

Chun Wo Construction &
Engineering Co Ltd

**Contract No HY/2005/06
Castle Peak Road
Improvement – West of
Tsing Lung Tau**

Monthly Environmental
Monitoring and Audit
Report for Reclamation
Works (EP No EP-
219/2005)
September 2006

Second Issue

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September 2006

October 2006

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This report takes into account the particular
instructions and requirements of our client.
It is not intended for and should not be relied
upon by any third party and no responsibility
is undertaken to any third party

Job number 24583

Maunsell Environmental Management Consultants Ltd

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By Fax (2417 0134) and Post

Meinhardt Halcrow JV
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Attn : Mr. Michael S Harfoot

13 October 2006

Dear Sir,

Contract No. HY/2005/06**Castle Peak Road Improvement – West of Tsing Lung Tau****Monthly EM&A Report for Reclamation Works (EP No. EP-219/2005) – September 2006**

We refer to the Monthly EM&A Report for Reclamation Works (EP No. EP-219/2005) – September 2006 received via emails on 10 October 2006 from Ove Arup & Partners Hong Kong Ltd., the Environmental Team (ET) of Castle Peak Road Improvement – West of Tsing Lung Tau (Remaining Contract).

Having addressed the IEC's comment on 12 October 2006, the Monthly EM&A Report for Reclamation Works (EP No. EP-219/2005) – September 2006 is verified to be acceptable for onward submission to the Engineer, HyD, EPD and AFCD.

Should you have any inquiry or comment, please do not hesitate to contact the undersigned or our Miss Connie Wong at 3105 8530.

Yours faithfully

for and on behalf of

**Maunsell Environmental
Management Consultants Ltd**



Y T Tang

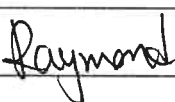
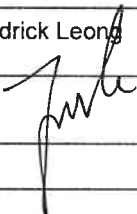
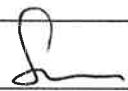
Independent Environmental Checker

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Executive Summary

This is the seventh monthly environmental monitoring and audit (EM&A) report presenting the progress of environmental monitoring and audit works for the reporting period between 1 September 2006 and 30 September 2006. Noise monitoring at Grand Bay Villa was temporarily suspended as the premises were vacant with no resident. Marine water monitoring and weekly environmental site audit were carried out during the reporting period.

Marine Water Quality

Impact marine water quality monitoring was conducted during mid-ebb and mid-flood tidal cycles at 10 designated locations including 5 impact and 5 control stations. A baseline check was conducted on 27 February 2006 prior to the commencement of marine works and a compliance checking mechanism was established in accordance with the criteria specified in Baseline Monitoring Report.

Summary of Mid-Ebb Tide

The lowest DO level for surface & middle and bottom positions were 5.57 mg/L and 5.35 mg/L respectively at WWFCZ1 on 25 September 2006. There were no exceedances of DO level during reporting period when compared with the established A/L Levels and baseline check criteria in Section 3.3 of this report.

The highest depth-averaged Tby level was 11.1 Nephelometric Turbidity Unit (NTU) at WWA3 on 25 September 2006. There were 2 exceedances of Tby Baseline Check Criteria on 22 and 25 September 2006 and 2 exceedances of Limit Level on 25 September 2006 when compared with the established A/L Levels and baseline check criteria in Section 3.3 of this report.

The highest SS level was 17.8 mg/L at WWA2 and WWA3 on 25 September 2006. There were 10 exceedances of SS Baseline Check Criteria on 6, 8, 20, 22 and 25 September 2006 when compared with the established A/L Levels and baseline check criteria in Section 3.3 of this report.

Summary of Mid-Flood Tide

The lowest DO level for surface & middle and bottom positions were 5.64 mg/L at WWA3 on 20 September 2006 and 5.37 mg/L at WWFCZ2 on 4 September 2006 respectively. There were no exceedances of DO levels during reporting period when compared with the established A/L Levels and baseline check criteria in Section 3.3 of this report.

The highest depth-averaged Tby level was 6.2 NTU at WWFCZ2 on 27 September 2006. There were no exceedances of Tby Levels during reporting period when compared with the established A/L Levels and baseline check criteria in Section 3.3 of this report.

The highest SS level was 18.7mg/L at WWFCZ1 on 12 September 2006. There was 1 exceedance of SS Baseline Check Criteria on 14 September 2006 when compared with the established A/L Levels and baseline check criteria in Section 3.3 of this report.

Environmental Auditing

A total of 4 environmental site audits were conducted on a weekly basis in September 2006. No non-conformance to the environmental requirements was identified during the reporting period. The improvement actions against observations during the site audits for the CT included:

Air quality: Cover excavated materials and exposed slopes;

Noise: Close the door while generator in operation;

Water quality: Frequent clearing of mud trails and stagnant water; provision of treatment of site surface runoff before discharging;

Waste Management: Frequent clearing of construction waste and general refuse; and

Chemical Waste: Provision of drip tray to oil drum; storage of chemical waste in the chemical waste storage tank

Waste Disposal

A total of 64 tonnes of Construction & Demolition (C&D) waste and a total of 21,614 tonnes of C&D materials (transported by trucks) were disposed of at WENT Landfill and Public Filling Reception Facility at Tuen Mun Area 38 respectively in September 2006. No chemical waste was disposed of during the reporting period.

Complaint Records

No environmental complaint was received during the reporting period.

Exceedance

There were exceedances of T_{ss} and SS levels for marine water quality in September 2006 when compared with A/L Levels and baseline check criteria. After ET's investigation, only 1 exceedance of SS Baseline Check Criteria was likely due to the construction activities of the Project. The remaining exceedances were unlikely related to the Project and might be due to natural variation of marine water.

The exceedance of SS level at WWA2 on 14 September 2006, which was related to the Project, was likely due to heavy rainstorm in preceding day (i.e. 13 September 2006). Muddy runoff was observed discharging into nearby gullies at Castle Peak Road from the site entrance of Slope A and muddy marine water was also observed near Seawall A and B during site inspection conducted by ET auditor on 14 September 2006. Although the exceedance of SS level was only marginal to the Baseline Check Criteria, the SS level at WWA2 was higher than that at control station, WRA2.

Notification of Summons and Successful Prosecution

No notification of summon and prosecution was received during the reporting period.

Environmental Licences

There was no environmental licence granted during the reporting period.

1 Introduction

Ove Arup & Partners Hong Kong Limited (Arup) was appointed by the Contractor (CT) – Chun Wo Construction & Engineering Co. Ltd as the Environmental Team (ET) for *Contract No. HY/2005/06 Castle Peak Road Improvements – West of Tsing Lung Tau* (hereafter called the “Project”). The reclamation at west of Tsing Lung Tau is covered by an Environmental Permit (EP) No. EP-219/2005 issued in June 2005 with reference to Section 6 of the Technical Memorandum on Environmental Impact Assessment Ordinance (TM-EIAO). The EP was issued following the approval of the application to apply directly for an EP based upon the Project Profile. In accordance with the EM&A Manual, environmental monitoring for construction noise and marine water quality will be required during the construction and operational phases. The construction phase of the Project commenced on 28 February 2006.

1.1 Project Background

The Castle Peak Road (CPR) Improvement works consist of upgrading the existing CPR to provide a dual two-lane carriageway of “Rural Road A” classification between Area 2 (Tusen Wan) and Ka Loon Tsuen. The CPR Improvement project is divided into three contracts, namely HY/99/18 (West Contract), HY/99/19 (Middle Contract) and HY/2000/02 (East Contract).

Prior to inviting tenders for Contract No. HY/99/18, a section of the proposed works, between Ch.1+800 and Ch.2+240, west of Tsing Lung Tau, was excised from the Project and entrusted to the Route 10 – North Lantau to Yuen Long Highway project. This 440m long section of CPR was located under the proposed Route 10 suspension bridge, and was to form part of the works area for the Route 10 project. The Route 10 project team revised the alignment of this section of CPR accordingly to suit the arrangement of the Route 10 suspension bridge.

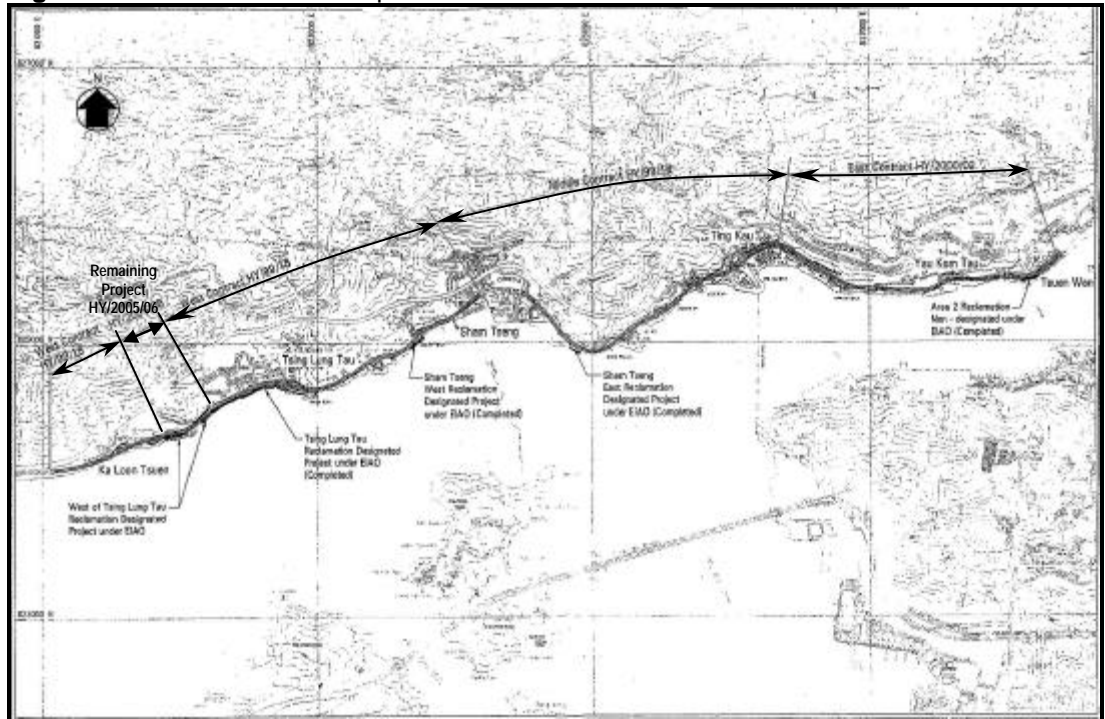
Following subsequent developments, the Route 10 project was placed under review, and Government therefore decided to implement the excised section of CPR (the Remaining Project) under the original CPR Improvement project. **Figure 1-1** shows the site location plan.

Additional reclamation (0.58 ha) at west of Tsing Lung Tau is required to support part of the remaining section of road improvement works and the additional reclamation works constitutes a material change to the reclamation works at Tsing Lung Tau.

The scope of the construction works covered by this Project is summarised as follows:

- The area of reclamation to the east of Grand Bay Villa is about 0.12 ha. The length of this part of the reclamation, measured parallel to the road, is about 107 m, and the maximum width, measured from the existing High Water Mark (HWM) to the proposed toe of the scour apron is about 16 m, of which about 13 m is sloping revetment;
- The area of reclamation west of Grand Bay Villa is about 0.46 ha. The length of this part of the reclamation, measured parallel to the road, is about 172 m, and the maximum width, measured from the existing High Water Mark (HWM) to the proposed toe of the scour apron is about 38 m, of which about 15 m is sloping revetment.

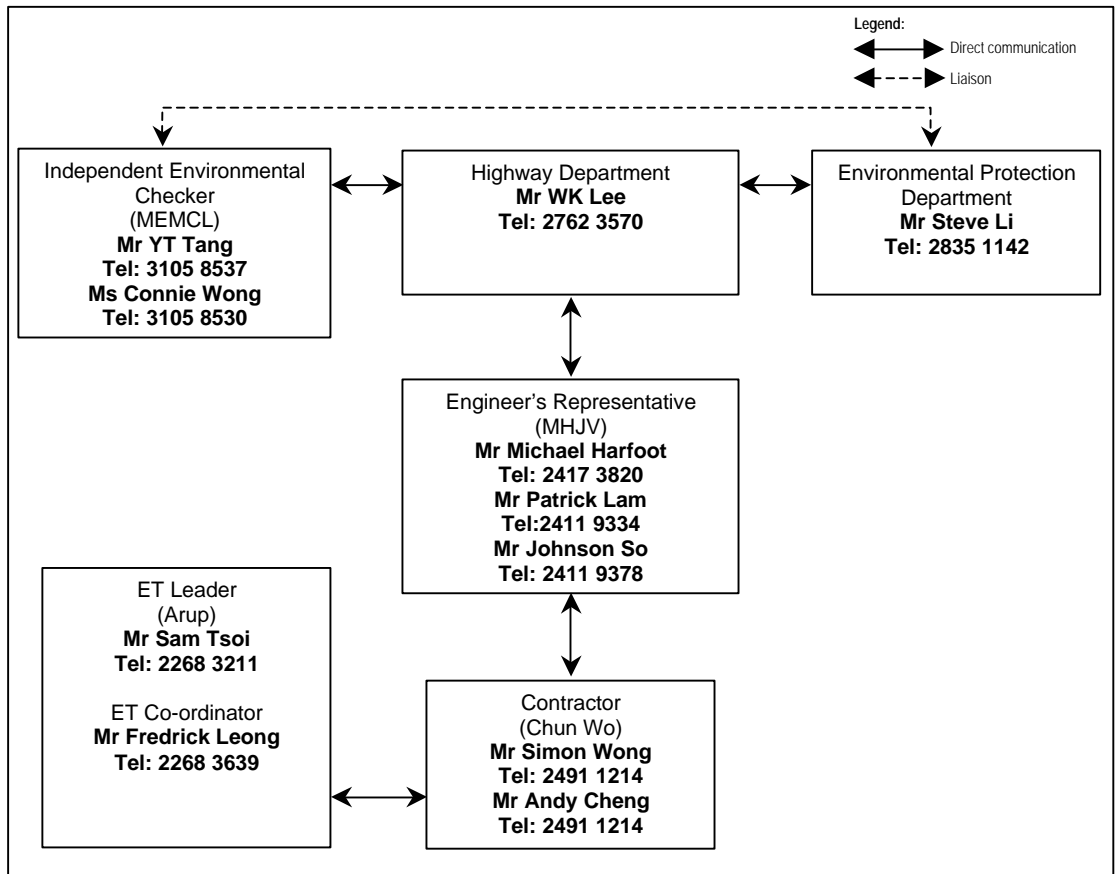
Figure 1-1: Site location plan



1.2 Project Organisation

The project organisation chart for environmental management is shown in **Figure 1.2**.

Figure 1-2: Project organisation chart



The Project Proponent is Highway Department; the Engineer's Representative (ER) is Meinhardt Halcrow Joint Venture (MHJV); the Contractor (CT) is Chun Wo Construction & Engineering Co. Ltd; the Independent Environmental Checker (IEC) is Maunsell Environmental Management Consultants Ltd (MEMCL) and the ET leader is Ove Arup & Partners Hong Kong Ltd (Arup).

The overall duties of ET Leader and the team are as follows:

- sampling, analysis and statistical evaluation of monitoring parameters with reference to the EIA study and subsequent reviews recommendations and requirements in respect of noise, dust and water quality;
- environmental site surveillance;
- audit of compliance with environmental protection and pollution prevention and control regulations;
- monitor the implementation of environmental mitigation measures;
- monitor compliance with the environmental protection clauses/specifications in the Contract;
- review construction programme and comment as necessary;
- review construction methodology and comment as necessary;
- complaint investigation, evaluation and identification of corrective measures;
- audit of the effectiveness of mitigation measures and EMS (if applicable) and recommend and implement any changes as appropriate.
- liaison with IEC on all environmental performance matters;
- advice to the CT on environmental improvement, awareness, enhancement matter, etc., on site; and
- Timely submission of the EM&A reports to the ER, IEC and DEP.

The duties of IEC include the followings:

- review and audit all aspects of the EM&A programme;
- validate and confirm the accuracy of monitoring results, monitoring equipment, monitoring locations, monitoring procedures and locations of sensitive receivers;
- carry out random sample check and audit on monitoring data and sampling procedures, etc;
- conduct random site inspection;
- audit the EIA, subsequent reviews and Environmental Permit recommendations and requirements against the status of implementation of environmental protection measures on site.
- review the effectiveness of environmental mitigation measures and project environmental performance;
- audit the CT's construction methodology and agree the least impact alternative in consultation with ET Leader and the CT;
- check compliant cases and the effectiveness of corrective measures;
- review EM&A report submitted by the ET Leader; and
- feedback audit results to ET Leader by signing off relevant EM&A proformas.

1.3 Impact EM&A Requirements

The impact environmental monitoring and audit for the Project included noise, marine water quality and environmental site audit.

1.4 Purpose of the Report

The purpose of the monthly EM&A report is to provide the information on monitoring methodology, monitoring results, environmental permit status, site audit findings, recommendations and conclusions for the scope of impact EM&A specified under EP No. EP-219/2005.

This is the seventh monthly EM&A report summarising the monitoring methodology, locations, periods, frequencies, results and any observation from the noise, marine water quality and environmental site audit from 1 September 2006 to 30 September 2006.

2 Scope of Construction Works

2.1 Construction Programme

The construction work was commenced on 28 February 2006. An up-to-date construction programme is attached in **Appendix A**.

2.2 Construction Activities of the Month

The major construction activities carried out by CT in September 2006 included:

- Construction of upper RC retaining wall and backfilling at Seawall A; and
- Backfilling and complete Rock Armour at Seawall B.

3 Summary of EM&A Requirements

Marine water quality and noise monitoring at Grand Bay Villa will be conducted by an ET at all specified monitoring locations during the construction stage. Environmental site audits will also be carried out.

The monitoring schedule for September 2006 and the tentative schedule for October 2006 are attached in **Appendix B**.

3.1 Construction Noise

3.1.1 Monitoring Parameters

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

3.1.2 Monitoring Frequency

Noise measurements will be conducted on a weekly basis. The monitoring time periods, monitoring parameters and frequency are summarised in **Table 3-1**.

Table 3-1: Construction noise monitoring parameters and frequency

Time Period (when construction activity is found)	Parameters	Monitoring Frequency	No. of Measurements for Each Monitoring
Between 0700-1900 hours on normal weekdays	$L_{eq}(30 \text{ min})$	Once per week	1
Between 1900-2300 hours on normal weekdays	$L_{eq}(5 \text{ min})^*$		3 (consecutive)
Between 2300-0700 hours of next day			
Between 0700-1900 hours on holidays			

* The $L_{eq}(5 \text{ min})$ will only be measured if construction activities are conducted in holidays and between the period of 1900 and 0700 hours during normal weekdays.

3.1.3 Monitoring Location

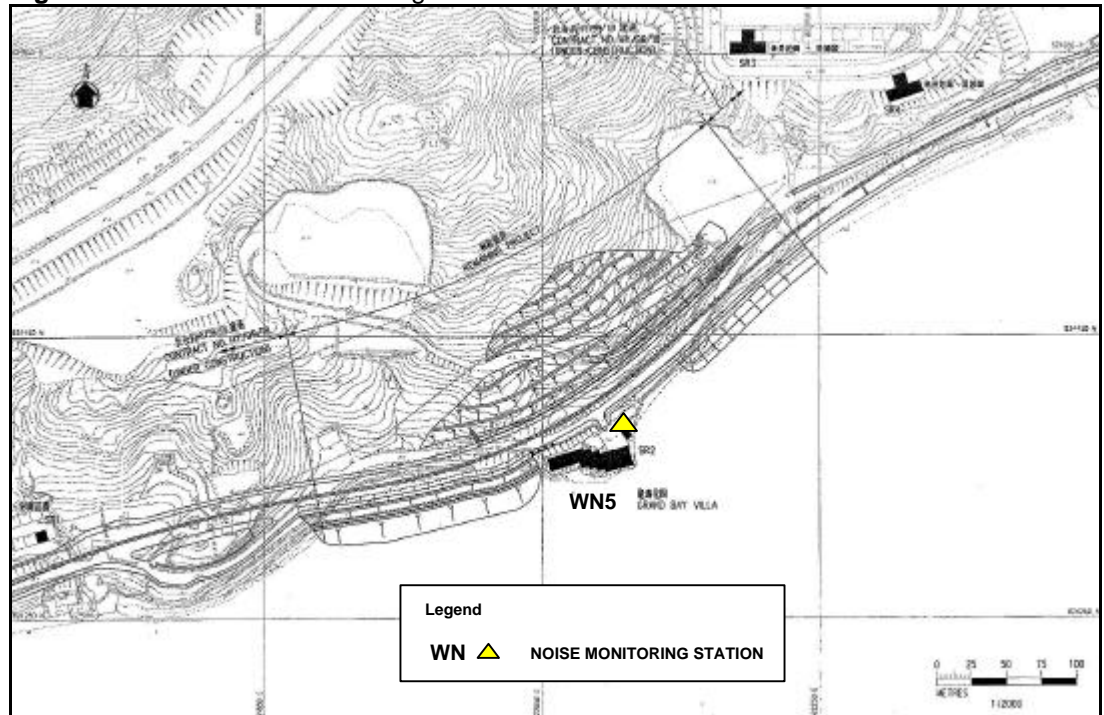
Noise monitoring will be conducted at one designated location as shown in **Figure 3-1**. The details of the noise monitoring location are given in **Table 3-2**. The measurements will be taken at a position 1m from the exterior of building façade and at a position of 1.2m above ground.

Table 3-2: Construction noise monitoring locations

Noise Monitoring Station No.	Location	Monitoring Point	Remarks
WN5	Grand Bay Villa	G/F, House 1	Monitoring temporarily suspended *

* Grand Bay Villa is currently vacant with no resident. Construction noise monitoring at WN5 temporarily suspended until the premises are occupied.

Figure 3-1: Noise monitoring station



3.2 Marine Water Quality

3.2.1 Monitoring Parameters

Marine water quality monitoring will include Turbidity (Tby) in the unit of NTU, Dissolved Oxygen (DO) in the unit of mg/L and Suspended Solids (SS) in the unit of mg/L. In addition to the water quality parameters, other relevant data such as monitoring location/position, time, water depth, water temperature, salinity, DO saturation, weather conditions, sea conditions, tidal stage will be recorded as far as practicable together with observations of any special phenomena, works underway at the construction site, etc.

3.2.2 Monitoring Frequency

Impact marine water quality monitoring will be conducted three times per week, at mid-flood and mid-ebb tides and at 10 designated monitoring locations. The interval between two sets of monitoring will not be less than 36 hours.

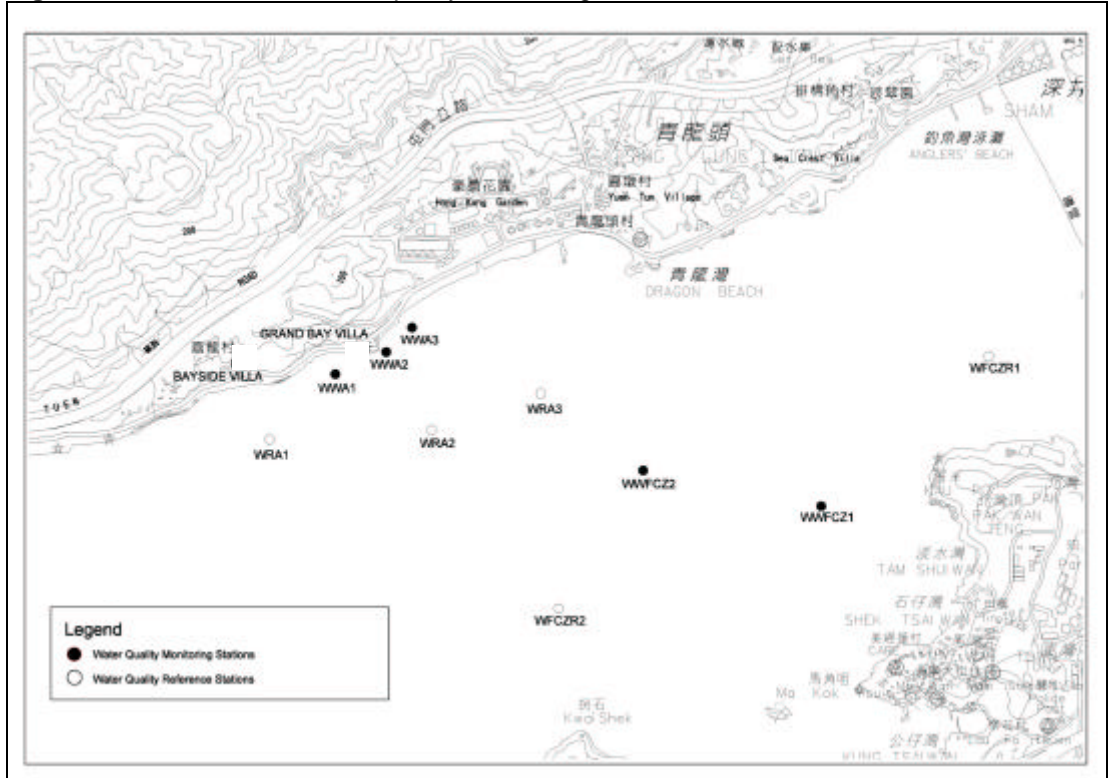
3.2.3 Monitoring Locations

A total of 10 locations, 5 for impact and 5 for control were specified for marine water quality monitoring in accordance with the EM&A Manual, which are summarised in **Table 3-3** and shown in **Figure 3-2**.

Table 3-3: Marine water quality monitoring locations

Marine Water Quality Monitoring Location No.		Location	
		Eastings	Northings
West of Grand Bay Villa	WWA1 (Impact Location)	821981	824282
	WRA1 (Control Location)	821776	824078
Grand Bay Villa	WWA2 (Impact Location)	822141	824352
	WRA2 (Control Location)	822283	824107
East of Grand Bay Villa	WWA3 (Impact Location)	822222	824429
	WRA3 (Control Location)	822625	824222
Ma Wan Fish Culture Zone	WWFCZ1 (Impact Location)	823500	823870
	WWFCZ2 (Impact Location)	822943	823983
	WFCZR1 (Control Location)	824024	824333
	WFCZR2 (Control Location)	822677	823547

Figure 3-2: Marine water quality monitoring locations



3.3 Performance Limits and Event and Action Plan

The monitoring results will be checked against appropriate standards and requirements. A two-tier system performance limits have been established in the Project specific EM&A Manual. The “Action Level” and the “Limit Level” (A/L) are established according to the EPD requirements. The ET, ER, IEC, and CT will take corresponding action in accordance with the Event-Action Plans if the monitoring results exceed the performance limits.

3.3.1 Construction Noise

The A/L Levels for the construction noise have been established during the baseline monitoring as summarised in **Table 3-4**.

Table 3-4: Action and Limit Levels of construction noise

Time Period	Action Level	Limit Level
0700 - 1900 hours on any day not being a Sunday or public holiday	When one documented complaint is received	75dB(A)

The action required to be taken by different parties in the case of exceedance of A/L Levels are summarised in the Event and Action Plan in **Table 3-5**.

Table 3-5: Event and Action Plan for construction noise

Event	Action			
	ET Leader	IEC	ER	CT
Action Level	<ol style="list-style-type: none"> 1. Notify IEC and the CT. 2. Carry out investigation. 3. Report the results of investigation to the IEC and the CT. 4. Discuss with the CT and formulate remedial measures. 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review with the analysed results submitted by ET. 2. Review the proposed remedial measures by the CT 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 CT. 3. Require the CT 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. Notify the IEC, the ER, the DEP and the CT. 2. Identify the source. 3. Repeat measurement to confirm findings. 4. Increase monitoring frequency. 5. Carry out analysis of CT's working procedures to determine possible mitigation to be implemented. 6. Inform the IEC, the ER, and the DEP the causes & actions taken for the exceedances. 7. Assess effectiveness of the CT's remedial actions and keep the IEC, the DEP and the ER informed of the results. 8. If exceedance stops, cease additional monitoring 	<ol style="list-style-type: none"> 1. Discuss amongst the ER, the ET Leader and the CT on the potential remedial actions. 2. Review the CT's remedial actions whenever necessary to assure their effectiveness and advise the 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 CT. 3. Require the CT 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 CT 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.

3.3.2 Marine Water Quality

Based on the baseline water quality monitoring data obtained. The A/L levels established using the baseline marine water quality monitoring data are shown in **Table 3-6**. If the water quality monitoring results at any impact stations exceeded the criteria, the actions in accordance with the Event-Action Plan in **Table 3-8** should be carried out.

As the baseline monitoring was conducted in September to October 2005, the established A/L Levels will be more representative to the marine water quality during summer months. To cope with any potential variation of baseline levels due to change in weather conditions, baseline check will be conducted in bi-annual basis in order to update any variation of the baseline water quality at the monitoring locations.

The first baseline check was conducted on 27 February 2006 prior to the commencement of marine works and the updated marine water quality monitoring data were summarised in **Table 3-7**. Compliance assessment for future impact monitoring data will be made against the updated baseline check criteria as follows:

- Tier 1 - Comparison of water quality monitoring data at Impact Stations with the A/L Levels (**Table 3-6**) established in the Baseline Monitoring Report. If the data comply with A/L Levels, go to Tier 2. Otherwise, non-compliance will be reported and Event and Action Plan will be triggered.
- Tier 2 - Comparison of water quality monitoring data at Impact Stations with the Baseline Check Level (80% of average values of baseline check data collected at 10 monitoring locations for DO and 120% of average values of baseline check data collected at 10 monitoring locations for Tby and SS) (**Table 3-7**). If the impact water quality is better than Baseline Check Level, compliance will be reported. Otherwise, go to Tier 3.
- Tier 3 - Comparison of water quality monitoring data at Impact Stations with the respective Control Stations. If the impact water quality is better than the respective Control Station, compliance will be reported. Otherwise, non-compliance will be reported and Event-Action Plan will be triggered for implementation of action based on exceedance of Action Level.

