

**Contract No. HY/2011/03**

**Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road  
Section between Scenic Hill and Hong Kong Boundary Crossing  
Facilities**

**Quarterly EM&A Report No.4 (June 2013 to August 2013)**

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**Main Contractor**



**Designer**

**ATKINS**

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## Executive Summary

The Hong Kong-Zhuhai-Macao Bridge (HZMB) Hong Kong Link Road (HKLR) serves to connect the HZMB Main Bridge at the Hong Kong Special Administrative Region (HKSAR) Boundary and the HZMB Hong Kong Boundary Crossing Facilities (HKBCF) located at the north eastern waters of the Hong Kong International Airport (HKIA).

The HKLR project has been separated into two contracts. They are Contract No. HY/2011/03 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between Scenic Hill and Hong Kong Boundary Crossing Facilities (hereafter referred to as the Contract) and Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill.

China State Construction Engineering (Hong Kong) Ltd. was awarded by Highways Department as the Contractor to undertake the construction works of Contract No. HY/2011/03. The main works of the Contract include land tunnel at Scenic Hill, tunnel underneath Airport Road and Airport Express Line, reclamation and tunnel to the east coast of the Airport Island, at-grade road connecting to the HKBCF and highway works of the HKBCF within the Airport Island and in the vicinity of the HKLR reclamation. The Contract is part of the HKLR Project and HKBCF Project, these projects are considered to be "Designated Projects", under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap 499) and Environmental Impact Assessment (EIA) Reports (Register No. AEIAR-144/2009 and AEIAR-145/2009) were prepared for the Project. The current Environmental Permit (EP) EP-352/2009/C for HKLR and EP-353/2009/G for HKBCF were issued on 5 September 2013 and 6 August 2013, respectively. These documents are available through the EIA Ordinance Register. The construction phase of Contract was commenced on 17 October 2012.

BMT Asia Pacific Limited has been appointed by the Contractor to implement the Environmental Monitoring & Audit (EM&A) programme for the Contract in accordance with the Updated EM&A Manual for HKLR (Version 1.0) and will be providing environmental team services to the Contract.

This is the fourth Quarterly EM&A report for the Contract which summaries the monitoring results and audit findings of the EM&A programme during the reporting period from 1 June 2013 to 31 August 2013.

## Environmental Monitoring and Audit Progress

The EM&A programme were undertaken in accordance with the Updated EM&A Manual for HKLR (Version 1.0). A summary of the monitoring activities during this reporting period is presented as below:

Monitoring Activity		Monitoring Date		
		June 2013	July 2013	August 2013
Air Quality	1-hr TSP	3, 7, 13, 18, 24 and 28	4, 10, 16, 22 and 26	1, 7, 13, 19, 23 and 29
	24-hr TSP	6, 11, 17, 21 and 27	AMS5: 3, 11, 15, 19, 25 and 31 AMS6: 3, 10, 15, 19, 25 and 31	6, 12, 16, 22 and 28
Noise		3, 13, 18 and 28	4, 10, 16 and 22	1, 7, 13, 19 and 29
Water Quality		3, 5, 7, 10, 12, 14, 17, 19, 21, 24, 26 and 28	1, 3, 5, 8, 10, 12, 15, 17, 19, 22, 24, 26, 29 and 31	5, 7, 9, 12, 16, 19, 21, 23, 26, 28 and 30
Chinese White Dolphin		7, 13, 18 and 27	4, 11, 15 and 16	1, 7, 12 and 22
Mudflat Monitoring (Ecology)		8, 9, 10, 11, 12 and 22	-	-
Mudflat Monitoring (Sedimentation rate)		7 and 8	-	-
Site Inspection		4, 11, 18 and 28	2, 9, 16, 23 and 30	6, 13, 20 and 30

Due to adverse weather condition, the water monitoring at stations CS2, IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 was cancelled for mid-flood tide on 24 June 2013.

Due to adverse weather condition, the water monitoring at stations SR10A, SR10B and CS(Mf)5 were cancelled for mid-flood tide on 1 July 2013.

Due to adverse weather condition, the water quality monitoring at all stations were cancelled on 2 and 14 August 2013 during mid-ebb tide and mid-flood tide and at stations IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, SR3, SR4 and SR5 on 30 August 2013 during mid-ebb tide.

The 24-hr TSP monitoring results obtained at stations AMS5 and AMS6 on 9 July 2013 were considered invalid as sampling duration was greater than 24 hours. The 24-hr TSP monitoring at station AMS6 was rescheduled on 10 July 2013 for station AMS6 and 11 July 2013 for AMS5. Due to adverse weather condition, the dolphins monitoring on 23 August 2013 was cancelled and rescheduled to 22 August 2013.

### Breaches of Action and Limit Levels

A summary of environmental exceedances for this reporting period is as follows:

Environmental Monitoring	Parameters	Action Level (AL)	Limit Level (LL)
Air Quality	1-hr TSP	0	0
	24-hr TSP	0	0
Noise	L <sub>eq</sub> (30 min)	1	0
Water Quality	Suspended solids level (SS)	4	1
	Turbidity level	0	0
	Dissolved oxygen level (DO)	3	3
Dolphin Monitoring	Quarterly Analysis (June to August 2013)	2	0

The Environmental Team investigated all exceedances and found that they were not project related.

There were two Action Level exceedances of dolphin monitoring for the quarterly monitoring data (June – August 2013).

All investigation reports for exceedances of the Contract have been submitted to ENPO/IEC for comments and/or follow up to identify whether the exceedances occurred related to other HZMB contracts.

### Implementation of Mitigation Measures

Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. Potential environmental impacts due to the construction activities were monitored and reviewed.

### Complaint Log

A summary of environmental complaints for this reporting month is as follows:

Environmental Complaint No.	Date of Complaint Received	Description of Environmental Complaints
COM-2013-027	29 June 2013	Noise

#### Notifications of Summons and Prosecutions

There were no notifications of summons or prosecutions received during this reporting period.

#### Reporting Changes

This report has been developed in compliance with the reporting requirements for the quarterly summary EM&A reports as required by the Updated EM&A Manual for HKLR (Version 1.0).

The proposal for the change of Action Level and Limit Level for suspended solid and turbidity was approved by EPD on 25 March 2013.

The revised Event and Action Plan for dolphin Monitoring approved by EPD on 6 May 2013.

The original monitoring station at IS(Mf)9 (Coordinate- East 813273, North 818850) was observed inside the perimeter silt curtain on 1 July 2013, as such the original impact water quality monitoring location at IS(Mf)9 was temporarily shifted outside the silt curtain. The new co-ordinates of station IS(Mf)9 are 813226E and 818708N since 1 July 2013.

## 1 Introduction

### 1.1 Basic Project Information

- 1.1.1 The Hong Kong-Zhuhai-Macao Bridge (HZMB) Hong Kong Link Road (HKLR) serves to connect the HZMB Main Bridge at the Hong Kong Special Administrative Region (HKSAR) Boundary and the HZMB Hong Kong Boundary Crossing Facilities (HKBCF) located at the north eastern waters of the Hong Kong International Airport (HKIA).
- 1.1.2 The HKLR project has been separated into two contracts. They are Contract No. HY/2011/03 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between Scenic Hill and Hong Kong Boundary Crossing Facilities (hereafter referred to as the Contract) and Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill.
- 1.1.3 China State Construction Engineering (Hong Kong) Ltd. was awarded by Highways Department (HyD) as the Contractor to undertake the construction works of Contract No. HY/2011/03. The Contract is part of the HKLR Project and HKBCF Project, these projects are considered to be “Designated Projects”, under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap 499) and Environmental Impact Assessment (EIA) Reports (Register No. AEIAR-144/2009 and AEIAR-145/2009) were prepared for the Project. The current Environmental Permit (EP) EP-352/2009/C for HKLR and EP-353/2009/G for HKBCF were issued on 5 September 2013 and 6 August 2013, respectively. These documents are available through the EIA Ordinance Register. The construction phase of Contract was commenced on 17 October 2012. **Figure 1.1** shows the project site boundary.
- 1.1.4 BMT Asia Pacific Limited has been appointed by the Contractor to implement the EM&A programme for the Contract in accordance with the Updated EM&A Manual for HKLR (Version 1.0) for HKLR and will be providing environmental team services to the Contract. ENVIRON Hong Kong Ltd. was employed by HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO) for the Project. The project organization with regard to the environmental works is provided in **Appendix A**.
- 1.1.5 This is the Fourth Quarterly Environmental Monitoring and Audit (EM&A) report for the Contract which summaries the monitoring results and audit findings of the EM&A programme during the reporting period from 1 June 2013 to 31 August 2013.

### 1.2 Project Organisation

- 1.2.1 The project organization structure and lines of communication with respect to the on-site environmental management structure with the key personnel contact names and numbers are shown in **Appendix A**.

### 1.3 Construction Programme

- 1.3.1 A copy of the Contractor’s construction programme is provided in **Appendix B**.

### 1.4 Construction Works Undertaken During the Reporting Period

- 1.4.1 A summary of the construction activities undertaken during this reporting period is shown in **Table 1.1**. The Works areas of the Contract are showed in **Appendix C**.

**Table 1.1 Construction Activities during Reporting Period**

Site Area	Description of Activities
Portion X	<ul style="list-style-type: none"> <li>• Removal of existing rock for existing seawall</li> <li>• Stone column installation</li> <li>• Sand filling behind stone platform in according to EP requirement</li> <li>• Temporary stone platform construction</li> <li>• Band drains Installation</li> </ul>
Portion Y	<ul style="list-style-type: none"> <li>• Access shaft construction for SHT &amp; HAT</li> <li>• Utility culvert excavation</li> </ul>
West Portal	<ul style="list-style-type: none"> <li>• Site formation</li> <li>• Tree felling</li> <li>• Slope protection/ stabilization (soil nailing works)</li> <li>• Boulder removal/ stabilization works</li> </ul>
Kwo Lo Wan /Airport Road	<ul style="list-style-type: none"> <li>• Works for diversion of Airport Road and Kwo Lo Wan Road</li> </ul>
Airport Express Line	<ul style="list-style-type: none"> <li>• Pre-grouting and pipe piling works for AEL access shafts</li> </ul>
Kwo Lo Wan /Airport Road /Airport Express Line	<ul style="list-style-type: none"> <li>• Utilities detection</li> <li>• Establishment of site access</li> <li>• Works for east access shaft</li> </ul>

## 2 EM&A Requirement

### 2.1 Summary of EM&A Requirements

- 2.1.1 The EM&A programme requires environmental monitoring of air quality, noise, water quality, dolphin monitoring and mudflat monitoring as specified in the approved EM&A Manual.
- 2.1.2 A summary of Impact EM&A requirements is presented in **Table 2.1**. The locations of air quality, noise and water quality monitoring stations are shown as in **Figure 2.1**. The transect line layout in Northwest and Northeast Lantau Survey Areas is presented in **Figure 2.2**.

**Table 2.1 Summary of Impact EM&A Requirements**

Environmental Monitoring	Description	Monitoring Station	Frequencies	Remarks
Air Quality	1-hr TSP	AMS 5 & AMS 6	At least 3 times every 6 days	While the highest dust impact was expected.
	24-hr TSP		At least once every 6 days	--
Noise	$L_{eq}$ (30mins), $L_{10}$ (30mins) and $L_{90}$ (30mins)	NMS5	At least once per week	Daytime on normal weekdays (0700-1900 hrs).
Water Quality	<ul style="list-style-type: none"> <li>• Depth</li> <li>• Temperature</li> <li>• Salinity</li> <li>• Dissolved Oxygen (DO)</li> <li>• Suspended Solids (SS)</li> <li>• DO Saturation</li> <li>• Turbidity</li> <li>• pH</li> </ul>	<ul style="list-style-type: none"> <li>• Impact Stations: IS5, IS(Mf)6, IS7, IS8, IS(Mf)9 &amp; IS10,</li> <li>• Control/Far Field Stations: CS2 &amp; CS(Mf)5,</li> <li>• Sensitive Receiver Stations: SR3, SR4, SR5, SR10A &amp; SR10B</li> </ul>	Three times per week during mid-ebb and mid-flood tides (within $\pm 1.75$ hour of the predicted time)	3 (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).
Dolphin	Line-transect Methods	Northeast Lantau survey area and Northwest Lantau survey area	Twice per month	--
Mudflat	Horseshoe crabs, seagrass beds, intertidal soft shore communities, sedimentation rates and water quality	San Tau and Tung Chung Bay	Once every 3 months	--



## 2.2 Action and Limit Levels

2.2.1 **Table 2.2** presents the Action and Limit Levels for the 1-hour TSP, 24-hour TSP and noise level.

**Table 2.2 Action and Limit Levels for 1-hour TSP, 24-hour TSP and Noise**

Environmental Monitoring	Parameters	Monitoring Station	Action Level	Limit Level
Air Quality	1-hr TSP	AMS 5	352 µg/m <sup>3</sup>	500 µg/m <sup>3</sup>
		AMS 6	360 µg/m <sup>3</sup>	
	24-hr TSP	AMS 5	164 µg/m <sup>3</sup>	260 µg/m <sup>3</sup>
		AMS 6	173 µg/m <sup>3</sup>	
Noise	L <sub>eq</sub> (30 min)	NMS 5	When one documented complaint is received	75 dB(A)

2.2.2 The Action and Limit Levels for water quality monitoring are given as in **Table 2.3**.

**Table 2.3 Action and Limit Levels for Water Quality**

Parameter (unit)	Water Depth	Action Level	Limit Level
Dissolved Oxygen (mg/L)	Surface and Middle	5.0	4.2 except 5 for Fish Culture Zone
	Bottom	4.7	3.6
Turbidity (NTU)	Depth average	27.5 or 120% of upstream control station's turbidity at the same tide of the same day; The action level has been amended to "27.5 <b>and</b> 120% of upstream control station's turbidity at the same tide of the same day" since 25 March 2013.	47.0 or 130% of turbidity at the upstream control station at the same tide of same day; The limit level has been amended to "47.0 <b>and</b> 130% of turbidity at the upstream control station at the same tide of same day" since 25 March 2013.
Suspended Solid (SS) (mg/L)	Depth average	23.5 or 120% of upstream control station's SS at the same tide of the same day; The action level has been amended to "23.5 <b>and</b> 120% of upstream control station's SS at the same tide of the same day" since 25 March 2013.	34.4 or 130% of SS at the upstream control station at the same tide of same day and 10mg/L for Water Services Department Seawater Intakes; The limit level has been amended to "34.4 <b>and</b> 130% of SS at the upstream control station at the same tide of same day and 10mg/L for Water Services Department Seawater Intakes" since 25 March 2013



Notes:

- (1) Depth-averaged is calculated by taking the arithmetic means of reading of all three depths.
- (2) For DO, non-compliance of the water quality limit occurs when monitoring result is lower than the limit.
- (3) For SS & turbidity non-compliance of the water quality limits occur when monitoring result is higher than the limits.
- (4) The change to the Action and limit Levels for Water Quality Monitoring for the EM&A works was approved by EPD on 25 March 2013. Therefore, the amended Action and Limit Levels are applied for the water monitoring results obtained on and after 25 March 2013.

2.2.3 The Action and Limit Levels for dolphin monitoring are shown in **Tables 2.4 and 2.5**.

**Table 2.4 Action and Limit Level for Dolphin Impact Monitoring**

	North Lantau Social Cluster	
	NEL	NWL
Action Level	STG < 70% of baseline & ANI < 70% of baseline	STG < 70% of baseline & ANI < 70% of baseline
Limit Level	STG < 40% of baseline & ANI < 40% of baseline	

Remarks:

- (1) STG means quarterly average encounter rate of number of dolphin sightings.
- (2) ANI means quarterly average encounter rate of total number of dolphins.
- (3) For North Lantau Social Cluster, AL will be trigger if either NEL or NWL fall below the criteria; LL will be triggered if both NEL and NWL fall below the criteria.

**Table 2.5 Derived Value of Action Level (AL) and Limit Level (LL)**

	North Lantau Social Cluster	
	NEL	NWL
Action Level	STG < 4.2 & ANI < 15.5	STG < 6.9 & ANI < 31.3
Limit Level	(STG < 2.4 & ANI < 8.9) and (STG < 3.9 & ANI < 17.9)	

Remarks:

- (1) STG means quarterly average encounter rate of number of dolphin sightings.
- (2) ANI means quarterly average encounter rate of total number of dolphins.
- (3) For North Lantau Social Cluster, AL will be trigger if either NEL or NWL fall below the criteria; LL will be triggered if both NEL and NWL fall below the criteria.

## 2.3 Event Action Plans

2.3.1 The Event Actions Plans for air quality, noise, water quality and dolphin monitoring are annexed in **Appendix D**.

## 2.4 Mitigation Measures

2.4.1 Environmental mitigation measures for the contract were recommended in the approved EIA Report. **Appendix E** lists the recommended mitigation measures and the implementation status.

### 3 Environmental Monitoring and Audit

#### 3.1 Implementation of Environmental Measures

- 3.1.1 In response to the site audit findings, the Contractors carried out corrective actions. Details of site audit findings and the corrective actions during the reporting period are presented in **Appendix F**.
- 3.1.2 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in **Appendix E**.
- 3.1.3 Regular marine travel route for marine vessels were implemented properly in accordance to the submitted plan and relevant records were kept properly.
- 3.1.4 Dolphin Watching Plan was implemented during the reporting period. No dolphins were observed. The relevant records were kept properly.
- 3.1.5 A dolphin exclusion zone of 250m was implemented during the maintenance of silt curtains on 14, 15, 17, 18 and 19 June 2013 and 16 and 17 August 2013. No dolphins were observed. The relevant records were kept properly.

#### 3.2 Air Quality Monitoring Results

- 3.2.1 The monitoring results for 1-hour TSP and 24-hour TSP are summarized in **Tables 3.1** and **3.2** respectively. Detailed impact air quality monitoring results and relevant graphical plots are presented in **Appendix G**.

**Table 3.1 Summary of 1-hour TSP Monitoring Results During the Reporting Period**

Reporting Period	Monitoring Station	Average ( $\mu\text{g}/\text{m}^3$ )	Range ( $\mu\text{g}/\text{m}^3$ )	Action Level ( $\mu\text{g}/\text{m}^3$ )	Limit Level ( $\mu\text{g}/\text{m}^3$ )
June 2013	AMS5	22	4 – 51	352	500
	AMS6	19	6 – 42	360	
July 2013	AMS5	11	5 – 21	352	
	AMS6	11	7 – 15	360	
August 2013	AMS5	17	6 – 40	352	
	AMS6	18	9 – 29	360	

**Table 3.2 Summary of 24-hour TSP Monitoring Results During the Reporting Period**

Reporting Period	Monitoring Station	Average ( $\mu\text{g}/\text{m}^3$ )	Range ( $\mu\text{g}/\text{m}^3$ )	Action Level ( $\mu\text{g}/\text{m}^3$ )	Limit Level ( $\mu\text{g}/\text{m}^3$ )
June 2013	AMS5	20	7 – 31	164	260
	AMS6	22	14 – 31	173	
July 2013	AMS5	12	5 – 26	164	
	AMS6	17	10 – 35	173	
August 2013	AMS5	34	10 – 47	164	
	AMS6	35	10 – 62	173	

### 3.3 Noise Monitoring Results

3.3.1 The monitoring results for construction noise are summarized in **Table 3.3** and the monitoring results and relevant graphical plots for this reporting period are provided in **Appendix H**.

**Table 3.3 Summary of Construction Noise Monitoring Results During the Reporting Period**

Reporting period	Monitoring Station	Average $L_{\text{eq}}$ (30 mins), dB(A)*	Range of $L_{\text{eq}}$ (30 mins), dB(A)*	Action Level	Limit Level $L_{\text{eq}}$ (30 mins), dB(A)
June 2013	NMS5	66	68 – 72	When one documented complaint is received	75
July 2013		58	57 – 60		
August 2013		59	58 – 61		

\*+3dB(A) Facade correction included

- 3.3.2 There was one Action Level exceedances for noise during daytime on normal weekdays.
- 3.3.3 A complaint was received on 29 June 2013 regarding noise generated from the works area near the site office (WA6) around 10:00 hrs on 29 June 2013. According to the site diary provided by the Contractor, electric circular saw was used to cut plastic tubes for maintenance work at the works area near the site office (Work area WA6) from 09:45 to 10:15 hrs of 29 June 2013. A site inspection was undertaken on 2 July 2013, no construction works was undertaken at work area near the site office (Work area WA6). No significant noise was generated from the site. As the electric circular saw was used for maintenance work and there was no significant noise generated from the site, the complaint was considered invalid.
- 3.3.4 No Limit Level exceedances were recorded during the reporting period.
- 3.3.5 Major noise sources during the noise monitoring included construction activities of the Contract and nearby traffic noise.

### 3.4 Water Quality Monitoring Results

- 3.4.1 Impact water quality monitoring was conducted at all designated monitoring stations during the reporting period. Impact water quality monitoring results and relevant graphical plots are provided in **Appendix I**.
- 3.4.2 Water quality impact sources during the water quality monitoring were the construction activities of the Contract, nearby construction activities by other parties and nearby operating vessels by other parties.

## 3.5 Dolphin Monitoring Results

### Data Analysis

- 3.5.1 Distribution Analysis – The line-transect survey data was integrated with the Geographic Information System (GIS) in order to visualize and interpret different spatial and temporal patterns of dolphin distribution using sighting positions. Location data of dolphin groups were plotted on map layers of Hong Kong using a desktop GIS (ArcView© 3.1) to examine their distribution patterns in details. The dataset was also stratified into different subsets to examine distribution patterns of dolphin groups with different categories of group sizes, young calves and activities.
- 3.5.2 Encounter rate analysis – Encounter rates of Chinese White Dolphins (number of on-effort sightings per 100 km of survey effort, and total number of dolphins sighted on-effort per 100 km of survey effort) were calculated in NEL and NWL survey areas in relation to the amount of survey effort conducted during each month of monitoring survey. Dolphin encounter rates were calculated in two ways for comparisons with the HZMB baseline monitoring results as well as to AFCD long-term marine mammal monitoring results.
- 3.5.3 Firstly, for the comparison with the HZMB baseline monitoring results, the encounter rates were calculated using primary survey effort alone, and only data collected under Beaufort 3 or below condition would be used for encounter rate analysis. The average encounter rate of sightings (STG) and average encounter rate of dolphins (ANI) were deduced based on the encounter rates from six events during the present quarter (i.e. six sets of line-transect surveys in North Lantau), which was also compared with the one deduced from the six events during the baseline period (i.e. six sets of line-transect surveys in North Lantau).
- 3.5.4 Secondly, the encounter rates were calculated using both primary and secondary survey effort collected under Beaufort 3 or below condition as in AFCD long-term monitoring study. The encounter rate of sightings and dolphins were deduced by dividing the total number of on-effort sightings (STG) and total number of dolphins (ANI) by the amount of survey effort for the entire quarterly period (June - August 2013).
- 3.5.5 Quantitative grid analysis on habitat use – To conduct quantitative grid analysis of habitat use, positions of on-effort sightings of Chinese White Dolphins collected during the quarterly impact phase monitoring period were plotted onto 1-km<sup>2</sup> grids among Northwest Lantau (NWL) and Northeast (NEL) survey areas on GIS. Sighting densities (number of on-effort sightings per km<sup>2</sup>) and dolphin densities (total number of dolphins from on-effort sightings per km<sup>2</sup>) were then calculated for each 1 km by 1 km grid with the aid of GIS. Sighting density grids and dolphin density grids were then further normalized with the amount of survey effort conducted within each grid. The total amount of survey effort spent on each grid was calculated by examining the survey coverage on each line-transect survey to determine how many times the grid was surveyed during the study period. For example, when the survey boat traversed through a specific grid 50 times, 50 units of survey effort were counted for that grid. With the amount of survey effort calculated for each grid, the sighting density and dolphin density of each grid were then normalized (i.e. divided by the unit of survey effort).
- 3.5.6 The newly-derived unit for sighting density was termed SPSE, representing the number of on-effort sightings per 100 units of survey effort. In addition, the derived unit for actual dolphin density was termed DPSE, representing the number of dolphins per 100 units of survey effort. Among the 1-km<sup>2</sup> grids that were partially covered by land, the percentage of

sea area was calculated using GIS tools, and their SPSE and DPSE values were adjusted accordingly. The following formulae were used to estimate SPSE and DPSE in each 1-km<sup>2</sup> grid within the study area:

$$SPSE = ((S / E) \times 100) / SA\%$$

$$DPSE = ((D / E) \times 100) / SA\%$$

where S = total number of on-effort sightings  
D = total number of dolphins from on-effort sightings  
E = total number of units of survey effort  
SA% = percentage of sea area

- 3.5.7 Behavioural analysis – When dolphins were sighted during vessel surveys, their behaviour was observed. Different activities were categorized (i.e. feeding, milling/resting, traveling, socializing) and recorded on sighting datasheets. This data was then input into a separate database with sighting information, which can be used to determine the distribution of behavioural data with a desktop GIS. Distribution of sightings of dolphins engaged in different activities and behaviours would then be plotted on GIS and carefully examined to identify important areas for different activities of the dolphins.
- 3.5.8 Ranging pattern analysis – Location data of individual dolphins that occurred during the 3-month baseline monitoring period were obtained from the dolphin sighting database and photo-identification catalogue. To deduce home ranges for individual dolphins using the fixed kernel methods, the program Animal Movement Analyst Extension, was loaded as an extension with ArcView© 3.1 along with another extension Spatial Analyst 2.0. Using the fixed kernel method, the program calculated kernel density estimates based on all sighting positions, and provided an active interface to display kernel density plots. The kernel estimator then calculated and displayed the overall ranging area at 95% UD level.

#### Summary of Survey Effort and Dolphin Sightings

- 3.5.9 During the reporting period, six sets of systematic line-transect vessel surveys were conducted to cover all transect lines in NWL and NEL survey areas twice per month.
- 3.5.10 From these surveys, a total of 886.72 km of survey effort was collected, with 92.1% of the total survey effort being conducted under favourable weather conditions (i.e. Beaufort Sea State 3 or below with good visibility). Among the two areas, 345.76 km and 540.96 km of survey effort were conducted in NEL and NWL survey areas respectively. In addition, the total survey effort conducted on primary lines was 651.95 km, while the effort on secondary lines was 234.77 km. Survey effort conducted on primary and secondary lines were both considered as on-effort survey data. Summary table of the survey effort is shown in **Annex I of Appendix J**.
- 3.5.11 During the six sets of monitoring surveys in June to August 2013, a total of 45 groups of 154 Chinese White Dolphins were sighted. All except three sightings were made during on-effort search. Twenty-nine on-effort sightings were made on primary lines, while another thirteen on-effort sightings were made on secondary lines. 5 groups of 13 dolphins were sighted in NEL, while the other 40 groups of 141 dolphins were sighted in NWL. Summary table of the dolphin sightings is shown in **Annex II of Appendix J**.

#### Distribution

- 3.5.12 Distribution of dolphin sightings made during monitoring surveys in June July and August 2013 was shown in **Figure 1 of Appendix J**. The majority of sightings were concentrated in the northwestern portion of North Lantau region, especially around Lung Kwu Chau, Sha Chau and Black Point. Several sightings were made near Shum Wat, to the north of the airport and near Pillar Point. The sightings made in NEL were scattered along the north shore of Lantau, particularly near Yam O. Only one sighting was made in the vicinity of the Brothers Islands.

- 3.5.13 No dolphin was sighted in the vicinity of the HKLR03 reclamation site (**Figure 1 of Appendix J**). Two sightings were made within a few kilometres of the HKBCF reclamation site (one near Siu Ho Wan and another to the north of Tai Mo To), adjacent to the future Tuen Mun-Chek Lap Kok Link (TM-CLKL) alignment. On the other hand, five sightings were made along and near the HKLR09 alignment to the west of the airport platform.
- 3.5.14 When compared with the sighting distribution of dolphins during baseline monitoring surveys in September to November 2011, dolphins rarely occurred in NEL region during the present impact monitoring period, in contrast with their frequent occurrence around the Brothers Islands and HKBCF reclamation site during the baseline period (**Figure 1 of Appendix J**). The low occurrence of dolphins around the Brothers Islands and Shum Shui Kok in the present quarter was similar to the previous quarter, and should be a concern as the future marine park will be established in this region as a compensation measure for the habitat loss resulted from the HKBCF and HKLR reclamation works.
- 3.5.15 On the other hand, dolphin occurrence in the western portion of North Lantau region was similar between the two periods (**Figure 1 of Appendix J**).

#### Encounter Rate

- 3.5.16 For the three-month study period in June, July and August 2013, the encounter rates of Chinese White Dolphins deduced from the survey effort and on-effort sighting data from the primary transect lines under favourable conditions (Beaufort 3 or below) from each of the survey areas are shown in **Table 3.4**. The average encounter rates deduced from the six sets of surveys were also compared with the ones deduced from the baseline monitoring period in September to November 2011 (See **Table 3.5**).

**Table 3.4 Dolphin Encounter Rates (Sightings Per 100 km of Survey Effort) During three Reporting Period (June 2013 – August 2013)**

Survey Area	Dolphin Monitoring	Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)	Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)
		Primary Lines Only	Primary Lines Only
Northeast Lantau	Set 1 (7 & 13 Jun 2013)	2.60	20.83
	Set 2 (18 & 27 Jun 2013)	0.00	0.00
	Set 3 (4 & 11 Jul 2013)	2.65	2.65
	Set 4 (15 & 16 Jul 2013)	0.00	0.00
	Set 5 (1 & 17 Aug 2013)	0.00	0.00
	Set 6 (12 & 22 Aug 2013)	0.00	0.00
Northwest Lantau	Set 1 (7 & 13 Jun 2013)	5.87	29.33
	Set 2 (18 & 27 Jun 2013)	5.67	17.01
	Set 3 (4 & 11 Jul 2013)	11.58	57.92
	Set 4 (15 & 16 Jul 2013)	4.55	12.12
	Set 5 (1 & 7 Aug 2013)	1.62	8.08
	Set 6 (12 & 22 Aug 2013)	10.10	37.52



**Table 3.5 Comparison of Average Dolphin Encounter Rates between Reporting Period (Jun 2013 – Aug 2013) and Baseline Monitoring Period (Sep– Nov 2011) (Note: the encounter rates deduced from the baseline monitoring period have been recalculated based only on the survey effort and on-effort sighting data made along the primary transect lines under favourable conditions)**

Survey Area	Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)		Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)	
	Reporting Period	Baseline Monitoring Period	Reporting Period	Baseline Monitoring Period
Northeast Lantau	0.88 ± 1.36	6.00 ± 5.05	3.91 ± 8.36	22.19 ± 26.81
Northwest Lantau	6.56 ± 3.68	9.85 ± 5.85	27.00 ± 18.71	44.66 ± 29.85

- 3.5.17 In NEL, the average dolphin encounter rates (both STG and ANI) in the present three-month study period were much lower (reductions of 85% and 82% respectively) than the ones recorded in the 3-month baseline period (Table 3.5). In fact, dolphin occurrence in NEL in the present and previous quarters have been exceptionally low, and therefore the historical data in the past few years were also examined to elucidate the cause of such dramatic decline in dolphin encounter rates in this area.
- 3.5.18 Using only the survey effort and on-effort sighting data collected on primary lines, the encounter rates deduced from the advanced HZMB monitoring data in summer 2011 (June-August) were 8.6 (STG) and 29.0 (ANI) respectively. By pooling the survey effort and on-effort dolphin sightings from both HZMB and AFCD monitoring data for the same period, the encounter rates in summer 2011 were 5.8 (STG) and 17.5 (ANI). On the other hand, the encounter rates deduced from AFCD monitoring data in summer 2012 (June-August) were 2.4 (STG) and 6.5 (ANI), which were less than 50% of the encounter rates in summer 2011. As a comparison, the encounter rates deduced in the present quarter in summer 2013 further dropped to the 0.9 (STG) and 3.9 (ANI).
- 3.5.19 For the summer months (i.e. June through August), it appeared the decline in dolphin encounter rates in NEL began in 2012, and further worsened in 2013. The sharp decline in dolphin usage in NEL is of serious concern, and should be continuously monitored in the upcoming quarter to determine whether similar decline also occurred in autumn months.
- 3.5.20 In NWL, the average dolphin encounter rates (STG and ANI) during the present impact phase monitoring period were also noticeably lower ((reductions of 33% and 39% respectively) than the ones recorded in the 3-month baseline period, indicating a reduced dolphin encounter rates of this survey area. The percentages of reduction in dolphin encounter rates were also similar to the previous quarter (i.e. spring 2013).
- 3.5.21 In examining the historical data in summer months of 2011 and 2012, dolphin encounter rates in NWL deduced from the advanced HZMB monitoring data in 2011 were 11.9 (STG) and 44.5 (ANI) respectively. By pooling the survey effort and on-effort dolphin sightings from both HZMB and AFCD monitoring data for the same period, the encounter rates in summer 2011 were 10.2 (STG) and 37.6 (ANI). On the other hand, the encounter rates in NWL deduced from AFCD monitoring data in summer 2012 were 8.5 (STG) and 26.1 (ANI). In comparison, the encounter rates deduced in summer 2013 was 6.6 (STG) and 27.0 (ANI).
- 3.5.22 Although the decline in dolphin encounter rates in NWL for the summer months of 2011-13 was not as dramatic as the one in NEL, dolphins appeared to diminish their usage of this area in

recent years as well. Such decline should be continuously monitored in the upcoming quarters.

- 3.5.23 A two-way ANOVA with repeated measures and unequal sample size was conducted to examine whether there were any significant differences in the average encounter rates between the baseline and impact monitoring periods. The two variables that were examined included the two periods (baseline and impact phases) and two locations (NEL and NWL).
- 3.5.24 For the comparison between the baseline period and the present quarter (fourth quarter of the impact phase), the p-value for the differences in average dolphin encounter rates of STG and ANI were 0.0611 and 0.1508 respectively. If the alpha value is set at 0.1, significant difference was detected between the baseline and present quarters in the encounter rate of STG, but not the encounter rate of ANI.
- 3.5.25 For the comparison between the baseline period and the cumulative quarters in impact phase (i.e. first four quarters of the impact phase), the p-value for the differences in average dolphin encounter rates of STG and ANI were 0.0559 and 0.0244 respectively. If the alpha value is set at 0.1, significant differences were detected in both the average dolphin encounter rates of STG and ANI (i.e. between the two periods and the locations).
- 3.5.26 To facilitate the comparison with the AFCD long-term monitoring results, the encounter rates were also calculated for the present quarter using both primary and secondary survey effort. The encounter rates of sightings (STG) and dolphins (ANI) in NWL were 7.14 sightings and 25.82 dolphins per 100 km of survey effort respectively, while the encounter rates of sightings (STG) and dolphins (ANI) in NEL were 1.47 sightings and 3.82 dolphins per 100 km of survey effort respectively.

#### Group Size

- 3.5.27 Group size of Chinese White Dolphins ranged from 1- 11 individuals per group in North Lantau region during June to August 2013. The average dolphin group sizes from these three months were compared with the one deduced from the baseline period in September to November 2011, as shown in **Table 3.6**.

**Table 3.6 Comparison of Average Dolphin Group Sizes between Reporting Period (June 2013 to August 2013) and Baseline Monitoring Period (Sep– Nov 2011)**

	Average Dolphin Group Size	
	Reporting Period	Baseline Monitoring Period
Overall	3.42 ± 2.43 (n = 45)	3.72 ± 3.13 (n = 66)
Northeast Lantau	2.60 ± 3.05 (n = 5)	3.18 ± 2.16 (n = 17)
Northwest Lantau	3.53 ± 2.36 (n = 40)	3.92 ± 3.40 (n = 49)

- 3.5.28 The average dolphin group size in the entire North Lantau region as well as in NEL and NWL during June to August 2013 was slightly lower than the ones recorded in the 3-month baseline period (**Table 3.6**).
- 3.5.29 Distribution of dolphins with larger group sizes during June to August 2013 is shown in **Figure 2 of Appendix J**, and was compared with the one in baseline period (**Figure 2 of Appendix J**). Overall, most of the larger dolphin groups were concentrated within the Sha Chau and Lung Kwu Chau Marine Park area during the present quarter, which is similar to the distribution in baseline period (**Figure 2 of Appendix J**). Only one of the five groups in sighted in NEL was classified as a larger dolphin group, which was located to the eastern end of the survey area near Yam O. In the vicinity of the HKLR03 reclamation sites, no larger dolphin group was found there.



### Habitat Use

- 3.5.30 From June - August 2013, the most heavily utilized habitats by Chinese White Dolphins mainly concentrated within and adjacent to the Sha Chau and Lung Kwu Chau Marine Park, as well as the Urmston Road section between Pillar Point and Lung Kwu Chau (**Figures 3a and 3b of Appendix J**). Only few grids in NEL recorded the presence of dolphins, and except Grid W14, most of these grids only recorded low density. None of the grids around HKLR03 work site recorded the presence of dolphins.
- 3.5.31 It should be noted that the amount of survey effort collected in each grid during the three-month period was fairly low (6-12 units of survey effort for most grids), and therefore the habitat use pattern derived from the three-month dataset should be treated with caution. A more complete picture of dolphin habitat use pattern will be presented when more survey effort for each grid will be collected throughout the impact phase monitoring programme.
- 3.5.32 When compared with the habitat use patterns during the baseline period, dolphins usage in NEL was noticeably much lower in the present impact monitoring period (**Figure 4 of Appendix J**). In fact, during this quarter of summer 2013, dolphins were mostly absent from the important dolphin habitats around the Brothers and near Shum Shui Kok that were identified during the baseline period and in previous studies (e.g. Hung 2008). From the same comparison between the two quarterly periods, it appears that dolphins have avoided the construction sites of HKLR03 in the present monitoring period, similar to what was recorded during the baseline monitoring. (**Figure 4 of Appendix J**).
- 3.5.33 The absence of dolphins in the identified important habitats around the Brothers Islands and Shum Shui Kok in the present and previous quarter is of serious concern. The future Brothers Islands Marine Park will be established in this area upon the completion of HKBCF reclamation works, as an important compensation measure for the habitat loss in relation to HZMB projects. It should be further examined whether the very low usage of dolphins would continue in this important dolphin habitat, and the potential measures should be implemented soon that may enhance the dolphin usage of this area.

### Mother-calf Pairs

- 3.5.34 During the three-month study period, a total of three unspotted calves (UC) and ten unspotted juveniles (UJ) were sighted in NEL and NWL survey areas. These young calves comprised 8.4% of all animals sighted, which was slightly higher than the percentage recorded during the baseline monitoring period (6.8%).
- 3.5.35 These young calves mainly occurred around Lung Kwu Chau and Black Point, which was somewhat similar to the distribution of young calves during the baseline period (**Figure 5 of Appendix J**). Notably, young calves appeared to avoid the HKLR03 reclamation sites during the present quarter, similar to what was recorded during the baseline monitoring.

### Activities and Associations with Fishing Boats

- 3.5.36 A total of four dolphin sightings were associated with feeding and socializing activities during the three-month study period. The percentages of feeding and socializing activities comprised of 6.7% and 2.2% of the total number of dolphin sightings respectively, which were much lower than the percentages recorded during the baseline period (feeding activity: 11.6%; socializing activity: 5.4%). Only one group of dolphins was engaged in traveling activity.
- 3.5.37 Distribution of dolphins engaged in different activities during the three-month study period is shown in (**Figure 6 of Appendix J**). The feeding activities occurred near Lung Kwu Chau and Shum Wat (along the HKLR alignment), while the lone sighting with socializing activity was located near Sha Chau. On the other hand, one group of six dolphins was engaged in traveling activity near the Castle Peak Power Station.
- 3.5.38 During the three-month period, none of the 45 dolphin groups was found to be associated with an operating fishing vessel. The extremely low level of fishing boat association in the present

and previous quarters was likely related to the recent trawl ban being implemented in 2013 in Hong Kong waters.

### Photo-identification and Individual Range Use

- 3.5.39 From June to August 2013, over 2,500 digital photographs of Chinese White Dolphins were taken during the impact phase monitoring surveys for the photo-identification work.
- 3.5.40 In total, 44 individuals sighted 71 times altogether were identified (see summary table in **Annex III** and photographs of identified individuals in **Annex IV of Appendix J**). Only nine of these 71 re-sightings were made in NEL, which involved six individuals. These were the same individuals that were repeatedly sighted before in NEL during the HKLR03 impact phase monitoring surveys.
- 3.5.41 Most identified individuals were sighted only once or twice during the three-month period, with the exception of five individuals being sighted thrice (CH98, NL24, NL33, NL202, NL286) and one individual being sighted four times (NL284).
- 3.5.42 Five well-recognized females, including NL33, NL104, NL123, NL202 and WL98, were accompanied with their calves during their re-sightings. Except WL98, the other four mothers were frequently seen with their calves during HKLR03 impact phase monitoring surveys.
- 3.5.43 Ranging patterns of the 44 individuals identified during the three-month study period were determined by fixed kernel method, and are shown in **Annex V of Appendix J**.
- 3.5.44 Only six individuals were sighted in the NEL survey area while other individuals were mostly found in the NWL survey area during this quarterly period. In contrast to the extensive movements between NEL and NWL survey areas in the first two impact monitoring quarters (October 2012 - February 2013) and the baseline period (September-November 2011), many of these identified individuals have avoided NEL during June-August 2013, even though they were frequently sighted there in the past decade, and their core areas were centered around the Brothers Islands (e.g. NL98, NL120, NL261) (Hung 2013) (**Annex V of Appendix J**).
- 3.5.45 To examine whether any range use of individual dolphins has shifted away from NEL since the commencement of the HKLR03 construction works, the re-sighting locations of 21 individuals that centered their core area use around the Brothers Islands were examined from the past four quarters, and were compared to the locations of their previous re-sightings since 2002 extracted from the HKCRP long-term photo-identification catalogue (see Hung 2013).
- 3.5.46 Among these 21 individuals, seven individuals were re-sighted repeatedly in NWL, but were not sighted in NEL at all in the past 12 months, even though they have centered their core area use around the Brothers Islands in the past (see examples in **Figure 7 of Appendix J**). Moreover, seven other individuals were sighted once or twice in NEL in the past 12 months (see examples in **Figure 8 of Appendix J**), but the majority of them were sighted there in autumn 2012 and winter 2012/13 and were absent in spring and summer 2013. Notably, a few of these individuals also expanded their range use to West Lantau (e.g. CH34, NL104, NL188).
- 3.5.47 On the contrary, five individuals were sighted repeatedly (7-10 times) in NEL throughout the four quarters, and two of them (NL33 and NL123) occurred there with their calves (see examples in **Figure 9 of Appendix J**). However, these individuals also ranged frequently to NWL and WL during the same period, even though they rarely occurred in West Lantau in the past decade. For example, EL01 was sighted near Fan Lau, while NL120 was sighted near Peaked Hill in recent months. Although they have not avoided the Brothers Islands for their range use, there is also indication that they have recently expanded their range use.
- 3.5.48 It is apparent that the majority of individual dolphins that utilized NEL waters in the past decade has either diminished or avoided this area for their recent range use. This coincided well with the dramatic decline in dolphin occurrence in NEL as discussed in **Sections 3.5.16 to 3.5.26**. Although these individuals appeared to utilize NWL and even WL more frequently during the same period, the dolphin encounter rates in NWL also continued to fall in recent months,

indicating that some dolphins may have diminished their overall usage in the North Lantau region, possibly linked to the HZMB-related construction works. This is of serious concern, as the Brothers Islands in NEL was once identified an important habitat for many year-round residents that focused their core area use there (Hung 2008). Therefore, the ranging pattern of individual dolphins should be continuously monitored around Lantau waters, and measures should be taken to ensure that dolphins can continue to move between NWL and NEL without any hindrance as a result of the HZMB-related construction works.

#### Action Level / Limit Level Exceedance

- 3.5.49 There were two Action Level exceedances of dolphin monitoring for the quarterly monitoring data (June – August 2013). According to the contractor's information, the marine activities undertaken for HKLR03 during the two quarterly periods (March to May 2013 and June to August 2013) included stone platform construction, reclamation, stone column installation, band drain installation and excavation of stone platform. During the quarterly period of June to August 2013, geotextile laying activities were also carried out. There is no evidence showing the current AL non-compliance directly related to the construction works of HKLR03. It should also be noted that reclamation work under HKLR03 (adjoining the Airport Island) situates in waters which has rarely been used by dolphins in the past, and the working vessels under HKLR03 have been travelling from source to destination in accordance with the Marine Travel Route to minimize impacts on Chinese White Dolphin. In addition, the contractor will implement proactive mitigation measures such as avoiding anchoring at Marine Department's designated anchorage site – Sham Shui Kok Anchorage (near Brothers Island) as far as practicable.
- 3.5.50 A two-way ANOVA with repeated measures and unequal sample size was conducted to examine whether there were any significant differences in the average encounter rates between the baseline and impact monitoring periods. The two variables that were examined included the two periods (baseline and impact phases) and two locations (NEL and NWL).
- 3.5.51 For the comparison between the baseline period and the present quarter (fourth quarter of the impact phase), the p-value for the differences in average dolphin encounter rates of STG and ANI were 0.0611 and 0.1508 respectively. If the alpha value is set at 0.1 (due to the small sample size with lower statistical power in the analysis), significant difference was detected between the baseline and present quarters in the average dolphin encounter rate of STG, but not in the average dolphin encounter rate of ANI.
- 3.5.52 For the comparison between the baseline period and the cumulative quarters in impact phase (i.e. first four quarters of the impact phase), the p-value for the differences in average dolphin encounter rates of STG and ANI were 0.0559 and 0.0244 respectively. If the alpha value is set at 0.1, significant difference was detected in both the average dolphin encounter rates of STG and ANI (i.e. between the two periods and the locations).
- 3.5.53 The AFCD monitoring data during June-August 2013 has been reviewed by the dolphin specialist, and only one group of six dolphins were sighted from 126.03 km of survey effort on primary lines in NEL during the same quarter. This review has confirmed that the very low occurrence of dolphins reported by the HKLR03 monitoring survey in summer 2013 in NEL is accurate.
- 3.5.54 All dolphin protective measures are fully and properly implemented in accordance with the EM&A Manual. In order to minimise disturbance to the Brother's Island, the Contractor provide training to skippers to ensure that their working vessels travel from source to destination to minimize impacts on Chinese White Dolphin and avoid anchoring at Marine Department's designated anchorage site - Sham Shui Kok Anchorage (near Brothers Island) as far as practicable.

## 3.6 Mudflat Monitoring Results

### Sedimentation Rate Monitoring

- 3.6.1 The baseline sedimentation rate monitoring was in September 2012 and impact sedimentation rate monitoring was undertaken on 7 and 8 June 2013. The mudflat surface levels at the four established monitoring stations and the corresponding XYZ HK1980 GRID coordinates are presented in **Table 3.7** and **Table 3.8**.

**Table 3.7 Measured Mudflat Surface Level Results**

Monitoring Station	Baseline Monitoring (September 2012)			Impact Monitoring (June 2013)		
	Easting (m)	Northing (m)	Surface Level (mPD)	Easting (m)	Northing (m)	Surface Level (mPD)
S1	810291.160	816678.727	0.950	810291.159	816678.728	1.029
S2	810958.272	815831.531	0.864	810958.244	815831.531	0.970
S3	810716.585	815953.308	1.341	810716.579	815953.323	1.423
S4	811221.433	816151.381	0.931	811221.447	816151.404	0.989

**Table 3.8 Comparison of measurement**

Monitoring Station	Comparison of measurement			Remarks and Recommendation
	Easting (m)	Northing (m)	Surface Level (mPD)	
S1	0.000	0.001	0.079	Level continuously increased
S2	-0.028	-0.001	0.106	Within tolerance, no significant change
S3	-0.007	0.015	0.082	Within tolerance, no significant change
S4	0.014	0.022	0.058	Within tolerance, no significant change

- 3.6.2 The measurement results for S2, S3 and S4 showed that the level has increased within tolerance and their sea bed depth would not be considered as significant change. For S1, the mudflat level has been continuously increased. The increased surface level for S1, S2, S3 and S4 is 0.079, 0.106, 0.082 and 0.058 mPD when compared to the baseline monitoring results.

#### Water Quality Monitoring

- 3.6.3 The mudflat monitoring covered water quality monitoring data. Reference was made to the water quality monitoring data of the representative water quality monitoring station (i.e. SR3) as in the EM&A Manual. The water quality monitoring location (SR3) is shown in **Figure 2.1**.
- 3.6.4 Impact water quality monitoring in San Tau (monitoring station SR3) was conducted in June 2013. The monitoring parameters included dissolved oxygen (DO), turbidity and suspended solids (SS).
- 3.6.5 Due to adverse weather condition, the water monitoring for mid-flood tide at station SR3 was cancelled on 24 June 2013. The Impact monitoring results for SR3 were extracted and summarised below:

**Table 3.9 Impact Water Quality Monitoring Results (Depth Average)**

Date	Mid Ebb Tide	Mid Flood Tide
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	DO (mg/L)	Turbidity (NTU)	SS (mg/L)	DO (mg/L)	Turbidity (NTU)	SS (mg/L)
03-Jun-13	10.3	4.7	8.5	10.3	2.1	4.5
05-Jun-13	7.8	3.5	2.1	7.3	4.6	4.5
07-Jun-13	6.4	2.1	2.9	5.9	4.0	4.1
10-Jun-13	6.9	2.8	2.2	7.0	2.1	1.2
12-Jun-13	5.6	3.6	1.6	5.5	2.5	1.2
14-Jun-13	5.1	6.3	3.1	5.1	2.2	1.7
17-Jun-13	6.9	3.6	3.5	6.7	4.2	7.5
19-Jun-13	7.2	2.1	2.3	9.4	2.2	5.3
21-Jun-13	9.9	5.8	9.4	10.4	7.9	11.2
24-Jun-13	6.7	18.7	16.8	N.A	N.A	N.A
26-Jun-13	6.1	6.4	8.1	6.0	5.2	4.7
28-Jun-13	6.7	4.4	6.5	6.0	5.2	4.7
<b>Average</b>	<b>7.1</b>	<b>5.3</b>	<b>5.6</b>	<b>7.2</b>	<b>3.8</b>	<b>4.6</b>

## Mudflat Ecology Monitoring

### Sampling Zone

3.6.6 There are two survey areas specified under the updated EM&A Manual for the Contract, namely Tung Chung Bay and San Tau. Tung Chung Bay survey area is divided into three sampling zones (TC1, TC2 and TC3) and there is one sampling zone at San Tau (ST). Survey of horseshoe crabs, seagrass beds and intertidal communities were conducted in each sampling zone. The locations of sampling zones are shown in **Annex I of Appendix O**.

### Horseshoe Crabs

3.6.7 An active search method was adopted for horseshoe crab survey at each sampling zone. The survey was undertaken by 2 specialists at each sampling zone. During the search period, any accessible and potential area would be investigated for any horseshoe crab individuals within 2-3 hours in low tide period (tidal level below 1.2 m above Chart Datum (C.D.)). Once a horseshoe crab was found, the species, size and inhabiting substrate, photographic record and respective GPS coordinate were recorded with reference to Li (2008). The horseshoe crab surveys were conducted on 11<sup>th</sup> (for zones TC1 and TC2) and 10<sup>th</sup> (for zones TC3 and ST) June 2013 with hot and cloudy weather with intermittent raining.

### Seagrass Beds

3.6.8 An active search method was adopted for seagrass bed survey at each sampling zone. The survey was undertaken by 2 specialists each spending within 2-3 hours in low tide period. Once seagrass bed was observed, the species, the estimated area (m<sup>2</sup>), photographic record and respective GPS coordinate were recorded. The seagrass bed surveys were conducted on 11<sup>th</sup> (for zones TC1 and TC2) and 10<sup>th</sup> (for zones TC3 and ST) June 2013 with hot and cloudy weather with intermittent raining.

### Intertidal Soft Shore Communities

3.6.9 The sandy shore of San Tau and Tung Chung Bay from the uppermost part of the shore and to the water edge was divided into three tidal zones – upper, middle and lower zones, at each sampling zone, TC1, TC2, TC3 and ST. A 100m transect was laid in each of the three tidal zones for fauna sampling.



- 3.6.10 At each sampling zone, three 100m horizontal transects were laid at 2.0m, 1.5m and 1.0m above C.D. Along each transect, ten random quadrats (0.5 m x 0.5m) were placed. In each quadrat, the epifauna and infauna (within the top 5cm sediment) in each quadrat were identified and their numbers/coverage percentages were recorded. One core of 10cm diameter x 20cm depth was also collected within each quadrat. The sediments of the cores were sieved with 2mm mesh-size sieve and the biota inside was identified and counted. All collected fauna were released after recording except some tiny individuals that *in-situ* identification was not feasible. These tiny individuals were collected and were identified in the laboratory. Species and abundance of biota in both cores and quadrats were reported. The intertidal soft shore community surveys were conducted in low tide period on 8<sup>th</sup> (for TC3), 9<sup>th</sup> (for TC1), 12<sup>th</sup> (for TC3) and 22<sup>nd</sup> June 2013 (for ST).

#### Data Analysis

- 3.6.11 Data collected from direct search and core sampling was pooled in every quadrat for data analysis. Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) were calculated for every quadrat using the formulae below,

$$H' = -\sum (N_i / N) \ln (N_i / N) \text{ (Shannon and Weaver, 1963)}$$

$$J = H' / \ln S, \text{ (Pielou, 1966)}$$

where S is the total number of species in the sample, N is the total number of individuals, and N<sub>i</sub> is the number of individuals of the i<sup>th</sup> species.

#### **Mudflat Ecology Monitoring Results and Conclusion**

##### Horseshoe Crabs

- 3.6.12 **Table 3.1 and Figure 3.1 of Appendix O** show the records of horseshoe crab survey at every sampling zone. In general, horseshoe crab *Tachypleus tridentatus* was found at TC1 (7 individuals), TC3 (16 individuals) and ST (59 individuals). All individuals were found on either soft mud or sandy substratum or sandy substratum surrounded by small gravels. Grouping was observed while each group consisted of 2-7 individuals only. One individual was found with lost tail at ST that might be caused by human trampling. Since the commencement of the survey (Sep. 2012), no individual was found at TC2. It showed that TC2 was not a suitable nursery ground for horseshoes crab.
- 3.6.13 According to **Table 3.2 of Appendix O**, the search records of *Tachypleus tridentatus* were 1.75 individuals hr<sup>-1</sup> person<sup>-1</sup> (mean prosomal widths: 42.94 mm) and 4.00 individuals hr<sup>-1</sup> person<sup>-1</sup> (34.54 mm) at TC1 and TC3, respectively. Similar to previous surveys, the highest search record of 9.83 individuals hr<sup>-1</sup> person<sup>-1</sup> (40.25 mm) was reported at ST. According to Li (2008), the prosomal width of *Tachypleus tridentatus* recorded ranged 11.02–57.62 mm that corresponded to an estimated age of 1.7–6.8 years old. Summary of prosomal width of horseshoe crab is shown in **Table 3.10**.

**Table 3.10 Summary of Prosomal Width of Horseshoe Crab Survey**

	Sampling Zone			
	TC1	TC2	TC3	ST
Search duration (hr)	2	2	2	3
<i>Tachypleus tridentatus</i>				
No. of individuals	7	N.A.	16	59
Mean prosomal width (mm)	42.94	N.A.	34.54	40.25
Range of prosomal width (mm)	21.44-57.62	N.A.	11.07-54.56	12.54-55.51
Search record (individual hr <sup>-1</sup> person <sup>-1</sup> )	1.75	N.A.	4.00	9.83

3.6.14 The mean prosomal widths of *Tachypleus tridentatus* were similar among TC1, TC3 and ST. However, ST was usually inhabited by more individuals of smaller size. Larger individuals were usually found at TC1 and TC3 at lower abundance. ST was believed a more important nursery ground for horseshoe crab especially newly hatched individuals. When reaching larger size of higher mobility, few individuals might migrate to nearby sampling zones TC1 and TC3 for foraging.

**Figure 3.2 of Appendix O** shows the changes of number of individuals, mean prosomal width and search record of horseshoe crab *Tachypleus tridentatus* at the every sampling zones along the sampling months. Both number of individuals and search records declined generally at the three sampling zones during dry season (Sep. to Dec. 2012). The horseshoe crabs were inactive and burrowed in the sediments during cold weather (<15 °C). Similar results of low search record in dry seasons were reported in a previous territory-wide survey of horseshoe crab. For example, the search records at Tung Chung Wan were 0.17 individual hr<sup>-1</sup> person<sup>-1</sup> and 0 individual. hr<sup>-1</sup> person<sup>-1</sup> in wet season and dry season respectively (details see Li, 2008). From December 2012 to June 2013 (present survey), both values increased with the warmer climate at the sampling zones.

3.6.15 **Figure 3.3 of Appendix O** shows the changes of prosomal width of horseshoe crab population at ST. It was believed that most of individuals (50% records between upper and lower quartile), recorded in the dry season, had grown to a size of double in the present survey (prosomal width increase from 10-20 mm to 30-50 mm). At the same time, tiny individuals (10-15 mm) were found (outliers of low value) that seasonal spawning was believed occurring at ST.

3.6.16 Another less common species *Carcinoscorpius rotundicauda* was not found during the whole survey period except the survey conducted in December 2012 at ST (4 individuals). This species was believed present in ST at very low number while encounter was very rare.

3.6.17 The present survey was the third time of sampling of the EM&A programme during the construction period. Based on the results, impacts of the HKLR project could not be detected on horseshoe crabs considering the factor of natural, seasonal variation, In case, abnormal phenomenon (e.g. very few numbers of horseshoe individuals in warm weather) is observed, it would be reported as soon as possible.

### **Seagrass Beds**

**Table 3.3 and Figure 3.4 of Appendix O** show the records of seagrass beds survey at every sampling zone. Two patches of *Halophila ovalis* were recorded nearby the mangrove vegetation at tidal level 2 m above C.D. at ST. The estimated total area and mean area were 299.9 m<sup>2</sup> and 463.7 m<sup>2</sup> respectively while the estimated coverage ranged 90-100%. Both patches were so close and formed a long seagrass strand with estimated total area 763.6 m<sup>2</sup>.

One patch of *Zostera japonica* was found within the long strand of *Halophila ovalis*. The estimated area was 14.6 m<sup>2</sup> while the estimated coverage ranged 70-90%.

- 3.6.18 **Figure 3.5 of Appendix O** shows the changes of estimated total area of seagrass beds at ST along the sampling months. For seagrass *Halophila ovalis*, the total area and estimated coverage increased gradually. It showed that the seagrass was in scattered patches during dry season then grew and merged into single patch during wet season. For seagrass *Zostera japonica*, it was not reported in the surveys of September and December 2012. Seasonal recruitment of few patches was reported between December and March. Then the patch size increased and merged gradually during wet season.
- 3.6.19 The present survey was the third time of sampling of the EM&A programme during the construction period. Based on the results, impacts of the HKLR project could not be detected on seagrass. In case, abnormal phenomenon (e.g. rapid reduction of seagrass patch size) was observed, it would be reported as soon as possible.

#### Intertidal Soft Shore Communities

- 3.6.20 **Table 3.4 and Figure 3.5 of Appendix O** show the types of substratum along the horizontal transect at every tidal level of every sampling zone. The relative distribution of different substrata was estimated by investigating the substratum types (Gravels & Boulders / Sands / Soft mud) of the ten random quadrats along every horizontal transect.
- 3.6.21 The distribution of substratum types varied among tidal levels and sampling zones. At TC1, high percentage of 'Sands' was recorded (70%) while the rest was 'Gravels and Boulders' (30%) at high tidal level. High percentage of 'Gravels and Boulders' (80%) was recorded at mid tidal level. Even distribution of 'Gravels and Boulders' (50%) and 'Sands' (40%) was recorded at low tidal level. At TC2, high percentage of 'Sands' (60-80%) was recorded at high and mid tidal levels while 'Soft mud' was the major substratum (80%) at low tidal level. At TC3, high percentage of 'Sands' (60-90%) was recorded at high and mid tidal levels followed by 'Soft mud' (10-30%). 'Gravels and Boulders' was the major substratum (70%) at low tidal level. At ST, 'Gravels and Boulders' (100%) was recorded only at high tidal level. High percentage of 'Gravels and Boulders' (70%) was recorded while the rest was 'Sands' (30%) at mid tidal level. Even distribution of 'Sands' (40%) and 'Soft mud' (40%) was recorded at low tidal level.
- 3.6.22 There was neither consistent vertical nor horizontal zonation pattern of substratum type in the study site. Such heterogeneous variation should be caused by different hydrology (e.g. wave in different direction and intensity) received by the four sampling zones.
- 3.6.23 **Table 3.5 of Appendix O** lists the total abundance, density and number of taxon of every phylum in the present survey. A total of 17329 individuals were recorded. Mollusks were significantly the most abundant phylum (total individuals 16751, density 558 individuals m<sup>-2</sup>, relative abundance 96.7%). The second abundant group was arthropod (total individuals: 416, density 14 individuals m<sup>-2</sup>, 2.4%) respectively. Relatively other phyla were very low in abundance (0.5%). Similarly, the most diverse phylum were mollusks (43 taxa) followed by arthropods (17 taxa) and annelids (14 taxa). The taxa of other phyla were relatively less (2 taxa). The complete list of collected specimens is provided in **Annex III of Appendix O**.
- 3.6.24 **Table 3.6 of Appendix O** shows the number of individual, relative abundance and density of each phylum at every sampling zone. The results were similar among the four sampling zones. In general, mollusks were the most dominant phylum (no. of individuals: 2608-5464 individual, relative abundance 95.9-97.9%). Arthropods were the second abundant phylum (no. of individuals: 51-164 individual, 1.4-3.2%) although the number of individuals was significantly lower than that of mollusks. Relatively, other phyla were very low in abundance across the four sampling zones (< 1%).
- 3.6.25 **Table 3.7 of Appendix O** lists the abundant species (relative abundance >10%) at every sampling zone. At TC1, gastropod *Batillaria multiformis* was clearly the dominant species (379-450 individuals m<sup>-2</sup>, relative abundance 41-56%) at high and mid tidal levels. Gastropod *Cerithidea djadjarjensis* (105-208 individuals m<sup>-2</sup>, relative abundance 11-26%) was also



abundant at high and mid tidal levels. Moreover, gastropod *Monodonta labio* (164 individuals  $m^{-2}$ , relative abundance 18%) and rock oyster *Saccostrea cucullata* (143 individuals  $m^{-2}$ , relative abundance 16%) were abundant at mid tidal level. At low tidal level, total abundance was lower and the species distribution was more even relatively. Rock oyster *Saccostrea cucullata* (66 individuals  $m^{-2}$ , 19%), gastropods *Cerithidea djadjariensis* (45 individuals  $m^{-2}$ , 13%) and *Lunella coronata* (44 individuals  $m^{-2}$ , 12%) were common occurring species at low tidal level.

- 3.6.26 At TC2, all three tidal levels were dominated by gastropod *Cerithidea djadjariensis* (92-164 individuals  $m^{-2}$ , relative abundance 31-55%). At high tidal level, gastropod *Batillaria multiformis* was the second abundant species (84 individuals  $m^{-2}$ , relative abundance 21%) followed by rock oyster *Saccostrea cucullata* (56 individuals  $m^{-2}$ , relative abundance 14%). At mid tidal level, rock oyster *Saccostrea cucullata* was the second abundant species (84 individuals  $m^{-2}$ , 16%) followed by gastropod *Monodonta labio* (76 individuals  $m^{-2}$ , relative abundance 14%). At low tidal level, the common occurring species were gastropods *Cerithidea cingulata* (20 individuals  $m^{-2}$ , 12%), *Batillaria multiformis* (19 individuals  $m^{-2}$ , 11%) and *Batillaria zonalis* (19 individuals  $m^{-2}$ , 11%) while its abundances were much less than the most dominant gastropod *Cerithidea djadjariensis*.
- 3.6.27 At TC3, the high and mid tidal levels were mainly dominated by gastropods *Batillaria multiformis* (391-438 individuals  $m^{-2}$ , relative abundance 47-52%) and *Cerithidea djadjariensis* (212-294 individuals  $m^{-2}$ , 25-35%). Gastropod *Cerithidea cingulata* was the third abundant species (96 individuals  $m^{-2}$ , 11%). At low tidal level, the abundant species were rock oyster *Saccostrea cucullata* (164 individuals  $m^{-2}$ , 28%) followed by gastropods *Monodonta labio* (92 individuals  $m^{-2}$ , 16%) and *Lunella coronata* (64 individuals  $m^{-2}$ , 11%).
- 3.6.28 At ST, gastropod *Batillaria multiformis* was highly abundant (392 individuals  $m^{-2}$ , relative abundance 63%) at high tidal level followed by gastropod *Monodonta labio* (127 individuals  $m^{-2}$ , 20%). At mid tidal level, gastropod *Batillaria multiformis* (136 individuals  $m^{-2}$ , relative abundance 21%) and rock oyster *Saccostrea cucullata* (120 individuals  $m^{-2}$ , 19%) were most abundant of similar densities. Other less abundant species are gastropods *Monodonta labio* (66 individuals  $m^{-2}$ , 10%) and *Cerithidea djadjariensis* (65 individuals  $m^{-2}$ , 10%). Relatively, the abundant species gastropod *Cerithidea djadjariensis* (89 individuals  $m^{-2}$ , 38%), rock oyster *Saccostrea cucullata* (30 individuals  $m^{-2}$ , 13%) and gastropod *Batillaria zonalis* (26 individuals  $m^{-2}$ , 11%) were lower in density at low tidal level.
- 3.6.29 There was no consistent zonation pattern of species distribution observed across sampling zones and tidal levels in Tung Chung Wan and San Tau. The species distribution should be determined by the type of substratum primarily. In general, gastropods *Batillaria multiformis* (6055 individuals, 35%), *Cerithidea djadjariensis* (3721 individuals, 21%), rock oyster *Saccostrea cucullata* (1829 individuals, 11%), gastropods *Monodonta labio* (1489 individuals, 9%) and *Cerithidea cingulata* (1031 individuals, 6%) were the most common occurring species among the four sampling zones.
- 3.6.30 **Table 3.8 of Appendix O** shows the mean values of number of species, density,  $H'$  and  $J$  of soft shore communities at every tidal level and sampling zone. Among the sampling zones, the mean number of species was generally similar and ranged 6-15 spp.  $0.25 m^{-2}$ . The mean densities of TC1 (349-810 individuals  $m^{-2}$ ) and TC3 (580-838 individuals  $m^{-2}$ ) were generally higher than that of ST (236-648 individuals  $m^{-2}$ ) followed by TC2 (166-525 individuals  $m^{-2}$ ). The mean biodiversity index and species evenness were similar that ranged 1.39-1.54 and 0.60-0.65 respectively.
- 3.6.31 Across the tidal levels, there was no difference of the mean number of species. Higher mean densities were observed at high and mid tidal levels. Usually higher mean biodiversity index and species evenness were observed at mid and low tidal levels except that at TC2.
- 3.6.32 **Figure 3.6 of Appendix O** shows the temporal changes of number of species, density,  $H'$  and  $J$  at every tidal level and sampling zone since the baseline monitoring survey (Sep 2012). No significant temporal change of any biological parameters was observed at all sampling zones.

Although declined densities were reported at sampling zones TC2 (mid and low tidal levels) and TC3 (high and mid tidal levels) in dry season (Dec 2012), it was believed a natural, seasonal variation due to higher mortality and lower activity rate of intertidal fauna during cold, dry season. The densities of both sampling zones had increased along with the hot, wet season. At the same time, steady increases of number of species and biodiversity index were observed at ST (mid and low tidal levels).

- 3.6.33 The present survey was the third time of sampling of the EM&A programme during the construction period. Based on the results, impacts of the HKLR project could not be detected on intertidal soft shore community.

### 3.7 Solid and Liquid Waste Management Status

- 3.7.1 The Contractor registered with EPD as a Chemical Waste Producer on 12 July 2012 for the Contract. Sufficient numbers of receptacles were available for general refuse collection and sorting.
- 3.7.2 The summary of waste flow table is detailed in **Appendix K**.
- 3.7.3 The Contractor was reminded that chemical waste containers should be properly treated and stored temporarily in designated chemical waste storage area on site in accordance with the Code of Practise on the Packaging, Labelling and Storage of Chemical Wastes.

### 3.8 Environmental Licenses and Permits

- 3.8.1 The valid environmental licenses and permits during the reporting period are summarized in **Appendix L**.

### 3.9 Reference

- 3.9.1 Buckland, S. T., Anderson, D. R., Burnham, K. P., Laake, J. L., Borchers, D. L., and Thomas, L. 2001. Introduction to distance sampling: estimating abundance of biological populations. Oxford University Press, London.
- 3.9.2 Hung, S. K. 2008. Habitat use of Indo-Pacific humpback dolphins (*Sousa chinensis*) in Hong Kong. Ph.D. dissertation. University of Hong Kong, Hong Kong, 266 p.
- 3.9.3 Hung, S. K. 2012. Monitoring of marine mammals in Hong Kong waters – data collection: final report (2011-12). An unpublished report submitted to the Agriculture, Fisheries and Conservation Department of Hong Kong SAR Government, 120 pp.
- 3.9.4 Hung, S. K. 2013. Monitoring of marine mammals in Hong Kong waters – data collection: final report (2012-13). An unpublished report submitted to the Agriculture, Fisheries and Conservation Department of Hong Kong SAR Government, 168 pp
- 3.9.5 Jefferson, T. A. 2000. Population biology of the Indo-Pacific hump-backed dolphin in Hong Kong waters. Wildlife Monographs 144:1-65.

## 4 Environmental Complaint and Non-compliance

### 4.1 Environmental Exceedances

4.1.1 The detailed air quality, noise, water quality and dolphin exceedances are provided in **Appendix M**. Also, the summaries of the environmental exceedances are presented as followed:

#### Air Quality

4.1.2 There were no Action and Limit Level exceedances for 1-hr TSP or 24-hr TSP recorded air quality were recorded during the reporting period.

#### Noise

4.1.3 There was one Action Level exceedance for noise during the daytime on normal weekdays. A complaint was received on 29 June 2013 regarding noise generated from the works area near the site office (WA6) around 10:00 hrs on 29 June 2013. According to the site dairy provided by the Contractor, electric circular saw was used to cut plastic tubes for maintenance work at the works area near the site office (Work area WA6) from 09:45 to 10:15 hrs of 29 June 2013. A site inspection was undertaken on 2 July 2013, no construction works was undertaken at work area near the site office (Work area WA6). No significant noise was generated from the site. As the electric circular saw was used for maintenance work and there was no significant noise generated from the site, the complaint was considered invalid.

4.1.4 No Limit Level exceedances for noise were recorded during this reporting period.

#### Water Quality

4.1.5 During the reporting period, there are 4 Action Level exceedances and 1 Limit Level exceedances of suspended solids level. No exceedances of turbidity level were recorded. 3 Action Level exceedances and 3 Limit Level exceedances of dissolved oxygen level. There were no specific activities recorded during the monitoring period that would cause any significant impacts on monitoring results and no leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise. Therefore, all exceedances were considered as non-contract related. The detailed numbers of exceedances recorded during the reporting period at each impact station are summarised in **Table 4.1**.

#### Dolphin

4.1.6 There were two Action Level exceedances of dolphin monitoring for the quarterly monitoring data (June – August 2013). According to the contractor's information, the marine activities undertaken for HKLR03 during the two quarterly periods (March to May 2013 and June to August 2013) included stone platform construction, reclamation, stone column installation, band drain installation and excavation of stone platform. During the quarterly period of June to August 2013, geotextile laying activities were also carried out.

4.1.7 There is no evidence showing the current AL non-compliance directly related to the construction works of HKLR03. It should also be noted that reclamation work under HKLR03 (adjoining the Airport Island) situates in waters which has rarely been used by dolphins in the past, and the working vessels under HKLR03 have been travelling from source to destination in accordance with the Marine Travel Route to minimize impacts on Chinese White Dolphin. In addition, the contractor will implement proactive mitigation measures such as avoiding anchoring at Marine Department's designated anchorage site – Sham Shui Kok Anchorage (near Brothers Island) as far as practicable.

4.1.8 All dolphin protective measures are fully and properly implemented in accordance with the EM&A Manual. In order to minimise disturbance to the Brother's Island, the Contractor provide training to skippers to ensure that their working vessels travel from source to destination to minimize impacts on Chinese White Dolphin and avoid anchoring at Marine

Department's designated anchorage site - Sham Shui Kok Anchorage (near Brothers Island) as far as practicable.

**Table 4.1 Summary of Water Quality Exceedances**

Station	Exceedance Level	DO (S&M)		DO (Bottom)		Turbidity		SS		Total Number of Exceedances	
		Ebb	Flood	Ebb	Flood	Ebb	Flood	Ebb	Flood	Ebb	Flood
IS5	Action Level	--	--	--	10-06-2013	--	--	07-08-2013	--	1	1
	Limit Level	--	--	--	--	--	--	--	--	0	0
IS(Mf)6	Action Level	--	--	--	--	--	--	07-08-2013	--	1	0
	Limit Level	--	--	--	--	--	--	--	--	0	0
IS7	Action Level	--	--	--	--	--	--	07-08-2013	--	1	0
	Limit Level	--	--	--	--	--	--	--	--	0	0
IS8	Action Level	--	--	--	--	--	--	--	--	0	0
	Limit Level	--	--	--	--	--	--	--	--	0	0
IS(Mf)9	Action Level	--	--	--	--	--	--	--	--	0	0
	Limit Level	--	--	--	--	--	--	--	--	0	0
IS10	Action Level	--	--	10-06-2013	10-06-2013	--	--	--	--	1	1
	Limit Level	--	--	--	--	--	--	--	--	0	0
SR3	Action Level	--	--	--	--	--	--	07-08-2013	--	1	0
	Limit Level	--	--	--	--	--	--	--	--	0	0
SR4	Action Level	--	--	--	--	--	--	--	--	0	0
	Limit Level	--	--	--	--	--	--	24-06-2013	--	1	0
SR5	Action Level	--	--	--	--	--	--	--	--	0	0
	Limit Level	--	--	--	--	--	--	--	--	0	0
SR10A	Action Level	--	--	--	--	--	--	--	--	0	0
	Limit Level	--	--	--	--	--	--	--	--	0	0
SR10B	Action Level	--	--	--	--	--	--	--	--	0	0
	Limit Level	--	10-06-2013 29-07-2013	--	10-06-2013	--	--	--	--	0	3
Total	Action	0	0	1	2	0	0	4	0	7**	
	Limit	0	2	0	1	0	0	1	0	4**	

Notes:

S: Surface;

M: Mid-depth;

\* The total exceedances.

## 4.2 Summary of Environmental Complaint, Notification of Summons and Successful Prosecution

4.2.1 There was one environmental complaint received during this reporting period. All investigation reports for exceedances of the Contract have been submitted to ENPO/IEC for comments and/or follow up to identify whether the exceedances occurred related to other HZMB contracts. The summary of environmental complaints is presented in **Table 4.2**. The details of environmental complaints are presented in **Appendix N**.

**Table 4.2 Summary of Environmental Complaints for the Reporting Period**

Environmental Complaint No.	Date of Complaint Received	Description of Environmental Complaints
COM-2013-027	29 June 2013	Noise

4.2.2 A site inspection was undertaken by EPD on 7 June 2013 and a record of inspection was issued to the Contractor. The Contractor was advised to repair the silt curtain provided at Portion A immediately before continuation of any filling activities and to ensure the silt curtain is fully maintained throughout the works. The Contractor has modified the silt curtain arrangement to minimise the potential water quality impacts and provided regular maintenance for the silt curtain.

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

4.2.4 Statistics on notifications of summons and successful prosecutions are summarized in **Appendix M**.

## 5 COMMENTS, RECOMMENDATIONS AND CONCLUSION

### 5.1 Comments

5.1.1 According to the environmental site inspections undertaken during the reporting period, the following recommendations were provided:

- The Contractor was reminded to clean up the stagnant water inside the recesses for lifting eyes of concrete blocks at S16.
- The Contractor was reminded to provide a drip tray for chemical container at West Portal.
- The Contractor was reminder to clean up the stagnant water inside the chemical waste storage box at West Portal.
- The Contractor was reminded to provide drip trays for oil containers at S5.
- The Contractor was reminded to provide drip trays for chemical containers at West Portal.
- The Contractor was reminded to spray water regularly on the unpaved area at WA04.
- The Contractor was reminded to provide drip trays for chemical containers at WA03.
- The Contractor was reminded to spray water regularly on the unpaved road at S7.
- The Contractor was reminded to clean up the stagnant water inside the rubbish bin at West Portal.
- The Contractor was reminded to spray water on the unpaved road at West Portal.
- Bags of cement should be covered entirely with impervious sheeting at West Portal.
- Empty chemical containers should be removed or properly stored at chemical waste store.
- The Contractor was recommended to provide drip trays for chemical containers at S5.
- The Contractor was recommended to clean up the stagnant water on the construction material at S9.
- The Contractor was reminded to clean up the stagnant water inside the drip tray at N4.
- The Contractor was reminded to clean up the stagnant water on the oil containers at S5.
- The Contractor was reminded to clean up the stagnant water inside the drip tray at S16.
- The Contractor was reminded to provide drip trays for chemical containers at S11.
- The Contractor was reminded to provide fencing protection around the trees at S5.
- The Contractor was reminded to clean up the stagnant water inside the drip tray at West Portal.
- The Contractor was reminded to clean up the stagnant water inside the metal material at WA03.
- The Contractor was reminded to provide clear labels for chemical containers at N4.
- The Contractor was reminded to provide drip tray for the chemical containers at West Portal.
- The Contractor was reminded to provide proper maintenance for the slit curtain at Portion X.
- The Contractor was reminded to clean up the passageway of the vessel to avoid washing sand into sea form Chan Sheng 309.



- The Contractor was reminded to provide an impervious shelter with top and 3 sides for the cement mixing plant at S23.
- The Contractor was reminded to ensure the vehicles are thoroughly cleaned before leaving the site at S11.
- The Contractor was reminded to avoid placing materials near the trees and protection to trees identified as “retained”/ “transplant” should be provided at S8.
- The Contractor was reminded to clean up stagnant water immediately to avoid mosquito breeding at N4.
- The Contractor was reminded to provide proper maintenance for the slit curtain at Portion X.
- The Contractor was reminded to provide regularly water spraying at N13.
- The Contractor was reminded to clean up the stagnant water at S8.
- The Contractor was reminded to provide proper maintenance for the rubber hose and clean up the leaked oil at S8.
- The Contractor was reminded to provide drip trays for chemical containers at N5.
- The Contractor was reminded to provide drip trays for the chemical containers at WA03.
- The Contractor was reminded to provide drip trays for the oil containers at S11.
- The Contractor was reminded to clean up the muddy water on the road at S8.
- The Contractor was reminded to provide maintenance for the machine at S16
- The Contractor was reminded to clean up the oil at S8.
- The Contractor was reminded to clean up the stagnant water at West Portal.
- The Contractor was reminded to provide drip trays for the chemical containers at N4.
- The Contractor was reminded to provide cover for the cement bags at S23.
- The Contractor was reminded to remove the construction material near the tree at S8.

## 5.2 Recommendations

- 5.2.1 The impact monitoring programme for air quality, noise, water quality and dolphin ensured that any deterioration in environmental condition was readily detected and timely actions taken to rectify any non-compliance. Assessment and analysis of monitoring results collected demonstrated the environmental impacts of the contract. With implementation of the recommended environmental mitigation measures, the contract’s environmental impacts were considered environmentally acceptable. The weekly environmental site inspections ensured that all the environmental mitigation measures recommended were effectively implemented.
- 5.2.2 The recommended environmental mitigation measures, as included in the EM&A programme, effectively minimize the potential environmental impacts from the contract. Also, the EM&A programme effectively monitored the environmental impacts from the construction activities and ensure the proper implementation of mitigation measures. No particular recommendation was advised for the improvement of the programme.

### 5.3 Conclusions

- 5.3.1 The construction phase and EM&A programme of the Contract commenced on 17 October 2012 and this is the fourth Quarterly EM&A Report summarises the monitoring results and audit findings of the EM&A programme during the reporting period from 1 June 2013 to 31 August 2013.
- 5.3.2 For air quality, there were no Action and Limit Level exceedances for 1-hr TSP or 24-hr TSP recorded during this reporting period.
- 5.3.3 For construction noise, there was 1 Action Level exceedances of noise were recorded during the reporting period. All noise exceedances were considered not related to project. No Limit Level exceedances for noise were recorded at the monitoring station during the reporting period.
- 5.3.4 During the reporting period, there are 4 Action Level exceedances and 1 Limit Level exceedances of suspended solids level. 3 Action Level exceedances and 3 Limit Level exceedances of dissolved oxygen level were recorded.
- 5.3.5 There were two Action Level exceedances of dolphin monitoring for the quarterly monitoring data (June – August 2013).
- 5.3.6 During this quarter of dolphin monitoring, no adverse impact from the activities of this construction project on Chinese White Dolphins was noticeable from general observations.
- 5.3.7 Although the dolphins rarely occurred in the area of HKLR03 construction in the past decade, during the baseline monitoring period and throughout the four quarters of impact monitoring period, it is apparent that dolphin usage has been significantly reduced in NEL, and many individuals have shifted away from the important habitat around the Brothers Islands.
- 5.3.8 Therefore, it is critical to monitor the dolphin usage in North Lantau region in the upcoming months, to determine whether the dolphins have been affected by the various construction activities in relation to the HZMB works, and whether suitable mitigation measure can be applied to revert the situation.
- 5.3.9 For sedimentation rate monitoring of mudflat, the measurement results for S2, S3 and S4 showed that the level has increased within tolerance and their sea bed depth would not be considered as significant change. For S1, the mudflat level has been continuously increased. The increased surface level for S1, S2, S3 and S4 is 0.079, 0.106, 0.082 and 0.058 mPD when compared to the baseline monitoring results.
- 5.3.10 Impact water quality monitoring in San Tau (monitoring station SR3) was conducted in June 2013. The monitoring parameters included dissolved oxygen, turbidity and suspended solids.
- 5.3.11 An active search method was adopted for horseshoe crab survey at each sampling zone. In general, horseshoe crab *Tachypleus tridentatus* was found at TC1 (7 individuals), TC3 (16 individuals) and ST (59 individuals). All individuals were found on soft mud, sandy substratum or sandy substratum surrounded by small gravels. Grouping was observed while each group consisted of 2-7 individuals only. One individual was found with lost tail at ST that might be caused by human trampling. Since the commencement of the survey (Sep. 2012), no individual was found at TC2. It showed that TC2 was not a suitable nursery ground for horseshoes crab. In the June 2013 survey, the search records of *Tachypleus tridentatus* were 1.75 individuals hr<sup>-1</sup> person<sup>-1</sup> (mean prosomal widths: 42.94 mm) and 4.00 individuals hr<sup>-1</sup> person<sup>-1</sup> (34.54 mm) at TC1 and TC3, respectively. Similar to previous surveys, the highest search record of 9.83 individuals hr<sup>-1</sup> person<sup>-1</sup> (40.25 mm) was reported at ST. According to Li (2008), the prosomal width of *Tachypleus tridentatus* recorded ranged 11.02–57.62 mm that corresponded to an estimated age of 1.7–6.8 years old.



- 5.3.12 Another less common species *Carcinoscorpius rotundicauda* was not found during the whole survey period except the survey conducted in December 2012 at ST (4 individuals). This species was believed present in ST at very low number while encounter was very rare.
- 5.3.13 An active search method was adopted for seagrass bed survey at each sampling zone. Two patches of *Halophila ovalis* were recorded nearby the mangrove vegetation at tidal level 2 m above C.D. at ST. The estimated total area and mean area were 299.9 m<sup>2</sup> and 463.7 m<sup>2</sup> respectively while the estimated coverage ranged 90-100%. Both patches were so close and formed a long seagrass strand with estimated total area 763.6 m<sup>2</sup>. One patch of *Zostera japonica* was found within the long strand of *Halophila ovalis*. The estimated area was 14.6 m<sup>2</sup> while the estimated coverage ranged 70-90%. For seagrass *Halophila ovalis*, the total area and estimated coverage increased gradually. It showed that the seagrass was in scattered patches during dry season then grew and merged into single patch during wet season. For seagrass *Zostera japonica*, it was not reported in the surveys of September and December 2012. Seasonal recruitment of few patches was reported between December and March. Then the patch size increased and merged gradually during wet season.
- 5.3.14 The intertidal soft shore community surveys were conducted in low tide period on 8<sup>th</sup> (for TC3), 9<sup>th</sup> (for TC1), 12<sup>th</sup> (for TC2) and 22<sup>nd</sup> June 2013 (for ST). A total of 17329 individuals were recorded. Mollusks were significantly the most abundant phylum (total individuals 16751, density 558 individuals m<sup>-2</sup>, relative abundance 96.7%). The second abundant group was arthropod (total individuals: 416, density 14 individuals m<sup>-2</sup>, 2.4%) respectively. Relatively other phyla were very low in abundance (0.5%). Similarly, the most diverse phylum were mollusks (43 taxa) followed by arthropods (17 taxa) and annelids (14 taxa). The taxa of other phyla were relatively less (2 taxa).
- 5.3.15 The present survey was the third time of sampling of the EM&A programme during the construction period. Based on the results, impacts of the HKLR project could not be detected on seagrass. In case, abnormal phenomenon (e.g. rapid reduction of seagrass patch size) was observed, it would be reported as soon as possible.
- 5.3.16 There was no consistent zonation pattern of species distribution observed across sampling zones and tidal levels in Tung Chung Wan and San Tau. The species distribution should be determined by the type of substratum primarily. In general, gastropods *Batillaria multiformis* (6055 individuals, 35%), *Cerithidea djadjariensis* (3721 individuals, 21%), rock oyster *Saccostrea cucullata* (1829 individuals, 11%), gastropods *Monodonta labio* (1489 individuals, 9%) and *Cerithidea cingulata* (1031 individuals, 6%) were the most common occurring species among the four sampling zones.
- 5.3.17 The June 2013 survey results indicate that the impacts of the HKLR project could not be detected on horseshoe crabs, seagrass and intertidal soft shore community.
- 5.3.18 Environmental site inspection was carried out on 4, 11, 18 and 28 June 2013, 2, 9, 16, 23 and 30 July 2013, and 6, 13, 20 and 30 August 2013. Recommendations on remedial actions were given to the Contractors for the deficiencies identified during the site inspections.
- 5.3.19 A site inspection was undertaken by EPD on 7 June 2013 and a record of inspection was issued to the Contractor. The Contractor was advised to repair the silt curtain provided at Portion A immediately before continuation of any filling activities and to ensure the silt curtain is fully maintained throughout the works. The Contractor has modified the silt curtain arrangement to minimise the potential water quality impacts and provided regular maintenance for the silt curtain.
- 5.3.20 There was one environmental complaint received during this reporting period.
- 5.3.21 No notification of summons and prosecution was received during the reporting period.



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**HIGHWAYS DEPARTMENT**

港珠澳大橋香港工程管理處  
Hong Kong - Zhuhai - Macao Bridge  
Hong Kong Project Management Office

Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
and Hong Kong Boundary Crossing Facilities  
4<sup>th</sup> Quarterly EM&A Report (Rev.2)

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## FIGURES

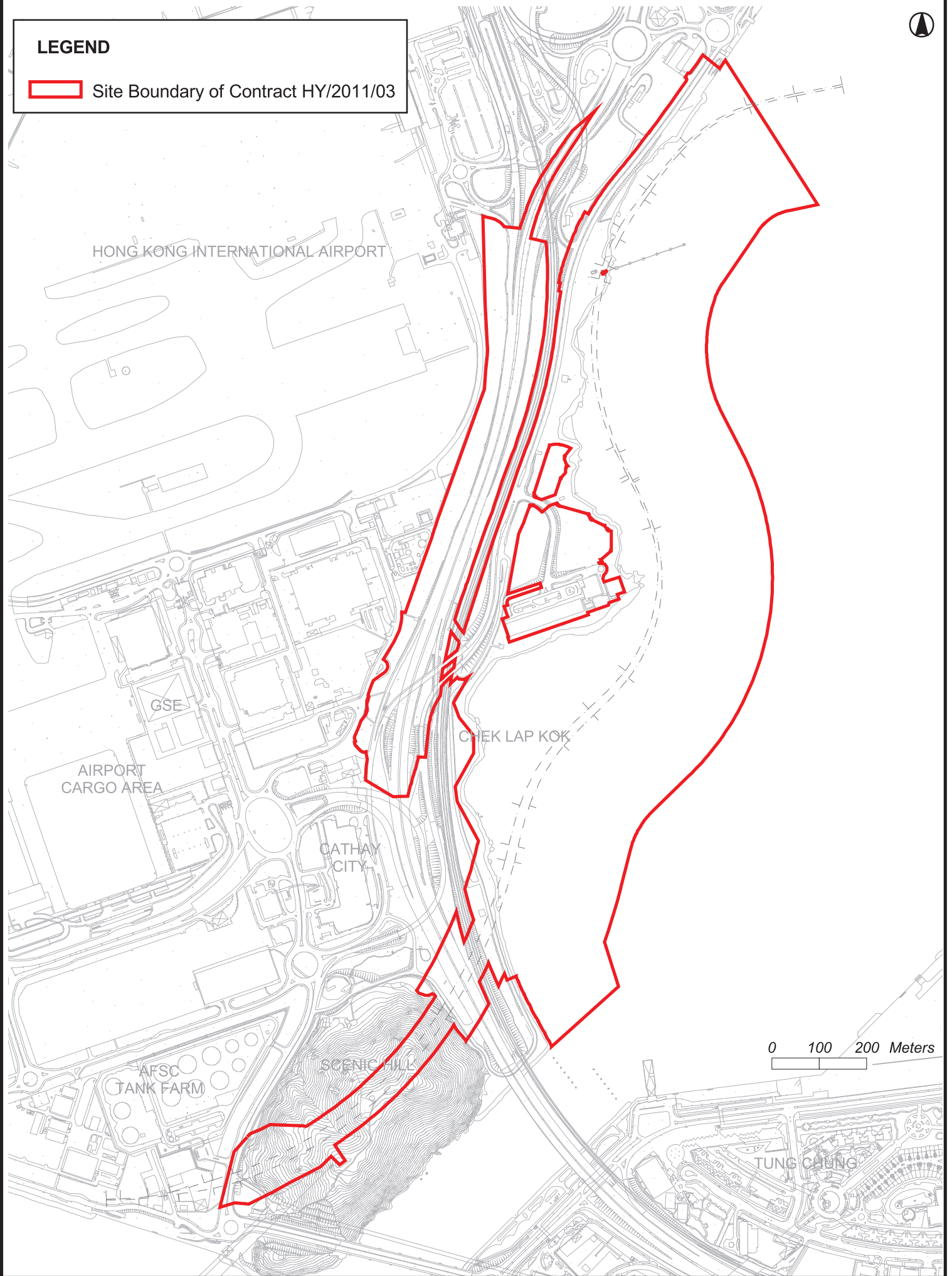
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CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

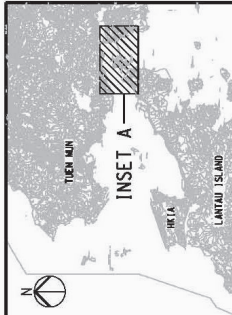
**LEGEND**

 Site Boundary of Contract HY/2011/03



**Figure 1.1 Location of the Site**





**KEY PLAN**

1. EXACT LOCATIONS OF MONITORING STATIONS ARE SHOWN ON THIS DRAWING IN CONJUNCTION WITH THE CONSTRUCTION OF THE PROPOSED HONG KONG AIRPORT CHANNEL AND THE PROPOSED HONG KONG LINK ROAD (HKL R) AND THE PROPOSED HONG KONG BOUNDARY CROSSING FACILITIES (HKBCF) AND THE PROPOSED TSIUNG MA BRIDGE. THE EXACT LOCATIONS OF THE MONITORING STATIONS ARE SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY. THE CONTRACTOR AND EY SHALL DETERMINE AND AGREE THE EXACT LOCATIONS OF THE MONITORING STATIONS IN ACCORDANCE WITH THE REQUIREMENTS STIPULATED IN THE EIA REPORTS AND ESM MANUALS.

2. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS STIPULATED IN THE EIA REPORTS AND ESM MANUALS WITH RESPECT TO THE ENVIRONMENTAL MONITORING AND AUDIT WORKS.

- LEGEND**
- WORKS BOUNDARY OF CONTRACT (HY2011/03)
  - IS IMPACT STATIONS (WATER QUALITY)
  - CS CONTROL/FIELD STATIONS (WATER QUALITY)
  - SR SENSITIVE RECEIVERS STATIONS (WATER QUALITY)
  - ST STATION FOR SENSITIVITY TEST RESULT (WATER QUALITY)
  - AMS MONITORING STATIONS (AIR QUALITY)
  - NMS MONITORING STATIONS (NOISE)
  - MIDPLAT ECOLOGICAL SAMPLING LOCATION

Rev	Description	AW	By	Date
A	TENDER ADDENDUM ISSUE	AW		11/11

**ARUP** 威雅納工程顧問  
One Arup & Partners Hong Kong Limited

Contract No. and Title  
**Hong Kong-Zhuhai-Macao Bridge**  
 Hong Kong Link Road -  
 Section Between Scenic Hill and  
 Hong Kong Boundary Crossing Facilities

Contract No. HX/2011/03

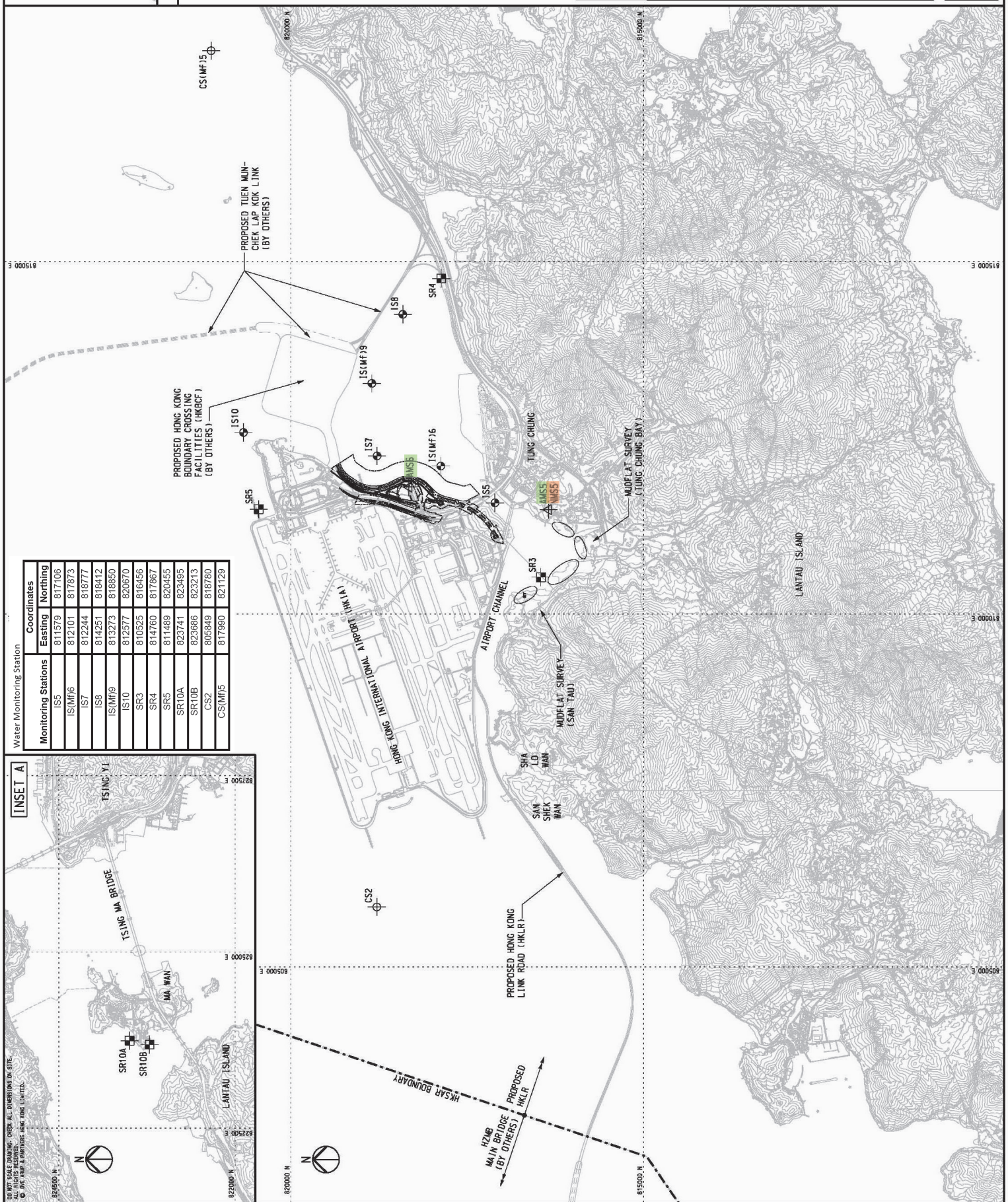
Contract No. HX/2011/03  
 Hong Kong-Zhuhai-Macao Bridge  
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 Hong Kong Boundary Crossing Facilities

Drawing Title  
**ENVIRONMENTAL MONITORING STATIONS**

Drawing	Figure 2.1	Rev.	A
Drawn	Date	Checked	Approved
Scale	AS SHOWN	Status	OK

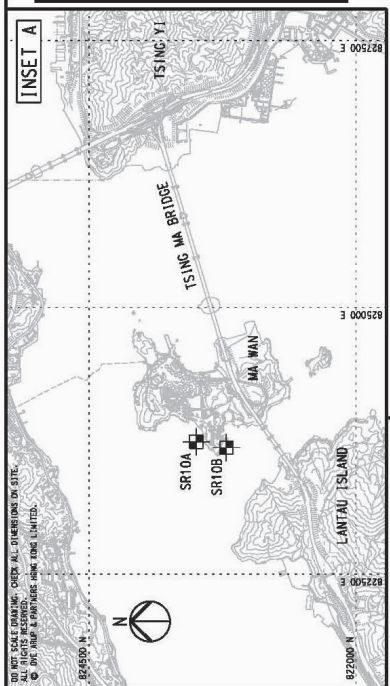
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 香港公路局  
 Hong Kong-Zhuhai-Macao Bridge  
 Hong Kong Project Management Office



Water Monitoring Station

Monitoring Stations	Coordinates	
	Easting	Northing
IS5	811579	817106
IS(MT)6	812101	817873
IS7	812244	818777
IS8	814251	818412
IS(MT)9	813273	818850
IS10	812577	820670
SR3	810525	816456
SR4	814760	817867
SR5	811489	820455
SR10A	823741	823495
SR10B	823686	823213
CS2	805949	818780
CS(MP)5	817980	821129



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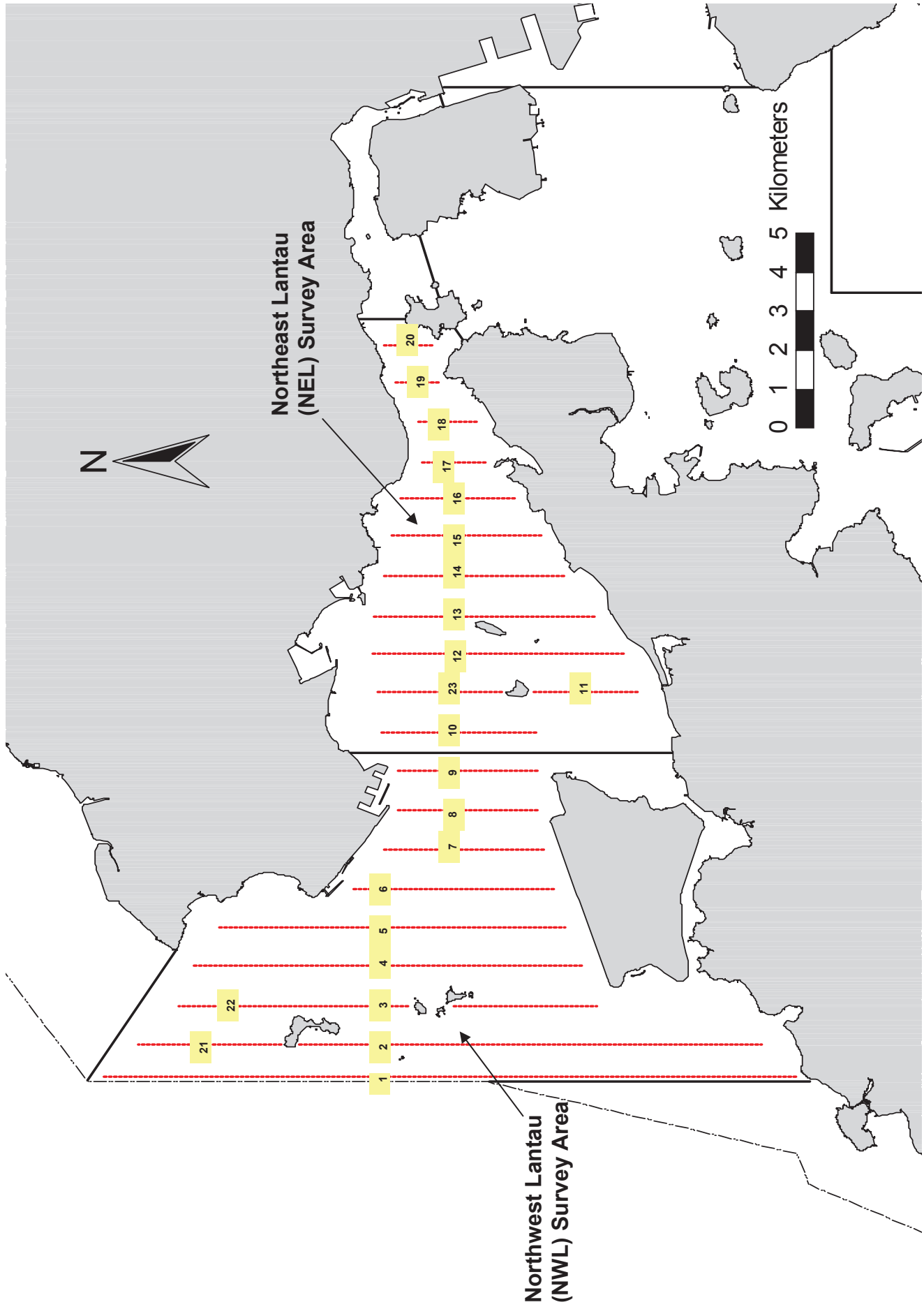


Figure 2.2 Transect Line Layout in Northwest and Northeast Lantau Survey Areas



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Hong Kong Project Management Office

Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
and Hong Kong Boundary Crossing Facilities  
4<sup>th</sup> Quarterly EM&A Report (Rev.2)

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# APPENDIX A

---

## Environmental Management Structure



中國建築工程(香港)有限公司  
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.



### Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
Supervising Officer's Representative (Ove Arup & Partners Hong Kong Limited)	(Chief Resident Engineer, CRE)	Robert Antony Evans	3968 0801	2109 1882
Environmental Project Office / Independent Environmental Checker (Environ Hong Kong Limited)	Environmental Project Office Leader	Y. H. Hui	3465 2888	3465 2899
	Independent Environmental Checker	Antony Wong	3465 2888	3465 2899
Contractor (China State Construction Engineering (Hong Kong) Ltd)	Project Manager	S. Y. Tse	3968 7002	2109 2588
	Environmental Officer	Federick Wong	3968 7117	2109 2588
Environmental Team (BMT Asia Pacific)	Environmental Team Leader	Claudine Lee	2241 9847	2815 3377
24 hours complaint hotline	---	---	5699 5730	---





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and Hong Kong Boundary Crossing Facilities  
4<sup>th</sup> Quarterly EM&A Report (Rev.2)

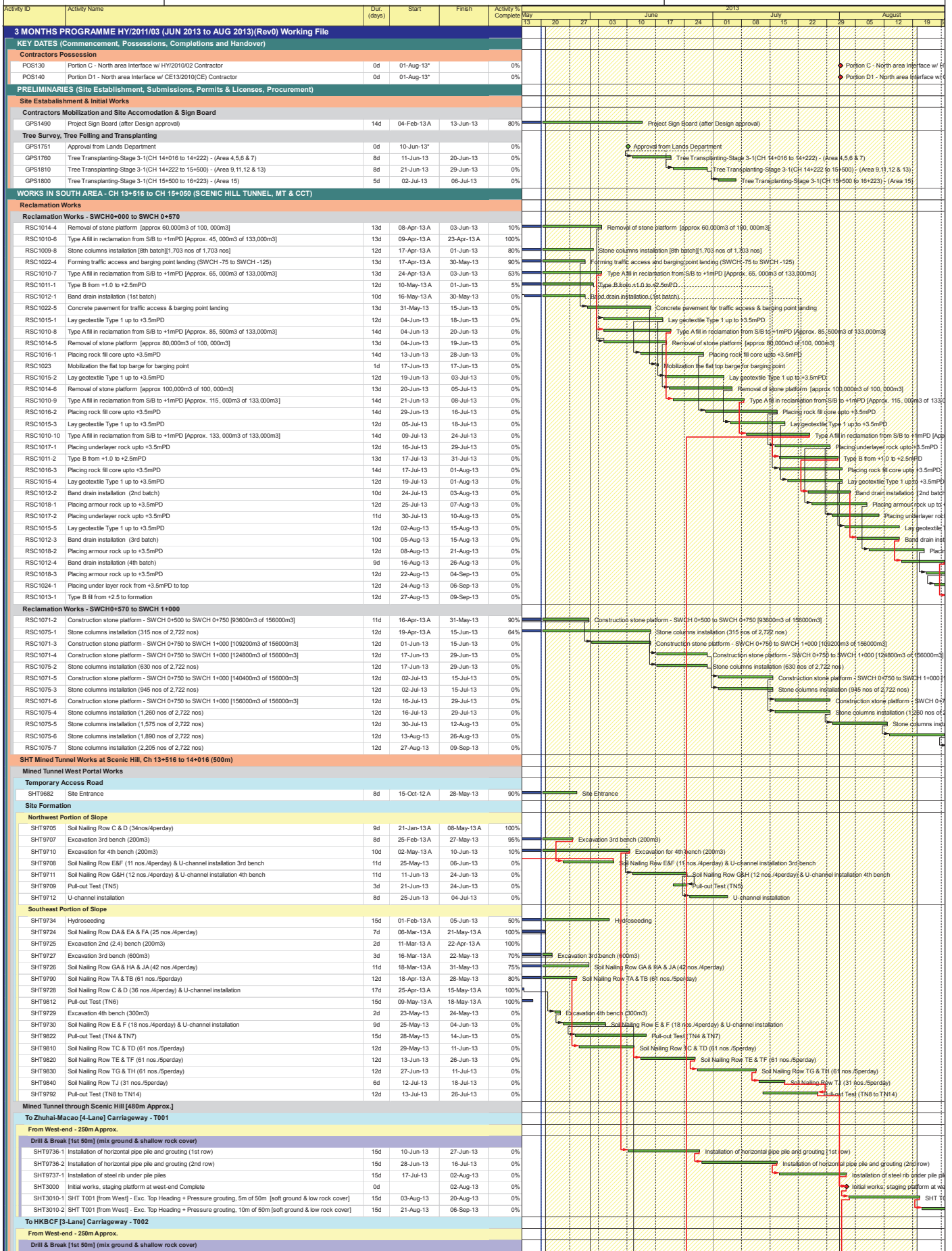
## APPENDIX B

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### Construction Programme



中國建築工程(香港)有限公司  
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

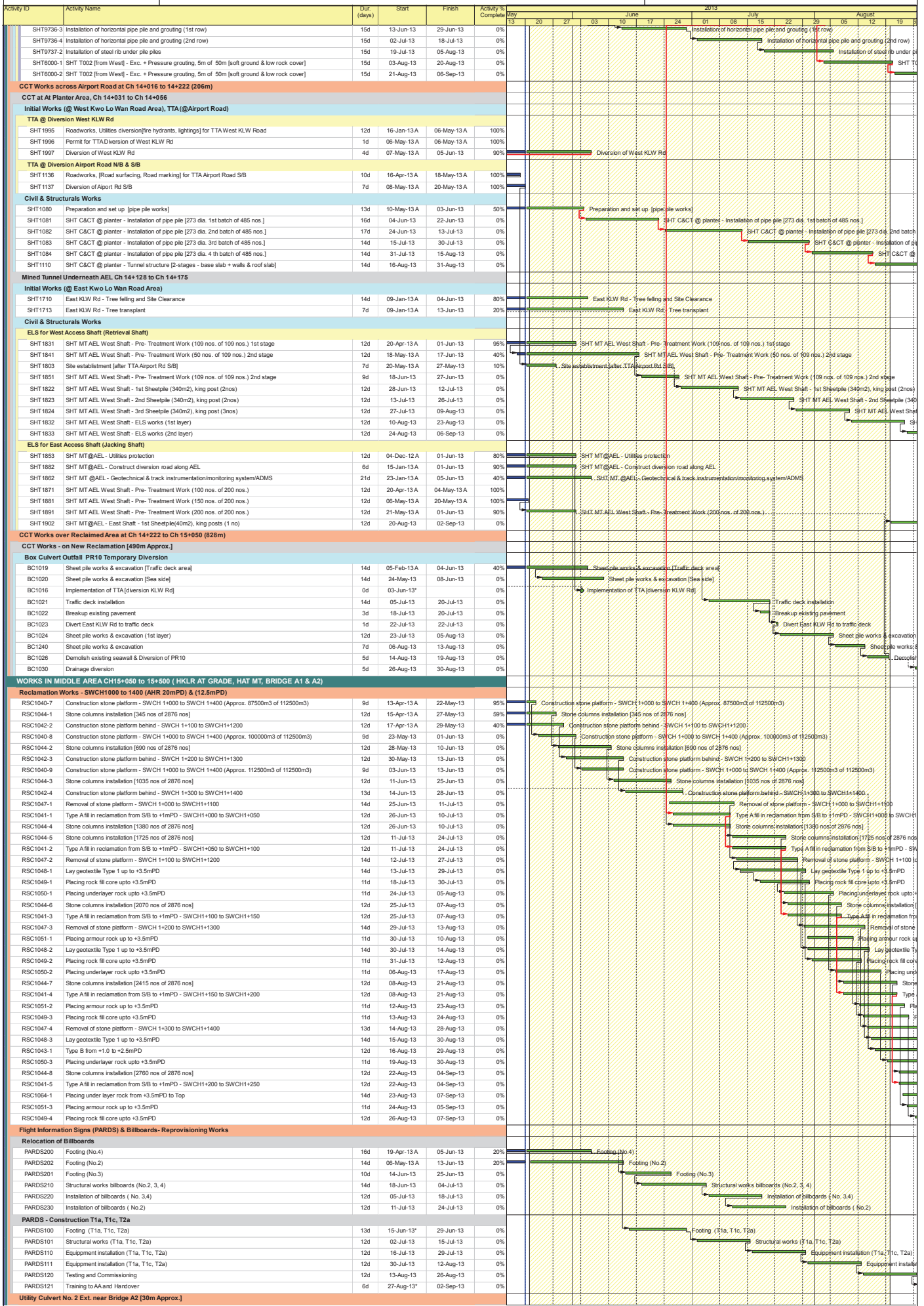


■ Works Programme  
■ Works Programme  
■ Works Programme  
◆ Milestone  
◆ Milestone

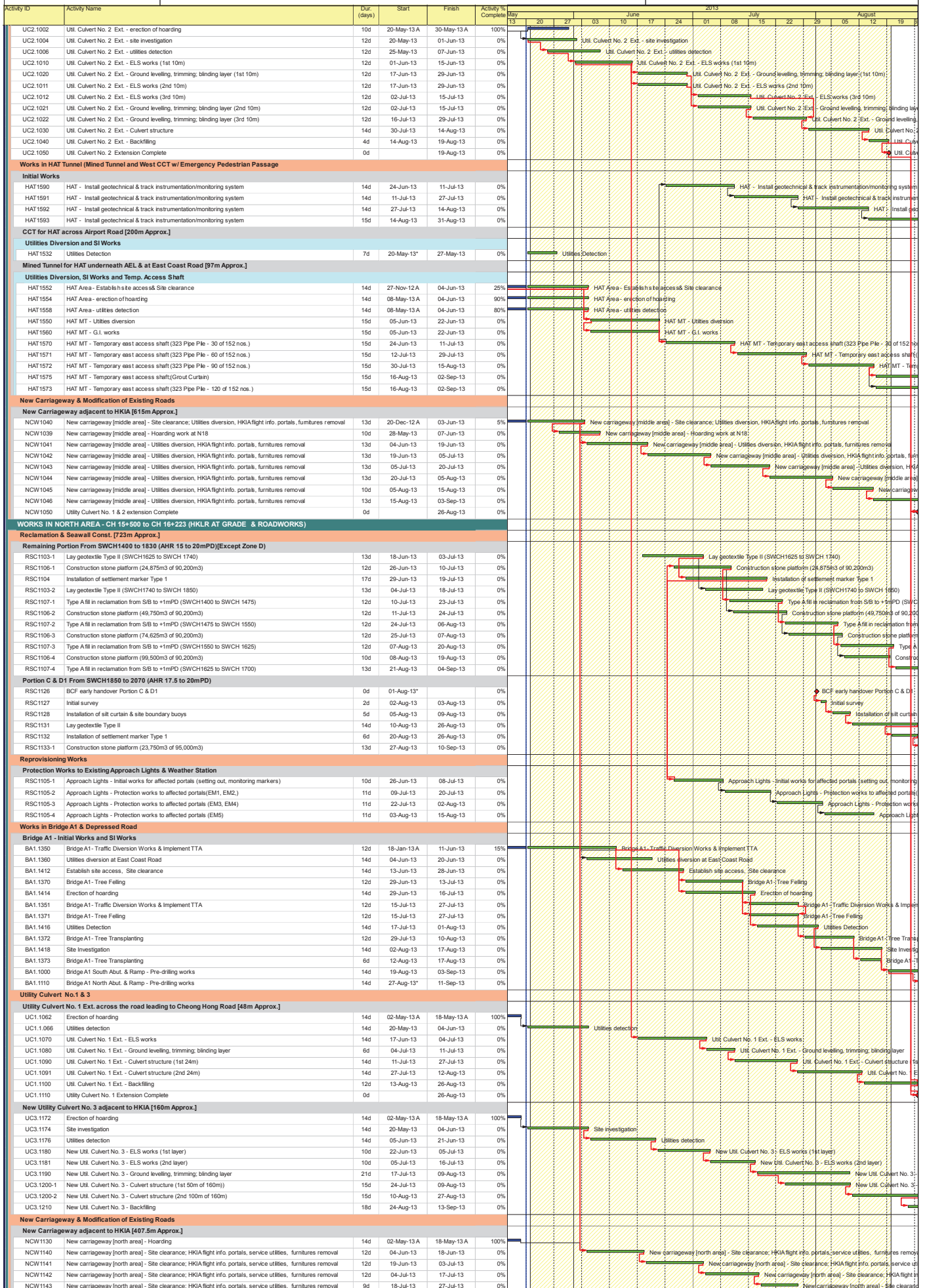
**China State Construction Engineering (Hong Kong) Ltd -**  
**Contract No. HY/2011/03 - HZMB, Hong Kong Link Road**  
**, Section between Scenic Hill and HKBCF**

Prepared by WC/CCK			
Date	Revision	Che...	Approved
25-May-13		HKC	SYT

**中國建築工程(香港)有限公司**  
 CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.











## APPENDIX C

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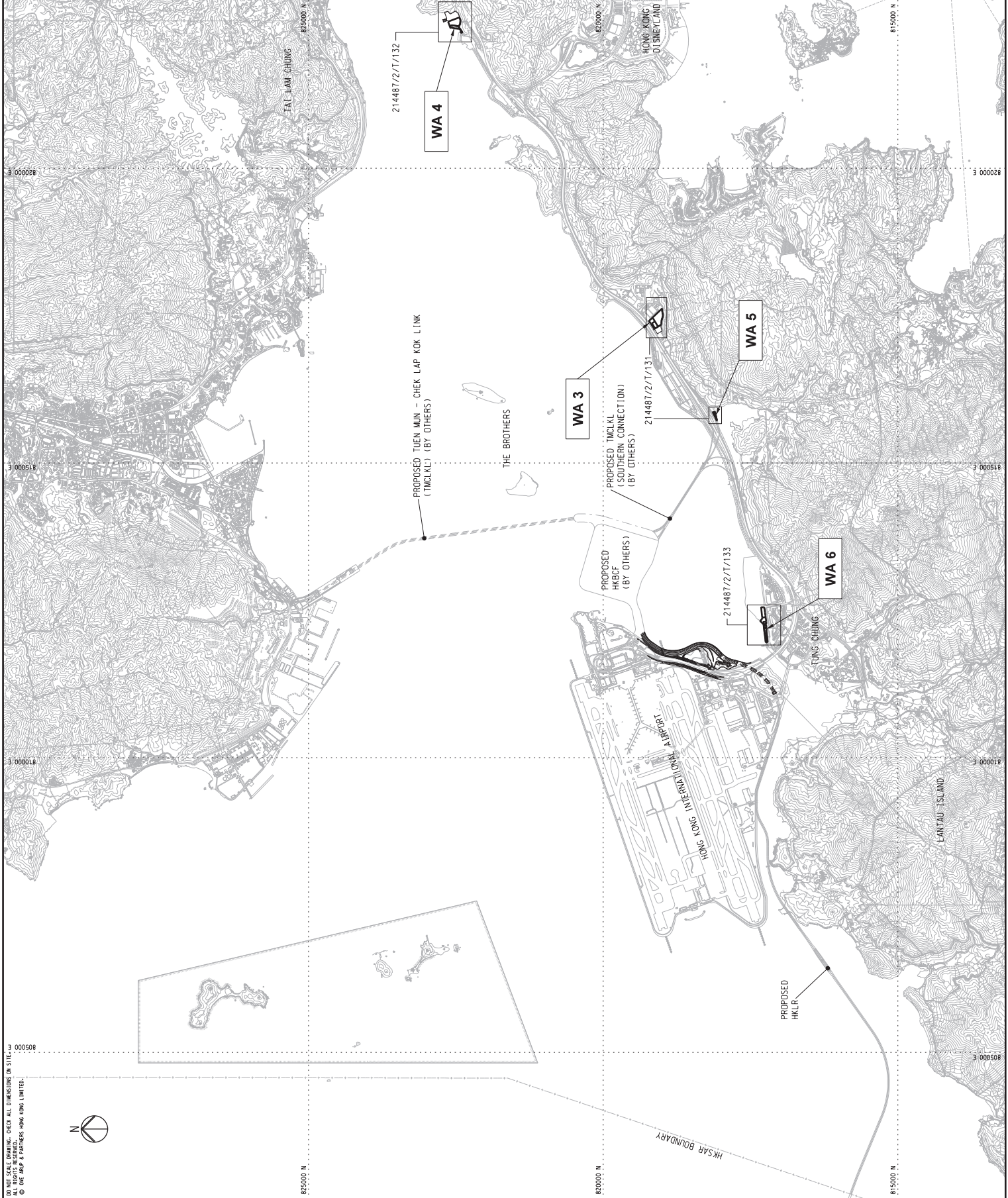
### Location of Works Areas



