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TEST REPORT

WO HING – PENTA-OCEAN JOINT VENTURE

**CONTRACT NO. 9/WSD/08
LAYING OF WESTERN CROSS
HARBOUR MAIN AND ASSOCIATED
LAND MAINS FROM WEST KOWLOON
TO SAI YING PUN**

**QUARTERLY EM&A SUMMARY REPORT
NO.2**

(FROM AUGUST TO OCTOBER 2010)

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Issue Date: 06 November 2010

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ENVIRON

Ref.: WSDWHCMSEI00_0_0108L.10

9th Nov, 2010

Water Supplies Department
Sha Tin Office
6/F Sha Tin Government Offices
1 Sheung Wo Che Road
Sha Tin, NT

By Post

Attention: Ms. Candy Wong

Dear Ms. Wong

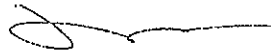
**Re: Contact No. 9/WSD/08
Laying of Western Cross Harbour Main and Associated Land Mains from West
Kowloon to Sai Ying Pun
Quarterly Environmental Monitoring and Audit Report No. 2
(for Aug 2010 to Oct 2010)**

Reference is made to Environment Team's submission of the Quarterly Environmental Monitoring and Audit Report No. 2 by Email on 6th Nov 2010 (entitled "9/WSD/08 - Draft Quarterly Report (August to October 10)") and the subsequent revision of the report by Email on 9th Nov 2010.

We are pleased to inform you that we have no comment on the revised captioned report.

Thank you very much for your kind attention and please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely,



David Yeung
Independent Environmental Checker

c.c.	Mott MacDonald Hong Kong Limited	Mr. Kelvin Ho	Fax: 2377 2900
	Wo Hing -- Penta-Ocean Joint Venture	Mr. Danny Ho	Fax: 2572 4080
	ETS-TESTCONSULT LIMITED	Mr. C.L. Lau	Fax: 2695 3944

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EXECUTIVE SUMMARY

This is the second Quarterly Environmental Monitoring and Audit (EM&A) Summary Report prepared by ETS-Testconsult Ltd (ET) for the "Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Main from West Kowloon to Sai Ying Pun" (the Project) under the requirements of "Environmental Monitoring & Audit Manual – Agreement No. CE42/2005(W) Laying of Western Cross Harbour Main and Associated Land Main from West Kowloon to Sai Ying Pun" (the EM&A Manual).

This report documents the findings of EM&A Works conducted during the Project from August to October 2010.

Site Activities

As informed by the Contractor, the site activities in this reporting quarter were as below:

August 2010	<ul style="list-style-type: none">• Dredging of Type 1, 1D and Type 2 marine sediment (Portion I);• Fabrication of steel working platform for marine piling works (Portion J); and• Concreting of the concrete coating of the 1200mm dia. water main (Portion H1 & H2).
September 2010	<ul style="list-style-type: none">• Dredging of Type 1 marine sediment (Portion I);• Erection of steel working platform for marine piling works (Portion J);• Concreting of the concrete coating of the 1200mm dia. water main (Portion H1 & H2); and• Dismantling of the steel working platform (Portion H1 & H2).
October 2010	<ul style="list-style-type: none">• Dredging of Type 1 marine sediment (between CH778 and CH128 at Portion I);• Drilling of pipe piles (Portion J); and• Dismantling of the steel working platform (Portion H1 & H2).

Environmental Monitoring Works

Noise Monitoring

No exceedances of Action Level of noise monitoring were recorded in this quarter since no complaint on noise issue was received.

In this quarter, totally seventy-four exceedances in Limit Level were recorded according to the results from night-time noise monitoring. However, all of the exceedances were considered to be invalid (not project related) and no further actions were required. Interim notifications of exceedance (NOEs) for all exceedances were issued to EPD, ER, IEC and the Contractor by ET.

Marine Water Quality Monitoring

Marine water quality monitoring was conducted in accordance with the EM&A Manual.

According to the summary of marine water monitoring results, no exceedances of Action and Limit Level were recorded in this quarter.

Environmental Complaints, Notification of summons and successful prosecutions

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



1.0 INTRODUCTION

Wo Hing – Penta-Ocean Joint Venture (WHPOJV) appointed Environmental Team of ETS-Testconsult Limited (ETL) to undertake the Environmental Impact Monitoring for "Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Main from West Kowloon to Sai Ying Pun" (the Project) under the requirements of the "Environmental Monitoring & Audit Manual – Agreement No. CE42/2005(W/S) Laying of Western Cross Harbour Main and Associated Land Main from West Kowloon to Sai Ying Pun" (the EM&A Manual) of the approved EIA report (Registration No. AEIAR-109/2007) in accordance with the Environmental Permit (No.: EP-273/2007) (the EP).

This quarterly report documented the findings of EM&A Works conducted during the impact monitoring from August to October 2010.

2.0 PROJECT INFORMATION

2.1 Scope of the Project

The construction works of the Project are located in West Kowloon, across the Victoria Harbour and in Sai Ying Pun.

The construction works under this Project are briefly described, without limitation, as follow:

- Laying of about 1.5km of 1200mm diameter steel fresh water mains at West Kowloon;
- Laying of about 2.1km of 1200mm diameter steel submarine pipeline from West Kowloon to Sai Ying Pun including dredging, cathodic protection system and other associated works;
- Laying of about 0.4km of 1200mm diameter steel fresh water main at Sai Ying Pun;
- Laying of about 0.5km of 800mm diameter steel salt water main at West Kowloon;
- Construction of motorized butterfly valve (MBV) and the associated facilities in the vicinity of Sun Yat Sen Memorial Park at Sai Ying Pun;
- Construction of all chambers associated with pipeworks;
- Making service connections;
- Ancillary works including but not limited to reinstatement of roads, landscaping works.

Areas of the Project present in Appendix H. Locations of environmental monitoring stations and sensitive receivers are shown in Figures 1, 2, 3, 1.2a, 1.2b and 1.2c

2.2 Work Programme

Details of work programme are shown in Appendix F.

2.3 Project Organization and Management Structure

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

2.4 Contact Details of Key Personnel

The key personnel contact names and telephone numbers are shown in Table 2.1.

Table 2.1 Contact Details of Key Personnel

<i>Project Role</i>	<i>Organization</i>	<i>Name of Key Staff</i>	<i>Tel. No.</i>	<i>Fax No.</i>
<i>Engineer's Representative</i>	<i>Mott MacDonald</i>	<i>Mr. Kelvin HO</i>	<i>2377 2823</i>	<i>2377 2900</i>
<i>IEC</i>	<i>Environ</i>	<i>Mr David Yeung</i>	<i>3743 0788</i>	<i>3548 6988</i>
<i>Contractor's Agent</i>	<i>WHPOJV</i>	<i>Mr. Danny HO</i>	<i>2695 8318</i>	<i>2957 8213</i>
<i>ET Leader</i>	<i>ET (ETL)</i>	<i>Mr C. L. Lau</i>	<i>2946 7791</i>	<i>2695 3944</i>

The proponents' contact and hotline telephone number for the Public to make enquiries by the Contractor is Mr. Peter Yung (Telephone No.: 61137660).



3.0 SUMMARY OF EM&A REQUIREMENTS

3.1 EM&A Programme

The EM&A programme required environmental monitoring for noise, marine water quality and environmental site inspections for air quality, noise, marine water quality and waste management. The EM&A requirements for each parameter described in the following sections include:

- *All monitoring parameters;*
- *Action and Limit levels for all environmental parameters;*
- *Event/Action Plans;*
- *Environmental mitigation measures, as recommended in the Project EIA report; and*
- *Environmental requirements in contract documents.*

The advice on implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 4 of the Report.

3.2 Monitoring Stations and Parameters

The EM&A Manual designates several locations to monitor environmental impacts in terms of noise and marine water quality due to the Project. The description and detailed locations of monitoring stations for noise and marine water quality are shown in Figures 1, 2 and 3 and relevant sections of this Report.

3.3 Monitoring Methodology and Calibration Details

All monitoring works were conducted and monitoring equipment was calibrated in according with the EM&A Manual and the manufacturer's instruction.

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 Noise

As the requirement in the EM&A Manual, impact noise monitoring was conducted for a weekly basis in four different time periods, day-time, evening-time, night-time and holiday-time, at designated monitoring locations. The noise levels in the past three months are plotted in Appendix B.

In this quarter, the impact noise monitoring was carried out weekly in the absence of fog, rain, storm, wind with a steady speed exceeding 5m/s, or wind gusts exceeding 10m/s. As a result, all impact noise monitoring data was considered to be unaffected by the weather condition.

In this quarter, totally seventy-four exceedances in Limit Level were recorded according to the results from night-time noise monitoring. After ET investigation, all of the exceedances were considered to be invalid (not project related) and hence no further actions were required. Interim notifications of exceedance (NOEs) for all exceedances were issued to EPD, ER, IEC and the Contractor by ET.

Table 4.1 presents the summary of impact noise monitoring results in the reporting quarter.

Table 4.1 Summary of Impact Monitoring results of Impact Noise Monitoring in the Quarter

<i>Exceedance Level</i>	<i>Daytime</i>	<i>Evening-time</i>	<i>Night-time</i>	<i>Holiday-time</i>
<i>Action (August 2010)</i>	0	0	0	0
<i>Action (September 2010)</i>	0	0	0	0
<i>Action (October 2010)</i>	0	0	0	0
<i>Cumulative</i>	0	0	0	0
<i>Limit (August 2010)</i>	0	0	33	0
<i>Limit (September 2010)</i>	0	0	11	0
<i>Limit (October 2010)</i>	0	0	30	0
<i>Cumulative</i>	0	0	98	0

In this quarter, the major noise source at KS6 was from local traffic along West Kowloon Highway and human activities from the Element. Besides, local traffic along Connaught Road West and Western Harbour Crossing and human activities was also the major noise source at KY3, RWM and CGa.

4.2 Marine Water Quality

In accordance with the EM&A Manual, the marine water quality monitoring was conducted at four control stations and nine impact monitoring stations in the reporting quarter. Impact marine water quality monitoring was conducted three days per week. Measurements were taken at both mid-ebb and mid-flood tides at three depths (i.e. 1m below surface, mid depth and 1m above seabed). The AL Levels are included in Appendix D.

In this quarter, marine water quality monitoring on 21 October 2010 (both mid-flood and mid-ebb) was cancelled due to bad weather (Typhoon Signal No.3). Apart from this, the marine water quality monitoring in this quarter was carried out three days per week at both mid-flood and mid-ebb tides.

Table 4.2 presents the total number of marine water quality exceedances in the reporting quarter. The trend of marine water quality in the past three months is depicted in Appendix C.

Table 4.2 Total Number of Marine Water Quality Exceedances in the Quarter

<i>Parameter</i>	<i>Exceedance Level</i>	<i>August 2010</i>	<i>September 2010</i>	<i>October 2010</i>
<i>Dissolved Oxygen, DO</i>	<i>Action</i>	0	0	0
	<i>Limit</i>	0	0	0
	<i>Total</i>	0	0	0
<i>Turbidity (Depth-average)</i>	<i>Action</i>	0	0	0
	<i>Limit</i>	0	0	0
	<i>Total</i>	0	0	0
<i>Suspended Solids, SS (Depth-average)</i>	<i>Action</i>	0	0	0
	<i>Limit</i>	0	0	0
	<i>Total</i>	0	0	0
<i>Cumulative Exceedances</i>	<i>Action</i>	0	0	0
	<i>Limit</i>	0	0	0
	<i>Total</i>	0	0	0

A comparison between the quarterly mean of impact stations (including WSD Seawater Intakes R15 and other eight Impact Stations R5, R6, R7, R8a, R16, R17, R28 and R29) and the 1.3 times of the ambient mean (e.g. 130% of Baseline Mean) of impact stations was made for Dissolved Oxygen, Turbidity and Suspended Solids.

The statistical analysis results are given in Appendix H and it shows that there is no significant difference ($p > 0.05$) between the quarterly mean and 1.3 times of ambient mean on Dissolved Oxygen and Turbidity but except Suspended Solids. Table 4.3 summarizes the statistical analysis between quarterly mean and ambient mean on Dissolved Oxygen, Turbidity and Suspended Solids.

Table 4.3 Summary of statistical analysis between Quality Mean and 1.3 times of Ambient Mean

Parameter	Groups involved	P-value	Significant Difference between quarterly mean and 1.3 times of ambient mean (Y or N)
DO (Surface, Middle and Bottom)	Quarterly mean and 1.3 times of ambient mean	1	N
SS	Quarterly mean and 1.3 times of ambient mean	0	Y
Turbidity	Quarterly mean and 1.3 times of ambient mean	1	N

5.0 INSPECTION RESULTS

5.1 Implementation Status of Environmental Mitigation Measures

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. A site inspection checklist detailing the environmental observations was prepared by ET and the Contractor then completed this plan to propose/report their remedial works. A summary of implementation status of mitigation measures on site inspections is presented in Appendix G

5.2 Status of Environmental Licensing and Permitting

The status of licences and permits is summarized in Table 5.1.

Table 5.1 Summary of Environmental Licensing and Permit Status

Description	Permit No.	Valid Period		Remarks
		From	To	
Environmental Permit	EP-273/2007	31/07/07	End of Project	Whole Project
Water Discharge Licence (West Kowloon)	WT0000534-7-2009	07/01/10	31/01/15	Effluent and all other wastewater arising from the construction site through Screen & Sedimentation Tank
Water Discharge Licence (Sai Yung Pun)	WT0000580-0-2010	14/01/10	31/01/15	Effluent arising from the construction site through Sedimentation Tank
Chemical Waste Producer	5213-217-W3086-01	13/10/09	End of Project	Spent oil, surplus flammable liquid, surplus paint, soil, rags & containers contaminated with lubricating oil, diesel, flammable liquid & paint, & used batteries
Construction Noise Permit (West Kowloon)	GW-RE0063-10	01/03/10	31/08/10	Group A One Generator, silenced, <75 dB(A) at 7m One Tunnel boring machine One Water pump (electric) (CNP 281) Group B One Dredger, grab (CNP 063) Two Guard boat One Tug boat (CNP 221)
Construction Noise Permit (Sai Ying Pun)	GW-RS0234-10	22/03/10	19/09/10	One dredger, grab (CNP 063) Two Guard boat One Tug boat (CNP 221) Hopper barge
Construction Noise Permit (West Kowloon)	GW-RE0188-10	01/09/10	20/10/10	Group A One Generator, silenced, <75 dB(A) at 7m One Tunnel boring machine One Water pump (electric) (CNP 281) Group B One Dredger, grab (CNP 063) Two Guard boat One Tug boat (CNP 221)



Description	Permit No.	Valid Period		Remarks
		From	To	
Construction Noise Permit (Sai Ying Pun)	GW-RS0756-10	12/09/10	11/03/11	One dredger, grab (CNP 063) Two Guard boat One Tug boat (CNP 221) Hopper barge
Construction Noise Permit (West Kowloon)	GW-RE0502-10	21/10/10	20/04/11	One Dredger, grab (CNP 063) Two Guard boat One Tug boat (CNP 221) One Generator, standard (CNP 101)
Dumping Licence	EP/MD/10-085	30/04/10	30/09/10	Bulk quantity of material approved for dumping at the East Ninepin Mud Disposal Ground within permit validity period: 293800 cu.m. (for Type 1 – Open Sea Disposal)
Dumping Licence	EP/MD/11-039	26/07/10	30/09/10	Bulk quantity of material approved for dumping at the East Ninepin Mud Disposal Ground denoted "LWCHMALM" within permit validity period: 251160 cu.m. (for Type 1 – Open Sea Disposal)
Dumping Licence	EP/MD/11-053	06/08/10	05/09/10	Bulk quantity of material approved for dumping at the East Sha Chau Contaminated Mud Disposal Site within permit validity period: 159653 cu.m. (for Type 1 – Open Sea Disposal (Dedicated Site) and Type 2 – Confined Marine Disposal)
Dumping Licence	EP/MD/11-069	01/10/10	31/03/11	Bulk quantity of material approved for dumping at the South Cheung Chau Spoil Disposal Area denoted "LWCHMALM" within permit validity period: 130,000 cu.m. (for Type 1 – Open Sea Disposal)
Notification under APCO	Application had been submitted to EPD on 25/09/09 and approved from 29/09/09.			

5.3 Advice on Solids and Liquid Waste Management Status

Summary of waste disposal in this quarter is present in Table 5.2.

Table 5.2 Summary of Waste Disposal in this Quarter

Type of Waste		Quantity	Disposal Location	Cumulative Quantity
Inert C&D Materials	Total Quantity Generated (in m ³)	1141.25		5498.29
	Broken Concrete (in m ³)	0	---	0
	Reused in the Contract (in m ³)	0	---	0
	Reused in other Projects (in m ³)	0	---	0
	Disposal as Public Fill (in m ³)	1141.25	SENT Landfill	5498.29
C&D Waste	Metals (in kg)	0	---	0
	Paper/Cardboard Packaging (in kg)	26	Collected by recycling company	65
	Plastics (in kg)	0	---	0
	Chemical Waste (in kg)	0	---	0
	Other, e.g. General Refuse (in m ³)	15.16	SENT Landfill	49.50
Dredged Materials	Type 1 (in m ³)	81500	East Ninepin Mud Disposal Ground	116400*
	Type 2 (in m ³)	11550	The East Sha Chau	104990

Remark (*): Total amount of Type 1 marine sediment was 34900m³ between May and July 2010 (Instead of 34200m³).