Table 3-6: Action and Limit Levels of marine water quality established in Baseline Monitoring Report #

Parameters		Monitoring locations									
		WWA1		WWA2		WWA3		WWFCZ1		WWFCZ2	
		Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level
Mid-ebb											
DO (mg/L)	Surface & middle	3.5	3.5	3.5	3.4	3.4	3.3	5.0 *	5.0	5.0 *	5.0
	Bottom	3.4	3.4	3.4	3.3	3.4	3.2	3.7	2.0	3.6	2.0
Tby (NTU)		7.4	7.7	6.7	6.9	7.8	8.3	6.4	8.6	6.7	7.0
SS (mg/L)		25.3	26.0	22.2	23.1	24.6	25.2	26.3	30.3	22.6	22.9
Mid-flood											
DO (mg/L)	Surface & middle	3.3	3.3	3.4	3.3	3.5	3.3	5.0 *	5.0	5.0 *	5.0
	Bottom	3.2	3.2	3.2	3.2	3.2	3.2	3.3	2.0	3.5	2.0
Tby (NTU)		6.9	7.2	7.6	8.2	8.7	10.7	7.4	11.0	5.9	6.5
SS (mg/L)		24.1	24.3	23.5	23.6	22.3	23.5	24.4	25.8	27.4	28.0

Notes:

Action and Limit Level for marine water quality were extracted from Baseline Monitoring Report, April 2006.

* Based on the criteria in Table 4-6 of Baseline Monitoring Report, the originally established action levels of DO for fish culture zone at surface & middle level were all below the 5.0 mg/L.

Table 3-7: Marine water quality data obtained in the baseline check on 27 February 2006

Parameters		Monitoring locations				
		WWA1	WWA2	WWA3	WWFCZ1	WWFCZ2
Mid-ebb						
DO (mg/L)	Surface & middle	5.4	5.4	5.4	5.4	5.4
	Bottom	5.4	5.4	5.4	5.4	5.4
Tby (NTU)		6.5	6.5	6.5	6.5	6.5
SS (mg/L)		13.0	13.0	13.0	13.0	13.0
Mid-flood						
DO (mg/L)	Surface & middle	5.3	5.3	5.3	5.3	5.3
	Bottom	5.3	5.3	5.3	5.3	5.3
Tby (NTU)		6.6	6.6	6.6	6.6	6.6
SS (mg/L)		17.0	17.0	17.0	17.0	17.0

Table 3-8: Event-Action plan for marine water quality

Event	Action			
	ET Leader	IEC	ER	CT
Action Level				
Action level being exceeded by one sampling day	<ol style="list-style-type: none"> Repeat in-situ measurement to confirm findings. Identify source(s) of impact. Inform the IEC and the CT. Check monitoring data, all plant, equipment and the CT's working methods. Discuss mitigation measures with the IEC and the CT. Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> Discuss with the ET Leader and the CT on the mitigation measures. Review proposals on mitigation measures submitted by the CT and advised the ER accordingly. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Discuss with the IEC on the proposed mitigation measures. Make agreement on the mitigation measures to be implemented. 	<ol style="list-style-type: none"> Inform the ER and confirm notification of the non-compliance in writing. Rectify unacceptable practice. Check all plants and equipment. Consider changes of working methods. Discuss with the ET Leader and the IEC and propose mitigation measures to the IEC and the ER. Implement the agreed mitigation measures.
Action level being exceeded by more than one consecutive days	<ol style="list-style-type: none"> Repeat in-situ measurement to confirm findings. Identify source(s) of impact. Inform the IEC and the CT. Check monitoring data, all plant, equipment and the CT's working methods. Discuss mitigation measures with the IEC and the CT. Ensure mitigation measures are implemented. Prepare to increase the monitoring frequency to daily. Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> Discuss with the ET Leader and the CT on the mitigation measures. Review proposals on mitigation measures submitted by the CT and advised the ER accordingly. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Discuss with IEC on the proposed mitigation measures. Make agreement on the mitigation measures to be implemented. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Inform the ER and confirm notification of the non-compliance in writing. Rectify unacceptable practice. Check all plants and equipment. Consider changes of working methods. Discuss with the ET Leader and the IEC and propose mitigation measures to the IEC and the ER within 3 working days. Implement the agreed mitigation measures.
Limit Level				
Limit level being exceeded by one sampling day	<ol style="list-style-type: none"> Repeat in-situ measurement to confirm findings. Identify source(s) of impact. Inform the IEC, the CT and the DEP. Check monitoring data, all plant, equipment and the CT's working methods. Discuss mitigation measures with the IEC, the ER and the CT. Ensure mitigation measures are implemented. Increase the monitoring frequency to daily until no exceedance of the Limit Level. 	<ol style="list-style-type: none"> Discuss with the ET Leader and the CT on the mitigation measures. Review proposals on mitigation measures submitted by the CT and advised the ER accordingly. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Discuss with IEC, the ET Leader and the CT on the proposed mitigation measures. Request the CT to critically review the working methods. Make agreement on the mitigation measures to be implemented. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Inform the ER and confirm notification of the non-compliance in writing. Rectify unacceptable practice. Check all plants and equipment. Consider changes of working methods. Discuss with the ET Leader, the IEC and the ER, and propose mitigation measures to the IEC and the ER within 3 working days. Implement the agreed mitigation measures.
Limit level being exceeded by more than one consecutive days	<ol style="list-style-type: none"> Repeat in-situ measurement to confirm findings. Identify source(s) of impact. Inform the IEC, the CT and the DEP. Check monitoring data, all plant, equipment and the CT's working methods. Discuss mitigation measures with the IEC, the ER and the CT. Ensure mitigation measures are implemented. Increase the monitoring frequency to daily until no exceedance of the Limit Level for two consecutive days. 	<ol style="list-style-type: none"> Discuss with the ET Leader and the CT on the mitigation measures. Review proposals on mitigation measures submitted by the CT and advised the ER accordingly. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Discuss with IEC, the ET Leader and the CT on the proposed mitigation measures. Request the CT to critically review the working methods. Make agreement on the mitigation measures to be implemented. Assess the effectiveness of the implemented mitigation measures. Consider and instruct, if necessary, the CT 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"> Inform the ER and confirm notification of the non-compliance in writing. Rectify unacceptable practice. Check all plants and equipment. Consider changes of working methods. Discuss with the ET Leader, the IEC and the ER, and propose mitigation measures to the IEC and the ER within 3 working days. Implement the agreed mitigation measures. As directed by the ER, slow down or stop all or part of the construction activities.

3.4 Site Inspection and Environmental Complaint Handling

3.4.1 Site Inspection Frequency and Areas Covered

Regular site inspections will be carried out on a weekly basis. The areas of inspection cover the different environmental impacts, such as air, noise, water and waste, and their pollution controls and mitigation measures for both within and outside the site area.

Ad hoc site inspection will be carried out if significant environmental non-compliance is identified. Inspections may also be carried out subsequent to receipt of any environmental complaints, or as part of the investigation work, as specified in the Event and Action Plans.

3.4.2 Site Inspection Procedures

- a) The CT and/or ER will advise the Environmental Auditor (EA) of the ET for all information on any environmental related aspects.
- b) The EA will discuss with the CT and/or ER to sort out and forecast any potential environmental impact.
- c) The EA will conduct a site walk with the CT and/or ER, particularly the areas with extensive construction works.
- d) The EA will conduct inspection for the main environmental facilities and measures such as wheel washing facilities located at site exits, water spraying truck, temporary noise barrier, and internal noise-reducing measures of the heavy equipment etc, to ensure that these environmental facilities operate normally and effectively.
- e) The EA will fill up a site inspection checklist during the site inspection for recording any special observations.
- f) The EA will conduct post-discussion with the CT and/or ER for the establishment of additional/special measures if any non-conformance is found. The completion date for such additional measures will be confirmed during the post-discussion.
- g) The EA will propose a reasonable timeframe together with the CT and/or ER, for the preparation of the proposal for remediation of environmental non-compliance.
- h) The completed site inspection checklist will be signed by the EA, the CT and/or ER, for reference and for taking action in accordance with the agreed procedures, reporting systems and time frame.

3.4.3 Environmental Complaints

A 24-hour complaint hotline at 6277 7465 has been established for the Project. In accordance with the EM&A Manual, environmental complaints will be referred to the ET for initiation of the complaint investigation procedures. The ET will undertake the following procedures upon receipt of complaints:

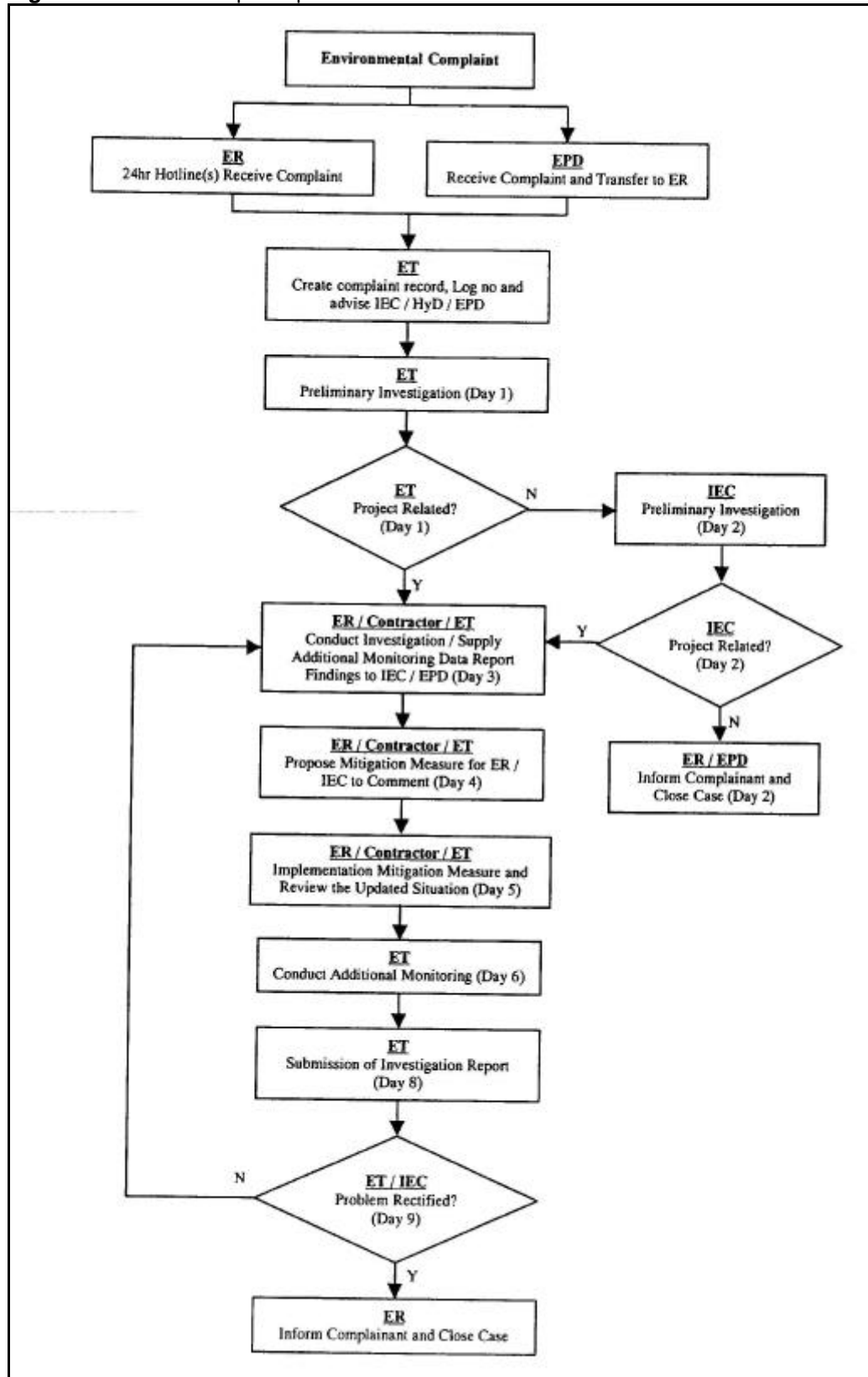
- a) The ET will record the details of the complaint and the date of receipt into the complaint database, and inform ER immediately.
- b) The ET will perform compliant investigation to determine its validity and to assess whether the source of the problem is due to work activities.
- c) The ER will instruct the CT to identify mitigation measures in consultation with the ET, if the compliant is valid and due to works.
- d) The ET will liaise with the CT on their mitigation measure proposals and implementation, if required.

- e) The ET will conduct review of the CT's response on the identified mitigation measures, and of the updated situation.
- f) The ET will submit interim report to EPD if the complaint is received via EPD. The interim report will clearly state the status of the complaint investigation and the follow-up action within the time frame assigned by EPD.
- g) The ET will undertake additional monitoring and audit to verify the situation if necessary, and ensure that any valid reason for complaint does not recur.
- h) The ET will report on the investigation results and the subsequent actions to the source of complaint for responding to the complainant. If the source of complaint is via EPD, the results will be reported within the time frame assigned by EPD.
- i) The ET will record the details of the complaint, investigation, subsequent actions and results in the monthly EM&A report.

During the complaint investigation work undertaken by the ET, the CT and ER should cooperate with the ET on providing all the necessary information and assistance for completion of the investigation. If mitigation measures are identified as necessary after the investigation, the CT should promptly carry out the required mitigation to the satisfaction of ET. The ER should ensure that the CT has carried out such identified measures.

A flow chart of the complaint response procedures is shown in **Figure 3-3** for reference.

Figure 3-3: Complaint procedure



4 Noise Monitoring

4.1 Monitoring Equipment

Details of the integrating sound level meters used in the noise monitoring are shown in **Table 5-1**.

Table 5-1: Equipment list for construction noise monitoring

Equipment	Manufacturer & Model No.	Precision Grade	Qty.
Integrating sound level meter	Rion NA-27	IEC 651 Type 1 IEC 804 Type 1	1
Windshield	Briel & Kjaer UA0237		1
Acoustical calibrator	Briel & Kjaer 4226		1
LCD wind speed indicator	Kestrel Vane Anemometer	--	1

4.2 Methodology

4.2.1 Occupancy Status of Grand Bay Villa

The property management company of Grand Bay Villa (WN5) will be coordinated a monthly basis within 10 working days of each month to confirm the occupancy status of these premises. Once this location is confirmed occupied, noise monitoring will be resumed within 1 week.

4.2.2 Field Measurement

- The sound level meter and battery were checked to ensure that they were in proper condition.
- The sound level meter was set on a tripod at 1.2m above ground and at 1m from the exterior of the building façade.
- Before conducting the measurement, the sound level meter was calibrated by an acoustical calibrator.
- The measurement parameter was set to A-weighted sound pressure level. The time weighting was set in fast response and the time period of measurement at 30 minutes.
- The wind speed was checked during noise monitoring to ensure the steady wind speed did not exceed 5m/s, or wind with gusts did not exceed 10m/s.
- Any abnormal conditions that generated intrusive noise during the measurement were recorded on the field record sheet.
- After each measurement, the equivalent continuous sound pressure level (L_{eq}), L_{10} and L_{90} were recorded on the field record sheet.
- The sound level meter was re-calibrated by the acoustical calibrator to confirm that there was no significant drift of reading.

4.2.3 Equipment Maintenance and Calibration

All sound level meters comply with the standards of IEC 651 (Fast, Slow, Impulse RMS detector tests) and IEC 804 (L_{eq} functions). The acoustical calibrator model no. 4226 complies with IEC 942.

4.3 Results and Observations

4.3.1 Occupancy Status of Grand Bay Villa

In the reporting period, Grand Bay Villa (WN5) was vacant with no resident and noise monitoring was temporarily suspended.

5 Marine Water Quality Monitoring

5.1 Marine Water Quality Monitoring Equipment

Monitoring of Turbidity (Tby) in NTU, Dissolved Oxygen (DO) in mg/L and Suspended Solids (SS) in mg/L was carried to ensure that any deteriorating water quality would be readily detected and timely action would be taken to rectify the situation. Tby and DO were measured in-situ while SS was determined in the laboratory. A list of the marine water quality monitoring equipment is summarised in **Table 5-1**.

Table 5-1: Marine water quality monitoring equipment

Equipment	Manufacturer & Model No.	Qty
Handheld DO, Temperature & Salinity Meter	YSI Model 85	1
pH meter	Hanna	1
Turbidimeter	HACH 2100P	1

5.2 Methodology

5.2.1 DO, Temperature and Salinity Measuring Equipment

The equipment to measure DO, temperature and salinity complied with the following:

- i. The instrument was a portable, weatherproof dissolved oxygen measuring instrument complete with cable and used a DC power source. It was capable of measuring:
 - A dissolved oxygen level in the range of 0-20 mg/L and 0-200% saturation;
 - A temperature of 0-45°C; and
 - A salinity level in the range of 0-40 ppt.
- ii. It had a membrane electrode with automatic temperature compensation complete with a cable.

5.2.2 Tby Measurement Instrument

The instrument was a portable, weatherproof turbidity-measuring instrument complete with comprehensive operations manual. The equipment used a DC power source. It had a photoelectric sensor capable of measuring turbidity between 0-1000 NTU and was complete with a cable.

5.2.3 SS

The following equipment was used to monitor the SS:

- i. A water sampler comprised a transparent PVC cylinder, with a capacity of not less than 2 litres and which can be effectively sealed with latex cups at both ends. The sampler had a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler was at the selected water depth.
- ii. Water samples for SS measurement were collected in high density polythene bottles, packed in ice (cooled at 4°C without being frozen) and delivered to the laboratory as soon as possible after collection.

5.2.4 Water Depth Detector

A portable, battery-operated echo sounder was used for the determination of water depth at each designated monitoring.

5.2.5 Location of the Monitoring Site

A hand-held Global Positioning System (GPS) was used during monitoring to ensure the monitoring vessel was at the correct location before taking measurements.

5.2.6 Calibration and Accuracy of Instrumentation

All *in-situ* monitoring instruments were checked, calibrated and certified by a HOKLAS accredited laboratory or any other international accreditation scheme before use, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the water quality monitoring. Response of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring location. The calibration certificates are attached in **Appendix C**. For the on site calibration of field equipment, the BS 1427:1993, "Guide to Field and on-site test methods for the analysis of waters" was followed.

5.3 Results and Observations

5.3.1 Weather Conditions and Other Factors

No adverse weather conditions were recorded during the reporting period.

5.3.2 Summary of Results

Impact marine water quality monitoring was undertaken during mid-ebb and mid-flood tidal cycles at 10 designated locations including 5 impact and 5 control stations. A baseline check was conducted on 27 February 2006 prior to the commencement of marine works and a compliance checking mechanism was established in accordance with the Baseline Monitoring Report. Detailed water quality monitoring results are given in **Appendix D**. Graphical presentation of the monitoring results are illustrated in **Figures 5-1 to 5-8**.

Summary of Mid-Ebb Tide

The lowest DO level for surface & middle and bottom positions were 5.57 mg/L and 5.35 mg/L respectively at WWFCZ1 on 25 September 2006. There were no exceedances of DO level during reporting period when compared with the established A/L Levels and baseline check criteria in Section 3.3 of this report.

The highest depth-averaged T_{by} level was 11.1 Nephelometric Turbidity Unit (NTU) at WWA3 on 25 September 2006. There were 2 exceedances of T_{by} Baseline Check Criteria on 22 and 25 September 2006 and 2 exceedances of Limit Level on 25 September 2006 when compared with the established A/L Levels and baseline check criteria in Section 3.3 of this report.

The highest SS level was 17.8 mg/L at WWA2 and WWA3 on 25 September 2006. There were 10 exceedances of SS Baseline Check Criteria on 6, 8, 20, 22 and 25 September 2006 when compared with the established A/L Levels and baseline check criteria in Section 3.3 of this report.

Summary of Mid-Flood Tide

The lowest DO level for surface & middle and bottom positions were 5.64 mg/L at WWA3 on 20 September 2006 and 5.37 mg/L at WWFCZ2 on 4 September 2006 respectively. There were no exceedances of DO levels during reporting period when compared with the established A/L Levels and baseline check criteria in Section 3.3 of this report.

The highest depth-averaged Tby level was 6.2 NTU at WWFCZ2 on 27 September 2006. There were no exceedances of Tby Levels during reporting period when compared with the established A/L Levels and baseline check criteria in Section 3.3 of this report.

The highest SS level was 18.7mg/L at WWFCZ1 on 12 September 2006. There was 1 exceedance of SS Baseline Check Criteria on 14 September 2006 when compared with the established A/L Levels and baseline check criteria in Section 3.3 of this report.

Figure 5-1: DO levels (surface and middle level) at mid-ebb tide in September 2006

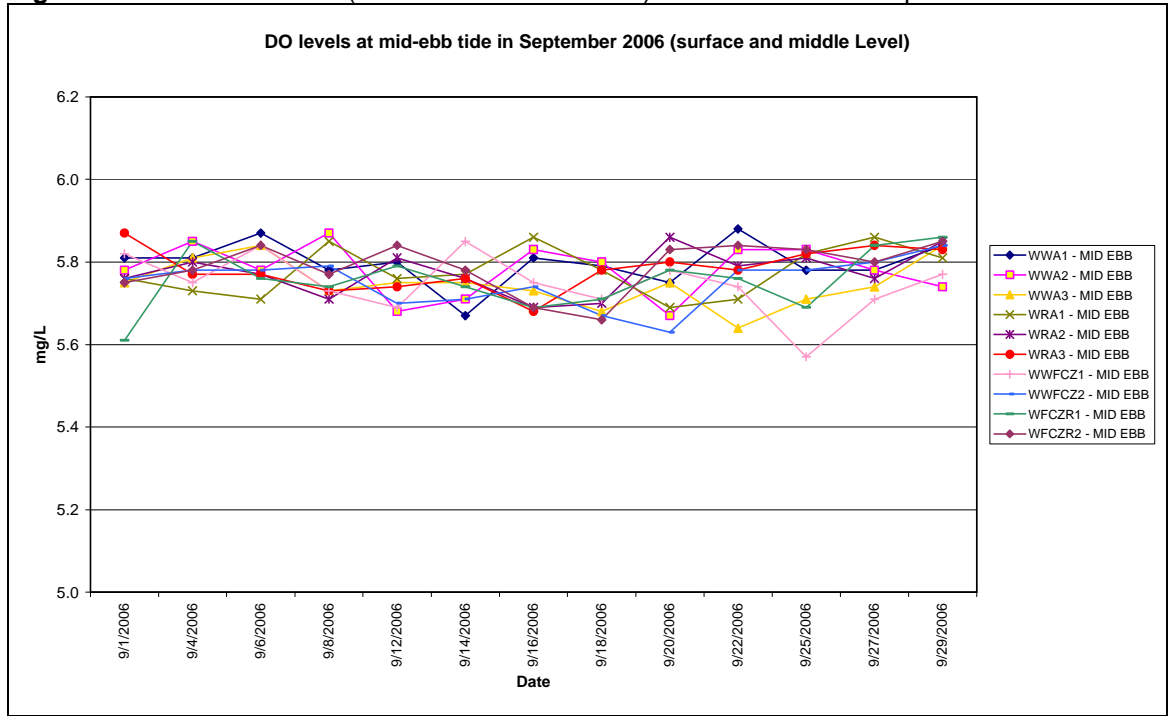


Figure 5-2: DO levels (bottom level) at mid-ebb tide in September 2006

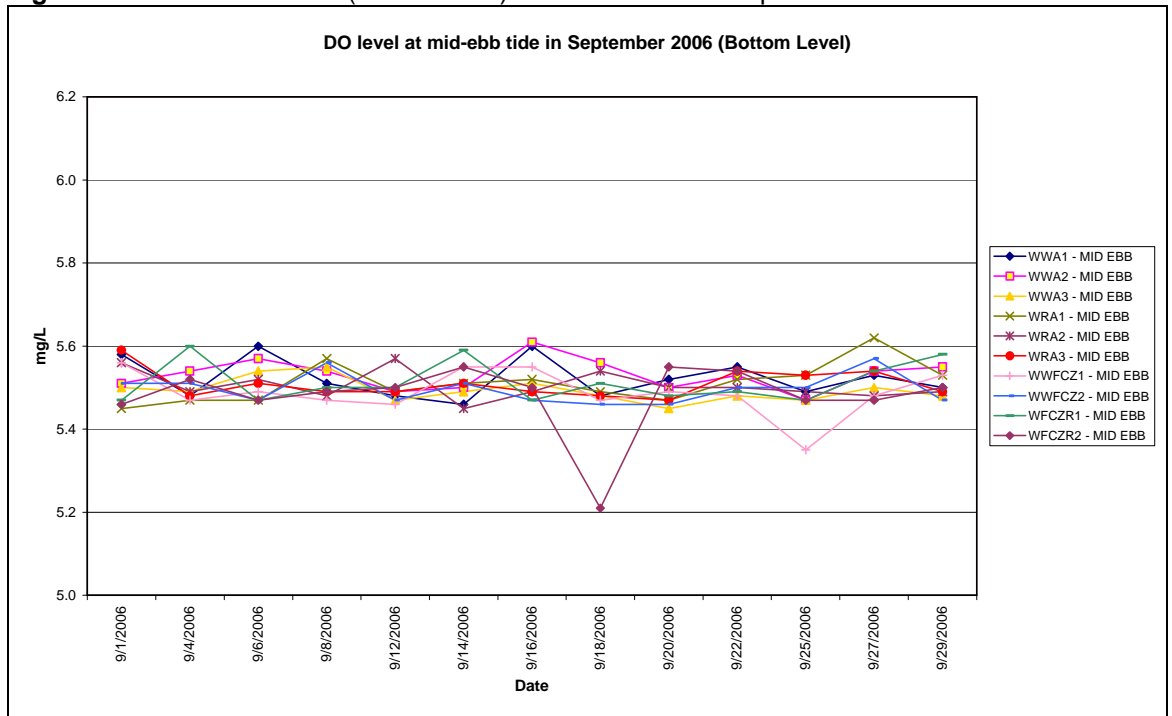


Figure 5-3: DO levels (surface and middle level) at mid-flood tide in September 2006