**NOTES**

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Rev.	Description	By	Date
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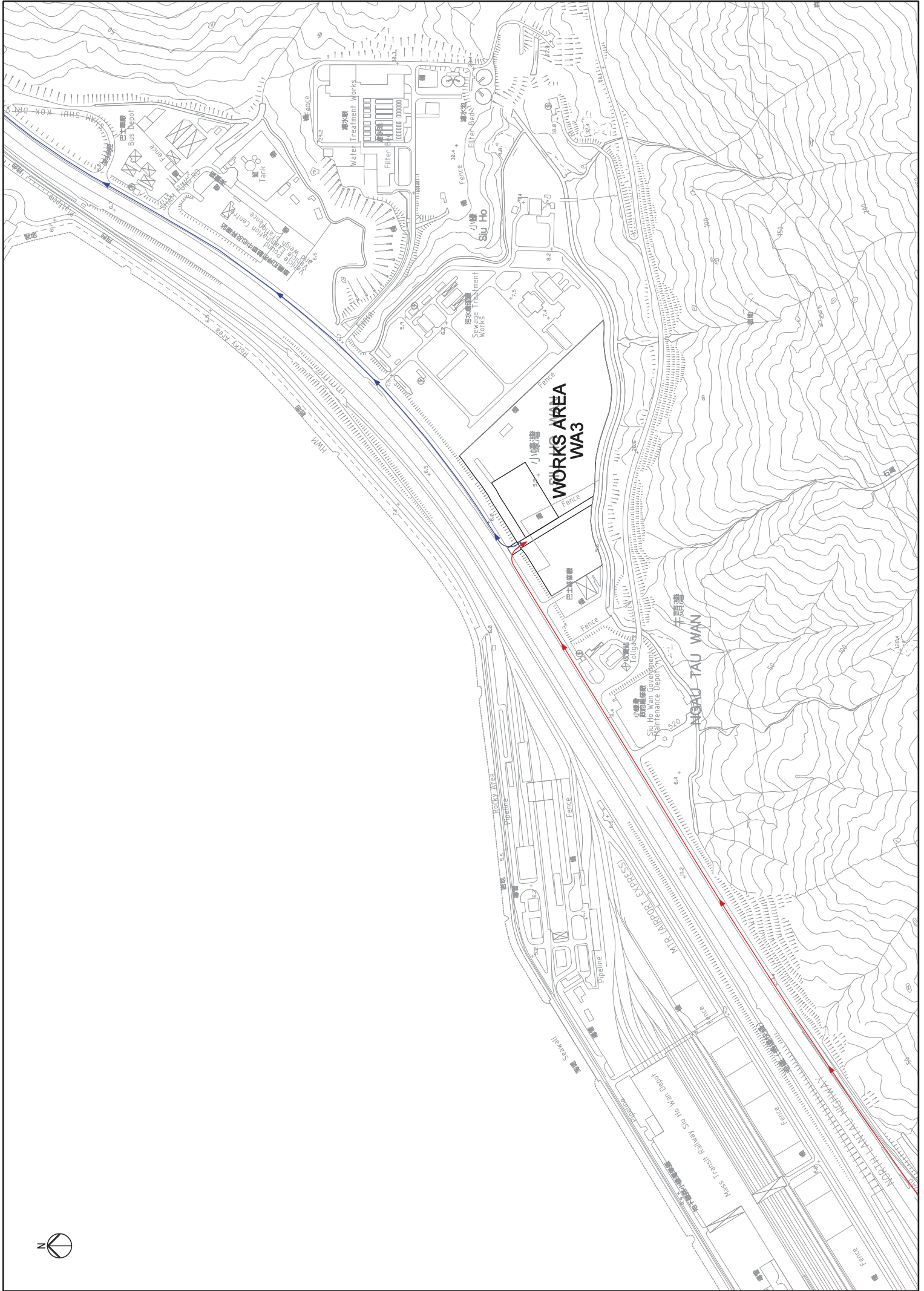
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Works Areas  
**KEY PLAN**

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Date	02/12	Status	TENDER
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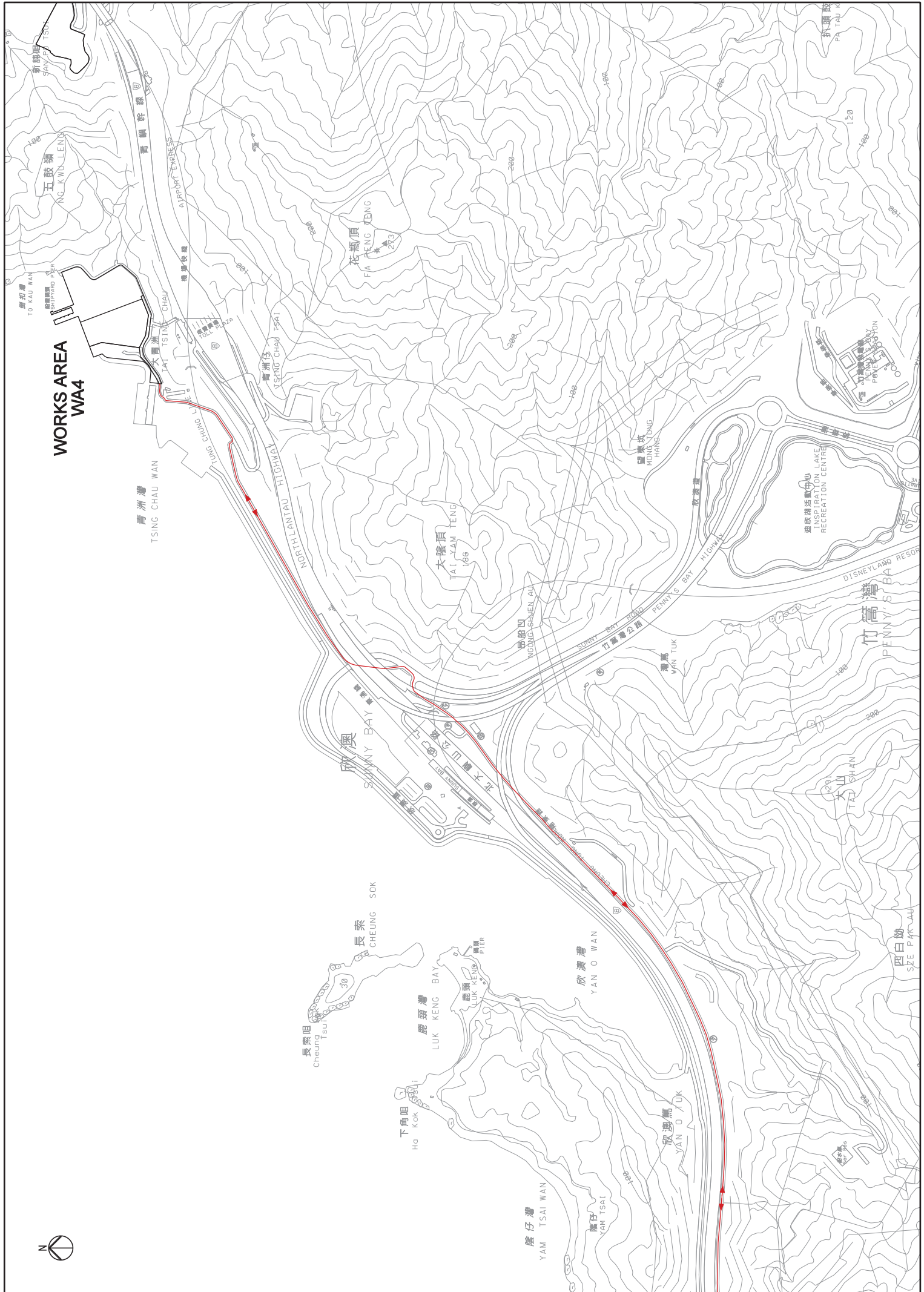




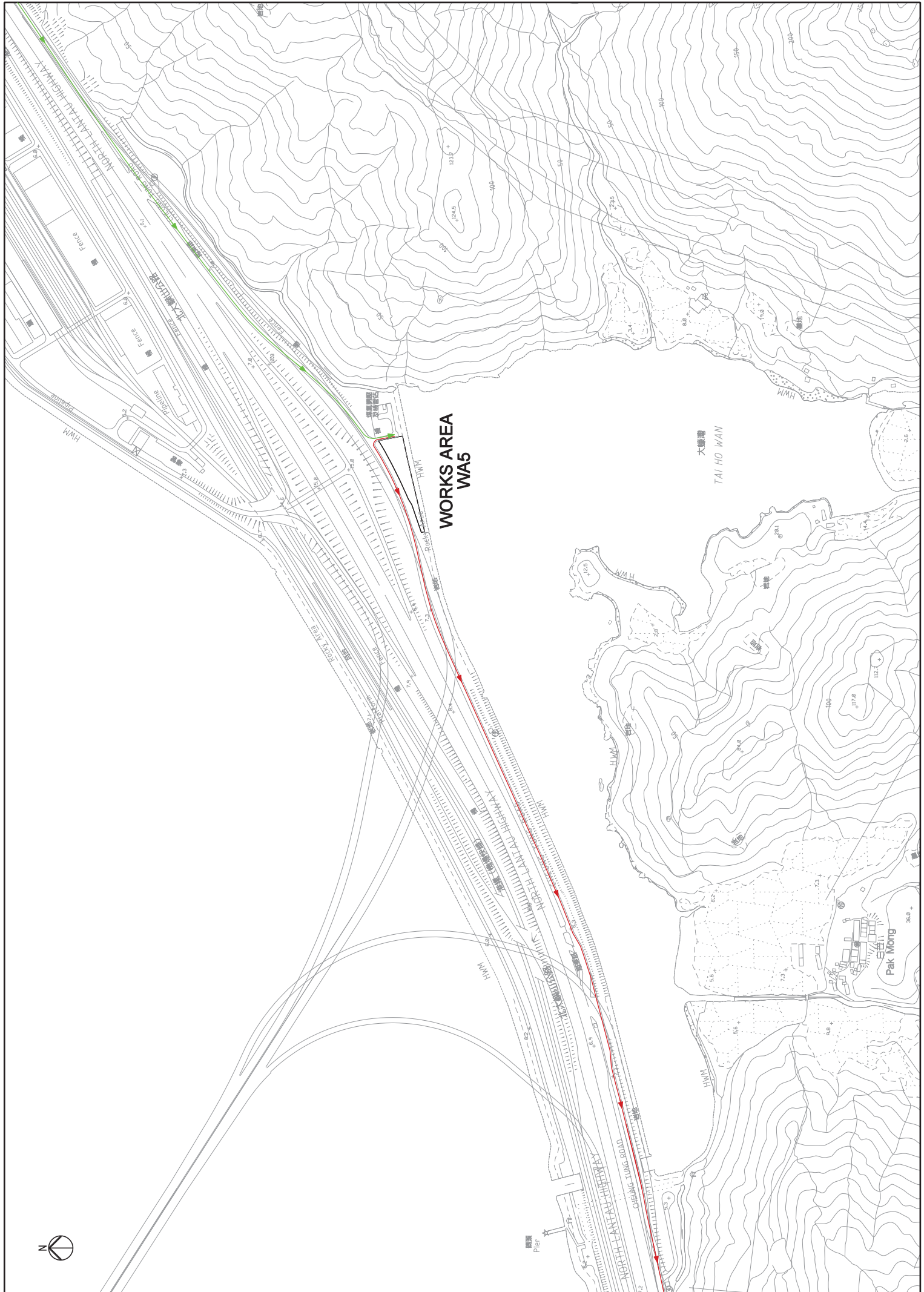




# WORKS AREA WA4







**WORKS AREA  
WA5**

大塘灣  
TAI HO WAN

白芒  
Pak Mong

北潭涌  
NORTH LANTAU HIGHWAY

長涌路  
CHEUNG TUNG ROAD







**NOTES**

1. FOR GENERAL NOTES AND LEGEND, REFER TO DRG. NO. 214487/2/T/121.

**SETTING OUT CO-ORDINATES OF SITE PORTION C**

POINT	CO-ORDINATES	
	EASTING	NORTHING
C1	812097.481	819361.966
C2	812254.199	819116.562
C3	812178.695	819101.208
C4	811970.282	819189.551
C5	811941.125	819235.206

**SETTING OUT CO-ORDINATES OF SITE PORTION D1**

POINT	CO-ORDINATES	
	EASTING	NORTHING
D1-1	812059.460	819421.497
D1-2	812014.853	819351.273
D1-3	812026.200	819329.938

Rev	Description	By	Date
A	TENDER ISSUE	IL	02/12

**ARUP**

顧問  
ARUP 工程師有限公司  
One Arup & Partners Hong Kong Limited

Contract No. and Title

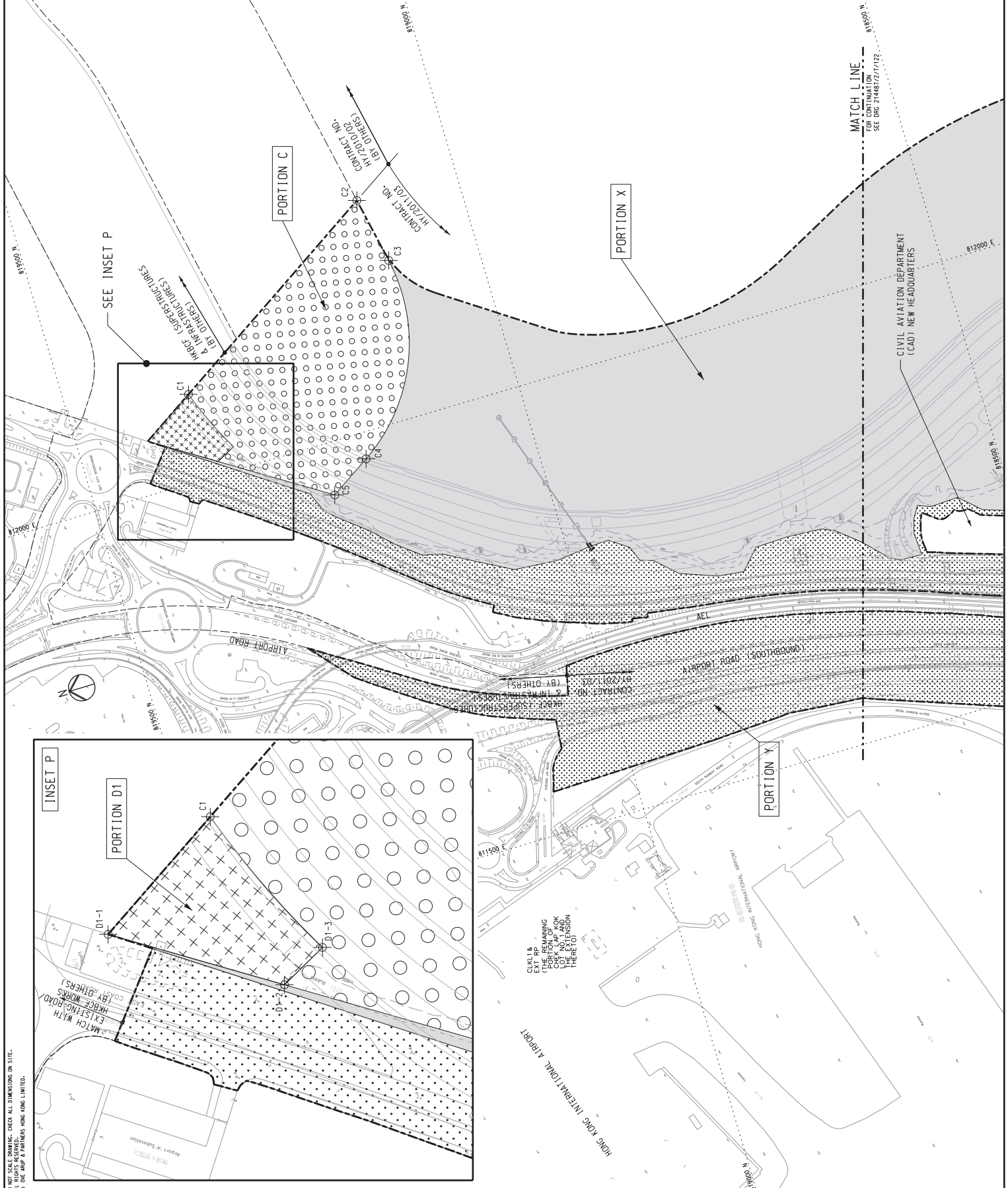
Contract No. HY/2011/03

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Hong Kong Link Road -  
Section Between Scenic Hill and  
Hong Kong Boundary Crossing Facilities

Drawing title

PORTION OF SITE  
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FOR CONTINUATION  
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MATCH LINE

CIVIL AVIATION DEPARTMENT  
(CAD) NEW HEADQUARTERS

FUNG FAI ROAD

EXISTING  
BUILDING  
EXISTING  
ROAD

PORTION X

KWO LO WAN ROAD

AIRPORT ROAD (SOUTHBOUND)  
AIRPORT ROAD (NORTHBOUND)

PORTION Y

MATCH LINE

FOR CONTINUATION  
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HONG KONG INTERNATIONAL AIRPORT

Rev	Description	By	Date
A	TENDER ISSUE	IL	02/12

Consultant  
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Ove Arup & Partners Hong Kong Limited

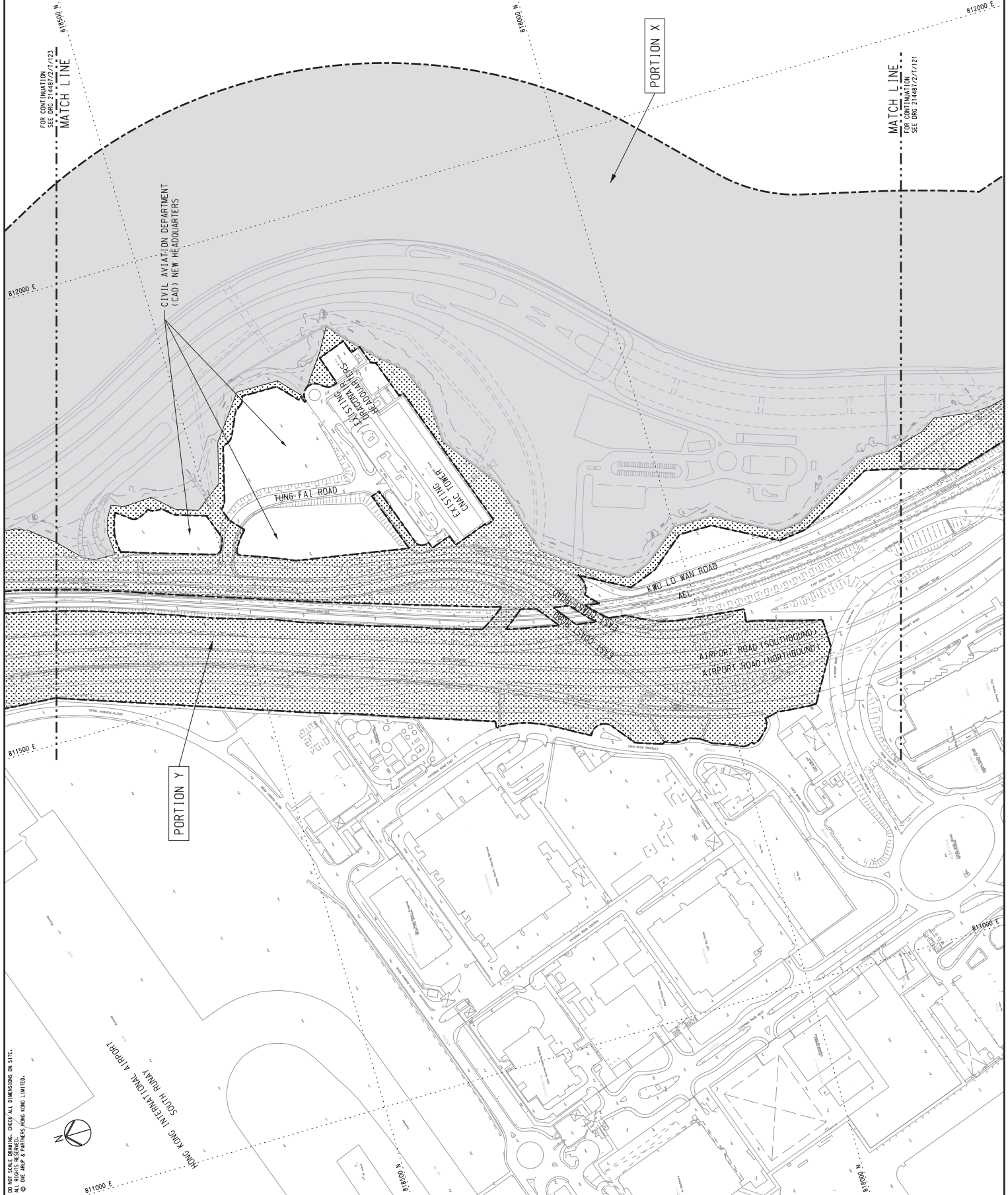
Contract No. and Title  
Contract No. HY/2011/03  
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Drawing Title  
**PORTION OF SITE  
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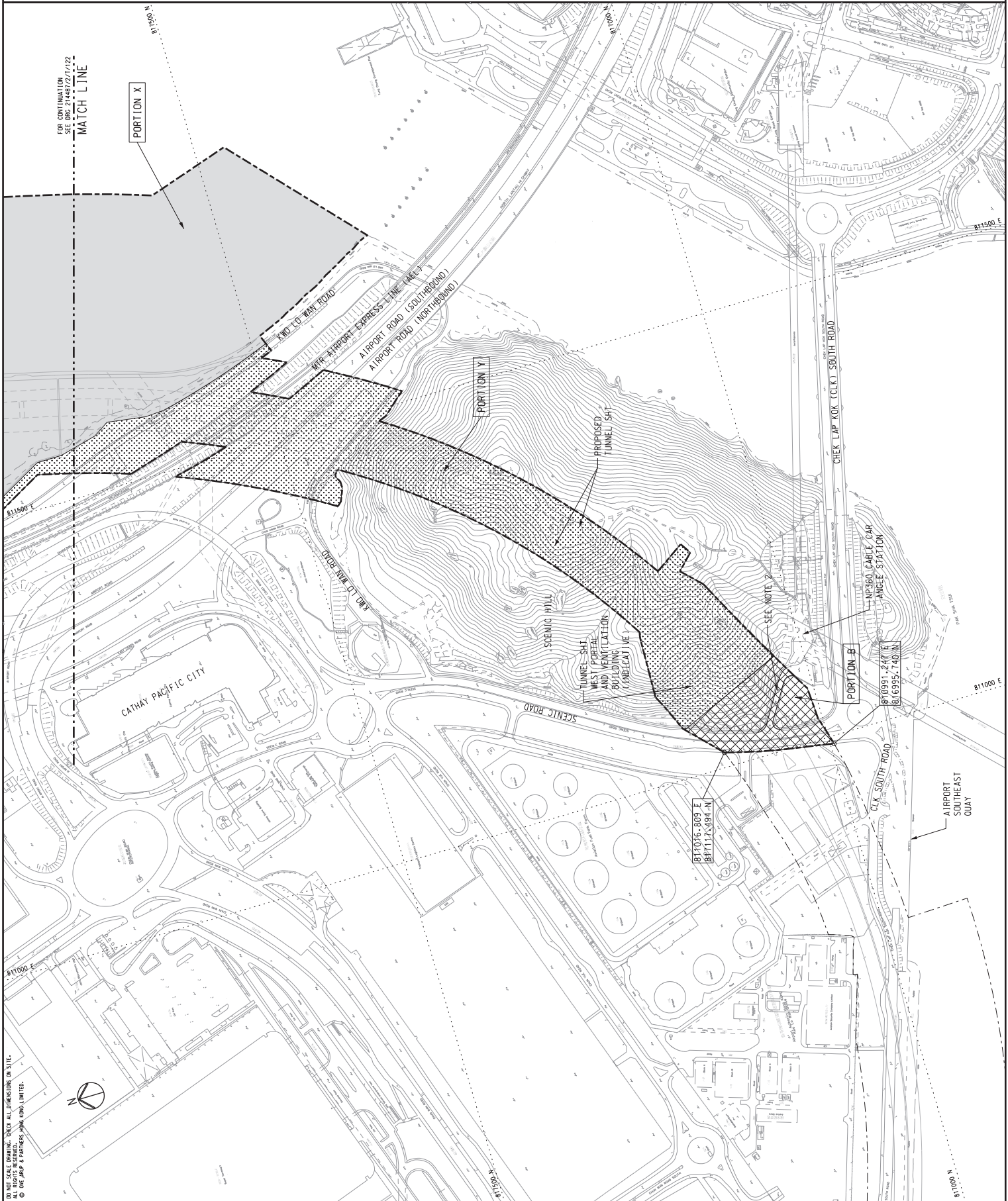


**NOTES**

1. FOR DETAILED DESCRIPTION OF PORTION OF SITE, REFER TO ER PART 2 GENERAL SITE DATA.
2. ACCESS ROAD TO NP360 CABLE CAR ANGLE STATION SHALL BE MAINTAINED AT ALL TIMES.

**LEGEND**

	SITE BOUNDARY
	PORTION X
	PORTION Y
	PORTION B
	PORTION C
	PORTION D1



FOR CONTINUATION  
SEE DRG 214487/2/T/122  
MATCH LINE

PORTION X

PORTION Y

PORTION B

B11016.809 E  
B11117.494 N

B10991.247 E  
B16995.740 N

Rev	Description	By	Date
A	TENDER ISSUE	IL	02/12

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Contract No. and Title  
Contract No. HY/2011/03  
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Drawing title

**PORTION OF SITE  
(SHEET 1 OF 3)**

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## APPENDIX D

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### Event and Action Plan



### Event and Action Plan for Air Quality

Event	Action			
	ET	IEC	SO	Contractor
Exceedance of Action Level for one sample	<ol style="list-style-type: none"> <li>1. Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>2. Inform IEC and SO;</li> <li>3. Repeat measurement to confirm finding;</li> <li>4. Increase monitoring frequency to daily.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method.</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify Contractor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Rectify any unacceptable practice;</li> <li>2. Amend working methods if appropriate.</li> </ol>
Exceedance of Action Level for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. Inform IEC and SO;</li> <li>3. Advise the SO on the effectiveness of the proposed remedial measures;</li> <li>4. Repeat measurements to confirm findings;</li> <li>5. Increase monitoring frequency to daily;</li> <li>6. Discuss with IEC and Contractor on remedial actions required;</li> <li>7. If exceedance continues, arrange meeting with IEC and SO;</li> <li>8. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method;</li> <li>3. Discuss with ET and Contractor on possible remedial measures;</li> <li>4. Advise the ET on the effectiveness of the proposed remedial measures;</li> <li>5. Supervise Implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit proposals for remedial to SO within 3 working days of notification;</li> <li>2. Implement the agreed proposals;</li> <li>3. Amend proposal if appropriate.</li> </ol>

Event	Action			
	ET	IEC	SO	Contractor
Exceedance of Limit Level for one sample	<ol style="list-style-type: none"> <li>1. Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>2. Inform SO, Contractor and EPD;</li> <li>3. Repeat measurement to confirm finding;</li> <li>4. Increase monitoring frequency to daily;</li> <li>5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and SO informed of the results.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor's working method;</li> <li>3. Discuss with ET and Contractor on possible remedial measures;</li> <li>4. Advise the SO on the effectiveness of the proposed remedial measures;</li> <li>5. Supervise implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. Ensure remedial measures properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Amend proposal if appropriate.</li> </ol>
Exceedance of Limit Level for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Notify IEC, SO, Contractor and EPD;</li> <li>2. Identify source;</li> <li>3. Repeat measurement to confirm findings;</li> <li>4. Increase monitoring frequency to daily;</li> <li>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>6. Arrange meeting with IEC and SO to discuss the remedial actions to be taken;</li> <li>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and SO informed of the results;</li> <li>8. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst SO, ET, and Contractor on the potential remedial actions;</li> <li>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the SO accordingly;</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>4. Ensure remedial measures properly implemented;</li> <li>5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Resubmit proposals if problem still not under control;</li> <li>5. Stop the relevant portion of works as determined by the SO until the exceedance is abated.</li> </ol>



## Event and Action Plan for Noise

Event	Action			
	ET	IEC	SO	Contractor
Exceedance of Action Level	<ol style="list-style-type: none"> <li>1. Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>2. Notify IEC and Contractor;</li> <li>3. Report the results of investigation to the IEC, SO and Contractor;</li> <li>4. Discuss with the Contractor and formulate remedial measures;</li> <li>5. Increase monitoring frequency to check mitigation effectiveness.</li> </ol>	<ol style="list-style-type: none"> <li>1. Review the analysed results submitted by the ET;</li> <li>2. Review the proposed remedial measures by the Contractor and advise the SO accordingly;</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem;</li> <li>4. Ensure remedial measures are properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit noise mitigation proposals to IEC;</li> <li>2. Implement noise mitigation proposals.</li> </ol>
Exceedance of Limit Level	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. Inform IEC, SO, EPD and Contractor;</li> <li>3. Repeat measurements to confirm findings;</li> <li>4. Increase monitoring frequency;</li> <li>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>6. Inform IEC, SO and EPD the causes and actions taken for the exceedances;</li> <li>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and SO informed of the results;</li> <li>8. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst SO, ET, and Contractor on the potential remedial actions;</li> <li>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the SO accordingly;</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem;</li> <li>4. Ensure remedial measures properly implemented;</li> <li>5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Resubmit proposals if problem still not under control;</li> <li>5. Stop the relevant portion of works as determined by the SO until the exceedance is abated.</li> </ol>

## Event and Action Plan for Water Quality

Event	Action			
	ET Leader	IEC	SO	Contractor
Action level being exceeded by one sampling day	<ol style="list-style-type: none"> <li>1. Repeat in situ measurement on next day of exceedance to confirm findings;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC, contractor and SO;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor's working methods.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of non-compliance in writing;</li> <li>2. Notify Contractor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the SO and confirm notification of the non-compliance in writing;</li> <li>2. Rectify unacceptable practice;</li> <li>3. Amend working methods if appropriate.</li> </ol>
Action level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> <li>1. Repeat measurement on next day of exceedance to confirm findings;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC, contractor, SO and EPD;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Ensure mitigation measures are implemented;</li> <li>6. Increase the monitoring frequency to daily until no exceedance of Action level.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor's working method;</li> <li>2. Discuss with ET and Contractor on possible remedial actions;</li> <li>3. Review the proposed mitigation measures submitted by Contractor and advise the SO accordingly;</li> <li>4. Supervise the implementation of mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with IEC on the proposed mitigation measures;</li> <li>2. Ensure mitigation measures are properly implemented;</li> <li>3. Assess the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the Engineer and confirm notification of the non-compliance in writing;</li> <li>2. Rectify unacceptable practice;</li> <li>3. Check all plant and equipment and consider changes of working methods;</li> <li>4. Submit proposal of additional mitigation measures to SO within 3 working days of notification and discuss with ET, IEC and SO;</li> <li>5. Implement the agreed mitigation measures.</li> </ol>
Limit level being exceeded by one sampling day	<ol style="list-style-type: none"> <li>1. Repeat measurement on next day of exceedance to confirm findings;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC, contractor, SO and EPD;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Discuss mitigation measures with IEC, SO and Contractor;</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor's working method;</li> <li>2. Discuss with ET and Contractor on possible remedial actions;</li> <li>3. Review the proposed mitigation measures submitted by Contractor and advise the SO accordingly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</li> <li>3. Request Contractor to review the working methods.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the SO and confirm notification of the non-compliance in writing;</li> <li>2. Rectify unacceptable practice;</li> <li>3. Check all plant and equipment and consider changes of working methods;</li> <li>4. Submit proposal of mitigation measures to SO within 3 working days of notification and discuss with ET, IEC and SO.</li> </ol>

Event	Action			
	ET Leader	IEC	SO	Contractor
Limit level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> <li>1. Repeat measurement on next day of exceedance to confirm findings;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC, contractor, SO and EPD;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Discuss mitigation measures with IEC, SO and Contractor;</li> <li>6. Ensure mitigation measures are implemented;</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor's working method;</li> <li>2. Discuss with ET and Contractor on possible remedial actions;</li> <li>3. Review the Contractor's mitigation measures whenever necessary to assure their effectiveness and advise the SO accordingly;</li> <li>4. Supervise the implementation of mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</li> <li>2. Request Contractor to critically review the working methods;</li> <li>3. Make agreement on the mitigation measures to be implemented;</li> <li>4. Ensure mitigation measures are properly implemented;</li> <li>5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the construction activities until no exceedance of Limit level.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposal of mitigation measures to SO within 3 working days of notification and discuss with ET, IEC and SO;</li> <li>3. Implement the agreed mitigation measures;</li> <li>4. Resubmit proposals of mitigation measures if problem still not under control;</li> <li>5. As directed by the Engineer, to slow down or to stop all or part of the construction activities until no exceedance of Limit level.</li> </ol>

## Event and Action Plan for Dolphin Monitoring

Event	ET Leader	IEC	ER / SOR	Contractor
Action Level	<ol style="list-style-type: none"> <li>1. Repeat statistical data analysis to confirm findings;</li> <li>2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&amp;A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences;</li> <li>3. Identify source(s) of impact;</li> <li>4. Inform the IEC, ER/SOR and Contractor;</li> <li>5. Check monitoring data.</li> <li>6. Review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor;</li> <li>2. Discuss monitoring results and findings with the ET and the Contractor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss monitoring with the IEC and any other measures proposed by the ET;</li> <li>2. If ER/SOR is satisfied with the proposal of any other measures, ER/SOR to signify the agreement in writing on the measures to be implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the ER/SOR and confirm notification of the non-compliance in writing;</li> <li>2. Discuss with the ET and the IEC and propose measures to the IEC and the ER/SOR;</li> <li>3. Implement the agreed measures.</li> </ol>
Limit Level	<ol style="list-style-type: none"> <li>1. Repeat statistical data analysis to confirm findings;</li> <li>2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&amp;A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences;</li> <li>3. Identify source(s) of impact;</li> <li>4. Inform the IEC, ER/SOR and Contractor of findings;</li> <li>5. Check monitoring data;</li> <li>6. Repeat review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary;</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor;</li> <li>2. Discuss monitoring results and findings with the ET and the Contractor;</li> <li>3. Attend the meeting to discuss with ET, ER/SOR and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures;</li> <li>4. Review proposals for additional monitoring and any other mitigation measures submitted by ET and Contractor and advise ER/SOR of the results and findings accordingly;</li> <li>5. Supervise / Audit the</li> </ol>	<ol style="list-style-type: none"> <li>1. Attend the meeting to discuss with ET, IEC and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures;</li> <li>2. If ER/SOR is satisfied with the proposals for additional dolphin monitoring and/or any other mitigation measures submitted by ET and Contractor and verified by IEC, ER/SOR to signify the agreement in writing on such proposals and any other mitigation measures;</li> <li>3. Supervise the implementation of additional monitoring</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the ER/SOR and confirm notification of the non-compliance in writing;</li> <li>2. Attend the meeting to discuss with ET, IEC and ER/SOR the necessity of additional dolphin monitoring and any other potential mitigation measures;</li> <li>3. Jointly submit with ET to IEC a proposal of additional dolphin monitoring and/or any other mitigation measures when necessary;</li> <li>4. Implement the agreed additional dolphin monitoring and/or any other mitigation measures.</li> </ol>

Event	ET Leader	IEC	ER / SOR	Contractor
	<p>7. If ET proves that the source of impact is caused by any of the construction activity by the works contract, ET to arrange a meeting to discuss with IEC, ER/SOR and Contractor the necessity of additional dolphin monitoring and/or any other potential mitigation measures (e.g., consider to modify the perimeter silt curtain or consider to control/temporarily stop relevant construction activity etc.) and submit to IEC a proposal of additional dolphin monitoring and/or mitigation measures where necessary.</p>	<p>implementation of additional monitoring and/or any other mitigation measures and advise ER/SOR the results and findings accordingly.</p>	<p>and/or any other mitigation measures.</p>	



## Event and Action Plan for Mudflat Monitoring

Event	ET Leader	IEC	SO	Contractor
Density or the distribution pattern of horseshoe crab, seagrass or intertidal soft shore communities recorded in the impact or post-construction monitoring are significantly lower than or different from those recorded in the baseline monitoring.	<p>Review historical data to ensure differences are as a result of natural variation or previously observed seasonal differences;</p> <p>Identify source(s) of impact;</p> <p>Inform the IEC, SO and Contractor;</p> <p>Check monitoring data;</p> <p>Discuss additional monitoring and any other measures, with the IEC and Contractor.</p>	<p>Discuss monitoring with the ET and the Contractor;</p> <p>Review proposals for additional monitoring and any other measures submitted by the Contractor and advise the SO accordingly.</p>	<p>Discuss with the IEC additional monitoring requirements and any other measures proposed by the ET;</p> <p>Make agreement on the measures to be implemented.</p>	<p>Inform the SO and in writing;</p> <p>Discuss with the ET and the IEC and propose measures to the IEC and the ER;</p> <p>Implement the agreed measures.</p>



## APPENDIX E

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### Implementation Schedule of Environmental Mitigation Measures



## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
<b>Air Quality</b>							
S5.5.6.1	A1	1) The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	All construction sites	Construction stage	✓
S5.5.6.2	A2	2) Proper watering of exposed spoil should be undertaken throughout the construction phase: <ul style="list-style-type: none"> <li>Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;</li> <li>Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;</li> <li>A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones.</li> <li>The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;</li> <li>Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores;</li> <li>When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are</li> </ul>	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	All construction sites	Construction stage	✓
S5.5.6.2	A2		Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	All construction sites	Construction stage	✓

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S5.5.6.2	A2	<p>properly maintained throughout the construction period;</p> <ul style="list-style-type: none"> <li>The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;</li> <li>Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously;</li> <li>Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet;</li> <li>Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding;</li> <li>Any skip hoist for material transport should be totally enclosed by impervious sheeting;</li> <li>Every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;</li> <li>Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed;</li> <li>Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and</li> <li>Exposed earth should be properly treated by</li> </ul>	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	All construction sites	Construction stage	N/A

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
		compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.					
S5.5.6.3	A3	3) The Contractor should undertake proper watering on all exposed spoil (with at least 8 times per day) throughout the construction phase.	Control construction dust	Contractor	All construction sites	Construction stage	✓
S5.5.6	A5	5) Implement regular dust monitoring under EM&A programme during the construction stage.	Monitor the 24 hr and 1hr TSP levels at the representative dust monitoring stations to ensure compliance with relevant criteria throughout the construction period.	Contractor	Selected representative dust monitoring station	Construction stage	✓
S5.5.7.1	A6	<p>The following mitigation measures should be adopted to prevent fugitive dust emissions for concrete batching plant:</p> <ul style="list-style-type: none"> <li>• Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system;</li> <li>• All dust-laden air or waste gas generated by the process operations should be properly extracted and vented to fabric filtering system to meet the emission limits for TSP;</li> <li>• Vents for all silos and cement/pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system;</li> <li>• The materials which may generate airborne dusty emissions should be wetted by water spray system;</li> <li>• All receiving hoppers should be enclosed on three sides up to 3m above unloading point;</li> <li>• All conveyor transfer points should be totally</li> </ul>	Monitor the 24 hr and 1hr TSP levels at the representative dust monitoring stations to ensure compliance with relevant criteria throughout the construction period.	Contractor	Selected representative dust monitoring station	Construction stage	✓



## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
		<p>enclosed;</p> <ul style="list-style-type: none"> <li>All access and route roads within the premises should be paved and wetted; and</li> <li>Vehicle cleaning facilities should be provided and used by all concrete trucks before leaving the premises to wash off any dust on the wheels and/or body.</li> </ul>					
S5.5.2.7	A7	<p>The following mitigation measures should be adopted to prevent fugitive dust emissions at barging point:</p> <ul style="list-style-type: none"> <li>All road surface within the barging facilities will be paved;</li> <li>Dust enclosures will be provided for the loading ramp;</li> <li>Vehicles will be required to pass through designated wheels wash facilities; and</li> <li>Continuous water spray at the loading points.</li> </ul>	Control construction dust	Contractor	All construction sites	Construction stage	✓
S6.4.10	N1	<p>1) Use of good site practices to limit noise emissions by considering the following:</p> <ul style="list-style-type: none"> <li>only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;</li> <li>machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum;</li> <li>plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs;</li> <li>silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works</li> <li>mobile plant should be sited as far away from NSRs as possible and practicable;</li> <li>material stockpiles, mobile container site officer and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> </ul>	Control construction airborne noise by means of good site practices	Contractor	All construction sites	Construction stage	✓

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S6.4.11	N2	2) Install temporary hoarding located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Reduce the construction noise levels at low-level zone of NSRs through partial screening.	Contractor	All construction sites	Construction stage	✓
S6.4.12	N3	3) Install movable noise barriers (typically density @ 14kg/m <sup>2</sup> ), acoustic mat or full enclosure close to noisy plants including air compressor, generators, saw.	Screen the noisy plant items to be used at all construction sites	Contractor	For plant items listed in Appendix 6D of the EIA report at all construction sites	Construction stage	✓
S6.4.13	N4	4) Select Quiet plants. which comply with the BS 5228 Part 1 or TM standards.	Reduce the noise levels of plant items	Contractor	For plant items listed in Appendix 6D of the EIA report at all construction sites	Construction stage	✓
S6.4.14	N5	5) Sequencing operation of construction plants where practicable.	Operate sequentially within the same work site to reduce the construction airborne noise	Contractor	All construction sites where practicable	Construction stage	✓
	N6	6) Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Contractor	Selected representative noise monitoring station	Construction stage	✓
<b>Waste Management (Construction Waste)</b>							
S8.3.8	WM1	<u>Construction and Demolition Material</u>	Good site practice to minimize the waste	Contractor	All construction sites	Construction stage	✓

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
		<p>The following mitigation measures should be implemented in handling the waste:</p> <ul style="list-style-type: none"> <li>Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement;</li> <li>Carry out on-site sorting;</li> <li>Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate;</li> <li>Adopt .Selective Demolition. technique to demolish the existing structures and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible;</li> <li>Implement a trip-ticket system for each works contract to ensure that the disposal of C&amp;D materials are properly documented and verified; and</li> <li>Implement an enhanced Waste Management Plan similar to ETWBTC (Works) No. 19/2005. Environmental Management on Construction Sites. to encourage on-site sorting of C&amp;D materials and to minimize their generation during the course of construction.</li> <li>In addition, disposal of the C&amp;D materials onto any sensitive locations such as agricultural lands, etc. should be avoided. The Contractor shall propose the final disposal sites to the Project Proponent and get its approval before implementation</li> </ul>	<p>generation and recycle the C&amp;D materials as far as practicable so as to reduce the amount for final disposal</p>				
S8.3.9 - S8.3.11	WM2	<p><b>C&amp;D Waste</b></p> <ul style="list-style-type: none"> <li>Standard formwork or pre-fabrication should be used as far as practicable in order to minimise the arising of C&amp;D materials. The use of more durable formwork or plastic facing for the construction works should be considered. Use of wooden hoardings should not be used, as in other projects. Metal hoarding should be used to enhance the possibility of recycling. The</li> </ul>	<p>Good site practice to minimize the waste generation and recycle the C&amp;D materials as far as practicable so as to reduce the amount for final</p>	Contractor	All construction sites	Construction stage	✓

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S8.2.12 - S8.3.15	WM3	<p>purchasing of construction materials will be carefully planned in order to avoid over ordering and wastage.</p> <ul style="list-style-type: none"> <li>The Contractor should recycle as much of the C&amp;D materials as possible on-site. Public fill and C&amp;D waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. Where practicable, concrete and masonry can be crushed and used as fill. Steel reinforcement bar can be used by scrap steel mills. Different areas of the sites should be considered for such segregation and storage. <p><u>Chemical Waste</u></p> <ul style="list-style-type: none"> <li>Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.</li> <li>Containers used for the storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD; and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the regulation..</li> <li>The storage area for chemical wastes should be clearly labeled and used solely for the storage of chemical waste; enclosed on at least 3 sides; have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20 % of the total volume of waste stored in that area, whichever is the greatest; have adequate ventilation; covered to prevent rainfall entering; and arranged so that incompatible materials are adequately separated.</li> </ul> </li></ul>	Control the chemical waste and ensure proper storage, and handling and disposal.	Contractor	All construction sites	Construction stage	✓

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S8.3.16	WM4	<p>Disposal of chemical waste should be via a licensed waste collector; be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Centre which also offers a chemical waste collection service and can supply the necessary storage containers; or be to a reuser of the waste, under approval from the EPD.</p> <p><u>Sewage</u></p> <ul style="list-style-type: none"> <li>Adequate numbers of portable toilets should be provided for the workers. The portable toilets should be maintained in a state, which will not deter the workers from utilizing these portable toilets. Night soil should be collected by licensed collectors regularly.</li> </ul>	Proper handling of sewage from worker to avoid odour, pest and litter impacts	Contractor	All construction sites	Construction stage	✓
S8.3.17	WM5	<p><u>General Refuse</u></p> <ul style="list-style-type: none"> <li>General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes.</li> <li>A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimize odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law.</li> <li>Aluminium cans are often recovered from the waste stream by individual collectors if they are segregated and made easily accessible. Separate labelled bins for their deposit should be provided if feasible.</li> <li>Office wastes can be reduced through the recycling of paper if volumes are large enough to warrant collection. Participation in a local collection scheme should be considered by the Contractor. In addition, waste separation facilities for paper, aluminium cans, plastic bottles etc., should be provided.</li> <li>Training should be provided to workers about the concepts of site cleanliness and appropriate</li> </ul>	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	Construction stage	✓



## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
<b>Water Quality (Construction Phase)</b>							
S9.11.1 S9.11.1.2	- W1	<p>waste management procedure, including reduction, reuse and recycling of wastes.</p> <ul style="list-style-type: none"> <li>Mitigation during the marine works to reduce impacts to within acceptable levels have been recommended and will comprise a series of measures that restrict the method and sequencing of dredging/backfilling, as well as protection measures. Details of the measures are provided below and summarised in the Environmental Mitigation Implementation Schedule in EM&amp;A Manual.</li> <li>Construction of seawalls to be advanced by at least 100-200m before the main reclamation dredging and filling can commence. It should be noted that the protection by advanced seawall is a dynamic process depending on the progress of the construction activities and the stage when such protection could be realised is illustrated in Figure 9.2 and detailed in Appendix 9D6 of the EIA Report. The part of the works where such measures can be undertaken for the majority of the time includes the following locations: <ul style="list-style-type: none"> <li>- TMCLKL northern reclamation;</li> <li>- TMCLKL southern reclamation (after formation of the nips);</li> <li>- Reclamation dredging and filling for Portion 1 of HKLR;</li> </ul> </li> <li>Export for dredged spoils from NWWCZ avoiding exerting high demand on the disposal facilities in the NWWCZ and, hence, minimise potential cumulative impacts;</li> <li>For the marine viaducts of HKLR, the bored piling will be undertaken within a metal casing.</li> <li>A maximum of 30% public fill shall be used for all backfilling below -2.5mPD for the southern reclamation of TMCLKL, HKBCF and HKLR projects;</li> <li>where public fill is proposed for filling below -2.5mPD, the fine content in the public fill will be</li> </ul>	To control construction water quality	Contractor	During seawall dredging and filling	Construction stage	✓
S9.11.1 S9.11.1.2	- W1	<ul style="list-style-type: none"> <li>Export for dredged spoils from NWWCZ avoiding exerting high demand on the disposal facilities in the NWWCZ and, hence, minimise potential cumulative impacts;</li> <li>For the marine viaducts of HKLR, the bored piling will be undertaken within a metal casing.</li> <li>A maximum of 30% public fill shall be used for all backfilling below -2.5mPD for the southern reclamation of TMCLKL, HKBCF and HKLR projects;</li> <li>where public fill is proposed for filling below -2.5mPD, the fine content in the public fill will be</li> </ul>	To control construction water quality	Contractor	During seawall dredging and filling	Construction stage	✓

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S9.11.1.1.2	-	<p>controlled to 25%;</p> <ul style="list-style-type: none"> <li>silt curtains (cage type) will be applied round all grab dredgers during the HKLR southern reclamation works;</li> <li>single layer silt curtains will be applied around all works;</li> <li>during the first two months of dredging work for HKLR, the silt-removal efficiency of the silt-curtains shall be verified by examining the results of water quality monitoring points. The water quality monitoring points to be selected for the above shall be those close to the locations of the initial period of dredging work. Details in this regard shall be determined by the ENPO to be established, taking account of the Contractor's proposed actual locations of his initial period of dredging work.</li> <li>silt curtain shall be fully maintained throughout the works.</li> </ul>		Contractor	During seawall dredging and filling	Construction stage	✓
S9.11.1.1.2	W1	<p>In addition, dredging operations should be undertaken in such a manner as to minimize resuspension of sediments. Standard good dredging practice measures should, therefore, be implemented including the following requirements which should be written into the dredging contract.</p> <ul style="list-style-type: none"> <li>trailer suction hopper dredgers shall not allow mud to overflow;</li> <li>use of Lean Material Overboard (LMOB) systems shall be prohibited;</li> <li>mechanical grabs shall be designed and maintained to avoid spillage and should seal tightly while being lifted;</li> <li>barges and hopper dredgers shall have tight fitting seals to their bottom openings to prevent leakage of material;</li> <li>any pipe leakages shall be repaired quickly.</li> <li>Plant should not be operated with leaking pipes;</li> <li>loading of barges and hoppers shall be controlled to prevent splashing of dredged</li> </ul>	To control construction water quality	Contractor			✓

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S9.11.1.3	W2	<p>material to the surrounding water. Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation;</p> <ul style="list-style-type: none"> <li>• excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved;</li> <li>• adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action;</li> <li>• all vessels shall 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; and</li> <li>• the works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site.</li> </ul> <p><u>Land Works</u></p> <p>General construction activities on land should also be governed by standard good working practice. Specific measures to be written into the works contracts should include:</p> <ul style="list-style-type: none"> <li>• wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters;</li> <li>• sewage effluent and discharges from on-site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the WPCO or collected for disposal offsite. The use of soakaways shall be avoided;</li> <li>• storm drainage shall be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal</li> </ul>	To control construction water quality	Contractor	During seawall dredging and filling	Construction stage	✓

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
		<p>facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks;</p> <ul style="list-style-type: none"> <li>• silt removal facilities, channels and manholes shall be maintained and any deposited silt and grit shall be removed regularly including specifically at the onset of and after each rainstorm;</li> <li>• temporary access roads should be surfaced with crushed stone or gravel;</li> <li>• rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities;</li> <li>• measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system;</li> <li>• open stockpiles of construction materials (e.g. aggregates and sand) on site should be covered with tarpaulin or similar fabric during rainstorms;</li> <li>• manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm runoff from getting into foul sewers;</li> <li>• discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system;</li> </ul>					

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S9.11.1.3	W2	<ul style="list-style-type: none"> <li>all vehicles and plant should be cleaned before they leave the construction site to ensure that no earth, mud or debris is deposited by them on roads. A wheel washing bay should be provided at every site exit;</li> <li>wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain;</li> <li>the section of construction road between the wheel washing bay and the public road should be surfaced with crushed stone or coarse gravel;</li> <li>wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall be screened to remove large objects;</li> <li>vehicle and plant servicing areas, vehicle wash bays and lubrication facilities shall be located under roofed areas. The drainage in these covered areas shall be connected to foul sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for off site disposal;</li> <li>the contractors shall prepare an oil / chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately;</li> <li>waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance;</li> <li>all fuel tanks and chemical storage areas should be provided with locks and be sited on sealed areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank; and</li> <li>surface run-off from bunded areas should pass through oil/grease traps prior to discharge to the stormwater system.</li> </ul>	To control construction water quality	Contractor	During seawall dredging and filling	Construction stage	✓
S9.14	W3	Implement a water quality monitoring programme	Control water quality	Contractor	At identified monitoring	During construction	✓



## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
<b>Ecology (Construction Phase)</b>							
S10.7	E1	<ul style="list-style-type: none"> <li>Good site practices to avoid runoff entering woodland habitats in Scenic Hill</li> <li>Reinstate works areas in Scenic Hill</li> <li>Avoid stream modification in Scenic Hill</li> </ul>	Avoid potential disturbance on habitat of Romer's Tree Frog in Scenic Hill	Designer; Contractor	Scenic Hill	During construction	✓
S10.7	E2	<ul style="list-style-type: none"> <li>Use closed grab in dredging works.</li> <li>Install silt curtain during the construction.</li> <li>Limit dredging and works fronts.</li> <li>Construct seawall prior to reclamation filling where practicable.</li> <li>Good site practices</li> <li>Strict enforcement of no marine dumping.</li> <li>Site runoff control3</li> <li>Spill response plan</li> </ul>	Minimise marine water quality impacts	Contractor	Seawall, reclamation area	During construction	✓
S10.7	E4	<ul style="list-style-type: none"> <li>Watering to reduce dust generation; prevention of siltation of freshwater habitats; Site runoff should be desilted, to reduce the potential for suspended sediments, organics and other contaminants to enter streams and standing freshwater</li> </ul>	Prevent Sedimentation from Land-based works areas	Contractor	Land-based works areas	During construction	✓
S10.7	E5	<ul style="list-style-type: none"> <li>Good site practices, including strictly following the permitted works hours, using quieter machines where practicable, and avoiding excessive lightings during night time</li> </ul>	Prevent disturbance to terrestrial fauna and habitats	Contractor	Land-based works areas	During construction	✓
S10.7	E6	<ul style="list-style-type: none"> <li>Dolphin Exclusion Zone;</li> <li>Dolphin watching plan</li> </ul>	Minimize temporary marine habitat loss impact to dolphins	Contractor	Marine works	During marine works	✓
S10.7	E7	<ul style="list-style-type: none"> <li>Decouple compressors and other equipment on working vessels</li> <li>Avoidance of percussive piling</li> <li>Marine underwater noise monitoring</li> </ul>	Minimise marine noise impacts on dolphins	Contractor	Marine works	During marine works	✓

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S10.7	E8	<ul style="list-style-type: none"> <li>Temporal suspension of drilling bored pile casing in rock during peak dolphin calving season in May and June;</li> <li>Handling with care for the installation of sheet piling for reclamation site</li> <li>Control vessel speed</li> <li>Skipper training,</li> <li>Predefined and regular routes for working vessels; avoid Brothers Islands.</li> </ul>	Minimise marine traffic disturbance dolphins	Contractor	Marine traffic	During marine works	✓
S10.10	E9	<ul style="list-style-type: none"> <li>Dolphin vessel monitoring</li> <li>Mudflat ecological monitoring</li> </ul>	Minimise marine traffic disturbance dolphins	Contractor	North Lantau and West Lantau	Prior to construction, during construction, and 1 year after operation	✓
<b>Ecology (Operation Phase)</b>							
S10.7	E10	<ul style="list-style-type: none"> <li>Preconstruction dive survey for corals</li> </ul>	Minimise impacts on marine ecology	Contractor	The marine pier sites nearest to intertidal zone and along the shore of the HKLR reclamation site	Prior to marine construction works in these locations	✓
<b>Fisheries</b>							
S11.7	F2	<ul style="list-style-type: none"> <li>Reduce re-suspension of sediments</li> <li>Limit dredging and works fronts.</li> <li>Good site practices</li> <li>Strict enforcement of no marine dumping.</li> <li>Spill response plan</li> </ul>	Minimise water quality impacts	Contractor	Seawall, reclamation area	During construction	✓
S11.7	F3	<ul style="list-style-type: none"> <li>Install silt-grease trap in the drainage system collecting surface runoff</li> </ul>	Minimise impacts on marine water quality	Designer	Reclamation area	During construction	✓

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
S11.7	F4	<ul style="list-style-type: none"> <li>Maritime Oil Spill Response Plan (MOSRP);</li> <li>Contingency plan.</li> </ul>	Minimise impacts on marine water quality	Management	HKLR	During operation	✓
<b>Landscape &amp; Visual (Detailed Design Phase)</b>							
S14.3.3.1	LV1	<p>General design measures include:</p> <ul style="list-style-type: none"> <li>Roadside planting and planting along the edge of the reclamation is proposed;</li> <li>Transplanting of mature trees in good health and amenity value where appropriate and reinstatement of areas disturbed during construction by compensatory hydro-seeding and planting;</li> <li>Protection measures for the trees to be retained during construction activities;</li> <li>Optimizing the sizes and spacing of the bridge columns;</li> <li>Fine-tuning the location of the bridge columns to avoid visually sensitive locations;</li> <li>Aesthetic design of the bridge form and its structural elements for HKLR, e.g. parapet, soffit, columns, lightings and so on;</li> <li>Considering the decorative urban design elements for HKLR, e.g. decorative road lightings;</li> <li>Maximizing new tree, shrub and other vegetation planting to compensate tree felled and vegetation removed;</li> <li>Providing planting area around peripheral of HKLR for tree planting screening effect;</li> <li>Providing salt-tolerant native trees along the planter strip at affected seawall and newly reclaimed coastline.</li> <li>Providing salt-tolerant native trees along the planter strip at affected seawall and newly reclaimed coastline.</li> <li>For HKLR, providing aesthetic design on the viaduct, tunnel portals, at-grade roads and</li> </ul>	Minimise visual & landscape impact	Detailed designer	HKLR	Design Stage	
S14.3.3.1			Minimise visual & landscape impact	Detailed designer	HKLR	Design Stage	

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
<b>Landscape &amp; Visual (Construction Phase)</b>							
S14.3.3.3	LV2	<p>Mitigate both Landscape and Visual Impacts</p> <p>G1. Grass-hydroseed bare soil surface and stock pile areas.</p> <p>G2. Add planting strip and automatic irrigation system if appropriate at some portions of bridge or footbridge to screen bridge and traffic.</p> <p>G3. For HKLR, providing aesthetic design on the viaduct, tunnel portals, at-grade roads and reclamation (e.g. subtle colour tone and slim form for viaduct, featured form of tunnel portals, roadside planting along at-grade roads and landscape berm on &amp; planting along the HKLR alignment).</p> <p>G4. Vegetation reinstatement and upgrading to disturbed areas.</p> <p>G5. Maximize new tree, shrub and other vegetation planting to compensate tree felled and vegetation removed.</p> <p>G6. Provide planting area around peripheral of and within HKLR for tree screening buffer effect.</p> <p>G7. Plant salt tolerant native tree and shrubs etc along the planterstrip at affected seawall.</p> <p>G8. Reserve of loose natural granite rocks for re-use. Provide new coastline to adopt .natural-look. by means of using armour rocks in the form of natural rock materials and planting strip area accommodating screen buffer to enhance .natural-look. of the new coastline (see Figure 14.4.2 for example).</p>	Minimise visual & landscape impact	Contractor	HKLR	Construction stage	✓
S14.3.3.3	LV3	<p>Mitigate Visual Impacts</p> <p>V1. Minimize time for construction activities during construction period.</p>					✓

## Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	Implementation Status
<b>EM&amp;A</b> S15.5 - S15.6	EM2	<p>V2. Provide screen hoarding at the portion of the project site / works areas / storage areas near VSRs who have close low-level views to the Project during HKLR construction.</p> <p>1) An Environmental Team needs to be employed as per the EM&amp;A Manual.</p> <p>2) Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures.</p> <p>3) An environmental impact monitoring needs to be implementing by the Environmental Team to ensure all the requirements given in the EM&amp;A Manual are fully complied with.</p>	Perform environmental monitoring & auditing	Contractor	All construction sites	Construction stage	✓





## APPENDIX F

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### Site Audit Findings and Corrective Actions



## Appendix F – Site Audit Findings and Corrective Actions

1.1.1 Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. During the reporting period, 13 site inspections were carried out on 4, 11, 18 and 28 June 2013; 2, 9, 16, 23 and 30 July 2013 and 6, 13, 20 and 30 August 2013.

1.1.2 Particular observations during the site inspections are described below.

### 4 June 2013

- (a) There were gaps on metal cover of the cement mixing plant at Site Access S5. The Contactor enclosed the cement mixing plant fully at Site Access S5. (This observation was found on 31 May 2013 and closed on 4 June 2013)
- (b) Stagnant water was found inside the recesses for lifting eyes of concrete blocks at S16. The Contractor filled the recesses for lifting eyes of concrete blocks by sand to avoid the stagnant water accumulation at S16. (This observation was closed on 11 June 2013.)
- (c) The chemical container was found to be without a drip tray at West Portal. The Contractor removed the chemical container at West Portal. (This observation was closed on 11 June 2013.)
- (d) Stagnant water was found inside the chemical waste storage box at West Portal. The Contractor cleaned up the stagnant water inside the chemical waste storage box at West Portal. (This observation was closed on 11 June 2013.)

### 11 June 2013

- (a) Oil containers were found without drip trays at S5. The Contractor removed the oil containers at S5. (This observation was closed on 18 June 2013.)
- (b) The chemical containers were found to be without drip trays at West Portal. The Contractor removed the chemical containers at West Portal. (This observation was closed on 18 June 2013.)
- (c) The chemical containers were found to be without drip trays at West Portal. The Contractor removed the chemical containers at West Portal. (This observation was closed on 18 June 2013.)

### 18 June 2013

- (a) The unpaved area was dry at WA04. The Contractor kept the unpaved area wet. (This observation was closed on 28 June 2013.)
- (b) The chemical containers were found to be without drip trays at WA03. The Contractor provided drip trays for chemical containers. (This observation was closed on 28 June 2013.)
- (c) The unpaved road was dry at S7. The Contractor kept the unpaved area wet. (This observation was closed on 28 June 2013.)
- (d) The stagnant water was found inside the rubbish container at West Portal. The Contractor cleared up stagnant water. (This observation was closed on 28 June 2013.)

### **28 June 2013**

- (a) Bags of cement were not entirely covered with impervious sheeting at West Portal. The Contractor was reminded to cover bags of cement entirely with impervious sheeting.
- (b) Empty chemical containers were not stored at chemical waste store at West Portal. The Contractor was reminded to remove empty chemical containers or properly store empty chemical containers at chemical waste store.

### **2 July 2013**

- (a) Bags of cement were not covered entirely with impervious sheeting at West Portal. The Contractor removed the bags of cement at West Portal. (This observation was found on 28 June 2013 and closed on 2 July 2013)
- (b) Empty chemical containers were not stored at chemical waste store at West Portal. The Contractor removed the empty chemical container at West Portal. (This observation was found on 28 June 2013 and closed on 2 July 2013.)
- (c) Oil containers were found to be without drip trays at S5. The Contractor removed the oil container at S5. (This observation was closed on 9 July 2013.)
- (d) Stagnant water was found on the construction material at S9. The Contractor cleaned up the stagnant water inside the construction material at S9. (This observation was closed on 9 July 2013.)
- (e) Stagnant water was found inside the drip tray provided for the generator at N4. The Contractor cleaned the stagnant water at N4. (This observation was closed on 9 July 2013.)
- (f) Stagnant water was found on oil container at S5. The Contractor removed the oil container at S5. (This observation was closed on 9 July 2013.)

### **9 July 2013**

- (a) Stagnant water was found inside the drip tray at S16. The Contractor cleaned up stagnant water inside the drip tray as S16. (This observation was closed on 16 July 2013.)
- (b) Chemical containers were found to be without drip tray at S11. The Contractor removed the chemical containers at S11. (This observation was closed on 16 July 2013.)
- (c) Trees were found to be without fencing protection at S5. The Contractor removed and transported the tree to other position at S5. (This observation was closed on 16 July 2013.)
- (d) Stagnant water was found inside the drip tray at West Portal. The Contractor put the drip tray upside down to avoid accumulation of stagnant water at West Portal. (This observation was closed on 16 July 2013.)
- (e) The silt curtain on northern entrance was found to have a big gap between each curtains at Portion X. The Contractor provide silt curtain to cover the gaps between sections of curtain at northern entrance of portion X. (This observation was closed on 16 July 2013.)

### **16 July 2013**

- (a) Stagnant water was found inside the metal material at WA03. The Contractor provided full cover for the metal material to avoid water accumulation at WA03. (This observation was closed on 23 July 2013.)
- (b) Chemical containers were found to be without clear labels at N4. The Contractor provided clear labels for chemical containers at N4. (This observation was closed on 23 July 2013.)

- (c) The chemical containers were found to be without drip trays at West Portal. The Contractor removed the chemical containers at West Portal. (This observation was closed on 23 July 2013.)

### **23 July 2013**

- (a) There was a big gap between two sections of silt curtain at northern entrance of Portion X. The Contractor provide provide proper maintenance for the slit curtain at northern entrance of portion X. (This observation was closed on 30 July 2013.)
- (b) Sand was found at passageway of vessel Chang Sheng 309. The Contractor cleared sand at passageway of vessel Chang Sheng 309. (This observation was closed on 30 July 2013.)
- (c) There were gaps on the metal cover of cement mixing plant at S23. The Contactor provide an impervious shelter with top and 3 sides for the cement mixing plant at S23. (This observation was closed on 30 July 2013.)

### **30 July 2013**

- (a) Wheel washing was not properly implemented at the site exit of S11. The Contractor was reminded to ensure the vehicles are thoroughly cleaned before leaving the site.
- (b) Construction materials were placed near a tree at S8. The Contractor was reminded to avoid placing materials near the trees and protection to trees identified as "retained"/ transplant" should be provided.
- (c) Stagnant water in a chemical container of the wastewater treatment plant was observed at N4. The Contractor was reminded to clean up stagnant water immediately to avoid mosquito breeding.

### **6 August 2013**

- (a) Wheel washing was not properly implemented at the site exit of S11. The Contactor washed vehicles' wheels thoroughly before the vehicles leave the exit at S11. (This observation was found on 30 July 2013 and closed on 6 August 2013.)
- (b) Construction materials were placed near a tree at S8. The construction materials were removed at S8. (This observation was found on 30 July 2013 and closed on 6 August 2013.)
- (c) Stagnant water in a chemical container of the wastewater treatment plant was observed at N4. The stagnant water inside a chemical container of the waste water treatment plant was cleaned by the Contractor at N4. (This observation was found on 30 July 2013 and closed on 6 August 2013.)
- (d) There was a big gap between two sections of silt curtain at northern entrance of Portion X. Black cloth was used to cover the gap between two silt curtains of northern entrance at Portion X. (This observation was closed on 13 August 2013.)
- (e) The unpaved area at N13 was found to be without water spray. Regularly water spray was provided by the Contractor to keep the unpaved area wet at N13. (This observation was closed on 13 August 2013.)
- (f) Stagnant water was found inside the drip trays at S8. The stagnant water inside the drip tray of the generator plant was cleaned by Contractor at S8. (This observation was closed on 13 August 2013.)
- (g) Oil was found to leak out from a rubber hose at S8. The oil leakage was cleaned and the broken rubber hose was repaired by Contractor at S8. (This observation was closed on 13 August 2013.)

- (h) Stagnant water was found inside a drip tray at West Portal. The stagnant water inside the drip trays was cleaned by contractor at West Portal. (This observation was closed on 13 August 2013.)
- (i) The chemical containers were found to be without drip trays at N5. The chemical containers were removed by the Contractor at N5. (This observation was closed on 13 August 2013.)

**13 August 2013**

- (a) Chemical containers were found to be without drip trays at WA03. The drip tray for chemical containers was provided by the Contractor at WA03 (This observation was closed on 20 August 2013.)
- (b) Oil containers were found to be without drip trays at S11. The drip tray for oil containers was provided by the Contractor at S11. (This observation was closed on 20 August 2013.)
- (c) Muddy water was found leaking from the site area to public road at S8. The muddy water on public road was cleaned by the Contractor at S8 (This observation was closed on 20 August 2013.)

**20 August 2013**

- (a) The operating machine generated black smoke at S16. The Contractor provided maintenance for the machine. (This observation was closed on 30 August 2013.)
- (b) Oil was found on the bare soil at S8. The Contractor cleaned up the oil. (This observation was closed on 30 August 2013.)
- (c) Stagnant water was accumulated inside a drip tray at West Portal. The Contractor cleaned up the stagnant water. (This observation was closed 30 August 2013.)
- (d) Chemical containers were found to be without drip trays at N4. The Contractor provided drip trays for the chemical containers. (This observation was closed 30 August 2013.)
- (e) Cement bags were found to be without cover at S23. The Contractor provided cover for the cement bags. (This observation was closed 30 August 2013.)

**30 August 2013**

- (a) The Construction materials were placed near the tree at S8. The Contractor was reminded to construction material near the tree at S8.

1.1.3 The Contractor has rectified all of the observations (except the observation recorded on 30 August 2013) as identified during environmental site inspections during the reporting period. Follow-up actions for outstanding observation on 30 August 2013 will be inspected during the next site inspections.





## APPENDIX G

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### Air Quality Monitoring Data and Graphical Plots



Air Quality Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Station	Time	Parameter	Results	Unit
HKLR	HY/2011/03	2013-06-03	AMS5	09:25	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-03	AMS5	10:25	1-hr TSP	10	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-03	AMS5	11:25	1-hr TSP	11	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-07	AMS5	09:25	1-hr TSP	10	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-07	AMS5	10:25	1-hr TSP	36	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-07	AMS5	11:25	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-13	AMS5	09:30	1-hr TSP	35	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-13	AMS5	10:30	1-hr TSP	31	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-13	AMS5	11:30	1-hr TSP	34	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-18	AMS5	14:10	1-hr TSP	4	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-18	AMS5	15:10	1-hr TSP	6	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-18	AMS5	16:10	1-hr TSP	6	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-24	AMS5	09:40	1-hr TSP	35	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-24	AMS5	10:40	1-hr TSP	51	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-24	AMS5	11:40	1-hr TSP	14	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-28	AMS5	09:10	1-hr TSP	37	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-28	AMS5	10:10	1-hr TSP	30	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-28	AMS5	11:10	1-hr TSP	24	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-04	AMS5	09:02	1-hr TSP	13	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-04	AMS5	10:02	1-hr TSP	12	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-04	AMS5	11:02	1-hr TSP	10	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-10	AMS5	09:30	1-hr TSP	11	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-10	AMS5	10:30	1-hr TSP	8	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-10	AMS5	11:30	1-hr TSP	8	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-16	AMS5	13:35	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-16	AMS5	14:35	1-hr TSP	8	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-16	AMS5	15:35	1-hr TSP	5	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-22	AMS5	09:30	1-hr TSP	10	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-22	AMS5	10:30	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-22	AMS5	11:30	1-hr TSP	11	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-26	AMS5	09:35	1-hr TSP	21	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-26	AMS5	10:35	1-hr TSP	20	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-26	AMS5	11:35	1-hr TSP	15	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-01	AMS5	09:30	1-hr TSP	19	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-01	AMS5	10:30	1-hr TSP	19	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-01	AMS5	11:30	1-hr TSP	19	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-07	AMS5	09:10	1-hr TSP	6	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-07	AMS5	10:10	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-07	AMS5	11:10	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-13	AMS5	13:20	1-hr TSP	25	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-13	AMS5	14:20	1-hr TSP	12	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-13	AMS5	15:20	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-19	AMS5	09:23	1-hr TSP	22	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-19	AMS5	10:23	1-hr TSP	25	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-19	AMS5	11:23	1-hr TSP	18	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-23	AMS5	09:23	1-hr TSP	40	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-23	AMS5	10:23	1-hr TSP	23	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-23	AMS5	11:23	1-hr TSP	27	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-29	AMS5	09:18	1-hr TSP	6	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-29	AMS5	10:18	1-hr TSP	6	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-29	AMS5	11:18	1-hr TSP	7	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-06	AMS5	08:00	24-hr TSP	22	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-11	AMS5	08:00	24-hr TSP	24	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-17	AMS5	08:00	24-hr TSP	7	ug/m <sup>3</sup>

Air Quality Monitoring Data

HKLR	HY/2011/03	2013-06-21	AMS5	08:00	24-hr TSP	18	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-27	AMS5	08:00	24-hr TSP	31	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-03	AMS5	08:00	24-hr TSP	11	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-11	AMS5	16:15	24-hr TSP	26	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-15	AMS5	08:00	24-hr TSP	6	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-19	AMS5	08:00	24-hr TSP	10	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-25	AMS5	08:00	24-hr TSP	5	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-31	AMS5	08:00	24-hr TSP	15	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-06	AMS5	08:00	24-hr TSP	10	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-12	AMS5	08:00	24-hr TSP	46	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-22	AMS5	08:00	24-hr TSP	47	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-16	AMS5	08:00	24-hr TSP	28	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-22	AMS5	08:00	24-hr TSP	47	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-28	AMS5	08:00	24-hr TSP	27	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-03	AMS6	13:16	1-hr TSP	11	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-03	AMS6	14:16	1-hr TSP	14	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-03	AMS6	15:16	1-hr TSP	15	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-07	AMS6	13:30	1-hr TSP	7	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-07	AMS6	14:30	1-hr TSP	8	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-07	AMS6	15:30	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-13	AMS6	13:32	1-hr TSP	31	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-13	AMS6	14:32	1-hr TSP	33	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-13	AMS6	15:32	1-hr TSP	36	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-18	AMS6	08:00	1-hr TSP	11	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-18	AMS6	09:00	1-hr TSP	6	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-18	AMS6	10:00	1-hr TSP	7	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-24	AMS6	13:40	1-hr TSP	20	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-24	AMS6	14:40	1-hr TSP	42	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-24	AMS6	15:40	1-hr TSP	40	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-28	AMS6	13:14	1-hr TSP	18	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-28	AMS6	14:14	1-hr TSP	20	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-28	AMS6	15:14	1-hr TSP	21	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-04	AMS6	12:40	1-hr TSP	10	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-04	AMS6	13:40	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-04	AMS6	14:40	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-10	AMS6	13:40	1-hr TSP	7	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-10	AMS6	14:40	1-hr TSP	7	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-10	AMS6	15:40	1-hr TSP	12	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-16	AMS6	08:00	1-hr TSP	14	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-16	AMS6	09:00	1-hr TSP	10	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-16	AMS6	10:00	1-hr TSP	15	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-22	AMS6	13:30	1-hr TSP	14	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-22	AMS6	14:30	1-hr TSP	10	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-22	AMS6	15:30	1-hr TSP	15	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-26	AMS6	13:45	1-hr TSP	11	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-26	AMS6	14:45	1-hr TSP	11	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-26	AMS6	15:45	1-hr TSP	10	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-01	AMS6	13:15	1-hr TSP	18	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-01	AMS6	14:15	1-hr TSP	18	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-01	AMS6	15:15	1-hr TSP	18	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-07	AMS6	13:20	1-hr TSP	11	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-07	AMS6	14:20	1-hr TSP	13	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-07	AMS6	15:20	1-hr TSP	15	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-13	AMS6	08:15	1-hr TSP	29	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-13	AMS6	09:15	1-hr TSP	23	ug/m <sup>3</sup>

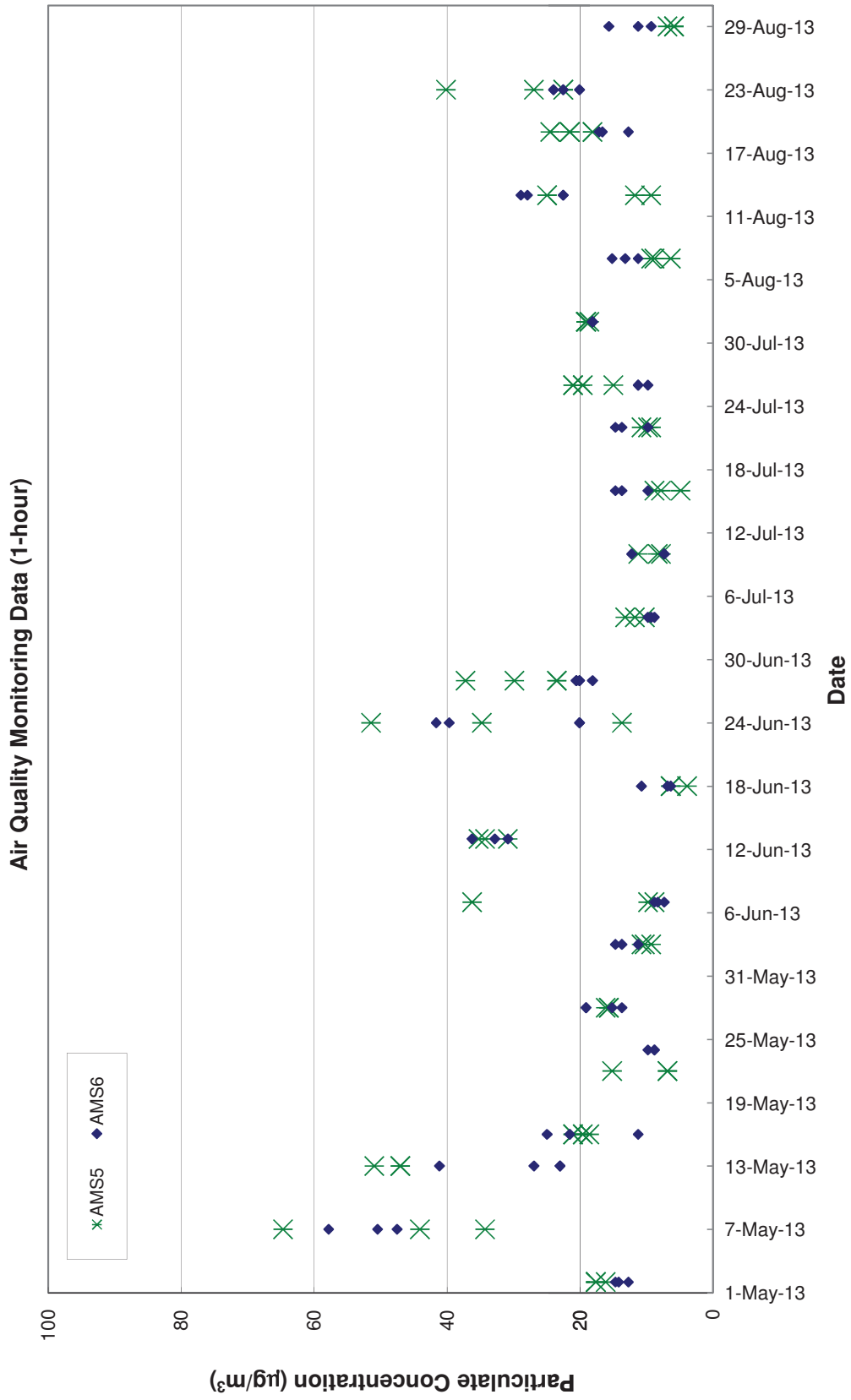
Air Quality Monitoring Data

HKLR	HY/2011/03	2013-08-13	AMS6	10:15	1-hr TSP	28	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-19	AMS6	13:22	1-hr TSP	13	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-19	AMS6	14:22	1-hr TSP	17	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-19	AMS6	15:22	1-hr TSP	17	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-23	AMS6	13:22	1-hr TSP	20	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-23	AMS6	14:22	1-hr TSP	24	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-23	AMS6	15:22	1-hr TSP	23	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-29	AMS6	13:20	1-hr TSP	9	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-29	AMS6	14:20	1-hr TSP	16	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-29	AMS6	15:20	1-hr TSP	11	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-06	AMS6	08:00	24-hr TSP	20	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-11	AMS6	08:00	24-hr TSP	24	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-17	AMS6	08:00	24-hr TSP	14	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-21	AMS6	08:00	24-hr TSP	31	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-06-27	AMS6	08:00	24-hr TSP	20	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-03	AMS6	08:00	24-hr TSP	15	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-10	AMS6	17:00	24-hr TSP	12	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-15	AMS6	08:00	24-hr TSP	10	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-19	AMS6	08:00	24-hr TSP	35	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-25	AMS6	08:00	24-hr TSP	15	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-07-31	AMS6	08:00	24-hr TSP	14	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-06	AMS6	08:00	24-hr TSP	10	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-12	AMS6	08:00	24-hr TSP	62	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-16	AMS6	08:00	24-hr TSP	29	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-22	AMS6	08:00	24-hr TSP	55	ug/m <sup>3</sup>
HKLR	HY/2011/03	2013-08-28	AMS6	08:00	24-hr TSP	21	ug/m <sup>3</sup>

Remark:

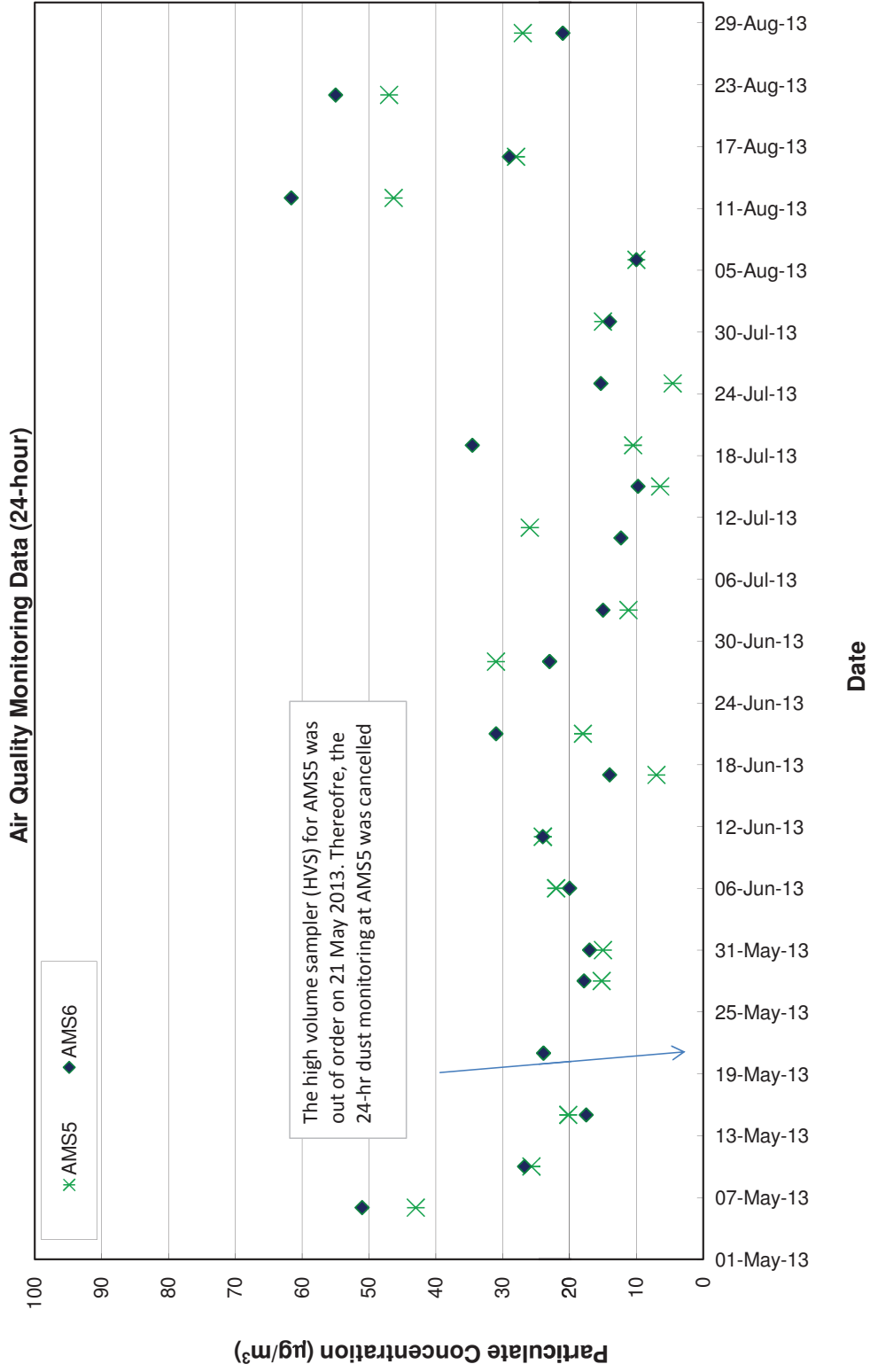
1. The 24-hr TSP monitoring at station AMS6 was rescheduled on 10 July 2013 due to the invalid monitoring data on 9 July 2013.
2. The 24-hr TSP monitoring at station AMS5 was rescheduled on 11 July 2013 due to the invalid monitoring data on 9 July 2013 and lack of power supply to High volume sampler on 10 July 2013.

Graphical Plot of 1-hour TSP at AMS5 and AMS6





Graphical Plot of 24-hour TSP at AMS5 and AMS6





路政署  
HIGHWAYS DEPARTMENT

港珠澳大橋香港工程管理處  
Hong Kong - Zhuhai - Macao Bridge  
Hong Kong Project Management Office

Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
and Hong Kong Boundary Crossing Facilities  
4<sup>th</sup> Quarterly EM&A Report (Rev.2)

## APPENDIX H

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### Noise Monitoring Data and Graphical Plots



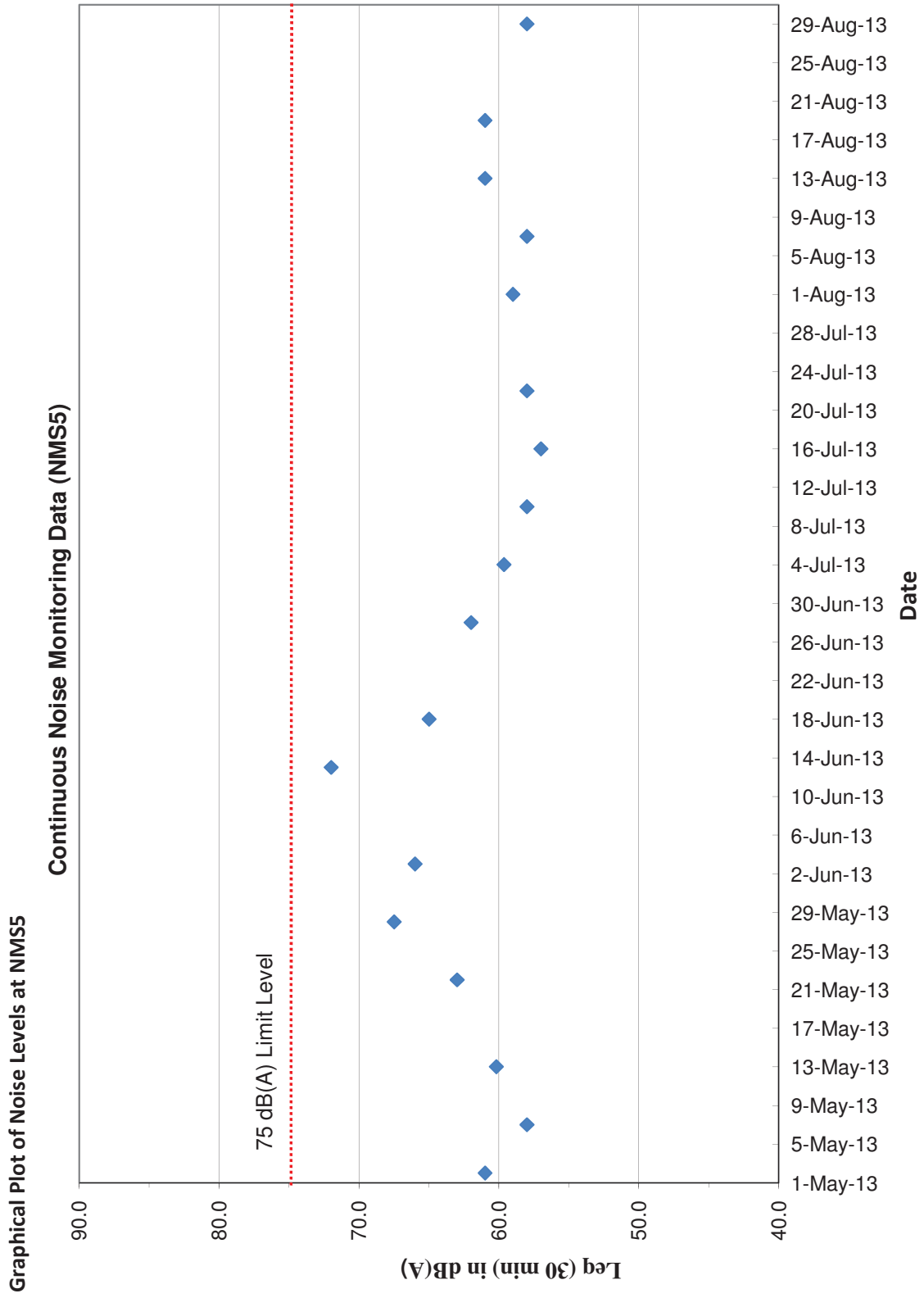
中國建築工程(香港)有限公司  
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Noise Monitoring Result of NMS5 from May to August 2013

Project	Works	Date (yyyy-mm-dd)	Station	Time	Wind Speed, m/s	Parameter	Results*	Unit
HKLR	HY/2011/03	2013-06-03	NMS5	9:40	<5	L eq 30 min	66	dB(A)
HKLR	HY/2011/03	2013-06-13	NMS5	10:05	<5	L eq 30 min	72	dB(A)
HKLR	HY/2011/03	2013-06-18	NMS5	14:20	<5	L eq 30 min	65	dB(A)
HKLR	HY/2011/03	2013-06-28	NMS5	9:40	<5	L eq 30 min	62	dB(A)
HKLR	HY/2011/03	2013-07-04	NMS5	9:37	<5	L eq 30 min	60	dB(A)
HKLR	HY/2011/03	2013-07-10	NMS5	10:10	<5	L eq 30 min	58	dB(A)
HKLR	HY/2011/03	2013-07-16	NMS5	15:30	<5	L eq 30 min	57	dB(A)
HKLR	HY/2011/03	2013-07-22	NMS5	9:50	<5	L eq 30 min	58	dB(A)
HKLR	HY/2011/03	2013-08-01	NMS5	9:45	<5	L eq 30 min	59	dB(A)
HKLR	HY/2011/03	2013-08-07	NMS5	9:27	<5	L eq 30 min	58	dB(A)
HKLR	HY/2011/03	2013-08-13	NMS5	16:15	<5	L eq 30 min	61	dB(A)
HKLR	HY/2011/03	2013-08-19	NMS5	11:56	<5	L eq 30 min	61	dB(A)
HKLR	HY/2011/03	2013-08-29	NMS5	9:25	<5	L eq 30 min	58	dB(A)

Noted: \* +3dB(A) Facade correction included.

(1) Refurbishment work was undertaken during the noise measurement on 18 June 2013 and 4 July 2013.





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4<sup>th</sup> Quarterly EM&A Report (Rev.2)

# APPENDIX I

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## Water Quality Monitoring Data and Graphical Plots



中國建築工程(香港)有限公司  
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.



Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS5	10:45:42	1.0	Surface	1	1	29.33	8.61	13.12	116.9	8.25	5.5	5.6	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS5	10:46:33	1.0	Surface	1	2	29.51	8.96	12.77	113.7	8.07	5.2	6.4	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS5	10:46:32	4.5	Middle	2	1	25.58	8.35	26.12	83.5	5.93	5.6	5.5	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS5	10:46:10	4.5	Middle	2	2	25.96	8.28	26.07	92.8	6.55	5.8	5.7	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS5	10:45:22	8.0	Bottom	3	1	25.27	8.55	26.92	76.6	5.4	5.8	7.3	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS5	10:45:56	8.0	Bottom	3	2	25.27	8.44	27.02	79.4	5.58	5.9	7.8	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS(MF)6	10:37:30	1.0	Surface	1	1	29.24	9	14.05	134.2	9.45	10.6	3	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS(MF)6	10:37:54	1.0	Surface	1	2	29.49	9.09	13.88	150.4	10.59	11.2	2.5	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS(MF)6	10:37:35	2.4	Bottom	3	1	29.26	9.01	15.16	140.4	9.85	11.6	3.6	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS(MF)6	10:37:20	2.4	Bottom	3	2	28.83	8.91	15.87	133.7	9.45	11.4	4.1	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS7	10:29:01	1.0	Surface	1	1	29.11	8.9	13.71	147.7	10.43	10	3.4	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS7	10:29:11	1.0	Surface	1	2	29.1	8.91	13.71	144.9	10.2	9.8	3.6	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS7	10:28:55	2.3	Bottom	3	1	29.13	8.93	14.67	137.9	9.8	11.3	3.4	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS7	10:29:06	2.3	Bottom	3	2	29.3	8.94	14.66	140.3	9.98	10.8	5	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS8	10:05:56	1.0	Surface	1	1	29.1	8.93	13.66	146.5	10.42	4	6.3	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS8	10:06:14	1.0	Surface	1	2	29.19	8.95	13.54	150.3	10.69	3.8	4.9	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS8	10:05:52	2.5	Bottom	3	1	29.2	8.94	13.6	145.7	10.35	4	6.4	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS8	10:06:04	2.5	Bottom	3	2	29.09	8.92	13.69	147.8	10.52	4.1	5.2	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS(MF)9	10:21:13	1.0	Surface	1	1	28.97	8.82	13.41	142.3	10.11	6.2	8.6	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS(MF)9	10:21:26	1.0	Surface	1	2	28.98	8.82	13.42	142.6	10.13	6.4	8.6	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS(MF)9	10:21:07	2.3	Bottom	3	1	29.03	8.83	14.2	140.8	10.06	6.7	9.2	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS(MF)9	10:21:19	2.3	Bottom	3	2	29	8.82	14.23	140.7	10.05	6.6	8.1	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS10	09:28:29	1.0	Surface	1	1	28.38	8.44	13.78	105.1	7.53	4.5	7.7	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS10	09:27:42	1.0	Surface	1	2	28.33	8.38	14.78	103.8	7.44	4.6	7.2	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS10	09:27:31	5.1	Middle	2	1	26.76	8.24	21.24	84.7	6.11	5.5	8.3	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS10	09:28:19	5.1	Middle	2	2	26.74	8.2	21.59	81.6	5.88	5.5	9.9	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS10	09:27:19	9.2	Bottom	3	1	25.32	8.22	27.62	74.4	5.27	5.6	9.1	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	IS10	09:27:57	9.2	Bottom	3	2	25.4	8.21	28.13	74.4	5.27	5.7	9.4	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR3	10:52:24	0.8	Middle	2	1	29.7	9.15	11.97	145.6	10.34	4.7	8.1	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR3	10:52:21	0.8	Middle	2	2	29.64	9.15	12.02	143.7	10.22	4.7	8.1	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR4	10:11:38	1.0	Surface	1	1	29.47	8.99	13.03	141.6	10.04	2.8	5.6	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR4	10:11:17	1.0	Surface	1	2	29.43	9.01	13.12	145	10.28	2.8	6.2	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR4	10:11:25	2.3	Bottom	3	1	29.3	8.99	13.46	140.2	9.94	2.9	5.2	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR4	10:11:07	2.3	Bottom	3	2	29.31	9	13.5	142.6	10.11	2.8	5.6	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR5	09:34:19	1.0	Surface	1	1	28.26	8.52	14.15	101.5	7.31	3	4.5	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR5	09:34:39	1.0	Surface	1	2	28.14	8.51	13.8	100.1	7.24	2.9	4.5	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR5	09:34:29	3.6	Bottom	3	1	27.59	8.37	19.92	100.4	7.08	2.8	5.4	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR5	09:34:06	3.6	Bottom	3	2	27.56	8.36	20.49	98.9	6.96	2.9	4.7	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR10A	08:48:23	1.0	Surface	1	1	28.43	8.72	14.26	136	9.76	2.3	3.7	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR10A	08:48:57	1.0	Surface	1	2	28.69	8.74	13.37	136.9	9.83	2.3	4.3	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR10A	08:48:45	3.1	Middle	2	1	28.32	8.69	14.54	130.4	9.36	2.3	6.6	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR10A	08:48:08	3.1	Middle	2	2	28.39	8.72	14.21	132.8	9.53	2.4	5.6	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR10A	08:47:02	5.1	Bottom	3	1	28.39	8.71	14.4	120.9	8.69	2.4	5.6	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR10A	08:48:36	5.1	Bottom	3	2	28.21	8.67	14.65	128.3	9.23	2.5	5.9	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR10B	08:41:19	1.0	Surface	1	1	27.88	8.65	16.19	128.1	9.18	2.6	6	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR10B	08:41:04	1.0	Surface	1	2	28.11	8.67	15.07	127.6	9.17	2.6	5.8	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR10B	08:40:51	3.9	Bottom	3	1	27.6	8.61	18.8	124.9	8.86	2.9	6.1	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	SR10B	08:41:11	3.9	Bottom	3	2	27.95	8.64	18.15	128.9	9.13	2.8	5.5	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	CS2	11:11:32	1.0	Surface	1	1	29.48	8.55	11.08	133.9	9.61	3.2	6.2	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	CS2	11:10:40	3.8	Middle	2	1	29.14	8.53	11.26	133.2	9.57	3.1	6.8	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	CS2	11:11:09	3.8	Middle	2	2	27.48	8.4	15.45	109.4	7.73	3.1	5.7	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	CS2	11:10:30	3.8	Middle	2	2	28.4	8.52	13.78	110.2	7.79	3.2	5.9	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	CS2	11:10:18	6.6	Bottom	3	1	26.42	8.26	23.27	100.9	7.26	4.5	7	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	CS2	11:10:51	6.6	Bottom	3	2	26.38	8.35	23.44	100.1	7.26	4.4	5.7	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	CS(MF)5	09:25:10	1.0	Surface	1	1	28.68	8.71	13.1	126.3	9.09	3.1	4.7	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	CS(MF)5	09:26:17	1.0	Surface	1	2	28.64	8.67	13.14	115.4	8.31	3.1	5	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	CS(MF)5	09:24:47	6.5	Middle	2	1	27.16	8.49	20.78	103	7.21	3.1	4.8	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	CS(MF)5	09:26:02	6.5	Middle	2	2	26.85	8.44	21.17	105.7	7.4	3.4	5.4	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	CS(MF)5	09:25:54	12.0	Bottom	3	1	25.29	8.22	28.31	93.7	6.65	3.4	6.2	
HCLR	HY/2011/03	2013-06-03	Mid-Ebb	Sunny	CS(MF)5	09:24:30	12.0	Bottom	3	2	25.01	8.43	29.11	97.7	6.91	3.4	7.2	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS5	14:18:59	1.0	Surface	1	1	30.1	8.82	13.93	122.3	8.55	4.4	6	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS5	14:19:42	1.0	Surface	1	2	30.15	8.89	13.87	128.7	9.07	4.1	4.7	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS5	14:19:27	4.6	Middle	2	1	26.48	8.35	21.08	120.6	8.4	4.3	6.1	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS5	14:18:47	4.6	Middle	2	2	27.54	8.43	20.9	112.4	7.93	4.5	6.7	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS5	14:18:37	8.1	Bottom	3	1	25.2	8.51	27.26	86.1	6.05	4.7	6.8	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS5	14:19:11	8.1	Bottom	3	2	25.31	8.6	27.01	91.7	6.55	4.3	7.1	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS(MF)6	14:27:12	1.0	Surface	1	1	30.52	9.12	13.43	165.6	11.43	2.4	2.1	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS(MF)6	14:27:00	1.0	Surface	1	2	30.94	9.13	13.23	164.4	11.26	2.3	2.6	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS(MF)6	14:26:38	2.3	Bottom	3	1	30.74	9.12	13.32	158.7	10.9	2.3	3.5	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS(MF)6	14:27:05	2.3	Bottom	3	2	30.8	9.12	13.5	160.5	10.99	2.5	3.7	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS7	14:33:47	1.0	Surface	1	1	30	9.11	13.6	163.8	11.42	2.4	4.8	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS7	14:34:08	1.0	Surface	1	2	30.77	9.05	13.14	160.9	11.13	2.3	3.4	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS7	14:33:52	2.5	Bottom	3	1	30.38	9.09	13.47	148.7	10.21	2.4	5.2	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS7	14:33:42	2.5	Bottom	3	2	30.29	9.08	13.53	154.8	10.72	2.5	4.2	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS8	14:54:46	1.0	Surface	1	1	29.71	8.98	12.89	161.3	11.4	4.4	4.5	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS8	14:55:06	1.0	Surface	1	2	29.84	8.99	12.74	163.1	11.51	4.4	5.9	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS8	14:54:42	2.5	Bottom	3	1	29.86	8.98	12.82	160.9	11.34	4.3	5.7	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS8	14:54:55	2.5	Bottom	3	2	29.68	8.98	12.95	161.1	11.38	4.5	5	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS(MF)9	14:40:46	1.0	Surface	1	1	29.39	9.01	13.25	160.8	11.4	4.7	3.9	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS(MF)9	14:40:33	1.0	Surface	1	2	29.2	9	13.44	158.3	11.25	4.9	3.1	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS(MF)9	14:40:24	2.3	Bottom	3	1	29.34	8.99	13.97	157.8	11.15	5.3	3.8	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS(MF)9	14:40:37	2.3	Bottom	3	2	29.23	9	13.45	159.4	11.32	5.1	3.7	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS10	15:49:09	1.0	Surface	1	1	30.05	8.46	13.19	143.8	10.1	6.6	7.3	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS10	15:50:06	1.0	Surface	1	2	30.09	8.48	13.18	133.6	9.33	6.8	6.3	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS10	15:48:55	5.1	Middle	2	1	25.82	8.26	23.39	124.6	8.77	6.4	6.5	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS10	15:49:47	5.1	Middle	2	2	26.47	8.23	22.38	122.6	8.56	6.7	7.4	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS10	15:48:47	9.2	Bottom	3	1	25.7	8.29	28.31	103.1	7.35	8.7	6.9	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	IS10	15:49:24	9.2	Bottom	3	2	25.22	8.3	28.9	103.1	7.34	8.8	6.8	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR3	14:10:55	0.7	Middle	1	1	30.54	9.21	13.66	152.7	10.53	2.2	4.1	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR3	14:10:52	0.7	Middle	2	2	30.56	9.21	13.67	147.3	10.15	2	4.8	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR4	14:47:31	1.0	Surface	1	1	29.45	8.95	12.88	152.2	10.81	5.6	3.3	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR4	14:47:53	1.0	Surface	1	2	29.77	8.97	12.74	157.6	11.13	5.2	3.7	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR4	14:47:23	2.2	Bottom	3	1	29.51	8.95	12.99	151.7	10.75	5.7	2.9	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR4	14:47:40	2.2	Bottom	3	2	29.3	8.94	13.14	154.1	10.96	5.6	3	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR5	15:35:48	1.0	Surface	1	1	29.83	8.52	13.39	155.2	10.87	8.5	7.1	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR5	15:36:17	1.0	Surface	1	2	30	8.54	13.41	156.6	10.98	8.8	7.3	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR5	15:35:38	3.5	Bottom	3	1	29.36	8.45	15.22	113.6	8.13	8.9	6	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR5	15:36:08	3.5	Bottom	3	2	27.97	8.45	15.49	113.3	8.11	8.8	5.5	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR10A	16:02:41	1.0	Surface	1	1	28.33	8.58	17.17	117.9	8.29	2	4.3	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR10A	16:02:20	1.0	Surface	1	2	28.39	8.58	15.7	119.6	8.41	2	3.3	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR10A	16:02:33	3	Middle	2	1	25.92	8.47	22.79	105.5	7.54	2.1	4.6	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR10A	16:02:13	3	Middle	2	2	26.23	8.47	21.96	105.6	7.52	2.2	3.8	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR10A	16:02:08	5	Bottom	3	1	26.2	8.53	24.85	105.2	7.51	2.4	4	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR10A	16:02:28	5	Bottom	3	2	25.87	8.55	25.69	104.7	7.41	2.3	4.3	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR10B	16:11:25	1.0	Surface	1	1	29.85	8.83	12.79	140.8	9.9	2.5	3.1	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR10B	16:11:09	1.0	Surface	1	2	29.44	8.85	13.7	139.1	9.85	2.6	4.2	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR10B	16:10:58	4.2	Bottom	3	1	26.82	8.66	22.67	135.9	9.56	2.6	3.9	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	SR10B	16:11:16	4.2	Bottom	3	2	26.75	8.78	22.85	128.3	9.05	2.6	3.7	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	CS2	13:58:11	1.0	Surface	1	1	30.05	8.47	10.13	139.7	9.98	5.7	4.6	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	CS2	13:57:12	1.0	Surface	1	2	30.06	8.48	10.11	138.1	9.86	6	4.2	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	CS2	13:56:46	4.0	Middle	2	1	26.77	8.3	21.32	84.9	5.99	5.8	5.5	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	CS2	13:57:45	4.0	Middle	2	2	26.66	8.26	20.99	90.2	6.36	5.9	4.6	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	CS2	13:57:34	6.9	Bottom	3	1	25.93	8.21	25.03	75.5	5.38	7.3	5.2	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	CS2	13:56:22	6.9	Bottom	3	2	25.96	8.24	24.92	71.7	5.06	7.1	5.2	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	CS(MF)5	15:30:30	1.0	Surface	1	1	28.94	8.7	15.59	117.4	8.21	4.8	3.5	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	CS(MF)5	15:29:52	1.0	Surface	1	2	29.15	8.86	14.14	114.6	8.02	4.5	3.1	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	CS(MF)5	15:29:39	6.8	Middle	2	1	24.44	8.39	29.63	114.4	8.12	4.8	4	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	CS(MF)5	15:30:17	6.8	Middle	2	2	24.78	8.38	29.32	104	7.35	5.1	3.6	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	CS(MF)5	15:29:31	12.5	Bottom	3	1	24.3	8.51	31.36	89.2	6.29	5.1	5.8	
HCLR	HY/2011/03	2013-06-03	Mid-Flood	Sunny	CS(MF)5	15:30:05	12.5	Bottom	3	2	24.32	8.52	31.35	84.8	5.95	5.1	5.1	
HCLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS5	12:00:39	1.0	Surface	1	1	28.9	8.47	15.61	93	6.9	5.3	4	
HCLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS5	11:59:34	1.0	Surface	1	2	28.79	8.41	15.89	93.5	6.91	5.8	4.3	
HCLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS5	11:59:18	4.5	Middle	2	1	25.3	8.11	27.63	86.5	6.35	9.9	3.3	
HCLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS5	12:00:18	4.5	Middle	2	2	25.16	8.1	28.09	86.9	6.38	10.6	3.3	
HCLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS5	12:00:07	8.0	Bottom	3	1	24.89	8.11	29.1	72	5.07	11.5	4.9	
HCLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS5	11:59:03	8.0	Bottom	3	2	24.9	8.12	29.1	71.7	5.05	11.3	5	
HCLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS(MF)6	11:51:01	1.0	Surface	1	1	28.75	8.48	16.85	100.8	7.1	6.9	1.3	
HCLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS(MF)6	11:51:25	1.0	Surface	1	2	28.7	8.43	17.35	99.4	6.98	7.3	2.2	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS(MF)6	11:51:11	2.1	Bottom	3	1	28.24	8.42	18.68	98.6	6.93	11.9	2.9	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS(MF)6	11:50:48	2.1	Bottom	3	2	28.15	8.41	18.87	97.3	6.84	11.2	2.7	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS7	11:44:16	1.0	Surface	1	1	28.46	8.55	16.41	112.1	7.95	6.2	2.6	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS7	11:44:45	1.0	Surface	1	2	28.44	8.52	16.42	107.8	7.64	6.5	3.2	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS7	11:43:16	2.3	Bottom	3	1	28.26	8.42	18.67	104.6	7.34	8.2	2.7	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS7	11:44:30	2.3	Bottom	3	2	28.15	8.39	18.81	99.7	7.01	8	3.5	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS8	11:20:13	1.0	Surface	1	1	28.51	8.45	16.89	103.7	7.33	2.7	1.9	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS8	11:20:28	1.0	Surface	1	2	27.98	8.39	17.37	103.8	7.3	3	2.3	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS8	11:20:21	2.6	Bottom	3	1	27.89	8.36	20.82	99.4	6.94	3.4	1.8	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS8	11:20:03	2.6	Bottom	3	2	28.06	8.41	19.25	97	6.77	3.3	1.7	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS(MF)9	11:37:20	1.0	Surface	1	1	28.28	8.47	16.89	102.8	7.29	9.2	4.7	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS(MF)9	11:37:49	1.0	Surface	1	2	28.32	8.48	16.91	104.6	7.41	8.7	4.9	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS(MF)9	11:37:09	2.4	Bottom	3	1	27.76	8.41	19.46	99.9	7.04	12.4	5.6	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS(MF)9	11:37:52	2.4	Bottom	3	2	27.79	8.41	19.36	100.8	7.11	11.8	5.5	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS10	11:06:02	1.0	Surface	1	1	27.82	8.43	18.65	91.2	6.48	5.3	3.1	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS10	11:05:43	1.0	Surface	1	2	27.98	8.47	16.61	93.4	6.67	5.3	3.2	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS10	11:05:48	5.3	Middle	2	1	26.26	8.24	25.25	76.9	5.44	9.8	2.9	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS10	11:04:29	5.3	Middle	2	2	25.9	8.23	25.31	79.7	5.69	10.2	3.2	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS10	11:04:18	9.5	Bottom	3	1	25.37	8.22	28.21	72.9	5.1	10.5	3	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	IS10	11:05:11	9.5	Bottom	3	2	25.41	8.23	28.77	74.5	5.19	10.1	3.2	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR3	12:07:18	0.8	Middle	2	1	28	8.54	15.42	110.5	7.81	3.5	1.9	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR3	12:07:09	0.8	Middle	2	2	28.98	8.54	15.45	109.7	7.75	3.5	2.3	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR4	11:26:18	1.0	Surface	1	1	28.64	8.47	16.98	106.4	7.49	2.1	1.8	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR4	11:26:40	1.0	Surface	1	2	28.67	8.46	17.16	106.4	7.49	2.3	1.3	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR4	11:26:08	2.4	Bottom	3	1	28.14	8.42	18.96	105.3	7.4	2.1	2	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR4	11:26:27	2.4	Bottom	3	2	28.18	8.42	19.2	104.9	7.36	2.2	2.2	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR5	11:14:18	1.0	Surface	1	1	27.84	8.47	17.56	91.7	6.53	2.7	2.7	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR5	11:14:48	1.0	Surface	1	2	27.7	8.44	18.26	89	6.33	2.7	3.1	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR5	11:14:02	3.5	Bottom	3	1	27	8.34	21.59	84.4	5.96	2.5	2.9	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR5	11:14:35	3.5	Bottom	3	2	27.03	8.34	21.49	84.6	5.98	2.5	3	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR10A	10:03:58	1.0	Surface	1	1	27.63	8.45	19.23	107.5	7.61	1.7	1.3	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR10A	10:04:41	1.0	Surface	1	2	27.45	8.44	20.26	107.8	7.61	1.7	1.3	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR10A	10:03:44	3.2	Middle	2	1	27.11	8.42	21.58	104.7	7.38	1.8	2.2	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR10A	10:04:24	3.2	Middle	2	2	27.17	8.42	21.22	105.8	7.46	1.7	1.6	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR10A	10:03:29	5.4	Bottom	3	1	27.01	8.41	22.03	104.7	7.37	2.2	2.4	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR10A	10:04:11	5.4	Bottom	3	2	27.17	8.42	21.42	106.3	7.49	2.3	2.5	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR10B	09:56:13	1.0	Surface	1	1	26.65	8.35	23.32	96.1	6.76	2.2	2.4	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR10B	09:56:41	1.0	Surface	1	2	26.64	8.36	23.37	96.1	6.76	2.3	2.6	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR10B	09:55:59	4.6	Bottom	3	1	26.56	8.34	23.79	95.5	6.71	2.3	2.5	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	SR10B	09:56:29	4.6	Bottom	3	2	26.56	8.35	23.73	95.6	6.72	2.2	3.2	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	CS2	12:45:33	1.0	Surface	1	1	28.6	8.63	13.33	112	8.06	3.9	4.5	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	CS2	12:46:37	1.0	Surface	1	2	28.6	8.62	13.29	111.9	8.05	3.7	3.3	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	CS2	12:46:15	3.9	Middle	2	1	27.82	8.45	17.32	87.3	6.22	5.7	3.5	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	CS2	12:45:11	3.9	Middle	2	2	27.98	8.45	17.11	85.8	6.11	5.9	3.4	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	CS2	12:45:55	6.7	Bottom	3	1	26.24	8.28	24.74	81.9	5.76	8.7	4.1	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	CS2	12:44:58	6.7	Bottom	3	2	26.65	8.31	24.1	82.9	5.81	8.7	4.1	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	CS(MF)5	10:45:21	1.0	Surface	1	1	27.99	8.43	17.16	98.5	7.01	3	3	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	CS(MF)5	10:46:14	1.0	Surface	1	2	27.93	8.41	17.5	93.4	6.64	3.2	3	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	CS(MF)5	10:45:56	6.7	Middle	2	1	25.13	8.22	28.95	73.2	5.12	3.3	3.1	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	CS(MF)5	10:44:56	6.7	Middle	2	2	25.04	8.21	29.28	73.8	5.16	3.1	3.2	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	CS(MF)5	10:45:44	12.3	Bottom	3	1	25.02	8.22	29.34	78.9	5.51	3.2	3.4	
HKLR	HY/2011/03	2013-06-05	Mid-Ebb	Sunny	CS(MF)5	10:44:41	12.3	Bottom	3	2	24.96	8.22	29.55	75.9	5.31	3.3	2.5	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS5	16:13:05	1.0	Surface	1	1	28.49	8.44	17.63	89	6.26	7.5	2.8	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS5	16:11:36	1.0	Surface	1	2	28.52	8.45	17.52	90.1	6.34	7.7	2.2	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS5	16:11:09	4.6	Middle	2	1	25.68	8.1	26.43	73.3	5.19	11.9	3.1	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS5	16:12:35	4.6	Middle	2	2	25.82	8.1	25.99	74	5.19	11.4	2.9	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS5	16:12:12	8.1	Bottom	3	1	25.4	8.09	27.45	70	4.91	13.1	4	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS5	16:10:50	8.1	Bottom	3	2	25.37	8.08	27.55	70.7	4.96	12.2	4.2	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS(MF)6	16:20:09	1.0	Surface	1	1	28.54	8.47	17.49	102.6	7.22	6.2	3.2	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS(MF)6	16:20:52	1.0	Surface	1	2	28.52	8.52	16.95	105.3	7.44	6.5	2.3	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS(MF)6	16:19:49	2.3	Bottom	3	1	28.43	8.46	17.99	101.8	7.15	10.5	2.3	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS(MF)6	16:20:27	2.3	Bottom	3	2	28.05	8.49	17.87	102.1	7.16	11.8	3.6	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS7	16:28:21	1.0	Surface	1	1	28.46	8.47	17.51	101.7	7.16	4.4	2.1	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS7	16:28:04	1.0	Surface	1	2	28.46	8.46	17.52	101.3	7			

