Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung

Monthly Environmental Monitoring & Audit (EM&A) Report for February 2006

(Report No. 382210/002)

Report Authorized For Issue By:	For and on Behalf of Black & Veatch Hong Kong Limited

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Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung
(Independent Environmental Checker)

CHECK CERTIFICATE

1. We certify that professional skill and care have been used in the checking of the Environmental Team's (ET) No.2 Monthly EM&A Report for February 2006 for the construction of Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung.

2. We certify that the ET's EM&A programme for the reporting period has been satisfactorily executed and the No. 2 Monthly EM&A report for February 2006 has been verified.

3. We would comment that our evaluation of the ET's EM&A is based on a random audit process which cannot be guaranteed to have all non-conformities identified.

Signed 

_____
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Date 8 March 2006

Executive Summary

This is the second monthly Environmental Monitoring and Audit (EM&A) report prepared by Black & Veatch, the designated Environmental Team (ET), for the Project "Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung". The construction works of golf course was commenced on 16 January 2006. This report presents the results of the EM&A works conducted in the month of February 2006 (25th January 2006 to 24th February 2006).

Summary of construction works undertaken during this report period

The major work was vegetation clearance at Holes 1, 2, 9 & 17. Excavation work was carried at Hole 2 on 26th January 2006. A temporary haul road from temporary barging point to Hole 2 was formed. In addition, the temporary haul road between Holes 1 and 2 was formed. As the bulldozers and dump trucks are not available on site, major works was confined to excavation activity at Hole 2. Stream buffer zone was demarcated at Stream A only. No work was carried out at all Stream areas. The nearest work to the Stream A is the vegetation clearance work at Holes 9 & 17.

The temporary barging point is not available on site. No dredging work for the desalination plant was carried out. No temporary site office and concrete batching plant was established at the construction site during the reporting month.

Environmental Monitoring and Audit Progress

A summary of monitoring activities in this reporting period is shown as follows:

24-hour Total Suspended Particulates (TSP) monitoring at GCA B1	5 times
Water quality monitoring (marine + freshwater)	11 times
Terrestrial Ecology	2 times
Marine Ecology	2 times
Landscaping & Visual	2 times

Air Quality

5 sets of 24-hour TSP monitoring were carried out on 25th January, 6th, 11th, 17th and 23rd February 2006 at Bungalow A (GCA B1) at Kau Sai Chau during this reporting month. No exceedance of action and limit levels of 24-TSP was recorded at GCA B1.

Water Quality

11 sets of water quality monitoring were carried out on 25th & 27th January 2006, 6th, 8th, 11th, 13th, 15th, 17th, 20th, 22nd and 24th February 2006 at 9 marine and 7 freshwater monitoring locations. Monitoring was performed on schedule. For marine water, no exceedance of action and limit levels was recorded at all marine monitoring locations. For freshwater, two action and one limit levels exceedance for SS were recorded at F_DB on 8th, 13th and 22nd February 2006. The exceedance of measured SS value was ranging from 4 to 5 mg/L. ET's assessment showed that the exceedance was not attributed to the works and therefore no further action was required. The exceedance is mainly due to variation of the streams.

Ecology

Terrestrial ecology was conducted on 10th and 17th February 2006. The demarcation of the stream buffer zone had been being established at the time of the monitoring survey**.** Stream buffer zone demarcation establishment will be finished by the Contractor before the works fronts reach each stream. In general,

the streams and the riparian vegetation were in natural conditions similar to the condition during the Baseline Survey.

Marine ecology was conducted on 23rd & 25th February 2006 at Site B2, Site C and Control Site. No marine construction work had been conducted at temporary barging point (Site B2) when the present monitoring survey was conducted. No mortality, sedimentation or bleaching was found on any of the tagged corals. All sites and their vicinity still remained similar conditions as during the Baseline Survey.

Landscaping & Visual

The landscape and visual monitoring and site audit was carried on 6th and 21st February 2006. Vegetation clearance work is being carried out at present. Tree protection is satisfactory. Stockpiles of cleared vegetation were found stored on site and require removal.

Environmental Site Auditing

Four weekly joint environmental site audits were carried out on 26th January, 3rd, 10th and 17th February 2006 with the Contractor's representative. A monthly joint environmental site audit was carried out on 24th February 2006 by the Contractor's Representative ET's representative and Independent Environmental Checker (IC(E)).

Environmental Non-conformance

There was two exceedance of action and one limit levels of suspended solids recorded at the downstream of Stream B on 8th, 13th and 22nd February 2006. However, such exceedance was not attributed to the project works and therefore no environmental non-conformance was recorded in the reporting month. No environmental complaint was received in this reporting period. No environmental summon was received in this reporting period.

Implementation Status of Environmental Mitigation Measures

The Contractor was reminded the following issues and take actions if necessary

- Watering the haul road especially in conjunction to the existing golf course and during excavation works regularly during the dry season.
- Minimize the water quality impact when undertaking excavation works. Temporary drainage system and contingency plan should be proposed to the Engineer's Representative (ER) for approval and ET for comment and installed before the wet season.
- Minimize the exposed areas by controlling the vegetation clearance area. Vegetation should be kept in-situ as much as possible until works require at the construction areas.
- Removal of the vegetation stockpiles as soon as the dump trucks and temporary barging point are available.
- Minimize the access roads within the stream buffer zone areas.
- Provide drip tray under the oil drums; and
- Strengthen the preventive/interim measures for the silty runoff along the boundary of the exposed areas especially at low areas.

Future Key Issues

Key issues to be considered in the coming month include:

- Generation of dust from activities on-site during dry season : mainly Holes 1, 2, 9 & 17, concrete batching plant construction, temporary haul road, installation of site office and storage areas, inland works for the desalination plant near to the existing pier;

- Silty runoff due to vegetation clearance from the exposed areas;
- Storage of chemicals/fuel and chemical waste/waste oil on site; and
- Sewage and general refuse generated from workers.

Potential environmental impacts arising from the construction activities in the coming month are expected to be mainly associated with dust, site runoff and waste management.

1. Introduction

1.1 Background of the Project

1.1.1 Black & Veatch (hereinafter called the "ET") was appointed by Hong Kong Jockey Club (hereinafter called the "Project Proponent") to undertake Environmental Monitoring and Audit (EM&A) for "Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung" (hereinafter called the "Project"). Under the requirements of Section 4 of Environmental Permit EP-224/2005, EM&A programme as set out in the EM&A Manual is required to be implemented. In accordance with the EM&A Manual, environmental monitoring of air quality, water quality, terrestrial and marine ecology, landscape and visual, archaeology (watching brief) and land contamination are required for the Project.

1.1.2 This report summarises the environmental monitoring and audit works for the Project in February 2006 (from 25th January to 24th February 2006).

1.2 Purpose of the Report

1.2.1 This is the second EM&A report which summarizes the impact monitoring results and audit findings for the EM&A programme during the reporting period from **25th January** to **24th February 2006.**

1.3 Structure of the Report

1.3.1 The structure of the report is shown in Table 1.1.

Table 1.1 Structure of the Report

Section		Description
1	Introduction	Details the scope and structure of the report
2	Project Information	Summarizes background and scope of the project, site description, project organization and contact details, construction programme, the construction works undertaken and the status of environmental permits/licenses during the reporting period.
3	Environmental Monitoring Requirement	Summarizes the monitoring parameters, programmes, methodology, frequency, location, action and limit levels, event action plans, environmental mitigation measures as recommended in the EIA report and relevant environmental requirements.
4	Implementation Status on Environmental Mitigation Measures	Summarizes the implementation of environmental protection measures during the reporting period.
5	Monitoring Results	Summarizes the monitoring results obtained in the reporting period.
6	Environmental Site Auditing	Summarizes the audit findings of the weekly site inspections undertaken within the reporting period.
7	Environmental Non-conformance	Summarizes any monitoring exceedance, environmental complaints and environmental summons within the reporting period.
8	Future Key Issues	Summarizes the impact forecast and monitoring schedule for the next three month (25 February – 24 May 2006).
9	Recommendations and Conclusions	Lists out any recommendations and provides an overall conclusion of the results and findings of the EM&A programme for the reporting period.

2. Project Information

2.1 Background

2.1.1 The Project comprises the following major components:

- Construction of a third 18-hole public golf course on the east side of the island, south of the existing golfing area;
- A new irrigation lake to collect surface runoff from new 18-hole golf course. Water stored at the new irrigation lake can also be diverted to existing reservoir for tertiary treatment and recycling;
- A new desalination plant adjacent to the existing pier to serve as an additional irrigation water supply for the new golf course during dry season; and
- Expansion of existing administration and maintenance buildings.

2.1.2 The potential environmental impacts of the Project have been studied in the Environmental Impact Assessment (EIA) report (EIAO Register No. AEIAR- 091/2005). The EIA was approved on 14 November 2005 under the EIAO. An Environmental Permit (EP-224/2005) was granted on 28 November 2005.

2.2 Site Description

2.2.1 A layout plan of the Project is provided in **Figure 1.1**.

2.3 Project Organization

2.3.1 Project organization and lines of communication are shown in **Figure 1.2**.

2.4 Construction Programme

2.4.1 The tentative construction programme for the Project is presented in **Annex A**. The construction works were commenced on 16 January 2006 and are scheduled to be completed by end of July 2007.

2.5 Status of Environmental Submission

2.5.1 A summary of the reporting requirement for compliance with EP conditions of the Project is listed in Table 2.1.

Table 2.1 Summary of Compliance with EP Conditions

EP-224/2005	Environmental Permit Submission	Status	Remarks
2.3	Management organization of the main construction companies and/or any form of joint ventures associated with the construction of the Project.	Submitted	At least one week before the commencement of construction of the Project.
2.4	Contamination Assessment Plan (CAP) submission. If land contamination is confirmed by the site investigation, submission of a Remediation Assessment	Approved	The site investigation was carried out on 14th and 15th February 2006. The CAR will be submitted. Based on the preliminary results, all hotspots are not contaminated.

EP-224/2005	Environmental Permit Submission	Status	Remarks
	Plan (RAP) including a Contamination Assessment Report (CAR) is required.		
3.6	Detailed methodology for Coral Transplantation submission to the Director for approval.	In progress	At least one month before commencement of the Coral Transplantation.
4.1	EM&A Manual (revised)	Submitted	At least two weeks before commencement of construction of the Project.
4.3	Baseline Monitoring Report	Submitted	At least two weeks before commencement of construction of the Project
4.5	Monthly EM&A Report	Submitted	within 10 working days after the end of the reporting month
5.1	Set up a dedicated web site and notify the Director in writing the Internet address.	Completed	Within 6 weeks after the commencement of construction of the Project (http://www.kscgolf.com/ema/index.asp)

2.6 Summary of EM&A Requirements

2.6.1 The EM&A programme requires environmental monitoring for air quality, water quality, terrestrial and marine ecology, landscape and visual, archaeology (watching brief) and land contamination. The EM&A requirements for each parameter are described in subsequent sections, including:

- All monitoring parameters;
- Action and Limit Levels for all environmental parameters;
- Event and Action Plans; and
- Environmental mitigation measures, as recommended in the project EIA final report.

2.6.2 A summary of impact EM&A requirements is presented in Table 2.2.

Table 2.2 Summary of Impact EM&A Requirements

Impacts	Parameters/descriptions	Locations	Frequencies	Duration
Air Quality	24-Hour TSP	1 Location	Once every 6 days	During Construction
	1-Hour TSP	1 Location	Three times in every 6 days	During Construction (As required when complaint received)
Water Quality	Dissolved Oxygen, Temperature, Turbidity, pH, Salinity and SS	9 marine and 7 freshwater locations	**First 3 months** 3 times a week, mid-ebb and mid-flood tides. If there is no exceedance occurs for the first 3 months, reduce to once per week.	During Construction
	Dissolved Oxygen, Temperature, Turbidity, pH, Salinity, SS, NO3-N, NO2-N, NH3-N, TP and selected pesticides.	9 marine and 7 freshwater locations	Once per week. If there is no exceedance occurs, monitoring frequency is subjected to change and shall be agreed with EPD.	During Construction: turf establishment period (permanent low flow drainage is not completed)
	Dissolved Oxygen, Temperature, Turbidity, pH, Salinity, SS, NO3-N, NO2-N, NH3-N, TP, Chl-a and selected pesticides.	9 marine and 6 freshwater locations	A 2-year of monitoring period for the operation phase is proposed. Monitoring should be carried out on bi-weekly basis for the first 12 months, after when the frequency will be reviewed by EPD.	During Operation
	Dissolved Oxygen, Temperature, Turbidity, pH, Salinity, SS, NO3-N, NO2-N, NH3-N, TP, Chl-a and selected pesticides	8 marine locations	Additional water quality monitoring shall be carried out after heavy rain storm or when there is an overflow event from the reservoir, irrigation buffer lake or detention ponds/tanks.	During Construction and Operation
Terrestrial Ecology	Monitoring aquatic fauna	Streams B, C & D	Once a month	During Construction
	Environmental Site Inspection mainly on intact of buffer zones	Streams A, B and C	Once a week	During Construction

Impacts	Parameters/descriptions	Locations	Frequencies	Duration
Marine Ecology	Transplanted corals	Site D2	Quarterly for one year after transplantation	During construction
	Natural corals	Site C, Site B2, Site D2, and the Control Site.	**For Site D2 and the Control Site:** Weekly at the first two weeks of dredging works for the desalination plant pipelines. If no exceedance was recorded, the monitoring schedule would be changed to biweekly till the pipeline construction works are finished. **For Site C, B2 and the Control Site:** Monthly for the first three months of the construction phase. If no exceedance was recorded, the monitoring schedule would be changed to quarterly during the rest of the construction phase.	During Construction
		Site C, Site D2 and the Control Site.	First three months would be monthly conducted during the first two years of the operation phase. If no exceedance was recorded, the monitoring schedule would be changed to semi-annually, i.e. once in dry season and once in wet season.	During Operation
	Seagrass bed	Site D3, and at Site D2 if seagrasses were found during the baseline monitoring.	Weekly during the first two weeks of dredging works, and then biweekly till the pipeline construction works are finished.	During Construction
		Site D3, and at Site D2 if seagrasses were found during the baseline monitoring.	During the first two years of the operation phase. The monitoring schedule during the first three months would be monthly. After that, the monitoring schedule would be changed to semi-annually, i.e. once in dry season and once in wet season.	During Operation
Landscape and Visual	Audits to ensure effective implementation of mitigation measures	Project area and at visual sensitive receivers	Auditing inspections and reporting shall be undertaken once every two weeks of the construction phase and once every two months of the operation phase.	During Construction and Operation
Archaeology (Watching Brief)	Monitor archaeological potential sites at major cut areas	Hole 2, Hole 11, Hole 12, Hole 14, Hole 15 and Hole 16.	The archaeologist should keep the AMO informed of the progress of watching brief. The archaeologist should submit progress reports every 3 months during the programme of the watching brief.	During Construction
Land Contamination	Total Sulphur and Total Lead	Locations 2, 3, 6, 7 & 8	One month before commencement of work at the identified 5 hotspots	During Construction
General Site Conditions	Environmental Site Inspection	Works areas and areas affected by works	Periodically (weekly basis)	During Construction

3. Environmental Monitoring Requirements

3.1 Air Quality

Monitoring Requirement

3.1.1 24-hour TSP monitoring was carried out at GCA B1 to monitor the construction dust impact level in this reporting period.

3.1.2 The established Action/Limit Levels (AL levels) for the 1-hour and 24-hour TSP monitoring works are summarized in Table 3.1 and Table 3.2.

Table 3.1 Action and Limit Levels for 1-hour TSP

Location	Description	Action Level	Limit Level
GCA B1	**Bungalow A** adjacent to Kau Sai Chau Public Golf Course Administration Building	277.2 μg m^{-3}	500 μg m^{-3}

Note: The action levels for GCA B1 are developed based on baseline monitoring result.

Table 3.2 Action and Limit Levels for 24-hour TSP

Location		Action Level	Limit Level
GCA B1	**Bungalow A** adjacent to Kau Sai Chau Public Golf Course Administration Building	187.4 μg m^{-3}	260 μg m^{-3}

Note: The action levels for GCA B1 are developed based on baseline monitoring result.

Monitoring Parameters, Frequency and Programme

3.1.3 The monitoring parameters and frequency are summarized in Table 3.3. The monitoring programme for the reporting period is shown in **Annex B**.

Table 3.3 TSP Monitoring Parameter and Frequency

Parameter	Frequency
24-hour TSP	Once every 6 days
1-hour TSP	3 times every 6 days (as required in case of complaints)

Monitoring Locations

3.1.4 In accordance with the EM&A Manual, one monitoring station (GCA B1) was selected and shown in **Figure 3.1**.

Monitoring Equipment

3.1.5 24-hour and 1-hour TSP (in case of complaints received) were performed using High Volume Samplers (HVS) and measured in-situ respectively. 24-hour TSP level of samples will be collected using filters and High Volume Sampler and the collected samples will be determined by a local HOKLAS accredited laboratory upon receipt of the samples and 1-hour TSP level will be performed in-situ.

3.1.6 High volume samplers (HVS - Model GS-2310 Accu-vol) complete with the appropriate sampling inlets were installed for 24-hour TSP sampling. The HVS is composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complies with USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50 Appendix B). A portable dust meter was used for the 1-hour TSP monitoring. Table 3.4 summarises the equipment used.

Table 3.4 Air Quality Monitoring Equipment

Equipment	Model
HVS Sampler	GS 2310 Accu-vol system
Calibrator	GMW 25
1-hour TSP Dust Meter	Laser Dust Monitor – Model LD-1 (L)

Monitoring Methodology and Calibration Details

24-hour TSP Monitoring

(i) Field Monitoring, Operation & Analytical Procedures

3.1.7 Operating/analytical procedures for the operation of HVS are as follows. The sampler was placed on a horizontal platform with appropriate supporting structure such that:

- the filter was at least 1.3 meters above ground;
- no two samplers should be placed less than 2 metres apart;
- the distance between the sampler and an obstacle, such as buildings, would be at least twice the height that the obstacle protrudes above the sampler;
- a minimum of 2 metres separation from walls, parapets and penthouses would be required for the rooftop samplers;
- a minimum of 2 metres separation from any supporting structure, measured horizontally would be required;
- airflow around the sampler would be unrestricted;
- no furnaces or incineration flues would be operating near the sampler;
- the sampler would be more than 20 metres from the dripline; and
- any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.

3.1.8 Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 1.1 m3/min. and 1.4 m3/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.

3.1.9 For TSP sampling, fibreglass filters (G810) were used [Note: these filters have a collection efficiency of > 99% for particles of 0.3 mm diameter].

3.1.10 The power supply was checked to ensure the sampler worked properly.

3.1.11 On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.

3.1.12 The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen.

3.1.13 The filter was aligned on the screen so that the gasket formed an air-tight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.

3.1.14 The shelter lid was closed and secured with the aluminum strip.

3.1.15 The timer was then programmed. Information was recorded on the record sheeting, which included the starting time, the weather condition, and the filter number (the initial weight of the filter paper can be found out by using the filter number).

3.1.16 After sampling, the filter was transferred from the filter holder of the HVS to a sealable plastic bag and sent to the laboratory for weighing. The elapsed time was also recorded.

3.1.17 Before weighing, all filters were conditioned for 24 hours before weighing under temperature of 25°C ±3°C and the relative humidity (RH) < 50% ±5%, preferably 40%. The HOKLAS laboratory (ALS Technichem (HK) Pty Ltd) has comprehensive quality assurance and quality control programmes.

(ii) Maintenance

3.1.18 Proper maintenance would be provided for the HVS as described below:

3.1.19 The HVS motors and their accessories have been properly maintained. Appropriate maintenance such as routine motor brushes replacement (time interval for replacement is about 500 hours) and electrical wiring checking have been conducted to ensure that the equipment and necessary power supply were in good working condition.

3.1.20 Initial calibration of HVS was conducted upon installation of equipment. The subsequent calibration would be provided at 2-month intervals using GMW-25 Calibration Kit.

1-hour TSP Monitoring

(i) Measuring Procedures

3.1.21 The measuring procedures of the 1-hour dust meter have been in accordance with the Manufacturer's Instruction Manual as follows:

- Set POWER to "ON", push BATTERY button, make sure that the meter's indicator is in the range with a red line and allow the instrument to stand for about 3 minutes (Then, the air sampling inlet has been capped).
- Push the knob at MEASURE position.
- Push "O-ADJ" button. (Then meter's indication is 0).
- Push the knob at SENSI ADJ position and set the meter's indication to S value described on the Test Report using the trimmer for SENSI ADJ.
- Pull out the knob and return it to MEASURE position.
- Push "START" button.
- All measurement procedures in section 2.3 of the approved EM&A Manual are followed during the reporting period.

(ii) Maintenance

3.1.22 The 1-hour TSP meter would be checked at 3 month intervals and calibrated at 1-year intervals throughout all stages of the air quality baseline monitoring.

Event and Action Plans

3.1.23 The Event and Action Plan (EAP) for air quality monitoring is presented in **Annex C**.

3.2 Water Quality

Monitoring Requirement

3.2.1 Water quality monitoring was conducted in accordance with the EM&A Manual. Tables 3.5 & 3.6 show the established Action/Limit Levels for the water environmental monitoring parameters.

Table 3.5 Derived Summaries of Action and Limit Levels for Marine Water Quality

Parameters	Location	Action	Location	Limit
DO (Surface & Middle)	FCZ	5.8 mg/L	FCZ	5.3 mg/L
	All except FCZ	4.9 mg/L	All except FCZ	4.6 mg/L
DO (Bottom)	All	3.7 mg/L	All	3.4 mg/L
pH (depth-averaged)		N/A	All	6.5 - 8.5
SS (Depth-averaged)☆	FCZ	4.5 mg/L	FCZ	5.6 mg/L
	All except FCZ	6.1 mg/L	All except FCZ	10.6 mg/L
SS (Depth-averaged) Dredging for submarine pipelines⊕	M_RO1	6.1 mg/L	M_RO1	10.6 mg/L
Turbidity (Tby) (depth-averaged) ☆	FCZ	2.9 NTU☼	FCZ	3.9 NTU☼
	All except FCZ	3.3 NTU☼	All except FCZ	6.2 NTU☼
Ammonia Nitrogen (depth-averaged)	FCZ	0.02 mg/L	FCZ	0.03 mg/L
	All except FCZ	0.05 mg/L Δ	All except FCZ	0.05 mg/L Δ
Nitrate Nitrogen (depth-averaged)	FCZ	0.08 mg/L	FCZ	0.09 mg/L
	All except FCZ	0.09mg/L Δ	All except FCZ	0.09 mg/L Δ
Nitrite Nitrogen (depth-averaged)	FCZ	0.02 mg/L θ	FCZ	0.02 mg/L θ
	All except FCZ	0.02 mg/L	All except FCZ	0.04 mg/L
TIN (depth-averaged)	FCZ	0.12 mg/L	FCZ	0.14 mg/L
	All except FCZ	0.16 mg/L	All except FCZ	0.18 mg/L
Total Phosphorus (depth-averaged)	All	0.09 mg/L Δ	All	0.09 mg/L Δ

Remarks:
☆ : Action and limit levels are subjected to review especially for wet season throughout the construction phase of the project.
⊕ : Action and limit levels are subjected to review before the dredging works.
☼ : All are based on EM&A baseline monitoring data due to marked difference between EPD turbidity data and those from the baseline survey.
Δ : For nutrient monitoring (except NO_2-N) at non-FCZ stations, the trigger level has made reference to the existing golf course guideline values. The guideline value of NO_2-N is below the current detection limit of 0.01mg/L and thus not used.

θ : The same action and limit level of 0.02 mg/L is determined from the EM&A baseline data as 78% of the NO_2-N data are <= 0.01 mg/L and all remaining 22% equal to 0.02 mg/L.
FCZ including fish culture zones of Kai Lung Wan, Tai Tau Chau and Kau Sai
All except FCZ including remaining impact monitoring station of M_RO1, M_Marsh, M_BP and M_Coral.
Control monitoring locations: M_A & M_B

Table 3.6 Derived Summaries of Action and Limit Levels for Freshwater Water Quality

Parameters	Location	Action	Location	Limit
DO (mid-depth)		6.3 mg/L	All	4 mg/L ξ
pH (mid-depth)		N/A	All	6.0 - 9.0
SS (mid-depth) ?	All	3.8 mg/L or 120% of upstream control station's SS at the same tide of the same day	All	8 mg/L or 130% of upstream control station's SS at the same tide of the same day
Turbidity (Tby) (mid-depth) ?	All	3.1 NTU or 120% of upstream control station's Tby at the same tide of the same day	All	4 NTU or 130% of upstream control station's Tby at the same tide of the same day
Ammonia Nitrogen (mid-depth)		N/A	All	0.01 mg/L
Nitrate Nitrogen (mid-depth)	All	0.10 mg/L	All	0.11 mg/L
Nitrite Nitrogen (mid-depth)		N/A	All	0.01 mg/L
TIN (mid-depth)	All	0.12 mg/L	All	0.13 mg/L
Total Phosphorus (mid-depth)		N/A	All	0.02 mg/L

Remarks:
? : Action and limit levels are subjected to review especially for wet season.
Freshwater monitoring locations: F_UA, F_DA, F_UB, F_DB, F_UC, F_DC and F_Inland Marsh
As most of the freshwater samples were reported of NH_3-N, NO_3-N levels below the detection limit of 0.01 mg/L, limit level is set at 0.01 mg/L. Similarly for TP, a limit level of 0.02 mg/L (the detection limit of TP) is imposed.
ξ : Water Quality Objectives of the Port Shelter

Monitoring Parameters, Frequency and Programme

3.2.2 For marine water quality, measurements shall be taken at both mid-flood and mid-ebb tides and at three water depths (1 m below water surface, mid-depth and 1 m above sea bed, except where the water depth is less than 6 m, in which case the mid-depth station may be omitted). Should the water depth be less than 3 m, only the mid-depth station will be monitored.

3.2.3 For the stream course, measurements shall be taken at mid-water depth.

3.2.4 The water quality parameters which need to be monitored are as follows:

- Marine water quality - dissolved oxygen (DO), temperature, turbidity, suspended solids (SS), pH and salinity
- Freshwater water quality - dissolved oxygen (DO), temperature, turbidity, suspended solids (SS) , pH and salinity

3.2.5 Additional marine and freshwater water quality monitoring parameters for the impact monitoring during construction include nitrate nitrogen (NO_3-N), nitrite nitrogen (NO_2-N), ammonia nitrogen (NH_3-N), total phosphate (TP) and selected pesticides.

3.2.6 The ET Leader shall propose the additional monitoring parameters for approval by IC(E), Engineer, EPD and AFCD, and shall submit such information for approval at least 2 weeks before the turf establishment period.

3.2.7 Additional water quality monitoring at Tai Tau Chau FCZ (TTC), Kai Lung Wan FCZ (KLW), Kau Sai FCZ (KS), downstream of the existing marsh (M_Marsh), marine water of Port Shelter (M_Coral), existing reservoir (F_Inland M) and Control stations (M_A and M_B) shall be carried out after heavy rain storm or when there is an overflow event from the reservoir, irrigation buffer lake or detention ponds/tanks. The heavy rain storm shall be defined when there is an amber/red/black rainstorm warning signal issued by the Hong Kong Observatory. The water sample shall be taken within 24 hours after the black/red/amber rainstorm warning signal is cancelled. Please refer to revised EM&A manual for the sampling condition requirement after a heavy rain storm event occurs. The monitoring parameters shall include dissolved oxygen, temperature, turbidity, suspended solids, pH and salinity. Additional parameters shall be the same as stated in paragraphs 3.2.5-3.2.6.

Monitoring Frequency

3.2.8 The monitoring parameters and frequency are summarized in Table 3.7. The monitoring programme for the reporting period is shown in **Annex B**.

Table 3.7 Water Quality Monitoring Parameter, Frequency and Locations

Parameters	Frequency	Location
Dissolved Oxygen (mg/L)	**3 days per week** Marine water : 2 times per day – 1 for mid-flood and 1 for mid-ebb Freshwater : once per day	**Marine Water** Fish culture zone stations: TTC, KLW, KS Control stations: M_A, M_B Impact stations: M_BP, M_RO1, M_Marsh, M_Coral **Freshwater Water** Stream A (F_UA, F_DA) Stream B (F_UB, F_DB) Stream C (F_UC, F_DC) Inland Marsh (F_lnland_M)
Temperature (ºC)		
Turbidity (NTU)		
pH		
Salinity (ppt)		
Suspended Solids (mg/L)		

Monitoring Locations

3.2.9 The water quality monitoring locations for marine and freshwater (**Figure 3.2**) are summarized in Table 3.8.

Table 3.8 Water Quality Monitoring Locations during Construction Phase

Identification Number	Location	Co-ordinates		Approx. Water Depth	No. of Depth
Marine Water (9 stations)		**latitude**	**longitude**		
TTC	Tai Tau Chau Fish Culture Zone	22° 22' 03.7"	114° 19' 19.6"	9.5 m	3
KLW	Kai Lung Wan Fish Culture Zone	22° 22' 10.6"	114° 18' 01.4"	13 m	3
KS	Kau Sai Fish Culture Zone	22° 20' 26.5"	114° 18' 59.9"	11 m	3
M_BP	Temporary barging point	22° 21' 50.6"	114° 19' 16.7"	9.6 m	3
M_RO1	Desalination plant south of the existing pier	22° 21' 51.8"	114° 18' 17.7"	5 m	2
M _ Marsh	Discharge point at the existing marsh	22° 22' 19.8"	114° 19' 05.4"	7.7 m	3
M _ Coral	Marine water of Port Shelter	22° 21' 21.3"	114° 19' 42.7"	10.2m	3
M _ A	Water Control Station of Port Shelter	22° 22' 51.3"	114° 18' 34.5"	7.5 m	3
M _ B	Water Control Station of Port Shelter	22° 20' 26.4"	114° 20' 11.8"	16.5 m	3
Fresh Water (7 stations)					
F_UA	Upstream and downstream of stream A	22° 21' 32.3"	114° 19' 06.5"	-	1
F_DA		22° 21' 33.5"	114° 19' 06.8"		1
F_UB	Upstream and downstream of stream B	22° 21' 23.9"	114° 19' 16.1"	-	1
F_DB		22° 21' 27.2"	114° 19' 16.0"		1
F_UC	Upstream and downstream of stream C	22° 21' 14.8"	114° 19' 26.4"	-	1
F_DC		22° 21' 03.5"	114° 19' 32.0"		1
F _ Inland M	Downstream of the existing marsh (Inland)	22° 22' 17.9"	114° 18' 59.1"	-	1

Monitoring Equipment

3.2.10 The equipment listed below shall be supplied by the ET and approved by the IC(E) and the Engineer for water quality monitoring.

Dissolved Oxygen and Temperature Measuring Equipment

3.2.11 The instrument shall be a portable and weatherproof DO measuring instrument complete with cable and sensor, and use a DC power source. The equipment shall be capable of measuring:

- dissolved oxygen levels in the range of 0 - 20 mg L^{-1} and 0 - 200% saturation; and
- a temperature of 0 - 45 degrees Celsius.

3.2.12 It shall have a membrane electrode with automatic temperature compensation complete with a cable. Sufficient stocks of spare electrodes and cables shall be available for replacement where

necessary. (For example, YSI model 59 meter, YSI 5739 probe, YSI 5795A submersible stirrer with reel and cable or an approved similar instrument).

3.2.13 Should salinity compensation not be built-in in the DO equipment, in-situ salinity shall be measured to calibrate the DO equipment prior to each DO measurement.

Turbidity Measurement Instrument

3.2.14 Turbidity shall be measured in situ by the nephelometric method. The instrument shall be portable and weatherproof turbidity measuring instrument using a DC power source complete with cable, sensor and comprehensive operation manuals. It shall have a photoelectric sensor capable of measuring turbidity between 0 - 1000 NTU (for example, Hach model 2100P or an approved similar instrument). The cable shall not be less than 25m in length. The meter shall be calibrated in order to establish the relationship between NTU units and the levels of suspended solids.

Suspended Solids

3.2.15 A water sample at least 2.5L in capacity with messenger and using a 10m line should be collected. Samples should be submitted to HOKLAS accredited laboratory as soon as possible for gravimetric analysis for suspended.

Sampler

3.2.16 A water sampler is required. It shall comprise a transparent PVC cylinder, with a capacity of not less than 2 litres, which can be effectively sealed with latex cups at both ends. The sampler shall have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth (for example, Kahlsico Water Sampler or an approved similar instrument).

Water Depth Detector

3.2.17 A portable, battery-operated echo sounder shall be used for the determination of water depth at each designated monitoring station. This unit can either be hand held or affixed to the bottom of the work boat, if the same vessel is to be used throughout the monitoring programme.

Salinity

3.2.18 A portable salinometer capable of measuring salinity in the range of 0 - 40 parts per thousand (ppt) shall be provided for measuring salinity of the water at each monitoring location.

pH

3.2.19 The instrument shall consist of a potentiometer, a glass electrode, a reference electrode and a temperature-compensating device. It shall be readable to 0.1pH in a range of 0 to 14. Standard buffer solutions of at least pH 7 and pH 10 shall be used for calibration of the instrument before and after use. Details of the method shall comply with APHA, 19th ed. 4500-HTB.

Flow Rate Meter

3.2.20 A portable, battery-operated flow meter should be used for the determination of water depth at each designated monitoring location and record in m^3/s. A hand held or meter fixed to the underside of the survey boat may be used.

Sample Containers and Storage

3.2.21 Water samples for laboratory analysis shall be stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4°C without being frozen) and delivered to the laboratory and analysed as soon as possible after collection. Sufficient volume of samples shall be collected to achieve the required detection limit.

Monitoring Position Equipment

3.2.22 A hand-held or boat-fixed type digital Differential Global Positioning System (DGPS) with way point bearing indication or other equipment instrument of similar accuracy, shall be provided and used during marine water monitoring to ensure the monitoring vessel is at the correct location before taking measurements.

Monitoring Methodology and Calibration Details

3.2.23 Dissolved oxygen (DO), temperature, turbidity, pH and salinity were measured in situ at the designated water quality monitoring stations. General observation, weather conditions, with the sampling time, date and location were marked on the field record sheet.

3.2.24 Water samples were taken from each monitoring station for laboratory analysis. The sample identification number, sampling location, date, time, project name and analyses were required.

3.2.25 The samples were placed in a cooler with ice (to 4°C without being frozen) and kept away from sunlight. Samples were submitted to a Hong Kong Laboratory Accreditation Scheme (HOKLAS) or other international accredited laboratory for analysis within 24 hours of sampling.

Calibration of In-Situ Instruments

3.2.26 All in situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use and subsequently re-calibrated at three monthly intervals throughout all stages of the water quality monitoring programme. Responses of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration for a DO meter were carried out before measurement at each monitoring location.

Laboratory Analysis

3.2.27 All laboratory work were carried out by ALS Technichem Pty Ltd (HOKLAS accredited laboratory). Water samples were collected at the monitoring and control stations for carrying out the laboratory determinations. The determination work will start within 24 hours after collection of the water samples. The analysis shall follow the standard methods according to APHA Standard Methods for the Examination of Water and Wastewater, 19th Edition, or an equivalent method approved by EPD.

Table 3.9 Analytical Methods to be applied to Water Quality Samples

Determinant	Standard Method	Reporting Limit
Suspended Solids	APHA 2540 D	2 mg/L
Nitrate Nitrogen	APHA 4500-NO_3^-	0.01 mg/L
Nitrite Nitrogen	APHA 4500-NO_2^-	0.01 mg/L
Ammonia Nitrogen	APHA 4500-NH_3(D)	0.01 mg/L
Total phosphorus	ASTM D515-88B	0.02 mg/L*
Chlorophyll a	APHA 10200 H2 &3	0.5 µg/L

Remarks: *After review baseline data, the detection limit report will be revised to 0.02 mg/L.

QA/QC Procedure

3.2.28 ALS Technichem Pty Ltd. has comprehensive quality assurance and quality control programmes. For QA/QC procedures of parameters, one duplicate sample was analysed for every batch of 20 samples as required by HOKLAS.

Event and Action Plans

3.2.29 The Event and Action Plan (EAP) for water quality monitoring is presented in **Annex C**.

3.3 Ecology

Introduction

3.3.1 The marine and terrestrial ecological monitoring surveys for the ecological EM&A were conducted in accordance with the EM&A manual.

3.3.2 As stipulated in the EM&A Manual, the ecological monitoring surveys for terrestrial ecology would be conducted monthly during the construction phase. Monitoring survey would consist of aquatic fauna survey. While the majority of the Project Area would be subject to site formation, natural streams would be partially or fully preserved and protected by buffer zones, and therefore would constitute the primary target of the terrestrial ecological monitoring. Special attention should thus be paid to ecologically sensitive streams to ensure minimum damage to existing vegetation and streams. The purpose of the monitoring survey was to check the conditions of the stream habitat and the associated aquatic fauna communities.

3.3.3 While the ecological monitoring surveys for marine ecology included coral monitoring at both the eastern and western coasts of Kau Sai Chau Island. The coral monitoring at the western coast would be conducted concurrently with the dredging works which has yet to conduct, and therefore had not been commenced. The coral monitoring at the eastern Kau Sau Chau would be monthly during the construction phase. Monitoring survey would consist of checking tagged corals at both impact sites and control site. The purpose of the monitoring survey was to check the conditions of the tagged corals and the impact sites.

Ecological Mitigation Measures and Implementations

3.3.4 Ecological mitigation measures to be implemented during the construction phase include the following:

- Establishment of buffer zones for the natural stream courses during both construction phase.
- Provision of temporary bypass channels or pipes during construction phase for stream courses subject to pipe culverting.
- Protection of water quality of the natural stream courses and temporary bypass channels or pipes.
- Transplantation of coral colonies within the dredging area for the desalination plant prior to the dredging works.
- Avoidance of corals when the anchoring points are deployed, and to shift the floating temporary barging point to the location with least corals within the mapping area.
- Regular site audit of ecological mitigation measures and good site practice.

Monitoring Frequency and Schedule

Terrestrial Ecology

3.3.5 As reported in the EIA Report, there were four perennial natural streams (Streams A-D) within the Assessment Area for the EIA Study. Streams A, B & C were located within the Project Area, while Stream D was outside the Project Areas and acted as the main stream draining the western part of the Assessment Area. Buffer Zone would be established for the three streams within the Project Area along their partial length (Stream A) or full length (Streams B & C) (**Figure 3.3**). Moreover, Streams B, C & D would be monitored for aquatic fauna monthly during the construction phase. Monitoring on the implementation of the mitigation measures for stream protection, the effectiveness of stream buffer zones, and the aquatic fauna in streams would be conducted during the entire construction phase.

3.3.6 The objectives of the monitoring survey are to check the status of *Caridina trifasciata* and *Nanhaipotamon hongkongensis*. The surveys covered natural stream courses within the assessment area (Streams A to D), and aquatic fauna were studied by various sampling methods depending upon site conditions. Methods included direct observation, active searching, and sample collection using hand-nets. Hand nets were used to collect swimming organisms such as shrimps and fish. Where necessary boulders on the stream beds were overturned to locate aquatic organisms such as crabs. Aquatic species encountered was recorded, with special attention to rare or protected species.

Marine Ecology

3.3.7 As required in the EM&A Manual, prior to the commencement of all construction works, a baseline survey of natural corals were conducted in December 2005. At each of the Site C, Site B2, Site D2 and a Control Site near the AFCD's Coral Buoy at Sharp Island (**Figure 3.4**), 20 natural coral colonies in good conditions (i.e. generally intact and no sign of bleaching) and significant sizes (over 20 cm in diameter) were selected and tagged. Each of the tagged coral colonies was identified to species level and their conditions, in terms of percentages of survival, sedimentation and bleaching, were recorded. Each coral was attached with a plastic label with assigned number and then photographed. The species and the size of each tagged corals were also recorded. The species of corals to have been tagged included the following 15 species: *Cyphastrea serailia, Favia speciosa, Favites abdita, Favites pentagona, Goniastrea aspera, Goniopora columna, Hydnophora exesa, Leptastrea pruinosa, Lithophyllon undulatum, Pavona decussate, Platygyra acuta, Platygyra carnosus, Plesiastrea versipora, Psammocora superficialis, and Turbinaria peltata.* All tagged corals were in good conditions, without significant sign of bleaching or being covered by sediments. The seagrass beds in Site D3 were also surveyed for their extent, coverage percentage and health conditions. The results of the baseline survey were presented in the Baseline Report.

3.3.8 The reporting month was the Month One of the construction programme. As the dredging works for the desalination plant had not been commenced, the impact sites to be monitored in this monitoring survey were Site B2 and Site C (impact sites on the eastern Kau Sai Chau Island for the new golf course) only, while Site D2 and Site D3 (impact sites on the western Kau Sai Chau Island for desalination plant) were not required in this survey.

3.3.9 The schedule for the impact sites on the eastern Kau Sai Chau Island during construction would be monthly in the first three months of the construction programme, quarterly till the end of the construction and then. The present survey was the first monitoring survey. The survival and health conditions of the coral colonies would be recorded.

3.3.10 During the weekly site inspection, ET monitored and audited the implementation of the recommended mitigation measures for terrestrial and marine ecology. Monitoring locations for ecology are shown in **Figures 3.3 – 3.5**. The monitoring programme for the reporting period is shown in **Annex B**.

Event and Action Plans

3.3.11 The Event and Action Plan (EAP) for ecology monitoring is presented in **Annex C**.

3.4 Landscape and Visual

3.4.1 The EIA concluded that the landscape and visual impacts associated with the construction of the third golf course are anticipated to be acceptable with mitigation. In order to ensure that the effective management and implementation of landscape mitigation measures developed and defined in the EIA, the ET conducted regular site inspections of the construction work sites.

3.4.2 Auditing inspections and reporting are undertaken once every two weeks of the construction phase. The effectiveness of the mitigation works has been audited in order to ensure impact reduction levels are achieved as described in the EIA report for this monitoring month. The monitoring programme for the reporting period is shown in **Annex B.**

3.5 Archaeology (Watching Brief)

Introduction

3.5.1 The archeological impact assessment conducted in the EIA concluded that some potential for archaeological material remains at the Wan Chai Archaeological Site and a watching brief is recommended during the construction phase.

3.5.2 A watching brief is a process whereby a qualified and licensed archaeologist monitors the excavation works during the construction phase in areas identified (and agreed with the Antiquities and Monuments Office (AMO)) to be of archaeological potential.

3.5.3 The archaeologist conducting the watching brief should obtain a licence prior to commencement of works as stipulated in Section 12 of the Antiquities and Monuments Ordinance (Cap. 53). The licence was granted on 22 December 2005.

Monitoring Location

3.5.4 The monitoring locations include Hole 2, Hole 11, Hole 12, Hole 14, Hole 15 & Hole 16. The monitoring locations are present in **Figure 3.6**.

Monitoring Frequency

3.5.5 A total of 18 days of monitoring is considered as minimum, and additional arrangement for watching brief should be made in consultation with AMO in case significant archaeological findings are unearthed in the course of excavation work.

Progress Report

3.5.6 Archaeologist should submit progress reports every 3 months during the programme of the watching brief.

3.5.7 A summary table for categories of archaeological find and recommended action is presented in **Annex C**.

3.6 Land Contamination

Potential Areas Recommended for Further Investigation

3.6.1 Contamination Assessment Plan (CAP) shall be submitted to EPD for approval before site investigation. If land contamination is confirmed by the site investigation, submission of a Remediation Assessment Plan (RAP) including a Contamination Assessment Report (CAR) is required. Potential land contamination hotspots are presented in **Figure 3.7**.

4. Implementation Status on Environmental Protection Requirements

4.1.1 The major works at construction site were (i) vegetation clearance at Holes 1, 2, 9 and 17, (ii) excavation at Hole 2 and (iii) construct a temporary haul road from temporary barging point to Hole 2 during this monitoring month.

4.1.2 No construction site office, concrete batching plant and temporary barging point were located at the construction site. The Contractor has provided interim/minimize preventive mitigation measures to control silty runoff and dust suppression at this early stage.

4.1.3 No dredging work has been carried out near to the existing pier for the desalination plant pipelines but minor land formation for the desalination plant was started in mid February 2006 to the north of the existing Kau Sai Chau pier.

4.1.4 Stream buffer zone at Stream A has been demarcated to prevent any works/equipment intrusion. As discussed with the Contractor, no work will be approach to the Streams B and C for this reporting month. The purpose is to minimize any disturbance to the stream due to the installation of the fencing which will strip a minimum amount of vegetation off along the edge of buffer zones areas. Contractor agreed that the demarcation of stream buffer zones at B and C will be carried out until works approach to those sensitive areas.

4.1.5 The revised construction programme has been submitted by the Contractor and under review by Jockey Club, ER and ET. The Contractor was reminded to ensure the revised programme should indicate minimize the exposed area in wet season, control vegetation clearance at sensitive areas and provide sufficient mitigation measures to minimize the potential silty runoff from the construction site. In addition, turf establishment should not be concentrated in a short period of time to reduce the potential nutrients and pesticides runoff to freshwater and marine water sensitive receivers. The Temporary Drainage Master Plan has not yet been submitted by the Contractor for approval during this reporting month.

4.1.6 Summary of implementation status is provided in **Annex D**.

5. Monitoring Results

5.1 Air Quality

5.1.1 Dust monitoring was conducted as scheduled in the reporting month. Monitoring of air quality was conducted on 5 occasions in January and February 2006. All monitoring data are provided in **Annex E**. Monitoring of 24-hour TSP was conducted at GCA B1 on 25th January, 6th, 11th, 17th and 23rd February 2006. The QA/QC results for laboratory testing in the reporting month were acceptable. The QA/QC results are summarised in **Annex F**.

5.1.2 All measured 24-hour TSP concentration was below the Action/Limit Levels. No exceedance was recorded in the reporting month. No 1-hour TSP measurement was required due to no complaint was received during this monitoring month.

5.2 Water Quality

5.2.1 Marine and freshwater water quality monitoring were conducted at the 9 and 7 designated monitoring stations respectively. All monitoring data are provided in **Annex E**.

5.2.2 Monitoring of marine and freshwater locations was conducted on 11 occasions in January 2006. The QA/QC results for laboratory testing in the reporting month were acceptable. The QA/QC results are summarised in **Annex F**.

Marine Water

5.2.3 No exceedance of action and limit level was recorded at all marine water monitoring locations during this monitoring month.

Freshwater

5.2.4 Two action and one limit levels exceedance for SS was recorded at F_DB on 8th, 13th and 22nd February 2006.

5.2.5 The ET considered that exceedances were not attributed to construction work as excavation work was conducted at Hole 2 mainly. Although there was vegetation clearance (around 30%) at Holes 9 & 17, it was far away from all sensitive streams and existing marsh. The exceedances were considered as the natural variation for the dry season. Explanation of the SS exceedances at the impact monitoring locations are as follows:

- No construction work was carried out near to Streams A, B and C and existing marsh during this reporting month.
- The measured maximum exceedance of SS value was 5 mg/L which was considered a good water quality representative.
- The baseline data represents a good dry season water quality that was measured in Nov and Dec 2005. The action and limit levels of SS and turbidity are subjected to further review (especially before wet season) in order to ensure the action and limit levels are sufficient to protect the streams form adverse impacts. With the consideration of the natural variation by the long-term monitoring results in future, a more representative action and limit levels can be establish to distinguish between the natural variation and actual impact from the construction site.

- In general, upstream water quality for stream B is slightly better than downstream during this reporting month.

5.3 Ecology

5.3.1 Terrestrial and marine ecology monitoring photos are provided in **Annex E**.

Terrestrial Ecology

5.3.2 The Monitoring Survey for the reporting month was conducted on 10th & 17th February 2006. Site clearance works had been being conducted at the northern part of the new golf course site (areas close to the existing golf course). There were also pathways to facilitate the land surveying works and the EM&A sampling on environmental parameters such as water quality and air quality by ET personnel, no major construction works had commenced within the site when the survey was conducted.

5.3.3 Although the streams have not been affected by developments or pollution sources, they are relatively small. Water depth was less than 0.3m in most of the stream reaches.

5.3.4 Stream A is located within the Project Area. Its main stream section (downstream to the confluence of two tributaries) would be protected by stream buffer zone (**Figure 3.3**). Stream A was heavily silted with sediments from eroded hillsides all year round, particularly at the main stream section. The stream had low flow.

5.3.5 Stream B is located within the Project Area. It had clear flow (with little sediment in the stream beds) of moderate volume during the wet season. This stream also has two main tributaries, B1 and B2. The full length of Stream B (two tributaries and the main stream) would all be protected by buffer zone (**Figure 3.3**). Stream B also contains a long estuarine section of muddy sandy substrate.

5.3.6 Stream C is located within the Project Area. This stream also has two main tributaries. It has had low but clear flow. In contrast to Stream B, Stream C drains to a sandy beach at Kau Chung Wan, and therefore lacks a clear estuarine zone. The full length of Stream C (two tributaries and the main stream) would all be protected by buffer zone (**Figure 3.3**)

5.3.7 Stream D is located outside the Project Area but within the Assessment Area and is the main stream draining the west side of the Assessment Area. It had clear water and moderate flow levels. Stream D is the only stream with deeper water depth among the four streams (water depth over 0.3 m in some of the stream reaches). As Stream D is outside the construction area, buffer zone would not be needed for this stream.

5.3.8 In general, the streams and the riparian vegetation were in natural conditions similar to the condition during the Baseline Survey. Water levels in the 4 streams were low due to dry season. For the two tributaries in Stream B, B1 tributary was dry but there was flow in B2 tributary. The majority of Stream C was also dry, with limited number of isolated (not connected by surface flow) shallow pools in the downstream section. Photos of Streams A to D were shown in **Photo Plate 5.3-1 (Annex E)**.

5.3.9 The habitats and vegetation generally remained intact within a large potion of the project site (outside the site clearance works), within the stream buffer zone and outside the project area. Other than the site clearance, the historical erosion of hillsides, and the access paths to the project site, no earthwork, human disturbance or fire disturbance was observed.

5.3.10 Aquatic fauna communities were checked during the monitoring survey. Atyid shrimp *Caridina trifasciata* were found in Stream B, Stream C & Stream D during the present monitoring survey (**Annex E - Photo Plate 5.3-1**). Abundance was low in all streams but slightly higher in Stream B. Stream C had been of higher shrimp abundance in the January 2006 survey, but became much dryer in the present survey and thus the shrimp abundance had dropped. Two juvenile individuals of the endemic freshwater crab *Nanhaipotamon hongkongense*, which had been recorded in Streams C and D during the EIA study but not recovered in the January 2006 survey, was found inside burrows on the dry channel bed of Stream C during the present monitoring survey (**Annex E - Photo Plate 5.3-2**).

5.3.11 Other aquatic fauna and flora encountered during the monitoring included Freshwater snail *Brotia hainanensis*, which is usually found in streams with good water quality, found at B2 tributary of Stream B, and Long-armed Palemond shrimp *Macrobrachia hainanensis* in the isolated shallow pools in Stream C, and Sundew. Some wild boar footprints were also found at the stream bed of Stream A (**Annex E - Photo Plate 5.3-1**).

5.3.12 The demarcation of the stream buffer zone had been partially established at Stream A main stream and Tributary B2 of Stream B at the time of the monitoring survey **(Annex E - Photo Plate 5.3-2**). As the construction works were still close to the exiting golf course, it is anticipated that the establishment of stream buffer zone demarcation will be finished before the works fronts reach each stream.

Marine Ecology

5.3.13 The present Marine Ecological Monitoring Survey was conducted during high tide on 23rd & 25th February 2006. The weather conditions were cloudy and windy, especially at Site B2 and Site C, the water was turbid and the underwater visibility was low (approximately less than 2m). Abundant macro algae were present at all three monitored sites on the surfaces of boulder or corals. At each site to be monitored for corals, the 20 colonies of natural corals selected during the Baseline Survey were recovered and checked for conditions.

5.3.14 Site B2 was the location for the temporary barging point. Except some land works at the nearby abandoned pier, no marine construction works had been conducted at this location since the Baseline Survey when the present monitoring survey was conducted. All 20 tagged corals were recovered. No mortality, sedimentation or bleaching was found on any of the tagged corals (see **Table 5.3-1**). The corals remained similar conditions as during the Baseline Survey (**Annex E - Photo Plates 5.3-3 to 5.3-6**). No difference was found on the conditions of the tagged corals within and outside the proposed floating barging point boundary.

5.3.15 Site C was on the south-eastern coast of Kau Sai Chau Island and had a high coral coverage among the sites investigated during the EIA Study. The sizes of coral colonies at Site C were also larger than those at other sites. Site C was away from the boundary of the new golf course and would not be subject to direct impacts during construction. The site and its vicinity still remained similar conditions as during the Baseline Survey. All 20 tagged corals were recovered. No mortality, sedimentation or bleaching was found on any of the tagged corals (see **Table 5.3-2**). The corals remained similar conditions as during the Baseline Survey (**Annex E - Photo Plates 5.3-7 to 5.3-10**).

5.3.16 The Control Site is the buoy of coral marker established by AFCD in Sharp Island. Similar with Site C, both the coral coverage percentage and the sizes of coral colonies were high at this site and would not be impacted by the Project. The site and its vicinity still remained similar conditions as during the Baseline Survey. All 20 tagged corals were recovered. No mortality, sedimentation or bleaching was found on any of the tagged corals (see **Table 5.3-3**). The corals

remained similar conditions as during the Baseline Survey (**Annex E - Photo Plates 5.3-11 to 5.3-14**).

5.3.17 **Photo Plates 5.3-3** to **5.3-14** showed the photos of each tagged corals. The assigned numbers, species, mortality percentage, sedimentation coverage percentage and bleaching percentage of the tagged corals during baseline survey and the present survey were presented in **Tables 5.3-1** to **5.3-3** below. No impact on the tagged corals was identified. The presence of abundant macro algae was considered due to the short-term seasonal bloom of algae at spring each year, rather than the construction works on Kau Sai Chau, as the algae were also recorded at the Control Site.