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.

Besides, pre-cast drip trays were provided for oil drums at several areas, such as barge and chemical storage area. The Contractor should collect and dispose of any stagnant water accumulated in the drip trays and handle them as chemical waste.

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 the reporting quarter.

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

6.0 NON-COMPLIANCE OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

6.1 Summary of Non-compliance

No exceedances of Action and Limit Level of marine water quality monitoring results were recorded in this quarter.

No exceedances of Action Level of noise monitoring were recorded in this reporting quarter since no complaint on noise issue was received.

Totally seventy-four exceedances in Limit Level were recorded according to the results from night-time noise monitoring in this quarter.

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

Refer to Interim notifications of exceedance (NOEs) by ET, all exceedances of night-time noise monitoring recorded in this quarter were due to the noise from local traffic and human activities near the noise monitoring stations and considered to be invalid (not project related).

6.3 Summary of Actions Taken

Since all exceedances of night-time noise monitoring were considered to be invalid (not project related), no further actions were required.

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

No complaints, notifications of summons and successful prosecutions were received. A summary of environmental complaints and prosecutions was given in Table 6.1.

Table 6.1 Summary of Environmental Complaints and Prosecutions

<i>Period</i>	<i>Complaints logged</i>	<i>Summon served</i>	<i>Successful Prosecution</i>
<i>August 2010</i>	0	0	0
<i>September 2010</i>	0	0	0
<i>October 2010</i>	0	0	0
<i>Cumulative</i>	0	0	0

7.0 COMMENTS, CONCLUSIONS AND RECOMMENDATION

Impact monitoring of noise and water quality were carried out at designated locations in accordance with the EM&A Manual in this reporting quarter.

According to the ET weekly site inspections carried out in this quarter, the Contractor generally implemented sufficient environmental mitigation measures.

In this quarter, totally seventy-four exceedances in Limit Level were recorded according to the results from night-time noise monitoring. However, all of the exceedances were considered to be invalid (not project related) and no further actions were required.

No exceedances of Action Level of noise monitoring were recorded in this reporting quarter since no complaint on noise issue was received.



No exceedances of Action and Limit Level of water quality monitoring results were recorded during the reporting quarter.

No complaints, prosecutions or notifications of summons were received in this quarter.

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

Air Quality

- Ensure the frequency of water spraying on unloading areas and stockpiles to be sufficient to suppress the dust sources;
- Provide proper maintenance for the powered mechanical equipment and barges to avoid emission of dark smoke; and
- Implement the dust mitigation measures for the site activities.

Noise

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

Water Quality

- Maintain the drainage system regularly;
- Operate and maintain the silt curtains and silt screen regularly;
- Operate the cleaning vessel regularly;
- Provide proper treatment for the wastewater discharge;
- Clean up the fill material on the barge frequently; and
- Remove the stagnant water or provide approved pesticides for the stagnant water, if any.

Chemical and Waste Management

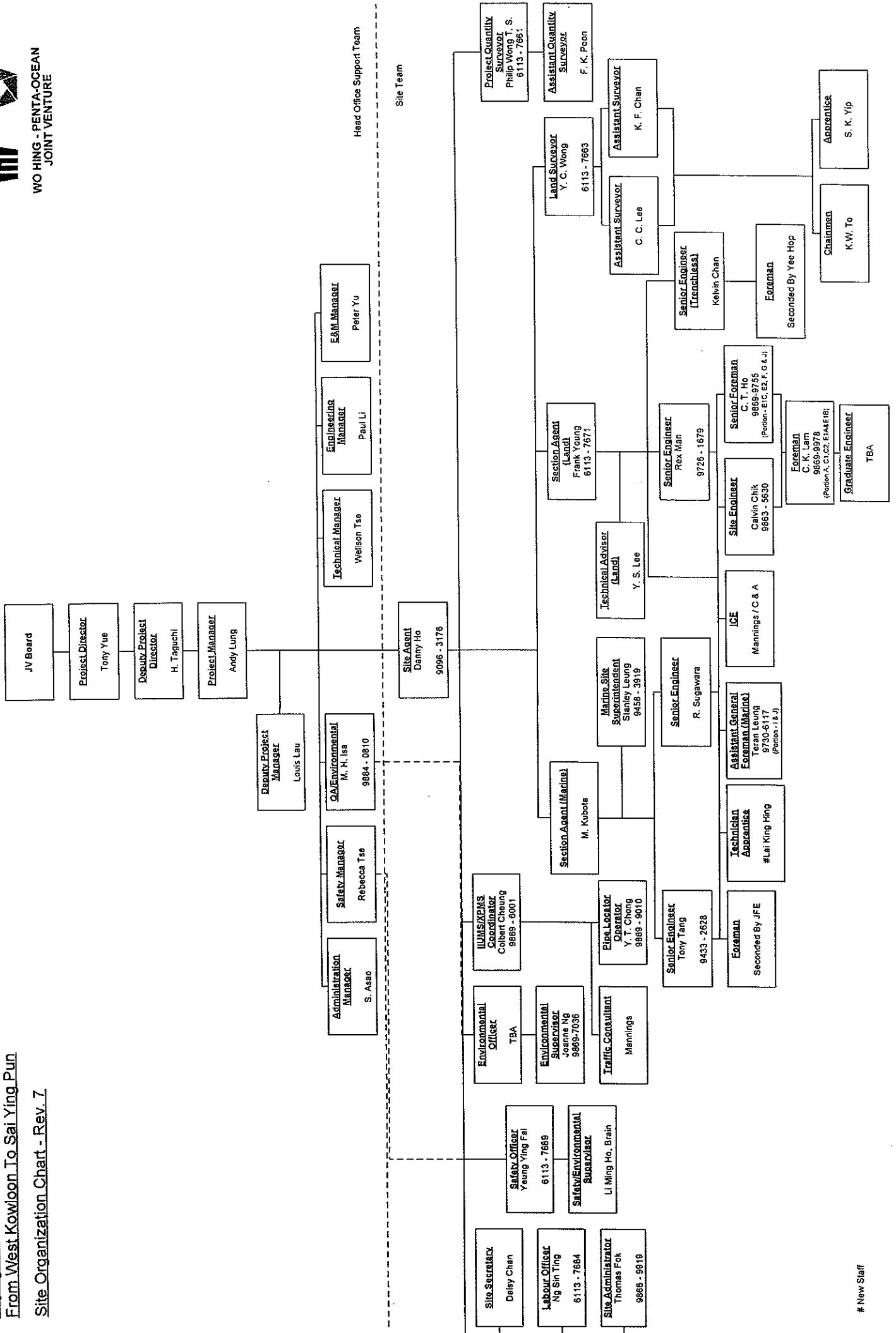
- Remove waste materials from the site to avoid accumulation regularly;
- Handle and store chemical wastes properly;
- Remove unwanted material in the existing stockpiles and avoid further dumping of such material;
- Provide and maintain sufficient drip trays for diesel drums, chemical containers, chemical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



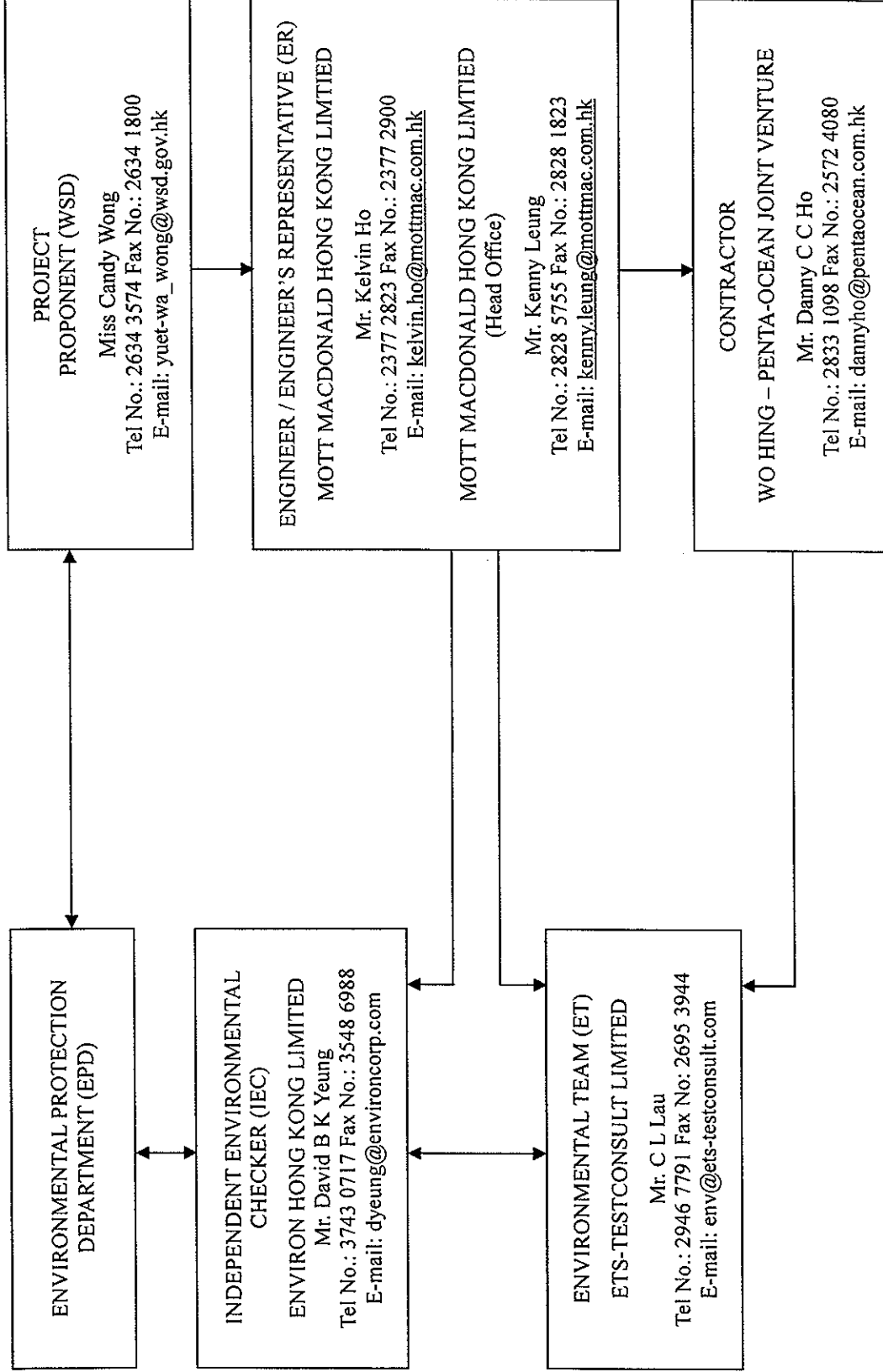
Appendix A

Organization Chart and Lines of Communication

Contract No. 9WSD/08
Laying Of Western Cross Harbour Main And Associated Land Mains
From West Kowloon To Sai Ying Pun
Site Organization Chart - Rev. 7



New Staff



Project Laying of Western Cross Harbour Main and Associated Land Mains From West Kowloon to Sai Ying Pun - Investigation

Title Project Organization and Line of Communication

Date Dec 2009



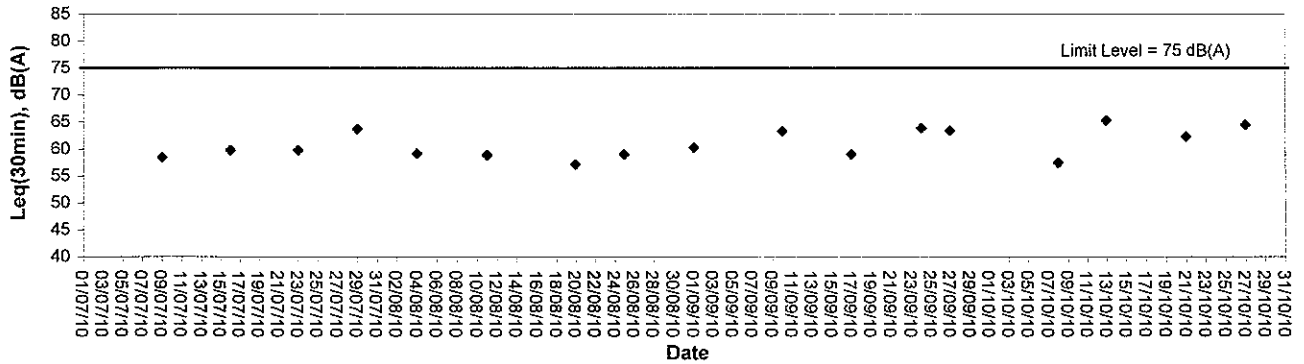
Appendix B

Graphical Plots of Noise Monitoring Data

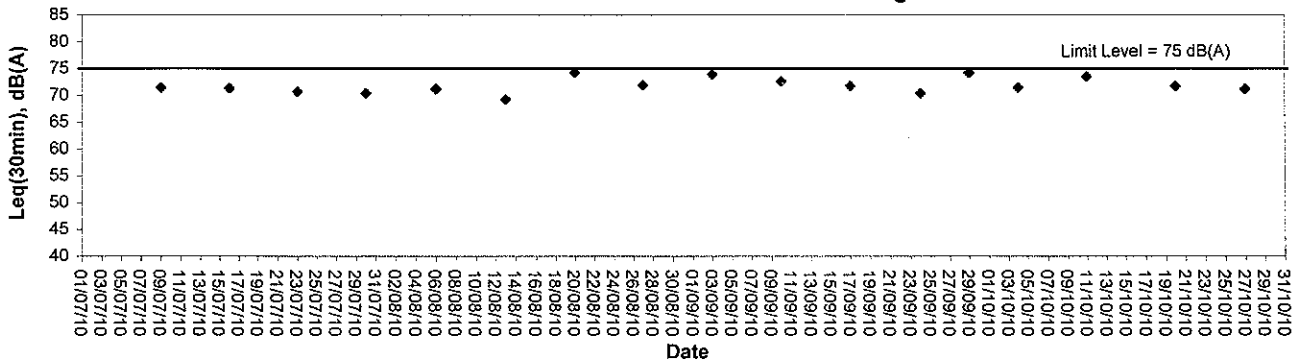


Noise Monitoring (Day-time)

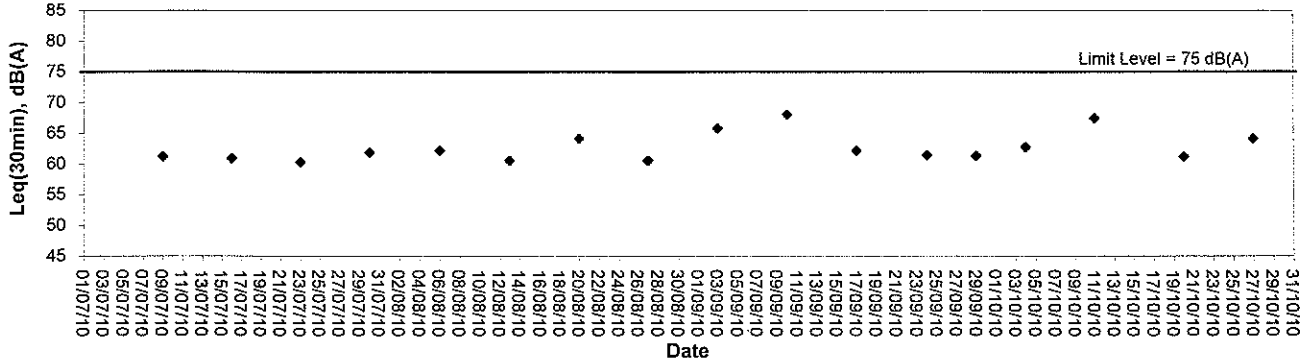
Noise level at KS6 - Podium at the Culliman



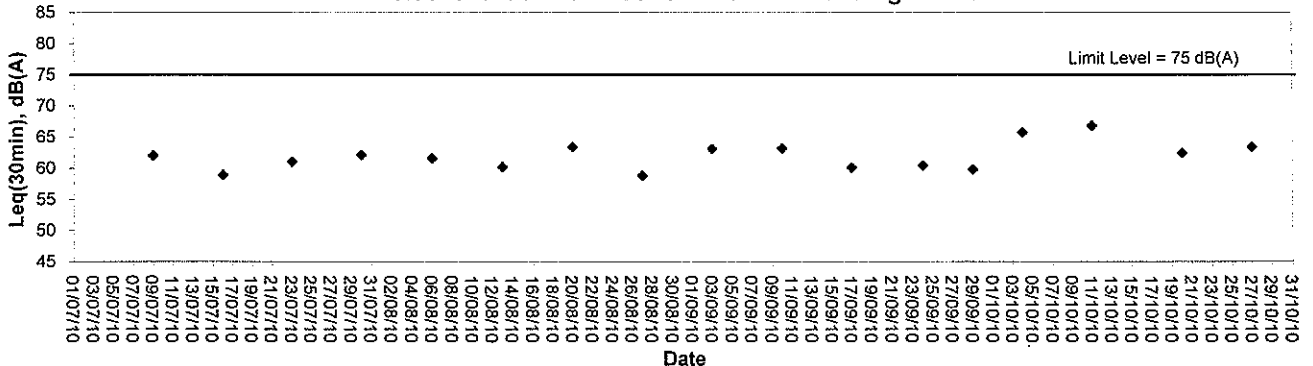
Noise level at CGa - Pavement in front of Connaught Garden