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS7	16:27:54	2.3	Bottom	3	1	28.42	8.46	17.61	101	7.12	4.9	2.6	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS7	16:28:13	2.3	Bottom	3	2	28.44	8.46	17.57	101.4	7.14	4.5	3.7	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS8	16:52:21	1.0	Surface	1	1	28	8.42	17.69	95.4	6.77	3.8	1.8	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS8	16:51:28	1.0	Surface	1	2	28.06	8.43	17.66	95.5	6.77	3.8	2.1	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS8	16:51:15	2.7	Bottom	3	1	27.55	8.33	20.81	89.9	6.31	5.8	2	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS8	16:52:11	2.7	Bottom	3	2	27.54	8.33	20.34	91.1	6.42	5.7	2.4	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS(MF)9	16:35:40	1.0	Surface	1	1	28.04	8.4	17.8	92.1	6.53	4.2	2	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS(MF)9	16:35:24	1.0	Surface	1	2	28.12	8.4	17.8	92.3	6.54	4.4	2.1	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS(MF)9	16:35:32	2.4	Bottom	3	1	27.8	8.36	20.15	90.1	6.32	5.6	3.5	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS(MF)9	16:35:13	2.4	Bottom	3	2	27.64	8.31	20.19	87.1	6.13	5.9	4.1	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS10	17:52:22	1.0	Surface	1	1	28.24	8.51	15.37	95.4	6.83	6.4	3.8	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS10	17:51:07	1.0	Surface	1	2	28.24	8.49	15.28	94.3	6.74	6.6	2.2	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS10	17:50:56	5.2	Middle	2	1	27.11	8.33	23.17	81.1	5.8	8.5	3.1	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS10	17:52:07	5.2	Middle	2	2	26.12	8.24	24.29	85.4	6.11	8.8	3.3	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS10	17:51:52	9.3	Bottom	3	1	25.16	8.2	29.28	76.2	5.32	8.6	3.2	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	IS10	17:50:45	9.3	Bottom	3	2	25.09	8.23	29.37	75.1	5.24	8.7	3.7	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR3	16:00:47	0.9	Middle	2	1	28.56	8.5	17.38	103.7	7.3	4.5	2	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR3	16:00:57	0.9	Middle	2	2	28.53	8.49	17.51	103.4	7.28	4.6	2.9	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR4	16:43:41	1.0	Surface	1	1	28.07	8.44	17.76	99.6	7.05	2.7	1.1	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR4	16:43:15	1.0	Surface	1	2	27.96	8.41	17.91	97.1	6.88	3	1.8	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR4	16:43:07	2.4	Bottom	3	1	27.67	8.37	19.79	95.8	6.76	3.5	2.9	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR4	16:43:28	2.4	Bottom	3	2	27.62	8.37	20.07	95.4	6.72	3.4	3.7	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR5	17:39:21	1.0	Surface	1	1	28.21	8.53	15.66	100.6	7.19	7.4	4	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR5	17:38:53	1.0	Surface	1	2	28.24	8.53	15.2	102.5	7.34	7.6	4	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR5	17:38:40	3.5	Bottom	3	1	28.02	8.53	18.61	100.9	7.12	8.7	3.7	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR5	17:39:07	3.5	Bottom	3	2	27.83	8.48	20.21	100	7.02	8.7	3.2	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR10A	18:10:03	1.0	Surface	1	1	27.57	8.41	19.58	95.5	6.75	2.3	1.2	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR10A	18:11:18	1.0	Surface	1	2	27.57	8.4	19.47	91.8	6.49	2.2	1.2	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR10A	18:21:15	1.0	Surface	1	1	27.51	8.4	19.74	90.5	6.4	2.9	2.1	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR10B	18:20:42	1.0	Surface	1	2	27.61	8.41	19.21	92	6.52	2.7	1.6	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR10B	18:20:21	4.8	Bottom	3	1	25.8	8.25	26.76	79	5.53	2.8	1.5	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	SR10B	18:20:58	4.8	Bottom	3	2	25.77	8.26	26.96	81.8	5.72	2.8	2	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	CS2	16:03:48	1.0	Surface	1	1	28.3	8.47	14.25	100.3	7.22	4.6	4.8	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	CS2	16:04:54	1.0	Surface	1	2	28.23	8.46	13.3	95.2	6.9	4.6	5	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	CS2	16:03:21	3.9	Middle	2	1	27.47	8.34	18.89	78.8	5.6	4.9	5.2	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	CS2	16:04:31	3.9	Middle	2	2	27.2	8.31	20.11	76.1	5.4	4.9	5	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	CS2	16:04:09	6.8	Bottom	3	1	26.04	8.23	25.7	74.8	5.25	7.6	5.5	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	CS2	16:02:50	6.8	Bottom	3	2	25.74	8.21	26.09	72.1	5.13	7.8	6	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	CS(MF)5	17:34:19	1.0	Surface	1	1	27.83	8.42	18.16	96.9	6.88	2.5	2.3	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	CS(MF)5	17:35:41	1.0	Surface	1	2	27.46	8.37	19.88	96.5	6.85	2.7	2.1	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	CS(MF)5	17:33:53	6.7	Middle	2	1	26.12	8.27	25.39	77	5.4	3.2	3.7	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	CS(MF)5	17:35:26	6.7	Middle	2	2	25.58	8.2	27.49	81.4	5.76	3.5	2.4	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	CS(MF)5	17:33:38	12.4	Bottom	3	1	25.92	8.24	26.19	74	5.19	3.3	3	
HKLR	HY/2011/03	2013-06-05	Mid-Flood	Fine	CS(MF)5	17:35:03	12.4	Bottom	3	2	25.6	8.21	27.39	72.6	5.08	3.3	2.3	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS5	13:31:01	1.0	Surface	1	1	28.4	8.27	19.04	82.3	5.76	5.6	2.9	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS5	13:32:03	1.0	Surface	1	2	28.5	8.27	18.88	80.4	5.62	5.2	2.5	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS5	13:31:40	4.5	Middle	2	1	25.61	8.19	26.13	75.3	5.28	14	2.7	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS5	13:30:42	4.5	Middle	2	2	25.56	8.19	26.24	74.8	5.24	14.2	2.2	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS5	13:31:22	8.0	Bottom	3	1	25.24	8.17	27.72	70.8	4.99	14.7	5.9	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS5	13:30:28	8.0	Bottom	3	2	25.24	8.18	27.68	69.3	4.89	15.2	4.2	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS(MF)6	13:22:09	1.0	Surface	1	1	27.9	8.24	20.75	76.3	5.32	10	9.8	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS(MF)6	13:21:09	1.0	Surface	1	2	28.03	8.26	20.59	78.2	5.46	10.6	9.8	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS(MF)6	13:21:40	2.1	Bottom	3	1	26.86	8.22	22.9	71.3	5.01	14.7	9.3	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS(MF)6	13:20:34	2.1	Bottom	3	2	27.23	8.24	22.31	74.1	5.19	13.9	9.3	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS7	13:12:08	1.0	Surface	1	1	27.37	8.29	21.14	80.2	5.64	6.4	5.5	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS7	13:11:14	1.0	Surface	1	2	27.58	8.3	20.44	80.7	5.69	6.7	6	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS7	13:11:39	2.3	Bottom	3	1	26.78	8.26	23.01	78.9	5.52	9.5	5	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS7	13:10:54	2.3	Bottom	3	2	26.93	8.26	23.48	79.5	5.57	9.7	5.4	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS8	12:42:22	1.0	Surface	1	1	28.54	8.27	19.84	85	5.91	3.1	19.84	
HKLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS8	12:42:53	1.0	Surface	1	2	28.65	8.27	19.81	83.5	5.79	3.2	3.1	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS8	12:42:04	2.6	Bottom	3	1	27.32	8.25	21.08	78.7	5.53	4.2	3.6	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS8	12:42:41	2.6	Bottom	3	2	27.31	8.25	21.12	79.4	5.59	4	2.9	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS(MF)9	13:01:48	1.0	Surface	1	1	28.13	8.28	19.65	81.5	5.71	3.6	3.6	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS(MF)9	13:01:12	1.0	Surface	1	2	28.08	8.29	19.6	82.1	5.75	3.4	3.6	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS(MF)9	13:00:58	2.5	Bottom	3	1	27.31	8.26	21.17	76.7	5.4	6.3	5.4	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS(MF)9	13:01:36	2.5	Bottom	3	2	27.24	8.25	21.25	75.9	5.35	6.8	4.1	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS10	12:27:29	1.0	Surface	1	1	27.8	8.2	17.6	74	5.27	5.4	2	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS10	12:26:43	1.0	Surface	1	2	27.76	8.2	17.46	73.8	5.26	5.4	1.8	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS10	12:27:12	5.3	Middle	2	1	26.54	8.18	21.26	71.5	5.09	7.4	1.7	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS10	12:26:28	5.3	Middle	2	2	26.69	8.18	20.9	70.7	5.04	7.4	1.8	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS10	12:27:01	9.5	Bottom	3	1	25.99	8.14	26.68	69.9	4.88	7.3	2.2	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	IS10	12:26:14	9.5	Bottom	3	2	25.93	8.14	26.5	69.2	4.84	7.7	1.8	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR3	13:38:01	0.8	Middle	2	1	28.42	8.28	18.65	91.6	6.42	2.1	2.9	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR3	13:38:11	0.8	Middle	2	2	28.35	8.28	18.62	91.9	6.45	2.1	2.8	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR4	12:49:02	1.0	Surface	1	1	27.64	8.25	20.38	78.5	5.52	4.7	1.9	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR4	12:49:37	1.0	Surface	1	2	27.74	8.25	20.28	78.7	5.52	4.4	2.5	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR4	12:48:40	2.4	Bottom	3	1	27.27	8.24	21.16	75.6	5.32	5.9	1.7	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR4	12:49:23	2.4	Bottom	3	2	27.27	8.23	21.21	75.9	5.35	5.5	1.9	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR5	12:38:05	1.0	Surface	1	1	27.6	8.19	17.83	73.5	5.25	2.8	2.5	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR5	12:38:28	1.0	Surface	1	2	27.73	8.2	17.32	74.4	5.32	2.8	2.3	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR5	12:38:16	3.5	Bottom	3	1	27.44	8.18	18.52	73.4	5.24	3.1	2.7	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR5	12:37:55	3.5	Bottom	3	2	27.46	8.18	18.43	73.9	5.27	3.2	2.9	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR10A	11:16:54	1.0	Surface	1	1	27.15	8.32	22.51	89	6.24	2.3	2.8	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR10A	11:17:34	1.0	Surface	1	2	27.18	8.32	22.47	88.9	6.23	2.2	2.6	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR10A	11:16:40	3.4	Middle	2	1	27.09	8.32	22.68	88.4	6.2	2.8	2.3	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR10A	11:17:18	3.4	Middle	2	2	26.97	8.32	22.99	88	6.16	2.9	1.7	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR10A	11:16:24	5.8	Bottom	3	1	26.96	8.32	23.09	88.3	6.19	3	2.6	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	SR10A	11:17:08	5.8	Bottom	3	2	26.92	8.32	23.17	88.1	6.17	2.8	1.9	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	CS2	14:04:22	1.0	Surface	1	1	28.77	8.2	14.88	84.2	5.85	3	3.1	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	CS2	14:03:42	1.0	Surface	1	2	28.76	8.21	14.87	81.3	5.78	2.9	2.9	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	CS2	14:03:24	4.0	Middle	2	1	27.4	8.21	19.44	70.6	5.01	3.2	2.6	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	CS2	14:04:09	4.0	Middle	2	2	28.51	8.22	19.46	74.7	5.32	3.3	4	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	CS2	14:03:59	6.9	Bottom	3	1	26.92	8.16	21.41	72.6	5.18	3.4	2.3	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	CS2	14:03:01	6.9	Bottom	3	2	26.93	8.13	23.79	72.1	5.04	3.3	3.6	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	CS(MF)5	12:02:06	1.0	Surface	1	1	27.33	8.3	19.66	83.7	5.94	3.1	4.2	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	CS(MF)5	12:00:45	1.0	Surface	1	2	27.27	8.31	19.91	81.4	5.78	3	4.6	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	CS(MF)5	12:00:26	6.7	Middle	2	1	26.54	8.27	26.64	75.6	5.23	5.2	3.7	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	CS(MF)5	12:01:30	6.7	Middle	2	2	26.04	8.28	26.2	76.1	5.31	4.9	4.2	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	CS(MF)5	12:01:14	12.3	Bottom	3	1	25.47	8.27	28.3	72.1	5.04	5.4	6.4	
HCLR	HY/2011/03	2013-06-07	Mid-Ebb	Sunny	CS(MF)5	12:00:10	12.3	Bottom	3	2	25.42	8.25	28.41	71.9	5.03	5.5	4.8	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS5	17:45:11	1.0	Surface	1	1	28.32	8.28	20.54	78.9	5.48	4.2	5.1	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS5	17:46:22	1.0	Surface	1	2	28.21	8.28	20.63	78.1	5.43	4.4	5.1	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS5	17:44:49	4.7	Middle	2	1	27.59	8.25	21.42	77.2	5.4	6	5.6	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS5	17:46:03	4.7	Middle	2	2	27.85	8.26	21.07	76.3	5.33	5.7	4.9	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS5	17:45:32	8.3	Bottom	3	1	26.42	8.19	24.08	72.8	5.08	9.8	8	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS5	17:44:08	8.3	Bottom	3	2	26.45	8.19	24.02	70.2	4.91	10.5	6.5	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS(MF)6	17:55:28	1.0	Surface	1	1	27.86	8.29	21.1	79.7	5.56	6.1	2.6	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS(MF)6	17:54:53	1.0	Surface	1	2	27.81	8.3	21.19	81.1	5.66	6.3	2.5	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS(MF)6	17:54:34	2.2	Bottom	3	1	27.74	8.29	21.36	82.2	5.74	9	2.4	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS(MF)6	17:55:07	2.2	Bottom	3	2	27.72	8.29	21.32	79.2	5.53	9.3	2.4	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS7	18:05:00	1.0	Surface	1	1	28.55	8.32	20.12	84	5.82	7.1	3.6	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS7	18:05:50	1.0	Surface	1	2	28.6	8.32	20.08	84.3	5.84	7.4	3.2	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS7	18:04:47	2.3	Bottom	3	1	27.75	8.29	21.74	80.9	5.64	10.5	2.8	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS7	18:05:15	2.3	Bottom	3	2	27.57	8.28	21.95	78.1	5.45	10.8	3.2	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS8	18:34:06	1.0	Surface	1	1	28.34	8.26	17.68	84.1	5.93	4.8	4.5	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS8	18:34:39	1.0	Surface	1	2	28.36	8.26	17.83	82.8	5.84	5	4.2	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS8	18:34:21	2.7	Bottom	3	1	27.61	8.23	21.25	79.5	5.75	7.7	3.8	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS8	18:33:44	2.7	Bottom	3	2	27.78	8.23	21.19	82.3	5.56	8.2	3.5	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS(MF)9	18:14:31	1.0	Surface	1	1	28.46	8.3	20.14	82.5	5.73	5.7	4	
HCLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS(MF)9	18:15:20	1.0	Surface	1	2	28.36	8.3	20.28	80.5	5.59	5.3	4.7	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS(MF)9	18:15:07	2.5	Bottom	3	1	27.76	8.27	21.15	78.2	5.47	9.1	4.2	4.2
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS(MF)9	18:14:12	2.5	Bottom	3	2	27.68	8.27	21.31	77.3	5.4	9.7	4.2	4.2
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS10	19:24:04	1.0	Surface	1	1	28.78	8.24	13.5	80.9	5.8	6.4	3.8	3.8
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS10	19:23:19	1.0	Surface	1	2	28.69	8.25	14.44	80.5	5.75	6.5	2.8	2.8
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS10	19:23:07	5.4	Middle	2	1	28.21	8.25	20.67	74.9	5.21	7.6	3.7	3.7
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS10	19:23:48	5.4	Middle	2	2	27.93	8.25	20.68	72.2	5.04	7.7	3.4	3.4
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS10	19:22:49	9.7	Bottom	3	1	26.09	8.17	25.55	71.7	5.03	7.4	3.7	3.7
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	IS10	19:23:32	9.7	Bottom	3	2	26.11	8.18	25.32	72.6	5.1	7.6	2.5	2.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR3	17:35:01	0.8	Middle	2	1	28.44	8.3	20.39	84.8	5.88	3.9	4.4	4.4
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR3	17:34:42	0.8	Middle	2	2	28.42	8.29	20.43	83.8	5.82	4.1	3.7	3.7
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR4	18:25:45	1.0	Surface	1	1	28.78	8.32	19.65	87.5	6.05	2.7	0.9	0.9
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR4	18:26:12	1.0	Surface	1	2	28.79	8.31	19.62	87.4	6.06	2.6	0.7	0.7
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR4	18:25:34	2.4	Bottom	3	1	28.47	8.31	19.96	86	5.98	4.2	0.8	0.8
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR4	18:25:59	2.4	Bottom	3	2	28.54	8.3	19.9	86	5.97	4.4	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR5	19:08:48	1.0	Surface	1	1	28.85	8.21	13.39	84.8	6.07	4.3	4.2	4.2
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR5	19:09:08	1.0	Surface	1	2	28.73	8.22	13.68	84.3	6.04	4.4	4.4	4.4
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR5	19:08:34	3.6	Bottom	3	1	28.62	8.2	17.68	84.3	5.92	4.6	5.6	5.6
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR5	19:08:57	3.6	Bottom	3	2	28.62	8.2	17.98	84.2	5.9	4.6	6.1	6.1
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR10A	19:53:25	1.0	Surface	1	1	27.39	8.29	20.46	83.5	5.9	2	1.2	1.2
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR10A	19:52:18	1.0	Surface	1	2	27.44	8.28	20.45	80.6	5.69	1.9	1.5	1.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR10A	19:51:53	3.3	Middle	2	1	26.32	8.26	24.42	74.5	5.24	3.3	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR10A	19:53:09	3.3	Middle	2	2	26.27	8.26	24.56	74	5.21	3.4	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR10A	19:52:48	5.5	Bottom	3	1	25.75	8.25	26.97	69.5	4.86	4.1	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR10A	19:51:30	5.5	Bottom	3	2	25.76	8.24	26.97	71.5	5.01	4.3	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR10B	20:00:51	1.0	Surface	1	1	27.29	8.25	20.61	81.4	5.75	2.4	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR10B	20:01:33	1.0	Surface	1	2	27.41	8.28	20.49	79.2	5.59	2.2	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR10B	20:01:09	4.9	Bottom	3	1	26.27	8.24	24.93	71.5	5.02	3.2	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	SR10B	20:00:33	4.9	Bottom	3	2	26.09	8.24	26.42	71.4	4.98	3.1	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	CS2	17:41:01	6.9	Bottom	3	1	27.23	8.24	20.58	71.3	5.04	5.5	1.8	1.8
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	CS2	17:42:01	6.9	Bottom	3	2	27.04	8.19	21.48	74.3	5.25	5.3	2.5	2.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	CS(MF)5	19:12:46	1.0	Surface	1	1	27.45	8.28	20.48	82.1	5.79	2.2	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	CS(MF)5	19:13:42	1.0	Surface	1	2	27.43	8.28	20.52	82.1	5.79	2.1	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	CS(MF)5	19:13:14	6.9	Middle	2	1	25.72	8.26	26.98	73.3	5.12	6.8	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	CS(MF)5	19:12:18	6.9	Middle	2	2	25.74	8.26	26.95	73.6	5.14	6.1	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	CS(MF)5	19:13:01	12.8	Bottom	3	1	25.5	8.24	28.17	69.3	4.83	8.2	<0.5	<0.5
HKLR	HY/2011/03	2013-06-07	Mid-Flood	Sunny	CS(MF)5	19:12:01	12.8	Bottom	3	2	25.53	8.24	28.1	68.6	4.79	8.7	<0.5	<0.5
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS5	12:49:43	1.0	Surface	1	1	8.3	17.02	77.4	5.5	2.2	2.2	2.2	2.2
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS5	12:50:29	1.0	Surface	1	2	28.28	8.33	16.95	87.3	6.19	3	2.9	2.9
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS5	12:50:06	4.6	Middle	2	1	26.48	8.2	22.12	83	5.85	3.2	2.1	2.1
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS5	12:49:51	4.6	Middle	2	2	26.36	8.2	22.64	76.7	5.38	3.2	2.5	2.5
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS5	12:49:22	8.1	Bottom	3	1	25.86	8.21	26.2	73.3	5.2	3.7	2	2
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS5	12:49:56	8.1	Bottom	3	2	25.81	8.19	26.29	74.1	5.27	3.2	2.5	2.5
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS(MF)6	12:57:02	1.0	Surface	1	1	28.21	8.35	17.73	96.9	6.84	5	2.8	2.8
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS(MF)6	12:57:21	1.0	Surface	1	2	28.33	8.37	17.39	95.9	6.78	4.7	2.5	2.5
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS(MF)6	12:56:57	2.2	Bottom	3	1	28.24	8.36	17.81	95.7	6.76	5.4	2.8	2.8
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS(MF)6	12:57:11	2.2	Bottom	3	2	28.06	8.34	17.9	94	6.65	5	2.9	2.9
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS7	13:04:10	1.0	Surface	1	1	28.18	8.25	17.65	82.1	5.79	9.2	2.6	2.6
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS7	13:03:52	1.0	Surface	1	2	28.18	8.28	17.73	84.8	5.98	9	2.8	2.8
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS7	13:03:44	2.2	Bottom	3	1	28.06	8.26	18.6	83.3	5.89	9.3	3.3	3.3
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS7	13:03:58	2.2	Bottom	3	2	28.08	8.25	18.26	81.2	5.74	9.4	4	4
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS8	13:25:45	1.0	Surface	1	1	28.15	8.32	17.34	93.2	6.56	4.1	2.8	2.8
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS8	13:26:04	1.0	Surface	1	2	28.2	8.33	17.39	91.1	6.43	4.2	2.1	2.1
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS8	13:25:38	2.3	Bottom	3	1	28.19	8.32	18.52	92	6.52	4.1	2.3	2.3
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS8	13:25:55	2.3	Bottom	3	2	28.01	8.3	18.62	90.7	6.43	4.4	2.4	2.4
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS(MF)9	13:10:35	1.0	Surface	1	1	28.34	8.34	16.49	89.9	6.38	5.8	2.2	2.2
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS(MF)9	13:10:14	1.0	Surface	1	2	28.35	8.33	16.47	89	6.32	5.8	2	2
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS(MF)9	13:10:00	2.4	Bottom	3	1	27.8	8.26	19.67	87.1	6.13	6.2	2.6	2.6
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS(MF)9	13:10:22	2.4	Bottom	3	2	27.99	8.28	19.87	89.7	6.29	6.3	2	2
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS10	14:11:14	1.0	Surface	1	1	27.49	8.23	17.52	82.5	5.88	4.6	1.2	1.2
HKLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS10	14:09:45	1.0	Surface	1	2	28.14	8.32	16.19	82	5.85	4.5	1	1



Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS10	14:09:31	5.1	Middle	2	1	27.36	8.2	19.87	70.5	5	5.6	1.5	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS10	14:11:06	5.1	Middle	2	2	27.49	8.2	21.55	70.3	5.01	5.5	1.6	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS10	14:10:05	9.2	Bottom	3	1	26.17	8.17	25.9	65.5	4.58	7.3	2.1	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	IS10	14:08:43	9.2	Bottom	3	2	26.47	8.15	25.13	65.5	4.57	7.6	1.5	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR3	12:42:07	1.0	Middle	2	1	28.26	8.4	17.14	98.1	6.95	2.8	2.2	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR3	12:42:10	1.0	Middle	2	2	28.26	8.39	17.13	98	6.94	2.7	2.1	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR4	13:20:58	1.0	Surface	1	1	27.99	8.22	17.82	75.2	5.33	5	2.4	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR4	13:20:40	1.0	Surface	1	2	27.9	8.21	18.03	76.3	5.38	4.9	1.9	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR4	13:20:51	2.3	Bottom	3	1	27.83	8.21	18.89	74.7	5.28	5.2	1.9	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR4	13:20:33	2.3	Bottom	3	2	27.83	8.21	19.16	75	5.32	5.1	2.3	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR5	13:57:43	1.0	Surface	1	1	28.23	8.33	16.08	85.2	6.36	3.7	1.4	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR5	13:57:03	1.0	Surface	1	2	28.15	8.31	16.27	85.4	6.09	3.6	1.5	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR5	13:56:48	3.5	Bottom	3	1	27.36	8.21	19.95	78.1	5.53	4.8	2	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR5	13:57:22	3.5	Bottom	3	2	27.36	8.21	19.94	77.4	5.48	4.6	2	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR10A	14:17:56	1.0	Surface	1	1	28.14	8.39	17.94	100.3	7.09	2.3	1	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR10A	14:18:27	1.0	Surface	1	2	28.19	8.4	17.68	101	7.14	2.2	1.1	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR10A	14:17:51	3.1	Middle	2	1	28.15	8.39	18.03	100	7.06	2.3	1.6	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR10A	14:18:18	3.1	Middle	2	2	28.13	8.39	18.16	100.7	7.11	2.3	1.6	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR10A	14:18:10	5.1	Bottom	3	1	28.15	8.39	18.09	100.4	7.09	2.3	1.9	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR10A	14:17:46	5.1	Bottom	3	2	28.14	8.39	18.01	99.6	7.03	2.3	1.9	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR10B	14:21:24	1.0	Surface	1	1	28.06	8.41	18.32	101.8	7.19	2.8	1.5	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR10B	14:21:40	1.0	Surface	1	2	28	8.41	18.31	101.5	7.12	2.6	1.5	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR10B	14:21:15	3.5	Bottom	3	1	28.03	8.41	18.47	101.8	7.19	3	1.5	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	SR10B	14:21:30	3.5	Bottom	3	2	28	8.4	19.69	100.8	7.12	2.8	1.4	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	CS2	12:33:18	1.0	Surface	1	1	28.16	8.3	16.27	81.7	5.83	4	1.6	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	CS2	12:32:23	1.0	Surface	1	2	28.12	8.3	16.29	78.9	5.63	4.1	1.5	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	CS2	12:32:09	4.0	Middle	2	1	27.54	8.21	20.33	73.5	5.18	5.6	1.9	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	CS2	12:33:04	4.0	Middle	2	2	27.58	8.22	19.26	74.3	5.27	5.9	1.9	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	CS2	12:32:38	6.9	Bottom	3	1	26.21	8.15	25.05	68.5	4.81	8.7	2.2	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	CS2	12:31:37	6.9	Bottom	3	2	27.48	8.19	23.51	68.2	4.73	8.7	2.6	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	CS(MF)5	13:56:48	1.0	Surface	1	1	27.7	8.33	18.25	75.3	5.36	4	3.2	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	CS(MF)5	13:56:09	1.0	Surface	1	2	27.79	8.33	18.16	81.1	5.67	4.2	3.3	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	CS(MF)5	13:56:36	6.6	Middle	2	1	27.11	8.27	23.19	73.7	5.12	4.5	2.2	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	CS(MF)5	13:55:56	6.6	Middle	2	2	27	8.27	23.35	79	5.55	4.5	2.5	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	CS(MF)5	13:56:24	12.1	Bottom	3	1	25.57	8.24	28.66	67.8	4.74	4.7	3	
HCLR	HY/2011/03	2013-06-10	Mid-Ebb	Cloudy	CS(MF)5	13:55:43	12.1	Bottom	3	2	25.46	8.24	28.95	70.5	5	4.8	2.8	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS5	07:25:59	1.0	Surface	1	1	28.33	8.33	17.07	78.2	5.54	4	1.6	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS5	07:25:20	1.0	Surface	1	2	28.2	8.3	17.17	75.3	5.34	3.9	1.7	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS5	07:25:46	4.6	Middle	2	1	27.57	8.2	19.95	73.6	5.18	4.2	1.4	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS5	07:25:10	4.6	Middle	2	2	27.52	8.21	20.58	74.1	5.21	4.1	1.6	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS5	07:24:54	8.2	Bottom	3	1	26.28	8.21	24.32	66	4.64	4.3	1.9	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS5	07:25:33	8.2	Bottom	3	2	26.39	8.21	24.05	60.8	4.29	4.6	1.6	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS(MF)6	07:17:13	1.0	Surface	1	1	28.41	8.32	16.11	93.2	6.62	2.4	0.7	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS(MF)6	07:17:24	1.0	Surface	1	2	28.41	8.32	16.08	93	6.61	2.4	0.8	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS(MF)6	07:17:08	2.3	Bottom	3	1	28.41	8.32	16.12	93.1	6.62	2.8	0.9	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS(MF)6	07:17:17	2.3	Bottom	3	2	28.41	8.32	16.1	92.9	6.61	2.5	0.9	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS7	07:10:52	1.0	Surface	1	1	28.41	8.33	16.42	93.5	6.63	3.5	1.8	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS7	07:10:32	1.0	Surface	1	2	28.41	8.32	16.4	93.4	6.63	3.5	1.6	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS7	07:10:42	2.4	Bottom	3	1	28.41	8.32	16.44	93.4	6.63	3.6	1.7	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS7	07:10:25	2.4	Bottom	3	2	28.41	8.32	16.39	93.3	6.62	3.6	1.7	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS8	06:49:45	1.0	Surface	1	1	27.98	8.25	15.49	78.7	5.56	4.2	1.8	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS8	06:49:59	1.0	Surface	1	2	28.05	8.25	15.55	77.6	5.56	4.2	1.6	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS8	06:49:36	2.4	Bottom	3	1	27.74	8.22	19.18	76.8	5.51	4.6	1.8	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS8	06:49:51	2.4	Bottom	3	2	28.09	8.23	19.24	78.3	5.5	4.5	1.6	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS(MF)9	07:05:03	1.0	Surface	1	1	28.03	8.26	16.51	82	5.8	4	1.7	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS(MF)9	07:04:50	1.0	Surface	1	2	28.11	8.26	16.64	81.9	5.81	4	1.6	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS(MF)9	07:04:40	2.3	Bottom	3	1	28	8.24	18.23	81.5	5.79	4.3	2.4	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS(MF)9	07:04:57	2.3	Bottom	3	2	28.02	8.25	18.33	81.3	5.8	4.2	2.1	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS10	06:52:04	1.0	Surface	1	1	28.17	8.25	17.37	82.2	5.83	9.4	3.1	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS10	06:50:46	1.0	Surface	1	2	28.15	8.24	17.44	82.1	5.81	9.4	4.1	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS10	06:50:30	5.3	Middle	2	1	27.89	8.21	18.38	74	5.24	9.8	3.8	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS10	06:51:47	5.3	Middle	2	2	27.73	8.2	18.88	73.6	5.21	9.6	3.7	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS10	06:50:07	9.5	Bottom	3	1	26.18	8.18	26.12	64.2	4.48	9.6	5.5	
HCLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	IS10	06:51:18	9.5	Bottom	3	2	26.14	8.18	26.28	63.4	4.43	9.8	4.1	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR3	07:33:33	0.7	Middle	2	1	28.51	8.39	16.9	98.9	6.99	2	1.3	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR3	07:33:36	0.7	Middle	2	2	28.51	8.39	16.88	99.3	7.02	2.1	1	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR4	06:55:03	1.0	Surface	1	1	27.91	8.23	17.84	79.5	5.63	4.2	1.3	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR4	06:54:46	1.0	Surface	1	2	28.13	8.25	16.58	81.8	5.78	3.9	1.9	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR4	06:54:37	2.3	Bottom	3	1	28.12	8.24	18.03	80.9	5.76	4.3	1.9	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR4	06:54:57	2.3	Bottom	3	2	27.92	8.23	18.17	78.1	5.55	4.3	1.7	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR5	06:58:01	1.0	Surface	1	1	28.19	8.24	17.34	86.2	6.11	10.8	2.1	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR5	06:57:35	1.0	Surface	1	2	28.18	8.24	17.37	86.1	6.1	10.8	3.1	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR5	06:57:47	3.7	Bottom	3	1	28.11	8.23	17.62	85.8	6.08	12.3	3.3	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR5	06:57:22	3.7	Bottom	3	2	28.12	8.23	17.6	85.8	6.08	12	4.3	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR10A	05:50:06	1.0	Surface	1	1	27.69	8.31	18.72	79.1	5.61	1.3	1.1	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR10A	05:49:33	1.0	Surface	1	2	27.78	8.31	19.11	80.1	5.66	1.4	0.8	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR10A	05:49:55	3.1	Middle	2	1	27.09	8.29	21.4	77.9	5.45	1.4	1.4	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR10A	05:49:22	3.1	Middle	2	2	27.12	8.29	21.3	79.2	5.52	1.5	1.4	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR10A	05:49:45	5.1	Bottom	3	1	26.96	8.27	23.27	76.1	5.37	1.5	1.4	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR10A	05:49:12	5.1	Bottom	3	1	27.18	8.27	23.27	77.1	5.44	1.5	1.3	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR10B	05:45:15	1.0	Surface	1	1	25.76	8.28	27.2	63.6	4.43	3.9	2	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR10B	05:44:58	1.0	Surface	1	2	25.81	8.27	27.38	64	4.44	3.8	2.2	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR10B	05:45:07	4.0	Bottom	3	1	25.69	8.27	28.08	63.4	4.43	4.1	3.8	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	SR10B	05:44:45	4.0	Bottom	3	2	25.79	8.27	28.26	63.9	4.46	4.4	4.8	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	CS2	08:24:21	1.0	Surface	1	1	27.86	8.21	18.09	75.5	5.36	7.9	5.9	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	CS2	08:25:39	1.0	Surface	1	2	27.86	8.2	18.64	75.7	5.36	7.7	6.7	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	CS2	08:24:02	4.2	Middle	2	1	27.22	8.17	21.92	71.5	5.02	8.9	5.5	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	CS2	08:25:22	4.2	Middle	2	2	27.37	8.17	22.19	72.2	5.05	8.7	5.9	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	CS2	08:23:25	7.4	Bottom	3	1	26.87	8.15	22.81	68.6	4.82	8.7	7.2	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	CS2	08:24:56	7.4	Bottom	3	2	27.26	8.17	22.54	69.8	4.88	8.8	6.3	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	CS(MF)5	06:19:40	1.0	Surface	1	1	28.12	8.38	16.65	68.3	4.86	2	1	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	CS(MF)5	06:20:32	1.0	Surface	1	2	28.16	8.36	16.64	78.5	5.59	2.2	1	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	CS(MF)5	06:20:12	6.6	Middle	2	1	25.19	8.28	29.86	66.6	4.62	2.4	1.5	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	CS(MF)5	06:19:28	6.6	Middle	2	2	25.19	8.28	29.81	63.7	4.42	2.2	1.9	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	CS(MF)5	06:19:16	12.1	Bottom	3	1	25.07	8.26	30.45	59.2	4.12	2.6	1.4	
HKLR	HY/2011/03	2013-06-10	Mid-Flood	Sunny	CS(MF)5	06:19:58	12.1	Bottom	3	2	25.18	8.26	30.2	59.6	4.14	2.4	1.4	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS5	13:51:19	1.0	Surface	1	1	26.3	8.25	22.48	86.1	6.14	3.2	2	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS5	13:52:51	1.0	Surface	1	2	26.12	8.24	22.56	88.3	6.3	3.3	2.4	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS5	13:50:54	4.7	Middle	2	1	25.15	8.21	27.43	73.3	5.16	9.6	2.2	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS5	13:52:15	4.7	Middle	2	2	24.99	8.21	28.39	72.4	5.06	9	2.8	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS5	13:51:53	8.4	Bottom	3	1	24.67	8.2	30.06	66.6	4.81	13.7	2.1	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS5	13:50:32	8.4	Bottom	3	2	24.7	8.19	29.91	69	4.85	14.5	2.2	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS(MF)6	14:00:35	1.0	Surface	1	1	26.64	8.26	20.21	75.1	5.38	3.1	2.8	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS(MF)6	14:00:02	1.0	Surface	1	2	26.6	8.26	20.32	74.7	5.35	3.2	2.9	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS(MF)6	13:59:44	2.3	Bottom	3	1	26.19	8.24	21.28	69.1	4.96	3.7	2.3	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS(MF)6	14:00:21	2.3	Bottom	3	2	26.25	8.24	21.89	72.4	5.17	4	3.8	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS7	14:07:40	1.0	Surface	1	1	26.56	8.19	22.22	77.3	5.48	7.5	2.5	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS7	14:08:28	1.0	Surface	1	2	26.63	8.17	22.24	76.5	5.42	7.5	3	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS7	14:08:14	2.3	Bottom	3	1	26.29	8.17	24.14	68.2	4.82	8.9	3.6	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS7	14:07:21	2.3	Bottom	3	2	26.2	8.18	24.29	69.4	4.88	9.3	3.4	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS8	14:32:27	1.0	Surface	1	1	26.39	8.21	19.97	77	5.56	5.7	4.9	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS8	14:33:13	1.0	Surface	1	2	26.41	8.2	20.84	77.3	5.53	6.1	5.3	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS8	14:32:04	2.8	Bottom	3	1	25.93	8.16	26.1	70.7	4.96	8.7	5.6	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS8	14:32:44	2.8	Bottom	3	2	26.1	8.16	26.57	70.2	4.96	9.3	6.1	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS(MF)9	14:15:27	1.0	Surface	1	1	26.77	8.24	20.92	82	5.83	5.7	3.3	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS(MF)9	14:16:16	1.0	Surface	1	2	26.51	8.23	22.19	80.5	5.73	5.8	2.9	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS(MF)9	14:15:51	2.7	Bottom	3	1	25.81	8.19	26.36	71.2	4.99	8.1	4.1	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS(MF)9	14:15:04	2.7	Bottom	3	2	25.83	8.19	26.26	69.6	4.88	7.5	3.1	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS10	15:15:55	1.0	Surface	1	1	26.41	8.22	22.7	74.6	5.29	3.5	1.9	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS10	15:14:53	1.0	Surface	1	2	26.37	8.22	22.88	73.7	5.22	3.7	2.1	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS10	15:14:45	5.4	Middle	2	1	26.3	8.21	23.28	71	5.02	6.2	2.8	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS10	15:15:41	5.4	Middle	2	2	26.29	8.21	23.5	70.9	5.01	6.4	2.5	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS10	15:15:11	9.7	Bottom	3	1	25.43	8.15	28.64	66.6	4.72	6.8	3.4	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	IS10	15:14:21	9.7	Bottom	3	2	25.6	8.15	28.75	69.1	4.8	6.8	2.4	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR3	13:38:22	0.9	Middle	2	1	26.54	8.27	21.41	78.8	5.61	3.7	1.2	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR3	13:38:08	0.9	Middle	2	2	26.32	8.25	21.58	77.7	5.55	3.5	2	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR4	14:25:28	1.0	Surface	1	1	26.73	8.24	20.92	84.7	6.02	3	2.8	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR4	14:24:38	1.0	Surface	1	2	26.37	8.21	22.48	81.5	5.78	3	2.4	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR4	14:24:59	2.9	Bottom	3	1	25.75	8.18	26.6	67.9	4.76	5.3	2.4	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR4	14:24:10	2.9	Bottom	3	2	25.84	8.18	26.2	72.2	5.06	5.7	2.8	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR5	15:02:50	1.0	Surface	1	1	26.36	8.19	22.8	78.4	5.56	2.6	2.1	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR5	15:03:11	1.0	Surface	1	2	26.36	8.2	22.8	78.3	5.55	2.7	2.3	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR5	15:02:59	3.5	Bottom	3	1	26.34	8.2	22.91	78.3	5.55	2.6	3.4	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR5	15:02:39	3.5	Bottom	3	2	26.33	8.19	22.93	78.1	5.54	2.5	2.1	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR10A	15:47:06	1.0	Surface	1	1	26.78	8.29	20.54	92.6	6.6	2.5	1.1	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR10A	15:48:17	1.0	Surface	1	2	26.53	8.28	22	88.4	6.28	2.6	1.3	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR10A	15:48:00	3.3	Middle	2	1	25.31	8.23	28.66	73.6	5.14	3.9	1.1	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR10A	15:46:45	3.3	Middle	2	2	25.44	8.23	28.39	72.3	5.05	3.6	1.3	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR10A	15:46:25	5.5	Bottom	3	1	25.19	8.23	28.97	69.6	4.85	3.3	1.9	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR10A	15:47:41	5.5	Bottom	3	2	25.15	8.22	29.18	69.4	4.85	3.6	1.8	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR10B	15:54:56	1.0	Surface	1	1	26.68	8.29	20.73	91.7	6.54	2.2	1.4	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR10B	15:55:43	1.0	Surface	1	2	26.53	8.28	20.97	91.4	6.53	2.3	1.5	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR10B	15:54:34	4.9	Bottom	3	1	25.16	8.22	29.15	77.5	5.41	3.7	1.8	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	SR10B	15:55:15	4.9	Bottom	3	2	25.1	8.22	29.42	76.1	5.3	3.5	2.2	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	CS2	13:37:29	1.0	Surface	1	1	26	8.2	22.67	77.3	5.51	6.2	2	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	CS2	13:36:51	1.0	Surface	1	2	26.07	8.17	22.6	76.2	5.43	6.1	3.1	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	CS2	13:36:39	4.1	Middle	2	1	25.74	8.12	24.19	73.8	5.26	6.5	3.4	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	CS2	13:37:19	4.1	Middle	2	2	25.36	8.15	24.75	72.3	5.16	6.4	2.5	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	CS2	13:37:09	7.1	Bottom	3	1	25.46	8.11	29.89	71.7	4.96	7.7	2.7	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	CS2	13:36:20	7.1	Bottom	3	2	24.71	8.11	30.41	71	5.07	7.6	3.1	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	CS(MF)5	15:15:40	1.0	Surface	1	1	26.4	8.27	22.19	88.8	6.31	2.9	1.2	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	CS(MF)5	15:17:32	1.0	Surface	1	2	26.42	8.28	22.34	88.5	6.29	2.8	0.9	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	CS(MF)5	15:17:04	6.6	Middle	2	1	25.11	8.23	29.36	77	5.39	4.6	2.1	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	CS(MF)5	15:15:10	6.6	Middle	2	2	25.09	8.23	29.43	77	5.36	4.7	1.5	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	CS(MF)5	15:16:34	12.2	Bottom	3	1	24.63	8.23	31.26	70.3	4.91	7.3	1.8	
HKLR	HY/2011/03	2013-06-12	Mid-Ebb	Fine	CS(MF)5	15:14:43	12.2	Bottom	3	2	24.65	8.23	31.21	70.6	4.92	7	1.5	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS5	08:59:21	1.0	Surface	1	1	26.37	8.24	18.68	82.9	6.01	3	1.7	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS5	09:00:49	1.0	Surface	1	2	26.37	8.23	18.74	82.4	5.99	3.1	1.7	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS5	08:58:51	4.9	Middle	2	1	25.56	8.17	26.38	75.6	5.33	7.2	1.6	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS5	09:00:18	4.9	Middle	2	2	25.49	8.18	26.74	76	5.36	7.7	1.9	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS5	08:59:55	8.7	Bottom	3	1	24.92	8.17	29.47	70.7	4.98	11.9	1.8	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS5	08:58:25	8.7	Bottom	3	2	24.94	8.16	29.44	72.7	5.11	11.5	1.8	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS(MF)6	08:49:23	1.0	Surface	1	1	26.2	8.24	18.21	90	6.57	2.3	1.1	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS(MF)6	08:48:38	1.0	Surface	1	2	26.24	8.22	18.25	89.9	6.56	2.2	1.1	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS(MF)6	08:48:16	2.2	Bottom	3	1	26.41	8.22	18.84	87.9	6.37	2.5	2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS(MF)6	08:48:55	2.2	Bottom	3	2	26.47	8.21	18.88	87.5	6.33	2.6	1.8	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS7	08:40:49	1.0	Surface	1	1	26.26	8.24	18.55	94	6.83	3.9	2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS7	08:41:17	1.0	Surface	1	2	26.28	8.23	18.48	91.7	6.67	4.1	1.7	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS7	08:41:07	2.4	Bottom	3	1	26.57	8.2	19.83	90	6.47	6	1.6	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS7	08:40:34	2.4	Bottom	3	2	26.57	8.2	19.74	90.1	6.48	6.3	2.2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS8	08:14:59	1.0	Surface	1	1	26.44	8.22	19.66	84.5	6.08	2.2	2.4	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS8	08:15:50	1.0	Surface	1	2	26.4	8.22	19.55	85	6.13	2.2	2.7	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS8	08:15:26	2.9	Bottom	3	1	26.01	8.21	24.57	76.3	5.39	3.2	4.9	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS8	08:14:37	2.9	Bottom	3	2	26.1	8.2	23.91	79.1	5.59	3.5	3.2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS(MF)9	08:32:52	1.0	Surface	1	1	26.45	8.22	19.58	85	6.12	3.7	2.2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS(MF)9	08:33:30	1.0	Surface	1	2	26.49	8.21	19.7	84.1	6.06	3.9	1.6	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS(MF)9	08:32:35	2.5	Bottom	3	1	26.36	8.19	22.66	80.2	5.69	4.9	4.4	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS10	07:57:22	1.0	Surface	1	1	26.38	8.15	21.95	72.4	5.17	10.5	16.6	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS10	07:58:56	1.0	Surface	1	2	26.21	8.16	22.01	73.7	5.26	10.5	17.8	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS10	07:56:51	5.2	Middle	2	1	25.5	8.17	27.35	72	5.15	10.5	17.8	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS10	07:58:19	5.2	Middle	2	2	25.51	8.18	27.04	71.5	5.1	10.6	17.6	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS10	07:58:09	9.4	Bottom	3	1	25.3	8.16	28.8	66.5	4.75	11.4	17.2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	IS10	07:56:38	9.4	Bottom	3	2	25.54	8.14	28.66	66.1	4.71	11.4	17	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR3	09:06:58	0.9	Middle	2	1	26.36	8.21	18.62	75.1	5.45	2.4	1.2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR3	09:07:08	0.9	Middle	2	2	26.36	8.21	18.63	75.4	5.82	2.5	1.2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR4	08:21:19	1.0	Surface	1	1	26.4	8.21	21.15	81.4	5.82	2.2	1.3	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR4	08:21:50	1.0	Surface	1	2	26.36	8.23	19.39	83.6	6.05	2	1.4	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR4	08:21:35	2.6	Bottom	3	1	26.34	8.2	22.87	79.7	5.65	2.1	1.2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR4	08:20:54	2.6	Bottom	3	2	26.25	8.2	22.59	80.4	5.69	2.3	1.9	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR5	08:09:41	1.0	Surface	1	1	8.15	8.15	21.85	71.3	5.09	7.8	22.6	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR5	08:08:19	1.0	Surface	1	2	26.25	8.16	22.17	70.6	5.04	7.9	23.2	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR5	08:08:01	3.5	Bottom	3	1	26.08	8.15	25.9	69.2	4.84	7.6	22.3	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR5	08:08:26	3.5	Bottom	3	2	26.17	8.14	25.89	68.3	4.78	7.6	22.6	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR10A	07:08:43	1.0	Surface	1	1	25.26	8.23	27.58	72.4	5.07	2.1	1.7	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR10A	07:09:43	1.0	Surface	1	2	25.24	8.24	27.66	72.8	5.06	2	1.5	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR10A	07:08:28	3.4	Middle	2	1	25.01	8.24	29.02	75.3	5.29	2.4	1.8	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR10A	07:08:21	3.4	Middle	2	2	25.13	8.24	28.22	78.1	5.49	2.3	2.3	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR10A	07:09:07	5.8	Bottom	3	1	24.94	8.23	29.61	72.3	5.06	3.9	2.2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR10A	07:08:02	5.8	Bottom	3	2	24.98	8.22	29.41	74.6	5.24	3.7	2.4	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR10B	07:02:07	1.0	Surface	1	1	24.67	8.22	30.95	77.1	5.4	5.7	6.7	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR10B	07:01:31	1.0	Surface	1	2	24.68	8.22	30.99	78.8	5.52	5.2	6.5	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR10B	07:01:50	4.8	Bottom	3	1	24.44	8.22	32	70.6	4.82	7.7	5.2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	SR10B	07:00:22	4.8	Bottom	3	2	24.36	8.21	32.33	69.3	4.91	8	6.9	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	CS2	09:39:34	1.0	Surface	1	1	26.16	8.18	22.98	75.4	5.34	7.5	7.8	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	CS2	09:40:10	1.0	Surface	1	2	26.26	8.17	22.41	76.1	5.39	7.3	8.8	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	CS2	09:39:57	4.0	Middle	2	1	25.48	8.17	27.79	75.3	5.33	7.9	7.8	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	CS2	09:39:20	4.0	Middle	2	2	25.47	8.17	27.52	74.8	5.29	7.9	8.5	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	CS2	09:39:47	7.0	Bottom	3	1	25.5	8.16	28.44	69.7	4.94	8.7	7.3	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	CS2	09:39:10	7.0	Bottom	3	2	25.36	8.16	28.64	67.6	4.79	8.5	6.9	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	CS(MF)5	07:39:48	1.0	Surface	1	1	25.92	8.26	22.11	85.2	5.93	2.4	1.3	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	CS(MF)5	07:41:19	1.0	Surface	1	2	25.93	8.26	22.05	84.7	5.89	2.5	1.2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	CS(MF)5	07:40:49	6.8	Middle	2	1	25.18	8.25	28.32	74.8	5.24	3.7	1.7	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	CS(MF)5	07:39:15	6.8	Middle	2	2	25.33	8.25	27.39	77.2	5.43	3.6	2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	CS(MF)5	07:38:57	12.6	Bottom	3	1	25.18	8.24	28.26	75.5	5.29	5.1	3.2	
HKLR	HY/2011/03	2013-06-12	Mid-Flood	Cloudy	CS(MF)5	07:40:30	12.6	Bottom	3	2	25.14	8.24	28.63	73.2	5.1	4.8	2.2	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS5	15:14:11	1.0	Surface	1	1	25.39	8.25	25.62	74.5	5.29	2.4	2.4	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS5	15:13:17	1.0	Surface	1	2	25.39	8.25	25.62	74.5	5.29	2.8	2.6	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS5	15:13:53	4.8	Middle	2	1	25.36	8.25	25.97	73.4	5.2	3.2	3.4	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS5	15:13:02	4.8	Middle	2	2	25.37	8.25	25.72	73.3	5.2	3	3.3	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS5	15:12:29	8.5	Bottom	3	1	25.24	8.24	27.1	73.3	5.17	3.8	3.1	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS5	15:12:45	8.5	Bottom	3	2	25.24	8.25	26.79	73.1	5.16	3.7	3.5	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS(MF)6	15:21:19	1.0	Surface	1	1	25.63	8.24	23.01	75.4	5.4	2.7	2.8	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS(MF)6	15:20:58	1.0	Surface	1	2	25.65	8.24	23.28	75.5	5.4	2.9	2.7	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS(MF)6	15:20:39	2.5	Bottom	3	1	25.37	8.21	26.78	74.2	5.23	3.5	3.2	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS(MF)6	15:21:07	2.5	Bottom	3	2	25.41	8.21	26.58	74.7	5.27	3.6	4	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS7	15:28:52	1.0	Surface	1	1	25.57	8.22	24.06	76.6	5.47	6.2	2.6	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS7	15:28:23	1.0	Surface	1	2	25.57	8.21	24.31	76.2	5.44	6.4	2.5	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS7	15:28:39	2.5	Bottom	3	1	25.12	8.17	28.66	72.1	5.07	7.7	2.4	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS7	15:28:10	2.5	Bottom	3	2	25.18	8.18	27.94	71.6	5.05	7.5	2.3	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS8	15:54:10	1.0	Surface	1	1	25.63	8.22	23.86	71.7	5.12	2.2	3.6	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS8	15:53:49	1.0	Surface	1	2	25.61	8.23	23.73	72.1	5.15	2.3	3.2	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS8	15:53:37	2.5	Bottom	3	1	25.4	8.2	26.53	71.7	5.06	3.5	3.2	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS(MF)9	15:35:56	2.5	Bottom	3	2	25.52	8.2	25.78	71.5	5.06	4	4	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS(MF)9	15:35:22	1.0	Surface	1	1	25.59	8.22	23.77	73.4	5.24	9.7	2.1	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS(MF)9	15:35:47	1.0	Surface	1	2	25.58	8.22	23.79	72.6	5.19	9.6	2.3	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS(MF)9	15:35:10	2.5	Bottom	3	1	25.24	8.17	27.87	71.1	5.01	10.4	3.2	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS(MF)9	15:35:36	2.5	Bottom	3	2	25.25	8.18	27.83	71.7	5.04	10.6	2.9	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS10	16:10:05	1.0	Surface	1	1	25.55	8.17	24.78	83.8	5.96	3.8	2.9	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS10	16:08:40	1.0	Surface	1	2	25.55	8.16	24.84	83.7	5.95	3.8	2.8	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS10	16:08:18	5.7	Middle	2	1	25.44	8.14	26.14	74.7	5.28	5.5	2.8	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS10	16:09:43	5.7	Middle	2	2	25.45	8.14	26.01	75.9	5.37	5.7	2.9	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS10	16:07:48	10.3	Bottom	3	1	25.11	8.13	28.82	73.4	5.14	8.1	4	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	IS10	16:09:09	10.3	Bottom	3	2	25.02	8.14	29	69.9	4.9	8.3	3.8	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR3	15:06:02	0.7	Middle	2	1	25.4	8.2	26.03	71.1	5.04	6.2	3.3	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR3	15:05:58	0.7	Middle	2	2	25.41	8.2	26.03	71.5	5.06	6.4	2.9	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR4	15:43:06	1.0	Surface	1	1	25.59	8.22	24.08	70.5	5.03	2.9	3.6	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR4	15:43:18	1.0	Surface	1	2	25.58	8.22	23.44	70.4	5.04	3	3.8	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR4	15:43:11	2.5	Bottom	3	1	25.59	8.2	25.71	70.8	5	3.1	3.1	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR4	15:42:54	2.5	Bottom	3	2	25.54	8.2	26.59	79.3	5.59	3.2	3.2	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR5	16:00:10	1.0	Surface	1	1	25.56	8.19	23.79	88.9	6.35	1.7	2.7	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR5	15:59:14	1.0	Surface	1	2	25.57	8.18	23.83	88.9	6.35	1.7	2.5	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR5	15:58:42	4.5	Bottom	3	1	25.48	8.16	25.3	84.4	5.98	2.2	3.7	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR5	15:58:47	4.5	Bottom	3	2	25.48	8.16	25.32	84.5	6	2.4	2.8	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR10A	16:52:20	1.0	Surface	1	1	25.29	8.23	27.22	73.8	5.2	1.2	4.3	
HKLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR10A	16:52:55	1.0	Surface	1	2	25.3	8.24	26.83	73.5	5.19	1.2	3.4	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR10A	16:52:12	3.3	Middle	2	1	25.2	8.23	27.79	71.8	5.06	1.2	3.9	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR10A	16:52:48	3.3	Middle	2	2	25.19	8.23	27.91	71.6	5.04	1.2	3.8	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR10A	16:52:03	5.6	Bottom	3	1	25.07	8.22	28.86	71.4	5.01	1.3	3.9	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR10A	16:52:38	5.6	Bottom	3	2	25.02	8.22	29.19	71.4	5.01	1.4	3.8	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR10B	17:02:22	1.0	Surface	1	1	25.4	8.24	26.46	72.5	5.12	1.1	2.6	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR10B	17:01:47	1.0	Surface	1	2	25.4	8.24	26.11	72.4	5.12	1.2	2.9	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR10B	17:02:02	4.5	Bottom	3	1	25.31	8.23	28.17	72	5.04	1.2	3.8	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	SR10B	17:01:38	4.5	Bottom	3	2	25.34	8.24	27.04	72.2	5.09	1.2	3.8	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	CS2	14:53:56	1.0	Surface	1	1	25.53	8.14	24.38	83.3	5.93	3	2.1	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	CS2	14:55:15	1.0	Surface	1	2	25.54	8.16	24.44	85.3	6.07	3.3	2.2	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	CS2	14:54:53	3.7	Middle	2	1	25.38	8.15	25.71	76.7	5.43	5.3	1.7	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	CS2	14:53:40	3.7	Middle	2	2	25.33	8.13	25.92	76.1	5.39	5	1.4	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	CS2	14:54:30	6.3	Bottom	3	1	24.92	8.15	29.43	72.2	5.05	7.9	2.1	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	CS2	14:53:05	6.3	Bottom	3	2	24.92	8.1	29.46	71.8	5.03	8.5	2.6	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	CS(MF)5	16:27:16	1.0	Surface	1	1	25.57	8.23	23.9	75.2	5.37	2.7	2.1	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	CS(MF)5	16:28:06	1.0	Surface	1	2	25.56	8.23	23.88	75.3	5.41	2.8	3.5	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	CS(MF)5	16:27:59	6.8	Middle	2	1	25.47	8.21	25.52	73.7	5.2	3.3	2.4	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	CS(MF)5	16:27:10	6.8	Middle	2	2	25.48	8.21	25.12	72.1	5.13	3.3	2.1	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	CS(MF)5	16:27:46	12.6	Bottom	3	1	25.27	8.19	28.17	71.4	5.02	3.9	2.2	
HCLR	HY/2011/03	2013-06-14	Mid-Ebb	Rainy	CS(MF)5	16:27:00	12.6	Bottom	3	2	25.18	8.19	28.14	70.2	4.94	3.7	2.2	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS5	10:20:17	1.0	Surface	1	1	25.46	8.21	24.76	72.9	5.19	2.6	3.2	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS5	10:21:44	1.0	Surface	1	2	25.47	8.21	24.62	73	5.2	2.8	2.3	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS5	10:21:34	4.7	Middle	2	1	25.41	8.21	25.43	71.4	5.07	2.8	2.9	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS5	10:20:09	4.7	Middle	2	2	25.39	8.21	25.43	71.2	5.06	2.9	2.2	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS5	10:19:45	8.4	Bottom	3	1	25.23	8.2	27.17	71.6	5.05	3.4	3.6	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS5	10:21:16	8.4	Bottom	3	2	25.3	8.2	27.02	71.7	5.06	3.1	3	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS(MF)6	10:12:20	1.0	Surface	1	1	25.62	8.21	23.12	73.5	5.27	1.4	2.2	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS(MF)6	10:12:07	1.0	Surface	1	2	25.61	8.21	23.3	73.8	5.29	1.5	2.3	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS(MF)6	10:12:01	2.4	Bottom	3	1	25.62	8.21	23.25	73.9	5.27	1.7	1	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS(MF)6	10:12:12	2.4	Bottom	3	2	25.61	8.2	23.38	73.6	5.27	1.8	1.3	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS7	10:05:43	1.0	Surface	1	1	25.57	8.21	23.61	74.3	5.32	1.8	1.7	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS7	10:06:01	1.0	Surface	1	2	25.58	8.21	23.56	74.3	5.32	1.6	1.4	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS7	10:05:50	2.4	Bottom	3	1	25.57	8.21	23.76	74.3	5.31	2.1	1.8	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS7	10:05:36	2.4	Bottom	3	2	25.57	8.21	23.72	74.3	5.31	2.3	1.6	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS8	09:37:42	1.0	Surface	1	1	25.6	8.22	22.58	71.4	5.14	2.5	2.5	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS8	09:38:08	1.0	Surface	1	2	25.64	8.21	22.64	71.9	5.16	2.5	2.2	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS8	09:37:55	2.5	Bottom	3	1	25.51	8.19	25.73	71.3	5.05	2.7	1.1	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS8	09:37:33	2.5	Bottom	3	2	25.5	8.19	25.55	71.3	5.05	2.7	1.1	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS(MF)9	09:58:57	1.0	Surface	1	1	25.61	8.21	23.67	71.7	5.13	3.1	1.6	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS(MF)9	09:59:25	1.0	Surface	1	2	25.61	8.2	23.68	71.8	5.13	3.2	1.8	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS(MF)9	09:59:09	2.4	Bottom	3	1	25.49	8.18	25.95	71.6	5.06	4.6	1.4	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS(MF)9	09:58:42	2.4	Bottom	3	2	25.48	8.19	25.7	71.5	5.07	4.4	1.7	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS10	09:25:17	1.0	Surface	1	1	25.49	8.14	24.58	78.7	5.69	3.2	3.2	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS10	09:27:03	1.0	Surface	1	2	25.49	8.14	24.46	78.3	5.67	2.4	3.9	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS10	09:26:30	5.5	Middle	2	1	25.2	8.13	27.74	71.9	5.17	3.5	4.3	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS10	09:24:52	5.5	Middle	2	2	25.38	8.14	25.89	76.4	5.51	3.3	4.5	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS10	09:25:53	10.0	Bottom	3	1	24.95	8.12	29.76	69.4	4.95	5.8	4	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	IS10	09:24:21	10.0	Bottom	3	2	24.98	8.12	29.56	70.7	5.04	6.1	4	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR3	10:30:10	0.6	Middle	2	1	25.47	8.21	24.74	72.2	5.14	2.2	1.9	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR3	10:30:13	0.6	Middle	2	2	25.47	8.21	24.73	72.4	5.15	2.2	1.4	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR4	09:49:42	1.0	Surface	1	1	25.64	8.2	23.02	72.7	5.21	2.6	1.2	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR4	09:50:14	1.0	Surface	1	2	25.61	8.2	22.76	72.3	5.19	2.5	1.3	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR4	09:49:52	2.5	Bottom	3	1	25.51	8.18	25.82	71.5	5.08	3.5	1.9	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR4	09:49:22	2.5	Bottom	3	2	25.51	8.18	25.84	71.8	5.06	3.7	1.4	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR5	09:32:58	1.0	Surface	1	1	25.47	8.12	24.95	76.8	5.56	6.2	2.6	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR5	09:32:58	1.0	Surface	1	2	25.45	8.11	25.48	76.7	5.54	6	2.3	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR5	09:32:31	4.5	Bottom	3	1	25.19	8.1	28.09	72.3	5.2	7	4	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR5	09:33:17	4.5	Bottom	3	2	25.17	8.1	28.09	72.8	5.23	7	3.6	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR10A	08:25:46	1.0	Surface	1	1	24.94	8.22	29.61	72.5	5.09	1.1	1.2	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR10A	08:25:07	1.0	Surface	1	2	24.93	8.22	29.68	72.5	5.09	1.1	1.1	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR10A	08:25:57	3.3	Middle	2	1	24.93	8.22	29.65	72.2	5.07	1.1	1.3	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR10A	08:25:00	3.3	Middle	2	2	24.92	8.22	29.69	72.4	5.08	1.1	1.1	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR10A	08:25:17	5.6	Bottom	3	1	24.91	8.22	29.85	72.3	5.07	1.3	0.9	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR10A	08:24:41	5.6	Bottom	3	2	24.9	8.22	29.87	72.3	5.07	1.2	1	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR10B	08:14:13	1.0	Surface	1	1	24.8	8.21	30.54	72	5.05	3.1	1.9	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR10B	08:14:02	1.0	Surface	1	2	24.8	8.21	30.53	72.3	5.06	3.2	1.9	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR10B	08:13:56	4.5	Bottom	3	1	24.8	8.21	30.55	71.4	5.07	3.2	2.3	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	SR10B	08:14:08	4.5	Bottom	3	2	24.8	8.21	30.53	72.1	5.05	3.2	2.3	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	CS2	10:38:35	1.0	Surface	1	1	25.45	8.13	25.47	75.2	5.43	6.3	2.7	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	CS2	10:40:04	1.0	Surface	1	2	25.49	8.13	24.81	76.7	5.54	6.1	3.1	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	CS2	10:39:29	3.7	Middle	2	1	25.15	8.12	28.23	71	5.08	7.3	3.6	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	CS2	10:37:59	3.7	Middle	2	1	25.24	8.12	27.52	71.2	5.09	7.6	4	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	CS2	10:39:00	6.4	Bottom	3	1	25.09	8.12	28.48	69.2	4.96	9	4.4	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	CS2	10:37:31	6.4	Bottom	3	2	25.09	8.12	28.46	70	5.02	8.8	4.4	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	CS(MF)5	09:03:59	1.0	Surface	1	1	25.21	8.23	27.11	72.6	5.13	1.4	1.4	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	CS(MF)5	09:04:59	1.0	Surface	1	2	25.13	8.22	27.73	71.9	5.07	1.3	1.1	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	CS(MF)5	09:04:45	6.8	Middle	2	1	25.02	8.22	29.23	71.6	5.03	1.4	1.7	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	CS(MF)5	09:03:46	6.8	Middle	2	2	25.03	8.22	29.28	71.4	5.01	1.5	1.3	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	CS(MF)5	09:04:12	12.5	Bottom	3	1	24.9	8.21	30.07	70.8	4.96	1.6	1	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	CS(MF)5	09:03:26	12.5	Bottom	3	2	24.89	8.22	29.88	70.7	4.96	1.7	1.3	
HCLR	HY/2011/03	2013-06-14	Mid-Flood	Rainy	CS(MF)5	09:03:39	1.0	Surface	1	1	27.18	8.36	23.96	93.4	6.49	4	2.4	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS5	17:39:38	1.0	Surface	1	2	27.09	8.36	24.03	89.8	6.24	4.5	2.9	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS5	17:39:27	4.7	Middle	2	1	26.69	8.34	24.49	83.4	5.83	5.3	3	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS5	17:38:18	4.7	Middle	2	2	26.54	8.34	24.69	80.7	5.65	5.4	2.6	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS5	17:39:13	8.4	Bottom	3	1	26.23	8.33	25.29	79.9	5.6	6	2.2	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS5	17:38:04	8.4	Bottom	3	2	26.06	8.33	25.66	77.6	5.44	6.4	2.7	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS(MF)6	17:46:25	1.0	Surface	1	1	27.3	8.38	23.02	104.2	7.26	4.9	4	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS(MF)6	17:46:03	1.0	Surface	1	2	27.29	8.38	23.03	104.1	7.26	5.4	4.2	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS(MF)6	17:46:14	2.2	Bottom	3	1	27.26	8.38	23.07	103.8	7.24	8.8	4.4	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS(MF)6	17:45:53	2.2	Bottom	3	2	27.25	8.38	23.13	103.8	7.24	8.1	5.3	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS7	17:53:17	1.0	Surface	1	1	27.25	8.36	23.06	99.9	6.95	7.3	6.9	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS7	17:52:51	1.0	Surface	1	2	27.27	8.37	23.04	99.7	6.97	7	6.5	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS7	17:52:37	2.3	Bottom	3	1	27.01	8.34	23.36	96.9	6.77	8	6.3	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS7	17:53:06	2.3	Bottom	3	2	27.03	8.34	23.32	98	6.85	7.9	7.5	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS8	18:14:24	1.0	Surface	1	1	26.59	8.29	24.04	86.2	6.05	5.8	3.7	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS8	18:14:46	1.0	Surface	1	2	26.66	8.29	23.78	85.8	5.88	6.1	2.9	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS8	18:14:12	2.5	Bottom	3	1	26.77	8.31	23.69	88.1	6.17	8.8	3.4	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS8	18:14:34	2.5	Bottom	3	2	26.49	8.28	24.26	83.9	5.89	9.5	3.8	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS(MF)9	17:59:54	1.0	Surface	1	1	27.02	8.34	23.42	94	6.57	7.5	7.5	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS(MF)9	18:00:33	1.0	Surface	1	2	27.04	8.34	23.39	94.8	6.62	6.3	7.3	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS(MF)9	17:59:42	2.6	Bottom	3	1	26.87	8.33	23.72	92.7	6.48	4.9	6.8	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS(MF)9	18:00:14	2.6	Bottom	3	2	26.9	8.33	23.67	92.6	6.48	4.6	7	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS10	19:14:07	1.0	Surface	1	1	26.89	8.27	23.34	84.3	5.91	4.6	2.2	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS10	19:13:20	1.0	Surface	1	2	26.88	8.27	23.41	83.8	5.87	4.7	2.6	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS10	19:13:05	5.2	Middle	2	1	26.03	8.21	25.05	76.1	5.36	7.6	2.6	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS10	19:13:51	5.2	Middle	2	2	26.06	8.21	24.97	76.1	5.36	3.4	3.4	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS10	19:13:39	9.3	Bottom	3	1	25.86	8.19	25.58	73	5.14	7.9	3.7	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	IS10	19:12:55	9.3	Bottom	3	2	25.86	8.19	25.64	72.8	5.13	8	4	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR3	17:27:30	0.8	Middle	2	1	27.24	8.4	24.02	99.6	6.91	3.6	3.4	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR3	17:27:22	0.8	Middle	2	2	27.22	8.4	24.04	99.5	6.9	3.6	3.5	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR3	19:03:19	3.4	Bottom	3	1	26.11	8.21	24.96	75.4	5.31	4.4	4.2	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR4	18:08:19	2.6	Bottom	3	2	26.82	8.27	23.81	83.9	5.87	4.2	3.3	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR5	19:03:58	1.0	Surface	1	1	26.82	8.27	23.81	83.9	5.87	4.2	3.3	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR5	19:03:32	1.0	Surface	1	2	26.35	8.23	24.55	77.1	5.41	4.1	3.6	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR5	19:03:43	3.4	Bottom	3	1	26.14	8.22	24.91	77	5.41	4.3	3.3	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR5	19:03:19	3.4	Bottom	3	2	26.11	8.21	24.96	75.4	5.31	4.4	4.2	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR10A	19:20:21	1.0	Surface	1	1	26.19	8.28	25.93	80.2	5.6	1.7	1.2	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR10A	19:21:20	1.0	Surface	1	2	26.25	8.28	25.79	82	5.73	1.6	1.9	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR10A	19:21:05	3.5	Middle	2	1	26.16	8.28	26.03	78.7	5.5	2.1	1.7	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR10A	19:20:07	3.5	Middle	2	2	26.04	8.26	26.38	76	5.34	2.2	1.8	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR10A	19:19:52	5.9	Bottom	3	1	25.88	8.26	27.12	76.6	5.34	2.3	1.9	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR10A	19:20:46	5.9	Bottom	3	2	25.9	8.25	27	75.6	5.28	2.4	1.5	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR10B	19:27:44	1.0	Surface	1	1	26.16	8.28	26.07	80.4	5.62	1.8	2.6	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR10B	19:28:17	1.0	Surface	1	2	26.16	8.28	26.07	80.2	5.6	1.7	1.7	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR10B	19:27:58	4.6	Bottom	3	1	26.06	8.27	26.48	79.5	5.55	1.9	6.8	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	SR10B	19:27:30	4.6	Bottom	3	2	26.07	8.27	26.42	80.3	5.61	1.9	5.9	



Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	CS2	17:32:13	1.0	Surface	1	1	26.66	8.3	23.51	84.1	5.9	4.2	4.5	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	CS2	17:33:06	1.0	Surface	1	2	26.63	8.29	23.69	83.2	5.84	4.4	4	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	CS2	17:32:45	4.1	Middle	2	1	26.16	8.26	24.52	73.5	5.27	4.6	4.4	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	CS2	17:31:52	4.1	Middle	2	2	26.03	8.28	24.53	74.9	5.27	4.5	4.6	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	CS2	17:32:35	7.2	Bottom	3	1	25.82	8.25	25.83	72.1	5.09	4.6	4.2	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	CS2	17:31:32	7.2	Bottom	3	2	25.81	8.27	25.86	72.9	5.14	4.3	4.9	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	CS(MF)5	18:51:24	1.0	Surface	1	1	26.8	8.31	24.18	86.1	6.01	2.6	3.2	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	CS(MF)5	18:52:47	1.0	Surface	1	2	26.81	8.32	24.17	88.9	6.2	2.4	4.2	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	CS(MF)5	18:50:58	6.6	Middle	2	1	25.73	8.24	26.13	71.7	5.05	3.4	5	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	CS(MF)5	18:52:07	6.6	Middle	2	2	25.8	8.24	25.88	72.2	5.11	3.3	6.1	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	CS(MF)5	18:51:52	12.1	Bottom	3	1	25.76	8.24	26.28	73.5	5.16	2.8	5.8	
HCLR	HY/2011/03	2013-06-17	Mid-Ebb	Fine	CS(MF)5	18:50:45	12.1	Bottom	3	2	25.79	8.25	26.27	76.1	5.34	2.7	5.4	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS5	13:21:07	1.0	Surface	1	1	26.93	8.3	23.78	90.7	6.33	4.5	3.4	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS5	13:19:58	1.0	Surface	1	2	26.93	8.3	23.77	90.4	6.32	4.3	3.5	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS5	13:20:45	4.8	Middle	2	1	26.25	8.27	24.84	77.9	5.4	5.1	5.1	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS5	13:19:37	4.8	Middle	2	2	26.29	8.27	24.74	79.1	5.56	5.2	5.2	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS5	13:19:18	8.6	Bottom	3	1	26	8.28	25.52	77.8	5.46	5.6	5.1	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS5	13:20:26	8.6	Bottom	3	2	26.05	8.28	25.36	77.8	5.47	5.6	4	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS(MF)6	13:11:16	1.0	Surface	1	1	27.07	8.31	22.95	96.8	6.78	3.6	2.4	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS(MF)6	13:11:44	1.0	Surface	1	2	27.08	8.31	22.94	96.9	6.78	3.5	3.7	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS(MF)6	13:11:04	2.4	Bottom	3	1	27.05	8.31	23.04	96.7	6.76	5.5	2.6	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS(MF)6	13:11:31	2.4	Bottom	3	2	27.06	8.31	22.99	96.8	6.77	6.1	3.2	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS7	13:04:26	1.0	Surface	1	1	27.07	8.31	22.98	96.1	6.72	4.2	2.9	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS7	13:04:52	1.0	Surface	1	2	27.08	8.31	22.98	96.2	6.73	4.2	3.8	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS7	13:04:15	2.5	Bottom	3	1	27.06	8.31	23.03	96	6.71	4.3	4.7	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS7	13:04:41	2.5	Bottom	3	2	27.04	8.31	23.14	96.1	6.72	4.4	3.4	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS8	12:40:56	1.0	Surface	1	1	26.53	8.27	23.61	85.6	6.02	3.7	2.8	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS8	12:41:23	1.0	Surface	1	2	26.54	8.27	23.61	85.7	6.03	3.5	4.1	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS8	12:41:11	2.8	Bottom	3	1	26.5	8.27	23.77	85.8	6.03	3.4	2.5	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS8	12:40:43	2.8	Bottom	3	2	26.51	8.26	23.75	85.5	6.02	3.7	3.9	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS(MF)9	12:58:43	1.0	Surface	1	1	26.84	8.28	22.97	88.7	6.23	3.8	4.3	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS(MF)9	12:58:19	1.0	Surface	1	2	26.84	8.28	22.99	89	6.25	3.7	4	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS(MF)9	12:58:32	2.5	Bottom	3	1	26.62	8.27	23.7	87.8	6.17	4.6	3.4	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS(MF)9	12:58:05	2.5	Bottom	3	2	26.64	8.27	23.68	88	6.18	4.6	3.6	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS10	12:49:57	1.0	Surface	1	1	26.89	8.19	23.4	86.7	6.07	7.7	10.9	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS10	12:51:24	1.0	Surface	1	2	26.88	8.19	23.39	86.7	6.07	7.9	10	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS10	12:49:36	5.4	Middle	2	1	26.22	8.14	24.29	71.9	5.21	8.7	10.9	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS10	12:51:01	5.4	Middle	2	2	26.01	8.13	24.92	71.1	5.01	8.8	11.5	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS10	12:50:37	9.7	Bottom	3	1	25.59	8.12	26.73	71	4.99	8.9	12.6	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	IS10	12:49:15	9.7	Bottom	3	2	25.64	8.11	26.67	71.4	5.02	8.4	11	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR3	13:28:17	0.8	Middle	2	1	26.98	8.31	23.77	96.2	6.71	4.3	7	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR3	13:28:09	0.8	Middle	2	2	26.97	8.31	23.77	96.1	6.7	4.1	8	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR4	12:48:12	1.0	Surface	1	1	26.36	8.24	24.03	83.4	5.87	8.8	6.1	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR4	12:47:35	1.0	Surface	1	2	26.42	8.25	23.88	83.9	5.9	8	5.3	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR4	12:48:04	2.4	Bottom	3	1	26.37	8.24	24	84.6	5.96	7.6	6.5	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR4	12:47:21	2.4	Bottom	3	2	26.42	8.25	23.87	83.7	5.9	7.5	6.8	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR5	13:08:29	1.0	Surface	1	1	26.9	8.19	23.31	91.1	6.38	9.6	11.2	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR5	13:08:04	1.0	Surface	1	2	26.92	8.19	23.34	92.2	6.45	9.6	11	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR5	13:07:52	3.7	Bottom	3	1	26.87	8.19	23.42	92	6.44	9.9	10	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR5	13:08:14	3.7	Bottom	3	2	26.77	8.19	23.57	91.1	6.39	9.6	10.3	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR10A	11:40:22	1.0	Surface	1	1	26.41	8.26	24.94	81.3	5.69	1.9	6	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR10A	11:39:25	1.0	Surface	1	2	26.42	8.26	24.93	83.2	5.82	1.8	5.4	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR10A	11:39:01	3.4	Middle	2	1	26.01	8.25	25.41	78.2	5.5	2.2	6.5	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR10A	11:40:09	3.4	Middle	2	2	26	8.25	25.43	78	5.48	2	5.5	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR10A	11:38:39	5.7	Bottom	3	1	25.79	8.23	26.34	77.6	5.44	2	4.2	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR10A	11:39:52	5.7	Bottom	3	2	25.78	8.23	26.34	76.6	5.37	2.2	5.6	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR10B	11:32:39	1.0	Surface	1	1	25.48	8.19	28.45	78.8	5.58	2.8	3.2	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR10B	11:33:14	1.0	Surface	1	2	25.55	8.19	28.38	79	5.65	2.7	3.1	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR10B	11:32:21	4.7	Bottom	3	1	25.29	8.19	28.93	73.7	5.14	3.8	2.7	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	SR10B	11:32:54	4.7	Bottom	3	2	25.28	8.19	28.95	72.5	5.05	3.6	3.6	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	CS2	14:29:09	1.0	Surface	1	1	26.79	8.18	22.52	79.9	5.63	3.7	2.1	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	CS2	14:30:21	1.0	Surface	1	2	26.59	8.18	22.79	79.2	5.6	3.6	3	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	CS2	14:30:00	4.0	Middle	2	1	25.95	8.16	24.44	72.9	5.17	6.5	3.2	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	CS2	14:28:51	4.0	Middle	2	2	25.92	8.16	24.36	73.7	5.19	6.6	2.4	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	CS2	14:29:30	6.9	Bottom	3	1	25.77	8.14	25.73	71.6	5.04	6.8	3.6	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	CS2	14:28:38	6.9	Bottom	3	2	25.81	8.14	25.59	70.6	5	6.6	2.9	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	CS(MF)5	12:10:36	1.0	Surface	1	1	26.16	8.26	23.06	79.5	5.46	2.5	1.4	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	CS(MF)5	12:09:33	1.0	Surface	1	2	26.25	8.25	23.53	77.1	5.46	2.7	1.3	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	CS(MF)5	12:09:05	6.8	Middle	2	1	25.67	8.22	26.35	71.2	5	3	1.6	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	CS(MF)5	12:10:08	6.8	Middle	2	2	25.65	8.22	26.41	71.4	5.02	3.1	1.6	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	CS(MF)5	12:08:52	12.6	Bottom	3	1	25.6	8.21	26.76	69.3	4.87	3.1	1.5	
HCLR	HY/2011/03	2013-06-17	Mid-Flood	Sunny	CS(MF)5	12:08:48	12.6	Bottom	3	2	25.6	8.22	26.72	69.7	4.9	3	1.5	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS5	10:22:55	1.0	Surface	1	1	28.74	8.42	18.28	81.6	5.7	5.7	2.9	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS5	10:21:40	1.0	Surface	1	2	28.65	8.41	18.84	81.7	5.67	6.2	3	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS5	10:22:44	4.7	Middle	2	1	26.16	8.36	27.02	79.9	5.55	6	2.4	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS5	10:21:31	4.7	Middle	2	2	26.12	8.35	27.17	79.6	5.55	6.3	2.5	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS5	10:22:34	8.3	Bottom	3	1	26.13	8.34	27.26	74.1	5.15	6.6	2.9	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS5	10:21:25	8.3	Bottom	3	2	26.13	8.35	27.31	76.2	5.3	6.8	3	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS(MF)6	10:12:09	1.0	Surface	1	1	27.97	8.34	21.56	95.7	6.64	6.1	3.5	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS(MF)6	10:12:33	1.0	Surface	1	2	28.35	8.4	21.31	102.1	7.05	5.8	4.1	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS(MF)6	10:12:00	2.4	Bottom	3	1	27.69	8.32	22.1	94.3	6.56	6.5	5.3	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS(MF)6	10:12:14	2.4	Bottom	3	2	27.99	8.34	22.7	97.5	6.73	6.4	4.9	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS7	10:04:13	1.0	Surface	1	1	28.27	8.38	19.44	100.7	7.04	3.2	2.5	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS7	10:03:57	1.0	Surface	1	2	27.63	8.34	19.76	92.8	6.55	3.2	3.2	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS7	10:04:02	2.5	Bottom	3	1	27.94	8.36	21.41	95.6	6.65	3.7	3.9	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS7	10:03:51	2.5	Bottom	3	2	27.23	8.31	22.54	92.8	6.5	3.7	3.3	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS8	09:36:06	1.0	Surface	1	1	27.65	8.35	21.27	97.7	6.84	1.2	1.6	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS8	09:35:52	1.0	Surface	1	2	27.51	8.34	21.6	97.1	6.79	1.1	1.5	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS8	09:35:46	2.5	Bottom	3	1	27.54	8.34	21.68	97	6.79	1.2	3.1	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS8	09:35:58	2.5	Bottom	3	2	27.66	8.34	21.45	97.4	6.81	1.1	2.2	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS(MF)9	09:54:40	1.0	Surface	1	1	27.34	8.29	21.37	91.6	6.37	14	2.5	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS(MF)9	09:55:47	1.0	Surface	1	2	27.59	8.32	20.92	94.1	6.6	14.2	3.8	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS(MF)9	09:54:46	2.4	Bottom	3	1	27.41	8.29	22.67	89	6.2	14.7	4.6	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS(MF)9	09:54:36	2.4	Bottom	3	2	27.52	8.3	22.78	89.6	6.3	14.7	5.4	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS10	09:25:32	1.0	Surface	1	1	28.23	8.26	14.47	89.6	6.45	4	2.8	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS10	09:23:51	1.0	Surface	1	2	28.21	8.24	14.92	87.3	6.26	3.7	3	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS10	09:23:35	5.5	Middle	2	1	26.82	8.19	22.57	73.3	5.16	5.8	2.8	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS10	09:25:11	5.5	Middle	2	2	26.52	8.17	24.75	75.7	5.29	5.6	3.8	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS10	09:24:20	9.9	Bottom	3	1	26.3	8.16	25.63	72.3	5.06	8.1	2.4	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	IS10	09:23:14	9.9	Bottom	3	2	26.27	8.14	25.7	72.2	5.05	7.8	3.6	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR3	10:29:14	0.7	Middle	2	1	28.95	8.41	17.94	103.7	7.23	2.1	2.2	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR3	10:29:17	0.7	Middle	2	2	28.95	8.41	17.97	104	7.25	2.3	2.3	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR4	09:42:02	1.0	Surface	1	1	27.86	8.33	20.66	98.9	6.84	3	2.3	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR4	09:42:11	1.0	Surface	1	2	28.02	8.36	20.53	99.1	6.92	3.1	2.4	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR4	09:42:07	2.4	Bottom	3	1	28.08	8.35	21.6	98.1	6.8	3.2	3.5	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR4	09:41:58	2.4	Bottom	3	2	28.06	8.35	21.95	97	6.79	3.1	4.3	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR5	09:33:02	1.0	Surface	1	1	28.21	8.28	14.47	94.6	6.81	3.4	5.6	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR5	09:33:47	1.0	Surface	1	2	28.32	8.3	14.22	94.6	6.8	3.3	6.1	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR5	09:32:36	4.3	Bottom	3	1	26.72	8.18	23.43	81.1	5.69	4.2	5.1	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR5	09:33:26	4.3	Bottom	3	2	26.69	8.19	23.4	79.3	5.57	4.4	5.1	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR10A	08:16:13	1.0	Surface	1	1	26.74	8.28	24.52	80.1	5.59	1.2	1.8	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR10A	08:18:25	1.0	Surface	1	2	27.48	8.31	22.11	87.2	6.09	1.2	1.3	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR10A	08:18:09	3.0	Middle	2	1	26.81	8.28	24.96	85.6	5.97	1.3	3.6	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR10A	08:15:59	3.0	Middle	2	2	26.48	8.27	25.56	79.5	5.54	1.2	4.9	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR10A	08:15:54	5.0	Bottom	3	1	26.51	8.27	25.56	78.8	5.49	1.3	4.8	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR10A	08:18:01	5.0	Bottom	3	2	26.7	8.28	24.63	84.3	5.86	1.3	6.1	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR10B	08:10:39	1.0	Surface	1	1	26.63	8.27	25.29	82.2	5.69	1.3	3	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR10B	08:08:45	1.0	Surface	1	2	26.58	8.27	25.46	77.2	5.37	1.3	3.5	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR10B	08:08:34	3.8	Bottom	3	1	26.39	8.26	26.43	76.2	5.29	1.4	2.4	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	SR10B	08:10:28	3.8	Bottom	3	2	26.51	8.24	25.78	72.8	5.04	1.5	3.2	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	CS2	10:37:59	1.0	Surface	1	1	28.95	8.26	12.97	94.9	6.8	3.7	2.4	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	CS2	10:37:17	1.0	Surface	1	2	28.06	8.23	14.38	91.4	6.6	3.4	4.2	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	CS2	10:37:05	3.7	Middle	2	1	27.74	8.2	18.64	85.4	6.05	5	3.2	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	CS2	10:37:45	3.7	Middle	2	2	27.68	8.2	17.87	87	6.2	5.3	2.4	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	CS2	10:37:31	6.3	Bottom	3	1	26.56	8.18	23.44	80.8	5.66	8.9	3	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	CS2	10:36:49	6.3	Bottom	3	2	26.67	8.18	25.62	79.3	5.51	9.6	2.8	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	CS(MF)5	08:57:18	1.0	Surface	1	1	27.43	8.3	20.93	84.8	5.96	2.3	3.7	
HCLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	CS(MF)5	08:57:56	1.0	Surface	1	2	27.14	8.3	20.23	76.2	5.41	2.3	4.5	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	CS(MF)5	08:56:53	6.6	Middle	2	1	25.98	8.23	26.52	77.5	5.38	2.4	4.2	
HKLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	CS(MF)5	08:57:44	6.6	Middle	2	2	25.93	8.23	26.86	74.9	5.2	2.3	3.2	
HKLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	CS(MF)5	08:57:34	12.2	Bottom	3	1	25.81	8.22	28	69.6	4.86	2.5	4.7	
HKLR	HY/2011/03	2013-06-19	Mid-Ebb	Sunny	CS(MF)5	08:56:41	12.2	Bottom	3	2	25.92	8.23	27.71	69.8	4.88	2.6	4.8	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS5	14:25:13	1.0	Surface	1	1	29.05	8.53	20.59	110.2	7.65	3.3	4.2	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS5	14:24:42	1.0	Surface	1	2	28.91	8.53	20.76	110.5	7.67	3.4	4.7	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS5	14:25:01	4.6	Middle	2	1	27.34	8.41	24	109.5	7.51	3.6	3.2	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS5	14:24:29	4.6	Middle	2	2	26.75	8.41	24.66	110.3	7.58	3.4	3.4	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS5	14:24:20	8.2	Bottom	3	1	26.2	8.46	27.01	91.1	6.35	3.8	5.4	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS5	14:24:52	8.2	Bottom	3	2	26.24	8.45	26.94	91.5	6.33	3.9	6.2	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS(MF)6	14:33:14	1.0	Surface	1	1	29.07	8.62	20.21	146.1	10.04	4.5	3.8	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS(MF)6	14:33:25	1.0	Surface	1	2	29.43	8.62	19.87	148.3	10.15	4.4	3.5	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS(MF)6	14:33:09	2.2	Bottom	3	1	29.4	8.62	20.09	143.4	9.8	4.7	3.3	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS(MF)6	14:33:18	2.2	Bottom	3	2	29.41	8.61	19.98	145.8	9.98	4.6	4.1	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS7	14:39:48	1.0	Surface	1	1	29.18	8.61	20.17	143.3	9.83	3	3.9	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS7	14:40:00	1.0	Surface	1	2	28.95	8.61	20.43	143.9	9.9	3.2	4.8	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS7	14:39:44	2.5	Bottom	3	1	29.47	8.59	20.12	139.9	9.55	3	4.5	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS7	14:39:54	2.5	Bottom	3	2	29.39	8.59	20.18	142.3	9.73	3.2	4.8	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS8	15:03:17	1.0	Surface	1	1	29.12	8.51	17.56	120.7	8.42	3.2	4.1	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS8	15:03:02	1.0	Surface	1	2	29.35	8.5	17.13	120.5	8.45	3.4	3.3	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS8	15:02:52	2.4	Bottom	3	1	27.83	8.49	20.27	118.4	8.24	3.5	4.8	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS8	15:03:07	2.4	Bottom	3	2	28.22	8.5	19.92	120.6	8.4	3.3	4.1	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS(MF)9	14:46:35	1.0	Surface	1	1	28.54	8.56	19.08	132.4	9.24	5.5	3.9	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS(MF)9	14:46:17	1.0	Surface	1	2	28.46	8.54	19.15	129.2	9.02	5.7	3.1	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS(MF)9	14:46:31	2.4	Bottom	3	1	28.48	8.54	20.48	129.9	9	5.7	4.6	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS(MF)9	14:46:10	2.4	Bottom	3	2	28.5	8.52	20.47	127.5	8.83	5.7	4.2	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS10	15:44:39	1.0	Surface	1	1	28.81	8.44	15.89	108.8	7.69	5.7	2.8	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS10	15:45:38	1.0	Surface	1	2	28.81	8.42	17.78	105.9	7.41	5.5	3.1	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS10	15:45:17	5.6	Middle	2	1	26.39	8.11	25.29	75	5.25	7.1	4	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS10	15:44:14	5.6	Middle	2	2	26.4	8.11	25.38	76.1	5.36	7.2	3.1	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS10	15:45:03	10.2	Bottom	3	1	26.13	8.1	25.96	68.4	4.78	8.3	3.5	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	IS10	15:43:47	10.2	Bottom	3	2	26.11	8.09	26.01	68.2	4.76	8.5	4.2	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR3	14:16:57	0.9	Middle	2	1	29.19	8.68	20.58	135.9	9.3	2.2	5.4	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR3	14:17:03	0.9	Middle	2	2	29.31	8.67	20.48	139	9.5	2.2	5.2	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR4	14:58:03	1.0	Surface	1	1	29.37	8.53	17.41	127.5	8.85	2	2.6	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR4	14:57:51	1.0	Surface	1	2	29.65	8.53	17.19	127.5	8.82	2.2	2.2	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR4	14:57:43	2.3	Bottom	3	1	29.35	8.53	17.49	126.3	8.77	2.3	2.6	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR4	14:57:58	2.3	Bottom	3	2	29.46	8.53	17.43	127.1	8.81	2.1	2.6	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR5	15:35:14	1.0	Surface	1	1	28.95	8.43	16.28	104.8	7.37	3.8	3.2	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR5	15:34:34	1.0	Surface	1	2	28.75	8.4	16.38	101.3	7.15	3.8	2.4	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR5	15:34:58	4.5	Bottom	3	1	26.91	8.15	23.58	83.9	5.87	7	5.3	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR5	15:34:21	4.5	Bottom	3	2	26.9	8.16	23.46	87.8	6.14	6.5	4.6	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR10A	16:10:49	1.0	Surface	1	1	28.91	8.48	18.68	103.6	7.2	1.5	2.6	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR10A	16:11:15	1.0	Surface	1	2	28.94	8.41	18.46	104.6	7.34	1.4	3.1	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR10A	16:10:38	3.1	Middle	2	1	26.89	8.32	22.64	97.8	6.82	1.7	5	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR10A	16:11:09	3.1	Middle	2	2	26.95	8.33	23.51	98.6	6.88	1.7	6.6	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR10B	16:17:36	1.0	Surface	1	1	28.79	8.43	18.53	112.4	7.87	3.3	3.3	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR10B	16:17:26	3.1	Bottom	3	1	26.72	8.43	24.03	104	7.24	1.3	3.8	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	SR10B	16:17:09	3.1	Bottom	3	2	27.28	8.44	23.15	108.8	7.58	1.4	2.8	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	CS2	14:17:11	1.0	Surface	1	1	29.35	8.35	13.2	87.5	6.22	4.5	2.9	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	CS2	14:16:11	1.0	Surface	1	2	29.47	8.36	13.16	86.1	6.11	4.2	3.5	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	CS2	14:16:59	3.4	Middle	2	1	26.88	8.2	22.45	80.1	5.62	6.2	2.5	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	CS2	14:16:00	3.4	Middle	2	2	26.91	8.23	22.25	76.5	5.39	5.7	2.3	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	CS2	14:15:33	5.8	Bottom	3	1	26.7	8.27	23.43	75.8	5.34	8.2	4.4	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	CS2	14:16:36	5.8	Bottom	3	2	26.61	8.19	23.86	75.4	5.29	8.8	3.5	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	CS(MF)5	15:37:23	1.0	Surface	1	1	29.26	8.52	17.85	107.4	7.45	2.1	2.8	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	CS(MF)5	15:38:02	1.0	Surface	1	2	29.07	8.48	18.48	105.3	7.31	2	3.5	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	CS(MF)5	15:37:49	6.2	Middle	2	1	26.18	8.27	26.68	98.3	6.82	2.2	3.1	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	CS(MF)5	15:37:06	6.2	Middle	2	2	26.24	8.27	26.53	103.1	7.15	2.4	2.4	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	CS(MF)5	15:37:36	11.3	Bottom	3	1	25.95	8.34	28.01	77.9	5.42	2.5	2.9	
HKLR	HY/2011/03	2013-06-19	Mid-Flood	Sunny	CS(MF)5	15:36:51	11.3	Bottom	3	2	25.97	8.36	28.01	78.3	5.45	2.4	3.1	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS5	12:05:47	1.0	Surface	1	1	29.15	8.68	19.35	108.6	7.49	5.6	7.8	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS5	12:04:56	1.0	Surface	1	2	29.05	8.66	19.56	105.1	7.25	5.6	8.2	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS5	12:04:44	4.7	Middle	2	1	27.31	8.49	25.05	100.7	6.9	5.7	7.4	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS5	12:05:35	4.7	Middle	2	2	27.31	8.49	25.01	103.1	7.05	5.7	8.9	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS5	12:04:34	8.3	Bottom	3	1	27.26	8.53	26.11	88.8	6.12	6	7.6	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS5	12:05:26	8.3	Bottom	3	2	27.39	8.51	26.14	91.5	6.31	6	9	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS(MF)6	11:56:26	1.0	Surface	1	1	29.07	8.63	19.61	125.7	8.67	9.4	5.5	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS(MF)6	11:56:40	1.0	Surface	1	2	29.32	8.7	19.84	131.7	9.03	9.5	6.1	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS(MF)6	11:56:30	2.3	Bottom	3	1	28.89	8.64	21.42	124.2	8.5	9.6	6.1	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS(MF)6	11:56:20	2.3	Bottom	3	2	28.2	8.65	22.19	120.2	8.28	9.6	6.1	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS7	11:50:09	1.0	Surface	1	1	27.81	8.54	20.1	125.2	8.6	7.2	2.8	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS7	11:50:17	1.0	Surface	1	2	28.03	8.53	19.94	115.2	8.07	7.4	2.6	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS7	11:50:14	2.3	Bottom	3	1	28.2	8.55	22.33	117	8.06	7.9	3.9	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS7	11:50:06	2.3	Bottom	3	2	28.24	8.58	22.87	116.9	8.21	7.7	2.8	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS8	11:27:07	1.0	Surface	1	1	29.23	8.73	19.01	142.7	9.72	6	4.7	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS8	11:26:59	1.0	Surface	1	2	29.01	8.71	19.13	145.5	9.88	5.8	5.4	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS8	11:27:03	2.6	Bottom	3	1	29.37	8.75	20.92	139.6	9.63	6.2	5.1	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS8	11:26:55	2.6	Bottom	3	2	29.37	8.76	21.39	138.8	9.61	6.2	6.7	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS(MF)9	11:41:58	1.0	Surface	1	1	28.67	8.71	19.26	146.9	10.09	6.7	7.7	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS(MF)9	11:41:47	1.0	Surface	1	2	28.52	8.71	19.43	149.5	10.31	6.6	7.2	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS(MF)9	11:41:44	2.6	Bottom	3	1	28.8	8.74	20.25	146.3	10.19	6.8	9.8	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS(MF)9	11:41:52	2.6	Bottom	3	2	28.68	8.71	21.35	143.8	10	6.8	9.1	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS10	11:18:18	1.0	Surface	1	1	29.09	8.56	17.14	145.7	10.18	4.7	5	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS10	11:16:56	1.0	Surface	1	2	28.95	8.57	17.4	145.7	10.19	4.7	6	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS10	11:18:03	5.2	Middle	2	1	28.11	8.5	19.88	110	7.7	6.5	4.8	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS10	11:16:41	5.2	Middle	2	2	28.19	8.5	19.83	110.5	7.72	6.6	5.5	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS10	11:16:23	9.4	Bottom	3	1	27.61	8.38	22.83	96.9	6.72	7.3	5	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	IS10	11:17:37	9.4	Bottom	3	2	27.5	8.35	23.2	97	6.73	7.6	5.2	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR3	12:10:25	0.6	Middle	2	1	29.29	8.59	19.14	144.9	9.98	5.7	9	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR3	12:10:22	0.6	Middle	2	2	29.27	8.59	19.18	143.9	9.91	5.8	9.7	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR4	11:31:54	1.0	Surface	1	1	28.88	8.61	18.8	123.6	8.58	8.5	5.2	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR4	11:31:36	1.0	Surface	1	2	28.36	8.52	19.04	110.3	7.72	8.2	6.7	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR4	11:31:45	2.5	Bottom	3	1	28.41	8.54	20.35	117.5	8.16	8.8	5.2	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR4	11:31:30	2.5	Bottom	3	2	28.11	8.48	20.76	108.5	7.55	8.9	6	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR5	11:25:37	1.0	Surface	1	1	28.8	8.58	17.41	146.5	10.27	4.4	7	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR5	11:25:06	1.0	Surface	1	2	28.83	8.58	17.41	146.6	10.27	4.3	6.6	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR5	11:24:57	3.7	Bottom	3	1	28.51	8.55	18.98	140.3	9.8	4.7	6.5	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR5	11:25:29	3.7	Bottom	3	2	28.51	8.56	19.04	141.5	9.88	4.8	5.7	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR10A	09:59:00	1.0	Surface	1	1	27.82	8.53	23.37	106.1	7.31	2.8	6.9	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR10A	09:58:56	1.0	Surface	1	2	27.38	8.46	24.36	102	7	3	6.7	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR10A	09:58:49	3.2	Middle	2	1	27.25	8.45	25.6	100.1	6.87	3.3	6.9	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR10A	09:58:30	3.2	Middle	2	2	27.21	8.44	25.73	98.6	6.78	3.3	6.6	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR10A	09:58:44	5.3	Bottom	3	1	27.36	8.46	25.64	98.1	6.74	3.2	7.3	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR10A	09:58:26	5.3	Bottom	3	2	27.27	8.46	25.79	98	6.77	3.2	8.2	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR10B	09:52:18	1.0	Surface	1	1	27.33	8.42	25.81	96.4	6.61	3.7	7.9	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR10B	09:52:35	1.0	Surface	1	2	27.35	8.43	25.64	97	6.66	3.7	7.4	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR10B	09:52:25	3.7	Bottom	3	1	27.34	8.42	25.71	96.6	6.63	4	8.9	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	SR10B	09:52:10	3.7	Bottom	3	2	27.34	8.42	25.77	96.2	6.6	3.8	9.6	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	CS2	12:49:35	1.0	Surface	1	1	28.88	8.35	21.51	138	9.61	4.7	5	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	CS2	12:48:23	7.7	Bottom	3	2	27.48	8.35	23.36	85.3	5.91	4.6	5	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	CS2	12:48:37	4.4	Middle	2	1	27.71	8.33	21.54	137.4	9.58	4.6	6.2	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	CS2	12:49:13	4.4	Middle	2	2	27.61	8.33	21.89	85.7	5.94	4.6	5	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	CS2	12:49:04	7.7	Bottom	3	1	27.65	8.33	21.72	86.6	6.03	4.6	6.2	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	CS(MF)5	10:40:17	1.0	Surface	1	1	27.62	8.33	22.16	88.4	6.16	4.6	5.2	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	CS(MF)5	10:40:45	6.6	Middle	2	2	26.99	8.39	24.65	96.3	6.61	4.8	6.2	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	CS(MF)5	10:39:55	6.6	Middle	2	1	28.91	8.64	19.83	124.2	8.57	4.6	7.1	
HKLR	HY/2011/03	2013-06-21	Mid-Ebb	Fine	CS(MF)5	10:40:32	12.1	Bottom	3	1	26.87	8.43	27.19	85.9	5.96	7.7	7.6	
HKLR	HY/2011/03	2013-06-21	Mid-Flood	Rainy	IS5	16:58:46	1.0	Surface	1	1	30	8.69	19.57	164	11.28	7.7	10.5	
HKLR	HY/2011/03	2013-06-21	Mid-Flood	Rainy	IS5	16:59:20	1.0	Surface	1	2	30.07	8.69	19.5	159.8	10.84	7.6	9.8	
HKLR	HY/2011/03	2013-06-21	Mid-Flood	Rainy	IS5	16:58:35	4.6	Middle	2	1	29.4	8.73	20.25	149.9	10.13	7.8	10.4	
HKLR	HY/2011/03	2013-06-21	Mid-Flood	Rainy	IS5	16:59:07	4.6	Middle	2	2	28.28	8.64	20.86	142.7	9.83	7.8	11.8	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-06-21	IS5	16:58:28	8.2	Bottom	3	1	28.22	8.6	22.49	144.2	9.85	7.9	12.5	
HCLR	HY/2011/03	2013-06-21	IS5	16:59:02	8.2	Bottom	3	2	28.11	8.68	22.57	130.8	9.08	7.8	12.8	
HCLR	HY/2011/03	2013-06-21	IS(MF)6	17:07:12	1.0	Surface	1	1	29.72	8.78	19.53	159.1	10.77	7.7	11.7	
HCLR	HY/2011/03	2013-06-21	IS(MF)6	17:07:24	1.0	Surface	1	2	29.72	8.78	19.53	159.4	10.78	7.6	10.1	
HCLR	HY/2011/03	2013-06-21	IS(MF)6	17:07:45	2.2	Bottom	3	1	29.72	8.78	19.53	159.2	10.77	7.6	12.9	
HCLR	HY/2011/03	2013-06-21	IS(MF)6	17:07:03	2.2	Bottom	3	2	29.73	8.77	19.53	158.4	10.71	8.1	11.3	
HCLR	HY/2011/03	2013-06-21	IS7	17:14:27	1.0	Surface	1	1	29.77	8.84	18.99	144.6	9.7	9	13.2	
HCLR	HY/2011/03	2013-06-21	IS7	17:14:09	1.0	Surface	1	2	29.81	8.84	18.97	143.9	9.66	8.9	13.6	
HCLR	HY/2011/03	2013-06-21	IS7	17:14:03	2.5	Bottom	3	1	29.81	8.84	18.97	143.2	9.61	9.3	13.8	
HCLR	HY/2011/03	2013-06-21	IS7	17:14:13	2.5	Bottom	3	2	29.81	8.84	18.98	140.4	9.43	9.3	15.5	
HCLR	HY/2011/03	2013-06-21	IS8	16:29:50	1.0	Surface	1	1	29.09	8.84	18.73	167.7	11.61	6.6	10.8	
HCLR	HY/2011/03	2013-06-21	IS8	16:30:22	1.0	Surface	1	2	28.85	8.79	19.23	168	11.65	6.6	10.1	
HCLR	HY/2011/03	2013-06-21	IS8	16:30:16	2.9	Bottom	3	1	28.73	8.77	19.63	167.1	11.58	6.9	11.2	
HCLR	HY/2011/03	2013-06-21	IS8	16:29:38	2.9	Bottom	3	2	28.98	8.82	20.54	166.6	11.44	6.8	12.9	
HCLR	HY/2011/03	2013-06-21	IS(MF)9	17:21:41	1.0	Surface	1	1	28.84	8.61	19.53	158.5	10.98	9.4	10.9	
HCLR	HY/2011/03	2013-06-21	IS(MF)9	17:21:31	1.0	Surface	1	2	28.83	8.61	19.55	156.9	10.86	9.7	10.3	
HCLR	HY/2011/03	2013-06-21	IS(MF)9	17:21:20	2.6	Bottom	3	1	28.82	8.6	19.65	155.2	10.74	9.7	12.9	
HCLR	HY/2011/03	2013-06-21	IS(MF)9	17:21:35	2.6	Bottom	3	2	28.84	8.61	19.56	157.9	10.93	9.5	13.3	
HCLR	HY/2011/03	2013-06-21	IS10	18:13:32	1.0	Surface	1	1	28.78	8.54	19.76	136.8	9.47	10.3	8.6	
HCLR	HY/2011/03	2013-06-21	IS10	18:14:32	1.0	Surface	1	2	28.79	8.55	19.78	139.2	9.63	10.5	8.8	
HCLR	HY/2011/03	2013-06-21	IS10	18:13:15	5.3	Middle	2	1	27.86	8.43	22.4	107.4	7.44	11.1	10.9	
HCLR	HY/2011/03	2013-06-21	IS10	18:14:13	5.3	Middle	2	2	28.07	8.45	21.88	107.7	7.45	11.3	9.1	
HCLR	HY/2011/03	2013-06-21	IS10	18:13:06	9.5	Bottom	3	1	27.76	8.42	23.85	112.2	7.72	11.5	11.9	
HCLR	HY/2011/03	2013-06-21	IS10	18:13:59	9.5	Bottom	3	2	27.76	8.42	23.85	110.8	7.63	11.7	10.4	
HCLR	HY/2011/03	2013-06-21	SR3	16:49:55	0.9	Middle	2	1	30.06	8.76	19.46	155	10.42	7.9	11.5	
HCLR	HY/2011/03	2013-06-21	SR3	16:49:58	0.9	Middle	2	2	30.07	8.76	19.46	155.6	10.46	7.9	10.8	
HCLR	HY/2011/03	2013-06-21	SR4	16:25:14	1.0	Surface	1	1	29.41	8.75	18.83	165.2	11.3	6.4	13.1	
HCLR	HY/2011/03	2013-06-21	SR4	16:25:03	1.0	Surface	1	2	29.39	8.74	18.88	161.5	11.05	6.6	12.7	
HCLR	HY/2011/03	2013-06-21	SR4	16:25:08	2.5	Bottom	3	1	29.45	8.75	18.83	163.7	11.19	6.4	12.1	
HCLR	HY/2011/03	2013-06-21	SR4	16:25:00	2.5	Bottom	3	2	29.42	8.75	18.87	160.1	10.94	6.6	13.6	
HCLR	HY/2011/03	2013-06-21	SR5	18:02:00	1.0	Surface	1	1	28.75	8.59	19.77	142	9.83	7.1	9	
HCLR	HY/2011/03	2013-06-21	SR5	18:02:25	1.0	Surface	1	2	28.75	8.59	19.75	142.6	9.88	7.1	10.8	
HCLR	HY/2011/03	2013-06-21	SR5	18:01:49	3.7	Bottom	3	1	28.55	8.59	21.18	138.9	9.58	7.1	12.8	
HCLR	HY/2011/03	2013-06-21	SR5	18:02:15	3.7	Bottom	3	2	28.53	8.59	21.22	140	9.65	7.3	11.9	
HCLR	HY/2011/03	2013-06-21	SR10A	18:33:54	1.0	Surface	1	1	27.49	8.46	24.64	91.6	6.28	3.5	4	
HCLR	HY/2011/03	2013-06-21	SR10A	18:34:18	1.0	Surface	1	2	27.37	8.46	24.77	90.7	6.2	3.6	3.8	
HCLR	HY/2011/03	2013-06-21	SR10A	18:33:43	3.5	Middle	2	1	27.3	8.44	25.76	90.9	6.25	3.9	4.4	
HCLR	HY/2011/03	2013-06-21	SR10A	18:34:11	3.5	Middle	2	2	27.24	8.43	25.94	87.8	6.05	4	3.3	
HCLR	HY/2011/03	2013-06-21	SR10A	18:34:02	5.9	Bottom	3	1	27.32	8.44	26.33	87.4	6	4	7.3	
HCLR	HY/2011/03	2013-06-21	SR10A	18:33:35	5.9	Bottom	3	2	27.38	8.45	25.77	89.6	6.15	4.1	5.8	
HCLR	HY/2011/03	2013-06-21	SR10B	18:41:14	1.0	Surface	1	1	27.49	8.46	24.53	93.1	6.37	3.1	2.9	
HCLR	HY/2011/03	2013-06-21	SR10B	18:40:58	1.0	Surface	1	2	27.49	8.46	24.59	92.8	6.39	3.7	4.1	
HCLR	HY/2011/03	2013-06-21	SR10B	18:40:51	3.6	Bottom	3	1	27.52	8.46	25.53	92.5	6.33	3.3	6.2	
HCLR	HY/2011/03	2013-06-21	SR10B	18:41:04	3.6	Bottom	3	2	27.48	8.45	25.72	92.1	6.34	3.5	5.5	
HCLR	HY/2011/03	2013-06-21	CS2	16:32:44	1.0	Surface	1	1	28.63	8.62	19.39	120	8.35	8.7	6.6	
HCLR	HY/2011/03	2013-06-21	CS2	16:31:44	1.0	Surface	1	2	28.69	8.66	19.3	127.2	8.84	8.7	7.4	
HCLR	HY/2011/03	2013-06-21	CS2	16:32:29	3.9	Middle	2	1	27.99	8.43	21.52	95.2	6.89	8.4	6.8	
HCLR	HY/2011/03	2013-06-21	CS2	16:31:20	3.9	Middle	2	2	28.01	8.45	21.47	98.8	6.86	8.1	7	
HCLR	HY/2011/03	2013-06-21	CS2	16:32:18	6.8	Bottom	3	1	27.8	8.4	22.14	98.3	6.83	8.7	7.3	
HCLR	HY/2011/03	2013-06-21	CS2	16:31:01	6.8	Bottom	3	2	27.8	8.43	22.16	96.2	6.68	8.8	8.5	
HCLR	HY/2011/03	2013-06-21	CS(MF)5	18:00:55	1.0	Surface	1	1	27.79	8.48	22.14	91.8	6.34	3.9	4.3	
HCLR	HY/2011/03	2013-06-21	CS(MF)5	18:00:19	1.0	Surface	1	2	27.78	8.49	22.24	91.7	6.32	3.6	3.3	
HCLR	HY/2011/03	2013-06-21	CS(MF)5	18:00:39	5.9	Middle	2	1	27.08	8.38	26.24	87	6.04	4	4.6	
HCLR	HY/2011/03	2013-06-21	CS(MF)5	18:00:08	5.9	Middle	2	2	27.14	8.41	25.55	91.1	6.28	3.7	6	
HCLR	HY/2011/03	2013-06-21	CS(MF)5	18:00:30	10.8	Bottom	3	1	26.92	8.37	26.75	78.3	5.38	4.3	6.1	
HCLR	HY/2011/03	2013-06-21	CS(MF)5	17:59:54	10.8	Bottom	3	2	27.1	8.42	26.63	85.1	5.86	3.9	7.7	
HCLR	HY/2011/03	2013-06-24	IS5	12:16:41	1.0	Surface	1	1	27.33	8.37	17.11	85.2	6.14	12.8	14.7	
HCLR	HY/2011/03	2013-06-24	IS5	12:16:02	1.0	Surface	1	2	27.34	8.38	17.13	83.6	6.02	12.7	15.4	
HCLR	HY/2011/03	2013-06-24	IS5	12:16:28	4.5	Middle	2	1	27.68	8.33	20.01	82.3	5.8	17.6	16.5	
HCLR	HY/2011/03	2013-06-24	IS5	12:15:50	4.5	Middle	2	2	27.75	8.33	20.53	81.2	5.7	17.7	14.8	
HCLR	HY/2011/03	2013-06-24	IS5	12:16:14	7.9	Bottom	3	1	27.71	8.32	20.95	83.9	5.87	18.3	17.9	
HCLR	HY/2011/03	2013-06-24	IS5	12:15:38	7.9	Bottom	3	2	27.79	8.31	21.26	82.6	5.77	18.6	18.5	
HCLR	HY/2011/03	2013-06-24	IS(MF)6	12:28:50	1.0	Surface	1	1	27.26	8.38	16.74	87	6.28	8.2	5.7	
HCLR	HY/2011/03	2013-06-24	IS(MF)6	12:28:22	1.0	Surface	1	2	27.27	8.38	16.17	87.1	6.31	8.6	5.5	





Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS7	-	-	Bottom	3	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS7	-	-	Bottom	3	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS8	-	-	Surface	1	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS8	-	-	Surface	1	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS8	-	-	Bottom	3	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS8	-	-	Bottom	3	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS(MF)9	-	-	Surface	1	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS(MF)9	-	-	Surface	1	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS(MF)9	-	-	Surface	1	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS(MF)9	-	-	Surface	1	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS10	-	-	Surface	1	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS10	-	-	Surface	1	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS10	-	-	Middle	2	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS10	-	-	Middle	2	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS10	-	-	Bottom	3	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	IS10	-	-	Bottom	3	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR3	-	-	Middle	2	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR4	-	-	Surface	1	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR4	-	-	Surface	1	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR4	-	-	Bottom	3	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR4	-	-	Bottom	3	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR5	-	-	Surface	1	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR5	-	-	Surface	1	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR5	-	-	Bottom	3	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR5	-	-	Bottom	3	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR10A	05:33:00	1.0	Surface	1	1	27.79	8.35	22.32	80.1	5.56	5.8	3.8	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR10A	05:33:44	1.0	Surface	1	2	27.79	8.35	22.71	80.4	5.57	5.7	2.5	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR10A	05:33:22	3.3	Middle	2	1	27.64	8.36	24.05	78.1	5.38	7.5	3.2	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR10A	05:32:46	3.3	Middle	2	2	27.69	8.36	24.02	78.1	5.37	7.5	4	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR10A	05:33:14	5.5	Bottom	3	1	27.62	8.34	25.7	79.1	5.4	7.5	3.5	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR10A	05:32:30	5.5	Bottom	3	2	27.62	8.33	25.9	78.9	5.38	7.7	4.4	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR10B	05:24:44	1.0	Surface	1	1	27.77	8.34	22.42	80.4	5.58	4.7	4.3	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR10B	05:24:21	1.0	Surface	1	2	27.78	8.33	22.41	80.7	5.6	4.5	5.4	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR10B	05:24:05	4.2	Bottom	3	1	27.69	8.32	24.2	79.9	5.5	5.3	5.3	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	SR10B	05:24:32	4.2	Bottom	3	2	27.72	8.32	24.12	80.5	5.54	5	5.2	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	CS2	-	-	Surface	1	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	CS2	-	-	Surface	1	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	CS2	-	-	Middle	2	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	CS2	-	-	Middle	2	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	CS2	-	-	Bottom	3	1	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	CS2	-	-	Bottom	3	2	-	-	-	-	-	-	-	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	CS(MF)5	06:01:30	1.0	Surface	1	1	27.76	8.38	22.56	77.8	5.39	10.1	3.5	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	CS(MF)5	06:00:42	1.0	Surface	1	2	27.72	8.38	22.61	76.8	5.33	10.2	4.4	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	CS(MF)5	06:00:30	6.2	Middle	2	1	27.47	8.37	26.07	74.7	5.11	10.4	4.3	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	CS(MF)5	06:01:15	6.2	Middle	2	2	27.46	8.37	26.15	74.6	5.09	10.2	4.3	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	CS(MF)5	06:01:01	11.4	Bottom	3	1	27.47	8.36	26.28	75.4	5.14	10.5	3.7	Cancelled
HKLR	HY/2011/03	2013-06-24	Mid-Flood	Rainy	CS(MF)5	06:00:14	11.4	Bottom	3	2	27.47	8.36	26.26	76	5.18	10.6	4.3	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS5	13:37:53	1.0	Surface	1	1	28.43	8.22	17.68	86.4	6.09	10.7	12.2	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS5	13:38:51	1.0	Surface	1	2	28.46	8.22	17.71	86.3	6.07	10.5	12.8	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS5	13:37:29	4.4	Middle	2	1	28.39	8.22	17.72	85.7	6.04	11.6	12.8	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS5	13:38:33	4.4	Middle	2	2	28.41	8.22	17.74	85.5	6.02	10.8	12.5	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS5	13:37:19	7.8	Bottom	3	1	28.38	8.22	17.85	85.6	6.03	12.5	11.5	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS5	13:38:20	7.8	Bottom	3	2	28.38	8.21	17.88	85.2	6	13.1	11.9	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS(MF)6	13:51:32	1.0	Surface	1	1	28.43	8.21	18.01	85.8	6.03	10.1	10.1	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS(MF)6	13:52:26	1.0	Surface	1	2	28.44	8.21	17.98	85.8	6.03	7.9	11	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS(MF)6	13:52:14	2.3	Bottom	3	1	28.42	8.2	18.15	85.6	6.02	11.2	10.8	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS(MF)6	13:51:17	2.3	Bottom	3	2	28.42	8.21	18.11	85.9	6.03	12	11.1	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS7	14:00:31	1.0	Surface	1	1	28.69	8.25	18	92.2	6.46	5.5	2	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS7	13:59:56	1.0	Surface	1	2	28.75	8.25	17.97	92.8	6.49	5.3	2.1	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS7	13:59:38	2.4	Bottom	3	1	28.5	8.24	18.31	91.2	6.4	10.5	2.3	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS7	14:00:17	2.4	Bottom	3	2	28.46	8.24	18.22	90.7	6.36	9.5	3.4	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS8	14:33:33	1.0	Surface	1	1	29.1	8.23	17.35	91.2	6.37	7.3	3.7	Cancelled
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS8	14:33:52	1.0	Surface	1	2	29	8.23	17.45	90.9	6.35	7.4	2.6	Cancelled