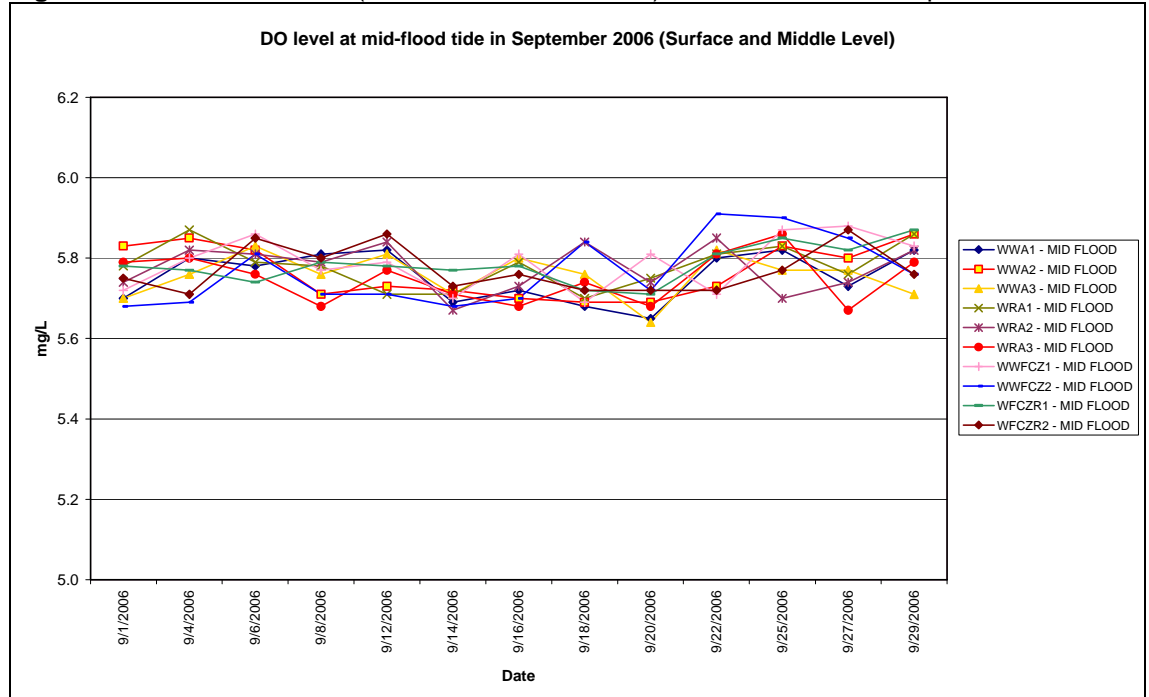


Figure 5-4: DO levels (bottom level) at mid-flood tide in September 2006

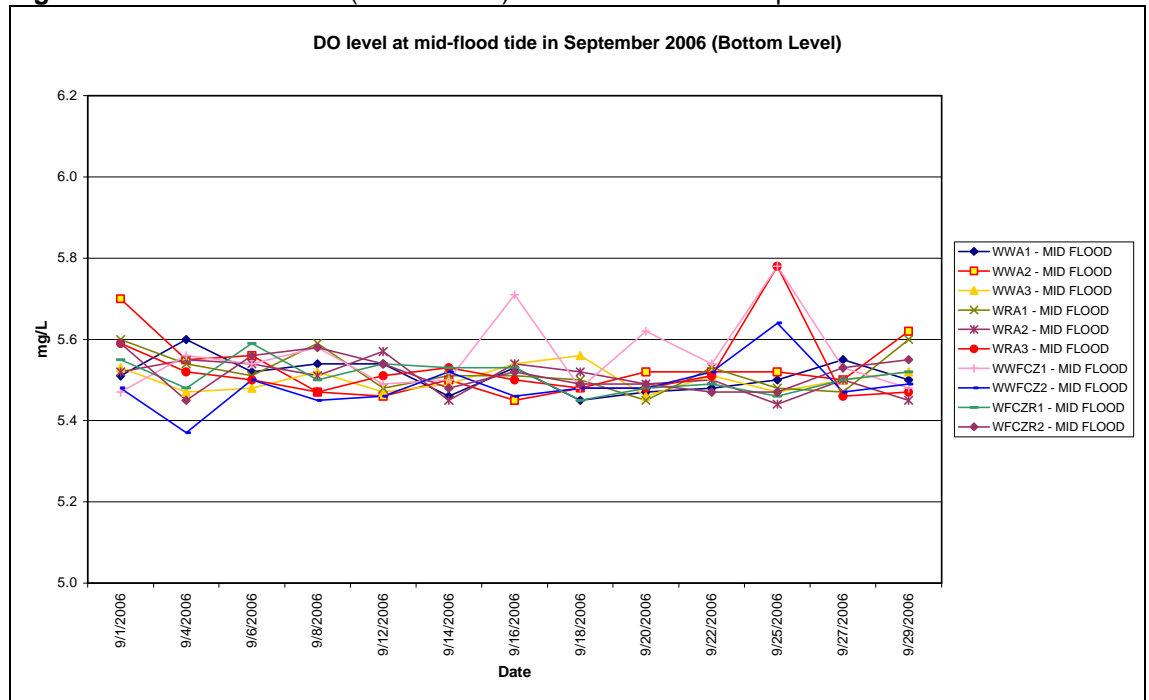


Figure 5-5: Turbidity levels at mid-ebb tide in September 2006

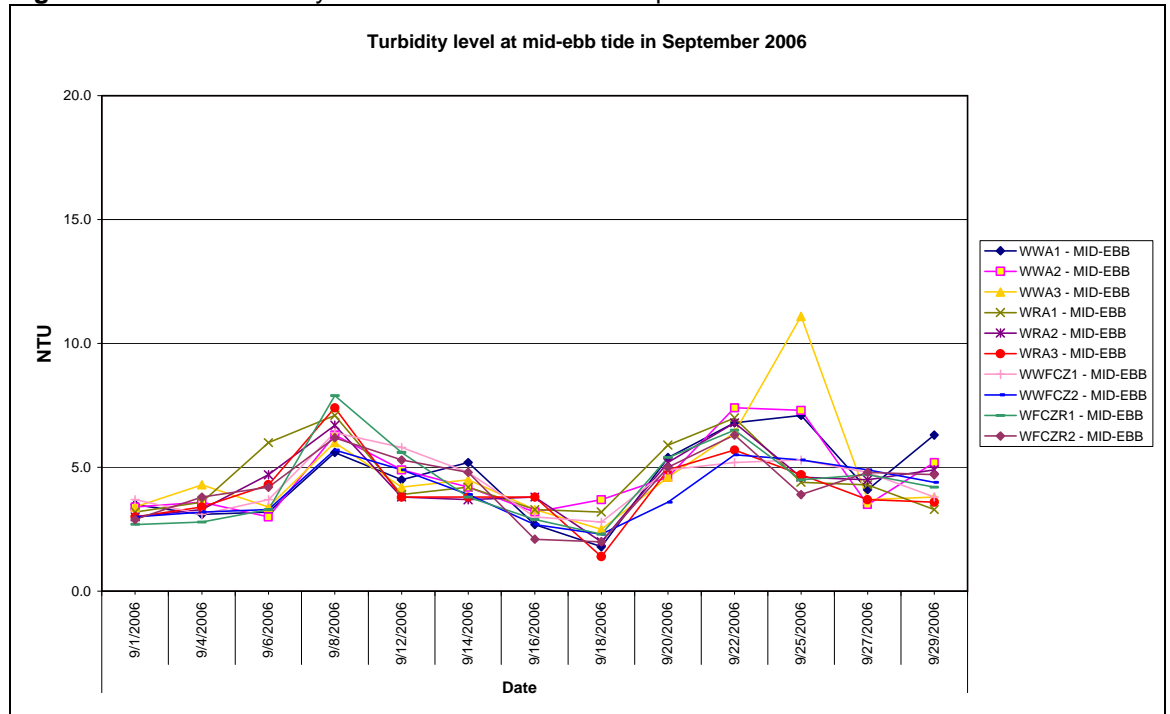


Figure 5-6: Turbidity levels at mid-flood tide in September 2006

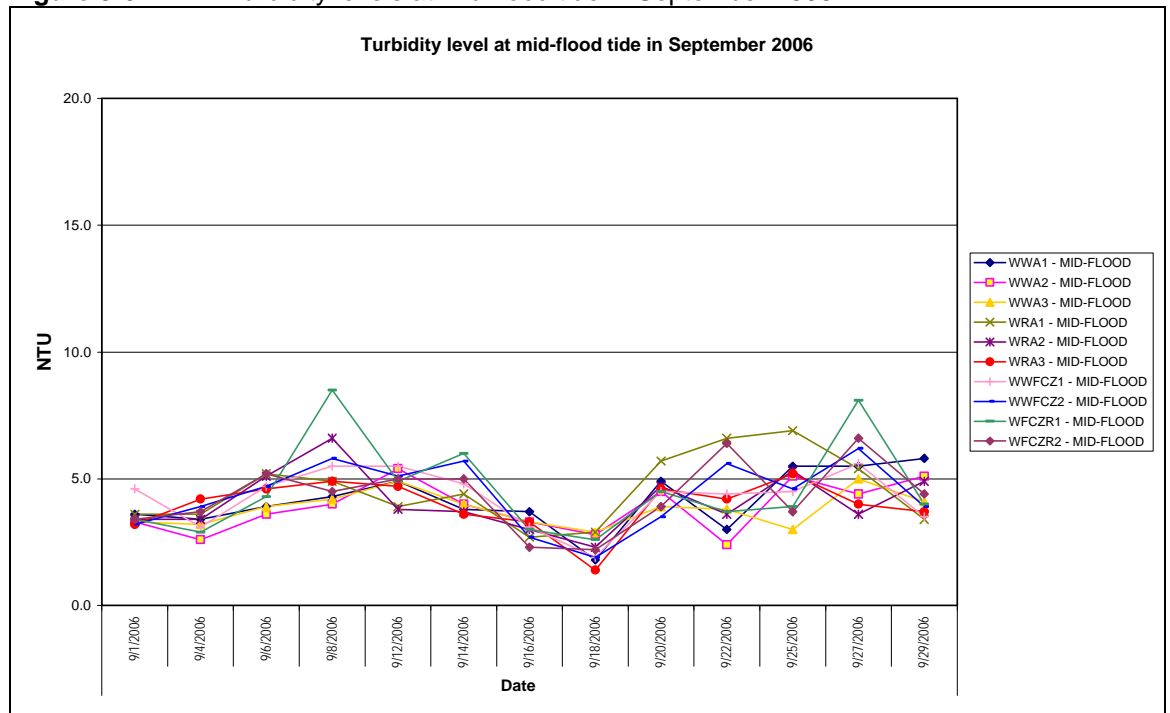


Figure 5-7: SS levels at mid-ebb tide in September 2006

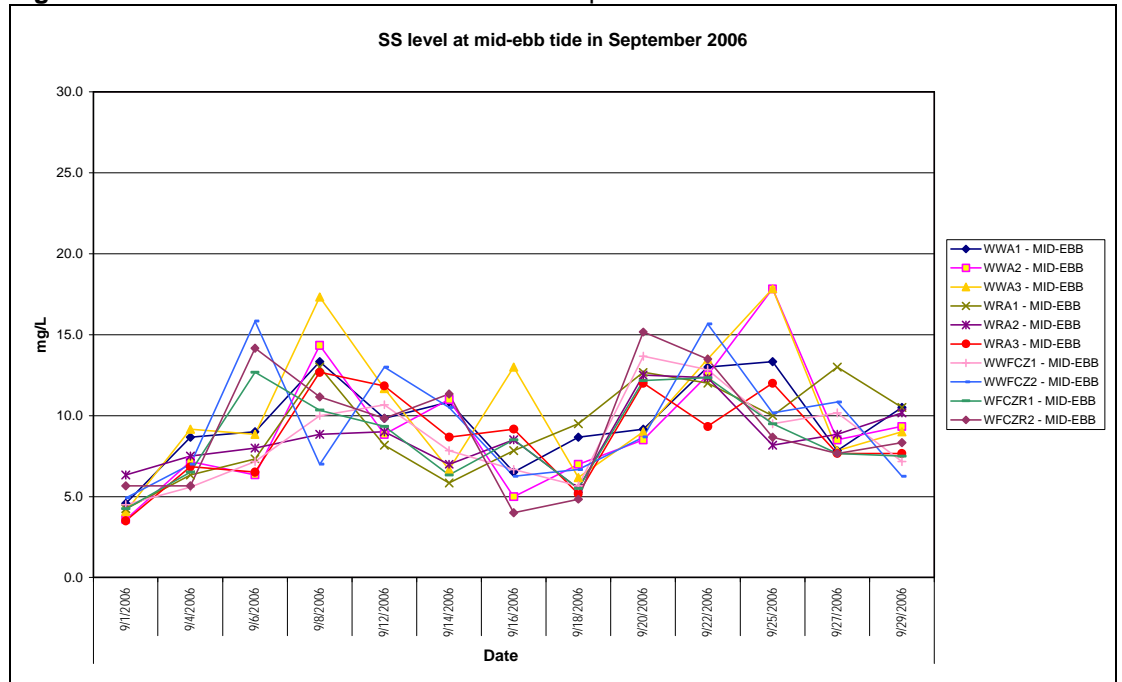
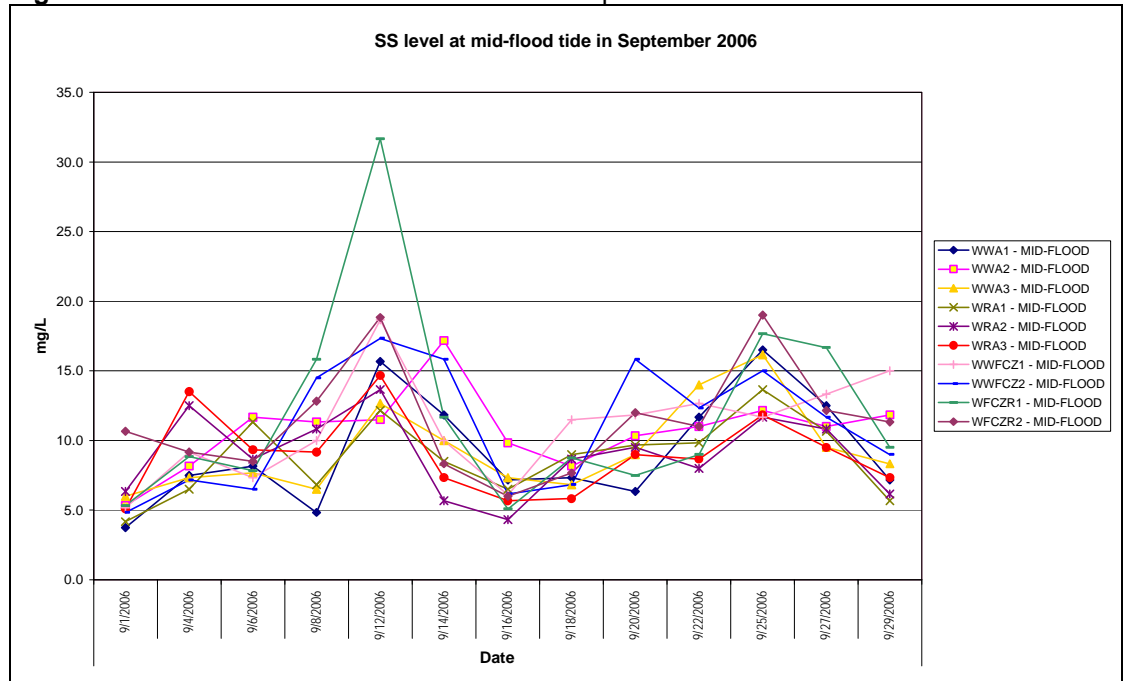


Figure 5-8: SS levels at mid-flood tide in September 2006



6 Site Inspection, Waste Disposal, environmental complaints, environmental licenses and non-compliance records

6.1 Site Audit Findings

Four weekly environmental site audits were carried out on 7, 14, 21 and 28 September 2006. The findings of the site audits are summarised in **Table 6-1**.

Table 6-1: Findings of weekly environmental site audit in September 2006

Date of Issue Raised	Observation	Advice from EA	CT's Response / Environmental Outcomes	Closing Date
7 September 2006 (WTLT 033)	1. General refuse and construction waste were observed at haul road towards Seawall A.	CT was reminded to clear the waste as soon as possible.	Agreed with the ET's advice.	14 September 2006
	2. General refuse was observed beside silt curtain at Seawall A.	CT was reminded to clear the waste.	Agreed with the ET's advice.	
	3. Mud trails were observed along Castle Peak Road near to Grand Bay Villa.	CT was reminded to clear the mud trails.	Agreed with the ET's advice.	
14 September 2006 (WTLT 034)	1. Stockpile was not covered near carpark.	CT was reminded to cover the stockpile as soon as possible.	Agreed with the ET's advice.	5 October 2006
	2. Stagnant water was observed near carpark.	CT was reminded to remove the stagnant water.	Agreed with the ET's advice.	21 Sep 2006
	3. Water spraying was not provided during road breaking works opposite to carpark.	CT was reminded to implement air quality mitigation measures.	Agreed with the ET's advice.	21 Sep 2006
	4. Stagnant rainwater was observed accumulated along the Castle Peak Road between Slope D and E.	CT was reminded to clear the rainwater to prevent mosquito breeding.	Agreed with the ET's advice.	21 Sep 2006
	5. Scrapped wood was observed behind Seawall A.	CT was reminded to remove the construction waste.	Agreed with the ET's advice.	21 Sep 2006
	6. Muddy water was observed discharging into nearby gullies from the entrance towards Slope A and Slope B. Workers were clearing the silt from the gullies.	CT was reminded to clear the muddy water along Castle Peak Road and silt at the gullies.	Agreed with the ET's advice.	28 Sep 2006

Date of Issue Raised	Observation	Advice from EA	CT's Response / Environmental Outcomes	Closing Date
	7. Oil leakage was observed from a portable generator located on Castle Peak Road near Seawall B.	CT was reminded to clear the oil on the road immediately.	Agreed with the ET's advice.	21 Sep 2006
	8. Mud trails were observed along Castle Peak Road.	CT was reminded to clear the mud trails.	Agreed with the ET's advice	21 Sep 2006
	9. Broken silt curtain was observed at Seawall B.	CT was reminded to repair the silt curtain before conducting any filling works.	Agreed with the ET's advice	28 Sep 2006
	10. Muddy water was observed at sea near Seawall A.	CT was reminded to provide water mitigation measures.	Agreed with the ET's advice	21 Sep 2006
	11. Oil stain was observed on the ground around oil drum storage area located at the bore piling site.	CT was reminded to remove the oil stain.	Agreed with the ET's advice	5 Oct 2006
	12. General refuse was observed along the haul road on the slope at the bore piling site.	CT was reminded to clear the refuse and provide rubbish bins within the site.	Agreed with the ET's advice	21 Sep 2006
	13. A waste battery was observed left on the haul road on the slope at the bore piling site.	CT was reminded to keep all chemical waste in the chemical waste storage area.	Agreed with the ET's advice	21 Sep 2006
	14. A vehicle tyre was left on the slope at the bore piling site.	CT was reminded to remove the waste tyre as soon as possible.	Agreed with the ET's advice	21 Sep 2006
	15. The shelter for the chemical waste storage was broken.	CT was reminded to repair the shelter as soon as possible.	Agreed with the ET's advice	28 Sep 2006
21 Sep 2006 (WTLT 035)	1. An oil drum was observed without drip tray at the eastern end of the site boundary.	CT was reminded to provide dripray to the oil drum and store the oil drum in a proper position.	Agreed with the ET's advice.	28 Sep 2006
	2. General refuse was observed at the eastern end of the site boundary.	CT was reminded to clear the waste and maintain good housekeeping within the site.	Agreed with the ET's advice.	
	3. A generator was observed in operation without door closed and the door was observed broken.	CT was reminded to repair the door immediately and close the door while the generator is in operation.	Agreed with the ET's advice.	
	4. Contaminated soil, which was due to leakage of oil drum, was observed on the haul road of the bore piling site.	CT was reminded to remove the contaminated soil as soon as possible..	Agreed with the ET's advice.	5 Oct 2006

Date of Issue Raised	Observation	Advice from EA	CT's Response / Environmental Outcomes	Closing Date
	5. General refuse and stagnant water were observed inside the catchpit located in the bore piling site.	CT was reminded to remove the refuse and provide mosquito control measures.	Agreed with the ET's advice.	5 Oct 2006
	6. Two silt traps at Seawall B were nearly full.	CT was reminded to clear the silt traps as soon as possible.	Agreed with the ET's advice.	28 Sep 2006
	7. Stagnant water was observed at the entrance of carpark.	CT was reminded to provide mosquito control measures or clear the stagnant water.	Agreed with the ET's advice.	
28 September 2006 (WTLT 036)	1. The haul road of the bore piling site was observed dry.	CT was reminded to provide water spraying along the haul road regularly.	Agreed with the ET's advice.	5 October 2006
	2. Rubbish bin was not observed along the bore piling site.	CT was reminded to provide adequate rubbish bins within the site.	Agreed with the ET's advice.	

6.2 Waste Disposal

Disposal of waste material in the reporting period generally complied with the corresponding waste disposal requirements. The waste disposal quantity in the reporting period is summarised in **Table 6-2**.

Table 6-2: Waste disposal quantity in September 2006

Type of waste or material		Disposal at	No. of loads or quantities
C&D waste		WENT Landfill	64 tonnes
C&D material	By truck	Public Filling Reception Facility in Tuen Mun Area 38	21,614 tonnes
Chemical waste		Collected by licensed collector	0

6.3 Complaint Record

There was no environmental complaint received in September 2006.

6.4 Exceedance

There were exceedances of Tby and SS levels for marine water quality in September 2006 when compared with A/L Levels and baseline check criteria. After ET's investigation, only 1 exceedance of SS Baseline Check Criteria was likely due to the construction activities of the Project. The remaining exceedances were unlikely related to the Project and might be due to natural variation of marine water. All the exceedances are summarised in **Table 6.3** and **Table 6.4**. The details of the investigation was summarised in **Appendix F**.

The exceedance of SS level at WWA2 on 14 September 2006, which was related to the Project, was likely due to heavy rainstorm in preceding day (i.e. 13 September 2006).

Muddy runoff was observed discharging into nearby gullies at Castle Peak Road from the site entrance of Slope A and muddy marine water was also observed near Seawall A and B during site inspection conducted by ET auditor on 14 September 2006. Although the exceedance of SS level was only marginal to the Baseline Check Criteria, the SS level at WWA2 was higher than that at control station, WRA2.

Table 6-3: Summary of exceedances of marine water quality monitoring related to construction works of the Project in September 2006

Date	Tide	Location	Exceedances of monitoring data					
			Tby (NTU)			SS (mg/L)		
			Control Station	Impact Station	Exceedance of	Control Station	Impact Station	Exceedance of
14-Sep	Mid-flood	WWA2	-	-	-	5.7	17.2	Baseline Check

Table 6-4: Summary of exceedances of marine water quality monitoring not related to construction works of the Project in September 2006

Date	Tide	Location	Exceedances of monitoring data					
			Tby (NTU)			SS (mg/L)		
			Control Station	Impact Station	Exceedance of	Control Station	Impact Station	Exceedance of
6-Sep	Mid-ebb	WWFCZ2	-	-	-	14.2	15.8	Baseline Check
8-Sep	Mid-ebb	WWA1	-	-	-	13.0	13.3	Baseline Check
8-Sep	Mid-ebb	WWA2	-	-	-	8.8	14.3	Baseline Check
8-Sep	Mid-ebb	WWA3	-	-	-	12.7	17.3	Baseline Check
20-Sep	Mid-ebb	WWFCZ1	-	-	-	12.2	13.7	Baseline Check
22-Sep	Mid-ebb	WWA2	6.8	7.4	Baseline Check	-	-	-
22-Sep	Mid-ebb	WWA3	-	-	-	9.3	13.5	Baseline Check
22-Sep	Mid-ebb	WWFCZ2	-	-	-	13.5	15.7	Baseline Check
25-Sep	Mid-ebb	WWA1	4.4	7.1	Baseline Check	10.0	13.3	Baseline Check
25-Sep	Mid-ebb	WWA2	4.6	7.3	Limit Level	8.2	17.8	Baseline Check
25-Sep	Mid-ebb	WWA3	4.7	11.1	Limit Level	12.0	17.8	Baseline Check

6.5 Notification of Summons and Successful Prosecution

No notification of summons and prosecution was received in September 2006.

6.6 Environmental Licenses

A summary of the valid environmental licences is given in **Table 6-4**. There was no environmental licence granted during the reporting period.

Table 6-5: Summary of valid environmental licences in September 2006

Type of Licence	Reference No.	Valid from	Valid to
Environmental Permit	EP-219/2005	20 Jun 2005	Not applicable
Registration of Chemical Waste Producer	5111-336-C2869-49	16 Feb 2006	Not applicable
Water Discharge Licence	EP760/336/011348 I	31 Mar 2006	31 Mar 2011
Construction Noise Permit	GW-RW0326-06	9 June 2006	8 December 2006
Construction Noise Permit	GW-RW0349-06	23 June 2006	22 December 2006

7 Conclusions

The construction phase of the Project was commenced on 28 February 2006. The EM&A programme has been implemented since then, including marine water quality monitoring and environmental site audits. Noise monitoring at Grand Bay Villa was temporarily suspended as these premises were vacant with no resident.

Exceedances of marine water quality were detected from the monitoring data. After ET's investigation, only 1 exceedance was likely due to the construction activities of the Project.

No complaint, summons or prosecution related to environmental issues was received during the reporting month.

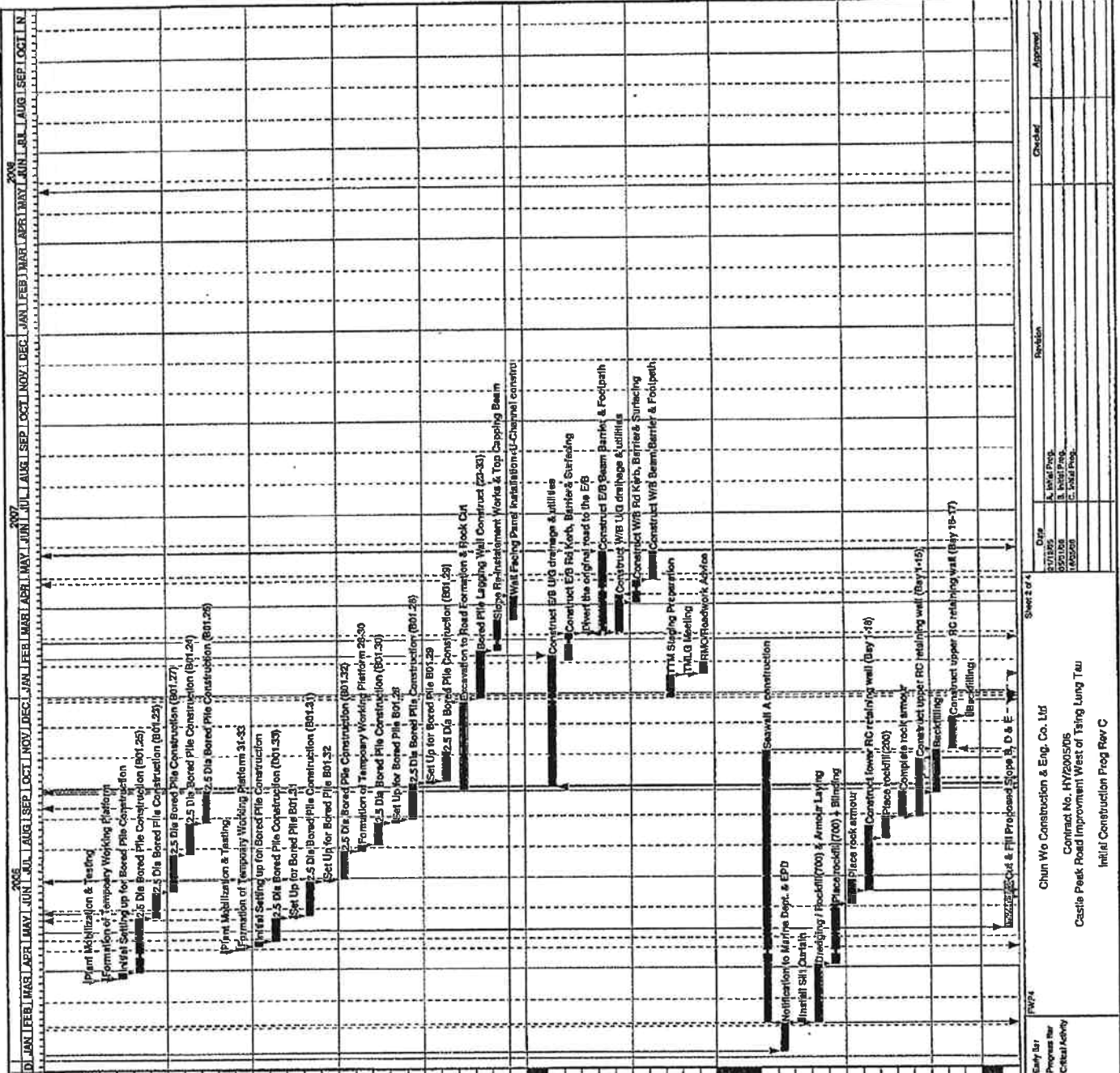
Weekly environmental site audit was carried out during the reporting month. The major environmental concerns were related to air quality, noise, water quality, waste management and chemical waste.

All C&D materials were transported to PFRF at Tuen Mun Area 38 by trucks during the reporting period.