Noise level at RWM - Roof of Richwealth Mansion



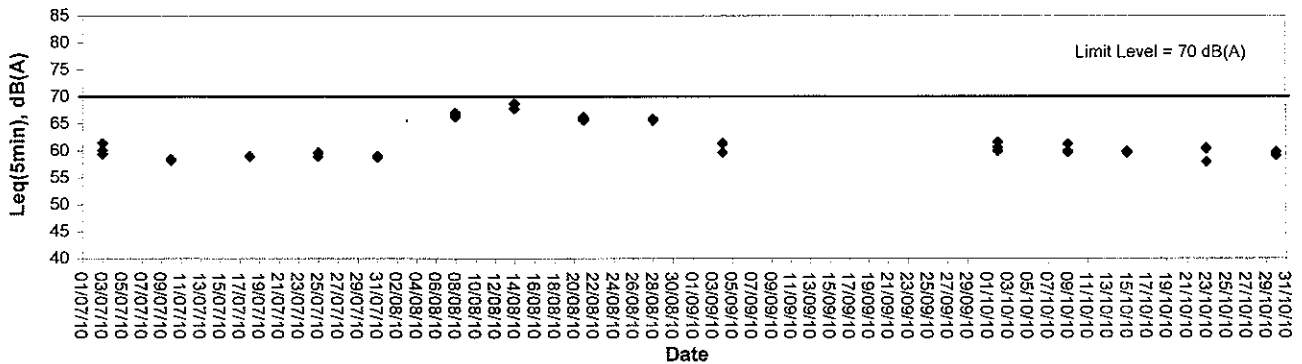
Noise level at KY3 - Roof of Kwan Yik Building Phase 3



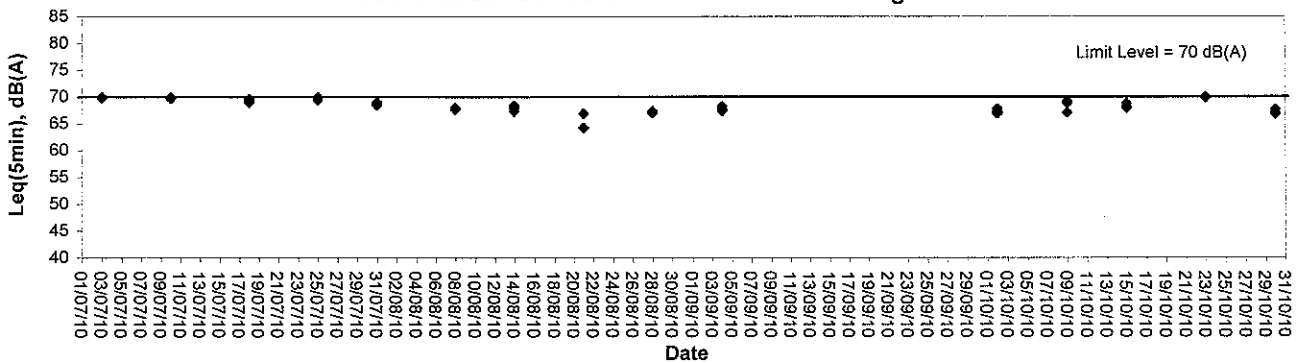


Noise Monitoring (Evening-time)

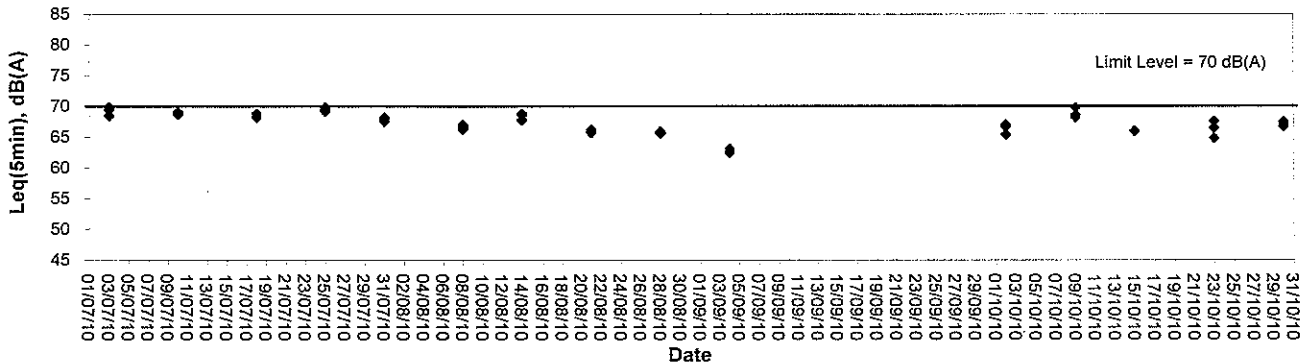
Noise level at KS6 - Podium at the Culliman



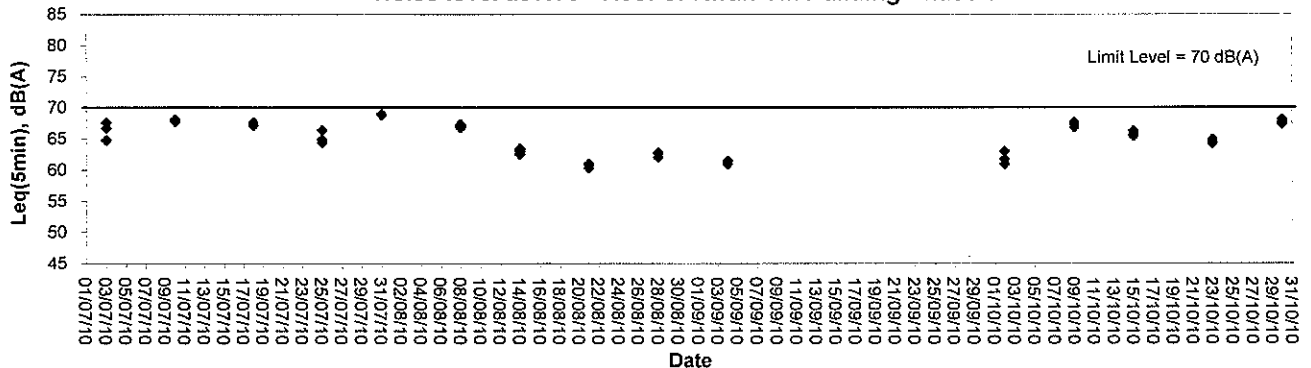
Noise level at CGa - Pavement in front of Connaught Garden



Noise level at RWM - Roof of Richwealth Mansion



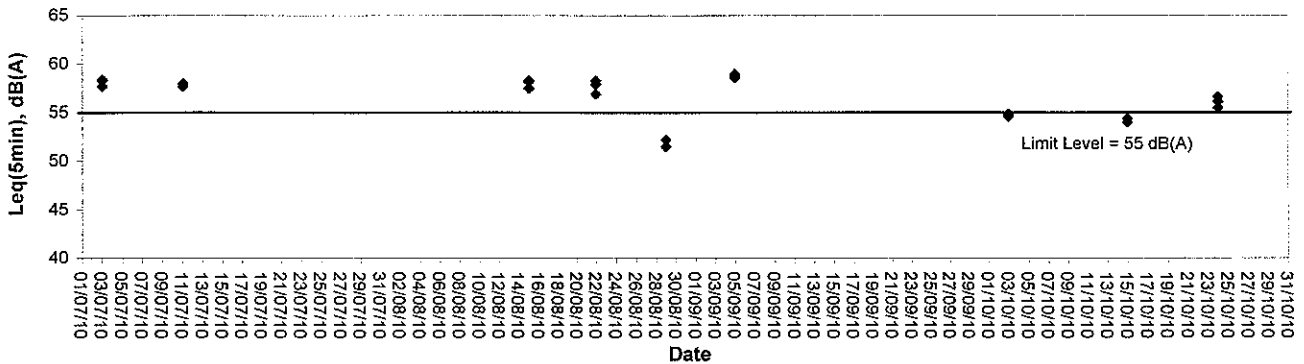
Noise level at KY3 - Roof of Kwan Yik Building Phase 3



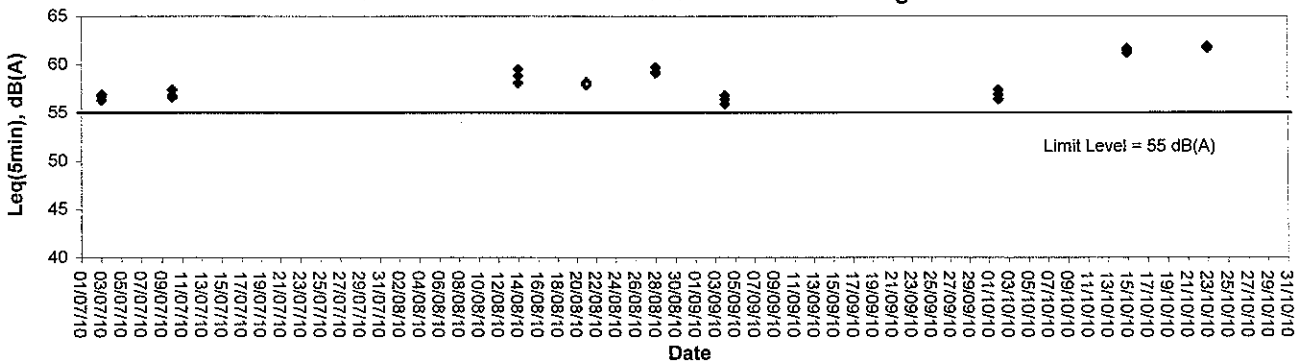


Noise Monitoring (Night-time)

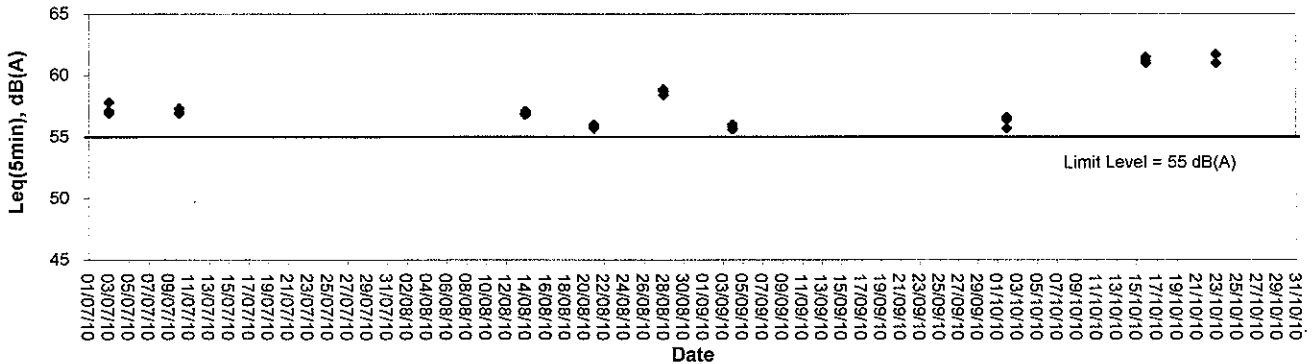
Noise level at KS6 - Podium at the Culliman



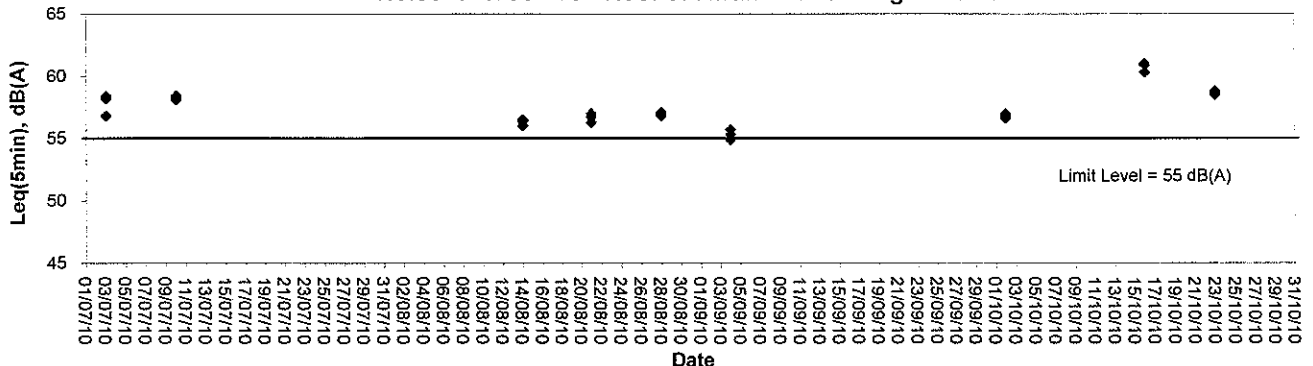
Noise level at CGa - Pavement in front of Connaught Garden



Noise level at RWM - Roof of Richwealth Mansion



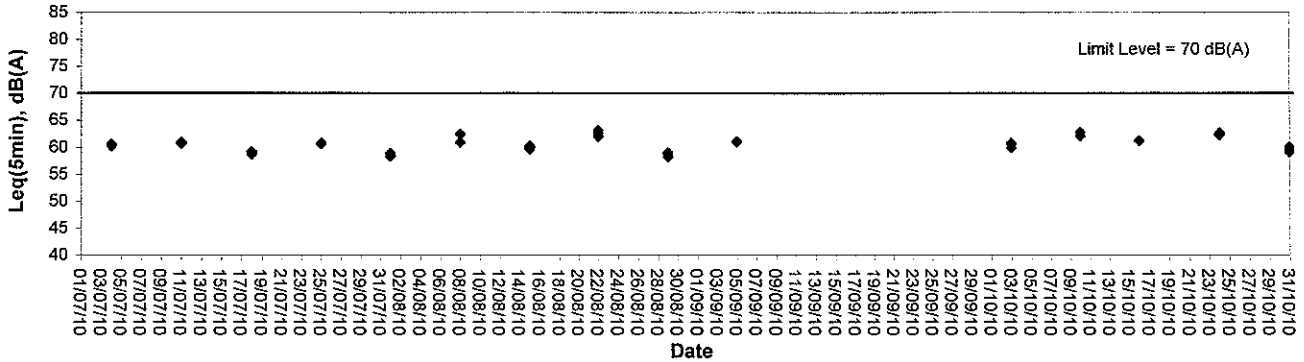
Noise level at KY3 - Roof of Kwan Yik Building Phase 3



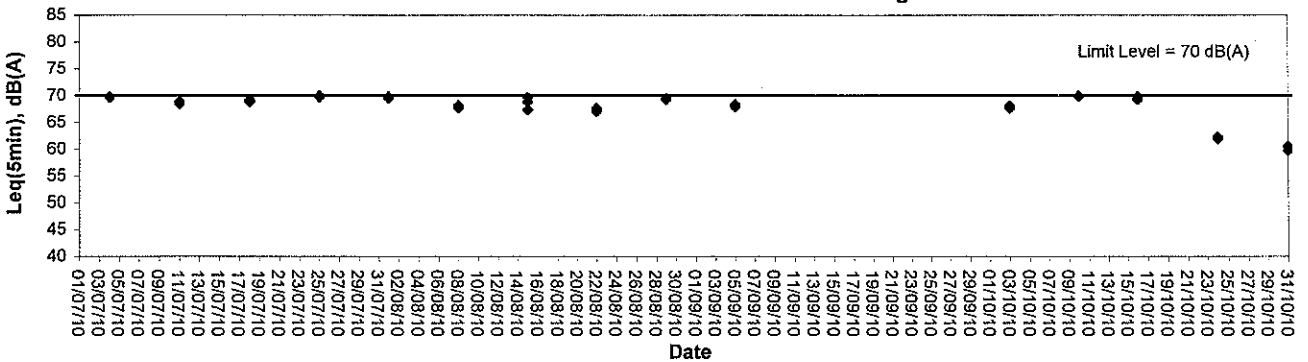


Noise Monitoring (Holiday-time)

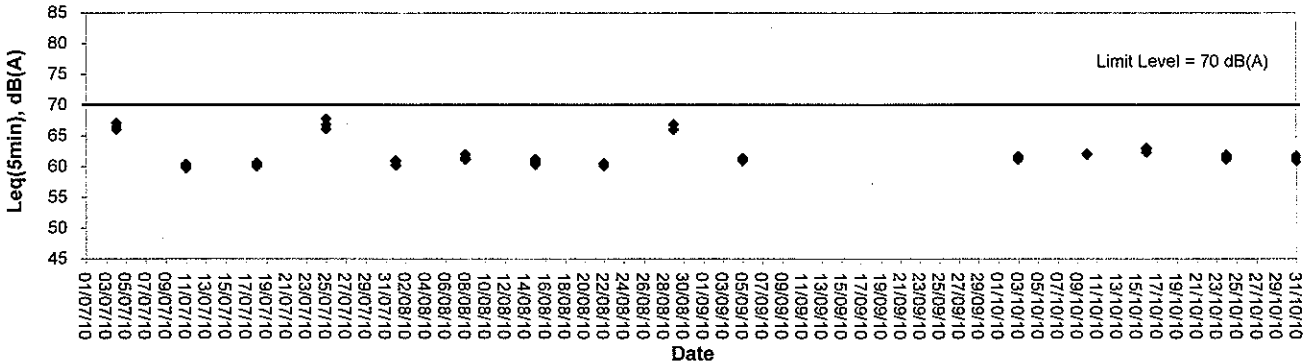
Noise level at KS6 - Podium at the Culliman