Table 5.3-1 Conditions of tagged corals at Site B2

Code of tagged corals	Species	Baseline Survey (December 2005)			Month Two (February 2006)		
		Mortality (%)	Sedimentation (%)	Bleaching (%)	Mortality (%)	Sedimentation (%)	Bleaching (%)
B-01	*Platygyra acuta*	0	0	0	0	0	0
B-02	*Favia speciosa*	0	0	0	0	0	0
B-03	*Turbinaria peltata*	0	0	0	0	0	0
B-04	*Leptastrea pruinosa*	0	0	0	0	0	0
B-05	*Cyphastrea serailia*	0	0	0	0	0	0
B-06	*Favia speciosa*	0	0	0	0	0	0
B-07	*Favia speciosa*	0	0	0	0	0	0
B-08	*Turbinaria peltata*	0	0	0	0	0	0
B-09	*Favia speciosa*	0	0	0	0	0	0
B-10	*Favia speciosa*	0	0	0	0	0	0
B-11	*Turbinaria peltata*	0	0	0	0	0	0
B-12	*Plesiastrea versipora*	0	0	0	0	0	0
B-13	*Plesiastrea versipora*	0	0	0	0	0	0
B-14	*Goniastrea aspera*	0	0	0	0	0	0
B-15	*Lithophyllon undulatum*	0	0	0	0	0	0
B-16	*Favia speciosa*	0	0	0	0	0	0
B-17	*Favia speciosa*	0	0	0	0	0	0
B-18	*Turbinaria peltata*	0	0	0	0	0	0
B-19	*Favia speciosa*	0	0	0	0	0	0
B-20	*Favia speciosa*	0	0	0	0	0	0

Table 5.3-2 Conditions of tagged corals at Site C

Code of tagged corals	Species	Baseline Survey (December 2005)			Month Two (February 2006)		
		Mortality (%)	Sedimentation (%)	Bleaching (%)	Mortality (%)	Sedimentation (%)	Bleaching (%)
C-01	*Platygyra carnosus*	0	0	0	0	0	0
C-02	*Platygyra carnosus*	0	0	0	0	0	0
C-03	*Favia speciosa*	0	0	0	0	0	0
C-04	*Favites abdita*	0	0	0	0	0	0
C-05	*Turbinaria peltata*	0	0	0	0	0	0
C-06	*Favia speciosa*	0	0	0	0	0	0
C-07	*Platygyra acuta*	0	0	0	0	0	0
C-08	*Platygyra acuta*	0	0	0	0	0	0
C-09	*Favia speciosa*	0	0	0	0	0	0
C-10	*Platygyra acuta*	0	0	0	0	0	0
C-11	*Favia speciosa*	0	0	0	0	0	0
C-12	*Platygyra acuta*	0	0	0	0	0	0
C-13	*Platygyra carnosus*	0	0	0	0	0	0
C-14	*Favia speciosa*	0	0	0	0	0	0
C-15	*Goniopora columna*	0	0	0	0	0	0
C-16	*Platygyra carnosus*	0	0	0	0	0	0
C-17	*Goniopora columna*	0	0	0	0	0	0
C-18	*Platygyra carnosus*	0	0	0	0	0	0
C-19	*Favites pentagona*	0	0	0	0	0	0
C-20	*Favia speciosa*	0	0	0	0	0	0

Table 5.3-3 Conditions of tagged corals at Control Site

Code of tagged corals	Species	Baseline Survey (December 2005)			Month Two (February 2006)		
		Mortality (%)	Sedimentation (%)	Bleaching (%)	Mortality (%)	Sedimentation (%)	Bleaching (%)
X-01	*Platygyra carnosus*	0	0	0	0	0	0
X-02	*Platygyra carnosus*	0	0	0	0	0	0
X-03	*Platygyra carnosus*	0	0	0	0	0	0
X-04	*Pavona decussata*	0	0	0	0	0	0
X-05	*Hydnophora exesa*	0	0	0	0	0	0
X-06	*Platygyra carnosus*	0	0	0	0	0	0
X-07	*Platygyra carnosus*	0	0	0	0	0	0
X-08	*Favites abdita*	0	0	0	0	0	0
X-09	*Cyphastrea serailia*	0	0	0	0	0	0
X-10	*Cyphastrea serailia*	0	0	0	0	0	0
X-11	*Platygyra carnosus*	0	0	0	0	0	0

Code of tagged corals	Species	Baseline Survey (December 2005)			Month Two (February 2006)		
		Mortality (%)	Sedimentation (%)	Bleaching (%)	Mortality (%)	Sedimentation (%)	Bleaching (%)
X-12	*Platygyra acuta*	0	0	0	0	0	0
X-13	*Platygyra acuta*	0	0	0	0	0	0
X-14	*Platygyra acuta*	0	0	0	0	0	0
X-15	*Platygyra acuta*	0	0	0	0	0	0
X-16	*Platygyra acuta*	0	0	0	0	0	0
X-17	*Favia speciosa*	0	0	0	0	0	0
X-18	*Platygyra acuta*	0	0	0	0	0	0
X-19	*Goniastrea aspera*	0	0	0	0	0	0
X-20	*Cyphastrea serailia*	0	0	0	0	0	0

5.4 Landscape and Visual

5.4.1 The only landscape resource changed during the site clearance work is the loss of shrubland. However, the impact had been already covered in the EIA report and impact is considered acceptable. Trees in the construction area had not been removed or transplanted.

5.4.2 The change of landscape character is negligible as the present construction area is hidden and has a limited extent.

5.4.3 Change of view conditions is also negligible as the construction area is hidden in a valley and visual impacts to sensitive receivers are screened by the mountains.

5.5 Archaeology (Watching Brief)

5.5.1 Excavation was carried out at Hole 2 during this monitoring month and watching brief monitoring was carried out. The proposed construction progarmme of cut-and-fill for Hole 2 will start from January to April 2006. The tentative submission of the first progress report to AMO will be on April 2006 (quarterly basis).

5.6 Land Contamination

5.6.1 The Contamination Assessment Plan (CAP) was approved by EPD 17th February 2006. Site investigation was carried out on 14th and 15th February 2006. Site audit was carried out with IEC on 14th February 2006 with the Contractor's representatives. The preparation of Contamination Assessment Report (CAR) is in-progress. Based on the preliminary results, all 5 hotspots are not contaminated by Lead and Sulfur. Therefore, Remediation Assessment Plan (RAP) will not be required.

6. Environmental Site Auditing

6.1.1 The weekly site inspections were conducted by the ET with Contractor's representative and/or Jockey Club's representative on 26th January, 3rd, 10th, 17th & 24th February 2006 and the monthly joined site inspection with IEC and the Contractor's representative undertaken on 24th February 2006. The following observations and recommendations were made.

6.1.2 The environmental permit was displayed at the existing Kau Sai Chau pier and relevant documents were available at the existing administration building.

Dust Mitigation Measures

6.1.3 Excavation work was carried out at Hole 2. Automatic sprinklers were provided when the rock breaking activities were carried out for dust suppression. A standby water tank was available on site. The Contractor was reminded to minimize the dust generated by the site vehicles moving along the haul road between Holes 1 and 2 near to the existing golf course (S6 and S7).

Water Quality

6.1.4 A temporary drainage master plan had not been submitted by the Contractor for ER to review during this monitoring month. Project proponent, ER and ET had reminded Contractor to submit the plan for comment and approval. It is recommended that installation of approved temporary drainage system at the construction site shall be available before the wet season.

6.1.5 Silt fences and boulders covered with silt curtains (water proof) were installed and strengthen at the relative low points (vulnerable to silty runoff) of the construction site boundary at Holes 1, 2, 9 and 17 as a preventative measures. Some occasional rain showers were observed during this monitoring month.

Ecology

6.1.6 Only Stream buffer zone at Stream A has been established during this reporting month. The whole buffer zone aims to protect the streams and avoid any works/equipment intrusion into the buffer zone. Vegetation clearance works at Holes 9 and 17 were carried out but far away from Stream A. No work has been carried out near Streams B and C. The Contractor was reminded to demarcate Streams B and C buffer zones before any construction work close to the buffer zone areas.

Waste / Chemical Management

6.1.7 Cleared vegetation was stockpile and located mainly in Hole 1 for wind/sun drying before proper disposal. As confirmed by Contractor, once the dump trucks and temporary barging point are available, vegetation stockpiles and construction waste will be disposal off-site properly.

6.1.8 No chemical storage area was available on site during the reporting month. Some oil tanks were required as the standby fuel. Drip trays were provided underneath the oil tanks to prevent leakage on the bare ground.

Landscape and Visual

6.1.9 During the site audit, site clearance works and excavation at Hole 2 were observed. Trees within the construction area were protected properly. No felling and transplanting of trees have been

carried out since the commencement of the construction. Trees within the site clearance area were in fair condition. Stockpiles of cleared vegetation were recorded on site. The Contractor was reminded to dispose vegetation stockpiles properly once temporary barging point and dump trucks available on site.

6.1.10 Green hoarding were erected near the desalinization plant to reduce visual impacts.

Status of Environmental Licensing and Permitting

6.1.11 Permits / licences submission and approval status are summarised in Table 6.1. The Contractor was reminded to confirm whether the concrete batching plant is a specified processes and licence for operation is required. In addition, the Contractor was required to clarify the necessity of obtaining an effluent discharge licence from the construction site activities under WPCO.

Table 6.1 Summary of Environmental Licensing and Permit Status

Permit/licence/notification form title	Submission date	Status	Registration No.
Application for a construction noise permit for the use of powered mechanical equipment for the purpose of carrying out construction work other than percussive pilling and/or the carrying out of prescribed construction work.	January 2006	Approved on 16th February 2006	GW-RE0012-06 (valid until 3rd July 2006)
Notification of the air pollution control (construction dust) regulation	January 2006	awaiting approval	
Registration as a chemical waste producer	January 2006	Register on 7th February 2006	WPN-5213-813-C1186-04
Application for a permit to dump material at sea under the Dumping at Sea Ordinance	January 2006	awaiting approval	
Application of exemption account for the construction waste charging scheme	January 2006	Approved on 16th January 2006	A/C no. 5005322 (valid until 2nd August 2007)

7. Environmental Non-Conformance

7.1 Summary of Environmental Non-Compliance

7.1.1 Two action and one limit levels were recorded for freshwater monitoring stations (F_DB) in this reporting month. The exceedances were considered not project related (no works near to any streams) and mainly contributed by natural variation. Hence, no further mitigation measure was required.

7.2 Summary of Environmental Complaint

7.2.1 No environmental complaints were received in this monitoring month.

7.3 Summary of Environmental Summons

7.2.2 There was no notification of summons with respect to environmental issues registered in this month.

8. Future Key Issues

8.1 Key Issues for coming month

8.1.1 Works to be taken for the coming monitoring period are summarized as follows.

- Construction of temporary barging point
- Construction of site haul road to Hole 2 (Site office)
- Construction of haul road (GH 3 to 8)
- Construction of site office
- Construction of concrete batching plant
- Land formation for desalination plant
- Cut and fill at Golf Holes 1, 2, 9 & 17

8.2 Monitoring Schedule for the coming month

8.2.1 The tentative schedule of air, water, ecology and landscape & visual monitoring for the next three months is presented in **Annex F**. The environmental monitoring will be conducted at the same monitoring locations in this reporting month. The monitoring programme has been reviewed and was considered as adequate to cater the nature of works to be undertaken.

8.3 Construction programme for the next three month

8.3.1 The construction programme for the next three months is presented in **Annex G.**

9. Recommendations and Conclusions

9.1.1 The Environmental Monitoring and Audit (EM&A) Report presents the EM&A works undertaken during the period from 25th January 2006 to 24th February 2006 in accordance with EM&A Manual and the requirement under EP-224/2005.

9.1.2 No exceedance of the Action and Limit Levels of 24-hour TSP.

9.1.3 Three exceedances of SS were recorded at the water quality monitoring stations (F_DB) during the reporting month but such exceedance was not attributed to the project activities.

9.1.4 For terrestrial ecology, the streams and the riparian vegetation were in natural conditions similar to the condition during the Baseline Survey.

9.1.5 No marine construction work had been conducted at temporary barging point (Site B2). At Site B2, Site C and Control Site, no mortality, sedimentation or bleaching was found on any of the tagged corals. All sites and their vicinity still remained similar conditions as during the Baseline Survey.

9.1.6 Vegetation clearance work is being carried out at present. Tree protection is satisfactory. Stockpiles of cleared vegetation were found stored on site and require removal. The Contractor was reminded to dispose the vegetation stockpiles and construction waste when dump trucks and temporary barging point are available on site.

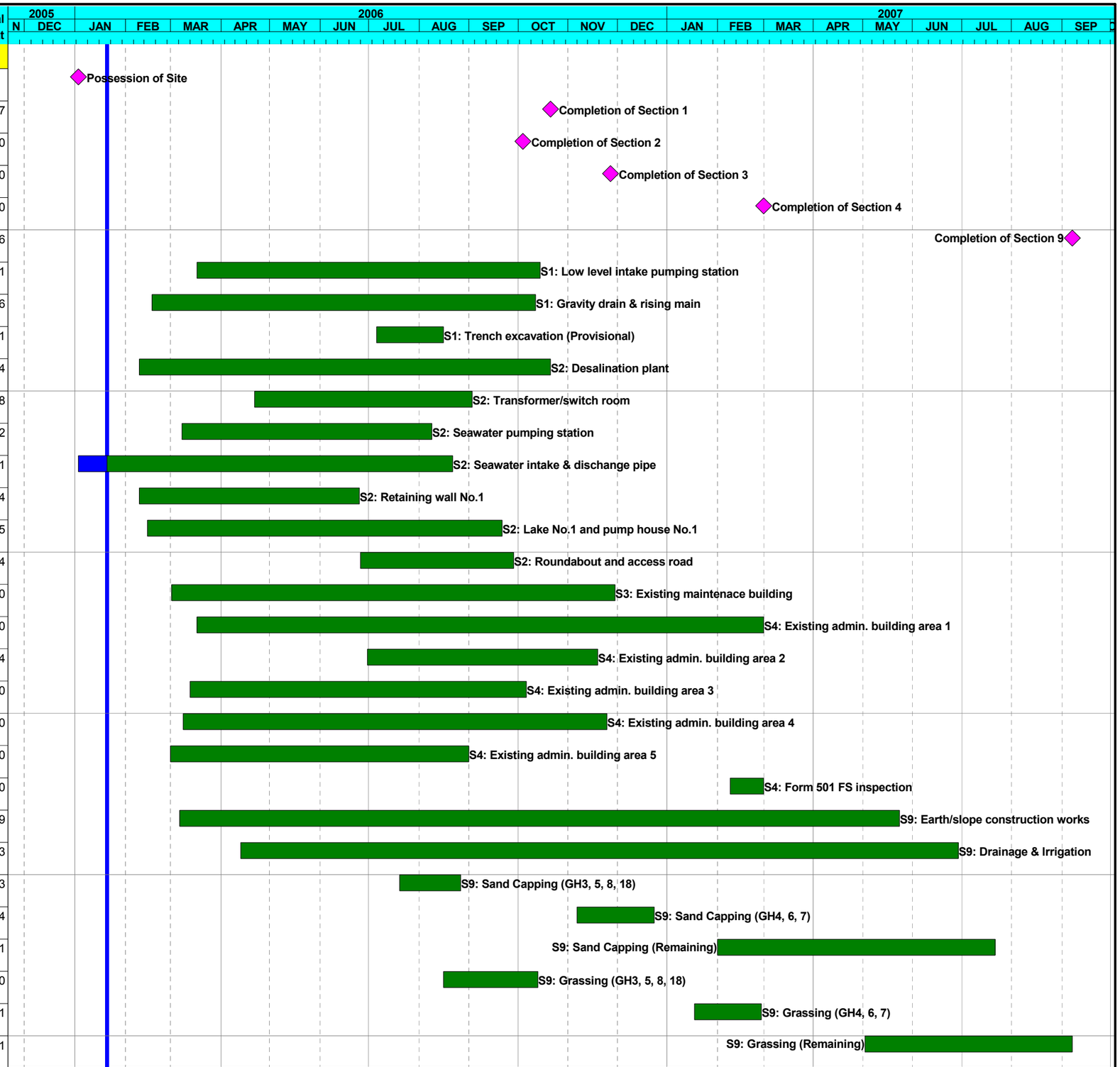
9.1.7 No environmental non-compliance was recorded during the site audit. No environmental complaints/summons/prosecutions were received during the reporting period since the commencement of the Project.

9.1.8 The ET will keep track of the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Annex A
Tentative Construction Programme

SUMMARY PROGRAMME

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
SU00100	Possession of Site	0	03/01/06A		
SU00110	Completion of Section 1	0		20/10/06	-17
SU00120	Completion of Section 2	0		03/10/06	0
SU00130	Completion of Section 3	0		26/11/06	0
SU00140	Completion of Section 4	0		28/02/07	0
SU00150	Completion of Section 9	0		06/09/07	-36
SU00160	S1: Low level intake pumping station	172*	17/03/06	14/10/06	-11
SU00170	S1: Gravity drain & rising main	192*	18/02/06	11/10/06	-6
SU00180	S1: Trench excavation (Provisional)	35*	06/07/06	15/08/06	41
SU00190	S2: Desalination plant	207*	10/02/06	20/10/06	-14
SU00200	S2: Transformer/switch room	111*	22/04/06	02/09/06	18
SU00210	S2: Seawater pumping station	124*	08/03/06	08/08/06	22
SU00220	S2: Seawater intake & dischange pipe	187*	03/01/06A	21/08/06	21
SU00230	S2: Retaining wall No.1	109*	10/02/06	24/06/06	4
SU00240	S2: Lake No.1 and pump house No.1	179*	15/02/06	20/09/06	-15
SU00250	S2: Roundabout and access road	80*	26/06/06	27/09/06	4
SU00260	S3: Existing maintenace building	223*	02/03/06	29/11/06	0
SU00270	S4: Existing admin. building area 1	282*	17/03/06	28/02/07	0
SU00280	S4: Existing admin. building area 2	118*	30/06/06	18/11/06	64
SU00290	S4: Existing admin. building area 3	169*	13/03/06	05/10/06	0
SU00300	S4: Existing admin. building area 4	213*	09/03/06	24/11/06	0
SU00310	S4: Existing admin. building area 5	150*	01/03/06	31/08/06	0
SU00320	S4: Form 501 FS inspection	17*	09/02/07	28/02/07	0
SU00330	S9: Earth/slope construction works	357*	07/03/06	23/05/07	-29
SU00350	S9: Drainage & Irrigation	356*	13/04/06	28/06/07	-23
SU00360	S9: Sand Capping (GH3, 5, 8, 18)	33*	20/07/06	26/08/06	53
SU00370	S9: Sand Capping (GH4, 6, 7)	42*	06/11/06	23/12/06	-4
SU00380	S9: Sand Capping (Remaining)	139*	01/02/07	21/07/07	-31
SU00390	S9: Grassing (GH3, 5, 8, 18)	48*	16/08/06	12/10/06	100
SU00400	S9: Grassing (GH4, 6, 7)	32*	18/01/07	27/02/07	21
SU00410	S9: Grassing (Remaining)	106*	03/05/07	06/09/07	-31



N DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP
2005 2006 2007

Start Date	28/12/05
Finish Date	06/09/07
Data Date	21/01/06
Run Date	01/03/06 15:33

Summary Bar
Progress Bar

?Primavera Systems, Inc.

KST5

Sheet 1 of 1

China Harbour Engineering Co.
Third Golf Course at Kau Sai Chau
Summary Programme

Date	Revision	Checked	Approved
28/12/05	4th Final for Submission	Tim	
01/03/06	Ver 5th (KST5)	Tim	

Annex B
Monitoring Programme for the reporting month

January 2006						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
22	23	24	25 AQ	26	27 WQ	28 CNY
29 CNY	30 CNY	31 CNY				
February 2006						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
			1 CNY	2 CNY	3 CNY	4
5	6 AQ, WQ, LV	7	8 WQ	9	10 TE	11 AQ, WQ
12	13 WQ	14	15 WQ	16	17 AQ, WQ, TE	18
19	20 WQ	21 LV	22 WQ	23 AQ, ME	24 WQ	25 ME
26	27	28				

Remarks: AQ = TSP, WQ = Freshwater and Marine water quality, TE = Terrestrial Ecology, ME = Marine Ecology, LV = Landscape & Visual

CNY = Chinese New Year (no construction works was carried out)

Annex C
Event Action Plan

Event / Action Plan for Air Quality

EVENT	ACTION			
	ET	IC(E)	Engineer	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of complaint and propose remedial measures; 2. Inform IC(E) and Engineer; 3. Repeat measurement to confirm finding; 4. Increase to daily monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IC(E) and Engineer; 3. Advise Engineer on effectiveness of proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase to daily monitoring; 6. Discuss with IC(E) and Contractor remedial actions required; 7. If exceedance continues, arrange meeting with IC(E) and Engineer; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor possible remedial measures; 4. Advise ET on the effectiveness of proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm in writing receipt of notification of exceedance; 2. Notify Contractor; 3. Supervise proper implementation of remedial measures.	1. Submit proposals for remedial measures to Engineer within three working days of notification; 2. Implement agreed proposals; 3. Amend proposal if appropriate.
LIMIT LEVEL				
1. Exceedance for one sample	1. Identify source, investigate causes of exceedance and propose remedial measures; 2. Inform IC(E), Engineer, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase to daily monitoring; 5. Assess effectiveness of Contractor's remedial actions	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor possible remedial measures; 4. Advise Engineer on effectiveness of proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm in writing receipt of notification of exceedance; 2. Notify Contractor; 3. Supervise proper implementation of remedial measures.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IC(E) within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposals if appropriate.

EVENT	ACTION			
	ET	IC(E)	Engineer	CONTRACTOR
	and keep IC(E), EPD and Engineer informed of results.			
2 Exceedance for two or more consecutive samples	1. Notify IC(E), Engineer, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase to daily monitoring; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation measures to be implemented; 6. Arrange meeting with IC(E) and Engineer to discuss remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and Engineer informed of results; 8. If exceedance stops, cease additional monitoring.	Discuss amongst Engineer, ET, and Contractor the potential remedial actions; Review Contractor's remedial actions whenever necessary to assure their effectiveness, and advise Engineer accordingly; Supervise implementation of remedial measures.	Confirm receipt of notification of exceedance in writing; Notify Contractor; In consultation with the IC(E), agree with the Contractor the remedial measures to be implemented; Supervise proper implementation of remedial measures; If exceedance continues, consider what portion of the works is responsible and instruct the Contractor to stop that portion of work until exceedance has abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IC(E) within three working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as instructed by Engineer until the exceedance is abated.

Event and Action Plan for Water Quality

Event	ET Leader	IC(E)	Engineer	Contractor
ACTION LEVEL				
Action level being exceeded by one sampling day	Repeat *in situ* measurement to confirm findings; Identify reasons for non-compliance and source(s) of impact; Inform IC(E) and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IC(E) and Contractor; Repeat measurement on next day of exceedance.	Discuss mitigation measures with ET and Contractor ; Review proposals on mitigation measures submitted by Contractor and advise the Engineer accordingly; Assess effectiveness of implemented mitigation measures.	Discuss proposed mitigation measures with IC(E); Make agreement on mitigation measures to be implemented. Assess effectiveness of the implemented mitigation measures.	Inform the Engineer and confirm in writing notification of the non-compliance; Rectify unacceptable practice; Check all plant and equipment; Consider changes in working methods; Discuss with ET and IC(E) and propose mitigation measures to IC(E) and Engineer; Implement agreed mitigation measures.
Action level being exceeded by more than two consecutive sampling days	Repeat *in situ* measurement to confirm findings; Identify reasons for non-compliance and source(s) of impact; Inform IC(E) and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IC(E) and Contractor; Ensure mitigation measures are implemented; Prepare to increase to daily monitoring; Repeat measurement on next day of exceedance.	Discuss mitigation measures with ET and Contractor ; Review proposals on mitigation measures submitted by Contractor and advise the Engineer accordingly; Assess effectiveness of implemented mitigation measures.	Discuss the proposed mitigation measures with IC(E); Make agreement on mitigation measures to be implemented; Assess effectiveness of implemented mitigation measures.	Inform Engineer and confirm in writing notification of the non-compliance; Rectify unacceptable practice; Check all plant and equipment; Consider changes in working methods; Discuss with ET and IC(E) and propose mitigation measures to IC(E) and Engineer within three working days; Implement agreed mitigation measures.
LIMIT LEVEL				
Limit level being exceeded by one sampling day	Repeat *in situ* measurement to confirm findings; Identify reasons for non-compliance and source(s) of impact; Inform IC(E) Contractor and EPD; Check monitoring data, all plant, equipment	Discuss mitigation measures with ET and Contractor; Review proposals on mitigation measures submitted by Contractor and advise the Engineer accordingly; Assess effectiveness of implemented	Discuss proposed mitigation measures with IC(E), ET and Contractor; Request Contractor to critically review the working methods; Make agreement on mitigation measures to be implemented;	Inform Engineer and confirm in writing notification of the non-compliance; Rectify unacceptable practice; Check all plant and equipment; Consider changes in working methods;

Event	ET Leader	IC(E)	Engineer	Contractor
	and Contractor's working methods; Discuss mitigation measures with IC(E), Engineer and Contractor; Ensure mitigation measures are implemented; Increase to daily monitoring until no exceedance of Limit level.	mitigation measures.	Assess effectiveness of implemented mitigation measures.	Discuss with ET, IC(E) and Engineer and propose mitigation measures to IC(E) and Engineer within three working days; Implement agreed mitigation measures.
Limit level being exceeded by more than two consecutive sampling days	Repeat *in situ* measurement to confirm findings; Identify reasons for non-compliance and source(s) of impact; Inform IC(E), Contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IC(E), Engineer and Contractor; Ensure mitigation measures are implemented; Increase to daily monitoring until no exceedance of Limit level for two consecutive days.	Discuss mitigation measures with ET and Contractor; Review proposals on mitigation measures submitted by Contractor and advise Engineer accordingly; Assess effectiveness of implemented mitigation measures.	Discuss proposed mitigation measures with IC(E), ET and Contractor; Request Contractor to critically review working methods; Make agreement on mitigation measures to be implemented; Assess effectiveness of implemented mitigation measures; Consider and if necessary instruct Contractor to slow down or to stop all or part of the construction activities until no exceedance of Limit level.	Inform Engineer and confirm in writing notification of the non-compliance; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IC(E) and Engineer and propose mitigation measures to IC(E) and Engineer within three working days; Implement agreed mitigation measures; As directed by the Engineer, slow down or stop all or part of the construction activities until no exceedance of Limit level.

Action and Limit level and Event Action Plan for natural corals monitoring

Parameters	Action Level	Limit Level
Sedimentation	a 15% increase in the percentage of sedimentation on the hard corals occurs at more than 20% of the tagged coral colonies at one or more monitoring sites	a 25% increase in the percentage of sedimentation on the hard corals occurs at more than 20% of the tagged coral colonies at one or more monitoring sites
Bleaching	a 15% increase in the percentage of bleaching of hard corals occurs at more than 20% of the tagged coral colonies at one or more monitoring sites	a 25% increase in the percentage of bleaching of hard corals occurs at more than 20% of the tagged coral colonies at one or more monitoring sites
Mortality	a 15% increase in the percentage of partial mortality of corals occurs at more than 20% of the tagged coral colonies at one or more monitoring sites	a 25% increase in the percentage of partial mortality of corals occurs at more than 20% of the tagged coral colonies at one or more monitoring sites

Action	Action Level	Limit Level
Construction phase	If the Action Level is exceeded the ET Leader should inform all parties (Contractor, Project Proponent, EPD, AFCD and IEC). The data from the water quality monitoring should also be reviewed. If the water quality monitoring shows no attributable effects of the installation works, then the Action Level is not triggered. If the water quality data indicate exceedances (for SS and/or turbidity) the ET Leader should discuss with the Contractor the most appropriate method of reducing suspended solids during dredging (e.g. reduce the rate of dredging), and/or control sedimentation during earth works (e.g. check the intactness and effectiveness of the temporary drainage system and stream buffer zone). This mitigated method should then be enacted on the next working day.	If the Limit Level is exceeded the ET Leader should inform all parties (Contractor, Project Proponent, EPD, AFCD and IEC) immediately. Should the Limit Level be exceeded, the contractor should stop dredging and/or earth works immediately and work out the solution according to the requirements of EPD and AFCD. The ET Leader should inform the Contractor to suspend dredging and/or earth works until an effective solution is identified. Once the solution has been identified and agreed with all parties dredging and/or earth works may commence
Operation phase	If the Action Level is exceeded the ET Leader should inform Golf Course Operator, EPD, and AFCD. The data from the water quality monitoring should also be reviewed. If the water quality monitoring shows no attributable effects of the installation works, then the Action Level is not triggered. If the water quality data indicate exceedances (salinity and/or pesticides) the ET Leader should discuss with the Golf Course Operator the most appropriate method of reducing salinity (e.g. reduce the daily operation time of the desalination plant), and/or control chemicals from runoff (e.g. reduce the frequency and quantity of chemical applied, check the intactness and effectiveness of the closed drainage system and stream buffer zone). This mitigated method should then be enacted on the next working day.	If the Limit Level is exceeded the ET Leader should inform all parties Golf Course Operator, EPD, and AFCD immediately. Should the Limit Level be exceeded, the Golf Course Operator should stop the operation of the desalination plant and/or the application of chemicals immediately and work out the solution according to the requirements of EPD and AFCD. The operation of the desalination plant and/or the application of chemicals would be suspended until an effective solution is identified.

Categories of Archaeological Finds and Recommended Action

Categories of Archaeological Material	Retrieval Procedure
Human burial • Skeleton remains • Items associated with human burial, i.e. grave goods	Full recording and recovering of human remains and associated features • Complete recoding by photography, drawing, written description • Full measurement of burial and surrounding matrix • Retrieval of human remains and associated materials • Retrieval of surrounding soil for further analysis
Intact features • Structural/architectural remains • Undisturbed context, such as hearth, midden, habitation area, assemblages of artefacts and/or environmental material	Limited recording and recovery of archaeological features • Recording and measurement of salient features by photography, drawing and written description • Retrieval of all archaeological material • Retrieval of samples from the surrounding matrix
Intact artefacts • Complete objects such as pottery, metal objects, stone and bone tools. The objects are complete but isolated and are no part of assemblages or feature.	Recovery of artefacts • Recovery of objects • Sampling of the surrounding matrix • Proper treatment with cleaning, marking and packing under international acceptable standards
Isolated material • Sherds, non-human bone, artefact fragments (metal, pottery, glass). There are no complete objects, the material is isolated and fragmentary in nature.	Recovery of artefact fragments/archaeological material • Recovery of material, such as artefact fragments, environmental material and sampling of surrounding matrix
Deposits with archaeological potential • Soil deposits which exhibit characteristics associated with archaeological remains in Hong Kong	Sampling of the deposit • Collection of soil samples from deposits displaying archaeological potential

Annex D
Implementation status on Environmental Protection Requirements

IMPLEMENTATION SCHEDULE OF THE PROPOSED MITIGATION MEASURES

Table 1 Implementation Schedule of Air Quality Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages**			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Air Quality - Construction Phase									
4.7.1		In order that nuisance to air sensitive receivers is minimized, it is important to minimize dust emissions from construction activities including cut and fill operations and trucks movements on haul road.	Work site / during construction	All contractors		√		EIAO-TM, APCO, Air Pollution Control (Construction Dust) Regulation	
		Dust control techniques should be considered to control dust to a level not exceeding the AQOs as well as the 1-hour TSP guideline level. These measures include:							
		• Adoption of good site practices;							√
		• Avoid practices likely to raise dust level;							√
		• Frequent cleaning and damping down of stockpiles, dusty areas of the Site and the haul roads;							Need improvement
		• Reduce the speed of the vehicles (say 10 kph) on the haul road;							√
		• Reducing drop height during material handling;							√
		• Provision of wheel-washing facilities for Site vehicles leaving the Site;							N/A
		• Regular plant maintenance to minimize exhaust emission;							√
		• Sweep up dust and debris at the end of each shift; and							√
		• If concrete batching plant or rock crushing plant is planned to used, a license from EPD may be required depending on the total silo capacity since they are specified processes under the APCO. Modern plant should be designed to limit emissions							Waiting for Contractor confirmation

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages**			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
4.7.2		Providing watering four times a day for dust suppression.							

* All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.

** D=Design, C=Construction, O=Operation; N/A = Not applicable

Table 2 Implementation Schedule of Water Quality Control Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
Water Quality – Construction phase									
6.11.4		Proposed 18 holes Golf Course Layout Design 20 m buffer zones on both sides of the streams will be demarcated as a preventative mitigation measure to reduce the disturbance during construction phase of the golf course except for the portions of Streams A which is of low ecological value and an old tributary of Stream B. On one side of part of the Stream B, the buffer zone would be reduced to 5m.	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM-Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	Stream A buffer zone was provided. Streams B & C will de demarcated in advance when works approach to those areas.
6.11.5		For the construction activity which is unavoidable near natural streams (within the buffer zone), mainly the construction of crossings, preventative mitigation measures during the construction stage should be follow by the Contractor, they are shown as follows: • The proposed works site inside or in the proximity of natural streams should be temporarily isolated, through by placement of sandbags or silt curtains and properly supported by props, to prevent adverse impacts on the stream water qualities; • The natural bottom and existing flow in the stream should be preserved to avoid disturbance to the stream habitats; • No direct and indirect discharge into the natural stream is allowed from any construction work activities; • Stockpiling of construction material, if any, should be properly covered and located away from any natural stream; • Monitor rain forecast closely and cover any exposed spoil when rainstorms are forecated. Debris should be properly disposed of before rainstorm to avoid any inadvertent wash away into the stream; and • Removal of existing vegetation alongside the stream should							Neither temporary bridge nor permanent precast concrete bridges was constructed during the reporting month.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		be avoided. When disturbance to vegetation is unavoidable, all disturbed areas should be hydroseeded or planted with suitable vegetation to blend in with the natural environmental upon completion of works.							
6.11.13		<u>Runoff and Drainage Management</u> ◆ **Diversion of upstream flows around the works areas for stream crossings and underground pipes**: To minimize the impact of upstream runoff on the Works area by preventing storm flows reaching the work areas. This will be done through provision of upstream cut-off drains to intercept the flows and divert them around the Works area. It would convey flows to downstream stream courses, or other elements of temporary drainage systems (such as storage facilities). ◆ **Temporary covering the works areas during severe storm events**: Significant rainstorm events can be reasonably well forecast and when heavy rain is predicted, mitigation measures should be provided for the vulnerable areas by using tarpaulins, plastic sheets or other temporary covering	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM-Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	The temporary drainage plan has not been submitted Contractor during this reporting month.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		to protect works area and minimize damage and erosion. It is recommended not to cover the newly establishment grass areas, and if unavoidable, this should only to be done on a short term basis (less than 24 hours). ◆ **Silt traps and sedimentation tanks for main discharge routes form works area**: Sufficient and suitably sized silt traps and/or sedimentation tanks should be provided at the downstream ends of the systems to remove suspended solids prior to discharge. The discharge water quality shall be compliant with the *TM on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters* under the WPCO. The required volume of the sedimentation tanks will depend on the catchment area served. Multiple tanks in series may also be required where runoff might be expected to be silty. ◆ The design details of the temporary drainage system at turf establishment area follow the same principles of the permanent drainage system. However the component pipes, tanks, lakes and/or pumps may differ in size, shape, location, etc. from that of the permanent system, dependent upon the temporary runoff areas as compared with those of the permanent system. Additionally or alternatively, the temporary drainage system may consist of other methods to control soil erosion and/or to facilitate the collection of surface water runoff. The temporary drainage system will function during the period of time in which the permanent system is not yet completed. This circumstance will arise from the fact that the golf holes, inclusive of the permanent drainage system, will be							

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		constructed individually. As a result, the permanent drainage system may not be completed in its entirety until connection is made from each respective golf hole area to the lake/reservoir. As the permanent drainage system is completed for each hole, the corresponding temporary system will be decommissioned and reused elsewhere. The temporary drainage system will be in use until the permanent system is functional in a given area. Once the permanent system is functional in a given area, the temporary system will be decommissioned and, wherever possible, the components re-used in another temporary drainage system installed elsewhere. It is anticipated that the maximum duration of use for the temporary drainage system in any given area will be one-year. The storage tanks and/or lakes will be designed to segregate suspended solids (or pollutants as may be the case in plant/equipment storage and refueling areas) as may be necessary by contract requirements and reuse. ◆ No irrigation, fertilizer and pesticide applications to the turf would be permitted during rainstorm events or when heavy rainstorm is predicted 24 hours before the application. • Runoff from materials storage areas, particularly fuel and chemicals storage area should be separated from the main drainage systems (bunded, if necessary) and provided with dedicated facilities throughout the construction period, such as petrol interceptors.				√			
6.11.14		The Contractor shall follow good site practices and be responsible for the design, construction, operation, and maintenance of all the	Work site / During the	All Contractor		√		ProPECC PN 1/94; WPCO; TM-	The temporary drainage plan has not

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		mitigation measures as specified in *ProPECC PN1/94* on construction site drainage through the construction period. These practices include: • Temporary ditches should be provided to facilitate run-off discharge into appropriate watercourses, via a silt retention pond. • All drainage facilities and erosion and sediment control structures should be inspected monthly and maintained to ensure proper and efficient operation at all times. • Excavation of soil that cannot be avoided during the wet season, and exposed surface or open stockpiles should be covered with tarpaulin or other means. Other measures that need to be implemented before, during and after rainstorms are summarized in *ProPECC PN1/94*. • Exposed soil areas should be minimized to reduce potential for increase siltation and contamination of runoff. • Earthwork final surfaces should be well compacted and subsequent permanent work (turf establishment) should be immediately performed. • The Contractor shall contain within the site all surface runoff generated from the construction works, concreting works, dust control and vehicle washing, etc. • The Contractor shall arrange other measures, such as provision of sand bags or temporary diversion systems to prevent washing away of soil, silt or debris into any nearby natural streams. Any runoff shall be diverted into appropriate sediment traps before discharging to the nearby drainage system. The discharge water quality shall be compliant with the *TM on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters* under the WPCO.	construction period					Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	been submitted Contractor during this reporting month.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		The Contractor shall observe and comply with the Water Pollution Control Ordinance (WPCO) and its subsidiary regulations by implementing environmental protection measures (such as the use of silt traps) and preventing any point or non-point source of pollution.							
6.11.15 6.11.16		<u>Concrete bridge construction</u> No work is allowed to come into contact with the underlying stream bed during the concrete bridge construction. During the construction of precast concrete bridge, if necessary, precaution measures should be taken to ensure no potentially polluting liquid or solid wastes fall into the stream. This is essential to avoid water quality impacts within ecologically sensitive streams. The Contractor shall good site follow practices, including, but no limited to:: • Construction work area for the precast concrete should be outside the designated stream buffer zone area; • The designated work area for precast concrete work should be covered to minimize the potential water runoff during rain from the construction area; • All water used within the concrete work area should be collected, stored and recycled to reduce resource consumption. Stormwater runoff from the works areas fro precast concreting works should drain under gravity towards a sedimentation basin. The overlying water from the sedimentation basin should be recycled for reuse within the plant. The deposited sediment should be dewatered and the dry matter should require disposal off-site. No water should be discharged outside the boundary of the precast concrete works area;	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM-Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	No concrete bridge was under construction during the reporting month.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		• The use of tarpaulin sheet or other means (water impermeable texture) should be placed beneath precast concrete beam level (must be above the stream bed level) to capture any falling object during installation of precast concrete bridge on the footings or abutments; • Prohibition of any direct and indirect discharge into the streams; • The concrete bridge and footings of abutments must be completely above the high water mark; • All equipment and machinery must be free of leaks or excess oil and grease; • Equipment refueling or servicing or storage of fuel must be undertaken at a minimum of 30 meters from the stream; • Prevent soil and trash from getting into stream during construction by use of silt fence, fiber rolls, gravel bags and other effective means; • All bare soil (abutment slope or temporary stockpile) must be covered with tarpaulin or other means before forecast rain; and • Wash out concrete trucks or pumps only into designated washout pits.							
6.11.19		<u>Dredging during Construction of Desalination Plant's intake and outfall</u> The intake and outfall pipelines will be constructed by dredging the seabed to form a trench and backfilled with a layer of bedding material (quarry run stone) before putting the pipelines in place. Once in place, the pipelines are covered with layers of rock armour on top of the pipelines to protect the pipelines against damage by wave action. The alternative backfilling material is from rock excavated during site formation if suitable.	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM - Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	No dredging works but with minor land formation for the desalination plant was carried out during the reporting month.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
6.11.20		The materials used for the backfilling at the intake and outfall pipelines are stone and rock armour only. Transfer of backfilling materials onto the seabed from barge should be conducted by careful grabbing and unloading to seabed (to minimize sediment migration), thereby minimize impacts on water quality to nearby water sensitive receivers. As a preventative measures, silt curtain will also be required during the backfilling activities. The expected backfilling duration is approximate 2 months.							
6.11.21		The Contractor shall use backhoe for dredging works at a water depth of less than 2m and use close grab dredger for works with water depth of more than 2m. The estimated dredging works is about 50m long (where backhoe should be used for water less than 2m deep) and 70m long (where close grab dredger should be used for water more than 2m deep). Only one dredging method should be used at any one time.							
6.11.22		In order to avoid pollution during dredging, transporting and dumping of marine mud. Pollution avoidance measures shall include but not be limited to the following: • The maximum daily dredging rate for closed grab dredger should be 45m^3/day; • The maximum daily dredging rate for backhoe should be 20m^3/day; • Silt curtain should be installed for any dredging methods to protect the WSRs; • Closed grabs or sealed grabs should only be used for locations with water depths $\geq$ 2m; • Backhoe should only be used for locations with water depths $\leq$ 2m; • All equipment should be designed and maintained to minimise the risk of silt and other contaminants being released into the							

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		water column or deposited in locations other than designated location; • Mechanical grabs should be designed and maintained to avoid spillage and should seal tightly while being lifted; • No trailing suction hopper dredgers would be deployed for the dredging of marine mud; • All vessels should be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; • All pipe leakages should be repaired promptly and plant shall not be operated with leaking pipes; • Before moving the vessels which are used for transporting dredged materials excess material should be cleaned from the decks and exposed fittings of vessels and the excess materials should never be dumped into the sea except at the approved locations; • Adequate freeboard should be maintained on barges to ensure that decks are not washed by wave action; • The Contractor should monitor all vessels transporting material to ensure that no dumping outside the approved location takes place. The contractor should keep and produce logs and other records to demonstrate compliance and that journey times are consistent with designated locations and copies of such records should be submitted to the engineer; • All bottom dumping vessels should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; • Loading of barges and hoppers should be controlled to prevent splashing of dredged material to the surrounding water, and vessels should not be filled to a level which will cause overflowing of material or polluted water during loading or transportation; and							

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		• The engineer may monitor any or all vessels transporting material to check that no dumping outside the approved location nor loss of material during transportation takes place. The contractor should provide all reasonable assistance to the engineer for this purpose.							
6.11.23		In addition, baseline water quality monitoring before commencement of the marine works shall be carried out in the nearby waters to obtain baseline information for subsequence monitoring. Regular and frequent water quality monitoring shall be carried out throughout the whole construction period to ensure the water quality during construction is well within the established environmental guidelines and standards.							
		Silt Curtain							
6.11.24		In order to minimize impacts during the whole construction period of desalination plant's intake and discharge outfall, silt curtains should be utilized to minimize sediment migration. The Contractor shall be responsible for the design, installation and maintenance of the silt curtains to minimize the impacts on the water quality and the protection of water sensitive receivers. The design and specification of the silt curtains shall be submitted by the Contractor to the Engineer for approval. Area of the silt curtain to enclose the works area should be minimized in order to reduce the disturbance of ecological sensitive areas nearby.							
6.11.25		A typical suspended solids reduction of 75% can be achieved with the incorporation of silt curtain. Two-layer silt curtains have generally been used for dredging projects of larger scale to further ensure this reduction. However, as the scale of proposed project is considered small, it is recommended to use single layer silt							

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		curtain which can achieve a minimum 75% suspended solids reduction.							
6.11.26		Silt curtains shall be formed from tough, abrasion resistant, permeable membranes, suitable for the purpose, supported on floating booms in such a way as to ensure that the sediment plume shall be restricted to within the limit of the works area.							
6.11.27		The silt curtain shall be formed and installed in such a way that tidal rise and fall are accommodated, with the silt curtains always extending from the surface to the bottom of the water column. The removal and reinstallation of such curtains during typhoon conditions shall be as agreed with the Director of Marine Department.							
6.11.28		The Contractor shall regularly inspect the silt curtains and check that they are moored and marked to avoid danger to marine traffic. Any damage to the silt curtain shall be repaired by the Contractor promptly and the works shall be stopped until the repair is effected to the satisfaction of the Engineer.							
		<u>General Construction Activities</u>	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM - Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	√
6.11.29		Debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering adjacent watercourse. Stockpiles of construction materials should be kept covered when not being used.							
6.11.30		Oils and fuels should only be stored/handled in designated areas with pollution prevention facilities. Oil interceptors need to be regularly inspected and cleaned to avoid wash-out of oil during							√

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		storm conditions.							Not available on site during this reporting month
6.11.31		Contractor should provide a safe storage area for chemicals on site. The Contractor is required to register as a chemical waster producer if chemical wastes would be produced from the construction activities.							Drip trays were provided underneath the oil tanks.
6.11.32		All fuel tanks should be provided with locks and be sited on sealed areas within bunds of capacity equal to 110% of the storage capacity of the largest tank.							√
6.11.33		Good housekeeping practices and staff training are required to minimize careless spillage and keep the work space in a tidy and clean conditions at all times. Accidental spillage of chemicals in the works area would directly affect the aquatic environment. It is recommended that the Contractor should develop management procedures for chemical and implement an emergency plan to deal with chemical spillage in case of an accident.							√
6.11.34		Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The chemical waste should be transported to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Facility at Tsing Yi. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes details the requirements to deal with chemical wastes.							
6.11.35		<u>On-Site Sewage Effluents</u> In order to prevent sewage effluents affecting water courses, the following mitigation measures should be provided by the Contractor:-	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM-Effluent Standards for Effluents Discharged into	

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		• Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site to handle sewage from the workforce; • The toilet facilities should be more than 30 m from any watercourse; • Temporary storage tank should be provided to collect wastewater from kitchens or canteen, if any; • A licensed waste collector should be deployed to clean the chemical toilets on a regular basis which will be and disposed of at government sewage treatment facilities; • Regular environmental audit on the construction site can provide an effective control of any malpractices and can achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the project would not cause water pollution problem after undertaking all required measures; and • Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the project.						Drainage and Sewerage Systems, Inland and Coastal Water	√ √ N/A √ √ √
6.11.36		<u>Concrete batching plant</u> All water used within the concrete batching plant will be collected, stored and recycled to reduce resource consumption. This includes water used in the concrete batching process, truck cleaning, yard washing and dust suppression spraying. All spent dust suppression effluent will be collected and recycled. To minimize the potential water quality impacts that may generate from the concrete batching plant, a drainage system should be provided in this site. The batching plant area should be channelled	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM-Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	No concrete batching plant was constructed on site during this reporting month.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		to collect concrete washings for further treatment before reuse on-site and prevent concrete washings from directly entering the any stream or seawater. Site runoff should also be collected through the drainage system. To minimize the generation of contaminated site runoff from concrete production area, the concrete batching plant should be sheltered.							
6.11.37		Concrete washings and site runoff should be pumped to a wastewater treatment system with a sedimentation unit for removal of suspended solids such as waste concrete particles, silt and grit in order to achieve the discharge standards. pH adjustment should also be applied if the pH value of the collected concrete washings and site runoff is higher than the pH range specified in the discharge licence. This can be achieved by adding neutralizing regents, i.e. acidic additive. A discharge licence should be applied from EPD for discharge of effluent from the site. Analysis of effluent quality may be required as one of the licensing conditions of the discharge licence. The Contractor should collect effluent samples at the final discharge point in accordance with the required sampling frequency to test the specified water quality parameters. The quality of the discharged effluent should comply with the discharge licence requirements. It is recommended to reuse the treated effluent for dust suppression and general cleaning on site, wherever possible.							
6.11.38		The drainage system should be maintained on a regular basis to remove the deposits on the channels. The sedimentation and pH adjustment systems should also be checked and maintained by competent persons to ensure that the systems are functioning properly at all times.							
6.11.39		The deposited sediment will be dewatered and the dry matter will							

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		require disposal off-site. The estimated maximum concentrate batching operation period during construction is 20 months.							
6.11.40		Sand, gravel and other bulk materials will be delivered from the production area by conveyor boats or derrick barges to the temporary barging point, and the material will then be loaded onto dump trucks by loaders and delivered to the on-site storage areas.							
6.11.41		Regular environmental inspections should be conducted to check the environmental performance of daily operation. These inspections will ensure proper installation and maintenance of pollution control measures, such as checking of sedimentation basin, wastewater recycling facility and enclosure of stockpiles, and the implementation of other mitigation measures.							

* All recommendations and requirements resulted during the course of EIA/EA Process, including ACE and/or accepted public comment to the proposed project.
** Des - Design, C = Construction, O = Operation
N/A Not applicable

Table 3 Implementation Schedule of Waste Management Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Waste Management - Construction Phase									
7.7.2		Good site practice to minimize solid waste generation, including: ◆ nomination of approved personnel, such as a site manager, to be responsible for good site practices, and making arrangements for collection of all wastes generated at the site and effective disposal to an appropriate facility; ◆ training of site personnel in proper waste management and chemical waste handling procedures; ◆ provision of sufficient waste disposal points and regular collection for disposal; ◆ appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; ◆ regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; ◆ a Waste Management Plan should be prepared and should be submitted to the Engineer for approval. One may make reference to ETWB TCW No. 15/2003 for details; and ◆ a recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed.	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance; The Land (Miscellaneous Provisions) Ordinance; ETWB TCW NO. 15/2003.	Waste management plan was submitted to ER for comments during this reporting month.
7.7.4		Good management and control can prevent the generation of significant amounts of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include: ◆ segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; ◆ separate labelled bins shall be provided to segregate aluminium cans from other general refuse generated by the work force, and to	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance; The Land (Miscellaneous Provisions) Ordinance;	 √ √

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
		encourage collection of by individual collectors; ◆ any unused chemicals or those with remaining functional capacity shall be recycled; ◆ maximising the use of reusable steel formwork to reduce the amount of C&D material; ◆ prior to disposal of C&D waste, it is recommended that wood, steel and other metals shall be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill; ◆ proper storage and site practices to minimise the potential for damage or contamination of construction materials; ◆ plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste; ◆ minimize over ordering of concrete, mortars and cement grout by doing careful check before ordering.						ETWB TCW NO. 15/2003.	√ √ √ √ √ N/A
7.7.6 7.7.7		<u>Site Clearance Waste</u> Scrub and other vegetation will be stripped for the tees, fairways, greens and access roads. The normal route for disposal for such material is landfill but in this case it is proposed that vegetation is passed through a "chipper" to break down the material into a medium that can be used as mulch / compost and provide a seed-bank for natural hydroseeding of exposed areas. Non-inert materials should be kept separate and reused on-site as fill in preference to disposal at public filling areas which are operated by CEDD or disposal at landfill.	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance ; The Land (Miscellaneous Provisions) Ordinance; ETWB TCW NO. 15/2003.	√ Excessive vegetation will be disposed properly offsite once temporary barging point available. √
7.7.8		<u>Excavated Materials</u> Material generated during open cut works, and access route formation will comprise rock and soil and all this material will be reused in the site shaping process. It is anticipated that there will be no material requiring disposal off-site in public filling areas.	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance; The Land (Miscellaneous	√

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
								Provisions) Ordinance; ETWB TCW NO. 15/2003.	
7.7.9		Construction and Demolition (C&D) Material The C&D material generated from the site formation and demolition works should be sorted on-site into inert C&D material and C&D waste. In order to minimise the impact resulting from collection and transportation of C&D material for off-site disposal, the excavated material comprising fill material should be reused on-site as backfilling material. C&D waste, such as wood, plastic, steel and other metals should be reused or recycled and, as a last resort, disposed of to landfill. A suitable area(s) should be designated within the site for temporary stockpiling of C&D material and to facilitate the sorting process. The stockpiling/sorting area should be located far away from the identified sensitive receivers.	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance; The Land (Miscellaneous Provisions) Ordinance; ETWB TCW NO. 15/2003.	Sorting area was not observed on site.
7.7.10		Site fencing Some site fencing may be required. Attention should be paid to WBTC No. 19/2001 which introduce a new policy requiring the use of metallic site hoardings and signboards in order to reduce the amount of timber used on construction sites.	Work site / During the construction period	All Contractors		√		WBTC No. 19/2001	√ Plastic fencing / metallic hoarding was used on site.
7.7.12		Chemical Waste Where the construction processes produce chemical waste, the Contractor must register with EPD as a Chemical Waste Producer. Wastes classified as chemical wastes are listed in the *Waste Disposal (Chemical Waste) (General) Regulation*. These wastes are subject to stringent disposal routes. EPD requires information on the particulars of the waste generation processes including the types of waste produced, their location, quantities and generation rates. A nominated contact person must be provided.	Work site / During the construction period	All Contractors		√		Waste Disposal (Chemical Waste) (General) Regulation	Chemical waste storage area was not available on site. Tiny amount of chemical waste was stored on site temporarily.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
7.7.14		Hard standing surfaces draining via oil interceptors shall be provided in works area compounds. Interceptors will be regularly emptied to prevent release of oils and grease into the surface water drainage system after accidental spillages. The interceptor should have a bypass to prevent flushing during periods of heavy rain. Oil and fuel bunkers should be bunded to prevent discharge due to accidental spillages or breaches of tanks. Waste collected from any grease traps should be collected and disposed of by a licensed contractor.							
7.7.15		Any construction plant which is likely to leak oil, should have absorbent inert material e.g. sand, placed beneath it. This material should be replaced on a regular basis and the contaminated material should be stored in a designated, secure place. Any sand used for soaking oil waste is classified as chemical waste and should be disposed of in accordance with the *Waste Disposal (Chemical Waste) (General) Regulations*.							
7.7.16		Lubricants and waste oils are likely to be generated during the maintenance of vehicles and mechanical equipment. Used lubricants will be collected and stored in individual containers which are fully labelled. The containers should be stored in a designated secure place. If possible such waste should be sent to oil recycling companies; there are also companies which collect empty oil drums for reuse or refill.							
7.7.17		Oil and lubricant wastes are classified as chemical wastes, and if not recycled, should be collected by licensed collector and should be treated at the Chemical Waste Treatment Centre, Tsing Yi, or other sites licensed for disposal of waste oil. A trip ticket system operates to control the movement of such chemical waste and tickets have to be produced upon the request of EPD.							
7.7.18		Some paints and solvents are classified as chemical waste and, if used on							

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
7.7.19		site, will be subject to the stringent requirements of the *Waste Disposal (Chemical Waste) (General) Regulation.* Empty paint cans should be recycled or collected as waste. Any dry paint waste should be swept up and collected in containers for disposal. No lubricants, oils, solvents or paint products should be allowed to discharge into water courses, either by direct discharge, or as contaminants carried in surface water runoff from the construction site.							
7.7.20		<u>Sewage</u> An adequate number of portable toilets should be provided for the on-site construction workforce. The portable toilets shall be maintained in a state that will not deter the workers from using them.	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance; The Land (Miscellaneous Provisions) Ordinance; ETWB TCW NO. 15/2003.	Portable toilets were available on site.
7.7.21 7.7.22		<u>General Refuse</u> General refuse should be stored in enclosed bins or compaction units separate from C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. Solid and liquid wastes will be generated by the construction workers during the clearance/construction period. The refuse (mainly non-recyclable materials) will be collected regularly in black refuse bags and delivered to the existing solid waste disposal system and transferred to landfill for disposal.	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance; The Land (Miscellaneous Provisions) Ordinance; ETWB TCW NO. 15/2003.	Temporary stored in a defined area on site. Jockey Club will assist for disposal at the early stage.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
7.7.23		Marine Sediments The basic requirements and procedures for dredged mud disposal are specified under the ETWB TCW No. 34/2002. The management of the dredging, use and disposal of marine mud is monitored by the Marine Fill Committee (MFC), while the licensing of marine dumping is the responsibility of the Director of Environmental Protection (DEP). The dredged marine sediments will be loaded onto barges and transported to the designated disposal site.	Marine Dredging area / During the construction period	All Contractors		√		ETWB TCW NO. 34/2002.	No dredging works was carried out during the reporting month.
7.7.25		During transportation and disposal of the dredged marine sediments, the following measures should be taken to minimise potential impacts on water quality: ◆ Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved. ◆ Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the DEP.							