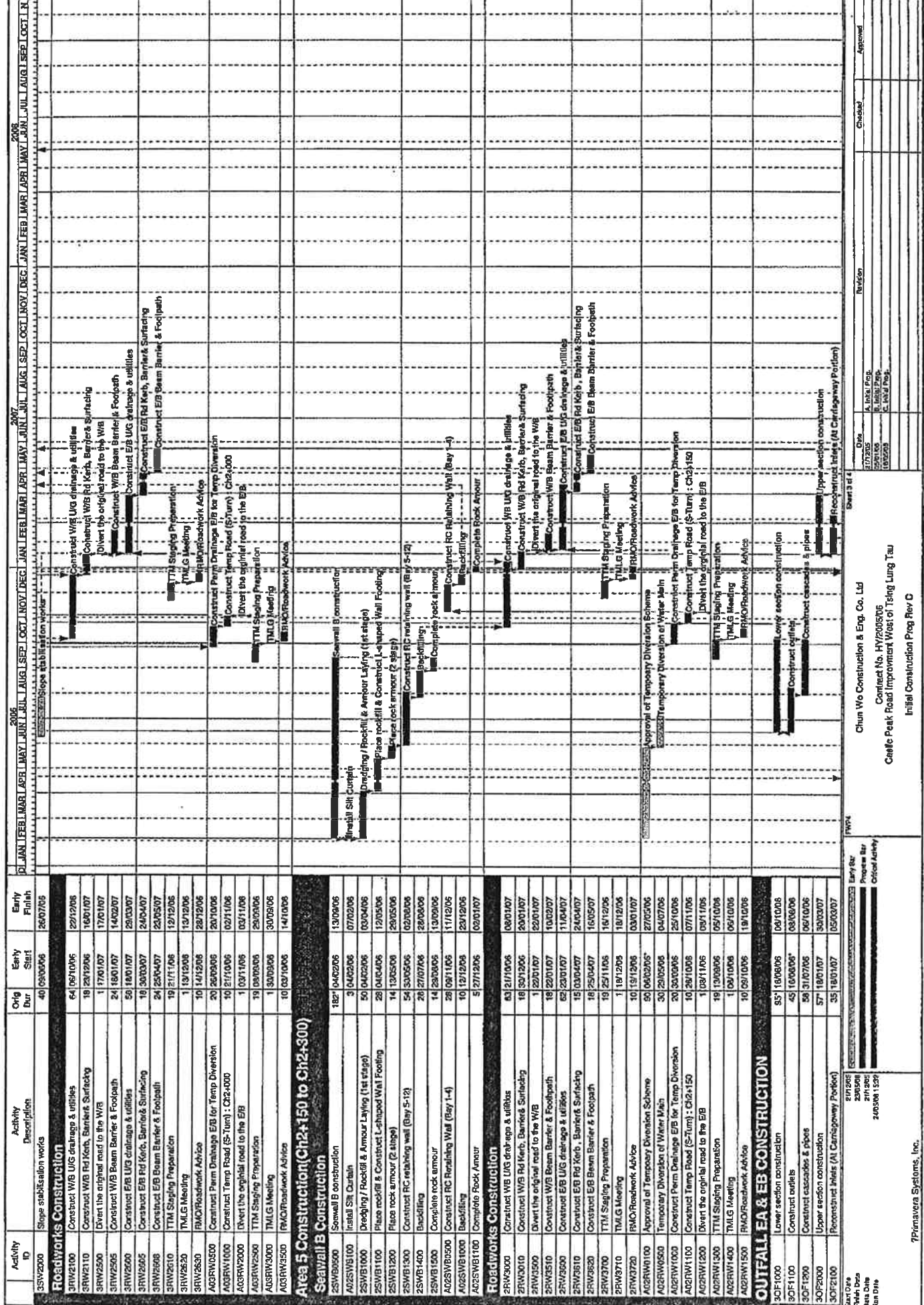
8 References

- [1] Mouchel Halcrow Joint Venture. January 2006. Supplementary Agreement No.1 – Remaining Project EM&A Manual for Construction of Reclamation West of Tsing Lung Tau.
- [2] Ove Arup & Partners Hong Kong Limited. April 2006. Contract No.HY2005/06 Castle Peak Road Improvement – West of Tsing Lung Tau. Environmental Baseline Monitoring Report for Reclamation Works (EP No. EP-219/2005) (Second Issue)

Appendix A
**Construction
programme**



Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
4BP3000	Bored Pile Construction - B01.23 - B01.33	2	20/03/06*	21/03/06
4BP3010	Plant Mobilization & Testing	3	22/03/06	24/03/06
4BP3020	Formation of Temporary Working Platform	5	24/03/06	29/03/06
4BP3030	Initial Setting up for Bored Pile Construction	4	30/03/06	23/04/06
4BP3040	2.5 Dia Bored Pile Construction (B01.25)	21	24/05/06	17/06/06
4BP3050	2.5 Dia Bored Pile Construction (B01.27)	31	19/06/06	25/07/06
4BP3060	2.5 Dia Bored Pile Construction (B01.24)	27	26/07/06	25/08/06
4BP3070	2.5 Dia Bored Pile Construction (B01.26)	28	26/08/06	27/09/06
4BP3080	Plant Mobilization & Testing	2	18/04/06*	19/04/06
4BP3090	Formation of Temporary Working Platform 31-33	3	20/04/06	23/04/06
4BP3100	Initial Setting up for Bored Pile Construction	5	24/04/06	29/04/06
4BP3110	2.5 Dia Bored Pile Construction (B01.33)	18	29/04/06	20/05/06
4BP3120	Set Up for Bored Pile B01.31	2	23/05/06	24/05/06
4BP3130	2.5 Dia Bored Pile Construction (B01.31)	28	20/05/06	27/06/06
4BP3140	Set Up for Bored Pile B01.32	2	28/06/06	29/06/06
4BP3150	2.5 Dia Bored Pile Construction (B01.32)	23	30/06/06	27/07/06
4BP3160	Formation of Temporary Working Platform 28-30	5	28/07/06	02/08/06
4BP3170	2.5 Dia Bored Pile Construction (B01.30)	19	02/08/06	24/08/06
4BP3180	Set Up for Bored Pile B01.28	2	25/08/06	26/08/06
4BP3190	2.5 Dia Bored Pile Construction (B01.28)	31	28/08/06	08/10/06
4BP3135	Set Up for Bored Pile B01.29	2	14/10/06	05/10/06
4BP3136	2.5 Dia Bored Pile Construction (B01.29)	23	06/10/06	23/11/06
4BP3150	Excavation to Road Formation & Rock Cut	71	28/09/06	20/12/06
4BP3160	Bored Pile Lagging Wall Construct (23-33)	40	27/12/06	12/02/07
4BP3170	Slope Re-Installation Works & Top Capping Beam	22	19/02/07	15/03/07
4BP3180	Wall Facing Panel Installation U-Channel concrete	20	16/03/07	05/04/07
Roadworks Construction				
4RW4100	Construct E/B U/G drainage & utilities	105	30/09/06	07/02/07
4RW4110	Construct E/B Rd Kerb, Barriek Surfacing	18	03/02/07	10/03/07
4RW4650	Divert the original road to the E/B	1	19/03/07	02/03/07
4RW4655	Construct E/B Beam Barrier & Footpath	85	03/03/07	23/05/07
4RW4650	Construct W/B U/G drainage & utilities	22	03/03/07	10/04/07
4RW4610	Construct W/B Rd Kerb, Barriek Surfacing	15	09/04/07	24/04/07
4RW4615	Construct W/B Beam Barrier & Footpath	24	25/04/07	23/05/07
4RW4620	TTM Staging Preparation	19	27/12/06	16/01/07
4RW4630	TM/G Meeting	1	19/01/07	19/01/07
4RW4640	RMC/Feedback Advise	10	20/01/07	31/01/07
Area 3 Construction (Ch1-4B25 to Ch2+D30)				
3SWA0500	Seawall A construction	223	04/02/06	03/11/06
3SWA0600	Notification to Marine Dept. & EPD	28	07/01/06	03/02/06
3SWA0700	Initial S/E Curbside	4	04/02/06	08/02/06
3SWA1000	Dredging / Rockfill (700) & Armour Laying	50	04/02/06	03/04/06
3SWA1100	Pile rock armour (700) & Blinding	45	04/04/06	02/05/06
3SWA1200	Pile rock armour	21	03/05/06	27/05/06
3SWA1300	Construct lower RC retaining wall (Bay 1-18)	51	16/05/06	19/09/06
3SWA1400	Pile rockfill (200)	20	07/09/06	20/03/07
3SWA1500	Complete rock armour	22	23/03/06	22/09/06
3SWA1600	Construct upper RC retaining wall (Bay 1-15)	47	30/09/06	25/10/06
3SWA1700	Backfilling	34	22/09/06	05/12/06
3SWA0500	Construct upper RC retaining wall (Bay 18-17)	28	04/11/06	09/12/06
3SWA0500	Backfilling	3	07/12/06	09/12/06
Slope Works				
3SW1100	Cut & Fill Proposed Slope D, D & E	40	03/05/06	24/05/06



Activity ID	Activity Description	Orig Bar	Early Start	Early Finish
35V2000	Slope stabilisation works	40	09/06/06	26/07/06

Activity ID	Activity Description	Orig Bar	Early Start	Early Finish
3RW2100	Construct WB UG drainage & utilities	64	16/10/06	29/12/06
3RW2110	Construct WB Rd Kerb, Barriers Surfacing	18	23/12/06	16/01/07
3RW2500	Divert the original road to the WB	1	17/01/07	17/01/07
3RW2505	Construct WB Beam Barrier & Footpath	24	18/01/07	14/02/07
3RW2506	Construct EB UG drainage & utilities	59	18/01/07	28/03/07
3RW2605	Construct EB Rd Kerb, Barriers Surfacing	18	30/03/07	24/04/07
3RW2606	Construct EB Beam Barrier & Footpath	24	25/04/07	23/05/07
3RW2610	TTM Staging Preparation	19	21/11/06	12/12/06
3RW2620	TMLG Meeting	1	13/12/06	13/12/06
3RW2630	RMO/Roadwork Advice	10	14/12/06	28/12/06
AG3RW1000	Construct Perm Drainage EB for Temp Diversion	20	26/09/06	20/10/06
AG3RW1000	Construct Temp Road (S-Turn) : Ch2+000	10	21/10/06	02/11/06
AG3RW2000	Divert the original road to the EB	1	03/11/06	03/11/06
AG3RW2500	TTM Staging Preparation	19	09/09/06	29/09/06
AUSRW3000	TMLG Meeting	1	30/09/06	30/09/06
AG3RW3500	RMO/Roadwork Advice	10	03/10/06	14/10/06

Activity ID	Activity Description	Orig Bar	Early Start	Early Finish
25WB1000	Seawall B construction	182	04/02/06	13/09/06
AG25WB100	Install Silt Curtain	3	04/02/06	07/02/06
25WB1000	Dredging / Rockfill & Armour Laying (1st stage)	50	04/02/06	03/04/06
25WB1100	Place rockfill & Construct L-shaped Wall Footing	28	04/04/06	12/05/06
25WB1200	Place rock armour (2 stage)	14	13/05/06	29/05/06
25WB1300	Construct RC retaining wall (Bay 5-12)	54	3/06/06	02/09/06
25WB1400	Backfilling	28	27/07/06	28/08/06
25WB1500	Complete rock armour	14	23/08/06	13/09/06
AG25WB2500	Construct RC Retaining Wall (Bay 1-4)	28	09/11/05	11/12/05
AG25WB1000	Backfilling	10	12/12/05	23/12/05
AG25WB1100	Complete Rock Armour	5	17/12/05	02/01/06

Activity ID	Activity Description	Orig Bar	Early Start	Early Finish
2RW3000	Construct WB UG drainage & utilities	63	21/10/06	08/01/07
2RW3010	Construct WB Rd Kerb, Barriers Surfacing	18	20/12/06	20/01/07
2RW3500	Divert the original road to the WB	1	22/01/07	22/01/07
2RW3510	Construct WB Beam Barrier & Footpath	18	22/01/07	10/02/07
2RW3500	Construct EB UG drainage & utilities	62	22/01/07	11/04/07
2RW3610	Construct EB Rd Kerb, Barriers Surfacing	15	03/04/07	24/04/07
2RW3620	Construct EB Beam Barrier & Footpath	18	25/04/07	16/05/07
2RW3700	TTM Staging Preparation	19	25/11/06	16/12/06
2RW3710	TMLG Meeting	1	18/12/06	18/12/06
2RW3720	RMO/Roadwork Advice	10	19/12/06	03/01/07
AG2RW1000	Approval of Temporary Diversion Scheme	50	06/02/06	27/05/06
AG2RW0500	Temporary Diversion of Water Main	30	20/05/06	04/07/06
AG2RW1000	Construct Perm Drainage EB for Temp Diversion	20	30/06/06	25/10/06
AG2RW1100	Construct Temp Road (S-Turn) : Ch2+150	10	28/10/06	07/11/06
AG2RW1200	Divert the original road to the EB	1	08/11/06	09/11/06
AG2RW1300	TTM Staging Preparation	19	19/09/06	05/10/06
AG2RW1400	TMLG Meeting	1	09/10/06	09/10/06
AG2RW1500	RMO/Roadwork Advice	10	09/10/06	19/10/06

Activity ID	Activity Description	Orig Bar	Early Start	Early Finish
3OF1000	Lower section construction	85	18/06/06	04/10/06
3OF1100	Construct tunnels	45	16/08/06	08/09/06
3OF1200	Construct casacades & pipes	58	31/07/06	06/10/06
3OF2000	Upper section construction	57	18/01/07	30/03/07
3OF2100	Reconstruct inlets (At Carriageway Proxim)	35	18/01/07	05/03/07

Activity ID	Activity Description	Orig Bar	Early Start	Early Finish
3RW2610	TTM Staging Preparation	19	21/11/06	12/12/06
3RW2620	TMLG Meeting	1	13/12/06	13/12/06
3RW2630	RMO/Roadwork Advice	10	14/12/06	28/12/06
AG3RW1000	Construct Perm Drainage EB for Temp Diversion	20	26/09/06	20/10/06
AG3RW1000	Construct Temp Road (S-Turn) : Ch2+000	10	21/10/06	02/11/06
AG3RW2000	Divert the original road to the EB	1	03/11/06	03/11/06
AG3RW2500	TTM Staging Preparation	19	09/09/06	29/09/06
AUSRW3000	TMLG Meeting	1	30/09/06	30/09/06
AG3RW3500	RMO/Roadwork Advice	10	03/10/06	14/10/06

Activity ID	Activity Description	Orig Bar	Early Start	Early Finish
25WB1000	Seawall B construction	182	04/02/06	13/09/06
AG25WB100	Install Silt Curtain	3	04/02/06	07/02/06
25WB1000	Dredging / Rockfill & Armour Laying (1st stage)	50	04/02/06	03/04/06
25WB1100	Place rockfill & Construct L-shaped Wall Footing	28	04/04/06	12/05/06
25WB1200	Place rock armour (2 stage)	14	13/05/06	29/05/06
25WB1300	Construct RC retaining wall (Bay 5-12)	54	3/06/06	02/09/06
25WB1400	Backfilling	28	27/07/06	28/08/06
25WB1500	Complete rock armour	14	23/08/06	13/09/06
AG25WB2500	Construct RC Retaining Wall (Bay 1-4)	28	09/11/05	11/12/05
AG25WB1000	Backfilling	10	12/12/05	23/12/05
AG25WB1100	Complete Rock Armour	5	17/12/05	02/01/06

Activity ID	Activity Description	Orig Bar	Early Start	Early Finish
2RW3000	Construct WB UG drainage & utilities	63	21/10/06	08/01/07
2RW3010	Construct WB Rd Kerb, Barriers Surfacing	18	20/12/06	20/01/07
2RW3500	Divert the original road to the WB	1	22/01/07	22/01/07
2RW3510	Construct WB Beam Barrier & Footpath	18	22/01/07	10/02/07
2RW3500	Construct EB UG drainage & utilities	62	22/01/07	11/04/07
2RW3610	Construct EB Rd Kerb, Barriers Surfacing	15	03/04/07	24/04/07
2RW3620	Construct EB Beam Barrier & Footpath	18	25/04/07	16/05/07
2RW3700	TTM Staging Preparation	19	25/11/06	16/12/06
2RW3710	TMLG Meeting	1	18/12/06	18/12/06
2RW3720	RMO/Roadwork Advice	10	19/12/06	03/01/07
AG2RW1000	Approval of Temporary Diversion Scheme	50	06/02/06	27/05/06
AG2RW0500	Temporary Diversion of Water Main	30	20/05/06	04/07/06
AG2RW1000	Construct Perm Drainage EB for Temp Diversion	20	30/06/06	25/10/06
AG2RW1100	Construct Temp Road (S-Turn) : Ch2+150	10	28/10/06	07/11/06
AG2RW1200	Divert the original road to the EB	1	08/11/06	09/11/06
AG2RW1300	TTM Staging Preparation	19	19/09/06	05/10/06
AG2RW1400	TMLG Meeting	1	09/10/06	09/10/06
AG2RW1500	RMO/Roadwork Advice	10	09/10/06	19/10/06

Activity ID	Activity Description	Orig Bar	Early Start	Early Finish
3OF1000	Lower section construction	85	18/06/06	04/10/06
3OF1100	Construct tunnels	45	16/08/06	08/09/06
3OF1200	Construct casacades & pipes	58	31/07/06	06/10/06
3OF2000	Upper section construction	57	18/01/07	30/03/07
3OF2100	Reconstruct inlets (At Carriageway Proxim)	35	18/01/07	05/03/07

Start Date: 2006
 Finish Date: 2008
 Issue Date: 26/08/13/21

Early Bar
 Progress Bar
 Critical Activity

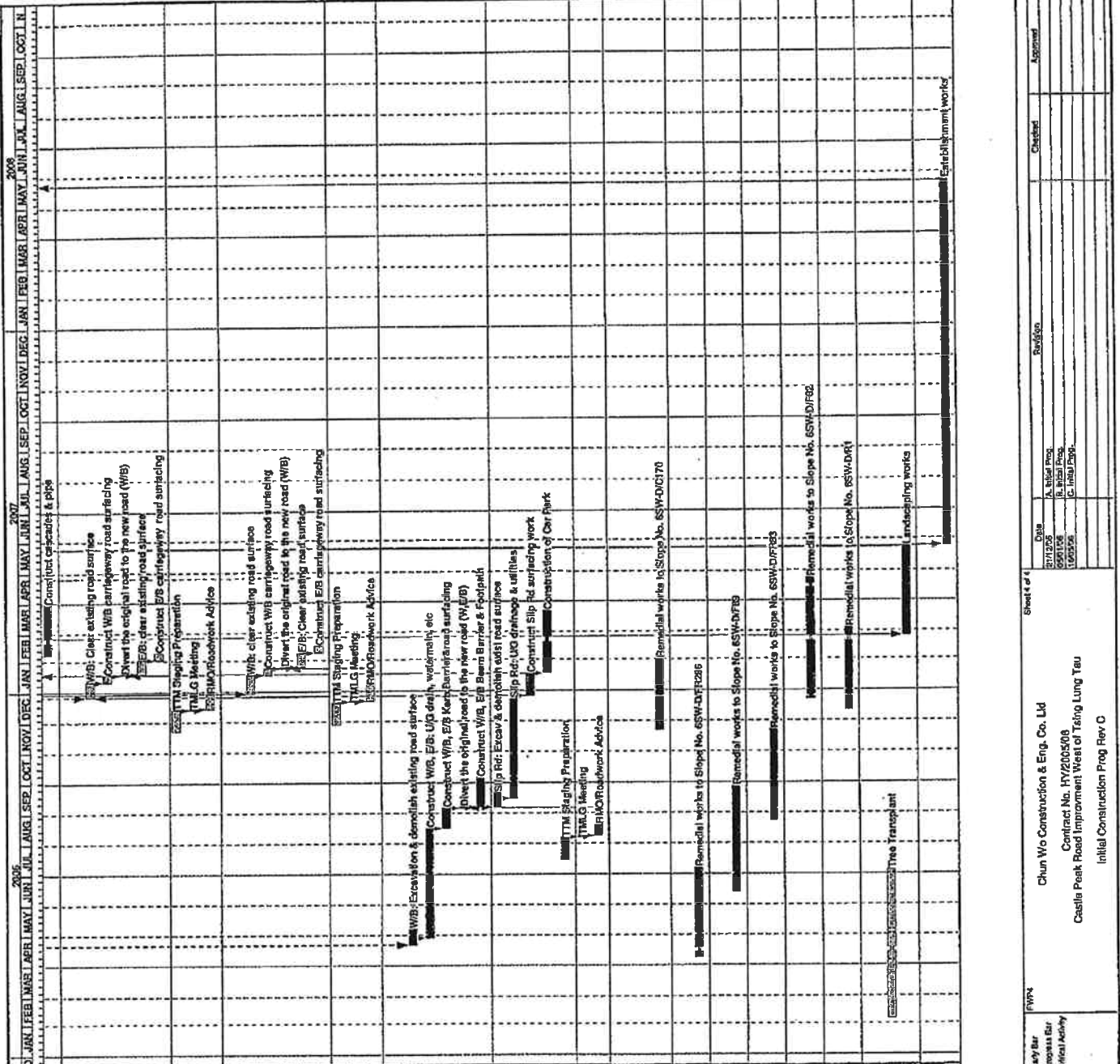
Sheet 3 of 4
 Chum Wo Construction & Eng. Co. Ltd
 Contract No. HY2005/05
 Cable Peak Road Improvement West of Tsing Lung Tau
 Initial Construction Prog Rev C

Disps
 E172055
 E172056
 E172059

Revision
 A. Initial Prop.
 B. Issue 2/06
 C. Issue 2/06
 D. Issue 2/06

Approved

Activity ID	Activity Description	Orig Dur	Entry Start	Entry Finish	Early Start	Early Finish
SCF2200	Construct cascades & pipe	40	07/02/07	30/03/07		
Area 1 Construction (Ch1+500 to Ch1+705)						
SRW0500	WB: Clear existing road surface	12	27/12/05	10/01/07		
SRW1500	Construct WB carriageway road surfacing	6	11/01/07	17/01/07		
SRW2000	Divert the original road to the new road (WB)	1	18/01/07	18/01/07		
SRW2500	EB: clear existing road surface	12	19/01/07	01/02/07		
SRW3500	Construct EB carriageway road surfacing	6	02/02/07	08/02/07		
SRW3510	T/M Staging Preparation	19	22/11/05	13/12/06		
SRW3520	T/M LG Meeting	1	14/12/06	14/12/06		
SRW3530	RMC/Roadwork Advice	10	18/12/06	29/12/06		
Area 6 Construction (Ch2+300 to Ch2+400)						
SRW0500	WB: Clear existing road surface	14	30/12/06	15/01/07		
SRW1500	Construct WB carriageway road surfacing	6	17/01/07	23/01/07		
SRW2000	Divert the original road to the new road (WB)	1	24/01/07	24/01/07		
SRW2500	EB: Clear existing road surface	12	25/01/07	07/02/07		
SRW3500	Construct EB carriageway road surfacing	6	09/02/07	14/02/07		
SRW3510	T/M Staging Preparation	19	28/11/05	18/12/06		
SRW3520	T/M LG Meeting	1	21/12/06	21/12/06		
SRW3530	RMC/Roadwork Advice	10	22/12/06	05/01/07		
Area 2 Construction (Ch1+705 to Ch1+825)						
SRW0500	WB: Excavation & demolish existing road surface	12	21/04/06	05/05/06		
SRW1000	Construct WB, EB: UG drain, watermain, etc	90	28/04/06	15/08/06		
SRW1500	Construct WB, EB Kerb/Barriers/road surfacing	18	16/09/06	05/09/06		
SRW2000	Divert the original road to the new road (W/EB)	1	09/09/06	09/09/06		
SRW2010	Construct WB, EB Beam Barrier & Footpath	24	07/09/06	05/10/06		
SRW2500	Slip Rd: Excav & demolish mist road surface	12	07/09/06	20/09/06		
SRW3000	Slip Rd: UG drainage & utilities	82	15/09/06	23/12/06		
SRW3500	Construct Slip Rd surfacing work	18	27/12/06	17/01/07		
SRW3510	Construction of Car Park	50	18/01/07	22/03/07		
SRW3520	T/M Staging Preparation	19	15/07/06	05/08/06		
SRW3530	T/M LG Meeting	1	07/08/06	07/08/06		
SRW3530	RMC/Roadwork Advice	10	08/08/06	18/08/06		
Slope Remedial Works						
SRW2000	Remedial works to Slope No. 6SW-D/C170	57	22/11/06	31/01/07		
SRW2500	Remedial Work 6SW-D/FR286	70	08/04/06	08/07/06		
SRW3000	Remedial Work 6SW-D/FR89	80	13/06/06	26/08/06		
SRW3500	Remedial Work 6SW-D/FR83	75	22/08/06	21/11/06		
SRW3500	Remedial works to Slope No. 6SW-D/FR82	92	23/12/06	23/04/07		
SRW3500	Remedial works to Slope No. 6SW-D/FR1	62	12/12/06	03/03/07		
Section II - Landscaping Works						
SRW1000	Treg Transplant	120	08/02/07	04/07/07		
SRW1000	Landscaping works	50	24/02/07	24/05/07		
Section III - Establishment Period						
SR1000	Establishment works	365	25/05/07	23/05/08		



Sheet 4 of 4

Chun Wo Construction & Eng. Co. Ltd
 Contract No. HW2005/08
 Castle Peak Road Improvement West of Tsing Lung Tau
 Initial Construction Prog Rev C

Start Date: 21/12/05
 Finish Date: 23/05/08
 Data Date: 21/02/08
 Run Date: 24/05/08

Early Bar
 Progress Bar
 Critical Activity

Approved: _____
 Checked: _____
 Revison: _____
 Date: 11/07/07
 05/01/08
 16/05/08

Approved: _____
 Checked: _____
 Revison: _____
 Date: 11/07/07
 05/01/08
 16/05/08

Establishment works

Appendix B

**Monitoring schedule for
September and October
2006**

Environmental Monitoring and Audit Schedule - September 2006

- Note 1: L30 denotes $L_{eq(30\text{ min})}$ monitoring
- Note 2: TSP denotes Total Suspended Particulate monitoring
- Note 3: MV denotes marine water monitoring
- Note 4: L&V denotes Landscape and Visual audit and monitoring

Sep-2006						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
	4	5	6	7 Site Inspection	8 MW	9
	11 MW	12	13 MW	14 Site Inspection	15 MW	16
	18	19 MW	20	21 MW	22	23 MW
	25 MW	26	27 MW	28 Site Inspection	29 MW	30

Tentative Environmental Monitoring and Audit Schedule - October 2006

- Note 1: L30 denotes $L_{eq(30-min)}$ monitoring
- Note 2: TSP denotes Total Suspended Particulate monitoring
- Note 3: MV denotes marine water monitoring
- Note 4: L&V denotes Landscape and Visual audit and monitoring

Oct-2006						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Appendix C

**Calibration certificates
of marine water
monitoring equipment**



CALIBRATION REPORT

Client : OVE ARUP & PARTNERS H.K. LTD.
Address : Level 5 Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong,
Kowloon.

Report No. : CR 000074
Page No. : 1 of 5
Issue Date : 04/08/2006

Received Date : 01/08/2006
Approved Signatory : Grace Ting
Remarks :

Completion Date : 02/08/2006

Calibration Results:

Item : YSI Model 85-10 FT Handheld Salinity, Conductivity & Temperature Instrument

Serial No. : 02D1076 AB

Calibration Method : APHA 18e 2520 A & B

Date of Calibration : 01/08/2006

Results: :

Salinity

Expected Reading (ppt)	Recorded Reading (ppt)
0	0
7.4	7.3
15	14.4
35	33.8
39.3	37.9

Approval Signatory:



CALIBRATION REPORT

Client : OVE ARUP & PARTNERS H.K. LTD.
Address : Level 5 Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong,
Kowloon.

Report No. : CR 000074
Page No. : 2 of 5
Issue Date : 04/08/2006

Received Date : 01/08/2006
Approved Signatory : Grace Ting
Remarks :

Completion Date : 02/08/2006

Calibration Results:

Item : YSI Model 85-10 FT Handheld Salinity, Conductivity & Temperature Instrument
Serial No. : 02D1076 AB
Calibration Method : In house method
Date of Calibration : 01/08/2006
Results: :

Temperature

Expected Reading (°C)	Recorded Reading (°C)
10.0	10.1
20.0	20.4
30.0	30.4
40.0	40.3

Approval Signatory:



CALIBRATION REPORT

Client : OVE ARUP & PARTNERS H.K. LTD.
Address : Level 5 Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong,
Kowloon.

Report No. : CR 000074
Page No. : 3 of 5
Issue Date : 04/08/2006

Received Date : 01/08/2006
Approved Signatory : Grace Ting
Remarks :

Completion Date : 02/08/2006

Calibration Results:

Item : YSI Model 85-10 FT Handheld Salinity, Conductivity & Temperature Instrument
Serial No. : 02D1076 AB
Calibration Method : APHA 18e 4500-O A, B, C & D
Date of Calibration : 01/08/2006
Results :

Dissolved Oxygen

Expected Reading (mg/L)	Recorded Reading (mg/L)
3.75	3.68
4.80	4.80
5.75	5.69
6.80	6.88
7.90	7.90
9.00	8.92

Approval Signatory:



CALIBRATION REPORT

Client : OVE ARUP & PARTNERS H.K. LTD.
Address : Level 5 Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong,
Kowloon.

Report No. : CR 000074
Page No. : 4 of 5
Issue Date : 04/08/2006

Received Date : 01/08/2006
Approved Signatory : Grace Ting
Remarks :

Completion Date : 02/08/2006

Calibration Results:

Item : HACH 2100P Turbidimeter
Serial No. : 011100024354
Calibration Method : APHA 18e 2130 B
Date of Calibration : 01/08/2006
Results :

Turbidity

Expected Reading (NTU)	Recorded Reading (NTU)
0	0.21
2	2.20
4	4.11
16	15.5
40	38.8
80	77.1

Approval Signatory:



CALIBRATION REPORT

Client : OVE ARUP & PARTNERS H.K. LTD.
Address : Level 5 Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong,
Kowloon.