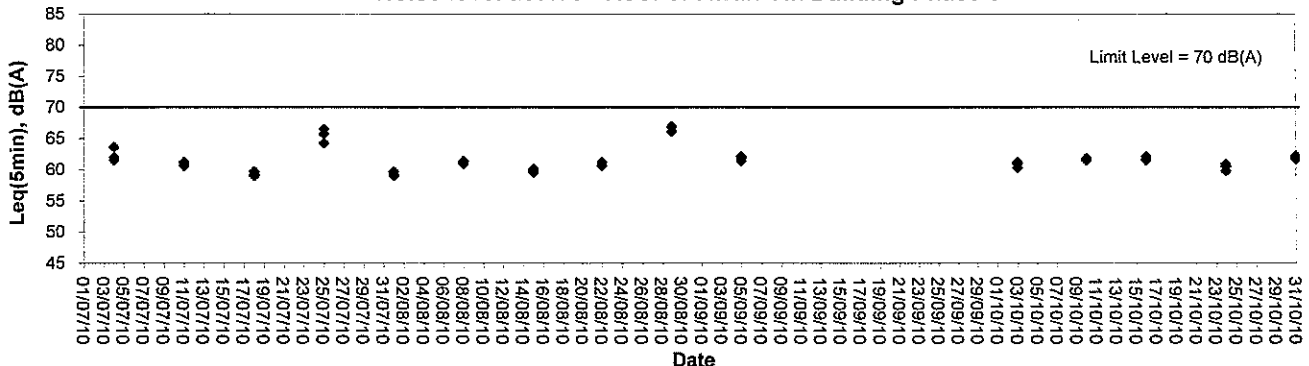
Noise level at CGa - Pavement in front of Connaught Garden



Noise level at RWM - Roof of Richwealth Mansion



Noise level at KY3 - Roof of Kwan Yik Building Phase 3



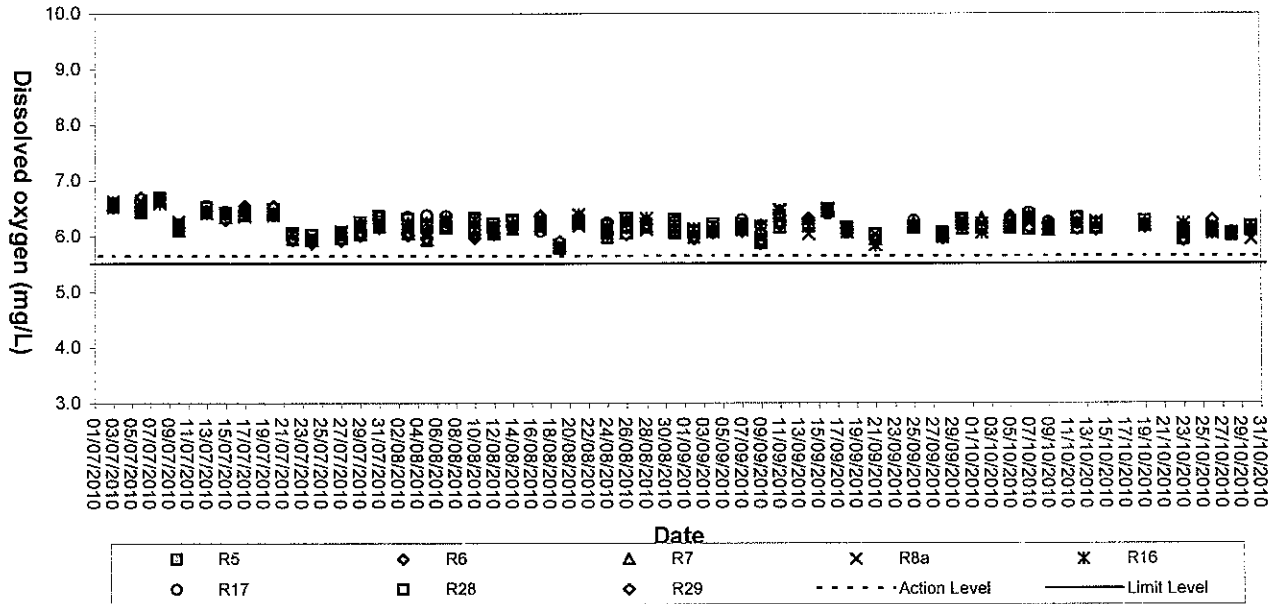


Appendix C

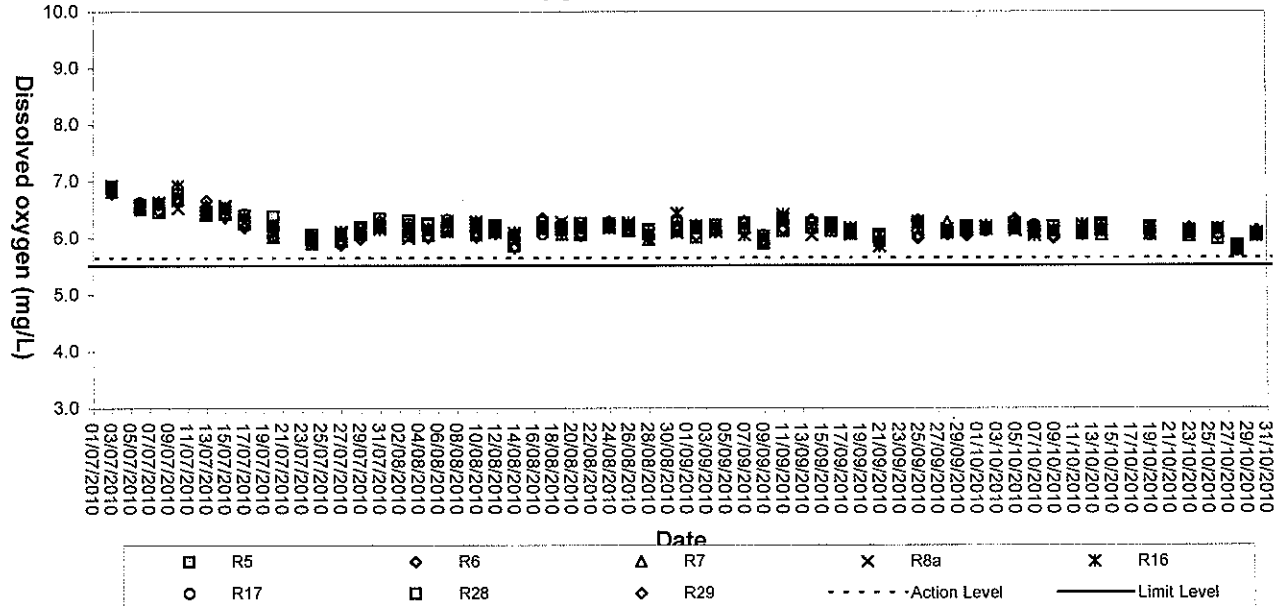
Graphical Plots of Impact Marine Water Quality Monitoring Data



Dissolved Oxygen (Surface) at Mid-Flood Tide

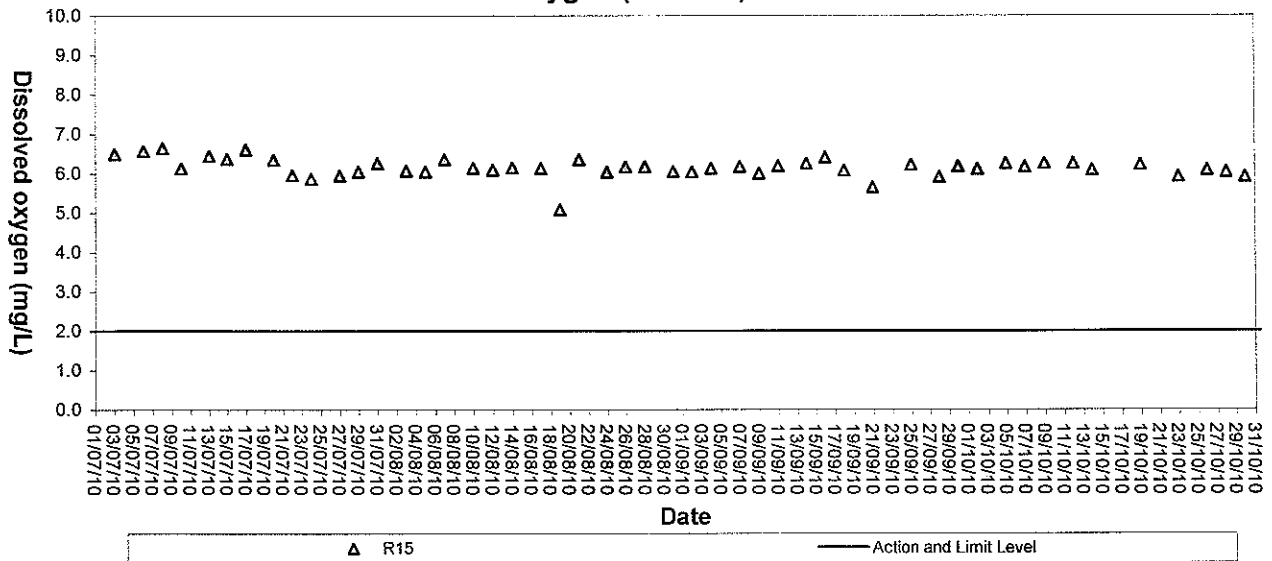


Dissolved Oxygen (Surface) at Mid-Ebb Tide





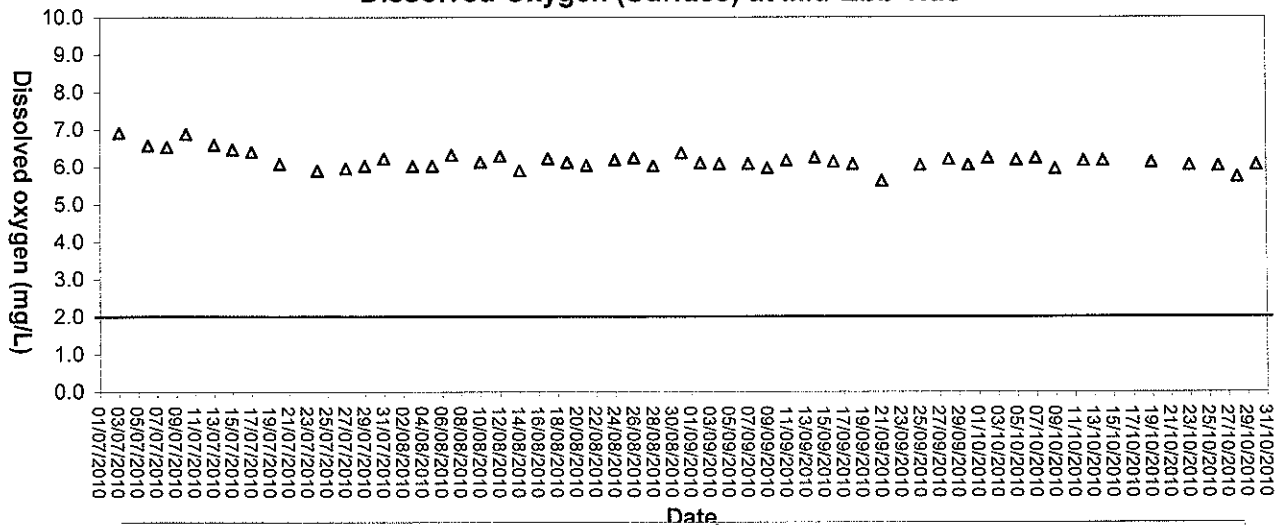
Dissolved Oxygen (Surface) at Mid-Flood Tide



△ R15

— Action and Limit Level

Dissolved Oxygen (Surface) at Mid-Ebb Tide

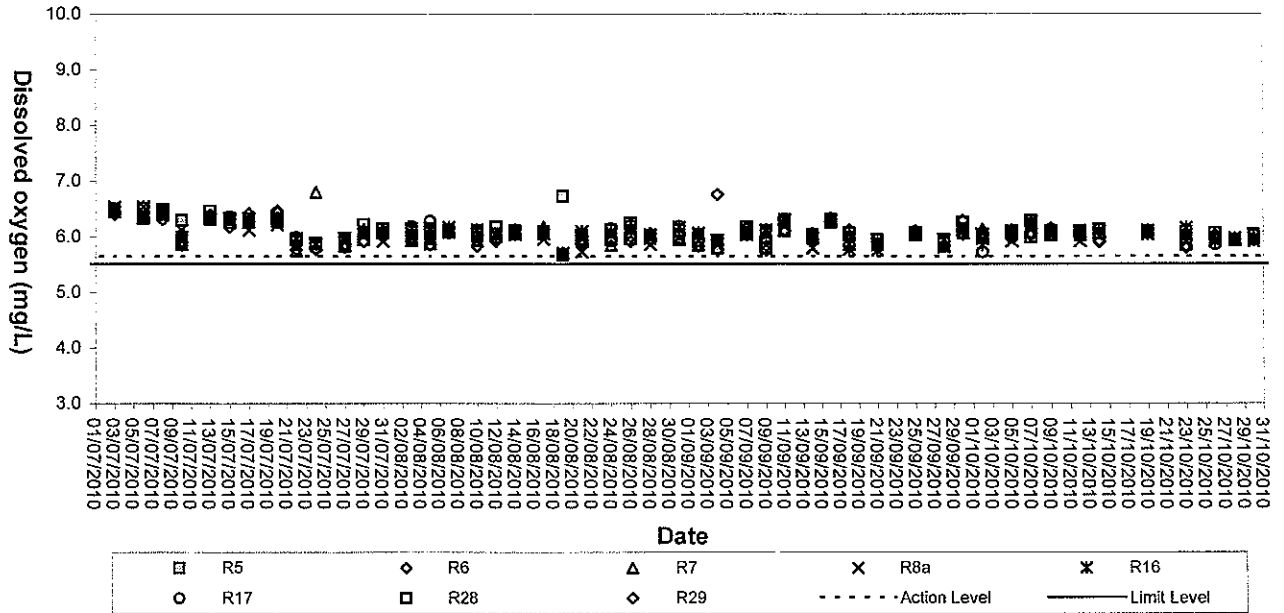


△ R15

— Action and Limit Level

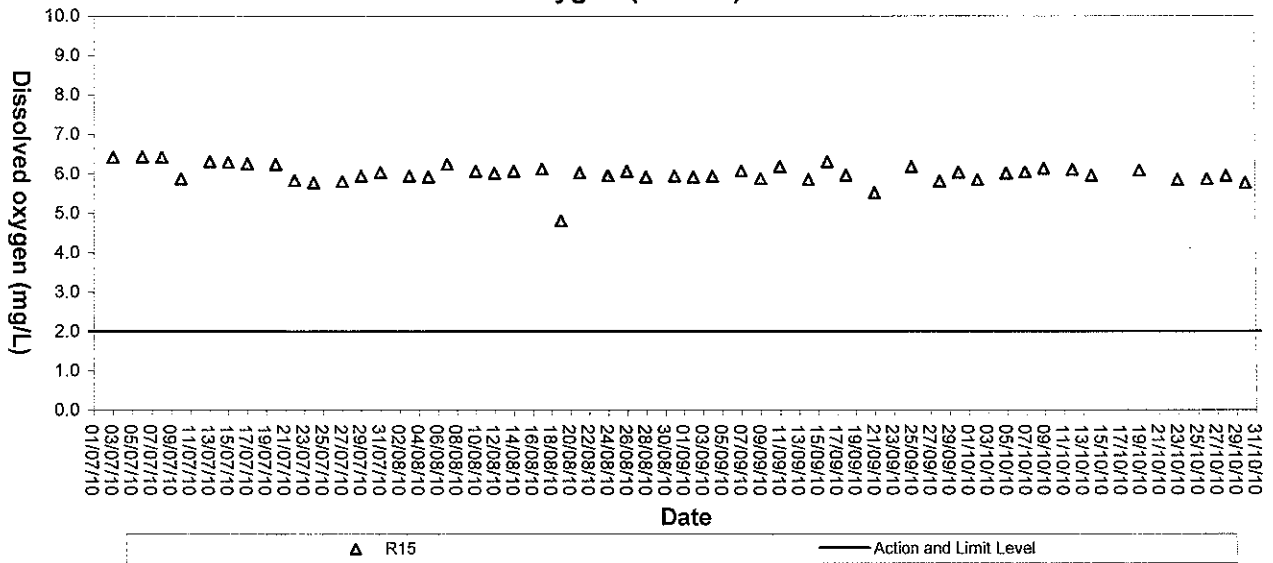


Dissolved Oxygen (Middle) at Mid-Flood Tide





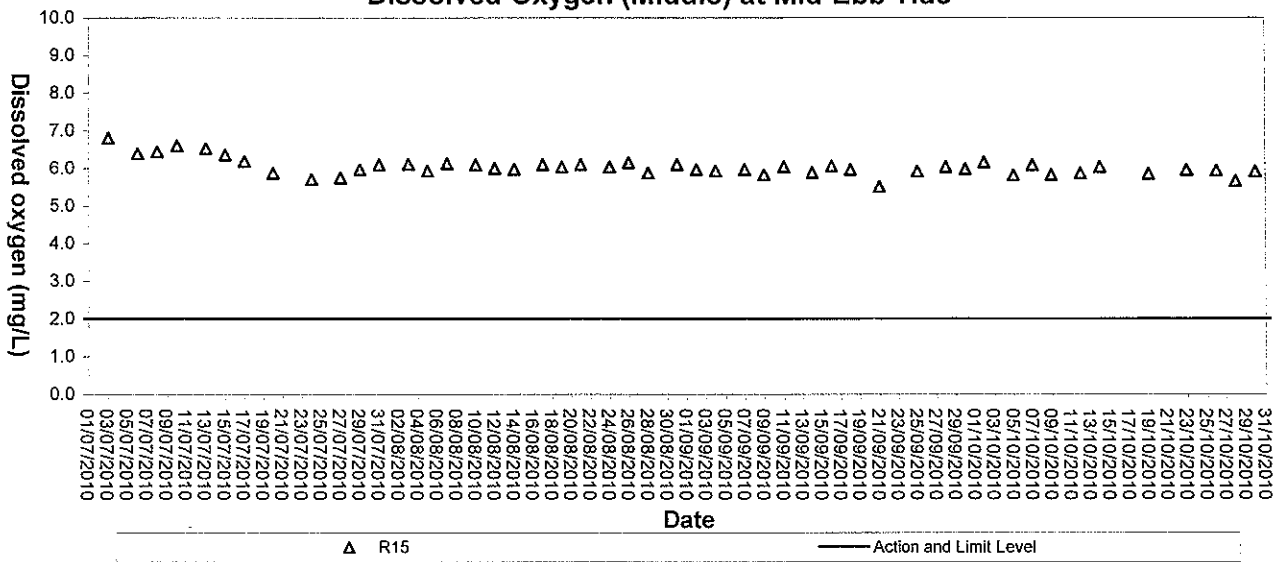
Dissolved Oxygen (Middle) at Mid-Flood Tide