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS8	14:33:18	2.8	Bottom	3	1	28.46	8.22	18.24	89	6.25	8.9	3.9	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS8	14:33:43	2.8	Bottom	3	2	28.65	8.23	17.99	90.2	6.32	9.8	3.1	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS(MF)9	14:12:48	1.0	Surface	1	1	28.69	8.23	17.51	89.8	6.3	17.51	8.1	10.4
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS(MF)9	14:13:15	1.0	Surface	1	2	28.7	8.23	17.5	89.7	6.3	8.23	7.6	10.1
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS(MF)9	14:12:31	2.5	Bottom	3	1	28.56	8.23	17.64	89.3	6.27	8.4	8.1	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS(MF)9	14:13:01	2.5	Bottom	3	2	28.53	8.23	17.69	88.9	6.25	8.6	9.6	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS10	15:17:07	1.0	Surface	1	1	28.8	8.24	17.22	90.2	6.33	11.1	10.5	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS10	15:16:28	1.0	Surface	1	2	28.77	8.24	17.26	90.6	6.33	11.4	10.9	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS10	15:16:52	5.4	Middle	2	1	28.7	8.25	17.42	89.6	6.29	11.6	10.1	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS10	15:16:18	5.4	Middle	2	2	28.71	8.25	17.41	89.7	6.3	11.6	10.2	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS10	15:16:05	9.7	Bottom	3	1	28.69	8.24	17.42	89.5	6.28	11.4	10.1	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	IS10	15:16:40	9.7	Bottom	3	2	28.68	8.24	17.41	89.6	6.29	11.5	10.4	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR3	13:26:59	0.8	Middle	2	1	28.61	8.32	18.14	87.4	6.12	6.4	7.4	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR3	13:26:53	0.8	Middle	2	2	28.62	8.34	18.16	87.7	6.14	6.4	8.7	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR4	14:25:01	1.0	Surface	1	1	28.58	8.18	16.3	86.7	6.13	5.1	2.4	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR4	14:26:28	1.0	Surface	1	2	28.79	8.19	15.78	90.6	6.41	5.3	3.3	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR4	14:25:24	3.1	Bottom	3	1	28.38	8.15	17.18	82	5.8	8.3	3.8	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR4	14:24:01	3.1	Bottom	3	2	28.38	8.16	17.21	82.5	5.83	7.9	4.4	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR5	15:05:33	1.0	Surface	1	1	28.81	8.23	17.18	90.3	6.34	14.2	10.3	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR5	15:05:58	1.0	Surface	1	2	28.81	8.23	17.19	90.3	6.34	14.1	10.6	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR5	15:05:22	3.7	Bottom	3	1	28.77	8.24	17.3	90.1	6.32	14.5	9.8	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR5	15:05:48	3.7	Bottom	3	2	28.76	8.24	17.32	90	6.32	14.4	10.8	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR10A	15:43:53	1.0	Surface	1	1	28.64	8.22	17.72	86.1	6.04	5.9	6.5	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR10A	15:43:13	1.0	Surface	1	2	28.63	8.22	17.73	86.1	6.03	6	6.3	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR10A	15:43:37	3.4	Middle	2	1	28.63	8.22	17.73	85.9	6.03	6	5.8	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR10A	15:42:59	3.4	Middle	2	2	28.64	8.22	17.73	86	6.03	5.7	5.5	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR10A	15:42:49	5.8	Bottom	3	1	28.64	8.22	17.72	86	6.04	5.5	5.8	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR10A	15:43:28	5.8	Bottom	3	2	28.63	8.22	17.73	85.9	6.03	5.8	6	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR10B	15:59:49	1.0	Surface	1	1	28.6	8.24	18.22	86.1	6.03	7.8	8	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR10B	16:00:16	1.0	Surface	1	2	28.59	8.24	18.27	85.8	6.01	8.1	9.5	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR10B	15:59:37	4.8	Bottom	3	1	28.6	8.24	18.28	86	6.02	8	9.1	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	SR10B	16:00:02	4.8	Bottom	3	2	28.59	8.24	18.27	85.8	6.01	8.3	9.4	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	CS2	13:31:21	1.0	Surface	1	1	28.73	8.24	17.06	92	6.45	10.9	8.9	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	CS2	13:31:58	1.0	Surface	1	2	28.64	8.25	17.23	88.6	6.23	10.6	9.1	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	CS2	13:31:06	3.9	Middle	2	1	28.65	8.28	17.45	90.3	6.35	11.5	8.5	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	CS2	13:31:44	3.9	Middle	2	2	28.68	8.28	17.56	89.5	6.28	11.1	7.1	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	CS2	13:30:45	6.8	Bottom	3	1	28.73	8.32	17.72	88.8	6.22	11.3	8.2	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	CS2	13:30:45	6.8	Bottom	3	2	28.73	8.32	17.68	89	6.26	11.2	8.5	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	CS(MF)5	15:12:32	1.0	Surface	1	1	28.74	8.25	17.43	86.3	6.06	11	12.3	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	CS(MF)5	15:13:50	1.0	Surface	1	2	28.87	8.25	17.09	86.9	6.1	10.4	12	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	CS(MF)5	15:12:05	6.3	Middle	2	1	28.29	8.24	18.8	81.1	5.69	10.9	11.3	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	CS(MF)5	15:13:19	6.3	Middle	2	2	28.25	8.24	18.72	80.2	5.63	11.5	11.1	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	CS(MF)5	15:13:02	11.6	Bottom	3	1	28.06	8.23	20.26	79	5.52	15.3	11.1	
HKLR	HY/2011/03	2013-06-26	Mid-Ebb	Sunny	CS(MF)5	15:11:46	11.6	Bottom	3	2	28.13	8.23	19.42	79.5	5.57	14.3	11.7	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS5	08:35:25	1.0	Surface	1	1	28.03	8.21	18.82	84	5.92	5.9	4.2	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS5	08:36:19	1.0	Surface	1	2	28.02	8.21	18.84	83.5	5.89	5.8	3.9	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS5	08:36:05	4.5	Middle	2	1	28.01	8.21	18.95	82.5	5.81	7.7	4.4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS5	08:35:09	4.5	Middle	2	2	28	8.21	18.95	82.8	5.83	7.4	5.4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS5	08:35:48	8.0	Bottom	3	1	28.01	8.21	19.04	82.1	5.78	8.6	4.2	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS5	08:34:58	8.0	Bottom	3	2	27.99	8.21	19.01	82.7	5.82	8	3.5	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS(MF)6	08:27:03	1.0	Surface	1	1	28.13	8.22	18.45	85.6	6.04	7.5	4.9	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS(MF)6	08:26:24	1.0	Surface	1	2	28.13	8.22	18.47	85.5	6.02	8.1	5.4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS(MF)6	08:26:49	2.3	Bottom	3	1	28.11	8.21	18.54	84.8	5.98	8.5	5.2	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS(MF)6	08:26:12	2.3	Bottom	3	2	28.09	8.22	18.6	84.9	5.98	8.6	5	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS7	08:19:07	1.0	Surface	1	1	28.11	8.21	17.59	85.4	6.05	6.05	3.6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS7	08:19:30	1.0	Surface	1	2	28.12	8.21	17.53	85.5	6.06	5.5	2.7	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS7	08:19:18	2.4	Bottom	3	1	28.09	8.2	17.96	85.1	6.02	7.5	4.5	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS7	08:18:58	2.4	Bottom	3	2	28.09	8.2	18.2	85.3	6.02	6.8	3.6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS8	07:54:58	1.0	Surface	1	1	28.17	8.18	16.61	83.6	5.95	10	3.7	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS8	07:55:18	1.0	Surface	1	2	28.16	8.18	16.73	83.2	5.92	9.5	3	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS8	07:55:10	2.6	Bottom	3	1	28.12	8.17	17.25	83.1	5.9	10.3	4.4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS8	07:54:47	2.6	Bottom	3	2	28.12	8.17	17.4	83.4	5.91	9.7	5.6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS(MF)9	08:13:26	1.0	Surface	1	1	28.12	8.19	17.35	82.5	5.85	7	5.6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS(MF)9	08:13:06	1.0	Surface	1	2	28.16	8.19	17.27	83.9	5.95	7.4	6	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS(MF)9	08:12:50	2.5	Bottom	3	1	28.17	8.19	17.23	83.9	5.95	7.4	6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS(MF)9	08:13:16	2.5	Bottom	3	2	28.07	8.18	18.37	83	5.86	6.9	5.6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS10	07:54:08	1.0	Surface	1	1	28.14	8.11	16.47	83.4	5.92	8.5	4.2	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS10	07:54:51	1.0	Surface	1	2	28.14	8.11	16.6	83.1	5.94	8.6	5.8	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS10	07:54:40	5.2	Middle	2	1	28.12	8.12	17.57	81.8	5.8	8.6	4.2	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS10	07:53:58	5.2	Middle	2	2	28.13	8.11	17.28	82	5.82	8.6	4.4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS10	07:53:43	9.4	Bottom	3	1	28.09	8.1	19.35	82.6	5.8	9.7	4.2	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	IS10	07:54:29	9.4	Bottom	3	2	28.11	8.1	18.93	82.7	5.81	9.9	3.8	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR3	08:43:52	0.8	Middle	2	1	28.04	8.22	18.8	84.7	5.97	5.2	5.2	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR3	08:43:59	0.8	Middle	2	2	28.04	8.22	18.79	84.9	5.98	5.2	4.2	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR4	08:02:27	1.0	Surface	1	1	28.12	8.17	16.32	88.1	6.28	5.7	3.8	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR4	08:01:34	1.0	Surface	1	2	28.13	8.17	16.34	84.7	6.04	6.1	4.6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR4	08:01:47	2.4	Bottom	3	1	28.14	8.17	16.32	84.5	6.03	6.3	3.4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR4	08:01:26	2.4	Bottom	3	2	28.13	8.17	16.33	84.9	6.06	6.4	3.6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR5	08:04:20	1.0	Surface	1	1	28.14	8.11	16.6	84.2	6	9.2	5.4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR5	08:04:57	1.0	Surface	1	2	28.14	8.11	16.53	84.2	6	9.4	6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR5	08:04:08	3.8	Bottom	3	1	28.14	8.1	16.95	83.9	5.96	9.6	5.4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR5	08:04:45	3.8	Bottom	3	2	28.14	8.1	17.01	84	5.97	9.5	6.4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR10A	06:57:04	1.0	Surface	1	1	28.16	8.18	17.09	81.9	5.82	4	3	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR10A	06:56:15	1.0	Surface	1	2	28.16	8.19	17.04	81.7	5.8	4.1	3.4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR10A	06:56:45	3.4	Middle	2	1	28.09	8.2	17.77	81	5.74	4.5	4.2	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR10A	06:56:02	3.4	Middle	2	2	28.1	8.2	17.87	80.8	5.72	4.3	3.6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR10A	06:55:52	5.7	Bottom	3	1	28.04	8.18	19.69	80.7	5.66	4.3	4.6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR10A	06:56:37	5.7	Bottom	3	2	28.05	8.17	19.85	81.2	5.68	4.3	4.6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR10B	06:50:14	1.0	Surface	1	1	28	8.26	18.65	78.1	5.51	4.6	2.2	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR10B	06:50:48	1.0	Surface	1	2	27.92	8.26	19.92	76.7	5.38	5.1	3.8	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR10B	06:49:49	4.7	Bottom	3	1	27.64	8.26	24.35	75.7	5.21	6.5	4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	SR10B	06:50:28	4.7	Bottom	3	2	27.61	8.25	24.79	75.7	5.19	6	4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	CS2	09:31:47	1.0	Surface	1	1	28.12	8.1	15.44	83.8	6.01	8.1	4.6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	CS2	09:31:10	1.0	Surface	1	2	28.12	8.1	15.45	83.3	5.97	8.5	4.6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	CS2	09:30:59	4.1	Middle	2	1	28.12	8.11	17.53	82	5.81	8.2	4.5	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	CS2	09:31:36	4.1	Middle	2	2	28.13	8.1	17.57	82.6	5.85	8.6	5	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	CS2	09:31:23	7.1	Bottom	3	1	28.12	8.09	18.45	82.9	5.85	5	5	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	CS2	09:30:43	7.1	Bottom	3	2	28.12	8.1	18.49	82.6	5.83	8.4	6.2	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	CS(MF)5	07:24:45	1.0	Surface	1	1	28.15	8.2	16.64	82	5.83	4.1	4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	CS(MF)5	07:25:56	1.0	Surface	1	2	28.16	8.19	16.6	82.3	5.86	4.3	4.4	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	CS(MF)5	07:25:28	6.8	Middle	2	1	28.06	8.22	19.49	79.2	5.55	5.3	4.2	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	CS(MF)5	07:24:26	6.8	Middle	2	2	28.06	8.22	19.06	79.2	5.57	5	5	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	CS(MF)5	07:25:07	12.5	Bottom	3	1	27.97	8.21	21.38	78.2	5.44	6.7	4.6	
HKLR	HY/2011/03	2013-06-26	Mid-Flood	Fine	CS(MF)5	07:24:09	12.5	Bottom	3	2	28.01	8.19	21.42	79.4	5.52	7.2	5.2	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS5	15:47:57	1.0	Surface	1	1	29.23	8.28	16.49	95.4	6.67	7.7	7.5	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS5	15:47:09	1.0	Surface	1	2	29.23	8.28	16.49	95.8	6.7	7.3	7.3	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS5	15:47:48	4.7	Middle	2	1	29.18	8.27	16.59	93.4	6.53	9.4	7	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS5	15:46:58	4.7	Middle	2	2	29.19	8.27	16.58	93.5	6.54	9	6.6	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS5	15:47:31	8.4	Bottom	3	1	28.99	8.24	17.32	90.8	6.35	10.6	6.5	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS5	15:46:42	8.4	Bottom	3	2	29.01	8.24	17.26	91.2	6.38	10.1	6.6	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS(MF)6	15:55:16	1.0	Surface	1	1	29.41	8.27	15.93	93.7	6.56	8.7	4.6	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS(MF)6	15:54:49	1.0	Surface	1	2	29.35	8.26	16.4	93.9	6.55	9	5	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS(MF)6	15:54:38	2.4	Bottom	3	1	29.14	8.23	17.34	91.9	6.41	10.6	5.8	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS(MF)6	15:55:05	2.4	Bottom	3	2	29.14	8.24	17.33	92	6.41	10.8	5.4	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS7	16:02:33	1.0	Surface	1	1	29.38	8.27	15.55	95.1	6.53	7.2	5.3	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS7	16:02:08	1.0	Surface	1	2	29.39	8.26	15.71	94.4	6.62	6.9	4.2	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS7	16:02:23	2.4	Bottom	3	1	28.99	8.24	17.17	91.4	6.4	8.4	5.8	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS7	16:01:52	2.4	Bottom	3	2	29.06	8.23	16.66	91.3	6.4	8	6	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS8	16:29:37	1.0	Surface	1	1	29.53	8.24	15.2	89.9	6.3	10.2	7.4	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS8	16:28:58	1.0	Surface	1	2	29.18	8.23	15.33	88.2	6.21	10.5	6.3	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS8	16:28:51	2.5	Bottom	3	1	28.87	8.2	16.63	86.3	6.07	11.8	5.8	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS8	16:29:24	2.5	Bottom	3	2	28.74	8.19	17.38	85.8	6.02	11.5	5.7	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS(MF)9	16:10:12	1.0	Surface	1	1	29.28	8.24	15.34	91.6	6.44	16	4.9	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS(MF)9	16:11:02	1.0	Surface	1	2	29.41	8.26	15.3	91.6	6.43	15.8	4.4	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS(MF)9	16:09:51	2.4	Bottom	3	1	28.92	8.2	16.73	87.6	6.15	22.9	5.6	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS(MF)9	16:10:23	2.4	Bottom	3	2	28.84	8.2	17.16	86.7	6.08	22.7	5.1	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS10	15:36:12	1.0	Surface	1	1	29.25	8.16	16.52	96.5	6.75	7.2	3.9	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS10	15:36:09	1.0	Surface	1	2	29.26	8.14	16.53	96.3	6.73	7.3	4.9	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS10	16:19:29	1.8	Middle	2	1	28.99	8.17	16.52	82.1	5.76	9.8	5.6	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS10	16:19:57	1.8	Middle	2	2	28.97	8.18	16.54	82.3	5.78	9.5	5.3	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS10	16:19:42	2.5	Bottom	3	1	28.77	8.16	17.1	81.5	5.72	11.2	5.7	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	IS10	16:19:14	2.5	Bottom	3	2	28.76	8.16	17.12	81.5	5.71	11.5	5.6	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR3	17:26:36	1.0	Middle	2	1	29.44	8.27	14.58	94.7	6.67	4.5	6.6	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR3	17:27:22	1.0	Middle	2	2	29.35	8.26	15.57	94.7	6.64	4.2	6.4	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR4	17:26:27	1.0	Surface	1	1	29.23	8.26	15.94	93.1	6.53	6.2	9	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR4	17:27:10	1.0	Surface	1	2	29.2	8.26	16.07	93.2	6.54	6	8.7	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR4	17:26:17	5.5	Bottom	3	1	29.14	8.25	16.47	92.6	6.49	9	7	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR4	17:27:01	5.5	Bottom	3	2	29.16	8.26	16.34	93	6.52	8.8	7.2	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR5	17:36:45	1.0	Surface	1	1	29.13	8.28	16.77	91.8	6.42	5.6	7.2	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR5	17:36:30	1.0	Surface	1	2	28.93	8.28	16.61	90.2	6.34	5.4	7.4	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR5	17:36:36	4.5	Bottom	3	1	29.04	8.27	17.96	90.9	6.33	7.6	8.2	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR5	17:36:26	4.5	Bottom	3	2	28.94	8.27	17.71	90.1	6.29	7.5	9	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR10A	17:02:33	1.0	Surface	1	1	29.1	8.25	16.74	88.8	6.22	5.5	4.4	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR10A	17:03:08	1.0	Surface	1	2	29.1	8.25	16.71	88.9	6.23	5.4	29.1	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR10A	17:03:00	6.8	Middle	2	1	29.08	8.25	16.76	87.8	6.15	5.5	4.8	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR10A	17:02:22	6.8	Middle	2	2	29.05	8.24	16.84	87.3	6.11	5.7	3.9	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR10A	17:02:47	12.5	Bottom	3	1	28.85	8.23	17.48	86.6	6.06	5.9	3.3	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR10A	17:02:10	12.5	Bottom	3	2	28.9	8.23	17.41	86.8	6.08	6	4	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR10B	10:27:25	1.0	Surface	1	1	28.91	8.22	16.67	88.3	6.2	9.2	4.9	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR10B	10:28:12	1.0	Surface	1	2	28.9	8.22	16.66	88.1	6.19	8.9	4.7	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR10B	10:27:58	4.7	Bottom	3	1	28.88	8.21	16.77	87.4	6.14	10.7	4.1	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	SR10B	10:27:18	4.7	Bottom	3	2	28.89	8.22	16.73	87.8	6.17	10.6	5	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	CS2	10:26:59	1.0	Surface	1	1	28.83	8.21	17.02	87.2	6.12	11.4	4.9	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	CS2	10:27:37	1.0	Surface	1	2	28.81	8.21	17.16	87	6.11	11.2	4.2	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	CS2	10:19:40	1.7	Middle	2	1	29.09	8.24	15.54	90.8	6.4	12	5.6	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	CS2	10:19:23	1.7	Middle	2	2	29.04	8.24	15.57	90.5	6.38	11.8	4.9	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	CS2	10:19:16	2.4	Bottom	3	1	28.98	8.22	16.51	90	6.32	14	5.1	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	CS2	10:19:28	2.4	Bottom	3	2	29.05	8.23	16.65	90.8	6.36	14.2	4.8	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	CS(MF)5	10:11:44	1.0	Surface	1	1	28.94	8.22	16.55	86.3	6.06	17.7	6.9	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	CS(MF)5	10:12:20	1.0	Surface	1	2	28.95	8.22	16.53	86.6	6.09	17.8	6.3	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	CS(MF)5	10:12:09	1.1	Middle	2	1	28.82	8.2	17.03	84.8	5.96	21.4	5.4	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	CS(MF)5	10:11:32	1.1	Middle	2	2	28.83	8.2	16.97	85	5.97	21.7	5.7	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	CS(MF)5	09:46:45	1.1	Bottom	3	1	28.88	8.22	13.73	85.2	6.09	8.9	6	
HKLR	HY/2011/03	2013-06-28	Mid-Ebb	Sunny	CS(MF)5	09:47:06	1.1	Bottom	3	2	28.87	8.22	13.73	85.2	6.09	9.2	5.9	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS5	09:46:58	1.0	Surface	1	1	28.69	8.17	17.04	85.1	5.99	10.7	4.3	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS5	09:46:36	1.0	Surface	1	2	28.7	8.17	16.79	85.1	6	11	4.6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS5	10:04:02	1.7	Middle	2	1	28.81	8.23	15.13	90.5	6.42	5	4.9	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS5	10:04:13	1.7	Middle	2	2	28.81	8.23	15.2	90.5	6.42	4.9	4	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS5	10:04:08	2.4	Bottom	3	1	28.84	8.22	16.4	90.5	6.38	5.4	4.6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS5	10:03:57	2.4	Bottom	3	2	28.82	8.22	16.23	90	6.35	5.2	4.6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS(MF)6	10:36:50	1.0	Surface	1	1	28.88	8.21	16.63	87.3	6.14	9.4	4	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS(MF)6	10:36:53	1.0	Surface	1	2	28.9	8.21	16.62	87.4	6.14	9.6	4.3	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS(MF)6	09:53:27	1.1	Bottom	3	1	28.88	8.16	14.06	85.7	6.11	12	4.3	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS(MF)6	09:53:39	1.1	Bottom	3	2	28.86	8.16	14.23	85.5	6.09	12.2	4.6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS7	09:53:32	1.0	Surface	1	1	28.88	8.16	14.03	85.6	6.11	20.8	6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS7	09:53:23	1.0	Surface	1	2	28.88	8.16	14.02	85.7	6.11	20.3	6.5	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS7	08:46:12	1.1	Bottom	3	1	28.8	8.2	14.4	83.6	5.95	3.4	6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS7	08:45:37	1.1	Bottom	3	2	28.79	8.2	15.09	83.5	5.83	3.4	5	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS8	08:46:06	1.0	Surface	1	1	28.75	8.2	15.55	83.2	5.9	3.4	2.9	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS8	08:45:30	1.0	Surface	1	2	28.73	8.2	15.36	83	5.89	3.5	3.4	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS8	08:45:59	5.5	Bottom	3	1	28.74	8.18	16.49	83.2	5.87	3.7	3	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS8	08:45:23	5.5	Bottom	3	2	28.72	8.17	16.7	83.2	5.86	3.6	2.6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS(MF)9	08:38:53	1.0	Surface	1	1	28.54	8.2	16.39	81.7	5.78	3.5	4	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS(MF)9	08:38:37	1.0	Surface	1	2	28.56	8.2	16.42	82.1	5.81	3.5	4.6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS(MF)9	08:38:30	4.5	Bottom	3	1	28.54	8.2	16.65	82.2	5.81	3.9	3.2	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS(MF)9	08:38:44	4.5	Bottom	3	2	28.53	8.19	17.71	82	5.76	3.8	2.9	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS10	09:14:40	1.0	Surface	1	1	28.84	8.21	13.75	82.9	5.92	5.3	8.3	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS10	09:15:08	1.0	Surface	1	2	28.84	8.21	13.7	83.1	5.94	5.2	7.6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS10	09:14:59	6.8	Middle	2	1	28.66	8.21	15.15	81.9	5.83	5.6	7.2	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS10	09:14:31	6.8	Middle	2	2	28.68	8.21	15.66	81.8	5.8	5.9	6.7	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS10	09:14:53	12.5	Bottom	3	1	28.56	8.17	18.27	82.2	5.76	6.7	6.5	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	IS10	09:14:22	12.5	Bottom	3	2	28.5	8.17	18.89	82.2	5.74	6.8	6.8	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR3	08:43:52	0.8	Middle	2	1	28.04	8.22	18.8	84.7	5.97	5.2	4.6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR3	08:43:59	0.8	Middle	2	2	28.04	8.22	18.79	84.9	5.98	5.2	4.7	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR4	08:02:27	1.0	Surface	1	1	28.12	8.17	16.32	88.1	6.28	5.7	10.1	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR4	08:01:34	1.0	Surface	1	2	28.13	8.17	16.34	84.7	6.04	6.1	8.4	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR4	08:01:47	2.4	Bottom	3	1	28.14	8.17	16.32	84.5	6.03	6.3	8	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR4	08:01:26	2.4	Bottom	3	2	28.13	8.17	16.33	84.9	6.06	6.4	8.7	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR5	08:04:20	1.0	Surface	1	1	28.14	8.11	16.6	84.2	6	9.2	7.1	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR5	08:04:57	1.0	Surface	1	2	28.14	8.11	16.53	84.2	6	9.4	7.3	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR5	08:04:08	3.8	Bottom	3	1	28.14	8.1	16.95	83.9	5.96	9.6	21.6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR5	08:04:45	3.8	Bottom	3	2	28.14	8.1	17.01	84	5.97	9.5	20	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR10A	06:57:04	1.0	Surface	1	1	28.16	8.19	17.09	81.9	5.82	4	5.6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR10A	06:56:15	1.0	Surface	1	2	28.16	8.18	17.04	81.7	5.8	4.1	5.2	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR10A	06:56:45	3.4	Middle	2	1	28.09	8.2	17.77	81	5.74	4.5	5	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR10A	06:56:02	3.4	Middle	2	2	28.1	8.2	17.87	80.8	5.72	4.3	4.4	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR10A	06:55:52	5.7	Bottom	3	1	28.04	8.18	19.69	80.7	5.66	4.3	3.2	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR10A	06:56:37	5.7	Bottom	3	2	28.05	8.17	19.85	81.2	5.68	4.3	3.8	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR10B	06:50:14	1.0	Surface	1	1	28	8.26	18.65	78.1	5.51	4.6	4.1	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR10B	06:50:48	1.0	Surface	1	2	27.92	8.26	19.92	76.7	5.38	5.1	4.7	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR10B	06:49:49	4.7	Bottom	3	1	27.64	8.26	24.35	75.7	5.21	6.5	4.9	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	SR10B	06:50:28	4.7	Bottom	3	2	27.61	8.25	24.79	75.7	5.19	6	3.7	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	CS2	09:31:47	1.0	Surface	1	1	28.12	8.1	15.44	83.8	6.01	8.3	4.2	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	CS2	09:31:10	1.0	Surface	1	2	28.12	8.1	15.45	83.3	5.97	8.5	5	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	CS2	09:30:59	4.1	Middle	2	1	28.12	8.11	17.53	82	5.81	8.2	5.3	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	CS2	09:31:36	4.1	Middle	2	2	28.13	8.1	17.57	82.6	5.85	8.6	6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	CS2	09:31:23	7.1	Bottom	3	1	28.12	8.09	18.45	82.9	5.85	8.5	4.7	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	CS2	09:30:43	7.1	Bottom	3	2	28.12	8.1	18.49	82.6	5.83	8.4	5.6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	CS(MF)5	07:24:45	1.0	Surface	1	1	28.15	8.2	16.64	82	5.83	4.1	4.2	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	CS(MF)5	07:25:56	1.0	Surface	1	2	28.16	8.19	16.6	82.3	5.86	4.3	4.1	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	CS(MF)5	07:25:28	6.8	Middle	2	1	28.06	8.22	19.49	79.2	5.55	5.3	3.3	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	CS(MF)5	07:24:26	6.8	Middle	2	2	28.06	8.22	19.06	79.2	5.57	5	3.3	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	CS(MF)5	07:25:07	12.5	Bottom	3	1	27.97	8.21	21.38	78.2	5.44	6.7	3.6	
HKLR	HY/2011/03	2013-06-28	Mid-Flood	Sunny	CS(MF)5	07:24:09	12.5	Bottom	3	2	28.01	8.19	21.42	79.4	5.52	7.2	3.2	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS5	08:54:30	1.0	Surface	1	1	29.71	8.38	16.16	94	6.54	6.54	6.8	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS5	08:55:30	1.0	Surface	1	2	29.83	8.41	16.09	92	6.39	8.6	8	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS5	08:54:19	4.2	Middle	2	1	28.23	8.26	24.87	86.2	5.99	12.4	7.8	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS5	08:55:17	4.2	Middle	2	2	27.71	8.26	25.96	84.4	5.86	12.6	7.6	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS5	08:55:06	7.3	Bottom	3	1	27.53	8.25	26.87	76.9	5.34	12.3	8.4	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS5	08:54:08	7.3	Bottom	3	2	27.55	8.25	26.94	74.7	5.19	12.4	7.5	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS(MF)6	08:45:28	1.0	Surface	1	1	29.58	8.49	16.14	112.4	7.83	8.4	7.2	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS(MF)6	08:45:48	1.0	Surface	1	2	29.61	8.49	16.12	112.7	7.85	8.7	7.3	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS(MF)6	08:45:37	2.3	Bottom	3	1	29.55	8.48	16.22	111.8	7.79	8.9	9.3	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS(MF)6	08:45:17	2.3	Bottom	3	2	29.57	8.48	16.17	112.4	7.83	9	8.7	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS7	08:38:57	1.0	Surface	1	1	29.45	8.43	15.96	107.3	7.5	7.4	6.2	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS7	08:38:41	1.0	Surface	1	2	29.44	8.43	15.96	107.1	7.48	7	7	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS7	08:38:50	2.2	Bottom	3	1	29.42	8.43	15.97	107.1	7.49	7.6	6.7	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS7	08:38:25	2.2	Bottom	3	2	29.42	8.43	15.97	106.4	7.44	7.4	7.2	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS8	08:07:18	1.0	Surface	1	1	29.39	8.36	16.48	93.5	6.52	7.4	6.9	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS8	08:06:53	1.0	Surface	1	2	29.38	8.35	16.49	91.9	6.41	7.4	6.9	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS8	08:06:44	3.1	Bottom	3	1	28.94	8.29	17.61	87.8	6.13	8.3	5.7	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS(MF)9	08:30:16	1.0	Surface	1	1	28.97	8.3	17.62	90.1	6.29	8.7	7.3	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS(MF)9	08:30:49	1.0	Surface	1	2	29.41	8.42	16.28	104.6	7.3	8.4	8.3	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS(MF)9	08:30:04	2.6	Bottom	3	1	29.17	8.39	16.57	101.4	7.09	8.4	6.4	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS(MF)9	08:30:37	2.6	Bottom	3	2	29.09	8.38	16.67	102	7.15	8.8	7.7	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS10	07:58:59	1.0	Surface	1	1	28.91	8.29	16.33	96.5	6.77	7.5	3.2	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS10	07:57:48	1.0	Surface	1	2	28.83	8.26	16.31	96.4	6.77	7.3	4.6	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS10	07:57:22	5.5	Middle	2	1	27.95	8.17	22.04	78.7	5.44	8.5	5.3	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS10	07:58:34	5.5	Middle	2	2	27.91	8.18	22.16	79.9	5.51	8.8	4.4	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS10	07:56:57	10.0	Bottom	3	1	26.44	8.14	27.4	72	4.95	9.5	5.6	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	IS10	07:58:15	10.0	Bottom	3	2	26.39	8.15	27.56	71.1	4.89	9.4	4.4	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR3	08:59:50	0.7	Middle	2	1	29.68	8.41	16.64	103	7.14	9.5	7	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR3	08:59:56	0.7	Middle	2	2	29.64	8.41	16.69	102	7.08	9.4	7.6	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR4	08:16:13	1.0	Surface	1	1	29.37	8.35	16.51	93.3	6.51	8.4	6.4	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR4	08:15:51	1.0	Surface	1	2	29.48	8.38	16.52	97.9	6.82	8.3	5.9	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR4	08:15:42	2.6	Bottom	3	1	29.33	8.34	16.91	94.6	6.59	9.1	6.8	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR4	08:16:05	2.6	Bottom	3	2	29.1	8.31	17.49	92.2	6.43	9.2	7.5	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR5	08:06:42	1.0	Surface	1	1	29.09	8.28	15.68	88.6	6.21	8.28	6.3	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR5	08:07:26	1.0	Surface	1	2	29.06	8.28	15.6	88.7	6.22	8.26	6.5	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR5	08:07:07	4.4	Bottom	3	1	28.31	8.2	21.05	77	5.34	7.6	6.9	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR5	08:06:15	4.4	Bottom	3	2	28.25	8.2	21.14	76.5	5.32	7.4	7.4	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR10A	06:58:18	1.0	Surface	1	1	28.56	8.36	18.9	89.7	6.26	2.8	4.3	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR10A	06:58:49	2.0	Surface	1	2	28.3	8.37	18.92	90.3	6.3	2.8	4.6	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR10A	06:58:38	3.3	Middle	2	1	28.23	8.33	21.2	87.5	6.06	2.6	4.5	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR10A	06:58:10	3.3	Middle	2	2	28.25	8.33	21.19	88.3	6.11	2.6	3.3	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR10A	06:58:03	5.5	Bottom	3	1	28.38	8.34	21.16	90	6.22	2.5	5	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR10A	06:58:29	5.5	Bottom	3	2	28.31	8.34	21.18	89.5	6.2	2.5	6	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR10B	06:52:43	1.0	Surface	1	1	28.22	8.32	20.98	86.6	6.01	2.7	4	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR10B	06:53:02	1.0	Surface	1	2	28.23	8.32	21.03	87	6.04	2.7	3.5	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR10B	06:52:33	3.8	Bottom	3	1	28.17	8.31	21.36	86.8	6.02	2.7	4	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	SR10B	06:52:52	3.8	Bottom	3	2	28.21	8.32	21.08	86.9	6.03	2.7	3.5	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	CS2	09:17:14	1.0	Surface	1	1	29.22	8.19	12.75	88.5	6.27	6.4	2.4	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	CS2	09:18:26	1.0	Surface	1	2	29.24	8.18	12.81	89.9	6.35	6.2	2.8	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	CS2	09:16:48	3.4	Middle	2	1	28.22	8.16	18.99	80.6	5.59	6.7	3	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	CS2	09:18:08	3.4	Middle	2	2	28.18	8.17	19.08	80.9	5.62	6.5	2.9	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	CS2	09:17:44	5.8	Bottom	3	1	27.69	8.13	22.95	78.4	5.37	7.3	3.3	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	CS2	09:16:28	5.8	Bottom	3	2	27.68	8.12	22.93	78.2	5.36	7.4	3.8	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	CS(MF)5	07:32:53	1.0	Surface	1	1	29.3	8.39	14.02	90.9	6.44	5.4	3.5	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	CS(MF)5	07:33:43	1.0	Surface	1	2	29.29	8.39	14.02	90.1	6.38	5.3	4.1	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	CS(MF)5	07:32:38	6.3	Middle	2	1	28.53	8.33	19.54	77.6	5.4	5.7	4.1	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	CS(MF)5	07:33:29	6.3	Middle	2	2	28.52	8.32	19.63	78.2	5.44	5.6	4.2	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	CS(MF)5	07:32:26	11.5	Bottom	3	1	26.67	8.26	27.45	78	5.36	7.3	3.2	
HKLR	HY/2011/03	2013-07-01	Mid-Ebb	Sunny	CS(MF)5	07:33:09	11.5	Bottom	3	2	26.72	8.26	27.39	79.7	5.47	7.4	3.7	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS5	12:29:46	1.0	Surface	1	1	29.93	8.43	16.7	103	7.11	8.3	6	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS5	12:29:07	1.0	Surface	1	2	29.96	8.48	16.68	105.5	7.29	8.2	5.6	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS5	12:29:35	4.2	Middle	2	1	27.7	8.26	25.64	79.9	5.52	9.6	6.7	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS5	12:28:43	4.2	Middle	2	2	27.7	8.26	25.58	78.5	5.41	9.7	7.7	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS5	12:29:24	7.3	Bottom	3	1	27.51	8.28	27.03	75.8	5.15	10.4	8.2	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS5	12:28:33	7.3	Bottom	3	2	27.5	8.28	27.17	78	5.29	10.3	6.7	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS(MF)6	12:37:42	1.0	Surface	1	1	29.84	8.51	16.97	119.5	8.25	9.3	9.5	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS(MF)6	12:38:00	1.0	Surface	1	2	29.85	8.52	16.95	120.7	8.33	9.3	8.4	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS(MF)6	12:37:50	2.2	Bottom	3	1	29.84	8.51	16.97	119.9	8.28	8.21	9.5	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS(MF)6	12:37:32	2.2	Bottom	3	2	29.82	8.51	17	118.8	8.21	9.4	9.8	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS7	12:45:03	1.0	Surface	1	1	29.97	8.53	16.62	122.3	8.44	10.6	10.6	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS7	12:45:20	1.0	Surface	1	2	29.9	8.52	16.58	121.3	8.38	10.5	10.2	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS7	12:44:50	2.3	Bottom	3	1	29.95	8.53	16.63	121.9	8.42	10.5	11	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS7	12:45:11	2.3	Bottom	3	2	29.93	8.52	16.61	121.8	8.41	10.9	11.7	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS8	13:10:30	1.0	Surface	1	1	29.37	8.39	17.41	102.3	7.1	6.1	5.7	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS8	13:10:11	1.0	Surface	1	2	29.39	8.39	17.4	102.5	7.11	6.1	6.2	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS8	13:10:00	2.8	Bottom	3	1	29.28	8.39	17.55	101.8	7.07	6.6	5.5	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS8	13:10:22	2.8	Bottom	3	2	29.25	8.39	17.56	101.8	7.07	6.6	5.5	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS(MF)9	12:52:41	1.0	Surface	1	1	29.53	8.51	16.84	118	8.2	5.7	5.8	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS(MF)9	12:52:19	1.0	Surface	1	2	29.51	8.51	16.84	117.9	8.19	5.6	5.9	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS(MF)9	12:52:05	2.6	Bottom	3	1	29.46	8.49	16.94	116.6	8.1	6.4	5.6	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS(MF)9	12:52:31	2.6	Bottom	3	2	29.47	8.5	16.91	117.4	8.16	6.5	5.5	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS10	13:29:13	1.0	Surface	1	1	29.61	8.37	16.67	108.5	7.54	14.6	13.1	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS10	13:27:55	1.0	Surface	1	2	29.59	8.36	16.68	105.2	7.31	14.7	11.9	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS10	13:28:43	5.6	Middle	2	1	28.01	8.28	22.11	85.1	5.73	15.3	13.5	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS10	13:27:33	5.6	Middle	2	2	28.02	8.27	22.75	82.1	5.66	14.9	13.9	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS10	13:28:23	10.2	Bottom	3	1	26.71	8.19	25.59	88.8	6.16	16.1	13.6	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	IS10	13:27:10	10.2	Bottom	3	2	26.73	8.17	27.85	90.1	6.15	16.2	14.1	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	SR3	12:21:26	0.6	Middle	2	1	29.84	8.61	16.7	122.3	8.46	9.3	10.3	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	SR3	12:21:19	0.6	Middle	2	2	29.82	8.61	16.77	121.6	8.41	9.4	11.3	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	SR4	13:02:11	1.0	Surface	1	1	29.38	8.4	17.46	102.6	7.12	5.9	7.4	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	SR4	13:02:30	1.0	Surface	1	2	29.38	8.39	17.44	102.6	7.12	5.9	6.5	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	SR4	13:02:04	2.7	Bottom	3	1	29.35	8.4	17.53	102.5	7.11	6.3	6.3	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	SR4	13:02:20	2.7	Bottom	3	2	29.32	8.39	17.57	102.5	7.11	6.4	7.5	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	SR5	13:15:28	1.0	Surface	1	1	29.63	8.46	16.63	110	7.63	12.2	11.1	
HKLR	HY/2011/03	2013-07-01	Mid-Flood	Rainy	SR5	13:16:09	1.0	Surface	1	2	29.61	8.45	16.65	111.4	7.73	12.6	12.6	



Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-07-01	SR5	13:15:49	4.5	Bottom	3	1	28.06	8.22	20.16	76.9	5.34	14.4	11.5	
HCLR	HY/2011/03	2013-07-01	SR5	13:15:03	4.5	Bottom	3	2	28.11	8.21	19.8	75.9	5.28	13.8	12.6	Cancelled
HCLR	HY/2011/03	2013-07-01	SR10A	-	-	Surface	1	1	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	SR10A	-	-	Surface	1	2	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	SR10A	-	-	Middle	2	1	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	SR10A	-	-	Middle	2	2	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	SR10A	-	-	Bottom	3	1	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	SR10A	-	-	Bottom	3	2	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	SR10B	-	-	Surface	1	1	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	SR10B	-	-	Bottom	3	1	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	SR10B	-	-	Bottom	3	2	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	CS2	12:03:36	1.0	Surface	1	1	29.71	8.33	15.85	100.5	7	5.3	4.3	
HCLR	HY/2011/03	2013-07-01	CS2	12:04:43	1.0	Surface	1	2	29.68	8.33	15.77	99.8	6.96	5.1	4.8	
HCLR	HY/2011/03	2013-07-01	CS2	12:04:24	3.5	Middle	2	1	29.43	8.29	16.05	91.3	6.38	4.6	4.6	
HCLR	HY/2011/03	2013-07-01	CS2	12:03:17	3.5	Middle	2	2	29.36	8.26	16.36	89	6.22	4.8	4.8	
HCLR	HY/2011/03	2013-07-01	CS2	12:04:02	6.0	Bottom	3	1	28.51	8.15	20.42	81.4	5.63	5.5	5.2	
HCLR	HY/2011/03	2013-07-01	CS2	12:02:42	6.0	Bottom	3	2	28.5	8.1	20.44	82.1	5.69	5.4	5.3	
HCLR	HY/2011/03	2013-07-01	CS(MF)5	-	-	Surface	1	1	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	CS(MF)5	-	-	Surface	1	2	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	CS(MF)5	-	-	Middle	2	1	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	CS(MF)5	-	-	Middle	2	2	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	CS(MF)5	-	-	Bottom	3	1	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	CS(MF)5	-	-	Bottom	3	2	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-07-01	IS5	10:41:01	1.0	Surface	1	1	29.54	8.36	14.41	94.4	6.66	9.3	4.6	
HCLR	HY/2011/03	2013-07-03	IS5	10:40:18	1.0	Surface	1	2	29.71	8.37	14.6	92.4	6.48	8.8	5.7	
HCLR	HY/2011/03	2013-07-03	IS5	10:40:49	4.7	Middle	2	1	28.45	8.23	21.44	83.5	5.88	10	5.8	
HCLR	HY/2011/03	2013-07-03	IS5	10:40:01	4.7	Middle	2	2	28.35	8.22	21.66	84.1	5.94	9.3	5.9	
HCLR	HY/2011/03	2013-07-03	IS5	10:40:34	8.3	Bottom	3	1	28.19	8.21	23.92	76.7	5.24	12.3	6.4	
HCLR	HY/2011/03	2013-07-03	IS5	10:39:52	8.3	Bottom	3	2	28.19	8.21	23.93	77.5	5.3	12.5	5.8	
HCLR	HY/2011/03	2013-07-03	IS(MF)6	10:31:26	1.0	Surface	1	1	29.27	8.34	13.85	102.9	7.3	9.6	7.8	
HCLR	HY/2011/03	2013-07-03	IS(MF)6	10:31:45	1.0	Surface	1	2	29.27	8.35	13.85	103.1	7.31	10.2	8.6	
HCLR	HY/2011/03	2013-07-03	IS(MF)6	10:31:16	2.1	Bottom	3	1	29.14	8.33	15.07	102	7.2	12.2	12.4	
HCLR	HY/2011/03	2013-07-03	IS(MF)6	10:31:36	2.1	Bottom	3	2	29.07	8.33	15.23	102.5	7.24	12.1	13.5	
HCLR	HY/2011/03	2013-07-03	IS7	10:25:56	1.0	Surface	1	1	29.25	8.29	13.91	94.9	6.73	8.5	11.5	
HCLR	HY/2011/03	2013-07-03	IS7	10:26:13	1.0	Surface	1	2	29.29	8.28	13.93	95.1	6.74	9	12	
HCLR	HY/2011/03	2013-07-03	IS7	10:25:48	2.4	Bottom	3	1	28.58	8.27	15.18	94.6	6.63	12.9	12.9	
HCLR	HY/2011/03	2013-07-03	IS7	10:26:04	2.4	Bottom	3	2	29.1	8.28	15.2	94.6	6.68	12.1	13.8	
HCLR	HY/2011/03	2013-07-03	IS8	10:05:20	1.0	Surface	1	1	28.79	8.33	15.33	99	7.02	5.5	4.2	
HCLR	HY/2011/03	2013-07-03	IS8	10:04:52	1.0	Surface	1	2	28.77	8.32	15.38	98.4	6.98	5.5	3.3	
HCLR	HY/2011/03	2013-07-03	IS8	10:05:09	2.6	Bottom	3	1	28.58	8.3	15.79	97.4	6.91	3.4	3.4	
HCLR	HY/2011/03	2013-07-03	IS8	10:04:43	2.6	Bottom	3	2	28.57	8.29	15.92	96.5	6.85	5.7	3.9	
HCLR	HY/2011/03	2013-07-03	IS(MF)9	10:20:00	1.0	Surface	1	1	29.11	8.33	14.75	95.6	7.05	7.5	17	
HCLR	HY/2011/03	2013-07-03	IS(MF)9	10:20:40	1.0	Surface	1	2	28.98	8.33	14.78	98.5	6.98	6.8	18.7	
HCLR	HY/2011/03	2013-07-03	IS(MF)9	10:20:32	2.6	Bottom	3	1	28.75	8.32	16.21	98.1	6.93	9.1	14	
HCLR	HY/2011/03	2013-07-03	IS(MF)9	10:19:44	2.6	Bottom	3	2	28.81	8.33	16.05	96.9	6.98	9.5	14.8	
HCLR	HY/2011/03	2013-07-03	IS10	10:29:15	1.0	Surface	1	1	29.17	8.29	10.74	82.9	5.99	8.3	2.9	
HCLR	HY/2011/03	2013-07-03	IS10	10:29:59	1.0	Surface	1	2	29.15	8.28	11.24	86.1	6.21	8.4	3	
HCLR	HY/2011/03	2013-07-03	IS10	10:29:39	5.2	Middle	2	1	28.86	8.16	17.16	76.3	5.54	8.4	2.7	
HCLR	HY/2011/03	2013-07-03	IS10	10:28:59	5.2	Middle	2	2	28.89	8.18	17.5	73.3	5.32	8.3	6	
HCLR	HY/2011/03	2013-07-03	IS10	10:29:31	9.3	Bottom	3	1	27.45	8.08	24.66	69.5	5.06	8.6	3.3	
HCLR	HY/2011/03	2013-07-03	IS10	10:28:48	9.3	Bottom	3	2	27.39	8.05	24.69	74.3	5.12	8.5	2.6	
HCLR	HY/2011/03	2013-07-03	SR3	10:47:02	0.8	Middle	2	1	29.71	8.38	14.56	106.2	7.45	5.9	5.5	
HCLR	HY/2011/03	2013-07-03	SR3	10:47:08	0.8	Middle	2	2	29.71	8.38	14.55	106.5	7.47	6	5.7	
HCLR	HY/2011/03	2013-07-03	SR4	10:10:14	1.0	Surface	1	1	29.04	8.32	12.77	100.2	7.18	4.3	4.2	
HCLR	HY/2011/03	2013-07-03	SR4	10:10:33	1.0	Surface	1	2	28.99	8.31	14.02	100.9	7.19	4.3	4.8	
HCLR	HY/2011/03	2013-07-03	SR4	10:10:24	2.4	Bottom	3	1	28.89	8.31	15.24	100.4	7.11	4.3	3.1	
HCLR	HY/2011/03	2013-07-03	SR4	10:10:01	2.4	Bottom	3	2	28.83	8.33	15.3	102.1	7.24	3.7	3.7	
HCLR	HY/2011/03	2013-07-03	SR5	10:38:32	1.0	Surface	1	1	29.56	8.22	12.31	90.1	6.41	6.4	3	
HCLR	HY/2011/03	2013-07-03	SR5	10:38:50	1.0	Surface	1	2	29.57	8.22	12.28	90	6.41	6.1	4.1	
HCLR	HY/2011/03	2013-07-03	SR5	10:38:41	3.6	Bottom	3	1	29.57	8.21	12.54	90	6.39	6.3	2.8	
HCLR	HY/2011/03	2013-07-03	SR5	10:38:22	3.6	Bottom	3	2	29.62	8.21	12.56	90.3	6.41	6.2	2.9	
HCLR	HY/2011/03	2013-07-03	SR10A	08:46:27	1.0	Surface	1	1	28.64	8.36	17	101.9	7.18	1.8	3.4	
HCLR	HY/2011/03	2013-07-03	SR10A	08:47:16	1.0	Surface	1	2	28.78	8.36	15.69	102	7.22	1.8	3.3	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	SR10A	08:47:03	3.4	Middle	2	1	28.62	8.35	17.4	101.9	7.16	2.3	4.6	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	SR10A	08:46:21	3.4	Middle	2	2	28.6	8.35	17.64	101.8	7.15	2.2	4.4	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	SR10A	08:46:46	5.7	Bottom	3	1	28.61	8.35	17.65	101.7	7.14	2.5	3.3	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	SR10A	08:46:13	5.7	Bottom	3	2	28.6	8.34	17.89	101.6	7.13	2.4	3.3	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	SR10B	08:40:25	1.0	Surface	1	1	28.45	8.35	17.64	99.8	7.02	3.2	3.6	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	SR10B	08:39:50	1.0	Surface	1	2	28.44	8.35	17.64	99.7	7.02	3	3.4	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	SR10B	08:39:41	4.6	Bottom	3	1	28.43	8.33	18.83	99	6.93	2	4.1	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	SR10B	08:40:08	4.6	Bottom	3	2	28.41	8.35	19.15	100.4	7.02	2.2	3.9	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	CS2	11:45:21	1.0	Surface	1	1	29.52	8.25	10.01	89.6	6.46	7	2.1	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	CS2	11:44:36	1.0	Surface	1	2	29.57	8.24	10.25	90.4	6.51	6.7	3.2	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	CS2	11:45:09	4.1	Middle	2	1	29.15	8.21	12.76	85.3	6.1	8.5	4	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	CS2	11:44:21	4.1	Middle	2	2	29.1	8.2	12.77	89.8	6.38	8.1	4	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	CS2	11:44:09	7.1	Bottom	3	1	29.15	8.17	18.54	85.6	6.13	8.6	3.5	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	CS2	11:44:55	7.1	Bottom	3	2	29.06	8.15	18.55	87.1	6.04	8.7	4.1	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	CS(MF)5	09:25:21	1.0	Surface	1	1	29.4	8.26	10.89	91.8	6.6	4.4	3.4	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	CS(MF)5	09:24:26	1.0	Surface	1	2	29.34	8.28	11.16	91.5	6.58	4.4	3.8	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	CS(MF)5	09:25:02	6.6	Middle	2	1	28.79	8.27	15.59	90.2	6.39	4.5	4.1	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	CS(MF)5	09:24:08	6.6	Middle	2	2	28.78	8.28	15.85	89.9	6.35	4.1	4	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	CS(MF)5	09:23:55	12.1	Bottom	3	1	28.49	8.22	20.63	89.2	6.17	5	3.4	
HCLR	HY/2011/03	2013-07-03	Mid-Ebb	Sunny	CS(MF)5	09:24:52	12.1	Bottom	3	2	28.56	8.21	19.91	90.1	6.25	4.9	3.4	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS5	15:17:12	1.0	Surface	1	1	30.15	8.46	14.58	114.7	7.99	11	12.4	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS5	15:16:15	1.0	Surface	1	2	30.12	8.48	14.59	117.3	8.17	10.5	11.5	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS5	15:16:55	4.6	Middle	2	1	29.01	8.34	16.68	88.4	6.2	11.5	11.7	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS5	15:15:54	4.6	Middle	2	2	28.9	8.31	17.14	85.8	6.01	11.4	10.6	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS5	15:16:38	8.1	Bottom	3	1	28.25	8.2	23.49	76.8	5.25	14.2	11.8	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS5	15:15:33	8.1	Bottom	3	2	28.27	8.17	23.43	73.1	5	13.8	11.5	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS(MF)6	15:25:28	1.0	Surface	1	1	30.22	8.57	14.64	121.7	8.53	12.1	8.6	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS(MF)6	15:25:46	1.0	Surface	1	2	29.61	8.49	14.94	121.6	8.52	11.8	8.6	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS(MF)6	15:25:13	2.2	Bottom	3	1	29.61	8.5	15.1	126.9	8.89	16.1	8.6	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS(MF)6	15:25:40	2.2	Bottom	3	2	29.5	8.48	15.17	124.2	8.71	15.8	7.1	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS7	15:32:49	1.0	Surface	1	1	30.65	8.49	13.36	124.6	8.66	4.9	3.8	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS7	15:33:09	1.0	Surface	1	2	30.49	8.5	13.52	127.5	8.88	4.7	4.4	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS7	15:33:01	2.3	Bottom	3	1	30.41	8.5	13.78	124.4	8.66	5.5	4.4	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS7	15:32:40	2.3	Bottom	3	2	30.49	8.51	13.69	124.1	8.63	5.1	4.4	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS8	16:05:32	1.0	Surface	1	1	29.63	8.35	12.96	109.3	7.74	5.6	4.4	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS8	16:05:03	1.0	Surface	1	2	29.54	8.36	12.89	110	7.8	5.5	4.3	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS8	16:04:50	2.5	Bottom	3	1	29.18	8.36	15.51	111.8	7.87	5.6	4.7	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS8	16:05:17	2.5	Bottom	3	2	29.16	8.36	15.61	111.6	7.85	5.5	5.2	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS(MF)9	15:42:54	1.0	Surface	1	1	29.73	8.43	13.73	113.6	8	11	5.5	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS(MF)9	15:43:10	1.0	Surface	1	2	29.75	8.42	13.71	114.2	8.04	10.9	6.3	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS(MF)9	15:42:46	2.5	Bottom	3	1	29.65	8.42	14.06	112.7	7.93	11.8	6.1	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS(MF)9	15:43:01	2.5	Bottom	3	2	29.69	8.42	13.97	113.5	7.99	12.3	6	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS10	16:39:35	1.0	Surface	1	1	30	8.32	7.48	87.7	6.36	10.1	3	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS10	16:38:41	1.0	Surface	1	2	30.08	8.33	7.17	88	6.38	10.1	3.9	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS10	16:39:23	5.5	Middle	2	1	28.91	8.21	16.72	77.1	5.42	10.3	4.3	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS10	16:38:30	5.5	Middle	2	2	29.14	8.24	15.8	76.3	5.36	10.4	3.4	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS10	16:38:12	9.9	Bottom	3	1	27.46	8.07	24.92	76.4	5.25	10.6	3.7	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	IS10	16:38:56	9.9	Bottom	3	2	27.45	8.07	24.88	75.8	5.22	10.4	4.2	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR3	15:02:16	0.8	Middle	2	1	30.26	8.5	14.43	123.8	8.61	10.9	10.2	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR3	15:02:09	0.8	Middle	2	2	30.24	8.5	14.45	122.2	8.5	10.8	9.3	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR4	15:53:43	1.0	Surface	1	1	29.35	8.37	14.22	105.3	7.44	7	4.2	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR4	15:53:18	1.0	Surface	1	2	29.48	8.39	13.97	104.4	7.38	6.5	4.3	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR4	15:53:08	2.7	Bottom	3	1	29.36	8.39	14.43	103.6	7.31	7.5	4.9	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR4	15:53:37	2.7	Bottom	3	2	29.32	8.37	14.5	103.1	7.42	7.6	4.6	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR5	16:27:37	1.0	Surface	1	1	30.09	8.32	7.5	99.8	7.23	8.7	3.1	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR5	16:28:03	1.0	Surface	1	2	30.11	8.32	7.44	100.7	7.29	8.9	3.3	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR5	16:27:51	3.6	Bottom	3	1	30.23	8.29	11.93	101.8	7.18	9.5	4.3	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR5	16:27:23	3.6	Bottom	3	2	30	8.33	12.42	98.2	6.93	9.8	4.6	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR10A	17:13:19	1.0	Surface	1	1	29.61	8.45	14.9	109.4	7.67	3.2	3.3	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR10A	17:13:54	1.0	Surface	1	2	29.5	8.45	15.14	109	7.65	3.3	3.8	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR10A	17:13:44	3.5	Middle	2	1	29.04	8.43	18.71	108.5	7.52	3.2	2.8	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR10A	17:13:07	3.5	Middle	2	2	29.04	8.44	18.7	108.3	7.51	3.2	2.6	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR10A	17:13:33	6	Bottom	3	1	29.06	8.41	19.53	108.4	7.48	3.3	3.1	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR10A	17:12:56	6	Bottom	3	2	28.93	8.42	19.73	107.5	7.42	3.3	2.3	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR10B	17:21:10	1.0	Surface	1	1	29.34	8.43	15.83	107.3	7.52	3.4	2.4	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR10B	17:20:35	1.0	Surface	1	2	29.39	8.43	15.72	107.7	7.54	3.1	2.2	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR10B	17:20:20	4.8	Bottom	3	1	29.07	8.41	18.8	106.5	7.37	3.2	2.9	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	SR10B	17:20:52	4.8	Bottom	3	2	29.06	8.42	18.91	107.5	7.44	3.2	2.7	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	CS2	15:02:50	1.0	Surface	1	1	30.17	8.24	6.44	88	6.41	9.1	5.5	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	CS2	15:02:02	1.0	Surface	1	2	30.05	8.26	6.65	87.2	6.35	9.1	5.8	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	CS2	15:01:48	4.0	Middle	2	1	29.36	8.23	10.25	82.5	5.96	9	5.7	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	CS2	15:02:34	4.0	Middle	2	2	29.48	8.26	10.25	79.9	5.8	9.2	5.6	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	CS2	15:02:21	6.9	Bottom	3	1	28.71	8.12	18.05	77.6	5.43	9.4	5.4	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	CS2	15:01:13	6.9	Bottom	3	2	28.74	8.24	17.51	77.3	5.42	9.5	5.8	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	CS(MF)5	16:42:08	1.0	Surface	1	1	30.05	8.39	13.58	98.5	6.9	4	3.3	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	CS(MF)5	16:41:13	1.0	Surface	1	2	30.03	8.39	13.6	95.8	6.72	4.2	3.5	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	CS(MF)5	16:40:56	6.3	Middle	2	1	28	8.23	21.28	72.8	5.06	4.9	3.4	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	CS(MF)5	16:41:47	6.3	Middle	2	2	28.11	8.21	21.52	72.3	5.01	5.2	3.5	
HCLR	HY/2011/03	2013-07-03	Mid-Flood	Sunny	CS(MF)5	16:41:34	11.6	Bottom	3	1	27.17	8.21	25.27	77.1	5.32	5.4	2.8	
HCLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	CS(MF)5	16:40:45	11.6	Bottom	3	2	27.27	8.21	25.34	77	5.3	5.8	3.9	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS5	12:28:44	1.0	Surface	1	1	30.7	8.64	12.35	107.3	7.49	10.2	7.4	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS5	12:29:32	1.0	Surface	1	2	30.64	8.64	12.55	105	7.33	10.1	7.9	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS5	12:28:22	4.2	Middle	2	1	28.38	8.37	24.57	78	5.45	10.7	7.9	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS5	12:29:11	4.2	Middle	2	2	28.38	8.37	24.57	78	5.45	10.8	7.7	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS5	12:29:02	7.3	Bottom	3	1	28.29	8.38	26.13	77.7	5.23	10.8	8.3	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS5	12:28:12	7.3	Bottom	3	2	28.29	8.38	26.13	76.7	5.16	10.8	7.3	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS(MF)6	12:20:18	1.0	Surface	1	1	30.7	8.56	12.47	120.1	8.38	10.2	6.3	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS(MF)6	12:19:40	1.0	Surface	1	2	30.54	8.56	12.97	116.7	8.14	10.4	6.9	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS(MF)6	12:20:02	2.1	Bottom	3	1	30.04	8.51	15.07	103	7.16	10.5	8.1	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS(MF)6	12:19:26	2.1	Bottom	3	2	30.15	8.55	15	113.6	7.89	10.5	7.2	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS7	12:13:08	1.0	Surface	1	1	30.51	8.56	11.93	109.6	7.69	10.3	9.2	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS7	12:12:37	1.0	Surface	1	2	30.45	8.56	11.97	107.5	7.55	10.1	8	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS8	11:49:30	3.0	Bottom	3	1	29.2	8.35	16	88.3	6.19	10.4	7.7	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS8	11:49:58	3.0	Bottom	3	2	29.27	8.36	15.96	89.9	6.3	10.1	8.2	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS(MF)9	12:05:22	1.0	Surface	1	1	30.34	8.6	11.99	117.8	8.29	9.6	6.8	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS(MF)9	12:05:48	1.0	Surface	1	2	30.31	8.6	12.1	117.5	8.27	9.4	7.2	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS(MF)9	12:05:10	2.7	Bottom	3	1	30.15	8.52	13.93	114	7.96	9.6	8	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS(MF)9	12:05:31	2.7	Bottom	3	2	29.53	8.45	15.03	108.7	7.53	9.7	7.7	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS10	12:08:27	1.0	Surface	1	1	29.76	8.27	12.13	90.9	6.45	6.1	5.3	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS10	12:07:29	1.0	Surface	1	2	29.68	8.25	12.56	89.7	6.36	6	5.1	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS10	12:08:05	5.8	Middle	2	1	29.43	8.21	14.39	81.3	5.74	7	4.9	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS10	12:07:04	5.8	Middle	2	2	29.46	8.21	14.19	81.7	5.76	6.8	5.4	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS10	12:06:48	10.6	Bottom	3	1	29.11	8.18	16.69	79.2	5.55	8.9	4.9	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS10	12:07:43	10.6	Bottom	3	2	28.92	8.17	17.97	79.1	5.51	8.7	4	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR3	12:37:33	0.7	Middle	2	1	30.76	8.67	12.23	122.8	8.57	6.6	6	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR3	12:37:24	0.7	Middle	2	2	30.72	8.66	12.28	121.7	8.5	6.4	7.4	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR4	11:54:43	1.0	Surface	1	1	30.6	8.55	12.35	120.5	8.42	8.4	9	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR4	11:55:09	1.0	Surface	1	2	30.68	8.56	12.32	123.6	8.63	8.3	10.7	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR4	11:54:59	2.6	Bottom	3	1	30.24	8.57	13.23	119.3	8.36	8.8	8.1	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR4	11:54:33	2.6	Bottom	3	2	30.13	8.55	13.45	117.5	8.23	8.8	8	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR5	12:15:58	1.0	Surface	1	1	29.93	8.34	10.93	95.6	6.67	6.4	4.6	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR5	12:16:51	1.0	Surface	1	2	29.85	8.31	11.39	93.1	6.63	6.2	4.4	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR5	12:15:43	4.5	Bottom	3	1	29.44	8.21	14.49	86.1	6.07	7.8	4.7	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR5	12:16:32	4.5	Bottom	3	2	29.03	8.17	18	87.4	6.08	8	4.8	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR10A	10:32:28	1.0	Surface	1	1	29.97	8.49	11.41	106.8	7.59	4.5	4.4	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR10A	10:31:56	1.0	Surface	1	2	30.06	8.5	11.24	107.9	7.66	4.7	4.3	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR10A	10:31:45	3.2	Middle	2	1	29.72	8.47	11.73	104.1	7.41	4.5	4.5	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR10A	10:32:15	3.2	Middle	2	2	29.59	8.46	12.36	103.7	7.38	4.6	4.1	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR10A	10:32:07	5.4	Bottom	3	1	29.66	8.46	13.76	106.7	7.52	4.8	5.2	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR10A	10:31:38	5.4	Bottom	3	2	29.75	8.45	13.32	105.4	7.44	4.7	4.8	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR10B	10:25:07	1.0	Surface	1	1	28.38	8.4	18.56	89.1	6.23	4.4	4.9	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR10B	10:25:27	1.0	Surface	1	2	28.84	8.42	15.89	86.1	6.09	4.3	4.5	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR10B	10:24:56	3.7	Bottom	3	1	27.51	8.35	21.75	85.5	6	4.1	3.5	
HCLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	SR10B	10:25:15	3.7	Bottom	3	2	27.77	8.36	21.88	83.7	5.82	4.2	3.7	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	CS2	13:16:23	1.0	Surface	1	1	30.18	8.47	9.32	105.1	7.53	6.4	4.9	
HKLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	CS2	13:15:53	1.0	Surface	1	2	30.11	8.45	9.35	104.5	7.49	6.5	4	
HKLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	CS2	13:15:45	4.1	Middle	2	1	29.94	8.4	10.23	99.9	7.14	6.6	5.6	
HKLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	CS2	13:16:15	4.1	Middle	2	2	30.01	8.42	9.64	100	7.17	6.6	5.4	
HKLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	CS2	13:15:37	7.2	Bottom	3	1	29.79	8.35	11.66	96.8	6.89	7	4.6	
HKLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	CS2	13:16:10	7.2	Bottom	3	2	29.58	8.34	10.47	97.5	7.01	7.2	4	
HKLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	CS(MF)5	11:12:22	1.0	Surface	1	1	29.86	8.44	11.34	95.9	6.83	5.7	3.3	
HKLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	CS(MF)5	11:13:22	1.0	Surface	1	2	29.84	8.44	11.36	96.4	6.87	5.6	3.6	
HKLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	CS(MF)5	11:12:56	6.2	Middle	2	1	29.44	8.43	13.47	75.9	5.38	5.8	4.9	
HKLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	CS(MF)5	11:11:57	6.2	Middle	2	2	29.39	8.42	13.43	74.6	5.3	5.9	5.6	
HKLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	CS(MF)5	11:11:45	11.4	Bottom	3	1	26.3	8.27	27.69	73.7	5.09	6.8	5.2	
HKLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	CS(MF)5	11:12:44	11.4	Bottom	3	2	26.38	8.27	28.72	73.8	5.06	6.7	5.3	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS5	17:26:30	1.0	Surface	1	1	31.63	8.57	12.79	132.4	9.08	8.9	9.8	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS5	17:27:16	1.0	Surface	1	2	31.62	8.56	12.84	131.3	9	8.8	10.7	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS5	17:26:17	4.0	Middle	2	1	30.3	8.55	15.29	96	6.64	8.7	10.6	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS5	17:27:04	4.0	Middle	2	2	30.03	8.52	15.39	93.6	6.51	8.7	10.3	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS5	17:26:50	7.0	Bottom	3	1	28.84	8.41	21.95	90.6	6.19	8.7	10.3	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS5	17:26:05	7.0	Bottom	3	2	28.82	8.42	22.07	91.8	6.27	8.6	10.7	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS(MF)6	17:34:21	1.0	Surface	1	1	31.74	8.58	12.03	144.2	9.86	10.4	7.7	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS(MF)6	17:33:59	1.0	Surface	1	2	31.99	8.6	11.92	147.2	10.02	10.6	7.2	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS(MF)6	17:34:07	2.0	Bottom	3	1	31.44	8.55	12.22	141.3	9.71	10.3	6	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS(MF)6	17:33:47	2.0	Bottom	3	2	31.78	8.59	12.06	145.2	9.92	10.4	7.6	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS7	17:41:10	1.0	Surface	1	1	31.93	8.58	12.02	143.8	9.79	8.5	8.4	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS7	17:41:26	1.0	Surface	1	2	31.79	8.56	12.06	141.5	9.67	8.3	8.6	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS7	17:40:58	2.3	Bottom	3	1	31.46	8.55	12.15	138.9	9.55	8.5	7.9	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS7	17:41:17	2.3	Bottom	3	2	31.44	8.53	12.18	140.1	9.63	8.6	8	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS8	18:10:11	1.0	Surface	1	1	30.91	8.51	10.85	133.7	9.38	10.5	6.8	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS8	18:09:49	1.0	Surface	1	2	30.96	8.52	10.88	135.1	9.47	10.2	7.4	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS8	18:10:00	2.8	Bottom	3	1	30.4	8.42	14.32	133.9	9.3	13.6	4.8	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS8	18:09:35	2.8	Bottom	3	2	30.14	8.39	14.26	129.8	9.05	13.5	5.5	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS(MF)9	17:49:07	1.0	Surface	1	1	30.97	8.52	11.97	141.4	9.65	11.7	8.8	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS(MF)9	17:48:35	1.0	Surface	1	2	30.93	8.52	12.09	141.1	9.63	11.5	9	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS(MF)9	17:48:24	2.5	Bottom	3	1	30.41	8.42	13.57	134.7	9.19	13.4	9.6	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS(MF)9	17:48:55	2.5	Bottom	3	2	30.38	8.38	13.6	138	9.42	13.5	9.3	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS10	18:24:48	1.0	Surface	1	1	30.49	8.63	11.44	128	9.01	16.4	5.9	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS10	18:25:31	1.0	Surface	1	2	30.54	8.66	10.64	128.6	9.08	16.2	5.8	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS10	18:25:20	5.6	Middle	2	1	30.5	8.57	12.4	117	8.19	22.6	5.4	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS10	18:24:31	5.6	Middle	2	2	30.18	8.49	13.09	113.9	7.99	22.7	4.9	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS10	18:24:06	10.2	Bottom	3	1	28.95	8.27	15.52	100.7	7.11	24	7	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	IS10	18:25:04	10.2	Bottom	3	2	29.07	8.28	16.25	101.4	7.12	24.2	6.2	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR3	17:15:47	0.8	Middle	2	1	31.58	8.51	12.43	141	9.16	8.8	10.7	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR3	17:15:53	0.8	Middle	2	2	31.6	8.51	12.41	141.2	9.18	8.9	9.7	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR4	18:01:54	1.0	Surface	1	1	31.28	8.59	10.78	145.4	10.03	10.4	4.9	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR4	18:01:38	1.0	Surface	1	2	31.31	8.6	10.79	144.6	9.98	10.1	5.4	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR4	18:01:45	2.6	Bottom	3	1	31.35	8.59	10.96	145.1	9.99	10.5	3.3	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR4	18:01:29	2.6	Bottom	3	2	31.36	8.6	10.96	143.6	9.89	10.8	4.6	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR5	18:13:37	1.0	Surface	1	1	30.53	8.63	10.62	127.1	8.98	17	6.4	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR5	18:14:17	1.0	Surface	1	2	30.49	8.63	10.06	126.6	8.98	17.2	5	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR5	18:13:22	4.5	Bottom	3	1	30.1	8.48	13.33	117.2	8.22	22.2	6.4	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR5	18:14:01	4.5	Bottom	3	2	30.07	8.47	13.41	117	8.21	21.9	5.5	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR10A	19:22:31	1.0	Surface	1	1	28.36	8.44	21.85	83.8	5.78	4.5	3.8	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR10A	19:24:53	1.0	Surface	1	2	28.34	8.44	21.71	82.4	5.69	4.5	4.6	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR10A	19:22:16	3.3	Middle	2	1	27.98	8.41	22.92	78.6	5.42	4.4	3.8	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR10A	19:21:41	3.3	Middle	2	2	27.97	8.42	22.89	78.2	5.39	4.4	3.8	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR10A	19:22:06	5.5	Bottom	3	1	27.77	8.4	23.22	79	5.45	4.3	4.1	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR10A	19:21:27	5.5	Bottom	3	2	27.67	8.4	23.45	78	5.39	4.5	5.3	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR10B	19:32:46	1.0	Surface	1	1	28.3	8.44	21.9	83.1	5.73	3.7	5.1	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR10B	19:32:15	1.0	Surface	1	2	28.37	8.45	21.79	85.1	5.87	3.9	4.9	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR10B	19:32:01	4.1	Bottom	3	1	28.05	8.43	22.86	83.3	5.74	3.9	4.3	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	SR10B	19:32:34	4.1	Bottom	3	2	27.91	8.42	23.05	81.3	5.61	3.8	3.7	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	CS2	17:17:44	1.0	Surface	1	1	30.38	8.55	11.3	112.3	8.04	9.8	6.2	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	CS2	17:18:37	1.0	Surface	1	2	30.37	8.55	11.7	111.7	8	9.8	6.3	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	CS2	17:18:27	4.1	Middle	2	1	29.99	8.45	10.04	98.6	7.05	11.8	5.3	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	CS2	17:17:34	4.1	Middle	2	2	30.01	8.45	10.07	98.7	7.06	12.1	5.8	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	CS2	17:17:13	7.2	Bottom	3	1	29.2	8.24	16.94	85.5	5.97	16.4	7.9	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	CS2	17:18:12	7.2	Bottom	3	2	29.19	8.25	17.24	86.9	6.06	16.1	7.6	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	CS(MF)5	18:49:40	1.0	Surface	1	1	30.64	8.77	11.7	122.4	8.59	6.5	6.6	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	CS(MF)5	18:48:47	1.0	Surface	1	2	30.64	8.76	11.7	121.2	8.5	6.5	5.6	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	CS(MF)5	18:49:17	6.1	Middle	2	1	26.23	8.32	26.66	79.5	5.58	9.3	6	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	CS(MF)5	18:48:24	6.1	Middle	2	2	26.05	8.32	26.73	81.2	5.7	9.4	5.7	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	CS(MF)5	18:48:14	11.2	Bottom	3	1	25.6	8.33	29.64	74.3	5.14	10.3	6.4	
HKLR	HY/2011/03	2013-07-05	Mid-Flood	Sunny	CS(MF)5	18:49:06	11.2	Bottom	3	2	25.61	8.34	29.6	76.3	5.27	10.3	6.3	
HKLR	HY/2011/03	2013-07-05	Mid-Ebb	Sunny	IS5	14:15:24	1.0	Surface	1	1	29.34	8.53	15.23	87.9	6.18	10.5	6.4	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS5	14:14:30	1.0	Surface	1	2	29.14	8.5	15.3	88.8	6.24	10.5	6.8	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS5	14:15:06	4.4	Middle	2	1	28.25	8.37	22.86	73.7	5.2	10.5	7.8	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS5	14:14:19	4.4	Middle	2	2	28.18	8.36	23.34	74.8	5.28	10.5	7.9	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS5	14:14:51	7.7	Bottom	3	1	28.2	8.36	26.04	76.6	5.17	10.8	7.6	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS5	14:14:09	7.7	Bottom	3	2	28.24	8.37	26.02	78.1	5.27	10.4	7.2	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS(MF)6	14:05:48	1.0	Surface	1	1	29.38	8.52	15.05	96.9	6.81	13.5	7.8	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS(MF)6	14:05:25	1.0	Surface	1	2	29.14	8.51	15.22	94.9	6.7	13.6	7.9	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS(MF)6	14:05:38	2.2	Bottom	3	1	29.06	8.48	15.77	94.6	6.66	13.6	7.6	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS(MF)6	14:05:12	2.2	Bottom	3	2	28.99	8.48	16.04	93.7	6.6	13.5	8	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS7	13:59:25	1.0	Surface	1	1	29.48	8.54	14.34	101.5	7.15	11.5	5.9	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS7	13:58:56	1.0	Surface	1	2	29.26	8.53	14.38	96.1	6.8	11.3	6.7	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS7	13:59:15	2.3	Bottom	3	1	28.97	8.49	15.27	93.9	6.64	11.5	5.4	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS7	13:58:46	2.3	Bottom	3	2	28.75	8.47	15.92	93.4	6.61	11.4	5.5	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS8	13:35:21	1.0	Surface	1	1	29.37	8.47	14.49	90.8	6.41	10.4	4.3	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS8	13:35:47	1.0	Surface	1	2	29.22	8.48	14.6	92.6	6.55	10.5	4.6	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS8	13:35:10	3.1	Bottom	3	1	28.94	8.41	16.09	87.7	6.18	10.9	4.5	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS8	13:35:35	3.1	Bottom	3	2	28.96	8.42	16.06	88.5	6.23	10.5	4.6	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS(MF)9	13:52:27	1.0	Surface	1	1	29.52	8.47	14.67	87.9	6.18	11.2	5	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS(MF)9	13:51:52	1.0	Surface	1	2	29.49	8.47	14.62	86.8	6.11	11.4	4.8	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS(MF)9	13:52:19	2.7	Bottom	3	1	28.97	8.41	16.44	82.7	5.81	11.5	5.3	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS(MF)9	13:51:43	2.7	Bottom	3	2	28.99	8.4	16.69	82.1	5.76	11.5	6.9	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS10	13:32:57	1.0	Surface	1	1	29.24	8.47	13.14	97.6	6.96	7.5	6.5	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS10	13:31:49	1.0	Surface	1	2	29.22	8.46	13.17	96	6.84	7.7	6.7	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS10	13:31:31	5.1	Middle	2	1	28.74	8.32	15.8	75.7	5.36	8.5	7.2	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS10	13:32:36	5.1	Middle	2	2	28.71	8.3	16.37	76.4	5.4	8.8	6.4	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS10	13:32:10	9.1	Bottom	3	1	27.37	8.2	23.66	71	4.93	11.2	7.7	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	IS10	13:31:10	9.1	Bottom	3	2	27.63	8.2	23.23	71.7	5.02	10.8	7.3	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR3	14:24:16	0.7	Middle	2	1	29.45	8.56	15.08	103.5	7.27	6.4	7.8	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR3	14:24:24	0.7	Middle	2	2	29.44	8.56	15.06	104.6	7.35	6.4	6.8	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR4	13:41:29	1.0	Surface	1	1	29.28	8.45	14.77	88.8	6.26	11.4	8.6	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR4	13:41:06	1.0	Surface	1	2	29.37	8.48	14.77	93.9	6.61	11.3	9.2	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR4	13:40:39	2.7	Bottom	3	1	28.8	8.4	16.68	86.1	6.06	11.4	12.5	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR4	13:41:19	2.7	Bottom	3	2	28.83	8.4	16.58	87.2	6.14	11.4	13.1	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR5	13:41:59	1.0	Surface	1	1	29.24	8.46	13.15	99.7	7.1	6.3	5.7	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR5	13:42:26	1.0	Surface	1	2	29.23	8.48	13.19	102.1	7.27	6.4	5.2	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR5	13:42:12	4.0	Bottom	3	1	28.98	8.37	14.46	97.7	6.94	6.5	7.2	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR5	13:41:45	4.0	Bottom	3	2	28.94	8.35	14.57	94.8	6.74	6.8	6.3	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR10A	12:12:07	1.0	Surface	1	1	28.53	8.42	17.59	93.6	6.58	3.5	4.2	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR10A	12:11:33	1.0	Surface	1	2	28.65	8.43	17.25	94.6	6.65	3.5	4.9	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR10A	12:11:55	3.3	Middle	2	1	28.41	8.41	17.93	93	6.54	3.7	4.8	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR10A	12:11:21	3.3	Middle	2	2	28.4	8.41	17.95	92.9	6.54	3.7	4.6	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR10A	12:11:45	5.6	Bottom	3	1	28.43	8.42	17.93	94	6.61	3.9	5.2	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR10A	12:11:12	5.6	Bottom	3	2	28.4	8.41	18.11	94.2	6.62	3.8	5	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR10B	12:05:23	1.0	Surface	1	1	28.16	8.38	19.72	89.5	6.26	3.5	4.6	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR10B	12:05:45	1.0	Surface	1	2	28.17	8.39	19.71	89.9	6.29	3.6	4.5	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR10B	12:05:14	3.7	Bottom	3	1	27.98	8.37	20.65	89.1	6.25	3.5	4.7	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	SR10B	12:05:34	3.7	Bottom	3	2	28.02	8.37	20.5	89.5	6.25	3.7	4.2	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	CS2	14:59:36	1.0	Surface	1	1	29.47	8.4	12.58	94.5	6.73	6.5	5	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	CS2	15:00:55	1.0	Surface	1	2	29.56	8.41	12.55	101.8	7.23	6.2	4.5	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	CS2	15:00:25	3.3	Middle	2	1	29.23	8.36	13.11	82.4	5.87	8.3	5.5	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	CS2	14:59:27	3.3	Middle	2	2	29.09	8.34	13.61	86.3	6.15	8.1	5	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	CS2	15:00:14	5.5	Bottom	3	1	28.49	8.23	18.58	80.5	5.61	11.6	4.7	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	CS2	14:59:10	5.5	Bottom	3	2	28.56	8.24	17.95	81.7	5.81	11.3	5	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	CS(MF)5	12:55:56	1.0	Surface	1	1	29.23	8.46	13.86	89.7	6.36	6.3	4.7	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	CS(MF)5	12:54:51	1.0	Surface	1	2	29.22	8.46	13.9	88.7	6.29	6.4	4.8	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	CS(MF)5	12:54:36	6.0	Middle	2	1	28.42	8.39	17.63	76.4	5.38	7.7	4.8	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	CS(MF)5	12:55:37	6.0	Middle	2	2	28.45	8.4	17.45	75.4	5.31	7.4	5.2	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	CS(MF)5	12:55:13	11.0	Bottom	3	1	26.57	8.3	25.99	72.3	5.02	7.7	6	
HKLR	HY/2011/03	2013-07-08	Mid-Ebb	Sunny	CS(MF)5	12:54:05	11.0	Bottom	3	2	26.57	8.3	25.99	72.3	5.02	7.7	6	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS5	18:55:27	1.0	Surface	1	1	29.53	8.55	14.96	95	6.67	10.5	10.9	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS5	18:54:38	1.0	Surface	1	2	29.53	8.55	14.92	93.5	6.56	10.4	12.5	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS5	18:55:18	4.1	Middle	2	1	29.26	8.47	16.1	83.8	5.87	10.7	11.4	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS5	18:54:29	4.1	Middle	2	2	29.14	8.45	16.27	81.3	5.7	10.6	13.2	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS5	18:55:10	7.1	Bottom	3	1	28.95	8.42	17.9	80.5	5.62	10.6	14.3	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS5	18:54:22	7.1	Bottom	3	2	28.93	8.42	18.01	81.2	5.66	10.6	13	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS(MF)6	19:03:03	1.0	Surface	1	1	29.66	8.57	14.8	106.4	7.46	16.6	11.5	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS(MF)6	19:02:40	1.0	Surface	1	2	29.67	8.58	14.84	107.7	7.55	16.5	10.1	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS(MF)6	19:02:54	1.8	Bottom	3	1	29.29	8.54	15.62	104.3	7.32	16.2	19.1	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS(MF)6	19:02:30	1.8	Bottom	3	2	29.48	8.56	15.4	107.6	7.54	16.3	18.7	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS7	19:12:24	1.0	Surface	1	1	29.72	8.59	14.87	109.5	7.66	13.5	10.3	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS7	19:11:21	1.0	Surface	1	2	29.78	8.6	14.7	110.7	7.75	13.8	9.8	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS7	19:12:07	2.1	Bottom	3	1	29.63	8.57	15.1	106.2	7.43	13.6	9.6	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS7	19:11:09	2.1	Bottom	3	2	29.64	8.58	14.93	108.2	7.58	13.6	10.6	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS8	19:40:50	1.0	Surface	1	1	29.5	8.51	15.07	89.8	6.3	11.6	7.5	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS8	19:40:20	1.0	Surface	1	2	29.55	8.52	15.09	93.5	6.56	11.3	8.3	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS8	19:40:05	2.6	Bottom	3	1	28.67	8.39	17.51	83.5	5.86	11.4	8.1	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS8	19:40:38	2.6	Bottom	3	2	28.64	8.39	17.57	81.2	5.7	11.6	8.4	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS(MF)9	19:21:26	1.0	Surface	1	1	29.56	8.57	15.1	101.5	7.12	7.4	6.7	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS(MF)9	19:21:01	1.0	Surface	1	2	29.6	8.58	15.13	103.2	7.22	7.5	7.7	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS(MF)9	19:21:17	2.4	Bottom	3	1	29.29	8.51	16.11	98.4	6.89	7.5	6	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS(MF)9	19:20:50	2.4	Bottom	3	2	29.28	8.51	16.12	98	6.86	7.8	7.1	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS10	20:00:14	1.0	Surface	1	1	29.51	8.49	11.73	106.4	7.61	9.2	6.5	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS10	19:59:21	1.0	Surface	1	2	29.52	8.48	12.58	103.6	7.37	8.8	5.8	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS10	19:59:11	5.3	Middle	2	1	29.51	8.49	14.81	89	6.25	9.6	6.7	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS10	20:00:00	5.3	Middle	2	2	29.54	8.51	14.97	89.1	6.26	10.1	13.8	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS10	19:59:44	9.5	Bottom	3	1	26.63	8.16	26.52	72.7	5.02	12.9	8.7	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	IS10	19:58:54	9.5	Bottom	3	2	26.72	8.15	26.32	72.8	5.03	12.8	7.7	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR3	18:46:04	0.6	Middle	2	1	29.58	8.61	15.3	110.7	7.75	10.5	14.1	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR3	18:45:56	0.6	Middle	2	2	29.57	8.62	15.28	112	7.84	10.1	13.8	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR4	19:30:27	1.0	Surface	1	1	29.29	8.52	15.36	92.6	6.51	8.3	9.3	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR4	19:30:45	1.0	Surface	1	2	29.32	8.53	15.31	95.8	6.73	8.5	9.6	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR4	19:30:34	2.7	Bottom	3	1	29.12	8.5	15.77	94.4	6.64	8.5	12.9	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR4	19:30:17	2.7	Bottom	3	2	28.92	8.48	16.12	89.9	6.33	8.7	13.9	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR5	19:48:22	1.0	Surface	1	1	29.53	8.45	12.42	110.4	7.86	8.3	6.2	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR5	19:47:56	1.0	Surface	1	2	29.54	8.44	12.37	109.8	7.81	8	7.5	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR5	19:47:41	4.3	Bottom	3	1	29.49	8.45	14.09	109.8	7.75	9.4	7.4	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR5	19:48:08	4.3	Bottom	3	2	29.48	8.44	14.48	109.6	7.72	9.5	8.2	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR10A	20:44:45	1.0	Surface	1	1	28.2	8.43	18.67	78.3	5.51	5.2	3.8	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR10A	20:45:41	1.0	Surface	1	2	28.08	8.42	19.54	77.5	5.43	5.1	4.8	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR10A	20:44:36	3.2	Middle	2	1	27.76	8.4	21.5	76.3	5.32	5.1	3.7	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR10A	20:45:31	3.2	Middle	2	2	27.69	8.4	21.71	75.4	5.26	5.3	4.6	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR10A	20:44:25	5.4	Bottom	3	1	27.66	8.38	22.53	77.1	5.35	5.6	5.7	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR10A	20:45:20	5.4	Bottom	3	2	27.62	8.39	22.31	77.5	5.39	5.5	4.7	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR10B	20:54:26	1.0	Surface	1	1	27.91	8.42	20.63	77.5	5.42	4.8	4.6	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR10B	20:54:06	1.0	Surface	1	2	27.88	8.42	20.68	77.4	5.41	5	3.4	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR10B	20:53:56	3.9	Bottom	3	1	27.64	8.4	22.27	77.1	5.36	5.1	5.4	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	SR10B	20:54:16	3.9	Bottom	3	2	27.69	8.4	22.2	77.4	5.38	4.8	5.1	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	CS2	18:35:01	1.0	Surface	1	1	29.59	8.28	10.74	102.3	7.34	8.4	7.4	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	CS2	18:35:48	1.0	Surface	1	2	29.57	8.31	10.81	102.9	7.38	7.9	7.2	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	CS2	18:35:31	3.4	Middle	2	1	29.42	8.34	12.24	103.4	7.38	7.8	6.2	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	CS2	18:34:44	3.4	Middle	2	2	29.42	8.29	12.11	103	7.36	7.9	7.3	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	CS2	18:35:18	5.8	Bottom	3	1	29.32	8.31	12.95	102	7.26	8.6	9	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	CS2	18:34:23	5.8	Bottom	3	2	29.3	8.18	13.03	100	7.12	9	8.3	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	CS(MF)5	20:18:41	1.0	Surface	1	1	29.3	8.51	14.29	90.5	6.4	7.3	4.7	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	CS(MF)5	20:19:32	1.0	Surface	1	2	29.35	8.51	14.26	91.8	6.49	7.2	6.2	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	CS(MF)5	20:19:08	6.2	Middle	2	1	27.23	8.34	22.44	75.4	5.34	7.3	5.3	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	CS(MF)5	20:18:20	6.2	Middle	2	2	27.26	8.35	22.39	75.8	5.36	7.4	6.3	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	CS(MF)5	20:18:10	11.3	Bottom	3	1	27.02	8.33	25.83	74	5.1	7.7	7.9	
HKLR	HY/2011/03	2013-07-08	Mid-Flood	Fine	CS(MF)5	20:18:57	11.3	Bottom	3	2	27.06	8.33	25.					



Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S5	12:54:01	1.0	Surface	1	1	29.31	8.08	18.02	82.9	5.74	12.6	4	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S5	12:54:45	1.0	Surface	1	2	29.3	8.08	18.03	81.8	5.67	11.7	5.6	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S5	12:53:42	4.7	Middle	2	1	28.52	8.03	20.96	73.5	5.03	10.7	6.6	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S5	12:54:30	4.7	Middle	2	2	28.78	8.03	20.93	75	5.17	10.2	6.3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S5	12:54:20	8.4	Bottom	3	1	28.54	8.02	21.18	73.6	5.09	13.8	6.4	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S5	12:53:35	8.4	Bottom	3	2	28.24	8	23.39	70.1	4.84	13.1	6.4	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS(MF)6	13:01:53	1.0	Surface	1	1	29.27	8.1	17.49	90.8	6.31	9	3.9	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS(MF)6	13:02:10	1.0	Surface	1	2	29.3	8.11	17.37	90.4	6.29	8.5	4.4	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS(MF)6	13:01:44	2.3	Bottom	3	1	29.26	8.1	17.64	90.5	6.29	9.8	5.1	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS(MF)6	13:02:01	2.3	Bottom	3	2	29.18	8.09	17.87	89.8	6.24	9.3	6.8	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S7	13:09:38	1.0	Surface	1	1	28.97	8.06	17.24	79.5	5.56	14.9	5.1	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S7	13:09:18	1.0	Surface	1	2	29.15	8.04	16.77	82.2	5.75	13.8	6.1	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S7	13:09:08	2.5	Bottom	3	1	28.96	8.05	17.86	84.3	5.88	13.3	8	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S7	13:09:51	2.5	Bottom	3	2	28.83	8.03	17.96	79.2	5.53	14.6	7.8	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S8	13:34:31	1.0	Surface	1	1	29.29	8.12	17.12	86	5.99	7.5	3.8	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S8	13:34:59	1.0	Surface	1	2	29.53	8.15	16.83	92.9	6.46	7	4.6	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S8	13:34:20	2.9	Bottom	3	1	28.83	8.07	19.04	84.1	5.84	9.9	3.7	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	S8	13:34:42	2.9	Bottom	3	2	28.9	8.08	18.99	85.4	5.93	9.5	3.4	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS(MF)9	13:15:22	1.0	Surface	1	1	29.33	8.12	16.57	90.1	6.29	7	3.4	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS(MF)9	13:15:00	1.0	Surface	1	2	29.25	8.12	16.69	89.4	6.25	7	3.8	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS(MF)9	13:14:48	2.6	Bottom	3	1	29.07	8.09	17.3	85.6	5.97	8.9	9.8	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS(MF)9	13:15:11	2.6	Bottom	3	2	29.05	8.09	17.37	89.3	6.24	8.2	8.2	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS10	14:24:09	1.0	Surface	1	1	29.57	8.38	15.16	90.1	6.31	6.6	4.4	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS10	14:28:17	1.0	Surface	1	2	29.68	8.42	14.81	91	6.38	6.5	3.8	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS10	14:27:56	5.5	Middle	2	1	28.35	8.16	17.84	96.7	6.68	8.3	6.7	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS10	14:23:44	5.5	Middle	2	2	28.06	8.25	21.93	76.8	5.41	12.6	9.4	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS10	14:23:30	10.0	Bottom	3	1	27.71	8.24	23.1	74.1	5.13	13.2	12.8	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	IS10	14:27:32	10.0	Bottom	3	2	27.61	8.22	23.82	74.6	5.15	13.7	12.5	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR3	12:42:56	0.9	Middle	2	1	29.53	8.16	17.84	96.7	6.68	8.3	6.7	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR3	12:43:01	0.9	Middle	2	2	29.48	8.15	17.88	96	6.64	8.4	8.3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR4	13:26:43	1.0	Surface	1	1	29.44	8.11	16.15	91.9	6.41	6.7	4	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR4	13:27:06	1.0	Surface	1	2	29.39	8.09	16.26	89.8	6.27	7.3	4.1	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR4	13:26:32	2.6	Bottom	3	1	29.31	8.09	16.6	92.2	6.43	7.2	5	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR4	13:27:00	2.6	Bottom	3	2	29.24	8.08	16.66	90.1	6.3	7.4	4.3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR5	14:07:48	1.0	Surface	1	1	29.62	8.41	14.93	100.1	7.02	4.8	3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR5	14:07:27	1.0	Surface	1	2	29.63	8.41	14.92	100.1	7.01	4.6	2.5	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR5	14:07:37	3.7	Bottom	3	1	29.6	8.41	15.07	99.8	6.99	4.7	3.2	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR5	14:07:15	3.7	Bottom	3	2	29.6	8.41	15.1	100	7	4.8	2.9	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR10A	14:57:04	1.0	Surface	1	1	29.27	8.16	17.79	94.8	6.58	2.4	3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR10A	14:56:19	1.0	Surface	1	2	29.26	8.16	17.79	94.6	6.57	2.4	3.5	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR10A	14:56:48	3.4	Middle	2	1	29.13	8.15	18.23	92.8	6.44	2.5	5.8	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR10A	14:56:06	3.4	Middle	2	2	29.09	8.15	18.31	92.6	6.43	2.5	4.7	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR10A	14:56:37	5.7	Bottom	3	1	29.04	8.14	18.6	92.9	6.45	2.5	6.9	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR10A	14:55:57	5.7	Bottom	3	2	29.04	8.14	18.59	93.1	6.45	2.6	6.3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR10B	15:03:44	1.0	Surface	1	1	29.25	8.15	17.93	94.7	6.57	3	3.6	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR10B	15:04:11	1.0	Surface	1	2	29.22	8.15	18.02	93.7	6.5	2.9	3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR10B	15:03:33	4.7	Bottom	3	1	29.21	8.15	18.05	94.5	6.55	2.6	3.3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	SR10B	15:03:58	4.7	Bottom	3	2	29.2	8.14	18.18	93.8	6.51	2.6	3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	CS2	12:47:58	1.0	Surface	1	1	29.51	8.4	14.48	86.3	6.07	6.3	2.3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	CS2	12:47:02	1.0	Surface	1	2	29.45	8.42	14.61	87.1	6.13	6.7	3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	CS2	12:47:36	4.1	Middle	2	1	28.7	8.34	19.12	73.9	5.14	6.6	2.9	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	CS2	12:46:45	4.1	Middle	2	2	28.82	8.36	18.49	77	5.36	6.8	2.3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	CS2	12:47:17	7.1	Bottom	3	1	28.47	8.31	21.03	74.5	5.15	6.5	2.6	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	CS2	12:46:20	7.1	Bottom	3	2	28.22	8.32	23.08	74.2	5.09	6.6	3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	CS(MF)5	14:21:56	1.0	Surface	1	1	29.2	8.11	17.53	84.5	5.88	4.1	3.4	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	CS(MF)5	14:23:07	1.0	Surface	1	2	29.2	8.11	17.47	82.9	5.77	4	3	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	CS(MF)5	14:21:36	6.8	Middle	2	1	28.04	8.03	20.87	73	5.05	6.2	2.7	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	CS(MF)5	14:22:44	6.8	Middle	2	2	27.57	8.01	21.89	72.8	5.02	6.6	3.4	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	CS(MF)5	14:22:22	12.6	Bottom	3	1	27.57	8.01	23.34	70.7	4.89	6	4.7	
HLR	HY/2011/03	2013-07-10	Mid-Ebb	Sunny	CS(MF)5	14:21:23	12.6	Bottom	3	2	27.58	8.01	23.41	70.3	4.9	6.3	5.8	
HLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	S5	08:14:23	1.0	Surface	1	1	29.01	8.11	16.84	85.1	5.96	7	5.5	
HLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	S5	08:13:08	1.0	Surface	1	2	28.99	8.11	16.82	85.1	5.8	7.3	4.8	
HLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	S5	08:13:56	4.7	Middle	2	1	28.63	8.02	19.46	76.3	5.26	10.3	6.3	
HLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	S5	08:12:49	4.7	Middle	2	2	28.54	8.03	19.38	75.1	5.15	9.3	5.7	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS5	08:12:42	8.3	Bottom	3	1	28.43	8.01	22.34	69.8	4.86	9.5	5.8	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS5	08:13:41	8.3	Bottom	3	2	28.29	7.99	22.38	69.2	4.79	10.3	5.8	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS(MF)6	08:00:26	1.0	Surface	1	1	28.99	8.09	15.79	88.3	6.22	5.9	5.79	5.2
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS(MF)6	08:01:07	1.0	Surface	1	2	28.98	8.09	15.68	88.2	6.22	5.6	5.6	6.2
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS(MF)6	08:00:13	2.3	Bottom	3	1	28.99	8.09	15.86	88.5	6.23	6	5.3	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS(MF)6	08:00:55	2.3	Bottom	3	2	28.99	8.09	15.84	88.2	6.21	5.6	6.5	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS7	07:52:51	1.0	Surface	1	1	29.01	8.1	16.05	89.5	6.29	6.9	5	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS7	07:53:06	1.0	Surface	1	2	29	8.1	16.11	89.2	6.28	6.7	5.5	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS7	07:52:40	2.4	Bottom	3	1	29	8.1	16.17	89.7	6.31	6.6	5.8	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS7	07:52:59	2.4	Bottom	3	2	29	8.1	16.17	89.2	6.28	6.8	4.9	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS8	07:31:50	1.0	Surface	1	1	29	8.08	15.25	83.7	5.91	5.9	5.3	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS8	07:31:27	1.0	Surface	1	2	29.01	8.08	14.93	85.3	6.04	5.7	5.1	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS8	07:31:40	2.6	Bottom	3	1	28.91	8.05	16.64	83.6	5.88	6.7	5.8	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS8	07:31:15	2.6	Bottom	3	2	28.97	8.06	16.43	85.8	6.03	6.5	5.4	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS(MF)9	07:47:44	1.0	Surface	1	1	28.98	8.04	17.35	81.2	5.68	11.3	5.6	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS(MF)9	07:47:28	1.0	Surface	1	2	29	8.04	17.51	81.8	5.71	5.3	5	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS(MF)9	07:47:36	2.5	Bottom	3	1	29.01	8.04	17.58	81.5	5.69	11.8	5.7	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS(MF)9	07:47:21	2.5	Bottom	3	2	29.02	8.04	17.56	82.3	5.74	12.6	6.1	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS10	07:41:15	1.0	Surface	1	1	28.85	8.3	16.46	82.6	5.81	8.9	7.6	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS10	07:42:22	1.0	Surface	1	2	28.83	8.3	16.53	80	5.63	8.9	7	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS10	07:40:53	5.3	Middle	2	1	28.31	8.24	19.31	71.7	5.02	8.8	9.8	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS10	07:42:05	5.3	Middle	2	2	28.29	8.24	19.48	71.7	5.01	8.8	10.4	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS10	07:41:33	9.5	Bottom	3	1	27.42	8.2	24.81	72.1	4.96	8.8	11.3	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	IS10	07:40:16	9.5	Bottom	3	2	27.12	8.19	25.16	72.9	5.04	8.7	10.5	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR3	08:20:09	0.8	Middle	2	1	29	8.12	16.81	89.8	6.3	7.4	6.3	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR3	08:20:14	0.8	Middle	2	2	29	8.12	16.81	90	6.31	6.1	6.1	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR4	07:37:26	1.0	Surface	1	1	28.81	8.05	17.32	79.2	5.55	7.6	8.5	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR4	07:37:07	1.0	Surface	1	2	28.79	8.05	17.42	78.8	5.53	7.3	7.5	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR4	07:37:14	2.5	Bottom	3	1	28.77	8.04	17.69	78.7	5.51	6.6	7.2	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR4	07:36:59	2.5	Bottom	3	2	28.78	8.04	17.61	79.2	5.55	7.1	8.6	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR5	07:49:43	1.0	Surface	1	1	28.79	8.29	16.61	81.4	5.73	10.1	8	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR5	07:50:02	1.0	Surface	1	2	28.78	8.29	16.61	81.4	5.72	10.4	8.1	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR5	07:49:33	3.6	Bottom	3	1	28.63	8.26	18.3	81.1	5.67	10.4	10.3	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR5	07:49:52	3.6	Bottom	3	2	28.64	8.26	18.38	81.5	5.7	10.2	9.2	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR10A	06:24:55	1.0	Surface	1	1	28.62	8.09	17.32	81.5	5.73	3.3	2.1	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR10A	06:25:39	1.0	Surface	1	2	28.64	8.09	17.19	82.6	5.81	3.3	2.4	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR10A	06:24:40	3.1	Middle	2	1	28.07	8.06	18.03	79.9	5.61	3.3	2.3	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR10A	06:24:40	3.1	Middle	2	2	28.07	8.06	19.52	76.9	5.39	3	3.4	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR10A	06:24:26	5.2	Bottom	3	1	27.88	8.04	21.76	78.1	5.43	2.9	3.5	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR10A	06:25:11	5.2	Bottom	3	2	27.92	8.04	21.24	78	5.43	2.7	2.4	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR10B	06:18:50	1.0	Surface	1	1	27.49	8.05	21.45	78.2	5.45	3.1	2.1	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR10B	06:17:56	1.0	Surface	1	2	27.6	8.03	21.53	77.3	5.39	3	3.8	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR10B	06:18:33	4.5	Bottom	3	1	26.75	8.01	25.66	69.9	4.88	3.8	2.9	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	SR10B	06:17:36	4.5	Bottom	3	2	26.78	7.98	25.85	68.9	4.82	3.7	3.3	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	CS2	09:05:59	1.0	Surface	1	1	28.9	8.28	15.2	77.4	5.48	8.1	4.5	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	CS2	09:05:12	1.0	Surface	1	2	28.76	8.28	15.6	75.3	5.33	8.3	4.3	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	CS2	09:05:01	4.2	Middle	2	1	28.4	8.23	21.38	77.5	5.37	8.3	5.8	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	CS2	09:05:46	4.2	Middle	2	2	28.38	8.23	21.39	73.2	5.06	8.2	5	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	CS2	09:05:23	7.3	Bottom	3	1	27.99	8.21	22.15	73	5.05	8.5	4.4	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	CS2	09:04:26	7.3	Bottom	3	2	27.78	8.19	22.35	72	4.97	8.6	4.7	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	CS(MF)5	06:54:35	1.0	Surface	1	1	28.66	8.11	16.53	81.4	5.75	3.6	3.5	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	CS(MF)5	06:55:22	1.0	Surface	1	2	28.68	8.11	16.41	81.7	5.77	3.7	4.4	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	CS(MF)5	06:55:06	6.7	Middle	2	1	28.22	8.09	18.86	74.4	5.22	3	3	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	CS(MF)5	06:54:19	6.7	Middle	2	2	28.2	8.08	19.31	74.4	5.21	2.8	3.4	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	CS(MF)5	06:54:04	12.3	Bottom	3	1	27.44	8.03	24.59	72.5	4.99	2.7	3.8	
HCLR	HY/2011/03	2013-07-10	Mid-Flood	Sunny	CS(MF)5	06:54:54	12.3	Bottom	3	2	27.3	8.03	23.89	72.1	5	2.7	4.3	
HCLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS5	14:12:16	1.0	Surface	1	1	29.56	8.11	19.62	84.3	5.77	7.5	7	
HCLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS5	14:12:57	1.0	Surface	1	2	29.48	8.1	19.77	82.3	5.63	7.4	6.1	
HCLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS5	14:11:57	4.2	Middle	2	1	28.4	8.03	22.71	76.9	5.27	7.4	6.8	
HCLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS5	14:12:39	4.2	Middle	2	2	28.21	8.03	23.38	77	5.27	7.4	6.7	
HCLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS5	14:11:46	7.3	Bottom	3	1	28.22	8.02	24.63	75.4	5.13	7.9	6	
HCLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS5	14:12:30	7.3	Bottom	3	2	28.01	8.03	24.85	75.9	5.17	7.9	6.1	
HCLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS(MF)6	14:19:11	1.0	Surface	1	1	29.56	8.14	19.35	94	6.44	6.6	10.1	
HCLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS(MF)6	14:18:54	1.0	Surface	1	2	29.63	8.15	19.13	96.4	6.6	6.3	11.4	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS(MF)6	14:18:42	2.2	Bottom	3	1	29.5	8.13	19.68	96.6	6.61	6.5	11.4	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS(MF)6	14:19:02	2.2	Bottom	3	2	29.51	8.13	19.53	95.9	6.56	6.5	12.1	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS7	14:25:59	1.0	Surface	1	1	29.61	8.13	19.02	91	6.23	6.5	6.3	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS7	14:26:20	1.0	Surface	1	2	29.61	8.14	19.03	94.1	6.45	6.7	5.2	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS7	14:25:50	2.0	Bottom	3	1	28.93	8.09	19.83	89.2	6.16	6.7	6.2	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS7	14:26:06	2.0	Bottom	3	2	29.34	8.13	19.35	92	6.32	6.7	5.8	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS8	14:53:00	1.0	Surface	1	1	30.09	8.11	18.6	86.9	5.92	5.5	3.8	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS8	14:52:36	1.0	Surface	1	2	30.05	8.11	18.6	88.2	6.02	5.6	4.3	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS8	14:52:50	2.8	Bottom	3	1	28.92	8.05	20.85	83.9	5.76	7.3	5	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS8	14:52:26	2.8	Bottom	3	2	29.1	8.07	20.58	88.2	6.05	7.4	6.7	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS(MF)9	14:32:46	1.0	Surface	1	1	29.84	8.18	18.69	98.5	6.74	5	4.1	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS(MF)9	14:32:21	1.0	Surface	1	2	29.87	8.18	18.69	98.3	6.72	4.7	5.6	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS(MF)9	14:32:33	2.7	Bottom	3	1	29.22	8.15	19.47	96.1	6.61	4.8	6.5	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS(MF)9	14:32:09	2.7	Bottom	3	2	29.33	8.15	19.39	96.5	6.63	5	6.3	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS10	15:13:18	1.0	Surface	1	1	29.86	8.43	17.21	98.8	6.88	5.7	2.9	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS10	15:11:51	1.0	Surface	1	2	29.97	8.45	16.94	96.3	6.64	5.8	2.9	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS10	15:11:27	5.1	Middle	2	1	28.03	8.21	23.33	77.1	5.34	11.5	2.8	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS10	15:12:43	5.1	Middle	2	2	28	8.21	23.33	78.5	5.47	11.8	3.4	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS10	15:11:03	9.1	Bottom	3	1	27.08	8.2	26.01	69.2	4.77	13.1	3.3	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	IS10	15:12:23	9.1	Bottom	3	2	27.22	8.19	25.52	70.7	4.81	12.8	4.3	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR3	14:01:39	0.6	Middle	2	1	29.62	8.12	19.62	91.9	6.28	6.6	6.2	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR3	14:01:32	0.6	Middle	2	2	29.61	8.12	19.61	90.4	6.18	6.6	7.3	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR4	14:44:17	1.0	Surface	1	1	30.36	8.11	18.14	92	6.26	3.8	4.9	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR4	14:44:43	1.0	Surface	1	2	30.34	8.11	18.09	92	6.26	3.6	3.8	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR4	14:44:32	2.7	Bottom	3	1	29.39	8.08	19.26	87.4	6	3.6	3.7	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR4	14:44:06	2.7	Bottom	3	2	29.67	8.1	19.08	91.3	6.25	3.6	4.4	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR5	14:57:47	1.0	Surface	1	1	30.15	8.45	16.71	105.2	7.24	3.9	2.7	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR5	14:58:24	1.0	Surface	1	2	30.22	8.46	16.67	107	7.36	3.6	2.9	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR5	14:57:31	4.5	Bottom	3	1	29.64	8.39	18.23	101.1	6.95	4.6	3.6	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR5	14:58:02	4.5	Bottom	3	2	29.56	8.39	18.21	101	6.96	4.6	3	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR10A	16:08:02	1.0	Surface	1	1	29.68	8.17	19.49	98.4	6.72	2.3	3.6	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR10A	16:08:35	1.0	Surface	1	2	29.49	8.17	20.02	97.3	6.64	2.4	3	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR10A	16:08:25	3.2	Middle	2	1	29.31	8.16	20.49	97	6.62	2.4	3.6	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR10A	16:07:48	3.2	Middle	2	2	29.38	8.16	20.31	95.6	6.53	2.4	2.8	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR10A	16:07:38	5.3	Bottom	3	1	29.21	8.15	20.8	95.6	6.53	2.5	2.9	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR10A	16:08:13	5.3	Bottom	3	2	29.34	8.16	20.65	95.7	6.54	2.3	4.2	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR10B	16:13:00	1.0	Surface	1	1	29.18	8.15	20.76	92.3	6.31	2.4	3.6	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR10B	16:14:30	1.0	Surface	1	2	29.01	8.14	21.3	94.6	6.47	2.4	4.1	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR10B	16:14:17	3.9	Bottom	3	1	28.79	8.11	21.88	92.2	6.3	2.4	3.1	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	SR10B	16:12:52	3.9	Bottom	3	2	29.07	8.14	21.18	91.7	6.27	2.5	3.1	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	CS2	13:48:08	1.0	Surface	1	1	29.66	8.42	17.87	87.8	6.05	7.6	2.3	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	CS2	13:47:11	1.0	Surface	1	2	29.91	8.43	17.55	88.1	6.06	7.3	3.4	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	CS2	13:46:55	3.5	Middle	2	1	28.64	8.35	21.64	79.9	5.48	8.7	2.6	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	CS2	13:47:54	3.5	Middle	2	2	28.96	8.38	19.86	81.3	5.61	9	2.1	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	CS2	13:47:37	6.0	Bottom	3	1	28.02	8.29	24.86	72.6	4.95	9.5	3.2	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	CS2	13:46:36	6.0	Bottom	3	2	28.03	8.3	24.89	72	4.9	8.9	4.2	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	CS(MF)5	15:43:53	1.0	Surface	1	1	29.51	8.13	18.6	86.4	5.94	3.4	3.6	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	CS(MF)5	15:44:59	1.0	Surface	1	2	29.64	8.14	18.39	88.3	6.07	3.5	3	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	CS(MF)5	15:44:38	6.1	Middle	2	1	28.26	8.04	23.3	75.1	5.22	3.7	2.9	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	CS(MF)5	15:43:36	11.2	Bottom	3	1	28.62	8.08	21.08	73.8	5.09	3.8	2.9	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	CS(MF)5	15:44:11	11.2	Bottom	3	2	26.56	8.02	27.69	74.4	5.11	3	3	
HKLR	HY/2011/03	2013-07-12	Mid-Ebb	Sunny	CS(MF)5	15:43:16	11.2	Bottom	3	2	26.55	8.01	27.71	72.8	5	3.7	3.1	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS5	09:38:20	1.0	Surface	1	1	29.1	8.07	19.76	79.1	5.44	5.3	3.2	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS5	09:37:34	1.0	Surface	1	2	29.1	8.08	19.68	80	5.51	5.5	3.6	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS5	09:37:14	4.2	Middle	2	1	29.07	8.07	19.95	77.5	5.33	7.6	3	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS5	09:38:06	4.2	Middle	2	2	28.99	8.05	20.23	77.1	5.24	7.3	3.3	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS5	09:36:43	7.4	Bottom	3	1	28.11	8.01	24.59	77	5.28	7.8	3.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS5	09:37:46	7.4	Bottom	3	2	28.5	8.02	23.91	74.1	5.09	7.7	2.7	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS(MF)6	09:29:59	1.0	Surface	1	1	29.17	8.08	17.88	85.1	5.91	3.8	3.1	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS(MF)6	09:28:55	1.0	Surface	1	2	29.18	8.08	17.83	85.6	5.94	3.6	2.3	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS(MF)6	09:28:42	2.1	Bottom	3	1	29.08	8.07	18.28	85.9	5.97	3.6	3.3	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS(MF)6	09:29:09	2.1	Bottom	3	2	29.09	8.07	18.25	86	5.98	3.6	3.7	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS7	09:22:14	1.0	Surface	1	1	29.15	8.09	18.53	86.6	6	3.7	2.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS7	09:21:51	1.0	Surface	1	2	29.08	8.09	18.7	86.9	6.02	3.5	2.9	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS7	09:21:40	2.4	Bottom	3	1	29.06	8.09	18.96	87.2	6.03	3.6	3.4	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS7	09:22:01	2.4	Bottom	3	2	29.05	8.09	19.03	86.5	5.98	3.6	3.9	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS8	08:57:50	1.0	Surface	1	1	28.92	8.01	19.46	72.6	5.12	7.4	2.2	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS8	08:58:25	1.0	Surface	1	2	28.91	8.01	19.51	74	5.12	7.5	2.9	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS8	08:58:16	2.8	Bottom	3	1	28.88	8	19.79	73.8	5.1	7.6	3.9	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS8	08:57:34	2.8	Bottom	3	2	28.84	8	19.89	73.2	5.06	7.5	3.6	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS(MF)9	09:16:17	1.0	Surface	1	1	29.02	8.05	18.24	79.4	5.52	4.8	3.1	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS(MF)9	09:15:58	1.0	Surface	1	2	29.03	8.05	18.13	79.1	5.5	4.9	4.4	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS(MF)9	09:15:47	2.7	Bottom	3	1	28.91	8.03	19.68	78.4	5.41	5.3	2.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS(MF)9	09:16:06	2.7	Bottom	3	2	28.93	8.03	19.54	79	5.46	5.1	3.6	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS10	08:41:11	1.0	Surface	1	1	28.97	8.27	19.5	77.1	5.32	8.5	8.1	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS10	08:42:11	1.0	Surface	1	2	28.97	8.27	19.53	79.1	5.46	8.8	7.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS10	08:40:55	5.1	Middle	2	1	28.31	8.22	21.26	73.5	5.08	8.7	9.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS10	08:41:50	5.1	Middle	2	2	28.41	8.22	20.95	73.6	5.09	9.3	8.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS10	08:41:32	9.2	Bottom	3	1	27.37	8.2	24.96	72.8	5.02	13.2	10.1	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	IS10	08:40:35	9.2	Bottom	3	2	27.31	8.19	25.12	69.2	4.77	12.8	11.1	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR3	09:46:27	0.8	Middle	2	1	29.12	8.09	19.71	85.2	5.86	4.3	4.5	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR3	09:46:13	0.8	Middle	2	2	29.12	8.09	19.71	85	5.85	4.5	3.5	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR4	09:04:36	1.0	Surface	1	1	29.16	8.05	17.34	87.6	6.11	4.4	4.6	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR4	09:05:13	1.0	Surface	1	2	28.98	8.04	17.73	83.9	5.8	4.4	3.9	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR4	09:03:58	2.9	Bottom	3	1	28.78	8.01	17.38	80.3	5.54	4.5	6.6	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR4	09:05:05	2.9	Bottom	3	2	28.88	8.02	19.85	80.7	5.63	4.3	5.2	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR5	08:52:47	1.0	Surface	1	1	29.03	8.28	19.4	80.1	5.53	11.5	10.9	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR5	08:52:11	1.0	Surface	1	2	28.98	8.27	19.53	79.5	5.49	12.2	10.4	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR5	08:52:30	4.7	Bottom	3	1	28.6	8.23	20.46	74.9	5.18	14.8	10.3	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR5	08:51:53	4.7	Bottom	3	2	28.69	8.24	20.27	77	5.32	15.7	10.5	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR10A	07:55:05	1.0	Surface	1	1	28.63	8.06	19.67	79.3	5.51	1.6	3.3	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR10A	07:55:39	1.0	Surface	1	2	28.63	8.06	19.66	78.5	5.45	1.5	3	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR10A	07:55:25	3.2	Middle	2	1	28.29	8.04	20.82	75.8	5.26	1.5	3.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR10A	07:54:55	3.2	Middle	2	2	28.44	8.05	20.37	78.2	5.43	1.6	3.3	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR10A	07:54:46	5.4	Bottom	3	1	28.38	8.03	21.57	79.5	5.48	1.6	2.9	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR10A	07:55:15	5.4	Bottom	3	2	28.17	8.02	23.19	77.8	5.34	1.6	3.4	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR10B	07:49:44	1.0	Surface	1	1	27.11	8.04	24.69	77	5.37	2.4	2	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR10B	07:50:05	1.0	Surface	1	2	27.27	8.05	23.8	78	5.44	2.5	1.6	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR10B	07:49:55	4.1	Bottom	3	1	26.73	8.02	27	76.8	5.32	2.4	4	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	SR10B	07:49:34	4.1	Bottom	3	2	26.71	8.02	27.36	76.2	5.28	2.4	3.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	CS2	10:09:19	1.0	Surface	1	1	29.13	8.27	18.18	80.6	5.59	6.9	6.9	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	CS2	10:10:25	1.0	Surface	1	2	29.14	8.28	18.21	82.8	5.75	8.28	6.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	CS2	10:09:53	3.4	Middle	2	1	28.19	8.21	21.86	73.3	5.06	8.9	6.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	CS2	10:08:57	3.4	Middle	2	2	28.2	8.21	21.78	74.3	5.14	9.6	6.5	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	CS2	10:08:41	5.8	Bottom	3	1	28.09	8.2	22.39	71.3	4.92	11.8	4.2	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	CS2	10:09:37	5.8	Bottom	3	2	27.99	8.2	22.8	69.6	4.8	12.6	7.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	CS(MF)5	08:25:46	1.0	Surface	1	1	28.87	8.07	18.31	78.2	5.45	2.5	2.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	CS(MF)5	08:24:52	1.0	Surface	1	2	28.88	8.07	18.27	78.8	5.49	2.6	3.4	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	CS(MF)5	08:24:25	6.3	Middle	2	1	26.98	8.02	25.94	74	5.15	2.5	2.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	CS(MF)5	08:25:20	6.3	Middle	2	2	26.96	8.02	25.77	74.6	5.2	2.5	3.8	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	CS(MF)5	08:25:07	11.6	Bottom	3	1	26.27	7.99	28.84	72.7	4.99	3.1	2.6	
HKLR	HY/2011/03	2013-07-12	Mid-Flood	Sunny	CS(MF)5	08:24:10	11.6	Bottom	3	2	26.22	7.99	28.79	71.3	4.9	3.2	3.2	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS5	15:52:29	1.0	Surface	1	1	29	8.17	20.31	89.3	6.14	9.5	7.1	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS5	15:53:15	1.0	Surface	1	2	29.01	8.17	20.25	89.9	6.18	9	7.2	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS5	15:53:01	4.8	Middle	2	1	28.9	8.15	20.64	85.7	5.89	10.5	7.7	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS5	15:52:16	4.8	Middle	2	2	28.89	8.15	20.53	84.9	5.84	10.8	7.8	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS5	15:52:05	8.5	Bottom	3	1	28.63	8.13	22.14	85.8	5.88	11.7	8.2	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS5	15:52:49	8.5	Bottom	3	2	28.68	8.14	21.78	86.4	5.92	10.7	7.5	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS(MF)6	15:58:54	1.0	Surface	1	1	29.12	8.19	19.93	95.3	6.55	9.7	7.8	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS(MF)6	15:59:34	1.0	Surface	1	2	29.12	8.2	19.93	96.5	6.64	9.8	7.8	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS(MF)6	15:58:45	2.4	Bottom	3	1	29.04	8.2	20.16	96.8	6.65	8.2	7.3	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS(MF)6	15:59:27	2.4	Bottom	3	2	29.07	8.2	20.02	96.3	6.62	8.2	7.4	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS7	16:05:39	1.0	Surface	1	1	28.97	8.21	19.75	95.5	6.59	7.9	6.9	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS7	16:05:57	1.0	Surface	1	2	28.99	8.2	19.79	95.6	6.45	8.5	6.9	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS7	16:05:50	2.4	Bottom	3	1	28.92	8.19	21.52	95.2	6.51	9.1	6.2	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS7	16:05:33	2.4	Bottom	3	2	28.97	8.2	20.65	97.1	6.66	8.4	7.3	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS8	16:28:44	1.0	Surface	1	1	28.98	8.14	20.15	84.9	5.84	7	5.84	
HKLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS8	16:28:18	1.0	Surface	1	2	28.88	8.15	20.03	86.1	5.94	6.9	3.9	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS8	16:28:31	2.8	Bottom	3	1	28.86	8.13	20.37	84.5	5.82	10.2	3.2	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS8	16:28:05	2.8	Bottom	3	2	28.85	8.12	20.43	83.5	5.75	10.4	3.2	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS(MF)9	16:13:16	1.0	Surface	1	1	28.93	8.25	19.67	102.3	7.07	4.6	2.9	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS(MF)9	16:12:21	1.0	Surface	1	2	28.96	8.22	19.72	98.1	6.77	4.7	2.5	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS(MF)9	16:12:59	2.5	Bottom	3	1	28.96	8.23	19.86	101	6.97	4.3	3.4	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS(MF)9	16:12:14	2.5	Bottom	3	2	29	8.21	19.9	98.6	6.79	4.4	4.8	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS10	17:22:51	1.0	Surface	1	1	28.93	8.29	17.11	82.9	5.73	2.9	2	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS10	17:23:43	1.0	Surface	1	2	28.94	8.29	18.73	80.9	5.61	2.9	3	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS10	17:22:37	5.2	Middle	2	1	28.34	8.28	21.42	74.2	5.13	4.3	1.9	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS10	17:23:26	5.2	Middle	2	2	28.29	8.28	21.69	74.4	5.14	4.5	1.6	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS10	17:23:07	9.3	Bottom	3	1	27.69	8.21	24.76	74.6	5.12	2.4	2.4	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	IS10	17:22:21	9.3	Bottom	3	2	27.78	8.21	24.85	75	5.13	6.2	2.8	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR3	15:42:00	0.9	Middle	2	1	29.02	8.18	20.23	94.3	6.48	8.9	6.9	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR3	15:41:51	0.9	Middle	2	2	29.02	8.18	20.23	94.7	6.51	8.9	6.7	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR4	16:22:01	1.0	Surface	1	1	28.8	8.1	20.56	80.9	5.57	9	8.2	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR4	16:21:38	1.0	Surface	1	2	28.91	8.14	20.29	87.3	6.01	8.8	8.5	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR4	16:21:23	2.7	Bottom	3	1	28.76	8.12	20.7	86	5.93	8.2	8.8	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR4	16:21:50	2.7	Bottom	3	2	28.76	8.11	20.68	83.7	5.77	8.8	7.3	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR5	17:11:50	1.0	Surface	1	1	28.92	8.25	17.11	81.1	5.68	3.6	3	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR5	17:12:16	1.0	Surface	1	2	28.96	8.25	17.11	82.1	5.75	3.6	3.6	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR5	17:12:06	3.6	Bottom	3	1	28.73	8.22	20.23	80.2	5.54	4.3	5.1	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR5	17:11:41	3.6	Bottom	3	2	28.73	8.22	20.35	80.6	5.56	4.4	4.7	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR10A	17:30:36	1.0	Surface	1	1	28.79	8.2	19.96	94.5	6.53	2	3	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR10A	17:29:49	1.0	Surface	1	2	28.8	8.2	19.94	95	6.47	2	3.3	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR10A	17:30:26	3.3	Middle	2	1	28.75	8.2	20.24	93.7	6.57	1.7	3.8	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR10A	17:29:28	3.3	Middle	2	2	28.69	8.2	20.4	93.4	6.45	1.8	4.7	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR10A	17:30:08	5.6	Bottom	3	1	28.58	8.2	20.73	93.6	6.47	1.8	4.1	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR10A	17:29:17	5.6	Bottom	3	2	28.6	8.2	20.72	93.5	6.46	1.6	3.5	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR10B	17:37:56	1.0	Surface	1	1	28.82	8.2	19.95	94.5	6.53	1.5	3.3	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR10B	17:37:22	1.0	Surface	1	2	28.77	8.2	20.09	93.8	6.48	1.6	2.9	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR10B	17:37:11	4.6	Bottom	3	1	28.67	8.19	20.54	93.6	6.46	1.5	3.3	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	SR10B	17:37:36	4.6	Bottom	3	2	28.57	8.2	20.77	93.3	6.44	1.6	2.6	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	CS2	15:47:06	1.0	Surface	1	1	28.85	8.19	17.27	81.1	5.69	3.1	4.1	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	CS2	15:46:30	1.0	Surface	1	2	28.92	8.16	18.14	79.1	5.51	3.1	5.9	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	CS2	15:46:53	4.0	Middle	2	1	28.71	8.18	19.6	75.2	5.21	3.3	4.4	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	CS2	15:46:06	4.0	Middle	2	2	28.32	8.12	21.77	76.1	5.25	3.2	4	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	CS2	15:45:37	6.9	Bottom	3	1	28.3	8.11	21.86	68.9	4.75	4.1	4.3	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	CS2	15:46:43	6.9	Bottom	3	2	28.48	8.16	21.39	72.9	5.03	4.4	4	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	CS(MF)5	17:03:56	1.0	Surface	1	1	28.67	8.18	20.31	87.8	6.07	3.5	4.8	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	CS(MF)5	17:02:47	1.0	Surface	1	2	28.65	8.18	20.34	84.3	5.83	3.4	3.1	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	CS(MF)5	17:03:27	6.9	Middle	2	1	27.37	8.1	24.78	74.5	5.14	3.4	3.9	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	CS(MF)5	17:02:28	6.9	Middle	2	2	27.21	8.1	25.95	75.4	5.2	3.5	2.8	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	CS(MF)5	17:02:17	12.7	Bottom	3	1	26.66	8.1	26.94	72.1	4.95	2.8	2.5	
HCLR	HY/2011/03	2013-07-15	Mid-Ebb	Rainy	CS(MF)5	17:03:10	12.7	Bottom	3	2	26.6	8.1	27.13	71.1	4.9	2.7	3.8	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS5	11:28:24	1.0	Surface	1	1	29.1	8.19	19.68	93.3	6.43	6.7	6.2	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS5	11:29:13	1.0	Surface	1	2	29.1	8.18	19.67	91	6.27	7.1	5.9	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS5	11:28:57	4.8	Middle	2	1	28.69	8.1	21.06	79.9	5.5	9.6	5.5	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS5	11:28:05	4.8	Middle	2	2	28.74	8.11	20.94	81.4	5.6	9.5	5.1	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS5	11:28:44	8.6	Bottom	3	1	28.49	8.1	21.95	83.3	5.72	9.1	5.9	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS5	11:27:50	8.6	Bottom	3	2	28.62	8.11	21.45	82.6	5.68	9.3	4.7	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS(MF)6	11:20:06	1.0	Surface	1	1	29.19	8.24	19.56	104.6	7.2	4.3	3.6	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS(MF)6	11:20:54	1.0	Surface	1	2	29.18	8.24	19.55	104.9	7.22	4.7	4.1	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS(MF)6	11:19:56	2.3	Bottom	3	1	29.18	8.24	19.55	104.6	7.2	6	4.2	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS(MF)6	11:20:37	2.3	Bottom	3	2	29.15	8.24	19.55	104.5	7.2	6.5	4.4	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS7	11:13:11	1.0	Surface	1	1	29.12	8.24	19.59	104.4	7.19	5.3	3.6	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS7	11:13:31	1.0	Surface	1	2	29.14	8.25	19.57	105.3	7.25	4.6	3.5	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS7	11:13:21	2.5	Bottom	3	1	29.09	8.24	19.64	104.6	7.2	5.6	3.7	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS7	11:13:04	2.5	Bottom	3	2	29.08	8.23	19.67	103.7	7.14	5.9	4	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS8	10:52:28	1.0	Surface	1	1	28.84	8.12	19.87	83.7	5.78	5.5	4.1	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS8	10:51:54	1.0	Surface	1	2	28.84	8.11	20.03	82.6	5.7	5.8	3.1	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS8	10:52:13	2.8	Bottom	3	1	28.79	8.11	20.27	81.8	5.64	6.4	3.6	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS8	10:51:46	2.8	Bottom	3	2	28.79	8.11	20.33	83	5.73	6.6	3.6	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS(MF)9	11:08:26	1.0	Surface	1	1	28.97	8.15	19.72	89.6	6.18	3.3	3.8	
HCLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS(MF)9	11:07:52	1.0	Surface	1	2	29.01	8.15	19.64	89.3	6.16	3.6	4.1	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS(MF)9	11:08:20	2.7	Bottom	3	1	28.89	8.14	20.08	89.8	6.19	3.9	3.6	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS(MF)9	11:07:44	2.7	Bottom	3	2	28.91	8.14	20.14	88.8	6.12	4.2	3.9	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS10	11:02:53	1.0	Surface	1	1	28.92	8.35	19.66	84.1	5.81	10.8	7.6	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS10	11:02:05	1.0	Surface	1	2	28.92	8.35	19.67	84.1	5.81	10.6	6.1	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS10	11:02:42	5.2	Middle	2	1	28.62	8.3	20.37	74.1	5.12	11.4	7.5	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS10	11:01:53	5.2	Middle	2	2	28.65	8.29	20.53	73.7	5.09	11.4	7.9	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS10	11:01:40	9.4	Bottom	3	1	26.51	8.2	27.58	73	5.03	11.5	6.8	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	IS10	11:02:25	9.4	Bottom	3	2	26.81	8.19	27.31	70.4	4.83	11.5	7.3	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR3	11:34:03	0.9	Middle	2	1	29.14	8.23	19.64	102.1	7.03	4.9	3.8	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR3	11:34:09	0.9	Middle	2	2	29.13	8.22	19.66	102.1	7.03	5.1	3.8	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR4	10:57:43	1.0	Surface	1	1	28.92	8.11	20.19	83.6	5.76	7.2	5.8	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR4	10:57:27	1.0	Surface	1	2	28.92	8.11	20.19	83.6	5.76	7.2	5.8	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR4	10:57:35	2.4	Bottom	3	1	28.91	8.11	20.2	83.6	5.76	8	6.6	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR4	10:57:20	2.4	Bottom	3	2	28.91	8.11	20.21	83.7	5.76	8.3	5.4	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR5	11:12:32	1.0	Surface	1	1	28.91	8.37	19.59	92.6	6.4	8.3	7.2	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR5	11:12:15	1.0	Surface	1	2	28.95	8.37	19.58	92.9	6.42	8.5	7.4	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR5	11:12:03	3.7	Bottom	3	1	28.92	8.36	19.65	92.5	6.39	8.5	7.6	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR5	11:12:23	3.7	Bottom	3	2	28.92	8.36	19.66	93.1	6.43	8.4	7.4	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR10A	09:45:24	1.0	Surface	1	1	28.71	8.16	19.9	87.6	6.07	1.7	4.4	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR10A	09:46:01	1.0	Surface	1	2	28.66	8.16	20.06	86.6	6	1.7	4.5	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR10A	09:45:47	3.4	Middle	2	1	27.98	8.12	22.57	82	5.66	1.8	5.8	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR10A	09:45:09	3.4	Middle	2	2	28.03	8.12	22.31	81.2	5.61	1.8	4.5	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR10A	09:45:00	5.8	Bottom	3	1	27.91	8.11	22.8	81.9	5.65	1.9	4.5	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR10A	09:45:39	5.8	Bottom	3	2	27.93	8.12	22.84	83.5	5.76	1.8	4.2	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR10B	09:38:04	1.0	Surface	1	1	27.61	8.12	22.94	80.7	5.58	2.2	4.6	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR10B	09:37:37	1.0	Surface	1	2	27.78	8.12	22.98	79	5.46	2.1	4.6	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR10B	09:37:53	4.6	Bottom	3	1	26.75	8.07	26.31	75.4	5.23	2.4	6.5	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	SR10B	09:37:17	4.6	Bottom	3	2	26.15	8.07	28.45	77.2	5.32	2.5	6.2	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	CS2	12:37:21	1.0	Surface	1	1	29.12	8.31	17.84	83.8	5.83	4.7	3.8	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	CS2	12:38:08	1.0	Surface	1	2	29.23	8.3	17.77	87.7	6.09	4.6	3.7	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	CS2	12:37:52	4.0	Middle	2	1	28.89	8.31	19.12	79.4	5.5	5.6	3.6	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	CS2	12:37:11	4.0	Middle	2	2	28.67	8.29	20.32	78.1	5.4	5.5	3.2	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	CS2	12:37:41	7.0	Bottom	3	1	28.36	8.25	21.43	76.7	5.29	6.5	4	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	CS2	12:36:54	7.0	Bottom	3	2	28.22	8.24	22.36	80.6	5.55	6.4	4	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	CS(MF)5	10:21:08	1.0	Surface	1	1	28.72	8.16	20.01	82.9	5.74	2.6	3.9	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	CS(MF)5	10:20:15	1.0	Surface	1	2	28.74	8.16	19.92	83.2	5.76	2.4	3.5	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	CS(MF)5	10:20:49	6.9	Middle	2	1	27.13	8.08	25.2	73.2	5.04	2.3	4.2	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	CS(MF)5	10:19:56	6.9	Middle	2	2	27.25	8.08	26.79	73.5	5.07	2.4	4.8	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	CS(MF)5	10:20:36	12.7	Bottom	3	1	26.38	8.06	27.87	70.4	4.86	2.7	4.6	
HKLR	HY/2011/03	2013-07-15	Mid-Flood	Rainy	CS(MF)5	10:19:44	12.7	Bottom	3	2	26.42	8.06	27.74	72	4.96	2.8	4.5	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS5	08:40:32	1.0	Surface	1	1	27.75	8.22	20.83	80.3	5.6	10.3	4.9	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS5	08:41:44	1.0	Surface	1	2	28.03	8.22	20.91	80.6	5.62	10.1	4.4	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS5	08:40:22	4.1	Middle	2	1	26.84	8.2	26.62	74.4	5.26	10.3	5.6	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS5	08:41:30	4.1	Middle	2	2	26.89	8.2	26.35	76.9	5.41	10.2	5.7	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS5	08:40:09	7.2	Bottom	3	1	26.81	8.19	27.3	69.6	4.86	10.2	4.3	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS5	08:41:14	7.2	Bottom	3	2	26.72	8.19	27.35	70.7	4.93	10.1	4.1	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS(MF)6	08:32:27	1.0	Surface	1	1	28	8.26	20.77	73.9	5.15	10.3	5.2	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS(MF)6	08:32:08	1.0	Surface	1	2	27.99	8.26	20.87	74.5	5.19	10.4	5.7	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS(MF)6	08:32:15	2.2	Bottom	3	1	27.88	8.22	22.42	74.2	5.14	10.4	6.4	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS(MF)6	08:31:54	2.2	Bottom	3	2	27.93	8.23	22.04	74.2	5.14	10.2	6.9	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS7	08:24:42	1.0	Surface	1	1	27.94	8.33	20.57	82.1	5.74	6.6	3.8	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS7	08:25:05	1.0	Surface	1	2	27.9	8.32	20.59	80.6	5.63	6.6	3.3	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS7	08:24:28	2.3	Bottom	3	1	27.46	8.24	23.51	77.5	5.37	9.8	3.4	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS7	08:24:53	2.3	Bottom	3	2	27.64	8.25	24.4	82.3	5.66	9.5	3	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS8	08:00:42	1.0	Surface	1	1	28.03	8.25	20.72	74.2	5.17	4.3	4.9	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS8	08:00:23	1.0	Surface	1	2	28.03	8.26	21.01	74.1	5.16	4.2	4	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS8	08:00:09	2.8	Bottom	3	1	27.67	8.23	22.98	73.1	5.07	4.2	5.1	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS8	08:00:32	2.8	Bottom	3	2	27.96	8.23	22.32	74.2	5.13	4.4	4.4	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS(MF)9	08:17:23	1.0	Surface	1	1	27.92	8.32	20.68	80.3	5.61	5.5	3.4	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS(MF)9	08:17:49	1.0	Surface	1	2	27.93	8.32	20.68	81.1	5.66	5.8	2.7	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS(MF)9	08:17:09	2.6	Bottom	3	1	27.74	8.22	22.63	73.9	5.13	5.8	4.1	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS(MF)9	08:17:36	2.6	Bottom	3	2	27.78	8.24	22.43	77.4	5.37	5.7	3.7	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS10	07:54:38	1.0	Surface	1	1	27.96	8.01	20.14	86.8	6.07	3.4	2.7	
HKLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS10	07:55:57	1.0	Surface	1	2	27.95	8.01	20.18	85.4	5.98	3.8	3.1	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS10	07:55:26	5.1	Middle	2	1	27.54	7.98	23.07	75.2	5.3	6.6	2.7	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS10	07:54:04	5.1	Middle	2	2	27.68	7.99	22.18	73.6	5.11	6	3.8	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS10	07:53:37	9.2	Bottom	3	1	26.28	7.96	27.98	69.5	4.79	10.2	2.6	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	IS10	07:55:04	9.2	Bottom	3	2	26.13	7.96	28.24	67.6	4.67	9.8	3.7	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR3	08:50:54	0.7	Middle	2	1	28.16	8.2	20.74	74.4	5.18	4.5	5.3	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR3	08:50:36	0.7	Middle	2	2	28.17	8.2	20.76	74	5.14	4.5	5.6	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR4	08:06:34	1.0	Surface	1	1	27.94	8.27	19.95	79.3	5.56	5.6	4.1	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR4	08:06:00	1.0	Surface	1	2	27.95	8.27	20.46	79.2	5.54	5.7	3.8	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR4	08:05:41	2.9	Bottom	3	1	27.87	8.24	21.4	76.6	5.34	5.5	4.6	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR4	08:06:11	2.9	Bottom	3	2	27.82	8.22	22.32	74.6	5.17	5.7	4	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR5	08:08:06	1.0	Surface	1	1	28.02	8.01	19.68	85.8	6.02	3.5	2.4	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR5	08:07:24	1.0	Surface	1	2	28.02	8.01	19.75	85.8	6.01	3.4	2.7	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR5	08:07:44	4.7	Bottom	3	1	27.69	7.98	22.25	79.6	5.53	4.9	2.8	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR5	08:07:01	4.7	Bottom	3	2	27.69	7.98	22.2	79.3	5.52	5.1	3.5	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR10A	06:42:25	1.0	Surface	1	1	26.92	8.25	23.74	73.9	5.18	2.4	1.6	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR10A	06:42:00	1.0	Surface	1	2	26.98	8.25	24.06	73.6	5.14	2.3	1.6	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR10A	06:42:18	3.1	Middle	2	1	26.81	8.25	24.85	73.4	5.12	2.3	2.4	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR10A	06:41:47	3.1	Middle	2	2	26.69	8.25	25.5	71.9	5	2.3	2.3	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR10A	06:42:11	5.2	Bottom	3	1	26.8	8.25	25.45	73.6	5.12	2.3	3.2	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR10A	06:41:31	5.2	Bottom	3	2	26.59	8.24	26.13	71.7	4.99	2.3	3.2	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR10B	06:34:18	1.0	Surface	1	1	26.51	8.24	26.08	76.9	5.34	2.2	2.6	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR10B	06:34:37	1.0	Surface	1	2	26.4	8.24	26.22	73.6	5.11	2.2	2.6	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR10B	06:34:09	3.6	Bottom	3	1	26.56	8.24	25.86	70.5	4.88	2.2	5.5	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	SR10B	06:34:28	3.6	Bottom	3	2	26.33	8.23	27.13	68.9	4.79	2.2	6.1	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	CS2	09:20:29	1.0	Surface	1	1	27.99	8.02	20.37	89.3	6.24	2.8	2.4	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	CS2	09:19:21	1.0	Surface	1	2	27.87	8.02	21.4	86.6	6.04	2.8	3.4	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	CS2	09:20:03	3.4	Middle	2	1	27.51	7.97	23.86	73.5	5.09	5.3	2.2	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	CS2	09:18:56	3.4	Middle	2	2	27.53	7.97	23.86	73.2	5.03	5.8	2.9	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	CS2	09:18:40	5.8	Bottom	3	1	27.28	7.97	24.67	69.6	4.81	7.1	3.1	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	CS2	09:19:44	5.8	Bottom	3	2	27.35	7.97	24.42	71.6	4.96	7	3.8	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	CS(MF)5	07:21:15	1.0	Surface	1	1	27.79	8.28	21.21	75.6	5.28	3.5	3.9	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	CS(MF)5	07:22:13	1.0	Surface	1	2	27.75	8.27	21.54	76.7	5.35	3.3	4.9	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	CS(MF)5	07:21:44	6.1	Middle	2	1	26.11	8.25	27.05	73.2	5.11	3.3	3.1	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	CS(MF)5	07:20:54	6.1	Middle	2	2	26.23	8.25	26.93	72.4	5.06	3.3	3.7	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	CS(MF)5	07:21:29	11.2	Bottom	3	1	25.67	8.22	29.41	69.4	4.79	3.3	2.8	
HCLR	HY/2011/03	2013-07-17	Mid-Ebb	Fine	CS(MF)5	07:20:42	11.2	Bottom	3	2	25.6	8.22	29.53	69.4	4.8	3.3	3.5	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS5	12:46:32	1.0	Surface	1	1	28.21	8.37	21.28	85	5.89	11.2	4.3	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS5	12:45:47	1.0	Surface	1	2	28.22	8.37	21.27	85	5.89	11.5	4.8	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS5	12:46:08	4.1	Middle	2	1	27.27	8.19	24.42	74.9	5.11	12.2	5.4	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS5	12:45:24	4.1	Middle	2	2	27.26	8.2	24.65	74.4	5.16	12.3	5.2	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS5	12:45:58	7.2	Bottom	3	1	27.27	8.22	26.96	72.1	5	12.2	5.8	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS5	12:45:13	7.2	Bottom	3	2	26.92	8.21	27.55	69.6	4.76	12.3	5.2	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS(MF)6	12:58:37	1.0	Surface	1	1	28.4	8.51	20.88	117.1	8.11	4.8	5.5	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS(MF)6	12:58:18	1.0	Surface	1	2	28.42	8.5	20.9	115.6	8	4.9	5.4	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS(MF)6	12:58:27	2.1	Bottom	3	1	28.36	8.49	20.92	116.7	8.08	5.3	5.9	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS(MF)6	12:58:09	2.1	Bottom	3	2	28.36	8.48	20.94	118.1	8.18	5.2	6.6	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS7	13:08:16	1.0	Surface	1	1	28.46	8.53	21.01	120.2	8.31	4.5	5.1	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS7	13:08:55	1.0	Surface	1	2	28.44	8.51	21.03	120.7	8.34	4.5	4.9	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS7	13:08:00	2.1	Bottom	3	1	28.4	8.51	21.08	111.8	7.73	4.5	5.1	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS7	13:08:48	2.1	Bottom	3	2	28.36	8.46	21.27	113.9	7.88	4.3	5.5	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS8	13:40:27	1.0	Surface	1	1	28.35	8.35	20.54	92.1	6.39	3.3	3.3	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS8	13:39:58	1.0	Surface	1	2	28.31	8.35	20.61	91.6	6.36	2.1	2.2	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS8	13:40:14	2.9	Bottom	3	1	28.03	8.35	21.75	91.5	6.34	2.7	2.3	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS8	13:39:43	2.9	Bottom	3	2	27.97	8.33	22	89.3	6.19	2.6	2.1	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS(MF)9	13:17:38	1.0	Surface	1	1	28.44	8.42	20.86	93.3	6.45	3.6	3.7	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS(MF)9	13:17:58	1.0	Surface	1	2	28.4	8.41	20.88	93.3	6.46	3.5	4.5	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS(MF)9	13:17:49	2.6	Bottom	3	1	28.25	8.37	21.69	88.7	6.13	5.2	5.7	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS(MF)9	13:17:26	2.6	Bottom	3	2	28.02	8.29	22.42	87.8	6.06	5	6	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS10	13:59:36	1.0	Surface	1	1	28.19	8.08	20.88	79.2	5.51	8.3	7.4	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS10	14:00:30	1.0	Surface	1	2	28.21	8.09	20.86	82.7	5.74	8.4	7.6	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS10	14:00:10	5.2	Middle	2	1	27.38	8	23.42	79.3	5.48	9	6.5	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS10	13:59:21	5.2	Middle	2	2	27.41	8	23.33	79.2	5.35	8	7.4	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS10	13:59:06	9.4	Bottom	3	1	26.95	7.99	25.5	68.7	4.75	10.8	8	
HCLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	IS10	13:59:57	9.4	Bottom	3	2	26.66	7.99	26.32	69.5	4.83	10	8	



Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR3	12:37:26	0.7	Middle	2	1	28.08	8.34	22.2	80.8	5.58	11.6	7.1	
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR3	12:37:28	0.7	Middle	2	2	28.09	8.34	22.2	81.1	5.6	11.3	7.9	
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR4	13:32:05	1.0	Surface	1	1	28.29	8.36	21.33	88.5	6.12	6.5	21.33	6.5
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR4	13:32:26	1.0	Surface	1	2	28.34	8.36	21.32	88.4	6.11	6.7	4.2	88.4
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR4	13:32:14	2.6	Bottom	3	1	28.05	8.3	22.77	87.2	6.01	8.5	5.2	87.2
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR4	13:31:56	2.6	Bottom	3	2	28.12	8.32	22.73	89.6	6.17	8.8	4.2	89.6
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR5	13:48:58	1.0	Surface	1	1	28.17	8.08	20.91	87.1	6.05	6.7	9.2	87.1
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR5	13:48:25	1.0	Surface	1	2	28.2	8.04	20.89	87.3	6.06	6.3	10.2	87.3
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR5	13:48:43	4.6	Bottom	3	1	27.73	8.08	22.45	81.7	5.67	11.8	8.4	81.7
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR5	13:48:01	4.6	Bottom	3	2	27.68	8.03	22.54	80.8	5.61	10.7	8.1	80.8
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR10A	15:24:39	1.0	Surface	1	1	26.41	8.26	27.28	74.4	5.13	1.8	1.9	74.4
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR10A	15:25:09	1.0	Surface	1	2	26.49	8.26	27.23	74	5.1	1.7	1.5	74
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR10A	15:24:29	3.2	Middle	2	1	26.36	8.27	27.59	74.2	5.12	1.8	2.7	74.2
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR10A	15:24:59	3.2	Middle	2	2	26.35	8.27	27.59	73.9	5.1	1.8	2.2	73.9
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR10A	15:24:20	5.4	Bottom	3	1	26.38	8.26	27.58	74.2	5.11	1.8	3.1	74.2
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR10A	15:24:47	5.4	Bottom	3	2	26.37	8.27	27.59	73.8	5.09	1.8	3.7	73.8
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR10B	15:32:41	1.0	Surface	1	1	26.61	8.28	27.22	76.6	5.27	1.8	2.6	76.6
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR10B	15:32:12	1.0	Surface	1	2	26.41	8.27	27.58	74.5	5.14	1.9	3.5	74.5
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR10B	15:32:02	3.7	Bottom	3	1	26.29	8.26	28.25	74.6	5.13	1.8	3.1	74.6
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	SR10B	15:32:20	3.7	Bottom	3	2	26.37	8.26	28.08	74.6	5.13	1.8	3.5	74.6
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	CS2	12:32:24	1.0	Surface	1	1	28.55	7.98	18.71	98.4	6.88	3.5	3.3	98.4
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	CS2	12:31:11	1.0	Surface	1	2	28.53	7.91	18.89	93	5.8	3.6	2.9	93
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	CS2	12:31:53	3.6	Middle	2	1	27.79	7.94	20.31	78	5.47	6	3.3	78
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	CS2	12:30:54	3.6	Middle	2	2	28.33	7.85	19.56	78	5.45	6.2	3	78
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	CS2	12:30:35	6.1	Bottom	3	1	27.25	7.6	24.7	72.7	5.02	12.9	2.8	72.7
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	CS2	12:31:35	6.1	Bottom	3	2	27.34	7.89	24.27	76.1	5.27	13.3	3.1	76.1
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	CS(MF)5	14:44:10	1.0	Surface	1	1	27.54	8.35	23.48	80.4	5.56	2.4	3.3	80.4
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	CS(MF)5	14:43:25	1.0	Surface	1	2	27.52	8.34	23.48	78.8	5.46	2.4	2.2	78.8
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	CS(MF)5	14:43:09	6.5	Middle	2	1	25.21	8.23	29.53	74.1	5.13	2.4	3.2	74.1
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	CS(MF)5	14:43:53	6.5	Middle	2	2	25.6	8.24	29.14	76.3	5.28	2.4	2.8	76.3
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	CS(MF)5	14:43:00	12	Bottom	3	1	24.97	8.24	31.44	72.5	5.01	2.5	3.2	72.5
HKLR	HY/2011/03	2013-07-17	Mid-Flood	Sunny	CS(MF)5	14:43:42	12	Bottom	3	2	24.99	8.24	31.36	72.5	5.01	2.5	3.6	72.5
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS5	10:58:08	1.0	Surface	1	1	27.61	8.25	24	73.4	5.06	10.5	5.7	73.4
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS5	10:57:04	1.0	Surface	1	2	27.62	8.25	24	73.2	5.05	10.8	6.5	73.2
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS5	10:56:31	4.2	Middle	2	1	27	8.27	26.17	72.6	5	11.5	6.2	72.6
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS5	10:57:28	4.2	Middle	2	2	26.95	8.27	26.77	72.7	5.01	11.7	5.4	72.7
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS5	10:57:15	7.3	Bottom	3	1	27.13	8.26	27.31	69.9	4.77	11.6	6.2	69.9
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS5	10:56:20	7.3	Bottom	3	2	27.18	8.26	27.31	70.4	4.8	11.7	4.9	70.4
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS(MF)6	10:48:42	1.0	Surface	1	1	27.91	8.33	23.69	78.9	5.42	10.5	7.3	78.9
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS(MF)6	10:49:02	1.0	Surface	1	2	27.87	8.32	23.7	80.2	5.51	10.4	8.4	80.2
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS(MF)6	10:48:51	2.2	Bottom	3	1	27.66	8.25	24.16	79.5	5.47	10.7	7.8	79.5
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS(MF)6	10:48:31	2.2	Bottom	3	2	27.59	8.23	24.35	78.5	5.4	10.8	9.1	78.5
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS7	10:42:15	1.0	Surface	1	1	27.9	8.45	23.66	105.7	7.27	5.3	6.6	105.7
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS7	10:42:58	1.0	Surface	1	2	27.88	8.44	23.68	108.7	7.47	5.4	5.6	108.7
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS7	10:41:58	2.3	Bottom	3	1	27.84	8.44	23.66	100.7	6.95	6.4	5.6	100.7
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS7	10:42:46	2.3	Bottom	3	2	27.52	8.37	24.08	104.9	7.24	6.6	6	104.9
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS8	10:19:29	1.0	Surface	1	1	27.6	8.26	24.17	73.8	5.09	8.4	5.6	73.8
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS8	10:19:50	1.0	Surface	1	2	27.68	8.28	23.97	75	5.17	8.6	5.6	75
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS8	10:18:54	2.9	Bottom	3	1	27.41	8.21	24.71	72.1	4.97	8.5	5.3	72.1
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS8	10:19:34	2.9	Bottom	3	2	27.46	8.22	24.59	72.3	4.98	8.1	5.7	72.3
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS(MF)9	10:35:50	1.0	Surface	1	1	27.56	8.34	24.04	87.3	6.03	6.6	6	87.3
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS(MF)9	10:36:14	1.0	Surface	1	2	27.61	8.33	23.87	84.4	5.82	6.7	7	84.4
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS(MF)9	10:35:38	2.6	Bottom	3	1	27.43	8.31	24.42	86.9	6	6.4	8.8	86.9
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS(MF)9	10:35:59	2.6	Bottom	3	2	27.11	8.27	25.82	82.8	5.7	6.5	7.1	82.8
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS10	10:02:50	1.0	Surface	1	1	27.75	8.05	22.19	85.2	5.92	2.3	4	85.2
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS10	10:04:01	1.0	Surface	1	2	27.8	8.06	22.1	87.6	6.08	2.3	3.7	87.6
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS10	10:02:38	5.3	Middle	2	1	27.58	8.03	22.81	80.7	5.6	2.7	3.6	80.7
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS10	10:03:40	5.3	Middle	2	2	27.51	8.03	23.11	79.7	5.53	2.5	3.4	79.7
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS10	10:02:19	9.6	Bottom	3	1	27.44	8.03	23.47	80.3	5.57	3.1	4.6	80.3
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	IS10	10:03:16	9.6	Bottom	3	2	27.41	8.02	23.68	79.1	5.48	3	4.7	79.1
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR3	11:05:44	0.7	Middle	2	1	27.64	8.25	23.97	74.8	5.16	4.2	4.9	74.8
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR3	11:05:53	0.7	Middle	2	2	27.65	8.25	23.97	75	5.17	4.1	5.4	75
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR4	10:25:23	1.0	Surface</										

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR4	10:25:32	2.8	Bottom	3	1	27.79	8.27	23.19	81.8	5.65	7.6	6	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR4	10:25:15	2.8	Bottom	3	2	27.77	8.26	23.21	81.8	5.65	7.6	5.7	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR5	10:13:19	1.0	Surface	1	1	27.8	8.06	22.15	88.8	6.17	2.2	2.3	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR5	10:12:33	1.0	Surface	1	2	27.78	8.06	22.15	88.7	6.16	2.3	3.7	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR5	10:12:07	4.3	Bottom	3	1	27.53	8.03	23	83	5.76	3	3.3	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR5	10:12:54	4.3	Bottom	3	2	27.52	8.04	23.04	84	5.83	2.9	4.3	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR10A	08:56:48	1.0	Surface	1	1	26.36	8.27	27.43	73.8	5.14	2.1	3.9	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR10A	08:56:15	1.0	Surface	1	2	26.36	8.27	27.43	73.5	5.14	2.2	3.2	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR10A	08:56:03	3.2	Middle	2	1	26.3	8.26	27.57	73.2	5.12	2.2	3.2	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR10A	08:56:38	3.2	Middle	2	2	26.34	8.27	27.48	73.5	5.15	2.2	3.1	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR10A	08:56:28	5.4	Bottom	3	1	26.33	8.26	27.51	73.4	5.14	2.2	5.8	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR10A	08:55:53	5.4	Bottom	3	2	26.29	8.26	27.6	73.2	5.12	2.2	4.8	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR10B	08:50:25	1.0	Surface	1	1	26.18	8.26	27.84	72.9	5.11	1.8	3.1	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR10B	08:50:43	1.0	Surface	1	2	26.14	8.26	27.94	72.3	5.09	1.8	2.8	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR10B	08:50:34	3.9	Bottom	3	1	26.14	8.26	28.01	72.6	5.07	1.8	3.1	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	SR10B	08:50:17	3.9	Bottom	3	2	26.18	8.26	27.88	73.2	5.12	1.9	4.7	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	CS2	11:19:54	1.0	Surface	1	1	28.1	8.01	21.87	83.8	5.8	2.2	3.9	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	CS2	11:20:52	1.0	Surface	1	2	28.1	8.02	21.87	83.3	5.77	2.4	3.9	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	CS2	11:20:33	3.2	Middle	2	1	27.79	8	22.94	75.8	5.24	3	3.5	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	CS2	11:19:33	3.2	Middle	2	2	27.6	7.99	23.66	75.1	5.19	3.2	2.8	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	CS2	11:20:12	5.3	Bottom	3	1	27.24	7.99	24.92	74.5	5.14	3.8	5.4	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	CS2	11:19:20	5.3	Bottom	3	2	27.19	7.99	24.86	75.7	5.23	4.1	3.6	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	CS(MF)5	09:39:00	1.0	Surface	1	1	27.07	8.27	25.23	75.7	5.23	2.5	2.5	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	CS(MF)5	09:37:53	1.0	Surface	1	2	27.13	8.27	25.06	76	5.25	2.5	2.7	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	CS(MF)5	09:38:50	6.1	Middle	2	1	26.93	8.27	25.65	72.6	5.02	3.7	3.4	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	CS(MF)5	09:37:32	6.1	Middle	2	2	26.42	8.22	26.82	72.7	5.02	3.8	3.3	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	CS(MF)5	09:38:06	11.2	Bottom	3	1	25.64	8.21	29.7	72.2	4.99	4.1	3.5	
HKLR	HY/2011/03	2013-07-19	Mid-Ebb	Sunny	CS(MF)5	09:37:16	11.2	Bottom	3	2	25.5	8.2	29.85	69.6	4.81	4.2	3.9	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS5	16:00:39	1.0	Surface	1	1	28.51	8.43	24.34	93.2	6.32	8.6	13.2	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS5	16:01:17	1.0	Surface	1	2	28.51	8.42	24.34	92.3	6.26	8.6	14.3	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS5	16:01:06	4.3	Middle	2	1	27.97	8.32	24.92	77.9	5.31	8.5	13.9	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS5	16:00:28	4.3	Middle	2	2	28.04	8.33	24.86	78.3	5.33	8.6	13.8	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS5	16:00:58	7.6	Bottom	3	1	27.38	8.25	25.9	79.3	5.43	9.3	14.1	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS5	16:00:18	7.6	Bottom	3	2	27.35	8.25	25.91	78.8	5.4	9.4	14.5	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS(MF)6	16:09:40	1.0	Surface	1	1	28.44	8.47	24.4	115.4	7.83	11.1	12.4	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS(MF)6	16:09:17	1.0	Surface	1	2	28.43	8.47	24.41	114.9	7.8	11.5	11.9	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS(MF)6	16:09:30	2.1	Bottom	3	1	28.43	8.47	24.41	115.2	7.81	11.2	13.2	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS(MF)6	16:09:07	2.1	Bottom	3	2	28.42	8.47	24.42	114.6	7.78	11.7	12.6	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS7	16:16:18	1.0	Surface	1	1	28.38	8.46	24.41	112.6	7.65	8.4	6.7	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS7	16:16:36	1.0	Surface	1	2	28.37	8.46	24.41	112.5	7.64	8.6	7.7	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS7	16:16:07	2.3	Bottom	3	1	28.33	8.45	24.47	111.9	7.6	9.4	9	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS7	16:16:26	2.3	Bottom	3	2	28.35	8.46	24.46	112.5	7.64	9.3	9.4	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS8	16:46:38	1.0	Surface	1	1	28.03	8.42	23.78	101.1	6.89	6.4	3.7	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS8	16:47:00	1.0	Surface	1	2	28.06	8.43	23.81	97.6	6.69	6.3	2.3	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS8	16:46:48	3.0	Bottom	3	1	27.61	8.34	25.58	95.9	6.55	6.4	3.2	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS8	16:46:27	3.0	Bottom	3	2	27.74	8.38	25.54	98.7	6.76	6.5	4.7	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS(MF)9	16:27:57	1.0	Surface	1	1	28.04	8.43	23.62	100.2	6.87	9.5	4.6	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS(MF)9	16:27:41	1.0	Surface	1	2	27.9	8.42	24.2	99.3	6.8	9.5	3.1	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS(MF)9	16:27:31	2.5	Bottom	3	1	27.74	8.37	24.81	99.1	6.79	9.7	3.6	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS(MF)9	16:27:48	2.5	Bottom	3	2	27.77	8.38	24.78	100	6.84	9.7	4.5	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS10	17:09:00	1.0	Surface	1	1	28.17	8.14	23.33	95.5	6.54	8.8	3.3	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS10	17:07:54	1.0	Surface	1	2	28.17	8.14	23.33	93.1	6.38	9.2	3.7	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS10	17:07:29	5.1	Middle	2	1	26.79	7.99	25.95	77.3	5.29	9.6	5.4	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS10	17:08:31	5.1	Middle	2	2	26.66	7.98	26.43	76.8	5.22	9	4.1	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS10	17:06:59	9.1	Bottom	3	1	26.33	7.99	26.25	70.5	4.93	13.5	4.3	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS10	17:08:14	9.1	Bottom	3	2	26.36	7.96	23.88	69.1	4.87	12.8	5.4	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR3	15:51:01	0.8	Middle	2	1	28.49	8.45	24.41	111.1	7.53	8.5	10.9	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR3	15:51:13	0.8	Middle	2	2	28.55	8.47	24.32	112.1	7.59	8.6	10.8	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR4	16:38:47	1.0	Surface	1	1	28.12	8.59	24.74	118	8.03	4.9	9.7	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR4	16:39:09	1.0	Surface	1	2	28.21	8.6	24.72	119.2	8.11	4.9	9	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR4	16:38:58	2.8	Bottom	3	1	27.9	8.51	24.91	118.6	8.09	6.4	8.4	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR4	16:38:39	2.8	Bottom	3	2	28.53	8.53	24.86	117.2	8	6.3	8.6	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR5	16:55:09	1.0	Surface	1	1	28.15	8.15	23.38	98.5	6.75	9.7	8	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR5	16:55:44	1.0	Surface	1	2	28.14	8.15	23.27	98.6	6.77	9.8	7.3	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR5	16:54:48	4.6	Bottom	3	1	27.66	8.11	24.69	93.6	6.43	1.6	9	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR5	16:55:26	4.6	Bottom	3	2	27.64	8.11	24.55	93	6.39	15.2	8	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR10A	17:57:46	1.0	Surface	1	1	26.33	8.28	27.96	73.7	5.07	2.4	3.2	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR10A	17:57:06	1.0	Surface	1	2	26.31	8.28	27.99	73.5	5.06	2.5	2.9	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR10A	17:56:52	3.3	Middle	2	1	26.22	8.28	28.27	73.2	5.04	2.5	3.8	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR10A	17:57:33	3.3	Middle	2	2	26.26	8.28	28.18	73.2	5.04	2.5	2.3	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR10A	17:57:19	5.5	Bottom	3	1	26.21	8.28	28.35	73.3	5.04	2.5	2.4	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR10A	17:56:42	5.5	Bottom	3	2	26.23	8.27	28.33	72.9	5.02	2.4	3.6	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR10B	18:06:52	1.0	Surface	1	1	26.29	8.28	28.01	73.2	5.04	2.4	2.8	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR10B	18:07:07	1.0	Surface	1	2	26.3	8.28	28.01	73.3	5.05	2.4	3.6	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR10B	18:06:43	4.2	Bottom	3	1	26.29	8.27	28.14	73.1	5.03	2.4	5.8	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	SR10B	18:06:58	4.2	Bottom	3	2	26.28	8.27	28.16	73.2	5.04	2.4	4.1	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	CS2	15:39:14	1.0	Surface	1	1	28.72	8.17	20.06	92.3	6.38	3.7	2.9	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	CS2	15:40:00	1.0	Surface	1	2	28.7	8.13	19.95	92.4	6.4	3.4	3.4	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	CS2	15:39:47	3.4	Middle	2	1	28.19	8.12	21.6	83.3	5.76	7	2.5	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	CS2	15:38:59	3.4	Middle	2	2	27.9	8.17	22.2	80.3	5.57	7.2	3.5	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	CS2	15:39:36	5.8	Bottom	3	1	27.28	8.08	24.46	77.8	5.38	10.6	2.7	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	CS2	15:38:47	5.8	Bottom	3	2	27.28	8.17	24.61	80.1	5.53	11.3	2.5	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	CS(MF)5	17:25:33	1.0	Surface	1	1	27.51	8.36	25.15	78.6	5.4	3.2	4	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	CS(MF)5	17:24:38	1.0	Surface	1	2	27.32	8.33	25.42	77.1	5.3	3.1	4.4	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	CS(MF)5	17:25:12	6.3	Middle	2	1	25.71	8.22	29.2	74.3	5.1	3.3	4.1	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	CS(MF)5	17:24:05	6.3	Middle	2	2	25.72	8.22	29.18	73.2	5.04	3.1	3.6	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	CS(MF)5	17:25:01	11.6	Bottom	3	1	25.69	8.22	29.59	70.9	4.89	3.5	3.6	
HKLR	HY/2011/03	2013-07-19	Mid-Flood	Fine	IS5	17:23:51	11.6	Bottom	3	2	25.69	8.23	29.44	68.2	4.71	3.3	3.1	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS5	12:57:44	1.0	Surface	1	1	28.16	8.26	24.9	85.4	5.81	5.2	5	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS5	12:58:26	1.0	Surface	1	2	28.15	8.26	24.91	84.9	5.78	5.3	5.5	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS5	12:58:13	4.5	Middle	2	1	27.6	8.27	27.02	81.9	5.55	5.3	4.3	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS5	12:57:29	4.5	Middle	2	2	27.59	8.27	26.76	81	5.49	5.6	5.3	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS5	12:58:02	8.0	Bottom	3	1	27.49	8.28	27.76	79.6	5.4	5.5	4.9	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS5	12:57:21	8.0	Bottom	3	2	27.48	8.28	27.72	79.7	5.41	5.7	4.7	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS(MF)6	12:50:15	1.0	Surface	1	1	28.13	8.23	23.74	89.9	6.09	6	6.7	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS(MF)6	12:50:04	1.0	Surface	1	2	28.23	8.23	23.68	90.6	6.14	6.2	7.6	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS(MF)6	12:49:54	2.3	Bottom	3	1	28.25	8.22	25.47	89.5	6.12	6.4	6.2	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS(MF)6	12:50:09	2.3	Bottom	3	2	28.23	8.22	25.31	88.8	6.08	6.6	6.5	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS7	12:43:48	1.0	Surface	1	1	27.95	8.23	23.74	86.9	5.94	5.6	6.1	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS7	12:43:30	1.0	Surface	1	2	28.1	8.23	23.68	88.2	6.04	5.4	6.2	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS7	12:43:40	2.3	Bottom	3	1	27.71	8.21	25.34	86.3	5.92	5.9	5.5	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS7	12:43:17	2.3	Bottom	3	2	28.01	8.22	25.57	87.2	5.92	5.6	4.6	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS8	12:22:24	1.0	Surface	1	1	28.17	8.24	24.28	87.6	5.97	6	3.7	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS8	12:22:00	1.0	Surface	1	2	28.09	8.24	24.27	85.7	5.85	6.4	2.7	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS8	12:21:50	2.5	Bottom	3	1	28.01	8.23	25.45	85.9	5.84	6.6	3.5	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS8	12:22:06	2.5	Bottom	3	2	28.14	8.23	25.38	86.5	5.87	6.5	3.2	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS(MF)9	12:37:52	1.0	Surface	1	1	28.23	8.24	24.03	91.6	6.25	6.5	6.5	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS(MF)9	12:37:00	1.0	Surface	1	2	28.2	8.25	24.1	89.5	6.11	6.6	6.3	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS(MF)9	12:36:47	2.5	Bottom	3	1	28.17	8.24	25.08	89.5	6.08	6.7	7.2	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS(MF)9	12:37:11	2.5	Bottom	3	2	27.96	8.24	25.23	87	5.93	6.5	6.4	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS10	12:35:05	1.0	Surface	1	1	27.97	8	23.78	77.3	5.31	4.5	4	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS10	12:35:40	1.0	Surface	1	2	28.01	7.99	23.59	77.4	5.31	4.3	4.3	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS10	12:34:56	5.2	Middle	2	1	27.9	8.01	24.41	77	5.27	7.6	4.2	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS10	12:35:28	9.4	Middle	2	2	27.88	8	24.33	76.5	5.23	7.5	4.2	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS10	12:35:18	9.2	Middle	2	1	27.99	7.99	25.2	76.8	5.23	8.6	4	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS10	12:34:44	9.4	Middle	2	2	27.88	8	25.48	77.5	5.27	8.7	5.1	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR3	13:04:06	0.6	Bottom	3	1	28.22	8.26	24.84	91.4	6.21	3.5	5.1	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR3	13:04:03	0.6	Middle	2	2	28.22	8.26	24.84	91.4	6.21	3.4	4.4	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR4	12:27:21	1.0	Surface	1	1	28.32	8.23	23.95	89.5	6.1	4.9	4.4	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR4	12:27:36	1.0	Surface	1	2	28.1	8.23	24.31	88.6	6.05	5.2	6	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR4	12:27:30	2.6	Bottom	3	1	28.09	8.22	24.58	87.4	5.96	5.6	7	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR4	12:27:09	2.6	Bottom	3	2	28.28	8.23	24.19	89	6.06	5.3	5.7	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR5	12:45:35	1.0	Surface	1	1	28.06	7.98	23.39	79	5.42	3	6.3	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR5	12:45:54	1.0	Surface	1	2	28.05	7.98	23.4	78.9	5.42	2.9	5.9	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR5	12:45:24	3.3	Bottom	3	1	27.99	7.98	23.8	79	5.42	3.1	6.2	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR5	12:45:44	3.3	Bottom	3	2	28	7.98	23.79	79	5.42	3.1	5.4	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR10A	11:05:20	1.0	Surface	1	1	26.76	8.22	27.53	77.3	5.29	2.8	3.3	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR10A	11:04:57	1.0	Surface	1	2	27.08	8.22	26.65	77.8	5.33	2.9	4.1	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR10A	11:05:17	3.0	Middle	2	1	26.72	8.22	27.75	76.7	5.26	2.9	3.6	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR10A	11:04:42	3.0	Middle	2	1	26.65	8.21	27.93	76	5.2	3	4.4	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR10A	11:05:13	5.0	Bottom	3	1	26.74	8.22	27.76	76.7	5.26	2.8	3.1	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR10A	11:04:37	5.0	Bottom	3	2	26.77	8.21	27.83	75.6	5.18	3	3.9	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR10B	10:59:29	1.0	Surface	1	1	26.58	8.2	28.15	76.9	5.27	5.5	8.8	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR10B	10:59:42	1.0	Surface	1	2	26.59	8.2	28.14	75.3	5.16	5.5	8.4	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR10B	10:59:37	3.9	Bottom	3	1	26.59	8.2	28.15	75	5.14	5.6	11.3	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	SR10B	10:59:21	3.9	Bottom	3	2	26.59	8.2	28.16	75.8	5.2	5.7	10.6	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	CS2	14:10:44	1.0	Surface	1	1	27.97	7.99	23.06	73.8	5.08	6.3	5	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	CS2	14:11:26	1.0	Surface	1	2	28	7.97	23.19	73.7	5.07	6.2	5.8	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	CS2	14:10:34	4.0	Middle	2	1	27.6	8	25.62	72.9	5.02	6.3	5.4	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	CS2	14:11:11	4.0	Middle	2	1	27.67	8	24.89	72.6	5.01	6.1	6.8	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	CS2	14:10:09	6.9	Bottom	3	1	27.55	7.98	26.35	72.9	4.97	6.1	6	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	CS2	14:11:02	6.9	Bottom	3	2	27.62	7.98	26.55	72.6	4.93	6.3	5.8	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	CS(MF)5	11:45:55	1.0	Surface	1	1	27.93	8.23	25.14	81.1	5.53	5.1	5	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	CS(MF)5	11:46:47	1.0	Surface	1	2	27.98	8.23	25.1	81.3	5.54	5.3	3.9	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	CS(MF)5	11:45:37	6.6	Middle	2	1	27.63	8.23	25.47	79.3	5.39	5.2	4.9	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	CS(MF)5	11:46:23	6.6	Middle	2	2	27.24	8.22	25.84	78.2	5.32	5.5	6	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	CS(MF)5	11:46:10	12.2	Bottom	3	1	27.22	8.21	27.49	74.1	5.09	5.5	7.7	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	CS(MF)5	11:45:22	12.2	Bottom	3	2	27.41	8.22	27.39	77.2	5.28	5.6	6.3	
HKLR	HY/2011/03	2013-07-22	Mid-Ebb	Sunny	IS5	18:39:45	1.0	Surface	1	1	28.26	8.25	24.92	90.3	6.14	10.8	13.2	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS5	18:38:13	1.0	Surface	1	2	28.23	8.24	24.89	87.9	5.97	10.9	12.6	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS5	18:39:26	4.6	Middle	2	1	28.07	8.24	25.31	89	6.04	11.2	12.7	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS5	18:38:00	4.6	Middle	2	2	28.17	8.24	25.08	86.9	5.9	11.3	12.6	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS5	18:37:47	8.1	Bottom	3	1	28.12	8.24	25.25	86.4	5.87	11.4	11.1	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS5	18:39:08	8.1	Bottom	3	2	28.02	8.23	25.44	86.2	5.86	11.6	12.7	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS(MF)6	18:48:13	1.0	Surface	1	1	28.21	8.23	24.8	88.2	6	17.9	18.8	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS(MF)6	18:48:31	1.0	Surface	1	2	28.23	8.23	24.8	88.1	6.01	17.8	18.4	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS(MF)6	18:48:18	1.9	Bottom	3	1	28.23	8.23	24.8	88.1	5.99	17.9	17.8	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS(MF)6	18:47:59	1.9	Bottom	3	2	28.23	8.23	24.79	87.9	5.98	17.8	18.8	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS7	18:59:58	1.0	Surface	1	1	28.2	8.24	25.05	89.7	6.1	15.6	17.2	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS7	18:59:28	1.0	Surface	1	2	28.22	8.24	25.06	90.1	6.11	15.4	17.5	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS7	18:59:33	2.5	Bottom	3	1	28.2	8.24	25.07	89.1	6.05	15.5	16.7	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS7	18:59:19	2.5	Bottom	3	2	28.22	8.24	25.05	89.3	6.06	15.8	17.3	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS8	18:08:29	1.0	Surface	1	1	28.39	8.28	24.65	92.6	6.28	6.4	4.6	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS8	18:08:06	1.0	Surface	1	2	28.4	8.28	24.59	91.9	6.24	6.7	5.8	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS8	18:07:53	2.3	Bottom	3	1	28.33	8.27	24.81	91.8	6.23	6.8	4.8	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS8	18:08:15	2.3	Bottom	3	2	28.33	8.27	24.79	92	6.25	6.8	5.5	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS(MF)9	19:07:42	1.0	Surface	1	1	28.34	8.26	24.57	92.8	6.31	7.7	6	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS(MF)9	19:09:11	1.0	Surface	1	2	28.33	8.27	24.58	93.4	6.35	7.7	7.1	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS(MF)9	19:07:47	2.5	Bottom	3	1	28.33	8.26	24.69	93.1	6.32	8	8.6	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS(MF)9	19:07:30	2.5	Bottom	3	2	28.31	8.26	24.7	92.3	6.27	7.8	7.7	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS10	19:51:51	1.0	Surface	1	1	28.26	8	22.61	80.3	5.52	7.4	11.4	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS10	19:52:32	1.0	Surface	1	2	28.28	8	22.53	80.2	5.51	7.4	10.3	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS10	19:52:18	5.4	Middle	2	1	28.22	8	23.52	79.1	5.41	7.3	11.5	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS10	19:51:42	5.4	Middle	2	2	28.22	8	23.53	79.6	5.44	7.6	10.1	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS10	19:52:06	9.8	Bottom	3	1	28.18	7.99	24.01	79.8	5.45	7.5	11.8	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	IS10	19:51:31	9.8	Bottom	3	2	28.22	7.99	23.94	80.1	5.47	7.5	11.8	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR3	18:30:20	0.9	Middle	2	1	28.27	8.25	24.87	91.6	6.22	10.8	15.3	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR3	18:30:23	0.9	Middle	2	2	28.26	8.25	24.88	91.4	6.21	10.7	14.1	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR4	18:03:07	1.0	Surface	1	1	28.34	8.31	24.81	91.3	6.19	8	5.3	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR4	18:02:38	1.0	Surface	1	2	28.14	8.3	25.04	87	5.91	8.3	6.8	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR4	18:02:31	2.4	Bottom	3	1	28.15	8.3	25.12	86.1	5.85	8.9	6.6	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR4	18:02:43	2.4	Bottom	3	2	28.13	8.29	25.12	86.2	5.86	8.8	7.1	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR5	19:42:45	1.0	Surface	1	1	28.27	8	22.99	81.2	5.56	4.7	7.2	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR5	19:42:22	1.0	Surface	1	2	28.27	8	22.99	81.3	5.57	4.5	6.3	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR5	19:42:34	3.7	Bottom	3	1	28.26	8	23.4	81.1	5.55	4.6	7.6	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR5	19:42:13	3.7	Bottom	3	2	28.26	8	23.37	81.4	5.57	4.6	8.6	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR10A	20:19:53	1.0	Surface	1	1	26.88	8.22	27.57	77.2	5.28	5.1	4.7	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR10A	20:19:22	1.0	Surface	1	2	26.64	8.22	27.99	78.2	5.35	4.9	5	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR10A	20:19:16	3.1	Middle	2	1	26.53	8.22	28.36	77.6	5.32	5.1	5	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR10A	20:19:36	3.1	Middle	2	2	26.52	8.22	28.39	76.8	5.26	5.3	4	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR10A	20:19:12	5.2	Bottom	3	1	26.59	8.21	28.34	70.1	4.8	5.5	5.1	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR10A	20:19:32	5.2	Bottom	3	2	26.59	8.21	28.34	71.1	4.86	5.3	5.8	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR10B	20:26:54	1.0	Surface	1	1	26.7	8.21	27.9	78.1	5.35	5.7	4.6	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR10B	20:27:13	1.0	Surface	1	2	26.81	8.22	27.68	77.7	5.32	5.5	3.9	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR10B	20:26:48	3.9	Bottom	3	1	26.71	8.21	28.05	71.3	4.88	5.7	5.9	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	SR10B	20:27:02	3.9	Bottom	3	2	26.71	8.21	28.05	70.5	4.82	5.9	4.7	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	CS2	18:07:07	1.0	Surface	1	1	28.36	7.97	20.93	73.4	5.08	5.4	6.3	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	CS2	18:06:33	1.0	Surface	1	2	28.37	8	20.96	77	5.32	5.7	6.2	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	CS2	18:06:22	4.0	Middle	2	1	28.25	8.02	21.48	74.3	5.14	5.6	6.6	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	CS2	18:06:57	4.0	Middle	2	2	28.26	7.98	21.5	73.4	5.08	5.6	7.1	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	CS2	18:05:57	6.9	Bottom	3	1	28.19	8.1	21.75	73.2	5.06	5.7	5.6	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	CS2	18:06:45	6.9	Bottom	3	2	28.25	7.98	21.51	72.7	5.03	5.7	5.5	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	CS(MF)5	19:48:55	1.0	Surface	1	1	27.57	8.22	25.52	76.1	5.21	5.1	4.1	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	CS(MF)5	19:48:10	1.0	Surface	1	2	27.53	8.23	25.49	77.3	5.3	5.2	5.8	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	CS(MF)5	19:48:36	6.8	Middle	2	1	26.78	8.21	27.68	73.1	5	5.6	5	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	CS(MF)5	19:47:56	6.8	Middle	2	2	26.74	8.21	27.73	74.4	5.09	5.6	5.2	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	CS(MF)5	19:48:24	12.5	Bottom	3	1	26.78	8.21	27.96	69.9	4.78	5.9	6	
HKLR	HY/2011/03	2013-07-22	Mid-Flood	Sunny	CS(MF)5	19:47:46	12.5	Bottom	3	2	26.81	8.21	27.93	72.9	4.99	5.9	6.8	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS5	12:59:56	1.0	Surface	1	1	27.82	8.26	24.67	79.1	5.41	6.6	4.6	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS5	13:01:01	1.0	Surface	1	2	27.85	8.29	24.69	78.7	5.38	6.6	4.7	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS5	12:59:32	4.5	Middle	2	1	27.92	8.31	26.98	78.9	5.32	7.3	4.7	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS5	13:00:41	4.5	Middle	2	2	27.92	8.32	26.98	78.6	5.3	7.3	5.5	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS5	12:59:12	8.0	Bottom	3	1	27.95	8.3	27.53	79.8	5.37	8.4	6.5	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS5	13:00:23	8.0	Bottom	3	2	27.94	8.31	27.54	79.4	5.34	8	6.8	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS(MF)6	13:08:59	1.0	Surface	1	1	27.72	8.18	24.01	81	5.57	4.9	3.4	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS(MF)6	13:08:21	1.0	Surface	1	2	27.71	8.18	24.03	80.9	5.57	4.8	4.3	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS(MF)6	13:08:00	2.2	Bottom	3	1	27.74	8.18	24.15	80.8	5.5	5.7	4.5	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS(MF)6	13:08:42	2.2	Bottom	3	2	27.71	8.18	24.15	81.1	5.58	5.2	5.3	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS7	13:16:01	1.0	Surface	1	1	27.69	8.17	23.72	75.5	5.21	4.3	3.2	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS7	13:16:39	1.0	Surface	1	2	27.68	8.17	23.8	74.7	5.15	4.3	3.9	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS7	13:15:45	2.3	Bottom	3	1	27.68	8.16	24.78	76.5	5.23	5.5	3.5	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS7	13:16:22	2.3	Bottom	3	2	27.67	8.16	24.7	75.9	5.21	5.7	4.5	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS8	13:44:51	1.0	Surface	1	1	27.8	8.17	23.74	77.7	5.35	5	4.4	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS8	13:44:08	1.0	Surface	1	2	27.81	8.17	23.78	77.9	5.36	5	5.3	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS8	13:43:51	2.5	Bottom	3	1	27.86	8.17	23.92	78.4	5.39	5.5	5	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS8	13:44:30	2.5	Bottom	3	2	27.86	8.17	24.13	77.7	5.33	5.4	5.7	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS(MF)9	13:25:06	1.0	Surface	1	1	27.73	8.18	23.77	78.1	5.38	4.7	3.7	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS(MF)9	13:24:25	1.0	Surface	1	2	27.74	8.18	23.77	77.8	5.36	4.6	3.3	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS(MF)9	13:24:05	2.3	Bottom	3	1	27.73	8.17	24.93	77.2	5.29	5.7	5.2	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS(MF)9	13:24:47	2.3	Bottom	3	2	27.73	8.18	24.91	77.2	5.29	5.9	4.6	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS10	13:58:23	1.0	Surface	1	1	27.87	8.03	24.32	81.3	5.56	5.1	6.1	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS10	13:59:40	1.0	Surface	1	2	27.87	8.04	24.3	81.7	5.6	4.8	6	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	IS10	13:58:05	5.3	Middle	2	1	27.78	8.2	24.68	80.3	5.5	6.3	6.9	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR3	12:44:27	0.6	Middle	2	2	27.78	8.2	24.64	80.4	5.51	6.3	8.1	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR3	13:35:25	1.0	Surface	1	1	27.77	8.13	23.61	75.6	5.21	6.3	6.1	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR4	13:36:09	1.0	Surface	1	2	27.83	8.15	23.54	75.9	5.23	6.4	6.2	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR4	13:35:04	2.4	Bottom	3	1	27.86	8.13	24.14	75.8	5.2	6.6	6.2	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR4	13:35:53	2.4	Bottom	3	2	27.85	8.14	24.45	75.8	5.19	6.8	6.1	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR5	13:46:17	1.0	Surface	1	1	27.89	8.02	24.33	81.6	5.59	4.8	4.5	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR5	13:45:35	1.0	Surface	1	2	27.9	8.01	24.23	81.3	5.57	4.8	4.8	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR5	13:45:20	4.5	Bottom	3	1	27.9	8.02	25.52	82.1	5.59	5	4.1	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR5	13:46:05	4.5	Bottom	3	2	27.89	8.02	24.86	81.7	5.58	4.9	5.5	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR10A	14:39:22	1.0	Surface	1	1	27.53	8.19	24.96	77.5	5.32	4	4.9	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR10A	14:40:33	1.0	Surface	1	2	27.53	8.19	24.96	77.2	5.3	4.2	4.7	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR10A	14:39:02	3.2	Middle	2	1	27.51	8.19	25.09	76.8	5.28	4.1	4.2	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR10A	14:40:14	3.2	Middle	2	2	27.51	8.19	25.06	76.6	5.24	4.3	4.9	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR10A	14:39:47	5.4	Bottom	3	1	27.46	8.19	25.59	77.1	5.28	4.6	4.7	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR10A	14:38:42	5.4	Bottom	3	2	27.48	8.19	25.58	77.3	5.3	4.5	5.9	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR10B	14:52:11	1.0	Surface	1	1	27.31	8.2	25.91	75.8	5.2	5.9	6.6	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR10B	14:51:30	1.0	Surface	1	2	27.31	8.19	25.86	75.9	5.2	6	7.3	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR10B	14:51:09	4.3	Bottom	3	1	27.29	8.19	25.99	75.8	5.19	6.5	8.2	
HKLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	SR10B	14:51:49	4.3	Bottom	3	2	27.3	8.19	25.95	75.8	5.19	6.5	7.1	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	CS2	12:36:00	1.0	Surface	1	1	27.93	7.97	24.05	79.2	5.43	5.7	4.2	
HLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	CS2	12:34:51	1.0	Surface	1	2	27.92	7.95	24.09	80.3	5.51	5.2	4.4	
HLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	CS2	12:34:33	3.7	Middle	2	1	27.93	7.96	25.37	82.3	5.6	11.7	5.6	
HLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	CS2	12:35:35	3.7	Middle	2	2	27.95	8.01	25.03	80.5	5.49	11.3	5.2	
HLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	CS2	12:34:12	6.3	Bottom	3	1	27.93	7.88	27.75	85	5.71	12.5	5.1	
HLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	CS2	12:35:18	6.3	Bottom	3	2	27.93	8.03	27.38	82.5	5.55	11.8	5	
HLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	CS(MF)5	14:17:56	1.0	Surface	1	1	27.82	8.25	24.93	83	5.66	8	6.6	
HLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	CS(MF)5	14:16:50	1.0	Surface	1	1	27.84	8.25	25.07	83.2	5.68	8.3	6.4	
HLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	CS(MF)5	14:16:29	6.7	Middle	2	1	27.75	8.26	25.6	80.5	5.48	8.6	7.8	
HLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	CS(MF)5	14:17:31	6.7	Middle	2	2	27.75	8.25	25.74	80.3	5.48	8.8	6.8	
HLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	CS(MF)5	14:16:06	12.4	Bottom	3	1	27.23	8.22	27.33	76.2	5.19	10.1	6.4	
HLR	HY/2011/03	2013-07-24	Mid-Ebb	Cloudy	CS(MF)5	14:17:12	12.4	Bottom	3	2	27.24	8.22	27.32	76	5.16	10.3	6.9	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS5	07:46:34	1.0	Surface	1	1	27.94	8.19	24.51	77.1	5.27	5.2	5.4	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS5	07:47:37	1.0	Surface	1	2	27.95	8.2	24.49	77	5.27	5.6	5.3	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS5	07:46:15	4.7	Middle	2	1	27.95	8.19	24.53	76.5	5.23	5.9	6.4	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS5	07:47:15	4.7	Middle	2	2	27.96	8.19	24.52	76.4	5.23	6.3	5.2	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS5	07:46:55	8.4	Bottom	3	1	27.92	8.19	24.56	76.5	5.23	5.7	4	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS5	07:45:52	8.4	Bottom	3	2	27.93	8.19	24.55	76.3	5.22	5.7	5.3	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS(MF)6	07:35:51	1.0	Surface	1	1	27.93	8.2	24.02	78.1	5.36	5.7	3.3	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS(MF)6	07:35:09	1.0	Surface	1	2	27.93	8.2	24.02	78	5.4	5.4	3.9	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS(MF)6	07:34:49	2.3	Bottom	3	1	27.98	8.2	24.42	77.9	5.32	6.3	3.5	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS(MF)6	07:35:32	2.3	Bottom	3	2	27.98	8.2	24.37	78	5.35	6.5	3.9	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS7	07:26:11	1.0	Surface	1	1	27.92	8.2	24.11	78.3	5.37	6	4	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS7	07:26:58	1.0	Surface	1	2	27.92	8.2	24.11	78.4	5.37	6.5	4	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS7	07:26:31	2.5	Bottom	3	1	27.92	8.2	24.49	78.3	5.36	6.8	5.6	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS7	07:25:52	2.5	Bottom	3	2	27.92	8.2	24.48	78.3	5.36	6.8	4.1	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS8	06:59:48	1.0	Surface	1	1	27.92	8.18	23.27	75.1	5.17	7.5	3.6	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS8	07:00:27	1.0	Surface	1	2	27.93	8.18	23.29	74.8	5.15	7.6	3.3	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS8	06:59:29	2.7	Bottom	3	1	27.94	8.17	23.54	75	5.16	8.2	3.5	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS8	07:00:10	2.7	Bottom	3	2	27.94	8.17	23.59	74.8	5.14	8	2.8	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS(MF)9	07:19:04	1.0	Surface	1	1	27.93	8.18	23.84	75.1	5.16	6.4	3.6	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS(MF)9	07:18:27	1.0	Surface	1	2	27.94	8.18	23.83	75.4	5.18	6.5	4.3	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS(MF)9	07:18:47	2.6	Bottom	3	1	27.93	8.18	24.23	75.2	5.15	7.5	3.8	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS(MF)9	07:18:08	2.6	Bottom	3	2	27.92	8.18	24.21	75	5.14	7.7	5.1	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS10	07:17:33	1.0	Surface	1	1	27.89	7.93	23.65	75.3	5.18	9.1	5.7	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS10	07:18:43	1.0	Surface	1	2	27.9	7.93	23.64	75.4	5.18	9.3	5.8	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS10	07:18:16	5.4	Middle	2	1	27.86	7.93	24.16	74.8	5.13	10.2	6	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS10	07:17:12	5.4	Middle	2	2	27.85	7.93	24.15	74.3	5.1	10.8	6.6	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS10	07:16:56	9.8	Bottom	3	1	27.78	7.93	24.72	72.8	4.98	13.7	6.7	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	IS10	07:18:00	9.8	Bottom	3	2	27.79	7.93	24.63	73.4	5.03	13.9	7.9	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR3	07:58:33	0.7	Middle	2	1	27.89	8.21	24.24	84.1	5.76	4.8	6.1	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR3	07:58:50	0.7	Middle	2	2	27.88	8.22	24.24	84.1	5.74	4.9	4.7	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR4	07:09:10	1.0	Surface	1	1	27.9	8.18	23.25	75.3	5.19	6.6	4.6	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR4	07:08:26	1.0	Surface	1	2	27.9	8.18	23.24	75.5	5.21	6.6	4.2	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR4	07:08:07	2.5	Bottom	3	1	27.9	8.18	23.33	75.9	5.22	6.9	5	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR4	07:08:50	2.5	Bottom	3	2	27.9	8.17	23.33	75.2	5.18	6.8	4.1	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR5	07:27:25	1.0	Surface	1	1	27.89	7.93	23.69	75.4	5.18	9	9.7	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR5	07:26:46	1.0	Surface	1	2	27.89	7.93	23.69	75.5	5.19	9.3	8.5	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR5	07:26:33	4.6	Bottom	3	1	27.87	7.93	24.11	75.4	5.18	11.5	9.8	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR5	07:27:05	4.6	Bottom	3	2	27.87	7.93	24.1	75.5	5.18	10.7	8.5	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR10A	06:00:40	1.0	Surface	1	1	27.47	8.18	25.15	77.5	5.32	3.6	2.3	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR10A	06:01:49	1.0	Surface	1	2	27.51	8.19	25.17	76.5	5.25	3.9	2.5	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR10A	06:00:24	3.3	Middle	2	1	27.16	8.19	26.54	74.3	5.09	4.8	3.5	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR10A	06:01:29	3.3	Middle	2	2	27.17	8.19	26.6	74.6	5.11	4.3	4.8	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR10A	06:00:03	5.6	Bottom	3	1	27.08	8.19	27.12	75.2	5.14	5	4.1	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR10A	06:01:06	5.6	Bottom	3	2	27.02	8.19	27.15	74.7	5.11	4.6	3.9	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR10B	05:47:09	1.0	Surface	1	1	26.46	8.19	29.33	78.7	5.37	8.1	11.6	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR10B	05:47:46	1.0	Surface	1	2	26.46	8.19	29.34	78.8	5.37	8.2	11	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR10B	05:46:58	4.5	Bottom	3	1	26.46	8.19	29.33	79.3	5.41	8.4	11.4	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	SR10B	05:47:28	4.5	Bottom	3	2	26.46	8.19	29.34	79	5.38	8.5	12.7	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	CS2	08:43:00	1.0	Surface	1	1	27.9	7.94	23.3	73.6	5.07	9.1	11	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	CS2	08:41:44	1.0	Surface	1	2	27.92	7.93	23.21	74.7	5.15	8.8	8.8	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	CS2	08:41:17	3.6	Middle	2	1	27.69	7.94	25.19	73.7	5.08	10.1	13.8	
HLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	CS2	08:42:34	3.6	Middle	2	2	27.62	7.95	25.51	73.5	5.05	9.7	12.2	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	CS2	08:42:15	6.2	Bottom	3	1	27.61	7.94	25.59	69.8	4.77	13	12	
HKLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	CS2	08:40:52	6.2	Bottom	3	2	27.64	7.94	25.53	70.2	4.79	12.8	13.1	
HKLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	CS(MF)5	06:26:38	1.0	Surface	1	1	27.68	8.2	24.39	78.6	5.4	2.9	24.39	3.2
HKLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	CS(MF)5	06:27:42	1.0	Surface	1	2	27.71	8.2	24.38	78.9	5.42	2.8	24.38	3
HKLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	CS(MF)5	06:26:14	6.8	Middle	2	1	27.45	8.2	25.95	73.6	5.03	3.4	3.3	
HKLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	CS(MF)5	06:27:25	6.8	Middle	2	2	27.47	8.21	25.98	74.2	5.07	3.4	2.1	
HKLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	CS(MF)5	06:25:52	12.6	Bottom	3	1	27.01	8.2	27.29	74.3	5.06	4.5	3.6	
HKLR	HY/2011/03	2013-07-24	Mid-Flood	Rainy	CS(MF)5	06:27:02	12.6	Bottom	3	2	27.08	8.19	27.28	74.8	5.08	4.6	2.5	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS5	14:08:25	1.0	Surface	1	1	27.35	8.21	23.49	85.3	5.92	9.6	12.6	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS5	14:07:41	1.0	Surface	1	2	27.36	8.21	23.54	84.9	5.9	9	11.1	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS5	14:07:26	4.7	Middle	2	1	27.39	8.23	24.18	84.2	5.83	13	12.7	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS5	14:08:08	4.7	Middle	2	2	27.39	8.23	24.04	84.2	5.82	13.5	11.8	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS5	14:07:15	8.4	Bottom	3	1	27.42	8.23	24.45	84.6	5.84	12.8	13	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS5	14:07:59	8.4	Bottom	3	2	27.39	8.22	24.13	84.5	5.85	12.2	12.2	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS(MF)6	14:13:55	1.0	Surface	1	1	27.37	8.17	23.54	84.7	5.88	12.2	8.7	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS(MF)6	14:13:33	1.0	Surface	1	2	27.37	8.17	23.53	84.6	5.87	11.1	7.6	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS(MF)6	14:13:24	2.2	Bottom	3	1	27.34	8.17	23.54	84.5	5.87	13.9	8.2	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS(MF)6	14:13:44	2.2	Bottom	3	2	27.34	8.17	23.54	84.5	5.87	14	7.8	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS7	14:20:18	1.0	Surface	1	1	27.4	8.16	23.23	85.1	5.91	11	11	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS7	14:20:39	1.0	Surface	1	2	27.41	8.16	23.23	84.8	5.9	13.4	11.9	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS7	14:20:10	2.6	Bottom	3	1	27.39	8.16	23.23	85.2	5.92	13.4	13.8	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS7	14:20:29	2.6	Bottom	3	2	27.39	8.16	23.23	84.8	5.89	14.2	12.5	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS8	14:44:25	1.0	Surface	1	1	27.53	8.18	23.39	83.6	5.8	12.6	7	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS8	14:43:44	1.0	Surface	1	2	27.52	8.18	23.4	83.4	5.78	13	7.3	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS8	14:44:13	2.5	Bottom	3	1	27.52	8.17	23.42	83.6	5.79	13.8	7.7	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS8	14:43:36	2.5	Bottom	3	2	27.52	8.18	23.41	83.4	5.78	14.2	6.9	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS(MF)9	14:28:24	1.0	Surface	1	1	27.45	8.16	23.33	81.6	5.66	18.9	19.7	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS(MF)9	14:28:00	1.0	Surface	1	2	27.46	8.16	23.34	81.9	5.68	18.5	18.9	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS(MF)9	14:27:50	2.4	Bottom	3	1	27.54	8.16	23.78	80.5	5.63	20.8	20.3	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS(MF)9	14:28:11	2.4	Bottom	3	2	27.54	8.16	23.92	80.6	5.57	19.7	20.3	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS10	15:38:12	1.0	Surface	1	1	27.72	8	22.45	83.7	5.81	14.7	7	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS10	15:37:32	1.0	Surface	1	2	27.68	8.01	22.52	83.4	5.79	14.6	5.7	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS10	15:37:22	5.3	Middle	2	1	27.62	8.02	23.55	83.4	5.76	14.7	6.2	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS10	15:37:59	5.3	Middle	2	2	27.63	8.01	23.52	83.2	5.75	14.4	7.2	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS10	15:37:49	9.6	Bottom	3	1	27.61	8	24.44	83	5.71	15.1	6.5	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	IS10	15:37:14	9.6	Bottom	3	2	27.61	8	24.63	83.1	5.71	15.2	7.6	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR3	13:54:22	0.8	Middle	2	1	27.35	8.17	23.48	87	6.08	11.2	13.6	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR3	13:54:14	0.8	Middle	2	2	27.35	8.16	23.47	87.5	6.05	11.5	14.6	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR4	14:37:55	1.0	Surface	1	1	27.54	8.14	23.32	75.4	5.22	10.2	9.3	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR4	14:37:34	1.0	Surface	1	2	27.53	8.13	23.38	75.4	5.22	10.3	10.2	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR4	14:37:43	2.5	Bottom	3	1	27.52	8.12	23.52	83	5.75	13	10.2	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR4	14:37:25	2.5	Bottom	3	2	27.52	8.12	23.54	75.5	5.23	12.9	8.9	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR5	15:27:31	1.0	Surface	1	1	27.7	7.97	22.53	83.6	5.8	6.4	6.1	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR5	15:27:10	1.0	Surface	1	2	27.7	7.97	22.52	83.6	5.8	6.8	6	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR5	15:27:20	3.5	Bottom	3	1	27.68	7.97	23	83.6	5.79	7.7	6.2	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR5	15:26:57	3.5	Bottom	3	2	27.66	7.97	23.19	83.2	5.76	7.7	6.5	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR10A	15:45:03	1.0	Surface	1	1	27.49	8.19	24.33	80.9	5.58	4.7	5.9	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR10A	15:47:32	1.0	Surface	1	2	27.59	8.19	23.95	83.7	5.78	4.7	6.9	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR10A	15:47:14	3.1	Middle	2	1	27.55	8.19	24.04	85.5	5.9	4.9	6.2	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR10A	15:44:43	3.1	Middle	2	2	27.42	8.19	24.87	79.2	5.45	5	6.2	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR10A	15:44:30	5.2	Bottom	3	1	27.4	8.19	24.99	79.5	5.47	5.3	5.4	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR10A	15:45:28	5.2	Bottom	3	2	27.4	8.19	25.12	79	5.43	5	5.7	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR10B	15:53:26	1.0	Surface	1	1	27.56	8.2	24.02	80.7	5.57	4.8	6.3	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR10B	15:53:51	1.0	Surface	1	2	27.55	8.2	24.04	80.6	5.57	5.2	5.8	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR10B	15:53:38	4.4	Bottom	3	1	27.45	8.19	24.65	79.9	5.5	5.4	5.9	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	SR10B	15:53:11	4.4	Bottom	3	2	27.43	8.19	24.78	79.7	5.48	5.3	5.2	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	CS2	13:57:17	1.0	Surface	1	1	27.72	7.96	22.58	83.8	5.79	11.5	9.1	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	CS2	13:56:34	1.0	Surface	1	2	27.64	7.97	23.41	86.7	5.97	11.7	8	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	CS2	13:57:02	4.0	Middle	2	1	27.63	8	23.61	82.4	5.72	11.5	9.6	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	CS2	13:56:23	4.0	Middle	2	2	27.64	7.97	23.74	84.9	5.86	11.6	8.3	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	CS2	13:56:04	7.0	Bottom	3	1	27.63	7.93	24.2	84	5.81	12.2	10.7	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	CS2	13:56:49	7.0	Bottom	3	2	27.62	7.99	24.51	83.6	5.75	11.9	9.1	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	CS(MF)5	15:16:04	1.0	Surface	1	1	27.67	8.19	23.53	78.9	5.45	8.7	7.8	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	CS(MF)5	15:15:11	1.0	Surface	1	2	27.67	8.19	23.54	78.3	5.41	8.8	8.6	



Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	CS(MF)5	15:15:41	6.6	Middle	2	1	27.4	8.18	25.4	73.3	5.04	12.4	7.3	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	CS(MF)5	15:14:50	6.6	Middle	2	2	27.4	8.18	25.34	73	5.01	12.2	8	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	CS(MF)5	15:15:29	12.2	Bottom	3	1	27.38	8.18	25.6	74.3	5.1	11.7	8.5	
HKLR	HY/2011/03	2013-07-26	Mid-Ebb	Cloudy	CS(MF)5	15:14:41	12.2	Bottom	3	2	27.41	8.17	25.43	74.1	5.09	11.7	9.6	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS5	09:25:02	1.0	Surface	1	1	27.32	8.18	23.53	81.9	5.69	9.3	11	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS5	09:25:51	1.0	Surface	1	2	27.3	8.18	23.51	82.3	5.71	10	11.7	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS5	09:25:33	4.7	Middle	2	1	27.33	8.18	23.77	82.1	5.69	10.6	9.9	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS5	09:24:45	4.7	Middle	2	2	27.34	8.18	23.77	82	5.68	9.9	10.2	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS5	09:24:33	8.3	Bottom	3	1	27.34	8.18	23.77	81.8	5.68	9.8	10	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS5	09:25:18	8.3	Bottom	3	2	27.33	8.18	23.76	81.9	5.68	10.1	10.2	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS(MF)6	09:16:07	1.0	Surface	1	1	27.29	8.18	23.71	84.8	5.89	8.6	7.3	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS(MF)6	09:16:35	1.0	Surface	1	2	27.28	8.19	23.69	84.9	5.9	8.5	7.9	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS(MF)6	09:16:21	2.3	Bottom	3	1	27.29	8.18	23.76	84.5	5.87	8.7	6.9	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS(MF)6	09:15:57	2.3	Bottom	3	2	27.29	8.17	23.76	84.8	5.89	8.8	8.1	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS7	09:07:59	1.0	Surface	1	1	27.32	8.18	23.8	83.6	5.8	13.9	12.4	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS7	09:08:22	1.0	Surface	1	2	27.32	8.19	23.81	83.1	5.75	14.2	12.9	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS7	09:08:14	2.4	Bottom	3	1	27.34	8.18	23.91	83.1	5.75	15	12.8	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS7	09:07:53	2.4	Bottom	3	2	27.34	8.18	23.86	83.5	5.79	14.4	11.7	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS8	08:47:36	1.0	Surface	1	1	27.55	8.17	23.08	80.4	5.58	13.5	10.9	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS8	08:47:52	1.0	Surface	1	2	27.55	8.17	23.09	79.9	5.54	13.1	11.7	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS8	08:47:27	2.8	Bottom	3	1	27.54	8.16	23.16	81.1	5.63	14.7	11.6	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS8	08:47:45	2.8	Bottom	3	2	27.55	8.17	23.14	80	5.55	13.7	10.7	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS(MF)9	09:02:21	1.0	Surface	1	1	27.49	8.17	22.39	81.6	5.69	6.9	5.4	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS(MF)9	09:02:40	1.0	Surface	1	2	27.5	8.17	22.53	83	5.78	7	4.1	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS(MF)9	09:02:30	2.4	Bottom	3	1	27.5	8.17	22.55	82.6	5.75	9	7.1	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS(MF)9	09:02:13	2.4	Bottom	3	2	27.48	8.16	23.48	81.2	5.63	8.8	6.8	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS10	08:57:53	1.0	Surface	1	1	27.55	7.94	22.78	77.7	5.4	14.3	15.6	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS10	08:57:20	1.0	Surface	1	2	27.55	7.94	22.8	77.8	5.41	14.4	15.3	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS10	08:57:40	5.4	Middle	2	1	27.54	7.95	23.11	76.4	5.3	14.2	14.4	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS10	08:57:04	5.4	Middle	2	2	27.55	7.95	23.2	79.1	5.47	13.4	16.6	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS10	08:56:53	9.8	Bottom	3	1	27.55	7.93	22.76	78.3	5.44	13.4	16.2	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	IS10	08:57:30	9.8	Bottom	3	2	27.55	7.93	22.92	77.3	5.31	15.3	16.1	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR3	09:31:23	0.9	Middle	2	1	27.31	8.19	23.38	82.7	5.75	17	17	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR3	09:31:34	0.9	Middle	2	2	27.31	8.19	23.42	82.3	5.72	15.7	15.9	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR4	08:53:14	1.0	Surface	1	1	27.6	8.17	23.09	78.8	5.46	11.3	12.5	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR4	08:52:57	1.0	Surface	1	2	27.62	8.17	23.1	79	5.47	13.1	12.5	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR4	08:53:07	2.6	Bottom	3	1	27.59	8.17	23.25	78.6	5.45	14.2	17.7	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR4	08:52:47	2.6	Bottom	3	2	27.61	8.17	23.2	79.1	5.47	13.4	16.6	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR5	09:07:26	1.0	Surface	1	1	27.54	7.93	22.76	78.3	5.44	13.4	16.2	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR5	09:07:02	1.0	Surface	1	2	27.55	7.93	22.76	78.2	5.43	13.5	16.9	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR5	09:06:53	3.6	Bottom	3	1	27.54	7.93	22.83	78.1	5.43	13.4	18.7	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR5	09:07:15	3.6	Bottom	3	2	27.53	7.93	22.87	78.1	5.43	13.6	17.6	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR10A	07:47:23	1.0	Surface	1	1	27.4	8.2	24.04	76.2	5.27	5.4	4.7	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR10A	07:48:05	1.0	Surface	1	2	27.39	8.2	24.26	76.5	5.28	5.4	4	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR10A	07:47:48	3.2	Middle	2	1	27.2	8.21	26.11	74.2	5.09	7	6	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR10A	07:47:10	3.2	Middle	2	2	27.2	8.21	26.14	73.9	5.07	7.1	4.9	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR10A	07:47:00	5.3	Bottom	3	1	27.17	8.21	26.48	74.8	5.12	6.9	7.5	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR10A	07:47:37	5.3	Bottom	3	2	27.19	8.2	26.38	75.1	5.15	6.8	7	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR10B	07:42:17	1.0	Surface	1	1	26.89	8.23	27.91	77.5	5.36	9.8	17.1	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR10B	07:41:53	1.0	Surface	1	2	26.59	8.19	28.1	80.1	5.47	10	17.2	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR10B	07:42:06	4.4	Bottom	3	1	26.88	8.22	27.94	75.5	5.16	11.4	17.3	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	SR10B	07:40:56	4.4	Bottom	3	2	26.89	8.21	27.9	72.1	4.92	11.7	17.5	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	CS2	10:31:17	1.0	Surface	1	1	27.64	7.95	22.45	75.6	5.26	11.5	5.6	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	CS2	10:30:38	1.0	Surface	1	2	27.64	7.96	22.57	75.5	5.25	11.9	6.5	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	CS2	10:30:25	4.1	Middle	2	1	27.6	7.96	24.47	74.9	5.15	11.2	5	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	CS2	10:31:03	4.1	Middle	2	2	27.59	7.96	24.5	74.8	5.14	11.5	6.6	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	CS2	10:30:54	7.2	Bottom	3	1	27.6	7.95	24.66	74.1	5.1	12.5	6.8	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	CS2	10:30:15	7.2	Bottom	3	2	27.6	7.95	24.61	74.2	5.11	12.3	5.8	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	CS(MF)5	08:15:27	1.0	Surface	1	1	27.48	8.18	23.39	76.4	5.3	5.3	5.8	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	CS(MF)5	08:16:40	1.0	Surface	1	2	27.49	8.19	23.5	76.1	5.27	5.3	5.7	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	CS(MF)5	08:16:20	6.8	Middle	2	1	27.14	8.2	26.81	74.2	5.1	7.7	5.3	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	CS(MF)5	08:15:09	6.8	Middle	2	2	27.13	8.19	26.9	74.4	5.12	8.1	6	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	CS(MF)5	08:16:04	12.6	Bottom	3	1	27.11	8.2	27.1	71.5	4.88	9.1	5.6	
HKLR	HY/2011/03	2013-07-26	Mid-Flood	Cloudy	CS(MF)5	08:14:53	12.6	Bottom	3	2	27.12	8.19	26.98	71.3	4.87	9	5.7	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS5	16:03:36	1.0	Surface	1	1	29.03	8.19	20.46	87.7	6.02	8.8	7.8	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS5	16:03:01	1.0	Surface	1	2	28.95	8.18	20.5	86.9	5.98	8.9	8.6	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS5	16:03:29	4.7	Middle	2	1	28.89	8.18	20.55	85.9	5.91	9.1	7.3	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS5	16:02:53	4.7	Middle	2	2	28.87	8.17	20.61	85.7	5.9	9.1	8.5	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS5	16:03:13	8.4	Bottom	3	1	28.59	8.16	20.95	85.3	5.88	9.9	7.2	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS5	16:02:31	8.4	Bottom	3	2	28.55	8.16	21.17	85.8	5.91	9.5	7.5	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS(MF)6	16:10:05	1.0	Surface	1	1	28.95	8.2	19.05	91.8	6.36	7.9	2.1	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS(MF)6	16:09:53	1.0	Surface	1	2	28.93	8.19	19.62	91.5	6.32	8.1	2.2	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS(MF)6	16:09:46	2.4	Bottom	3	1	28.99	8.19	19.82	91.8	6.33	10.6	2.8	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS(MF)6	16:10:01	2.4	Bottom	3	2	28.94	8.19	19.99	91.6	6.32	10.2	2.3	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS7	16:16:52	1.0	Surface	1	1	29.12	8.2	18.83	91.5	6.33	11.6	3	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS7	16:16:27	1.0	Surface	1	2	29.04	8.2	18.85	91.4	6.33	11.5	2.4	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS7	16:16:41	2.4	Bottom	3	1	28.57	8.15	19.92	88.9	6.17	12.1	2.5	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS7	16:16:15	2.4	Bottom	3	2	28.68	8.15	19.8	89.2	6.18	12.4	2.9	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS8	16:42:30	1.0	Surface	1	1	28.32	8.13	19.93	77.5	5.4	9.3	6.7	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS8	16:41:58	1.0	Surface	1	2	28.22	8.12	20.07	76.5	5.34	9.6	6.1	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS8	16:41:45	2.5	Bottom	3	1	28.05	8.08	21.2	74.2	5.16	12.2	7	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS8	16:42:18	2.5	Bottom	3	2	28.08	8.08	20.98	74.6	5.19	12.7	5.4	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS(MF)9	16:23:31	1.0	Surface	1	1	28.83	8.19	19.24	91.2	6.32	7.3	3.5	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS(MF)9	16:24:00	1.0	Surface	1	2	28.81	8.19	19.25	91	6.31	7.6	3.9	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS(MF)9	16:23:18	2.4	Bottom	3	1	28.64	8.17	19.53	90.2	6.26	9.4	5.1	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS(MF)9	16:23:50	2.4	Bottom	3	2	28.62	8.17	19.45	90.1	6.26	9.5	4.5	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS10	17:25:59	1.0	Surface	1	1	30.91	8.01	12.9	82.6	5.73	6.4	2.4	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS10	17:25:19	1.0	Surface	1	2	30.26	7.99	14.71	83.1	5.77	6.3	3.7	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS10	17:25:46	5.3	Middle	2	1	27.71	7.93	21.41	75.1	5.17	6.2	3.4	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS10	17:25:05	5.3	Middle	2	2	27.76	7.93	21.48	75.7	5.22	6.4	4.3	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS10	17:25:37	9.5	Bottom	3	1	27.42	7.89	24.86	71.5	4.99	6.4	3.1	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	IS10	17:24:55	9.5	Bottom	3	2	27.4	7.9	24.76	72	4.92	6.4	3.6	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR3	15:50:20	0.7	Middle	2	1	29.03	8.21	20.47	91.5	6.28	8.2	6.8	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR3	15:50:17	0.7	Middle	2	2	29.03	8.21	20.48	91.8	6.3	8	7.1	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR4	16:31:46	1.0	Surface	1	1	28.25	8.13	19.66	74.3	5.19	10.4	3.4	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR4	16:32:18	1.0	Surface	1	2	28.2	8.12	20.24	74.6	5.2	10.5	3	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR4	16:32:04	2.5	Bottom	3	1	28.06	8.11	21.07	73.6	5.12	10.9	3.3	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR4	16:31:36	2.5	Bottom	3	2	28.06	8.11	21.02	73.3	5.1	11	3.4	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR5	17:14:31	1.0	Surface	1	1	29.42	7.97	18.75	86.8	6.11	5.3	3.4	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR5	17:14:50	1.0	Surface	1	2	29.77	7.96	18.77	87.3	6.14	5.2	4.3	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR5	17:14:41	3.4	Bottom	3	1	28.37	7.91	19.74	86.6	6.03	5.3	3.2	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR5	17:14:22	3.4	Bottom	3	2	28.62	7.92	19.54	84.2	5.85	5.3	4.5	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR10A	17:41:30	1.0	Surface	1	1	28.76	8.23	21.63	83.7	5.73	3.2	3.2	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR10A	17:43:21	1.0	Surface	1	2	28.5	8.23	22.47	84.9	5.82	2.2	2.2	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR10A	17:41:18	3.3	Middle	2	1	27.92	8.2	24.57	78.1	5.34	2.3	5.8	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR10A	17:43:08	3.3	Middle	2	2	28.29	8.22	22.97	82.5	5.65	2.3	5	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR10A	17:41:02	5.5	Bottom	3	1	27.39	8.19	25.74	76.2	5.22	2.4	4.5	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR10A	17:43:00	5.5	Bottom	3	2	28.18	8.21	23.25	81.6	5.59	2.5	5.1	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR10B	17:55:47	1.0	Surface	1	1	28.81	8.24	21.59	89.3	6.12	2.2	2.8	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR10B	17:55:16	1.0	Surface	1	2	28.85	8.24	21.07	89	6.11	2.2	2.9	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR10B	17:55:34	4.5	Bottom	3	1	28.59	8.23	22.26	88.6	6.06	2.2	4.2	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	SR10B	17:55:04	4.5	Bottom	3	2	28.53	8.22	22.34	88.1	6.03	2.3	5.5	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	CS2	15:52:37	1.0	Surface	1	1	29.14	7.97	17.02	78.2	5.46	7.2	3.2	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	CS2	15:51:47	4.0	Surface	1	2	29.22	7.94	16.08	80.8	5.67	7	4.4	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	CS2	15:52:22	4.0	Surface	1	1	28.15	7.94	21.46	74	5.13	7.6	3.4	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	CS2	15:51:31	4.0	Middle	2	2	27.94	8	21.15	73.6	5.13	7.1	5.2	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	CS2	15:51:04	7.0	Bottom	3	1	27.78	8.1	22.37	77.7	5.39	7.9	5.4	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	CS2	15:52:05	7.0	Bottom	3	2	27.83	7.94	22.2	74.3	5.15	5.1	5.1	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	CS(MF)5	17:15:49	1.0	Surface	1	1	29.45	8.22	18.55	88.8	6.42	3.7	2.8	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	CS(MF)5	17:16:32	1.0	Surface	1	2	29.21	8.22	19.36	89.4	6.16	3.5	3.1	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	CS(MF)5	17:16:22	6.8	Middle	2	1	28.67	8.21	19.9	83.4	5.78	3.8	2.3	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	CS(MF)5	17:15:37	6.8	Middle	2	2	28.44	8.18	20.42	82.3	5.7	4	2.9	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	CS(MF)5	17:16:13	12.5	Bottom	3	1	27.89	8.19	23.11	80.9	5.58	4.1	2.4	
HLKR	HY/2011/03	2013-07-29	Mid-Ebb	Sunny	CS(MF)5	17:15:23	12.5	Bottom	3	2	27.75	8.18	23.77	80.6	5.55	4.3	2.7	
HLKR	HY/2011/03	2013-07-29	Mid-Flood	Sunny	IS5	12:25:32	1.0	Surface	1	1	28.3	8.14	20.18	85	5.92	8.1	3.2	
HLKR	HY/2011/03	2013-07-29	Mid-Flood	Sunny	IS5	12:26:16	1.0	Surface	1	2	28.31	8.14	20.17	85.1	5.92	8.3	4.4	
HLKR	HY/2011/03	2013-07-29	Mid-Flood	Sunny	IS5	12:26:00	4.7	Middle	2	1	28.16	8.13	20.26	82.5	5.75	8.5	4.8	
HLKR	HY/2011/03	2013-07-29	Mid-Flood	Sunny	IS5	12:25:19	4.7	Middle	2	2	28.21	8.14	20.23	83.5	5.82	8.4	5.3	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-07-29	IS5	12:25:01	8.3	Bottom	3	1	28.1	8.12	20.52	82.9	5.78	8.6	5.5	
HCLR	HY/2011/03	2013-07-29	IS5	12:25:46	8.3	Bottom	3	2	28.1	8.12	20.65	82.9	5.77	9	5.9	
HCLR	HY/2011/03	2013-07-29	IS(MF)6	12:17:58	1.0	Surface	1	1	28.65	8.17	19.64	89.2	6.19	8.2	2.8	
HCLR	HY/2011/03	2013-07-29	IS(MF)6	12:17:48	1.0	Surface	1	2	28.67	8.17	19.62	89.3	6.2	8.6	3.4	
HCLR	HY/2011/03	2013-07-29	IS(MF)6	12:17:44	2.4	Bottom	3	1	28.68	8.16	19.67	89.3	6.19	9	6.4	
HCLR	HY/2011/03	2013-07-29	IS(MF)6	12:17:52	2.4	Bottom	3	2	28.67	8.16	19.66	89.2	6.19	8.8	6.5	
HCLR	HY/2011/03	2013-07-29	IS7	12:11:09	1.0	Surface	1	1	28.86	8.16	19.36	89.4	6.19	8.4	3.7	
HCLR	HY/2011/03	2013-07-29	IS7	12:11:20	1.0	Surface	1	2	28.9	8.16	19.32	89.3	6.18	8.1	4.1	
HCLR	HY/2011/03	2013-07-29	IS7	12:11:14	2.4	Bottom	3	1	28.9	8.16	19.35	89.2	6.18	8.7	5.1	
HCLR	HY/2011/03	2013-07-29	IS7	12:11:04	2.4	Bottom	3	2	28.95	8.16	19.3	89.6	6.2	8.8	5.2	
HCLR	HY/2011/03	2013-07-29	IS8	11:37:05	1.0	Surface	1	1	28.4	8.12	18.69	81.8	5.73	6.5	2.7	
HCLR	HY/2011/03	2013-07-29	IS8	11:37:35	1.0	Surface	1	2	28.4	8.12	18.73	81.7	5.72	6.3	3	
HCLR	HY/2011/03	2013-07-29	IS8	11:37:24	2.5	Bottom	3	1	28.21	8.11	19.77	80.8	5.65	9.3	2.6	
HCLR	HY/2011/03	2013-07-29	IS8	11:36:56	2.5	Bottom	3	2	28.27	8.1	20.12	81.5	5.68	9.5	3	
HCLR	HY/2011/03	2013-07-29	IS(MF)9	12:04:35	1.0	Surface	1	1	28.23	8.14	19.44	81.9	5.73	11.5	2.9	
HCLR	HY/2011/03	2013-07-29	IS(MF)9	12:05:00	1.0	Surface	1	2	28.21	8.14	19.46	82	5.74	11.4	3.6	
HCLR	HY/2011/03	2013-07-29	IS(MF)9	12:04:49	2.4	Bottom	3	1	28.21	8.12	20.56	81.6	5.68	13.1	2.8	
HCLR	HY/2011/03	2013-07-29	IS(MF)9	12:04:24	2.4	Bottom	3	2	28.19	8.12	20.58	81.4	5.67	13.4	2.5	
HCLR	HY/2011/03	2013-07-29	IS10	11:45:28	1.0	Surface	1	1	28.42	7.91	18.54	79.9	5.6	10.1	5.6	
HCLR	HY/2011/03	2013-07-29	IS10	11:44:49	1.0	Surface	1	2	28.68	7.92	17.7	80.8	5.67	10.3	4.5	
HCLR	HY/2011/03	2013-07-29	IS10	11:44:35	5.5	Middle	2	1	27.85	7.9	20.27	75.5	5.29	10.5	8	
HCLR	HY/2011/03	2013-07-29	IS10	11:45:17	5.5	Middle	2	2	28.05	7.91	20.14	76.1	5.32	10.2	7.8	
HCLR	HY/2011/03	2013-07-29	IS10	11:45:04	9.9	Bottom	3	1	27.73	7.87	23.78	77.5	5.34	10.1	8.2	
HCLR	HY/2011/03	2013-07-29	IS10	11:44:28	9.9	Bottom	3	2	27.76	7.87	23.72	77.9	5.36	10.3	9.9	
HCLR	HY/2011/03	2013-07-29	SR3	12:36:46	0.6	Middle	2	1	28.34	8.14	20.17	86.6	6.03	8.7	4.6	
HCLR	HY/2011/03	2013-07-29	SR3	12:36:49	0.6	Middle	2	2	28.35	8.14	20.17	86.6	6.03	8.7	5.4	
HCLR	HY/2011/03	2013-07-29	SR4	11:48:09	1.0	Surface	1	1	28.4	8.12	18.7	81.5	5.71	9	2.9	
HCLR	HY/2011/03	2013-07-29	SR4	11:48:50	1.0	Surface	1	2	28.35	8.12	18.68	81.7	5.73	8.8	3	
HCLR	HY/2011/03	2013-07-29	SR4	11:48:29	2.4	Bottom	3	1	28.22	8.11	20.1	81.1	5.67	10.8	6.7	
HCLR	HY/2011/03	2013-07-29	SR4	11:48:00	2.4	Bottom	3	2	28.19	8.11	19.84	81	5.66	10.6	6	
HCLR	HY/2011/03	2013-07-29	SR5	11:54:08	1.0	Surface	1	1	28.45	7.9	18.71	83.9	5.88	13.9	4.8	
HCLR	HY/2011/03	2013-07-29	SR5	11:53:47	1.0	Surface	1	2	28.44	7.9	18.65	83.8	5.87	13.4	5.6	
HCLR	HY/2011/03	2013-07-29	SR5	11:53:38	3.5	Bottom	3	1	28.47	7.89	18.93	83.8	5.86	13.3	7.3	
HCLR	HY/2011/03	2013-07-29	SR5	11:53:56	3.5	Bottom	3	2	28.47	7.89	18.87	83.8	5.86	13.4	8.3	
HCLR	HY/2011/03	2013-07-29	SR10A	10:32:27	1.0	Surface	1	1	28.18	8.12	19.62	80.1	5.6	10.1	4.5	
HCLR	HY/2011/03	2013-07-29	SR10A	10:31:27	1.0	Surface	1	2	28.16	8.11	19.62	80.1	5.61	10.1	3.2	
HCLR	HY/2011/03	2013-07-29	SR10A	10:32:10	3.3	Middle	2	1	27.8	8.12	21.21	76.6	5.35	11.5	3.1	
HCLR	HY/2011/03	2013-07-29	SR10A	10:31:11	3.3	Middle	2	2	27.8	8.12	21.25	76.6	5.35	11.5	3.6	
HCLR	HY/2011/03	2013-07-29	SR10A	10:31:51	5.5	Bottom	3	1	27.66	8.12	22.46	76.1	5.28	13.7	3.5	
HCLR	HY/2011/03	2013-07-29	SR10A	10:30:51	5.5	Bottom	3	2	27.66	8.12	22.48	76.2	5.29	13.6	3.3	
HCLR	HY/2011/03	2013-07-29	SR10B	10:25:19	1.0	Surface	1	1	27.38	8.16	24.57	70.3	4.85	3.4	4	
HCLR	HY/2011/03	2013-07-29	SR10B	10:24:50	1.0	Surface	1	2	27.35	8.16	24.75	69.7	4.81	3.5	3	
HCLR	HY/2011/03	2013-07-29	SR10B	10:24:36	4.5	Bottom	3	1	27.27	8.16	25.1	69.5	4.79	3.5	4.3	
HCLR	HY/2011/03	2013-07-29	SR10B	10:24:58	4.5	Bottom	3	2	27.29	8.15	26.32	69.5	4.76	3.5	5.4	
HCLR	HY/2011/03	2013-07-29	CS2	13:20:47	1.0	Surface	1	1	28.69	7.87	16.13	79	5.58	8.3	3.2	
HCLR	HY/2011/03	2013-07-29	CS2	13:21:21	1.0	Surface	1	2	28.6	7.88	16.25	78.7	5.57	8.3	3.2	
HCLR	HY/2011/03	2013-07-29	CS2	13:20:35	4.1	Middle	2	1	28.19	7.86	18.35	76.5	5.39	8.1	4.4	
HCLR	HY/2011/03	2013-07-29	CS2	13:21:10	4.1	Middle	2	2	28.12	7.85	19.28	76.8	5.39	8.4	3.5	
HCLR	HY/2011/03	2013-07-29	CS2	13:20:21	7.1	Bottom	3	1	27.94	7.81	21.02	77.6	5.41	8.8	4	
HCLR	HY/2011/03	2013-07-29	CS2	13:20:59	7.1	Bottom	3	2	28.14	7.82	20.91	77.9	5.41	8.5	3.6	
HCLR	HY/2011/03	2013-07-29	CS(MF)5	11:02:09	1.0	Surface	1	1	28.3	8.1	18.71	78.6	5.51	3.8	2.7	
HCLR	HY/2011/03	2013-07-29	CS(MF)5	11:03:18	1.0	Surface	1	2	28.16	8.09	19.23	78.3	5.5	4	3.8	
HCLR	HY/2011/03	2013-07-29	CS(MF)5	11:02:57	6.7	Middle	2	1	27.96	8.09	20.75	73.6	5.14	4.3	3.8	
HCLR	HY/2011/03	2013-07-29	CS(MF)5	11:01:52	6.7	Middle	2	2	27.93	8.1	20.81	73.5	5.13	4.3	3.9	
HCLR	HY/2011/03	2013-07-29	CS(MF)5	11:02:38	12.4	Bottom	3	1	27.57	8.1	23.28	72.5	5.02	4.6	3.3	
HCLR	HY/2011/03	2013-07-29	CS(MF)5	11:01:36	12.4	Bottom	3	2	27.53	8.11	23.62	73	5.05	4.5	4.3	
HCLR	HY/2011/03	2013-07-31	IS5	09:07:37	1.0	Surface	1	1	29.6	8.28	17.38	85.8	5.94	6.8	4	
HCLR	HY/2011/03	2013-07-31	IS5	09:06:43	1.0	Surface	1	2	29.58	8.28	17.43	83.3	5.76	6.7	5.2	
HCLR	HY/2011/03	2013-07-31	IS5	09:06:26	4.2	Middle	2	1	27.89	8.22	25.12	74.4	5.15	10.3	4.7	
HCLR	HY/2011/03	2013-07-31	IS5	09:07:14	4.2	Middle	2	2	27.91	8.22	25.1	74.9	5.17	10.2	4.7	
HCLR	HY/2011/03	2013-07-31	IS5	09:06:57	7.4	Bottom	3	1	27.65	8.22	26.77	74.3	5.04	10.1	4.2	
HCLR	HY/2011/03	2013-07-31	IS5	09:06:13	7.4	Bottom	3	2	27.69	8.21	26.67	75.2	5.1	10.3	4.7	
HCLR	HY/2011/03	2013-07-31	IS(MF)6	08:58:53	1.0	Surface	1	1	29.37	8.34	17.14	96.8	6.73	3.4	3.3	
HCLR	HY/2011/03	2013-07-31	IS(MF)6	08:58:31	1.0	Surface	1	2	29.46	8.32	17.33	97.6	6.77	3.5	3.9	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS(MF)6	08:58:16	2.1	Bottom	3	1	29.43	8.26	19.4	95.6	6.56	3.5	3.8	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS(MF)6	08:58:40	2.1	Bottom	3	2	29.47	8.25	19.74	95.5	6.53	3.5	4.4	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS7	08:52:10	1.0	Surface	1	1	29.26	8.33	17.13	95.4	6.64	8.3	4.4	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS7	08:52:31	1.0	Surface	1	2	29.29	8.36	17.11	97.7	6.75	8.3	4.1	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS7	08:52:18	2.2	Bottom	3	1	29.28	8.29	18.77	90.8	6.28	9.3	4.7	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS7	08:52:01	2.2	Bottom	3	2	29.15	8.24	19.08	93	6.42	8.9	4.1	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS8	08:30:01	1.0	Surface	1	1	29.36	8.25	17.97	81.4	5.63	9.3	3.7	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS8	08:29:32	1.0	Surface	1	2	29.39	8.25	18.12	83.2	5.75	9.2	3.2	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS8	08:29:19	3.1	Bottom	3	1	28.64	8.1	21.55	77	5.29	9.3	4.6	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS8	08:29:49	3.1	Bottom	3	2	28.69	8.09	21.06	75.7	5.21	9.2	3.4	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS(MF)9	08:46:16	1.0	Surface	1	1	29.15	8.32	17.41	91.2	6.35	8.4	2.7	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS(MF)9	08:45:57	1.0	Surface	1	2	29.12	8.3	17.47	90	6.28	8.3	3.1	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS(MF)9	08:46:06	2.6	Bottom	3	1	28.88	8.19	20.09	88.6	6.11	8.7	5.4	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS(MF)9	08:45:48	2.6	Bottom	3	2	28.91	8.16	20.02	87.9	6.06	8.4	5	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS10	08:16:25	1.0	Surface	1	1	28.99	8.03	16.7	83.6	5.86	4.5	2.6	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS10	08:17:04	1.0	Surface	1	2	28.95	8.03	16.83	83.8	5.88	4.6	2.9	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS10	08:16:48	4.9	Middle	2	1	27.95	7.96	22.28	76.6	5.23	9.6	2.4	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS10	08:16:09	4.9	Middle	2	2	28.35	7.97	21.62	77.2	5.32	9.1	2.9	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS10	08:15:52	8.8	Bottom	3	1	27.7	7.94	25.78	69.5	4.84	11.5	3.3	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	IS10	08:16:39	8.8	Bottom	3	2	27.47	7.92	26.13	69.3	4.8	11.2	4.3	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR3	09:14:16	0.6	Middle	2	1	29.67	8.27	17.2	93.3	6.45	5.3	5	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR3	09:14:21	0.6	Middle	2	2	29.69	8.27	17.16	93.7	6.48	5.2	6.3	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR4	08:35:23	1.0	Surface	1	1	28.99	8.19	16.59	83.7	5.87	7.1	4.9	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR4	08:35:41	1.0	Surface	1	2	29.1	8.18	17.72	84.3	5.82	7.3	5.1	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR4	08:35:15	2.9	Bottom	3	1	29.01	8.15	19.04	84.1	5.87	8.2	5	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR4	08:35:30	2.9	Bottom	3	2	29.01	8.15	19.01	84.3	5.83	8.2	4.7	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR5	08:25:53	1.0	Surface	1	1	28.88	7.99	16.93	82.9	5.82	3.1	3.7	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR5	08:26:22	1.0	Surface	1	2	28.89	8	16.85	82.4	5.79	3.2	2.6	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR5	08:25:37	4.3	Bottom	3	1	28.53	7.93	20.9	78.4	5.41	3.5	3.5	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR5	08:26:09	4.3	Bottom	3	2	28.41	7.93	21.84	78.8	5.43	3.6	2.2	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR10A	07:21:57	1.0	Surface	1	1	28.61	8.26	20.06	87.4	6.05	2.1	3	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR10A	07:21:26	1.0	Surface	1	2	28.6	8.25	20.44	87.7	6.06	2.1	2.4	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR10A	07:21:13	3.3	Middle	2	1	28.4	8.24	21.37	85.3	5.89	2.1	3.8	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR10A	07:21:48	3.3	Middle	2	2	28.44	8.24	21.04	85.7	5.92	2.2	3.4	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR10A	07:21:01	5.6	Bottom	3	1	28.37	8.23	22.56	86.9	5.97	2.1	4.2	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR10A	07:21:37	5.6	Bottom	3	2	28.33	8.23	22.33	86.4	5.94	2.1	3.2	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR10B	07:16:17	1.0	Surface	1	1	27.96	8.23	22.38	76.4	5.28	2.3	2.9	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR10B	07:15:58	1.0	Surface	1	2	27.83	8.23	22.52	75.4	5.22	2.2	2.5	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR10B	07:16:07	4.1	Bottom	3	1	27.56	8.2	26.07	75.3	5.14	2.2	2.3	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	SR10B	07:15:49	4.1	Bottom	3	2	27.47	8.2	26.43	75.5	5.15	2.3	2.4	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	CS2	09:39:03	1.0	Surface	1	1	29.41	8.07	14.61	89.4	6.3	3.6	2.6	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	CS2	09:38:10	1.0	Surface	1	2	29.33	8.06	14.92	87.4	6.16	3.7	2.6	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	CS2	09:38:46	3.3	Middle	2	1	28.43	7.96	20.97	74.4	5.05	5.9	3.6	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	CS2	09:37:55	3.3	Middle	2	2	28.29	7.95	21.21	73.8	5	6.2	2.4	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	CS2	09:37:34	5.5	Bottom	3	1	27.64	7.95	26.91	70.6	4.89	8.6	3.9	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	CS2	09:38:28	5.5	Bottom	3	2	27.58	7.95	26.98	72.8	5.03	8.8	2.6	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	CS(MF)5	07:56:02	1.0	Surface	1	1	28.7	8.26	18.57	81.9	5.71	2.2	2.7	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	CS(MF)5	07:56:45	1.0	Surface	1	2	28.74	8.27	18.5	82.6	5.76	2.2	2.1	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	CS(MF)5	07:55:52	6.2	Middle	2	1	28.23	8.23	22.67	74.8	5.14	2.2	2.9	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	CS(MF)5	07:56:34	6.2	Middle	2	2	28.17	8.23	23.02	74.5	5.12	2.2	2.4	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	CS(MF)5	07:55:38	11.3	Bottom	3	1	26.51	8.18	28.86	74.8	5.11	2.3	2.6	
HKLR	HY/2011/03	2013-07-31	Mid-Ebb	Fine	CS(MF)5	07:56:20	11.3	Bottom	3	2	26.53	8.19	28.82	74.2	5.07	2.3	2.4	
HKLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS5	13:43:53	1.0	Surface	1	1	29.92	8.53	18.05	112.8	7.73	7.8	7.5	
HKLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS5	13:43:03	1.0	Surface	1	2	29.92	8.52	18.06	110.8	7.59	7.4	6.9	
HKLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS5	13:42:44	4.4	Middle	2	1	29.04	8.28	21.85	78.7	5.36	8.5	7.4	
HKLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS5	13:43:35	4.4	Middle	2	2	29.33	8.32	21.93	81.2	5.5	8.6	7.5	
HKLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS5	13:42:28	7.7	Bottom	3	1	27.6	8.23	26.79	75.4	5.12	11	9	
HKLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS5	13:43:21	7.7	Bottom	3	2	27.68	8.23	26.57	79.6	5.4	10.7	10.1	
HKLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS(MF)6	13:51:56	1.0	Surface	1	1	29.93	8.64	17.57	140.4	9.65	9.6	6.8	
HKLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS(MF)6	13:52:23	1.0	Surface	1	2	29.94	8.65	17.54	140.8	9.68	9.5	6.7	
HKLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS(MF)6	13:51:44	2.2	Bottom	3	1	29.77	8.46	18.38	131.4	9.01	9.6	6.1	
HKLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS(MF)6	13:52:10	2.2	Bottom	3	2	29.84	8.47	18.24	131.5	9.02	9.6	6.5	
HKLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS7	13:59:44	1.0	Surface	1	1	30.15	8.68	17.83	145.3	10.02	6.4	5.6	
HKLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS7	13:59:24	1.0	Surface	1	2	30.13	8.68	17.83	143.8	9.92	6.5	7	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS7	13:59:15	2.1	Bottom	3	1	30.11	8.66	17.84	143.1	9.87	6.7	7.8	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS7	13:59:32	2.1	Bottom	3	2	30.12	8.67	17.84	143.9	9.93	6.5	7	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS8	14:25:40	1.0	Surface	1	1	30.28	8.54	18.46	111.8	7.6	8.54	7.1	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS8	14:25:13	1.0	Surface	1	2	29.64	8.48	18.73	103.3	7.08	8.48	9.4	6.2
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS8	14:25:50	2.8	Bottom	3	1	29.05	8.26	20	99.8	6.87	10.5	7	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS8	14:25:01	2.8	Bottom	3	2	28.9	8.23	21.05	96	6.59	10.8	6.5	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS(MF)9	14:07:11	1.0	Surface	1	1	30.07	8.65	18.52	134.8	9.2	8.4	7.7	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS(MF)9	14:06:46	1.0	Surface	1	2	30.32	8.64	18.54	133.5	9.11	8.64	7.1	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS(MF)9	14:07:00	2.7	Bottom	3	1	29.33	8.43	20.16	124.9	8.55	8.5	8	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS(MF)9	14:06:34	2.7	Bottom	3	2	29.39	8.44	20.33	127.3	8.69	8.5	7.3	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:49:37	1.0	Surface	1	1	29.55	8.1	19	96.8	6.64	14.5	14.3	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:47:33	1.0	Surface	1	2	29.71	8.14	18.49	96.3	6.75	14.9	14.4	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:47:09	5.0	Middle	2	1	27.91	7.94	23.6	76.3	5.38	9.3	13.3	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:48:57	5.0	Middle	2	2	28	7.94	23.47	78	5.35	9.2	14	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:46:45	9.0	Bottom	3	1	27.43	7.95	27.28	72.2	4.9	10.2	13.6	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:48:30	9.0	Bottom	3	2	27.14	7.93	27.51	72.7	5.01	14.7	14	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:47:33	1.0	Surface	1	1	29.93	8.54	18.05	125.2	8.58	6.9	6.2	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:47:33	1.0	Surface	1	2	29.96	8.54	17.96	126.3	8.66	7.2	4.7	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:48:57	0.8	Middle	2	1	29.98	8.38	18.36	92.8	6.34	8.6	5.2	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:48:57	0.8	Middle	2	2	30.06	8.4	18.33	92.7	6.33	8.5	5.4	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:17:51	1.0	Surface	1	1	28.46	8.23	20.92	91.5	6.33	10.5	5.5	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:17:44	2.6	Bottom	3	1	28.46	8.23	20.92	91.5	6.33	10.5	5.5	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:18:05	2.6	Bottom	3	2	28.48	8.23	20.92	91.5	6.32	10.3	5	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:36:52	1.0	Surface	1	1	29.9	8.16	18.01	106	7.27	7.3	12.8	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:37:36	1.0	Surface	1	2	29.58	8.1	18.59	105.5	7.3	7.5	12.3	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:36:30	4.5	Bottom	3	1	28.29	7.97	21.78	82.4	5.69	8.8	12.8	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10	14:37:16	4.5	Bottom	3	2	28.07	7.96	22.77	79	5.44	9	13.8	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10A	15:40:20	1.0	Surface	1	1	28.89	8.42	21.03	99.2	6.81	2.3	4	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10A	15:41:31	1.0	Surface	1	2	28.69	8.39	21.59	97.3	6.68	2.2	4.1	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10A	15:40:07	3.3	Middle	2	1	27.95	8.32	23.67	97.5	6.69	2.5	4	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10A	15:41:15	3.3	Middle	2	2	27.85	8.31	24.26	86.9	5.96	2.5	3.2	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10A	15:39:58	5.5	Bottom	3	1	27.86	8.34	24.66	90.1	6.19	2.5	5.6	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10A	15:41:06	5.5	Bottom	3	2	27.81	8.31	24.7	86.3	5.91	2.4	6.9	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10B	15:49:52	1.0	Surface	1	1	28.59	8.39	21.65	97	6.67	2.1	4.1	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10B	15:50:13	1.0	Surface	1	2	28.37	8.36	21.97	94.7	6.52	2.1	4.2	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10B	15:50:03	4.3	Bottom	3	1	28.01	8.32	24.2	95.1	6.51	2.1	3.7	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	IS10B	15:49:40	4.3	Bottom	3	2	28.02	8.32	24.08	93.6	6.4	2.1	3.7	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	CS2	13:15:57	1.0	Surface	1	1	30.03	8.18	15.92	102.4	7.09	3.8	3.2	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	CS2	13:16:51	1.0	Surface	1	2	30.04	8.13	15.88	98	6.78	3.9	3.3	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	CS2	13:16:36	3.6	Middle	2	1	28.69	7.98	21.21	77.4	5.32	5.5	2.6	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	CS2	13:15:39	3.6	Middle	2	2	28.67	8.06	21.2	75.9	5.22	5.6	2.5	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	CS2	13:16:22	6.1	Bottom	3	1	27.96	7.97	24.19	73.2	5.01	8.3	3.1	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	CS2	13:15:27	6.1	Bottom	3	2	28.08	8.11	23.67	75.4	5.17	8.2	3.1	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	CS(MF)5	15:06:48	1.0	Surface	1	1	28.82	8.44	21.32	108.7	7.45	2.9	2.8	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	CS(MF)5	15:05:39	1.0	Surface	1	2	29.01	8.48	21.13	110.1	7.53	2.8	2.6	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	CS(MF)5	15:05:11	6.2	Middle	2	1	27.58	8.18	25.77	81.7	5.59	5.8	4.2	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	CS(MF)5	15:06:13	6.2	Middle	2	2	27.41	8.17	26.32	79.2	5.42	5.6	3.2	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	CS(MF)5	15:05:57	11.4	Bottom	3	1	25.64	8.2	31.06	72.8	4.99	5.6	4.8	
HCLR	HY/2011/03	2013-07-31	Mid-Flood	Sunny	CS(MF)5	15:04:55	11.4	Bottom	3	2	25.77	8.21	30.85	71.7	4.91	5.6	4.6	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS5	13:01:56	1.0	Surface	1	1	29.62	8.35	20.57	78.3	5.32	9.2	7.4	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS5	13:02:35	1.0	Surface	1	2	29.48	8.36	20.72	80.6	5.5	10.4	7.2	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS5	13:02:19	4.7	Middle	2	1	28.05	8.37	25.28	74.6	5.07	15.8	6.6	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS5	13:01:33	4.7	Middle	2	2	28.13	8.37	24.84	74.2	5.03	15.7	7	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS5	13:01:22	8.4	Bottom	3	1	28.03	8.35	25.7	71.4	4.84	14.7	7.9	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS5	13:02:10	8.4	Bottom	3	2	28.16	8.35	25.41	71.7	4.86	13.9	8.7	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS(MF)6	12:54:27	1.0	Surface	1	1	29.19	8.32	19.47	80.7	5.55	11.2	3.9	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS(MF)6	12:54:05	1.0	Surface	1	2	29.38	8.31	19.06	84	5.78	11.7	3.7	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS(MF)6	12:54:17	2.2	Bottom	3	1	28.96	8.31	21.15	80.3	5.49	14.5	4.4	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS(MF)6	12:53:51	2.2	Bottom	3	2	29.16	8.3	21.04	83.3	5.68	13.8	5.1	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS7	12:48:08	1.0	Surface	1	1	29.52	8.25	19.72	73.6	5.03	14.5	4.3	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS7	12:47:45	1.0	Surface	1	2	29.65	8.27	19.27	74.3	5.08	13.8	5	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS7	12:47:52	2.4	Bottom	3	1	29.04	8.25	21.5	73	4.98	18.8	5	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS7	12:47:30	2.4	Bottom	3	2	28.22	8.23	23.05	70	4.8	18.8	5.5	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS8	12:23:50	1.0	Surface	1	1	29.78	8.32	18.03	81	5.57	9.2	4.1	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS8	12:24:15	1.0	Surface	1	2	29.67	8.3	18.29	80.7	5.54	8.5	4.1	