Report No. : CR 000074
Page No. : 5 of 5
Issue Date : 04/08/2006

Received Date : 01/08/2006
Approved Signatory : Grace Ting
Remarks :

Completion Date : 02/08/2006

Calibration Results:

Item : HANNA instrument HI 98128 membrane pH meter

Serial No. : 1377140

Calibration Method : In house method

Date of Calibration : 01/08/2006

Results: :

pH

Expected Reading (pH unit)	Recorded Reading (pH unit)
4.00	4.18
6.86	7.10
10.0	10.2

Approval Signatory:

Appendix D

**Marine water quality
monitoring results**

HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring & Audit Service
Marine Water Quality Impact Monitoring - September 2006

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
1	WWA1	S	MID-EBB	1-Sep-06	9:35	7.10	29.9	5.92	5.87	5.81	93.0	90.6	8.0	11.9	3.4	3.1	3.5	3.8	4.6
2	WWA1	M	MID-EBB	1-Sep-06			29.5	5.74	5.70		87.7	85.4	8.0	12.8	3.5	3.3		3.5	
3	WWA1	B	MID-EBB	1-Sep-06			29.4	5.61	5.55		86.2	83.7	8.0	13.3	3.8	3.6		3.5	
4	WWA2	S	MID-EBB	1-Sep-06	9:25	7.50	29.6	5.87	5.81	5.78	89.3	87.3	8.0	11.5	3.3	3.2	3.4	4.0	3.6
5	WWA2	M	MID-EBB	1-Sep-06			29.6	5.76	5.67		85.6	83.7	8.0	12.8	3.6	3.5		4.0	
6	WWA2	B	MID-EBB	1-Sep-06			29.6	5.54	5.47		85.6	85.2	8.0	13.0	3.4	3.6		3.4	
7	WWA3	S	MID-EBB	1-Sep-06	9:15	7.80	29.8	5.85	5.80	5.75	90.2	90.3	8.0	12.1	3.3	3.6	3.4	2.8	4.1
8	WWA3	M	MID-EBB	1-Sep-06			29.7	5.70	5.64		86.6	85.8	7.9	13.0	3.3	3.2		5.0	
9	WWA3	B	MID-EBB	1-Sep-06			29.7	5.52	5.47		83.1	81.0	8.0	13.0	3.6	3.5		3.4	
10	WRA1	S	MID-EBB	1-Sep-06	9:47	27.30	30.2	5.66	5.80	5.76	91.8	89.8	7.9	12.0	3.4	3.1	3.2	3.3	4.3
11	WRA1	M	MID-EBB	1-Sep-06			28.6	5.73	5.66		84.2	83.9	7.9	22.7	3.4	3.2		4.0	
12	WRA1	B	MID-EBB	1-Sep-06			27.0	5.47	5.42		85.0	83.2	7.9	29.3	3.0	2.9		5.5	
13	WRA2	S	MID-EBB	1-Sep-06	9:59	24.50	29.8	5.85	5.76	5.76	90.6	87.8	7.9	10.5	3.5	3.2	3.0	9.5	6.3
14	WRA2	M	MID-EBB	1-Sep-06			28.8	5.74	5.68		86.9	85.0	7.9	20.7	3.5	3.4		4.0	
15	WRA2	B	MID-EBB	1-Sep-06			27.2	5.60	5.51		83.4	80.1	7.9	28.3	2.2	2.3		3.0	
16	WRA3	S	MID-EBB	1-Sep-06	10:13	23.10	29.4	5.96	5.90	5.87	93.8	90.0	7.9	12.5	3.8	3.2	3.0	3.0	3.5
17	WRA3	M	MID-EBB	1-Sep-06			29.2	5.84	5.76		84.6	83.7	7.9	18.5	2.5	2.7		3.5	
18	WRA3	B	MID-EBB	1-Sep-06			28.0	5.62	5.56		80.4	79.9	7.9	24.5	2.8	2.8		3.0	
19	WWFCZ1	S	MID-EBB	1-Sep-06	10:55	32.60	29.3	5.94	5.80	5.82	92.3	91.2	7.8	12.5	3.9	3.8	3.7	3.5	4.5
20	WWFCZ1	M	MID-EBB	1-Sep-06			27.7	5.82	5.70		87.1	84.9	7.8	25.6	3.6	3.5		6.0	
21	WWFCZ1	B	MID-EBB	1-Sep-06			27.5	5.63	5.48		83.1	79.8	7.8	26.0	3.6	3.7		3.7	
22	WWFCZ2	S	MID-EBB	1-Sep-06	10:42	33.80	29.3	5.85	5.81	5.76	91.6	88.8	7.8	12.5	3.2	3.2	3.0	3.3	4.9
23	WWFCZ2	M	MID-EBB	1-Sep-06			28.5	5.72	5.66		84.4	83.0	7.8	21.6	3.4	3.3		6.0	
24	WWFCZ2	B	MID-EBB	1-Sep-06			27.2	5.54	5.48		87.4	82.1	7.9	27.9	2.5	2.5		3.0	
25	WFCZR1	S	MID-EBB	1-Sep-06	11:09	35.40	29.6	5.79	5.62	5.61	87.0	85.3	7.8	12.6	2.9	2.8	2.7	5.5	4.3
26	WFCZR1	M	MID-EBB	1-Sep-06			27.8	5.54	5.49		86.4	84.8	7.8	25.0	2.2	2.2		3.5	
27	WFCZR1	B	MID-EBB	1-Sep-06			27.1	5.53	5.41		82.9	80.0	7.8	27.5	3.2	3.2		3.0	
28	WFCZR2	S	MID-EBB	1-Sep-06	10:26	36.50	29.4	5.87	5.82	5.75	90.8	89.8	7.8	12.9	3.3	3.3	2.9	3.5	5.7
29	WFCZR2	M	MID-EBB	1-Sep-06			27.3	5.70	5.61		86.2	83.7	7.8	27.6	2.4	2.6		7.5	
30	WFCZR2	B	MID-EBB	1-Sep-06			27.0	5.49	5.42		86.7	81.5	7.8	29.3	2.8	2.8		2.9	
31	WWA1	S	MID-FLOOD	1-Sep-06	14:24	7.30	29.4	5.88	5.75	5.70	91.7	89.5	8.0	16.6	3.6	3.9	3.6	3.3	3.8
32	WWA1	M	MID-FLOOD	1-Sep-06			29.2	5.83	5.54		86.5	84.5	8.0	18.1	3.3	4.1		3.5	
33	WWA1	B	MID-FLOOD	1-Sep-06			29.0	5.60	5.42		87.8	85.1	8.0	18.5	3.2	3.4		3.6	
34	WWA2	S	MID-FLOOD	1-Sep-06	14:11	7.70	29.6	5.94	5.86	5.83	91.8	90.3	8.1	16.4	3.8	3.7	3.3	3.5	5.3
35	WWA2	M	MID-FLOOD	1-Sep-06			29.4	5.81	5.70		88.0	86.5	8.0	17.5	3.1	3.1		6.5	
36	WWA2	B	MID-FLOOD	1-Sep-06			29.2	5.74	5.66		88.3	85.6	8.0	17.1	3.3	3.1		3.0	
37	WWA3	S	MID-FLOOD	1-Sep-06	14:00	8.20	30.1	5.87	5.76	5.70	90.1	88.4	8.0	12.1	3.2	3.2	3.3	4.5	6.0
38	WWA3	M	MID-FLOOD	1-Sep-06			29.5	5.63	5.54		84.0	82.0	8.0	17.2	3.5	3.5		10.0	
39	WWA3	B	MID-FLOOD	1-Sep-06			29.4	5.56	5.49		87.0	84.0	8.0	17.2	3.3	3.2		3.3	
40	WRA1	S	MID-FLOOD	1-Sep-06	14:37	27.60	29.3	5.90	5.76	5.78	93.0	90.7	8.1	17.7	4.0	3.9	3.6	3.5	4.2
41	WRA1	M	MID-FLOOD	1-Sep-06			27.6	5.78	5.68		86.3	84.1	8.1	27.5	3.4	3.3		4.0	
42	WRA1	B	MID-FLOOD	1-Sep-06			28.1	5.67	5.53		87.5	83.0	8.1	23.9	3.7	3.6		3.6	
43	WRA2	S	MID-FLOOD	1-Sep-06	14:49	25.30	29.6	5.86	5.77	5.74	88.9	87.6	8.1	17.0	3.2	3.2	3.4	4.0	6.3
44	WRA2	M	MID-FLOOD	1-Sep-06			28.2	5.70	5.63		84.5	82.6	8.1	24.3	3.3	3.5		8.5	
45	WRA2	B	MID-FLOOD	1-Sep-06			27.1	5.60	5.44		85.1	81.2	8.1	29.3	3.8	3.6		3.4	

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Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
46	WRA3	S	MID-FLOOD	1-Sep-06	14:59	24.90	28.9	5.92	5.81	5.79	93.9	91.1	8.1	19.2	3.4	3.4	3.2	6.5	5.1
47	WRA3	M	MID-FLOOD	1-Sep-06			28.2	5.74	5.68		90.1	85.7	8.1	24.2	3.4	3.1		3.8	
48	WRA3	B	MID-FLOOD	1-Sep-06			28.2	5.62	5.55		86.0	83.0	8.1	23.8	3.0	2.9		5.0	
49	WWFCZ1	S	MID-FLOOD	1-Sep-06	15:38	33.80	29.3	5.88	5.74	5.72	94.1	92.5	8.1	15.1	3.5	3.8	4.6	4.5	5.2
50	WWFCZ1	M	MID-FLOOD	1-Sep-06			28.0	5.67	5.59		86.7	84.4	8.1	26.1	4.1	4.1		4.0	
51	WWFCZ1	B	MID-FLOOD	1-Sep-06			26.5	5.52	5.41		86.4	83.0	8.1	31.0	6.2	6.2		7.0	
52	WWFCZ2	S	MID-FLOOD	1-Sep-06	15:27	34.50	29.3	5.79	5.73	5.68	92.8	91.0	8.0	18.1	3.4	3.2	3.2	3.0	4.8
53	WWFCZ2	M	MID-FLOOD	1-Sep-06			28.1	5.61	5.57		87.8	85.3	8.0	25.2	3.1	3.2		6.0	
54	WWFCZ2	B	MID-FLOOD	1-Sep-06			27.6	5.50	5.46		84.7	80.7	8.0	26.8	3.1	3.3		3.2	
55	WFCZR1	S	MID-FLOOD	1-Sep-06	15:49	36.20	29.4	5.93	5.82	5.78	93.4	91.4	8.0	17.5	3.4	3.2	3.4	6.0	5.3
56	WFCZR1	M	MID-FLOOD	1-Sep-06			28.0	5.71	5.65		90.5	86.3	8.0	25.7	3.4	3.6		5.0	
57	WFCZR1	B	MID-FLOOD	1-Sep-06			27.7	5.60	5.49		86.1	82.5	8.0	24.5	3.3	3.6		3.4	
58	WFCZR2	S	MID-FLOOD	1-Sep-06	15:12	37.90	29.5	5.84	5.80	5.75	89.1	86.8	8.1	17.6	3.3	2.9	3.4	14.0	10.7
59	WFCZR2	M	MID-FLOOD	1-Sep-06			28.3	5.71	5.63		88.4	84.4	8.1	25.0	3.1	2.9		5.0	
60	WFCZR2	B	MID-FLOOD	1-Sep-06			27.4	5.66	5.52		89.5	86.6	8.1	28.2	4.0	4.1		3.4	
61	WWA1	S	MID-EBB	4-Sep-06	10:20	7.20	28.2	5.95	5.87	5.81	92.7	89.6	8.3	16.3	2.1	2.5	3.1	7.5	8.7
62	WWA1	M	MID-EBB	4-Sep-06			26.3	5.79	5.64		86.8	84.0	8.3	18.6	3.1	3.2		7.0	
63	WWA1	B	MID-EBB	4-Sep-06			28.0	5.53	5.42		85.5	81.6	8.3	18.9	3.9	3.8		11.5	
64	WWA2	S	MID-EBB	4-Sep-06	10:10	7.20	28.4	5.95	5.90	5.85	92.1	89.4	8.3	18.3	4.2	4.1	3.6	6.5	7.2
65	WWA2	M	MID-EBB	4-Sep-06			28.4	5.83	5.70		90.0	87.7	8.3	18.2	3.2	3.2		8.0	
66	WWA2	B	MID-EBB	4-Sep-06			28.3	5.62	5.46		85.9	83.1	8.3	18.6	3.2	3.5		3.6	
67	WWA3	S	MID-EBB	4-Sep-06	10:00	6.70	28.2	5.94	5.86	5.81	91.1	86.4	8.3	18.7	4.2	4.4	3.4	6.0	9.2
68	WWA3	M	MID-EBB	4-Sep-06			28.0	5.79	5.66		88.8	83.9	8.3	20.9	4.2	4.4			

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Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
90	WFCZR2	B	MID-EBB	4-Sep-06			26.6	5.56	5.47	5.52	83.6	81.2	8.2	29.5	4.1	4.2	3.8	7.0	5.7
91	WWA1	S	MID-FLOOD	4-Sep-06	16:23	7.40	26.2	5.87	5.83	5.80	90.1	88.1	8.0	15.2	3.5	3.0		5.5	
92	WWA1	M	MID-FLOOD	4-Sep-06			28.7	5.78	5.70	5.60	87.3	84.6	8.0	20.3	3.1	3.3		8.5	7.5
93	WWA1	B	MID-FLOOD	4-Sep-06			28.1	5.63	5.57	5.60	86.2	81.9	8.0	22.3	3.8	3.5	3.4	8.5	
94	WWA2	S	MID-FLOOD	4-Sep-06			28.9	5.94	5.84	5.85	91.6	89.5	8.0	18.6	2.9	2.7		5.5	
95	WWA2	M	MID-FLOOD	4-Sep-06	16:12	7.30	26.5	5.86	5.77	5.85	87.8	87.3	8.0	21.1	3.0	2.9	2.6	10.5	8.2
96	WWA2	B	MID-FLOOD	4-Sep-06			26.4	5.62	5.48	5.55	90.1	86.9	8.0	20.9	2.1	2.1		6.5	
97	WWA3	S	MID-FLOOD	4-Sep-06			29.7	5.90	5.79	5.80	89.7	86.3	8.1	16.8	2.8	2.9		5.0	
98	WWA3	M	MID-FLOOD	4-Sep-06	18:00	6.90	29.1	5.74	5.61	5.76	87.9	85.7	8.0	19.3	3.1	3.2	3.2	6.5	7.3
99	WWA3	B	MID-FLOOD	4-Sep-06			28.4	5.50	5.43	5.47	82.6	80.3	8.0	21.3	3.4	3.5		6.5	
100	WRA1	S	MID-FLOOD	4-Sep-06			29.3	5.97	5.90	5.87	94.4	90.3	8.0	17.6	3.8	3.7		4.5	
101	WRA1	M	MID-FLOOD	4-Sep-06	16:38	27.10	27.1	5.84	5.76	5.80	86.1	84.9	8.0	28.5	3.7	3.5	3.6	5.0	
102	WRA1	B	MID-FLOOD	4-Sep-06			26.7	5.60	5.48	5.54	85.4	82.1	8.0	30.0	3.5	3.4	3.6	10.0	6.5
103	WRA2	S	MID-FLOOD	4-Sep-06			28.6	5.99	5.84	5.82	93.4	92.6	8.1	17.7	2.9	3.1		10.0	
104	WRA2	M	MID-FLOOD	4-Sep-06	16:53	25.90	27.2	5.80	5.64	5.82	86.7	84.8	8.1	29.6	3.2	3.7	3.4	12.5	12.5
105	WRA2	B	MID-FLOOD	4-Sep-06			26.8	5.60	5.49	5.55	85.6	81.6	8.1	30.1	3.7	3.6		11.0	
106	WRA3	S	MID-FLOOD	4-Sep-06			28.7	5.92	5.80	5.80	93.3	89.6	8.1	18.2	4.1	4.2		14.0	
107	WRA3	M	MID-FLOOD	4-Sep-06	17:07	24.30	27.4	5.82	5.65	5.80	86.3	84.9	8.1	27.2	4.2	4.3	4.2	15.5	13.5
108	WRA3	B	MID-FLOOD	4-Sep-06			26.7	5.60	5.43	5.52	82.6	80.8	8.1	30.1	4.2	4.1		5.5	
109	WWFCZ1	S	MID-FLOOD	4-Sep-06			29.1	5.82	5.84	5.80	94.4	92.8	8.1	17.7	2.9	2.9		13.0	
110	WWFCZ1	M	MID-FLOOD	4-Sep-06	17:45	33.80	27.4	5.77	5.65	5.80	88.3	84.0	8.1	28.3	3.1	3.1	3.1	9.0	9.2
111	WWFCZ1	B	MID-FLOOD	4-Sep-06			26.8	5.61	5.50	5.56	86.2	82.9	8.1	30.1	3.1	3.5	3.1	10.5	
112	WWFCZ2	S	MID-FLOOD	4-Sep-06			29.3	5.84	5.72	5.69	91.8	90.1	8.1	17.5	3.9	3.8		5.5	
113	WWFCZ2	M	MID-FLOOD	4-Sep-06	17:32	32.90	28.0	5.63	5.58	5.69	86.2	82.1	8.0	24.0	3.5	3.6	3.9	5.5	7.2
114	WWFCZ2	B	MID-FLOOD	4-Sep-06			27.0	5.30	5.43	5.37	84.4	81.5	8.0	29.4	4.2	4.2		10.5	
115	WFCZR1	S	MID-FLOOD	4-Sep-06			29.3	5.87	5.81	5.77	99.9	83.2	8.0	18.3	3.2	3.3		8.5	
116	WFCZR1	M	MID-FLOOD	4-Sep-06	17:58	35.10	27.1	5.74	5.65	5.77	86.5	82.6	8.0	29.5	2.8	2.9	2.9	7.5	8.8
117	WFCZR1	B	MID-FLOOD	4-Sep-06			26.7	5.51	5.44	5.48	86.0	81.5	8.0	29.8	2.6	2.7		5.5	
118	WFCZR2	S	MID-FLOOD	4-Sep-06			29.6	5.83	5.70	5.71	93.6	91.0	8.1	17.4	3.5	3.6		6.0	
119	WFCZR2	M	MID-FLOOD	4-Sep-06	17:20	36.80	27.3	5.72	5.58	5.45	87.5	86.1	8.0	28.0	3.8	3.8	3.7	14.0	9.2
120	WFCZR2	B	MID-FLOOD	4-Sep-06			26.4	5.48	5.42	5.45	84.0	82.1	8.0	30.4	3.9	3.8		6.0	
121	WWA1	S	MID-EBB	6-Sep-06			28.1	5.94	5.91	5.87	93.1	90.6	8.0	24.1	2.6	2.6		11.5	
122	WWA1	M	MID-EBB	6-Sep-06	11:20	6.80	27.9	5.84	5.80	5.87	86.2	84.0	8.0	25.3	3.4	3.4	3.2	9.5	9.0
123	WWA1	B	MID-EBB	6-Sep-06			27.9	5.70	5.49	5.60	82.4	80.6	8.0	24.9	3.7	3.6		6.0	
124	WWA2	S	MID-EBB	6-Sep-06			28.0	5.88	5.84	5.78	90.4	86.6	8.0	23.6	2.6	2.6		6.0	
125	WWA2	M	MID-EBB	6-Sep-06	11:10	9.20	27.9	5.72	5.66	5.78	86.1	84.4	8.0	23.7	3.6	3.2	3.0	7.0	6.3
126	WWA2	B	MID-EBB	6-Sep-06			27.9	5.63	5.51	5.57	83.2	80.6	8.1	26.9	2.9	3.0		7.0	
127	WWA3	S	MID-EBB	6-Sep-06			27.9	5.95	5.89	5.84	82.2	88.5	8.0	22.7	2.8	2.9		4.5	
128	WWA3	M	MID-EBB	6-Sep-06	11:00	6.50	27.8	5.82	5.70	5.84	84.4	82.3	8.0	24.2	3.8	3.3	3.4	15.0	8.8
129	WWA3	B	MID-EBB	6-Sep-06			27.5	5.63	5.45	5.54	85.3	79.3	8.0	24.0	3.9	3.4		4.0	
130	WRA1	S	MID-EBB	6-Sep-06			28.8	5.88	5.76	5.71	92.9	89.9	8.1	19.2	2.3	2.2		7.0	
131	WRA1	M	MID-EBB	6-Sep-06	11:32	26.00	27.0	5.64	5.56	5.71	87.7	84.1	8.1	28.8	6.9	9.6	6.0	11.0	7.3
132	WRA1	B	MID-EBB	6-Sep-06			26.2	5.52	5.41	5.47	89.1	82.2	8.1	30.4	6.5	6.2		6.5	
133	WRA2	S	MID-EBB	6-Sep-06			28.9	5.86	5.80	5.80	89.8	86.2	8.1	19.5	3.2	3.4			

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HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring & Audit Service
Marine Water Quality Impact Monitoring - September 2006

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
134	WRA2	M	MID-EBB	6-Sep-06	11:44	22.40	28.1	5.77	5.64	5.77	84.9	82.6	8.1	22.8	3.4	3.1	4.7	6.5	8.0
135	WRA2	B	MID-EBB	6-Sep-06			26.3	5.58	5.45	5.52	84.1	80.6	8.1	30.7	8.1	7.2		11.0	
136	WRA3	S	MID-EBB	6-Sep-06			26.6	5.89	5.80	5.77	84.8	86.2	8.1	19.9	2.9	2.6		3.5	
137	WRA3	M	MID-EBB	6-Sep-06	11:56	23.00	27.3	5.76	5.64	5.77	85.9	84.2	8.1	26.2	4.5	4.6	4.3	3.5	6.5
138	WRA3	B	MID-EBB	6-Sep-06			26.6	5.59	5.43	5.51	82.6	80.1	8.1	28.9	5.4	5.6		12.5	
139	WWFCZ1	S	MID-EBB	6-Sep-06			28.4	5.93	5.85	5.84	91.4	87.6	8.1	20.7	2.4	2.3		6.5	
140	WWFCZ1	M	MID-EBB	6-Sep-06	12:35	33.70	26.6	5.87	5.69	5.84	88.1	84.6	8.1	29.8	5.3	5.3	3.7	9.0	7.2
141	WWFCZ1	B	MID-EBB	6-Sep-06			26.8	5.54	5.43	5.49	83.9	80.0	8.1	26.6	3.2	3.4		6.0	
142	WWFCZ2	S	MID-EBB	6-Sep-06			28.8	5.86	5.82	5.78	90.4	87.6	8.1	19.7	2.6	2.5		6.5	
143	WWFCZ2	M	MID-EBB	6-Sep-06	12:23	34.10	28.1	5.76	5.69	5.78	86.2	83.6	8.1	22.8	2.9	3.5	3.3	17.0	15.8
144	WWFCZ2	B	MID-EBB	6-Sep-06			26.8	5.52	5.41	5.47	84.9	80.2	8.1	29.9	4.1	4.5		24.0	
145	WFCZR1	S	MID-EBB	6-Sep-06			26.5	5.86	5.81	5.76	88.8	85.3	8.1	19.9	2.7	2.6		6.0	
146	WFCZR1	M	MID-EBB	6-Sep-06	12:47	39.00	27.5	5.74	5.63	5.76	86.2	82.5	8.1	24.7	3.4	3.6	3.3	8.5	12.7
147	WFCZR1	B	MID-EBB	6-Sep-06			26.8	5.50	5.43	5.47	83.3	80.4	8.1	28.5	3.9	3.9		23.5	
148	WFCZR2	S	MID-EBB	6-Sep-06			29.2	5.91	5.86	5.84	92.4	87.9	8.0	19.5	2.5	3.4		6.5	
149	WFCZR2	M	MID-EBB	6-Sep-06	12:10	38.30	27.0	5.82	5.76	5.84	84.9	83.6	8.1	29.4	4.5	4.3	4.2	12.0	14.2
150	WFCZR2	B	MID-EBB	6-Sep-06			26.5	5.51	5.43	5.47	83.3	81.6	8.1	29.0	5.2	5.6		24.0	
151	WWA1	S	MID-FLOOD	6-Sep-06	16:05	8.00	29.1	5.92	5.85	5.78	92.0	87.6	8.2	19.7	4.0	4.1	3.9	7.5	8.2
152	WWA1	M	MID-FLOOD	6-Sep-06			29.0	5.70	5.65	5.52	86.6	83.4	8.1	20.2	3.9	3.7		9.5	
153	WWA1	B	MID-FLOOD	6-Sep-06			29.0	5.59	5.44	5.52	84.6	81.2	8.1	20.4	4.2	3.7		7.5	
154	WWA2	S	MID-FLOOD	6-Sep-06			28.1	5.98	5.90	5.82	94.0	89.5	8.1	19.8	3.1	3.2		11.5	
155	WWA2	M	MID-FLOOD	6-Sep-06	15:55	12.20	29.2	5.74	5.67	5.82	89.0	86.2	8.1	19.7	4.3	3.7	3.6	11.5	11.7
156	WWA2	B	MID-FLOOD	6-Sep-06			29.1	5.62	5.50	5.56	84.0	82.1	8.1	19.7	3.4	3.6		12.0	
157	WWA3	S	MID-FLOOD	6-Sep-06			29.2	5.96	5.90	5.80	91.0	86.4	8.1	19.0	4.4	3.4		7.0	
158	WWA3	M	MID-FLOOD	6-Sep-06	15:45	7.40	28.9	5.78	5.69	5.83	87.1	85.4	8.1	19.7	4.3	3.9	3.9	8.5	7.7
159	WWA3	B	MID-FLOOD	6-Sep-06			28.9	5.53	5.42	5.48	86.0	81.6	8.1	19.7	3.9	3.4		7.5	
160	WRA1	S	MID-FLOOD	6-Sep-06			29.0	5.95	5.86	5.79	91.6	88.3	8.1	19.0	3.8	3.5		4.5	
161	WRA1	M	MID-FLOOD	6-Sep-06	16:17	29.50													

HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau – Environmental Monitoring & Audit Service
Marine Water Quality Impact Monitoring - September 2006

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
178	WFCZ2	S	MID-FLOOD	8-Sep-06	16:53	41.10	29.2	5.99	5.91	5.85	91.1	87.7	8.1	18.5	3.3	3.2	5.2	4.5	8.5
179	WFCZ2	M	MID-FLOOD	8-Sep-06			27.9	5.80	5.70		86.9	84.8	8.2	23.9	6.0	6.1		10.0	
180	WFCZ2	B	MID-FLOOD	8-Sep-06			27.1	5.60	5.51		85.0	80.6	8.2	27.1	6.4	6.4		11.0	
181	WWA1	S	MID-EBB	8-Sep-06	13:50	6.90	27.5	5.87	5.80	5.78	91.3	88.0	8.0	25.7	5.1	5.5	5.6	12.5	13.3
182	WWA1	M	MID-EBB	8-Sep-06			27.5	5.76	5.68		86.6	83.9	8.0	25.9	6.0	6.4		13.5	
183	WWA1	B	MID-EBB	8-Sep-06			27.3	5.59	5.43		85.1	82.0	8.0	26.8	5.0	5.3		14.0	
184	WWA2	S	MID-EBB	8-Sep-06	13:40	8.90	27.4	5.96	5.92	5.87	93.6	90.9	8.0	25.7	6.0	6.3	6.3	12.0	14.3
185	WWA2	M	MID-EBB	8-Sep-06			27.4	5.88	5.72		91.7	89.1	8.0	25.8	6.9	6.1		17.5	
186	WWA2	B	MID-EBB	8-Sep-06			27.4	5.60	5.48		86.0	84.2	8.0	25.8	6.3	6.4		13.5	
187	WWA3	S	MID-EBB	8-Sep-06	13:30	6.70	27.4	5.87	5.76	5.73	92.2	87.0	8.0	25.6	4.7	4.2	6.0	14.5	17.3
188	WWA3	M	MID-EBB	8-Sep-06			27.4	5.72	5.57		85.7	82.8	8.0	25.8	6.7	6.5		19.5	
189	WWA3	B	MID-EBB	8-Sep-06			27.4	5.60	5.50		83.7	80.9	8.0	25.7	6.9	6.8		18.0	
190	WRA1	S	MID-EBB	8-Sep-06	14:04	26.70	27.9	5.97	5.91	5.85	94.0	90.8	8.1	24.0	4.5	4.4	7.1	9.0	13.0
191	WRA1	M	MID-EBB	8-Sep-06			27.0	5.80	5.71		86.1	85.4	8.1	27.5	7.1	8.0		14.5	
192	WRA1	B	MID-EBB	8-Sep-06			26.9	5.66	5.47		84.4	80.7	8.1	28.0	9.3	9.3		15.5	
193	WRA2	S	MID-EBB	8-Sep-06	14:16	23.00	27.6	5.85	5.76	5.71	87.7	86.4	8.1	24.2	4.2	4.4	6.7	7.5	8.8
194	WRA2	M	MID-EBB	8-Sep-06			27.1	5.69	5.54		86.0	83.1	8.1	27.0	7.9	7.7		8.5	
195	WRA2	B	MID-EBB	8-Sep-06			26.8	5.52	5.43		85.7	81.6	8.1	26.4	8.2	8.0		10.5	
196	WRA3	S	MID-EBB	8-Sep-06	14:28	23.60	27.8	5.88	5.74	5.46	89.3	87.0	8.1	24.0	3.0	3.0	7.4	6.5	12.7
197	WRA3	M	MID-EBB	8-Sep-06			27.3	5.70	5.61		85.8	83.2	8.1	26.2	9.1	9.2		13.5	
198	WRA3	B	MID-EBB	8-Sep-06			26.5	5.52	5.46		84.0	81.1	8.1	28.6	10.2	9.6		18.0	
199	WWFCZ1	S	MID-EBB	8-Sep-06	15:10	34.60	27.7	5.83	5.76	5.73	90.2	88.5	8.2	24.0	4.8	4.8	6.4	7.0	10.0
200	WWFCZ1	M	MID-EBB	8-Sep-06			27.2	5.71	5.60		87.0	83.4	8.2	26.2	4.9	5.1		7.5	
201	WWFCZ1	B	MID-EBB	8-Sep-06			26.9	5.51	5.42		84.0	80.7	8.2	27.2	9.1	9.6		15.5	
202	WWFCZ2	S	MID-EBB	8-Sep-06	14:53	33.70	28.0	5.93	5.86	5.78	91.2	87.9	8.2	23.6	4.0	4.1	5.7	4.0	7.0
203	WWFCZ2	M	MID-EBB	8-Sep-06			27.1	5.72	5.66		85.3	82.6	8.2	26.6	6.4	6.5		8.0	
204	WWFCZ2	B	MID-EBB	8-Sep-06			26.8	5.61	5.50		83.0	80.7	8.2	25.5	6.6	6.7		9.0	
205	WFCZ2R1	S	MID-EBB	8-Sep-06	15:23	39.50	27.8	5.88	5.71	5.74	89.2	83.9	8.2	24.0	5.2	5.1	7.9	8.0	10.3
206	WFCZ2R1	M	MID-EBB	8-Sep-06			27.2	5.74	5.62		85.6	82.6	8.2	26.2	7.2	7.4		10.5	
207	WFCZ2R1	B	MID-EBB	8-Sep-06			26.8	5.53	5.46		83.0	80.6	8.2	26.7	11.0	11.5		12.5	
208	WFCZ2R2	S	MID-EBB	8-Sep-06	14:40	39.40	27.8	5.91	5.84	5.77	93.6	90.3	8.2	23.8	4.6	4.5	6.2	8.0	11.2
209	WFCZ2R2	M	MID-EBB	8-Sep-06			27.2	5.74	5.60		86.2	83.8	8.2	25.9	8.3	7.9		9.5	
210	WFCZ2R2	B	MID-EBB	8-Sep-06			26.9	5.53	5.44		81.0	80.0	8.2	26.5	5.9	6.0		16.0	
211	WWA1	S	MID-FLOOD	8-Sep-06	9:50	7.70	26.9	5.92	5.76	5.81	88.6	83.2	8.1	27.7	3.1	3.7	4.3	3.0	4.8
212	WWA1	M	MID-FLOOD	8-Sep-06			26.6	5.86	5.71		86.9	81.9	8.1	28.9	4.9	5.0		5.0	
213	WWA1	B	MID-FLOOD	8-Sep-06			26.6	5.82	5.46		84.6	80.2	8.1	28.8	4.9	4.5		6.5	
214	WWA2	S	MID-FLOOD	8-Sep-06	9:40	11.80	26.8	5.84	5.76	5.71	89.1	84.3	8.1	27.9	3.7	3.8	4.0	9.5	11.3
215	WWA2	M	MID-FLOOD	8-Sep-06			26.5	5.65	5.60		85.0	81.5	8.1	28.7	4.1	4.0		12.0	
216	WWA2	B	MID-FLOOD	8-Sep-06			26.3	5.51	5.43		83.3	80.1	8.1	29.1	4.0	4.4		12.5	
217	WWA3	S	MID-FLOOD	8-Sep-06	9:30	7.10	26.8	5.86	5.80	5.76	89.6	83.6	8.1	25.4	3.7	3.5	4.2	4.5	6.5
218	WWA3	M	MID-FLOOD	8-Sep-06			26.5	5.76	5.63		88.4	84.0	8.1	28.6	4.7	5.0		8.0	
219	WWA3	B	MID-FLOOD	8-Sep-06			26.5	5.61	5.43		86.2	80.8	8.1	28.9	4.0	4.4		7.0	
220	WRA1	S	MID-FLOOD	8-Sep-06	10:05	31.40	27.0	5.89	5.76	5.78	91.6	87.9	8.1	27.2	4.4	4.5	5.0	4.5	8.5
221	WRA1	M	MID-FLOOD	8-Sep-06			26.6	5.82	5.66		85.3	81.0	8.1	29.3	5.0	5.0		8.5	