△ R15

— Action and Limit Level

Dissolved Oxygen (Middle) at Mid-Ebb Tide

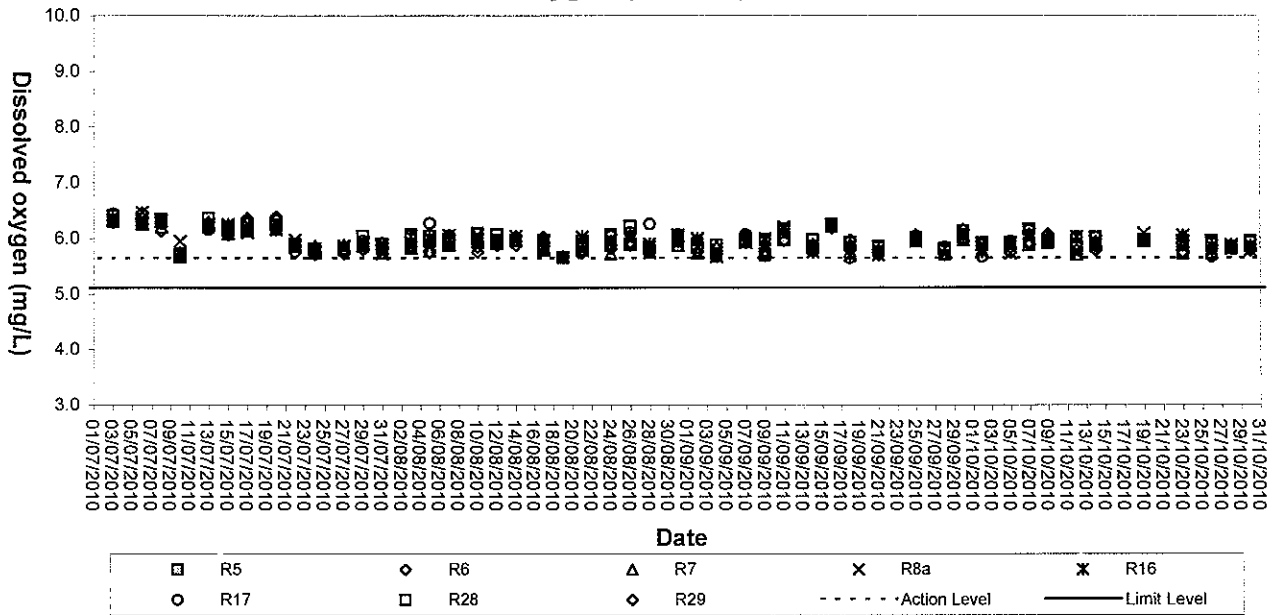


△ R15

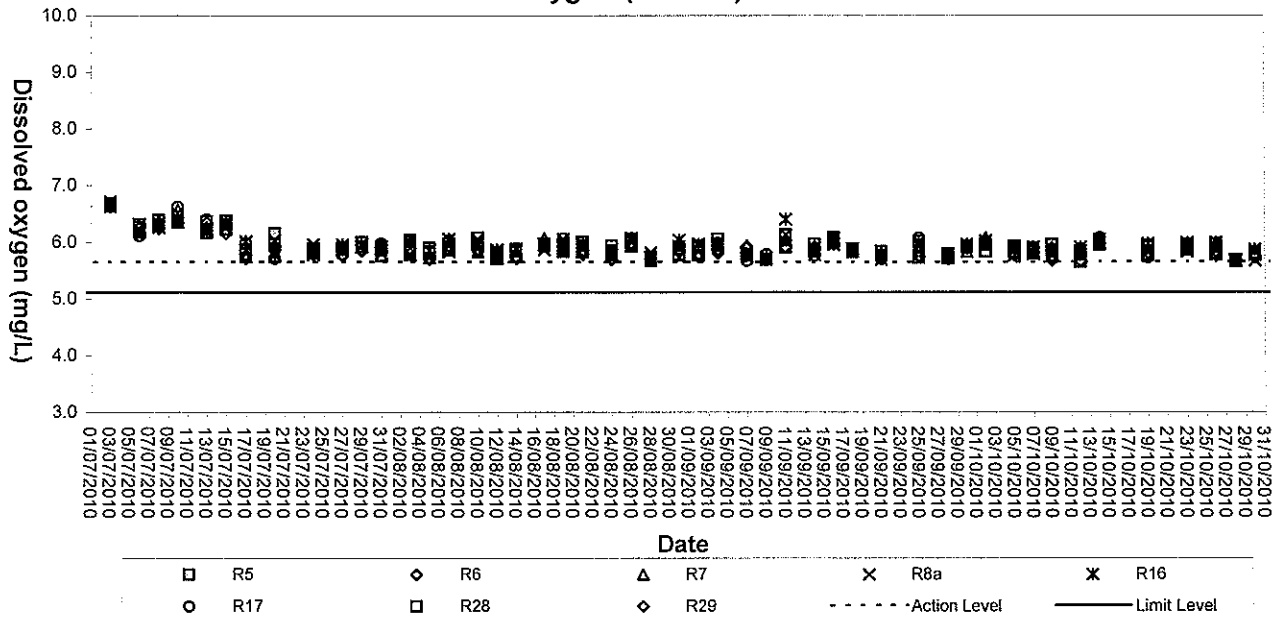
— Action and Limit Level



Dissolved Oxygen (Bottom) at Mid-Flood Tide

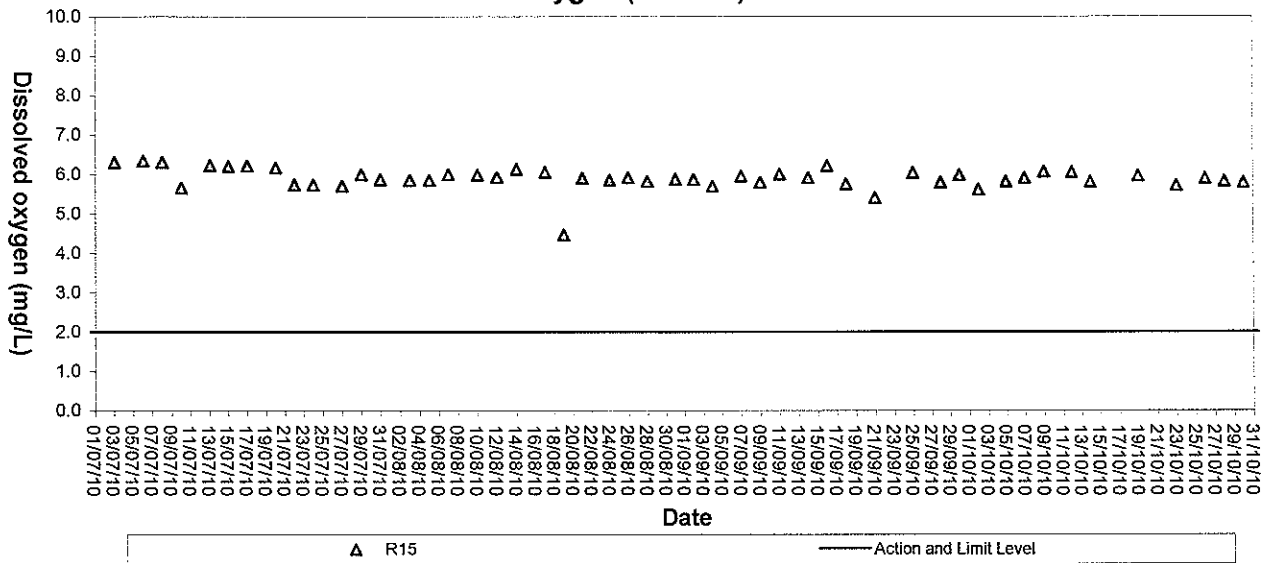


Dissolved Oxygen (Bottom) at Mid-Ebb Tide





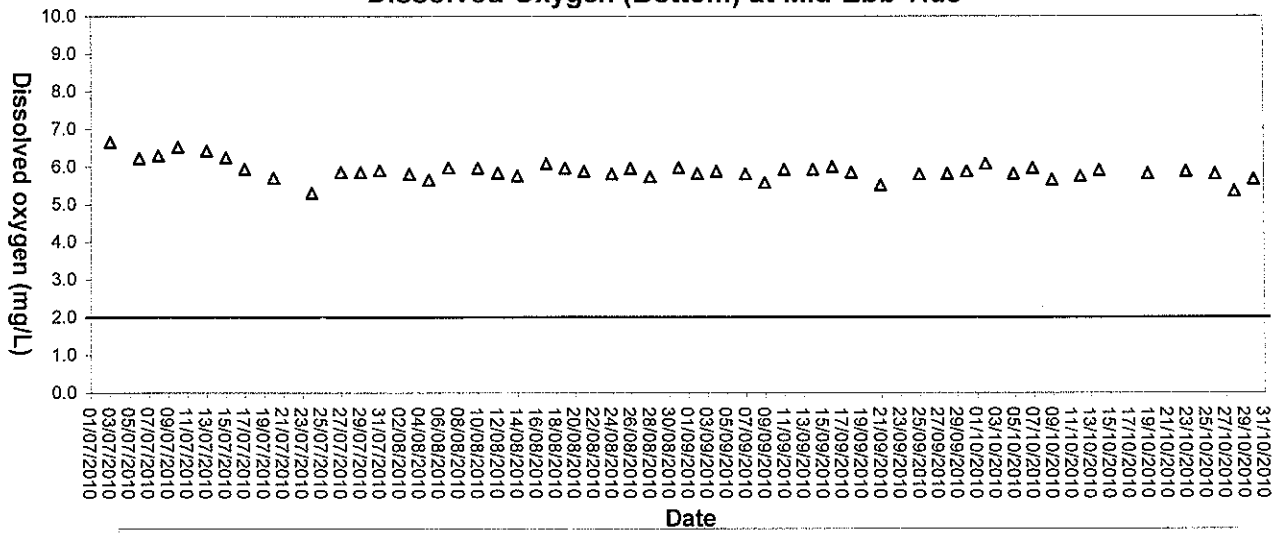
Dissolved Oxygen (Bottom) at Mid-Flood Tide