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	S58	12:23:40	2.5	Bottom	3	1	28.94	8.3	21.57	76.5	5.23	14.7	4.1	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	S58	12:24:02	2.5	Bottom	3	2	28.99	8.28	21.55	77.7	5.3	14	5.3	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS(MF)9	12:41:07	1.0	Surface	1	1	29.27	8.31	19.46	81.5	5.61	7.9	5.7	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS(MF)9	12:41:25	1.0	Surface	1	2	29.27	8.31	19.56	81.4	5.6	7.7	6.7	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS(MF)9	12:40:55	2.4	Bottom	3	1	29.03	8.3	20.33	78.4	5.39	10	6	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS(MF)9	12:41:15	2.4	Bottom	3	2	29.12	8.3	20.43	81.1	5.55	10.7	6.3	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS10	12:26:30	1.0	Surface	1	1	29.37	7.94	15.38	75.7	5.31	7.8	3.9	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS10	12:25:10	1.0	Surface	1	2	29.36	7.9	15.46	76.9	5.39	7.5	2.4	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS10	12:26:18	5.3	Middle	2	1	29.06	7.93	17.05	73.5	5.06	10.3	3.5	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS10	12:24:55	5.3	Middle	2	2	29.02	7.92	17.04	73.2	5.12	10.4	3.5	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS10	12:25:26	9.5	Bottom	3	1	27.51	7.86	25.87	69.4	4.74	10.2	4.6	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	IS10	12:24:36	9.5	Bottom	3	2	27.92	7.83	25.17	71.6	4.88	10.5	5.1	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	S83	13:10:43	0.8	Middle	2	1	29.73	8.34	20.4	84.1	5.71	7.1	9	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	S83	13:10:34	0.8	Middle	2	2	29.77	8.34	20.37	84.3	5.72	6.8	7.7	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	S84	12:29:36	1.0	Surface	1	1	29.67	8.22	18.2	79.9	5.5	6.9	6	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	S84	12:29:51	1.0	Surface	1	2	29.59	8.22	18.12	78.5	5.41	7.5	6.2	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	S84	12:29:45	2.6	Bottom	3	1	29.52	8.21	18.74	79	5.43	7.9	5.3	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	S84	12:29:23	2.6	Bottom	3	2	29.52	8.21	18.79	79.2	5.44	8	6.6	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	S85	12:32:20	1.0	Surface	1	1	29.31	7.9	15.52	77.6	5.45	4.6	3	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	S85	12:32:47	1.0	Surface	1	2	29.41	7.89	15.49	78.3	5.49	4.6	3.4	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	S85	12:32:10	3.5	Bottom	3	1	29.12	7.88	17.04	77.7	5.43	4.7	2.8	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	S85	12:32:33	3.5	Bottom	3	2	29.09	7.88	17.04	76.9	5.37	4.7	3.3	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	SR10A	11:03:04	1.0	Surface	1	1	29.11	8.25	18.98	81.2	5.61	3.5	3.5	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	SR10A	11:04:38	1.0	Surface	1	2	29.12	8.24	18.7	82.3	5.7	3.5	4	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	SR10A	11:04:27	3.2	Middle	2	1	28.98	8.26	18.85	82.4	5.71	3.5	3.6	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	SR10A	11:02:53	3.2	Middle	2	2	28.92	8.25	19.49	80.5	5.57	3.6	3.5	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	SR10A	11:02:40	5.3	Bottom	3	1	28.76	8.25	20.24	80.3	5.54	3.6	4.7	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	SR10A	11:04:19	5.3	Bottom	3	2	28.78	8.25	20.02	80.3	5.54	3.6	4.7	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	SK10B	10:54:26	1.0	Surface	1	1	28.59	8.29	21.56	78.3	5.4	4.1	6.2	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	SK10B	10:54:47	1.0	Surface	1	2	28.56	8.29	21.56	78.2	5.38	4	5.1	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	SK10B	10:54:38	4.4	Bottom	3	1	28.54	8.28	21.86	78.1	5.37	6.3	9.2	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	SK10B	10:54:17	4.4	Bottom	3	2	28.53	8.29	21.87	78.1	5.37	6.6	8.2	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	CS2	14:01:04	1.0	Surface	1	1	29.62	7.88	16.03	76.6	5.34	5.2	3.7	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	CS2	14:00:29	1.0	Surface	1	2	29.54	7.91	15.76	75.4	5.27	5	4.3	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	CS2	14:00:15	3.9	Middle	2	1	29.14	7.94	17.28	74.8	5.2	5.1	4.2	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	CS2	14:00:53	3.9	Middle	2	2	29.28	7.89	16.85	74.9	5.22	5.3	5.8	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	CS2	14:00:03	6.7	Bottom	3	1	28.43	7.89	22.05	70.2	4.83	5.3	4.1	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	CS2	14:00:44	6.7	Bottom	3	2	29.17	7.88	22.06	71.6	4.99	5.5	5.2	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	CS(MF)5	11:46:13	1.0	Surface	1	1	29.06	8.26	18.95	76.7	5.3	5.4	4.4	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	CS(MF)5	11:45:11	1.0	Surface	1	2	28.99	8.26	19.11	76.8	5.31	5.2	4.9	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	CS(MF)5	11:45:43	6.7	Middle	2	1	27.11	8.29	27.39	73.5	5.08	8.9	4.5	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	CS(MF)5	11:44:39	6.7	Middle	2	2	27.11	8.29	27.28	73.2	5.05	8.2	5	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	CS(MF)5	11:45:33	12.4	Bottom	3	1	27.02	8.28	28.01	70	4.78	8.2	5.6	
HCLR	HY/2011/03	2013-08-05	Mid-Ebb	Sunny	CS(MF)5	11:44:20	12.4	Bottom	3	2	27.04	8.26	27.94	69.8	4.76	7.6	5.3	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S5	17:51:45	1.0	Surface	1	1	30.17	8.33	18.75	80.2	5.45	13.7	9.6	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S5	17:52:27	1.0	Surface	1	2	30.23	8.33	18.72	80.5	5.47	13.7	10	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S5	17:51:33	4.8	Middle	2	1	29.61	8.32	20.12	77	5.25	14.9	10	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S5	17:52:10	4.8	Middle	2	2	29.41	8.32	20.49	74.3	5.07	15.2	9.7	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S5	17:52:01	8.5	Bottom	3	1	29.36	8.31	21.31	76.7	5.21	18.7	10.1	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S5	17:51:23	8.5	Bottom	3	2	29.71	8.31	20.18	79.3	5.39	17.4	10.3	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	IS(MF)6	18:00:09	1.0	Surface	1	1	30.63	8.35	18.09	88	5.96	7.1	4.3	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	IS(MF)6	18:00:23	1.0	Surface	1	2	30.5	8.34	18.14	87.7	5.95	7.3	3.9	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	IS(MF)6	18:00:15	2.1	Bottom	3	1	30.31	8.33	19.16	87.7	5.94	12.6	3.4	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	IS(MF)6	17:59:57	2.1	Bottom	3	2	30.01	8.32	19.29	86.7	5.89	13.1	3.3	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S7	18:07:10	1.0	Surface	1	1	30.86	8.36	17.78	89.9	6.08	6.2	3.5	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S7	18:07:31	1.0	Surface	1	2	31.12	8.38	17.67	92.7	6.24	5.9	4.2	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S7	18:07:17	2.4	Bottom	3	1	30.44	8.33	18.41	89.1	6.04	9	4.4	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S7	18:07:00	2.4	Bottom	3	2	30.32	8.32	19.28	88.7	6	8.7	3.4	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S8	18:36:34	1.0	Surface	1	1	29.86	8.29	16.99	77.6	5.36	14.5	7	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S8	18:36:17	1.0	Surface	1	2	29.94	8.29	16.96	79.1	5.45	13.2	6.4	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S8	18:36:08	2.4	Bottom	3	1	29.67	8.27	18.73	78.9	5.41	16.1	7.4	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	S8	18:36:26	2.4	Bottom	3	2	29.67	8.26	19.01	77.8	5.33	16.5	7.5	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	IS(MF)9	18:15:12	1.0	Surface	1	1	29.94	8.33	18.22	83.2	5.7	8.6	3.9	
HCLR	HY/2011/03	2013-08-05	Mid-Flood	Sunny	IS(MF)9	18:15:28	1.0	Surface	1	2	29.84	8.34	18.29	83	5.69	8.9	4.5	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-08-05	Sunny	IS(MF)9	18:15:02	2.3	Bottom	3	1	29.69	8.32	19.6	83.1	5.67	10.2	5.5	
HKLR	HY/2011/03	2013-08-05	Sunny	IS(MF)9	18:15:22	2.3	Bottom	3	2	29.71	8.32	19.78	82.9	5.65	11	5.8	
HKLR	HY/2011/03	2013-08-05	Sunny	IS10	19:23:35	1.0	Surface	1	1	29.77	7.94	17.56	75.1	5.29	13.5	16.4	
HKLR	HY/2011/03	2013-08-05	Sunny	IS10	19:22:54	1.0	Surface	1	2	29.73	7.94	17.7	75.1	5.17	13.5	16.4	
HKLR	HY/2011/03	2013-08-05	Sunny	IS10	19:28:21	5.2	Middle	2	1	29.12	7.93	20.6	73.8	5.05	13.5	16	
HKLR	HY/2011/03	2013-08-05	Sunny	IS10	19:22:41	5.2	Middle	2	2	29.17	7.93	21.13	74.5	5.09	13.4	16.6	
HKLR	HY/2011/03	2013-08-05	Sunny	IS10	19:22:31	9.4	Bottom	3	1	27.99	7.89	24.27	69.5	4.74	14.7	17	
HKLR	HY/2011/03	2013-08-05	Sunny	IS10	19:23:05	9.4	Bottom	3	2	27.99	7.89	24.2	70.7	4.84	14.6	18.6	
HKLR	HY/2011/03	2013-08-05	Sunny	SR3	17:39:21	0.9	Middle	2	1	30.26	8.31	18.7	83.9	5.7	12.1	9.8	
HKLR	HY/2011/03	2013-08-05	Sunny	SR3	17:39:15	0.9	Middle	2	2	30.22	8.31	18.78	83.9	5.7	12.4	8.5	
HKLR	HY/2011/03	2013-08-05	Sunny	SR4	18:27:45	1.0	Surface	1	1	30.5	8.31	16.38	85.5	5.87	10.5	11.3	
HKLR	HY/2011/03	2013-08-05	Sunny	SR4	18:27:27	1.0	Surface	1	2	30.5	8.32	16.4	85.7	5.86	11.1	12.4	
HKLR	HY/2011/03	2013-08-05	Sunny	SR4	18:27:16	2.4	Bottom	3	1	30.51	8.33	16.45	85.9	5.88	11.6	10.9	
HKLR	HY/2011/03	2013-08-05	Sunny	SR4	18:27:36	2.4	Bottom	3	2	30.51	8.32	16.43	85.6	5.86	10.9	11.1	
HKLR	HY/2011/03	2013-08-05	Sunny	SR5	19:12:19	1.0	Surface	1	1	29.82	7.84	17.84	80.1	5.51	13.5	15.2	
HKLR	HY/2011/03	2013-08-05	Sunny	SR5	19:12:41	1.0	Surface	1	2	29.82	7.86	17.89	80.2	5.51	13.5	15.1	
HKLR	HY/2011/03	2013-08-05	Sunny	SR5	19:12:29	3.6	Bottom	3	1	29.61	7.84	18.78	79.8	5.48	13.6	16.1	
HKLR	HY/2011/03	2013-08-05	Sunny	SR5	19:12:07	3.6	Bottom	3	2	29.54	7.8	18.83	79.2	5.44	13.3	16.9	
HKLR	HY/2011/03	2013-08-05	Sunny	SR10A	19:48:11	1.0	Surface	1	1	28.08	8.34	24.7	74.2	5.05	6.6	5	
HKLR	HY/2011/03	2013-08-05	Sunny	SR10A	19:47:19	1.0	Surface	1	2	28.15	8.33	24.69	74.4	5.06	6.6	5.2	
HKLR	HY/2011/03	2013-08-05	Sunny	SR10A	19:47:57	3.4	Middle	2	1	27.94	8.34	25.79	73.7	5	7.2	5.8	
HKLR	HY/2011/03	2013-08-05	Sunny	SR10A	19:47:06	3.4	Middle	2	2	27.94	8.35	25.85	73.9	5.01	7.4	5.1	
HKLR	HY/2011/03	2013-08-05	Sunny	SR10A	19:46:52	5.7	Bottom	3	1	27.89	8.34	25.95	73.7	5	7.7	6.4	
HKLR	HY/2011/03	2013-08-05	Sunny	SR10A	19:47:46	5.7	Bottom	3	2	27.92	8.34	25.87	73.7	5	7.5	5.5	
HKLR	HY/2011/03	2013-08-05	Sunny	SR10B	19:59:24	1.0	Surface	1	1	28.07	8.34	24.76	73.7	5.03	6.5	6.5	
HKLR	HY/2011/03	2013-08-05	Sunny	SR10B	19:58:58	1.0	Surface	1	2	28.06	8.34	24.84	73.8	5.03	6.7	6.2	
HKLR	HY/2011/03	2013-08-05	Sunny	SR10B	19:59:11	4.7	Bottom	3	1	27.97	8.34	25.79	73.5	4.99	6.8	7.5	
HKLR	HY/2011/03	2013-08-05	Sunny	SR10B	19:58:45	4.7	Bottom	3	2	27.95	8.34	25.85	73.5	4.99	6.9	6.8	
HKLR	HY/2011/03	2013-08-05	Sunny	CS2	17:27:04	1.0	Surface	1	1	30.12	7.79	17.79	80.4	5.59	8.4	5.7	
HKLR	HY/2011/03	2013-08-05	Sunny	CS2	17:26:23	1.0	Surface	1	2	30.11	7.78	15.01	81.7	5.68	8.3	4.1	
HKLR	HY/2011/03	2013-08-05	Sunny	CS2	17:26:11	4.0	Middle	2	1	30.07	7.77	16.59	77.8	5.36	8.6	6.1	
HKLR	HY/2011/03	2013-08-05	Sunny	CS2	17:26:49	4.0	Middle	2	2	29.22	7.79	17.16	76.8	5.28	8.8	6.6	
HKLR	HY/2011/03	2013-08-05	Sunny	CS2	17:25:45	6.9	Bottom	3	1	28.55	7.77	21.6	73.6	5.06	8.8	6.6	
HKLR	HY/2011/03	2013-08-05	Sunny	CS2	17:26:35	6.9	Bottom	3	2	28.6	7.77	21.45	72.2	5.03	8.7	6	
HKLR	HY/2011/03	2013-08-05	Sunny	CS(MF)5	19:15:03	1.0	Surface	1	1	28.98	8.3	21.28	78.5	5.37	6	5.7	
HKLR	HY/2011/03	2013-08-05	Sunny	CS(MF)5	19:14:09	1.0	Surface	1	2	28.75	8.31	21.39	75.4	5.18	6.2	6.9	
HKLR	HY/2011/03	2013-08-05	Sunny	CS(MF)5	19:13:41	6.8	Middle	2	1	27.6	8.31	25.51	73.3	5.04	7.7	5.1	
HKLR	HY/2011/03	2013-08-05	Sunny	CS(MF)5	19:14:41	6.8	Middle	2	2	27.61	8.32	25.53	73.5	5.02	7.4	6.7	
HKLR	HY/2011/03	2013-08-05	Sunny	CS(MF)5	19:13:29	12.5	Bottom	3	1	27.51	8.3	26.41	70.7	4.82	7.4	6.2	
HKLR	HY/2011/03	2013-08-05	Sunny	CS(MF)5	19:14:30	12.5	Bottom	3	2	27.48	8.31	26.13	69.5	4.76	7.3	6.7	
HKLR	HY/2011/03	2013-08-07	Sunny	IS5	14:41:54	1.0	Surface	1	1	29.53	8.33	22.51	75.3	5.07	10.7	25.4	
HKLR	HY/2011/03	2013-08-07	Sunny	IS5	14:42:38	1.0	Surface	1	2	29.55	8.33	22.5	75.1	5.05	10.7	24.6	
HKLR	HY/2011/03	2013-08-07	Sunny	IS5	14:41:34	4.1	Middle	2	1	29.12	8.34	22.77	74.6	5.02	11.4	26.4	
HKLR	HY/2011/03	2013-08-07	Sunny	IS5	14:42:15	4.1	Middle	2	2	28.82	8.35	23.23	74.5	5.01	10.8	24.8	
HKLR	HY/2011/03	2013-08-07	Sunny	IS5	14:42:04	7.1	Bottom	3	1	28.98	8.33	25.13	72	4.82	12.1	24.8	
HKLR	HY/2011/03	2013-08-07	Sunny	IS5	14:41:26	7.1	Bottom	3	2	28.96	8.32	25.21	72	4.82	12.6	27.1	
HKLR	HY/2011/03	2013-08-07	Sunny	IS(MF)6	14:23:32	1.0	Surface	1	1	29.86	8.32	21.48	81.7	5.5	16.3	23.6	
HKLR	HY/2011/03	2013-08-07	Sunny	IS(MF)6	14:23:15	1.0	Surface	1	2	29.89	8.32	21.41	82.5	5.55	16.5	25.6	
HKLR	HY/2011/03	2013-08-07	Sunny	IS(MF)6	14:23:24	2.1	Bottom	3	1	29.8	8.32	21.75	82.3	5.54	17.6	24.6	
HKLR	HY/2011/03	2013-08-07	Sunny	IS(MF)6	14:23:06	2.1	Bottom	3	2	29.86	8.32	21.49	81.6	5.5	17.9	23.2	
HKLR	HY/2011/03	2013-08-07	Sunny	IS7	14:15:22	1.0	Surface	1	1	29.83	8.32	21.37	83.2	5.61	15.3	23.6	
HKLR	HY/2011/03	2013-08-07	Sunny	IS7	14:15:42	1.0	Surface	1	2	29.84	8.32	21.36	83.7	5.64	15.3	23	
HKLR	HY/2011/03	2013-08-07	Sunny	IS7	14:15:12	2.1	Bottom	3	1	29.76	8.32	23.55	76.5	5.13	16.8	26	
HKLR	HY/2011/03	2013-08-07	Sunny	IS7	14:15:29	2.1	Bottom	3	2	29.83	8.32	23.52	76.5	5.3	16.4	26.1	
HKLR	HY/2011/03	2013-08-07	Sunny	IS8	13:52:31	1.0	Surface	1	1	29.53	8.34	22.36	78.1	5.26	13.9	13.7	
HKLR	HY/2011/03	2013-08-07	Sunny	IS8	13:52:49	1.0	Surface	1	2	29.58	8.35	22.32	79.1	5.32	14.1	15	
HKLR	HY/2011/03	2013-08-07	Sunny	IS8	13:52:23	2.9	Bottom	3	1	29.33	8.33	22.93	77.7	5.24	15.5	12.2	
HKLR	HY/2011/03	2013-08-07	Sunny	IS8	13:52:40	2.9	Bottom	3	2	29.38	8.33	22.84	78.7	5.3	15.2	12.6	
HKLR	HY/2011/03	2013-08-07	Sunny	IS(MF)9	14:08:19	1.0	Surface	1	1	29.5	8.32	22.02	80.3	5.42	12.1	12.1	
HKLR	HY/2011/03	2013-08-07	Sunny	IS(MF)9	14:08:38	1.0	Surface	1	2	29.39	8.31	22.05	77.4	5.24	12.8	12.7	
HKLR	HY/2011/03	2013-08-07	Sunny	IS(MF)9	14:08:27	2.5	Bottom	3	1	29.47	8.31	22.14	80.2	5.42	14.2	12.3	
HKLR	HY/2011/03	2013-08-07	Sunny	IS(MF)9	14:08:11	2.5	Bottom	3	2	29.51	8.32	22.02	80	5.41	14.2	10.8	
HKLR	HY/2011/03	2013-08-07	Sunny	IS10	13:31:57	1.0	Surface	1	1	29.45	7.97	21.55	81.6	5.53	4.9	4.6	
HKLR	HY/2011/03	2013-08-07	Sunny	IS10	13:31:05	1.0	Surface	1	2	29.44	7.96	21.55	81.7	5.54	4.9	6.1	



Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	IS10	13:31:41	5.4	Middle	2	1	29.34	7.96	21.56	78.5	5.33	5.3	5.4	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	IS10	13:30:50	5.4	Middle	2	2	29.34	7.95	21.58	79.3	5.38	5.4	6	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	IS10	13:31:27	9.8	Bottom	3	1	29.17	7.95	21.75	77.2	5.25	5.6	6.4	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	IS10	13:30:41	9.8	Bottom	3	2	29.27	7.95	21.66	79.5	5.4	5.2	6	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR3	14:48:30	0.6	Middle	2	1	29.58	8.33	22.39	77.9	5.24	9.4	26.4	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR3	14:48:22	0.6	Middle	2	2	29.58	8.33	22.42	77.3	5.2	9.2	26.3	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR4	13:58:34	1.0	Surface	1	1	30.05	8.27	20.59	77.9	5.25	9.7	20.59	23.8
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR4	13:58:17	1.0	Surface	1	2	30.1	8.27	20.52	78.4	5.29	9.9	24.8	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR4	13:58:10	2.8	Bottom	3	1	29.95	8.26	20.85	78.3	5.28	10.4	21.8	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR4	13:58:25	2.8	Bottom	3	2	29.92	8.26	20.86	78	5.26	10.1	22.7	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR5	13:42:02	1.0	Surface	1	1	29.44	7.97	21.54	79.5	5.39	5	8.5	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR5	13:42:30	1.0	Surface	1	2	29.44	7.97	21.55	79.5	5.39	5	8.5	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR5	13:42:16	4.3	Bottom	3	1	29.15	7.96	21.87	77.2	5.25	5.7	5.2	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR5	13:41:48	4.3	Bottom	3	2	29.23	7.96	21.75	78.4	5.33	5.5	6.3	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR10A	12:37:41	1.0	Surface	1	1	28.48	8.33	26.36	76.5	5.16	3.7	6.4	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR10A	12:37:00	1.0	Surface	1	2	28.4	8.33	26.25	75.7	5.11	3.8	5.3	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR10A	12:36:51	3.3	Middle	2	1	28.2	8.34	27.19	76.6	5.16	4.2	9.1	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR10A	12:37:26	3.3	Middle	2	2	28.14	8.33	27.4	74.6	5.04	4.2	10.2	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR10A	12:37:18	5.6	Bottom	3	1	28.11	8.33	27.55	73.7	4.97	4.2	10.8	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR10A	12:36:40	5.6	Bottom	3	2	28.2	8.33	27.44	74.8	5.05	4.2	11.6	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR10B	12:30:52	1.0	Surface	1	1	28.54	8.34	26.42	78.4	5.28	7.6	5.28	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR10B	12:31:09	1.0	Surface	1	2	28.5	8.34	26.54	77.6	5.23	5.9	6.6	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR10B	12:30:44	3.7	Bottom	3	1	28.51	8.34	26.48	78.2	5.27	5.7	7	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	SR10B	12:31:01	3.7	Bottom	3	2	28.47	8.34	26.75	77.9	5.24	5.8	6.9	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	CS2	14:53:06	1.0	Surface	1	1	29.47	7.97	20.83	80.7	5.5	5.5	5.5	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	CS2	14:53:52	3.6	Middle	2	1	29.46	7.97	20.84	80.3	5.44	7.4	6.2	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	CS2	14:52:49	3.6	Middle	2	2	28.76	7.95	23.88	76.9	5.23	8.5	7.4	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	CS2	14:53:32	6.1	Bottom	3	1	28.81	7.96	23.39	76.2	5.18	8.8	6.8	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	CS2	14:52:34	6.1	Bottom	3	2	28.72	7.97	24.43	74.8	5.09	11.7	6.1	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	CS(MF)5	13:16:21	1.0	Surface	1	1	29.18	8.32	22.91	76.9	5.22	8.6	7.5	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	CS(MF)5	13:17:03	1.0	Surface	1	2	29.11	8.31	22.9	75.3	5.12	8.4	7.7	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	CS(MF)5	13:16:53	6.2	Middle	2	1	28.31	8.32	24.48	75.4	5.07	8.5	6.7	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	CS(MF)5	13:16:12	6.2	Middle	2	2	28.72	8.33	23.85	75.5	5.08	8.3	6.4	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	CS(MF)5	13:16:44	11.3	Bottom	3	1	28.02	8.3	27.75	72.4	4.89	8.6	7.5	
HKLR	HY/2011/03	2013-08-07	Mid-Ebb	Sunny	CS(MF)5	13:15:59	11.3	Bottom	3	2	28	8.32	27.77	70.1	4.73	8.4	7.2	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS5	18:56:20	1.0	Surface	1	1	29.42	8.36	22.26	81.4	5.49	22.1	11.1	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS5	18:55:55	1.0	Surface	1	2	29.45	8.36	22.14	81.5	5.51	22.2	9.3	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS5	18:55:47	4.1	Middle	2	1	29.37	8.35	22.43	81	5.47	22.5	11.9	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS5	18:56:11	4.1	Middle	2	2	29.37	8.35	22.43	80.8	5.45	22.1	12.7	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS(MF)6	19:04:16	1.9	Bottom	3	1	29.43	8.35	22.34	81.7	5.51	23.6	11.7	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS(MF)6	19:04:27	1.0	Surface	1	1	29.26	8.34	22.4	82.7	5.59	20.7	17.7	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS(MF)6	19:04:46	1.0	Surface	1	2	29.25	8.34	22.42	82.5	5.58	20.6	19.5	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS(MF)6	19:04:33	1.9	Bottom	3	1	29.26	8.34	22.42	82.8	5.6	21.3	17.4	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS(MF)6	19:04:33	1.9	Bottom	3	2	29.25	8.34	22.41	82.5	5.58	21.1	15.8	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS7	19:14:32	1.0	Surface	1	1	29.2	8.33	22.53	81.5	5.52	23.1	12.9	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS7	19:14:17	1.0	Surface	1	2	29.2	8.33	22.52	81.9	5.54	23.1	12.4	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS7	19:14:05	2.1	Bottom	3	1	29.21	8.33	22.56	82	5.55	22.5	16.7	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS7	19:14:23	2.1	Bottom	3	2	29.22	8.33	22.58	81.6	5.52	22.4	18.4	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS8	19:40:45	1.0	Surface	1	1	28.98	8.31	23.03	78.2	5.31	20.6	9.9	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS8	19:40:28	1.0	Surface	1	2	29.12	8.32	22.98	81.1	5.5	20.5	10.8	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS8	19:40:16	2.7	Bottom	3	1	28.95	8.3	24.1	81.7	5.53	20.9	12.2	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS8	19:40:37	2.7	Bottom	3	2	28.92	8.3	24.1	80.1	5.42	20.8	10.8	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS(MF)9	19:21:01	1.0	Surface	1	1	29.25	8.36	22.52	81.7	5.52	10.6	10.6	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS(MF)9	19:21:38	1.0	Surface	1	2	29.27	8.36	22.54	82	5.54	10.5	10.8	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS(MF)9	19:21:49	2.5	Bottom	3	1	29.23	8.34	22.75	81.3	5.49	14.1	8.3	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS(MF)9	19:21:27	2.5	Bottom	3	2	29.23	8.34	22.73	82	5.54	13.9	9.6	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS10	19:53:49	1.0	Surface	1	1	29.45	7.96	20.58	81.1	5.52	12.5	8.9	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS10	19:52:58	1.0	Surface	1	2	29.47	7.96	20.69	80.5	5.48	12.9	9.3	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS10	19:52:43	5.4	Middle	2	1	29.36	7.95	21.72	75.4	5.11	13.8	9.3	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS10	19:53:33	5.4	Middle	2	2	29.38	7.96	21.6	75.8	5.14	13	9	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS10	19:53:16	9.7	Bottom	3	1	28.97	7.94	23.44	73.3	4.95	14.9	11.4	
HKLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS10	19:52:25	9.7	Bottom	3	2	28.99	7.93	23.45	74.4	5.03	15.5	10.7	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR3	18:46:08	0.7	Middle	2	1	29.52	8.36	21.96	85.5	5.78	22.6	10.4	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR3	18:46:01	0.7	Middle	2	2	29.52	8.36	21.96	85.9	5.8	22.4	10.9	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR4	19:34:19	1.0	Surface	1	1	29.16	8.27	22.52	77.6	5.27	23.1	9.1	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR4	19:34:33	1.0	Surface	1	2	29.16	8.27	22.66	75.9	5.16	23.6	9.1	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR4	19:34:08	2.6	Bottom	3	1	29.15	8.26	22.8	77.6	5.26	22.3	7.9	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR4	19:34:27	2.6	Bottom	3	2	29.15	8.26	22.94	76.7	5.21	22.3	6.5	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR5	19:42:35	1.0	Surface	1	1	29.44	7.92	21.26	80.3	5.45	12.9	10.7	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR5	19:42:09	1.0	Surface	1	2	29.45	7.9	21.18	80.8	5.49	12.3	10.8	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR5	19:41:55	4.3	Bottom	3	1	29.42	7.89	21.46	81.1	5.5	13.5	8.2	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR5	19:42:21	4.3	Bottom	3	2	29.4	7.91	21.62	80.5	5.46	14.6	9	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR10A	20:51:21	1.0	Surface	1	1	28.63	8.34	25.3	74.8	5.09	7.5	7.1	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR10A	20:51:48	1.0	Surface	1	2	28.61	8.34	25.33	73.6	5.01	7.5	6.9	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR10A	20:51:37	3.2	Middle	2	1	28.5	8.35	26.05	74.3	5.06	7.7	6.4	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR10A	20:51:13	3.2	Middle	2	2	28.5	8.35	26.19	74.9	5.09	7.7	5.1	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR10A	20:51:28	5.4	Bottom	3	1	28.55	8.34	26	73.8	5.02	7.5	6	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR10A	20:51:05	5.4	Bottom	3	2	28.55	8.34	26.38	74.3	5.04	7.6	7.4	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR10B	20:59:57	1.0	Surface	1	1	28.56	8.35	25.32	73.6	5.02	6.4	11.6	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR10B	21:00:16	1.0	Surface	1	2	28.53	8.35	25.62	73.9	5.03	6.3	11.4	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR10B	20:59:49	3.6	Bottom	3	1	28.53	8.34	26.07	73.2	4.98	6.5	10.4	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	SR10B	21:00:07	3.6	Bottom	3	2	28.49	8.35	26.39	73.6	5	6.4	11.1	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	CS2	18:31:36	1.0	Surface	1	1	29.63	7.82	18.35	84.8	5.83	5.6	6.5	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	CS2	18:31:36	1.0	Surface	1	2	29.6	7.72	18.36	83.6	5.75	6	6.5	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	CS2	18:32:02	3.3	Middle	2	1	29.41	7.8	19.16	78.1	5.37	6.5	7.5	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	CS2	18:31:22	3.3	Middle	2	2	29.41	7.63	19.36	79.2	5.44	7	6.8	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	CS2	18:31:00	5.6	Bottom	3	1	28.94	7.23	22.12	80	5.45	9.8	6.3	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	CS2	18:31:48	5.6	Bottom	3	2	29.02	7.72	22.1	77	5.24	8.9	7.5	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	CS(MF)5	20:16:40	1.0	Surface	1	1	28.9	8.34	22.96	83.6	5.64	8.2	9.5	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	CS(MF)5	20:17:24	1.0	Surface	1	2	29.12	8.35	22.84	83.6	5.64	8.3	10	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	CS(MF)5	20:16:32	6.3	Middle	2	1	28.62	8.31	25.61	80.6	5.49	8.7	8.7	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	CS(MF)5	20:17:09	6.3	Middle	2	2	29.01	8.33	24.79	81.9	5.53	8.9	9.6	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	CS(MF)5	20:16:53	11.6	Bottom	3	1	28.57	8.32	25.91	82	5.54	8.7	13.8	
HCLR	HY/2011/03	2013-08-07	Mid-Flood	Fine	IS5	20:16:18	11.6	Bottom	3	2	28.62	8.32	25.9	78.7	5.32	8.6	14.2	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS5	13:32:20	1.0	Surface	1	1	29.85	8.27	21.3	74.8	5.04	15.2	12.6	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS5	13:32:59	1.0	Surface	1	2	29.85	8.26	21.27	74.7	5.04	15.2	13.4	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS5	13:32:06	4.2	Middle	2	1	29.6	8.27	21.72	74.2	5	15.3	14.7	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS5	13:32:46	4.2	Middle	2	2	29.68	8.27	21.48	74.3	5.01	15.4	14	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS5	13:31:57	7.4	Bottom	3	1	29.61	8.26	21.93	73.5	4.95	15.7	14	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS5	13:32:36	7.4	Bottom	3	2	29.57	8.26	22.36	73.1	4.92	15.7	13.7	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS(MF)6	13:39:26	1.0	Surface	1	1	29.96	8.24	20.97	75.9	5.12	12.4	6.6	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS(MF)6	13:39:08	1.0	Surface	1	2	29.99	8.24	20.96	76.5	5.15	12.2	7.4	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS(MF)6	13:38:56	2.3	Bottom	3	1	29.86	8.24	21.1	76.3	5.15	12.8	7.8	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS(MF)6	13:39:16	2.3	Bottom	3	2	29.8	8.24	21.15	75.7	5.12	12.6	7.9	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS7	13:45:39	1.0	Surface	1	1	29.83	8.19	20.29	75.8	5.11	15.7	9.8	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS7	13:46:00	1.0	Surface	1	2	29.65	8.19	20.63	75.8	5.11	15.6	9.2	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS7	13:45:26	2.3	Bottom	3	1	29.6	8.18	20.99	75.2	5.07	15.7	12.2	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS7	13:45:48	2.3	Bottom	3	2	29.71	8.19	20.61	74.8	5.05	15.5	13.4	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS8	14:11:42	1.0	Surface	1	1	30.21	8.25	19.66	78.2	5.29	9.2	6.9	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS8	14:11:59	1.0	Surface	1	2	30.13	8.25	19.72	77.9	5.27	8.9	5.6	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS8	14:11:31	2.7	Bottom	3	1	29.85	8.23	21.07	77.8	5.25	10.6	6.5	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS8	14:11:49	2.7	Bottom	3	2	29.88	8.22	21.07	77.8	5.25	10.3	6.2	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS(MF)9	13:55:23	1.0	Surface	1	1	29.92	8.22	20.12	74.4	5.04	9.8	4.3	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS(MF)9	13:55:48	1.0	Surface	1	2	29.85	8.22	19.93	74	5.03	9.6	5.5	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS(MF)9	13:55:08	2.3	Bottom	3	1	29.76	8.21	20.68	73.9	5.01	12.9	5.6	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS10	14:17:28	1.0	Surface	1	1	31.1	7.89	17.53	87.2	5.88	5	4	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS10	14:18:35	1.0	Surface	1	2	30.82	7.9	17.96	85.7	5.79	4.9	4.6	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS10	14:17:04	5.3	Middle	2	1	30.05	7.9	19.22	82.5	5.61	7.9	4.3	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS10	14:18:15	5.3	Middle	2	2	30.07	7.9	19.15	82.3	5.6	8	3.5	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS10	14:16:37	9.6	Bottom	3	1	30.06	7.89	19.18	83.4	5.67	8.4	4.9	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS10	14:18:04	9.6	Bottom	3	2	30.03	7.9	19.44	82.1	5.58	8.7	6.2	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR3	13:26:33	0.9	Middle	2	1	30.35	8.33	21.4	82.4	5.51	8.8	9.4	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR3	13:26:23	0.9	Middle	2	2	30.36	8.34	21.41	82.1	5.55	8.9	10.9	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR4	14:06:47	1.0	Surface	1	1	30.38	8.21	19.83	75.9	5.11	9.3	4.3	
HCLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR4	14:06:21	1.0	Surface	1	2	30.35	8.21	19.88	76.5	5.16	9.4	5.2	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR4	14:06:37	2.6	Bottom	3	1	30.05	8.21	20.08	75.2	5.09	9.3	7.8	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR4	14:06:11	2.6	Bottom	3	2	30.25	8.21	20.01	75.9	5.12	9.6	6.7	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR5	14:05:28	1.0	Surface	1	1	30.84	7.89	17.8	86.9	5.88	4.4	5	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR5	14:05:59	1.0	Surface	1	2	30.84	7.89	17.81	87	5.88	4.3	4	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR5	14:05:12	4.3	Bottom	3	1	30.22	7.9	18.52	84.1	5.72	4.9	6.4	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR5	14:05:42	4.3	Bottom	3	2	30.28	7.89	18.56	85.6	5.82	4.8	5.7	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR10A	15:22:13	1.0	Surface	1	1	29.92	8.29	21.66	78.2	5.25	5.8	6.2	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR10A	15:22:38	1.0	Surface	1	2	29.85	8.29	21.56	78.3	5.26	5.3	6.3	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR10A	15:22:01	3.2	Middle	2	1	29.87	8.29	21.76	77.9	5.24	5.4	5.1	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR10A	15:22:27	3.2	Middle	2	2	29.9	8.29	21.68	77.9	5.23	5.4	6.2	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR10A	15:21:54	5.4	Bottom	3	1	29.92	8.29	21.7	78.1	5.25	5.4	5.9	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR10A	15:22:20	5.4	Bottom	3	2	29.89	8.29	21.73	78	5.24	5.5	6.3	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR10B	15:27:03	1.0	Surface	1	1	29.59	8.29	22.68	75	5.04	6.9	7.8	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR10B	15:26:41	1.0	Surface	1	2	29.66	8.29	22.49	76.2	5.12	6.9	8.8	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR10B	15:26:34	3.7	Bottom	3	1	29.66	8.29	22.52	76.3	5.13	7.2	8.8	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	SR10B	15:26:51	3.7	Bottom	3	2	29.56	8.29	22.91	75.5	5.07	7.2	8.8	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	CS2	12:57:07	1.0	Surface	1	1	29.95	7.93	19.89	80.3	5.45	8.6	4.4	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	CS2	12:56:19	1.0	Surface	1	2	30.52	7.98	17.55	82.1	5.59	8.9	4.3	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	CS2	12:56:47	3.4	Middle	2	1	29.38	7.97	21.43	81.9	5.48	9.3	5.8	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	CS2	12:56:06	3.4	Middle	2	2	29.43	7.98	21.27	76.5	5.2	9.7	4.7	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	CS2	12:56:36	5.8	Bottom	3	1	29.22	7.95	24.21	77.2	5.18	12.7	5.5	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	CS2	12:55:39	5.8	Bottom	3	2	29.19	7.98	24.34	75.3	5.11	13.5	5.5	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	CS(MF)5	14:58:27	1.0	Surface	1	1	29.73	8.28	20.67	77.4	5.61	11.9	8.9	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	CS(MF)5	14:59:12	1.0	Surface	1	2	29.85	8.28	20.61	78.7	5.69	11.4	8.8	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	CS(MF)5	14:58:16	6.4	Middle	1	2	29.05	8.27	23.32	77.5	5.57	12.4	9	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	CS(MF)5	14:58:56	6.4	Middle	1	2	28.7	8.27	23.87	73.1	5.28	12.7	8.1	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	CS(MF)5	14:58:44	11.8	Bottom	3	1	28.34	8.26	26.46	70.7	5.15	12.8	10.6	
HKLR	HY/2011/03	2013-08-09	Mid-Ebb	Sunny	IS5	08:33:55	1.0	Surface	1	2	28.4	8.25	26.61	73.6	5.34	12.6	10.2	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS5	08:34:30	1.0	Surface	1	1	29.3	8.23	20.47	74.5	5.1	9.5	7.3	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS5	08:34:30	1.0	Surface	1	2	29.29	8.23	20.47	75.3	5.15	9.4	8.8	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS5	08:34:21	4.4	Middle	2	1	29.31	8.23	20.89	74.8	5.09	10.3	6.9	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS5	08:33:47	4.4	Middle	2	2	29.34	8.23	21.01	73.7	5.01	10.6	8	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS5	08:33:38	7.7	Bottom	3	1	29.33	8.22	21.32	72.6	4.95	10.3	7.4	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS5	08:34:09	7.7	Bottom	3	2	29.36	8.23	21.41	72.6	4.93	10.7	7.4	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS(MF)6	08:27:21	1.0	Surface	1	1	29.34	8.2	18.37	74.7	5.16	6.4	5.2	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS(MF)6	08:27:04	1.0	Surface	1	2	29.33	8.2	18.46	75.2	5.2	6.6	6.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS(MF)6	08:27:13	2.1	Bottom	3	1	29.39	8.2	19.38	74.8	5.14	6.6	6.4	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS(MF)6	08:26:53	2.1	Bottom	3	2	29.36	8.2	19.24	75.2	5.17	6.5	7.4	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS7	08:20:42	1.0	Surface	1	1	29.42	8.21	18.6	74.7	5.15	6.3	4.3	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS7	08:21:00	1.0	Surface	1	2	29.4	8.21	18.6	74.5	5.14	6.4	4.8	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS7	08:20:35	2.3	Bottom	3	1	29.42	8.2	19.9	75	5.13	6.5	4.4	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS7	08:20:50	2.3	Bottom	3	2	29.43	8.2	19.96	74.5	5.1	6.5	4.4	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS8	07:58:19	1.0	Surface	1	1	29.5	8.2	18.76	78	5.52	10.2	3.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS8	07:58:39	1.0	Surface	1	2	29.51	8.2	18.93	77.5	5.48	10.8	3.5	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS8	07:58:08	2.9	Bottom	3	1	29.48	8.19	20.49	77.9	5.47	10.6	3.7	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS8	07:58:28	2.9	Bottom	3	2	29.47	8.19	20.41	77.7	5.45	10.7	4.2	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS(MF)9	08:15:04	1.0	Surface	1	1	29.42	8.21	18.5	73.4	5.06	7.2	4.4	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS(MF)9	08:15:23	1.0	Surface	1	2	29.42	8.21	18.6	73.3	5.05	7.2	4.8	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS(MF)9	08:14:56	2.7	Bottom	3	1	29.44	8.2	20.54	73.7	5.02	7.4	5.7	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS(MF)9	08:15:13	2.7	Bottom	3	2	29.43	8.19	20.63	73.6	5.02	7.5	4.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS10	07:52:39	1.0	Surface	1	1	29.45	7.84	19.37	79.9	5.48	11.5	11.5	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS10	07:53:28	1.0	Surface	1	2	29.45	7.84	19.31	79.8	5.48	11.7	13	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS10	07:52:15	5.6	Middle	2	1	29.4	7.85	20.73	78.3	5.34	13.3	13.2	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS10	07:53:08	5.6	Middle	2	2	29.39	7.85	20.61	78.3	5.35	13.2	13.4	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS10	07:52:04	10.1	Bottom	3	1	29.39	7.84	21.57	78.4	5.31	14	12.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS10	07:52:56	10.1	Bottom	3	2	29.39	7.83	21.79	78.4	5.31	15.2	12.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR3	08:42:25	0.8	Middle	2	1	29.27	8.23	20.19	74.9	5.13	8.1	7.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR3	08:42:16	0.8	Middle	2	2	29.27	8.23	20.2	74.9	5.13	8.6	6.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR4	08:05:45	1.0	Surface	1	1	29.43	8.18	18.7	73	5.03	8.6	10.5	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR4	08:05:30	1.0	Surface	1	2	29.45	8.18	18.64	77.2	5.32	8.4	10.8	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR4	08:05:38	3.0	Bottom	3	1	29.46	8.18	18.64	72.5	4.99	8.5	13.4	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR4	08:05:19	3.0	Bottom	3	2	29.44	8.18	18.68	74.1	5.1	8.4	14.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR5	08:05:06	1.0	Surface	1	1	29.44	7.84	19.49	79.8	5.47	13.3	13.8	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR5	08:04:33	1.0	Surface	1	2	29.45	7.84	19.44	79.6	5.46	13.1	14.1	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR5	08:04:15	4.5	Bottom	3	1	29.4	7.83	20.52	78.9	5.38	16.2	15.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR5	08:04:47	4.5	Bottom	3	2	29.4	7.83	20.55	79	5.39	15.8	16.8	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR10A	07:01:18	1.0	Surface	1	1	29.27	8.25	20.8	76	5.27	4.1	3.7	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR10A	07:00:46	1.0	Surface	1	2	29.26	8.25	20.82	75.9	5.26	3.8	4.1	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR10A	07:01:10	3.4	Middle	2	1	29.13	8.26	21.35	75	5.2	4	4.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR10A	07:00:39	3.4	Middle	2	2	29.15	8.25	21.34	75	5.2	4	4.9	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR10A	07:01:02	5.7	Bottom	3	1	29.03	8.24	23.23	75.2	5.17	4.1	7.8	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR10A	07:00:30	5.7	Bottom	3	2	28.97	8.24	23.35	74.8	5.15	4	7	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR10B	06:55:46	1.0	Surface	1	1	28.02	8.3	26.08	72.3	5.02	7.3	6.1	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR10B	06:55:28	1.0	Surface	1	2	28	8.29	25.93	72.1	5.01	7.4	5.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR10B	06:55:19	3.9	Bottom	3	1	27.85	8.28	28.08	71.8	4.95	7.5	5.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	SR10B	06:55:39	3.9	Bottom	3	2	27.92	8.29	27.86	71.9	4.96	7.5	5.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	CS2	09:10:22	1.0	Surface	1	1	29.49	7.84	18	78.7	5.43	6.1	5.6	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	CS2	09:11:21	1.0	Surface	1	2	29.51	7.83	17.83	80.4	5.56	6.2	5.5	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	CS2	09:11:01	3.7	Middle	2	1	29.32	7.85	20.69	75	5.12	9.1	6.2	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	CS2	09:10:04	3.7	Middle	2	2	29.17	7.86	22.04	74.3	5.04	9.8	5.2	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	CS2	09:09:48	6.3	Bottom	3	1	29.1	7.85	22.63	72.2	4.9	13.2	6.3	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	CS2	09:10:42	6.3	Bottom	3	2	29.13	7.83	22.45	73	4.96	13.5	5.3	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	CS(MF)5	07:29:14	1.0	Surface	1	1	29.36	8.24	19.33	81.5	5.72	5.4	6.3	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	CS(MF)5	07:29:58	1.0	Surface	1	2	29.32	8.25	19.37	80.6	5.66	5.3	5.8	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	CS(MF)5	07:28:58	6.5	Middle	2	1	28.65	8.29	24.31	76.6	5.26	8.3	6.2	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	CS(MF)5	07:29:42	6.5	Middle	2	2	28.34	8.29	26.29	77	5.29	8.4	6.5	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	CS(MF)5	07:29:33	12	Bottom	3	1	28.02	8.26	28.16	74.7	5.16	8.3	5.4	
HKLR	HY/2011/03	2013-08-09	Mid-Flood	Sunny	IS5	15:06:47	1.0	Surface	1	1	30.14	8.26	28.12	75.1	5.21	8.5	6.9	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS5	15:05:58	1.0	Surface	1	2	30.14	8.3	22.24	76	5.07	10.1	10.4	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS5	15:06:30	1.0	Surface	1	2	30.15	8.3	22.25	75.8	5.05	10.1	11.3	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS5	15:06:22	4.3	Middle	2	1	30.03	8.3	22.56	75.1	5.01	10.3	10.2	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS5	15:05:51	4.3	Middle	2	2	30.06	8.3	22.48	75.2	5.02	10.4	9.8	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS5	15:06:12	7.5	Bottom	3	1	30.07	8.3	22.64	75.5	5.04	10.5	10.8	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS5	15:06:39	7.5	Bottom	3	2	30.08	8.3	22.62	75.6	5.04	10.3	10.9	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS(MF)6	15:12:59	1.0	Surface	1	1	30.61	8.32	22.41	81.4	5.38	7.9	3.7	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS(MF)6	15:13:17	1.0	Surface	1	2	30.59	8.31	22.44	80.5	5.33	7.9	4.3	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS(MF)6	15:13:07	2.3	Bottom	3	1	30.5	8.3	22.91	79.9	5.3	8.3	3.9	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS(MF)6	15:12:50	2.3	Bottom	3	2	30.36	8.31	22.81	81.2	5.38	8.4	4.7	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS7	15:20:27	1.0	Surface	1	1	30.75	8.33	21.91	84.2	5.57	7.9	3.8	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS7	15:20:10	1.0	Surface	1	2	30.71	8.33	21.94	85.4	5.66	7.9	2.9	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS7	15:20:02	2.3	Bottom	3	1	30.5	8.33	22.12	85.2	5.66	8.4	5.6	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS7	15:20:16	2.3	Bottom	3	2	30.36	8.32	22.28	84	5.59	8.7	4.3	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS8	15:45:13	1.0	Surface	1	1	30.77	8.29	21.83	77.7	5.15	8.4	4.5	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS8	15:45:34	1.0	Surface	1	2	30.61	8.29	21.89	77.5	5.15	8.3	3.7	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS8	15:45:03	2.6	Bottom	3	1	29.92	8.29	22.46	75.7	5.07	8.6	4.2	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS(MF)9	15:28:15	2.6	Bottom	3	2	30.04	8.29	22.41	77.1	5.15	8.5	3.2	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS(MF)9	15:28:44	2.7	Bottom	3	1	30.15	8.33	22.33	83.2	5.55	6.3	5	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS10	15:58:29	1.0	Surface	1	1	31.25	7.99	20.39	90.3	5.98	3.5	4.8	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS10	15:59:48	1.0	Surface	1	2	30.92	7.99	20.54	88.1	5.86	3.8	5	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	IS10	15:58:04	5.3	Middle	2	1	29.08	7.96	23.82	83.1	5.57	5.6	4.6	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR3	14:56:17	0.7	Middle	2	2	30.2	8.33	22.15	79.9	5.33	10.5	11.1	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR3	14:56:04	0.7	Middle	2	2	30.2	8.33	22.15	80.6	5.38	10.5	11.7	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR4	15:36:38	1.0	Surface	1	1	30.41	8.32	21.92	76.9	5.12	6.4	3.6	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR4	15:36:21	1.0	Surface	1	2	30.39	8.33	21.95	76.3	5.08	6.4	4.5	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR4	15:36:11	2.7	Bottom	3	1	30.01	8.34	22.46	76.9	5.14	6.3	4.7	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR4	15:36:31	2.7	Bottom	3	2	30.14	8.33	22.28	76.6	5.11	6.4	3.6	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR5	15:47:42	1.0	Surface	1	1	30.59	7.98	20.68	86.9	5.81	3.3	4.7	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR5	15:47:01	1.0	Surface	1	2	30.68	7.99	20.64	87.6	5.84	3.3	3.6	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR5	15:47:15	4.6	Bottom	3	1	29.29	7.96	22.8	80.4	5.42	7	3.5	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR5	15:46:41	4.6	Bottom	3	2	29.76	7.97	22.43	83.2	5.58	6.5	3.2	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR10A	16:52:22	1.0	Surface	1	1	29.65	8.32	24.92	78.4	5.22	2.6	4.6	
HKLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR10A	16:52:53	1.0	Surface	1	2	29.62	8.32	24.93	78.5	5.22	2.6	3.6	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR10A	16:52:44	3.2	Middle	2	1	29.5	8.32	25.15	78	5.19	2.7	4.1	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR10A	16:52:10	3.2	Middle	2	2	29.43	8.31	25.24	77.8	5.18	2.5	3.6	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR10A	16:51:31	5.4	Bottom	3	1	29.15	8.31	25.81	76.2	5.09	2.5	3.2	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR10A	16:52:35	5.4	Bottom	3	2	29.44	8.31	25.33	77.9	5.19	2.6	3.6	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR10B	17:00:12	1.0	Surface	1	1	29.66	8.32	24.88	79.1	5.26	2.6	3.2	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR10B	16:59:58	1.0	Surface	1	2	29.65	8.32	24.92	79.1	5.26	2.6	4	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR10B	17:00:06	3.7	Bottom	3	1	29.63	8.32	24.98	79.1	5.26	2.6	3.3	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	SR10B	16:59:50	3.7	Bottom	3	2	29.64	8.32	24.96	79	5.25	2.5	4.1	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	CS2	14:39:12	1.0	Surface	1	1	31.53	8.03	19.29	92.2	6.12	5.2	2.3	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	CS2	14:38:13	1.0	Surface	1	2	31.39	8.03	19.65	90.5	6.01	5.4	3.5	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	CS2	14:39:00	3.4	Middle	2	1	30.72	8.04	20.76	78.8	5.31	7.3	4.3	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	CS2	14:37:51	3.4	Middle	2	2	29.34	8.04	24.15	76.7	5.13	7.7	7.7	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	CS2	14:38:39	5.8	Bottom	3	1	29.61	8.02	23.42	74.5	4.99	8.3	3.2	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	CS2	14:37:36	5.8	Bottom	3	2	29.31	8.06	24.36	74.7	5.01	8.2	4	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	CS(MF)5	16:28:18	1.0	Surface	1	1	29.83	8.3	23.2	83.3	5.49	5.9	5.8	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	CS(MF)5	16:27:43	1.0	Surface	1	2	29.74	8.3	23.25	84.7	5.59	5.2	6.2	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	CS(MF)5	16:27:29	6.2	Middle	2	1	28.32	8.28	26.11	77.1	5.11	6.2	4.9	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	CS(MF)5	16:28:07	6.2	Middle	2	2	28.06	8.28	26.47	80.7	5.34	4.8	7.1	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	CS(MF)5	16:27:17	11.4	Bottom	3	1	27.69	8.27	28.39	78.4	5.19	5.9	6.1	
HCLR	HY/2011/03	2013-08-12	Mid-Ebb	Sunny	CS(MF)5	16:27:58	11.4	Bottom	3	2	27.73	8.27	28.34	77.9	5.18	6.2	7.2	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS5	10:29:36	1.0	Surface	1	1	29.88	8.31	22.47	76	5.09	8.4	4.8	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS5	10:30:10	1.0	Surface	1	2	29.89	8.31	22.46	77.1	5.16	8.6	5.7	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS5	10:29:57	4.5	Middle	2	1	29.66	8.29	22.76	75	5.02	10.2	6.4	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS5	10:29:19	4.5	Middle	2	2	29.59	8.28	22.83	74.8	5.02	10.5	5.7	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS5	10:29:12	7.9	Bottom	3	1	29.62	8.29	22.98	71.7	4.81	11.5	6.5	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS5	10:29:46	7.9	Bottom	3	2	29.59	8.28	23.13	74.1	4.96	11.3	5.6	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS(MF)6	10:22:02	1.0	Surface	1	1	30.03	8.31	22.31	79.5	5.31	5.8	4.8	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS(MF)6	10:22:18	1.0	Surface	1	2	30.01	8.31	22.34	79.4	5.31	5.8	3.8	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS(MF)6	10:21:50	2.2	Bottom	3	1	29.82	8.31	22.51	78.6	5.28	6.4	5.3	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS(MF)6	10:22:09	2.2	Bottom	3	2	29.86	8.31	22.5	78.8	5.28	6.6	4.9	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS7	10:15:26	1.0	Surface	1	1	30.06	8.3	22.12	77.4	5.18	6.8	5.4	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS7	10:15:50	1.0	Surface	1	2	30.07	8.31	22.17	77.1	5.15	6.6	4.7	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS7	10:15:14	2.4	Bottom	3	1	29.8	8.29	23.02	78.1	5.22	7.2	6.7	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS7	10:15:37	2.4	Bottom	3	2	29.6	8.27	23.1	73.9	4.96	7.2	8	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS8	09:52:50	1.0	Surface	1	1	29.85	8.28	21.57	75.5	5.08	4.3	3.6	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS8	09:52:18	1.0	Surface	1	2	29.7	8.28	21.67	74.3	5.01	4.4	4.1	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS8	09:52:28	3.3	Bottom	3	1	29.51	8.26	22.9	73.1	4.85	4.5	5.9	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS8	09:51:56	3.3	Bottom	3	2	29.56	8.26	22.86	73.1	4.91	4.7	6.5	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS(MF)9	10:09:05	1.0	Surface	1	1	29.63	8.29	21.84	74.9	5.05	6.2	4.3	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS(MF)9	10:09:25	1.0	Surface	1	2	29.65	8.29	21.85	74.5	5.03	6.4	4.6	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS(MF)9	10:09:12	2.8	Bottom	3	1	29.59	8.28	23.11	74.7	5.01	6.4	4.5	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS(MF)9	10:08:51	2.8	Bottom	3	2	29.59	8.28	22.95	74.9	5.02	6.5	3.9	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS10	09:55:50	1.0	Surface	1	1	29.68	7.94	21.83	84.1	5.67	11.9	5.6	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS10	09:54:41	1.0	Surface	1	2	29.65	7.95	21.85	83.1	5.6	11.7	4.6	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS10	09:54:24	5.4	Middle	2	1	29.46	7.95	22.7	77.4	5.21	12.5	6	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS10	09:55:29	5.4	Middle	2	2	29.5	7.95	22.61	80.7	5.44	12.9	5.5	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS10	09:54:06	9.7	Bottom	3	1	28.88	7.93	25.25	72.1	4.83	14.8	6.3	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	IS10	09:55:04	9.7	Bottom	3	2	28.83	7.93	25.3	74.3	4.98	15.5	5.8	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR3	10:34:58	0.8	Middle	2	1	29.89	8.31	22.48	78.4	5.25	6.4	6.2	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR4	10:35:08	0.8	Middle	2	2	29.9	8.31	22.49	78.6	5.26	6.3	4.5	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR4	09:59:03	1.0	Surface	1	1	29.94	8.25	21.05	77.1	5.2	7.4	5	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR4	09:59:14	1.0	Surface	1	2	29.96	8.25	21.01	77.2	5.2	7.4	4.8	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR4	09:58:56	2.7	Bottom	3	1	29.94	8.25	21.04	77.2	5.2	7.1	4.3	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR4	09:59:08	2.7	Bottom	3	2	29.95	8.25	20.97	77.1	5.2	7.6	4	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR5	10:04:35	1.0	Surface	1	1	29.68	7.95	21.85	85.9	5.78	12	3.4	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR5	10:05:00	1.0	Surface	1	2	29.67	7.95	21.87	85.8	5.78	12.3	5.1	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR5	10:04:49	4.4	Bottom	3	1	29.6	7.94	22.24	85.6	5.76	14.1	4.5	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR5	10:04:21	4.4	Bottom	3	2	29.6	7.94	22.24	85.7	5.77	14.8	5.5	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR10A	08:51:40	1.0	Surface	1	1	29.3	8.28	23.12	76	5.08	3.6	2.1	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR10A	08:51:09	1.0	Surface	1	2	29.31	8.28	23.05	76.2	5.1	3.7	2.4	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR10A	08:50:55	3.1	Middle	2	1	29.17	8.28	23.47	75.5	5.05	3.7	2.9	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR10A	08:51:28	3.1	Middle	2	2	29.15	8.28	23.5	74.9	5.01	3.7	2.6	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR10A	08:50:44	5.2	Bottom	3	1	29.05	8.27	24.52	75.5	5.03	3.6	3.7	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR10A	08:51:17	5.2	Bottom	3	2	29.1	8.27	24.83	75.3	5.01	3.6	3.5	

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR10B	08:46:21	1.0	Surface	1	1	27.51	8.31	28.51	76.7	5.11	10.5	4.2	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR10B	08:46:38	1.0	Surface	1	2	27.53	8.3	28.51	76.7	5.11	10.5	3.4	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR10B	08:46:13	4.2	Bottom	3	1	27.37	8.3	29.19	76.9	5.12	10.5	5.2	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	SR10B	08:46:30	4.2	Bottom	3	2	27.43	8.3	29.05	76.6	5.1	10.4	6.4	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	CS2	11:16:08	1.0	Surface	1	1	30.16	7.92	20.65	85.3	5.74	5.6	1.6	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	CS2	11:16:56	1.0	Surface	1	2	30.18	7.93	20.59	84.4	5.68	5.3	1.6	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	CS2	11:15:49	3.7	Middle	2	1	29.64	7.93	21.56	80.5	5.44	7.7	2.9	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	CS2	11:16:43	3.7	Middle	2	2	29.61	7.94	21.61	79.6	5.38	7.2	2.9	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	CS2	11:16:29	6.4	Bottom	3	1	29.24	7.92	23.76	78.4	5.27	9.2	2.5	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	CS2	11:15:35	6.4	Bottom	3	2	29.24	7.92	23.59	78.7	5.29	8.7	2.5	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	CS(MF)5	09:18:31	1.0	Surface	1	1	29.24	8.3	23.07	79.8	5.33	8.4	2.1	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	CS(MF)5	09:17:50	1.0	Surface	1	2	29.12	8.3	23.12	79.8	5.33	8.6	2.3	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	CS(MF)5	09:17:41	6.4	Middle	2	1	28.28	8.29	24.66	79.1	5.25	8.7	2.1	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	CS(MF)5	09:18:20	6.4	Middle	2	2	28.18	8.29	25.5	75.6	5.03	8.5	2.6	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	CS(MF)5	09:17:33	11.8	Bottom	3	1	28.19	8.26	27.78	76.3	5.13	8.7	2.8	
HCLR	HY/2011/03	2013-08-12	Mid-Flood	Sunny	CS(MF)5	09:18:11	11.8	Bottom	3	2	27.9	8.27	28.01	74	4.96	6.38	3	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS5	09:01:27	1.0	Surface	1	1	27.84	7.77	19.25	90.4	6.38	6.1	5.9	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS5	09:00:45	1.0	Surface	1	2	27.84	7.77	19.3	90.2	6.36	6.2	4.7	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS5	09:00:32	4.5	Middle	2	1	27.81	7.75	22.97	89	6.15	6.2	4.5	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS5	09:01:12	4.5	Middle	2	2	27.8	7.76	23.07	88.9	6.14	5.9	5.2	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS5	09:01:01	7.9	Bottom	3	1	27.81	7.74	23.24	89.3	6.16	6.2	6.1	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS5	09:00:22	7.9	Bottom	3	2	27.81	7.74	23.32	89.5	6.17	6.4	6.6	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS(MF)6	08:52:21	1.0	Surface	1	1	27.98	7.7	18.99	88.8	6.25	15	5.5	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS(MF)6	08:52:37	1.0	Surface	1	2	27.98	7.7	19.04	89	6.27	15.6	5.7	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS(MF)6	08:52:08	2.2	Bottom	3	1	27.98	7.69	19.17	89.3	6.29	19.6	5.7	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS(MF)6	08:52:29	2.2	Bottom	3	2	27.98	7.7	19.11	89.1	6.27	18.7	6.8	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS7	08:45:38	1.0	Surface	1	1	28.09	7.7	18.32	89.9	6.34	8.3	6.9	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS7	08:45:22	1.0	Surface	1	2	28.08	7.7	18.37	89.6	6.32	8	6.6	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS7	08:45:15	2.3	Bottom	3	1	28.08	7.7	18.54	89.3	6.3	8.7	6.1	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS7	08:45:32	2.3	Bottom	3	2	28.09	7.7	18.41	89.7	6.33	9.2	6	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS8	08:25:57	1.0	Surface	1	1	28.06	7.69	18.89	89.4	6.3	6.6	6.6	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS8	08:25:41	1.0	Surface	1	2	28.06	7.69	18.89	89.3	6.28	6.7	6.6	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS8	08:25:29	2.5	Bottom	3	1	28.07	7.69	18.96	89.2	6.28	6.7	6.8	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS8	08:25:48	2.5	Bottom	3	2	28.06	7.69	18.89	89.4	6.29	6.7	5.6	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS(MF)9	08:40:05	1.0	Surface	1	1	28.1	7.7	18.53	90	6.34	7	5.8	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS(MF)9	08:39:46	1.0	Surface	1	2	28.1	7.7	18.52	90	6.34	7.1	6.4	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS(MF)9	08:39:38	2.3	Bottom	3	1	28.1	7.7	18.53	89.8	6.33	7.3	7.2	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS(MF)9	08:39:54	2.3	Bottom	3	2	28.1	7.7	18.53	90	6.34	7.1	6.9	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS10	08:21:59	1.0	Surface	1	1	28.19	7.91	15.56	86.5	6.19	9.3	4.2	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS10	08:22:35	1.0	Surface	1	2	28.21	7.91	15.54	86.6	6.19	9.5	5.5	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS10	08:22:26	5.1	Middle	2	1	28.41	7.87	17.38	85.5	6.03	10.3	7.2	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS10	08:21:48	5.1	Middle	2	2	28.48	7.86	17.4	84.6	5.96	10	6.2	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS10	08:21:39	9.2	Bottom	3	1	28.45	7.87	17.64	86.3	6.08	10.7	6.5	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	IS10	08:22:13	9.2	Bottom	3	2	28.42	7.87	17.63	87.1	6.14	10.5	6.7	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR3	09:08:50	0.8	Middle	2	1	27.84	7.76	19.24	92.2	6.5	6.2	5.2	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR3	09:09:01	0.8	Middle	2	2	27.84	7.76	19.26	92.1	6.5	6.2	5.8	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR4	08:30:36	1.0	Surface	1	1	28.13	7.68	19.33	86.3	6.06	5.1	3.8	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR4	08:31:02	1.0	Surface	1	2	28.14	7.68	19.33	86.2	6.05	5	4.4	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR4	08:30:46	2.4	Bottom	3	1	28.07	7.67	19.41	86.1	6.04	5.1	3.7	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR4	08:30:30	2.4	Bottom	3	2	28.14	7.68	19.33	86.4	6.06	5.2	4.2	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR5	08:31:29	1.0	Surface	1	1	28.16	7.94	15.54	91.7	6.56	9.1	8.6	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR5	08:31:06	1.0	Surface	1	2	28.13	7.94	15.54	91.8	6.58	9.2	8.4	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR5	08:31:16	3.3	Bottom	3	1	28.13	7.94	15.54	91.7	6.57	9.2	8.1	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR5	08:30:52	3.3	Bottom	3	2	28.13	7.94	15.55	91.6	6.56	9.2	8.2	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR10A	07:11:44	1.0	Surface	1	1	28.38	7.67	17.66	87.6	6.18	6	5.4	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR10A	07:11:08	1.0	Surface	1	2	28.37	7.67	17.7	87	6.13	6	4.8	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR10A	07:11:30	3.4	Middle	2	1	28.35	7.67	17.86	86.6	6.1	6	5.2	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR10A	07:10:58	3.4	Middle	2	2	28.36	7.66	18.11	86	6.05	6.1	6.2	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR10A	07:10:47	5.7	Bottom	3	1	28.41	7.65	18.39	86.2	6.05	6	5.3	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR10A	07:11:19	5.7	Bottom	3	2	28.4	7.66	18.21	86.7	6.09	5.9	5.9	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR10B	07:04:35	1.0	Surface	1	1	28.18	7.67	19.82	85.9	6.01	5.5	5.5	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR10B	07:04:58	1.0	Surface	1	2	28.18	7.67	19.8	85.5	5.83	5.2	6.4	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR10B	07:04:47	4.3	Bottom	3	1	28.15	7.67	20.2	83.8	5.85	6.3	5.8	
HCLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	SR10B	07:04:25	4.3	Bottom	3	2	28.14	7.66	20.06	89.5	6.25	6.5	6.6	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	CS2	09:53:46	1.0	Surface	1	1	28.24	7.92	15.22	90.3	6.47	8.8	8.1	
HKLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	CS2	09:54:17	1.0	Surface	1	2	28.25	7.92	15.26	88.1	6.31	8.6	9	
HKLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	CS2	09:53:38	3.7	Middle	2	1	28.25	7.92	15.26	89.9	6.44	8.8	8	
HKLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	CS2	09:54:06	3.7	Middle	2	2	28.32	7.9	15.33	86.8	6.2	8.8	8.8	
HKLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	CS2	09:53:56	6.4	Bottom	3	1	28.34	7.88	15.64	89.7	6.29	8.9	9.9	
HKLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	CS2	09:53:28	6.4	Bottom	3	2	28.25	7.92	15.33	90.2	6.45	8.7	9.3	
HKLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	CS(MF)5	07:50:26	1.0	Surface	1	1	28.37	7.69	16.24	87.2	6.2	8.4	6.3	
HKLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	CS(MF)5	07:49:41	1.0	Surface	1	2	28.37	7.69	16.24	87.3	6.2	8.4	6.2	
HKLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	CS(MF)5	07:49:22	6.6	Middle	2	1	28.29	7.65	19.72	84.2	5.88	12.9	6.3	
HKLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	CS(MF)5	07:50:08	6.6	Middle	2	2	28.29	7.66	19.69	84.2	5.88	11.9	5.8	
HKLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	CS(MF)5	07:49:14	12.1	Bottom	3	1	28.3	7.65	19.8	85.6	5.97	11.4	7.7	
HKLR	HY/2011/03	2013-08-16	Mid-Ebb	Rainy	CS(MF)5	07:49:57	12.1	Bottom	3	2	28.3	7.65	19.76	85.7	5.98	11	6.3	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS5	14:36:51	1.0	Surface	1	1	28.17	7.73	18.7	86.4	6.08	9.7	10.5	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS5	14:37:29	1.0	Surface	1	2	28.17	7.73	18.7	86	6.05	10.2	10	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS5	14:36:35	4.7	Middle	2	1	28.12	7.71	20.89	83.5	5.81	9	10.5	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS5	14:37:14	4.7	Middle	2	2	28.1	7.72	21.2	83	5.77	9.3	11.1	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS5	14:37:06	8.3	Bottom	3	1	28.07	7.7	21.92	84.4	5.84	10	10.2	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS5	14:36:26	8.3	Bottom	3	2	28.12	7.7	21.49	85	5.89	10.3	11.6	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS(MF)6	14:43:56	1.0	Surface	1	1	28.2	7.73	17.9	87.4	6.18	14.1	11	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS(MF)6	14:44:17	1.0	Surface	1	2	28.2	7.73	17.88	87.4	6.17	14.5	11.9	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS(MF)6	14:43:45	2.3	Bottom	3	1	28.17	7.71	18.8	86.4	6.08	14.8	12.1	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS(MF)6	14:44:04	2.3	Bottom	3	2	28.17	7.71	18.88	87.4	6.14	15.2	11.9	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS7	14:51:12	1.0	Surface	1	1	28.12	7.72	18.92	87.2	6.13	15.6	15.2	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS7	14:50:52	1.0	Surface	1	2	28.16	7.72	18.29	87.8	6.19	15.5	14.4	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS7	14:51:01	2.5	Bottom	3	1	28.12	7.71	19.29	87.4	6.13	18.7	16.6	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS7	14:50:43	2.5	Bottom	3	2	28.14	7.71	19.26	88.3	6.19	17.8	15.3	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS8	15:13:18	1.0	Surface	1	1	28.23	7.75	16.62	90.4	6.43	8.1	7.1	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS8	15:13:06	1.0	Surface	1	2	28.23	7.75	16.62	89.9	6.39	7.6	6.7	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS8	15:12:52	2.6	Bottom	3	1	28.15	7.71	19.44	88.4	6.2	8.2	8.7	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS8	15:13:10	2.6	Bottom	3	2	28.23	7.74	17.65	90.3	6.38	7.9	7.8	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS(MF)9	14:58:07	1.0	Surface	1	1	28.16	7.74	17.73	90.7	6.41	10	7.3	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS(MF)9	14:57:51	1.0	Surface	1	2	28.17	7.74	17.76	91	6.44	10.3	7.3	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS(MF)9	14:58:01	2.4	Bottom	3	1	28.13	7.72	19.28	90.6	6.36	12.4	8.1	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS(MF)9	14:57:41	2.4	Bottom	3	2	28.14	7.72	19.36	90.9	6.37	12.1	7.2	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS10	15:55:56	1.0	Surface	1	1	28.55	7.96	11.33	90	6.55	8.8	6.4	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS10	15:54:38	1.0	Surface	1	2	28.46	7.97	11.35	89.2	6.5	8.7	5.7	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS10	15:55:36	5.3	Middle	2	1	28.22	7.91	16.44	86.8	6.18	11.9	6.5	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS10	15:54:27	5.3	Middle	2	2	28.21	7.91	16.37	87.3	6.22	12.4	5.8	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS10	15:54:13	9.6	Bottom	3	1	28.21	7.85	19.58	88.1	6.16	12.5	5.5	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	IS10	15:55:07	9.6	Bottom	3	2	28.16	7.86	19.68	84.6	5.92	12.5	6.7	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR3	14:23:21	0.8	Middle	2	1	28.17	7.71	19.14	89.6	6.29	10	10.5	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR3	14:23:12	0.8	Middle	2	2	28.17	7.72	18.92	90.3	6.35	9.7	9.7	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR4	15:06:28	1.0	Surface	1	1	28.24	7.76	16.98	89.9	6.38	13.2	11.2	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR4	15:06:47	1.0	Surface	1	2	28.23	7.74	17.68	87.6	6.19	13.3	9.6	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR4	15:06:39	2.5	Bottom	3	1	28.23	7.74	17.93	88.5	6.24	14.5	10.8	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR4	15:06:21	2.5	Bottom	3	2	28.25	7.77	17.11	90.1	6.39	13.3	11.4	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR5	15:43:52	1.0	Surface	1	1	28.47	7.97	11.35	91.9	6.7	5.9	5.9	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR5	15:44:15	1.0	Surface	1	2	28.51	7.96	11.38	92.1	6.71	5.7	6.4	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR5	15:44:04	3.5	Bottom	3	1	28.26	7.93	13.81	91.7	6.62	6.4	4.6	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR5	15:43:42	3.5	Bottom	3	2	28.29	7.93	14.26	91.4	6.58	6.6	5.5	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR10A	16:18:18	1.0	Surface	1	1	28.4	7.71	16.41	89.6	6.36	4.8	4.2	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR10A	16:17:36	1.0	Surface	1	2	28.4	7.71	16.47	88.8	6.3	4.8	5.1	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR10A	16:17:21	3.5	Middle	2	1	28.39	7.7	17.05	85.4	6.04	5	4	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR10A	16:18:00	3.5	Middle	2	2	28.4	7.7	16.87	87.2	6.17	4.9	4.6	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR10A	16:17:45	5.9	Bottom	3	1	28.38	7.68	18.37	87.9	6.47	4.9	4.4	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR10A	16:17:09	5.9	Bottom	3	2	28.34	7.68	18.97	84.8	5.93	5.1	5.6	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR10B	16:27:18	1.0	Surface	1	1	28.4	7.71	16.41	88.4	6.27	4.8	3.7	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR10B	16:26:57	1.0	Surface	1	2	28.4	7.71	16.44	88	6.24	4.9	4.2	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR10B	16:26:46	4.6	Bottom	3	1	28.4	7.69	17.63	88.1	6.21	4.9	8	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	SR10B	16:27:07	4.6	Bottom	3	2	28.4	7.69	17.61	88.1	6.21	4.9	7.3	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	CS2	14:21:55	1.0	Surface	1	1	28.64	8	9.9	87.8	6.43	8.4	5.3	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	CS2	14:21:16	1.0	Surface	1	2	28.65	8.04	9.91	87.8	6.48	8.4	5.3	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	CS2	14:21:00	3.8	Middle	2	1	28.41	8.03	14.09	86.3	6.21	8.5	5.5	
HKLR	HY/2011/03	2013-08-16	Mid-Flood	Cloudy	CS2	14:21:43	3.8	Middle	2	2	28.5	7.94	13.95	86.3	6.2	8.6	6	



Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-08-16	CS2	14:20:45	6.6	Bottom	3	1	28.32	8.08	15.29	86.4	6.17	8.6	4.9	
HCLR	HY/2011/03	2013-08-16	CS2	14:21:26	6.6	Bottom	3	2	28.43	7.93	15.32	87.6	6.25	8.5	5.5	
HCLR	HY/2011/03	2013-08-16	CS(MF)5	15:46:53	1.0	Surface	1	1	28.28	7.74	16.74	87.1	6.19	5.5	4.2	
HCLR	HY/2011/03	2013-08-16	CS(MF)5	15:47:44	1.0	Surface	1	2	28.28	7.74	16.75	86.3	6.12	5.9	5.2	
HCLR	HY/2011/03	2013-08-16	CS(MF)5	15:46:33	6.7	Middle	2	1	28.43	7.7	19.57	79.9	5.57	6.5	4.4	
HCLR	HY/2011/03	2013-08-16	CS(MF)5	15:47:26	6.7	Middle	2	2	28.44	7.69	19.9	79.2	5.51	7	5.3	
HCLR	HY/2011/03	2013-08-16	CS(MF)5	15:47:12	12.4	Bottom	3	1	28.26	7.68	22.09	80.6	5.56	7	4.8	
HCLR	HY/2011/03	2013-08-16	CS(MF)5	15:46:20	12.4	Bottom	3	2	28.43	7.68	21.24	81.8	5.65	6.5	6.1	
HCLR	HY/2011/03	2013-08-16	IS5	12:05:40	1.0	Surface	1	1	28.63	7.85	10.15	81.4	5.95	9.1	11.5	
HCLR	HY/2011/03	2013-08-19	IS5	12:04:56	1.0	Surface	1	2	28.42	7.87	10.61	74.1	5.33	9	10.4	
HCLR	HY/2011/03	2013-08-19	IS5	12:04:48	4.6	Middle	2	1	28.11	7.8	23.01	72.8	5.04	9.4	10.7	
HCLR	HY/2011/03	2013-08-19	IS5	12:05:27	4.6	Middle	2	2	28.08	7.79	23.12	77.9	5.34	9.4	11	
HCLR	HY/2011/03	2013-08-19	IS5	12:05:14	8.1	Bottom	3	1	27.99	7.78	24.9	76.6	5.29	9.5	12	
HCLR	HY/2011/03	2013-08-19	IS5	12:04:40	8.1	Bottom	3	2	28.14	7.7	24.86	71.5	4.92	9.6	11.5	
HCLR	HY/2011/03	2013-08-19	IS(MF)6	11:58:10	1.0	Surface	1	1	28.75	7.61	9.26	81.5	5.95	9	5.6	
HCLR	HY/2011/03	2013-08-19	IS(MF)6	11:58:27	1.0	Surface	1	2	28.87	7.61	9.23	81.9	6	8.8	4.7	
HCLR	HY/2011/03	2013-08-19	IS(MF)6	11:58:03	2.3	Bottom	3	1	28.77	7.58	11.28	81	5.95	9.3	5.5	
HCLR	HY/2011/03	2013-08-19	IS(MF)6	11:58:14	2.3	Bottom	3	2	28.8	7.6	11.23	81.1	5.82	9	4.8	
HCLR	HY/2011/03	2013-08-19	IS7	11:51:16	1.0	Surface	1	1	28.54	7.59	9.57	77.3	5.68	8.2	3	
HCLR	HY/2011/03	2013-08-19	IS7	11:51:05	1.0	Surface	1	2	28.48	7.57	10.11	78.3	5.7	8.2	3.2	
HCLR	HY/2011/03	2013-08-19	IS7	11:51:10	2.6	Bottom	3	1	28.5	7.57	11.43	77.2	5.63	8.4	3.7	
HCLR	HY/2011/03	2013-08-19	IS7	11:51:01	2.6	Bottom	3	2	28.51	7.57	12.04	77.6	5.68	8.2	3.7	
HCLR	HY/2011/03	2013-08-19	IS8	11:29:12	1.0	Surface	1	1	28.5	7.6	10.13	80	5.84	7.9	3.9	
HCLR	HY/2011/03	2013-08-19	IS8	11:29:03	1.0	Surface	1	2	28.52	7.6	9.77	80.2	5.79	8	4.2	
HCLR	HY/2011/03	2013-08-19	IS8	11:29:08	2.6	Bottom	3	1	28.56	7.59	12.97	79.7	5.77	7.9	3.2	
HCLR	HY/2011/03	2013-08-19	IS8	11:28:59	2.6	Bottom	3	2	28.59	7.59	12.75	80	5.88	8	5	
HCLR	HY/2011/03	2013-08-19	IS(MF)9	11:45:06	1.0	Surface	1	1	28.77	7.6	9.14	77.7	5.7	7.4	3.8	
HCLR	HY/2011/03	2013-08-19	IS(MF)9	11:44:55	1.0	Surface	1	2	28.66	7.61	9.13	76.8	5.59	7	3.7	
HCLR	HY/2011/03	2013-08-19	IS(MF)9	11:44:59	2.5	Bottom	3	1	28.74	7.59	11.15	77.2	5.61	7.4	3	
HCLR	HY/2011/03	2013-08-19	IS(MF)9	11:44:48	2.5	Bottom	3	2	28.54	7.56	11.44	76.7	5.64	7.5	3.6	
HCLR	HY/2011/03	2013-08-19	IS10	11:29:30	1.0	Surface	1	1	29.06	7.83	5.54	76.5	5.69	9.9	5.9	
HCLR	HY/2011/03	2013-08-19	IS10	11:28:36	1.0	Surface	1	2	29.05	7.82	5.51	76.5	5.7	9.8	5.2	
HCLR	HY/2011/03	2013-08-19	IS10	11:28:21	5.4	Middle	2	1	28.59	7.79	10.12	74.2	5.43	11.5	5.4	
HCLR	HY/2011/03	2013-08-19	IS10	11:29:14	5.4	Middle	2	2	28.58	7.81	9.97	74.3	5.45	11.3	4.4	
HCLR	HY/2011/03	2013-08-19	IS10	11:28:57	9.8	Bottom	3	1	27.88	7.63	22.89	74.4	5.14	12.9	5.2	
HCLR	HY/2011/03	2013-08-19	IS10	11:28:00	9.8	Bottom	3	2	27.87	7.65	21.8	74.2	5.15	13.6	4.6	
HCLR	HY/2011/03	2013-08-19	SR3	12:09:40	0.7	Middle	2	1	28.74	7.67	10.06	81.4	5.95	7.7	8.8	
HCLR	HY/2011/03	2013-08-19	SR3	12:09:36	0.7	Middle	2	2	28.73	7.67	10.07	81.3	5.94	7.7	8.8	
HCLR	HY/2011/03	2013-08-19	SR4	11:34:30	1.0	Surface	1	1	28.45	7.6	9.68	83.7	6.16	8	6	
HCLR	HY/2011/03	2013-08-19	SR4	11:34:54	1.0	Surface	1	2	28.5	7.61	9.46	84.9	6.25	7.9	6.6	
HCLR	HY/2011/03	2013-08-19	SR4	11:34:37	2.4	Bottom	3	1	28.46	7.6	9.74	82.5	6.07	8.3	7.4	
HCLR	HY/2011/03	2013-08-19	SR4	11:34:26	2.4	Bottom	3	2	28.46	7.61	9.73	82.9	6.1	8.1	6.4	
HCLR	HY/2011/03	2013-08-19	SR5	11:39:41	1.0	Surface	1	1	29.12	7.61	5.5	77.5	5.77	8.5	5.6	
HCLR	HY/2011/03	2013-08-19	SR5	11:39:02	1.0	Surface	1	2	29.09	7.63	5.51	77.2	5.75	8.7	5	
HCLR	HY/2011/03	2013-08-19	SR5	11:38:45	4.7	Bottom	3	1	28.77	7.53	8.8	75.6	5.55	9	5.7	
HCLR	HY/2011/03	2013-08-19	SR5	11:39:21	4.7	Bottom	3	2	28.7	7.49	8.84	75.4	5.53	8.8	5.9	
HCLR	HY/2011/03	2013-08-19	SR10A	10:09:42	1.0	Surface	1	1	28.56	7.6	10.35	79.4	5.81	5.6	4.8	
HCLR	HY/2011/03	2013-08-19	SR10A	10:09:17	1.0	Surface	1	2	28.55	7.6	10.43	79.2	5.8	5.6	5.4	
HCLR	HY/2011/03	2013-08-19	SR10A	10:09:05	3.3	Middle	2	1	28.53	7.61	10.59	78.8	5.76	5.7	5.1	
HCLR	HY/2011/03	2013-08-19	SR10A	10:09:28	3.3	Middle	2	2	28.53	7.6	10.67	79.1	5.78	5.7	5.5	
HCLR	HY/2011/03	2013-08-19	SR10A	10:08:59	5.5	Bottom	3	1	28.51	7.6	10.8	78.7	5.75	5.7	5.5	
HCLR	HY/2011/03	2013-08-19	SR10A	10:09:24	5.5	Bottom	3	2	28.55	7.6	10.56	78.9	5.77	5.6	6.7	
HCLR	HY/2011/03	2013-08-19	SR10B	10:02:33	1.0	Surface	1	1	28.22	7.73	13.79	77.3	5.57	8.4	7.8	
HCLR	HY/2011/03	2013-08-19	SR10B	10:02:15	1.0	Surface	1	2	28.27	7.71	13.68	77.9	5.61	8.1	8.1	
HCLR	HY/2011/03	2013-08-19	SR10B	10:02:24	3.5	Bottom	3	1	28.21	7.69	15.67	77.2	5.53	8.5	10.6	
HCLR	HY/2011/03	2013-08-19	SR10B	10:02:06	3.5	Bottom	3	2	28.25	7.69	14.91	77.7	5.59	8.2	9.5	
HCLR	HY/2011/03	2013-08-19	CS2	12:47:38	1.0	Surface	1	1	29.15	7.61	4.53	68.8	5.03	11.1	11.6	
HCLR	HY/2011/03	2013-08-19	CS2	12:46:37	1.0	Surface	1	2	29.14	7.64	4.61	67.6	5.06	12.2	11.2	
HCLR	HY/2011/03	2013-08-19	CS2	12:46:22	3.6	Middle	2	1	28.54	7.5	10.44	69.7	5.11	11	11	
HCLR	HY/2011/03	2013-08-19	CS2	12:47:16	3.6	Middle	2	2	28.56	7.52	9.92	68.9	5.06	9.5	11.6	
HCLR	HY/2011/03	2013-08-19	CS2	12:46:57	6.2	Bottom	3	1	28.55	7.46	10.74	66.5	4.98	10.4	11.3	
HCLR	HY/2011/03	2013-08-19	CS2	12:46:07	6.2	Bottom	3	2	28.53	7.43	11.09	69.2	5.05	9.9	12.1	
HCLR	HY/2011/03	2013-08-19	CS(MF)5	10:51:50	1.0	Surface	1	1	28.82	7.76	6.57	76.5	5.24	9.6	7.6	
HCLR	HY/2011/03	2013-08-19	CS(MF)5	10:51:02	1.0	Surface	1	2	28.78	7.75	6.6	71.3	5.31	9.3	6.6	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-08-19	Mid-Ebb	Cloudy	CS(MF)5	10:50:48	6.5	Middle	2	1	28	7.72	15.87	72.2	5.17	9.7	8.2	
HCLR	HY/2011/03	2013-08-19	Mid-Ebb	Cloudy	CS(MF)5	10:51:34	6.5	Middle	2	2	27.95	7.77	16.22	70.8	5.26	9.6	7.1	
HCLR	HY/2011/03	2013-08-19	Mid-Ebb	Cloudy	CS(MF)5	10:51:20	11.9	Bottom	3	1	27.86	7.59	25.4	70.6	5.06	9.8	7.7	
HCLR	HY/2011/03	2013-08-19	Mid-Ebb	Cloudy	CS(MF)5	10:50:37	11.9	Bottom	3	2	28.08	7.51	23.35	73.4	5.04	9.8	7.4	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS5	17:26:54	1.0	Surface	1	1	28.81	7.65	10.02	81.4	5.95	10	5.9	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS5	17:27:28	1.0	Surface	1	2	28.83	7.67	9.84	80.4	5.87	9.7	6.9	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS5	17:26:42	4.6	Middle	2	1	28.72	7.64	10.63	80	5.73	10.2	5.1	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS5	17:27:15	4.6	Middle	2	2	28.45	7.64	11.02	77.2	5.53	9.8	5.5	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS5	17:26:21	8.1	Bottom	3	1	28.61	7.58	14.74	78.7	5.71	10.3	5.7	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS5	17:27:09	8.1	Bottom	3	2	28.45	7.59	14.61	74.8	5.46	10.2	6.1	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS(MF)6	17:35:49	1.0	Surface	1	1	28.86	7.65	9.75	87.4	6.39	16.2	5	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS(MF)6	17:36:22	1.0	Surface	1	2	28.86	7.65	9.74	87.3	6.38	16.4	6.4	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS(MF)6	17:35:43	2.2	Bottom	3	1	28.86	7.64	9.71	86.9	6.35	16.5	7.3	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS(MF)6	17:35:55	2.2	Bottom	3	2	28.87	7.65	9.65	86.7	6.34	16.6	5.6	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS7	17:42:58	1.0	Surface	1	1	28.86	7.64	9.27	87.8	6.43	8.2	7.5	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS7	17:42:45	1.0	Surface	1	2	28.87	7.63	9.18	87.8	6.43	8.1	8.1	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS7	17:42:49	2.3	Bottom	3	1	28.86	7.63	9.29	87.7	6.42	8.4	7.2	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS7	17:42:37	2.3	Bottom	3	2	28.87	7.62	9.2	87.7	6.43	8.6	7.1	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS8	17:05:29	1.0	Surface	1	1	28.91	7.46	7.96	73.4	5.39	10.2	8.4	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS8	17:05:05	1.0	Surface	1	2	28.76	7.48	8.43	74	5.44	10.1	8	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS8	17:05:09	2.6	Bottom	3	1	28.78	7.46	9.47	73.1	5.38	10.6	9.4	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS8	17:05:01	2.6	Bottom	3	2	28.84	7.46	9.57	73.7	5.41	10.6	9.4	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS(MF)9	17:50:49	1.0	Surface	1	1	28.74	7.56	9.19	80.2	5.86	8	8.7	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS(MF)9	17:50:22	1.0	Surface	1	2	28.65	7.55	9.26	80.3	5.91	8	8	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS(MF)9	17:50:18	2.5	Bottom	3	1	28.69	7.53	10.65	80.3	5.86	8.1	8.6	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS(MF)9	17:50:28	2.5	Bottom	3	2	28.68	7.54	10.75	79.9	5.85	8.2	8.7	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS10	18:22:46	1.0	Surface	1	1	28.86	7.6	7.06	71.8	5.32	16	13.7	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS10	18:23:44	1.0	Surface	1	2	28.87	7.58	7.08	71.9	5.33	15.8	14.2	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS10	18:22:28	5.3	Middle	2	1	28.66	7.63	8.85	73.2	5.39	17.2	13.8	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS10	18:23:20	5.3	Middle	2	2	28.65	7.62	9.18	73.6	5.41	16.8	14.8	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS10	18:23:06	9.6	Bottom	3	1	28.45	7.52	13.1	73.8	5.33	17.9	16.7	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	IS10	18:22:14	9.6	Bottom	3	2	28.41	7.53	13.68	73.9	5.33	18.5	16.6	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR3	17:19:24	0.7	Middle	2	1	28.86	7.61	9.76	88	6.43	10.7	9	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR3	17:19:21	0.7	Middle	2	2	28.86	7.6	9.76	88.5	6.46	10.7	10.4	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR4	17:01:01	1.0	Surface	1	1	28.85	7.5	7.93	76.7	5.66	8.6	7	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR4	17:00:50	1.0	Surface	1	2	28.77	7.47	7.95	76.9	5.65	8.6	7.7	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR4	17:00:45	2.6	Bottom	3	1	28.82	7.49	7.97	76.4	5.64	8.7	7.1	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR4	17:00:45	2.6	Bottom	3	2	28.77	7.45	8.93	76.3	5.64	9	7.4	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR5	18:12:20	1.0	Surface	1	1	28.86	7.47	6.93	70.3	5.22	14.3	13.4	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR5	18:12:50	1.0	Surface	1	2	28.87	7.46	6.79	70	5.2	14.7	12.8	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR5	18:12:03	4.4	Bottom	3	1	28.77	7.45	7.7	70.4	5.22	14.7	13.7	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR5	18:12:34	4.4	Bottom	3	2	28.75	7.43	7.82	70.1	5.18	14.1	13.6	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR10A	19:00:04	1.0	Surface	1	1	28.03	7.73	18.38	78	5.52	7.4	7.2	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR10A	19:00:23	1.0	Surface	1	2	28.06	7.73	18.48	78.2	5.53	7.1	7.2	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR10A	19:00:18	3.2	Middle	2	1	27.99	7.73	18.75	78	5.5	7.4	8.4	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR10A	18:59:56	3.2	Middle	2	2	27.92	7.72	19.72	77.9	5.47	7.7	7.6	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR10B	19:06:34	3.4	Bottom	3	1	28.1	7.72	18.45	78.7	5.57	6.8	7.5	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	SR10B	19:06:18	3.4	Bottom	3	2	28.08	7.72	18.68	78.5	5.55	6.9	8.6	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	CS2	17:04:55	1.0	Surface	1	1	28.83	7.42	6.16	68.8	5.12	19.1	17.6	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	CS2	17:05:50	1.0	Surface	1	2	28.84	7.43	6.54	68.4	5.09	18.9	16.8	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	CS2	17:04:30	3.4	Middle	2	1	28.84	7.44	6.73	70.8	5.27	19.4	17.4	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	CS2	17:05:36	3.4	Middle	2	2	28.84	7.43	6.98	70.7	5.24	19.1	16.5	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	CS2	17:04:13	5.8	Bottom	3	1	28.87	7.42	7.35	71.5	5.29	19	18.2	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	CS2	17:05:21	5.8	Bottom	3	2	28.86	7.41	7.31	71.3	5.28	18.3	17.5	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	CS(MF)5	18:31:52	1.0	Surface	1	1	28.79	7.71	10.03	78.3	5.71	7.3	6.1	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	CS(MF)5	18:32:55	1.0	Surface	1	2	28.38	7.81	10.34	76.4	5.61	7.4	7.8	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	CS(MF)5	18:32:46	6.9	Middle	2	1	27.77	7.75	21.67	76	5.25	7.6	7.3	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	CS(MF)5	18:31:33	6.9	Middle	2	2	27.86	7.74	20.84	76.2	5.26	7.5	7.2	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	CS(MF)5	18:32:33	12.7	Bottom	3	1	27.7	7.61	26.59	75.1	5.19	7.9	9.5	
HCLR	HY/2011/03	2013-08-19	Mid-Flood	Cloudy	CS(MF)5	18:31:17	12.7	Bottom	3	2	27.93	7.59	25.8	75.1	5.2	7.9	10.6	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS5	14:06:08	1.0	Surface	1	1	28.83	7.76	11.53	71.6	5.22	15.1	8.8	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS5	14:05:36	1.0	Surface	1	2	29.09	7.71	11.2	71.6	5.22	15.4	8.7	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS5	14:05:59	4.1	Middle	2	1	28.15	7.75	21.31	71.2	5.19	15.3	8.8	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS5	14:05:23	4.1	Middle	2	2	28.13	7.76	22.34	71.1	5.19	15.4	8	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS5	14:05:50	7.2	Bottom	3	1	28.19	7.66	25.17	71.1	5.18	15.3	8.7	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS5	14:05:13	7.2	Bottom	3	2	28.25	7.67	25.21	70.9	5.18	15.6	7.7	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS(MF)6	13:58:20	1.0	Surface	1	1	28.93	7.49	11.97	71.1	5.16	13.6	6.9	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS(MF)6	13:58:01	1.0	Surface	1	2	28.94	7.49	12.11	71.1	5.17	13.8	6.6	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS(MF)6	13:58:09	2.2	Bottom	3	1	28.8	7.44	14.94	71	5.16	15.7	6.6	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS(MF)6	13:57:49	2.2	Bottom	3	2	28.76	7.44	13.81	71.1	5.17	15.7	6.4	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS7	13:52:11	1.0	Surface	1	1	28.63	7.44	12.75	71.1	5.17	14.4	8.8	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS7	13:51:49	1.0	Surface	1	2	28.51	7.45	12.91	71.2	5.18	14.4	8.2	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS7	13:51:59	2.3	Bottom	3	1	28.28	7.42	15.34	71.1	5.17	14.6	5.3	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS7	13:51:38	2.3	Bottom	3	2	28.35	7.41	14.89	71.2	5.18	14.8	5.7	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS8	13:29:20	1.0	Surface	1	1	29.29	7.45	10.33	69.9	5.09	10.4	3.8	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS8	13:29:01	1.0	Surface	1	2	29.28	7.46	10.45	69.7	5.07	10.3	4.3	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS8	13:29:10	2.7	Bottom	3	1	29.06	7.4	14.18	70	5.09	10.5	4.2	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS8	13:28:48	2.7	Bottom	3	2	28.86	7.4	13.98	70	5.09	10.5	5.3	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS(MF)9	13:45:35	1.0	Surface	1	1	28.97	7.45	10.97	70.9	5.15	15.5	9.3	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS(MF)9	13:45:17	1.0	Surface	1	2	29.03	7.46	10.95	70.9	5.16	15.4	9.7	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS(MF)9	13:45:05	2.6	Bottom	3	1	28.56	7.4	15.61	70.9	5.16	15.9	9.5	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS(MF)9	13:45:25	2.6	Bottom	3	2	28.64	7.38	15.73	70.9	5.15	15.8	9.6	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS10	13:06:15	1.0	Surface	1	1	29.42	7.62	8.25	71.9	5.32	9.8	2.2	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS10	13:04:55	1.0	Surface	1	2	29.42	7.66	8.25	71.9	5.32	9.5	3.6	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS10	13:04:34	5.6	Middle	1	1	29	7.81	8.93	71.1	5.22	11.9	4	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS10	13:05:49	5.6	Middle	1	2	29.05	7.77	8.98	71.1	5.22	12.2	4.8	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS10	13:04:20	10.2	Bottom	3	1	27.87	7.66	22.51	70.7	5.04	10.7	3.8	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	IS10	13:05:25	10.2	Bottom	3	2	27.71	7.69	22.42	71.3	5.08	10.9	4.6	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR3	14:11:45	0.8	Middle	2	1	29.16	7.52	11.28	71.2	5.17	10.8	8.2	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR3	14:11:50	0.8	Middle	2	2	29.13	7.51	11.35	71.2	5.17	10.5	8.3	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR4	13:34:52	1.0	Surface	1	1	29.17	7.34	9.39	69.3	5.03	10	10	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR4	13:35:07	1.0	Surface	1	2	29.13	7.34	9.44	69.2	5.03	14.4	9.7	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR4	13:34:36	2.7	Bottom	3	1	29.13	7.34	9.48	69.3	5.03	14.4	9.7	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR4	13:34:58	2.7	Bottom	3	2	29.17	7.34	9.42	69.1	5.02	14.3	9.7	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR5	13:15:31	1.0	Surface	1	1	29.19	7.44	8.47	72.1	5.34	7.5	6	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR5	13:15:04	1.0	Surface	1	2	29.29	7.46	8.3	72	5.33	7.5	5.8	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR5	13:15:18	4.6	Bottom	3	1	29.04	7.42	9.07	71.2	5.23	7.2	4.1	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR5	13:14:48	4.6	Bottom	3	2	29	7.44	9.25	71.2	5.23	7.4	4.6	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR5	13:14:48	4.6	Bottom	3	1	28.51	7.45	13.35	70.7	5.16	6.2	4.2	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR10A	12:02:30	1.0	Surface	1	1	28.58	7.45	12.53	70.8	5.16	6	4.3	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR10A	12:02:06	1.0	Surface	1	2	28.58	7.45	12.53	70.8	5.16	6	4.3	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR10A	12:02:24	3.3	Middle	2	1	28.49	7.45	13.55	70.6	5.14	6.2	4.2	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR10A	12:01:58	3.3	Middle	2	2	28.52	7.46	13.29	70.7	5.15	6.1	4.4	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR10A	12:01:50	5.5	Bottom	3	1	28.53	7.44	13.71	70.6	5.15	6.2	5.4	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR10A	12:02:18	5.5	Bottom	3	2	28.5	7.44	13.61	70.5	5.14	6.3	5.1	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR10B	11:54:31	1.0	Surface	1	1	28.11	7.57	17.39	69.8	5.09	6.8	7.6	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR10B	11:54:14	1.0	Surface	1	2	28.11	7.55	17.36	69.8	5.09	6.7	7.6	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR10B	11:54:25	3.8	Bottom	3	1	28.11	7.56	17.42	69.6	5.07	6.7	6.5	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	SR10B	11:54:06	3.8	Bottom	3	2	28.12	7.54	17.39	69.6	5.08	6.7	7	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	CS2	14:22:41	1.0	Surface	1	1	28.96	7.43	8.38	68.4	5.07	8.8	6	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	CS2	14:23:37	1.0	Surface	1	2	28.94	7.42	8.72	69	5.06	8.7	6.1	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	CS2	14:22:28	3.6	Middle	2	1	28.79	7.41	9.6	68.8	5.07	12.7	6.1	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	CS2	14:23:19	3.6	Middle	2	2	28.79	7.41	9.64	68.8	5.04	10.2	6.3	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	CS2	14:22:13	6.1	Bottom	3	1	28.67	7.34	11.73	69	5.03	13.5	6.4	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	CS2	14:23:02	6.1	Bottom	3	2	28.66	7.35	12.09	67.7	5	13.2	7	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	CS(MF)5	12:49:25	1.0	Surface	1	1	28.66	7.63	8.59	70.6	5.14	10.5	6.8	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	CS(MF)5	12:48:45	1.0	Surface	1	2	28.49	7.59	9.29	70.5	5.14	10.6	5.3	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	CS(MF)5	12:49:11	6.0	Middle	2	1	27.4	7.7	19.53	69.8	5.08	11.8	6.6	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	CS(MF)5	12:48:34	6.0	Middle	2	2	27.97	7.57	19.09	69.8	5.08	12.3	5.3	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	CS(MF)5	12:49:02	11.0	Bottom	3	1	27.03	7.6	25.88	69.8	5.08	15.8	5.8	
HKLR	HY/2011/03	2013-08-21	Mid-Ebb	Fine	CS(MF)5	12:48:18	11.0	Bottom	3	2	27.03	7.5	25.97	69.9	5.09	15.9	5.3	
HKLR	HY/2011/03	2013-08-21	Mid-Flood	Cloudy	IS5	18:42:13	1.0	Surface	1	1	29.09	7.47	11.76	71.4	5.18	12.8	13.6	
HKLR	HY/2011/03	2013-08-21	Mid-Flood	Cloudy	IS5	18:41:22	1.0	Surface	1	2	29.09	7.47	11.78	71.8	5.22	12.6	13.8	
HKLR	HY/2011/03	2013-08-21	Mid-Flood	Cloudy	IS5	18:41:56	4.2	Middle	2	1	28.99	7.49	11.98	71.4	5.18	13.5	13.8	
HKLR	HY/2011/03	2013-08-21	Mid-Flood	Cloudy	IS5	18:41:00	4.2	Middle	2	2	28.89	7.49	12.4	72	5.22	13.5	13.5	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-08-21	IS5	18:40:48	7.4	Bottom	3	1	28.8	7.43	15.25	71.9	5.22	13.3	13.9	
HCLR	HY/2011/03	2013-08-21	IS5	18:41:39	7.4	Bottom	3	2	28.79	7.43	16.22	71.6	5.2	13.4	13.7	
HCLR	HY/2011/03	2013-08-21	IS(MF)6	18:48:43	1.0	Surface	1	1	28.99	7.42	11.72	71.4	5.22	17.6	10	
HCLR	HY/2011/03	2013-08-21	IS(MF)6	18:48:23	1.0	Surface	1	2	28.9	7.43	12.06	71.3	5.21	17.6	9.6	
HCLR	HY/2011/03	2013-08-21	IS(MF)6	18:48:30	2.0	Bottom	3	1	28.81	7.4	12.96	71.2	5.21	18.6	10	
HCLR	HY/2011/03	2013-08-21	IS(MF)6	18:48:10	2.0	Bottom	3	2	28.82	7.42	12.47	71.3	5.21	18.3	9.7	
HCLR	HY/2011/03	2013-08-21	IS7	18:56:28	1.0	Surface	1	1	29.45	7.45	10.88	69.6	5.07	10.1	4.6	
HCLR	HY/2011/03	2013-08-21	IS7	18:56:08	1.0	Surface	1	2	29.36	7.45	11.02	69.8	5.08	10.3	5.3	
HCLR	HY/2011/03	2013-08-21	IS7	18:56:16	2.2	Bottom	3	1	29.26	7.43	11.36	69.6	5.07	10.2	4.5	
HCLR	HY/2011/03	2013-08-21	IS7	18:56:00	2.2	Bottom	3	2	29.23	7.42	11.44	69.7	5.08	10.4	4.4	
HCLR	HY/2011/03	2013-08-21	IS8	19:21:18	1.0	Surface	1	1	28.95	7.41	10.5	70	5.11	10.2	3.1	
HCLR	HY/2011/03	2013-08-21	IS8	19:21:34	1.0	Surface	1	2	28.84	7.42	10.53	70	5.11	10.3	3.6	
HCLR	HY/2011/03	2013-08-21	IS8	19:21:10	2.7	Bottom	3	1	29.02	7.39	13.64	69.9	5.1	10.4	2.4	
HCLR	HY/2011/03	2013-08-21	IS8	19:21:26	2.7	Bottom	3	2	28.89	7.35	15.18	69.9	5.1	10.5	3.5	
HCLR	HY/2011/03	2013-08-21	IS(MF)9	19:03:47	1.0	Surface	1	1	29.44	7.48	10.37	71.7	5.21	7.4	4.2	
HCLR	HY/2011/03	2013-08-21	IS(MF)9	19:03:24	1.0	Surface	1	2	29.41	7.42	10.38	72.7	5.29	7.6	10.38	
HCLR	HY/2011/03	2013-08-21	IS(MF)9	19:03:34	2.5	Bottom	3	1	29	7.42	13.2	72.4	5.26	8.1	3.5	
HCLR	HY/2011/03	2013-08-21	IS(MF)9	19:03:13	2.5	Bottom	3	2	29.12	7.43	13.07	73.6	5.36	8.3	4.6	
HCLR	HY/2011/03	2013-08-21	IS10	19:44:55	1.0	Surface	1	1	28.62	7.57	7.68	69.3	5.13	13	9	
HCLR	HY/2011/03	2013-08-21	IS10	19:44:09	1.0	Surface	1	2	28.62	7.68	7.68	69.3	5.13	12.8	8.5	
HCLR	HY/2011/03	2013-08-21	IS10	19:44:34	5.6	Middle	2	1	28.63	7.67	8.53	69.9	5.14	14.1	9.7	
HCLR	HY/2011/03	2013-08-21	IS10	19:48:57	5.6	Middle	2	2	28.61	7.76	8.55	69.6	5.11	13.7	9.4	
HCLR	HY/2011/03	2013-08-21	IS10	19:43:42	10.1	Bottom	3	1	27.69	7.48	22.19	69.8	5.06	15.2	11.2	
HCLR	HY/2011/03	2013-08-21	IS10	19:44:22	10.1	Bottom	3	2	28.16	7.44	20.21	69.8	5.08	15.5	10	
HCLR	HY/2011/03	2013-08-21	SR3	18:30:52	0.8	Middle	2	1	29.11	7.45	11.68	72.8	5.27	14.6	10	
HCLR	HY/2011/03	2013-08-21	SR3	18:30:59	0.8	Middle	2	2	29.13	7.45	11.63	72.8	5.27	14.5	11.5	
HCLR	HY/2011/03	2013-08-21	SR4	19:12:45	1.0	Surface	1	1	29.12	7.42	9.98	71.6	5.2	10.2	4	
HCLR	HY/2011/03	2013-08-21	SR4	19:13:04	1.0	Surface	1	2	28.91	7.42	10.1	71.8	5.22	10.3	4.5	
HCLR	HY/2011/03	2013-08-21	SR4	19:12:34	2.7	Bottom	3	1	28.95	7.37	13.76	72	5.24	10.3	3.7	
HCLR	HY/2011/03	2013-08-21	SR4	19:12:56	2.7	Bottom	3	2	28.99	7.36	14.77	71.6	5.2	10.4	4.3	
HCLR	HY/2011/03	2013-08-21	SR5	19:32:42	1.0	Surface	1	1	28.6	7.37	7.75	68.5	5.08	15.5	8.4	
HCLR	HY/2011/03	2013-08-21	SR5	19:33:24	1.0	Surface	1	2	28.61	7.37	7.71	68.4	5.07	15.3	8.7	
HCLR	HY/2011/03	2013-08-21	SR5	19:33:02	4.5	Bottom	3	1	28.73	7.35	8.49	68.3	5.04	17.7	8.8	
HCLR	HY/2011/03	2013-08-21	SR5	19:32:21	4.5	Bottom	3	2	28.66	7.36	8.31	68.5	5.07	17.5	9.1	
HCLR	HY/2011/03	2013-08-21	SR10A	20:42:36	1.0	Surface	1	1	28.08	7.61	17.19	70.5	5.15	8.1	5	
HCLR	HY/2011/03	2013-08-21	SR10A	20:43:03	1.0	Surface	1	2	27.97	7.63	17.61	70.4	5.14	8.2	4.5	
HCLR	HY/2011/03	2013-08-21	SR10A	20:42:54	3.3	Middle	2	1	27.66	7.64	21.03	70.4	5.14	8.5	4.2	
HCLR	HY/2011/03	2013-08-21	SR10A	20:42:24	3.3	Middle	2	2	27.69	7.64	20.93	70.4	5.14	8.6	3.8	
HCLR	HY/2011/03	2013-08-21	SR10A	20:42:15	5.6	Bottom	3	1	27.77	7.59	21.56	70.4	5.13	9.2	4.2	
HCLR	HY/2011/03	2013-08-21	SR10A	20:42:45	5.6	Bottom	3	2	27.75	7.58	21.81	70.3	5.13	9.7	3.1	
HCLR	HY/2011/03	2013-08-21	SR10B	20:51:13	1.0	Surface	1	1	27.95	7.63	16.91	70.8	5.18	8.4	4.4	
HCLR	HY/2011/03	2013-08-21	SR10B	20:51:31	1.0	Surface	1	2	27.96	7.63	17.55	70.7	5.16	8.2	3.5	
HCLR	HY/2011/03	2013-08-21	SR10B	20:51:23	4.0	Bottom	3	1	27.85	7.59	20.69	70.6	5.15	8.3	4.1	
HCLR	HY/2011/03	2013-08-21	SR10B	20:51:05	4.0	Bottom	3	2	27.83	7.6	20.93	70.7	5.16	8.6	3.3	
HCLR	HY/2011/03	2013-08-21	CS2	18:18:56	1.0	Surface	1	1	28.75	7.43	7.1	68.2	5.05	8.8	11.2	
HCLR	HY/2011/03	2013-08-21	CS2	18:19:56	1.0	Surface	1	2	28.75	7.38	7.1	67.9	5.03	9	12.5	
HCLR	HY/2011/03	2013-08-21	CS2	18:18:31	3.4	Middle	2	1	28.59	7.48	7.88	69.1	5.12	11.6	11.3	
HCLR	HY/2011/03	2013-08-21	CS2	18:19:27	3.4	Middle	2	2	28.59	7.4	7.87	68.8	5.09	12.1	12.1	
HCLR	HY/2011/03	2013-08-21	CS2	18:19:04	5.7	Bottom	3	1	28.65	7.39	8.37	69	5.1	15.9	10.5	
HCLR	HY/2011/03	2013-08-21	CS2	18:18:11	5.7	Bottom	3	2	28.56	7.54	8.42	69.7	5.14	15.1	10.6	
HCLR	HY/2011/03	2013-08-21	CS(MF)5	19:55:45	1.0	Surface	1	1	28.55	7.62	11	70.8	5.14	7.6	4.2	
HCLR	HY/2011/03	2013-08-21	CS(MF)5	19:56:20	1.0	Surface	1	2	28.61	7.64	11.48	70.2	5.1	7.6	4.6	
HCLR	HY/2011/03	2013-08-21	CS(MF)5	19:55:35	6.3	Middle	2	1	27.76	7.63	20.4	69.3	5.02	9.8	4.2	
HCLR	HY/2011/03	2013-08-21	CS(MF)5	19:56:09	6.3	Middle	2	2	27.49	7.67	20.99	69.3	5.02	9.6	4.6	
HCLR	HY/2011/03	2013-08-21	CS(MF)5	19:56:01	11.5	Bottom	3	1	27.4	7.58	25.71	69.6	5.05	9.5	4.1	
HCLR	HY/2011/03	2013-08-21	CS(MF)5	19:55:22	11.5	Bottom	3	2	27.62	7.53	25.69	68.9	5	9.5	5.1	
HCLR	HY/2011/03	2013-08-23	IS5	13:25:06	1.0	Surface	1	1	27.92	7.59	13.89	71.4	5.18	14.4	14.4	
HCLR	HY/2011/03	2013-08-23	IS5	13:24:35	1.0	Surface	1	2	27.93	7.59	13.85	70.6	5.12	14.4	14.2	
HCLR	HY/2011/03	2013-08-23	IS5	13:24:54	4.1	Middle	2	1	27.91	7.62	15.4	71.1	5.16	14.5	14.1	
HCLR	HY/2011/03	2013-08-23	IS5	13:24:26	4.1	Middle	2	2	27.92	7.6	15.31	69.5	5.05	14.4	13.1	
HCLR	HY/2011/03	2013-08-23	IS5	13:24:46	7.1	Bottom	3	1	27.89	7.55	19.82	67.3	4.89	14.6	13	
HCLR	HY/2011/03	2013-08-23	IS(MF)6	13:30:58	1.0	Surface	1	2	27.87	7.54	19.64	68.3	4.8	14.5	14	
HCLR	HY/2011/03	2013-08-23	IS(MF)6	13:30:29	1.0	Surface	1	1	27.97	7.52	14.54	69.5	5.02	16.4	16.1	
HCLR	HY/2011/03	2013-08-23	IS(MF)6	13:30:29	1.0	Surface	1	2	27.97	7.52	14.62	69.2	5	16.4	17.9	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS(MF)6	13:30:19	2.2	Bottom	3	1	27.97	7.51	14.75	69.3	5	16.5	16.7	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS(MF)6	13:30:34	2.2	Bottom	3	2	27.98	7.51	14.91	68.9	4.97	16.3	17.5	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS7	13:37:21	1.0	Surface	1	1	28.14	7.52	14.64	73.3	5.28	11.4	10.4	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS7	13:36:51	1.0	Surface	1	2	28.14	7.52	14.65	72.7	5.24	11.4	10.1	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS7	13:37:01	2.2	Bottom	3	1	28.14	7.52	14.59	73	5.26	11.4	10.5	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS7	13:36:36	2.2	Bottom	3	2	28.13	7.52	14.7	72.6	5.23	11.3	9.5	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS8	13:58:17	1.0	Surface	1	1	27.99	7.49	14.03	68.5	5.12	8.1	5.7	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS8	13:58:43	2.8	Bottom	3	1	27.99	7.48	15.25	73.3	5.43	8.2	5.8	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS8	13:58:34	2.8	Bottom	3	2	27.99	7.48	15.25	73.3	5.35	9.4	5.8	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS8	13:58:06	2.8	Bottom	3	2	28.01	7.45	15.99	67.4	4.99	9.4	4.4	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS(MF)9	13:43:44	1.0	Surface	1	1	28.08	7.51	14.23	70	5.06	9.8	11.7	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS(MF)9	13:43:25	1.0	Surface	1	2	28.08	7.51	14.29	70.3	5.07	9.8	10	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS(MF)9	13:43:16	2.5	Bottom	3	1	28.06	7.5	14.69	70.5	5.08	10	10.1	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS(MF)9	13:43:33	2.5	Bottom	3	2	28.06	7.49	14.7	69.5	5.01	10.4	11	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS10	13:42:10	1.0	Surface	1	1	27.87	7.73	12.14	76.6	5.63	8	9.8	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS10	13:42:47	1.0	Surface	1	2	27.88	7.72	12.03	80.1	5.88	8	9.1	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS10	13:42:03	5.7	Middle	2	1	27.84	7.72	12.24	76.4	5.56	8.2	9.2	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS10	13:42:27	5.7	Middle	2	2	27.84	7.7	12.86	77.4	5.65	8	9.3	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS10	13:42:23	10.4	Bottom	3	1	27.85	7.7	13.67	76.4	5.59	8.4	8.6	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	IS10	13:41:53	10.4	Bottom	3	2	27.84	7.69	14	74.9	5.5	8.4	9.4	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR3	13:16:38	0.7	Middle	2	1	27.91	7.56	13.95	71.4	5.18	12.6	10.4	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR3	13:16:29	0.7	Middle	2	2	27.91	7.57	13.91	71.1	5.16	12.6	12.1	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR4	13:51:25	1.0	Surface	1	1	27.99	7.49	14.24	67.4	5.03	9.2	6.1	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR4	13:51:43	1.0	Surface	1	2	27.99	7.48	14.31	67.2	5.01	9.3	6	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR4	13:51:14	2.6	Bottom	3	1	27.98	7.49	14.66	67.9	5.06	9.4	5.9	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR4	13:51:34	2.6	Bottom	3	2	27.97	7.48	14.75	66.6	4.98	9.5	5.7	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR5	13:35:18	1.0	Surface	1	1	27.84	7.74	12.35	78.2	5.71	8.3	8.3	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR5	13:35:50	1.0	Surface	1	2	27.87	7.74	12.15	78.7	5.78	8.2	8.5	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR5	13:35:03	4.0	Bottom	3	1	27.84	7.71	13.91	77.7	5.69	8.7	9.7	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR5	13:35:30	4.0	Bottom	3	2	27.84	7.71	13.59	78	5.69	8.6	8.8	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR10A	15:07:58	1.0	Surface	1	1	27.72	7.52	13.81	70.5	5.14	6.9	6.7	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR10A	15:08:21	1.0	Surface	1	2	27.74	7.53	13.58	69.9	5.1	6.9	7.9	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR10A	15:07:50	3.3	Middle	2	1	27.72	7.52	13.92	70	5.1	6.8	8.4	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR10A	15:08:13	3.3	Middle	2	2	27.72	7.53	13.96	69.7	5.07	7.3	7.1	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR10A	15:07:38	5.5	Bottom	3	1	27.73	7.51	14.61	69.9	5.09	7.4	7.4	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR10A	15:08:05	5.5	Bottom	3	2	27.71	7.52	14.16	69.6	5.06	7.4	8.9	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR10B	15:16:27	1.0	Surface	1	1	27.71	7.53	13.99	69.5	5.06	7	5.5	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR10B	15:16:54	1.0	Surface	1	2	27.72	7.52	13.89	69.7	5.07	7.1	5.5	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR10B	15:16:36	3.9	Bottom	3	1	27.72	7.53	13.88	69.5	5.06	7.1	5.7	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	SR10B	15:16:16	3.9	Bottom	3	2	27.71	7.53	14.03	69.6	5.06	7.3	6.3	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	CS2	12:48:12	1.0	Surface	1	1	27.83	7.74	11.43	81.5	6.01	9.3	8.7	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	CS2	12:47:18	1.0	Surface	1	2	27.82	7.7	11.56	81.9	6.01	9.5	8.4	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	CS2	12:47:50	4.1	Middle	2	1	27.79	7.72	12.48	74.8	5.49	9.5	10.3	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	CS2	12:47:08	4.1	Middle	2	2	27.8	7.68	12.35	80	5.89	9.5	8.8	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	CS2	12:47:45	7.2	Bottom	3	1	27.79	7.71	12.59	74.5	5.47	9.7	8.4	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	CS2	12:46:21	7.2	Bottom	3	2	27.78	7.62	12.51	78.5	5.76	9.9	9.4	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	CS(MF)5	14:43:25	1.0	Surface	1	1	27.74	7.56	12.63	69.1	5.06	14.3	10	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	CS(MF)5	14:42:47	1.0	Surface	1	2	27.74	7.57	12.7	69.1	5.06	14.3	10	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	CS(MF)5	14:43:15	6.3	Middle	2	1	27.71	7.57	14.51	68.3	5.01	14.3	10.8	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	CS(MF)5	14:42:32	6.3	Middle	2	2	27.64	7.59	15.2	68.4	5.01	14.5	10.2	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	CS(MF)5	14:43:01	11.6	Bottom	3	1	27.66	7.49	21.07	67	4.86	14.8	10.3	
HCLR	HY/2011/03	2013-08-23	Mid-Ebb	Rainy	CS(MF)5	14:42:21	11.6	Bottom	3	2	27.59	7.49	21.92	65.6	4.75	15.1	10.5	
HCLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS5	08:55:18	1.0	Surface	1	1	28.12	7.5	15.13	70.7	5.23	9.2	8.8	
HCLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS5	08:55:49	1.0	Surface	1	2	28.11	7.5	15.16	69.4	5.13	9.3	8.2	
HCLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS5	08:55:09	4.2	Middle	2	1	28.08	7.49	15.29	69.4	5.17	10.5	8.1	
HCLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS5	08:56:39	4.2	Middle	2	2	28.01	7.48	15.7	67.9	5.07	10.6	7.7	
HCLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS5	08:55:02	7.3	Bottom	3	1	28.08	7.48	16.88	67.2	5.02	10.4	8.3	
HCLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS5	08:55:33	7.3	Bottom	3	2	27.98	7.46	17.6	66	4.92	10.8	8.4	
HCLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS(MF)6	08:47:54	1.0	Surface	1	1	28.11	7.51	14.22	73.1	5.27	7.7	7.7	
HCLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS(MF)6	08:47:37	1.0	Surface	1	2	28.11	7.51	14.22	73.5	5.3	8.7	7.4	
HCLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS(MF)6	08:47:27	2.2	Bottom	3	1	28.11	7.51	14.31	73.7	5.32	8.9	7.1	
HCLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS(MF)6	08:47:46	2.2	Bottom	3	2	28.13	7.51	14.37	73.2	5.28	8.9	8.5	
HCLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS7	08:40:34	1.0	Surface	1	1	28.09	7.51	13.96	74	5.35	10.3	6.5	
HCLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS7	08:40:16	1.0	Surface	1	2	28.09	7.52	13.92	74.2	5.37	10.5	6.8	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation	
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS7	08:40:08	2.2	Bottom	3	1	28.11	7.51	14.04	74	5.35	10.3	5.8		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS7	08:40:23	2.2	Bottom	3	2	28.1	7.51	14.11	74.1	5.36	10.3	6.3		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS8	08:15:54	1.0	Surface	1	1	27.91	7.48	13.67	70.3	5.3	8.6	5.7		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS8	08:15:26	1.0	Surface	1	2	27.91	7.48	13.69	70.5	5.31	8.6	5.6		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS8	08:15:16	2.9	Bottom	3	1	27.93	7.48	14.03	70.4	5.3	8.9	5.4		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS8	08:15:39	2.9	Bottom	3	2	27.94	7.47	14.22	69.8	5.25	8.6	6.8		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS(MF)9	08:34:23	1.0	Surface	1	1	27.9	7.49	13.63	69.1	5.02	12.5	8.9		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS(MF)9	08:33:50	1.0	Surface	1	2	27.91	7.49	13.68	68.9	5	12.4	7.9		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS(MF)9	08:33:38	2.5	Bottom	3	1	27.94	7.47	14.91	68.4	4.94	12.6	9.4		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS(MF)9	08:34:02	2.5	Bottom	3	2	27.96	7.46	14.95	67.2	4.84	12.8	10.3		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS10	08:02:32	1.0	Surface	1	1	28.02	7.7	13.43	74	5.35	12.1	13.7		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS10	08:02:13	1.0	Surface	1	2	28.03	7.71	13.05	74.1	5.37	12	13.9		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS10	08:02:13	5.6	Middle	2	1	28.01	7.69	14.82	73.7	5.35	12.6	14.1		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS10	08:02:27	5.6	Middle	2	2	28.01	7.69	14.83	73.2	5.33	12.1	14.8		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS10	08:01:59	10.2	Bottom	3	1	28.02	7.68	14.92	73.5	5.31	12.6	14.4		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	IS10	08:02:19	10.2	Bottom	3	2	28.02	7.69	14.91	73.1	5.3	12.5	15.5		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR3	09:02:35	0.7	Middle	2	1	28.13	7.51	14.98	70.7	5.23	7.4	9.3		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR3	09:02:28	0.7	Middle	2	2	28.13	7.51	15	70.4	5.21	7.5	8.6		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR4	08:23:27	1.0	Surface	1	1	27.9	7.47	14.22	70.7	5.3	18.4	16		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR4	08:23:39	1.0	Surface	1	2	27.9	7.47	14.17	66.6	5.02	18.6	16.3		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR4	08:23:34	2.6	Bottom	3	1	27.9	7.46	14.22	66.7	5.03	18.5	16.4		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR4	08:23:18	2.6	Bottom	3	2	27.9	7.46	14.8	67.4	5.07	18.5	15.7		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR5	08:07:14	1.0	Surface	1	1	27.98	7.69	12.88	78.3	5.72	14.1	16.8		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR5	08:07:33	1.0	Surface	1	2	28.02	7.69	13.04	77	5.57	13.8	16.3		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR5	08:07:21	3.9	Bottom	3	1	28.02	7.66	14.74	75.5	5.51	13.9	16.9		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR5	08:06:41	3.9	Bottom	3	2	28	7.69	14.84	72.7	5.26	14	16.1		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR10A	07:06:53	1.0	Surface	1	1	27.89	7.5	13.79	67	5.07	6.5	6.3		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR10A	07:07:35	1.0	Surface	1	2	27.91	7.47	13.67	67.9	5.14	6.5	7		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR10A	07:06:44	3.2	Middle	2	1	27.81	7.49	15.52	67.3	5.04	6.5	5.1		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR10A	07:07:27	3.2	Middle	2	2	27.88	7.47	14.61	68.7	5.14	6.6	5.9		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR10A	07:07:14	5.4	Bottom	3	1	27.87	7.45	16.05	67.6	5.09	6.7	5.1		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR10A	07:06:32	5.4	Bottom	3	2	27.86	7.48	17.61	66.4	4.99	6.6	6.4		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR10B	07:02:01	1.0	Surface	1	1	27.18	7.7	21.56	70.8	5.2	14.2	10.7		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR10B	07:01:44	1.0	Surface	1	2	27.18	7.71	21.69	70.9	5.2	14.1	9.1		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR10B	07:01:33	3.7	Bottom	3	1	27.07	7.7	24.29	70.6	5.12	14.2	10.8		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	SR10B	07:01:52	3.7	Bottom	3	2	27.14	7.69	23.83	70.7	5.13	14.3	9.5		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	CS2	09:04:28	1.0	Surface	1	1	27.62	7.65	10.07	75.5	5.62	8.9	7.9		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	CS2	09:02:59	1.0	Surface	1	2	27.6	7.65	9.03	74.9	5.45	8.9	8.8		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	CS2	09:04:08	4.1	Middle	2	1	27.79	7.64	12.98	73.6	5.32	9.2	9.1		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	CS2	09:02:49	4.1	Middle	2	2	27.81	7.58	11.74	74.7	5.6	9	10.2		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	CS2	09:03:59	7.1	Bottom	3	1	27.78	7.54	15.95	72.7	5.31	9.2	9.5		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	CS2	09:02:42	7.1	Bottom	3	2	27.85	7.5	14.05	73.9	5.44	9.1	14.05	9.5	
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	CS(MF)5	07:43:39	1.0	Surface	1	1	27.65	7.68	13.18	64.3	5.1	7.6	7.2		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	CS(MF)5	07:42:57	1.0	Surface	1	2	27.73	7.65	13.16	65.9	5.21	7.8	6.3		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	CS(MF)5	07:42:47	6.3	Middle	2	1	27.18	7.66	22.96	66.9	5.01	13.5	6.8		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	CS(MF)5	07:43:31	6.3	Middle	2	2	27.21	7.66	22.95	66.9	5.01	13.4	6.3		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	CS(MF)5	07:42:36	11.5	Bottom	3	1	26.99	7.55	26.93	64.4	4.91	18.1	7.4		
HKLR	HY/2011/03	2013-08-23	Mid-Flood	Cloudy	CS(MF)5	07:43:13	11.5	Bottom	3	2	26.79	7.59	27.12	65.9	4.95	17.8	8.8		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS5	14:59:06	1.0	Surface	1	1	28.33	7.68	13.48	72.1	5.21	8.8	9.3		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS5	14:59:42	1.0	Surface	1	2	28.33	7.67	13.49	72.8	5.26	8.8	8.6		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS5	14:59:23	4.5	Middle	2	1	27.68	7.7	17.43	70.2	5.08	8.8	9.2		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS5	14:58:50	4.5	Middle	2	2	27.7	7.7	17.48	69.6	5.04	8.7	10.4		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS5	14:58:41	7.9	Bottom	3	1	27.68	7.62	21.47	69.5	4.86	8.6	9		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS5	14:59:15	7.9	Bottom	3	2	27.96	7.6	21.93	71.4	4.95	8.7	9.5		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS(MF)6	15:09:36	1.0	Surface	1	1	28.56	7.65	13.23	80.1	5.77	7.8	3.3		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS(MF)6	15:09:10	1.0	Surface	1	2	28.52	7.65	13.31	79.5	5.73	7.2	4		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS(MF)6	15:09:18	2.2	Bottom	3	1	28.27	7.65	13.97	79.3	5.72	7.6	4.6		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS(MF)6	15:09:00	2.2	Bottom	3	2	28.35	7.66	13.85	79.5	5.73	7.8	5.7		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS7	15:18:16	1.0	Surface	1	1	28.23	7.6	12.66	75	5.45	7.7	4.8		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS7	15:17:55	1.0	Surface	1	2	28.25	7.61	12.71	75.5	5.48	7.8	5		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS7	15:18:07	2.1	Bottom	3	1	28.16	7.59	13.03	75.4	5.47	7.8	4.4		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS7	15:17:45	2.1	Bottom	3	2	28.11	7.6	13.07	75.6	5.49	7.7	4.6		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS8	15:42:33	1.0	Surface	1	1	27.96	7.59	13.38	69	5.02	4.6	2.4		
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS8	15:42:15	1.0	Surface	1	2	27.77	7.6	13.44	68.7	5.01	4.4	2.3		