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Marine Water Quality Impact Monitoring - September 2006

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
222	WRA1	B	MID-FLOOD	8-Sep-06	10:17	25.20	26.3	5.68	5.50	5.59	84.3	80.2	8.1	28.8	5.1	5.4	6.6	7.5	10.8
223	WRA2	S	MID-FLOOD	8-Sep-06			26.7	5.87	5.79		90.6	87.2	8.1	28.1	4.5	4.6		8.0	
224	WRA2	M	MID-FLOOD	8-Sep-06			26.4	5.82	5.69		84.6	82.4	8.1	29.6	6.5	6.6		11.5	
225	WRA2	B	MID-FLOOD	8-Sep-06	10:29	25.70	26.1	5.56	5.45	5.51	83.6	80.6	8.1	30.1	8.5	8.6	4.9	13.0	9.2
226	WRA3	S	MID-FLOOD	8-Sep-06			26.7	5.66	5.77		92.2	88.7	8.1	27.8	4.1	3.9		6.0	
227	WRA3	M	MID-FLOOD	8-Sep-06			26.4	5.58	5.49		86.2	82.5	8.1	29.4	5.3	5.5		13.0	
228	WRA3	B	MID-FLOOD	8-Sep-06	11:09	36.30	26.3	5.52	5.41	5.47	83.9	80.5	8.1	29.7	5.7	5.1	5.5	8.5	10.0
229	WWFCZ1	S	MID-FLOOD	8-Sep-06			26.8	5.90	5.81		92.0	87.8	8.2	28.0	4.5	5.3		8.0	
230	WWFCZ1	M	MID-FLOOD	8-Sep-06			26.2	5.72	5.64		86.1	82.0	8.2	29.9	6.4	6.1		10.0	
231	WWFCZ1	B	MID-FLOOD	8-Sep-06	10:53	37.00	26.4	5.66	5.50	5.71	84.6	80.8	8.2	30.0	5.5	5.4	5.8	12.0	10.0
232	WWFCZ2	S	MID-FLOOD	8-Sep-06			26.8	5.84	5.71		90.0	86.4	8.2	27.8	5.2	5.3		10.5	
233	WWFCZ2	M	MID-FLOOD	8-Sep-06			26.3	5.68	5.59		85.3	82.9	8.2	29.6	6.3	6.0		17.5	
234	WWFCZ2	B	MID-FLOOD	8-Sep-06	11:22	42.00	26.2	5.49	5.40	5.45	82.5	80.4	8.2	29.6	6.1	6.1	8.5	15.5	14.5
235	WFCZ2R1	S	MID-FLOOD	8-Sep-06			26.6	5.92	5.77		90.7	86.9	8.2	28.5	5.4	3.9		6.5	
236	WFCZ2R1	M	MID-FLOOD	8-Sep-06			26.2	5.80	5.67		84.6	81.8	8.2	29.5	10.6	10.3		20.0	
237	WFCZ2R1	B	MID-FLOOD	8-Sep-06	10:41	41.40	26.2	5.59	5.41	5.50	83.6	80.7	8.2	29.6	10.6	10.1	4.5	19.0	15.8
238	WFCZ2R2	S	MID-FLOOD	8-Sep-06			26.9	5.90	5.87		93.0	86.3	8.2	27.9	5.2	5.6		8.0	
239	WFCZ2R2	M	MID-FLOOD	8-Sep-06			26.5	5.74	5.67		87.6	84.4	8.2	29.1	3.2	3.2		10.5	
240	WFCZ2R2	B	MID-FLOOD	8-Sep-06	14:22	6.60	26.1	5.65	5.51	5.58	83.0	80.2	8.2	30.2	5.0	5.2	4.2	20.0	12.8
241	WWA1	S	MID-EBB	12-Sep-06			24.7	5.95	5.86		93.7	90.2	8.1	31.7	5.0	4.9		7.0	
242	WWA1	M	MID-EBB	12-Sep-06			24.6	5.79	5.59		86.0	84.3	8.1	31.7	4.2	4.2		10.5	
243	WWA1	B	MID-EBB	12-Sep-06	14:11	9.00	24.5	5.53	5.43	5.68	84.8	80.7	8.1	31.7	4.5	4.4	4.5	12.0	9.8
244	WWA2	S	MID-EBB	12-Sep-06			24.2	5.84	5.76		92.4	87.8	8.1	31.8	5.3	5.2		9.5	
245	WWA2	M	MID-EBB	12-Sep-06			24.4	5.60	5.52		86.6	83.9	8.1	31.8	4.4	4.4		8.0	
246	WWA2	B	MID-EBB	12-Sep-06	14:00	6.30	24.4	5.54	5.43	5.49	84.0	82.1	8.1	31.7	5.0	5.2	4.9	9.0	8.8
247	WWA3	S	MID-EBB	12-Sep-06			24.3	5.94	5.80		95.0	88.2	8.1	31.3	4.1	4.0		10.0	
248	WWA3	M	MID-EBB	12-Sep-06			24.3	5.70	5.57		89.6	87.4	8.1	31.6	4.4	4.3		13.5	
249	WWA3	B	MID-EBB	12-Sep-06	14:34	27.30	24.2	5.52	5.41	5.75	83.5	80.7	8.1	31.7	4.2	4.2	4.2	11.5	11.7
250	WRA1	S	MID-EBB	12-Sep-06			24.7	5.94	5.80		96.4	90.9	8.1	31.6	3.9	4.0		7.5	
251	WRA1	M	MID-EBB	12-Sep-06			24.5	5.71	5.60		87.6	84.5	8.1	31.8	4.0	4.1		7.5	
252	WRA1	B	MID-EBB	12-Sep-06	14:46	21.40	24.6	5.55	5.43	5.49	83.9	80.6	8.1	31.6	3.8	3.9	3.9	9.5	6.2
253	WRA2	S	MID-EBB	12-Sep-06			24.4	5.92	5.86		94.0	90.1	8.1	31.9	3.8	3.9		7.5	
254																			

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Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
266	WFCZ1	M	MID-EBB	12-Sep-06	15:49	38.90	24.3	5.76	5.63	5.79	87.3	83.2	8.1	31.5	5.5	5.6		12.5	
267	WFCZ1	B	MID-EBB	12-Sep-06			24.4	5.58	5.42	5.50	84.5	81.4	8.1	31.7	5.3	5.3	5.6	6.0	9.3
268	WFCZ2	S	MID-EBB	12-Sep-06			24.4	5.97	5.88		98.3	91.9	8.1	30.6	4.4	4.4		7.5	
269	WFCZ2	M	MID-EBB	12-Sep-06	15:12	38.20	24.3	5.80	5.69	5.84	86.7	84.6	8.1	31.4	5.9	5.9		10.0	
270	WFCZ2	B	MID-EBB	12-Sep-06			25.9	5.54	5.46	5.50	86.3	82.0	8.1	31.8	5.6	5.7	5.3	12.0	9.8
271	WWA1	S	MID-FLOOD	12-Sep-06			24.5	5.97	5.90		92.4	86.6	8.0	30.9	4.6	4.5		11.5	
272	WWA1	M	MID-FLOOD	12-Sep-06	10:20	7.80	24.3	5.74	5.68	5.82	86.2	83.7	8.0	31.1	5.2	5.3	4.9	21.0	15.7
273	WWA1	B	MID-FLOOD	12-Sep-06			24.1	5.60	5.47	5.54	84.0	80.7	8.0	31.2	4.7	4.8		14.5	
274	WWA2	S	MID-FLOOD	12-Sep-06			24.4	5.90	5.80		93.0	87.4	8.0	31.3	5.1	5.4		10.0	
275	WWA2	M	MID-FLOOD	12-Sep-06	10:10	11.90	24.3	5.63	5.57	5.73	88.0	84.0	8.0	31.1	5.9	5.7		11.5	
276	WWA2	B	MID-FLOOD	12-Sep-06			24.2	5.49	5.42	5.46	85.3	82.1	8.0	31.2	5.1	5.3	5.4	13.0	11.5
277	WWA3	S	MID-FLOOD	12-Sep-06			24.6	5.99	5.90		92.0	90.4	8.0	31.6	4.2	4.5		11.0	
278	WWA3	M	MID-FLOOD	12-Sep-06	10:00	7.50	24.3	5.72	5.63	5.81	87.4	84.4	8.0	31.4	5.1	5.0		13.0	
279	WWA3	B	MID-FLOOD	12-Sep-06			24.0	5.50	5.43	5.47	82.9	81.0	8.0	31.2	5.3	5.2	4.9	14.0	12.7
280	WRA1	S	MID-FLOOD	12-Sep-06			24.4	5.84	5.76		94.0	92.4	8.1	31.6	4.1	4.3		15.0	
281	WRA1	M	MID-FLOOD	12-Sep-06	10:33	32.00	24.0	5.66	5.59	5.71	86.7	83.2	8.1	31.5	3.6	3.7	3.9	13.0	12.2
282	WRA1	B	MID-FLOOD	12-Sep-06			24.0	5.53	5.42	5.48	84.4	80.8	8.1	31.4	3.9	4.1		8.5	
283	WRA2	S	MID-FLOOD	12-Sep-06			24.2	5.96	5.87		93.5	90.9	8.1	31.2	3.4	3.6		13.5	
284	WRA2	M	MID-FLOOD	12-Sep-06	10:46	25.30	24.0	5.62	5.69	5.84	89.7	86.3	8.1	31.3	4.0	3.8		12.5	
285	WRA2	B	MID-FLOOD	12-Sep-06			23.8	5.63	5.50	5.57	84.0	81.7	8.1	31.3	4.1	3.9	3.8	15.0	13.7
286	WRA3	S	MID-FLOOD	12-Sep-06			24.2	5.88	5.82		96.0	91.4	8.1	31.6	4.2	4.1		13.5	
287	WRA3	M	MID-FLOOD	12-Sep-06	10:59	24.20	23.8	5.76	5.63	5.77	87.7	84.3	8.1	31.6	5.3	5.2		15.0	
288	WRA3	B	MID-FLOOD	12-Sep-06			23.7	5.56	5.45	5.51	82.6	80.4	8.1	31.2	4.6	4.8	4.7	15.5	14.7
289	WWFCZ1	S	MID-FLOOD	12-Sep-06			24.6	5.94	5.86		93.6	90.1	8.1	31.4	4.3	4.5		10.5	
290	WWFCZ1	M	MID-FLOOD	12-Sep-06	11:38	34.60	24.5	5.70	5.65	5.79	88.2	84.0	8.1	31.6	6.3	6.2	5.5	25.0	18.7
291	WWFCZ1	B	MID-FLOOD	12-Sep-06			24.7	5.54	5.44	5.49	82.6	80.8	8.1	31.2	5.9	5.7		20.5	
292	WWFCZ2	S	MID-FLOOD	12-Sep-06			24.2	5.86	5.72		91.6	88.7	8.0	31.3	4.8	4.7		14.0	
293	WWFCZ2	M	MID-FLOOD	12-Sep-06	11:25	35.50	23.8	5.67	5.59	5.71	85.0	82.6	8.0	31.2	5.4	5.3	5.1	15.5	17.3
294	WWFCZ2	B	MID-FLOOD	12-Sep-06			24.2	5.49	5.42	5.46	84.4	80.7	8.0	31.2	5.1	5.2		22.5	
295	WFCZ1	S	MID-FLOOD	12-Sep-06			24.4	5.89	5.82		93.6	87.6	8.0	31.6	5.5	5.4		36.0	
296	WFCZ1	M	MID-FLOOD	12-Sep-06	11:50	42.60	24.2	5.74	5.67	5.78	86.9	84.2	8.0	31.5	5.0	4.9	4.9	26.0	
297	WFCZ1	B	MID-FLOOD	12-Sep-06			23.8	5.60	5.47	5.54	83.6	80.7	8.0	31.4	4.2	4.4	4.9	33.0	31.7
298	WFCZ2	S	MID-FLOOD	12-Sep-06			24.5	5.99	5.92		94.6	92.0	8.1	31.4	5.3	5.1		15.5	
299	WFCZ2	M	MID-FLOOD	12-Sep-06	11:12	43.00	24.5	5.80	5.72	5.86	86.7	84.1	8.1	31.4	5.5	5.3	5.0	21.5	
300	WFCZ2	B	MID-FLOOD	12-Sep-06			24.0	5.60	5.47	5.54	83.2	80.7	8.1	31.4	4.7	4.4		19.5	18.8
301	WWA1	S	MID-EBB	14-Sep-06			25.4	5.61	5.70		88.8	85.1	8.3	29.9	4.5	4.9		11.0	
302	WWA1	M	MID-EBB	14-Sep-06	9:20	6.50	25.3	5.61	5.54	5.67	87.0	82.4	8.3	29.6	5.6	5.2	5.2	10.5	10.8
303	WWA1	B	MID-EBB	14-Sep-06			25.3	5.52	5.40	5.46	85.7	80.9	8.3	29.9	4.9	6.1		11.0	
304	WWA2	S	MID-EBB	14-Sep-06			25.3	5.89	5.71		93.7	89.1	8.3	30.0	4.7	4.4		11.0	
305	WWA2	M	MID-EBB	14-Sep-06	9:10	8.90	25.1	5.67	5.55	5.71	85.7	82.1	8.3	29.9	4.2	4.3	4.2	12.5	11.0
306	WWA2	B	MID-EBB	14-Sep-06			25.4	5.59	5.41	5.50	83.0	80.4	8.3	29.4	4.0	3.6		9.5	
307	WWA3	S	MID-EBB	14-Sep-06			25.3	5.94	5.80		90.5	86.7	8.3	30.1	4.3	3.9		6.5	
308	WWA3	M	MID-EBB	14-Sep-06	9:00	6.30	25.3	5.76	5.51	5.75	87.3	82.9	8.3	30.1	4.6	4.8		8.0	
309	WWA3	B	MID-EBB	14-Sep-06			25.3	5.56	5.42	5.49	85.9	80.6	8.3	30.1	4.8	4.6	4.5	5.5	6.7

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Marine Water Quality Impact Monitoring - September 2006

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
310	WRA1	S	MID-EBB	14-Sep-06			25.4	5.97	5.81		88.2	86.1	8.3	29.0	3.7	3.7		4.5	
311	WRA1	M	MID-EBB	14-Sep-06	9:33	27.60	25.3	5.71	5.57	5.77	84.7	81.6	8.3	30.3	4.1	4.1	4.2	5.5	5.8
312	WRA1	B	MID-EBB	14-Sep-06			25.1	5.59	5.42	5.51	83.7	80.4	8.3	30.9	4.6	4.8		7.5	
313	WRA2	S	MID-EBB	14-Sep-06			25.4	5.93	5.81		90.6	85.5	8.3	29.4	4.4	4.1		6.0	
314	WRA2	M	MID-EBB	14-Sep-06	9:45	22.00	25.2	5.74	5.56	5.76	86.2	82.7	8.3	30.0	3.7	4.1		7.0	
315	WRA2	B	MID-EBB	14-Sep-06			25.2	5.50	5.40	5.45	85.1	80.6	8.3	30.7	3.1	2.9	3.7	6.0	7.0
316	WRA3	S	MID-EBB	14-Sep-06			25.5	5.91	5.80		92.2	86.7	8.3	29.0	3.6	4.2		6.0	
317	WRA3	M	MID-EBB	14-Sep-06	9:57	23.20	25.1	5.73	5.61	5.76	87.0	83.4	8.3	29.7	3.4	3.6	3.8	8.0	8.7
318	WRA3	B	MID-EBB	14-Sep-06			25.1	5.58	5.43	5.51	81.0	79.8	8.3	31.0	3.9	3.9		12.0	
319	WWFCZ1	S	MID-EBB	14-Sep-06			25.4	5.99	5.93		91.3	85.6	8.1	29.2	4.8	4.7		6.5	
320	WWFCZ1	M	MID-EBB	14-Sep-06	10:38	33.00	25.3	5.80	5.66	5.85	87.7	83.3	8.1	29.7	6.1	6.1	4.8	8.0	7.8
321	WWFCZ1	B	MID-EBB	14-Sep-06			25.2	5.68	5.42	5.55	85.3	81.0	8.1	30.6	3.8	3.5		9.0	
322	WWFCZ2	S	MID-EBB	14-Sep-06			25.5	5.86	5.70		92.4	88.2	8.2	29.2	4.5	4.6		9.0	
323	WWFCZ2	M	MID-EBB	14-Sep-06	10:25	32.00	25.3	5.71	5.58	5.71	86.0	82.9	8.2	30.5	3.6	3.8		9.0	
324	WWFCZ2	B	MID-EBB	14-Sep-06			25.2	5.60	5.42	5.51	84.0	80.7	8.2	30.7	3.3	3.6	3.9	13.5	10.5
325	WFCZ1	S	MID-EBB	14-Sep-06			25.4	5.89	5.76		94.0	90.3	8.2	29.2	4.3	4.7		6.0	
326	WFCZ1	M	MID-EBB	14-Sep-06	10:51	37.50	25.3	5.72	5.60	5.74	86.4	82.1	8.2	29.5	3.4	3.8	3.8	7.0	6.3
327	WFCZ1	B	MID-EBB	14-Sep-06			25.3	5.63	5.55	5.59	83.9	80.5	8.2	30.9	3.3	3.5		6.0	
328	WFCZ2	S	MID-EBB	14-Sep-06			25.4	5.93	5.83		90.6	87.2	8.3	29.1	4.8	4.7		12.0	
329	WFCZ2	M	MID-EBB	14-Sep-06	10:11	38.00	25.2	5.79	5.57	5.76	86.3	83.8	8.3	30.5	4.5	5.0		8.0	
330	WFCZ2	B	MID-EBB	14-Sep-06			25.0	5.62	5.48	5.55	84.4	80.1	8.3	31.0	5.0	4.9	4.6	14.0	11.3
331	WWA1	S	MID-FLOOD	14-Sep-06			25.4	5.87	5.70		88.0	83.9	8.2	30.8	5.4	4.4		6.5	
332	WWA1	M	MID-FLOOD	14-Sep-06	14:20	7.00	25.4	5.67	5.42	5.69	86.2	82.1	8.2	31.2	3.3	3.2	3.8	15.5	11.8
333	WWA1	B	MID-FLOOD	14-Sep-06			25.4	5.50	5.41	5.46	84.3	80.2	8.2	31.0	3.2	3.5		11.5	
334	WWA2	S	MID-FLOOD	14-Sep-06			25.3	5.90	5.74		90.1	85.5	8.2	30.9	4.0	4.5		16.0	
335	WWA2	M	MID-FLOOD	14-Sep-06	14:10	10.00	25.3	5.70	5.52	5.72	87.0	83.6	8.2	31.0	4.5	4.2	4.0	17.5	17.2
336	WWA2	B	MID-FLOOD	14-Sep-06			25.3	5.57	5.42	5.50	85.5	80.9	8.2	30.9	3.5	3.2		10.0	
337	WWA3	S	MID-FLOOD	14-Sep-06															

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Marine Water Quality Impact Monitoring - September 2006

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value	
354	WWFCZ2	B	MID-FLOOD	14-Sep-06	15:52	39.00	25.2	5.60	5.43	5.52	83.8	80.8	8.2	31.1	6.1	5.6	5.7	13.0	15.8	
355	WFCZR1	S	MID-FLOOD	14-Sep-06			25.9	5.94	5.74		96.7	90.6	8.1	30.4	5.7	4.9		11.0		
356	WFCZR1	M	MID-FLOOD	14-Sep-06			25.5	5.80	5.61		86.6	83.1	8.1	30.8	5.9	6.5		13.5		
357	WFCZR1	B	MID-FLOOD	14-Sep-06			25.3	5.60	5.45		84.6	80.7	8.1	30.9	6.3	6.8		10.5		
358	WFCZR2	S	MID-FLOOD	14-Sep-06	15:12	40.00	25.3	5.95	5.79	5.73	88.3	84.0	8.2	30.7	4.6	4.2	6.0	7.5	11.7	
359	WFCZR2	M	MID-FLOOD	14-Sep-06			25.2	5.67	5.50		86.1	82.6	8.2	32.8	5.0	5.6		8.5		
360	WFCZR2	B	MID-FLOOD	14-Sep-06			25.2	5.55	5.41		85.0	81.3	8.2	30.9	5.7	4.7		9.0		
361	WWA1	S	MID-EBB	16-Sep-06			25.9	5.95	5.87		95.1	88.0	8.2	29.8	2.0	2.2		5.5		
362	WWA1	M	MID-EBB	16-Sep-06	9:20	6.70	25.9	5.80	5.62	5.81	89.3	85.1	8.2	30.1	3.1	3.2	2.7	5.0	6.5	
363	WWA1	B	MID-EBB	16-Sep-06			25.9	5.64	5.56		86.0	82.0	8.2	30.1	3.0	2.7		9.0		
364	WWA2	S	MID-EBB	16-Sep-06			26.1	5.87	5.89		92.4	89.7	8.3	29.6	2.4	2.3		3.5		
365	WWA2	M	MID-EBB	16-Sep-06			25.9	5.80	5.65		86.1	82.8	8.3	30.7	3.3	3.1		6.0		
366	WWA2	B	MID-EBB	16-Sep-06	9:10	9.50	25.9	5.70	5.51	5.61	85.3	81.1	8.3	30.1	4.2	4.0	3.2	5.5	5.0	
367	WWA3	S	MID-EBB	16-Sep-06			26.0	5.93	5.76		91.8	86.9	8.3	26.7	3.0	3.1		13.5		
368	WWA3	M	MID-EBB	16-Sep-06			26.0	5.70	5.52		87.3	84.1	8.3	30.0	4.0	3.8		12.5		
369	WWA3	B	MID-EBB	16-Sep-06			25.9	5.57	5.44		85.0	82.4	8.3	30.1	2.9	2.8		13.0		
370	WRA1	S	MID-EBB	16-Sep-06	9:00	6.60	26.1	5.99	5.90	5.51	89.6	87.1	8.2	27.8	3.1	3.1	3.3	4.0	13.0	
371	WRA1	M	MID-EBB	16-Sep-06			25.7	5.65	5.71		87.5	84.1	8.2	29.6	3.7	3.5		9.0		
372	WRA1	B	MID-EBB	16-Sep-06			25.6	5.62	5.41		84.6	80.9	8.2	30.1	3.0	3.2		3.3		10.5
373	WRA2	S	MID-EBB	16-Sep-06			26.2	5.89	5.71		89.3	84.7	8.2	30.1	3.1	3.2		6.0		
374	WRA2	M	MID-EBB	16-Sep-06	9:46	22.50	25.6	5.64	5.50	5.69	86.0	83.7	8.2	30.1	4.5	4.3	3.8	9.0	8.5	
375	WRA2	B	MID-EBB	16-Sep-06			25.4	5.56	5.42		85.9	82.0	8.2	30.1	3.8	4.0		6.5		
376	WRA3	S	MID-EBB	16-Sep-06			26.0	5.87	5.76		88.9	85.7	8.3	29.6	2.8	3.3		8.5		
377	WRA3	M	MID-EBB	16-Sep-06			25.8	5.60	5.49		86.0	84.1	8.3	30.9	4.2	4.5		10.0		
378	WRA3	B	MID-EBB	16-Sep-06	9:59	22.00	25.6	5.54	5.43	5.49	86.0	84.1	8.2	31.1	4.0	3.9	3.8	9.0	9.2	
379	WWFCZ1	S	MID-EBB	16-Sep-06			26.3	5.93	5.76		94.0	87.6	8.3	28.6	2.6	2.8		4.5		
380	WWFCZ1	M	MID-EBB	16-Sep-06			25.6	5.72	5.59		89.3	84.3	8.3	30.9	3.2	3.1		8.5		
381	WWFCZ1	B	MID-EBB	16-Sep-06			25.4	5.64	5.46		84.1	80.7	8.3	30.8	3.4	2.8		3.0		7.0
382	WWFCZ2	S	MID-EBB	16-Sep-06	10:41	32.00	26.1	5.91	5.76	5.75	91.7	87.2	8.3	28.1	1.8	1.8	3.0	8.5	6.7	
383	WWFCZ2	M	MID-EBB	16-Sep-06			25.5	5.70	5.57		88.0	83.6	8.3	30.0	1.9	1.9		3.3		
384	WWFCZ2	B	MID-EBB	16-Sep-06			25.3	5.50	5.43		86.0	83.1	8.3	32.0	4.6	4.3		2.7		7.0
385	WFCZR1	S	MID-EBB	16-Sep-06			26.3	5.87	5.71		92.5	89.6	8.3	30.9	2.1	2.3		9.5		
386	WFCZR1	M	MID-EBB	16-Sep-06	18:55	39.00	25.6	5.67	5.50	5.69	84.9	83.1	8.3	30.9	3.4	3.3	2.9	9.5	8.5	
387	WFCZR1	B	MID-EBB	16-Sep-06			25.4	5.53	5.41		85.0	80.8	8.3	30.9	3.0	3.4		6.5		
388	WFCZR2	S	MID-EBB	16-Sep-06			26.2	5.89	5.70		90.0	87.2	8.3	27.0	2.3	2.2		3.5		
389	WFCZR2	M	MID-EBB	16-Sep-06			25.7	5.67	5.50		85.7	83.0	8.3	29.6	2.1	2.0		3.5		
390	WFCZR2	B	MID-EBB	16-Sep-06	10:13	38.60	25.3	5.57	5.43	5.69	87.0	82.1	8.3	29.3	1.8	2.0	2.1	5.0	4.0	
391	WWA1	S	MID-FLOOD	16-Sep-06			26.8	5.88	5.67		91.0	87.6	8.3	27.0	3.2	3.0		8.0		
392	WWA1	M	MID-FLOOD	16-Sep-06			26.7	5.72	5.62		86.6	82.9	8.3	29.1	4.4	4.2		7.5		
393	WWA1	B	MID-FLOOD	16-Sep-06			26.7	5.60	5.46		83.3	80.1	8.3	29.1	3.8	3.7		3.7		6.0
394	WWA2	S	MID-FLOOD	16-Sep-06	14:40	11.10	26.7	5.84	5.71	5.70	92.0	86.0	8.3	30.0	3.0	3.2	3.3	7.5	9.6	
395	WWA2	M	MID-FLOOD	16-Sep-06			26.7	5.69	5.54		86.1	83.0	8.3	31.0	3.5	3.6		10.0		
396	WWA2	B	MID-FLOOD	16-Sep-06			26.7	5.50	5.40		84.9	80.0	8.3	29.8	3.1	3.2		12.0		
397	WWA3	S	MID-FLOOD	16-Sep-06			26.6	5.93	5.79		89.1	87.0	8.3	28.6	3.3	3.2		6.5		

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HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau – Environmental Monitoring & Audit Service
Marine Water Quality Impact Monitoring - September 2006

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value	
398	WWA3	M	MID-FLOOD	16-Sep-06	14:30	17.40	26.6	5.82	5.65	5.80	85.7	83.0	8.3	30.9	3.7	3.5	3.3	6.5	7.3	
399	WWA3	B	MID-FLOOD	16-Sep-06			26.6	5.61	5.47		85.0	81.9	8.3	31.5	3.1	3.0		9.0		
400	WRA1	S	MID-FLOOD	16-Sep-06			27.1	5.94	5.80		91.9	86.8	8.3	28.0	3.0	3.2		8.5		
401	WRA1	M	MID-FLOOD	16-Sep-06			26.8	5.82	5.60		87.5	84.2	8.3	30.1	2.7	2.6		7.0		
402	WRA1	B	MID-FLOOD	16-Sep-06	15:02	30.70	26.5	5.56	5.43	5.51	86.2	81.0	8.2	30.5	2.5	2.2	2.7	4.0	6.5	
403	WRA2	S	MID-FLOOD	16-Sep-06			27.2	5.87	5.76		86.9	83.6	8.2	28.8	2.6	2.8		3.5		
404	WRA2	M	MID-FLOOD	16-Sep-06			26.8	5.70	5.57		87.6	83.6	8.2	30.8	3.2	3.0		3.5		
405	WRA2	B	MID-FLOOD	16-Sep-06			26.4	5.61	5.47		85.1	80.7	8.2	31.5	3.1	3.1		3.0		6.0
406	WRA3	S	MID-FLOOD	16-Sep-06	15:29	24.20	27.2	5.83	5.71	5.68	88.9	84.1	8.3	27.6	3.2	3.1	3.0	5.5	4.3	
407	WRA3	M	MID-FLOOD	16-Sep-06			26.9	5.64	5.53		87.1	84.9	8.3	29.9	3.4	3.5		5.5		
408	WRA3	B	MID-FLOOD	16-Sep-06			26.6	5.58	5.41		86.1	80.6	8.3	30.0	3.3	3.3		3.3		6.0
409	WWFCZ1	S	MID-FLOOD	16-Sep-06			27.2	5.90	5.76		92.9	88.4	8.3	26.6	2.7	2.7		2.3		
410	WWFCZ1	M	MID-FLOOD	16-Sep-06	16:11	33.10	26.7	5.86	5.71	5.81	86.7	84.1	8.3	28.6	3.3	3.0	3.1	12.0	6.1	
411	WWFCZ1	B	MID-FLOOD	16-Sep-06			26.7	5.80	5.61		85.0	81.8	8.3	29.2	3.6	3.2		4.0		
412	WWFCZ2	S	MID-FLOOD	16-Sep-06			27.1	5.87	5.63		90.7	86.2	8.3	24.9	2.5	2.3		5.5		
413	WWFCZ2	M	MID-FLOOD	16-Sep-06			26.8	5.70	5.59		87.4	84.1	8.3	28.6	2.7	2.5		7.5		
414	WWFCZ2	B	MID-FLOOD	16-Sep-06	15:57	32.60	26.7	5.52	5.40	5.46	85.0	82.3	8.3	28.0	3.0	3.1	2.7	5.5	6.2	
415	WFCZR1	S	MID-FLOOD	16-Sep-06			27.0	5.91	5.80		89.3	86.4	8.3	27.1	2.6	2.4		6.8		
416	WFCZR1	M	MID-FLOOD	16-Sep-06			26.7	5.73	5.66		85.2	81.9	8.3	29.6	3.4	3.2		4.5		
417	WFCZR1	B	MID-FLOOD	16-Sep-06			26.6	5.62	5.43		84.8	81.0	8.3	28.9	3.2	3.3		3.0		4.0
418	WFCZR2	S	MID-FLOOD	16-Sep-06	15:43	41.10	27.0	5.90	5.71	5.76	88.8	84.0	8.3	26.8	2.7	2.5	3.0	3.5	5.1	
419	WFCZR2	M	MID-FLOOD	16-Sep-06			26.5	5.82	5.60		85.1	82.7	8.3	29.1	2.0	2.1		7.5		
420	WFCZR2	B	MID-FLOOD	16-Sep-06			26.5	5.59	5.45		84.4	80.6	8.3	30.7	2.4	2.2		2.3		7.0
421	WWA1	S	MID-EBB	18-Sep-06			26.0	5.91	5.77		93.2	87.1	8.3	31.8	1.7	1.7		9.0		
422	WWA1	M	MID-EBB	18-Sep-06	10:28	6.90	26.1	5.82	5.66	5.79	86.0	84.0	8.3	31.7	2.2	2.3	1.8	8.0	8.7	
423	WWA1	B	MID-EBB	18-Sep-06			25.8	5.54	5.42		83.3									