▲ R15

— Action and Limit Level

Dissolved Oxygen (Bottom) at Mid-Ebb Tide

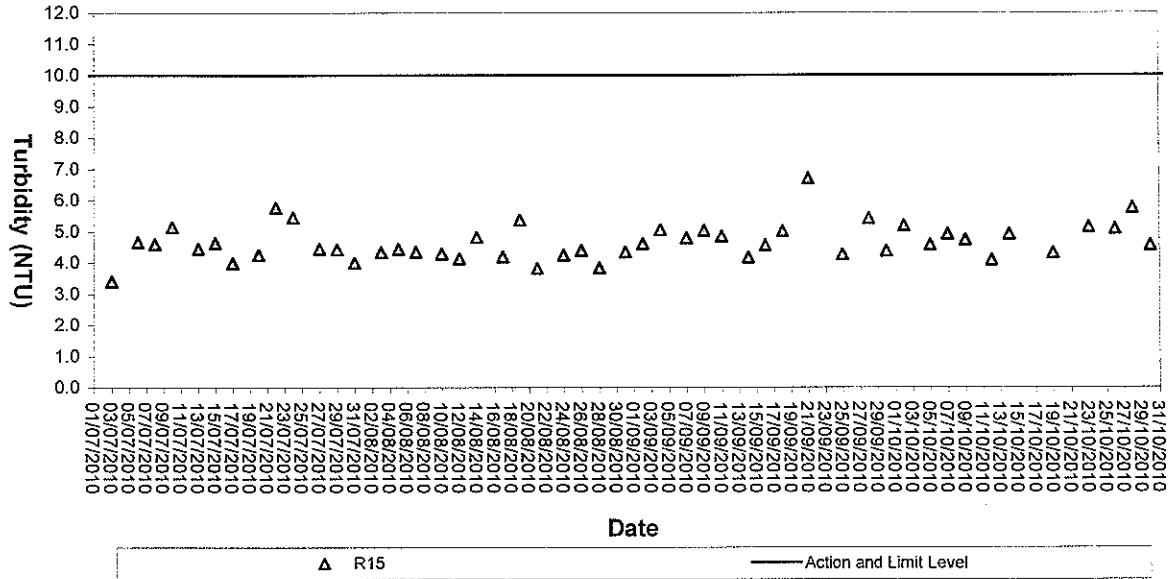


▲ R15

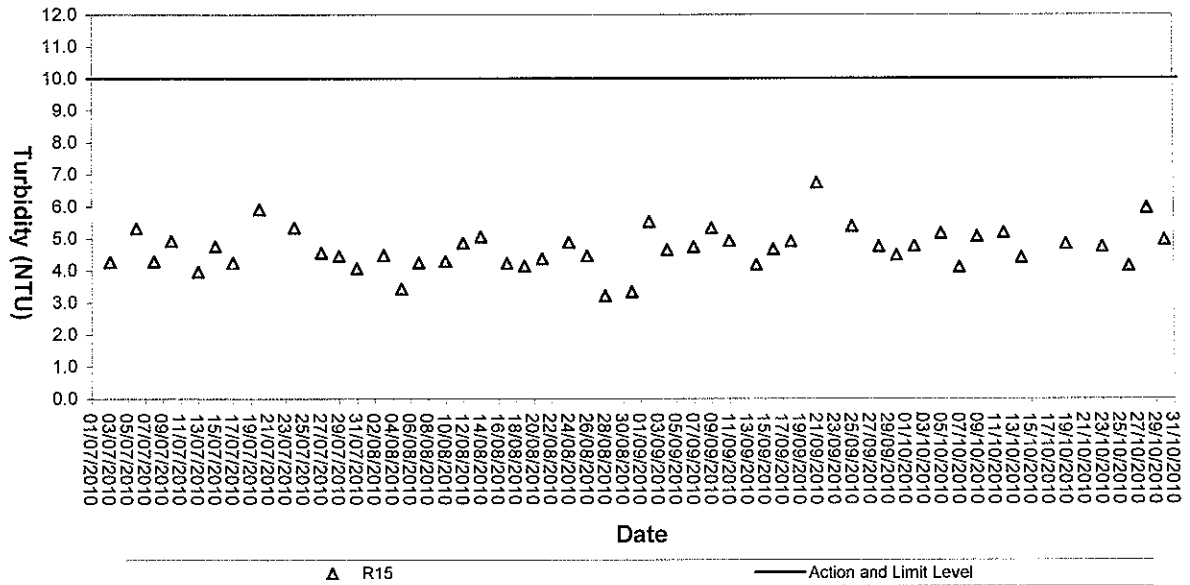
— Action and Limit Level



Turbidity (Depth-average) of R15 at Mid-Flood Tide

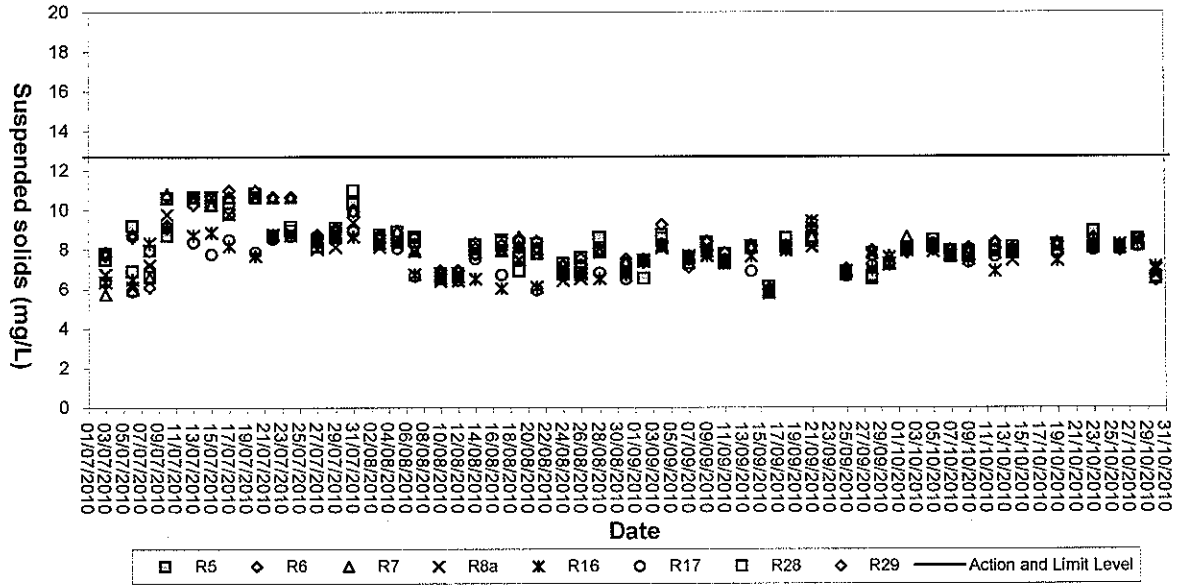


Turbidity (Depth-average) of R15 at Mid-Ebb Tide

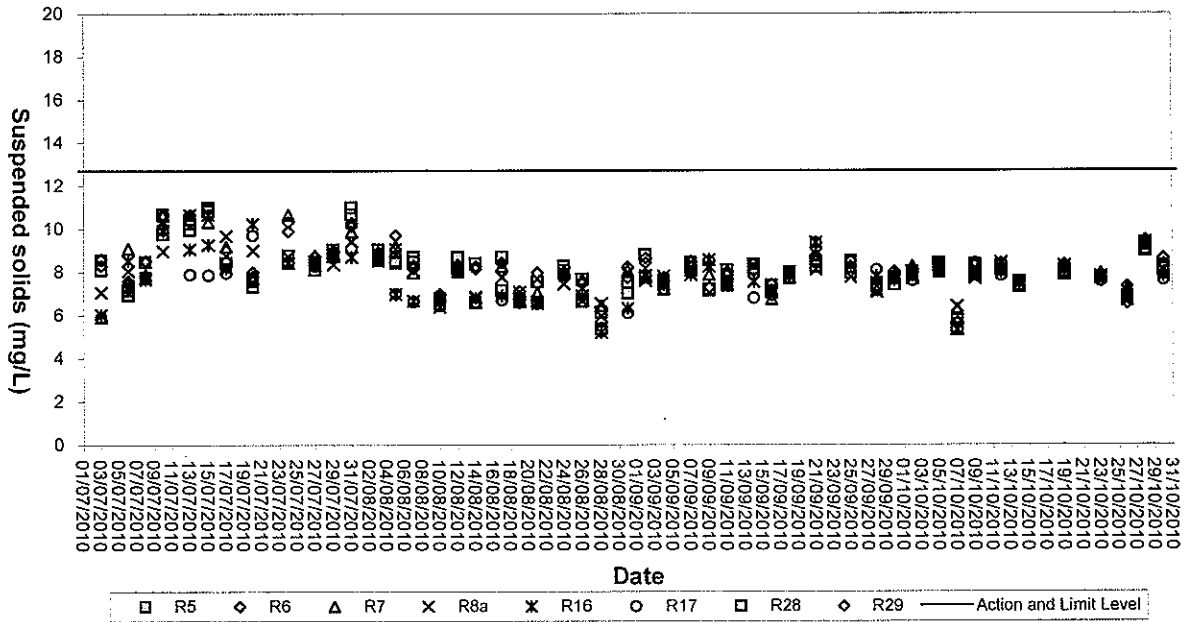




Suspended solids (Depth-average) at Mid-Flood Tide

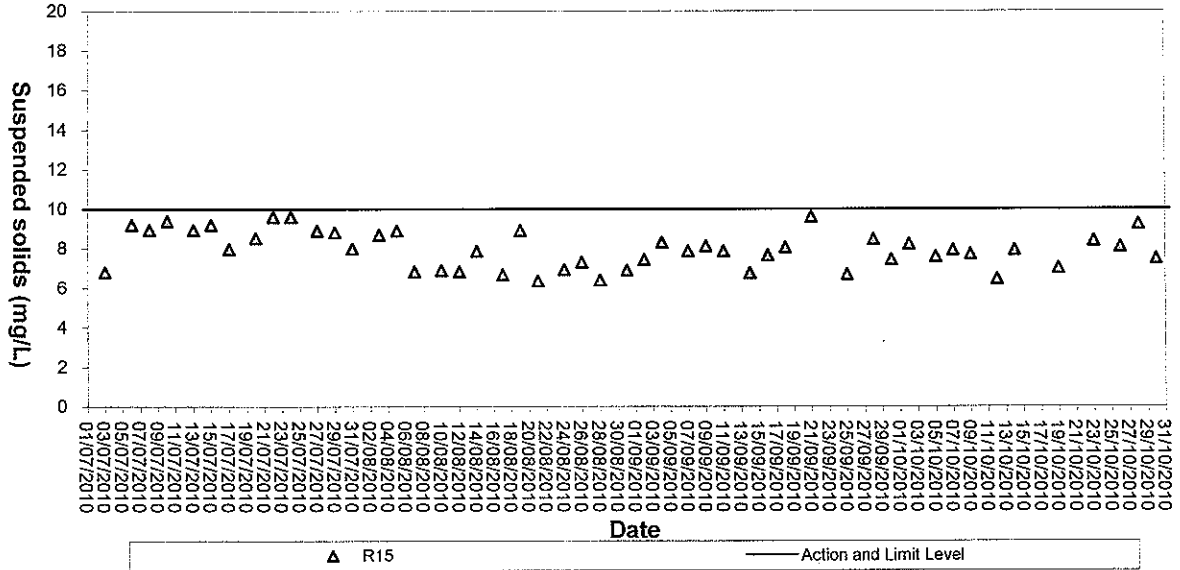


Suspended Solids (Depth-average) at Mid-Ebb Tide

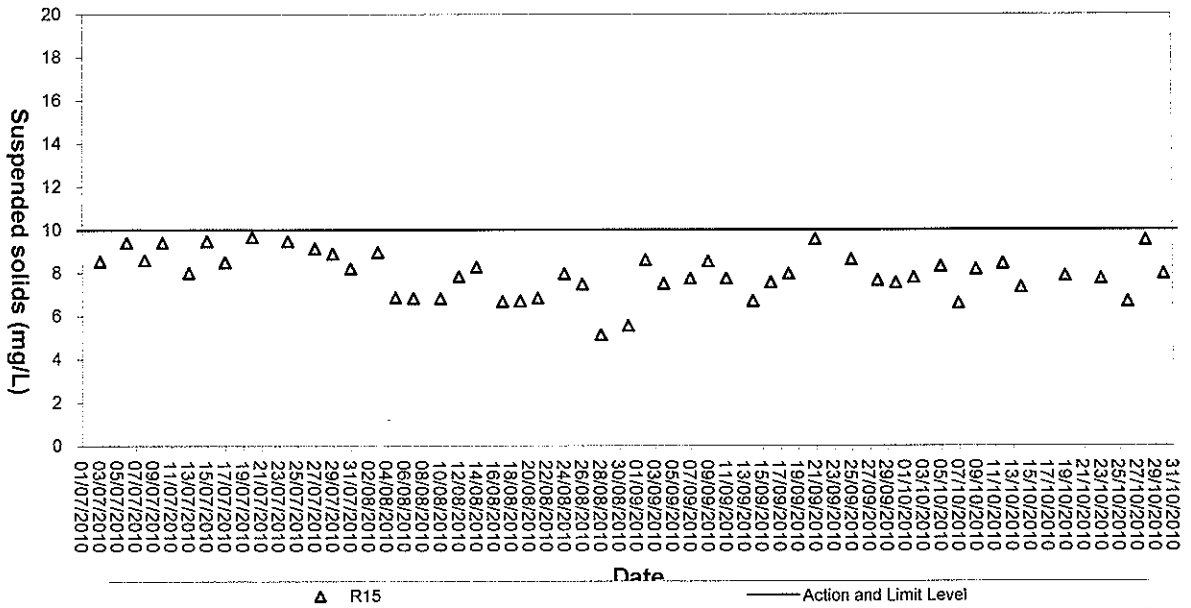




Suspended solids (Depth-average) of R15 at Mid-Flood Tide



Suspended Solids (Depth-average) of R15 at Mid-Ebb Tide





Appendix D

Environmental Quality Performance (Action / Limit Levels)



Action and Limit Levels for Noise Monitoring

Time Period	Action	Limit
0700 –1900 hrs on normal weekday (Day-time)	When one documented complaint is received	75 dB(A) *
1900-2300 hrs (Evening-time)		70 dB(A)
0700-1900 hrs on Holiday (Holiday-time)		70 dB(A)
Restricted hours (2300-0700 hrs of next day) (Night-time)		55 dB(A)

* reduce to 70dB(A) for school and 65dB(A) during school examination periods

Action and Limit Levels for Marine Water Quality

Parameter	Action Level	Limit Level
DO (mg/L) (Surface, Middle & Bottom)	<u>Surface, Middle & Bottom</u> WSD Seawater Intakes 2 mg/L (For R15) Other Impact Monitoring Stations 5.65 mg/L (For R5, R6, R7, R8a, R16, R17, R28 and R29)	<u>Surface & Middle</u> WSD Seawater Intakes 2 mg/L (For R15) Other Impact Monitoring Stations 5.51 mg/L (For R5, R6, R7, R8a, R16, R17, R28 and R29) <u>Bottom</u> 5.11 mg/L (For R15, R5, R6, R7, R8a, R16, R17, R28 and R29)
SS (mg/L) (Depth-averaged)	WSD Seawater Intakes 10 mg/L (For R15) Other Impact Monitoring Stations 12.7 mg/L (For R5, R6, R7, R8a, R16, R17, R28 and R29)	WSD Seawater Intakes 10 mg/L (For R15) Other Impact Monitoring Stations 12.7 mg/L (For R5, R6, R7, R8a, R16, R17, R28 and R29)
Turbidity (NTU) (Depth-averaged)	WSD Seawater Intakes 10 NTU Other Impact Monitoring Stations 6.48 NTU (For R5, R6, R7, R8a, R16, R17, R28 and R29)	WSD Seawater Intakes 10 NTU Other Impact Monitoring Stations 6.82 NTU (For R5, R6, R7, R8a, R16, R17, R28 and R29)

- Notes:
1. "depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.
 2. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
 3. For turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
 4. All the figures given in the table are used for reference only and the EPD may amend the figures whenever it is considered as necessary.



Appendix E

Event-Action Plans



Event and Action Plan for Construction Noise

Event	Action			
	ET Leader	IEC	ER	Contractor
Action Level	<ol style="list-style-type: none"> 1. Notify IEC and the Contractor. 2. Carry out investigation. 3. Report the results of investigation to IEC and the Contractor. 4. Discuss with the Contractor and formulate remedial measures. 5. Increase monitoring frequency to check mitigation measures. 	<ol style="list-style-type: none"> 1. Review with analysed results submitted by ET. 2. Review the proposed remedial measures by the Contractor and advise ER accordingly. 3. Supervise the implement of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC. 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Identify the source. 2. Notify IEC, ER, EPD and the 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 IEC, ER, and EPD the causes & actions taken for the exceedances. 7. Assess effectiveness of the Contractor's remedial actions and keep IEC, 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 Leader and the Contractor on the potential remedial actions. 2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise ER accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity 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 IEC within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problem still not under control. 5. Stop the relevant activity of works as determined by the ER until the exceedance is abated.



Event and Action Plan for Water Quality for Construction Phase

Event	Action			
	ET Leader	IEC	ER	Contractor
Action Level				
Exceedance for one sample	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm finding; 2. Identify source(s) of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; and 6. Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> 1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; and 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with IEC on the proposed mitigation measures; and 2. Make agreement on the mitigation measures to be implemented. 	<ol style="list-style-type: none"> 1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER; and 6. Implement the agreed mitigation measures.
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm finding; 2. Identify source(s) of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; 6. Ensure mitigation measures are implemented; 7. Prepare to increase the monitoring frequency to daily; and 8. Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> 1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; and 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented; and 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Inform the Engineer and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; and 6. Implement the agreed mitigation measures.



Event and Action Plan for Water Quality for Construction Phase

Event	Action			
	ET Leader	IEC	ER	Contractor
Limit Level				
Exceedance for one sample	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm finding; 2. Identify source(s) of impact; 3. Inform IEC, Contractor and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; and 7. Increase the monitoring frequency to daily until no exceedance of Limit level. 	<ol style="list-style-type: none"> 1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; and 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; and 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; and 4. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Inform the Engineer and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and ER and propose mitigation measures to IEC and ER within 3 working days; and 6. Implement the agreed mitigation measures.
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm finding; 2. Identify source(s) of impact; 3. Inform IEC, Contractor and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; and 7. Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days. 	<ol style="list-style-type: none"> 1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; and 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; and 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures; and 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit Level. 	<ol style="list-style-type: none"> 1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and ER and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures; and 7. As directed by the Engineer, to slow down or to stop all or part of the marine work or construction activities.



Appendix F

Work Programme

Item No.	Description	Unit	Start	Finish	Final
01-0000	General Information				
01-0001	Section 1				
01-0002	Section 2				
01-0003	Section 3				
01-0004	Section 4				
01-0005	Section 5				
01-0006	Section 6				
01-0007	Section 7				
01-0008	Section 8				
01-0009	Section 9				
01-0010	Section 10				
01-0011	Section 11				
01-0012	Section 12				
01-0013	Section 13				
01-0014	Section 14				
01-0015	Section 15				
01-0016	Section 16				
01-0017	Section 17				
01-0018	Section 18				
01-0019	Section 19				
01-0020	Section 20				
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01-0027	Section 27				
01-0028	Section 28				
01-0029	Section 29				
01-0030	Section 30				
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01-0032	Section 32				
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01-0038	Section 38				
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01-0091	Section 91				
01-0092	Section 92				
01-0093	Section 93				
01-0094	Section 94				
01-0095	Section 95				
01-0096	Section 96				
01-0097	Section 97				
01-0098	Section 98				
01-0099	Section 99				
01-0100	Section 100				

Early Start
 Early Finish
 Critical Path
 Start Milestone point
 Finish Milestone point

From site: 01-0001
 Date site: 01-0001
 Page number: 1A
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Appendix G

Implementation Schedule of Environmental Mitigation Measures (EMIS)



	Location	Implementation Status		
		Implemented	Partially implemented	Not implemented
Environmental Protection Measures				
Noise Impact				
Well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	All areas	✓		
Air compressors and hand held breakers should have noise labels.	All areas	✓		
Compressors and generators should operate with door closed.	All areas	✓		
Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	All areas	✓		
Water Quality				
Mitigation Measures for Dredging				
Dredging should be undertaken using one grab dredger only with a maximum production rate of 4,000m ³ per day.	Marine	✓		
Deployment of frame type silt curtain should be fully enclose the grab while dredging works are in progress.	Marine	✓		
Deployment of silt screen should be at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress	Marine	✓		
Tight-closing grabs should be used to minimize the loss of sediment to suspension during dredging works. For dredging of any contaminated mud, closed watertight grabs must be used.	Marine	✓		
All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash	Marine	✓		
The decks of all vessels should be kept tidy and free of oil or other substances that might be accidentally or otherwise washed overboard	Marine	✓	✓	
Adequate free board shall be maintained on barges to ensure that decks are not washed by wave action.	Marine	✓		
All barges used for the transport of dredged materials should be fitted with tight bottom seals to prevent leakage of material during loading and transport	Marine	✓		
Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present in the water within the site or dumping grounds	Marine	✓		
Loading of barges should be controlled to prevent splashing of material into the surrounding waters. Barges should not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation	Marine	✓		
The speed of vessels should be controlled within the works area to prevent propeller wash from stirring up the seabed sediments	Marine	✓		
Mitigation Measures for other Construction Activities				
Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m ³ capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity should be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped	All areas	✓		
Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the storm runoff being directed into foul sewers	All areas	✓		
All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads.	All areas			✓
An adequately designed and located wheel washing bay should be provided at every site exit, and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process.	All areas			✓
The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfill toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains	All areas			✓
Fuel tanks and storage areas should 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, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour and Western Harbour WCZs	All areas	✓		



	Location	Implementation Status			
		Implemented	Partially implemented	Not Implemented	Not Applicable
Environmental Protection Measures					
Water Quality					
Mitigation Measures for other Construction Activities					
<ul style="list-style-type: none"> Portable chemical toilets should be used to handle construction workforce sewage prior to discharge to the existing trunk sewer. Sufficient numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers. The Contractor shall also be responsible for waste disposal and maintenance practices. Construction site runoff should be prevented or minimised in accordance with the guidelines stipulated in the EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the Victoria Harbour WCZ under the TM-DSS. Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding. 	All areas	√			
Waste Management					
C&D Materials					
<ul style="list-style-type: none"> Excavated materials should be reused on-site as backfilling material and for landscaping works as far as practicable. C&D material generated from excavation works should be disposed of at public fill reception facilities for other beneficial uses. A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods. 	All areas				√
Chemical Waste					
<ul style="list-style-type: none"> Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility. 	All areas	√			
General Refuse					
<ul style="list-style-type: none"> General refuse should be stored in enclosed bins or compaction units separate from C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material. 	All areas	√			
Marine Dredged Sediment (During transportation and disposal)					
<ul style="list-style-type: none"> Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and dredgers before the vessel is moved Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the EPD Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation. 	Marine	√			
Good Site Practices					
<ul style="list-style-type: none"> Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site Training of site personnel in proper waste management and chemical handling procedures Provision of sufficient waste disposal points and regular collection of waste 	All areas	√			
	All areas	√			



Appendix H

Statistical Analysis of the Monitoring Parameters between Quarterly Mean and Ambient Mean



Statistical Analysis of the Trend of Dissolved Oxygen

t-test

Group Name	N	Mean	Std Dev	SE
Quarterly Mean	1917	6.0062	0.1762	0.0040
1.3 times of Ambient Mean (130% of Baseline Mean)	648	8.1835	0.2680	0.0105

Result:

Probability that two variances are equal (f-test) = 0

Difference between means = 2.1773 (Std Dev = 0.3274 and SE = 0.0113)
(95% CI : 2.1552 < Diff < 2.1994)

t-value of difference = 193.178 (843 degrees of freedom)
P = 1 (>0.05)

Conclusion:

There is no statistically significant difference of Dissolved Oxygen between 1.3 times of ambient mean and quarterly mean.