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS8	15:42:22	3.0	Bottom	3	1	27.7	7.57	15.88	68.5	4.93	4.4	3.1	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS8	15:42:07	3.0	Bottom	3	2	27.74	7.57	16.01	68.9	4.96	4.5	3.4	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS(MF)9	15:24:25	1.0	Surface	1	1	28.44	7.6	12.23	72.1	5.23	7.6	2.3	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS(MF)9	15:24:08	1.0	Surface	1	2	28.36	7.61	12.25	71.6	5.2	7.6	2.8	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS(MF)9	15:24:00	2.7	Bottom	3	1	28.19	7.59	13.91	71.3	5.15	7.7	3.9	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS(MF)9	15:24:15	2.7	Bottom	3	2	28.08	7.57	13.91	71.5	5.18	7.8	3.2	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS10	15:58:33	1.0	Surface	1	1	28.49	7.87	9.3	72.6	5.35	6.1	5.1	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS10	15:59:25	1.0	Surface	1	2	28.34	7.84	9.39	71.4	5.28	6.3	6.1	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS10	15:58:17	5.4	Middle	2	1	27.31	7.8	17.18	70.2	5.05	6.3	6.1	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS10	15:59:04	5.4	Middle	2	2	27.16	7.82	17.6	70.7	5.08	6.2	5.5	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS10	15:58:01	9.7	Bottom	3	1	27.11	7.75	21.67	69.5	4.98	9	5.6	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	IS10	15:58:51	9.7	Bottom	3	2	26.95	7.71	21.71	69	4.88	9.9	6.5	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR3	14:49:53	0.7	Middle	2	1	28.39	7.62	13.31	77.5	5.6	8.6	10.6	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR3	14:49:44	0.7	Middle	2	2	28.39	7.62	13.32	78	5.63	8.8	10.5	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR4	15:33:18	1.0	Surface	1	1	28.38	7.59	13.11	70.5	5.09	7.1	5.6	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR4	15:33:34	1.0	Surface	1	2	28.37	7.58	13.09	70.5	5.1	7.1	4.9	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR4	15:33:25	2.8	Bottom	3	1	28.23	7.59	13.33	70.3	5.09	7.2	4.8	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR4	15:33:10	2.8	Bottom	3	2	28.19	7.58	13.42	70.4	5.09	7.2	5.1	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR5	15:48:48	1.0	Surface	1	1	28.67	7.78	9	70.4	5.18	6	5.6	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR5	15:48:09	1.0	Surface	1	2	28.35	7.81	9.24	69.7	5.16	5.8	6.1	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR5	15:47:54	4.7	Bottom	3	1	27.37	7.69	16.71	68.6	4.95	5.5	5.8	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR5	15:48:22	4.7	Bottom	3	2	27.49	7.68	16.51	68.4	4.93	5.7	5.8	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR10A	16:42:49	1.0	Surface	1	1	28.43	7.7	14.29	75.8	5.44	4.4	4.4	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR10A	16:43:17	1.0	Surface	1	2	28.44	7.7	15.06	75.7	5.41	4.3	5.7	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR10A	16:43:06	3.3	Middle	2	1	28.33	7.69	15.88	75.2	5.36	4.2	4.4	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR10A	16:42:39	3.3	Middle	2	2	28.36	7.69	15.7	75.5	5.38	4.2	4.4	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR10A	16:42:58	5.5	Bottom	3	1	28.36	7.68	15.94	75.4	5.37	4.4	4.4	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR10A	16:42:29	5.5	Bottom	3	2	28.38	7.68	15.85	75.7	5.39	4.1	5.2	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR10B	16:49:19	1.0	Surface	1	1	28.4	7.7	15.46	75.6	5.39	4.2	4.9	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR10B	16:49:44	1.0	Surface	1	2	28.41	7.7	15.21	75.7	5.4	4.2	5	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR10B	16:49:11	3.9	Bottom	3	1	28.39	7.69	15.73	75.5	5.38	4.1	4	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	SR10B	16:49:30	3.9	Bottom	3	2	28.36	7.7	16.12	75.4	5.37	4.2	4.4	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	CS2	14:38:20	1.0	Surface	1	1	28.31	7.77	10.26	75	5.39	6.2	4.3	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	CS2	14:37:27	1.0	Surface	1	2	28.16	7.77	10.48	73.2	5.38	6.1	5.3	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	CS2	14:37:10	3.4	Middle	2	1	27.42	7.73	16.72	72.7	5.24	8	4	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	CS2	14:38:02	3.4	Middle	2	2	27.46	7.74	16.48	71	5.21	7.7	5	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	CS2	14:36:59	5.7	Bottom	3	1	27.3	7.68	17.51	68.8	4.96	8.3	5.4	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	CS2	14:37:48	5.7	Bottom	3	2	27.28	7.7	17.69	69.4	4.98	8.1	6.3	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	CS(MF)5	16:19:15	1.0	Surface	1	1	28.44	7.71	12.53	73.7	5.47	6.1	5.3	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	CS(MF)5	16:19:53	1.0	Surface	1	2	28.73	7.67	12.47	75.2	5.56	6	4.1	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	CS(MF)5	16:19:37	6.5	Middle	2	1	27.58	7.71	20.11	71.3	5.17	5.7	4.4	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	CS(MF)5	16:19:04	6.5	Middle	2	2	27.13	7.69	20.7	71.6	5.21	5.8	5	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	CS(MF)5	16:19:26	11.9	Bottom	3	1	26.17	7.6	27.49	72.6	5.19	5.6	4.6	
HKLR	HY/2011/03	2013-08-26	Mid-Ebb	Sunny	CS(MF)5	16:18:45	11.9	Bottom	3	2	26.47	7.61	26.75	72.3	5.16	5.7	4.1	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS5	11:19:24	1.0	Surface	1	1	27.98	7.66	13.25	72.8	5.29	10.2	5.2	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS5	11:20:04	1.0	Surface	1	2	27.9	7.68	13.3	71.9	5.22	10.1	4.7	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS5	11:19:11	4.3	Middle	2	1	27.7	7.69	15.58	71.4	5.19	10.2	4.6	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS5	11:19:55	4.3	Middle	2	2	27.67	7.69	15.74	69.2	5.04	10.3	4.7	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS5	11:19:01	7.5	Bottom	3	1	27.64	7.6	20.53	70.5	4.95	10.3	4.8	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS5	11:19:42	7.5	Bottom	3	2	27.56	7.6	21.45	69.5	4.86	10.4	4.3	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS(MF)6	11:09:20	1.0	Surface	1	1	27.79	7.56	12.37	71.2	5.22	5.6	4.7	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS(MF)6	11:09:40	1.0	Surface	1	2	27.82	7.56	12.32	70.9	5.2	5.9	4.8	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS(MF)6	11:09:09	2.1	Bottom	3	1	27.77	7.56	12.54	71.3	5.23	5.8	3.8	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS(MF)6	11:09:28	2.1	Bottom	3	2	27.78	7.56	12.51	71.1	5.21	5.8	3.3	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS7	11:02:16	1.0	Surface	1	1	27.79	7.58	12.85	72.1	5.27	5.3	2.4	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS7	11:01:58	1.0	Surface	1	2	27.79	7.58	12.9	72.4	5.3	5.5	2.6	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS7	11:01:47	2.4	Bottom	3	1	27.76	7.58	13.01	72.6	5.31	5.5	4.6	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS7	11:02:05	2.4	Bottom	3	2	27.77	7.58	12.92	72.8	5.28	5.3	4.4	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS8	10:37:10	1.0	Surface	1	1	27.61	7.56	12.33	74.5	5.56	9.7	3.7	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS8	10:37:29	1.0	Surface	1	2	27.61	7.56	12.36	74.4	5.56	9.6	2.4	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS8	10:37:02	3.0	Bottom	3	1	27.55	7.53	14.37	74.5	5.52	9.6	2.8	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS8	10:37:20	3.0	Bottom	3	2	27.57	7.53	14.29	74.5	5.51	9.8	2.9	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS(MF)9	10:55:42	1.0	Surface	1	1	27.79	7.56	12.56	68.2	5	7.3	3.9	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS(MF)9	10:56:13	1.0	Surface	1	2	27.86	7.55	12.54	68.3	5	7.4	4.3	



Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS(MF)9	10:55:53	2.6	Bottom	3	1	27.66	7.54	13.78	67.9	4.95	8.1	4.4	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS(MF)9	10:55:30	2.6	Bottom	3	2	27.7	7.55	13.78	68.2	4.97	7.9	3.8	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS10	10:31:54	1.0	Surface	1	1	27.78	7.84	11.01	76.1	5.62	10.2	3.4	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS10	10:30:51	1.0	Surface	1	2	27.81	7.8	11.53	76.3	5.62	9.9	3.7	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS10	10:30:17	5.8	Middle	2	1	27.08	7.87	17.6	70.2	5.07	10.8	4	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS10	10:31:27	5.8	Middle	2	2	27.07	7.85	18.2	70.6	5.07	11	4.9	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS10	10:30:02	10.6	Bottom	3	1	26.72	7.79	22.23	70.1	4.96	12.9	3.7	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	IS10	10:31:13	10.6	Bottom	3	2	26.74	7.73	22.45	71.1	5.02	13.5	3.5	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR3	11:28:46	0.7	Middle	2	1	28	7.62	13.33	74.9	5.44	6.4	3.4	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR3	11:28:57	0.7	Middle	2	2	27.99	7.62	13.35	74.9	5.45	6.2	3.3	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR4	10:44:33	1.0	Surface	1	1	27.74	7.55	12.2	69.2	5.08	10.7	9.8	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR4	10:44:54	1.0	Surface	1	2	27.75	7.55	12.15	69.1	5.08	10.6	8	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR4	10:44:41	2.8	Bottom	3	1	27.72	7.55	12.29	69.1	5.07	10.5	8.4	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR4	10:44:25	2.8	Bottom	3	2	27.71	7.55	12.3	69.2	5.08	10.9	8.8	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR5	10:40:45	1.0	Surface	1	1	27.77	7.8	10.95	76.5	5.66	11.1	4.8	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR5	10:40:03	1.0	Surface	1	2	27.79	7.79	11.53	76.6	5.65	11.4	4.9	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR5	10:39:37	4.6	Bottom	3	1	27.74	7.66	16.94	73.5	5.3	13.4	3.5	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR5	10:40:22	4.6	Bottom	3	2	27.3	7.73	16.98	73.8	5.33	13.7	4.2	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR10A	09:37:01	1.0	Surface	1	1	27.68	7.66	13.69	69.1	5.04	4.2	3.3	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR10A	09:37:45	1.0	Surface	1	2	27.74	7.66	13.47	69.3	5.06	4.1	2.6	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR10A	09:36:44	3.3	Middle	2	1	27.71	7.71	16.33	68.8	5.02	5.1	2.4	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR10A	09:37:26	3.3	Middle	2	2	27.06	7.68	18.17	68.8	5.02	5.1	2.4	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR10A	09:36:35	5.6	Bottom	3	1	26.98	7.59	22.42	65.1	4.73	5.2	2.8	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR10A	09:37:13	5.6	Bottom	3	2	27.1	7.57	22.63	67.3	4.71	5.2	2.1	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR10B	09:30:44	1.0	Surface	1	1	26.75	7.82	20.15	70.8	5.11	8.6	4.7	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR10B	09:31:05	1.0	Surface	1	2	27.04	7.78	19.39	71.1	5.15	8.5	4.5	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR10B	09:30:35	4.0	Bottom	3	1	26.34	7.77	25.35	69	4.9	8.7	4.4	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	SR10B	09:30:53	4.0	Bottom	3	2	26.53	7.75	24.65	70	4.98	8.6	5.5	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	CS2	11:51:04	1.0	Surface	1	1	28.2	7.76	10.35	76.1	5.61	6.8	4.7	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	CS2	11:51:57	1.0	Surface	1	2	28.18	7.74	10.39	76.1	5.61	7.1	4.9	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	CS2	11:50:43	3.6	Middle	2	1	27.71	7.84	13	74.4	5.44	8.7	3.8	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	CS2	11:51:33	3.6	Middle	2	2	27.74	7.81	12.79	75.1	5.5	8	4.2	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	CS2	11:51:19	6.2	Bottom	3	1	27.12	7.67	20.06	73.3	5.2	11.5	7.6	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	CS2	11:50:27	6.2	Bottom	3	2	26.99	7.73	20.17	71.1	5.06	11.3	6.6	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	CS(MF)5	10:05:27	1.0	Surface	1	1	27.48	7.79	12.91	71.7	5.35	5.3	5.7	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	CS(MF)5	10:04:48	1.0	Surface	1	2	27.52	7.77	13.75	72.1	5.36	5.6	4.3	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	CS(MF)5	10:05:17	6.2	Middle	2	1	26.6	7.77	21.29	68.8	5	8.4	5.1	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	CS(MF)5	10:04:37	6.2	Middle	2	2	26.41	7.78	21.51	68.8	5.01	8.1	5.2	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	CS(MF)5	10:04:25	11.4	Bottom	3	1	25.68	7.67	28.89	70.2	4.99	8.6	5.1	
HKLR	HY/2011/03	2013-08-26	Mid-Flood	Sunny	CS(MF)5	10:05:03	11.4	Bottom	3	2	25.64	7.67	29.01	69.8	4.7	8.7	4.7	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS5	16:19:06	1.0	Surface	1	1	29.94	7.96	11.85	96.7	6.86	9.5	6.3	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS5	16:18:10	1.0	Surface	1	2	29.81	7.95	11.94	91.5	6.5	9.3	5.2	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS5	16:18:52	5.0	Middle	2	1	28.97	7.85	15.67	78.6	5.55	10.2	5.2	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS5	16:17:59	5.0	Middle	2	2	28.69	7.84	16.48	76.9	5.43	9.8	4.6	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS5	16:18:35	9.0	Bottom	3	1	27.88	7.76	22.21	71.3	4.94	10.5	5.9	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS5	16:17:48	9.0	Bottom	3	2	27.88	7.77	22.29	72.2	5.03	10.3	6.9	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS(MF)6	16:26:17	1.0	Surface	1	1	30.01	8.21	11.58	137.3	9.74	6	3.1	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS(MF)6	16:25:59	1.0	Surface	1	2	30.04	8.22	11.56	138.4	9.81	5.9	3.9	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS(MF)6	16:25:46	2.2	Bottom	3	1	30.3	8.18	12.62	137.9	9.68	6.7	2.4	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS(MF)6	16:26:07	2.2	Bottom	3	2	30.21	8.17	13.56	138.1	9.66	6.2	3.5	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS7	16:33:35	1.0	Surface	1	1	29.71	8.21	11.64	133.9	9.54	5.7	2.1	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS7	16:33:17	1.0	Surface	1	2	29.68	8.2	11.66	132.5	9.45	5.8	3.4	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS7	16:33:08	2.3	Bottom	3	1	29.46	8.16	12.09	131.3	9.37	6.1	3.8	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS7	16:33:26	2.3	Bottom	3	2	29.54	8.17	12.13	132.4	9.44	6	3.6	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS8	16:59:42	1.0	Surface	1	1	29.48	8.04	12.53	110.7	7.88	5.8	4.4	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS8	16:59:22	1.0	Surface	1	2	28.83	7.94	12.09	99.1	7.15	5.9	5.1	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS8	16:59:29	2.7	Bottom	3	1	28.74	7.93	15.14	104.4	7.42	7	2.3	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS8	16:59:14	2.7	Bottom	3	2	28.56	7.85	15.98	99.7	7.07	6.6	2.1	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS(MF)9	16:41:21	1.0	Surface	1	1	29.89	8.19	11.58	131.3	9.33	6.5	2.2	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS(MF)9	16:41:08	1.0	Surface	1	2	29.9	8.17	11.65	128.6	9.14	6.6	3	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS(MF)9	16:41:00	2.5	Bottom	3	1	29.6	8.16	12.74	129.6	9.2	7.2	4.5	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS(MF)9	16:41:14	2.5	Bottom	3	2	29.83	8.18	12.67	130.9	9.25	6.9	4.1	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS10	17:47:36	1.0	Surface	1	1	28.81	7.92	10.61	69.7	5.08	6.7	5.2	
HKLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS10	17:46:48	1.0	Surface	1	2	29.3	7.91	10.48	68.8	5.02	6.9	5.1	

Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS10	17:46:41	5.3	Middle	2	1	28.14	7.81	18.49	68.7	5	7.2	5.3	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS10	17:47:23	5.3	Middle	2	2	26.4	7.79	18.33	69.3	5.03	7.2	4.3	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS10	17:47:14	9.6	Bottom	3	1	25.83	7.68	27.93	64.9	4.73	7.1	6	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	IS10	17:46:30	9.6	Bottom	3	2	25.88	7.62	27.89	65.3	4.78	7.2	5.4	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR3	16:02:45	0.8	Middle	2	1	29.95	7.98	12.34	108.1	7.64	8.7	7.9	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR3	16:02:54	0.8	Middle	2	2	29.93	7.98	12.24	107.9	7.64	8.5	8.2	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR4	16:50:31	1.0	Surface	1	1	29.59	8.02	11.6	100	7.14	5.8	2.9	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR4	16:50:49	1.0	Surface	1	2	29.21	7.97	11.55	97.5	7.01	5.9	3.1	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR4	16:50:22	2.5	Bottom	3	1	29	7.96	14.98	98.4	6.97	7	3.1	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR4	16:50:40	2.5	Bottom	3	2	28.9	7.93	15.37	99.8	7.07	6.5	4.1	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR5	17:33:01	1.0	Surface	1	1	28.57	7.75	10.63	71.5	5.23	6	6.3	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR5	17:33:35	1.0	Surface	1	2	28.53	7.75	11.06	72.1	5.26	6.1	5.5	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR5	17:33:26	3.6	Bottom	3	1	28.42	7.69	14.48	71.9	5.16	5.4	4.9	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR5	17:32:49	3.6	Bottom	3	2	28.5	7.7	14.82	71.6	5.12	5.6	4.7	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR10A	18:01:14	1.0	Surface	1	1	29.46	8.11	13.94	119	8.41	3.8	3.1	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR10A	18:00:12	1.0	Surface	1	2	29.36	8.1	14.52	118	8.33	3.6	3.4	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR10A	18:00:55	3.5	Middle	2	1	29.02	8.05	15.97	112.6	7.93	3.5	2.8	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR10A	17:59:56	3.5	Middle	2	2	29	8.05	15.98	112	7.89	3.5	2.7	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR10A	18:00:38	5.9	Bottom	3	1	28.89	8.03	16.53	111.6	7.85	3.5	2.3	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR10A	17:59:37	5.9	Bottom	3	2	28.79	8.03	16.94	110.9	7.79	3.4	2.9	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR10B	18:12:16	1.0	Surface	1	1	29.61	8.14	13.31	122.5	8.67	3.7	3	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR10B	18:11:52	1.0	Surface	1	2	29.63	8.14	13.08	122.1	8.64	3.6	3.2	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR10B	18:11:38	4.8	Bottom	3	1	29.25	8.09	15.39	119.8	8.43	3.5	2.7	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	SR10B	18:12:05	4.8	Bottom	3	2	29.32	8.1	15.25	121.4	8.54	3.6	3.6	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	CS2	16:07:19	1.0	Surface	1	1	28.65	7.85	10.61	76.5	5.54	6.3	5.1	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	CS2	16:06:43	1.0	Surface	1	2	28.66	7.98	10.97	77.6	5.62	6.1	4.7	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	CS2	16:07:02	3.8	Middle	2	1	28.09	7.89	14.48	74.1	5.32	6.4	4.4	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	CS2	16:06:33	3.8	Middle	2	2	28.07	7.99	14.58	74.3	5.33	6.5	4.4	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	CS2	16:06:54	6.6	Bottom	3	1	26.78	7.78	24.12	75.3	5.26	6.2	5.2	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	CS2	16:06:16	6.6	Bottom	3	2	26.66	7.91	24.17	76.7	5.37	6.4	4.5	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	CS(MF)5	17:34:04	1.0	Surface	1	1	29.56	8.02	11.86	98.9	7.06	4	4.7	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	CS(MF)5	17:34:56	1.0	Surface	1	2	29.65	8.03	11.37	97.6	6.97	4	3.2	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	CS(MF)5	17:34:42	6.6	Middle	2	1	27.62	7.89	21.56	85.9	6	3.1	4	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	CS(MF)5	17:33:49	6.6	Middle	2	2	27.33	7.87	20.87	84.6	5.96	3	3.3	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	CS(MF)5	17:34:28	12.2	Bottom	3	1	27.02	7.85	23.1	84.3	5.9	3	3.7	
HCLR	HY/2011/03	2013-08-28	Mid-Ebb	Sunny	CS(MF)5	17:33:30	12.2	Bottom	3	2	27.04	7.85	23.11	84.2	5.89	3.1	3	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS5	13:14:07	1.0	Surface	1	1	29.48	7.9	13.41	93.7	6.64	8.5	8.1	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS5	13:13:24	1.0	Surface	1	2	29.66	7.89	13.45	91.4	6.45	8.9	7.9	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS5	13:13:50	4.6	Middle	2	1	28.26	7.79	18.55	75.5	5.3	10.3	6.9	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS5	13:13:08	4.6	Middle	2	2	28.17	7.79	19.1	75.2	5.27	10.7	8.3	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS5	13:13:41	8.2	Bottom	3	1	27.97	7.77	21.18	79.9	5.57	13.2	6.1	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS(MF)6	13:02:19	1.0	Surface	1	1	28.06	7.76	11.71	117.4	8.32	5.7	2.3	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS(MF)6	13:02:00	1.0	Surface	1	2	30.01	7.98	11.69	116.8	8.27	5.6	4	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS(MF)6	13:01:51	2.1	Bottom	3	1	30.05	7.97	11.95	116.4	8.24	5.9	4	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS(MF)6	13:02:08	2.1	Bottom	3	2	30.01	7.97	12.09	117.2	8.28	6	4.5	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS7	12:54:03	1.0	Surface	1	1	29.58	7.94	12.04	111.8	7.97	8.5	4.7	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS7	12:54:23	1.0	Surface	1	2	29.7	7.94	11.88	113.8	8.1	8.4	4.1	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS7	12:54:13	2.5	Bottom	3	1	29.53	7.96	12.27	112.5	8.01	10.6	4.6	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS7	12:53:58	2.5	Bottom	3	2	29.56	7.93	12.25	111.6	7.95	11.6	4.4	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS8	12:29:12	1.0	Surface	1	1	29.08	7.83	11.09	98.2	7.1	4.8	3.5	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS8	12:28:44	1.0	Surface	1	2	29.18	7.82	11.06	99	7.14	4.5	2.2	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS8	12:28:32	3.0	Bottom	3	1	29	7.83	12.44	99.5	7.15	5.5	3.1	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS8	12:28:58	3.0	Bottom	3	2	28.92	7.8	13.23	97.5	6.98	5.7	3.4	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS(MF)9	12:46:55	1.0	Surface	1	1	29.15	7.94	12.13	107.4	7.71	6.6	5	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS(MF)9	12:47:15	1.0	Surface	1	2	29.2	7.96	12.1	110.7	7.94	6.2	4.4	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS(MF)9	12:47:03	2.4	Bottom	3	1	29.1	7.93	13.03	108.8	7.77	9	3.8	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS(MF)9	12:46:47	2.4	Bottom	3	2	28.98	7.9	13.41	106.5	7.61	9.2	3.3	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS10	12:22:35	1.0	Surface	1	1	29.77	7.99	5.91	71.5	5.24	8.4	5.6	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS10	12:21:33	1.0	Surface	1	2	29.81	8.02	5.92	73.4	5.36	8.4	4.7	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS10	12:21:23	5.4	Middle	2	1	27.49	7.82	20.44	69.6	5.08	8.6	6.1	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS10	12:22:26	5.4	Middle	2	2	27.74	7.79	19.42	69.4	5.08	8.6	5.1	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS10	12:22:02	9.8	Bottom	3	1	25.85	7.62	28.21	65.9	4.84	8.6	5.4	
HCLR	HY/2011/03	2013-08-28	Mid-Flood	Sunny	IS10	12:20:56	9.8	Bottom	3	2	26.05	7.63	27.77	64.3	4.72	8.6	5.5	



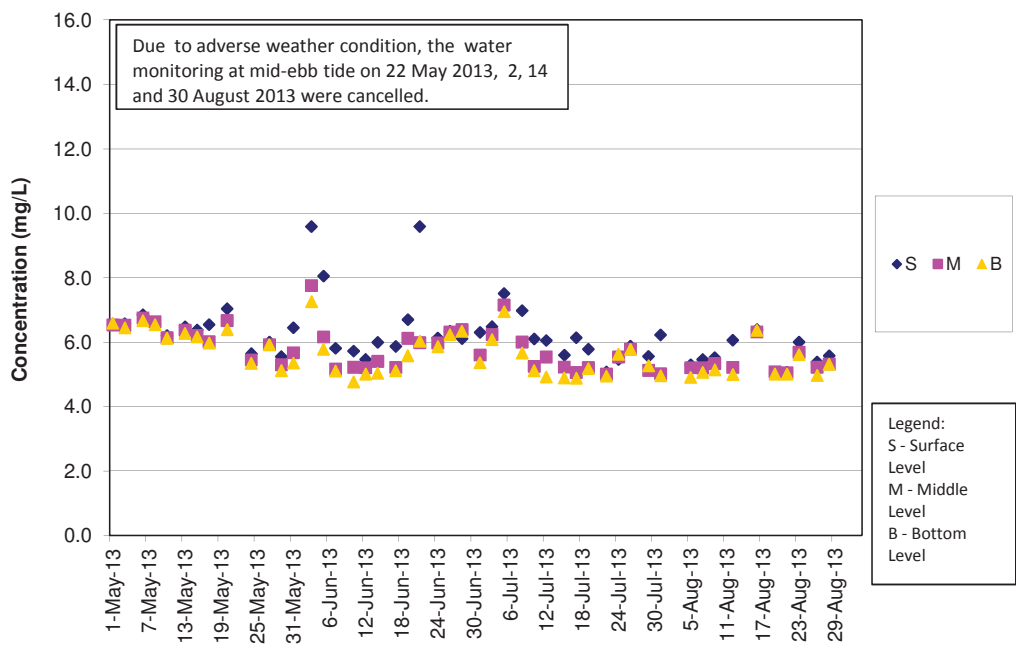
Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR4	-	-	Bottom	3	1	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR4	-	-	Bottom	3	2	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR5	-	-	Surface	1	1	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR5	-	-	Surface	1	2	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR5	-	-	Bottom	3	1	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR5	-	-	Bottom	3	2	-	-	-	-	-	-	-	Cancelled
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR10A	07:29:40	1.0	Surface	1	1	28.74	7.81	11.49	92.5	6.71	3.5	2.8	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR10A	07:30:14	1.0	Surface	1	2	28.74	7.8	11.77	92.5	6.7	3.6	2.9	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR10A	07:29:27	3.4	Middle	2	1	28.71	7.81	12.42	92.1	6.64	3.6	2.6	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR10A	07:30:02	3.4	Middle	2	2	28.73	7.8	12.11	92.1	6.66	3.5	3.7	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR10A	07:29:52	5.7	Bottom	3	1	28.7	7.79	13.03	92.2	6.63	3.5	2.7	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR10A	07:29:17	5.7	Bottom	3	2	28.7	7.8	13.09	92.1	6.63	3.5	2.6	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR10B	07:24:09	1.0	Surface	1	1	28.15	7.89	14.75	89.8	6.46	4	2.7	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR10B	07:23:52	1.0	Surface	1	2	28.27	7.9	14.45	89.8	6.46	4.1	2.4	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR10B	07:24:00	4.4	Bottom	3	1	28.14	7.85	18.88	89.7	6.3	4	2.3	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	SR10B	07:23:40	4.4	Bottom	3	2	28.13	7.86	18.86	88.5	6.23	4.1	3.7	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	CS2	-	-	Surface	1	1	-	-	-	-	-	-	-	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	CS2	-	-	Surface	1	2	-	-	-	-	-	-	-	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	CS2	-	-	Middle	2	1	-	-	-	-	-	-	-	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	CS2	-	-	Middle	2	2	-	-	-	-	-	-	-	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	CS2	-	-	Bottom	3	1	-	-	-	-	-	-	-	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	CS2	-	-	Bottom	3	2	-	-	-	-	-	-	-	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	CS(MF)5	-	-	Surface	1	1	-	-	-	-	-	-	-	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	CS(MF)5	-	-	Surface	1	2	-	-	-	-	-	-	-	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	CS(MF)5	-	-	Middle	2	1	-	-	-	-	-	-	-	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	CS(MF)5	-	-	Middle	2	2	-	-	-	-	-	-	-	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	CS(MF)5	-	-	Bottom	3	1	-	-	-	-	-	-	-	-
HCLR	HY/2011/03	2013-08-30	Mid-Ebb	Rainy	CS(MF)5	-	-	Bottom	3	2	-	-	-	-	-	-	-	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS5	20:01:18	1.0	Surface	1	1	29.2	7.98	12.03	92.2	6.61	12	7	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS5	20:01:59	1.0	Surface	1	2	29.2	7.98	12.01	90.2	6.47	11.8	6.5	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS5	20:01:47	4.4	Middle	2	1	29.04	7.88	13.87	72.9	5.19	12.3	6.2	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS5	20:01:06	4.4	Middle	2	2	29.04	7.88	13.98	74.2	5.28	12.3	6.9	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS5	20:00:51	7.7	Bottom	3	1	27.51	7.71	25.33	75	5.13	13.5	7	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS5	20:01:34	7.7	Bottom	3	2	27.54	7.71	25.33	72.4	4.96	13.6	6.9	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS(MF)6	20:11:17	1.0	Surface	1	1	29.15	8.03	12.16	110.3	7.91	11.6	6.8	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS(MF)6	20:11:38	1.0	Surface	1	2	29.19	8.04	12.24	110.1	7.89	11.6	6.5	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS(MF)6	20:11:26	2.2	Bottom	3	1	29.25	8.02	12.67	108.8	7.84	11.4	6.3	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS(MF)6	20:11:03	2.2	Bottom	3	2	29.22	8.01	12.75	110.7	7.91	11.4	6.2	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS7	20:18:40	1.0	Surface	1	1	28.7	7.93	10.43	102.9	7.51	6.8	2.6	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS7	20:18:08	1.0	Surface	1	2	28.65	7.92	10.33	106.7	7.8	6.4	2.1	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS7	20:17:57	2.3	Bottom	3	1	28.79	7.9	10.95	106.5	7.74	6.5	2.4	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS7	20:18:27	2.3	Bottom	3	2	28.89	7.88	10.62	105.9	7.58	6.6	2.4	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS8	20:44:25	1.0	Surface	1	1	28.57	7.73	12.97	83.4	6.01	11.7	2.4	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS8	20:44:46	1.0	Surface	1	2	28.59	7.76	12.65	84.9	6.13	11.6	3.1	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS8	20:44:34	2.8	Bottom	3	1	28.54	7.72	14.6	84.9	6.07	11.7	2.7	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS8	20:44:16	2.8	Bottom	3	2	28.54	7.68	14.79	85	6.07	11.7	2.8	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS(MF)9	20:28:23	1.0	Surface	1	1	28.7	7.97	10.48	100.7	7.35	11.6	2.8	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS(MF)9	20:28:07	1.0	Surface	1	2	28.7	7.96	10.58	101.7	7.41	11.5	2.6	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS(MF)9	20:27:58	2.8	Bottom	3	1	28.82	7.9	13.06	101	7.25	11.5	2.2	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS(MF)9	20:28:14	2.8	Bottom	3	2	28.84	7.92	13.43	103.1	7.38	11.6	2.9	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS10	20:53:49	1.0	Surface	1	1	28.51	7.86	7.62	75.5	5.61	6.5	3.3	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS10	20:54:36	1.0	Surface	1	2	28.51	7.88	7.81	75.3	5.6	6.9	3.5	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS10	20:54:24	5.6	Middle	2	1	28.24	7.82	11.81	71.7	5.24	7.5	3.3	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS10	20:53:38	5.6	Middle	2	2	28.41	7.85	9.71	71.9	5.3	7.2	4.2	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS10	20:53:19	10.2	Bottom	3	1	26.67	7.6	25.58	72.1	5.01	7.5	3.2	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	IS10	20:54:00	10.2	Bottom	3	2	26.33	7.6	27.03	72.2	5	7.8	3.2	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR3	19:51:56	0.7	Middle	2	1	29.22	7.97	12.1	104.8	7.51	9.7	6.7	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR3	19:52:39	0.7	Middle	2	2	29.22	7.97	12.08	105.3	7.55	9.8	7	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR4	20:37:53	1.0	Surface	1	1	28.84	7.81	12.05	94.1	6.75	9.5	3	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR4	20:37:35	1.0	Surface	1	2	28.75	7.8	11.81	93.7	6.78	9.3	2.3	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR4	20:37:25	2.8	Bottom	3	1	28.8	7.76	13.22	92.7	6.64	9.5	2.5	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR4	20:37:43	2.8	Bottom	3	2	28.8	7.76	13.55	91.2	6.58	9.2	2.3	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR5	20:41:05	1.0	Surface	1	1	28.57	7.64	7.82	78.7	5.84	6.3	3.3	-
HCLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR5	20:40:43	1.0	Surface	1	2	28.56	7.63	7.87	78.6	5.83	6.4	3.7	-

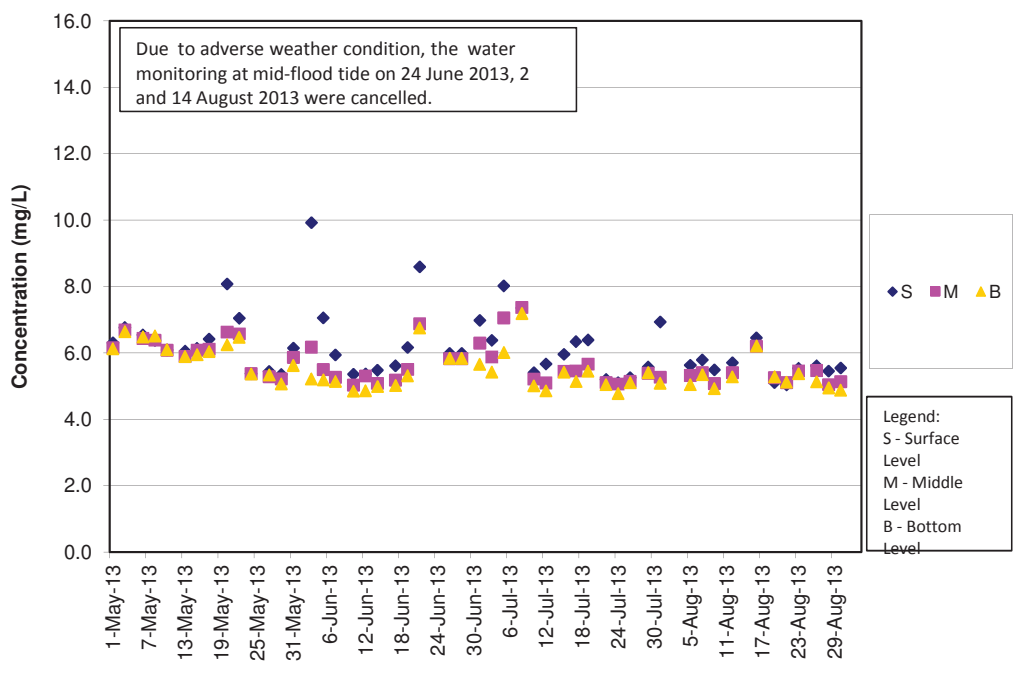
Water Quarterly Monitoring Data

Project	Works	Date (yyyy-mm-dd)	Tide	Weather Condition	Station	Time	Depth, m	Level	Level_Code	Replicate	Temperature, °C	pH	Salinity, ppt	DO, %	DO, mg/L	Turbidity, NTU	SS, mg/L	Site Observation
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR5	20:40:30	4.5	Bottom	3	1	28.46	7.52	11.37	79.3	5.78	6.4	3.9	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR5	20:40:51	4.5	Bottom	3	2	28.53	7.58	10.58	78.6	5.75	6.4	3.4	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR10A	21:54:15	1.0	Surface	1	1	28.01	7.93	15.25	93.1	6.69	3.2	2.1	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR10A	21:53:35	1.0	Surface	1	2	28.01	7.92	15.57	96	6.89	3.3	3.1	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR10A	21:53:10	3.2	Middle	2	1	27.69	7.93	16.53	88	6.32	3.2	2.6	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR10A	21:54:04	3.2	Middle	2	2	27.72	7.93	16.08	92.4	6.38	3.1	2.7	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR10A	21:53:43	5.3	Bottom	3	1	27.52	7.84	23.99	85.8	5.98	3.1	2.2	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR10A	21:52:58	5.3	Bottom	3	2	27.03	7.84	23.91	87.3	6.08	3.3	2.4	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR10B	21:59:32	1.0	Surface	1	1	28.02	7.93	15.13	93.1	6.7	2.9	2.5	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR10B	21:59:50	1.0	Surface	1	2	28.02	7.93	14.97	95.5	6.87	2.9	2.6	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR10B	21:59:17	4.0	Bottom	3	1	27.8	7.87	23.71	90.1	6.34	3	2.1	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	SR10B	21:59:39	4.0	Bottom	3	2	27.99	7.9	23.83	94.6	6.7	2.9	2.9	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	CS2	19:46:58	1.0	Surface	1	1	28.53	7.79	8.44	74.8	5.54	6	2.3	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	CS2	19:47:29	1.0	Surface	1	2	28.48	7.84	9.05	75.3	5.56	6.2	3.7	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	CS2	19:47:59	4.1	Middle	2	1	28.3	7.82	12.12	70.5	5.13	6.3	3	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	CS2	19:46:50	4.1	Middle	2	2	28.51	7.75	10.34	70.1	5.14	6.5	2.6	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	CS2	19:46:36	7.2	Bottom	3	1	27.3	7.55	20.74	71	4.89	6.6	3.3	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	CS2	19:47:20	7.2	Bottom	3	2	27.68	7.67	20.84	67.9	4.87	6.8	4	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	CS(MF)5	21:21:08	1.0	Surface	1	1	28.5	7.94	10.24	88.6	6.5	4.4	3	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	CS(MF)5	21:21:56	1.0	Surface	1	2	28.52	7.95	10.29	87.1	6.38	4.2	3.3	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	CS(MF)5	21:20:51	6.2	Middle	2	1	26.97	7.79	28.86	72.5	5.32	4.8	2.9	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	CS(MF)5	21:21:37	6.2	Middle	2	2	26.65	7.78	26.02	70.3	5.16	4.9	2.9	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	CS(MF)5	21:21:27	11.3	Bottom	3	1	24.94	7.72	30.93	68.7	4.77	5.5	2.8	
HKLR	HY/2011/03	2013-08-30	Mid-Flood	Cloudy	CS(MF)5	21:20:39	11.3	Bottom	3	2	24.96	7.71	30.86	69.9	4.85	5.5	3.3	

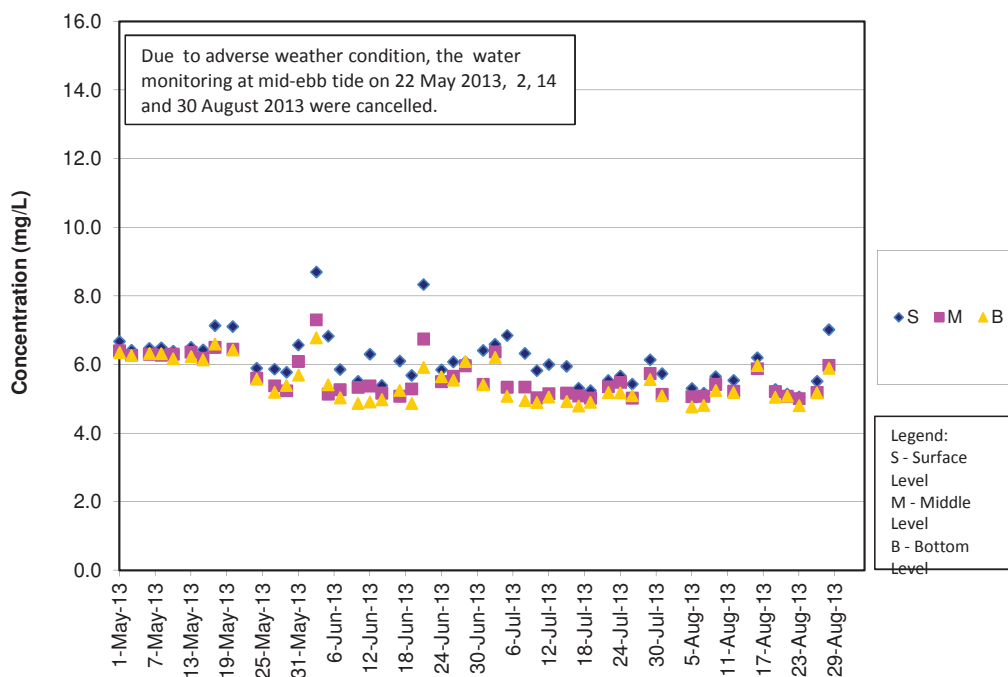
### DO Concentrations at Station CS2 (Mid Ebb)



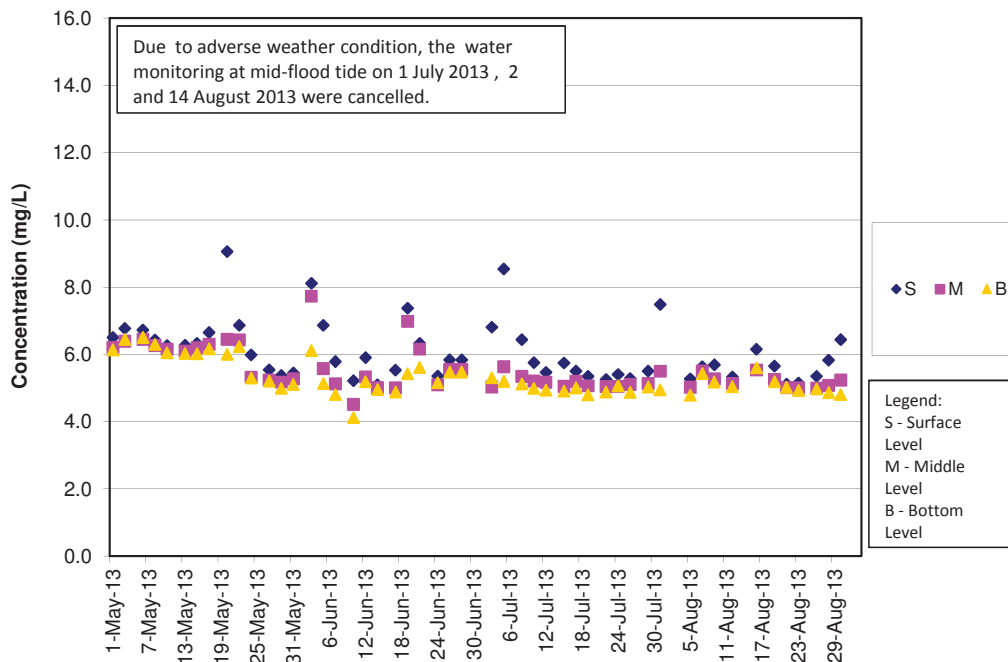
### DO Concentrations at Station CS2 (Mid Flood)



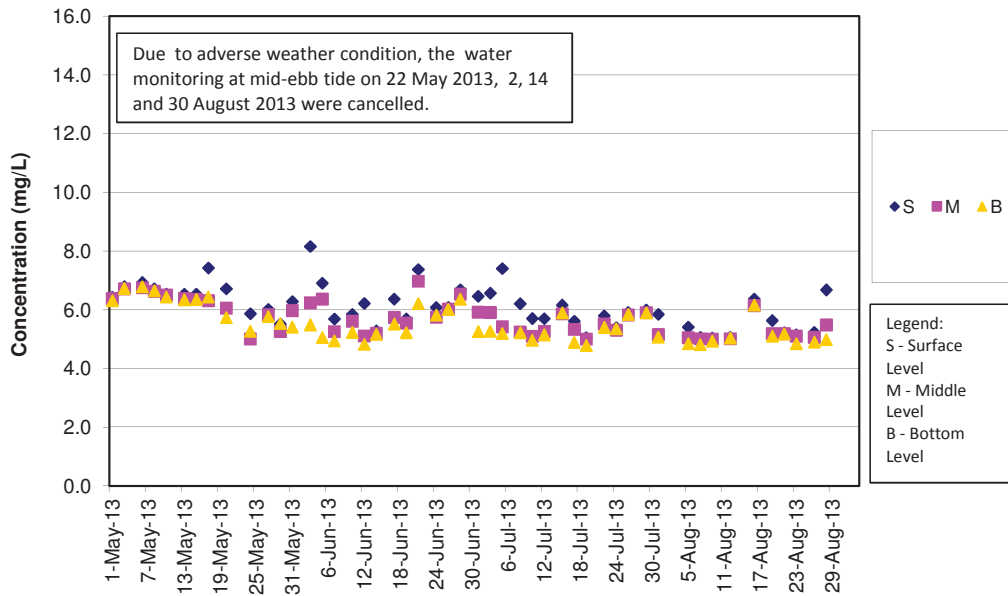
**DO Concentrations at Station CS(Mf)5 (Mid Ebb)**



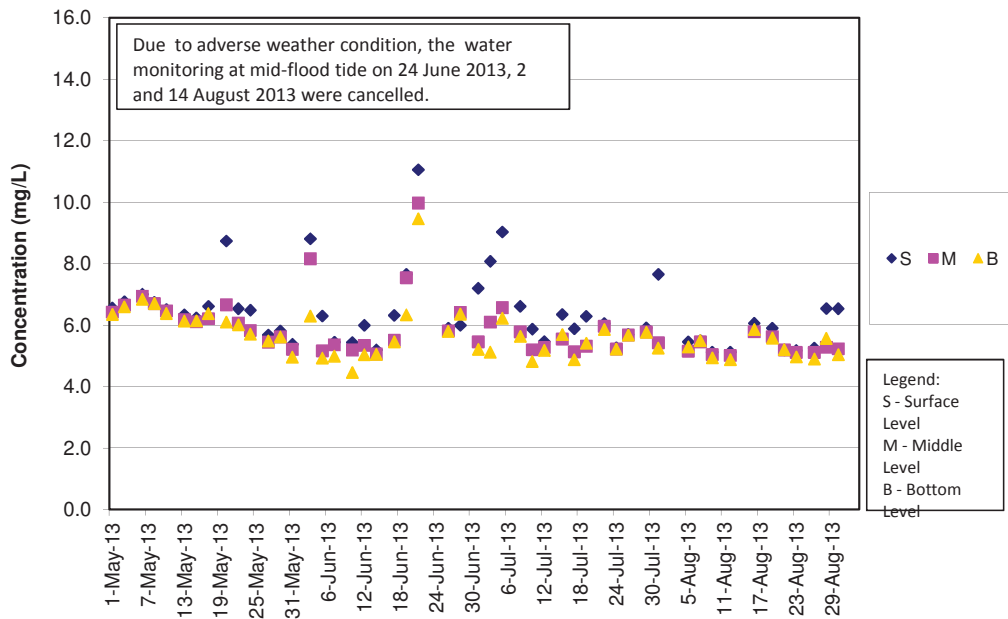
**DO Concentrations at Station CS(Mf)5 (Mid Flood)**



**DO Concentrations at Station IS5 (Mid Ebb)**

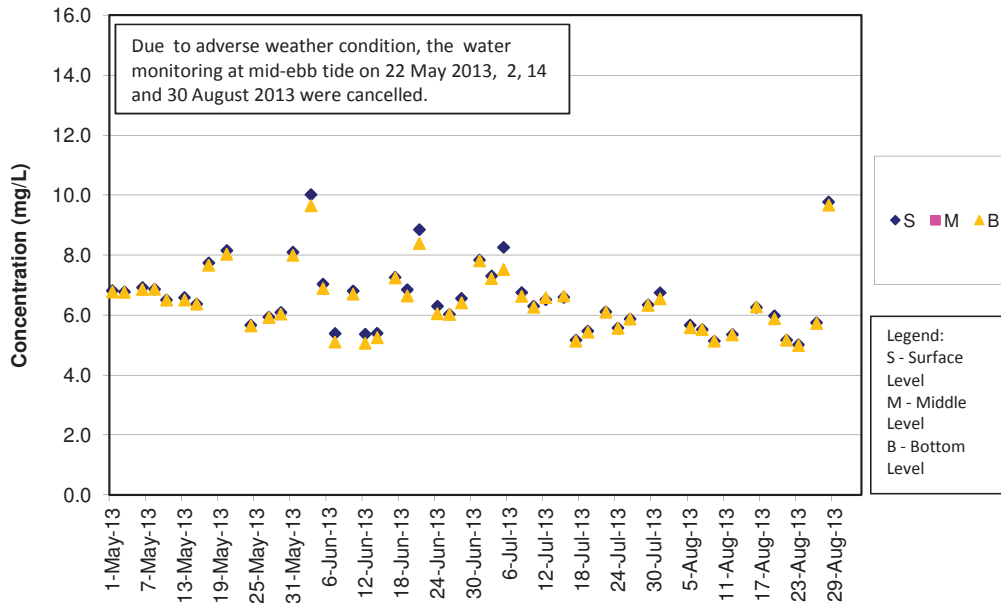


**DO Concentrations at Station IS5 (Mid Flood)**

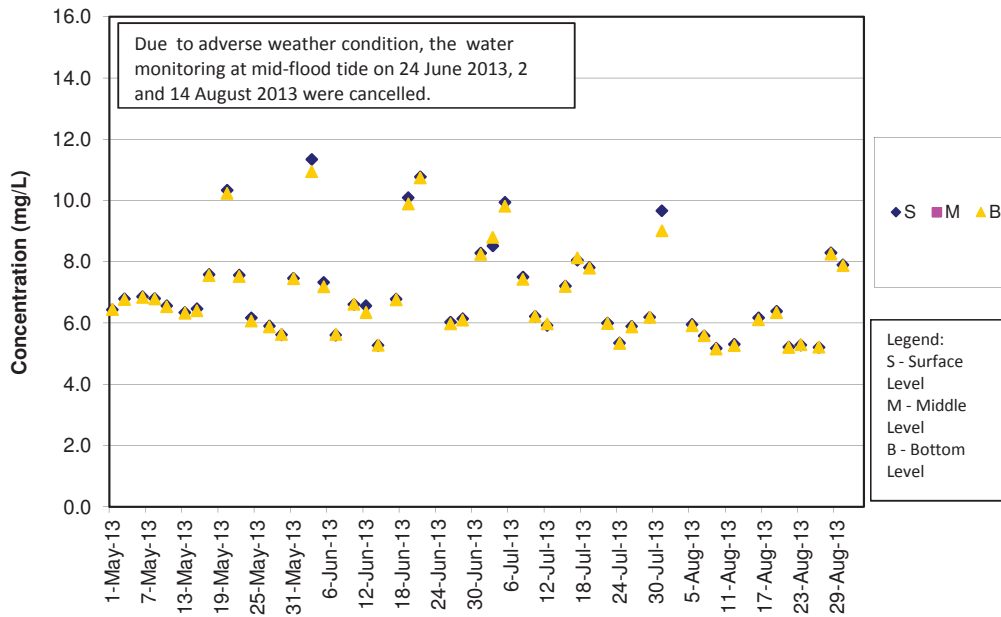




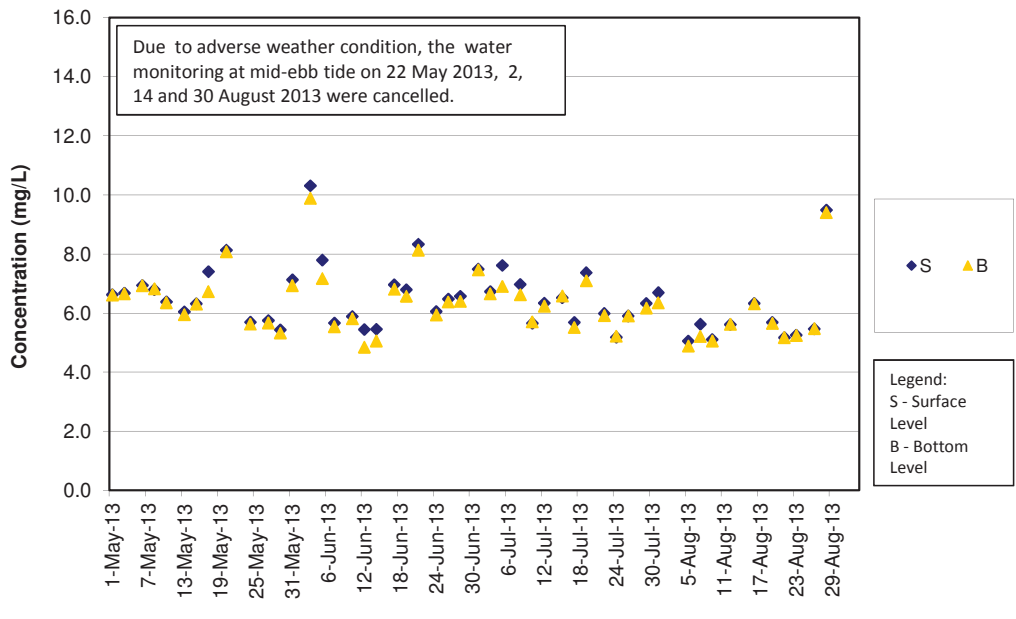
**DO Concentrations at Station IS(Mf)6 (Mid Ebb)**



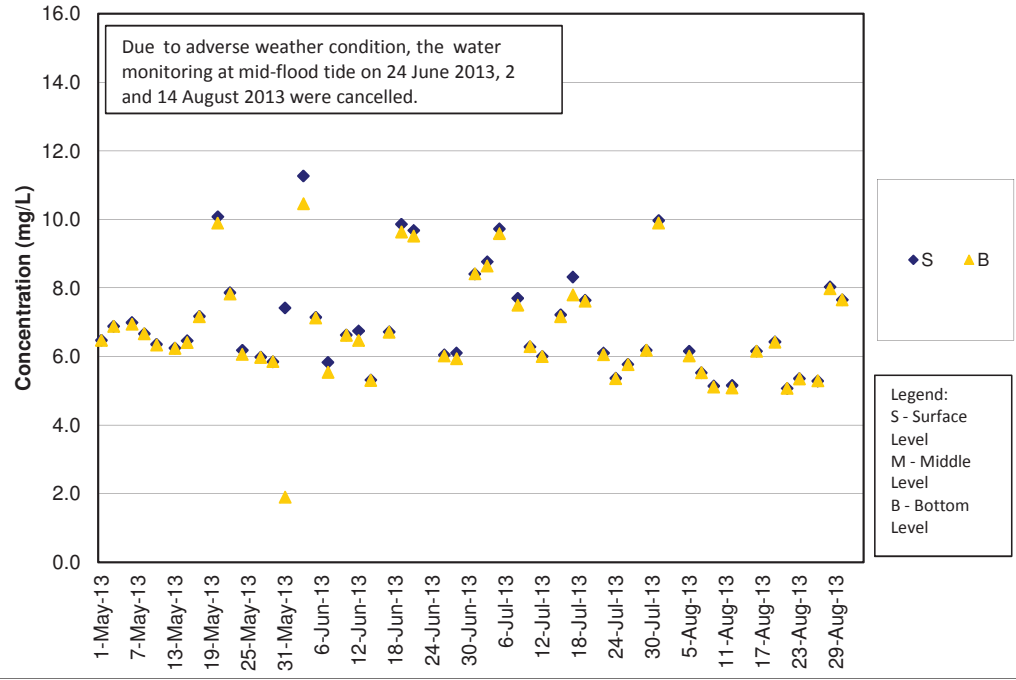
**DO Concentrations at Station IS(Mf)6 (Mid Flood)**



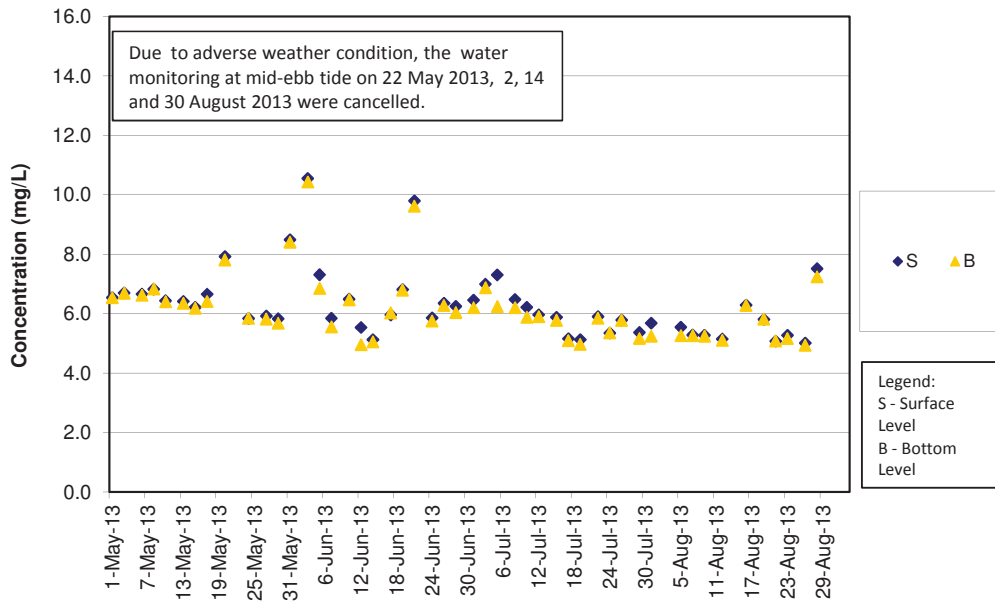
**DO Concentrations at Station IS7 (Mid Ebb)**



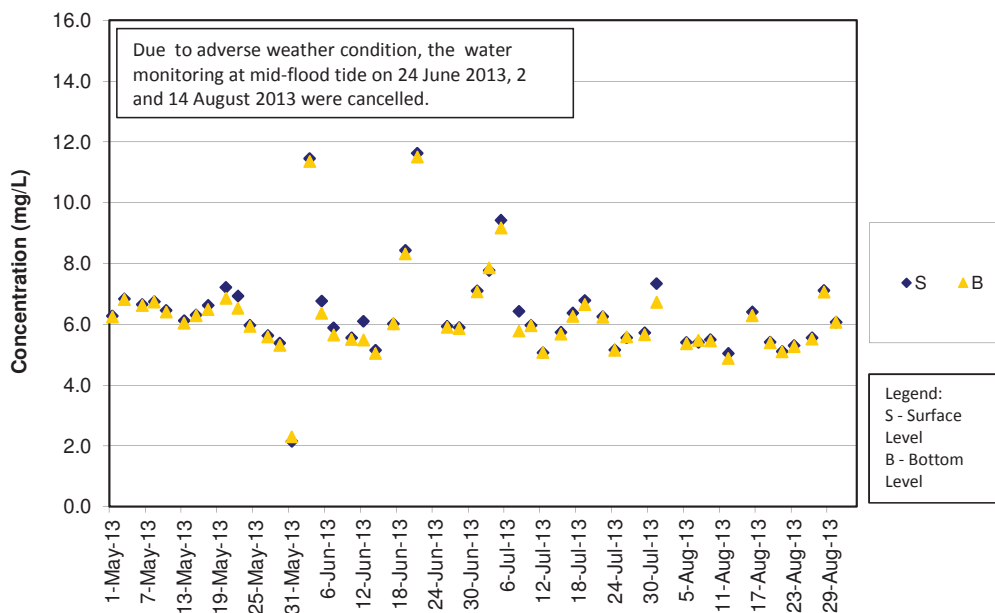
**DO Concentrations at Station IS7 (Mid Flood)**



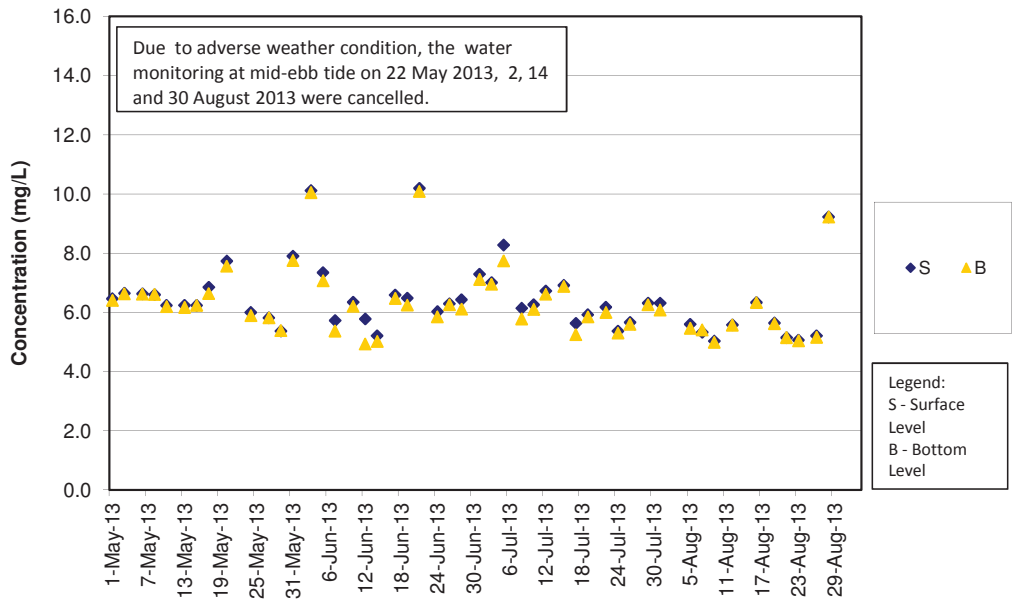
**DO Concentrations at Station IS8 (Mid Ebb)**



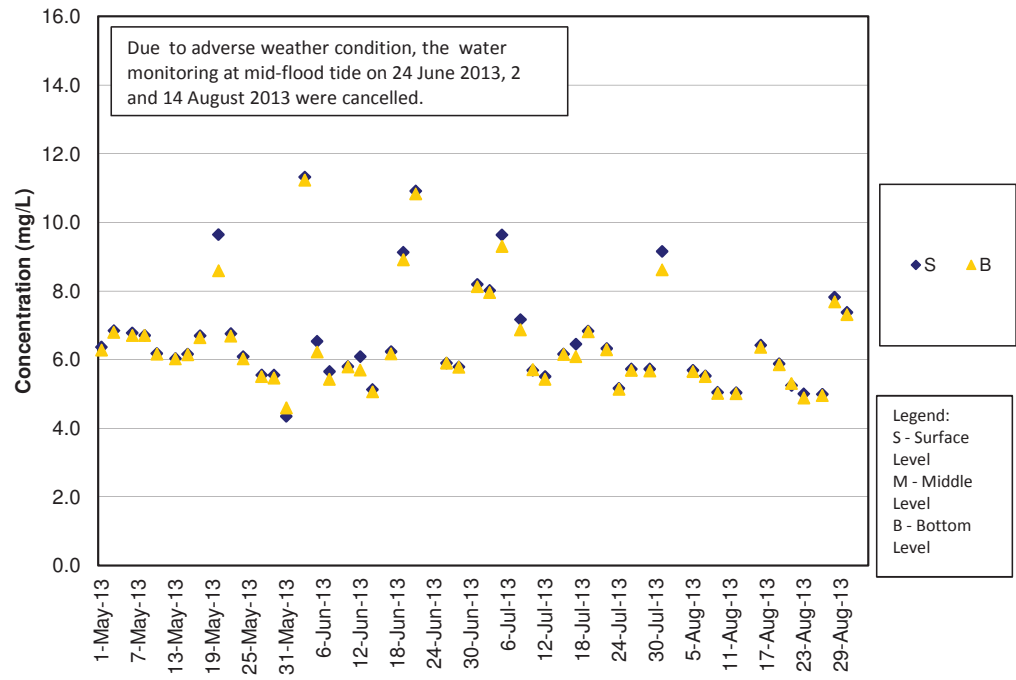
**DO Concentrations at Station IS8 (Mid Flood)**



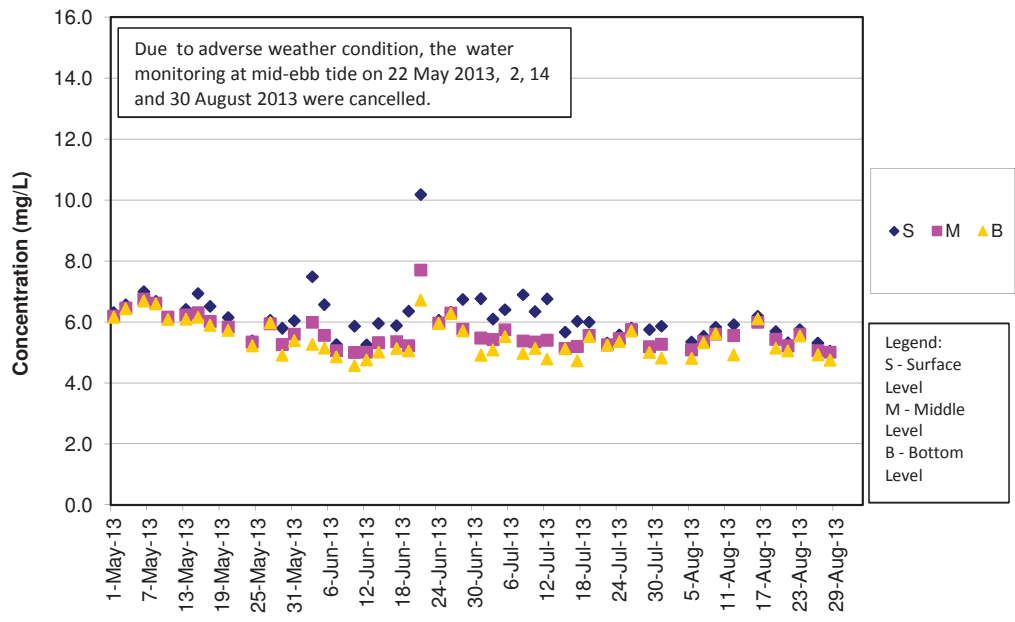
**DO Concentrations at Station IS(Mf)9 (Mid Ebb)**



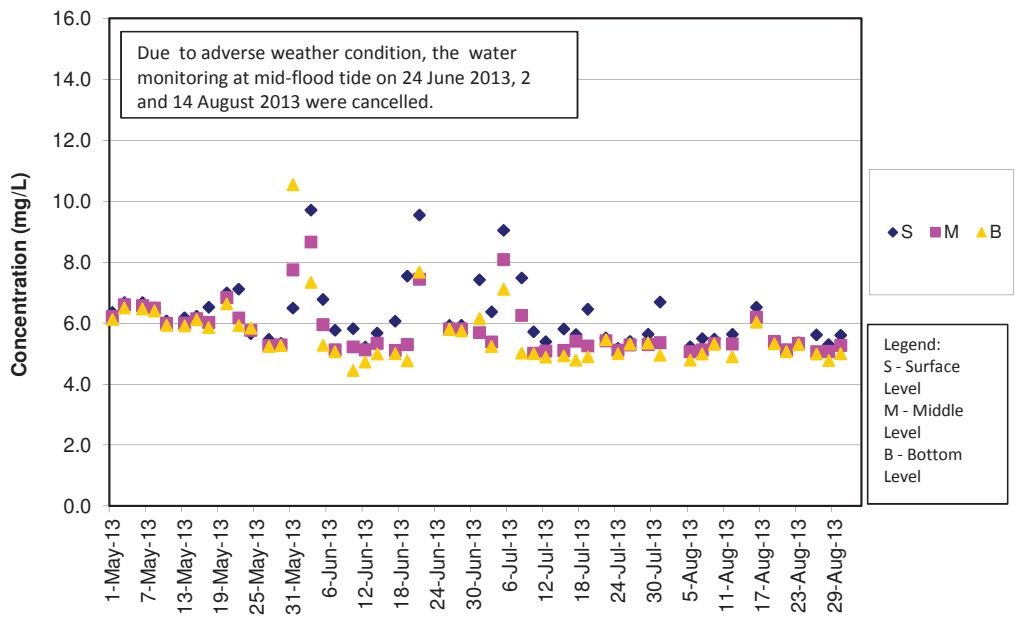
**DO Concentrations at Station IS(Mf)9 (Mid Flood)**



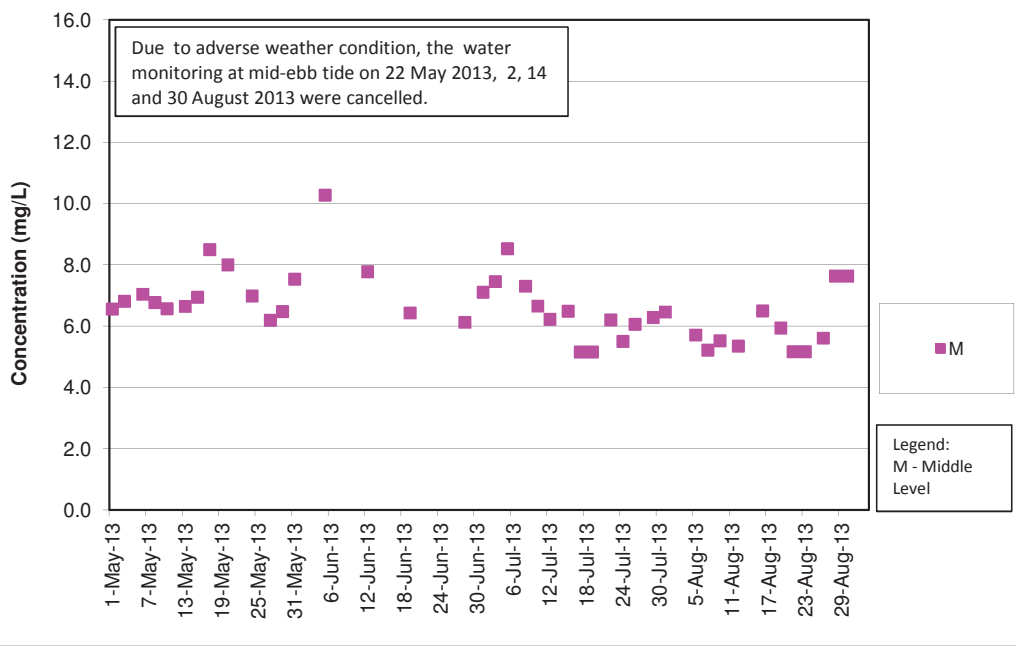
**DO Concentrations at Station IS10 (Mid Ebb)**



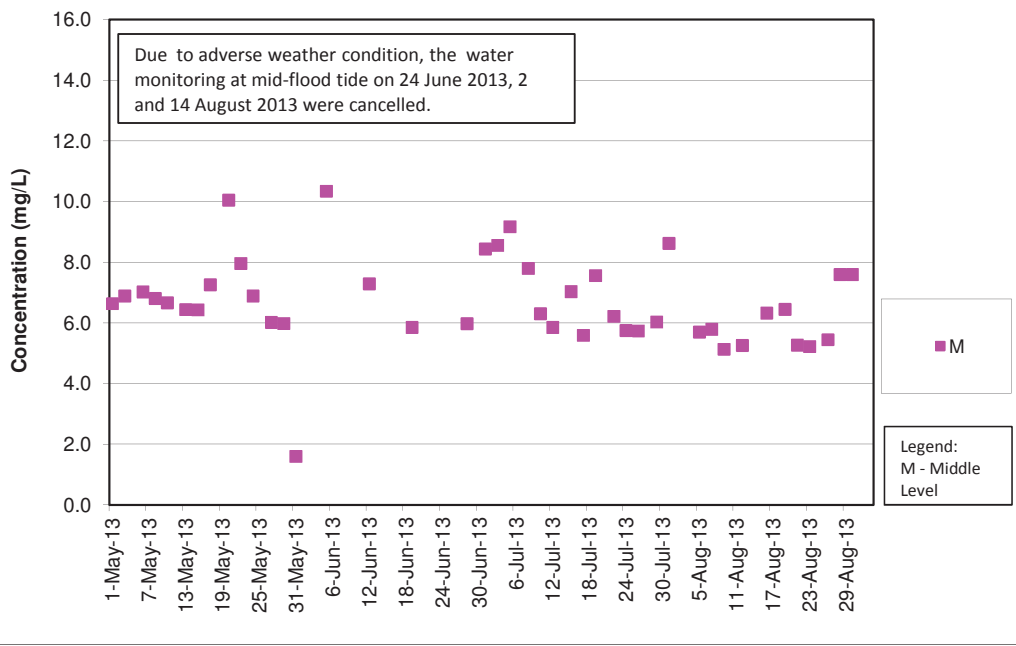
**DO Concentrations at Station IS10 (Mid Flood)**



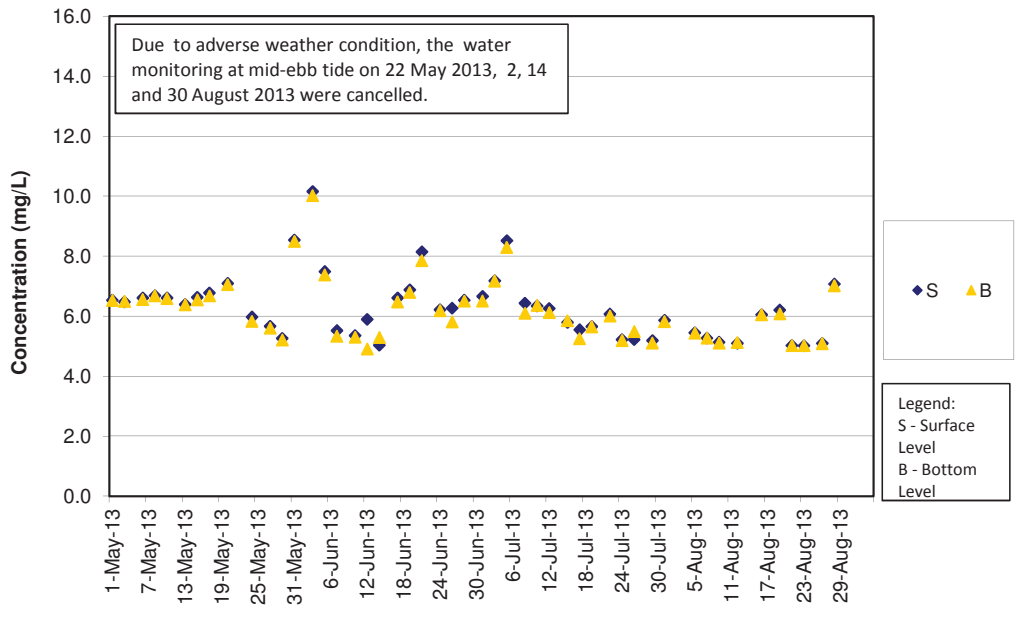
**DO Concentrations at Station SR3 (Mid Ebb)**



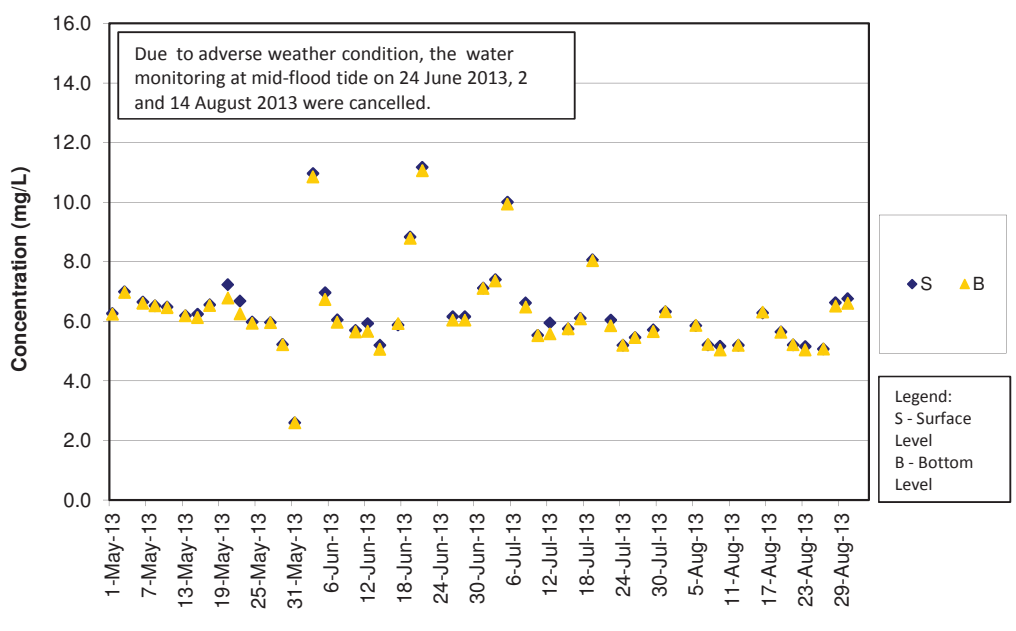
**DO Concentrations at Station SR3 (Mid Flood)**

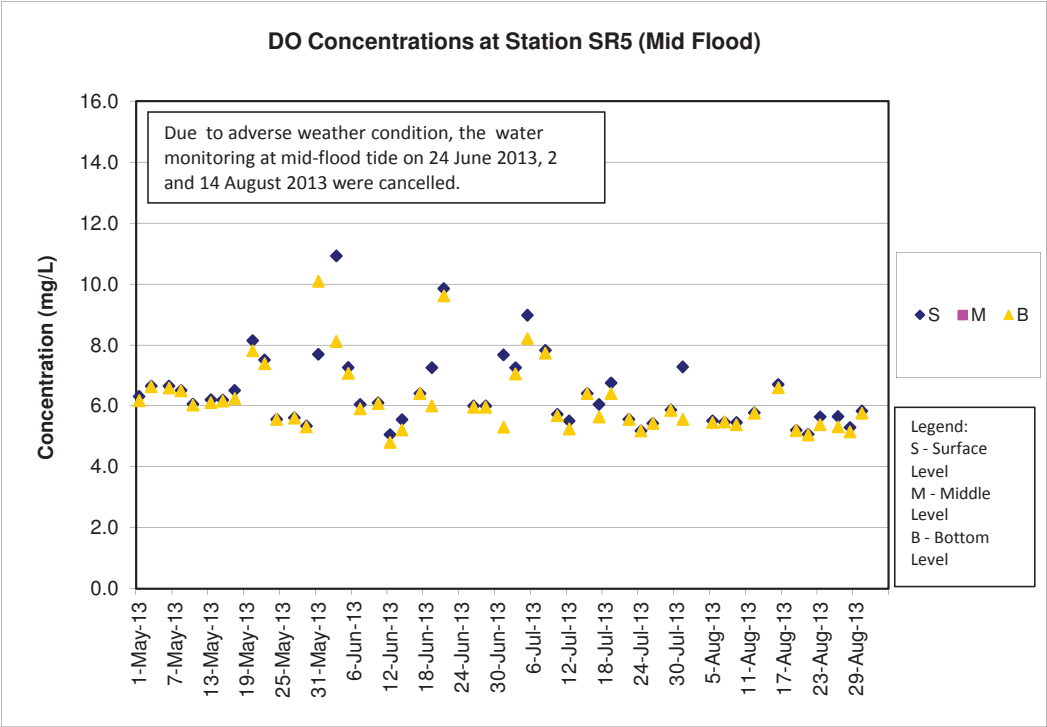
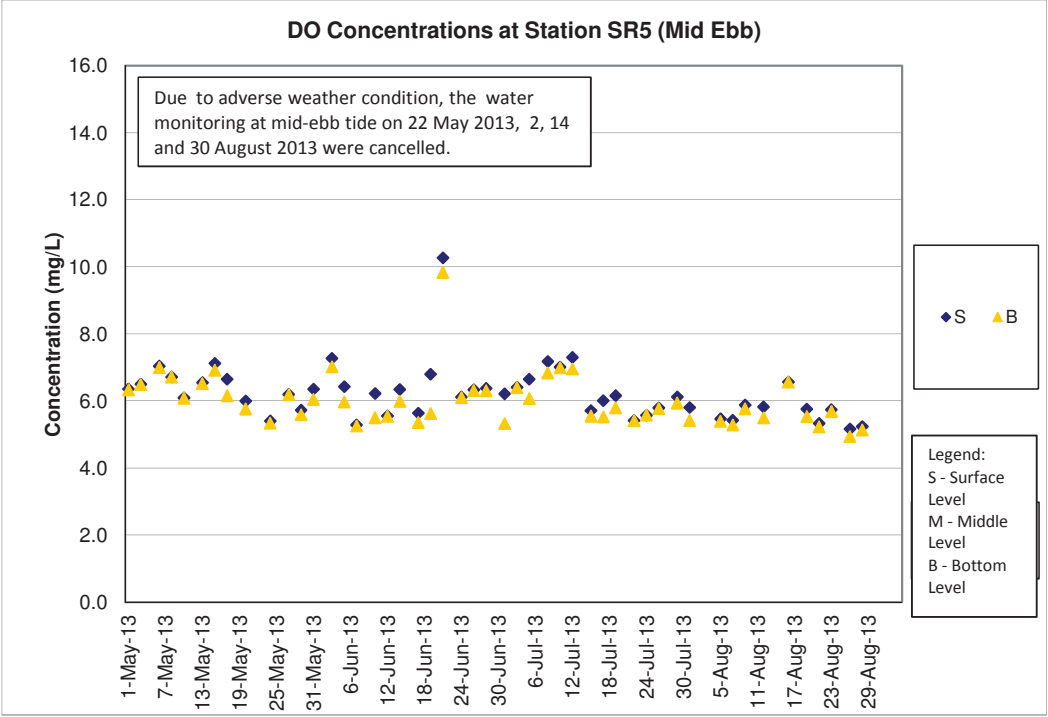


**DO Concentrations at Station SR4 (Mid Ebb)**



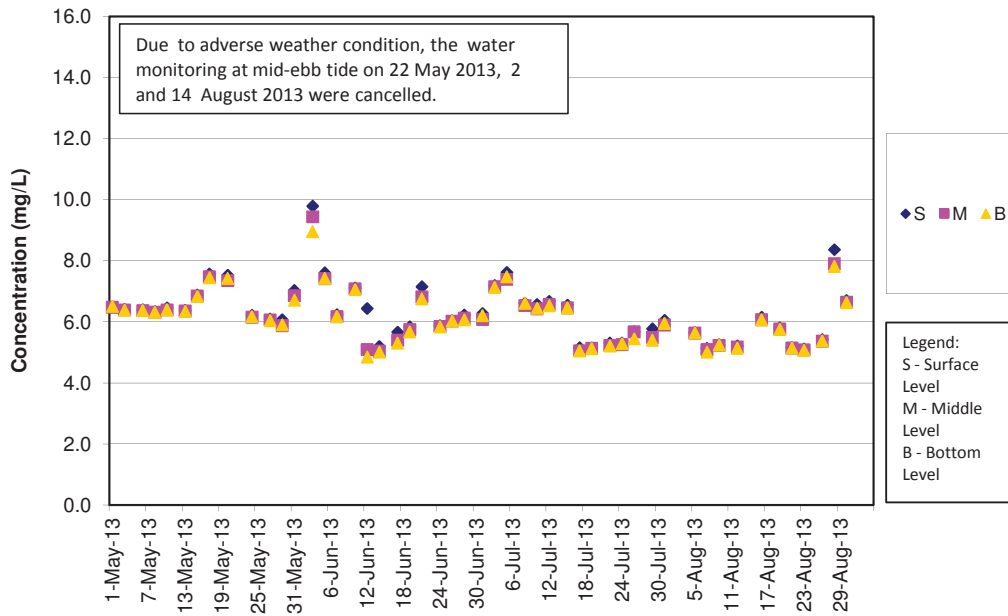
**DO Concentrations at Station SR4 (Mid Flood)**



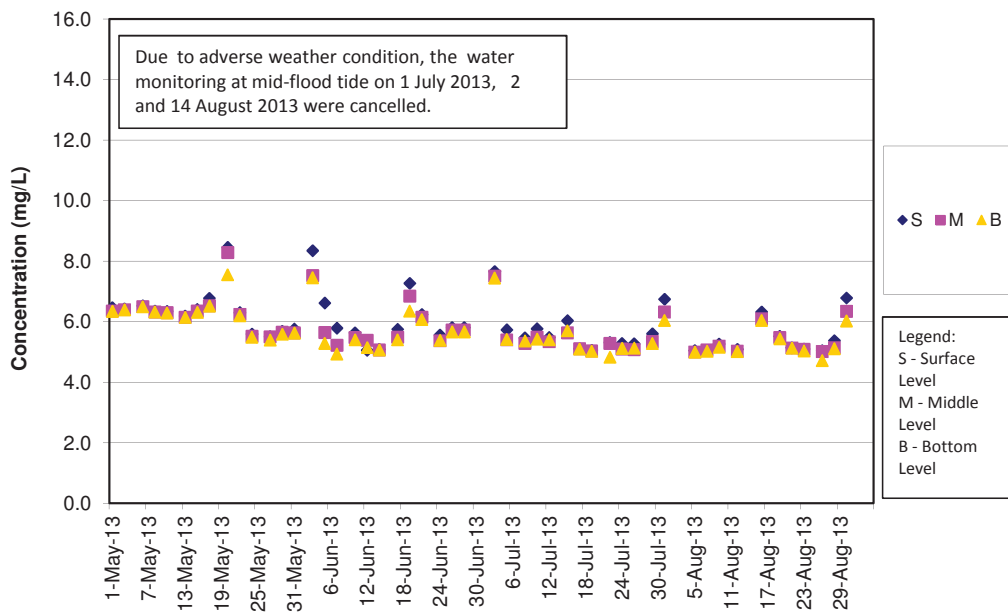




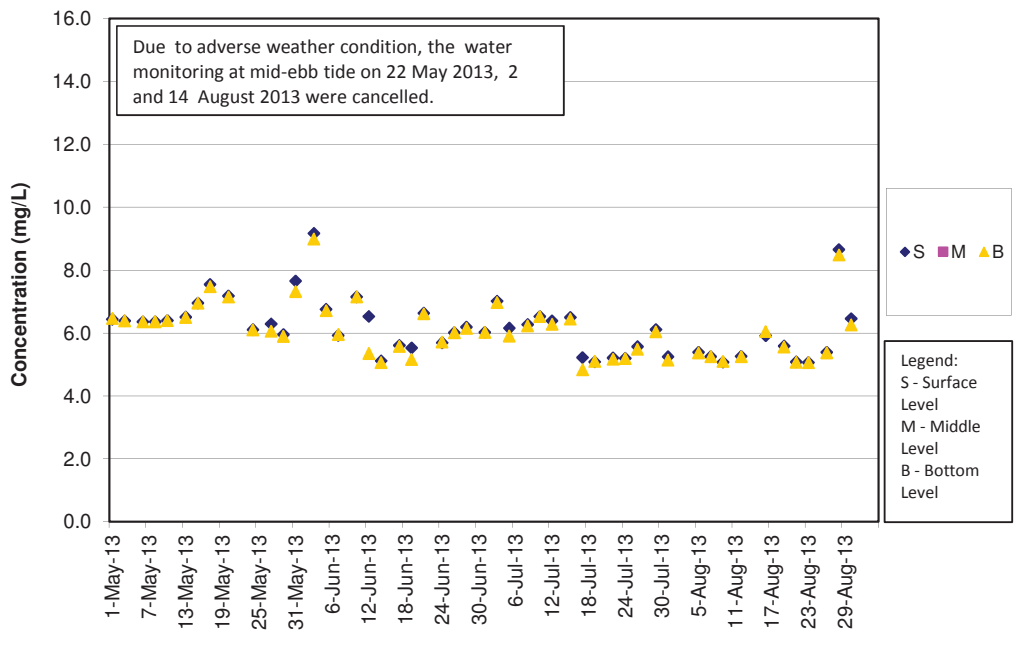
**DO Concentrations at Station SR10A (Mid Ebb)**



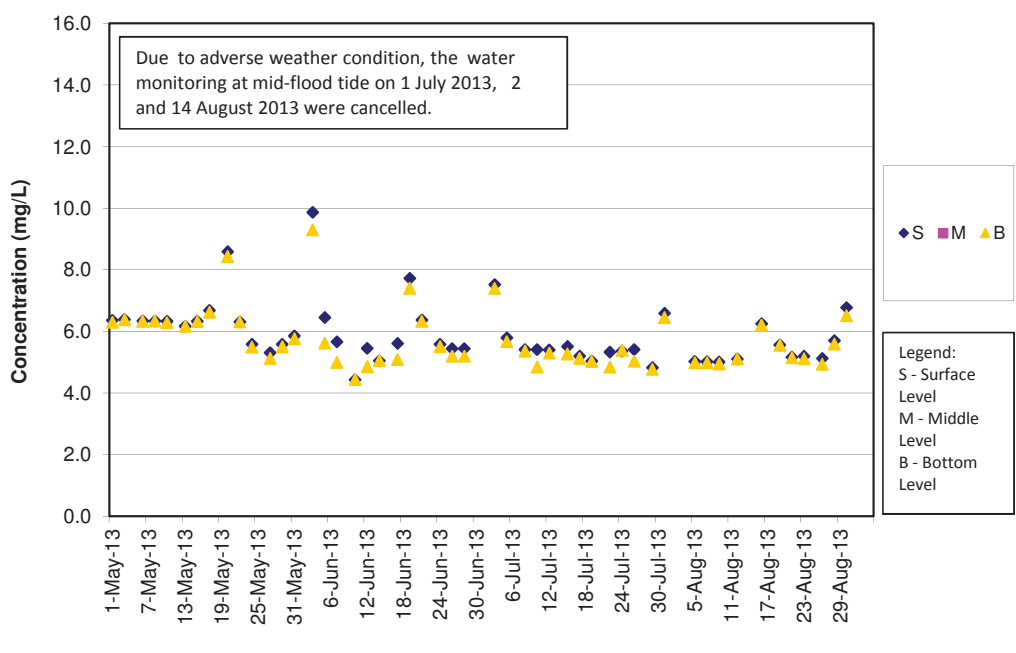
**DO Concentrations at Station SR10A (Mid Flood)**



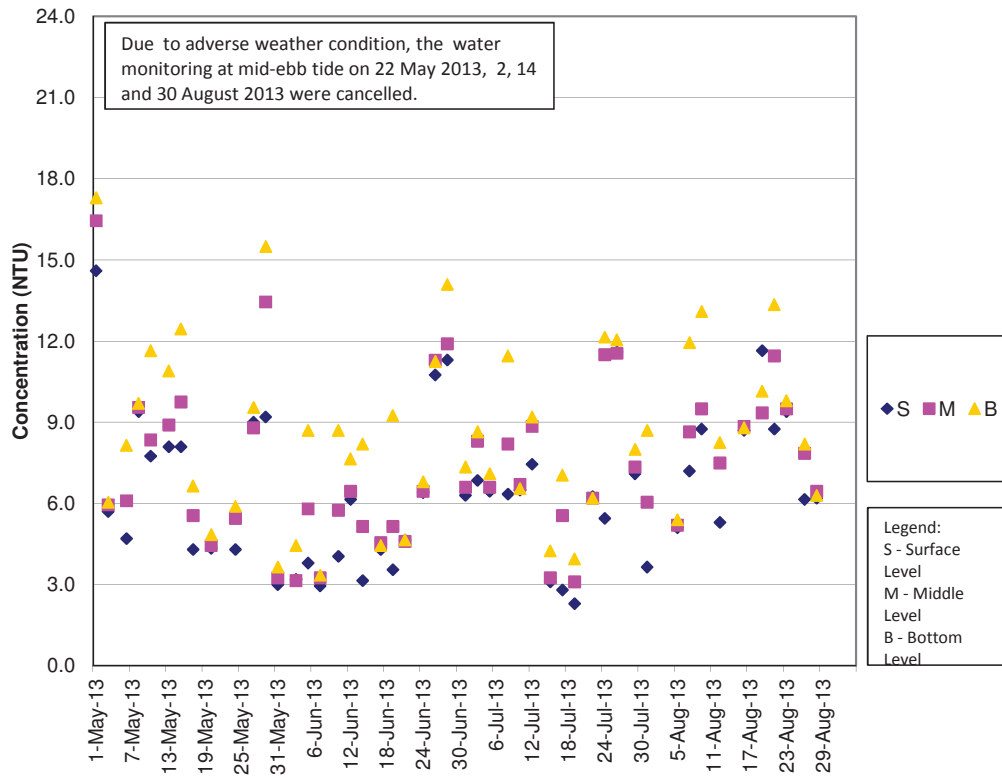
**DO Concentrations at Station SR10B (Mid Ebb)**



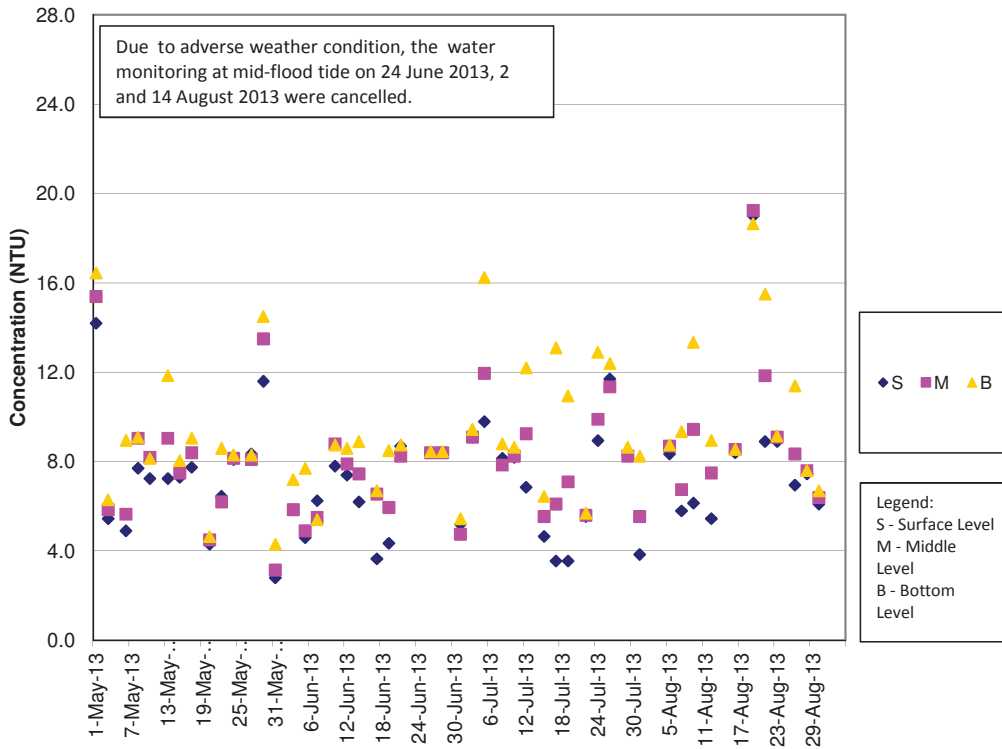
**DO Concentrations at Station SR10B (Mid Flood)**



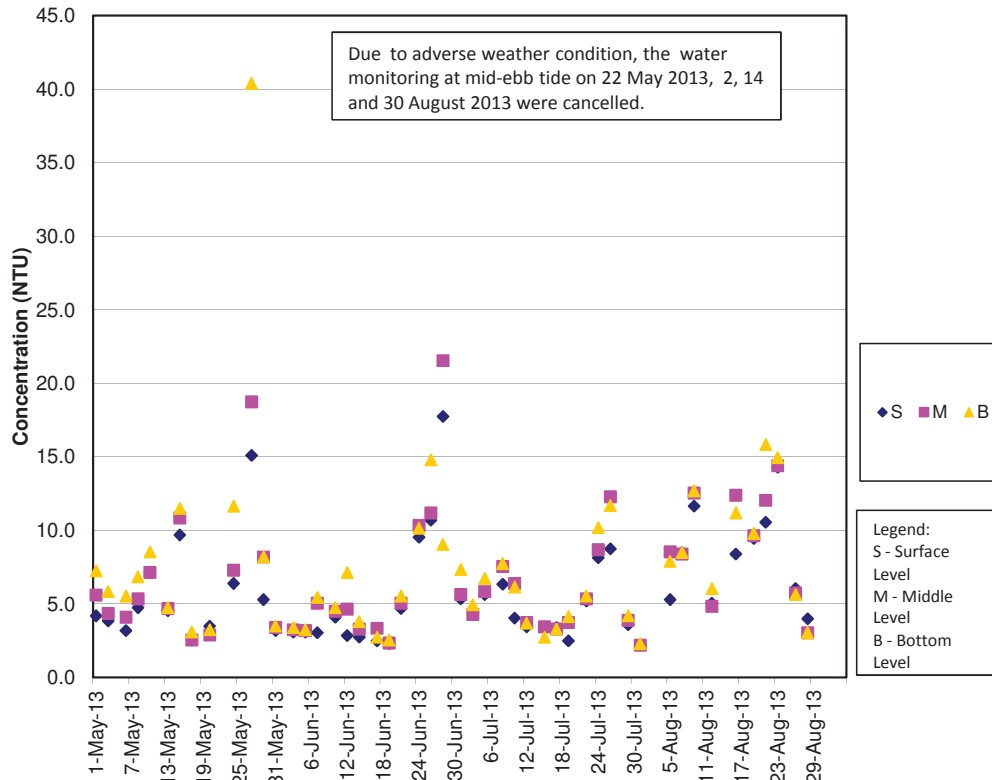
**Turbidity Concentrations at Station CS2 (Mid Ebb)**



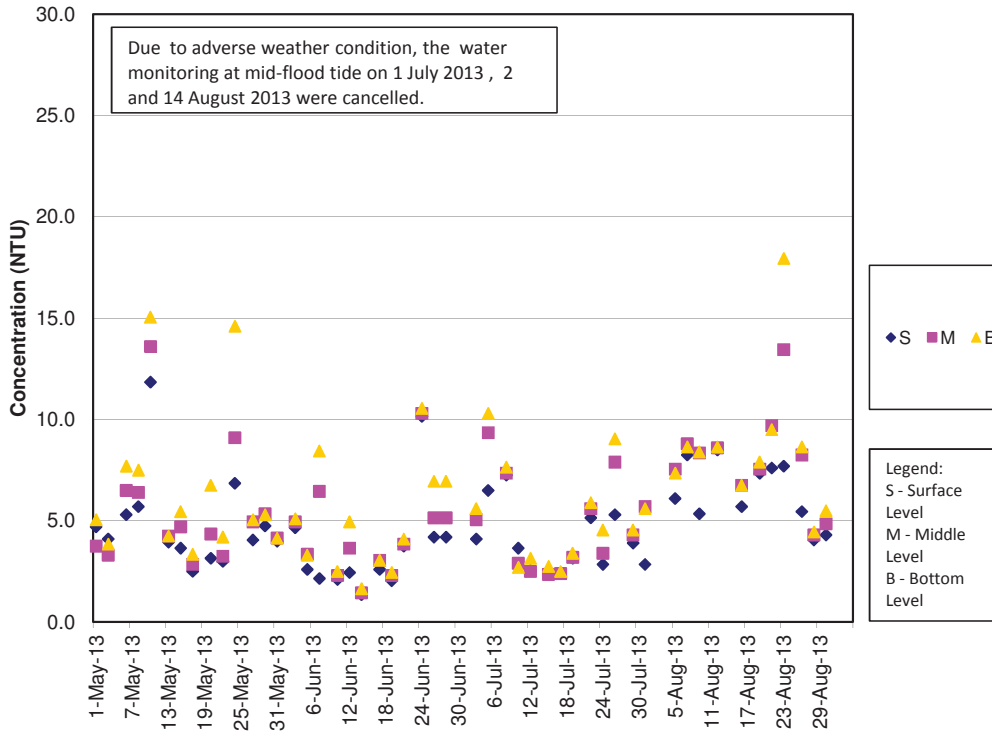
**Turbidity Concentrations at Station CS2 (Mid Flood)**

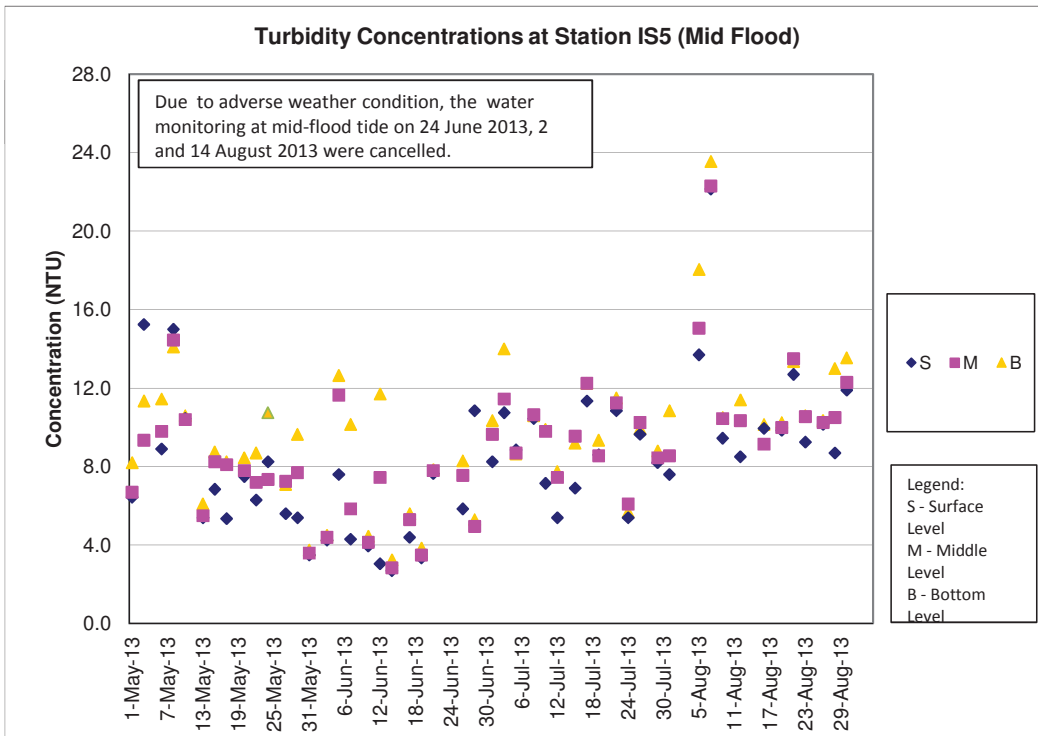
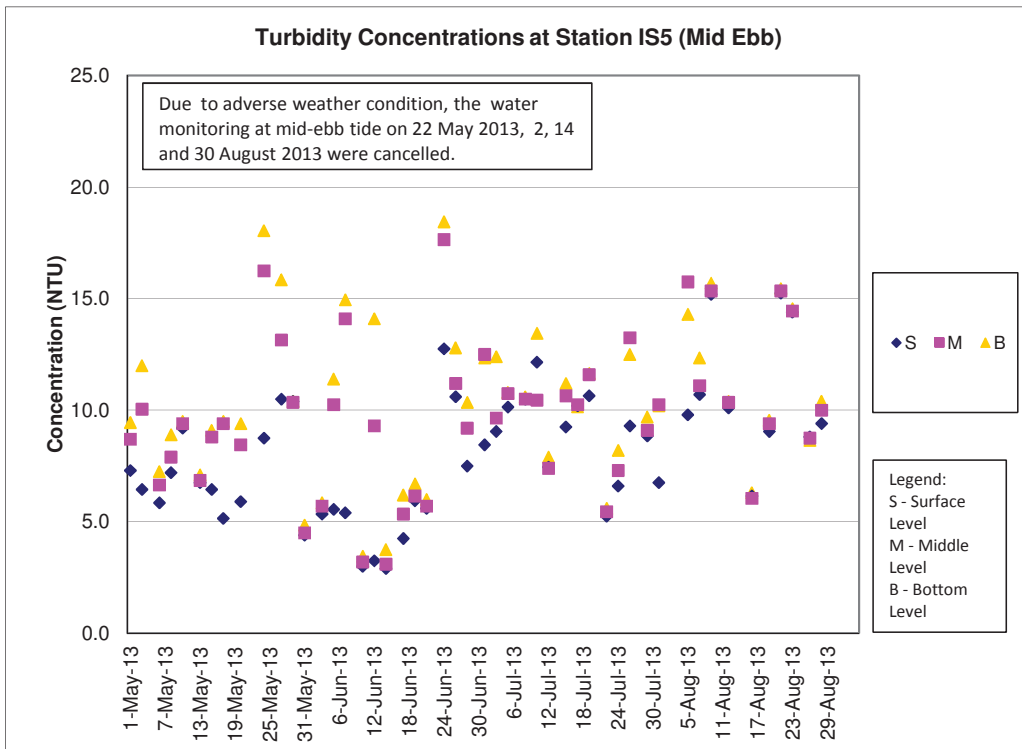


**Turbidity Concentrations at Station CS(Mf)5 (Mid Ebb)**

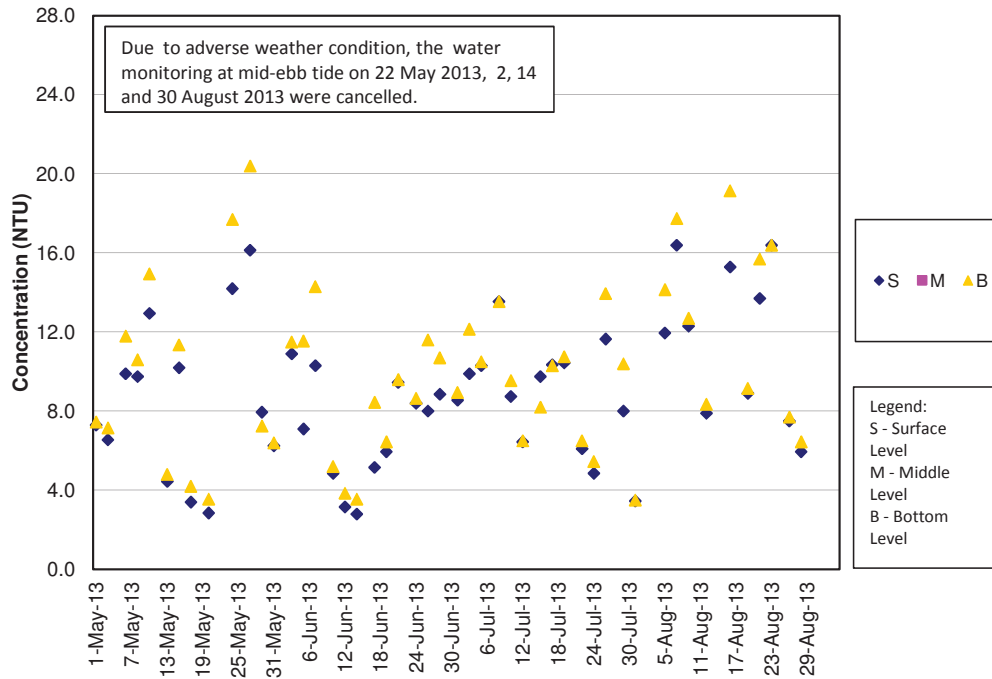


**Turbidity Concentrations at Station CS(Mf)5 (Mid Flood)**

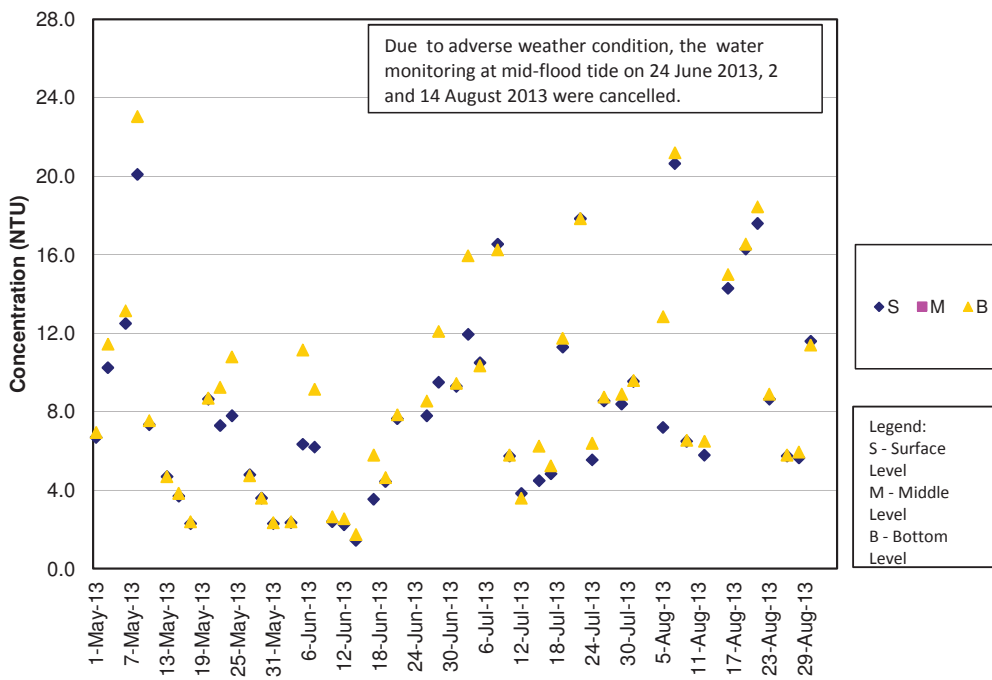




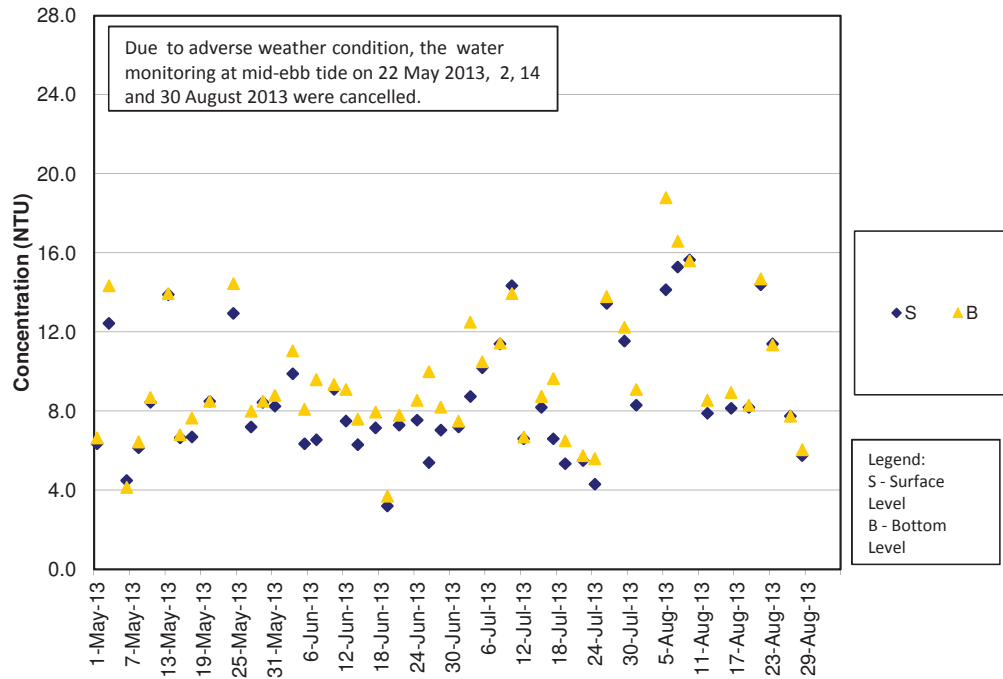
**Turbidity Concentrations at Station IS(Mf)6 (Mid Ebb)**



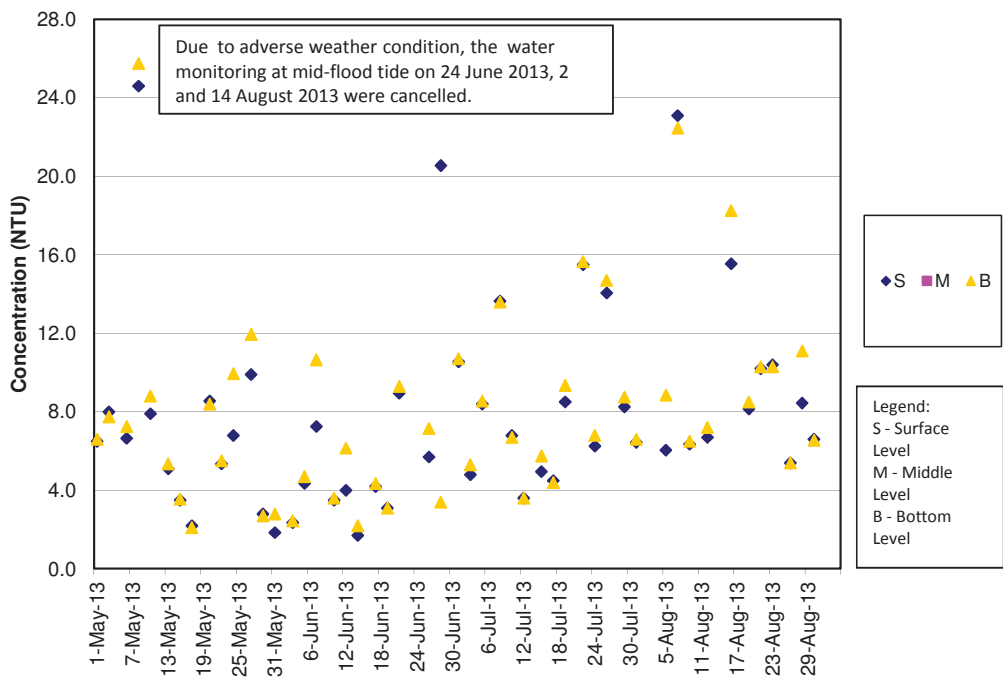
**Turbidity Concentrations at Station IS(Mf)6 (Mid Flood)**



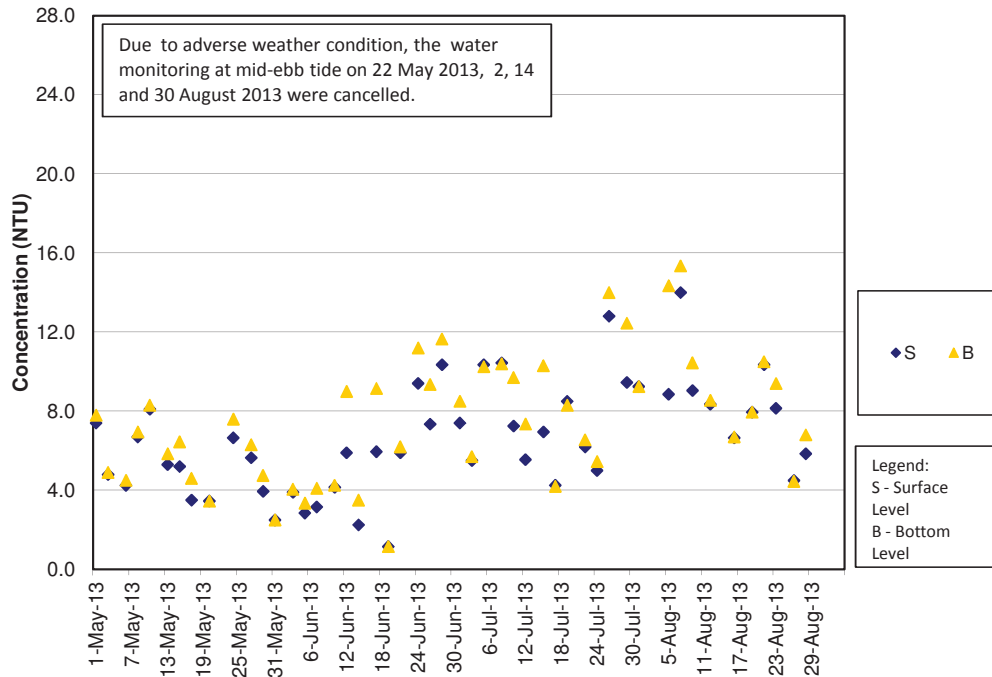
**Turbidity Concentrations at Station IS7 (Mid Ebb)**



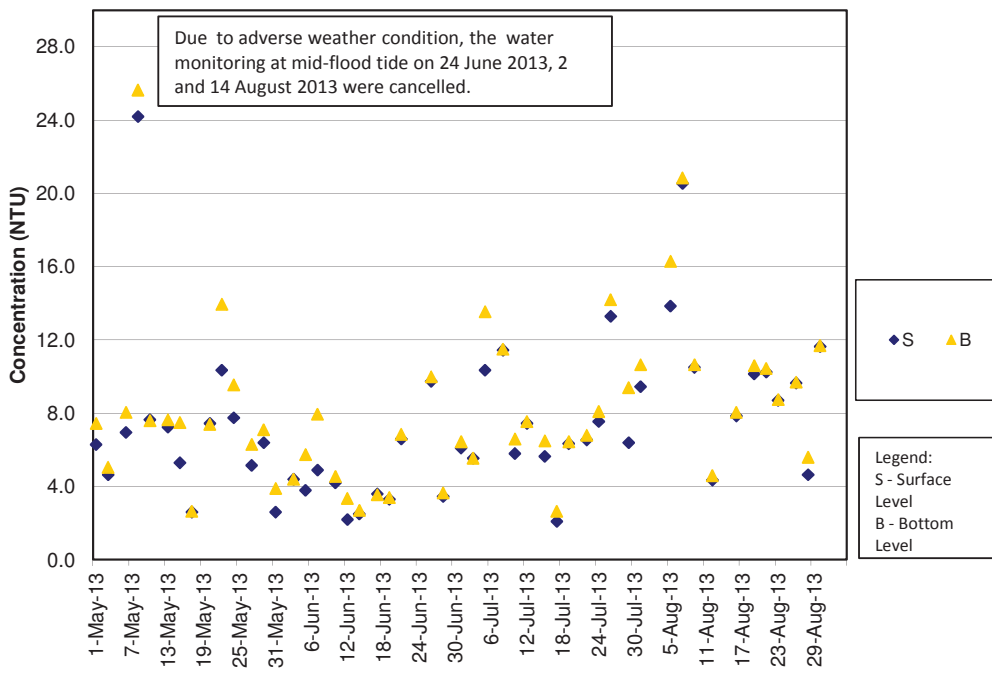
**Turbidity Concentrations at Station IS7 (Mid Flood)**



**Turbidity Concentrations at Station IS8 (Mid Ebb)**

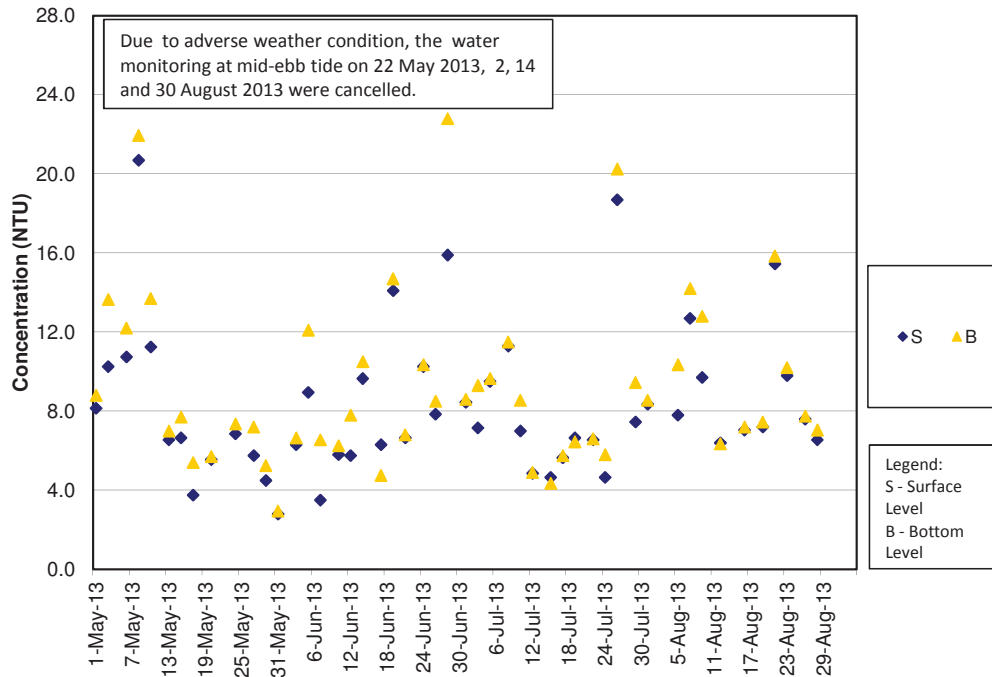


**Turbidity Concentrations at Station IS8 (Mid Flood)**

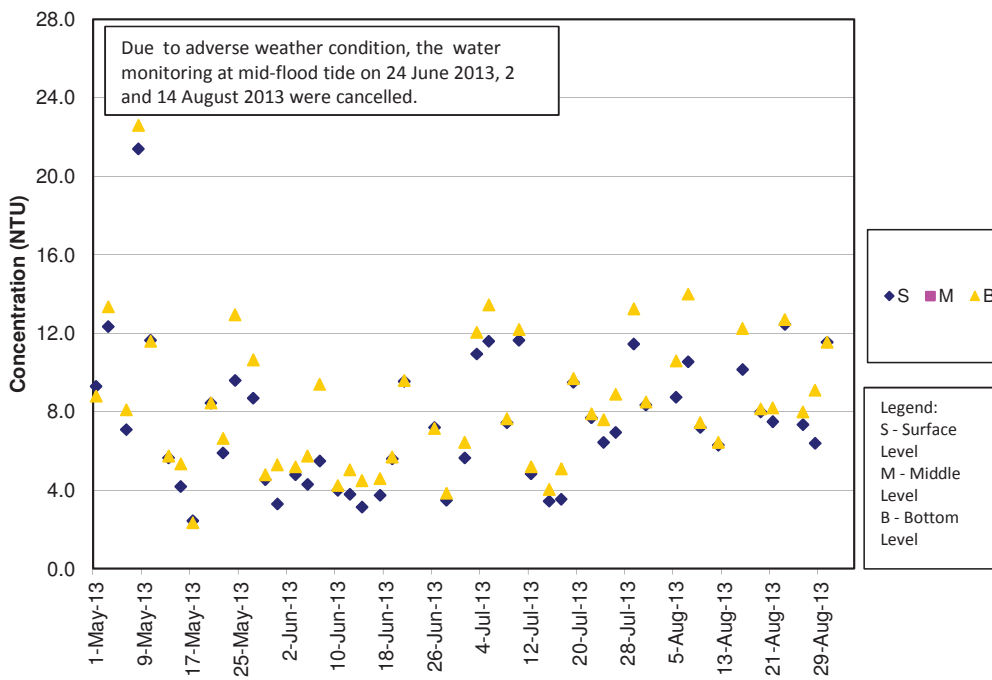




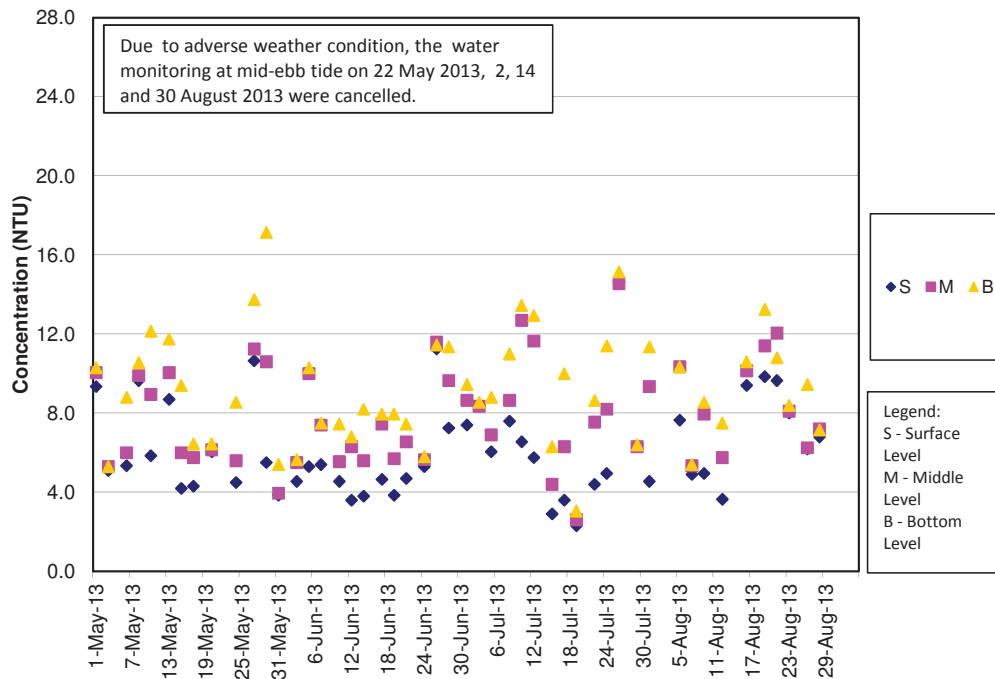
**Turbidity Concentrations at Station IS(Mf)9 (Mid Ebb)**