* All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.

** D=Design, C=Construction, O=Operation; N/A = Not applicable

Table 4 Implementation Schedule of Ecological Impact Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Construction Phase									
8.7.1		Terrestrial Ecology Haul roads would be located on future fairway and cart paths alignments to minimise temporary disturbance of habitats.	Work site / During the construction period	All Contractor		√		-	√
8.6.39		Avoid disturbance of stream bed during the construction of the permanent bridges by using precast unit of the bridge segments transported from other locations and installed to the proposed locations.	Stream crossing/ During the construction period	All Contractor		√		-	N/A
8.7.4		Good site practice. Construction materials must be stored at locations away the stream courses. Site runoff would be desilted in settling ponds to reduce the potential for suspended sediments, organics and other contaminants to enter stream and marine environment.	Work site / During the construction period	All Contractor		√		-	N/A
8.9	Table 4.1	Streams B, C, and D will be monitored monthly during the construction phase to determine the status of *Caridina trifasciata* (shrimp) and *Nanhaipotamon hongkongensis* (freshwater crab). Stream condition will be recorded with reference to the protective buffer zone. Encroachment onto the buffer zone will be reported to the ER/ET. Sheet piling will be installed at the buffer zone perimeter as needed to prevent further encroachment. Stream sedimentation will be reported to the ER/ET, the agent causing sedimentation will be discovered, and sedimentation will be stopped.	Stream B, C & D/ During the construction phase	All Contractor		√			Monitoring has been carried out during this reporting month.
9.7.22		Marine Ecology The temporary drainage system, which would receive flows from all areas subject to earth works, would collect all site runoff. The collected runoff would be retained for turf grass irrigation.	Work site / During the construction period	All Contractor		√			N/A

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
9.8.5		Dredging for the two pipelines for the desalination plant would be require 50 days and would be scheduled to the extent possible from January to April 2006. This would avoid the flowering season for the seagrass Halophila ovalis, i.e. November and December (Fong et al. 2005) and the spawning season for corals, i.e. July to October (Lam 2000; Storlazzi, C. D. 2004).	Dredging area/ during dredging period	All Contractor		√			N/A
9.8.2	4.2.12	Coral colonies within the silt curtain, in particular the 79 colonies identified during the coral mapping survey, (see Appendix A9.2) would be transplanted. Prior to commencement of any marine construction works for the proposed project, the affected coral colonies would be tagged using plastic labels and a number would be assigned to each. The tagged corals in the dredging area at D2 site will be transplanted to the bedrock area about 80 m south of the ferry pier. All these transplantation works should be conducted by experienced marine ecologist(s) and should be completed before the commencement of marine construction works.	Dredging area/Prior to dredging	All Contractor		√			N/A
9.8.5		Silt curtains will be deployed during dredging for the desalination plant. With the deployment of silt curtains around the dredging area for the desalination plant, adverse water quality impacts associated with the dredging and backfilling would be controlled to acceptable levels.	Dredging area/Prior to dredging	All Contractor		√			N/A
		All anchoring points/structures of the floating pier would be located on the shore and/or at least 40m seaward to avoid the coral colonies at Site B2 which are concentrated within the first 15m seaward from the coastline and none recorded over 35m seaward.	Temporary barging point/ during construction of the barging point	All Contractor		√			N/A (no barging point was constructed on site)
		The location of the floating pier would also be shifted from the original location for barging point at Zone 2 and Zone 3	Temporary barging point/	All Contractor		√			N/A

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
		of the mapping area in Site B2 (see Figure 2 in Appendix A9.2), to Zone 5 to further protect corals. Impacts to corals are not expected.	during the entire construction phase						

* All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.
** D=Design, C=Construction, O=Operation
N/A Not applicable

Table 5 Implementation Schedule of Fisheries Impact Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages**			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
10.8.2		Construction phase In addition to the temporary drainage system which would collect site runoff for re-use for irrigation, site runoff would also be controlled by general site practices during the construction period.	Work site / During the construction period	All Contractor		√		N/A	N/A
10.8.3		Silt curtains will be deployed during dredging for the desalination plant. With the deployment of silt curtains around the construction area, adverse water quality impacts associated with the dredging and back-filling would be controlled.	Work site / During the construction period	All Contractor		√		N/A	N/A
10.7.12		The majority of the heavy construction works, in particular, the cut and fill earth works, would be conducted within the 2005-2006 dry season.	Work site / During the construction period	All Contractor		√		N/A	N/A

* All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.
** D=Design, C=Construction, O=Operation
N/A Not applicable

Table 6 Implementation Schedule of Landscape and Visual Impact Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Landscape and Visual Impact - Construction Phase									
Table 12.13	MC1	Site offices and construction yards: • Site offices and the construction yard shall be decommissioned after construction. • Haul roads shall be decommissioned and restored with hydroseeding works after construction.	All site offices	All contractors		√		EIAO Guidance Note No. 8/2002	To commence
Table 12.13	MC2	Height of site offices: • The height of site offices shall be controlled in order to avoid visual impacts.	All site offices	All contractors		√		EIAO Guidance Note No. 8/2002	To commence
Table 12.13	MC3	Hoarding and screening: • Where practical the site offices areas, construction yards and storage areas shall be screened using olive green coated hoarding or vegetation around the peripheries of the works area until the completion of relevant construction phases.	All site office and construction yard areas.	All contractors		√		EIAO Guidance Note No. 8/2002	Complied. Green hoarding is found erected near the desalination plant.
Table 12.13	MC4	Construction plant and building material: • Shall be orderly and carefully stored in order to appear neat and avoid visibility from outside where practical; • Excess materials shall be removed from site as soon as practical; • All construction plant shall be removed from site upon completion of construction works.	In all construction yards.	All contractors		√		EIAO Guidance Note No. 8/2002	Stockpiles of vegetation were temporarily stored on site.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Table 12.13	MC5	Construction light: • To be oriented away from the viewing location of VSRs; and • All lighting shall have frosted diffusers and reflective covers. • While construction at night might be required from time to time, this should be controlled and minimised.	All construction lights.	All contractors		√		EIAO Guidance Note No. 8/2002	No construction lights at present.
Table 12.13	MC6	Vegetation: • Temporary construction sites shall be restored to standards as good as, or better than, the original condition. In this respect, areas that are not covered by golf course grassing works shall be hydro seeded; • The potential for soil erosion shall be reduced at the construction stage by minimizing the extent of vegetation disturbance on site and providing a protective cover over exposed ground; and • No plant or building materials shall be stored under the dripline of retained trees and no vehicle movement or other construction activities like washing, concrete mixing etc shall be carried out under the dripline of trees.	All temporary construction sites.	All contractors		√		EIAO Guidance Note No. 8/2002	Complied.
Table 12.13	MT1	Compensation for losses: • The tree compensation to tree loss ratio shall be between 1:2 and 1:3; • At least 700 new trees shall have be of light standard or larger size.	As shown on mitigation measures plans.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Table 12.13	MT2	The majority of compensation species shall comprise species that already occurs within the LIA boundaries;	General.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied. Construction Stage: To commence.
Table 12.13	MT3	Where practical, trees that require removal shall be transplanted on Site;	General.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	MT4	New trees shall be planted in groups in order to screen visual impacts and to provide additional shade at the administration building, rain shelters and halfway houses.	As shown on mitigation measure plans.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	MT5	Tree Planting on Slopes: • New slopes with a gradient larger than 30^{o} shall have whip tree planting. • Such whip trees shall comprise tree species with shrub-like characteristics, such as *Gordonia axillaries* (? ? ?) and *Raphiolepis indica* (? ? ?).	General.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	MT6	Tree planting works at the hill where the desalination plant will be located shall be carefully positioned in order to represent its original profile.	At the desalination plant.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Table 12.13	MT7	Tree Preservation: • No tree shall be transplanted or felled without prior approval by relevant Government departments in accordance with WBTC 24/94, WBTC 14/2002 and ETWB 2/2004; • All trees that are marked for retention shall be fenced off with a 1.2m high fence around the dripline of trees or larger area; • Transplant preparation works shall be carried as soon as possible after commencement of construction. Rootball and crown pruning shall be carried out over at least 1 month.	All areas with existing trees	All contractors	√	√		WBTC 24/94, WBTC 14/2002, ETWB 2/2004	Trees near site clearance area are protected.
Table 12.13	MT8	Buffer Areas • For streams the width of the buffer zones will be 20m from the stream bank. The only exception would be the buffer zone in the reach of upper tributary of stream B lying between the two parts of Hole 10, where the buffer will zone will be 5m, the dry tributary of stream B that will be converted to an underground culvert and the secondary tributary of stream A that will also be converted to an underground culvert. • No construction activities will be allowed in the buffer zones, except for site formation works, which are required for the construction of bridge footings.	At streams	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: N/A

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Table 12.13	MS1	Bulk hydroseeding: • Bulk site formation works shall be followed with bulk hydroseeding as soon as practical.	General.	All contractors		√		EIAO Guidance Note No. 8/2002	To commence.
Table 12.13	MS2	Grassing: • In the case of golf course areas, grassing shall be carried out as soon as practical after sanding and shaping; and • Sanding, shaping and grassing works shall be phased in sections.	At proposed grassing areas.	All contractors		√		EIAO Guidance Note No. 8/2002	To commence.
	MS3	Restoration: • In the case of residual areas that were disturbed during construction, which will not be part of the golf course areas, detailed site formation works and shaping shall be followed by hydroseeding and shrub planting as soon as practical; and • The hydroseeding mix shall be composed of the following grass species: Erograstic curvula Lolium Perenne Neyraudia reynaudiana Pennisetum purpureum; and the following shrub / small tree species: Gordonia axillaries, Rhaphiolepis indica and Rhodomyrtus tomentosa.	At all residual areas.	All contractors		√		EIAO Guidance Note No. 8/2002	To commence.
Table 12.13	ME1	Screening: • Bridges and pumping stations shall be screened by tree and shrub planting; and • Retaining wall shall be covered with climber plants.	All bridges and pumping stations.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Table 12.13	ME2	Abutments of bridges shall be surfaced with stone of volcanic origin with a colour and texture similar to that of rock in the surrounding landscape;	All bridges.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	ME3	Above-ground walls and foundations of pumping stations shall be surfaced with stone of volcanic origin with a colour and texture similar to that of rock in the surrounding landscape.	All pumping stations.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	ME4	Above-ground covers of pumping stations shall have an olive green coating.	All pumping stations.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	ME5	The desalination plant shall be located within the hill behind the pier. Slope cutting of this hill shall have a natural appearance with hydroseeding cover.	As shown on the mitigation measure plans.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	ME6	Water tanks shall be located below surface level. Above-ground components shall be coated in olive green.	All water tanks.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	MB1	Extensions of the clubhouse shall have a surface cover that is in visual harmony with the clubhouse itself.	All new extensions of the clubhouse.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	MB2	Shrub planting shall be implemented in front of the new golf cart parking area in order to screen low-level views.	The new golf cart parking area.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Table 12.13	MB3	Tree and shrub planting shall be implemented on the peripheries of the maintenance building and its extensions.	At the maintenance building.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	MB4	Halfway houses and rain shelters shall be surfaced with either stone or beige and olive green paint.	At all halfway houses and rain shelters.	All contractors		√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.

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** D=Design, C=Construction, O=Operation
N/A Not applicable

Table 7 Implementation Schedule of Cultural Heritage Mitigation Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Construction Phase									
Table 13.4		Wan Chai Archaeological Site - Archaeological Watching Brief	Site formation and construction works	All Contractors		√		EIAO	√
Table 13.4		Grave #1 – Preservation in-situ - Fenced off three metre buffer zone around the grave	Site formation and construction works	All Contractors		√		EIAO	N/A
Table 13.4		Grave #5 - Preservation by record; and recovery of structural elements (if required by AMO)	Construction phase (prior to commencement of works)	All Contractors		√		EIAO	N/A
Table 13.4		Grave #20 - Preservation by record; and recovery of structural elements (if required by AMO)	Construction phase (prior to commencement of works)	All Contractors		√		EIAO	√
Table 13.4		Any, as of yet unidentified graves at Kap Lo Kok. If a grave is found works will stop in the immediate vicinity of the grave until it can be inspected by AMO staff.	Site formation and construction works	All Contractors		√		EIAO	√

* All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.
** D=Design, C=Construction, O=Operation
N/A Not applicable

Table 8 Implementation Schedule of Land Contamination Mitigation Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation status
					D	C	O		
Land Contamination - Construction Phase									
11.9.2		Since the exact cut areas on site during construction by the Contractor have not been determined at this stage, the Contractor should implement the suitable precautions and preventive measures for the discovery of buried or abandoned ordnance during the construction. Moreover, it is recommended that standard good practice should be implemented during the construction phase in order to minimize any potential exposure to contaminated soils or groundwater. These measures include: • The Contractor should sweep the area of intended excavation with a metal detector to check any ordnance underneath the ground prior to any excavation. • For any detection of metals under the ground, the Contractor should cease work immediately before confirming the identity of the cause. For any suspect of artillery ordnance, Hong Kong Police Force should be informed. • The use of bulk earth-moving excavator equipment would minimise construction workers' potential contact with the contaminated materials; • Exposure to any contaminated materials can be minimised by the wearing of appropriate clothing and personal protective equipment such as gloves (when interacting directly with suspected contaminated material), providing adequate hygiene and washing facilities and preventing smoking and eating during such activities; • Stockpiling of contaminated soil should be avoided. If this cannot be avoided, the stockpile of contaminated materials should be segregated from the uncontaminated ones. Moreover, the contaminated materials should be properly covered with waterproof material (e.g. tarpaulin sheet) to avoid leaching of	Work site / During the construction period	All Contractors		√		Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 35); Water Pollution Control Ordinance (Cap 358).	N/A

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation status
					D	C	O		
		contaminants, especially during rainy season. • Vehicles containing any excavated materials should be suitably covered to limit potential dust emissions or contaminated wastewater run-off, and truck bodies and tailgates should be sealed to prevent any leakage during transport or during wet conditions; • Only licensed waste haulers should be used to collect and transport any contaminated material to an appropriate disposal site and procedures should be developed to ensure that illegal disposal of waste does not occur; • Necessary waste disposal permits should be obtained, as required, from the appropriate authorities, in accordance with the *Waste Disposal Ordinance (Cap 354)*, *Waste Disposal (Chemical Waste) (General) Regulation (Cap 35)*, as required; • Records of the quantities of wastes generated and disposed of should be maintained; • Adequate washing facilities should be provided on site; and • In accordance with good construction practice, silt traps should be used to reduce the impact to drainage caused by suspended solids arising from disturbed ground, or any construction materials such as cement and gravel. Groundwater should be disposed of in accordance with the *Water Pollution Control Ordinance (Cap 358)*.							
11.11.1		Based on preliminary site investigation, the site is considered as a potentially land contaminated site as hotspots of contamination of lead and sulphur were identified. Further investigation for land contamination at this site is therefore required and is detailed in the Contamination Assessment Plan (CAP) of this section to be undertaken prior to commencement of excavation works. A Contamination Assessment Report (CAR) should be prepared and if the results of the site investigation reveal contamination at the subject site, a Remediation Action Plan (RAP) should also be prepared and submitted together with the CAR to EPD for approval.	Work site / During the construction period	All Contractors		√		Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 35); Water Pollution Control Ordinance (Cap	CAP was approved by EPD. CAR/RAP was under prepared.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation status
					D	C	O		
								358).	

* All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.

** D=Design, C=Construction, O=Operation

N/A Not applicable

Annex E
Monitoring results

Air Quality

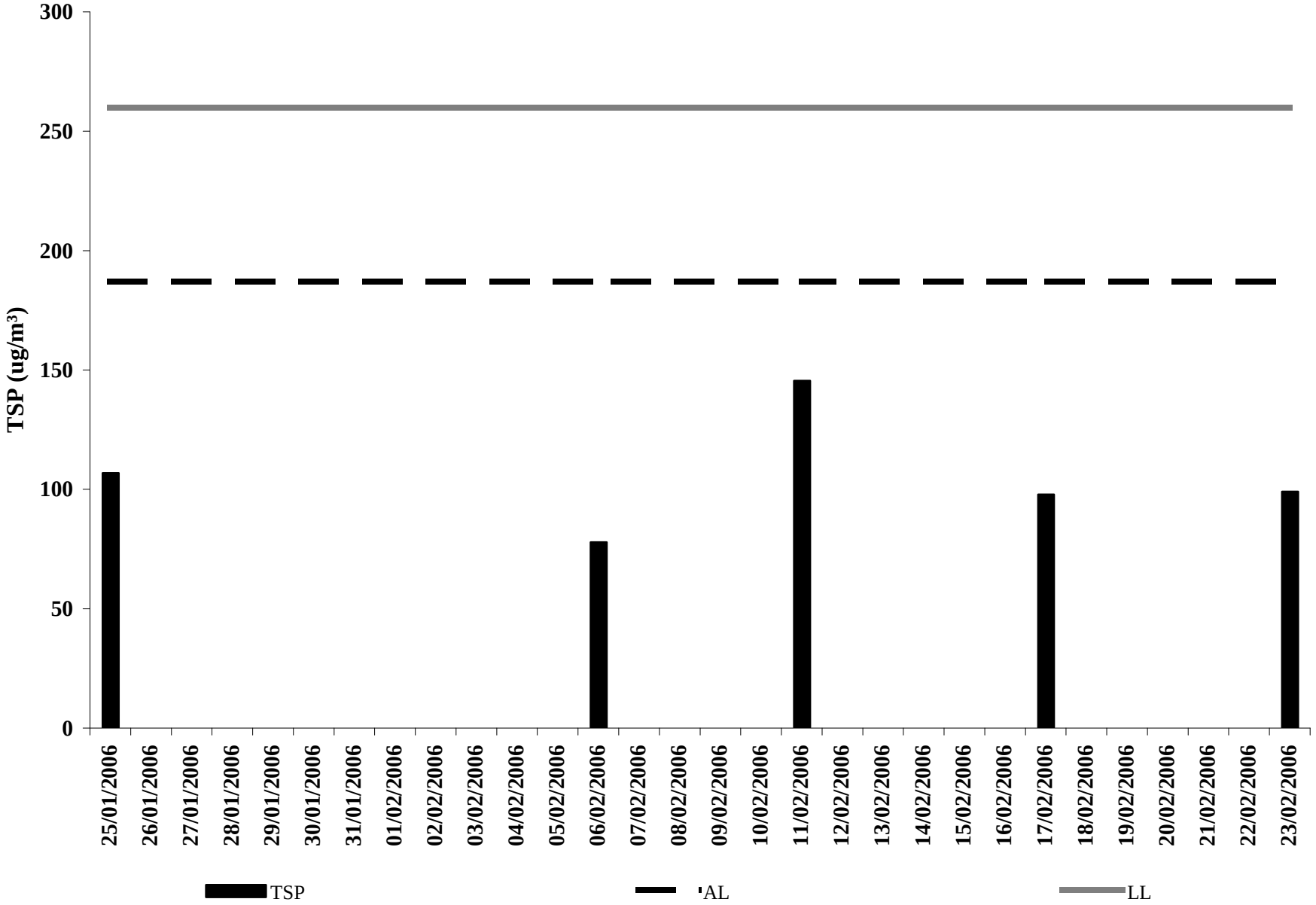
Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung
24-hour TSP Monitoring Results at Station GCA B1

Date	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Sampling Time(hrs.)	Conc. (µg/m^3)	Weather Condition	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)
	Initial	Final	Initial	Final	Initial	Final						
25-Jan-06	3.4345	3.6164	1.22	1.22	9525.4	9548.6	23.2	106.6	Fine	0.18	1.22	1706.7
06-Feb-06	3.5589	3.7112	1.41	1.41	9553.7	9576.8	23.1	77.6	Sunny	0.15	1.41	1962.3
11-Feb-06	3.5507	3.8375	1.43	1.43	9576.8	9599.8	23.0	145.3	Sunny	0.29	1.43	1974.1
17-Feb-06	3.5849	3.8052	1.57	1.57	9599.8	9623.8	24.0	97.6	Fine	0.22	1.57	2256.5
23-Feb-06	3.5857	3.7931	1.52	1.52	9623.8	9646.9	23.0	98.8	Fine	0.21	1.52	2099.4

Min	77.6
Max	145.3
Average	105.2

Remark: Bold value indicated an Action level exceedance
Bold & Italic value indicated an Limit level exceedance

24-hour TSP Monitoring Results at Station GCA B1



Date		Temp(°C)	Relative Humidity (%)	Mean Amount of Cloud (%)	Total Rainfall (mm)	Wind
1 月 16 日	Mon	19.9	83	58	-	E
1 月 17 日	Tue	18.9	90	89	0.7	E
1 月 18 日	Wed	18.9	93	93	0.8	E
1 月 19 日	Thu	18.7	94	100	0.3	SE
1 月 20 日	Fri	17.1	94	88	1.3	N
1 月 21 日	Sat	13	85	93	4.3	N
1 月 22 日	Sun	12.8	80	88	Trace	NE
1 月 23 日	Mon	12.3	72	87	-	NE
1 月 24 日	Tue	13.6	70	84	Trace	NE
1 月 25 日	Wed	15.8	67	62	-	NE
1 月 26 日	Thu	15.3	64	68	-	NE
1 月 27 日	Fri	15.8	71	83	Trace	E
1 月 28 日	Sat	15.0	93	96	6.8	E
1 月 29 日	Sun	17.2	92	71	2.1	E
1 月 30 日	Mon	19.1	83	59	-	E
1 月 31 日	Tue	20.5	80	62	-	E
2 月 1 日	Wed	19.1	86	56	-	E
2 月 2 日	Thu	17.8	78	40	-	E
2 月 3 日	Fri	18.4	79	55	-	E
2 月 4 日	Sat	15.7	82	89	Trace	E
2 月 5 日	Sun	15.8	75	82	-	E
2 月 6 日	Mon	18.2	78	31	-	E
2 月 7 日	Tue	19.1	76	21	-	NE
2 月 8 日	Wed	17.0	69	43	-	E
2 月 9 日	Thu	15.4	75	77	-	NE
2 月 10 日	Fri	16.5	78	52	-	NE
2 月 11 日	Sat	18.3	78	23	-	E
2 月 12 日	Sun	18.0	73	64	-	E

Date		Temp(°C)	Relative Humidity (%)	Mean Amount of Cloud (%)	Total Rainfall (mm)	Wind
2 月 13 日	Mon	17.6	71	94	-	E
2 月 14 日	Tue	18.6	88	96	4.7	E
2 月 15 日	Wed	20.9	90	72	-	E
2 月 16 日	Thu	22.4	87	86	-	E
2 月 17 日	Fri	17.3	84	88	Trace	NE
2 月 18 日	Sat	14.6	84	88	Trace	N to NE
2 月 19 日	Sun	15.2	84	88	0.5	N to NE
2 月 20 日	Mon	17	81	76	-	E
2 月 21 日	Tue	19	81	62	-	E
2 月 22 日	Wed	21.3	77	71	-	E
2 月 23 日	Thu	18.4	82	90	Trace	E
2 月 24 日	Fri	17.1	87	88	Trace	E to NE

Water Quality

M_RO1	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	08:01	5.3	1.0	16.7	32.7	8.4	8.2	~~1.0~~
Mid-Ebb	27/01/2006	09:01	5.1	1.0	16.3	31.9	8.3	8.2	1.0
Mid-Ebb	06/02/2006	08:31	5.2	1.0	17.7	31.8	8.5	8.1	~~1.0~~
Mid-Ebb	08/02/2006	09:01	5.2	1.0	18.0	31.7	8.5	8.0	~~1.0~~
Mid-Ebb	11/02/2006	09:01	5.2	1.0	18.1	31.7	8.2	7.9	~~1.0~~
Mid-Ebb	13/02/2006	08:22	5.3	1.0	17.9	31.8	7.9	8.1	~~1.0~~
Mid-Ebb	15/02/2006	08:01	5.5	1.0	17.8	31.6	8.0	8.1	1.0
Mid-Ebb	17/02/2006	08:14	5.5	1.0	18.2	31.7	8.4	8.0	~~1.0~~
Mid-Ebb	20/02/2006	08:20	5.1	1.0	17.2	31.6	7.8	7.9	~~1.0~~
Mid-Ebb	22/02/2006	08:32	5.5	1.0	17.6	31.0	7.5	7.9	~~1.0~~
Mid-Ebb	24/02/2006	08:31	5.2	1.0	18.3	31.6	8.2	8.0	~~1.0~~

M_RO1	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	11:31	5.4	1.0	17.2	32.0	8.4	8.2	~~1.0~~
Mid-Flood	27/01/2006	12:31	5.3	1.0	17.0	31.9	8.4	8.2	~~1.0~~
Mid-Flood	06/02/2006	16:41	5.2	1.0	17.7	31.8	8.4	8.1	~~1.0~~
Mid-Flood	08/02/2006	14:01	5.1	1.0	18.0	31.6	8.5	8.0	~~1.0~~
Mid-Flood	11/02/2006	13:31	5.2	1.0	18.0	31.7	8.3	8.0	~~1.0~~
Mid-Flood	13/02/2006	12:50	5.1	1.0	18.0	31.7	7.6	8.1	~~1.0~~
Mid-Flood	15/02/2006	13:01	5.3	1.0	17.9	31.9	7.9	8.2	1.0
Mid-Flood	17/02/2006	12:11	5.3	1.0	18.0	31.8	8.3	8.0	~~1.0~~
Mid-Flood	20/02/2006	14:31	5.2	1.0	17.4	31.7	8.0	7.9	~~1.0~~
Mid-Flood	22/02/2006	15:31	5.3	1.0	17.8	31.2	7.7	8.0	~~1.0~~
Mid-Flood	24/02/2006	12:31	5.4	1.0	18.1	31.5	8.3	8.0	~~1.0~~

Remarks:

Action level	***Bold & Italic***
Limit level	**Bold**
< detection limit	~~Grey~~

M_RO1	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
	25/01/2006								
	27/01/2006								
	06/02/2006								
	08/02/2006								
	11/02/2006								
	13/02/2006								
	15/02/2006								
	17/02/2006								
	20/02/2006								
	22/02/2006								
	24/02/2006								

NOT USED

M_RO1	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
	25/01/2006								
	27/01/2006								
	06/02/2006								
	08/02/2006								
	11/02/2006								
	13/02/2006								
	15/02/2006								
	17/02/2006								
	20/02/2006								
	22/02/2006								
	24/02/2006								

M_RO1	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	8:00	5.3	4.3	16.8	32.5	8.4	8.2	1.1
Mid-Ebb	27/01/2006	9:00	5.1	4.1	16.1	31.8	8.3	8.2	1.2
Mid-Ebb	06/02/2006	8:30	5.2	4.2	17.7	31.8	8.4	8.1	1.5
Mid-Ebb	08/02/2006	9:00	5.2	4.2	17.8	31.7	8.4	8.0	~~1.0~~
Mid-Ebb	11/02/2006	9:00	5.2	4.2	18.1	31.7	8.2	7.9	~~1.0~~
Mid-Ebb	13/02/2006	8:21	5.3	4.3	17.9	31.8	7.9	8.0	~~1.0~~
Mid-Ebb	15/02/2006	8:00	5.5	4.5	18.2	31.7	8.0	8.0	~~1.0~~
Mid-Ebb	17/02/2006	8:13	5.5	4.5	17.1	31.5	8.3	7.9	~~1.0~~
Mid-Ebb	20/02/2006	8:19	5.1	4.1	17.2	31.6	7.6	7.9	1.3
Mid-Ebb	22/02/2006	8:31	5.5	4.5	17.6	31.0	7.5	7.9	~~1.0~~
Mid-Ebb	24/02/2006	8:30	5.2	4.2	18.1	31.6	8.6	8.0	~~1.0~~

M_RO1	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	11:30	5.4	4.4	17.4	32.0	8.4	8.2	~~1.0~~
Mid-Flood	27/01/2006	12:30	5.3	4.3	16.8	31.8	8.5	8.2	~~1.0~~
Mid-Flood	06/02/2006	16:40	5.2	4.2	17.5	31.8	8.6	8.2	1.1
Mid-Flood	08/02/2006	14:00	5.1	4.1	17.7	31.8	8.4	8.1	~~1.0~~
Mid-Flood	11/02/2006	13:30	5.2	4.2	18.2	31.7	8.4	8.0	~~1.0~~
Mid-Flood	13/02/2006	12:49	5.1	4.1	18.0	31.7	7.4	8.1	~~1.0~~
Mid-Flood	15/02/2006	13:00	5.3	4.3	18.3	31.8	7.8	8.0	~~1.0~~
Mid-Flood	17/02/2006	12:10	5.3	4.3	17.6	31.8	8.2	8.0	~~1.0~~
Mid-Flood	20/02/2006	14:30	5.2	4.2	17.3	31.6	7.7	8.0	~~1.0~~
Mid-Flood	22/02/2006	15:30	5.3	4.3	17.6	31.3	7.7	8.0	~~1.0~~
Mid-Flood	24/02/2006	12:30	5.4	4.4	18.2	31.5	8.0	8.0	~~1.0~~

	Mid-Ebb			Mid-Flood			Depth-averaged
M_RO1	Surface	Midlle	Bottom	Surface	Midlle	Bottom	SS (mg/L)
25/01/2006	~~2.0~~	-	3.0	~~2.0~~	-	~~2.0~~	2.3
27/01/2006	~~2.0~~	-	~~2.0~~	~~2.0~~	-	2.0	2.0
06/02/2006	~~2.0~~	-	~~2.0~~	~~2.0~~	-	~~2.0~~	2.0
08/02/2006	3.0	-	~~2.0~~	~~2.0~~	-	4.0	2.8
11/02/2006	~~2.0~~	-	~~2.0~~	~~2.0~~	-	~~2.0~~	2.0
13/02/2006	~~2.0~~	-	~~2.0~~	~~2.0~~	-	~~2.0~~	2.0
15/02/2006	~~2.0~~	-	~~2.0~~	~~2.0~~	-	~~2.0~~	2.0
17/02/2006	2.0	-	~~2.0~~	~~2.0~~	-	3.0	2.3
20/02/2006	4.0	-	~~2.0~~	~~2.0~~	-	2.0	2.5
22/02/2006	5.0	-	4.0	2.0	-	~~2.0~~	3.3
24/02/2006	~~2.0~~	-	~~2.0~~	~~2.0~~	-	4.0	2.5

KLW	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	08:12	13.4	1.0	16.8	32.9	8.4	8.3	~~1.0~~
Mid-Ebb	27/01/2006	09:12	13.1	1.0	16.2	31.8	7.9	8.2	1.6
Mid-Ebb	06/02/2006	08:42	14.0	1.0	17.8	31.7	8.7	8.2	~~1.0~~
Mid-Ebb	08/02/2006	09:12	13.9	1.0	18.4	31.7	8.6	8.1	~~1.0~~
Mid-Ebb	11/02/2006	09:12	13.6	1.0	18.3	31.7	8.1	8.0	~~1.0~~
Mid-Ebb	13/02/2006	08:31	13.7	1.0	18.2	31.8	7.8	8.1	~~1.0~~
Mid-Ebb	15/02/2006	08:12	13.8	1.0	18.3	31.6	7.9	8.0	~~1.0~~
Mid-Ebb	17/02/2006	08:25	13.9	1.0	18.9	31.7	8.2	8.0	~~1.0~~
Mid-Ebb	20/02/2006	08:28	13.9	1.0	17.3	31.5	8.0	8.0	~~1.0~~
Mid-Ebb	22/02/2006	08:41	14.1	1.0	17.5	31.4	8.2	7.9	~~1.0~~
Mid-Ebb	24/02/2006	08:40	13.8	1.0	18.3	31.6	8.4	8.1	~~1.0~~

KLW	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	11:42	12.9	1.0	17.4	32.0	8.6	8.2	~~1.0~~
Mid-Flood	27/01/2006	12:42	13.1	1.0	16.8	32.0	8.3	8.2	~~1.0~~
Mid-Flood	06/02/2006	16:52	13.8	1.0	17.7	31.8	8.4	8.2	~~1.0~~
Mid-Flood	08/02/2006	08:11	12.8	1.0	17.6	31.8	8.4	8.2	~~1.0~~
Mid-Flood	11/02/2006	13:42	13.0	1.0	18.3	31.7	8.4	8.1	~~1.0~~
Mid-Flood	13/02/2006	12:58	12.3	1.0	18.2	31.7	7.4	8.1	1.4
Mid-Flood	15/02/2006	13:22	13.5	1.0	18.3	31.8	8.1	8.0	~~1.0~~
Mid-Flood	17/02/2006	12:22	13.8	1.0	19.0	31.7	8.3	8.0	~~1.0~~
Mid-Flood	20/02/2006	14:42	13.8	1.0	17.9	31.6	8.0	7.9	~~1.0~~
Mid-Flood	22/02/2006	15:12	13.9	1.0	17.4	31.6	7.9	8.0	~~1.0~~
Mid-Flood	24/02/2006	12:42	13.9	1.0	18.2	31.6	8.3	8.0	~~1.0~~

Remarks:

Action level	***Bold & Italic***
Limit level	**Bold**
< detection limit	~~Grey~~

KLW	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	08:11	13.4	6.7	16.7	32.0	8.3	8.2	~~1.0~~
Mid-Ebb	27/01/2006	09:11	13.1	6.6	16.2	31.8	8.0	8.2	1.8
Mid-Ebb	06/02/2006	08:41	14.0	7.0	17.8	31.8	8.2	8.2	~~1.0~~
Mid-Ebb	08/02/2006	09:11	13.9	7.0	17.7	31.7	8.2	8.0	~~1.0~~
Mid-Ebb	11/02/2006	09:11	13.6	6.8	18.2	31.7	7.9	8.0	~~1.0~~
Mid-Ebb	13/02/2006	08:30	13.7	6.9	18.1	31.7	7.6	8.1	~~1.0~~
Mid-Ebb	15/02/2006	08:11	13.8	6.9	18.0	31.6	8.0	7.9	1.5
Mid-Ebb	17/02/2006	08:24	13.9	7.0	17.4	31.5	8.3	8.0	~~1.0~~
Mid-Ebb	20/02/2006	08:27	13.9	7.0	17.2	31.5	7.9	8.0	1.3
Mid-Ebb	22/02/2006	08:40	14.1	7.1	18.1	31.3	8.2	8.0	~~1.0~~
Mid-Ebb	24/02/2006	08:39	13.8	6.9	18.2	31.6	8.3	8.0	~~1.0~~

KLW	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	11:41	12.9	6.5	17.4	31.9	8.4	8.3	~~1.0~~
Mid-Flood	27/01/2006	12:41	13.1	6.6	16.8	32.1	8.3	8.2	~~1.0~~
Mid-Flood	06/02/2006	16:51	13.8	6.9	17.6	32.0	8.2	8.2	~~1.0~~
Mid-Flood	08/02/2006	08:10	12.8	6.4	17.7	31.8	8.4	8.1	~~1.0~~
Mid-Flood	11/02/2006	13:41	13.0	6.5	18.1	31.7	8.0	8.1	~~1.0~~
Mid-Flood	13/02/2006	12:57	12.3	6.2	18.0	31.7	7.3	8.1	~~1.0~~
Mid-Flood	15/02/2006	13:21	13.5	6.8	18.1	31.8	7.9	7.9	~~1.0~~
Mid-Flood	17/02/2006	12:21	13.8	6.9	17.6	31.6	8.4	8.0	~~1.0~~
Mid-Flood	20/02/2006	14:41	13.8	6.9	17.6	31.6	7.8	8.0	1.1
Mid-Flood	22/02/2006	15:11	13.9	7.0	17.8	31.6	7.9	8.0	1.2
Mid-Flood	24/02/2006	12:41	13.9	7.0	18.1	31.6	7.9	8.0	~~1.0~~

KLW	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	8:10	13.4	12.4	16.8	32.4	8.4	8.2	~~1.0~~
Mid-Ebb	27/01/2006	9:10	13.1	12.1	16.2	31.8	8.1	8.2	1.7
Mid-Ebb	06/02/2006	8:40	14.0	13.0	17.4	31.7	8.1	8.1	1.1
Mid-Ebb	08/02/2006	9:10	13.9	12.9	17.4	31.7	7.7	8.0	1.7
Mid-Ebb	11/02/2006	9:10	13.6	12.6	17.9	31.7	7.4	7.9	2.5
Mid-Ebb	13/02/2006	8:29	13.7	12.7	17.6	31.7	7.5	8.0	1.8
Mid-Ebb	15/02/2006	8:10	13.8	12.8	17.5	31.5	8.0	7.9	1.3
Mid-Ebb	17/02/2006	8:23	13.9	12.9	17.1	31.4	8.3	7.9	1.1
Mid-Ebb	20/02/2006	8:26	13.9	12.9	17.2	31.6	7.8	7.9	2.7
Mid-Ebb	22/02/2006	8:39	14.1	13.1	17.6	31.4	7.2	7.9	2.5
Mid-Ebb	24/02/2006	8:38	13.8	12.8	17.8	31.6	8.2	8.0	2.2

KLW	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	11:40	12.9	11.9	17.4	31.9	8.3	8.3	~~1.0~~
Mid-Flood	27/01/2006	12:40	13.1	12.1	16.7	31.9	8.2	8.2	~~1.0~~
Mid-Flood	06/02/2006	16:50	13.8	12.8	17.3	31.8	8.2	8.2	1.3
Mid-Flood	08/02/2006	14:10	12.8	11.8	17.5	31.8	8.5	8.2	~~1.0~~
Mid-Flood	11/02/2006	13:40	13.0	12.0	17.8	31.7	7.4	8.0	1.7
Mid-Flood	13/02/2006	12:56	12.3	11.3	17.6	31.7	7.3	8.0	1.5
Mid-Flood	15/02/2006	13:20	13.5	12.5	17.4	31.6	8.2	8.0	1.1
Mid-Flood	17/02/2006	12:20	13.8	12.8	17.0	31.4	8.2	8.0	1.3
Mid-Flood	20/02/2006	14:40	13.8	12.8	17.4	31.5	8.0	7.9	1.7
Mid-Flood	22/02/2006	15:10	13.9	12.9	17.7	31.5	7.6	7.9	1.8
Mid-Flood	24/02/2006	12:40	13.9	12.9	17.9	31.5	8.2	8.0	~~1.0~~

	Mid-Ebb			Mid-Flood			Depth-averaged
KLW	Surface	Midlle	Bottom	Surface	Midlle	Bottom	SS (mg/L)
25/01/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
27/01/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	3.0	2.2
06/02/2006	~~2.0~~	~~2.0~~	2.0	~~2.0~~	~~2.0~~	~~2.0~~	2.0
08/02/2006	~~2.0~~	~~2.0~~	3.0	~~2.0~~	2.0	~~2.0~~	2.2
11/02/2006	~~2.0~~	~~2.0~~	2.0	~~2.0~~	~~2.0~~	3.0	2.2
13/02/2006	~~2.0~~	2.0	2.0	~~2.0~~	~~2.0~~	~~2.0~~	2.0
15/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
17/02/2006	~~2.0~~	2.0	~~2.0~~	~~2.0~~	~~2.0~~	2.0	2.0
20/02/2006	~~2.0~~	4.0	3.0	~~2.0~~	~~2.0~~	3.0	2.7
22/02/2006	3.0	3.0	5.0	2.0	~~2.0~~	4.0	3.2
24/02/2006	6.0	5.0	4.0	~~2.0~~	2.0	5.0	4.0

M_A	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	08:32	7.9	1.0	16.8	32.2	8.4	8.2	~~1.0~~
Mid-Ebb	27/01/2006	09:32	7.8	1.0	16.1	32.0	8.2	8.3	1.0
Mid-Ebb	06/02/2006	09:02	7.5	1.0	17.9	32.3	8.5	8.2	~~1.0~~
Mid-Ebb	08/02/2006	09:32	8.1	1.0	18.4	31.8	8.3	8.2	~~1.0~~
Mid-Ebb	11/02/2006	09:32	7.5	1.0	18.3	32.0	7.9	8.1	~~1.0~~
Mid-Ebb	13/02/2006	08:54	7.6	1.0	18.3	31.8	8.1	8.1	1.1
Mid-Ebb	15/02/2006	08:32	7.4	1.0	18.4	31.5	7.8	8.0	~~1.0~~
Mid-Ebb	17/02/2006	08:45	7.2	1.0	19.3	31.7	8.4	8.1	~~1.0~~
Mid-Ebb	20/02/2006	08:47	7.9	1.0	17.3	31.5	8.0	8.0	~~1.0~~
Mid-Ebb	22/02/2006	08:59	7.6	1.0	18.0	31.1	8.2	8.0	~~1.0~~
Mid-Ebb	24/02/2006	08:55	7.5	1.0	18.1	31.0	8.5	8.0	~~1.0~~

M_A	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	12:02	7.8	1.0	17.6	32.0	8.4	8.2	~~1.0~~
Mid-Flood	27/01/2006	13:03	7.7	1.0	16.5	32.0	8.4	8.3	~~1.0~~
Mid-Flood	06/02/2006	17:02	7.7	1.0	17.8	32.3	8.4	8.2	~~1.0~~
Mid-Flood	08/02/2006	14:32	7.9	1.0	18.4	32.0	8.2	8.2	~~1.0~~
Mid-Flood	11/02/2006	14:02	7.6	1.0	18.2	32.2	8.0	8.1	~~1.0~~
Mid-Flood	13/02/2006	13:17	7.6	1.0	18.4	31.7	7.7	8.2	1.3
Mid-Flood	15/02/2006	13:42	7.3	1.0	18.3	31.6	7.9	8.1	1.1
Mid-Flood	17/02/2006	12:42	7.5	1.0	19.4	31.8	8.3	8.0	~~1.0~~
Mid-Flood	20/02/2006	15:02	7.6	1.0	18.0	31.6	8.2	8.0	~~1.0~~
Mid-Flood	22/02/2006	15:32	7.8	1.0	18.0	31.5	8.1	8.0	1.3
Mid-Flood	24/02/2006	13:02	7.7	1.0	18.2	31.6	8.2	8.0	~~1.0~~

Remarks:

Action level	***Bold & Italic***
Limit level	**Bold**
< detection limit	~~Grey~~

M_A	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	08:31	7.9	4.0	16.7	32.1	8.4	8.2	~~1.0~~
Mid-Ebb	27/01/2006	09:31	7.8	3.9	16.1	31.9	8.3	8.2	1.1
Mid-Ebb	06/02/2006	09:01	7.5	3.8	17.9	32.3	8.5	8.2	~~1.0~~
Mid-Ebb	08/02/2006	09:31	8.1	4.1	18.4	31.8	8.2	8.1	1.0
Mid-Ebb	11/02/2006	09:31	7.5	3.8	18.3	32.0	7.8	8.1	~~1.0~~
Mid-Ebb	13/02/2006	08:53	7.6	3.8	18.2	31.8	8.0	8.1	1.2
Mid-Ebb	15/02/2006	08:31	7.4	3.7	18.3	31.6	7.7	8.0	~~1.0~~
Mid-Ebb	17/02/2006	08:44	7.2	3.6	18.5	31.6	8.2	8.1	~~1.0~~
Mid-Ebb	20/02/2006	08:46	7.9	4.0	17.3	31.6	7.9	8.0	~~1.0~~
Mid-Ebb	22/02/2006	08:58	7.6	3.8	18.1	31.3	8.3	8.0	~~1.0~~
Mid-Ebb	24/02/2006	08:54	7.5	3.8	18.2	31.5	8.5	8.0	~~1.0~~

M_A	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	12:01	7.8	3.9	17.6	32.0	8.4	8.3	~~1.0~~
Mid-Flood	27/01/2006	13:02	7.7	3.9	16.4	32.0	8.4	8.2	1.6
Mid-Flood	06/02/2006	17:01	7.7	3.9	17.7	32.4	8.3	8.2	~~1.0~~
Mid-Flood	08/02/2006	14:31	7.9	4.0	18.3	32.0	8.2	8.1	~~1.0~~
Mid-Flood	11/02/2006	14:01	7.6	3.8	18.2	32.2	7.9	8.1	~~1.0~~
Mid-Flood	13/02/2006	13:16	7.6	3.8	18.3	31.8	7.7	8.2	1.2
Mid-Flood	15/02/2006	13:41	7.3	3.7	18.2	31.8	7.9	8.0	~~1.0~~
Mid-Flood	17/02/2006	12:41	7.5	3.8	18.4	31.7	8.1	8.0	~~1.0~~
Mid-Flood	20/02/2006	15:01	7.6	3.8	17.4	31.7	7.9	8.0	~~1.0~~
Mid-Flood	22/02/2006	15:31	7.8	3.9	18.2	31.4	8.2	8.0	~~1.0~~
Mid-Flood	24/02/2006	13:01	7.7	3.9	18.2	31.5	8.3	8.0	~~1.0~~

M_A	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	8:30	7.9	6.9	16.7	32.1	8.4	8.3	1.6
Mid-Ebb	27/01/2006	9:30	7.8	6.8	16.0	32.1	8.5	8.2	1.4
Mid-Ebb	06/02/2006	9:00	7.5	6.5	17.8	32.3	8.3	8.2	~~1.0~~
Mid-Ebb	08/02/2006	9:30	8.1	7.1	18.3	31.8	8.2	8.1	1.1
Mid-Ebb	11/02/2006	9:30	7.5	6.5	18.1	32.0	7.7	8.1	1.0
Mid-Ebb	13/02/2006	8:52	7.6	6.6	18.2	31.8	8.0	8.1	1.5
Mid-Ebb	15/02/2006	8:30	7.4	6.4	18.3	31.6	7.5	8.0	~~1.0~~
Mid-Ebb	17/02/2006	8:43	7.2	6.2	17.7	31.5	7.9	8.0	1.1
Mid-Ebb	20/02/2006	8:45	7.9	6.9	17.3	31.6	7.8	8.0	~~1.0~~
Mid-Ebb	22/02/2006	8:57	7.6	6.6	17.9	31.4	8.4	8.0	~~1.0~~
Mid-Ebb	24/02/2006	8:53	7.5	6.5	18.1	31.6	8.6	8.0	~~1.0~~

M_A	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	12:00	7.8	6.8	17.6	32.3	8.4	8.2	~~1.0~~
Mid-Flood	27/01/2006	13:01	7.7	6.7	16.3	32.1	8.4	8.2	1.6
Mid-Flood	06/02/2006	17:00	7.7	6.7	17.7	32.4	8.2	8.2	1.3
Mid-Flood	08/02/2006	14:30	7.9	6.9	18.0	32.0	8.1	8.2	1.0
Mid-Flood	11/02/2006	14:00	7.6	6.6	18.1	32.2	7.9	8.1	1.2
Mid-Flood	13/02/2006	13:15	7.6	6.6	18.3	31.8	7.7	8.1	1.6
Mid-Flood	15/02/2006	13:40	7.3	6.3	18.2	31.7	7.7	8.1	1.2
Mid-Flood	17/02/2006	12:40	7.5	6.5	17.8	31.4	8.0	8.0	1.0
Mid-Flood	20/02/2006	15:00	7.6	6.6	17.5	31.6	8.2	8.0	1.3
Mid-Flood	22/02/2006	15:30	7.8	6.8	17.8	31.6	8.1	8.0	1.1
Mid-Flood	24/02/2006	13:00	7.7	6.7	18.2	31.4	8.2	8.0	~~1.0~~

	Mid-Ebb			Mid-Flood			Depth-averaged
M_A	Surface	Midlle	Bottom	Surface	Midlle	Bottom	SS (mg/L)
25/01/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
27/01/2006	~~2.0~~	~~2.0~~	~~2.0~~	3.0	~~2.0~~	~~2.0~~	2.2
06/02/2006	~~2.0~~	~~2.0~~	2.0	~~2.0~~	~~2.0~~	2.0	2.0
08/02/2006	2.0	2.0	2.0	~~2.0~~	~~2.0~~	~~2.0~~	2.0
11/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
13/02/2006	2.0	2.0	2.0	~~2.0~~	~~2.0~~	~~2.0~~	2.0
15/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0	~~2.0~~	2.0
17/02/2006	~~2.0~~	~~2.0~~	3.0	~~2.0~~	~~2.0~~	~~2.0~~	2.2
20/02/2006	2.0	3.0	~~2.0~~	~~2.0~~	3.0	~~2.0~~	2.3
22/02/2006	3.0	3.0	~~2.0~~	2.0	3.0	~~2.0~~	2.5
24/02/2006	3.0	3.0	3.0	~~2.0~~	3.0	3.0	2.8

M_Marsh	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	08:47	8.0	1.0	16.8	32.9	8.4	8.4	~~1.0~~
Mid-Ebb	27/01/2006	09:46	7.9	1.0	16.3	32.1	8.3	8.2	~~1.0~~
Mid-Ebb	06/02/2006	09:27	8.0	1.0	17.7	32.7	8.5	8.2	1.1
Mid-Ebb	08/02/2006	09:52	8.0	1.0	18.6	32.2	8.5	8.2	~~1.0~~
Mid-Ebb	11/02/2006	09:52	7.9	1.0	18.2	32.2	8.2	8.2	~~1.0~~
Mid-Ebb	13/02/2006	09:07	8.0	1.0	18.1	31.8	7.9	8.1	1.0
Mid-Ebb	15/02/2006	08:52	7.9	1.0	17.9	31.5	8.0	7.9	1.0
Mid-Ebb	17/02/2006	09:05	7.6	1.0	18.9	31.6	8.4	8.1	~~1.0~~
Mid-Ebb	20/02/2006	09:01	8.1	1.0	17.2	31.6	7.8	8.0	1.1
Mid-Ebb	22/02/2006	09:11	8.1	1.0	17.8	31.0	7.8	8.0	1.4
Mid-Ebb	24/02/2006	09:10	8.0	1.0	18.2	31.6	8.3	8.0	~~1.0~~

M_Marsh	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	12:17	7.8	1.0	17.7	32.4	8.4	8.2	~~1.0~~
Mid-Flood	27/01/2006	13:15	7.9	1.0	16.6	32.0	8.3	8.2	~~1.0~~
Mid-Flood	06/02/2006	17:22	7.9	1.0	17.6	32.8	8.5	8.2	~~1.0~~
Mid-Flood	08/02/2006	14:52	7.9	1.0	18.4	32.3	8.5	8.2	~~1.0~~
Mid-Flood	11/02/2006	14:22	7.8	1.0	18.0	32.3	8.2	8.2	~~1.0~~
Mid-Flood	13/02/2006	13:29	7.8	1.0	18.1	31.8	7.9	8.2	1.1
Mid-Flood	15/02/2006	14:02	7.7	1.0	18.1	31.6	8.0	8.1	1.2
Mid-Flood	17/02/2006	13:02	7.8	1.0	18.2	31.7	7.9	8.1	1.2
Mid-Flood	20/02/2006	15:22	7.9	1.0	17.2	31.5	7.8	8.0	~~1.0~~
Mid-Flood	22/02/2006	15:52	8.0	1.0	17.6	31.2	7.9	8.1	1.1
Mid-Flood	24/02/2006	13:22	8.0	1.0	18.2	31.1	8.1	8.0	~~1.0~~

Remarks:

Action level	***Bold & Italic***
Limit level	**Bold**
< detection limit	~~Grey~~

M_Marsh	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	08:46	8.0	4.0	16.5	32.4	8.3	8.3	~~1.0~~
Mid-Ebb	27/01/2006	09:45	7.9	4.0	16.2	31.9	8.3	8.2	1.0
Mid-Ebb	06/02/2006	09:26	8.0	4.0	17.7	32.7	8.3	8.2	~~1.0~~
Mid-Ebb	08/02/2006	09:51	8.0	4.0	18.5	32.2	8.7	8.2	~~1.0~~
Mid-Ebb	11/02/2006	09:51	7.9	4.0	18.1	32.2	8.0	8.2	1.0
Mid-Ebb	13/02/2006	09:06	8.0	4.0	18.1	31.9	8.2	8.1	1.0
Mid-Ebb	15/02/2006	08:51	7.9	4.0	17.7	31.6	7.9	7.9	~~1.0~~
Mid-Ebb	17/02/2006	09:04	7.6	3.8	18.5	31.2	7.3	8.0	1.0
Mid-Ebb	20/02/2006	09:00	8.1	4.1	17.2	31.6	7.8	8.0	2.0
Mid-Ebb	22/02/2006	09:10	8.1	4.1	17.9	31.2	7.6	8.0	~~1.0~~
Mid-Ebb	24/02/2006	09:09	8.0	4.0	17.9	31.6	8.1	8.0	~~1.0~~

M_Marsh	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	12:16	7.8	3.9	17.3	32.3	8.2	8.3	~~1.0~~
Mid-Flood	27/01/2006	13:14	7.9	4.0	16.5	32.1	8.4	8.2	~~1.0~~
Mid-Flood	06/02/2006	17:21	7.9	4.0	17.7	32.9	8.3	8.2	~~1.0~~
Mid-Flood	08/02/2006	14:51	7.9	4.0	18.4	32.4	8.5	8.2	~~1.0~~
Mid-Flood	11/02/2006	14:21	7.8	3.9	18.2	32.2	8.0	8.2	1.1
Mid-Flood	13/02/2006	13:28	7.8	3.9	18.0	31.7	8.1	8.1	1.1
Mid-Flood	15/02/2006	14:01	7.7	3.9	17.6	31.7	7.8	8.0	~~1.0~~
Mid-Flood	17/02/2006	13:01	7.8	3.9	18.5	31.6	7.2	8.0	1.1
Mid-Flood	20/02/2006	15:21	7.9	4.0	17.3	31.5	7.6	8.0	~~1.0~~
Mid-Flood	22/02/2006	15:51	8.0	4.0	18.0	31.4	7.4	8.0	~~1.0~~
Mid-Flood	24/02/2006	13:21	8.0	4.0	18.1	31.6	7.9	8.0	~~1.0~~

