui Wan

Dust Monitoring Station (AM3)
 Football Court

Noise Monitoring Station (RNM3)
 Sok Kwu Wan Sitting-out Area

TO BE CONNECTED TO INCOMING PIPE
 AND TO BE CONNECTED TO MAIN SEWERAGE
 IN ACCORDANCE WITH THE
 SPECIFICATIONS OF THE
 DRAINAGE SERVICES DEPARTMENT
 (NO. DC/2007/18).

SOK KWU WAN



NOTES

1. REFER TO THE LEGEND, SHEET 19 FOR THE NO. 2053A (FRONT)

<p>THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION Drainage Services Department</p>	
<p>CONTRACT NO. DC/2007/18 YUNG SHUE WAN AND SOK KWU WAN VILLAGE SEWERAGE, STAGE 1 WORKS</p>	<p>DATE: 2005/01/2005 DRAWN BY: J. L. CHAN CHECKED BY: J. L. CHAN SCALE: AS SHOWN</p>

CDM Hillson
 SCOTT WILSON CDM HILLSON PARTNERSHIP