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Marine Water Quality Impact Monitoring - September 2006

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
442	WWFCZ2	S	MID-EBB	18-Sep-06	11:44	29.70	26.4	5.89	5.70	5.67	91.6	86.2	8.2	30.2	1.7	1.7	2.3	4.0	6.7
443	WWFCZ2	M	MID-EBB	18-Sep-06			26.1	5.60	5.46		85.4	82.7	8.2	31.6	2.6	2.6		7.5	
444	WWFCZ2	B	MID-EBB	18-Sep-06	12:13	38.50	26.0	5.50	5.42	5.46	83.0	78.8	8.2	31.9	2.5	2.5	2.3	8.5	6.7
445	WFCZR1	S	MID-EBB	18-Sep-06			26.0	5.90	5.74		92.2	88.1	8.2	31.9	2.1	2.4		5.5	
446	WFCZR1	M	MID-EBB	18-Sep-06	11:29	37.50	26.1	5.66	5.53	5.51	86.0	83.1	8.2	30.7	2.1	2.5	2.3	5.0	5.5
447	WFCZR1	B	MID-EBB	18-Sep-06			26.0	5.60	5.42		81.8	80.1	8.2	31.8	2.4	2.4		6.0	
448	WFCZR2	S	MID-EBB	18-Sep-06	11:29	37.50	26.3	5.95	5.87	5.66	96.4	90.6	8.2	30.3	1.4	1.7	2.0	4.5	4.8
449	WFCZR2	M	MID-EBB	18-Sep-06			26.4	5.42	5.39		86.2	80.9	8.2	30.6	2.9	2.6		3.5	
450	WFCZR2	B	MID-EBB	18-Sep-06	16:44	7.40	26.3	5.25	5.16	5.45	83.7	80.2	8.2	31.8	1.8	1.9	1.8	6.5	7.3
451	WWA1	S	MID-FLOOD	18-Sep-06			26.9	5.66	5.70		93.3	87.6	8.1	29.9	1.5	1.6		9.0	
452	WWA1	M	MID-FLOOD	18-Sep-06	16:29	8.60	26.7	5.66	5.51	5.69	85.0	83.0	8.1	30.0	2.1	2.1	2.8	6.5	8.2
453	WWA1	B	MID-FLOOD	18-Sep-06			26.6	5.48	5.41		82.6	80.0	8.1	30.1	1.9	1.8		8.0	
454	WWA2	S	MID-FLOOD	18-Sep-06	16:13	7.60	26.9	5.89	5.76	5.56	95.9	90.9	8.0	29.9	2.5	2.7	2.9	8.0	6.8
455	WWA2	M	MID-FLOOD	18-Sep-06			26.8	5.62	5.50		87.4	83.8	8.0	30.1	2.9	2.4		8.0	
456	WWA2	B	MID-FLOOD	18-Sep-06	16:58	20.50	26.7	5.56	5.40	5.50	84.2	80.1	8.0	30.1	3.0	3.2	2.9	8.5	9.0
457	WWA3	S	MID-FLOOD	18-Sep-06			27.0	5.94	5.82		90.6	88.2	8.1	30.0	3.2	3.5		6.0	
458	WWA3	M	MID-FLOOD	18-Sep-06	17:15	24.30	27.0	5.70	5.59	5.78	86.6	82.9	8.1	30.0	2.6	2.8	2.3	7.5	8.7
459	WWA3	B	MID-FLOOD	18-Sep-06			26.8	5.67	5.44		84.4	80.7	8.1	30.1	2.5	2.6		7.0	
460	WRA1	S	MID-FLOOD	18-Sep-06	17:27	22.70	27.2	5.92	5.71	5.48	91.1	86.6	8.0	29.8	1.5	1.5	1.4	12.5	5.8
461	WRA1	M	MID-FLOOD	18-Sep-06			26.4	5.61	5.54		87.7	83.8	8.0	31.8	3.3	3.5		6.0	
462	WRA1	B	MID-FLOOD	18-Sep-06	17:39	37.70	26.1	5.57	5.43	5.49	84.0	80.6	8.0	31.7	3.8	3.7	2.2	11.0	7.7
463	WRA2	S	MID-FLOOD	18-Sep-06			26.7	5.96	5.89		90.6	87.1	8.1	30.2	2.1	2.1		10.0	
464	WRA2	M	MID-FLOOD	18-Sep-06	18:06	39.80	26.2	5.80	5.72	5.72	86.0	83.6	8.1	31.3	2.5	2.6	2.6	8.5	8.8
465	WRA2	B	MID-FLOOD	18-Sep-06			26.1	5.60	5.44		85.6	81.4	8.1	31.7	2.2	2.3		7.5	
466	WRA3	S	MID-FLOOD	18-Sep-06	18:06	39.80	26.7	5.94	5.82	5.45	92.0	87.9	8.0	30.1	1.2	1.5	2.6	5.0	8.8
467	WRA3	M	MID-FLOOD	18-Sep-06			26.4	5.69	5.51		85.6	82.3	8.0	30.9	1.3	1.4		5.5	
468	WRA3	B	MID-FLOOD	18-Sep-06	17:53	30.80	26.2	5.54	5.41	5.48	83.9	80.6	8.0	31.7	1.4	1.4	1.9	7.0	6.8
469	WWFCZ1	S	MID-FLOOD	18-Sep-06			27.3	5.87	5.71		85.2	82.9	8.4	29.4	1.5	1.6		12.5	
470	WWFCZ1	M	MID-FLOOD	18-Sep-06	18:20	32.50	26.3	5.67	5.49	5.69	87.2	83.6	8.4	31.0	1.8	1.7	1.9	11.0	11.5
471	WWFCZ1	B	MID-FLOOD	18-Sep-06			26.1	5.54	5.41		85.0	81.0	8.4	31.3	2.2	2.6		9.0	
472	WWFCZ2	S	MID-FLOOD	18-Sep-06	17:53	30.80	27.1	5.99	5.93	5.84	93.0	89.4	8.3	30.1	1.6	1.5	1.9	9.0	6.8
473	WWFCZ2	M	MID-FLOOD	18-Sep-06			26.2	5.80	5.62		86.2	83.8	8.3	31.0	1.8	2.0		6.5	
474	WWFCZ2	B	MID-FLOOD	18-Sep-06	18:06	39.80	26.1	5.55	5.41	5.48	83.6	80.9	8.3	31.6	2.1	2.1	2.2	5.0	7.7
475	WFCZR1	S	MID-FLOOD	18-Sep-06			26.3	5.90	5.74		89.1	84.6	8.3	30.4	2.2	2.8		10.5	
476	WFCZR1	M	MID-FLOOD	18-Sep-06	17:39	37.70	26.2	5.69	5.54	5.72	86.2	82.7	8.3	31.0	2.6	2.4	2.6	3.8	8.8
477	WFCZR1	B	MID-FLOOD	18-Sep-06			26.1	5.50	5.40		84.6	80.3	8.3	31.4	2.8	2.5		12.0	
478	WFCZR2	S	MID-FLOOD	18-Sep-06	10:50	7.30	26.9	5.88	5.69	5.75	95.3	91.9	8.3	30.0	1.8	1.8	5.4	8.0	9.2
479	WFCZR2	M	MID-FLOOD	18-Sep-06			26.2	5.70	5.62		87.7	83.9	8.3	30.9	2.1	2.5		9.5	
480	WFCZR2	B	MID-FLOOD	18-Sep-06	10:40	8.70	26.1	5.57	5.41	5.52	84.1	81.6	8.3	31.4	2.3	2.6	2.2	5.5	9.0
481	WWA1	S	MID-EBB	20-Sep-06			26.5	5.94	5.76		87.3	84.0	8.4	30.1	5.6	5.6		8.0	
482	WWA1	M	MID-EBB	20-Sep-06	10:50	7.30	26.6	5.71	5.59	5.75	86.6	85.7	8.4	30.0	5.0	5.2	5.4	10.0	9.2
483	WWA1	B	MID-EBB	20-Sep-06			26.4	5.61	5.43		84.0	81.6	8.4	30.2	5.6	5.3		9.5	
484	WWA2	S	MID-EBB	20-Sep-06	10:40	8.70	26.8	5.87	5.69	5.67	89.5	84.9	8.4	30.1	4.5	4.2	2.2	6.5	9.0
485	WWA2	M	MID-EBB	20-Sep-06			26.7	5.62	5.49		85.7	83.6	8.4	30.2	5.0	4.7		8.5	

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Marine Water Quality Impact Monitoring - September 2006

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
486	WWA2	B	MID-EBB	20-Sep-06	10:20	7.90	26.5	5.58	5.41	5.50	84.6	81.3	8.4	30.0	4.8	4.6	4.6	10.5	8.5
487	WWA3	S	MID-EBB	20-Sep-06			26.5	5.93	5.79		91.7	87.2	8.4	15.9	4.0	4.1		5.5	
488	WWA3	M	MID-EBB	20-Sep-06	11:03	30.50	26.6	5.70	5.59	5.75	87.6	84.2	8.4	26.5	5.9	5.0	4.6	11.0	9.0
489	WWA3	B	MID-EBB	20-Sep-06			26.6	5.50	5.40		85.1	82.0	8.4	28.9	4.4	4.4		10.5	
490	WRA1	S	MID-EBB	20-Sep-06	11:16	25.40	26.2	5.87	5.74	5.69	89.7	85.1	8.3	30.2	5.6	5.4	5.9	12.5	12.7
491	WRA1	M	MID-EBB	20-Sep-06			26.6	5.64	5.50		86.3	83.4	8.3	30.0	6.0	5.8		11.5	
492	WRA1	B	MID-EBB	20-Sep-06	11:28	23.80	26.4	5.53	5.41	5.47	85.0	81.7	8.3	30.2	6.5	6.3	4.9	14.0	12.0
493	WRA2	S	MID-EBB	20-Sep-06			26.3	5.96	5.92		94.7	90.9	8.2	30.3	4.8	4.8		11.0	
494	WRA2	M	MID-EBB	20-Sep-06	12:09	33.60	26.8	5.84	5.71	5.86	84.1	81.9	8.2	30.0	6.3	6.3	4.9	12.5	12.5
495	WRA2	B	MID-EBB	20-Sep-06			26.5	5.57	5.43		83.6	80.4	8.2	30.1	4.6	4.3		14.0	
496	WRA3	S	MID-EBB	20-Sep-06	11:54	31.50	26.7	5.99	5.93	5.63	95.7	89.9	8.3	30.1	4.4	4.2	3.6	12.0	8.7
497	WRA3	M	MID-EBB	20-Sep-06			26.5	5.71	5.56		86.8	83.6	8.2	30.2	4.9	4.8		12.0	
498	WRA3	B	MID-EBB	20-Sep-06	12:26	39.80	26.5	5.53	5.41	5.47	84.2	80.4	8.3	30.2	5.7	5.2	4.9	12.0	12.0
499	WWFCZ1	S	MID-EBB	20-Sep-06			26.8	5.94	5.84		94.9	89.6	8.3	29.9	3.1	3.0		10.5	
500	WWFCZ1	M	MID-EBB	20-Sep-06	11:45	36.30	26.6	5.72	5.60	5.78	86.3	83.6	8.3	29.9	4.2	4.3	5.0	12.0	15.2
501	WWFCZ1	B	MID-EBB	20-Sep-06			26.4	5.56	5.42		84.1	81.0	8.3	30.0	7.9	6.8		18.5	
502	WWFCZ2	S	MID-EBB	20-Sep-06	16:20	7.60	26.8	5.80	5.60	5.65	92.2	87.8	8.3	29.9	3.1	2.9	4.9	7.5	6.3
503	WWFCZ2	M	MID-EBB	20-Sep-06			26.5	5.63	5.49		86.1	83.8	8.3	29.9	4.8	4.7		8.0	
504	WWFCZ2	B	MID-EBB	20-Sep-06	16:10	8.90	26.4	5.50	5.41	5.46	85.0	82.1	8.3	29.7	3.1	3.2	4.5	10.3	10.3
505	WFCZR1	S	MID-EBB	20-Sep-06			26.7	5.94	5.85		87.6	84.8	8.3	30.0	4.2	4.1		10.0	
506	WFCZR1	M	MID-EBB	20-Sep-06	16:00	8.30	26.5	5.73	5.58	5.78	85.2	83.0	8.3	30.0	5.6	5.5	3.9	13.0	9.0
507	WFCZR1	B	MID-EBB	20-Sep-06			26.2	5.54	5.42		84.7	80.6	8.3	29.9	6.6	6.4		13.5	
508	WFCZR2	S	MID-EBB	20-Sep-06	16:35	31.50	27.1	5.97	5.89	5.83	98.7	91.0	8.3	29.9	3.6	3.2	5.7	11.5	9.7
509	WFCZR2	M	MID-EBB	20-Sep-06			26.6	5.81	5.66		88.3	84.9	8.3	29.3	5.8	5.6		16.0	
510	WFCZR2	B	MID-EBB	20-Sep-06	16:47	24.70	26.4	5.62	5.47	5.52	85.3	82.6	8.3	29.9	6.0	5.7	4.7	18.0	9.5
511	WWA1	S	MID-FLOOD	20-Sep-06			26.4	5.87	5.65		91.3	86.7	8.3	30.8	5.3	5.2		6.0	
512	WWA1	M	MID-FLOOD	20-Sep-06	16:39	24.50	26.3	5.58	5.49	5.65	85.9	83.0	8.3	30.8	4.9	4.7	4.6	7.0	9.0
513	WWA1	B	MID-FLOOD	20-Sep-06			2												

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Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
530	WWFCZ1	M	MID-FLOOD	20-Sep-06	17:36	34.30	26.1	5.80	5.67	5.81	84.3	81.0	8.3	30.9	4.1	4.2		15.0	
531	WWFCZ1	B	MID-FLOOD	20-Sep-06			26.1	5.71	5.52	5.62	83.6	80.4	8.3	30.9	6.2	6.1	4.5	14.5	11.8
532	WWFCZ2	S	MID-FLOOD	20-Sep-06			26.0	5.88	5.76		90.6	87.5	8.3	29.4	3.1	3.3		16.0	
533	WWFCZ2	M	MID-FLOOD	20-Sep-06	17:23	32.80	26.0	5.67	5.57	5.72	86.3	83.5	8.3	30.9	4.0	3.9		17.0	
534	WWFCZ2	B	MID-FLOOD	20-Sep-06			26.0	5.53	5.42	5.48	84.0	81.9	8.3	30.9	3.2	3.5	3.5	14.5	15.8
535	WFCZR1	S	MID-FLOOD	20-Sep-06			26.2	5.93	5.74		89.2	85.6	8.3	30.8	4.1	4.2		6.0	
536	WFCZR1	M	MID-FLOOD	20-Sep-06	17:49	41.20	26.1	5.68	5.50	5.71	84.5	83.2	8.3	30.9	4.2	4.1		7.5	
537	WFCZR1	B	MID-FLOOD	20-Sep-06			26.0	5.54	5.41	5.48	83.9	80.7	8.3	30.8	5.2	5.1	4.5	9.0	7.5
538	WFCZR2	S	MID-FLOOD	20-Sep-06			26.0	5.90	5.74		93.6	86.1	8.2	30.9	3.6	3.8		11.5	
539	WFCZR2	M	MID-FLOOD	20-Sep-06	17:11	39.60	25.9	5.69	5.56	5.72	86.2	83.4	8.2	30.9	3.5	3.7		12.5	
540	WFCZR2	B	MID-FLOOD	20-Sep-06			25.7	5.55	5.43	5.49	84.9	81.6	8.2	30.9	4.2	4.6	3.9	12.0	12.0
541	WWA1	S	MID-EBB	22-Sep-06			26.6	5.99	5.94		98.4	95.6	8.0	29.9	5.9	5.8		13.0	
542	WWA1	M	MID-EBB	22-Sep-06	13:47	6.70	26.5	5.87	5.72	5.88	89.9	87.3	8.0	29.9	5.4	5.3		12.0	
543	WWA1	B	MID-EBB	22-Sep-06			26.5	5.66	5.43	5.55	84.2	81.1	8.0	30.0	9.2	9.1	6.8	14.0	13.0
544	WWA2	S	MID-EBB	22-Sep-06			27.0	5.96	5.94		96.9	91.0	8.0	29.9	7.1	6.8		13.0	
545	WWA2	M	MID-EBB	22-Sep-06	13:34	8.20	26.7	5.80	5.60	5.83	86.7	84.8	8.0	30.1	8.6	8.6		11.0	
546	WWA2	B	MID-EBB	22-Sep-06			26.6	5.63	5.42	5.53	85.2	82.6	8.0	30.0	6.9	6.5	7.4	13.5	12.5
547	WWA3	S	MID-EBB	22-Sep-06			27.1	5.82	5.64		91.6	87.4	8.0	23.6	6.1	6.2		12.5	
548	WWA3	M	MID-EBB	22-Sep-06	13:18	7.80	26.8	5.59	5.49	5.64	86.0	84.0	8.0	29.9	6.2	6.5		12.0	
549	WWA3	B	MID-EBB	22-Sep-06			26.8	5.54	5.41	5.48	83.4	80.2	8.0	29.8	6.7	6.4	6.4	16.0	13.5
550	WRA1	S	MID-EBB	22-Sep-06			27.0	5.88	5.69		96.3	91.8	8.0	29.1	4.7	4.8		9.0	
551	WRA1	M	MID-EBB	22-Sep-06	13:59	29.70	26.5	5.70	5.57	5.71	87.2	84.1	8.0	29.9	10.2	9.7		12.5	
552	WRA1	B	MID-EBB	22-Sep-06			26.4	5.60	5.44	5.52	84.0	80.7	8.0	30.1	6.2	6.2	7.0	14.5	12.0
553	WRA2	S	MID-EBB	22-Sep-06			27.0	5.94	5.86		93.3	86.9	8.1	29.1	4.0	3.7		12.0	
554	WRA2	M	MID-EBB	22-Sep-06	14:14	23.50	26.4	5.76	5.61	5.79	86.0	83.7	8.1	30.0	7.2	7.1		11.5	
555	WRA2	B	MID-EBB	22-Sep-06			26.4	5.58	5.42	5.50	84.1	82.2	8.1	30.1	10.2	8.7	6.8	13.5	12.3
556	WRA3	S	MID-EBB	22-Sep-06			26.9	5.94	5.90		95.4	92.0	8.1	29.3	4.2	4.8		7.0	
557	WRA3	M	MID-EBB	22-Sep-06	14:28	22.60	26.8	5.70	5.58	5.78	87.7	85.0	8.1	29.6	6.4	6.2		8.5	
558	WRA3	B	MID-EBB	22-Sep-06			26.5	5.62	5.45	5.54	83.6	81.0	8.1	30.0	6.3	6.1	5.7	12.5	9.3
559	WWFCZ1	S	MID-EBB	22-Sep-06			27.1	5.95	5.87		95.9	91.8	8.1	29.1	4.0	3.8		11.0	
560	WWFCZ1	M	MID-EBB	22-Sep-06	15:09	32.20	26.7	5.64	5.49	5.74	86.6	83.3	8.1	29.8	4.7	4.6		13.0	
561	WWFCZ1	B	MID-EBB	22-Sep-06			26.5	5.53	5.43	5.48	84.1	80.6	8.1	30.0	7.3	7.1	5.2	14.5	12.8
562	WWFCZ2	S	MID-EBB	22-Sep-06			26.9	5.94	5.87		96.9	92.0	8.1	29.0	4.8	4.8		12.5	
563	WWFCZ2	M	MID-EBB	22-Sep-06	14:58	31.60	26.8	5.72	5.59	5.78	86.5	84.1	8.1	29.6	5.3	5.1		16.5	
564	WWFCZ2	B	MID-EBB	22-Sep-06			26.5	5.56	5.44	5.50	83.2	80.1	8.1	29.9	6.4	6.5	5.5	18.0	15.7
565	WFCZR1	S	MID-EBB	22-Sep-06			27.0	5.94	5.86		93.0	88.4	8.1	29.2	4.8	4.5		7.0	
566	WFCZR1	M	MID-EBB	22-Sep-06	15:23	40.70	26.7	5.70	5.54	5.76	86.0	83.5	8.1	29.7	6.1	6.5		14.5	
567	WFCZR1	B	MID-EBB	22-Sep-06			26.6	5.56	5.41	5.49	83.6	80.5	8.1	29.8	8.6	8.2	6.5	15.5	12.3
568	WFCZR2	S	MID-EBB	22-Sep-06			27.1	5.98	5.91		99.3	93.9	8.1	29.1	5.3	4.9		11.0	
569	WFCZR2	M	MID-EBB	22-Sep-06	14:42	38.50	26.5	5.80	5.67	5.84	89.1	86.0	8.1	29.6	5.7	5.5		14.5	
570	WFCZR2	B	MID-EBB	22-Sep-06			26.4	5.61	5.47	5.54	84.4	82.6	8.1	30.0	8.4	8.2	6.3	15.0	13.5
571	WWA1	S	MID-FLOOD	22-Sep-06			26.4	5.95	5.87		92.6	86.6	8.3	30.6	1.7	1.6		11.0	
572	WWA1	M	MID-FLOOD	22-Sep-06	9:28	7.30	26.4	5.76	5.60	5.80	85.4	82.1	8.3	30.6	3.0	2.1		12.0	
573	WWA1	B	MID-FLOOD	22-Sep-06			26.3	5.51	5.44	5.48	83.9	80.2	8.3	30.7	5.0	4.9	3.0	12.0	11.7

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Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
574	WWA2	S	MID-FLOOD	22-Sep-06			26.5	5.86	5.76		88.6	85.7	8.3	30.7	2.3	2.4		10.0	
575	WWA2	M	MID-FLOOD	22-Sep-06	9:12	8.60	26.6	5.70	5.59	5.73	86.8	84.1	8.3	30.6	2.0	2.1		11.0	
576	WWA2	B	MID-FLOOD	22-Sep-06			28.4	5.62	5.42	5.52	85.7	80.6	8.3	30.8	3.0	2.8	2.4	12.0	11.0
577	WWA3	S	MID-FLOOD	22-Sep-06			26.4	5.94	5.86		86.6	80.3	8.3	30.8	3.5	3.3		11.5	
578	WWA3	M	MID-FLOOD	22-Sep-06	9:00	8.10	26.4	5.80	5.66	5.82	86.5	82.6	8.3	30.6	5.9	5.5		16.0	
579	WWA3	B	MID-FLOOD	22-Sep-06			26.4	5.59	5.42	5.51	84.5	80.6	8.3	30.8	2.4	2.2	3.8	14.5	14.0
580	WRA1	S	MID-FLOOD	22-Sep-06			26.3	5.96	5.92		94.4	88.2	8.4	30.5	7.2	6.8		8.0	
581	WRA1	M	MID-FLOOD	22-Sep-06	9:43	31.20	26.4	5.76	5.59	5.81	86.9	81.6	8.4	30.5	6.1	6.1		13.0	
582	WRA1	B	MID-FLOOD	22-Sep-06			26.4	5.62	5.43	5.53	85.9	81.0	8.4	30.5	7.2	6.1	6.6	8.5	9.8
583	WRA2	S	MID-FLOOD	22-Sep-06			26.3	5.99	5.92		96.3	92.9	8.3	30.7	4.0	4.1		8.5	
584	WRA2	M	MID-FLOOD	22-Sep-06	9:57	25.70	26.3	5.84	5.63	5.85	93.5	89.1	8.3	30.6	4.1	4.2		8.0	
585	WRA2	B	MID-FLOOD	22-Sep-06			26.3	5.59	5.41	5.50	86.0	81.9	8.3	30.8	2.6	2.7	3.6	7.5	8.0
586	WRA3	S	MID-FLOOD	22-Sep-06			26.2	5.94	5.86		95.9	90.3	8.3	30.5	4.4	4.5		7.0	
587	WRA3	M	MID-FLOOD	22-Sep-06	10:14	24.80	26.2	5.80	5.64	5.81	92.6	86.3	8.3	30.6	2.3	2.8		10.0	
588	WRA3	B	MID-FLOOD	22-Sep-06			26.2	5.60	5.41	5.51	84.1	81.5	8.3	30.7	5.4	5.5	4.2	9.0	8.7
589	WWFCZ1	S	MID-FLOOD	22-Sep-06			26.7	5.87	5.62		91.6	86.8	8.4	30.7	5.4	5.3		13.0	
590	WWFCZ1	M	MID-FLOOD	22-Sep-06	10:57	33.40	26.3	5.74	5.59	5.71	87.2	83.5	8.4	30.6	5.0	4.8		10.0	
591	WWFCZ1	B	MID-FLOOD	22-Sep-06			26.4	5.64	5.43	5.54	84.1	80.5	8.4	30.6	3.0	3.2	4.4	15.0	12.7
592	WWFCZ2	S	MID-FLOOD	22-Sep-06			26.4	5.94	5.86		89.6	87.0	8.4	30.5	5.				