M_Marsh	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	8:45	8.0	7.0	16.4	32.4	8.3	8.2	~~1.0~~
Mid-Ebb	27/01/2006	9:44	7.9	6.9	16.2	31.9	8.3	8.2	1.1
Mid-Ebb	06/02/2006	9:25	8.0	7.0	17.7	32.7	8.3	8.2	1.4
Mid-Ebb	08/02/2006	9:50	8.0	7.0	18.5	32.2	8.6	8.2	1.2
Mid-Ebb	11/02/2006	9:50	7.9	6.9	18.1	32.2	7.9	8.1	~~1.0~~
Mid-Ebb	13/02/2006	9:05	8.0	7.0	17.9	31.9	8.0	8.1	1.2
Mid-Ebb	15/02/2006	8:50	7.9	6.9	17.8	31.6	7.9	7.9	~~1.0~~
Mid-Ebb	17/02/2006	9:03	7.6	6.6	17.5	31.5	7.3	8.0	1.6
Mid-Ebb	20/02/2006	8:59	8.1	7.1	17.2	31.6	7.8	8.0	1.0
Mid-Ebb	22/02/2006	9:09	8.1	7.1	17.7	31.4	7.6	7.9	2.7
Mid-Ebb	24/02/2006	9:08	8.0	7.0	17.9	31.5	7.9	8.0	1.5

M_Marsh	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	12:15	7.8	6.8	17.4	32.0	8.3	8.2	1.3
Mid-Flood	27/01/2006	13:13	7.9	6.9	16.6	32.0	8.5	8.2	1.4
Mid-Flood	06/02/2006	17:20	7.9	6.9	17.8	32.9	8.4	8.2	1.6
Mid-Flood	08/02/2006	14:50	7.9	6.9	18.4	32.5	8.4	8.2	1.3
Mid-Flood	11/02/2006	14:20	7.8	6.8	18.2	32.1	8.0	8.1	1.5
Mid-Flood	13/02/2006	13:27	7.8	6.8	17.9	31.7	8.0	8.1	2.3
Mid-Flood	15/02/2006	14:00	7.7	6.7	18.0	31.6	7.9	8.0	1.3
Mid-Flood	17/02/2006	13:00	7.8	6.8	17.3	31.6	7.4	8.0	1.2
Mid-Flood	20/02/2006	15:20	7.9	6.9	17.4	31.6	7.7	8.0	1.6
Mid-Flood	22/02/2006	15:50	8.0	7.0	17.8	31.5	7.8	7.9	1.8
Mid-Flood	24/02/2006	13:20	8.0	7.0	17.8	31.6	8.2	8.0	1.7

	Mid-Ebb			Mid-Flood			Depth-averaged
M_Marsh	Surface	Midlle	Bottom	Surface	Midlle	Bottom	SS (mg/L)
25/01/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
27/01/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
06/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0	~~2.0~~	2.0
08/02/2006	~~2.0~~	~~2.0~~	4.0	3.0	2.0	5.0	3.0
11/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
13/02/2006	2.0	~~2.0~~	2.0	~~2.0~~	~~2.0~~	~~2.0~~	2.0
15/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
17/02/2006	3.0	4.0	5.0	~~2.0~~	~~2.0~~	4.0	3.3
20/02/2006	~~2.0~~	2.0	~~2.0~~	~~2.0~~	3.0	~~2.0~~	2.2
22/02/2006	3.0	5.0	4.0	4.0	2.0	3.0	3.5
24/02/2006	3.0	~~2.0~~	~~2.0~~	4.0	3.0	4.0	3.0

TTC	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	08:57	9.7	1.0	16.3	32.8	8.3	8.3	1.0
Mid-Ebb	27/01/2006	09:55	9.6	1.0	15.9	32.4	9.2	8.2	~~1.0~~
Mid-Ebb	06/02/2006	09:57	9.6	1.0	17.8	32.9	8.8	8.2	~~1.0~~
Mid-Ebb	08/02/2006	10:16	10.0	1.0	18.5	32.2	8.7	8.2	~~1.0~~
Mid-Ebb	11/02/2006	10:16	9.6	1.0	18.1	32.5	9.0	8.1	1.3
Mid-Ebb	13/02/2006	09:15	9.8	1.0	18.2	31.9	8.5	8.2	1.2
Mid-Ebb	15/02/2006	09:02	9.7	1.0	18.1	31.7	7.8	8.0	~~1.0~~
Mid-Ebb	17/02/2006	09:15	9.7	1.0	18.8	31.6	7.7	8.1	~~1.0~~
Mid-Ebb	20/02/2006	09:08	10.0	1.0	17.2	31.6	7.6	8.0	~~1.0~~
Mid-Ebb	22/02/2006	09:34	9.9	1.0	17.6	31.1	7.2	8.0	~~1.0~~
Mid-Ebb	24/02/2006	09:27	10.1	1.0	18.1	31.2	8.5	8.1	~~1.0~~

TTC	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	12:27	9.5	1.0	17.0	32.1	8.4	8.2	~~1.0~~
Mid-Flood	27/01/2006	13:27	9.7	1.0	16.3	32.5	8.6	8.2	~~1.0~~
Mid-Flood	06/02/2006	17:32	9.6	1.0	17.8	33.0	8.4	8.2	~~1.0~~
Mid-Flood	08/02/2006	15:02	9.5	1.0	18.1	32.1	8.3	8.3	~~1.0~~
Mid-Flood	11/02/2006	14:32	9.5	1.0	18.0	32.4	8.8	8.1	1.5
Mid-Flood	13/02/2006	13:39	9.6	1.0	18.2	31.8	8.3	8.2	~~1.0~~
Mid-Flood	15/02/2006	14:12	9.6	1.0	18.3	31.8	7.7	8.0	~~1.0~~
Mid-Flood	17/02/2006	13:12	9.7	1.0	18.5	31.6	7.5	8.0	~~1.0~~
Mid-Flood	20/02/2006	15:32	9.8	1.0	17.5	31.6	7.8	8.0	~~1.0~~
Mid-Flood	22/02/2006	16:02	9.9	1.0	17.7	31.4	7.6	8.0	~~1.0~~
Mid-Flood	24/02/2006	13:32	9.8	1.0	18.2	31.5	8.4	8.0	~~1.0~~

Remarks:

Action level	***Bold & Italic***
Limit level	**Bold**
< detection limit	~~Grey~~

TTC	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	08:56	9.7	4.9	16.4	32.2	8.3	8.2	1.2
Mid-Ebb	27/01/2006	09:54	9.6	4.8	15.9	32.4	9.3	8.2	~~1.0~~
Mid-Ebb	06/02/2006	09:56	9.6	4.8	17.8	32.9	8.7	8.2	~~1.0~~
Mid-Ebb	08/02/2006	10:15	10.0	5.0	18.5	32.2	8.7	8.2	1.1
Mid-Ebb	11/02/2006	10:15	9.6	4.8	18.1	32.5	8.5	8.1	1.2
Mid-Ebb	13/02/2006	09:14	9.8	4.9	18.2	31.9	8.4	8.2	1.5
Mid-Ebb	15/02/2006	09:01	9.7	4.9	17.8	31.7	7.7	7.9	~~1.0~~
Mid-Ebb	17/02/2006	09:14	9.7	4.9	18.8	31.7	7.5	8.1	~~1.0~~
Mid-Ebb	20/02/2006	09:07	10.0	5.0	17.2	31.7	7.6	8.0	~~1.0~~
Mid-Ebb	22/02/2006	09:33	9.9	5.0	17.9	31.3	7.3	8.0	~~1.0~~
Mid-Ebb	24/02/2006	09:26	10.1	5.1	17.7	31.2	8.5	8.0	~~1.0~~

TTC	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	12:26	9.5	4.8	17.2	32.0	8.3	8.2	~~1.0~~
Mid-Flood	27/01/2006	13:26	9.7	4.9	16.4	32.7	8.8	8.2	~~1.0~~
Mid-Flood	06/02/2006	17:31	9.6	4.8	17.7	32.8	8.6	8.2	~~1.0~~
Mid-Flood	08/02/2006	15:01	9.5	4.8	18.2	32.2	8.3	8.2	~~1.0~~
Mid-Flood	11/02/2006	14:31	9.5	4.8	18.2	32.6	8.6	8.2	1.3
Mid-Flood	13/02/2006	13:38	9.6	4.8	18.2	31.8	8.1	8.2	~~1.0~~
Mid-Flood	15/02/2006	14:11	9.6	4.8	17.7	31.6	7.6	8.0	~~1.0~~
Mid-Flood	17/02/2006	13:11	9.7	4.9	18.5	31.6	7.5	8.0	~~1.0~~
Mid-Flood	20/02/2006	15:31	9.8	4.9	17.4	31.4	7.5	8.0	~~1.0~~
Mid-Flood	22/02/2006	16:01	9.9	5.0	17.7	31.6	7.5	8.0	~~1.0~~
Mid-Flood	24/02/2006	13:31	9.8	4.9	17.9	31.4	8.1	8.0	~~1.0~~

TTC	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	8:55	9.7	8.7	16.4	32.8	8.3	8.2	1.6
Mid-Ebb	27/01/2006	9:53	9.6	8.6	15.9	32.4	9.3	8.2	~~1.0~~
Mid-Ebb	06/02/2006	9:55	9.6	8.6	17.6	32.9	7.8	8.1	2.2
Mid-Ebb	08/02/2006	10:00	10.0	9.0	18.2	32.2	8.3	8.2	2.3
Mid-Ebb	11/02/2006	10:00	9.6	8.6	18.0	32.5	8.2	8.1	1.0
Mid-Ebb	13/02/2006	9:13	9.8	8.8	18.2	31.9	8.3	8.2	1.3
Mid-Ebb	15/02/2006	9:00	9.7	8.7	17.4	31.6	7.5	7.9	~~1.0~~
Mid-Ebb	17/02/2006	9:13	9.7	8.7	17.0	31.6	7.1	7.9	1.0
Mid-Ebb	20/02/2006	9:06	10.0	9.0	17.2	31.7	7.4	8.0	~~1.0~~
Mid-Ebb	22/02/2006	9:32	9.9	8.9	17.6	31.5	7.3	8.0	~~1.0~~
Mid-Ebb	24/02/2006	9:25	10.1	9.1	17.5	31.3	8.0	7.9	1.8

TTC	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	12:25	9.5	8.5	17.3	31.9	8.4	8.2	1.2
Mid-Flood	27/01/2006	13:25	9.7	8.7	16.4	32.4	8.6	8.2	1.3
Mid-Flood	06/02/2006	17:30	9.6	8.6	17.7	32.8	8.4	8.2	1.9
Mid-Flood	08/02/2006	15:00	9.5	8.5	18.1	32.3	8.2	8.1	1.3
Mid-Flood	11/02/2006	14:30	9.5	8.5	18.1	32.4	8.3	8.2	1.2
Mid-Flood	13/02/2006	13:37	9.6	8.6	18.0	31.8	7.6	8.1	2.0
Mid-Flood	15/02/2006	14:10	9.6	8.6	17.3	31.5	7.4	8.0	1.3
Mid-Flood	17/02/2006	13:10	9.7	8.7	17.0	31.6	7.3	8.0	1.6
Mid-Flood	20/02/2006	15:30	9.8	8.8	17.5	31.7	7.3	8.0	~~1.0~~
Mid-Flood	22/02/2006	16:00	9.9	8.9	17.6	31.8	7.3	7.9	1.4
Mid-Flood	24/02/2006	13:30	9.8	8.8	17.9	31.6	7.9	8.0	~~1.0~~

	Mid-Ebb			Mid-Flood			Depth-averaged
TTC	Surface	Midlle	Bottom	Surface	Midlle	Bottom	SS (mg/L)
25/01/2006	2.0	2.0	~~2.0~~	~~2.0~~	~~2.0~~	2.0	2.0
27/01/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
06/02/2006	~~2.0~~	3.0	2.0	~~2.0~~	~~2.0~~	~~2.0~~	2.2
08/02/2006	~~2.0~~	3.0	~~2.0~~	~~2.0~~	3.0	~~2.0~~	2.3
11/02/2006	2.0	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
13/02/2006	2.0	2.0	4.0	4.0	~~2.0~~	~~2.0~~	2.7
15/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
17/02/2006	2.0	3.0	~~2.0~~	3.0	4.0	~~2.0~~	2.7
20/02/2006	3.0	2.0	2.0	2.0	~~2.0~~	~~2.0~~	2.2
22/02/2006	2.0	~~2.0~~	~~2.0~~	2.0	2.0	~~2.0~~	2.0
24/02/2006	4.0	~~2.0~~	~~2.0~~	~~2.0~~	2.0	5.0	2.8

M_BP	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	09:05	9.5	1.0	16.3	32.8	8.6	8.2	~~1.0~~
Mid-Ebb	27/01/2006	10:07	9.6	1.0	16.0	32.6	8.8	8.2	~~1.0~~
Mid-Ebb	06/02/2006	10:07	9.6	1.0	17.8	32.9	8.8	8.2	~~1.0~~
Mid-Ebb	08/02/2006	10:27	10.0	1.0	18.4	32.2	8.7	8.2	~~1.0~~
Mid-Ebb	11/02/2006	10:27	9.5	1.0	18.2	32.6	9.1	8.2	~~1.0~~
Mid-Ebb	13/02/2006	09:22	9.8	1.0	18.1	31.9	8.6	8.2	~~1.0~~
Mid-Ebb	15/02/2006	09:13	9.9	1.0	18.0	31.8	8.3	8.1	~~1.0~~
Mid-Ebb	17/02/2006	09:26	9.8	1.0	18.9	31.7	7.9	8.1	~~1.0~~
Mid-Ebb	20/02/2006	09:16	9.7	1.0	17.3	31.6	7.6	8.0	~~1.0~~
Mid-Ebb	22/02/2006	09:44	9.8	1.0	17.6	31.5	7.7	8.0	~~1.0~~
Mid-Ebb	24/02/2006	09:34	9.7	1.0	18.0	31.4	7.8	8.1	~~1.0~~

M_BP	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	12:37	9.4	1.0	17.0	32.6	8.3	8.2	~~1.0~~
Mid-Flood	27/01/2006	13:39	9.9	1.0	16.3	32.6	8.6	8.2	~~1.0~~
Mid-Flood	06/02/2006	17:42	9.6	1.0	17.8	33.0	8.7	8.2	~~1.0~~
Mid-Flood	08/02/2006	15:13	9.7	1.0	18.5	32.4	8.3	8.2	~~1.0~~
Mid-Flood	11/02/2006	14:43	9.8	1.0	18.2	32.6	8.7	8.1	~~1.0~~
Mid-Flood	13/02/2006	13:47	9.4	1.0	18.3	31.8	8.5	8.2	1.5
Mid-Flood	15/02/2006	14:23	9.3	1.0	18.1	31.6	8.2	8.1	1.0
Mid-Flood	17/02/2006	13:23	9.5	1.0	18.7	31.8	8.0	8.1	~~1.0~~
Mid-Flood	20/02/2006	15:42	9.7	1.0	17.5	31.4	7.6	8.0	~~1.0~~
Mid-Flood	22/02/2006	16:12	9.8	1.0	17.7	31.6	7.5	8.1	~~1.0~~
Mid-Flood	24/02/2006	13:42	9.7	1.0	17.9	31.5	8.1	8.0	~~1.0~~

Remarks:

Action level	***Bold & Italic***
Limit level	**Bold**
< detection limit	~~Grey~~

M_BP	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	09:04	9.5	4.8	16.2	32.7	8.2	8.2	~~1.0~~
Mid-Ebb	27/01/2006	10:06	9.6	4.8	15.9	32.4	8.6	8.2	~~1.0~~
Mid-Ebb	06/02/2006	10:06	9.6	4.8	17.7	32.9	8.6	8.2	~~1.0~~
Mid-Ebb	08/02/2006	10:26	10.0	5.0	18.4	32.2	8.7	8.2	~~1.0~~
Mid-Ebb	11/02/2006	10:26	9.5	4.8	18.1	32.6	9.0	8.2	~~1.0~~
Mid-Ebb	13/02/2006	09:21	9.8	4.9	18.1	31.9	8.5	8.2	~~1.0~~
Mid-Ebb	15/02/2006	09:12	9.9	5.0	18.0	31.6	8.4	8.1	~~1.0~~
Mid-Ebb	17/02/2006	09:25	9.8	4.9	17.2	31.5	7.5	8.0	~~1.0~~
Mid-Ebb	20/02/2006	09:15	9.7	4.9	17.2	31.6	7.6	8.0	~~1.0~~
Mid-Ebb	22/02/2006	09:43	9.8	4.9	17.5	31.5	7.5	8.0	~~1.0~~
Mid-Ebb	24/02/2006	09:33	9.7	4.9	18.1	31.5	8.2	8.0	~~1.0~~

M_BP	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	12:36	9.4	4.7	16.9	32.2	8.2	8.2	~~1.0~~
Mid-Flood	27/01/2006	13:38	9.9	5.0	16.2	32.7	8.4	8.2	~~1.0~~
Mid-Flood	06/02/2006	17:41	9.6	4.8	17.8	33.0	8.6	8.2	~~1.0~~
Mid-Flood	08/02/2006	15:12	9.7	4.9	18.5	32.3	8.8	8.2	~~1.0~~
Mid-Flood	11/02/2006	14:42	9.8	4.9	18.0	32.6	9.0	8.2	~~1.0~~
Mid-Flood	13/02/2006	13:46	9.4	4.7	18.1	31.8	8.1	8.2	1.0
Mid-Flood	15/02/2006	14:22	9.3	4.7	18.0	31.5	8.3	8.1	~~1.0~~
Mid-Flood	17/02/2006	13:22	9.5	4.8	17.6	31.6	7.6	8.0	~~1.0~~
Mid-Flood	20/02/2006	15:41	9.7	4.9	17.3	31.6	7.5	8.0	~~1.0~~
Mid-Flood	22/02/2006	16:11	9.8	4.9	17.6	31.6	7.6	8.0	~~1.0~~
Mid-Flood	24/02/2006	13:41	9.7	4.9	17.8	31.5	7.8	8.2	~~1.0~~

M_BP	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	9:03	9.5	8.5	16.3	32.4	8.2	8.2	~~1.0~~
Mid-Ebb	27/01/2006	10:05	9.6	8.6	16.1	32.5	8.3	8.2	~~1.0~~
Mid-Ebb	06/02/2006	10:05	9.6	8.6	17.7	32.9	8.3	8.2	~~1.0~~
Mid-Ebb	08/02/2006	10:25	10.0	9.0	18.3	32.2	8.5	8.2	~~1.0~~
Mid-Ebb	11/02/2006	10:25	9.5	8.5	18.2	32.6	9.0	8.2	1.4
Mid-Ebb	13/02/2006	9:20	9.8	8.8	18.1	31.9	8.5	8.2	1.3
Mid-Ebb	15/02/2006	9:11	9.9	8.9	17.3	31.8	8.4	8.1	1.1
Mid-Ebb	17/02/2006	9:24	9.8	8.8	17.0	31.5	7.4	8.0	1.5
Mid-Ebb	20/02/2006	9:14	9.7	8.7	17.3	31.6	7.6	8.0	~~1.0~~
Mid-Ebb	22/02/2006	9:42	9.8	8.8	17.4	31.7	7.6	8.1	~~1.0~~
Mid-Ebb	24/02/2006	9:32	9.7	8.7	18.2	31.6	7.9	8.2	~~1.0~~

M_BP	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	12:35	9.4	8.4	17.2	32.3	8.4	8.2	~~1.0~~
Mid-Flood	27/01/2006	13:37	9.9	8.9	16.4	32.8	8.4	8.2	~~1.0~~
Mid-Flood	06/02/2006	17:40	9.6	8.6	17.8	32.9	8.4	8.2	~~1.0~~
Mid-Flood	08/02/2006	15:11	9.7	8.7	18.2	32.1	8.4	8.2	1.1
Mid-Flood	11/02/2006	14:41	9.8	8.8	18.2	32.7	8.8	8.1	1.3
Mid-Flood	13/02/2006	13:45	9.4	8.4	18.1	31.8	8.0	8.2	1.1
Mid-Flood	15/02/2006	14:21	9.3	8.3	17.5	31.5	8.2	8.1	1.0
Mid-Flood	17/02/2006	13:21	9.5	8.5	17.2	31.6	7.6	8.0	1.3
Mid-Flood	20/02/2006	15:40	9.7	8.7	17.5	31.4	7.6	8.0	1.1
Mid-Flood	22/02/2006	16:10	9.8	8.8	17.3	31.5	7.5	8.0	~~1.0~~
Mid-Flood	24/02/2006	13:40	9.7	8.7	18.0	31.6	8.1	8.1	~~1.0~~

	Mid-Ebb			Mid-Flood			Depth-averaged
M_BP	Surface	Midlle	Bottom	Surface	Midlle	Bottom	SS (mg/L)
25/01/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	3.0	2.2
27/01/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
06/02/2006	~~2.0~~	3.0	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.2
08/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	3.0	3.0	~~2.0~~	2.3
11/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0	~~2.0~~	2.0
13/02/2006	2.0	~~2.0~~	6.0	~~2.0~~	2.0	~~2.0~~	2.7
15/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
17/02/2006	3.0	3.0	~~2.0~~	3.0	3.0	~~2.0~~	2.7
20/02/2006	~~2.0~~	3.0	~~2.0~~	~~2.0~~	3.0	~~2.0~~	2.3
22/02/2006	3.0	3.0	2.0	3.0	3.0	~~2.0~~	2.7
24/02/2006	3.0	3.0	3.0	3.0	3.0	4.0	3.2

M_Coral	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	09:16	7.8	1.0	16.2	32.8	8.3	8.2	~~1.0~~
Mid-Ebb	27/01/2006	10:18	7.9	1.0	16.0	32.7	8.8	8.2	~~1.0~~
Mid-Ebb	06/02/2006	11:57	8.0	1.0	18.0	32.3	8.8	8.0	~~1.0~~
Mid-Ebb	08/02/2006	11:32	8.2	1.0	18.1	32.4	8.2	8.1	~~1.0~~
Mid-Ebb	11/02/2006	11:37	7.7	1.0	18.3	32.3	8.2	8.1	~~1.0~~
Mid-Ebb	13/02/2006	09:33	8.2	1.0	17.7	31.8	8.3	8.1	~~1.0~~
Mid-Ebb	15/02/2006	09:22	8.0	1.0	17.9	31.6	8.2	8.0	~~1.0~~
Mid-Ebb	17/02/2006	09:20	7.8	1.0	19.1	31.7	8.5	8.2	~~1.0~~
Mid-Ebb	20/02/2006	09:25	8.2	1.0	17.2	31.7	7.7	8.1	~~1.0~~
Mid-Ebb	22/02/2006	11:12	8.1	1.0	17.5	31.6	7.9	8.1	~~1.0~~
Mid-Ebb	24/02/2006	10:27	8.2	1.0	17.8	31.6	8.5	8.1	~~1.0~~

M_Coral	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	13:25	7.4	1.0	16.7	32.4	8.4	8.2	~~1.0~~
Mid-Flood	27/01/2006	14:27	7.9	1.0	16.3	32.9	8.8	8.2	~~1.0~~
Mid-Flood	06/02/2006	17:52	8.0	1.0	18.1	32.4	8.7	8.1	~~1.0~~
Mid-Flood	08/02/2006	15:23	8.0	1.0	18.0	32.4	8.3	8.1	~~1.0~~
Mid-Flood	11/02/2006	14:42	7.8	1.0	18.3	32.4	8.2	8.1	~~1.0~~
Mid-Flood	13/02/2006	14:02	8.7	1.0	18.1	31.9	8.8	8.2	1.0
Mid-Flood	15/02/2006	14:23	8.0	1.0	18.0	31.6	8.1	8.0	1.0
Mid-Flood	17/02/2006	14:17	8.0	1.0	19.3	31.6	8.2	8.1	1.0
Mid-Flood	20/02/2006	15:55	8.0	1.0	17.6	31.6	8.0	8.0	1.0
Mid-Flood	22/02/2006	16:24	8.0	1.0	17.6	31.5	7.8	8.1	~~1.0~~
Mid-Flood	24/02/2006	13:52	8.1	1.0	17.9	31.6	8.4	8.1	~~1.0~~

Remarks:

Action level	***Bold & Italic***
Limit level	**Bold**
< detection limit	~~Grey~~

M_Coral	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	09:15	7.8	3.9	16.0	32.9	8.4	8.2	~~1.0~~
Mid-Ebb	27/01/2006	10:17	7.9	4.0	15.9	32.8	9.0	8.2	~~1.0~~
Mid-Ebb	06/02/2006	11:56	8.0	4.0	17.7	32.3	8.8	8.0	~~1.0~~
Mid-Ebb	08/02/2006	11:31	8.2	4.1	18.1	32.5	8.1	8.1	~~1.0~~
Mid-Ebb	11/02/2006	11:36	7.7	3.9	17.9	32.3	8.3	8.0	~~1.0~~
Mid-Ebb	13/02/2006	09:32	8.2	4.1	17.7	31.8	8.3	8.1	~~1.0~~
Mid-Ebb	15/02/2006	09:21	8.0	4.0	17.6	31.7	8.2	8.2	~~1.0~~
Mid-Ebb	17/02/2006	09:19	7.8	3.9	18.1	31.6	8.0	8.1	~~1.0~~
Mid-Ebb	20/02/2006	09:24	8.2	4.1	17.2	31.7	7.7	8.1	~~1.0~~
Mid-Ebb	22/02/2006	11:11	8.1	4.1	17.6	31.6	7.8	8.1	~~1.0~~
Mid-Ebb	24/02/2006	10:26	8.2	4.1	17.7	31.7	8.5	8.1	1.0

M_Coral	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	13:24	7.4	3.7	16.6	32.8	8.4	8.3	~~1.0~~
Mid-Flood	27/01/2006	14:26	7.9	4.0	16.2	32.8	8.7	8.2	~~1.0~~
Mid-Flood	06/02/2006	17:51	8.0	4.0	17.8	32.5	8.6	8.2	~~1.0~~
Mid-Flood	08/02/2006	15:22	8.0	4.0	18.2	32.5	8.1	8.2	~~1.0~~
Mid-Flood	11/02/2006	14:41	7.8	3.9	18.0	32.3	8.1	8.1	~~1.0~~
Mid-Flood	13/02/2006	14:01	8.7	4.4	17.9	31.8	8.3	8.2	~~1.0~~
Mid-Flood	15/02/2006	14:22	8.0	4.0	17.8	31.4	7.9	8.1	~~1.0~~
Mid-Flood	17/02/2006	14:16	8.0	4.0	18.0	31.7	8.2	8.1	~~1.0~~
Mid-Flood	20/02/2006	15:54	8.0	4.0	17.6	31.6	7.9	8.1	~~1.0~~
Mid-Flood	22/02/2006	16:23	8.0	4.0	17.4	31.5	7.8	8.1	~~1.0~~
Mid-Flood	24/02/2006	13:51	8.1	4.1	17.8	31.7	8.1	8.1	~~1.0~~

M_Coral	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	9:14	7.8	6.8	16.3	32.7	8.4	8.2	~~1.0~~
Mid-Ebb	27/01/2006	10:16	7.9	6.9	16.0	32.7	8.9	8.2	~~1.0~~
Mid-Ebb	06/02/2006	11:55	8.0	7.0	17.5	32.2	8.5	8.0	~~1.0~~
Mid-Ebb	08/02/2006	11:30	8.2	7.2	17.9	32.5	8.7	8.0	~~1.0~~
Mid-Ebb	11/02/2006	11:35	7.7	6.7	17.7	32.3	8.7	8.0	~~1.0~~
Mid-Ebb	13/02/2006	9:31	8.2	7.2	17.7	31.8	8.3	8.1	~~1.0~~
Mid-Ebb	15/02/2006	9:20	8.0	7.0	17.6	31.6	8.2	8.0	~~1.0~~
Mid-Ebb	17/02/2006	9:18	7.8	6.8	17.1	31.5	8.1	8.0	~~1.0~~
Mid-Ebb	20/02/2006	9:23	8.2	7.2	17.2	31.6	7.6	8.0	~~1.0~~
Mid-Ebb	22/02/2006	11:10	8.1	7.1	17.4	31.6	7.6	8.0	~~1.0~~
Mid-Ebb	24/02/2006	10:25	8.2	7.2	17.5	31.9	8.2	8.0	~~1.0~~

M_Coral	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	13:23	7.4	6.4	16.9	32.8	8.4	8.3	1.6
Mid-Flood	27/01/2006	14:25	7.9	6.9	16.3	32.9	8.7	8.2	~~1.0~~
Mid-Flood	06/02/2006	17:50	8.0	7.0	17.6	32.6	8.6	8.2	~~1.0~~
Mid-Flood	08/02/2006	15:21	8.0	7.0	17.9	32.6	8.5	8.1	~~1.0~~
Mid-Flood	11/02/2006	14:40	7.8	6.8	17.7	32.2	8.2	8.0	~~1.0~~
Mid-Flood	13/02/2006	14:00	8.7	7.7	17.8	31.8	8.2	8.1	~~1.0~~
Mid-Flood	15/02/2006	14:21	8.0	7.0	17.6	31.6	8.0	7.9	~~1.0~~
Mid-Flood	17/02/2006	14:15	8.0	7.0	17.3	31.6	8.1	8.0	~~1.0~~
Mid-Flood	20/02/2006	15:53	8.0	7.0	17.3	31.6	8.0	8.0	~~1.0~~
Mid-Flood	22/02/2006	16:22	8.0	7.0	17.4	31.4	8.1	8.1	~~1.0~~
Mid-Flood	24/02/2006	13:50	8.1	7.1	17.4	31.6	8.0	8.0	~~1.0~~

	Mid-Ebb			Mid-Flood			Depth-averaged
M_Coral	Surface	Midlle	Bottom	Surface	Midlle	Bottom	SS (mg/L)
25/01/2006	~~2.0~~	~~2.0~~	2.0	2.0	~~2.0~~	2.0	2.0
27/01/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0	~~2.0~~	2.0
06/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
08/02/2006	2.0	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	3.0	2.2
11/02/2006	~~2.0~~	~~2.0~~	3.0	~~2.0~~	~~2.0~~	3.0	2.3
13/02/2006	2.0	2.0	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
15/02/2006	~~2.0~~	3.0	~~2.0~~	2.0	~~2.0~~	~~2.0~~	2.2
17/02/2006	~~2.0~~	3.0	2.0	~~2.0~~	2.0	~~2.0~~	2.2
20/02/2006	2.0	~~2.0~~	3.0	~~2.0~~	~~2.0~~	3.0	2.3
22/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
24/02/2006	4.0	3.0	3.0	~~2.0~~	4.0	2.0	3.0

M_B	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	09:28	17.3	1.0	16.4	32.9	8.3	8.3	~~1.0~~
Mid-Ebb	27/01/2006	10:28	16.7	1.0	15.9	32.8	9.0	8.2	~~1.0~~
Mid-Ebb	06/02/2006	13:02	16.7	1.0	17.8	32.2	8.7	8.0	~~1.0~~
Mid-Ebb	08/02/2006	12:32	17.2	1.0	17.8	32.4	8.0	8.1	1.0
Mid-Ebb	11/02/2006	12:32	16.5	1.0	18.1	32.1	8.6	8.0	~~1.0~~
Mid-Ebb	13/02/2006	10:22	17.3	1.0	17.4	32.0	8.2	8.1	~~1.0~~
Mid-Ebb	15/02/2006	10:17	17.0	1.0	17.0	32.4	8.1	8.1	~~1.0~~
Mid-Ebb	17/02/2006	09:34	17.5	1.0	18.3	31.7	8.8	8.2	~~1.0~~
Mid-Ebb	20/02/2006	10:28	17.3	1.0	17.2	31.7	8.8	8.0	~~1.0~~
Mid-Ebb	22/02/2006	12:11	17.0	1.0	17.3	31.8	8.8	8.0	~~1.0~~
Mid-Ebb	24/02/2006	11:32	16.9	1.0	17.2	31.6	8.4	8.0	~~1.0~~

M_B	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	14:15	17.6	1.0	16.8	33.0	8.7	8.3	~~1.0~~
Mid-Flood	27/01/2006	15:17	17.1	1.0	16.3	33.0	8.6	8.2	~~1.0~~
Mid-Flood	06/02/2006	18:07	17.3	1.0	17.8	32.4	8.5	8.2	~~1.0~~
Mid-Flood	08/02/2006	15:37	17.0	1.0	17.8	32.4	8.1	8.0	~~1.0~~
Mid-Flood	11/02/2006	14:57	16.8	1.0	18.3	32.3	8.4	8.1	~~1.0~~
Mid-Flood	13/02/2006	14:18	17.0	1.0	17.5	31.8	8.3	8.1	~~1.0~~
Mid-Flood	15/02/2006	14:07	16.8	1.0	17.2	31.8	8.2	8.1	~~1.0~~
Mid-Flood	17/02/2006	14:43	16.9	1.0	18.2	31.8	8.5	8.2	~~1.0~~
Mid-Flood	20/02/2006	16:07	17.2	1.0	17.3	31.8	8.6	8.0	~~1.0~~
Mid-Flood	22/02/2006	16:37	17.1	1.0	17.5	31.7	8.8	8.2	~~1.0~~
Mid-Flood	24/02/2006	14:12	17.0	1.0	17.2	31.6	8.6	8.1	~~1.0~~

Remarks:

Action level	***Bold & Italic***
Limit level	**Bold**
< detection limit	~~Grey~~

M_B	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	09:27	17.3	8.7	16.2	32.9	8.7	8.3	~~1.0~~
Mid-Ebb	27/01/2006	10:27	16.7	8.4	15.7	32.9	9.2	8.2	~~1.0~~
Mid-Ebb	06/02/2006	13:01	16.7	8.4	17.3	32.2	8.4	7.9	~~1.0~~
Mid-Ebb	08/02/2006	12:31	17.2	8.6	17.6	32.4	7.7	8.0	1.2
Mid-Ebb	11/02/2006	12:31	16.5	8.3	17.3	32.2	8.0	7.9	2.7
Mid-Ebb	13/02/2006	10:21	17.3	8.7	16.9	31.9	7.9	8.0	1.8
Mid-Ebb	15/02/2006	10:16	17.0	8.5	16.7	31.6	8.0	8.2	1.5
Mid-Ebb	17/02/2006	09:33	17.5	8.8	17.4	31.7	8.7	8.1	~~1.0~~
Mid-Ebb	20/02/2006	10:27	17.3	8.7	17.1	31.7	8.7	8.0	~~1.0~~
Mid-Ebb	22/02/2006	12:10	17.0	8.5	17.2	31.7	8.6	8.0	~~1.0~~
Mid-Ebb	24/02/2006	11:31	16.9	8.5	17.2	31.5	8.6	8.0	~~1.0~~

M_B	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	14:14	17.6	8.8	17.0	32.8	8.8	8.4	~~1.0~~
Mid-Flood	27/01/2006	15:16	17.1	8.6	16.3	32.8	8.7	8.2	~~1.0~~
Mid-Flood	06/02/2006	18:06	17.3	8.7	17.4	32.4	8.4	8.1	~~1.0~~
Mid-Flood	08/02/2006	15:36	17.0	8.5	17.4	32.4	7.8	8.0	1.3
Mid-Flood	11/02/2006	14:56	16.8	8.4	17.4	32.1	8.0	8.0	1.9
Mid-Flood	13/02/2006	14:17	17.0	8.5	17.4	31.8	8.2	8.1	1.0
Mid-Flood	15/02/2006	14:06	16.8	8.4	16.8	31.6	8.2	8.1	~~1.0~~
Mid-Flood	17/02/2006	14:42	16.9	8.5	17.3	31.8	8.6	8.1	~~1.0~~
Mid-Flood	20/02/2006	16:06	17.2	8.6	17.3	31.6	8.8	8.0	~~1.0~~
Mid-Flood	22/02/2006	16:36	17.1	8.6	17.2	31.7	8.4	8.1	~~1.0~~
Mid-Flood	24/02/2006	14:11	17.0	8.5	17.0	31.6	8.4	8.2	~~1.0~~

M_B	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	9:26	17.3	16.3	16.2	32.9	8.8	8.3	~~1.0~~
Mid-Ebb	27/01/2006	10:26	16.7	15.7	15.8	32.9	9.2	8.2	~~1.0~~
Mid-Ebb	06/02/2006	13:00	16.7	15.7	17.1	32.2	8.3	7.9	1.7
Mid-Ebb	08/02/2006	12:30	17.2	16.2	17.6	32.3	7.8	8.0	1.3
Mid-Ebb	11/02/2006	12:30	16.5	15.5	16.5	32.0	8.0	7.9	2.7
Mid-Ebb	13/02/2006	10:20	17.3	16.3	16.9	31.9	8.0	8.0	1.8
Mid-Ebb	15/02/2006	10:15	17.0	16.0	16.8	31.8	8.0	8.0	1.5
Mid-Ebb	17/02/2006	9:32	17.5	16.5	17.2	31.6	8.4	8.1	~~1.0~~
Mid-Ebb	20/02/2006	10:26	17.3	16.3	17.0	31.7	8.5	8.0	~~1.0~~
Mid-Ebb	22/02/2006	12:09	17.0	16.0	17.2	31.6	8.5	8.0	~~1.0~~
Mid-Ebb	24/02/2006	11:30	16.9	15.9	16.9	31.6	8.6	8.1	~~1.0~~

M_B	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	14:13	17.6	16.6	16.8	32.6	8.4	8.3	~~1.0~~
Mid-Flood	27/01/2006	15:15	17.1	16.1	15.9	32.9	8.9	8.2	~~1.0~~
Mid-Flood	06/02/2006	18:05	17.3	16.3	17.3	32.4	8.6	8.1	1.3
Mid-Flood	08/02/2006	15:35	17.0	16.0	17.7	32.4	7.9	8.0	1.5
Mid-Flood	11/02/2006	14:55	16.8	15.8	17.3	32.0	8.0	8.0	2.0
Mid-Flood	13/02/2006	14:16	17.0	16.0	17.3	31.8	8.2	8.1	~~1.0~~
Mid-Flood	15/02/2006	14:05	16.8	15.8	17.0	31.6	8.1	8.1	~~1.0~~
Mid-Flood	17/02/2006	14:41	16.9	15.9	17.0	31.7	8.2	8.1	~~1.0~~
Mid-Flood	20/02/2006	16:05	17.2	16.2	17.1	31.6	8.3	8.1	~~1.0~~
Mid-Flood	22/02/2006	16:35	17.1	16.1	17.1	31.6	8.4	8.1	~~1.0~~
Mid-Flood	24/02/2006	14:10	17.0	16.0	17.0	31.7	8.3	8.0	~~1.0~~

	Mid-Ebb			Mid-Flood			Depth-averaged
M_B	Surface	Midlle	Bottom	Surface	Midlle	Bottom	SS (mg/L)
25/01/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
27/01/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
06/02/2006	~~2.0~~	~~2.0~~	2.0	~~2.0~~	~~2.0~~	3.0	2.2
08/02/2006	3.0	2.0	~~2.0~~	2.0	4.0	3.0	2.7
11/02/2006	~~2.0~~	~~2.0~~	3.0	~~2.0~~	~~2.0~~	2.0	2.2
13/02/2006	~~2.0~~	~~2.0~~	2.0	~~2.0~~	~~2.0~~	~~2.0~~	2.0
15/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
17/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	3.0	2.0	2.2
20/02/2006	3.0	2.0	2.0	4.0	3.0	~~2.0~~	2.7
22/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
24/02/2006	3.0	2.0	5.0	~~2.0~~	4.0	3.0	3.2

KS	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	09:52	12.0	1.0	16.7	32.3	8.4	8.3	~~1.0~~
Mid-Ebb	27/01/2006	10:52	11.8	1.0	16.3	32.6	8.8	8.2	1.3
Mid-Ebb	06/02/2006	12:22	12.2	1.0	18.2	32.3	8.5	8.0	~~1.0~~
Mid-Ebb	08/02/2006	13:02	11.8	1.0	17.8	32.5	8.2	8.1	~~1.0~~
Mid-Ebb	11/02/2006	13:02	11.5	1.0	18.1	32.2	8.6	8.0	~~1.0~~
Mid-Ebb	13/02/2006	10:50	11.5	1.0	17.6	32.0	7.9	8.1	1.0
Mid-Ebb	15/02/2006	10:47	12.2	1.0	17.6	31.9	7.9	8.0	~~1.0~~
Mid-Ebb	17/02/2006	10:04	11.5	1.0	17.6	31.9	7.8	8.1	~~1.0~~
Mid-Ebb	20/02/2006	10:56	11.3	1.0	17.2	31.7	7.9	8.0	~~1.0~~
Mid-Ebb	22/02/2006	12:42	11.5	1.0	17.6	31.6	8.0	8.0	~~1.0~~
Mid-Ebb	24/02/2006	12:02	11.7	1.0	17.8	31.6	8.2	8.0	~~1.0~~

KS	Surface								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	14:42	12.0	1.0	16.9	32.8	8.4	8.2	~~1.0~~
Mid-Flood	27/01/2006	15:44	12.1	1.0	16.7	32.8	8.6	8.2	1.1
Mid-Flood	06/02/2006	18:37	12.4	1.0	17.8	32.4	8.4	8.2	1.3
Mid-Flood	08/02/2006	16:07	12.3	1.0	17.9	32.6	8.3	8.0	~~1.0~~
Mid-Flood	11/02/2006	15:27	11.8	1.0	18.3	32.1	8.4	8.0	~~1.0~~
Mid-Flood	13/02/2006	14:48	11.1	1.0	17.9	32.0	8.0	8.1	~~1.0~~
Mid-Flood	15/02/2006	14:37	11.6	1.0	17.7	32.0	8.0	8.0	~~1.0~~
Mid-Flood	17/02/2006	15:13	11.6	1.0	17.7	31.8	7.7	8.0	~~1.0~~
Mid-Flood	20/02/2006	16:37	11.5	1.0	17.5	31.6	7.9	8.0	~~1.0~~
Mid-Flood	22/02/2006	17:05	11.2	1.0	17.6	31.8	8.0	8.0	~~1.0~~
Mid-Flood	24/02/2006	14:42	11.3	1.0	17.8	31.6	7.9	8.1	~~1.0~~

Remarks:

Action level	***Bold & Italic***
Limit level	**Bold**
< detection limit	~~Grey~~

KS	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	09:51	12.0	6.0	16.5	32.8	8.4	8.3	~~1.0~~
Mid-Ebb	27/01/2006	10:51	11.8	5.9	16.3	32.6	8.8	8.2	1.4
Mid-Ebb	06/02/2006	12:21	12.2	6.1	17.4	32.3	8.5	8.0	~~1.0~~
Mid-Ebb	08/02/2006	13:01	11.8	5.9	17.7	32.5	8.1	8.1	~~1.0~~
Mid-Ebb	11/02/2006	13:01	11.5	5.8	17.4	32.1	8.2	7.9	***3.0***
Mid-Ebb	13/02/2006	10:49	11.5	5.8	17.6	32.0	7.8	8.1	1.0
Mid-Ebb	15/02/2006	10:46	12.2	6.1	17.6	31.8	7.8	8.0	~~1.0~~
Mid-Ebb	17/02/2006	10:03	11.5	5.8	17.2	31.9	7.5	8.1	~~1.0~~
Mid-Ebb	20/02/2006	10:55	11.3	5.7	17.2	31.7	8.0	8.0	~~1.0~~
Mid-Ebb	22/02/2006	12:41	11.5	5.8	17.3	31.5	8.1	8.0	~~1.0~~
Mid-Ebb	24/02/2006	12:01	11.7	5.9	17.5	31.6	8.0	8.0	~~1.0~~

KS	Middle								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	14:41	12.0	6.0	17.0	32.5	8.2	8.2	~~1.0~~
Mid-Flood	27/01/2006	15:43	12.1	6.1	16.6	32.8	8.4	8.2	~~1.0~~
Mid-Flood	06/02/2006	18:36	12.4	6.2	17.6	32.5	8.5	8.1	~~1.0~~
Mid-Flood	08/02/2006	16:06	12.3	6.2	17.6	32.6	8.3	8.1	~~1.0~~
Mid-Flood	11/02/2006	15:26	11.8	5.9	17.4	32.3	8.2	8.0	~~1.0~~
Mid-Flood	13/02/2006	14:47	11.1	5.6	17.6	31.9	7.4	8.1	1.9
Mid-Flood	15/02/2006	14:36	11.6	5.8	17.6	31.9	7.7	8.0	~~1.0~~
Mid-Flood	17/02/2006	15:12	11.6	5.8	17.3	31.9	8.0	8.0	~~1.0~~
Mid-Flood	20/02/2006	16:36	11.5	5.8	17.4	31.7	8.0	8.0	~~1.0~~
Mid-Flood	22/02/2006	17:04	11.2	5.6	17.3	31.8	8.1	8.0	~~1.0~~
Mid-Flood	24/02/2006	14:41	11.3	5.7	17.4	31.6	8.1	8.1	~~1.0~~

KS	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Ebb	25/01/2006	9:50	12.0	11.0	16.4	33.0	8.3	8.2	~~1.0~~
Mid-Ebb	27/01/2006	10:50	11.8	10.8	16.2	32.6	8.9	8.2	1.6
Mid-Ebb	06/02/2006	12:20	12.2	11.2	17.4	32.3	8.5	8.0	1.4
Mid-Ebb	08/02/2006	13:00	11.8	10.8	17.7	32.5	7.8	8.1	~~1.0~~
Mid-Ebb	11/02/2006	13:00	11.5	10.5	17.3	32.1	8.0	7.9	***3.6***
Mid-Ebb	13/02/2006	10:48	11.5	10.5	17.5	32.0	7.8	8.0	1.1
Mid-Ebb	15/02/2006	10:45	12.2	11.2	17.2	31.7	7.8	7.9	1.1
Mid-Ebb	17/02/2006	10:02	11.5	10.5	16.9	31.8	7.5	8.0	1.9
Mid-Ebb	20/02/2006	10:54	11.3	10.3	17.1	31.6	7.9	8.0	~~1.0~~
Mid-Ebb	22/02/2006	12:40	11.5	10.5	17.3	31.6	7.8	8.0	~~1.0~~
Mid-Ebb	24/02/2006	12:00	11.7	10.7	17.2	31.6	8.1	8.0	1.3

KS	Bottom								
tide condition	Date	time	Water depth (m)	Sampling depth (m)	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)
Mid-Flood	25/01/2006	14:40	12.0	11.0	16.9	32.8	8.3	8.2	~~1.0~~
Mid-Flood	27/01/2006	15:42	12.1	11.1	16.6	32.9	8.5	8.3	~~1.0~~
Mid-Flood	06/02/2006	18:35	12.4	11.4	17.3	32.4	8.6	8.2	~~1.0~~
Mid-Flood	08/02/2006	16:05	12.3	11.3	17.6	32.6	8.0	8.2	~~1.0~~
Mid-Flood	11/02/2006	15:25	11.8	10.8	17.1	32.3	8.0	8.1	2.5
Mid-Flood	13/02/2006	14:46	11.1	10.1	17.6	32.0	7.4	8.1	1.3
Mid-Flood	15/02/2006	14:35	11.6	10.6	17.3	32.6	8.0	8.0	1.3
Mid-Flood	17/02/2006	15:11	11.6	10.6	17.2	32.5	7.6	8.0	1.5
Mid-Flood	20/02/2006	16:35	11.5	10.5	17.3	32.1	7.9	8.0	~~1.0~~
Mid-Flood	22/02/2006	17:03	11.2	10.2	17.2	32.0	7.8	8.0	~~1.0~~
Mid-Flood	24/02/2006	14:40	11.3	10.3	17.1	32.1	7.8	8.1	~~1.0~~

	Mid-Ebb			Mid-Flood			Depth-averaged
KS	Surface	Midlle	Bottom	Surface	Midlle	Bottom	SS (mg/L)
25/01/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	4.0	2.3
27/01/2006	2.0	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
06/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
08/02/2006	~~2.0~~	4.0	4.0	~~2.0~~	~~2.0~~	~~2.0~~	2.7
11/02/2006	2.0	2.0	2.0	~~2.0~~	3.0	3.0	2.3
13/02/2006	~~2.0~~	2.0	2.0	2.0	~~2.0~~	~~2.0~~	2.0
15/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0	~~2.0~~	2.0
17/02/2006	~~2.0~~	2.0	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
20/02/2006	2.0	2.0	2.0	~~2.0~~	~~2.0~~	3.0	2.2
22/02/2006	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	~~2.0~~	2.0
24/02/2006	3.0	5.0	5.0	5.0	2.0	3.0	3.8

F_UA	Mid depth						
Date	time	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)
25/01/2006	10:40	12.8	<0.1	10.0	7.7	2.4	2.0
27/01/2006	11:41	11.8	<0.1	10.2	7.6	2.5	2.0
06/02/2006	10:50	15.5	<0.1	10.4	7.7	2.4	2.0
08/02/2006	10:45	16.0	<0.1	9.8	7.6	2.8	2.0
11/02/2006	10:55	15.2	<0.1	9.7	7.4	2.4	2.0
13/02/2006	12:09	16.1	<0.1	9.6	7.3	2.6	2.0
15/02/2006	12:00	17.0	<0.1	9.0	7.5	2.6	2.0
17/02/2006	11:49	18.3	<0.1	8.4	7.4	3.2	2.0
20/02/2006	12:09	16.7	<0.1	9.8	7.1	2.5	2.0
22/02/2006	10:45	16.8	<0.1	9.6	7.3	2.1	2.0
24/02/2006	10:05	16.5	<0.1	9.9	7.3	2.2	2.0

F_DA	Mid depth						
Date	time	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)
25/01/2006	10:45	15.0	<0.1	9.8	7.8	2.0	2.0
27/01/2006	11:46	14.9	<0.1	9.7	7.8	2.2	2.0
06/02/2006	10:55	15.3	<0.1	10.7	7.5	3.6	2.0
08/02/2006	10:50	16.5	<0.1	10.2	7.9	2.2	2.0
11/02/2006	11:00	15.1	<0.1	10.0	7.5	2.3	2.0
13/02/2006	12:12	16.8	<0.1	10.1	7.4	2.6	2.0
15/02/2006	12:05	17.2	<0.1	9.2	7.4	2.7	2.0
17/02/2006	11:55	19.2	<0.1	8.9	7.1	2.7	2.0
20/02/2006	12:05	19.2	<0.1	10.2	7.2	2.0	3.0
22/02/2006	10:50	19.3	<0.1	10.0	7.2	2.1	2.0
24/02/2006	10:10	19.1	<0.1	10.1	7.2	2.2	2.0

Remarks:

Action level	***Bold & Italic***
Limit level	**Bold**
< detection limit	~~Grey~~

F_UB	Mid depth						
Date	time	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)
25/01/2006	10:30	14.0	<0.1	9.4	8.2	1.4	2.0
27/01/2006	11:30	12.8	<0.1	9.7	8.2	1.6	2.0
06/02/2006	11:25	16.2	<0.1	9.8	7.7	2.5	2.0
08/02/2006	11:10	15.8	<0.1	10.0	7.7	2.4	3.0
11/02/2006	11:15	15.7	<0.1	10.1	7.7	2.2	2.0
13/02/2006	11:45	16.8	<0.1	8.9	7.8	2.4	2.0
15/02/2006	11:34	16.4	<0.1	9.1	7.7	2.3	3.0
17/02/2006	11:27	18.5	<0.1	8.1	7.5	4.7	2.0
20/02/2006	12:31	18.0	<0.1	8.7	7.2	1.1	2.0
22/02/2006	10:20	17.7	<0.1	8.8	7.3	1.5	3.0
24/02/2006	09:45	17.9	<0.1	8.9	7.4	1.7	2.0

F_DB	Mid depth						
Date	time	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)
25/01/2006	13:05	14.3	<0.1	9.7	7.2	1.9	2.0
27/01/2006	14:05	12.3	<0.1	9.8	7.3	1.8	2.0
06/02/2006	11:10	15.6	<0.1	9.8	6.8	1.4	2.0
08/02/2006	11:15	15.6	<0.1	10.3	7.1	2.8	***4.0***
11/02/2006	11:20	15.6	<0.1	10.4	6.9	2.3	2.0
13/02/2006	11:52	16.6	<0.1	9.1	7.0	2.7	**5.0**
15/02/2006	11:40	16.2	<0.1	9.2	7.0	2.6	3.0
17/02/2006	11:36	18.1	<0.1	9.5	8.1	1.9	2.0
20/02/2006	12:25	17.9	<0.1	9.0	6.9	1.5	2.0
22/02/2006	10:10	17.8	<0.1	8.7	7.3	1.6	***4.0***
24/02/2006	09:55	17.7	<0.1	9.0	7.3	1.5	3.0

Remarks:

Action level	***Bold & Italic***
Limit level	**Bold**
< detection limit	~~Grey~~

F_UC	Mid depth						
Date	time	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)
25/01/2006	14:00	15.2	<0.1	8.9	6.0	1.3	2.0
27/01/2006	15:00	14.7	<0.1	8.8	6.0	1.6	2.0
06/02/2006	12:30	19.7	<0.1	7.4	5.6	1.0	2.0
08/02/2006	12:15	18.1	<0.1	11.6	5.8	1.0	2.0
11/02/2006	12:20	18.3	<0.1	11.8	5.7	1.0	2.0
13/02/2006	09:56	17.6	<0.1	7.6	5.9	1.0	2.0
15/02/2006	09:45	17.7	<0.1	7.3	5.9	1.3	2.0
17/02/2006	09:47	18.1	<0.1	8.7	6.1	1.0	2.0
20/02/2006	10:02	17.6	<0.1	6.7	5.6	1.0	2.0
22/02/2006	11:30	17.4	<0.1	7.2	5.7	1.0	2.0
24/02/2006	10:55	17.3	<0.1	7.0	5.8	1.1	2.0

F_DC	Mid depth						
Date	time	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)
25/01/2006	14:12	15.0	<0.1	9.8	6.8	1.2	2.0
27/01/2006	15:12	15.0	<0.1	9.7	6.8	1.9	2.0
06/02/2006	12:15	17.6	<0.1	10.0	6.7	1.0	2.0
08/02/2006	12:00	17.0	<0.1	10.3	6.9	1.0	2.0
11/02/2006	12:05	17.1	<0.1	10.7	6.6	1.0	2.0
13/02/2006	09:47	17.0	<0.1	8.8	7.1	1.0	2.0
15/02/2006	09:40	16.9	<0.1	9.2	6.8	1.2	2.0
17/02/2006	09:32	18.1	<0.1	9.4	6.4	1.0	2.0
20/02/2006	09:45	16.9	<0.1	9.3	6.8	1.0	2.0
22/02/2006	11:45	17.3	<0.1	9.5	6.9	1.0	2.0
24/02/2006	11:07	17.0	<0.1	9.7	6.7	1.0	2.0