Statistical Analysis of the Trend of Turbidity

t-test

Group Name	N	Mean	Std Dev	SE
Quarterly Mean	639	4.6838	0.5066	0.0361
1.3 times of Ambient Mean (130% of Baseline Mean)	216	6.7413	1.3077	0.0892

Result:

Probability that two variances are equal (f-test) = 0

Difference between means = 2.0575 (Std Dev = 1.4046 and SE = 0.0912)
(95% CI : 1.8787 < Diff < 2.2363)

t-value of difference = 22.559 (237 degrees of freedom)
P = 1 (>0.05)

Conclusion:

There is no statistically significant difference of Turbidity between 1.3 times of ambient mean and quarterly mean.



Statistical Analysis of the Trend of Suspended Solids

t-test

Group Name	N	Mean	Std Dev	SE
Quarterly Mean	639	7.6763	0.8002	0.0317
1.3 times of Ambient Mean (130% of Baseline Mean)	216	12.7839	2.4624	0.1679

Result:

Probability that two variances are equal (f-test) = 0

Difference between means = 5.1076 (Std Dev =2.5888 and SE = 0.1705)
(95% CI : 4.7734 < Diff < 5.4418)

t-value of difference = 29.955 (230 degrees of freedom)
P = 0 (<0.05)

Conclusion:

There is statistically significant difference of Suspended Solids between 1.3 times of ambient mean and quarterly mean.



Appendix I

Site General Layout plan

NOTES:
1. THE DRAWING SHALL BE READ IN CONNECTION WITH DRAWING NOS. 241231/6/2022 TO 2420.

LEGEND:
PROPOSED FRESH WATER MAIN
PROPOSED SANITARY MAIN
PROPOSED WORKS LIMIT
C/A / ST
PORTAL A (SECTION 2)
PORTAL B
PORTAL C
PORTAL D (SECTION 4)
PORTAL E
PORTAL F
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WORKS AREA WITHIN WHICH YOU MAY BE PART OF WORKS OF THE SITE TO BE TAKEN UP BY CONTRACTORS AND TO BE CONSTRUCTED, INSTALLED AND MAINTAINED BY THE CONTRACTOR, SHALL BE REFERRED TO AS "WORKS AREA".

SECTION 2
SECTION 4

NO.	DESCRIPTION	SCALE
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50	LOT 50	1:1000

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THE GOVERNMENT OF THE HONG KONG
 SPECIAL ADMINISTRATIVE REGION
 WATER SUPPLIES DEPARTMENT

9/WS07/08
 LAYING OF WESTERN CROSS HARBOUR MAIN
 AND ASSOCIATED LAND MAINS FROM WEST
 KOWLOON TO SAI YING PUN

POSSESSION OF SITE
 (SHEET 1 OF 5)

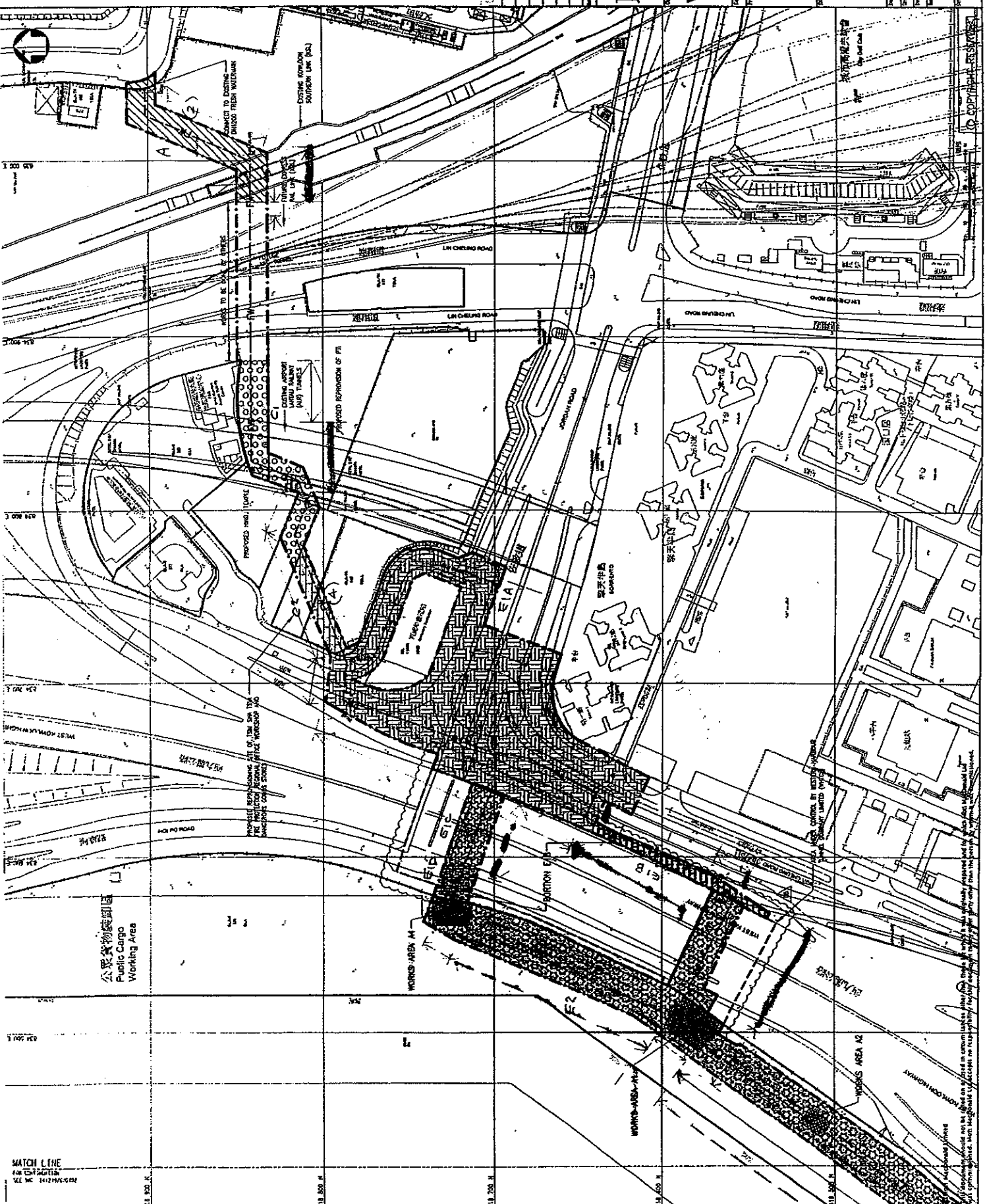
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DATE: 241231/6/2022



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2. THE LEGEND SHALL REFER TO DRAWING NO. 241239/G/0301.

SI	DATE	BY	REVISION
01	18/08/08	PL	ISSUE FOR TENDER
02	05/09/08	PL	ISSUE FOR TENDER
03	05/09/08	PL	ISSUE FOR TENDER

THE HONG KONG SPECIAL ADMINISTRATIVE REGION WATER SUPPLIES DEPARTMENT

9/MSD/03

POSSESSION OF SITE (SHEET 3 OF 5)

LAYING OF WESTERN CROSS HARBOUR MAIN AND ASSOCIATED LAND MAINS FROM WEST KOWLOON TO SHI YING FUN

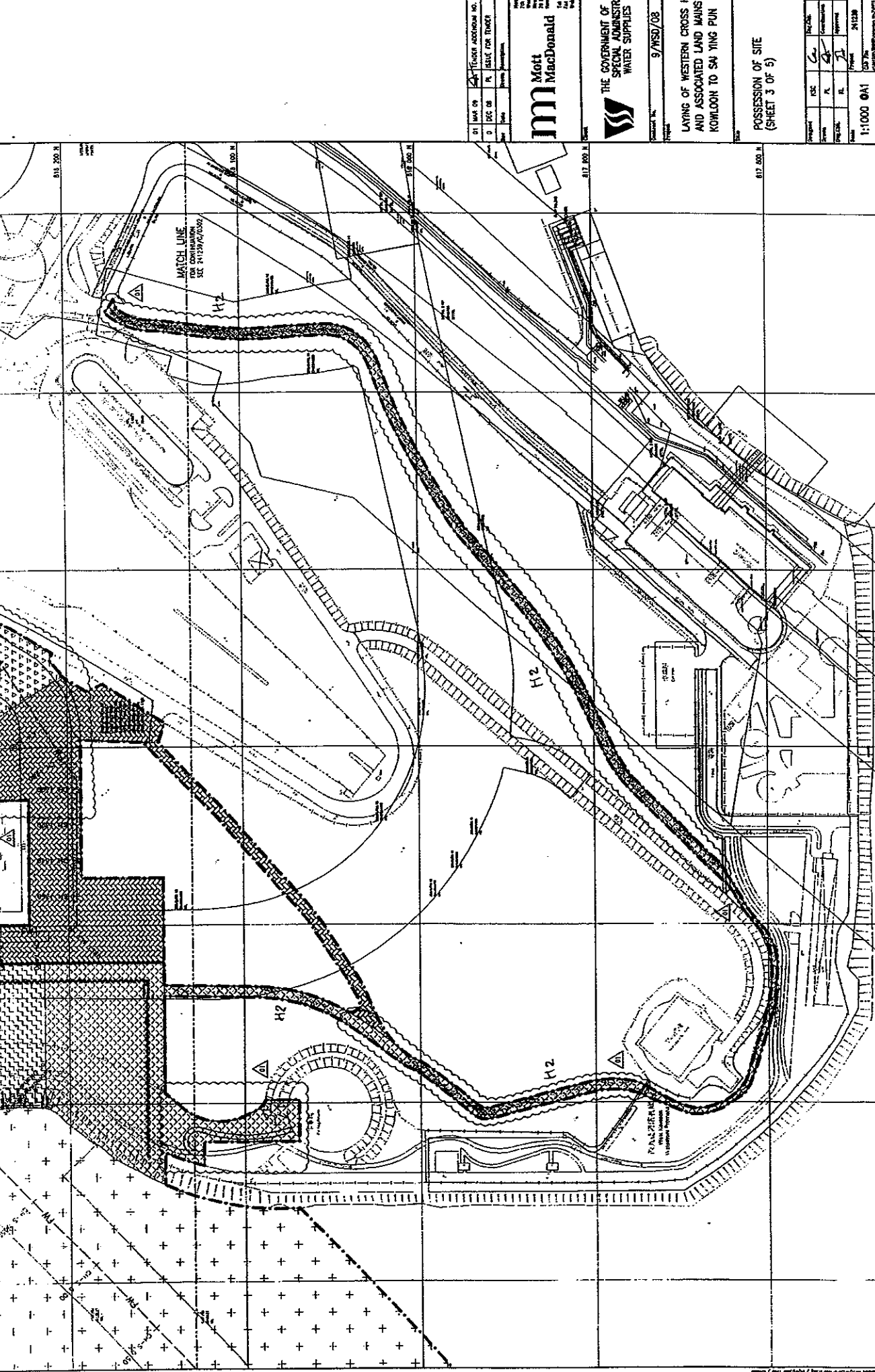
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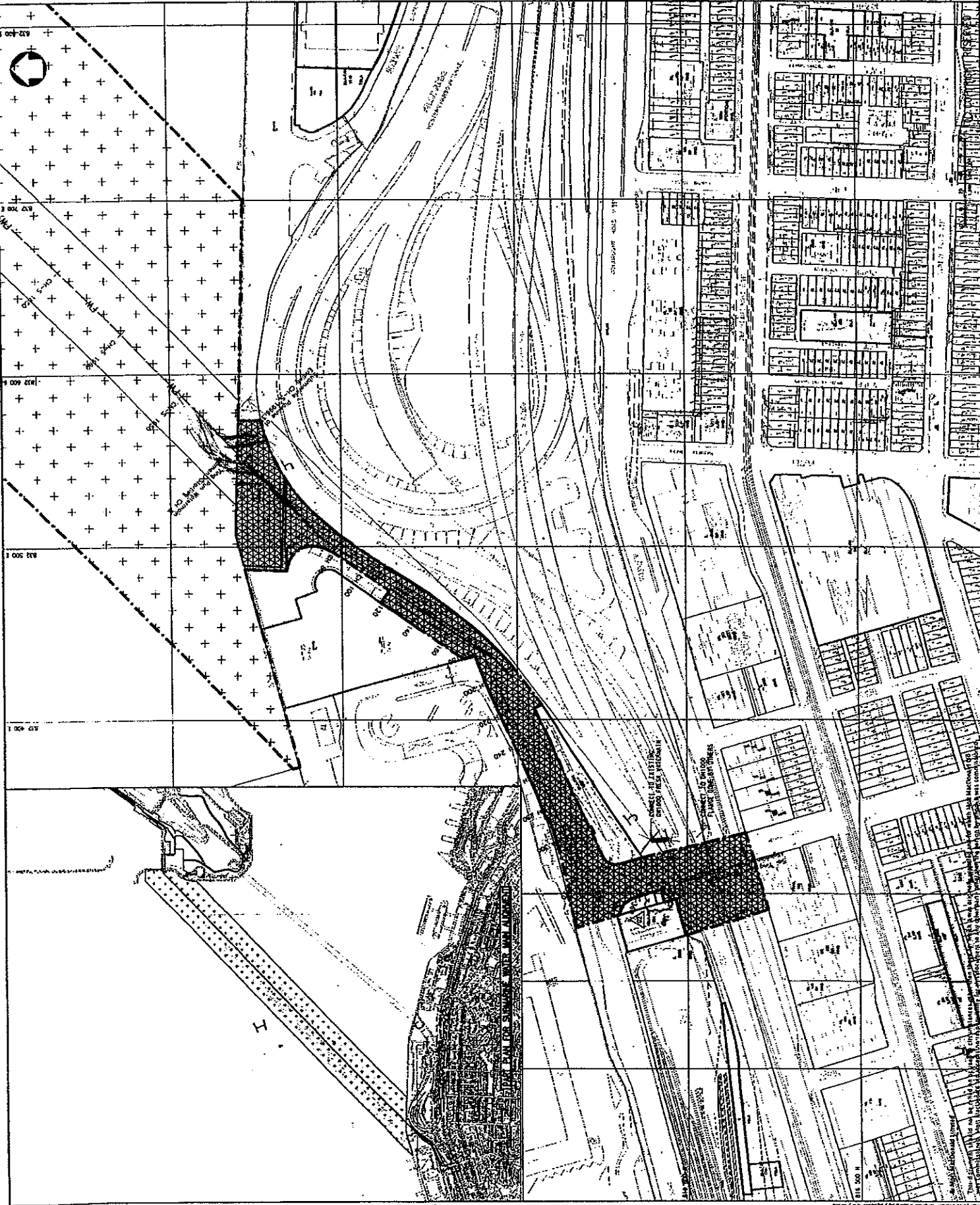
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2. THE LEGEND SHALL REFER TO DRAWING NO. 241239/G/0301.