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Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
618	WRA3	B	MID-EBB	25-Sep-06			26.2	5.60	5.45	5.53	84.7	81.2	8.1	30.8	5.4	5.2	4.7	10.0	12.0
619	WWFCZ1	S	MID-EBB	25-Sep-06			26.5	5.66	5.81		93.6	89.9	8.1	30.5	4.3	4.5		8.5	
620	WWFCZ1	M	MID-EBB	25-Sep-06	14:26	32.60	26.4	5.34	5.27	5.57	86.2	83.9	8.1	30.6	6.2	5.8		8.0	
621	WWFCZ1	B	MID-EBB	25-Sep-06			26.3	5.41	5.29	5.35	83.5	81.2	8.1	30.9	5.6	5.5	5.3	12.0	9.5
622	WWFCZ2	S	MID-EBB	25-Sep-06			26.6	5.94	5.66		91.6	89.3	8.1	30.6	4.1	4.2		6.5	
623	WWFCZ2	M	MID-EBB	25-Sep-06	14:13	31.80	26.5	5.71	5.60	5.78	86.0	83.8	8.1	30.6	5.7	5.4		12.0	
624	WWFCZ2	B	MID-EBB	25-Sep-06			26.5	5.56	5.42	5.50	83.2	81.9	8.1	30.9	6.2	6.2	5.3	12.0	10.2
625	WFCZR1	S	MID-EBB	25-Sep-06			27.2	5.84	5.71		89.1	86.5	8.1	29.8	3.8	3.6		8.5	
626	WFCZR1	M	MID-EBB	25-Sep-06	14:00	39.50	26.7	5.64	5.56	5.69	85.2	83.4	8.1	30.3	5.3	5.4		8.5	
627	WFCZR1	B	MID-EBB	25-Sep-06			26.6	5.51	5.42	5.47	82.7	80.1	8.1	30.4	4.4	4.5	4.5	11.5	9.5
628	WFCZR2	S	MID-EBB	25-Sep-06			26.4	5.96	5.90		89.4	86.9	8.2	30.4	3.3	3.1		8.5	
629	WFCZR2	M	MID-EBB	25-Sep-06	14:39	38.70	26.4	5.82	5.64	5.83	86.4	84.0	8.2	30.9	4.6	4.4		7.0	
630	WFCZR2	B	MID-EBB	25-Sep-06			26.4	5.51	5.42	5.47	83.2	80.5	8.1	30.8	4.0	4.2	3.9	10.5	8.7
631	WWA1	S	MID-FLOOD	25-Sep-06			26.0	5.94	5.91		89.4	86.5	8.4	30.8	5.7	5.4		14.0	
632	WWA1	M	MID-FLOOD	25-Sep-06	10:58	7.30	25.9	5.80	5.64	5.82	84.2	84.0	8.4	30.9	6.1	6.1		15.0	
633	WWA1	B	MID-FLOOD	25-Sep-06			26.0	5.59	5.41	5.50	82.0	81.2	8.4	30.8	5.0	4.5	5.5	20.5	16.5
634	WWA2	S	MID-FLOOD	25-Sep-06			26.3	5.90	5.76		88.6	85.7	8.4	30.9	5.0	5.0		9.0	
635	WWA2	M	MID-FLOOD	25-Sep-06	11:10	8.10	26.2	5.84	5.81	5.83	86.3	83.5	8.4	30.9	5.8	5.8		13.5	
636	WWA2	B	MID-FLOOD	25-Sep-06			26.1	5.60	5.43	5.52	82.0	80.2	8.4	30.8	4.6	4.5	5.1	14.0	12.2
637	WWA3	S	MID-FLOOD	25-Sep-06			26.4	5.92	5.84		84.4	85.3	8.4	30.6	3.2	3.1		15.5	
638	WWA3	M	MID-FLOOD	25-Sep-06	11:19	7.70	26.3	5.72	5.61	5.77	86.4	84.1	8.4	30.8	2.4	2.6		15.5	
639	WWA3	B	MID-FLOOD	25-Sep-06			26.2	5.53	5.40	5.47	82.0	80.1	8.4	30.8	3.5	3.5	3.0	14.5	16.2
640	WRA1	S	MID-FLOOD	25-Sep-06			26.3	5.95	5.84		96.0	91.4	8.3	30.5	6.5	6.4		13.5	
641	WRA1	M	MID-FLOOD	25-Sep-06	10:46	31.20	26.3	5.82	5.70	5.83	86.8	82.6	8.3	29.5	7.4	6.8		12.0	
642	WRA1	B	MID-FLOOD	25-Sep-06			26.3	5.54	5.42	5.48	84.1	81.5	8.3	30.9	7.1	7.1	6.9	15.5	13.7
643	WRA2	S	MID-FLOOD	25-Sep-06			26.4	5.86	5.74		93.0	87.6	8.3	26.4	5.0	5.2		8.5	
644	WRA2	M	MID-FLOOD	25-Sep-06	10:34	24.80	26.4	5.64	5.56	5.70	85.0	82.1	8.3	30.9	4.9	4.3		12.0	
645	WRA2	B	MID-FLOOD	25-Sep-06			26.4	5.46	5.41	5.44	82.6	80.0	8.3	30.9	6.1	6.1	5.3	14.5	11.7
646	WRA3	S	MID-FLOOD	25-Sep-06			26.3	5.93	5.86		91.6	88.2	8.3	30.9	5.3	5.1		10.5	
647	WRA3	M	MID-FLOOD	25-Sep-06	10:22	24.50	26.4	5.85	5.81	5.86	86.0	84.1	8.3	30.9	5.5	5.3		11.5	
648	WRA3	B	MID-FLOOD	25-Sep-06			26.4	5.78	5.76	5.78	83.0	80.5	8.3	30.9	5.1	4.8	5.2	13.5	11.8
649	WWFCZ1	S	MID-FLOOD	25-Sep-06			26.3	5.90	5.90		96.7	93.6	8.2	30.9	3.9	3.5		10.5	
650	WWFCZ1	M	MID-FLOOD	25-Sep-06	9:55	33.40	26.3	5.85	5.83	5.87	87.6	84.0	8.2	30.9	5.3	5.0		12.0	
651	WWFCZ1	B	MID-FLOOD	25-Sep-06			26.3	5.79	5.76	5.78	83.6	80.1	8.2	28.7	4.7	4.5	4.5	12.5	11.7
652	WWFCZ2	S	MID-FLOOD	25-Sep-06			26.2	5.99	5.92		95.3	89.2	8.3	30.9	4.1	3.9		14.5	
653	WWFCZ2	M	MID-FLOOD	25-Sep-06	9:43	32.60	26.3	5.86	5.64	5.90	88.2	85.0	8.3	30.8	5.0	5.1		14.5	
654	WWFCZ2	B	MID-FLOOD	25-Sep-06			26.1	5.76	5.51	5.64	83.5	80.2	8.3	30.8	5.0	4.6	4.6	16.0	15.0
655	WFCZR1	S	MID-FLOOD	25-Sep-06			26.5	5.96	5.92		93.5	91.8	8.3	31.0	4.0	3.8		21.0	
656	WFCZR1	M	MID-FLOOD	25-Sep-06	9:30	40.30	26.5	5.82	5.69	5.85	88.2	85.9	8.3	31.1	4.2	4.4		16.5	
657	WFCZR1	B	MID-FLOOD	25-Sep-06			26.4	5.51	5.41	5.46	83.8	80.5	8.3	31.2	3.8	3.5	3.9	13.5	17.7
658	WFCZR2	S	MID-FLOOD	25-Sep-06			26.3	5.91	5.85		92.1	86.5	8.3	30.8	3.2	3.3		15.5	
659	WFCZR2	M	MID-FLOOD	25-Sep-06	10:08	39.50	26.3	5.71	5.59	5.77	87.0	83.5	8.3	30.7	3.8	3.8		19.5	
660	WFCZR2	B	MID-FLOOD	25-Sep-06			26.4	5.53	5.41	5.47	84.2	80.2	8.3	30.8	3.9	4.1	3.7	22.0	19.0
661	WWA1	S	MID-EBB	27-Sep-06			26.8	5.90	5.82		96.3	93.5	7.8	23.3	3.3	3.1		6.5	

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HY/2005/06 Castle Peak Road Improvement - West of Tsing Lung Tau - Environmental Monitoring & Audit Service
 Marine Water Quality Impact Monitoring - September 2006

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
662	WWA1	M	MID-EBB	27-Sep-06	15:27	7.70	26.7	5.79	5.61	5.78	89.1	86.0	7.8	30.6	3.7	3.5		8.0	
663	WWA1	B	MID-EBB	27-Sep-06			26.6	5.58	5.47	5.53	84.4	82.2	7.8	30.5	5.5	5.4	4.1	9.0	7.8
664	WWA2	S	MID-EBB	27-Sep-06			26.5	5.94	5.87		94.6	90.1	7.8	30.8	3.3	3.3		5.0	
665	WWA2	M	MID-EBB	27-Sep-06	15:14	8.30	26.7	5.72	5.58	5.78	87.6	87.4	7.8	30.6	3.5	3.5		14.0	
666	WWA2	B	MID-EBB	27-Sep-06			26.5	5.60	5.47	5.54	86.0	83.5	7.8	30.8	3.7	3.8	3.5	8.5	8.5
667	WWA3	S	MID-EBB	27-Sep-06			26.8	5.89	5.71		93.2	86.5	7.8	30.6	3.3	3.5		5.5	
668	WWA3	M	MID-EBB	27-Sep-06	15:00	7.60	26.7	5.75	5.61	5.74	86.9	84.0	7.8	30.6	4.5	4.3		11.0	
669	WWA3	B	MID-EBB	27-Sep-06			26.6	5.57	5.42	5.50	84.3	81.6	7.8	29.7	3.4	3.3	3.7	7.0	7.8
670	WRA1	S	MID-EBB	27-Sep-06			26.5	5.97	5.91		93.0	88.4	8.0	30.4	4.7	4.7		15.5	
671	WRA1	M	MID-EBB	27-Sep-06	15:44	32.50	26.4	5.86	5.70	5.86	87.5	86.0	8.0	30.8	4.7	4.5		15.5	
672	WRA1	B	MID-EBB	27-Sep-06			26.3	5.70	5.54	5.62	84.6	81.3	8.0	30.6	3.8	3.7	4.3	8.0	13.0
673	WRA2	S	MID-EBB	27-Sep-06			26.4	5.93	5.80		91.6	88.2	8.1	30.5	4.5	4.3		11.5	
674	WRA2	M	MID-EBB	27-Sep-06	16:02	24.80	26.5	5.70	5.59	5.76	86.4	83.1	8.1	30.5	4.2	4.2		8.5	
675	WRA2	B	MID-EBB	27-Sep-06			26.8	5.51	5.45	5.48	84.2	82.7	8.1	30.7	5.1	5.0	4.5	6.5	8.8
676	WRA3	S	MID-EBB	27-Sep-06			26.5	5.96	5.91		92.7	89.6	8.2	29.3	3.8	3.6		7.5	
677	WRA3	M	MID-EBB	27-Sep-06	16:18	24.50	26.5	5.80	5.68	5.84	85.2	83.9	8.1	30.7	4.1	4.0		8.5	
678	WRA3	B	MID-EBB	27-Sep-06			26.4	5.60	5.47	5.54	84.0	81.4	8.1	30.8	3.5	3.4	3.7	7.0	7.7
679	WWFCZ1	S	MID-EBB	27-Sep-06			26.6	5.88	5.72		94.9	89.2	8.0	30.6	4.1	4.2		11.0	
680	WWFCZ1	M	MID-EBB	27-Sep-06	16:57	33.20	26.5	5.69	5.53	5.71	86.5	84.6	8.0	30.9	4.6	4.2		10.0	
681	WWFCZ1	B	MID-EBB	27-Sep-06			26.3	5.55	5.41	5.48	84.0	81.2	8.0	30.9	5.9	5.6	4.8	9.5	10.2
682	WWFCZ2	S	MID-EBB	27-Sep-06			26.6	5.93	5.85		91.8	87.4	7.9	30.6	4.1	4.2		11.0	
683	WWFCZ2	M	MID-EBB	27-Sep-06	16:42	32.70	26.5	5.79	5.63	5.80	86.8	84.9	7.9	30.9	5.4	5.2		9.0	
684	WWFCZ2	B	MID-EBB	27-Sep-06			26.3	5.64	5.49	5.57	84.3	82.0	7.9	30.8	5.2	5.2	4.9	12.5	10.8
685	WFCZR1	S	MID-EBB	27-Sep-06			26.5	5.96	5.91		96.3	91.0	7.7	30.8	4.2	4.1		7.0	
686	WFCZR1	M	MID-EBB	27-Sep-06	17:14	40.80	26.5	5.82	5.68	5.84	87.6	85.9	7.7	30.9	4.4	4.2		7.5	
687	WFCZR1	B	MID-EBB	27-Sep-06			26.4	5.60	5.47	5.54	83.8	80.0	7.7	30.9	5.8	5.5	4.7	8.5	7.7
688	WFCZR2	S	MID-EBB	27-Sep-06			26.6	5.95	5.88		95.7	91.8	7.8	30.4	4.0	3.8		7.5	
689	WFCZR2	M	MID-EBB	27-Sep-06	16:30														

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 Marine Water Quality Impact Monitoring - September 2006

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
706	WRA3	S	MID-FLOOD	27-Sep-06	10:50	24.90	26.5	5.84	5.71	5.67	93.1	90.6	8.0	30.7	4.5	4.4	4.0	8.0	9.5
707	WRA3	M	MID-FLOOD	27-Sep-06			26.7	5.62	5.50		86.8	84.0	8.0	30.6	3.8	3.6		10.5	
708	WRA3	B	MID-FLOOD	27-Sep-06			26.7	5.51	5.40		82.8	79.2	8.0	30.7	4.0	3.8		10.0	
709	WWFCZ1	S	MID-FLOOD	27-Sep-06	10:13	34.50	26.6	5.98	5.92	5.88	95.6	90.2	8.4	30.2	4.3	4.2	5.6	12.0	13.3
710	WWFCZ1	M	MID-FLOOD	27-Sep-06			26.5	5.86	5.75		86.1	83.3	8.4	30.5	2.7	2.7		17.5	
711	WWFCZ1	B	MID-FLOOD	27-Sep-06			26.6	5.60	5.45		84.9	80.9	8.4	30.7	10.3	9.2		10.5	
712	WWFCZ2	S	MID-FLOOD	27-Sep-06	10:26	33.40	26.5	5.99	5.93	5.85	96.2	93.0	8.0	30.6	5.9	5.8	6.2	8.0	11.7
713	WWFCZ2	M	MID-FLOOD	27-Sep-06			26.6	5.80	5.66		88.2	86.0	8.0	30.6	4.1	4.2		14.0	
714	WWFCZ2	B	MID-FLOOD	27-Sep-06			26.5	5.52	5.41		84.7	80.5	8.1	30.9	8.3	8.6		13.0	
715	WFCZR1	S	MID-FLOOD	27-Sep-06	10:00	41.20	27.0	5.96	5.92	5.82	90.5	89.1	8.2	30.5	6.5	6.2	8.1	13.0	16.7
716	WFCZR1	M	MID-FLOOD	27-Sep-06			26.7	5.79	5.60		87.0	85.9	8.2	30.9	11.6	8.7		19.5	
717	WFCZR1	B	MID-FLOOD	27-Sep-06			26.6	5.59	5.41		84.4	81.5	8.2	30.9	8.0	7.7		17.5	
718	WFCZR2	S	MID-FLOOD	27-Sep-06	10:38	40.30	26.5	6.00	5.93	5.87	99.8	91.6	7.9	30.7	6.0	6.0	6.6	18.0	12.2
719	WFCZR2	M	MID-FLOOD	27-Sep-06			26.4	5.85	5.69		87.5	85.0	7.9	30.7	4.4	4.3		11.5	
720	WFCZR2	B	MID-FLOOD	27-Sep-06			26.4	5.59	5.46		83.6	80.2	7.9	30.8	9.8	9.4		9.0	
721	WWA1	S	MID-EBB	29-Sep-06	9:30	7.60	27.3	5.92	5.87	5.84	95.2	91.0	8.4	29.3	4.2	4.1	6.3	10.5	10.5
722	WWA1	M	MID-EBB	29-Sep-06			27.0	5.92	5.63		85.6	82.9	8.4	29.3	4.1	4.0		10.0	
723	WWA1	B	MID-EBB	29-Sep-06			26.9	5.56	5.43		85.1	82.2	8.4	29.5	11.2	10.3		7.5	
724	WWA2	S	MID-EBB	29-Sep-06	9:15	7.90	27.0	5.87	5.79	5.74	92.0	89.1	8.3	29.7	4.5	4.5	5.2	11.0	9.3
725	WWA2	M	MID-EBB	29-Sep-06			26.9	5.70	5.59		86.7	83.2	8.3	30.5	5.5	5.5		9.5	
726	WWA2	B	MID-EBB	29-Sep-06			26.8	5.63	5.47		86.2	82.5	8.3	30.4	5.6	5.4		11.0	
727	WWA3	S	MID-EBB	29-Sep-06	9:00	7.50	27.0	5.96	5.90	5.84	89.7	86.9	8.3	29.8	3.0	2.7	3.8	7.5	9.0
728	WWA3	M	MID-EBB	29-Sep-06			26.9	5.80	5.68		85.9	83.2	8.3	29.6	3.9	3.9		8.0	
729	WWA3	B	MID-EBB	29-Sep-06			26.8	5.54	5.41		84.6	80.4	8.3	29.7	5.5	4.1		11.5	
730	WRA1	S	MID-EBB	29-Sep-06	9:44	30.70	26.9	5.91	5.84	5.81	93.9	89.3	8.2	30.6	1.5	1.5	3.3	6.5	10.5
731	WRA1	M	MID-EBB	29-Sep-06			26.8	5.80	5.70		85.7	82.9	8.2	30.3	4.9	4.8		10.0	
732	WRA1	B	MID-EBB	29-Sep-06			26.6	5.59	5.47		83.6	80.7	8.2	30.5	3.5	3.6		15.0	
733	WRA2	S	MID-EBB	29-Sep-06	9:59	25.90	26.8	5.99	5.92	5.85	99.2	94.0	8.1	29.9	4.7	4.6	4.9	9.0	10.2
734	WRA2	M	MID-EBB	29-Sep-06			27.0	5.80	5.69		90.1	87.4	8.1	30.5	4.7	4.5		11.5	
735	WRA2	B	MID-EBB	29-Sep-06			26.8	5.55	5.43		83.7	81.2	8.1	30.5	5.2	5.5		10.0	
736	WRA3	S	MID-EBB	29-Sep-06	10:12	24.70	27.3	5.96	5.92	5.83	96.9	91.4	8.1	29.8	2.4	2.4	3.6	6.5	7.7
737	WRA3	M	MID-EBB	29-Sep-06			27.1	5.76	5.67		87.8	84.2	8.1	30.3	3.9	3.7		7.5	
738	WRA3	B	MID-EBB	29-Sep-06			26.8	5.53	5.44		83.0	80.5	8.1	30.6	4.6	4.6		9.0	
739	WWFCZ1	S	MID-EBB	29-Sep-06	10:53	34.20	26.7	5.91	5.79	5.77	93.3	90.4	8.3	29.2	3.3	3.3	3.8	9.5	7.2
740	WWFCZ1	M	MID-EBB	29-Sep-06			26.8	5.73	5.66		86.1	84.7	8.3	29.7	3.8	3.6		6.0	
741	WWFCZ1	B	MID-EBB	29-Sep-06			26.9	5.80	5.46		84.2	81.9	8.3	30.0	4.1	4.5		6.0	
742	WWFCZ2	S	MID-EBB	29-Sep-06	10:38	31.60	26.8	5.95	5.92	5.84	95.2	92.0	8.2	29.5	2.9	2.8	4.4	4.3	6.3
743	WWFCZ2	M	MID-EBB	29-Sep-06			26.9	5.80	5.68		86.9	84.2	8.2	29.6	4.9	4.7		5.0	
744	WWFCZ2	B	MID-EBB	29-Sep-06			26.7	5.52	5.41		84.5	82.0	8.2	30.6	5.4	5.4		9.5	
745	WFCZR1	S	MID-EBB	29-Sep-06	11:09	40.90	26.8	5.94	5.90	5.86	95.9	90.5	8.2	29.5	3.8	3.7	4.2	9.5	7.5
746	WFCZR1	M	MID-EBB	29-Sep-06			26.8	5.86	5.74		88.1	86.2	8.2	30.1	4.2	4.5		6.0	
747	WFCZR1	B	MID-EBB	29-Sep-06			26.9	5.64	5.51		84.0	81.5	8.2	30.5	4.6	4.6		7.0	
748	WFCZR2	S	MID-EBB	29-Sep-06	10:25	39.50	27.0	5.96	5.91	5.85	95.4	90.9	8.3	29.4	3.2	3.3	6.6	7.5	11.3
749	WFCZR2	M	MID-EBB	29-Sep-06			27.0	5.81	5.70		87.9	84.8	8.3	30.4	6.3	6.3		7.5	

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 Marine Water Quality Impact Monitoring - September 2006

Lab ID	Location	Position	Tide	Sampling Date	Time	Water depth, m	Temp. °C	DO, mg/L (1)	DO, mg/L (2)	DO, Average value	DO, % saturation (1)	DO, % saturation (2)	pH, Unit	Salinity, ppt	Turbidity, NTU (1)	Turbidity, NTU (2)	NTU, Averaged Value	Suspended Solid, mg/L	SS, Averaged Value
750	WFCZR2	B	MID-EBB	29-Sep-06	13:27	7.90	26.7	5.59	5.40	5.50	84.2	81.9	8.3	30.4	4.6	4.5	5.8	10.0	7.2
751	WWA1	S	MID-FLOOD	29-Sep-06			26.7	5.94	5.86		96.2	90.9	8.3	30.8	4.3	4.4		3.0	
752	WWA1	M	MID-FLOOD	29-Sep-06			26.7	5.80	5.67		87.2	84.0	8.3	30.7	4.5	4.1		8.5	
753	WWA1	B	MID-FLOOD	29-Sep-06	13:13	8.20	26.5	5.59	5.41	5.50	86.1	82.6	8.3	30.8	8.8	8.8	5.1	10.0	11.8
754	WWA2	S	MID-FLOOD	29-Sep-06			27.2	5.97	5.90		97.6	92.1	8.3	30.8	4.5	4.6		10.5	
755	WWA2	M	MID-FLOOD	29-Sep-06			26.8	5.81	5.74		86.0	83.4	8.3	30.9	5.3	5.4		12.5	
756	WWA2	B	MID-FLOOD	29-Sep-06	13:00	7.80	26.7	5.70	5.54	5.62	84.2	80.7	8.3	30.9	5.6	5.5	4.1	12.5	8.3
757	WWA3	S	MID-FLOOD	29-Sep-06			26.7	5.94	5.80		94.9	88.5	8.3	30.7	3.2	3.2		4.0	
758	WWA3	M	MID-FLOOD	29-Sep-06			26.7	5.60	5.51		86.4	82.5	8.3	30.9	3.7	3.6		6.0	
759	WWA3	B	MID-FLOOD	29-Sep-06	13:42	31.90	26.6	5.56	5.48	5.52	84.3	81.9	8.3	31.1	5.3	5.5	3.4	13.0	5.7
760	WRA1	S	MID-FLOOD	29-Sep-06			26.8	5.99	5.94		97.3	91.9	8.3	30.5	2.4	2.5		5.0	
761	WRA1	M	MID-FLOOD	29-Sep-06			26.8	5.82	5.67		86.6	84.0	8.3	30.7	3.8	3.8		5.0	
762	WRA1	B	MID-FLOOD	29-Sep-06	13:57	26.30	26.8	5.76	5.43	5.60	84.9	81.2	8.3	30.8	3.9	3.9	4.9	7.0	6.2
763	WRA2	S	MID-FLOOD	29-Sep-06			26.6	5.97	5.91		95.0	90.3	8.3	30.8	4.6	4.5		4.5	
764	WRA2	M	MID-FLOOD	29-Sep-06			26.8	5.80	5.61		87.4	83.7	8.3	30.9	4.9	5.1		6.5	
765	WRA2	B	MID-FLOOD	29-Sep-06	14:14	25.10	26.7	5.43	5.46	5.45	84.3	80.9	8.3	31.0	5.0	5.2	3.7	7.5	7.3
766	WRA3	S	MID-FLOOD	29-Sep-06			26.8	5.94	5.66		93.9	89.2	8.4	30.4	3.2	3.8		7.0	
767	WRA3	M	MID-FLOOD	29-Sep-06			26.7	5.80	5.57		87.1	85.0	8.4	31.0	3.8	3.6		7.5	
768	WRA3	B	MID-FLOOD	29-Sep-06	14:58	34.70	26.7	5.52	5.41	5.47	83.0	80.2	8.4	31.1	3.7	3.9	3.5	7.5	9.0
769	WWFCZ1	S	MID-FLOOD	29-Sep-06			27.0	5.94	5.89		96.0	90.1	8.2	29.9	3.2	3.6		14.0	
770	WWFCZ1	M	MID-FLOOD	29-Sep-06			26.6	5.80	5.69		86.7	85.2	8.2	30.5	2.8	2.8		16.5	
771	WWFCZ1	B	MID-FLOOD	29-Sep-06	14:43	33.80	26.6	5.54	5.41	5.48	83.5	80.3	8.2	30.6	4.2	4.5	3.9	14.5	15.0
772	WWFCZ2	S	MID-FLOOD	29-Sep-06			27.1	5.90	5.60		94.8	89.3	8.1	30.2	3.1	3.3		6.0	
773	WWFCZ2	M	MID-FLOOD	29-Sep-06			26.7	5.74	5.58		86.0	83.7	8.1	30.7	4.2	4.1		10.5	
774	WWFCZ2	B	MID-FLOOD	29-Sep-06	15:12	41.80	26.7	5.53	5.44	5.49	83.8	80.6	8.1	30.7	4.1	4.2	4.0	10.5	9.5
775	WFCZR1	S	MID-FLOOD	29-Sep-06			27.3	5.99	5.91		97.2	92.5	7.9	25.5	3.8	3.9		7.5	
776	WFCZR1	M	MID-FLOOD	29-Sep-06			27.0	5.83	5.76		86.4	86.2	7.9	217.9	3.8	3.5		10.5	
777	WFCZR1	B	MID-FLOOD	29-Sep-06	14:27	40.70	26.5	5.58	5.46	5.52	84.0	81.5	7.9	29.9	4.6	4.7	4.4	10.5	11.3
778	WFCZR2	S	MID-FLOOD	29-Sep-06			26.7	5.92	5.60		99.9	92.1	8.3	31.0	3.4	3.2		6.0	
779	WFCZR2	M	MID-FLOOD	29-Sep-06			26.7	5.71	5.59		88.0	86.1	8.3	30.8	5.2	5.0		12.5	
780	WFCZR2	B	MID-FLOOD	29-Sep-06	26.7	5.63	5.47	84.0	81.8	8.3	30.8	4.7	4.7	15.5					

Appendix E

**Investigation Summary
on Marine Water Quality
Exceedances**

Date	Tide	Location	Exceedance of Monitoring Data												ET's Investigation	CT's action	Closing Date	Remark
			DO (mg/L)				Tby (NTU)				SS (mg/L)							
			Position	Baseline Check	Control Station	Level at Impact Station	Baseline Check	Control Station	Level at Impact Station	Baseline Check	Control Station	Level at Impact Station						
6-Sep-06	mid-ebb	WWFCZ2	-	-	-	-	-	-	-	-	-	13.0	14.2	15.8	No muddy water and abnormal activities which would likely cause deterioration of water quality were observed at WWFCZ2 on 6 September 2006 by ET's field staff. The exceedance contributed by the nearby stations WRA1, WRA2 and WRA3 would be unlikely due to their normal SS levels, hence the exceedance would be unlikely caused by the construction works of the Project.	No action	15-Sep-06	Refer to ET's field record & CT's daily records.
8-Sep-06	mid-ebb	WWA1	-	-	-	-	-	-	-	-	-	13.0	13.0	13.3	No muddy water and abnormal activities which would likely cause deterioration of water quality were observed at WWA1, WWA2 and WWA3 on 8 September 2006 by ET's field staff. The exceedances of SS levels were only marginal to the Baseline Check Criteria. In addition, there were no exceedances of Tby levels on the same stations on the same day. Hence, the exceedances were unlikely due to the construction works of the Project. Nevertheless, the Contractor was reminded to maintain regular clearance of perimeter channels at site boundaries to intercept stormwater entering the site and implement appropriate mitigation measures to minimize run-off of muddy site effluent into storm drains.	No action	15-Sep-06	Refer to ET's field record & CT's daily records.
8-Sep-06	mid-ebb	WWA2	-	-	-	-	-	-	-	-	-	13.0	8.8	14.3	Ditto	Ditto	Ditto	Ditto
8-Sep-06	mid-ebb	WWA3	-	-	-	-	-	-	-	-	-	13.0	12.7	17.3	Ditto	Ditto	Ditto	Ditto

Date	Tide	Location	Exceedance of Monitoring Data										ET's investigation	CT's action	Closing Date	Remark
			DO (mg/L)			Tby (NTU)			SS (mg/L)							
			Position	Baseline Check	Control Station	Level at Impact Station	Baseline Check	Control Station	Level at Impact Station	Baseline Check	Control Station	Level at Impact Station				
14-Sep-06	mid-flood	WWA2	-	-	-	-	-	-	-	17.0	5.7	17.2	Muddy runoff was observed discharging into nearby gullies at Castle Peak Road from the site entrance of Slope A and muddy marine water was also observed near Seawall A and B during site inspection conducted by ET auditor on 14 September 2006. This might be due to heavy rainstorm in preceding day (i.e. 13 September 2006). Although the exceedance of SS level was only marginal to the Baseline Check Criteria, the SS level at WWA2 was higher than that at control station, WRA2. The exceedance was unlikely due to the construction of the Seawalls, but still related to the Project. The Contractor was reminded to intercept stormwater entering the site, provide cover to exposed slopes and divert all runoff to desilting facilities before discharging.	The CT mobilised workers to clear the silt deposited in gullies and along Castle Peak Road immediately. The CT also paved the site entrance of Slope A, diverted the runoff to desilting tank and conducted regular clearing of the desilting facility. The CT closely monitored the effectiveness of the temporary drainage system. With the remedial work implemented, the subsequent marine water quality monitoring data (16, 18 and 20 September 2006) indicated resumption to normal ambient conditions	29-Sep-06	Refer to ET's field record & CT's daily records.
20-Sep-06	mid-ebb	WWFCZ1	-	-	-	-	-	-	13.0	12.2	13.7	No muddy water and abnormal activities which would likely cause deterioration of water quality were observed at WWFCZ1 on 20 September 2006 by ET's field staff and no exceedances were recorded at other impact monitoring stations. The exceedance contributed by the nearby stations WRA1, WRA2, WRA3 and WWFCZ2 would be unlikely due to their normal SS levels. Hence, the exceedance would be unlikely caused by the construction works of the Project and might be due to natural variation.	No action	29-Sep-06	Refer to ET's field record & CT's daily records.	

Date	Tide	Location	Exceedance of Monitoring Data												CT's action	Closing Date	Remark			
			DO (mg/L)				Tby (NTU)				SS (mg/L)									
			Position	Baseline Check	Control Station	Level at Impact Station	Baseline Check	Control Station	Level at Impact Station	Baseline Check	Control Station	Level at Impact Station								
22-Sep-06	mid-ebb	WWA2	-	-	-	-	6.5	6.8	7.4	-	-	-	-	-	-	-	No muddy water and abnormal activities which would likely cause deterioration of water quality were observed at WWA2, WWA3 and WWFCZ2 on 22 September 2006 by ET's field staff. The exceedance levels were comparable to the levels recorded at the control stations and the exceedances were marginal to the Baseline Check Criteria. Hence the exceedance would be unlikely caused by the construction works of the Project and might be due to natural variation of marine water. The Contractor was reminded to intercept stormwater entering the site, provide cover to exposed slopes and divert all runoff to desilting facilities before discharging.	3-Oct-06	Refer to ET's field record & CT's daily records.	
22-Sep-06	mid-ebb	WWA3	-	-	-	-	-	-	-	-	-	13.0	9.3	13.5	-	-	Ditto	Ditto	Ditto	
22-Sep-06	mid-ebb	WWFCZ2	-	-	-	-	-	-	-	-	-	13.0	13.5	15.7	-	-	Ditto	Ditto	Ditto	Ditto

Date	Tide	Location	Exceedance of Monitoring Data										CT's action	Closing Date	Remark	
			DO (mg/L)				Tby (NTU)			SS (mg/L)						
			Position	Baseline Check	Control Station	Level at Impact Station	Baseline Check	Control Station	Level at Impact Station	Baseline Check	Control Station	Level at Impact Station				
25-Sep-06	mid-ebb	WWA1	-	-	-	6.5	4.4	7.1	13.0	10.0	13.3	No muddy water and abnormal activities which would likely cause deterioration of water quality were observed at WWA1, WWA2 and WWA3 on 25 September 2006 by ET's field staff. The exceedances were marginal to the Baseline Check Criteria. During monitoring period, rock fill was being unloaded from the barge at Seawall A and no reclamation works was conducted. Hence the exceedances would be unlikely caused by the construction works of the Project and might be due to natural variation of marine water. The Contractor was reminded to intercept stormwater entering the site, provide cover to exposed slopes and divert all runoff to desilting facilities before discharging.			3-Oct-06	Refer to ET's field record & CT's daily records.
25-Sep-06	mid-ebb	WWA2	-	-	-	6.5	4.6	7.3	13.0	8.2	17.8	Ditto			Ditto	Ditto
25-Sep-06	mid-ebb	WWA3	-	-	-	6.5	4.7	11.1	13.0	12.0	17.8	Ditto			Ditto	Ditto