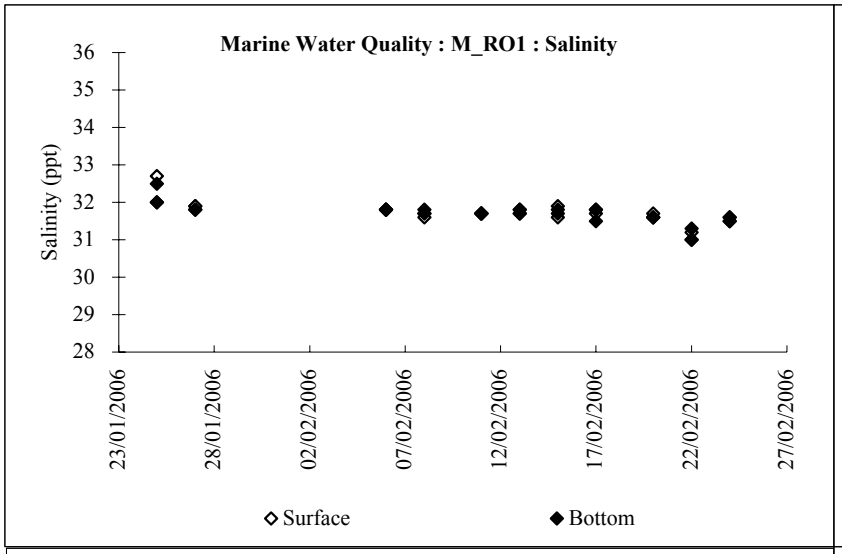
Remarks:

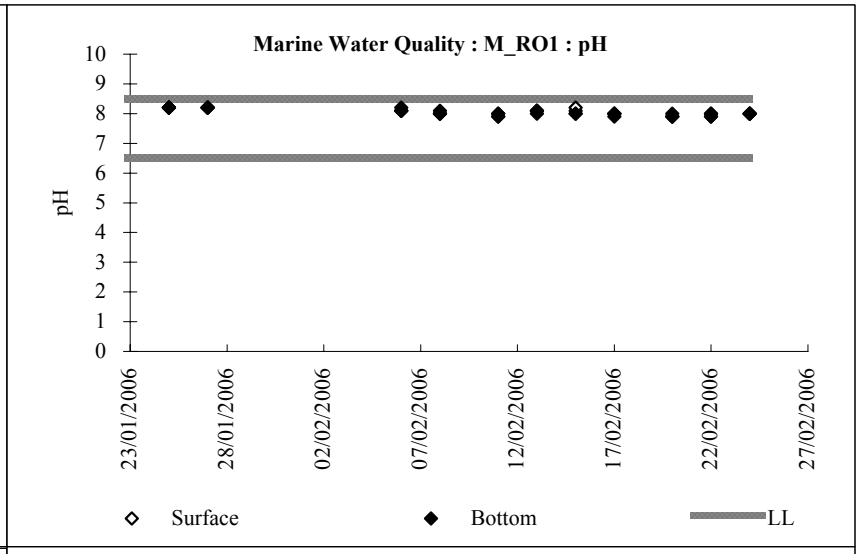
Action level	***Bold & Italic***
Limit level	**Bold**
< detection limit	~~Grey~~

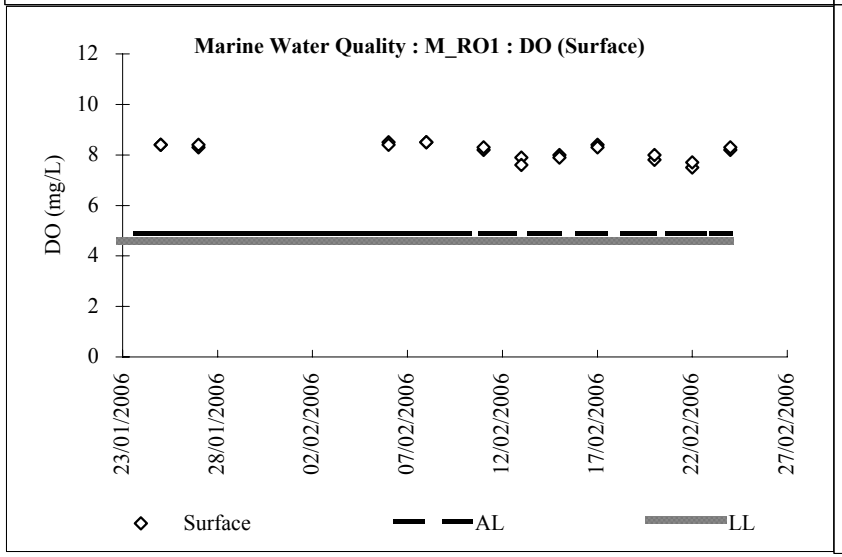
F_Inland M	Mid depth						
Date	time	Temp (^{o}C)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)
25/01/2006	10:55	14.8	<0.1	9.4	6.9	1.8	2.0
27/01/2006	11:57	14.3	<0.1	9.9	7.0	1.7	2.0
06/02/2006	09:35	15.3	<0.1	10.0	7.2	1.3	2.0
08/02/2006	10:05	15.7	<0.1	10.1	6.8	1.5	2.0
11/02/2006	10:05	15.6	<0.1	10.2	6.9	1.2	2.0
13/02/2006	12:35	16.1	<0.1	8.7	6.9	1.3	2.0
15/02/2006	12:24	17.1	<0.1	8.9	6.8	1.5	2.0
17/02/2006	12:45	18.7	<0.1	8.9	6.6	1.6	2.0
20/02/2006	11:34	16.9	<0.1	7.5	6.9	1.1	2.0
22/02/2006	09:28	18.5	<0.1	7.8	6.9	1.0	2.0
24/02/2006	09:15	17.9	<0.1	8.2	6.9	1.3	2.0

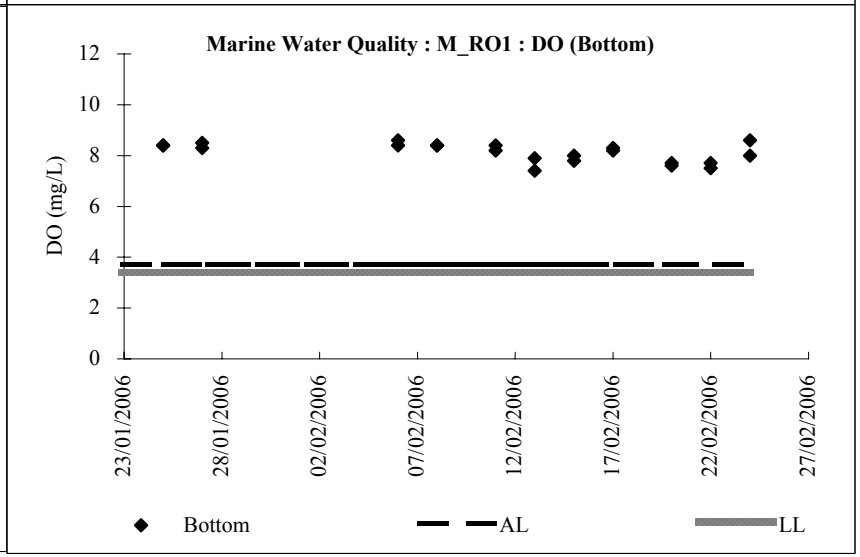
Remarks:

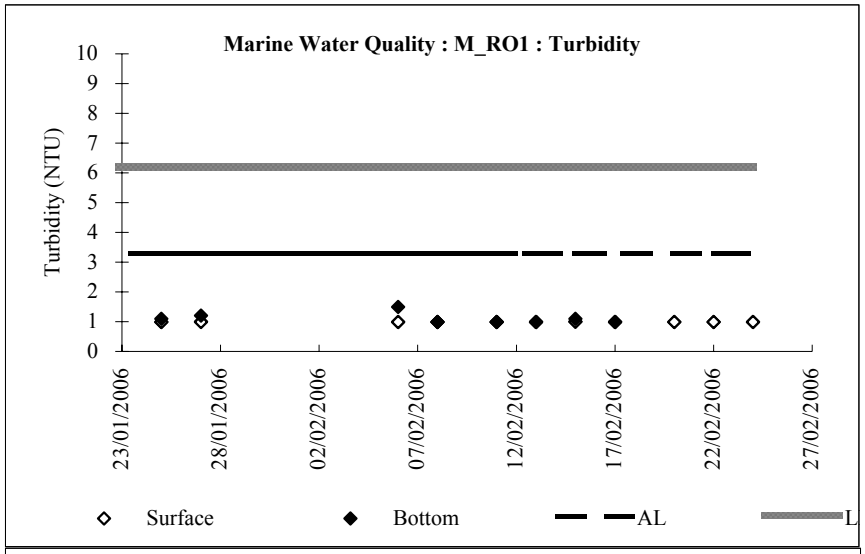
Action level	***Bold & Italic***
Limit level	**Bold**
< detection limit	~~Grey~~

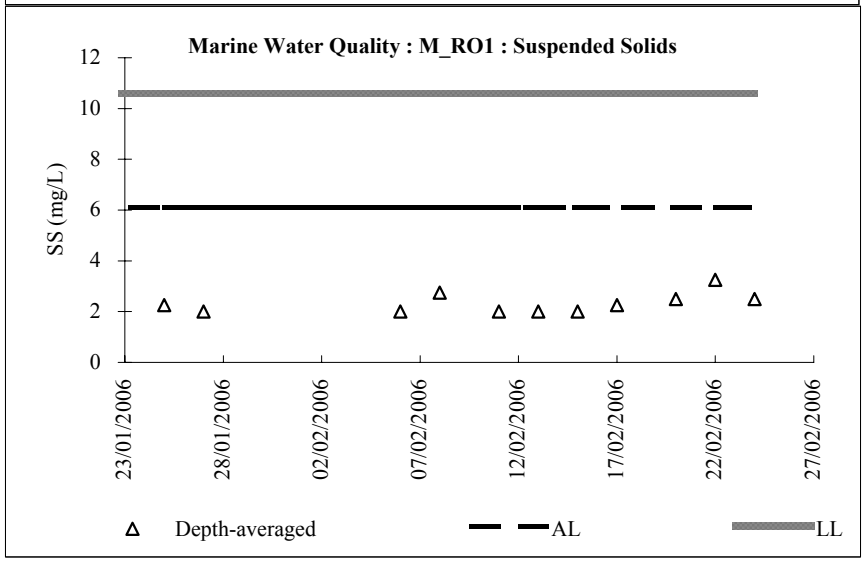

Marine Water Quality : M_RO1 : Salinity
Salinity (ppt)
36
35
34
33
32
31
30
29
28
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Bottom

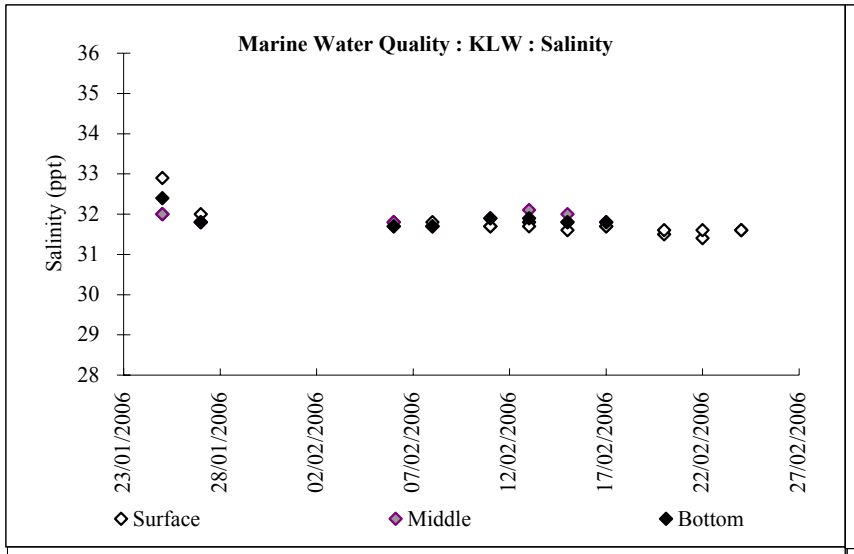

Marine Water Quality : M_RO1 : pH
pH
10
9
8
7
6
5
4
3
2
1
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Bottom
LL

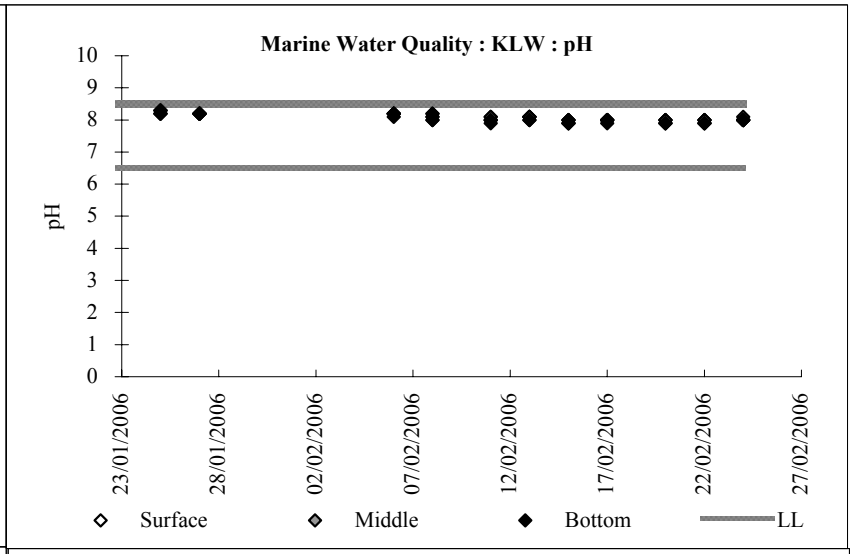

Marine Water Quality : M_RO1 : DO (Surface)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
AL
LL

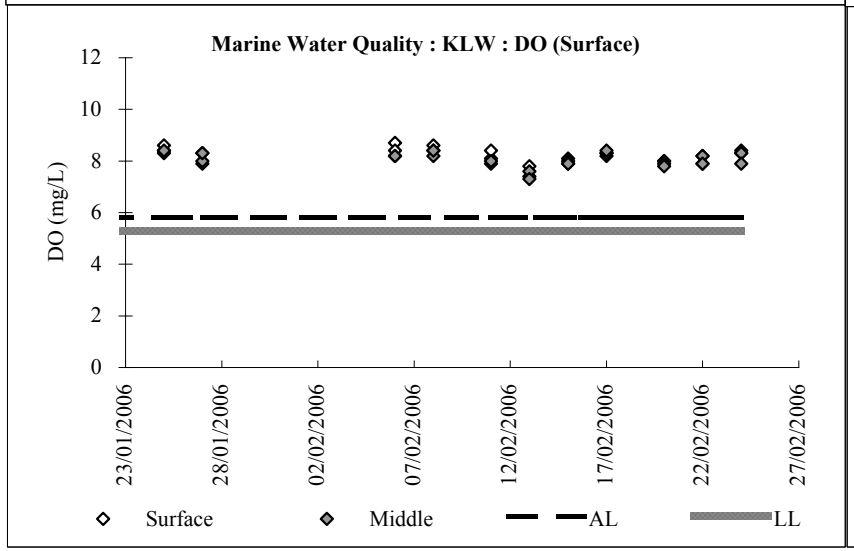

Marine Water Quality : M_RO1 : DO (Bottom)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Bottom
AL
LL

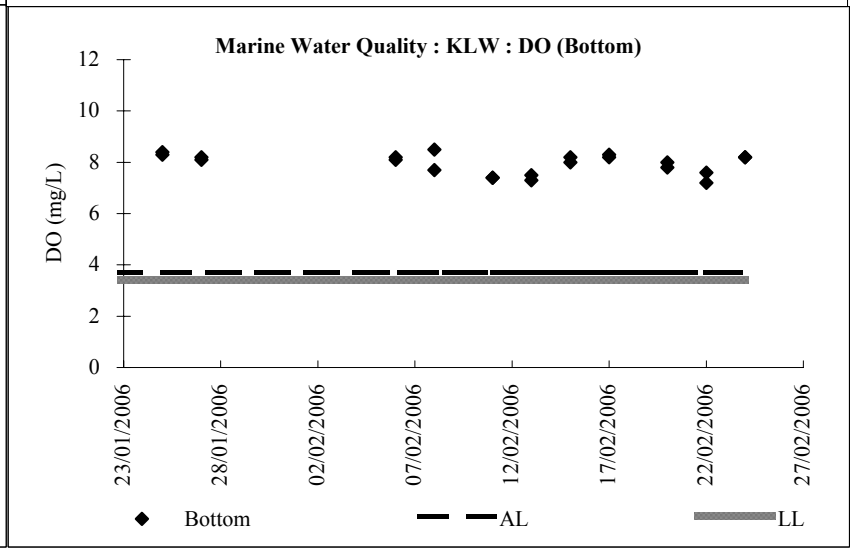

Marine Water Quality : M_RO1 : Turbidity
Turbidity (NTU)
10
9
8
7
6
5
4
3
2
1
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Bottom
AL
L

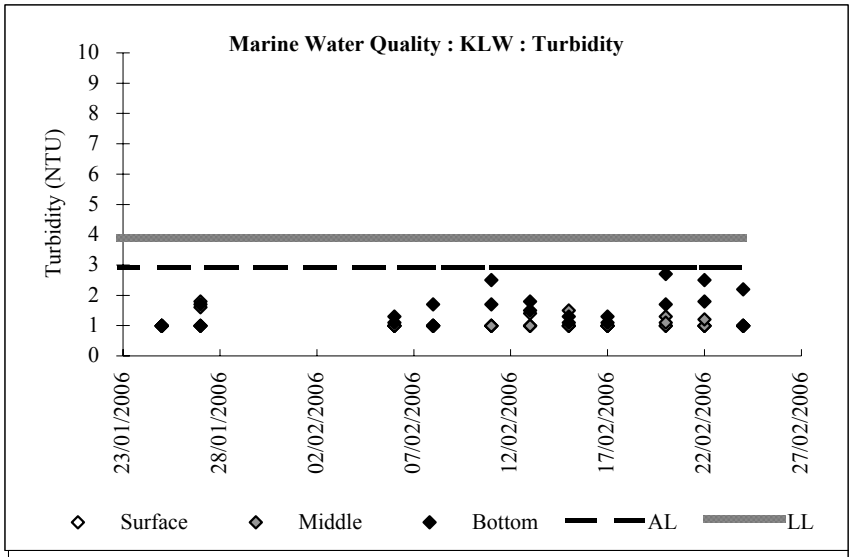

Marine Water Quality : M_RO1 : Suspended Solids
SS (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Depth-averaged
AL
LL

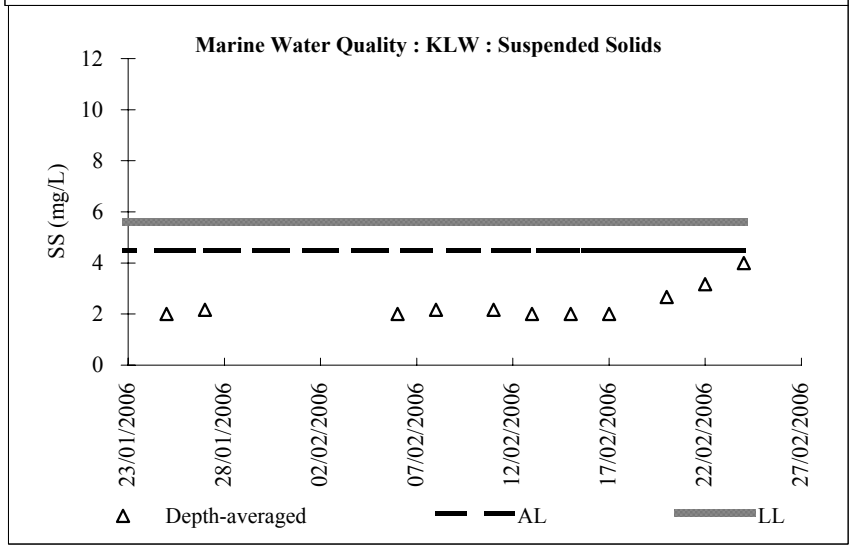

Marine Water Quality : KLW : Salinity
Salinity (ppt)
36
35
34
33
32
31
30
29
28
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom

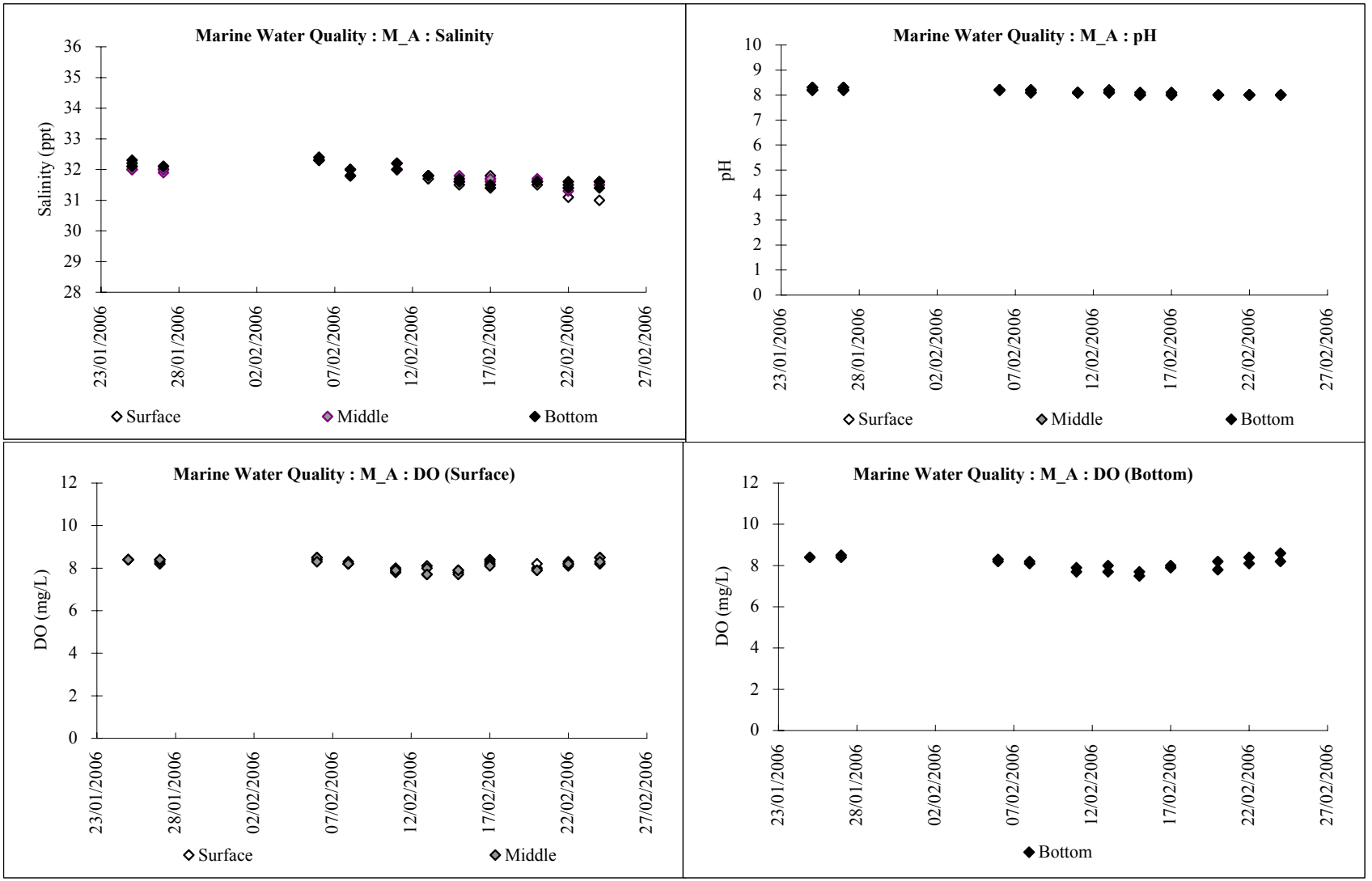

Marine Water Quality : KLW : pH
pH
10
9
8
7
6
5
4
3
2
1
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
LL

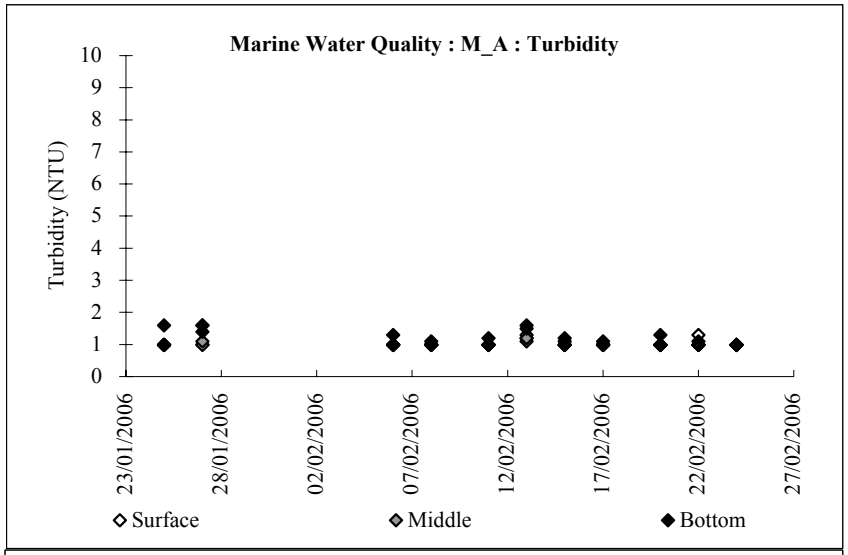

Marine Water Quality : KLW : DO (Surface)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
AL
LL

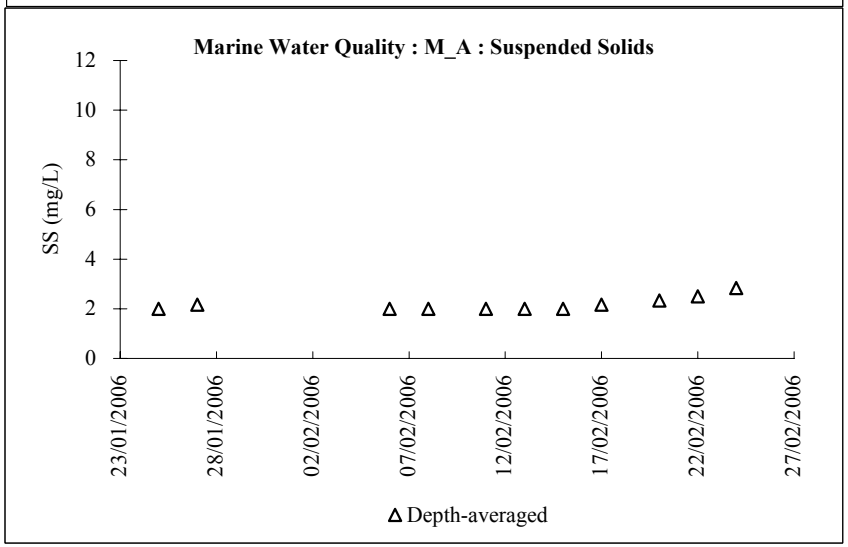

Marine Water Quality : KLW : DO (Bottom)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Bottom
AL
LL

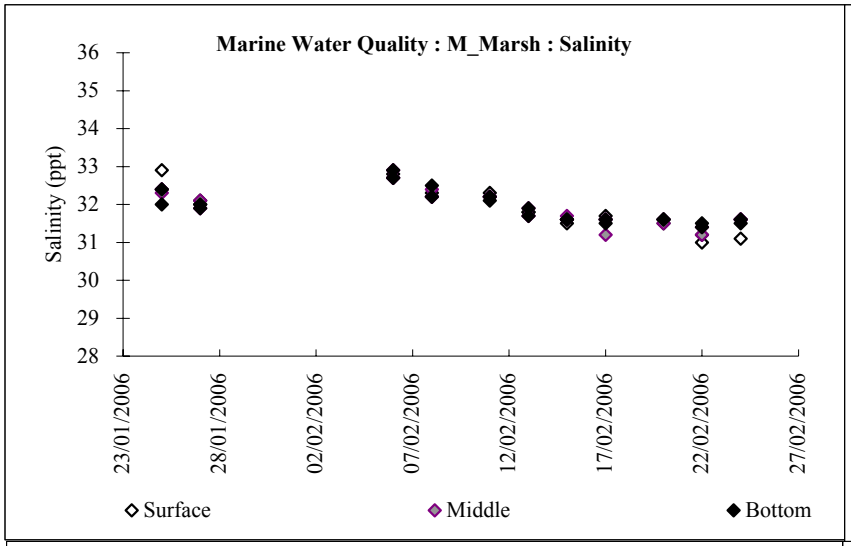

Marine Water Quality : KLW : Turbidity
Turbidity (NTU)
10
9
8
7
6
5
4
3
2
1
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
AL
LL

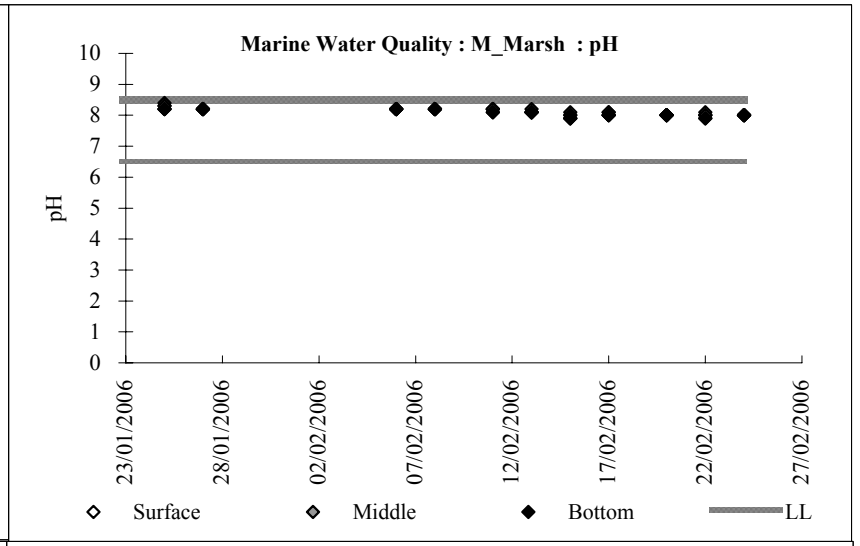

Marine Water Quality : KLW : Suspended Solids
SS (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Depth-averaged
AL
LL

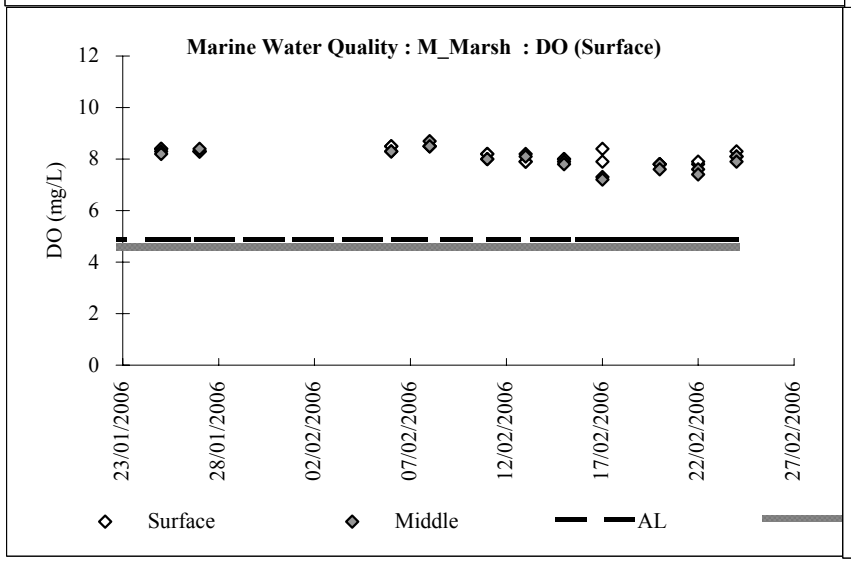

Marine Water Quality : M_A : Salinity
Salinity (ppt)
36
35
34
33
32
31
30
29
28
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
Marine Water Quality : M_A : pH
pH
10
9
8
7
6
5
4
3
2
1
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
Marine Water Quality : M_A : DO (Surface)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Marine Water Quality : M_A : DO (Bottom)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Bottom

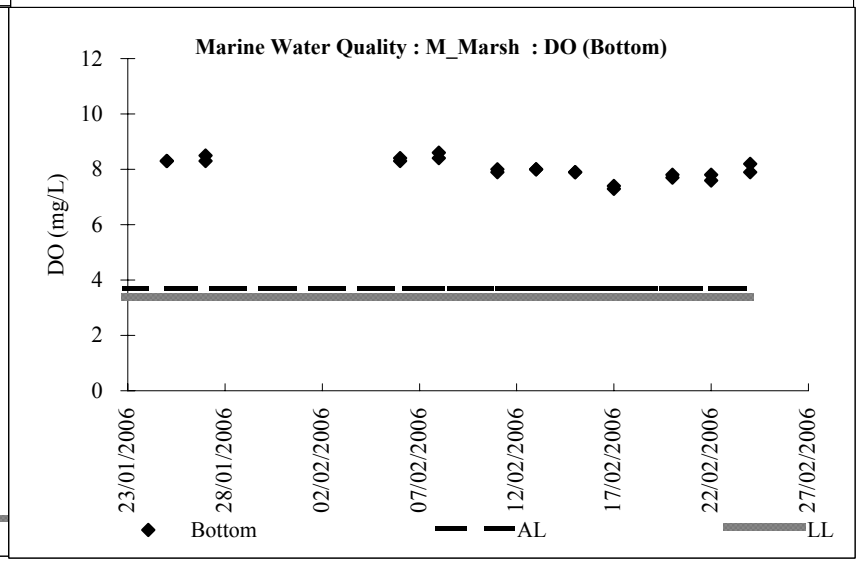

Marine Water Quality : M_A : Turbidity
Turbidity (NTU)
10
9
8
7
6
5
4
3
2
1
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom

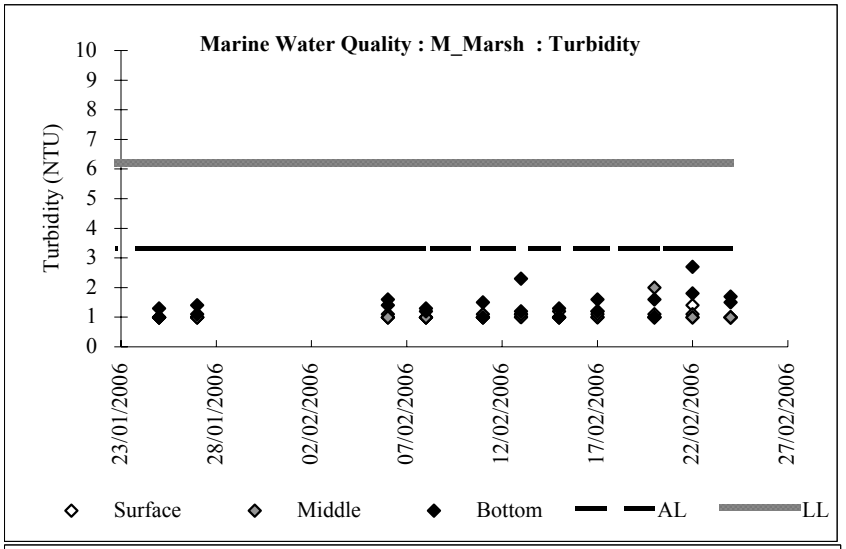

Marine Water Quality : M_A : Suspended Solids
SS (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Depth-averaged

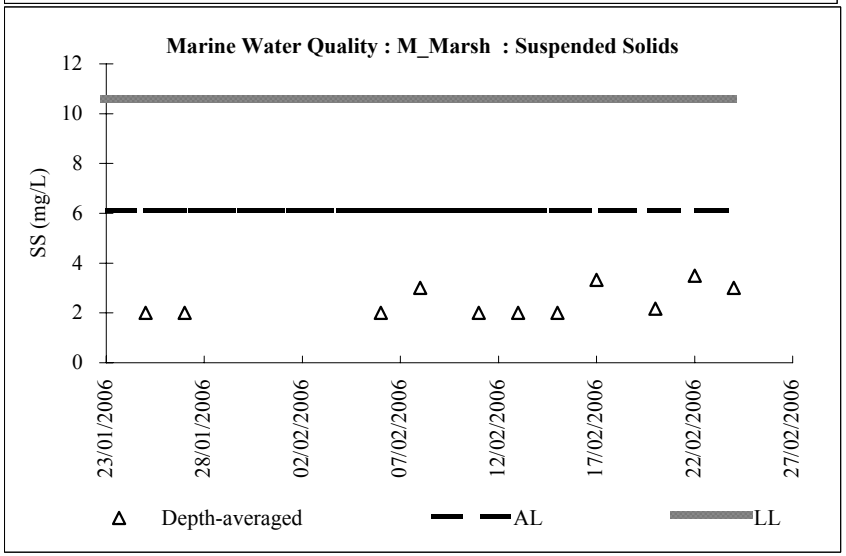

Marine Water Quality : M_Marsh : Salinity
Salinity (ppt)
36
35
34
33
32
31
30
29
28
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom

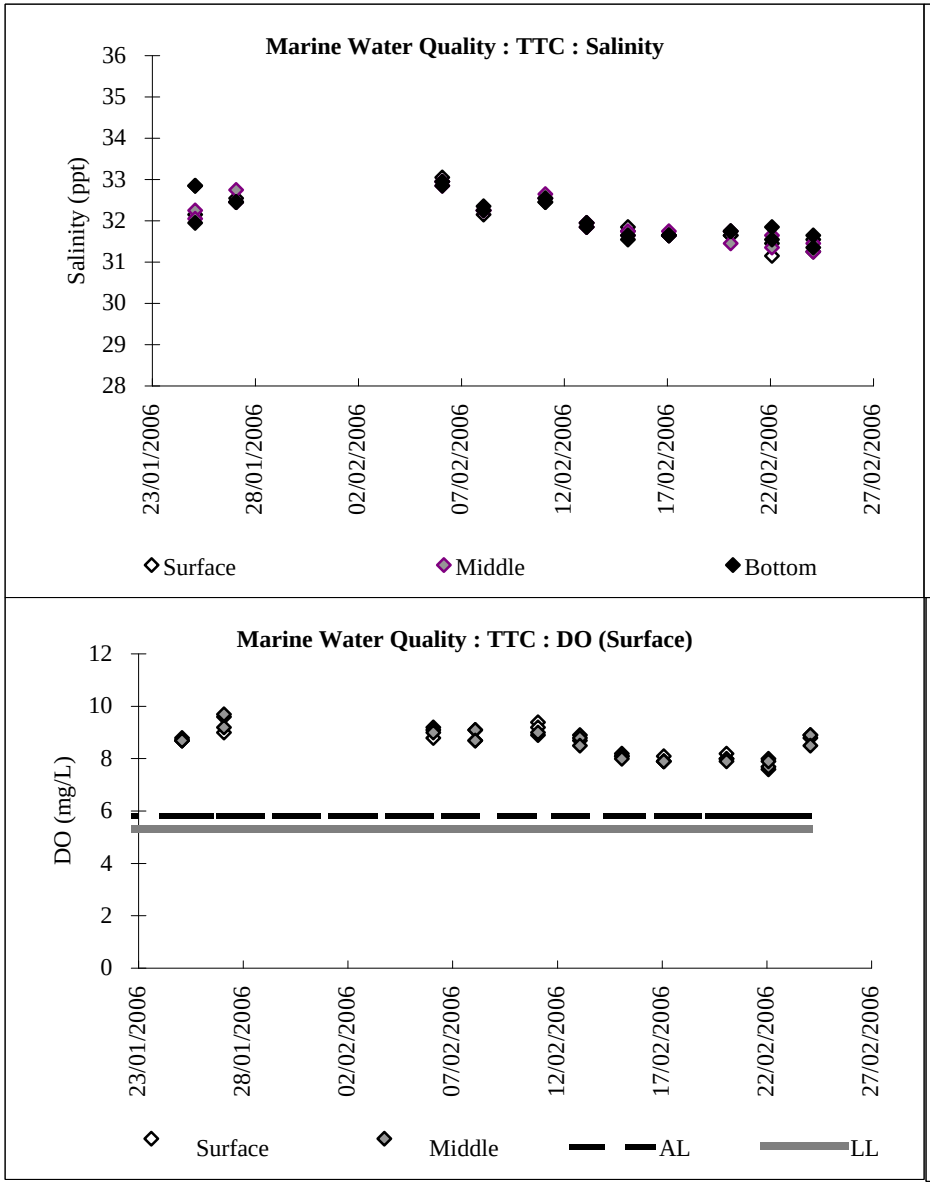

Marine Water Quality : M_Marsh : pH
pH
10
9
8
7
6
5
4
3
2
1
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
LL

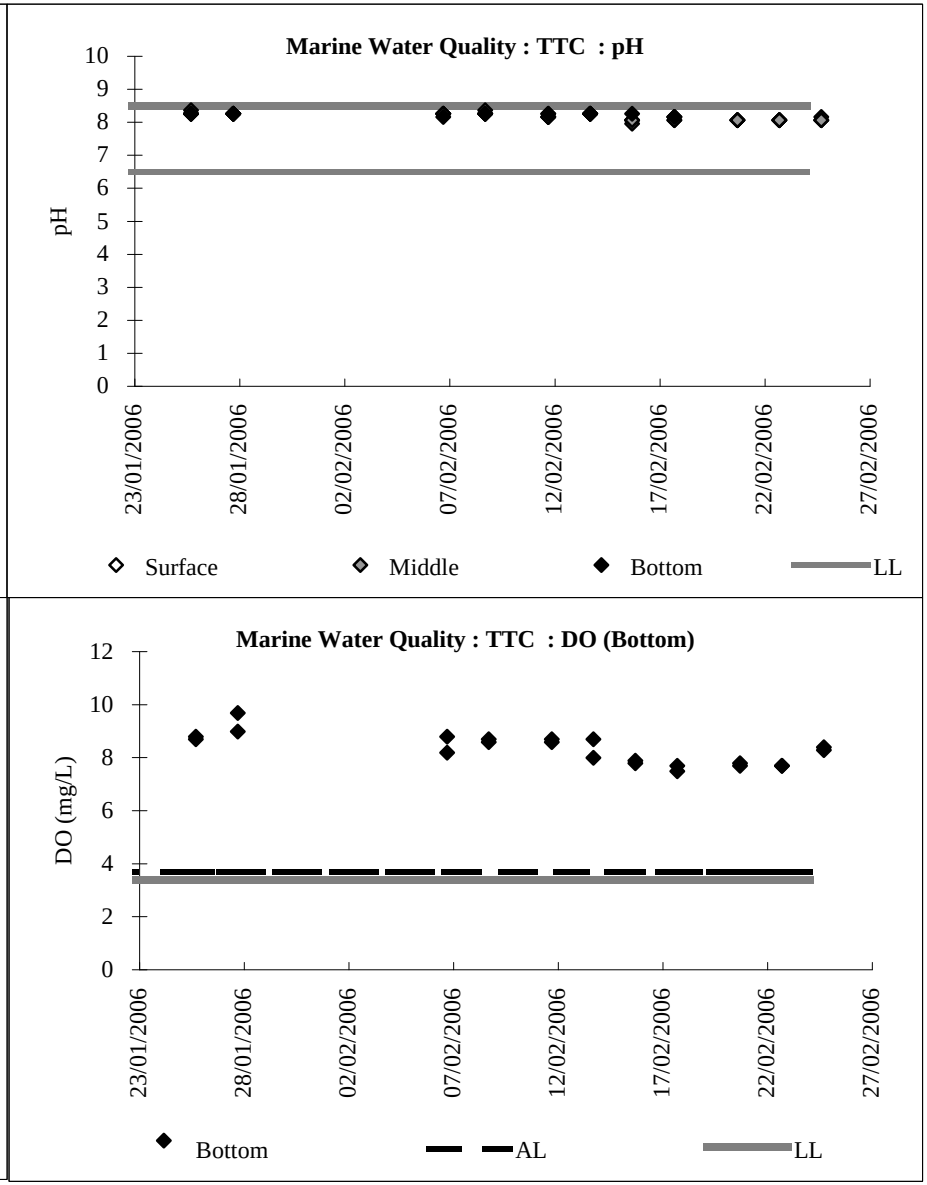

Marine Water Quality : M_Marsh : DO (Surface)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
AL


Marine Water Quality : M_Marsh : DO (Bottom)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Bottom
AL
LL


Marine Water Quality : M_Marsh : Turbidity
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
AL
LL

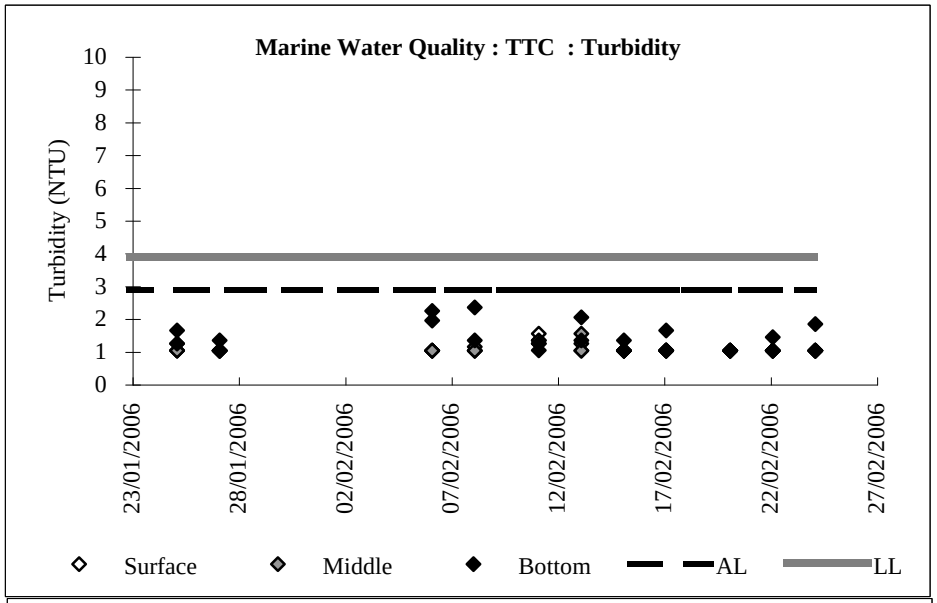

Marine Water Quality : M_Marsh : Suspended Solids
SS (mg/L)
0
2
4
6
8
10
12
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Depth-averaged
AL
LL

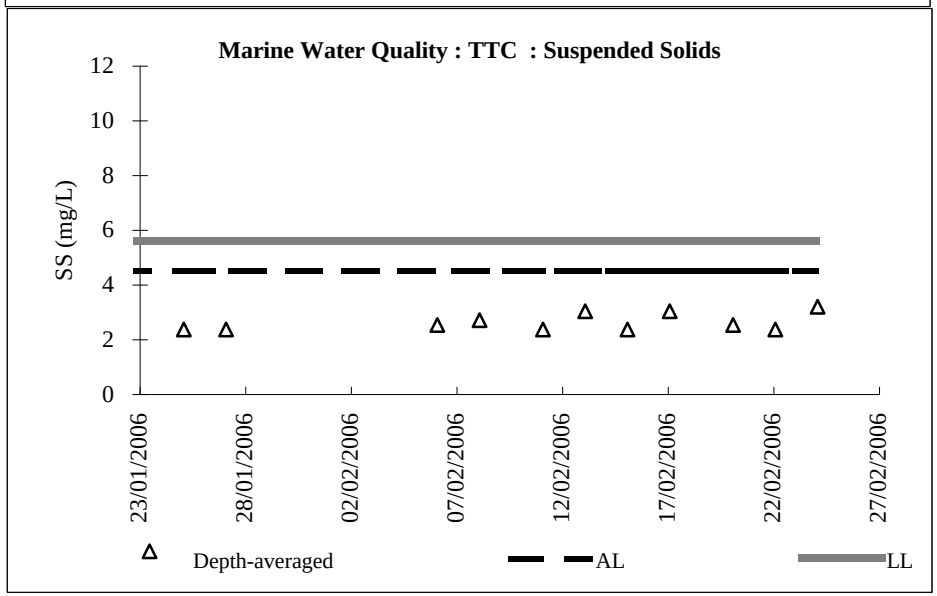

Marine Water Quality : TTC : Salinity
Salinity (ppt)
36
35
34
33
32
31
30
29
28
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom

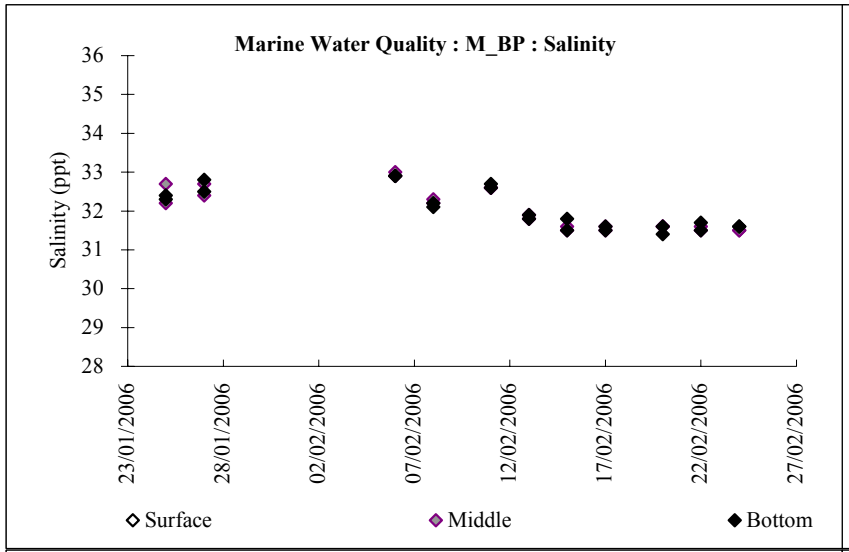

Marine Water Quality : TTC : pH
pH
10
9
8
7
6
5
4
3
2
1
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
LL

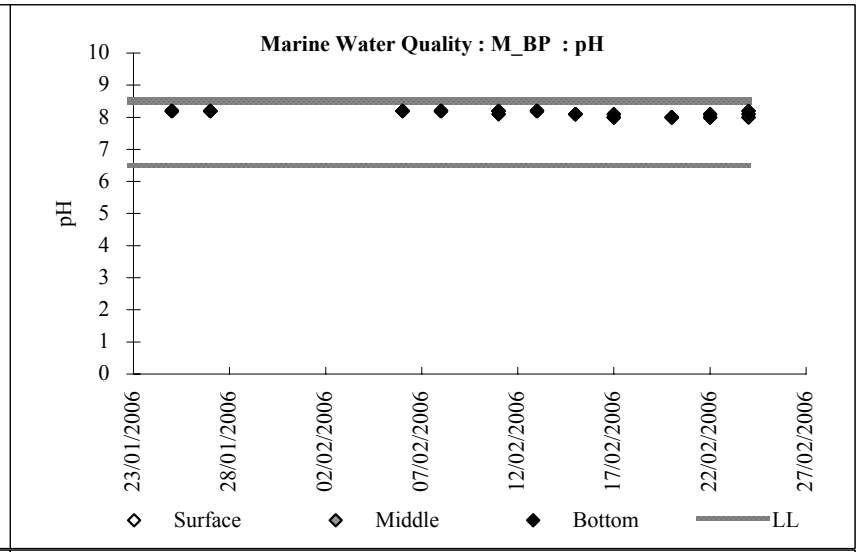
Marine Water Quality : TTC : DO (Surface)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
AL
LL

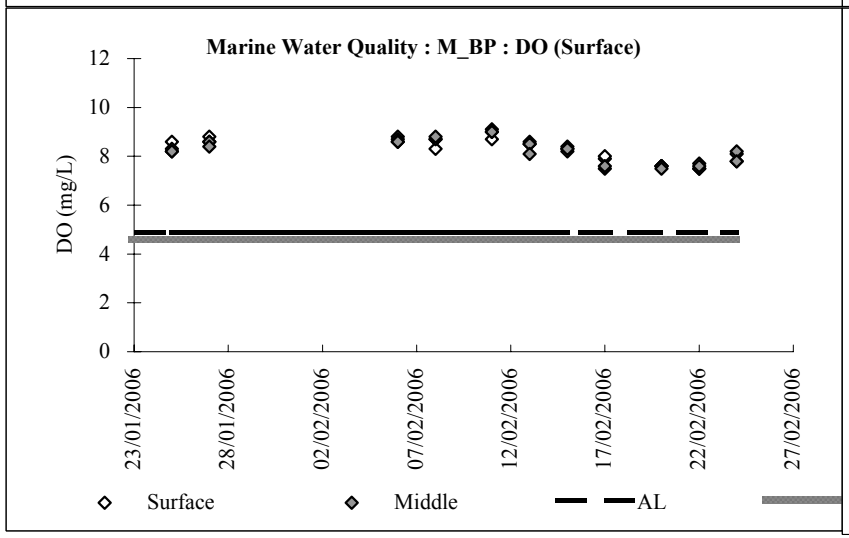
Marine Water Quality : TTC : DO (Bottom)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Bottom
AL
LL

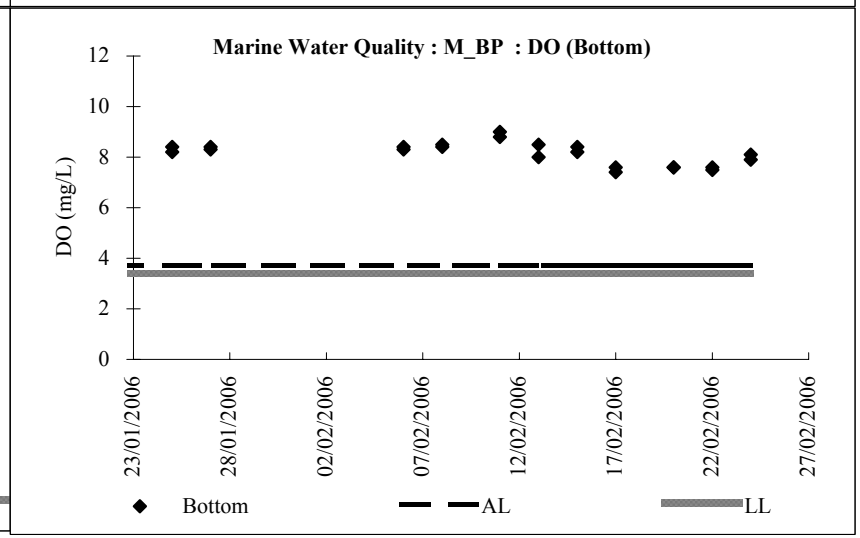

Marine Water Quality : TTC : Turbidity
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
AL
LL