02	APR 09	1	REVISION	NO. 1	1/1/09
01	MAY 08	1	REVISION	NO. 2	1/1/08
00	DEC 08	1	REVISION	NO. 3	1/1/08
00	DEC 08	1	REVISION	NO. 4	1/1/08
00	DEC 08	1	REVISION	NO. 5	1/1/08

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THE GOVERNMENT OF THE HONG KONG
 SPECIAL ADMINISTRATIVE REGION
 WATER SUPPLIES DEPARTMENT

97/MSD/08

LAYING OF WESTERN CROSS HARBOUR MAIN
 AND ASSOCIATED LAND MAINS FROM WEST
 KOWLOON TO SAI YING PUN

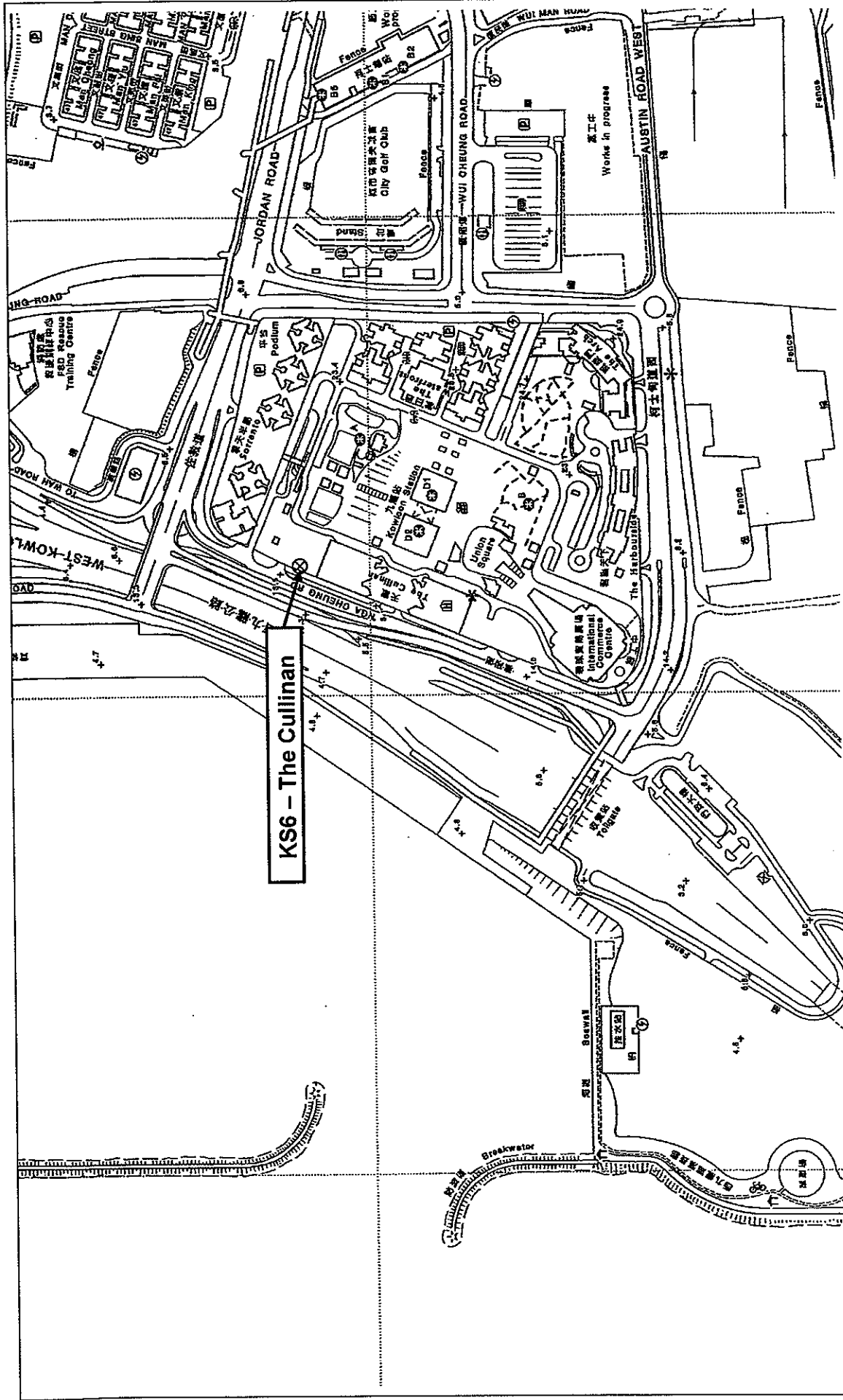
POSSESSION OF SITE
 (SHEET 4 OF 5)

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Checked	09/11/08	Scale	1:1000
Approved	09/11/08	Scale	1:1000
Project	97/MSD/08	Scale	1:1000
Sheet No.	04/1	Scale	1:1000
Total Sheets	05	Scale	1:1000
Project No.	97/MSD/08	Scale	1:1000
Revision No.	02	Scale	1:1000

241239/G/0304



Figures



Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Mains for West Kowloon to Sai Ying Pun

Figure 1

Location of Noise Monitoring Station at West Kowloon



東業儀器測試顧問有限公司
ETS-TESTCONSULT LIMITED



Point No.	LOCATION	Type
R1	Shek Yee Tai, 1st Station	Urban Sucker
R2	Location of Sewer	Urban Sucker
R3	Location of Sewer	Urban Sucker
R4	Location of Sewer	Urban Sucker
R5	Location of Sewer	Urban Sucker
R6	Location of Sewer	Urban Sucker
R7	Location of Sewer	Urban Sucker
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R25	Location of Sewer	Urban Sucker
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R27	Location of Sewer	Urban Sucker
R28	Location of Sewer	Urban Sucker
R29	Location of Sewer	Urban Sucker

Author	DATE	NO.	REVISION

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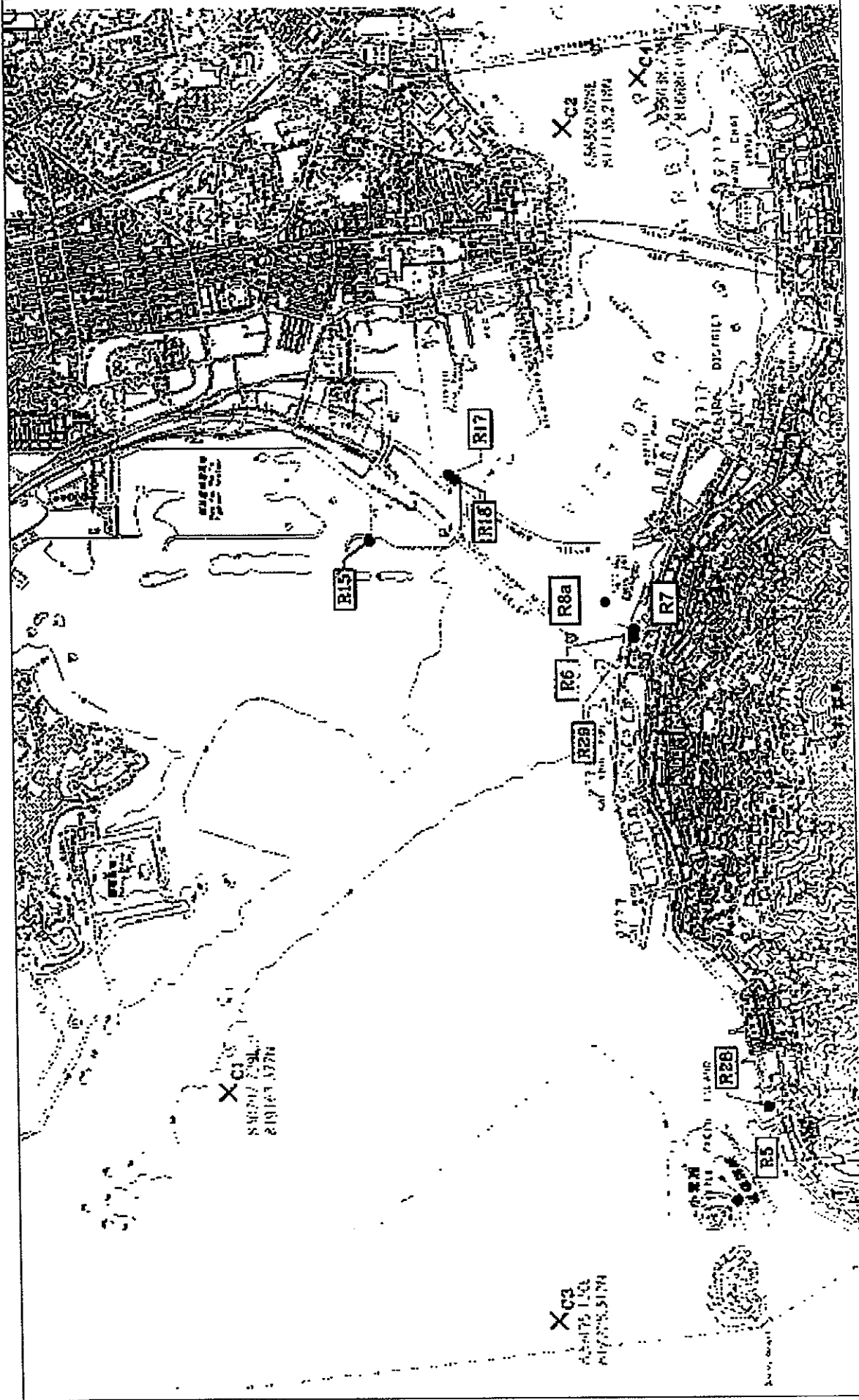
Project No. CE-92/2005(W5)
 LAYING OF WESTERN CROSS HARBOUR MAIN
 AND ASSOCIATED LAND MAINS FROM WEST
 KOWLOON TO SAN YING PUN - INVESTIGATION

LOCATIONS OF WATER SENSITIVE RECEIVERS
 AND STORMWATER OUTFALLS
 AT WESTERN HARBOUR

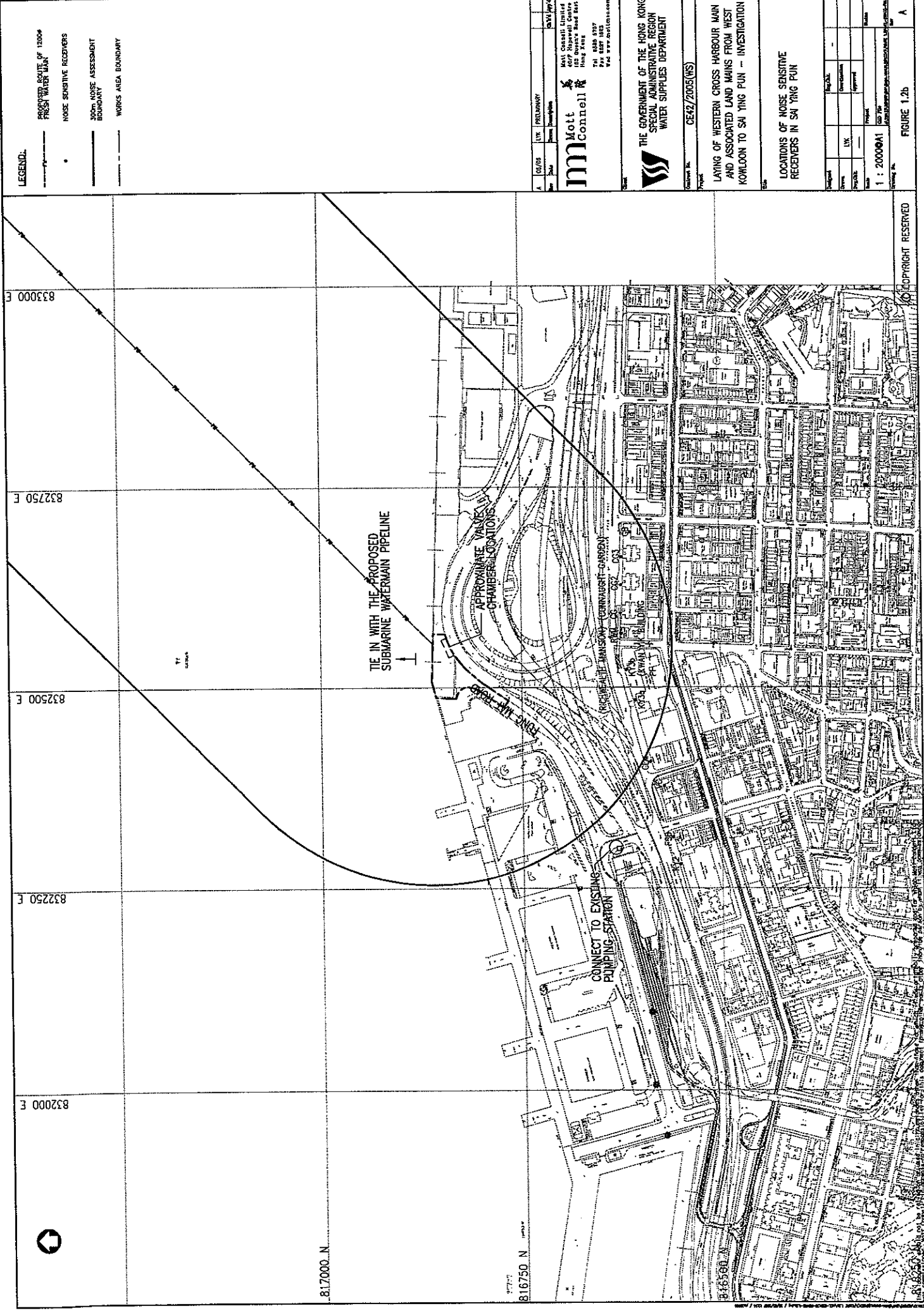
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Issue No.	1
Issue Date	2013.3
Issue Description	Issue 1: 250000/1

FIGURE 1.20
 A

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Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Mains for West Kowloon to Sai Ying Pun



LEGEND:

- PROPOSED ROUTE OF 1200mm PRESSURE WATER MAIN
- NOISE SENSITIVE RECEIVERS
- 300m NOISE ASSESSMENT BOUNDARY
- WORKS AREA BOUNDARY

A 10/08 1/16 PRELIMINARY
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THE GOVERNMENT OF THE HONG KONG
 SPECIAL ADMINISTRATIVE REGION
 WATER SUPPLIES DEPARTMENT

Project: CE427/2005(W5)
 LAYING OF WESTERN CROSS HARBOUR MAIN
 AND ASSOCIATED LAND MAINS FROM WEST
 KOWLOON TO SAI YING PUN - INVESTIGATION

LOCATIONS OF NOISE SENSITIVE
 RECEIVERS IN SAI YING PUN

Revision No.	Issue	Description	Author	Check	Appr'd	Date
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LEGEND:

- PROPOSED ROUTE OF 1200d FRESH WATER MAIN
- NOISE SENSITIVE RECEIVERS
- TEMPORARY PLATFORM
- 300m NOISE ASSESSMENT BOUNDARY
- WORKS AREA BOUNDARY

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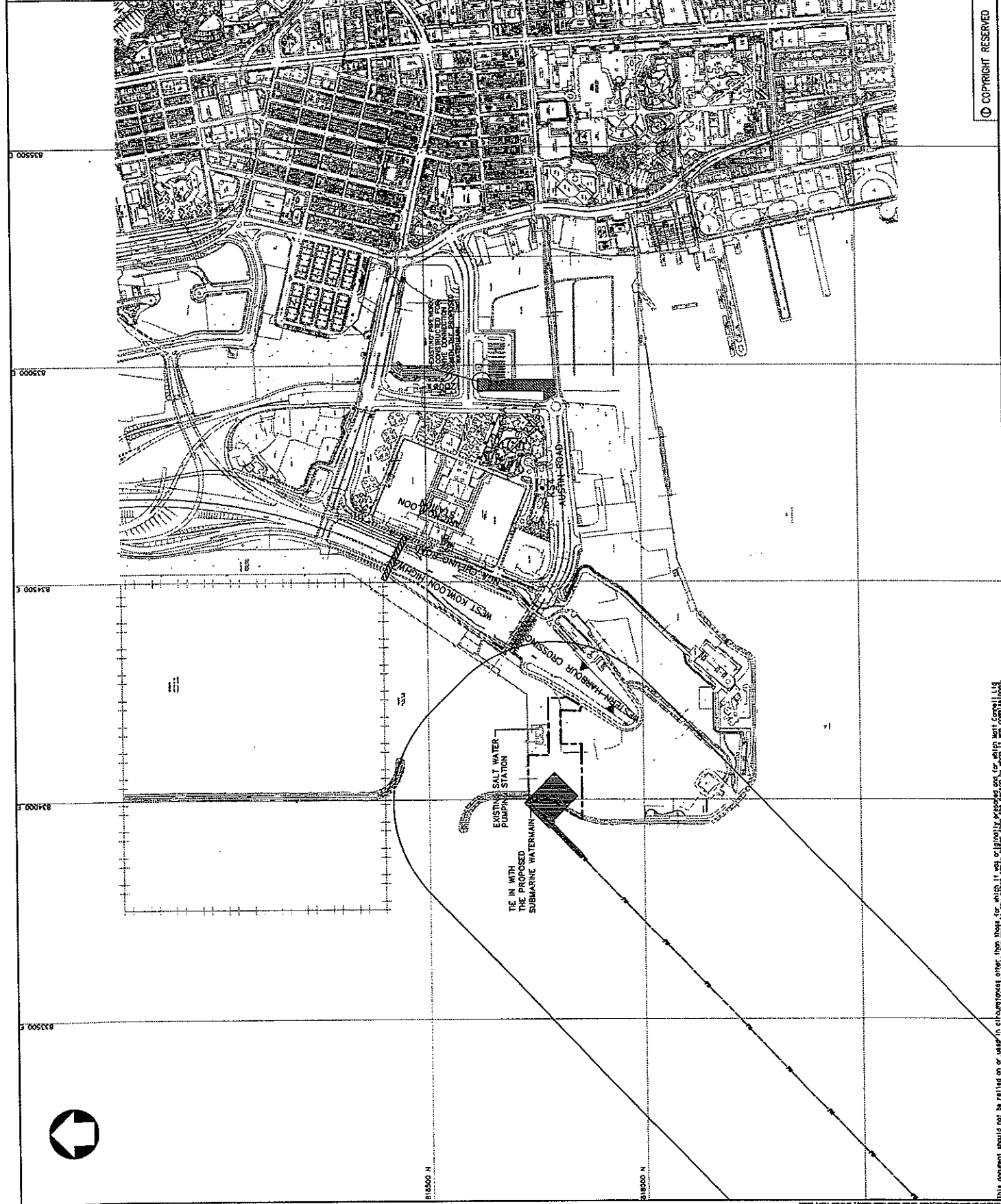
Project No. DE427/2005(VIS)

LAYING OF WESTERN CROSS HARBOUR MAIN
AND ASSOCIATED LAND MAINS FROM WEST
KOWLOON TO SAI YING PUN - INVESTIGATION

LOCATION OF NOISE SENSITIVE
RECEIVERS IN WEST KOWLOON

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FIGURE 1.2c



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