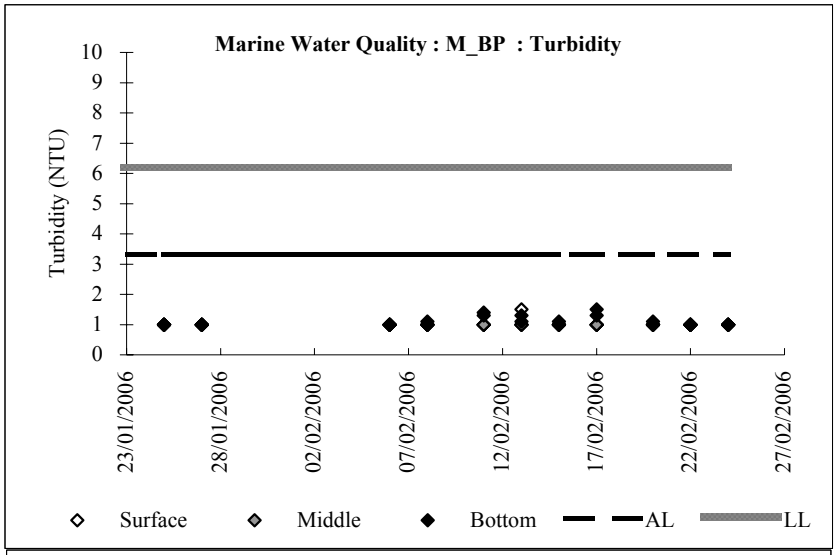

Marine Water Quality : TTC : Suspended Solids
SS (mg/L)
0
2
4
6
8
10
12
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Depth-averaged
AL
LL

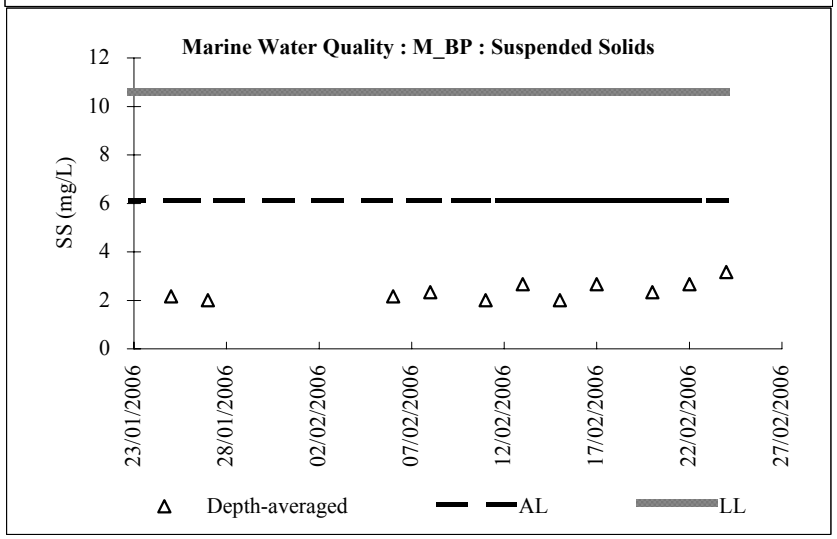

Marine Water Quality : M_BP : Salinity
Salinity (ppt)
36
35
34
33
32
31
30
29
28
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom

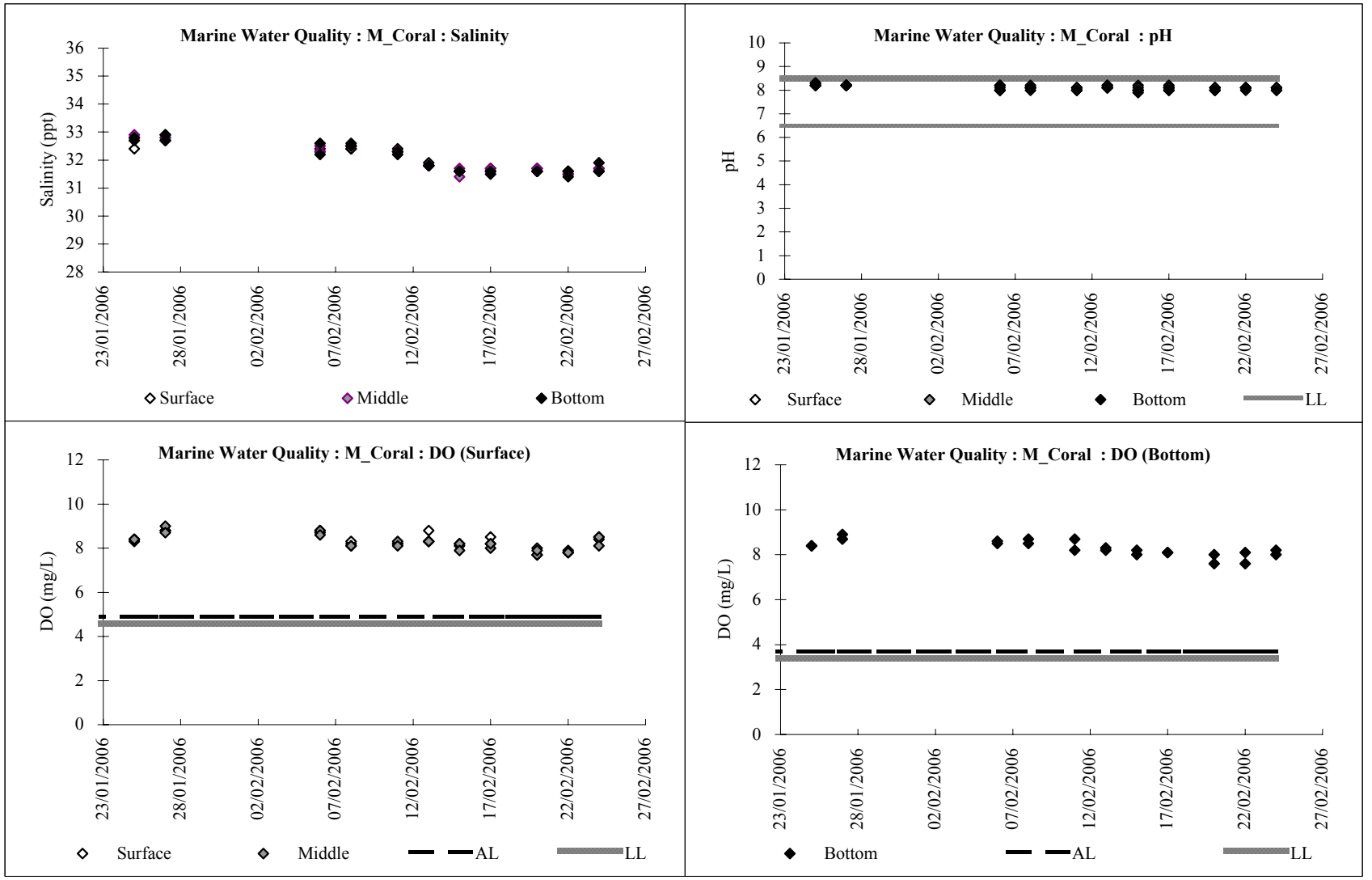

Marine Water Quality : M_BP : pH
pH
10
9
8
7
6
5
4
3
2
1
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
LL

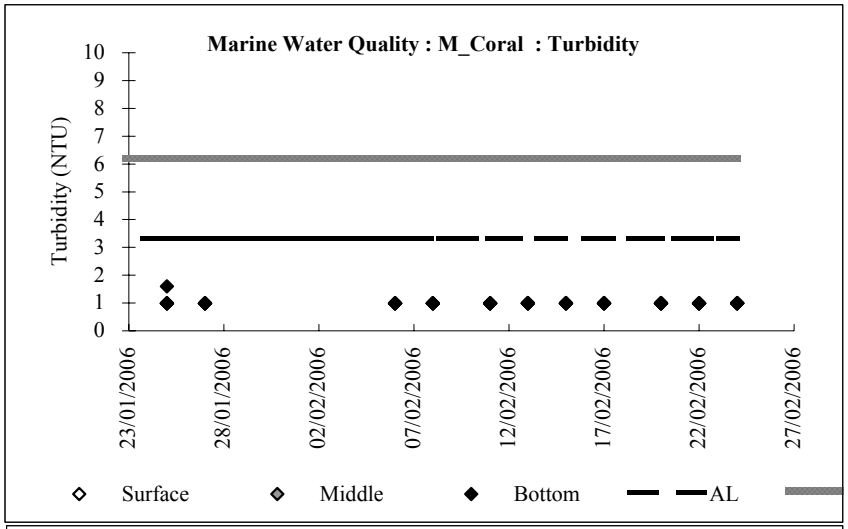

Marine Water Quality : M_BP : DO (Surface)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
AL

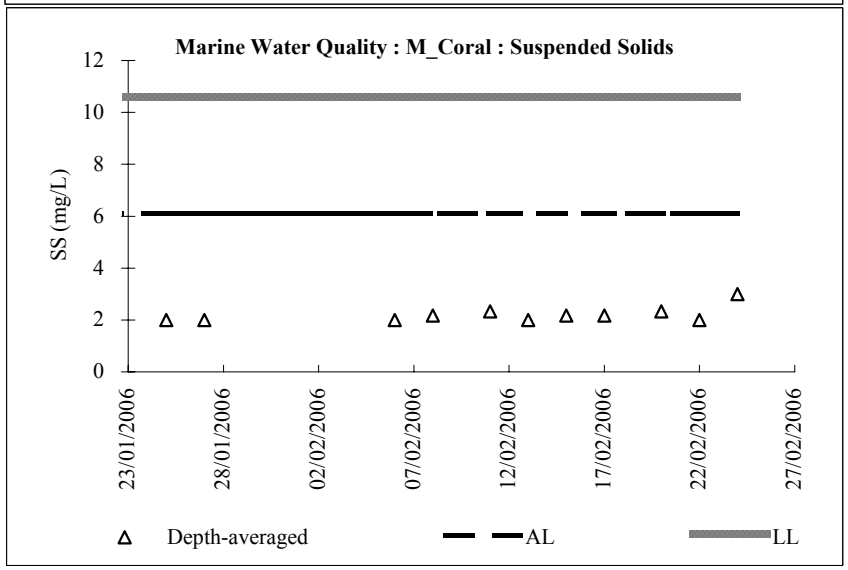

Marine Water Quality : M_BP : DO (Bottom)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Bottom
AL
LL

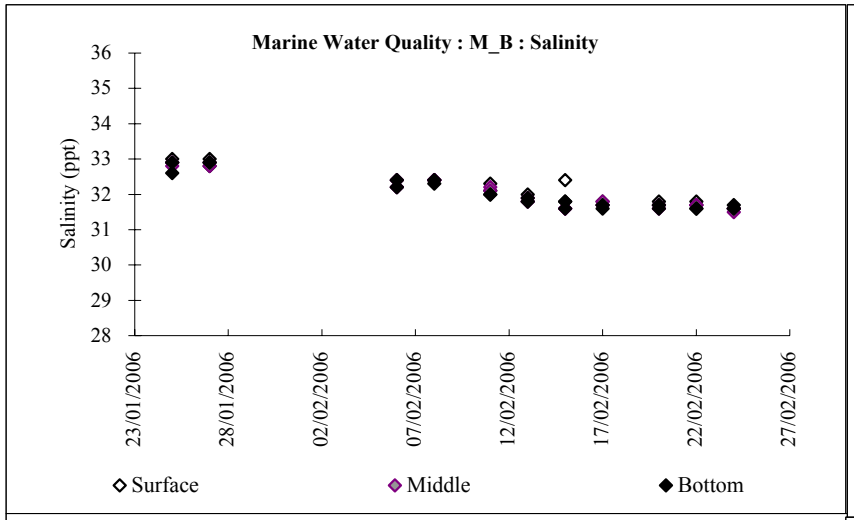

Marine Water Quality : M_BP : Turbidity
Turbidity (NTU)
10
9
8
7
6
5
4
3
2
1
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
AL
LL

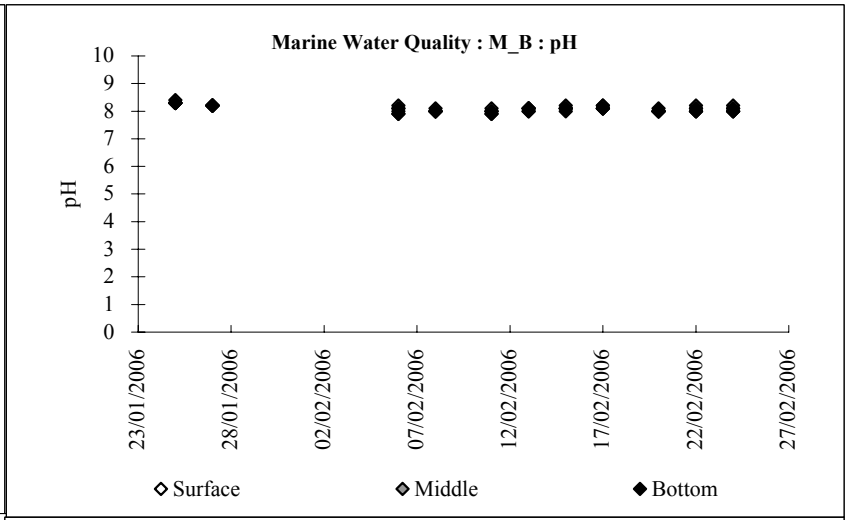

Marine Water Quality : M_BP : Suspended Solids
SS (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Depth-averaged
AL
LL

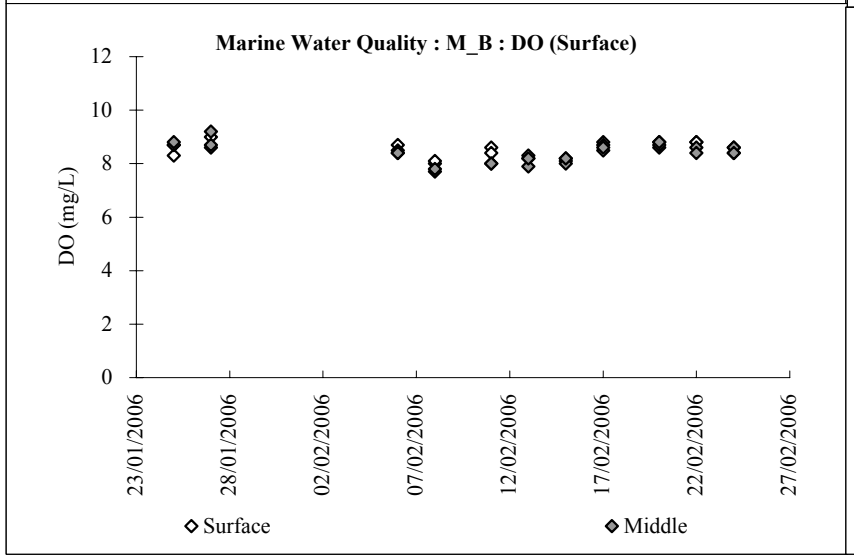

Marine Water Quality : M_Coral : Salinity
Salinity (ppt)
36
35
34
33
32
31
30
29
28
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
Marine Water Quality : M_Coral : pH
pH
10
9
8
7
6
5
4
3
2
1
0
Surface
Middle
Bottom
LL
Marine Water Quality : M_Coral : DO (Surface)
DO (mg/L)
12
10
8
6
4
2
0
Surface
Middle
AL
LL
Marine Water Quality : M_Coral : DO (Bottom)
DO (mg/L)
Bottom
AL
LL

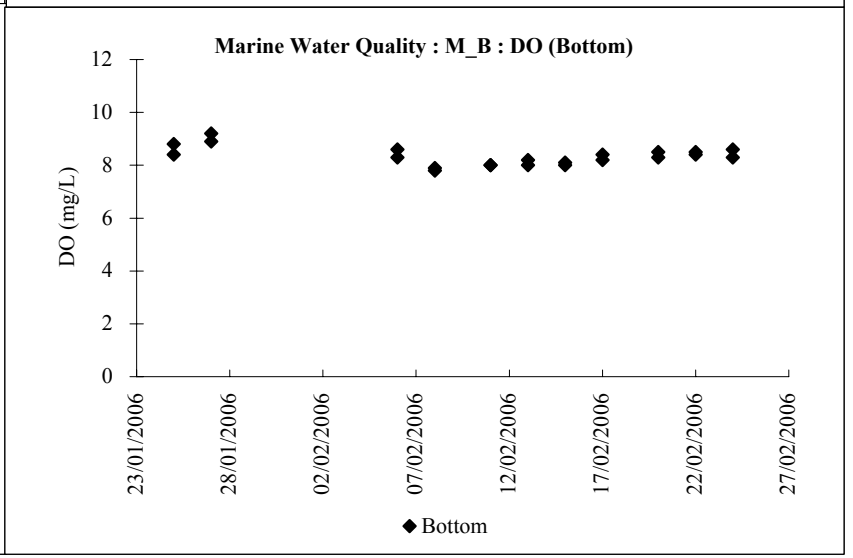

Marine Water Quality : M_Coral : Turbidity
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
AL

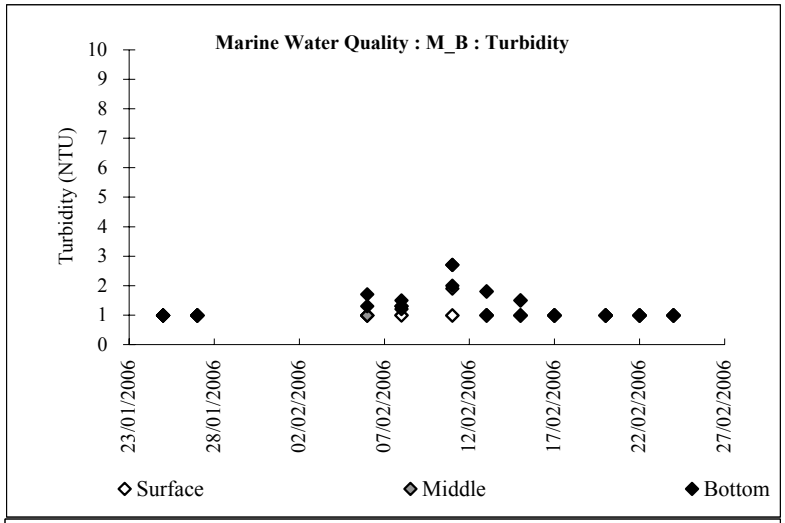

Marine Water Quality : M_Coral : Suspended Solids
SS (mg/L)
0
2
4
6
8
10
12
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Depth-averaged
AL
LL

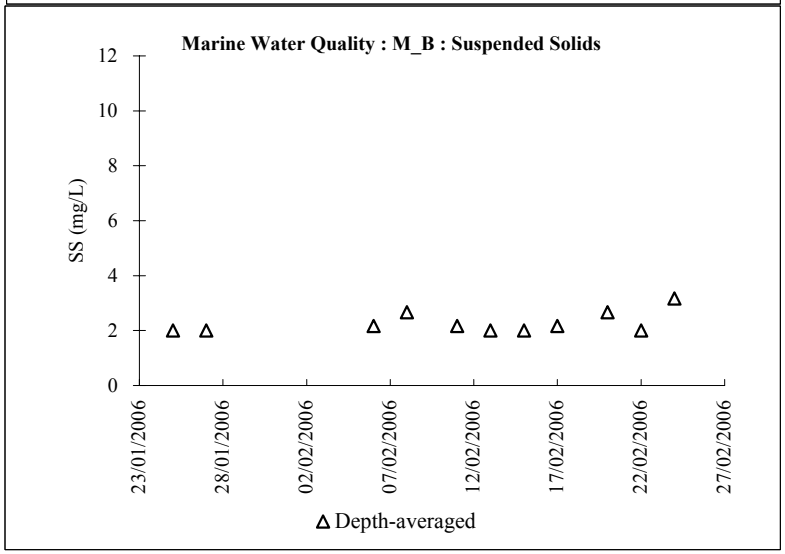

Marine Water Quality : M_B : Salinity
Salinity (ppt)
36
35
34
33
32
31
30
29
28
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom

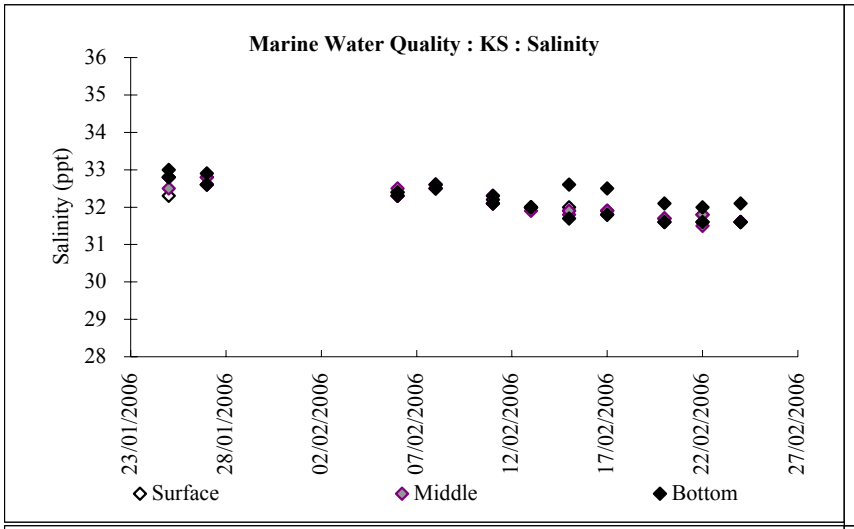

Marine Water Quality : M_B : pH
pH
10
9
8
7
6
5
4
3
2
1
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom

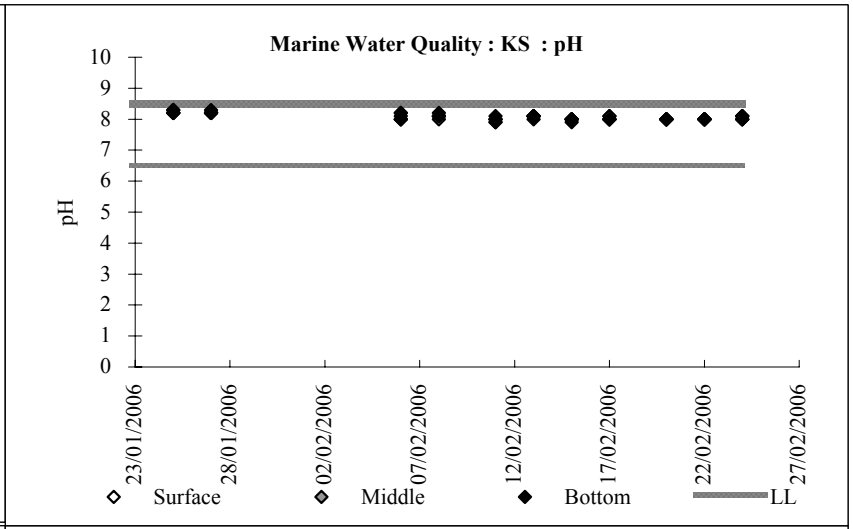

Marine Water Quality : M_B : DO (Surface)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle

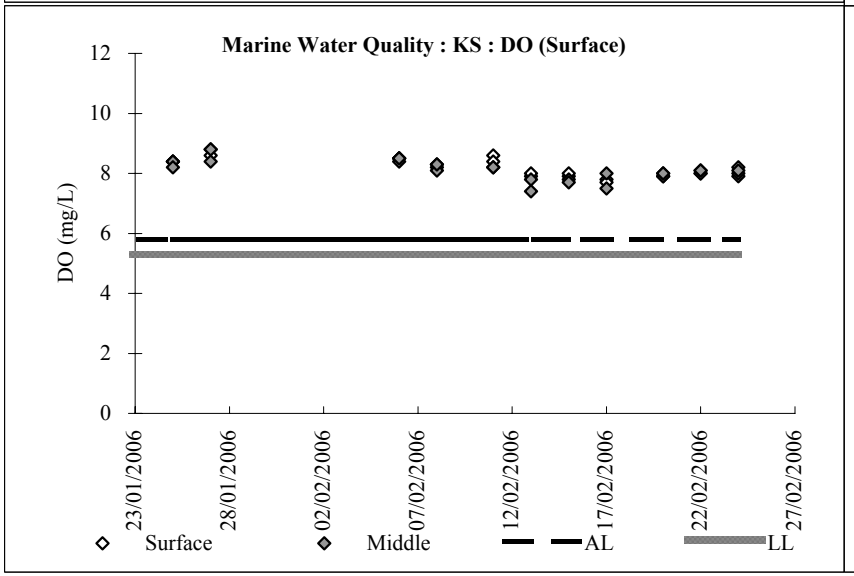

Marine Water Quality : M_B : DO (Bottom)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Bottom

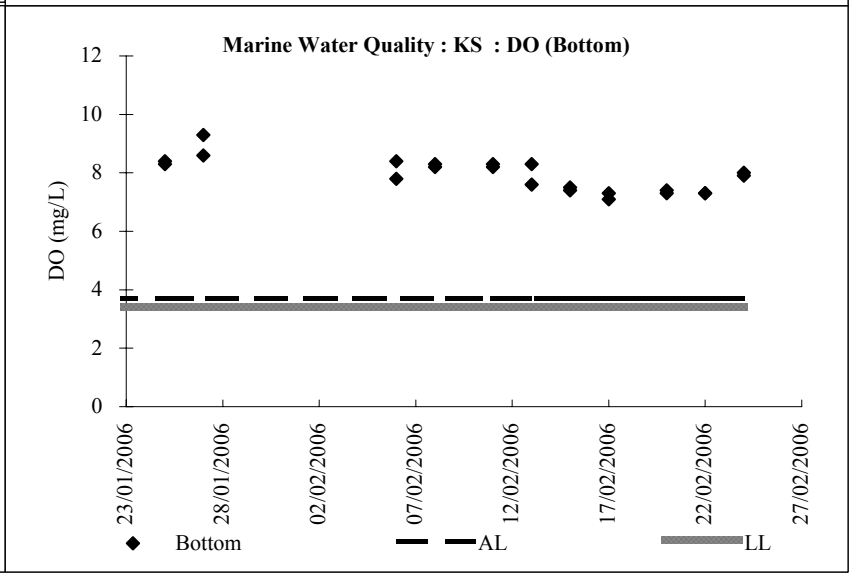

Marine Water Quality : M_B : Turbidity
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom

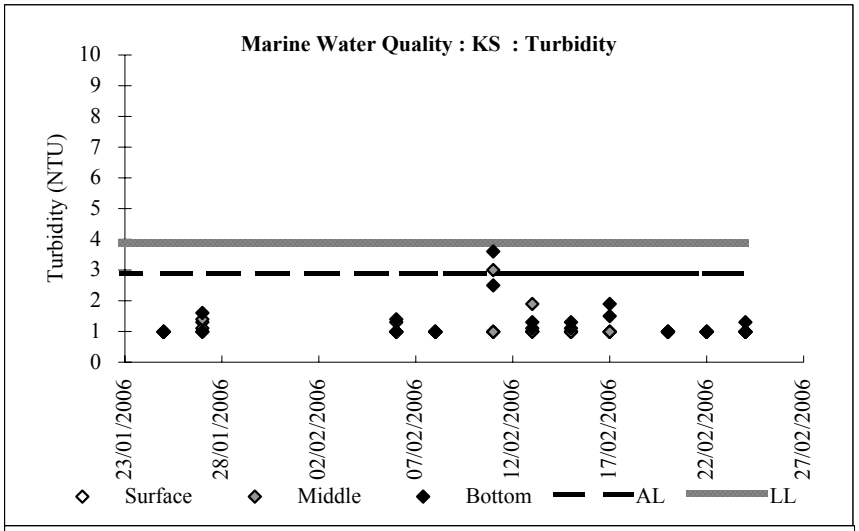

Marine Water Quality : M_B : Suspended Solids
SS (mg/L)
0
2
4
6
8
10
12
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Depth-averaged

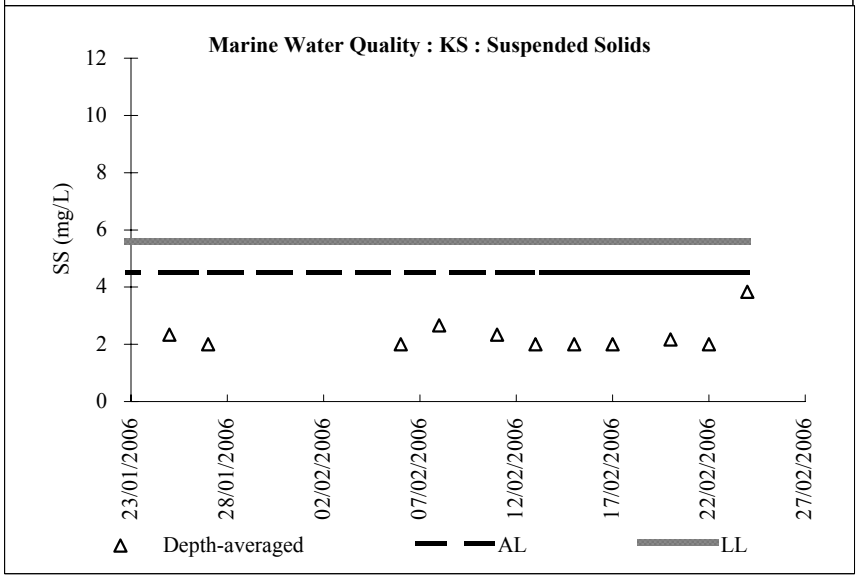

Marine Water Quality : KS : Salinity
Salinity (ppt)
36
35
34
33
32
31
30
29
28
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom

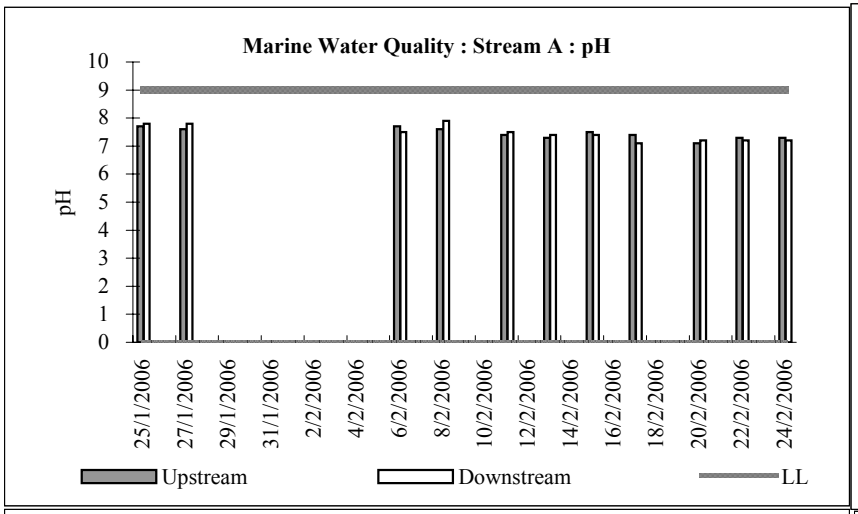

Marine Water Quality : KS : pH
pH
10
9
8
7
6
5
4
3
2
1
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
LL

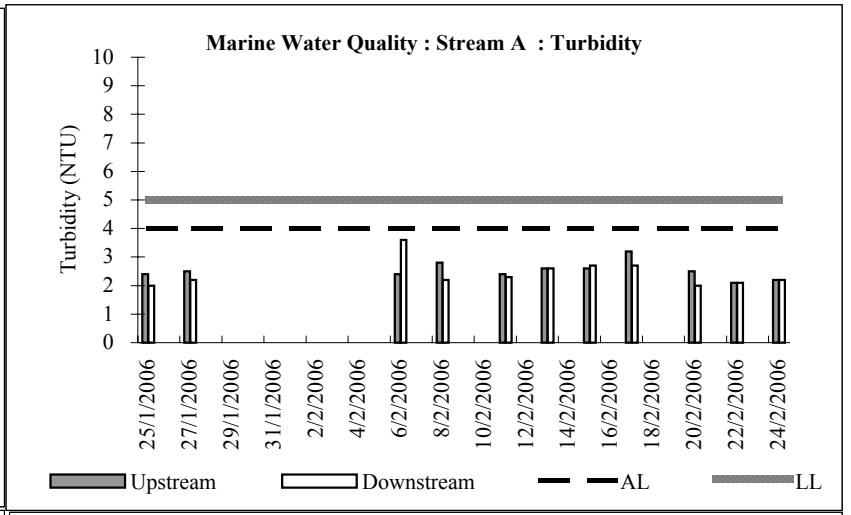

Marine Water Quality : KS : DO (Surface)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
AL
LL

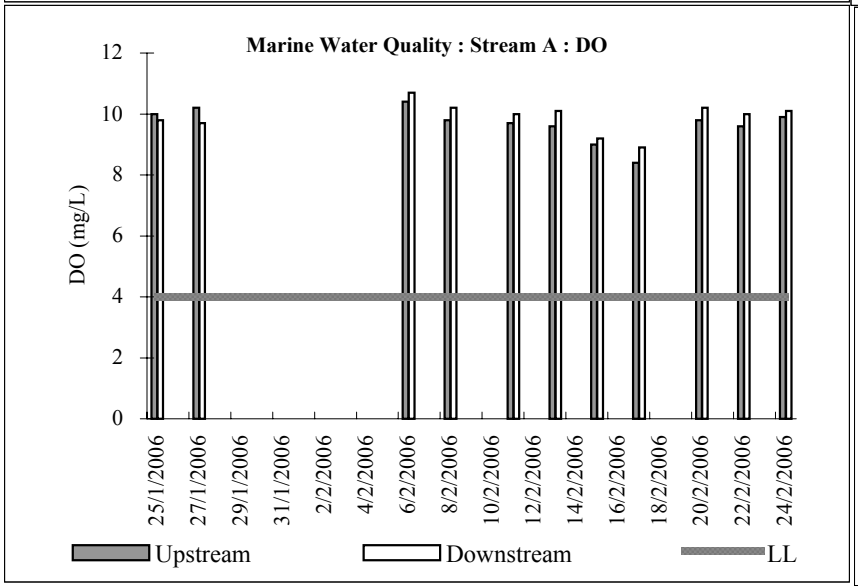

Marine Water Quality : KS : DO (Bottom)
DO (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Bottom
AL
LL

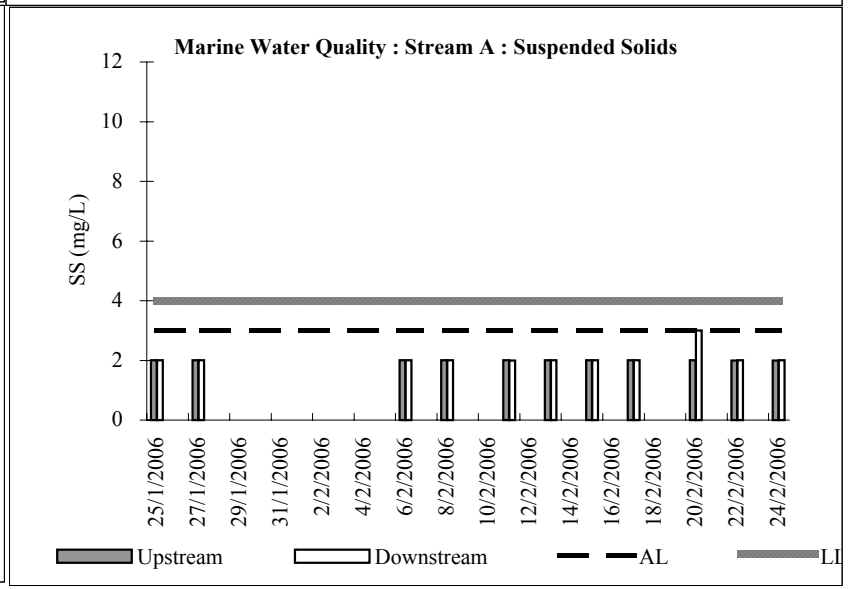

Marine Water Quality : KS : Turbidity
Turbidity (NTU)
10
9
8
7
6
5
4
3
2
1
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Surface
Middle
Bottom
AL
LL

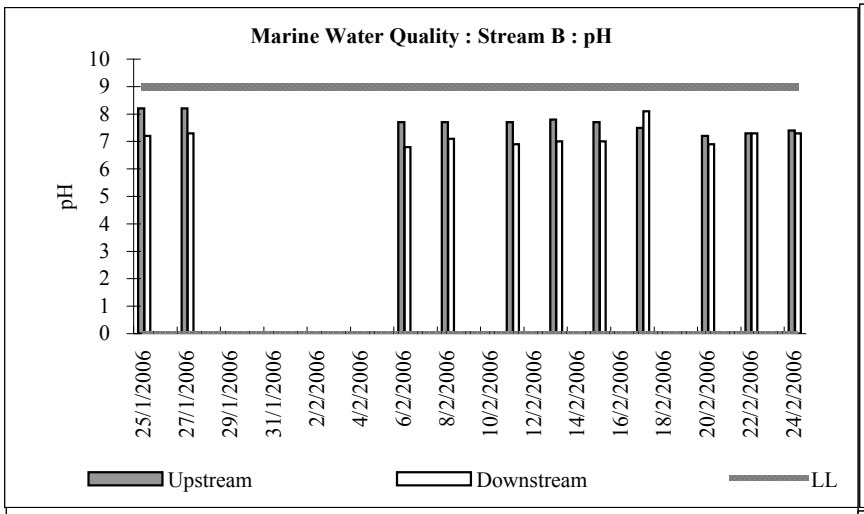

Marine Water Quality : KS : Suspended Solids
SS (mg/L)
12
10
8
6
4
2
0
23/01/2006
28/01/2006
02/02/2006
07/02/2006
12/02/2006
17/02/2006
22/02/2006
27/02/2006
Depth-averaged
AL
LL

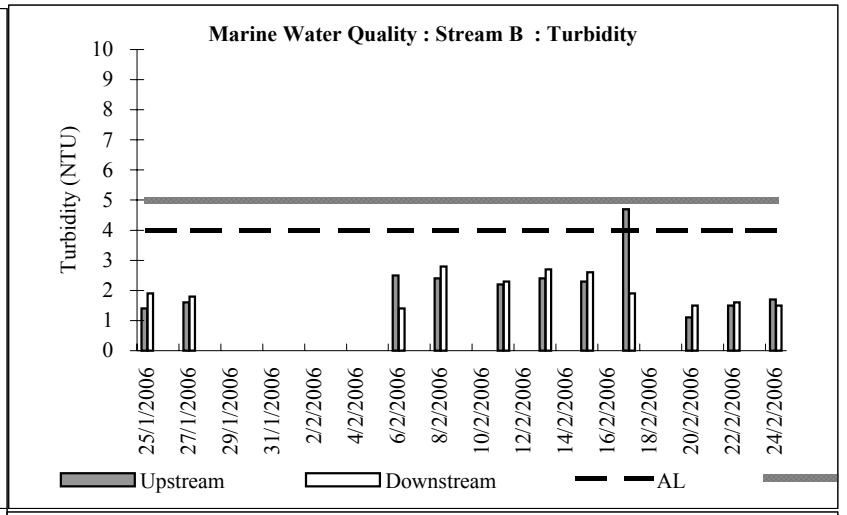

Marine Water Quality : Stream A : pH
pH
10
9
8
7
6
5
4
3
2
1
0
25/1/2006
27/1/2006
29/1/2006
31/1/2006
2/2/2006
4/2/2006
6/2/2006
8/2/2006
10/2/2006
12/2/2006
14/2/2006
16/2/2006
18/2/2006
20/2/2006
22/2/2006
24/2/2006
Upstream
Downstream
LL

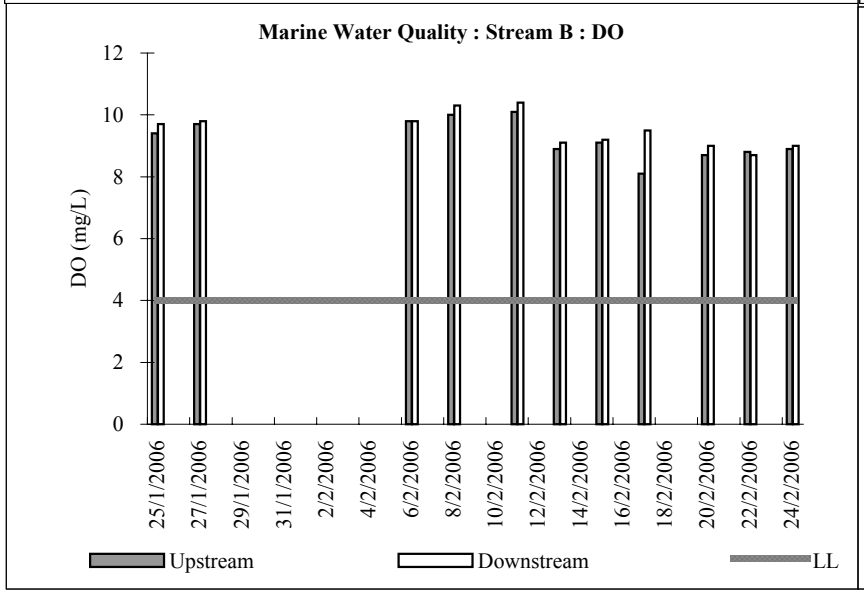

Marine Water Quality : Stream A : Turbidity
Turbidity (NTU)
10
9
8
7
6
5
4
3
2
1
0
25/1/2006
27/1/2006
29/1/2006
31/1/2006
2/2/2006
4/2/2006
6/2/2006
8/2/2006
10/2/2006
12/2/2006
14/2/2006
16/2/2006
18/2/2006
20/2/2006
22/2/2006
24/2/2006
Upstream
Downstream
AL
LL

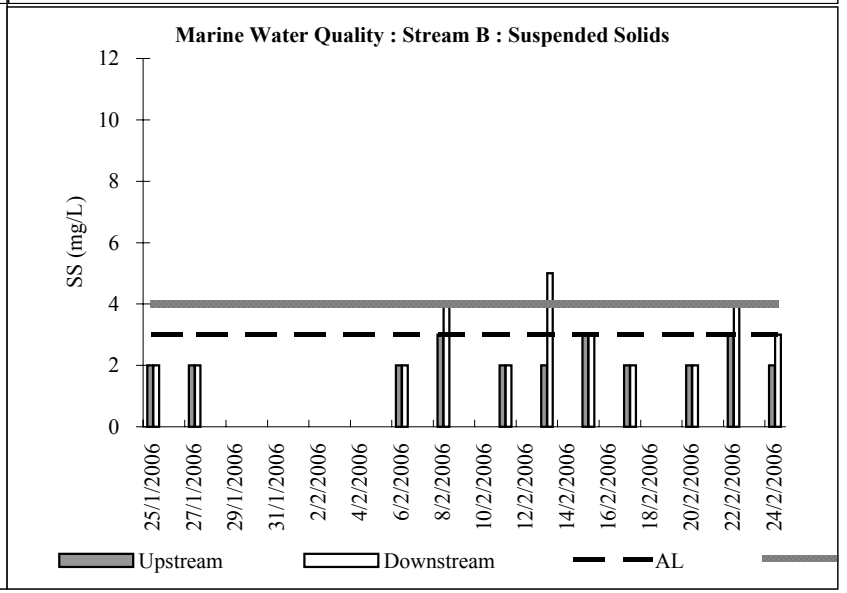

Marine Water Quality : Stream A : DO
DO (mg/L)
12
10
8
6
4
2
0
25/1/2006
27/1/2006
29/1/2006
31/1/2006
2/2/2006
4/2/2006
6/2/2006
8/2/2006
10/2/2006
12/2/2006
14/2/2006
16/2/2006
18/2/2006
20/2/2006
22/2/2006
24/2/2006
Upstream
Downstream
LL

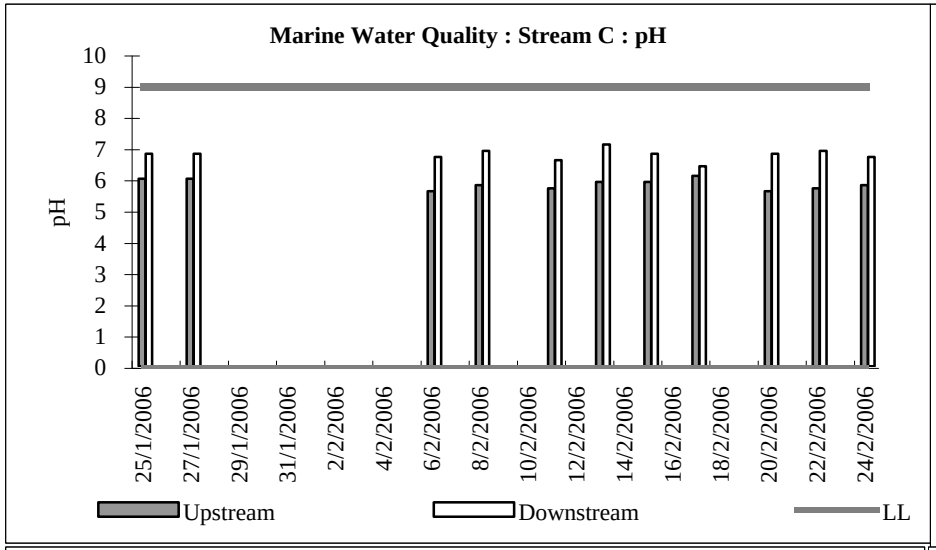

Marine Water Quality : Stream A : Suspended Solids
SS (mg/L)
12
10
8
6
4
2
0
25/1/2006
27/1/2006
29/1/2006
31/1/2006
2/2/2006
4/2/2006
6/2/2006
8/2/2006
10/2/2006
12/2/2006
14/2/2006
16/2/2006
18/2/2006
20/2/2006
22/2/2006
24/2/2006
Upstream
Downstream
AL
LI

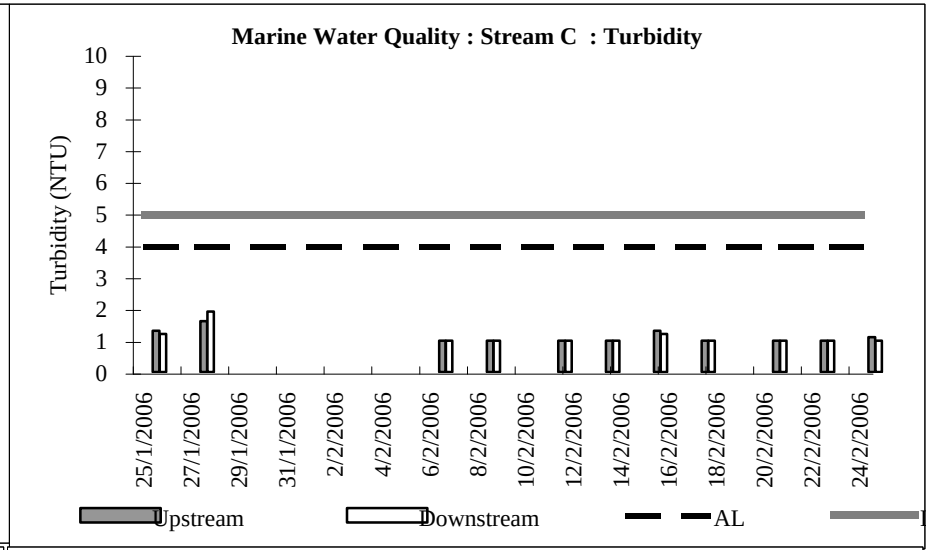

Marine Water Quality : Stream B : pH
pH
10
9
8
7
6
5
4
3
2
1
0
25/1/2006
27/1/2006
29/1/2006
31/1/2006
2/2/2006
4/2/2006
6/2/2006
8/2/2006
10/2/2006
12/2/2006
14/2/2006
16/2/2006
18/2/2006
20/2/2006
22/2/2006
24/2/2006
Upstream
Downstream
LL

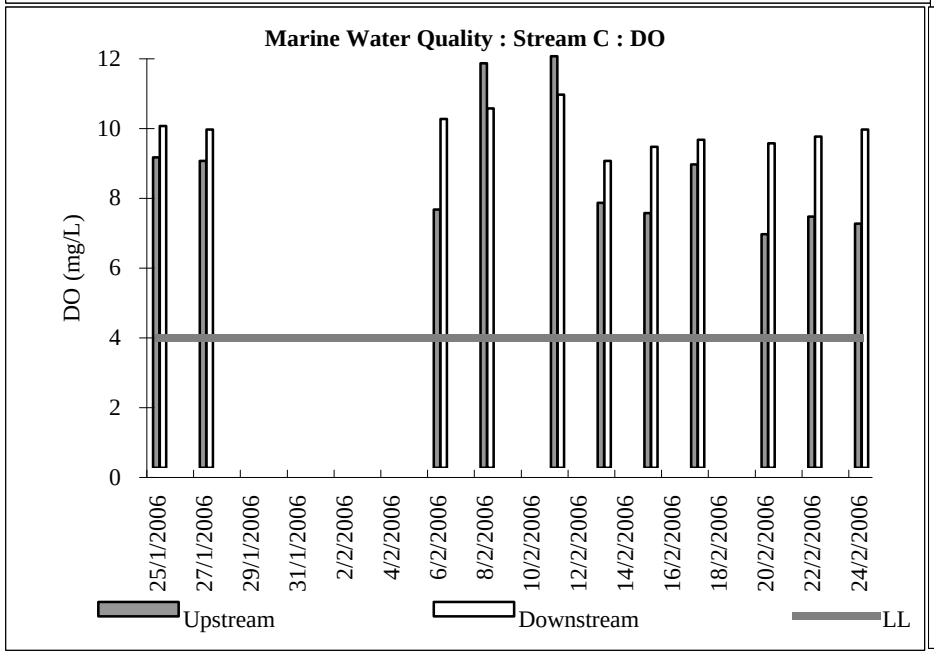

Marine Water Quality : Stream B : Turbidity
Turbidity (NTU)
10
9
8
7
6
5
4
3
2
1
0
25/1/2006
27/1/2006
29/1/2006
31/1/2006
2/2/2006
4/2/2006
6/2/2006
8/2/2006
10/2/2006
12/2/2006
14/2/2006
16/2/2006
18/2/2006
20/2/2006
22/2/2006
24/2/2006
Upstream
Downstream
AL

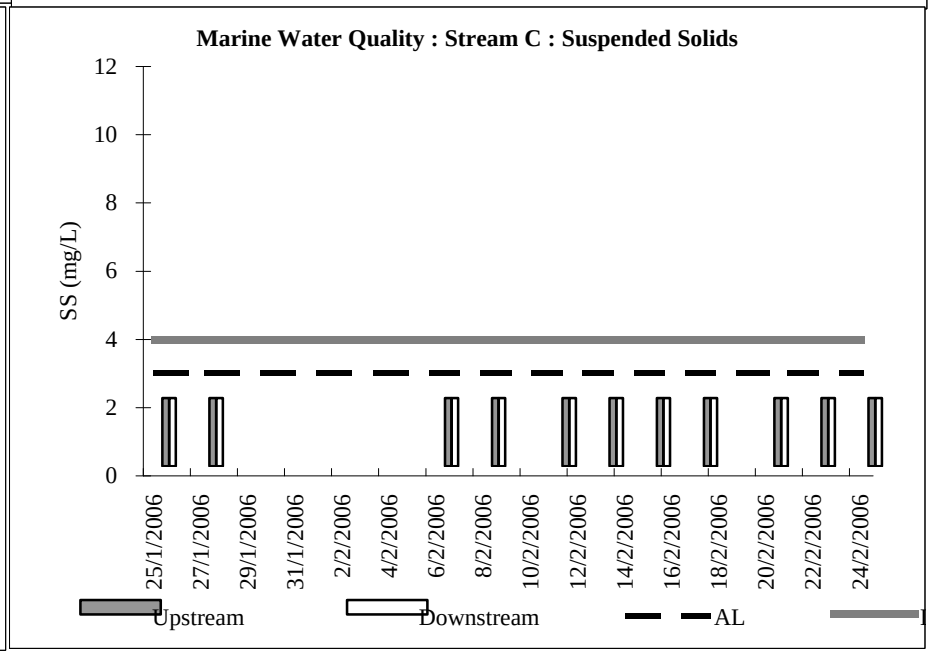

Marine Water Quality : Stream B : DO
DO (mg/L)
12
10
8
6
4
2
0
25/1/2006
27/1/2006
29/1/2006
31/1/2006
2/2/2006
4/2/2006
6/2/2006
8/2/2006
10/2/2006
12/2/2006
14/2/2006
16/2/2006
18/2/2006
20/2/2006
22/2/2006
24/2/2006
Upstream
Downstream
LL

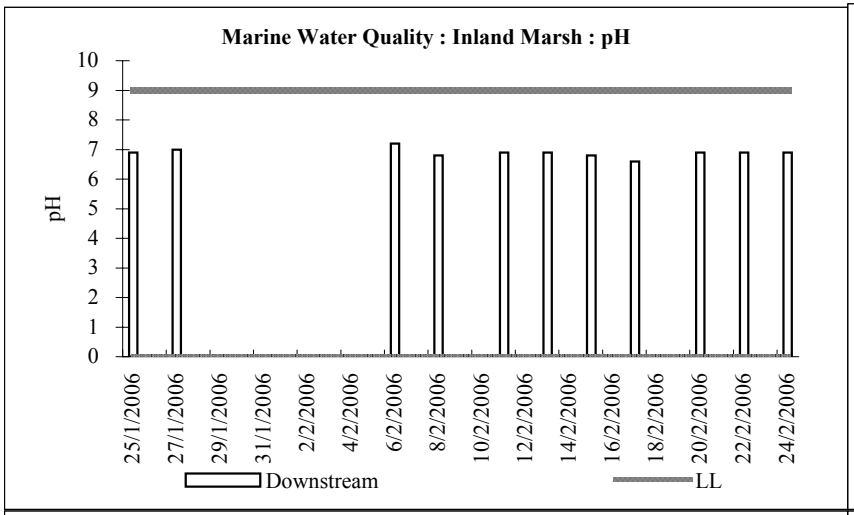

Marine Water Quality : Stream B : Suspended Solids
SS (mg/L)
12
10
8
6
4
2
0
25/1/2006
27/1/2006
29/1/2006
31/1/2006
2/2/2006
4/2/2006
6/2/2006
8/2/2006
10/2/2006
12/2/2006
14/2/2006
16/2/2006
18/2/2006
20/2/2006
22/2/2006
24/2/2006
Upstream
Downstream
AL

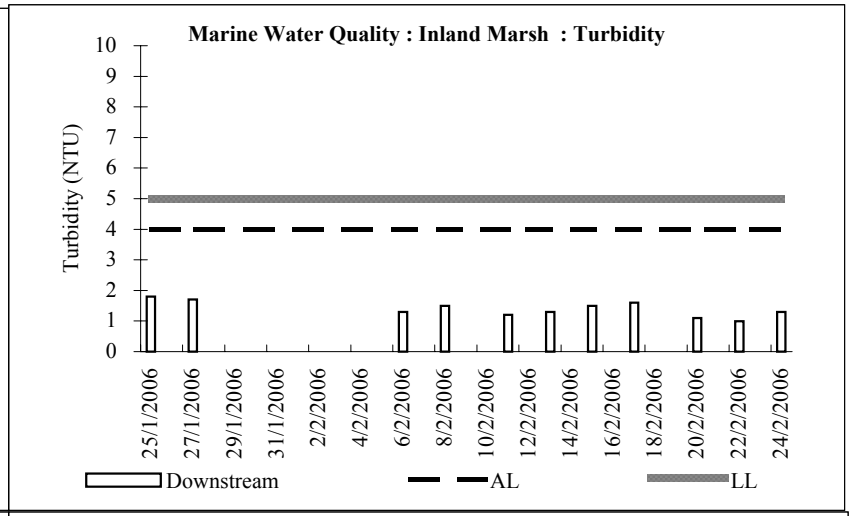

Marine Water Quality : Stream C : pH
pH
Upstream
Downstream
LL

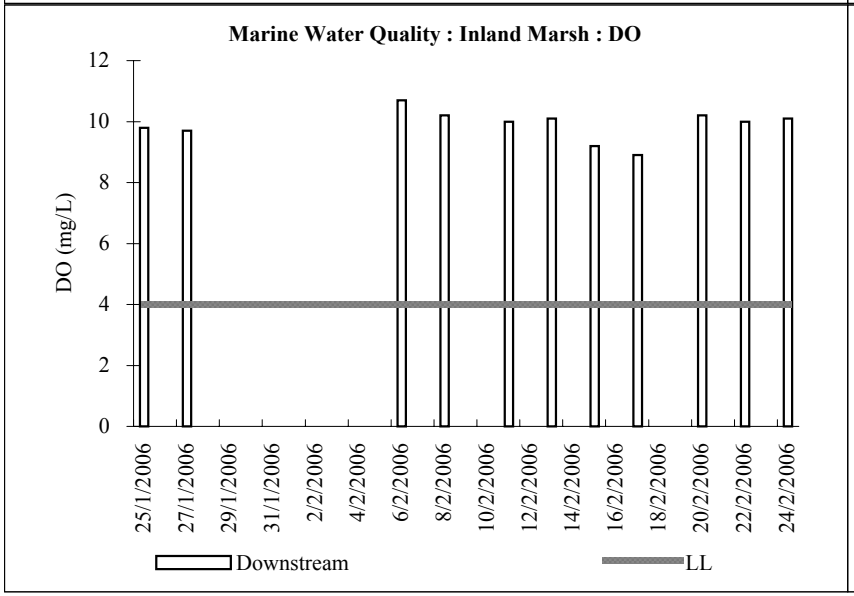

Marine Water Quality : Stream C : Turbidity
Turbidity (NTU)
Upstream
Downstream
AL

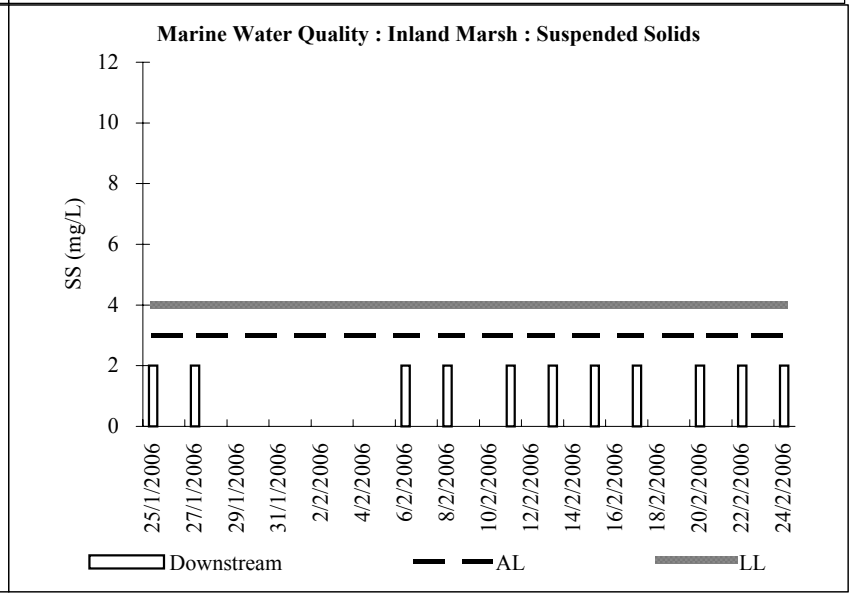

Marine Water Quality : Stream C : DO
DO (mg/L)
Upstream
Downstream
LL


Marine Water Quality : Stream C : Suspended Solids
SS (mg/L)
Upstream
Downstream
AL


Marine Water Quality : Inland Marsh : pH
pH
10
9
8
7
6
5
4
3
2
1
0
25/1/2006
27/1/2006
29/1/2006
31/1/2006
2/2/2006
4/2/2006
6/2/2006
8/2/2006
10/2/2006
12/2/2006
14/2/2006
16/2/2006
18/2/2006
20/2/2006
22/2/2006
24/2/2006
Downstream
LL


Marine Water Quality : Inland Marsh : Turbidity
Turbidity (NTU)
10
9
8
7
6
5
4
3
2
1
0
25/1/2006
27/1/2006
29/1/2006
31/1/2006
2/2/2006
4/2/2006
6/2/2006
8/2/2006
10/2/2006
12/2/2006
14/2/2006
16/2/2006
18/2/2006
20/2/2006
22/2/2006
24/2/2006
Downstream
AL
LL


Marine Water Quality : Inland Marsh : DO
DO (mg/L)
12
10
8
6
4
2
0
25/1/2006
27/1/2006
29/1/2006
31/1/2006
2/2/2006
4/2/2006
6/2/2006
8/2/2006
10/2/2006
12/2/2006
14/2/2006
16/2/2006
18/2/2006
20/2/2006
22/2/2006
24/2/2006
Downstream
LL


Marine Water Quality : Inland Marsh : Suspended Solids
SS (mg/L)
12
10
8
6
4
2
0
25/1/2006
27/1/2006
29/1/2006
31/1/2006
2/2/2006
4/2/2006
6/2/2006
8/2/2006
10/2/2006
12/2/2006
14/2/2006
16/2/2006
18/2/2006
20/2/2006
22/2/2006
24/2/2006
Downstream
AL
LL

Ecology

Plate 5.3-1 Photos of Stream Habitat

Stream A

Stream A close-up

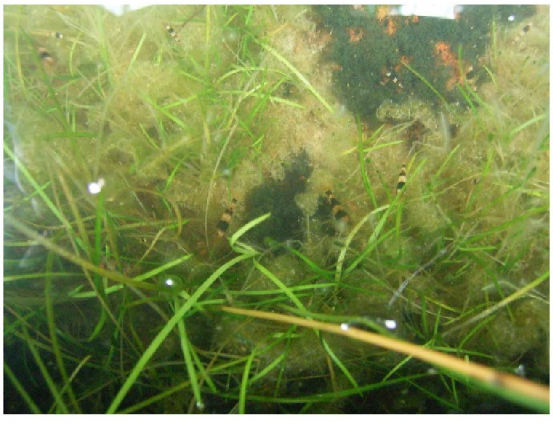
Stream B

Stream B close-up

Stream C

Stream C close-up

Stream D



Caridina trifasciata in Stream C

Plate 5.3-2 Photos of Stream Buffer Zone & other sightings

Wild boar footprints at Stream A

Sundew at Stream B

Crab burrow at Stream C

Freshwater crab Nanhaipotamon hongkongensis at Stream C

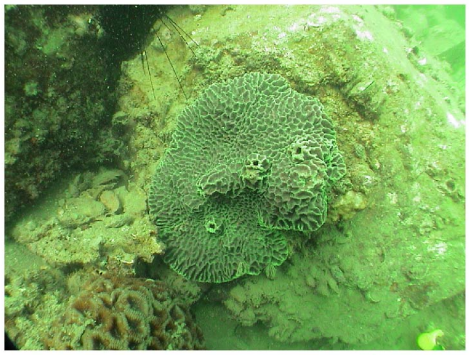
Stream buffer zone at Stream A

Close-up view of stream buffer zone

Baseline survey

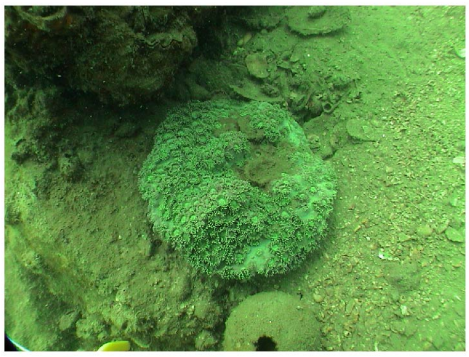
Month Two (February 2006)

B-01

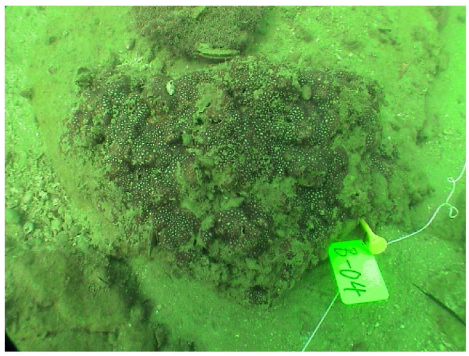


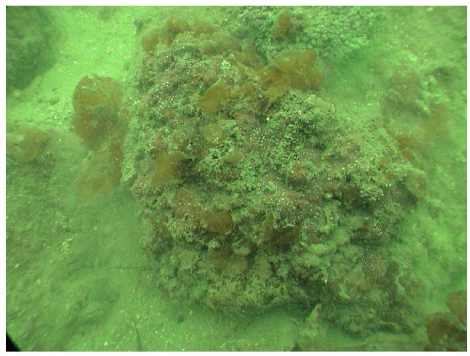
B-02

B-03

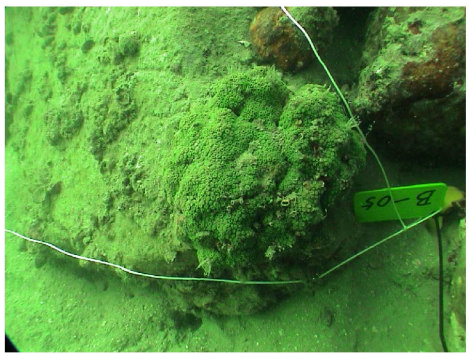


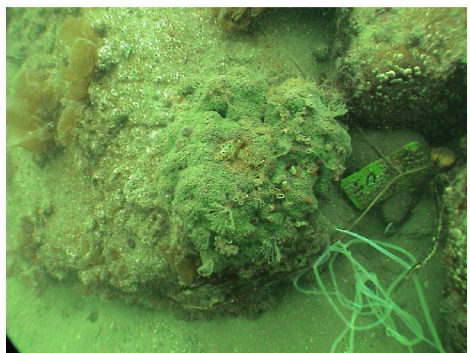
B-04





B-05



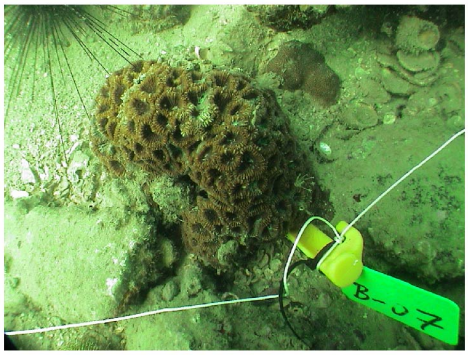


Baseline Survey

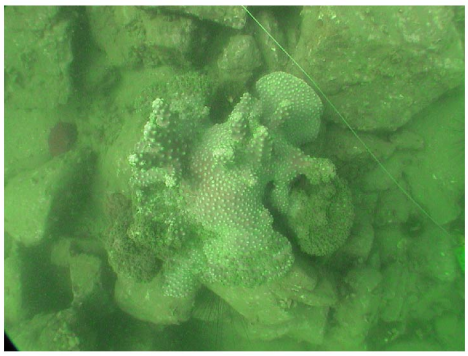
Month Two (February 2006)

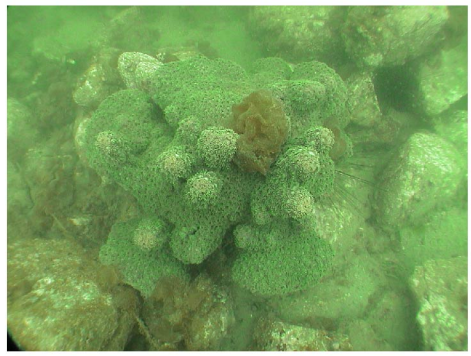
B-06

B-07



B-08





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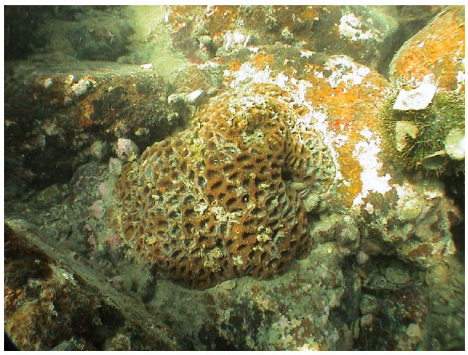
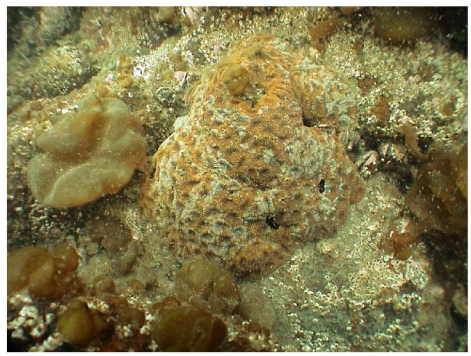


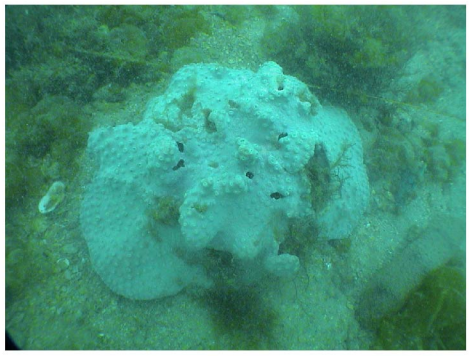


B-10

Baseline Survey

Month Two (February 2006)

B-11



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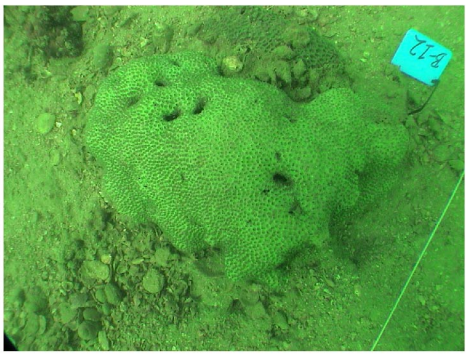

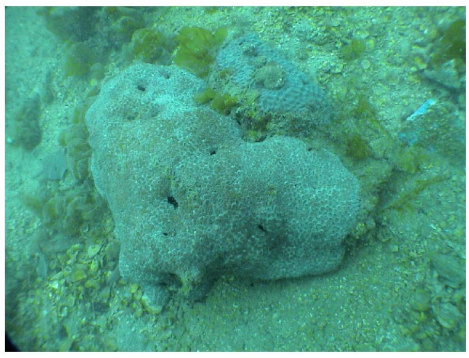

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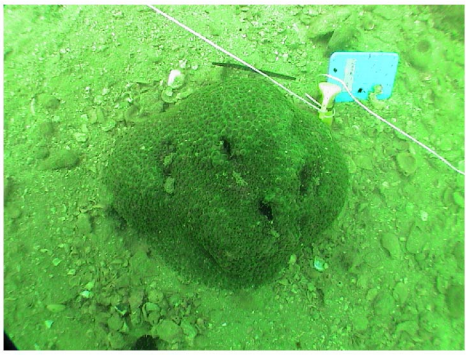

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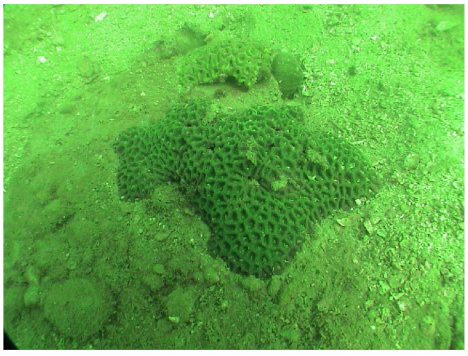

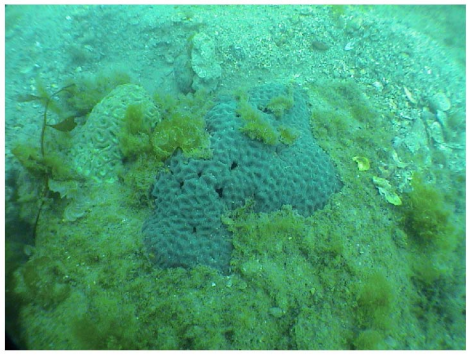

B-15

Baseline Survey

Month Two (February 2006)

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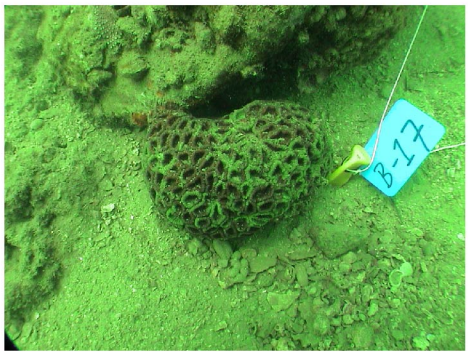
B-17



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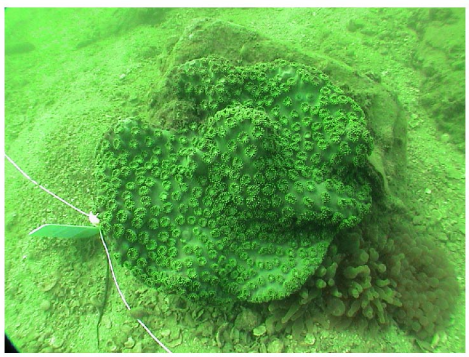

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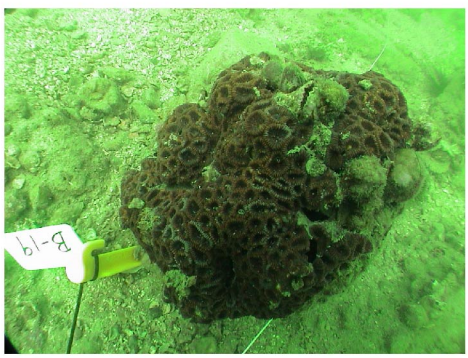
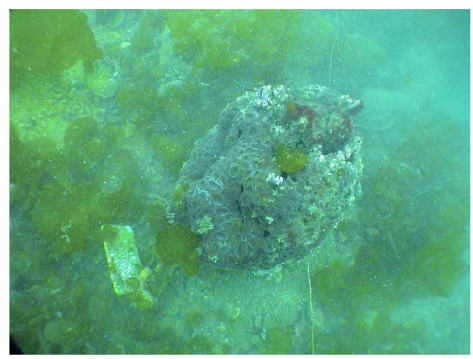




B-20

Baseline Survey

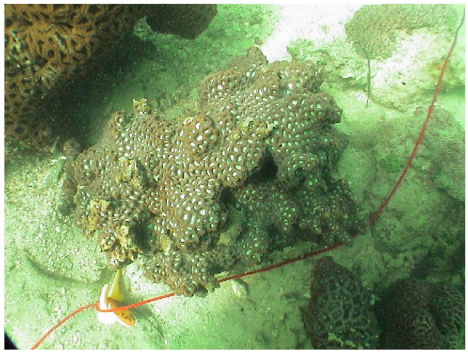
Month Two (February 2006)

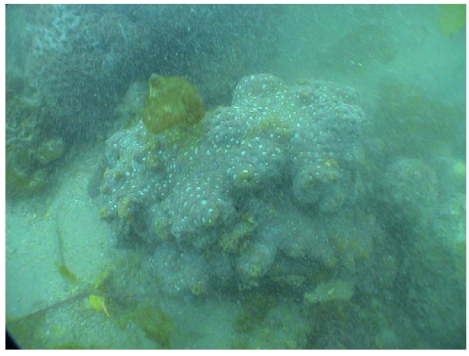
C-01

C-02

C-03

C-04





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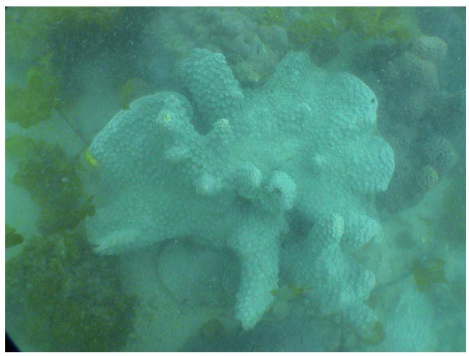
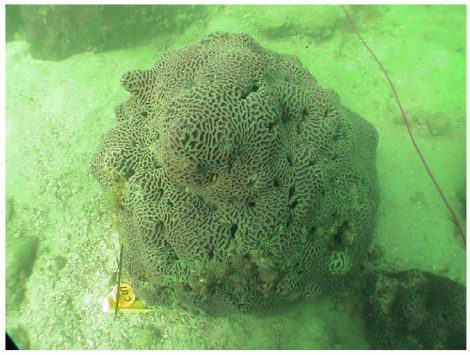


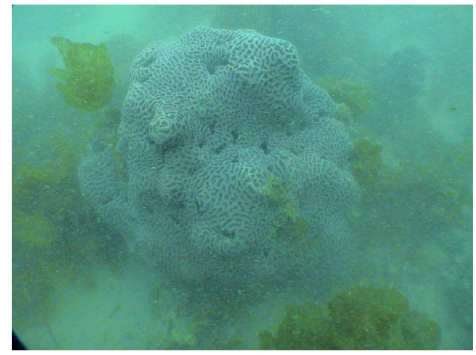
Baseline Survey

Month Two (February 2006)

C-06

C-07





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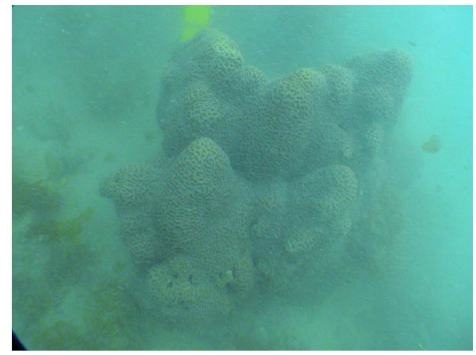


C-09

C-10

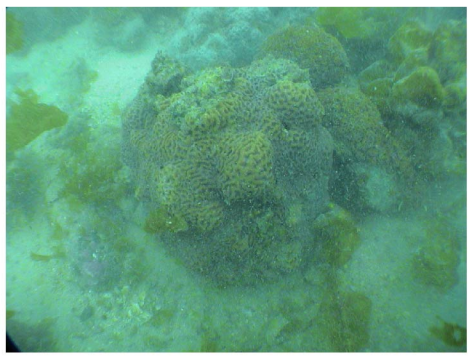
Baseline Survey

Month Two (February 2006)

C-11

C-12

C-13



C-14

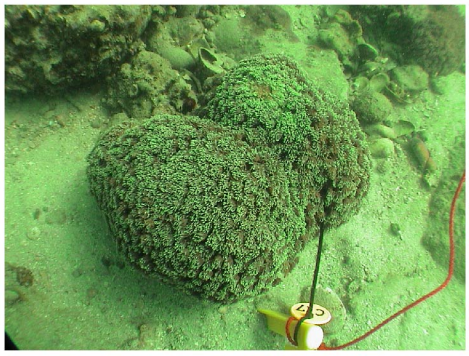
C-15

Baseline Survey

Month Two (February 2006)

C-16

C-17



C-18

C-19

C-20

Baseline Survey

Month Two (February 2006)

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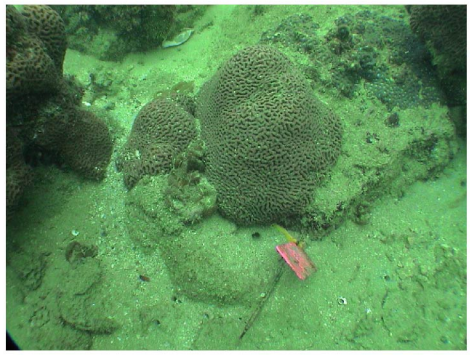

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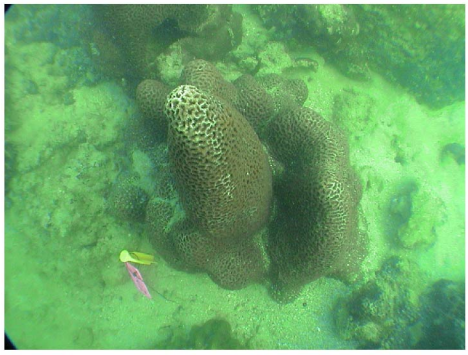

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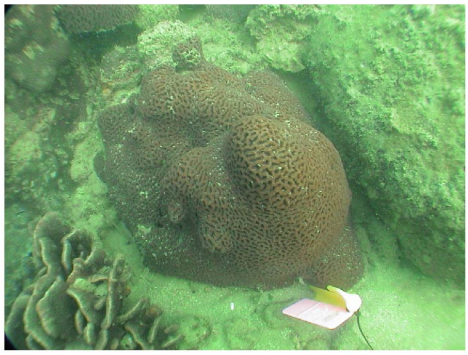

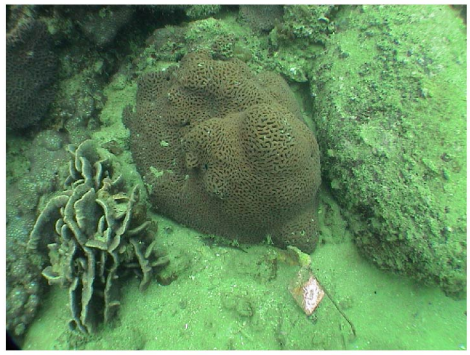

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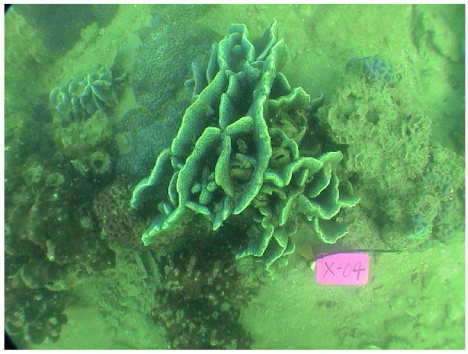

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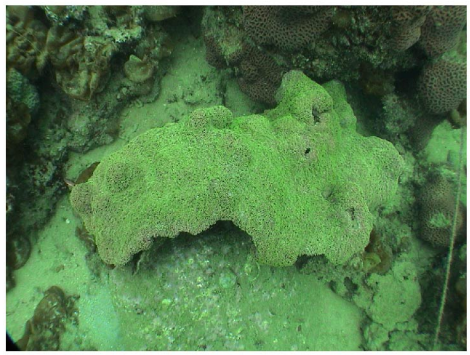
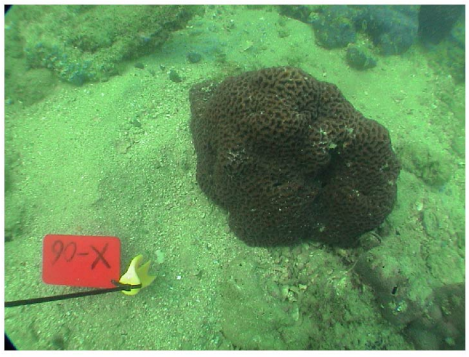


Baseline Survey

Month Two (February 2006)

X-06



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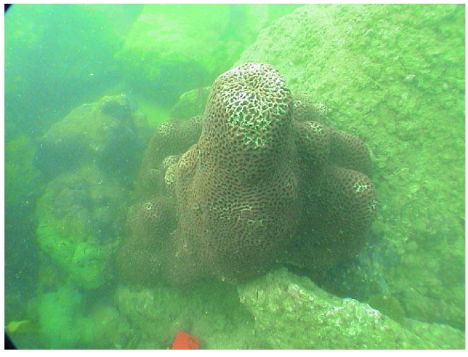

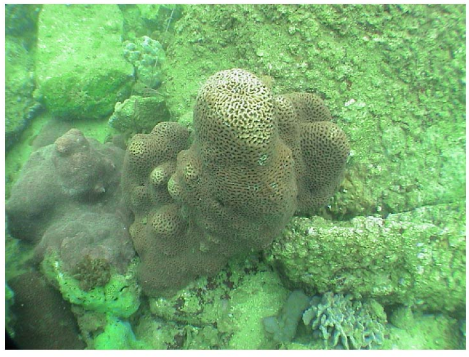

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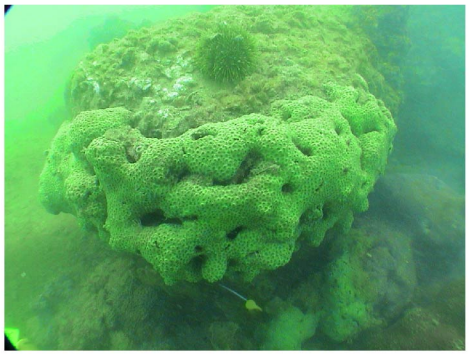
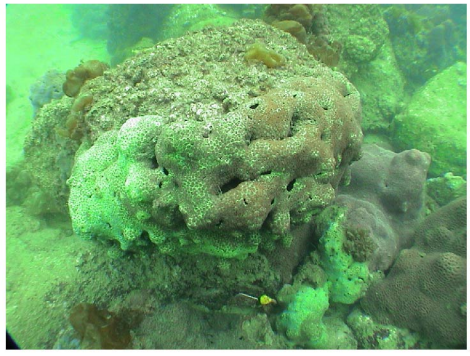
X-09





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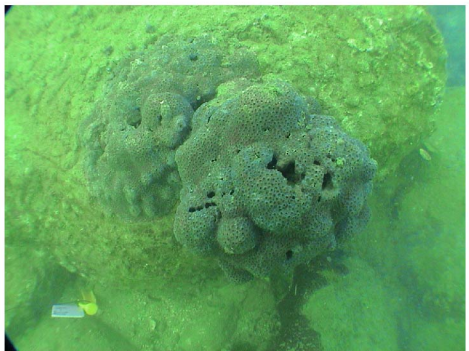
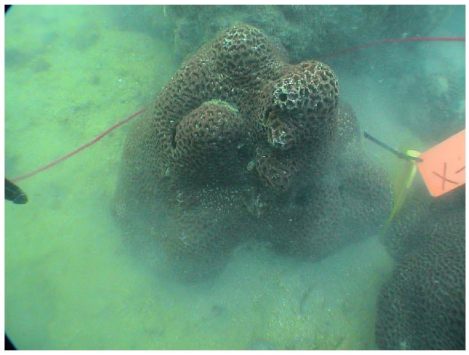
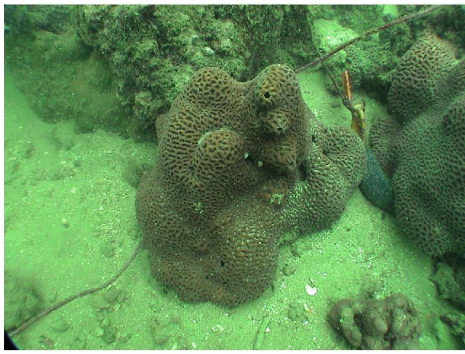


Baseline Survey

Month Two (February 2006)

X-11





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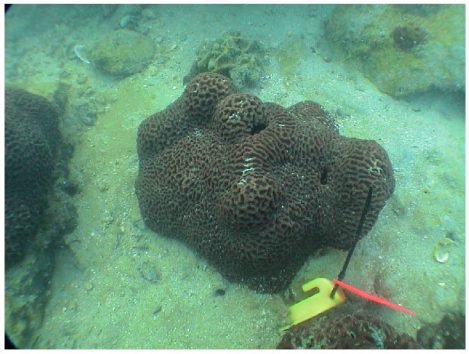

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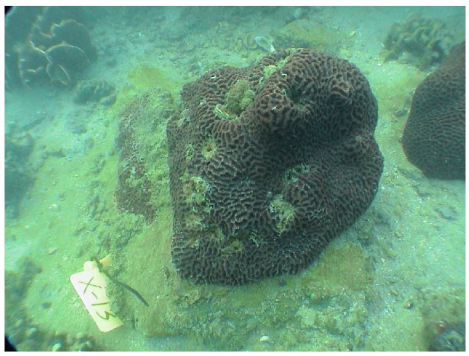

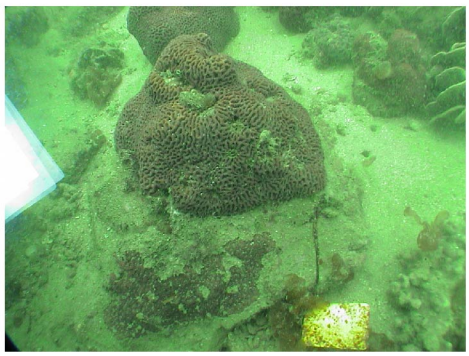

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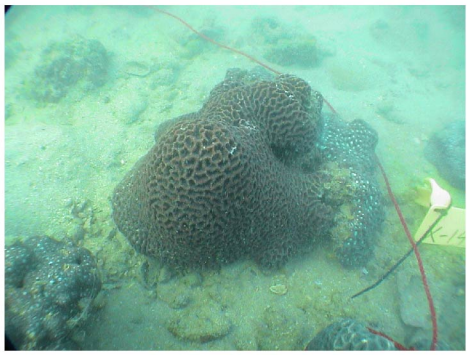

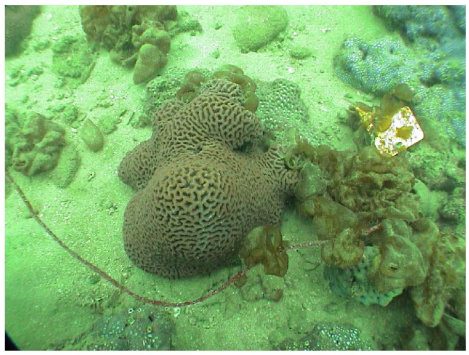

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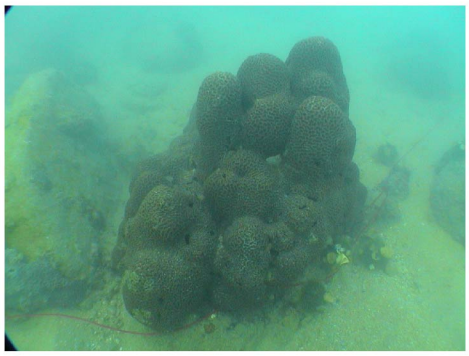
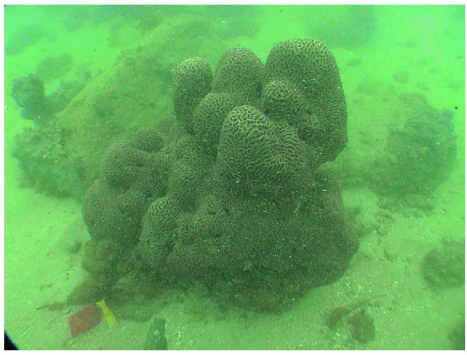
Baseline Survey

Month Two (February 2006)

X-16





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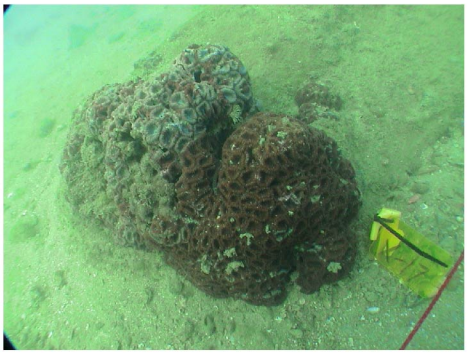


X-18

X-19

X-20

Annex F
Calibration Certificates

Maunsell

Maunsell Environmental Management Consultants Ltd.
TSP High Volume Sampler
Field Calibration Report

Station	KSC Public Golf Course Bungalow A (GCA B1)	Operator:	Porky Chu
Cal. Date:	14-Jan-06	Next Due Date:	14-Mar-06
Equipment No.:	A-001-47T	Serial No.	B/M200HX

Ambient Condition			
Temperature, Ta (K)	290	Pressure, Pa (mmHg)	765.5

Orifice Transfer Standard Information					
Equipment No.:	843	Slope, mc	2.03361	Intercept, bc	-0.04908
Last Calibration Date:	07-Dec-04	$mc \times Qstd + bc = [DH \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	06-Dec-05	$Qstd = [[DH \times (Pa/760) \times (298/Ta)]^{1/2} - bc] / mc$			

Calibration of TSP Sampler

Resistance Plate No.	Orfice			HVS Flow Recorder	
	DH (orifice), in. of water	$[DH \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (m^3/min) X - axis	Flow Recorder Reading (CFM)	Continuous Flow Recorder Reading IC (CFM) Y-axis
18	13.5	3.74	1.86	51.0	51.89
13	9.7	3.17	1.58	46.0	46.80
10	7.0	2.69	1.35	37.0	37.64
7	4.7	2.21	1.11	31.0	31.54
5	2.8	1.70	0.86	24.0	24.42

By Linear Regression of Y on X

Slope , mw = 28.2836 **Intercept, bw =** 0.2045

Correlation Coefficient* = 0.9902

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 1.30m^3/min

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = IC \times [(Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $IC = (mw \times Qstd + bw) \times [(760 / Pa) \times (Ta / 298)]^{1/2} =$ 36.34

Remarks:

QC Reviewer: Eddie Jong Signature: Eddie Date: 26/1/2006

ALS TECHNICHEM (HK) Pty Ltd

ALS Environmental

CERTIFICATE OF ANALYSIS

CONTACT:	MR WONG SIU HO	**Batch:**	HK49168
CLIENT:	ENOVATIVE ENV TECHNOLOGY CO	**Sub Batch:**	0
ADDRESS:	RM 3704 SIK MAN HOUSE HOMANTIN ESTATE KOWLOON	**LABORATORY:**	HONG KONG
		DATE RECEIVED:	25/01/2006
		DATE OF ISSUE:	03/02/2006
ORDER No.:		**SAMPLE TYPE:**	EQUIPMENT
PROJECT:		**No. of SAMPLES:**	1

COMMENTS

The calibration procedure used for the analysis has been applied for the calibration of the above instrument.

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.
Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

ISSUING LABORATORY: HONG KONG

Address

ALS Technichem (HK) Pty Ltd
11/F
Chung Shun Knitting Centre
1-3 Wing Yip Street
Kwai Chung
HONG KONG

Phone: 852-2610 1044
Fax: 852-2610 2021
Email: hongkong@alsenviro.com

Alice W M Wong
Laboratory Manager - Hong Kong

Abbreviations: *% SPK REC denotes percentage spike recovery*
CHK denotes duplicate check sample
LOR denotes limit of reporting
LCS % REC denotes Laboratory Control Sample percentage recovery

CERTIFICATE OF ANALYSIS

Batch: HK49168
Sub Batch : 0
Date of Issue: 03/02/2006
Client: ENOVATIVE ENV TECHNOLOGY CO
Client Reference:

Calibration of Tubidimeter

Item : YSI SONDE Environmental Monitoring System

Model No. : 6920

Serial No. : 000109DF

Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 2130B

Date of Calibration : 25 January,2006

Testing Results :

Expected Reading	Recording Reading
0.00 NTU	0.10 NTU
4.00 NTU	3.80 NTU
16.0 NTU	16.0 NTU
80.0 NTU	78.9 NTU
160 NTU	158 NTU
Allowing Deviation	±10%

Alice W M Wong
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK49168
Sub Batch : 0
Date of Issue: 03/02/2006
Client: ENOVATIVE ENV TECHNOLOGY CO
Client Reference:

Calibration of Conductivity System

Item : YSI SONDE Environmental Monitoring System

Model No. : 6920

Serial No. : 000109DF

Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 2510B

Date of Calibration : 25 January,2006

Testing Results :

Expected Reading	Recording Reading
1412 uS/cm 6667 uS/cm 58670 uS/cm Allowing Deviation	1400 uS/cm 6596 uS/cm 57890 uS/cm ±10%

Alice W M Wong
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK49168
Sub Batch : 0
Date of Issue: 03/02/2006
Client: ENOVATIVE ENV TECHNOLOGY CO
Client Reference:

Calibration of Salinity System

Item : YSI SONDE Environmental Monitoring System

Model No. : 6920

Serial No. : 000109DF

Calibration Method : This meter was calibrated in accordance with standard method APHA (19th Ed.) 2520 A and B

Date of Calibration : 25 January,2006

Testing Results :

Expected Reading	Recording Reading
10.0 g/L 20.0 g/L 30.0 g/L	10.1 g/L 21.0 g/L 30.4 g/L
Allowing Deviation	±10%

Alice W M Wong
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK49168
Sub Batch : 0
Date of Issue: 03/02/2006
Client: ENOVATIVE ENV TECHNOLOGY CO
Client Reference:

Calibration of Thermometer

Item : YSI SONDE Environmental Monitoring System

Model No. : 6920

Serial No. : 000109DF

Calibration Method : In-house Method

Date of Calibration : 25 January,2006

Testing Results :

Reference Temperature (^{0}C)	Recorded Temperature (^{0}C)
0 ^{0}C 21.5 ^{0}C	0 ^{0}C 21.3 ^{0}C
Allowing Deviation	±2.0^{0}C

Alice W M Wong
Laboratory Manager - Hong Kong

CERTIFICATE OF ANALYSIS

Batch: HK49168
Sub Batch : 0
Date of Issue: 03/02/2006
Client: ENOVATIVE ENV TECHNOLOGY CO
Client Reference:

Calibration of DO System

Item : YSI SONDE Environmental Monitoring System

Model No. : 6920

Serial No. : 000109DF

Calibration Method : This meter was calibrated in accordance with standard method APHA (18th Ed.) 4500-0C & G

Date of Calibration : 25 January,2006

Testing Results :

Expected Reading	Recording Reading
0.00 mg/L	0.10 mg/L
2.70 mg/L	2.90 mg/L
5.20 mg/L	5.00 mg/L
9.00 mg/L	8.80 mg/L
Allowing Deviation	±0.2 mg/L

Alice W M Wong
Laboratory Manager - Hong Kong

ENOVATIVE
ENVIRONMENTAL TECHNOLOGY

Project: **Proposed Extension of Public Golf Course at Kau Sai Chau Island**

Daily checking and calibration record

Instrument: **YSI 6920 (ENO 003)**

Date	pH checking			DO wet bulb calibration	Turbidity checking		Staff	Remark
	4.0	7.0	10.0		5 NTU	20 NTU		
25/1	3.9	6.9	9.8	new membrane 100%	4.8	20		
27/1	3.9	7.0	9.9	100%	4.9	20		
6/2	3.9	7.0	8.9	100%	4.8	20		
8/2	4.0	6.9	9.8	new membrane 100%	5.2	21		
11/2	3.9	7.0	9.9	100%	5.1	20		
13/2	4.0	7.1	9.9	100%	4.9	20		
15/2	3.8	7.0	10.0	100%	5.0	20		
17/2	3.9	6.9	9.9	100%	5.1	19		
20/2	3.9	6.9	9.9	new membrane 100%	4.8	20		
22/2	4.0	7.1	9.8	100%	4.9	20		
24/2	4.0	7.1	9.9	100%	4.9	20		

Annex G
Monitoring Programme for the next three months

February 2006						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
19	20	21	22	23	24	25
26	27 WQ	28				

March 2006						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
			1 AQ WQ	2	3 WQ	4
5	6 WQ LV	7 AQ	8 WQ	9	10 WQ TE	11
12	13 AQ, WQ	14	15 WQ	16 TE	17 WQ	18 AQ ME
19 ME	20 WQ LV	21	22 WQ	23	24 AQ, WQ	25
26	27 WQ	28	29 WQ	30 AQ	31 WQ	

April 2006						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
						1
2	3 WQ LV	4	5 WQ	6 AQ	7 WQ TE	8
9	10 WQ	11	12 AQ WQ	13	14 WQ	15 ME

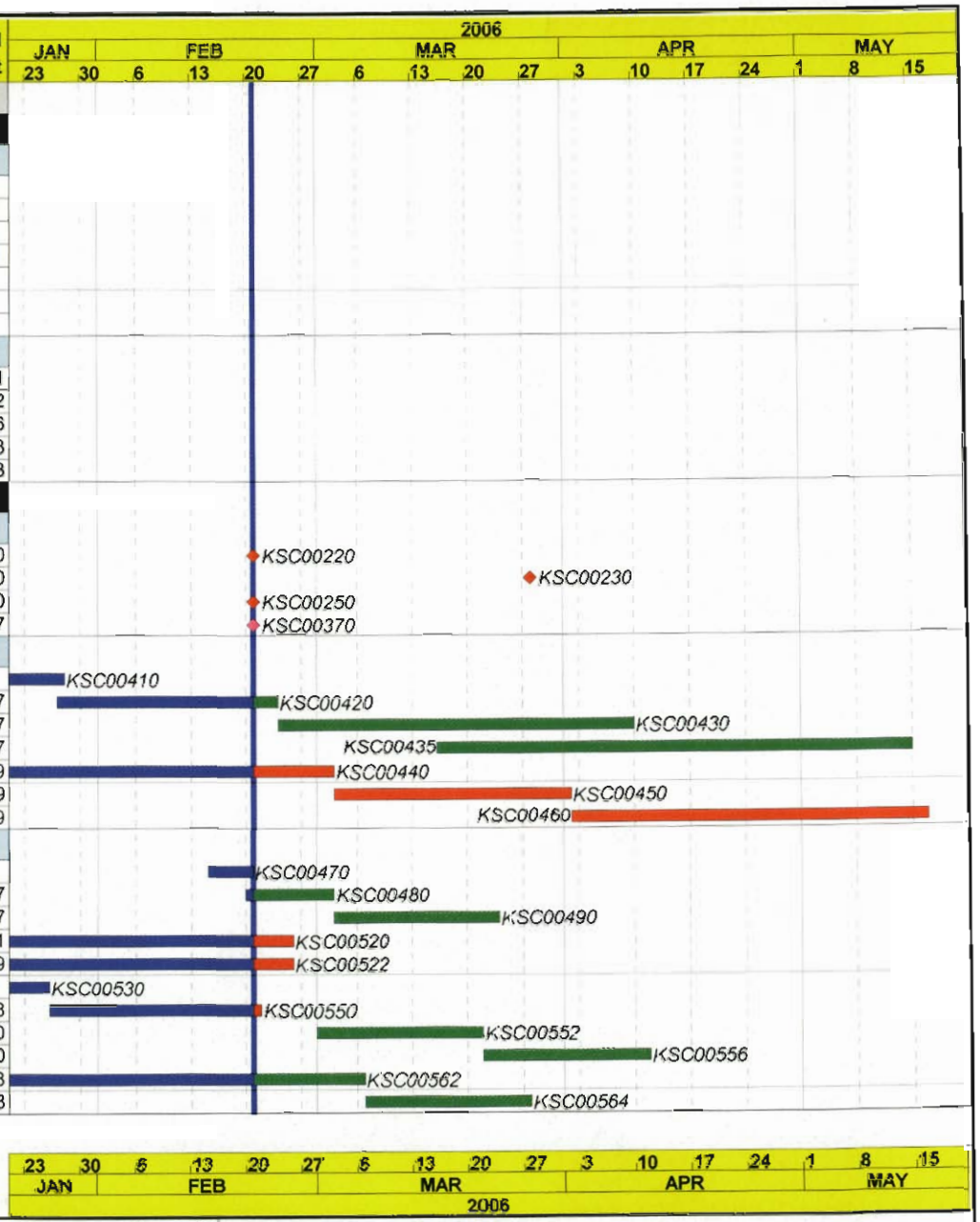
April 2006						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
16 ME	17 LV	18	19 WQ	20	21 AQ TE	22
23	24	25	26 WQ	27 AQ	28	29
30						

May 2006						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
	1	2	3 AQ WQ	4	5	6
7	8 LV	9	10 AQ WQ	11	12 TE	13
14	15 AQ	16	17 WQ	17	19 TE	20 AQ
21	22 LV	23	24 WQ	25	26 AQ	27
28	29	30	31 WQ			

Remarks: AQ = TSP, WQ = Freshwater and Marine water quality, TE = Terrestrial Ecology, ME = Marine Ecology, LV = Landscape & Visual,

Annex H
Construction Programme for the next three months

Activity ID	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
General & Preliminaries							
Project Key Dates							
Possession of Site							
KSC00090	Letter of Acceptance	0	0	100	28-12-05A		
KSC00095	Project Commencement	0	0	100	03-01-06A		
KSC00100	Possession of Portion 1	0	0	100	03-01-06A		
KSC00110	Possession of Portion 2	0	0	100	03-01-06A		
KSC00120	Possession of Portion 3	0	0	100	03-01-06A		
KSC00130	Possession of Portion 4	0	0	100	03-01-06A		
KSC00140	Possession of Portion 5	0	0	100	03-01-06A		
Completion of Works							
KSC00150	Completion of Section 1	0	0	0		03-11-06	-31
KSC00160	Completion of Section 2	0	0	0		04-11-06	-32
KSC00170	Completion of Section 3	0	0	0		08-11-06	-36
KSC00180	Completion of Section 4	0	0	0		14-02-07	-43
KSC00190	Completion of Section 9	0	0	0		24-08-07	-23
Design and Submission							
Submission: General							
KSC00220	Safety plan	0	0	0		20-02-06*	-20
KSC00230	ISO 9001:2000 certification audit	0	0	0		27-03-06*	0
KSC00250	Finalize waste management plan	0	0	0		20-02-06*	-10
KSC00370	Contingency plan to deal with flooding	0	0	0		20-02-06	527
Submision: Contractor Design							
KSC00410	Design reverse osmosis (RO) desalination plant	30	0	100	03-01-06A	27-01-06A	
KSC00420	Submit and review by ICE	30	3	95	27-01-06A	23-02-06	17
KSC00430	Submit and approval by the Engineer	45	45	0	24-02-06	09-04-06	17
KSC00435	Delivery desalination plant	60	60	0	16-03-06	14-05-06	17
KSC00440	Design extension of existing sewage treatment	30	10	67	28-12-05A	02-03-06	-9
KSC00450	Submit and review by ICE	30	30	0	03-03-06	01-04-06	-9
KSC00460	Submit and approval by the Engineer	45	45	0	02-04-06	16-05-06	-9
Submision: Temporary Works							
KSC00470	Design the temp bridge No.5, 9 ,10 & 15	14	0	100	15-02-06A	20-02-06A	
KSC00480	Submit and review by ICE	14	10	0	20-02-06A	02-03-06	37
KSC00490	Submit and approval by the Engineer	21	21	0	03-03-06	23-03-06	37
KSC00520	Submit and approval by the Engineer	14	5	93	07-01-06A	25-02-06	11
KSC00522	Apply and Wait for Marine Notice	14	5	93	03-01-06A	25-02-06	-39
KSC00530	Design the concrete plant	14	0	100	28-12-05A	25-01-06A	
KSC00550	Submit and approval by the Engineer	21	1	90	26-01-06A	21-02-06	-8
KSC00552	Design waterproofing system	21	21	0	01-03-06*	21-03-06	100
KSC00556	Submit and approval by the Engineer	21	21	0	22-03-06	11-04-06	100
KSC00562	Submit and review by ICE	14	14	0	20-01-06A	06-03-06	28
KSC00564	Submit and approval by the Engineer	21	21	0	07-03-06	27-03-06	28



23 30 6 13 20 27 6 13 20 27 3 10 17 24 1 8 15
JAN FEB MAR APR MAY
2006

Start Date	28-12-05
Finish Date	24-08-07
Data Date	21-02-06
Run Date	02-03-06 10:48

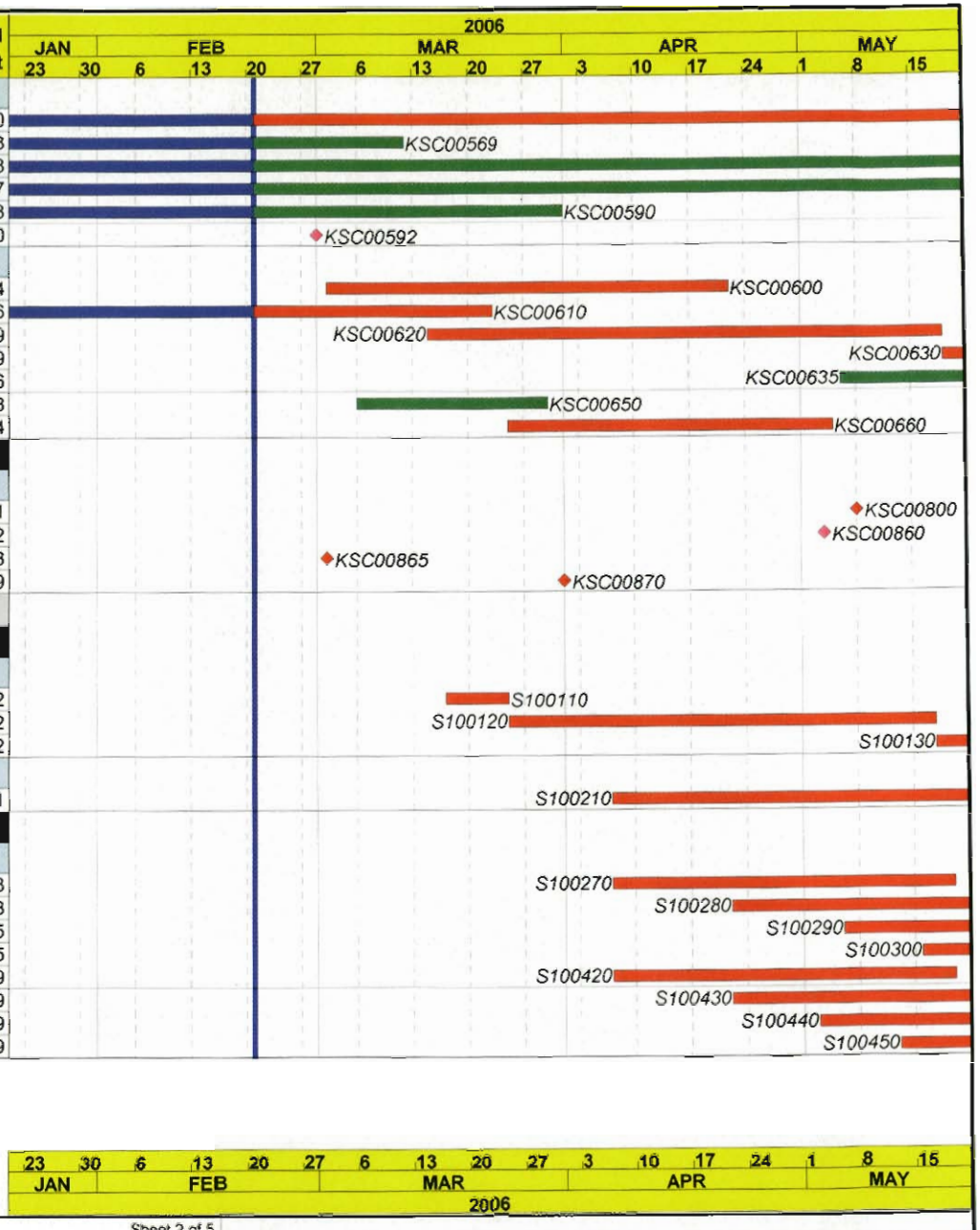
Early Bar
Progress Bar
Critical Activity

KS02

China Harbour Engineering Company (Group)
The Jockey Club Kau Sai Chau Public Golf Course
3 months rolling programme

Date	Revision	Checked	Approved
28-12-05	1st rolling	Tim	

Activity ID	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Survey and Site Clearance							
KSC00566	General site clearance	180	157	13	11-01-06A	31-08-06	0
KSC00569	Initial survey	60	17	40	28-12-05A	11-03-06	38
KSC00570	Condition survey	180	160	40	10-01-06A	04-09-06	23
KSC00580	Unexplored ordinance survey	180	160	17	10-01-06A	04-09-06	267
KSC00590	Tree survey	45	34	40	28-12-05A	31-03-06	393
KSC00592	Tree Felling Permit	0	0	0	01-03-06*		20
Barging Point and Site Haul Road							
KSC00600	Construction of the barging point	40	40	0	02-03-06*	21-04-06	-34
KSC00610	Construction site haul road to GH2 (office)	60	26	40	14-01-06A	22-03-06	-6
KSC00620	Construction haul road to GH3 to 8	50	50	0	15-03-06*	18-05-06	-19
KSC00630	Construction haul road to GH 11 to 16	50	50	0	19-05-06	18-07-06	-19
KSC00635	Construction temporary bridge No. 5	24	24	0	06-05-06	03-06-06	66
KSC00650	Construction of site office	21	21	0	06-03-06	29-03-06	73
KSC00660	Construction of concrete plant & test	30	30	0	25-03-06	04-05-06	-34
Material Submission and Procurement							
Material: Procurement of Order & Delivery							
KSC00800	Generators	0	0	0	08-05-06		-31
KSC00860	Drainage Pipe	0	0	0	04-05-06		242
KSC00865	Gravity Pipe	0	0	0	02-03-06		-23
KSC00870	600mm Intake Pipe	0	0	0	01-04-06		9
Section 1 of the Works							
Construction of Low Level Intake Pumping Station							
Pumping Station: Civil Works							
S100110	Installation of fencing for PS	7	7	0	17-03-06*	24-03-06	-12
S100120	Excav. & support	40	40	0	25-03-06	17-05-06	-12
S100130	Reinf. & cast PS base slab	8	8	0	18-05-06	26-05-06	-12
600mm Intake Pipe							
S100210	Installation of sheet pipe for 600mm intake pipe	45	45	0	07-04-06	05-06-06	-1
Construction of Gravity Drain & Rising Main							
Gravity Drain: Lay Pipe & Manhole							
S100270	Installation of sheet pile fm OC No.4 to MH3	32	32	0	07-04-06	19-05-06	-23
S100280	Excav. & sheet pile support	25	25	0	22-04-06	23-05-06	-23
S100290	Lay pipe fm OC No.4 to MH3	24	24	0	06-05-06	03-06-06	-25
S100300	Construction of manhole OC No.4, MH1 and MH3	36	36	0	16-05-06	27-06-06	-25
S100420	Installation of sheet pile fm MH8 to MH11	32	32	0	07-04-06	19-05-06	-19
S100430	Excav. & sheet pile support	25	25	0	22-04-06	23-05-06	-19
S100440	Lay pipe fm MH8 to MH11	24	24	0	03-05-06	01-06-06	-19
S100450	Construction of manhole MH9, MH10 and MH11	36	36	0	13-05-06	24-06-06	-19



23 30 6 13 20 27 6 13 20 27 3 10 17 24 1 8 15
JAN FEB MAR APR MAY
2006

Start Date	28-12-05
Finish Date	24-08-07
Data Date	21-02-06
Run Date	02-03-06 10:48

Early Bar
Progress Bar
Critical Activity

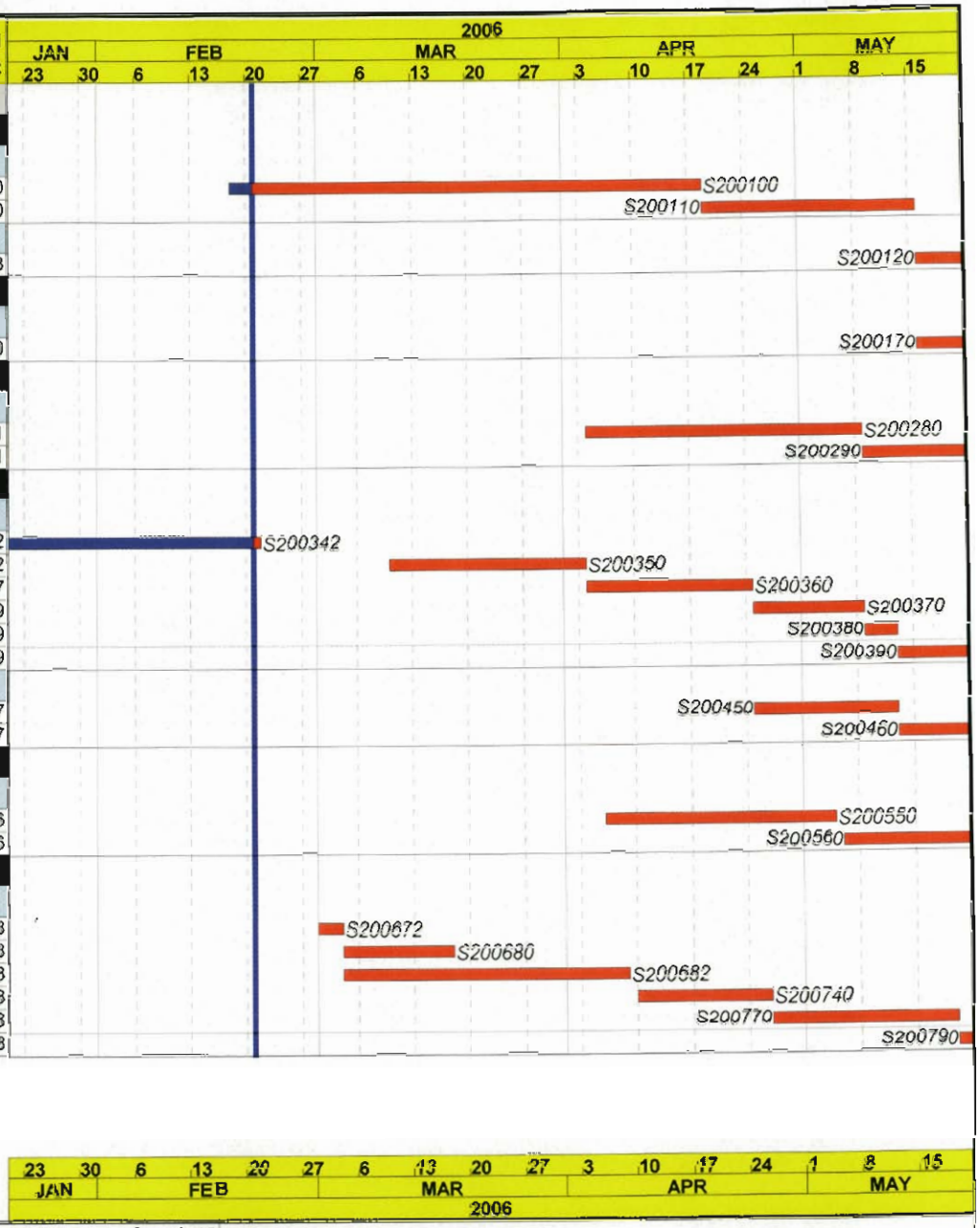
KS02

Sheet 2 of 5

China Harbour Engineering Company (Group)
The Jockey Club Kau Sai Chau Public Golf Course
3 months rolling programme

Date	Revision	Checked	Approved
28-12-05	1st rolling	Tim	

Activity ID	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Section 2 of the Works							
Construction of Desalination Plant							
Desalination Plant: Civil Works							
S200100	Excav. of desalination plant	45	45	20	18-02-06A	18-04-06	0
S200110	Construction of base slab for desalination plant	21	21	0	19-04-06	15-05-06	0
Desalination Plant: E&M Works							
S200120	Erection of desalination plant (by others)	60	60	0	16-05-06	26-07-06	13
Construction of Transformer/Switch Room							
Transformer/Switch Room: Civil Works							
S200170	Construct base slab of transform/switch room	6	6	0	16-05-06	22-05-06	0
Construction of Seawater Pumping Station							
Sewater Pumping Station: Civil Works							
S200280	Installation of sheet pile for SWP station	24	24	0	04-04-06	08-05-06	-1
S200290	Excavation of SWP Station	21	21	0	09-05-06	02-06-06	-1
Seawater Intake & Discharge Pipe							
Seawater Intake Pipe							
S200342	Apply and Wait for Marine Notice	14	1	95	03-01-06A	21-02-06	-2
S200350	Dredging for pipe and pumping station	21	21	0	10-03-06	03-04-06	-2
S200360	Rockfill (quarry run)	14	14	0	04-04-06	24-04-06	7
S200370	Rockfill for intake structural unit (filter)	10	10	0	25-04-06	08-05-06	9
S200380	Installation of intake structural unit	4	4	0	09-05-06	12-05-06	9
S200390	lay pipe 600mm conc. intake	12	12	0	13-05-06	26-05-06	9
Water Discharge Pipe							
S200450	Rockfill (quarry run)	14	14	0	25-04-06	12-05-06	7
S200460	Rockfill for intake structural unit (filter)	10	10	0	13-05-06	24-05-06	7
Construction Retaining Wall No.1							
Construction Retaining Wall No.1							
S200550	Excavation of formation of retaining wall RW1	21	21	0	06-04-06	04-05-06	-26
S200560	Construct footing for retaining wall RW1	18	18	0	06-05-06	26-05-06	-26
Lake No.1 and Pump House No.1							
Access Cart Track & New Tees for Hole S7							
S200672	Construct Haul Road	3	3	0	01-03-06*	03-03-06	-8
S200680	Cut & Fill at New Tee S6 T2 & T3	12	12	0	04-03-06	17-03-06	-8
S200682	Construct Drainage under S6 T1	30	30	0	04-03-06	08-04-06	-8
S200740	Construction of Reinforced Fill S6 T1	12	12	0	10-04-06	26-04-06	-8
S200770	Irrigation System to New Tees	18	18	0	27-04-06	19-05-06	-8
S200790	Construction of Cart Track	6	6	0	20-05-06	26-05-06	-8



23 30 6 13 20 27 6 13 20 27 3 10 17 24 1 8 15
JAN FEB MAR APR MAY
2006

Start Date	28-12-05
Finish Date	24-08-07
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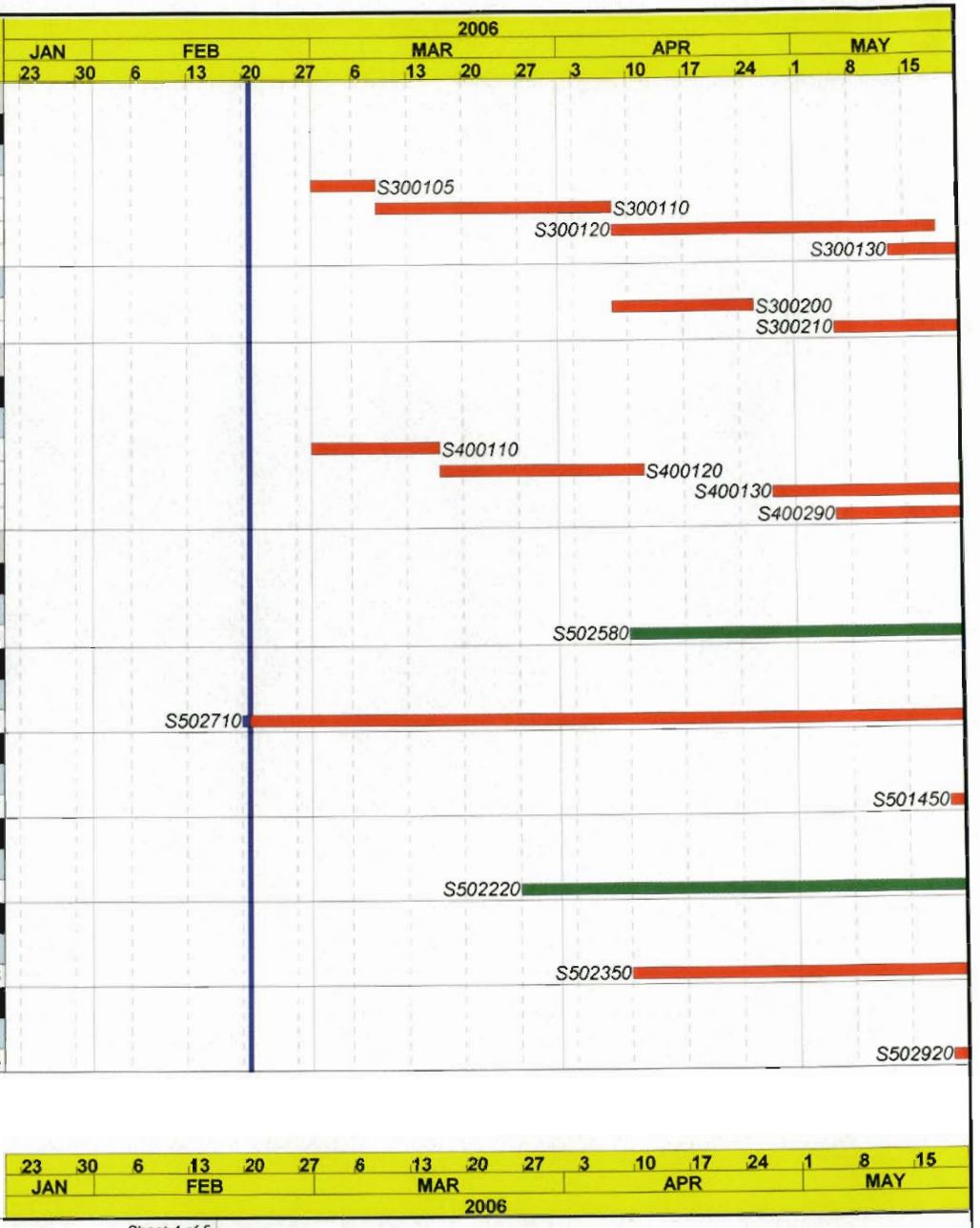
Early Bar
Progress Bar
Critical Activity

KS02

China Harbour Engineering Company (Group)
The Jockey Club Kau Sai Chau Public Golf Course
3 months rolling programme

Date	Revision	Checked	Approved
28-12-05	1st rolling	Tim	

Activity ID	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Section 3 of the Works							
Existing Maintenace Building							
Maintenance Building: Structure Works							
S300105	Removal of vegetation and ponding water	7	7	0	01-03-06*	08-03-06	-22
S300110	Reclamation of Hard Standing area	25	25	0	09-03-06	07-04-06	-22
S300120	Const. wash rm/changing rm etc. on new ext. area	30	30	0	08-04-06	18-05-06	-22
S300130	Building services works for wash/changing rm	16	16	0	13-05-06	01-06-06	-22
Construction Retaining Wall No.2							
S300200	Excavation of retaining wall RW2	12	12	0	08-04-06	25-04-06	-22
S300210	Construction of retaining RW2	30	30	0	06-05-06	10-06-06	-29
Section 4 of the Works							
Existing Admin. Building							
Admin. Building: Structure Works							
S400110	Install external/internal hoarding	14	14	0	01-03-06*	16-03-06	-24
S400120	Excavation and testing to structural foundation	21	21	0	17-03-06	11-04-06	-24
S400130	Structural works to Area 1	70	70	0	28-04-06	22-07-06	-34
S400290	Structural works to Area 4	70	70	0	06-05-06	28-07-06	-30
Section 9 of the Works							
Construction of Golf Course Hole No.1							
GH 01: Cut & Fill Works							
S502580	Earth/slope construction works (cut)	204	204	0	10-04-06	14-12-06	38
Construction of Golf Course Hole No.2							
GH 02: Cut & Fill Works							
S502710	Earth/slope construction works (cut)	118	118	0	20-02-06A	17-07-06	-2
Construction of Golf Course Hole No.4							
GH 04: Cut & Fill Works							
S501450	Earth/slope construction works (cut)	185	185	0	20-05-06	29-12-06	-12
Consttruction of Golf Course Hole No.8							
GH 08: Cut & Fill Works							
S502220	Earth/slope construction works (cut)	88	88	0	27-03-06	15-07-06	154
Construction of Golf Course Hole No.9							
GH 09: Cut & Fill Works							
S502350	Earth/slope construction works (cut)	254	254	0	10-04-06	17-02-07	-13
Construction of Golf Course Hole No.10							
GH 10: Cut & Fill Works							
S502920	Earth/slope construction works (cut)	244	244	0	20-05-06	13-03-07	-13



Start Date	28-12-05
Finish Date	24-08-07
Data Date	21-02-06
Run Date	02-03-06 10:48

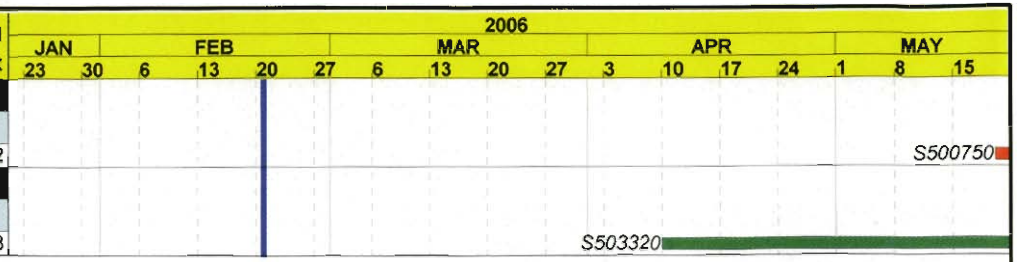
Early Bar
Progress Bar
Critical Activity

KS02

China Harbour Engineering Company (Group)
The Jockey Club Kau Sai Chau Public Golf Course
3 months rolling programme

Date	Revision	Checked	Approved
28-12-05	1st rolling	Tim	

Activity ID	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Construction of Golf Course Hole No.14							
GH 14: Cut & Fill Works							
S500750	Earth/slope construction works (cut)	159	159	0	20-05-06	27-11-06	-12
Construction of Golf Course Hole No.17							
GH 17: Cut & Fill Works							
S503320	Earth/slope construction works (cut)	229	229	0	10-04-06	16-01-07	73



23 30 6 13 20 27 6 13 20 27 3 10 17 24 1 8 15
JAN FEB MAR APR MAY
2006

Start Date	28-12-05
Finish Date	24-08-07
Data Date	21-02-06
Run Date	02-03-06 10:48

Early Bar
Progress Bar
Critical Activity

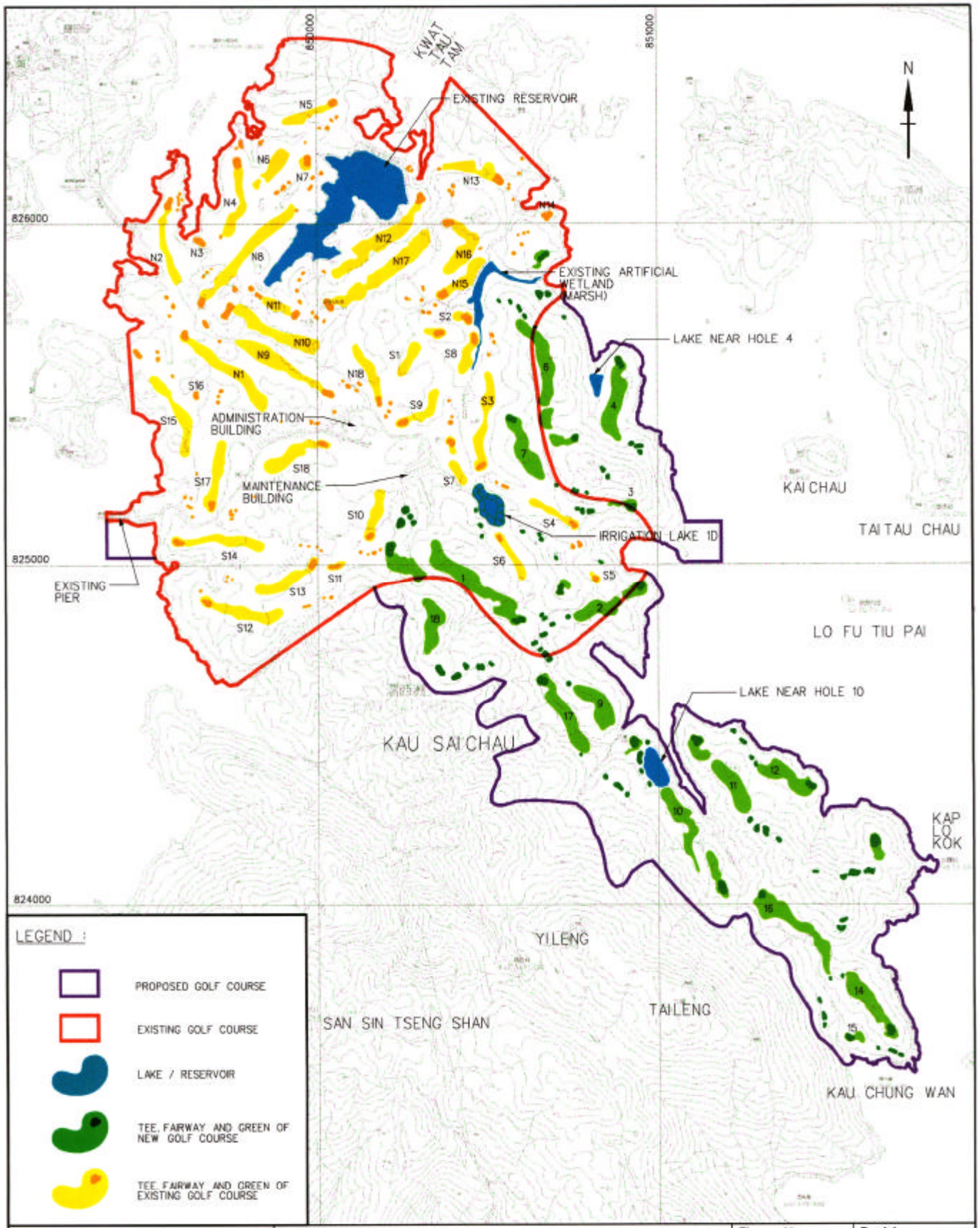
KS02

China Harbour Engineering Company (Group)
The Jockey Club Kau Sai Chau Public Golf Course
3 months rolling programme

Date	Revision	Checked	Approved
28-12-05	1st rolling	Tim	

FIGURES

FIGURES



The Hong Kong Jockey Club

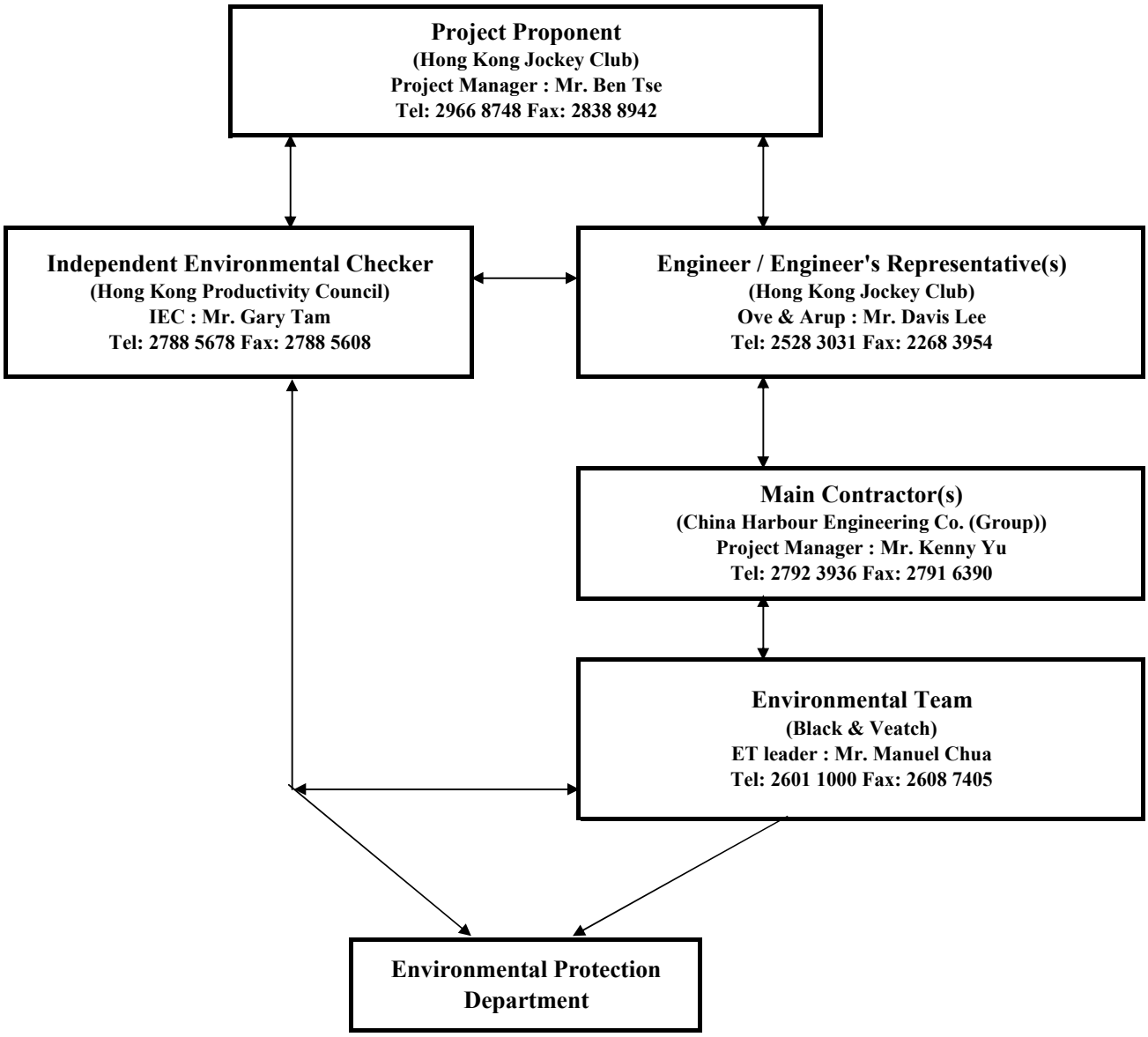
BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

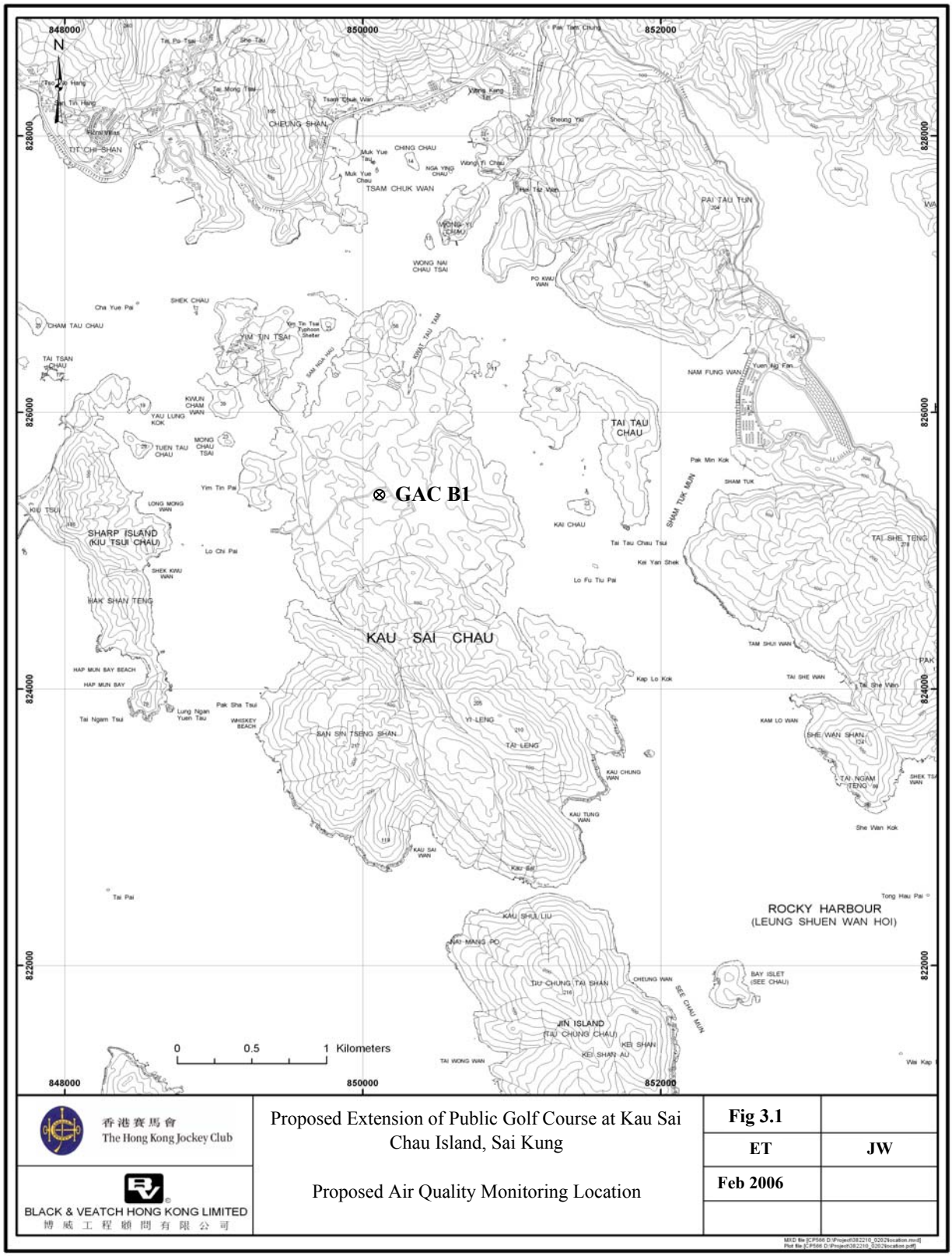
PROPOSED EXTENSION OF PUBLIC GOLF COURSE AT KAU SAI CHAU, SAI KUNG

PROPOSED 18-HOLE THIRD GOLF COURSE (MASTER LAYOUT PLAN)

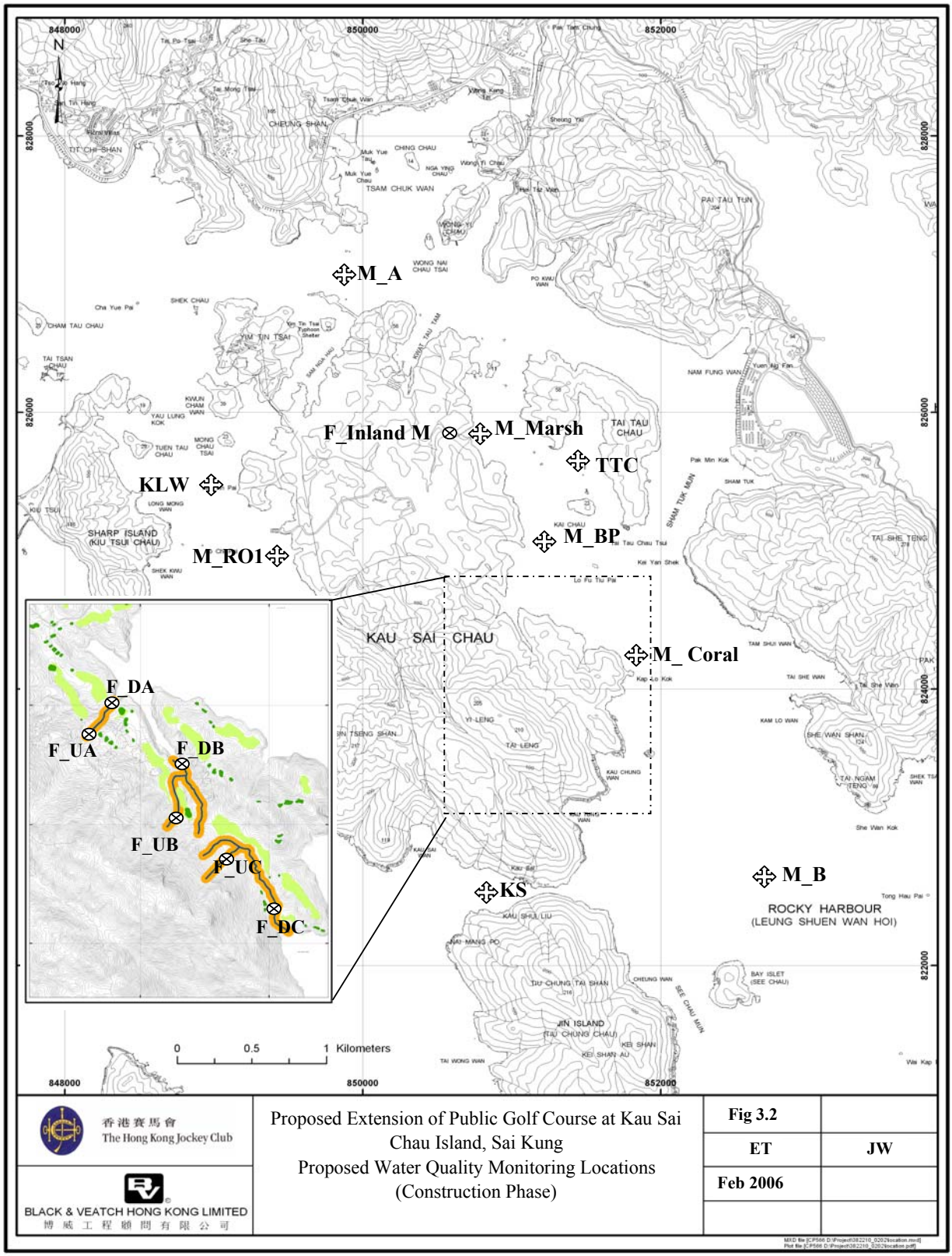
Figure No.	Revision
2.1	-
Reference	File Name
-	3822100201-2.1.DGN
Prepared	Checked
ET	JW
Date	Scale
MAY 2005	1 : 15000 (A4)

Figure 1.2
Project Organisation and Lines of Communication

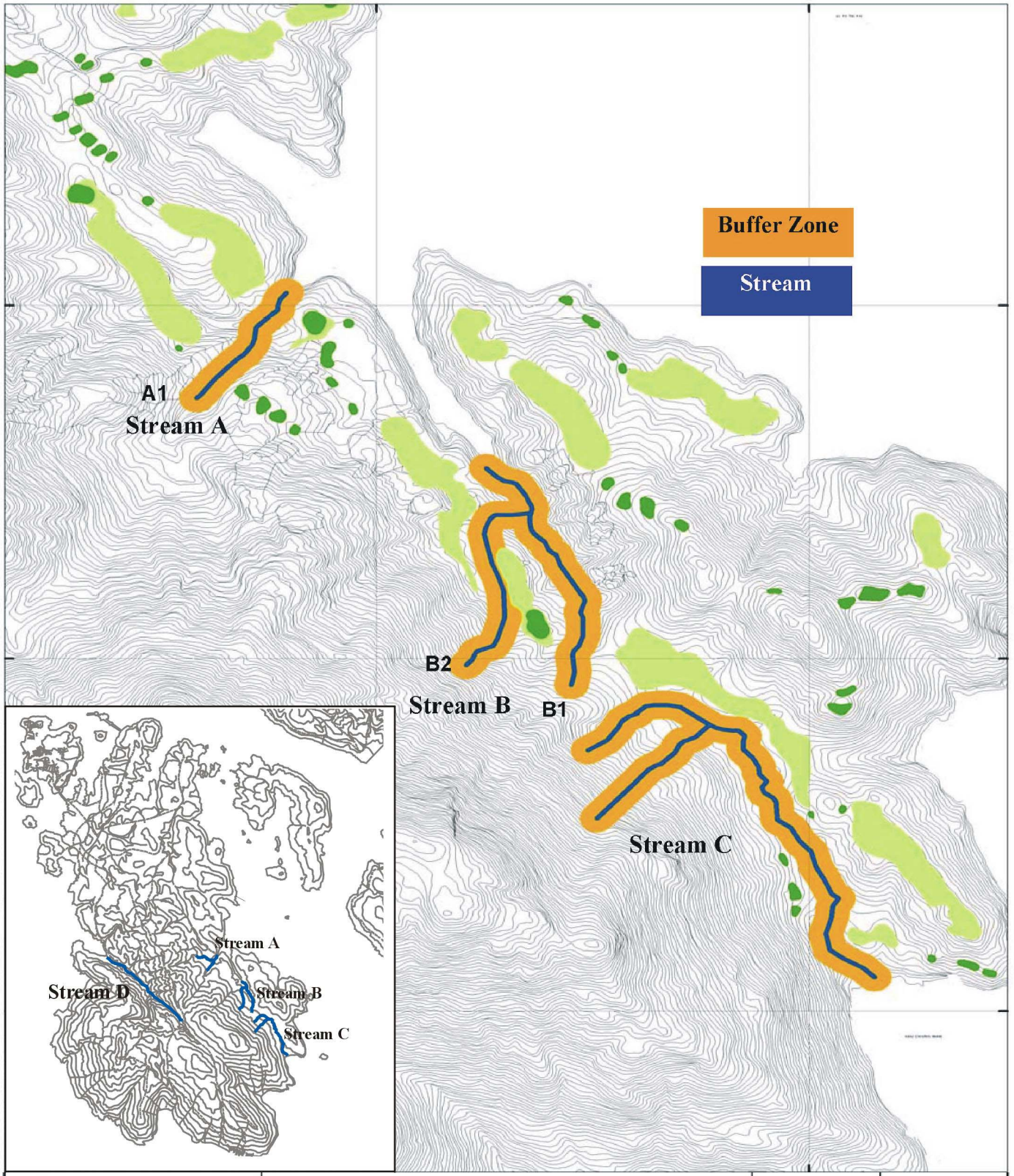




香港賽馬會 The Hong Kong Jockey Club	Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung	Fig 3.1	
		ET	JW
BLACK & VEATCH HONG KONG LIMITED 博威工程顧問有限公司	Proposed Air Quality Monitoring Location	Feb 2006	



香港賽馬會 The Hong Kong Jockey Club BLACK & VEATCH HONG KONG LIMITED 博威工程顧問有限公司	Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung Proposed Water Quality Monitoring Locations (Construction Phase)	Fig 3.2	
		ET	JW
		Feb 2006	



香港賽馬會
The Hong Kong Jockey Club

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung
Proposed Ecological Monitoring Location
(Streams Buffer Zone)

Fig 3.3	
ET	JW
July 2005	

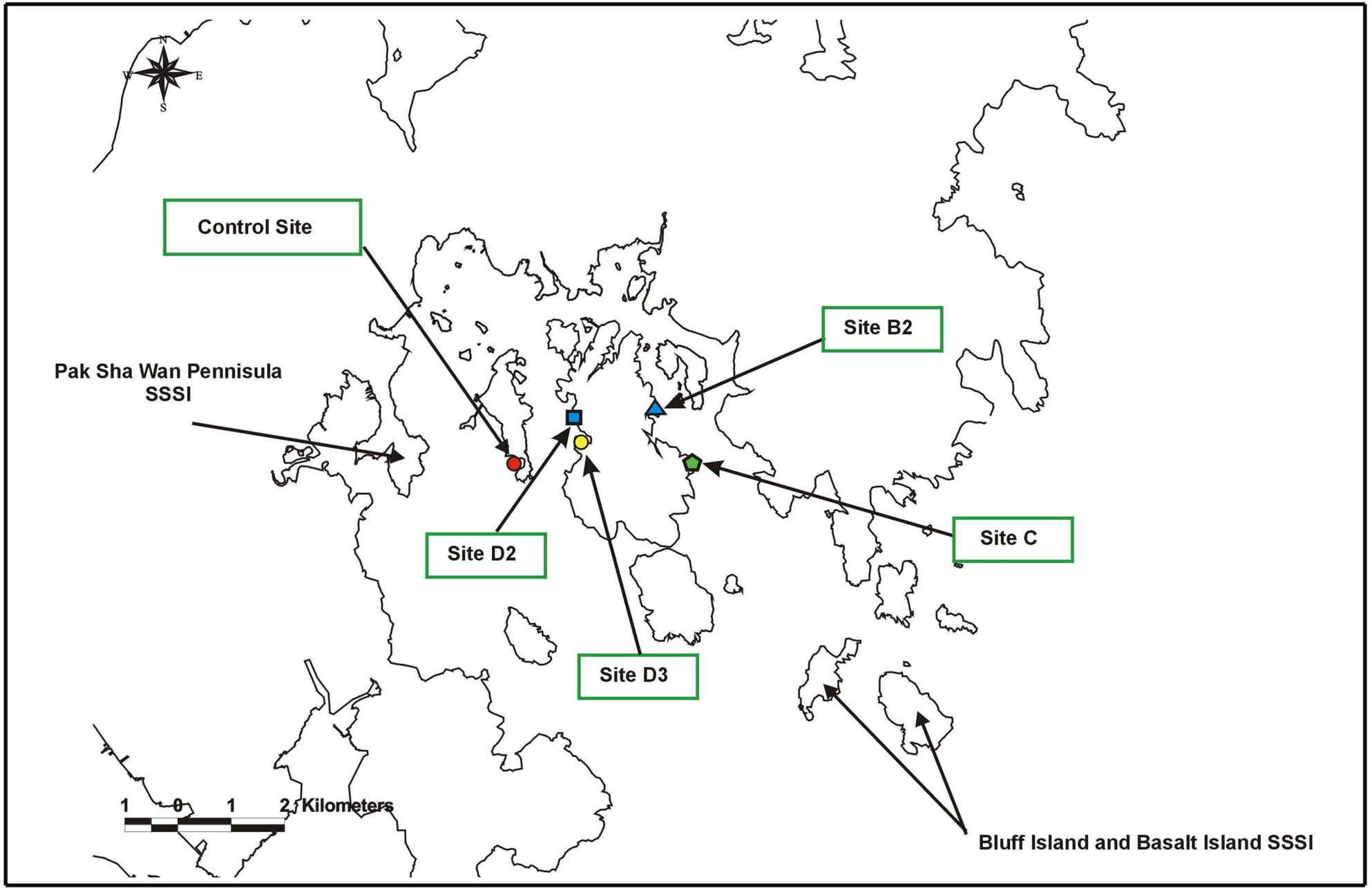
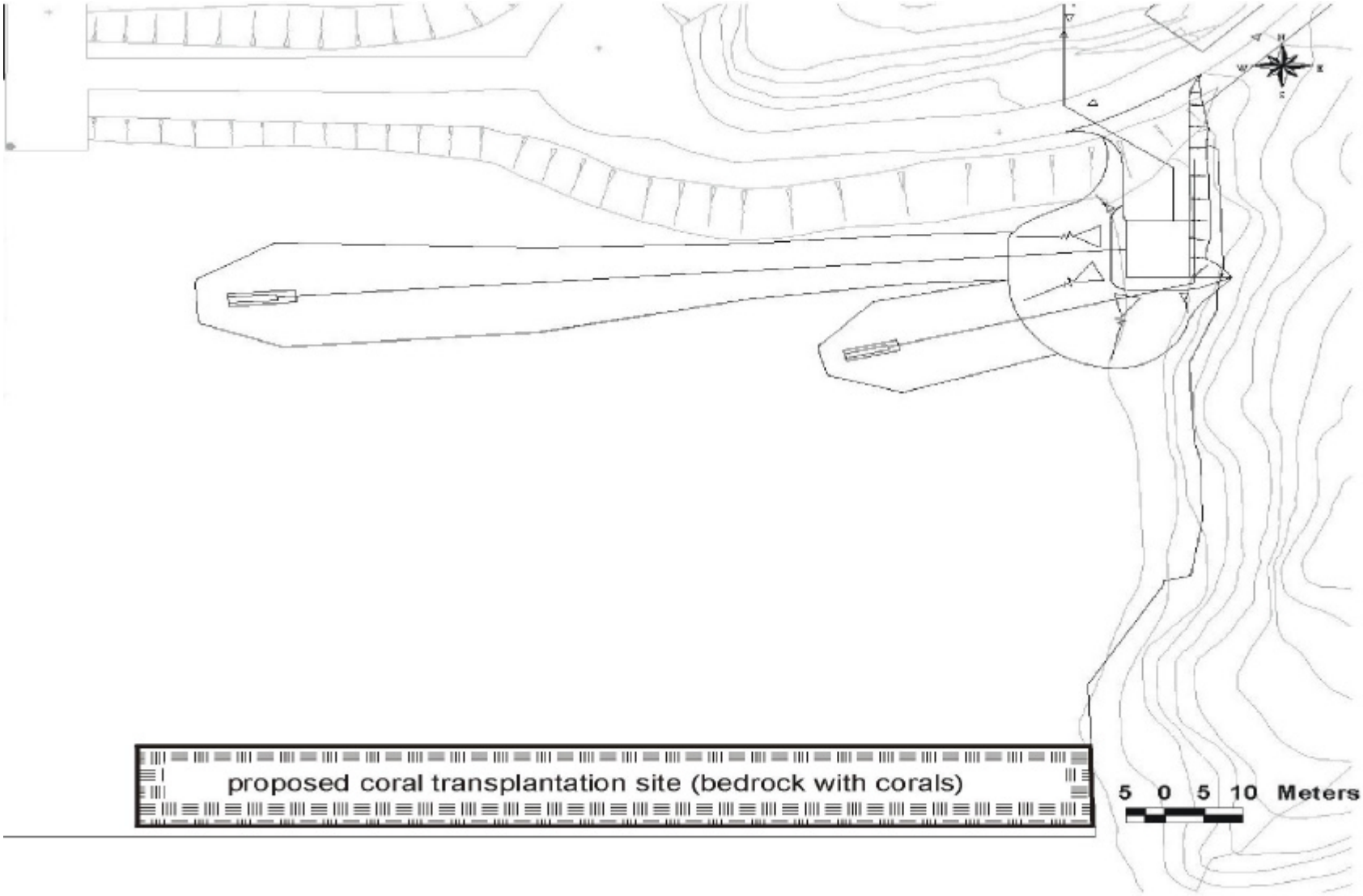


Figure 3.4 Site C, Site B2, Site D2 and a Control Site near the AFCD's Coral Buoy at Sharp Island



香港賽馬會
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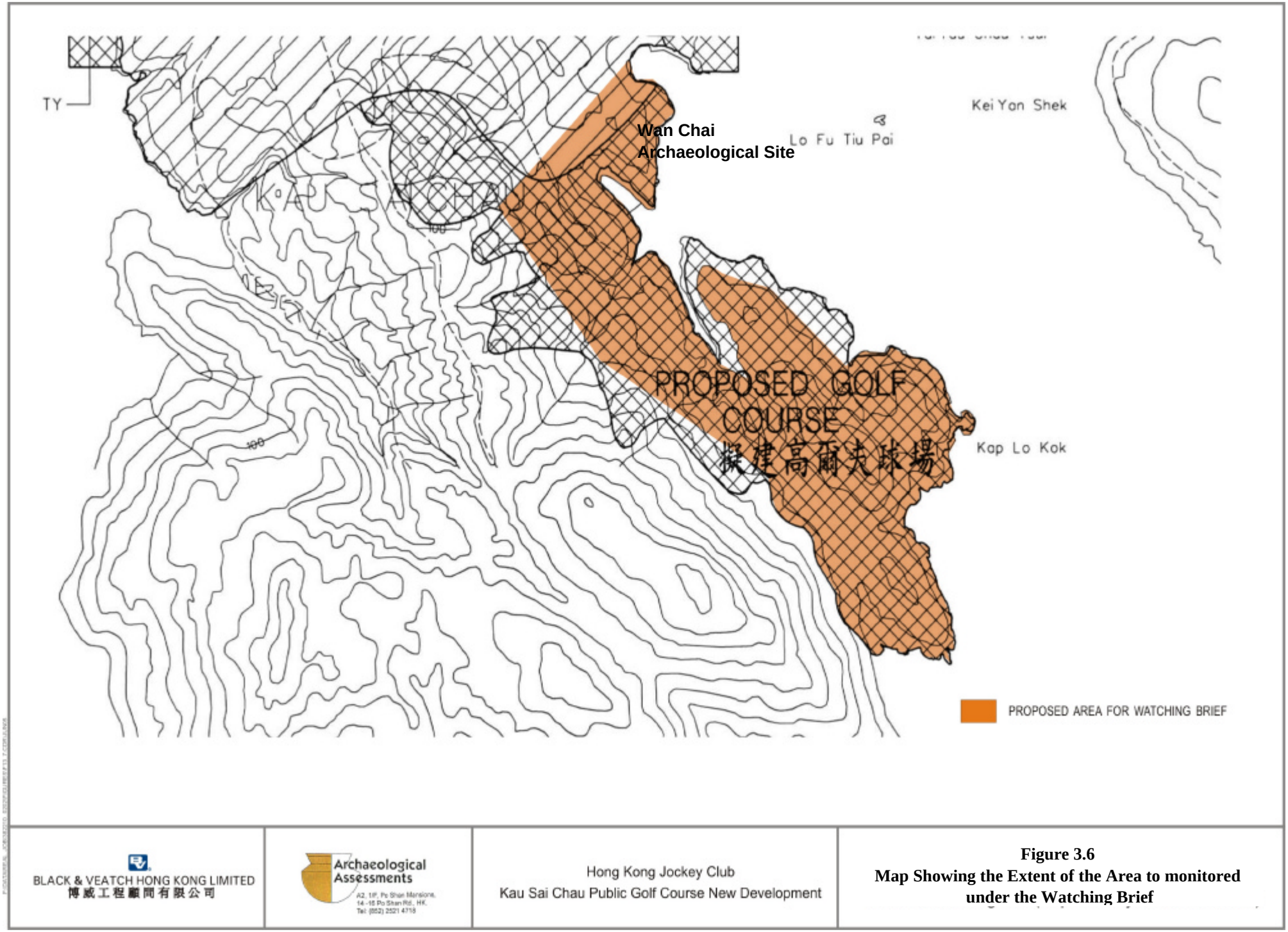
Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung

Location of proposed coral transplantation site (Bedrock with corals)

Fig 3.5

Prepared	Checked
ET	JW

Date Jun-05



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Archaeological Assessments
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Tel: (852) 2521 4715

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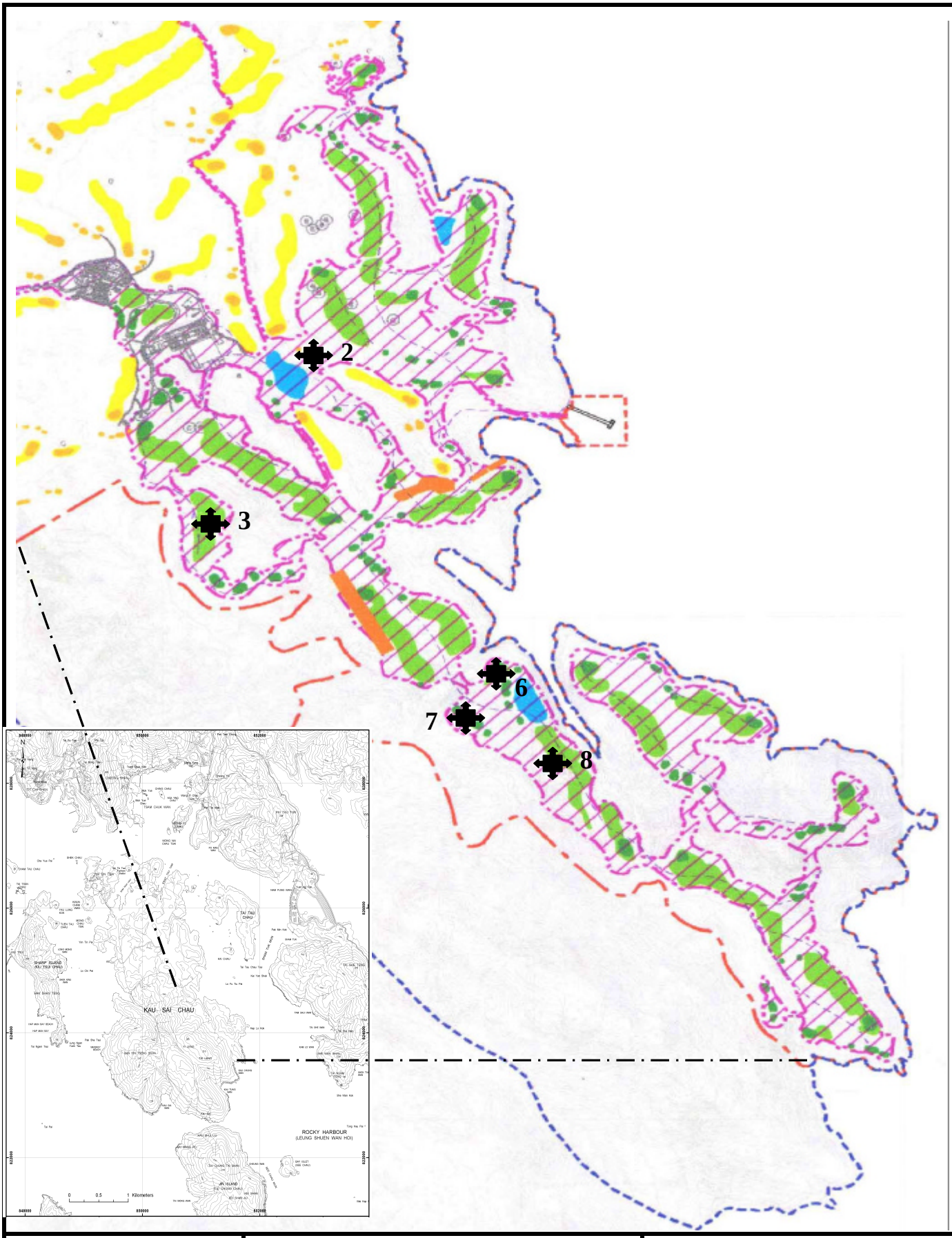
Figure 3.6
Map Showing the Extent of the Area to monitored under the Watching Brief



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Sampling location for land contamination

Fig 3.7

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Date
Jun-05