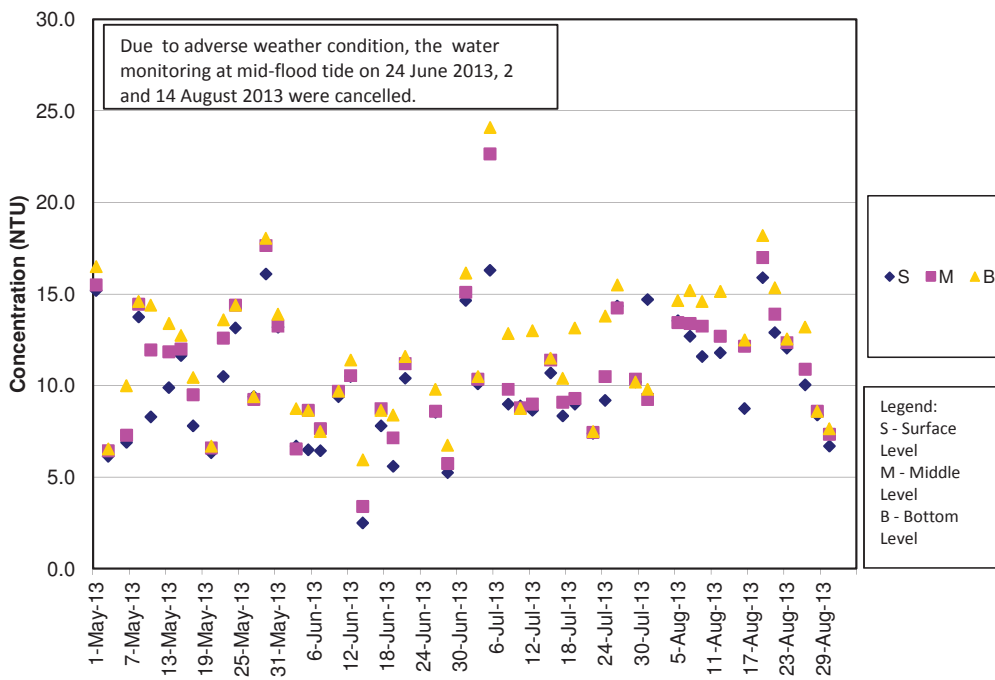
**Turbidity Concentrations at Station IS(Mf)9 (Mid Flood)**



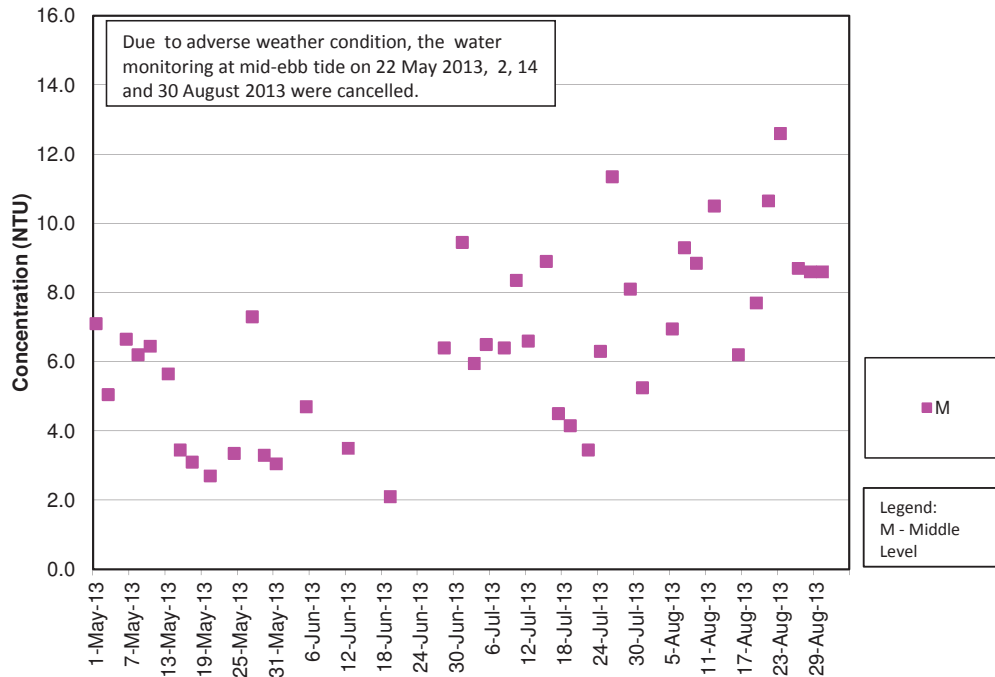
**Turbidity Concentrations at Station IS10 (Mid Ebb)**



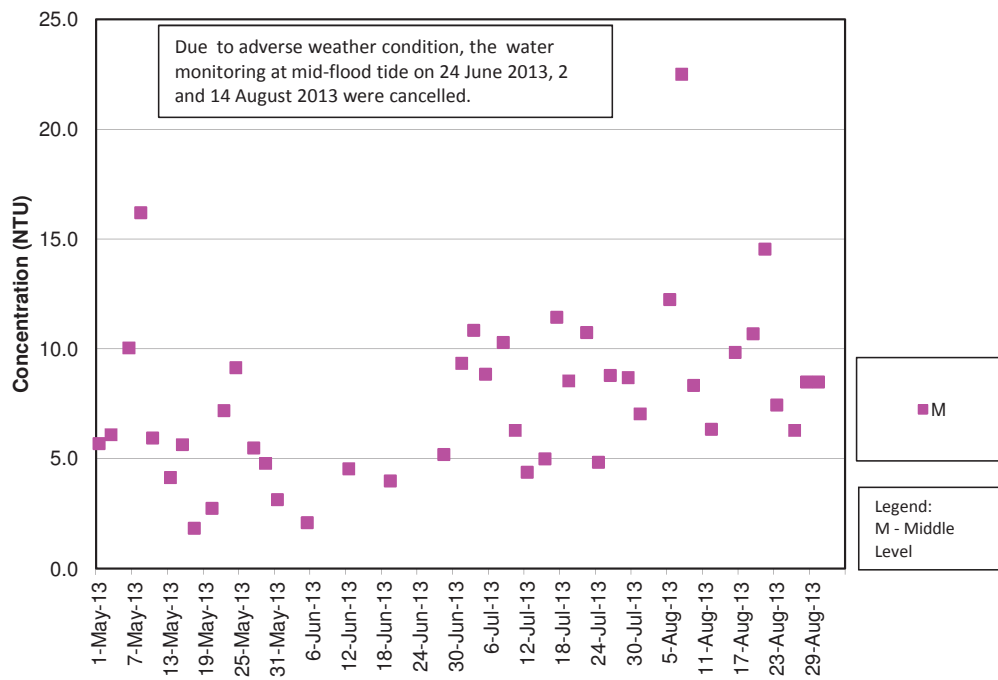
**Turbidity Concentrations at Station IS10 (Mid Flood)**



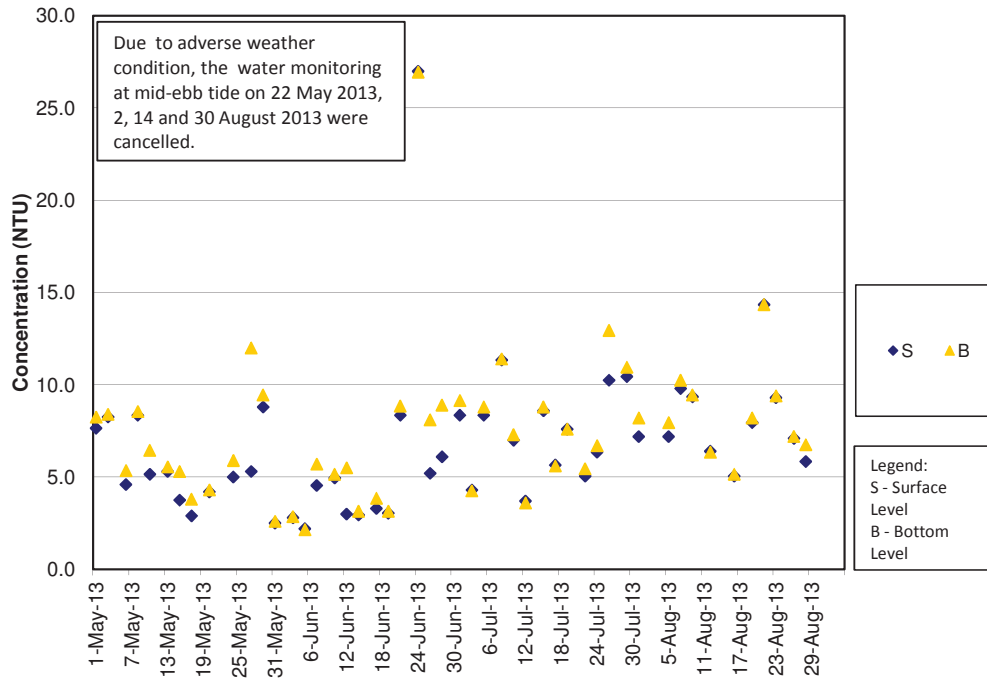
**Turbidity Concentrations at Station SR3 (Mid Ebb)**



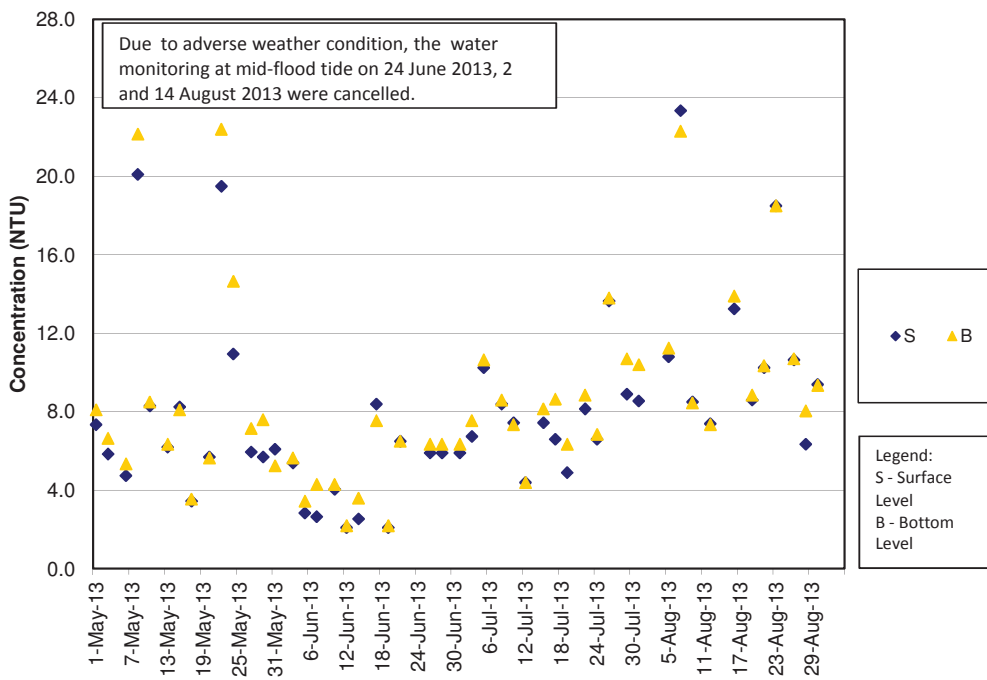
**Turbidity Concentrations at Station SR3 (Mid Flood)**



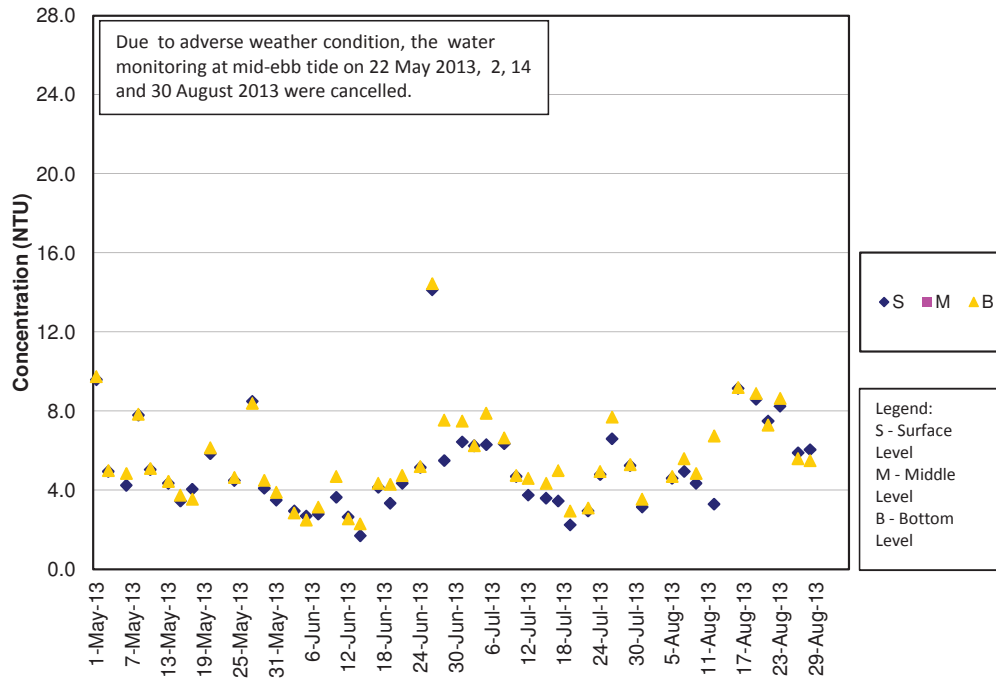
**Turbidity Concentrations at Station SR4 (Mid Ebb)**



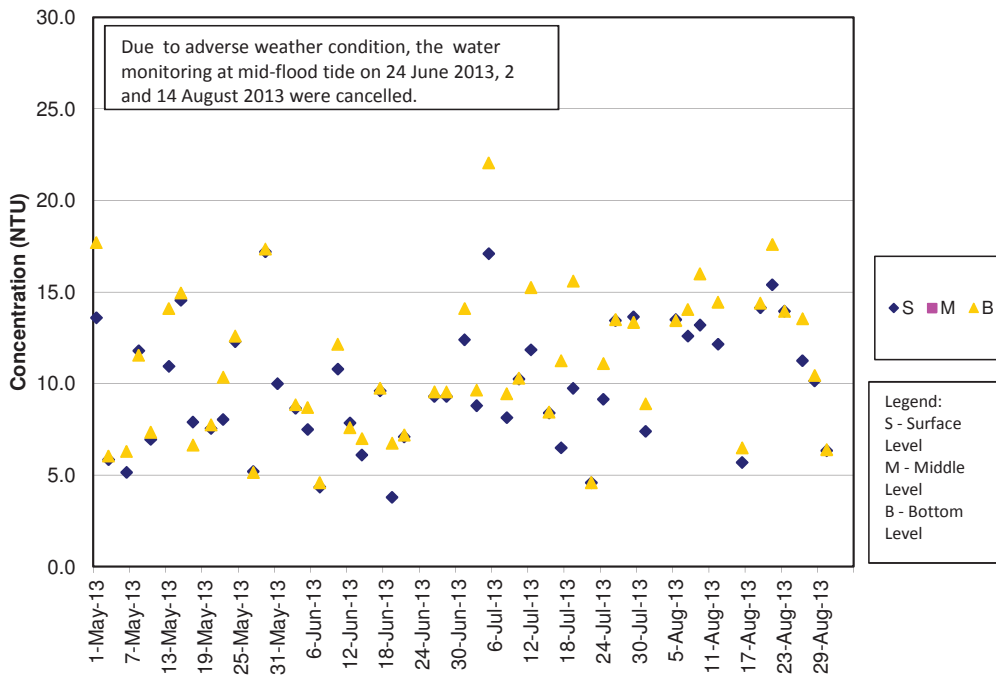
**Turbidity Concentrations at Station SR4 (Mid Flood)**



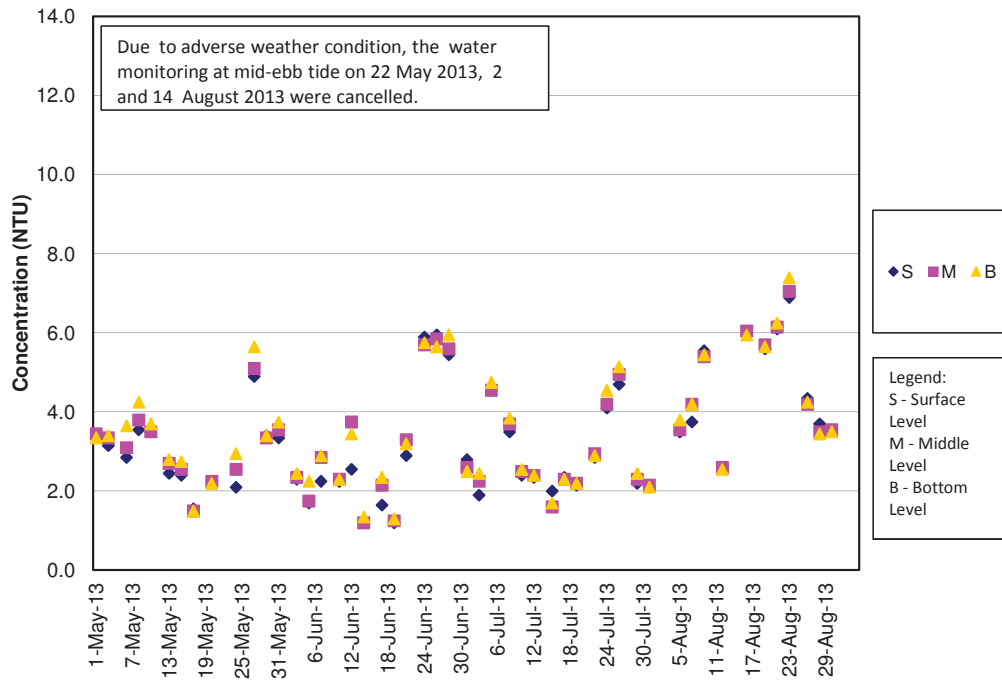
**Turbidity Concentrations at Station SR5 (Mid Ebb)**



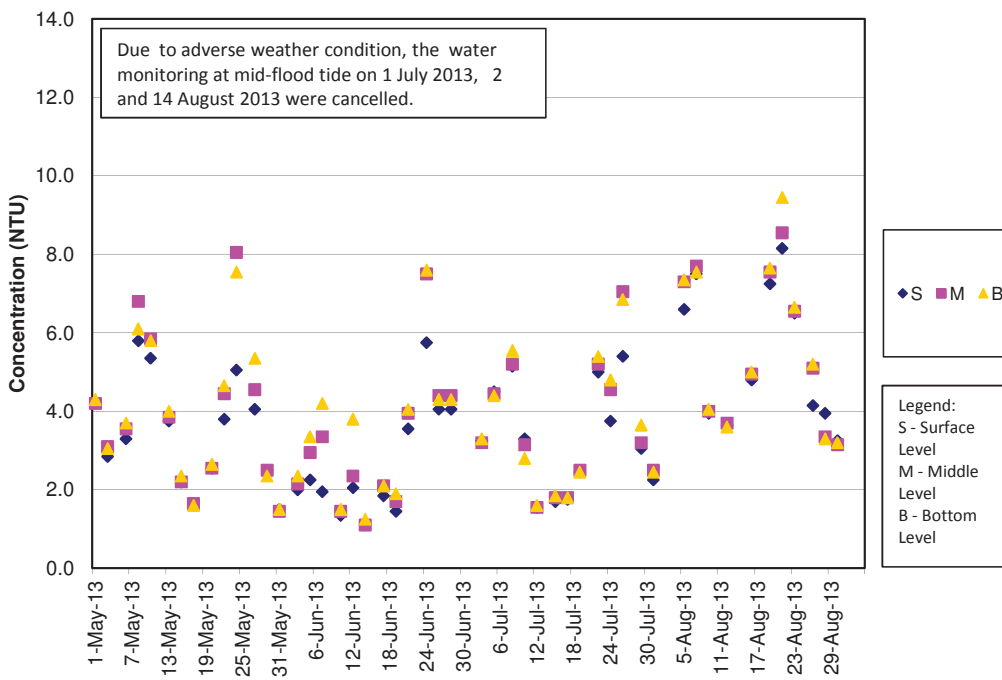
**Turbidity Concentrations at Station SR5 (Mid Flood)**



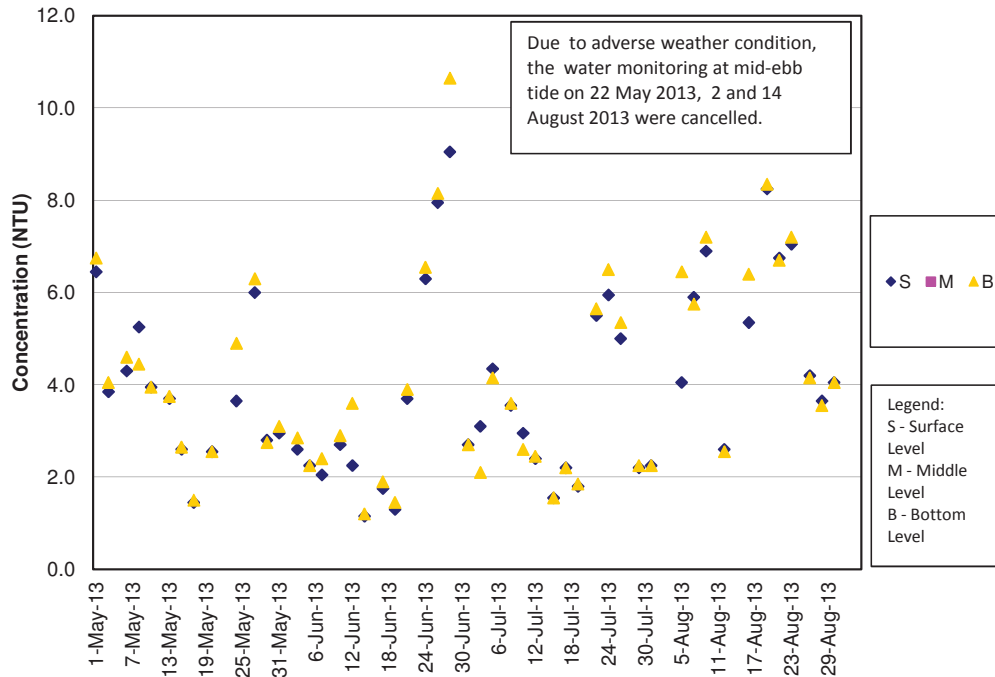
**Turbidity Concentrations at Station SR10A (Mid Ebb)**



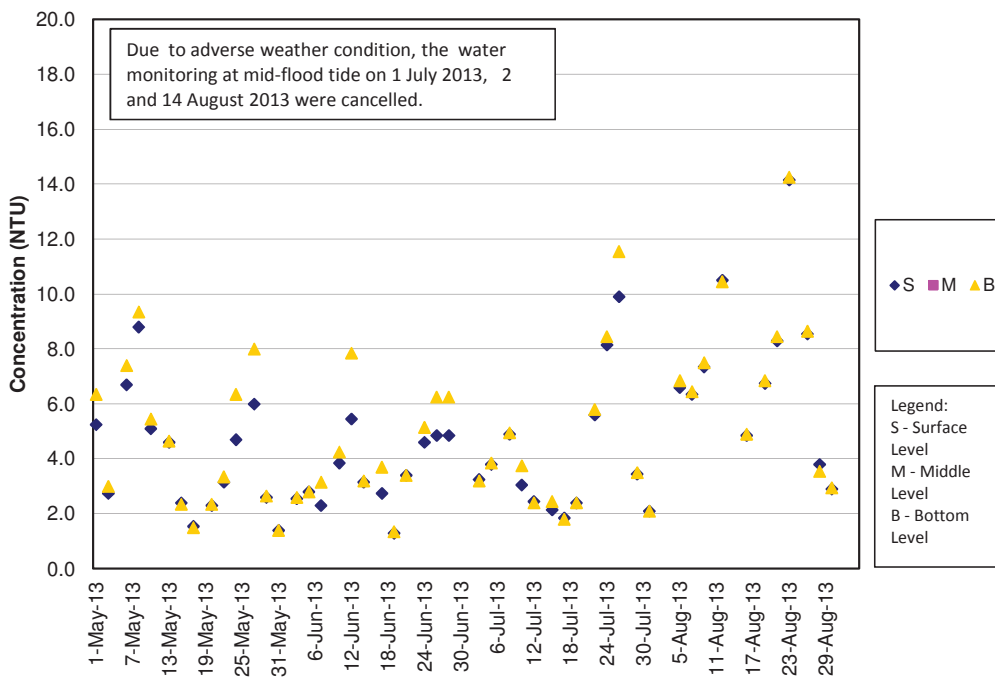
**Turbidity Concentrations at Station SR10A (Mid Flood)**



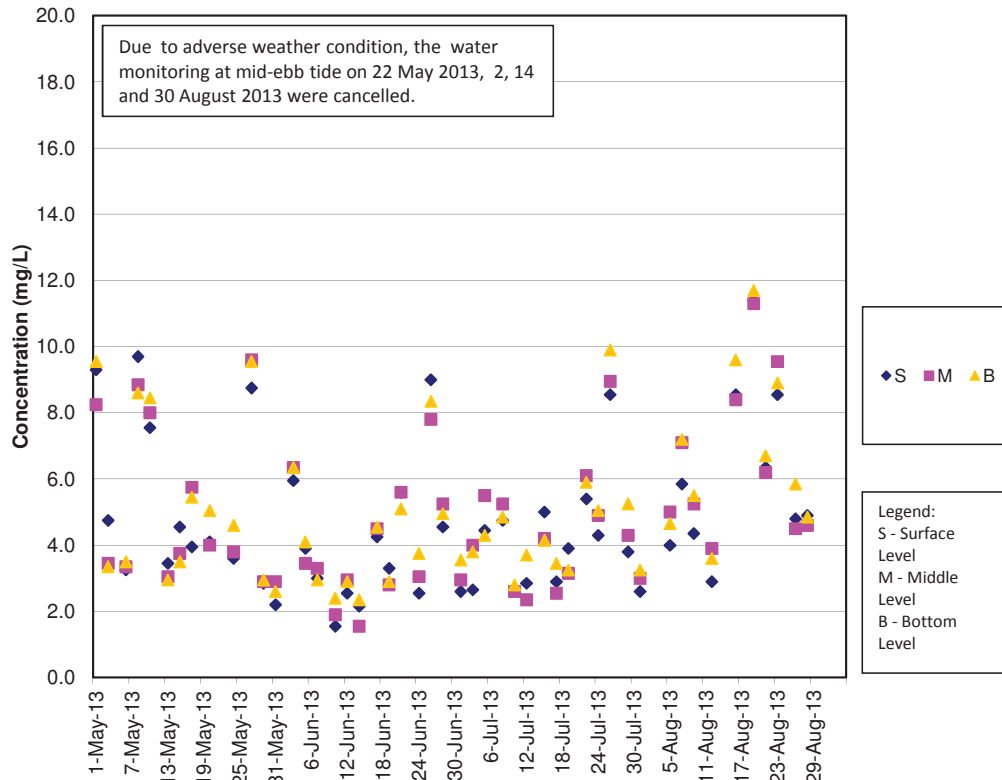
**Turbidity Concentrations at Station SR10B (Mid Ebb)**



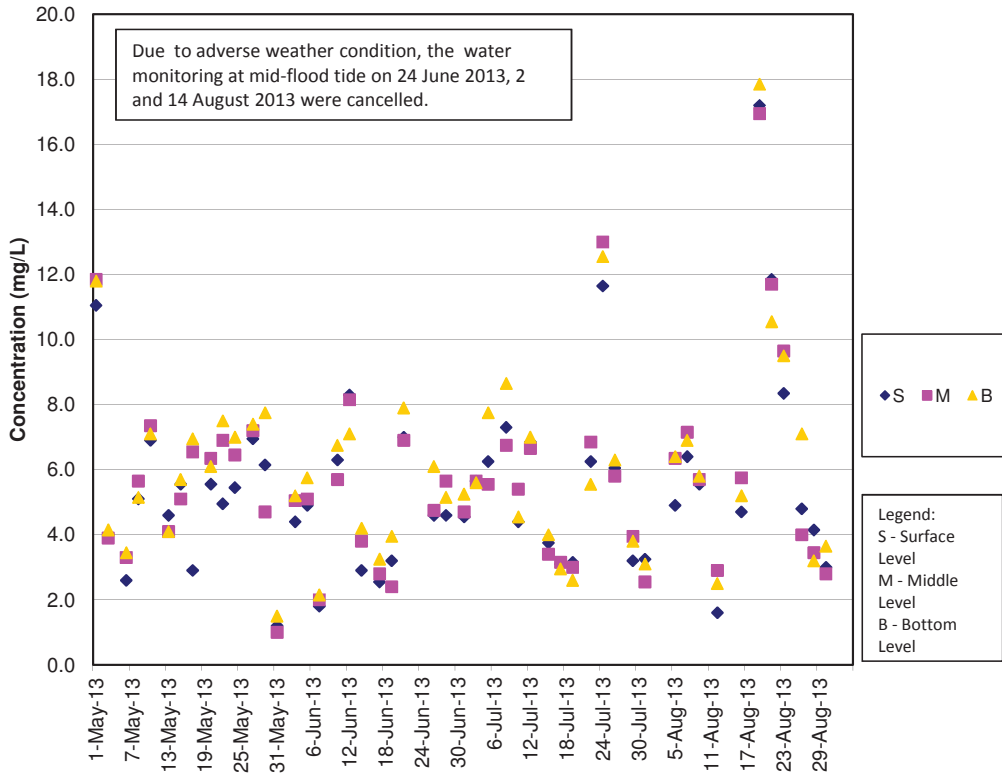
**Turbidity Concentrations at Station SR10B (Mid Flood)**



**SS Concentrations at Station CS2 (Mid Ebb)**

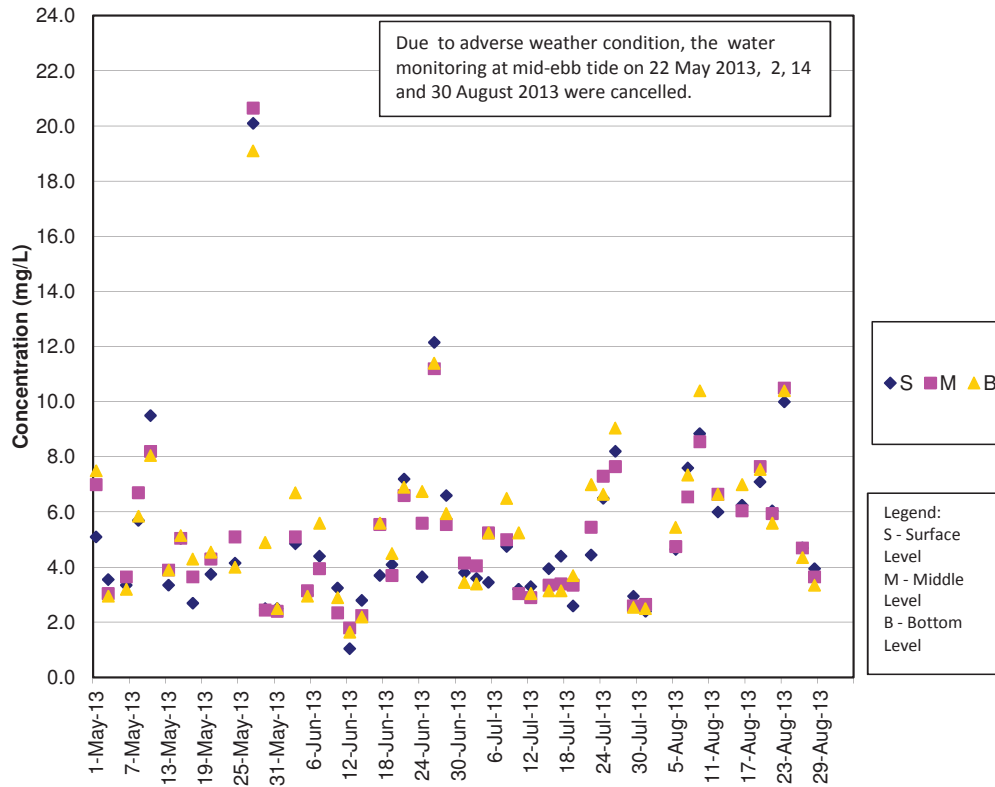


**SS Concentrations at Station CS2 (Mid Flood)**

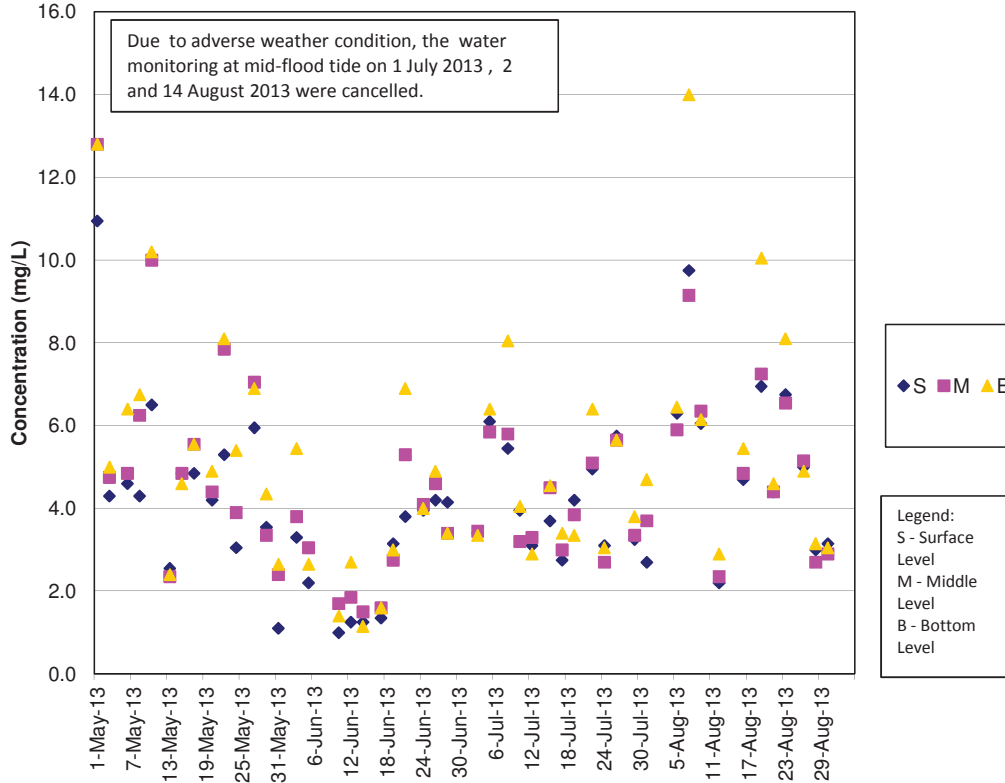




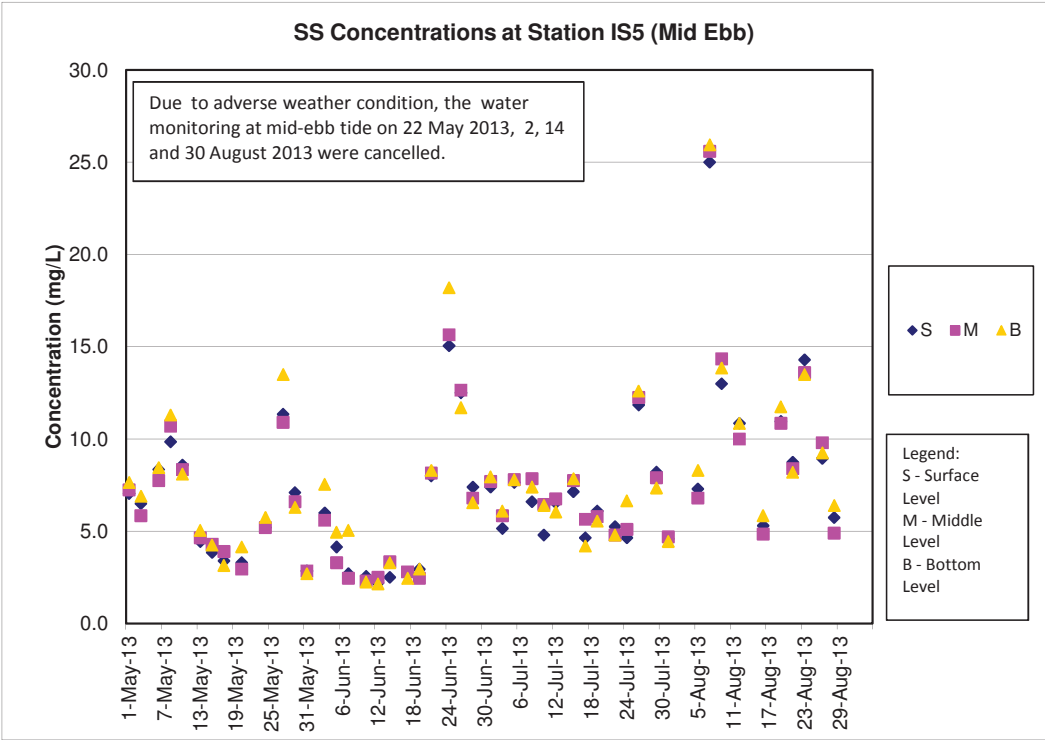
**SS Concentrations at Station CS(Mf)5 (Mid Ebb)**



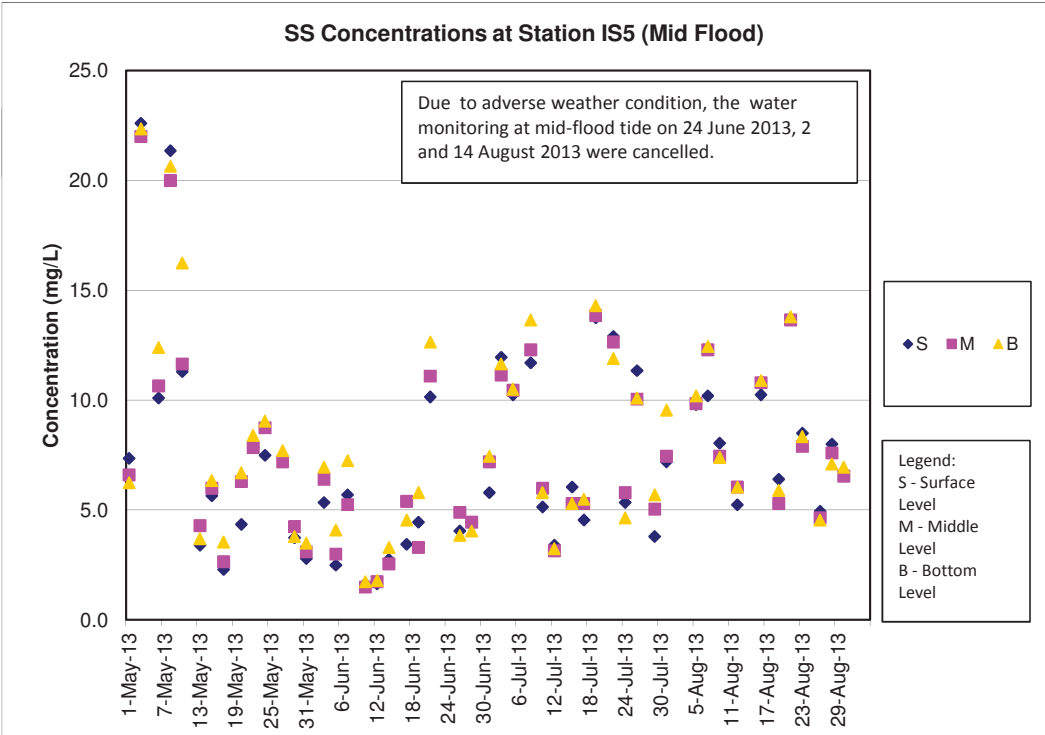
**SS Concentrations at Station CS(Mf)5 (Mid Flood)**



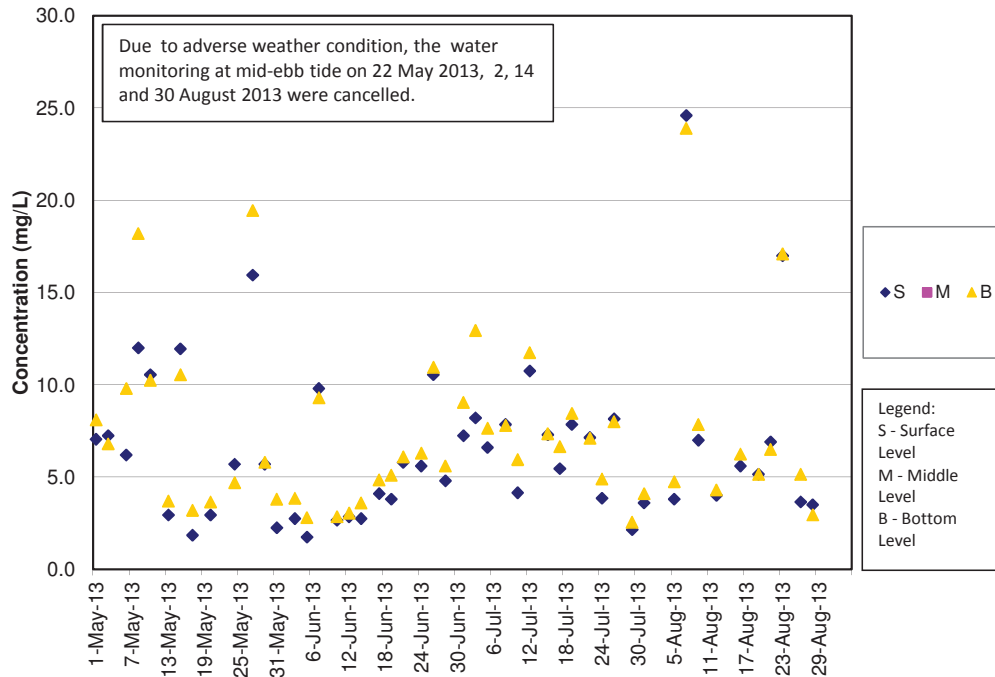
**SS Concentrations at Station IS5 (Mid Ebb)**



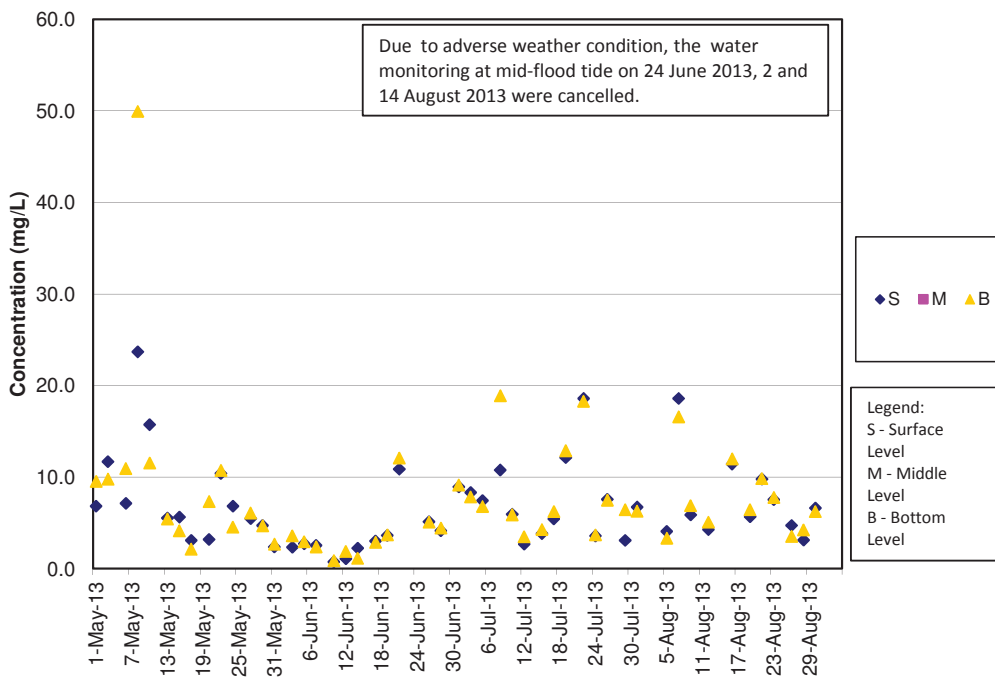
**SS Concentrations at Station IS5 (Mid Flood)**



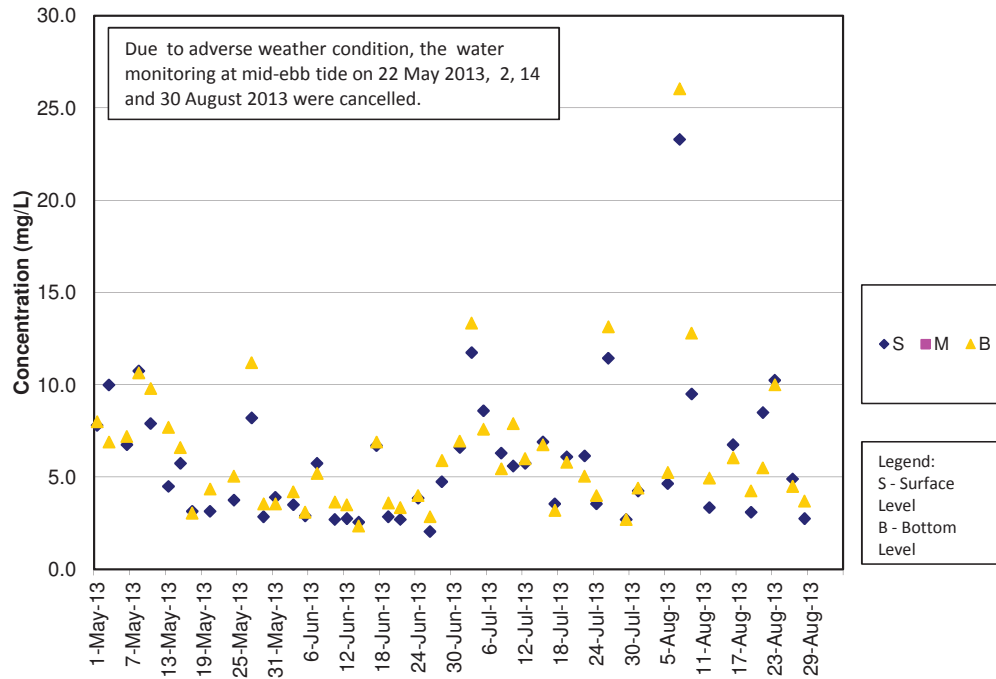
**SS Concentrations at Station IS(Mf)6 (Mid Ebb)**



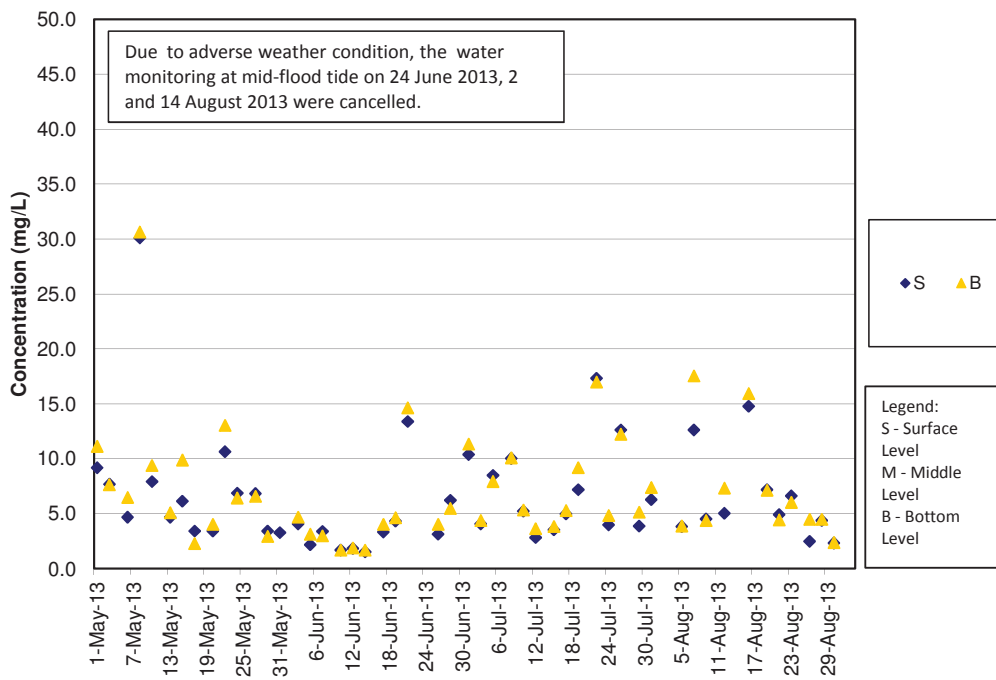
**SS Concentrations at Station IS(Mf)6 (Mid Flood)**



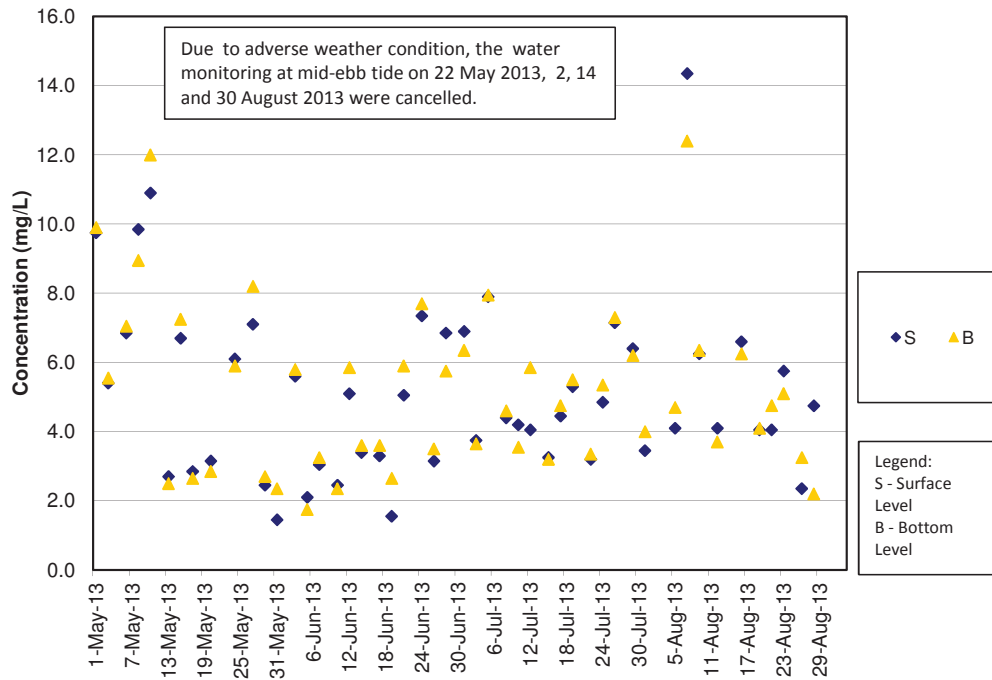
**SS Concentrations at Station IS7 (Mid Ebb)**



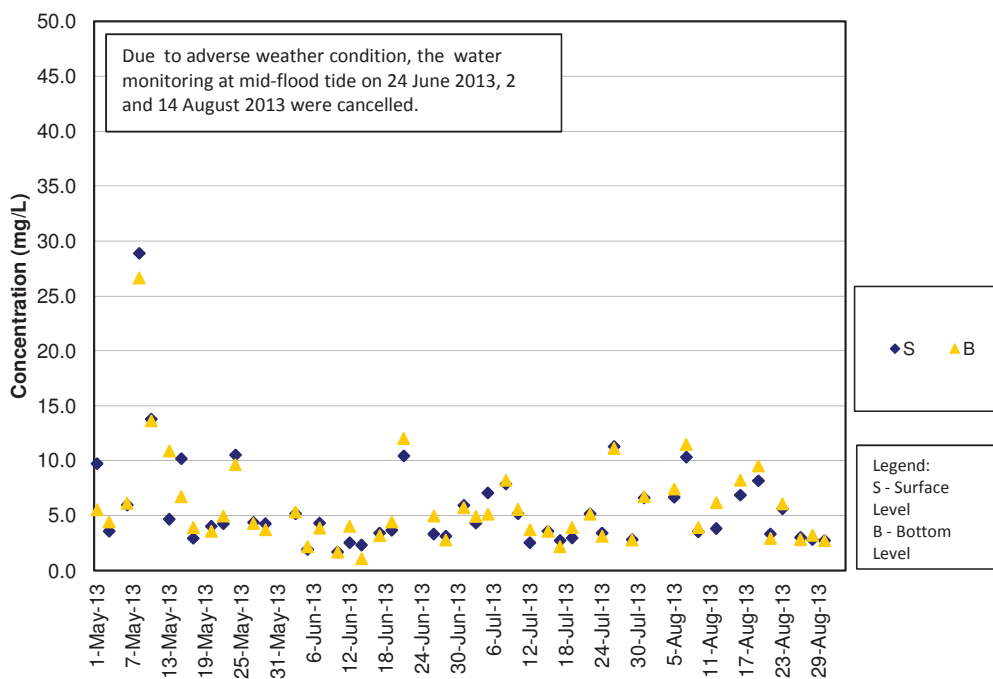
**SS Concentrations at Station IS7 (Mid Flood)**



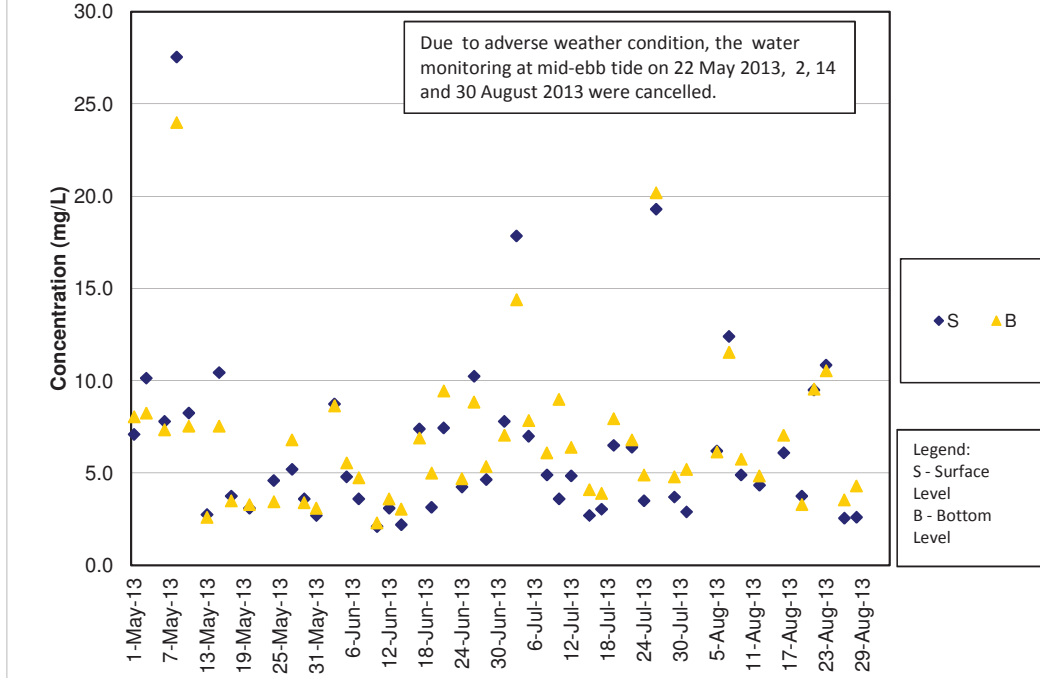
**SS Concentrations at Station IS8 (Mid Ebb)**



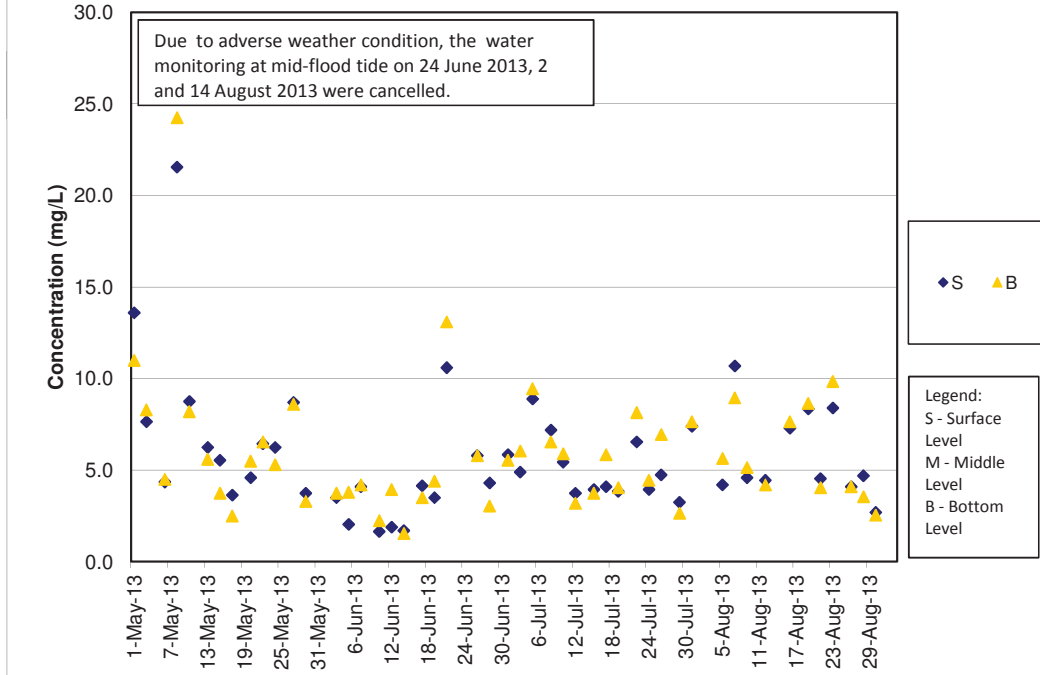
**SS Concentrations at Station IS8 (Mid Flood)**



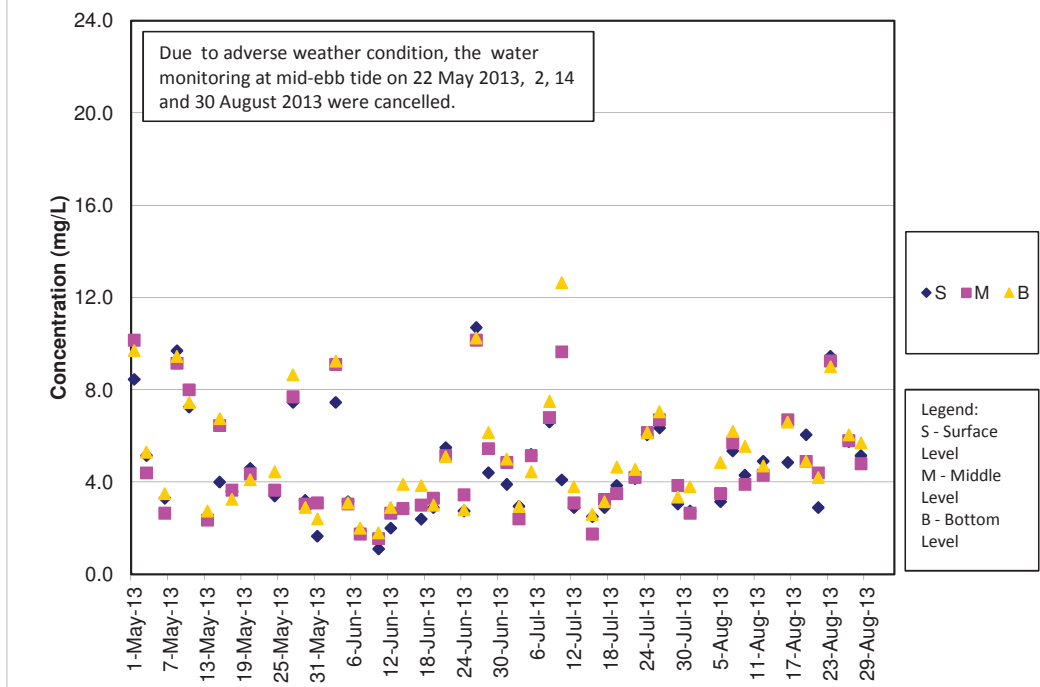
**SS Concentrations at Station IS(Mf)9 (Mid Ebb)**



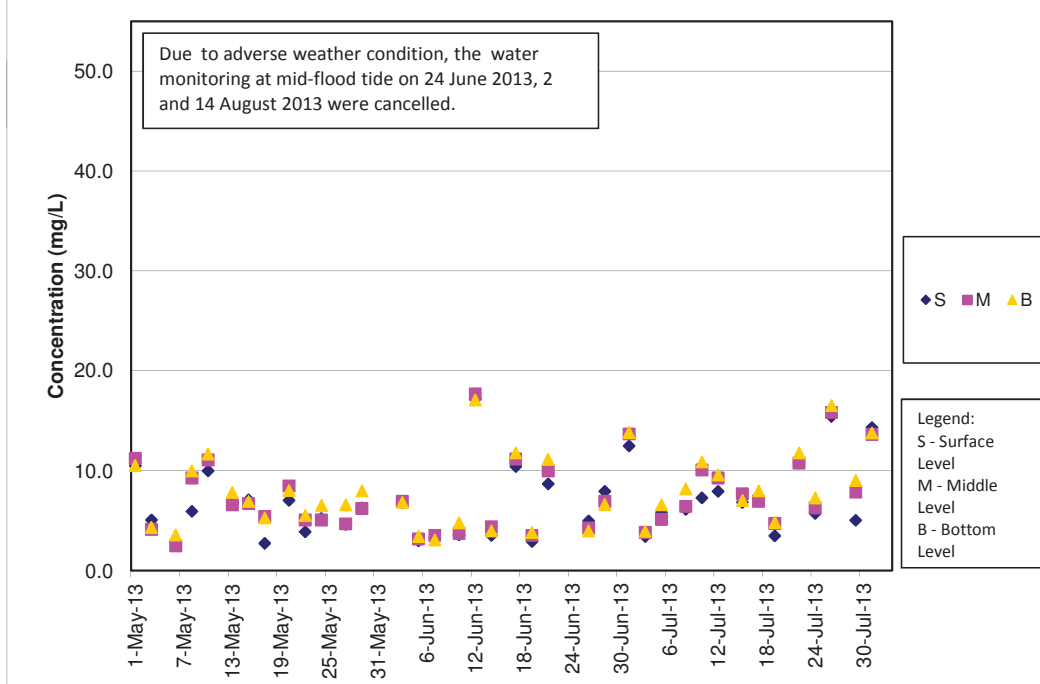
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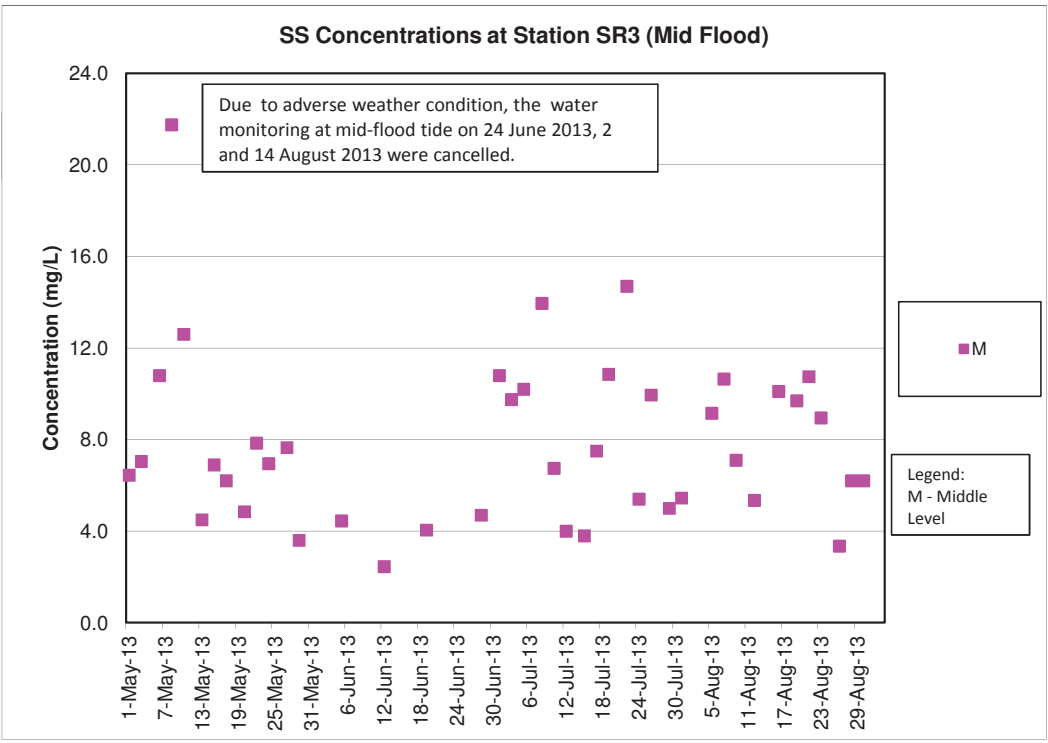
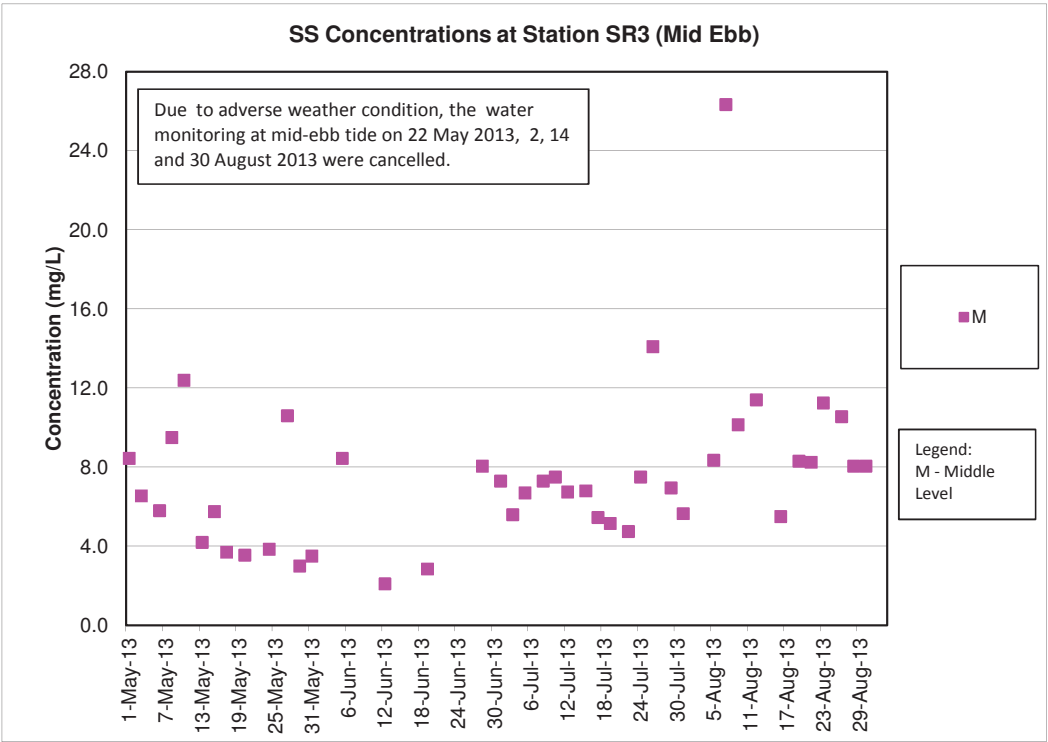


**SS Concentrations at Station IS10 (Mid Ebb)**



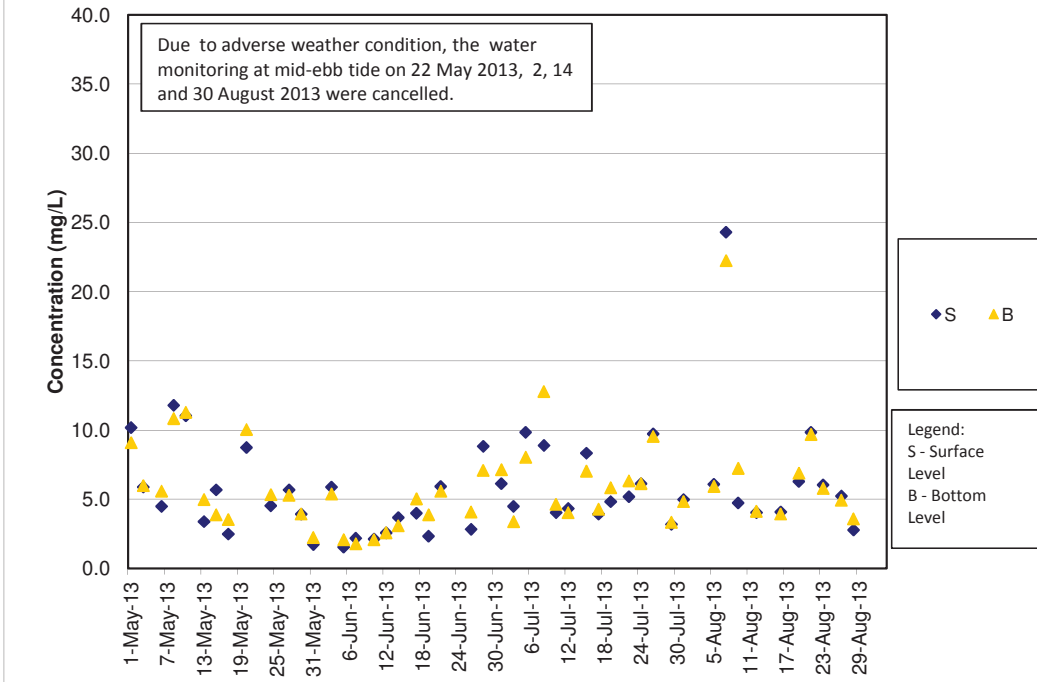
**SS Concentrations at Station IS10 (Mid Flood)**



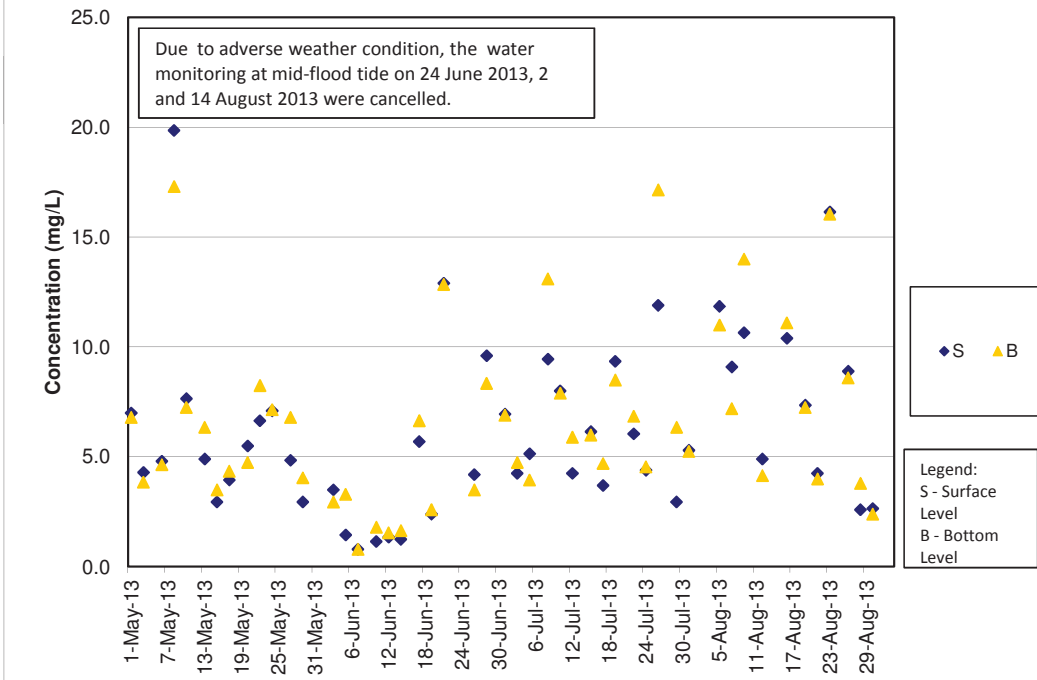




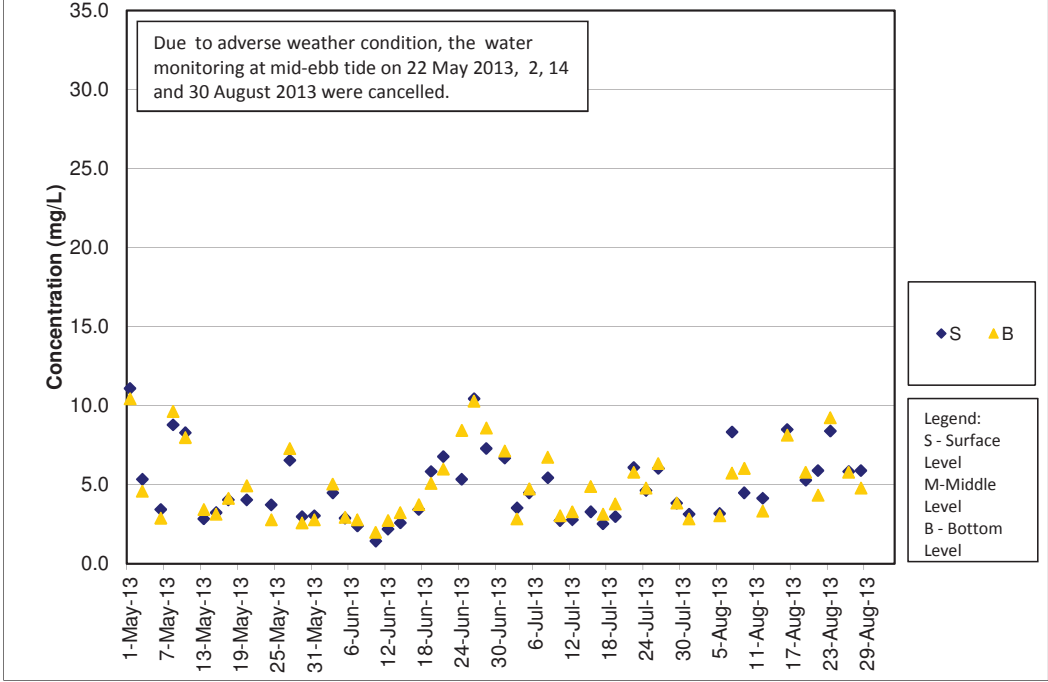
**SS Concentrations at Station SR4 (Mid Ebb)**



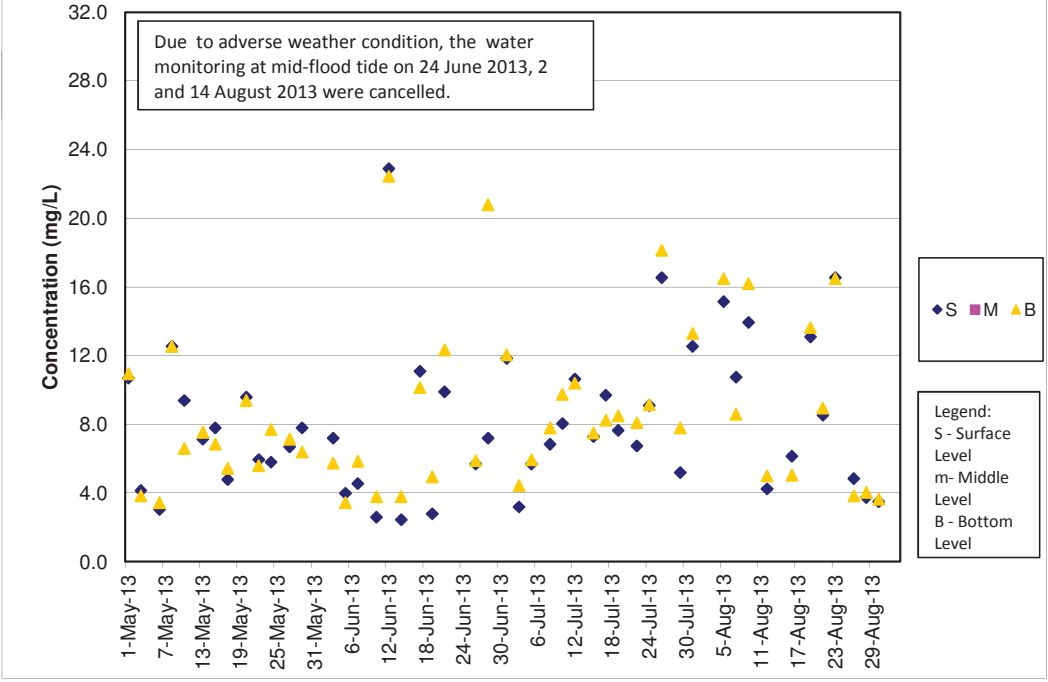
**SS Concentrations at Station SR4 (Mid Flood)**



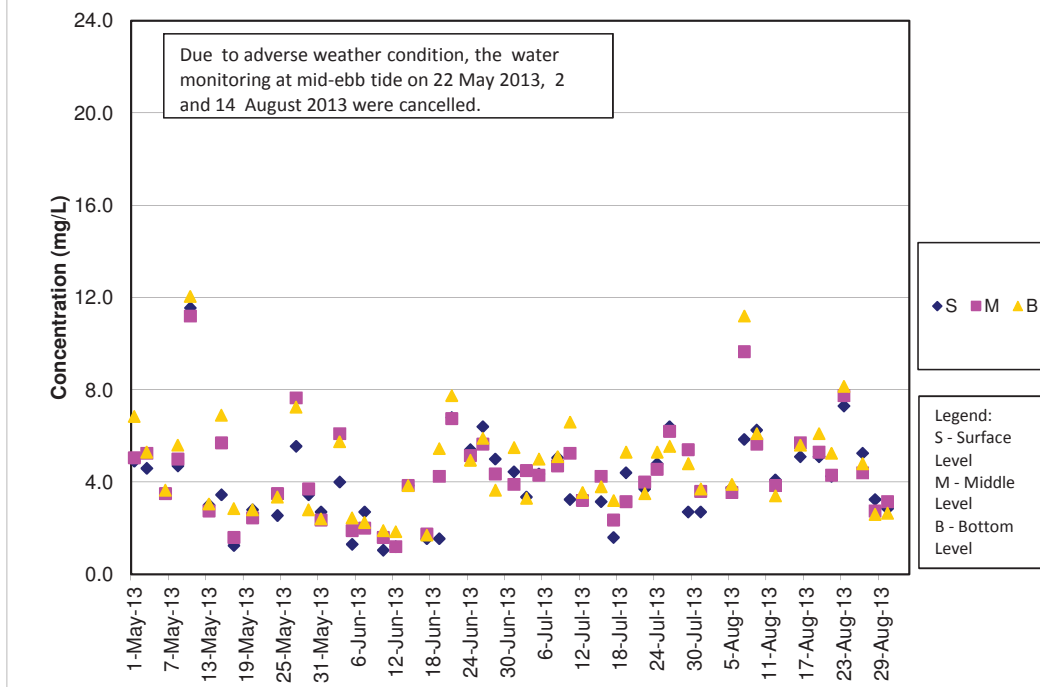
**SS Concentrations at Station SR5 (Mid Ebb)**



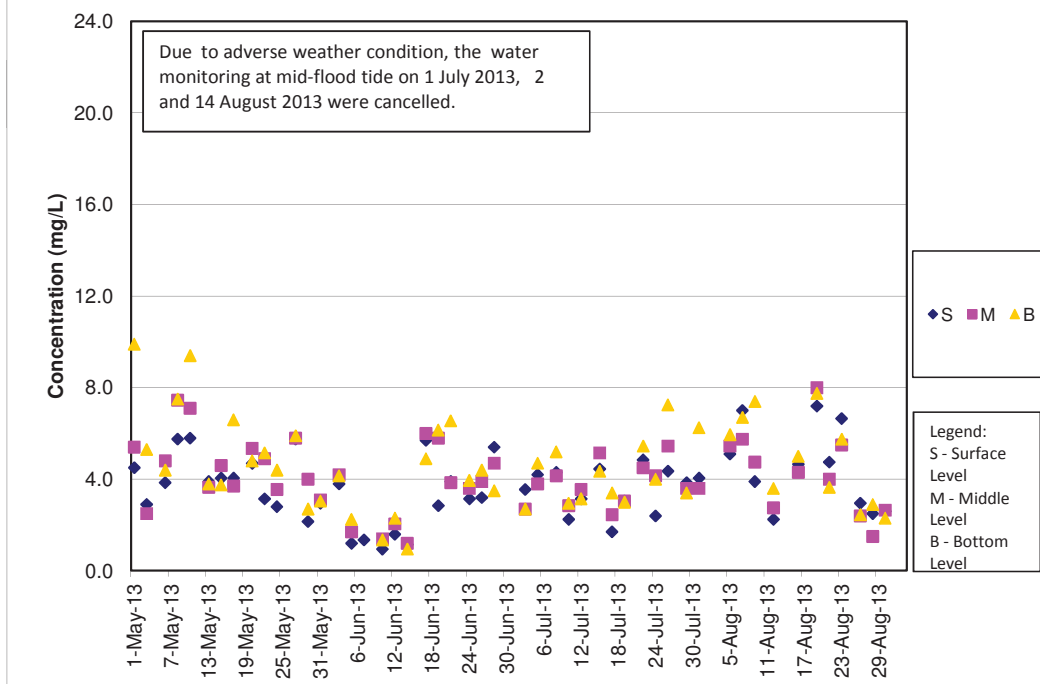
**SS Concentrations at Station SR5 (Mid Flood)**



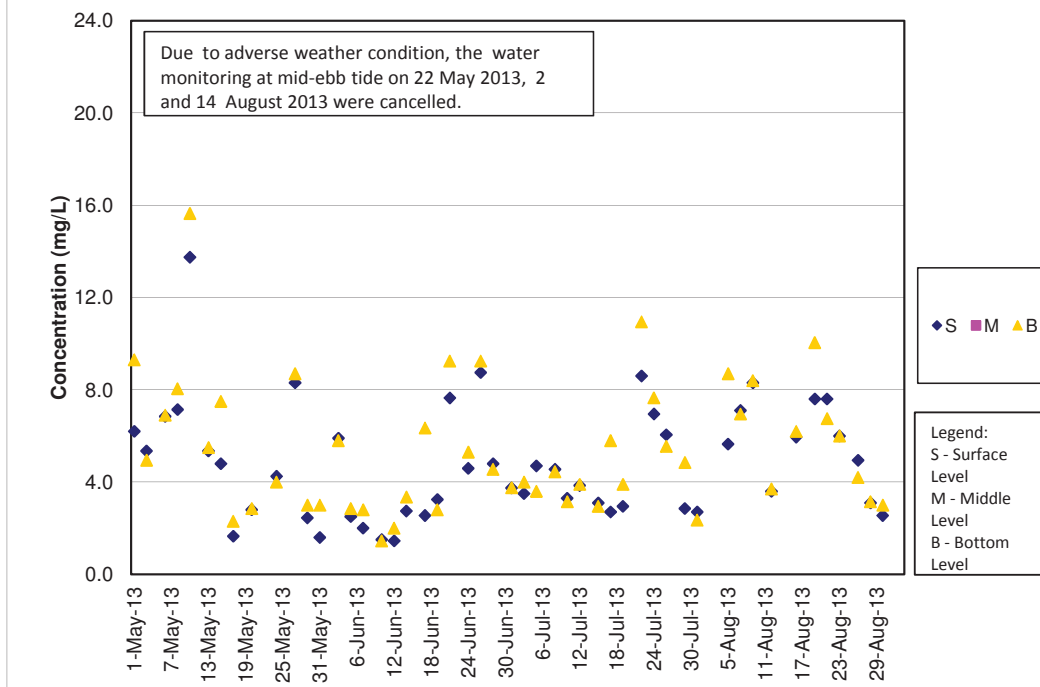
**SS Concentrations at Station SR10A (Mid Ebb)**



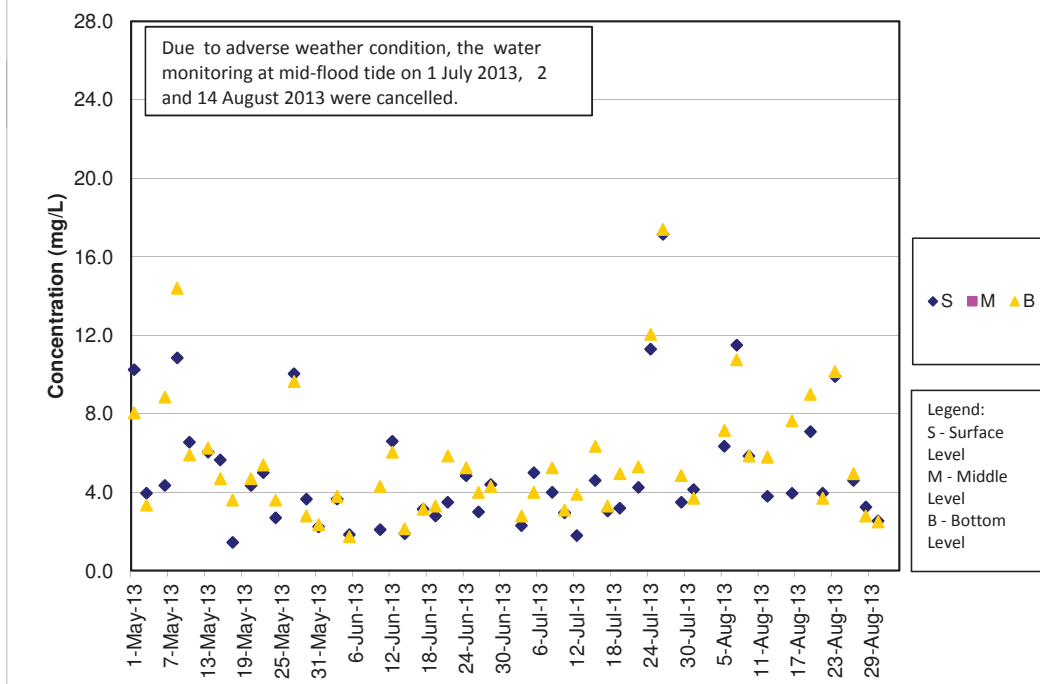
**SS Concentrations at Station SR10A (Mid Flood)**



**SS Concentrations at Station SR10B (Mid Ebb)**



**SS Concentrations at Station SR10B (Mid Flood)**





路政署  
**HIGHWAYS DEPARTMENT**

港珠澳大橋香港工程管理處  
Hong Kong - Zhuhai - Macao Bridge  
Hong Kong Project Management Office

Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
and Hong Kong Boundary Crossing Facilities  
4<sup>th</sup> Quarterly EM&A Report (Rev.2)

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## APPENDIX J

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### Dolphin Monitoring Results



中國建築工程(香港)有限公司  
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

**Contract No. HY/2011/03**  
**Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road –**  
**Section between Scenic Hill and Hong Kong Boundary**  
**Crossing Facilities Dolphin Monitoring**

*Quarterly Progress Report (June-August 2013)*  
*submitted to China State Construction Engineering (HK) Ltd.*

Submitted by

Samuel K. Y. Hung, Ph.D., Hong Kong Cetacean Research Project

5 June 2014

**1. Introduction**

- 1.1. The Hong Kong Link Road (HKLR) serves to connect the Hong Kong-Zhuhai-Macao Bridge (HZMB) Main Bridge at the Hong Kong Special Administrative Region (HKSAR) Boundary and the HZMB Hong Kong Boundary Crossing Facilities (HKBCF) located at the northeastern waters of the Hong Kong International Airport. The construction of HKLR is separated into two sections, with the construction for the section between Scenic Hill and Hong Kong Boundary Crossing Facilities being commenced in October 2012.
- 1.2. According to the updated Environmental Monitoring and Audit (EM&A) Manual (for HKLR), monthly line-transect vessel surveys for Chinese White Dolphin should be conducted to cover the Northwest and Northeast Lantau survey areas as in AFCD annual marine mammal monitoring programme.
- 1.3. In October 2012, Hong Kong Cetacean Research Project (HKCRP) has been commissioned to conduct this 54-month dolphin monitoring study in order to collect data on Chinese White Dolphins during the construction phase (i.e. impact period) of the HKLR03 project in Northwest Lantau (NWL) and Northeast Lantau (NEL) survey areas, and to analyze the collected survey data to monitor distribution, encounter rate, activities and occurrence of dolphin calves. Photo-identification will also be collected from individual Chinese White Dolphins to examine their individual range patterns.

- 1.4. From the monitoring results, any changes in dolphin occurrence within the study area will be examined for possible causes, and appropriate actions and additional mitigation measures will be recommended as necessary.
- 1.5. This report is the fourth quarterly progress report under the HKLR03 construction phase dolphin monitoring programme submitted to the China State Construction Engineering (HK) Limited, summarizing the results of the surveys findings during the period of June to August 2013.

## 2. Monitoring Methodology

### 2.1. Vessel-based Line-transect Survey

- 2.1.1. According to the requirement of the updated EM&A manual, dolphin monitoring programme should cover all transect lines in NEL and NWL survey areas twice per month throughout the entire construction period. The co-ordinates of all transect lines are shown in Table 1.

Table 1. Co-ordinates of transect lines

Line No.		Easting	Northing		Line No.		Easting	Northing
1	Start Point	804671	814577		13	Start Point	816506	819480
1	End Point	804671	831404		13	End Point	816506	824859
2	Start Point	805475	815457		14	Start Point	817537	820220
2	End Point	805477	826654		14	End Point	817537	824613
3	Start Point	806464	819435		15	Start Point	818568	820735
3	End Point	806464	822911		15	End Point	818568	824433
4	Start Point	807518	819771		16	Start Point	819532	821420
4	End Point	807518	829230		16	End Point	819532	824209
5	Start Point	808504	820220		17	Start Point	820451	822125
5	End Point	808504	828602		17	End Point	820451	823671
6	Start Point	809490	820466		18	Start Point	821504	822371
6	End Point	809490	825352		18	End Point	821504	823761
7	Start Point	810499	820690		19	Start Point	822513	823268
7	End Point	810499	824613		19	End Point	822513	824321
8	Start Point	811508	820847		20	Start Point	823477	823402
8	End Point	811508	824254		20	End Point	823477	824613

9	Start Point	812516	820892		21	Start Point	805476	827081
9	End Point	812516	824254		21	End Point	805476	830562
10	Start Point	813525	820872		22	Start Point	806464	824033
10	End Point	813525	824657		22	End Point	806464	829598
11	Start Point	814556	818449		23	Start Point	814559	821739
11	End Point	814556	820992		23	End Point	814559	824768
12	Start Point	815542	818807					
12	End Point	815542	824882					

- 2.1.2. The survey team used standard line-transect methods (Buckland et al. 2001) to conduct the systematic vessel surveys, and followed the same technique of data collection that has been adopted over the last 16 years of marine mammal monitoring surveys in Hong Kong developed by HKCRP (see Hung 2012). For each monitoring vessel survey, a 15-m inboard vessel (*Standard 31516*) with an open upper deck (about 4.5 m above water surface) was used to make observations from the flying bridge area.
- 2.1.3. Two experienced observers (a data recorder and a primary observer) made up the on-effort survey team, and the survey vessel transited different transect lines at a constant speed of 13-15 km per hour. The data recorder searched with unaided eyes and filled out the datasheets, while the primary observer searched for dolphins and porpoises continuously through 7 x 50 *Steiner* marine binoculars. Both observers searched the sea ahead of the vessel, between 270° and 90° (in relation to the bow, which is defined as 0°). One to two additional experienced observers were available on the boat to work in shift (i.e. rotate every 30 minutes) in order to minimize fatigue of the survey team members. All observers were experienced in small cetacean survey techniques and identifying local cetacean species.
- 2.1.4. During on-effort survey periods, the survey team recorded effort data including time, position (latitude and longitude), weather conditions (Beaufort sea state and visibility), and distance traveled in each series (a continuous period of search effort) with the assistance of a handheld GPS (*Garmin eTrex Legend*).
- 2.1.5. Data including time, position and vessel speed were also automatically and continuously logged by handheld GPS throughout the entire survey for subsequent review.



2.1.6. When dolphins were sighted, the survey team would end the survey effort, and immediately record the initial sighting distance and angle of the dolphin group from the survey vessel, as well as the sighting time and position. Then the research vessel was diverted from its course to approach the animals for species identification, group size estimation, assessment of group composition, and behavioural observations. The perpendicular distance (PSD) of the dolphin group to the transect line was later calculated from the initial sighting distance and angle.

2.1.7. Survey effort being conducted along the parallel transect lines that were perpendicular to the coastlines (as indicated in Figure 1) was labeled as “primary” survey effort, while the survey effort conducted along the connecting lines between parallel lines was labeled as “secondary” survey effort. According to HKCRP long-term dolphin monitoring data, encounter rates of Chinese white dolphins deduced from effort and sighting data collected along primary and secondary lines were similar in NEL and NWL survey areas (Hung 2013). Therefore, both primary and secondary survey effort were presented as on-effort survey effort in this report.

## 2.2. *Photo-identification Work*

2.2.1. When a group of Chinese White Dolphins were sighted during the line-transect survey, the survey team would end effort and approach the group slowly from the side and behind to take photographs of them. Every attempt was made to photograph every dolphin in the group, and even photograph both sides of the dolphins, since the colouration and markings on both sides may not be symmetrical.

2.2.2. Two professional digital cameras (*Canon* EOS 7D and 60D models), each equipped with long telephoto lenses (100-400 mm zoom), were available on board for researchers to take sharp, close-up photographs of dolphins as they surfaced. The images were shot at the highest available resolution and stored on Compact Flash memory cards for downloading onto a computer.

2.2.3. All digital images taken in the field were first examined, and those containing potentially identifiable individuals were sorted out. These photographs would then be examined in greater detail, and were carefully compared to the existing Chinese White Dolphin photo-identification catalogue maintained by HKCRP since 1995.

- 2.2.4. Chinese White Dolphins can be identified by their natural markings, such as nicks, cuts, scars and deformities on their dorsal fin and body, and their unique spotting patterns were also used as secondary identifying features (Jefferson 2000).
- 2.2.5. All photographs of each individual were then compiled and arranged in chronological order, with data including the date and location first identified (initial sighting), re-sightings, associated dolphins, distinctive features, and age classes entered into a computer database.

### 2.3. *Data analysis*

- 2.3.1. Distribution Analysis – The line-transect survey data was integrated with the Geographic Information System (GIS) in order to visualize and interpret different spatial and temporal patterns of dolphin distribution using sighting positions. Location data of dolphin groups were plotted on map layers of Hong Kong using a desktop GIS (ArcView<sup>®</sup> 3.1) to examine their distribution patterns in details. The dataset was also stratified into different subsets to examine distribution patterns of dolphin groups with different categories of group sizes, young calves and activities.
- 2.3.2. Encounter rate analysis – Encounter rates of Chinese white dolphins (number of on-effort sightings per 100 km of survey effort, and total number of dolphins sighted on-effort per 100 km of survey effort) were calculated in NEL and NWL survey areas in relation to the amount of survey effort conducted during each month of monitoring survey. Dolphin encounter rates were calculated in two ways for comparisons with the HZMB baseline monitoring results as well as to AFCD long-term marine mammal monitoring results.

Firstly, for the comparison with the HZMB baseline monitoring results, the encounter rates were calculated using primary survey effort alone, and only data collected under Beaufort 3 or below condition would be used for encounter rate analysis. The average encounter rate of sightings (STG) and average encounter rate of dolphins (ANI) were deduced based on the encounter rates from six events during the present quarter (i.e. six sets of line-transect surveys in North Lantau), which was also compared with the one deduced from the six events during the baseline period (i.e. six sets of line-transect surveys in North Lantau).

Secondly, the encounter rates were calculated using both primary and secondary survey effort collected under Beaufort 3 or below condition as in AFCD long-term monitoring study. The encounter rate of sightings and dolphins were deduced by dividing the total number of on-effort sightings (STG) and total number of dolphins (ANI) by the amount of survey effort for the entire quarterly period (June-August 2013).

2.3.3. Quantitative grid analysis on habitat use – To conduct quantitative grid analysis of habitat use, positions of on-effort sightings of Chinese White Dolphins collected during the quarterly impact phase monitoring period were plotted onto 1-km<sup>2</sup> grids among NWL and NEL survey areas on GIS. Sighting densities (number of on-effort sightings per km<sup>2</sup>) and dolphin densities (total number of dolphins from on-effort sightings per km<sup>2</sup>) were then calculated for each 1 km by 1 km grid with the aid of GIS. Sighting density grids and dolphin density grids were then further normalized with the amount of survey effort conducted within each grid. The total amount of survey effort spent on each grid was calculated by examining the survey coverage on each line-transect survey to determine how many times the grid was surveyed during the study period. For example, when the survey boat traversed through a specific grid 50 times, 50 units of survey effort were counted for that grid. With the amount of survey effort calculated for each grid, the sighting density and dolphin density of each grid were then normalized (i.e. divided by the unit of survey effort).

The newly-derived unit for sighting density was termed SPSE, representing the number of on-effort sightings per 100 units of survey effort. In addition, the derived unit for actual dolphin density was termed DPSE, representing the number of dolphins per 100 units of survey effort. Among the 1-km<sup>2</sup> grids that were partially covered by land, the percentage of sea area was calculated using GIS tools, and their SPSE and DPSE values were adjusted accordingly. The following formulae were used to estimate SPSE and DPSE in each 1-km<sup>2</sup> grid within the study area:

$$\begin{aligned} \text{SPSE} &= ((S / E) \times 100) / \text{SA}\% \\ \text{DPSE} &= ((D / E) \times 100) / \text{SA}\% \end{aligned}$$

where S = total number of on-effort sightings  
D = total number of dolphins from on-effort sightings  
E = total number of units of survey effort  
SA% = percentage of sea area

2.3.4. Behavioural analysis – When dolphins were sighted during vessel surveys, their

behaviour was observed. Different activities were categorized (i.e. feeding, milling/resting, traveling, socializing) and recorded on sighting datasheets. This data was then input into a separate database with sighting information, which can be used to determine the distribution of behavioural data with a desktop GIS. Distribution of sightings of dolphins engaged in different activities and behaviours would then be plotted on GIS and carefully examined to identify important areas for different activities of the dolphins.

- 2.3.5. Ranging pattern analysis – Location data of individual dolphins that occurred during the 3-month baseline monitoring period were obtained from the dolphin sighting database and photo-identification catalogue. To deduce home ranges for individual dolphins using the fixed kernel methods, the program Animal Movement Analyst Extension, was loaded as an extension with ArcView<sup>®</sup> 3.1 along with another extension Spatial Analyst 2.0. Using the fixed kernel method, the program calculated kernel density estimates based on all sighting positions, and provided an active interface to display kernel density plots. The kernel estimator then calculated and displayed the overall ranging area at 95% UD level.

### **3. Monitoring Results**

- 3.1. *Summary of survey effort and dolphin sightings*
  - 3.1.1. During the period of June to August 2013, six sets of systematic line-transect vessel surveys were conducted to cover all transect lines in NWL and NEL survey areas twice per month.
  - 3.1.2. From these surveys, a total of 886.72 km of survey effort was collected, with 92.1% of the total survey effort being conducted under favourable weather conditions (i.e. Beaufort Sea State 3 or below with good visibility). Among the two areas, 345.76 km and 540.96 km of survey effort were conducted in NEL and NWL survey areas respectively. In addition, the total survey effort conducted on primary lines was 651.95 km, while the effort on secondary lines was 234.77 km. Survey effort conducted on primary and secondary lines were both considered as on-effort survey data. Summary table of the survey effort is shown in Annex I.
  - 3.1.3. During the six sets of monitoring surveys in June to August 2013, a total of 45 groups of 154 Chinese White Dolphins were sighted. All except three sightings were made during on-effort search. Twenty-nine on-effort sightings were made on primary lines, while another thirteen on-effort sightings were

made on secondary lines. Five groups of 13 dolphins were sighted in NEL, while the other 40 groups of 141 dolphins were sighted in NWL. Summary table of the dolphin sightings is shown in Appendix II.

### 3.2. *Distribution*

3.2.1. Distribution of dolphin sightings made during monitoring surveys in June to August 2013 is shown in Figure 1. The majority of sightings were concentrated in the northwestern portion of North Lantau region, especially around Lung Kwu Chau, Sha Chau and Black Point. Several sightings were made near Shum Wat, to the north of the airport and near Pillar Point. The sightings made in NEL were scattered along the north shore of Lantau, particularly near Yam O. Only one sighting was made in the vicinity of the Brothers Islands.

3.2.2. No dolphin was sighted in the vicinity of the HKLR03 reclamation site (Figure 1). Two sightings were made within a few kilometres of the HKBCF reclamation site (one near Siu Ho Wan and another to the north of Tai Mo To), adjacent to the future Tuen Mun-Chek Lap Kok Link (TM-CLKL) alignment. On the other hand, five sightings were made along and near the HKLR09 alignment to the west of the airport platform.

3.2.3. When compared with the sighting distribution of dolphins during baseline monitoring surveys in September to November 2011, dolphins rarely occurred in NEL region during the present impact monitoring period, in contrast with their frequent occurrence around the Brothers Islands and HKBCF reclamation site during the baseline period (Figure 1). The low occurrence of dolphins around the Brothers Islands and Shum Shui Kok in the present quarter was similar to the previous quarter, and should be a concern as the future marine park will be established in this region as a compensation measure for the habitat loss resulted from the HKBCF and HKLR reclamation works.

3.2.4. On the other hand, dolphin occurrence in the western portion of North Lantau region was similar between the two periods (Figure 1).

### 3.3. *Encounter rate*

3.3.1. During the present three-month study period, the encounter rates of Chinese White Dolphins deduced from the survey effort and on-effort sighting data from the primary transect lines under favourable conditions (Beaufort 3 or below) from each of the survey areas are shown in Table 2. The average encounter rates deduced from the six sets of surveys were also compared with the ones deduced from the baseline monitoring period (September – November

2011) (Table 3).

Table 2. Dolphin encounter rates (sightings per 100 km of survey effort) during June–August 2013

Survey Area	Dolphin Monitoring	Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)	Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)
		Primary Lines Only	Primary Lines Only
Northeast Lantau	Set 1 (7 & 13 Jun 2013)	2.60	20.83
	Set 2 (18 & 27 Jun 2013)	0.00	0.00
	Set 3 (4 & 11 Jul 2013)	2.65	2.65
	Set 4 (15 & 16 Jul 2013)	0.00	0.00
	Set 5 (1 & 7 Aug 2013)	0.00	0.00
	Set 6 (12 & 22 Aug 2013)	0.00	0.00
Northwest Lantau	Set 1 (7 & 13 Jun 2013)	5.87	29.33
	Set 2 (18 & 27 Jun 2013)	5.67	17.01
	Set 3 (4 & 11 Jul 2013)	11.58	57.92
	Set 4 (15 & 16 Jul 2013)	4.55	12.12
	Set 5 (1 & 7 Aug 2013)	1.62	8.08
	Set 6 (12 & 22 Aug 2013)	10.10	37.52

Table 3. Comparison of average dolphin encounter rates from impact monitoring period (June – August 2013) and baseline monitoring period (September–November 2011) (Note: encounter rates deduced from the baseline monitoring period have been recalculated based only on survey effort and on-effort sighting data made along the primary transect lines under favourable conditions)

	Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)		Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)	
	June - August 2013	September - November 2011	June - August 2013	September - November 2011
<b>Northeast Lantau</b>	0.88 ± 1.36	6.00 ± 5.05	3.91 ± 8.36	22.19 ± 26.81
<b>Northwest Lantau</b>	6.56 ± 3.68	9.85 ± 5.85	27.00 ± 18.71	44.66 ± 29.85

3.3.2. In NEL, the average dolphin encounter rates (both STG and ANI) in the present three-month study period were much lower (reductions of 85% and 82% respectively) than the ones recorded in the 3-month baseline period (Table 3). In fact, dolphin occurrence in NEL in the present and previous quarters have been exceptionally low, and therefore the historical data in the past few years were also examined to elucidate the cause of such dramatic decline in dolphin encounter rates in this area.

- 3.3.3. Using only the survey effort and on-effort sighting data collected on primary lines, the encounter rates deduced from the advanced HZMB monitoring data in summer 2011 (June-August) were 8.6 (STG) and 29.0 (ANI) respectively. By pooling the survey effort and on-effort dolphin sightings from both HZMB and AFCD monitoring data for the same period, the encounter rates in summer 2011 were 5.8 (STG) and 17.5 (ANI). On the other hand, the encounter rates deduced from AFCD monitoring data in summer 2012 (June-August) were 2.4 (STG) and 6.5 (ANI), which were less than 50% of the encounter rates in the summer 2011. As a comparison, the encounter rates deduced in summer 2013 further dropped to the 0.9 (STG) and 3.9 (ANI).
- 3.3.4. For the summer months (i.e. June through August), it appeared the decline in dolphin encounter rates in NEL began in 2012, and further worsened in 2013. The sharp decline in dolphin usage in NEL is of serious concern, and should be continuously monitored in the upcoming quarter to determine whether similar decline also occurred in autumn months.
- 3.3.5. In NWL, the average dolphin encounter rates (STG and ANI) during the present impact phase monitoring period were also noticeably lower (reductions of 33% and 39% respectively) than the ones recorded in the 3-month baseline period, indicating a reduced dolphin encounter rates of this survey area. The percentages of reduction in dolphin encounter rates were also similar to the previous quarter (i.e. spring 2013).
- 3.3.6. In examining the historical data in summer months of 2011 and 2012, dolphin encounter rates in NWL deduced from the advanced HZMB monitoring data in 2011 were 11.9 (STG) and 44.5 (ANI) respectively. By pooling the survey effort and on-effort dolphin sightings from both HZMB and AFCD monitoring data for the same period, the encounter rates in summer 2011 were 10.2 (STG) and 37.6 (ANI). On the other hand, the encounter rates in NWL deduced from AFCD monitoring data in summer 2012 were 8.5 (STG) and 26.1 (ANI). In comparison, the encounter rates deduced in summer 2013 was 6.6 (STG) and 27.0 (ANI).
- 3.3.7. Although the decline in dolphin encounter rates in NWL for the summer months of 2011-13 was not as dramatic as the one in NEL, dolphins appeared to diminish their usage of this area in recent years as well. Such decline should be continuously monitored in the upcoming quarters.
- 3.3.8. A two-way ANOVA with repeated measures and unequal sample size was conducted to examine whether there were any significant differences in the average encounter rates between the baseline and impact monitoring periods. The two variables that were examined included the two periods (baseline and



impact phases) and two locations (NEL and NWL).

- 3.3.9. For the comparison between the baseline period and the present quarter (fourth quarter of the impact phase), the p-value for the differences in average dolphin encounter rates of STG and ANI were 0.0611 and 0.1508 respectively. If the alpha value is set at 0.1, significant difference was detected between the baseline and present quarters in the encounter rate of STG, but not the encounter rate of ANI.
  - 3.3.10. For the comparison between the baseline period and the cumulative quarters in impact phase (i.e. first four quarters of the impact phase), the p-value for the differences in average dolphin encounter rates of STG and ANI were 0.0559 and 0.0244 respectively. If the alpha value is set at 0.1, significant differences were detected in both the average dolphin encounter rates of STG and ANI (i.e. between the two periods and the locations).
  - 3.3.11. To facilitate the comparison with the AFCD long-term monitoring results, the encounter rates were also calculated for the present quarter using both primary and secondary survey effort. The encounter rates of sightings (STG) and dolphins (ANI) in NWL were 7.14 sightings and 25.82 dolphins per 100 km of survey effort respectively, while the encounter rates of sightings (STG) and dolphins (ANI) in NEL were 1.47 sightings and 3.82 dolphins per 100 km of survey effort respectively.
- 3.4. *Group size*
- 3.4.1. Group size of Chinese White Dolphins ranged from 1-11 individuals per group in North Lantau region during June to August 2013. The average dolphin group sizes from these three months were compared with the one deduced from the baseline period in September to November 2011, as shown in Table 4.



Table 4. Comparison of average dolphin group sizes from impact monitoring period (June-August 2013) and baseline monitoring period (September-November 2011)

	Average Dolphin Group Size	
	June to August 2013	September-November 2011
<b>Overall</b>	3.42 ± 2.43 (n = 45)	3.72 ± 3.13 (n = 66)
<b>Northeast Lantau</b>	2.60 ± 3.05 (n = 5)	3.18 ± 2.16 (n = 17)
<b>Northwest Lantau</b>	3.53 ± 2.36 (n = 40)	3.92 ± 3.40 (n = 49)

3.4.2. The average dolphin group sizes in the entire North Lantau region as well as in NEL and NWL during June to August 2013 were slightly lower than the ones recorded in the 3-month baseline period (Table 4).

3.4.3. Distribution of dolphins with larger group sizes during June to August 2013 is shown in Figure 2, and was compared with the one in baseline period (Figure 2). Overall, most of the larger dolphin groups were concentrated within the Sha Chau and Lung Kwu Chau Marine Park area during the present quarter, which is similar to the distribution in baseline period (Figure 2). Only one of the five groups in sighted in NEL was classified as a larger dolphin group, which was located to the eastern end of the survey area near Yam O. In the vicinity of the HKLR03 reclamation sites, no larger dolphin group was found there.

3.5. *Habitat use*

3.5.1. From June-August 2013, the most heavily utilized habitats by Chinese White Dolphins mainly concentrated within and adjacent to the Sha Chau and Lung Kwu Chau Marine Park, as well as the Urmston Road section between Pillar Point and Lung Kwu Chau (Figures 3a and 3b). Only few grids in NEL recorded the presence of dolphins, and except Grid W14, most of these grids only recorded low density. None of the grids around HKLR03 work site recorded the presence of dolphins.

3.5.2. It should be noted that the amount of survey effort collected in each grid during the three-month period was fairly low (6-12 units of survey effort for most grids), and therefore the habitat use pattern derived from the three-month dataset should be treated with caution. A more complete picture of dolphin habitat use pattern will be presented when more survey effort for each grid will be collected throughout the impact phase monitoring programme.

3.5.3. When compared with the habitat use patterns during the baseline period,

dolphin usage in NEL was noticeably much lower in the present impact monitoring period (Figure 4). In fact, during this quarter of summer 2013, dolphins were mostly absent from the important dolphin habitats around the Brothers and near Shum Shui Kok that were identified during the baseline period and in previous studies (e.g. Hung 2008). From the same comparison between the two quarterly periods, it appears that dolphins have avoided the construction sites of HKLR03 in the present monitoring period, similar to what was recorded during the baseline monitoring (Figure 4).

3.5.4. The absence of dolphins in the identified important habitats around the Brothers Islands and Shum Shui Kok in the present and previous quarter is of serious concern. The future Brothers Islands Marine Park will be established in this area upon the completion of HKBCF reclamation works, as an important compensation measure for the habitat loss in relation to HZMB projects. It should be further examined whether the very low usage of dolphins would continue in this important dolphin habitat, and the potential measures should be implemented soon that may enhance the dolphin usage of this area.

### 3.6. *Mother-calf pairs*

3.6.1. During the three-month study period, a total of three unspotted calves (UC) and ten unspotted juveniles (UJ) were sighted in NEL and NWL survey areas. These young calves comprised 8.4% of all animals sighted, which was slightly higher than the percentage recorded during the baseline monitoring period (6.8%).

3.6.2. These young calves mainly occurred around Lung Kwu Chau and Black Point, which was somewhat similar to the distribution of young calves during the baseline period (Figure 5). Notably, young calves appeared to avoid the HKLR03 reclamation sites during the present quarter, similar to what was recorded during the baseline monitoring

### 3.7. *Activities and associations with fishing boats*

3.7.1. A total of four dolphin sightings were associated with feeding and socializing activities during the three-month study period. The percentages of feeding and socializing activities comprised of 6.7% and 2.2% of the total number of dolphin sightings respectively, which were much lower than the percentages recorded during the baseline period (feeding activity: 11.6%; socializing activity: 5.4%). Only one group of dolphins was engaged in traveling activity.

3.7.2. Distribution of dolphins engaged in different activities during the three-month study period is shown in Figure 6. The feeding activities occurred near Lung Kwu Chau and Shum Wat (along the HKLR alignment), while the lone sighting with socializing activity was located near Sha Chau. On the other hand, one

group of six dolphins was engaged in traveling activity near the Castle Peak Power Station.

3.7.3. During the three-month period, none of the 45 dolphin groups was found to be associated with an operating fishing vessel. The extremely low level of fishing boat association in the present and previous quarters was likely related to the recent trawl ban being implemented in 2013 in Hong Kong waters.

3.8. *Summary of photo-identification works*

3.8.1. From June to August 2013, over 2,500 digital photographs of Chinese White Dolphins were taken during the impact phase monitoring surveys for the photo-identification work.

3.8.2. In total, 44 individuals sighted 71 times altogether were identified (see summary table in Annex III and photographs of identified individuals in Annex IV). Only nine of these 71 re-sightings were made in NEL, which involved six individuals. These were the same individuals that were repeatedly sighted before in NEL during the HKLR03 impact phase monitoring surveys.

3.8.3. Most identified individuals were sighted only once or twice during the three-month period, with the exception of five individuals being sighted thrice (CH98, NL24, NL33, NL202, NL286) and one individual being sighted four times (NL284).

3.8.4. Five well-recognized females, including NL33, NL104, NL123, NL202 and WL98, were accompanied with their calves during their re-sightings. Except WL98, the other four mothers were frequently seen with their calves during HKLR03 impact phase monitoring surveys.

3.9. *Individual range use*

3.9.1. Ranging patterns of the 44 individuals identified during the three-month study period were determined by fixed kernel method, and are shown in Annex V.

3.9.2. Only six individuals were sighted in the NEL survey area while other individuals were mostly found in the NWL survey area during this quarterly period. In contrast to the extensive movements between NEL and NWL survey areas in the first two impact monitoring quarters (October 2012 - February 2013) and the baseline period (September-November 2011), many of these identified individuals have avoided NEL during June-August 2013, even

though they were frequently sighted there in the past decade before and their core areas were centered around the Brothers Islands (e.g. NL98, NL120, NL261) (Hung 2013) (Appendix V).

- 3.9.3. To examine whether any range use of individual dolphins has shifted away from NEL since the commencement of the HKLR03 construction works, the re-sighting locations of 21 individuals that centered their core area use around the Brothers Islands were examined from the past four quarters, and were compared to the locations of their previous re-sightings since 2002 extracted from the HKCRP long-term photo-identification catalogue (see Hung 2013).
- 3.9.4. Among these 21 individuals, seven individuals were re-sighted repeatedly in NWL, but were not sighted in NEL at all in the past 12 months, even though they have centered their core area use around the Brothers Islands in the past (see examples in Figure 7). Moreover, seven other individuals were sighted once or twice in NEL in the past 12 months (see examples in Figure 8), but the majority of them were sighted there in autumn 2012 and winter 2012/13 and were absent in spring and summer 2013. Notably, a few of these individuals also expanded their range use to West Lantau (e.g. CH34, NL104, NL188).
- 3.9.5. On the contrary, five individuals were sighted repeatedly (7-10 times) in NEL throughout the four quarters, and two of them (NL33 and NL123) occurred there with their calves (see examples in Figure 9). However, these individuals also ranged frequently to NWL and WL during the same period, even though they rarely occurred in West Lantau in the past decade. For example, EL01 was sighted near Fan Lau, while NL120 was sighted near Peaked Hill in recent months. Although they have not avoided the Brothers Islands for their range use, there is also indication that they have recently expanded their range use.

It is apparent that the majority of individual dolphins that utilized NEL waters in the past decade has either diminished or avoided this area for their recent range use. This coincided well with the dramatic decline in dolphin occurrence in NEL as discussed in Section 3.3. Although these individuals appeared to utilize NWL and even WL more frequently during the same period, the dolphin encounter rates in NWL also continued to fall in recent months, indicating that some dolphins may have diminished their overall usage in the North Lantau region, possibly linked to the HZMB-related construction works. This is of serious concern, as the Brothers Islands in NEL was once identified an important habitat for many year-round residents that focused their core area

use there (Hung 2008). Therefore, the ranging pattern of individual dolphins should be continuously monitored around Lantau waters, and measures should be taken to ensure that dolphins can continue to move between NWL and NEL without any hindrance as a result of the HZMB-related construction works.

#### **4. Conclusion**

- 4.1. During this quarter of dolphin monitoring, no adverse impact from the activities of this construction project on Chinese White Dolphins was noticeable from general observations.
- 4.2. Although the dolphins rarely occurred in the area of HKLR03 construction in the past decade, during the baseline monitoring period and throughout the four quarters of impact monitoring period, it is apparent that dolphin usage has been significantly reduced in NEL, and many individuals have shifted away from the important habitat around the Brothers Islands.
- 4.3. Therefore, it is critical to monitor the dolphin usage in North Lantau region in the upcoming months, to determine whether the dolphins have been affected by the various construction activities in relation to the HZMB works, and whether suitable mitigation measure can be applied to revert the situation.

#### **5. References**

Buckland, S. T., Anderson, D. R., Burnham, K. P., Laake, J. L., Borchers, D. L., and Thomas, L. 2001. Introduction to distance sampling: estimating abundance of biological populations. Oxford University Press, London.

Hung, S. K. 2008. Habitat use of Indo-Pacific humpback dolphins (*Sousa chinensis*) in Hong Kong. Ph.D. dissertation. University of Hong Kong, Hong Kong, 266 p.

Hung, S. K. 2012. Monitoring of marine mammals in Hong Kong waters – data collection: final report (2011-12). An unpublished report submitted to the Agriculture, Fisheries and Conservation Department of Hong Kong SAR Government, 120 pp.

Hung, S. K. 2013. Monitoring of marine mammals in Hong Kong waters – data collection: final report (2012-13). An unpublished report submitted to the Agriculture,

Fisheries and Conservation Department of Hong Kong SAR Government, 168 pp.

Jefferson, T. A. 2000. Population biology of the Indo-Pacific hump-backed dolphin in Hong Kong waters. *Wildlife Monographs* 144:1-65.

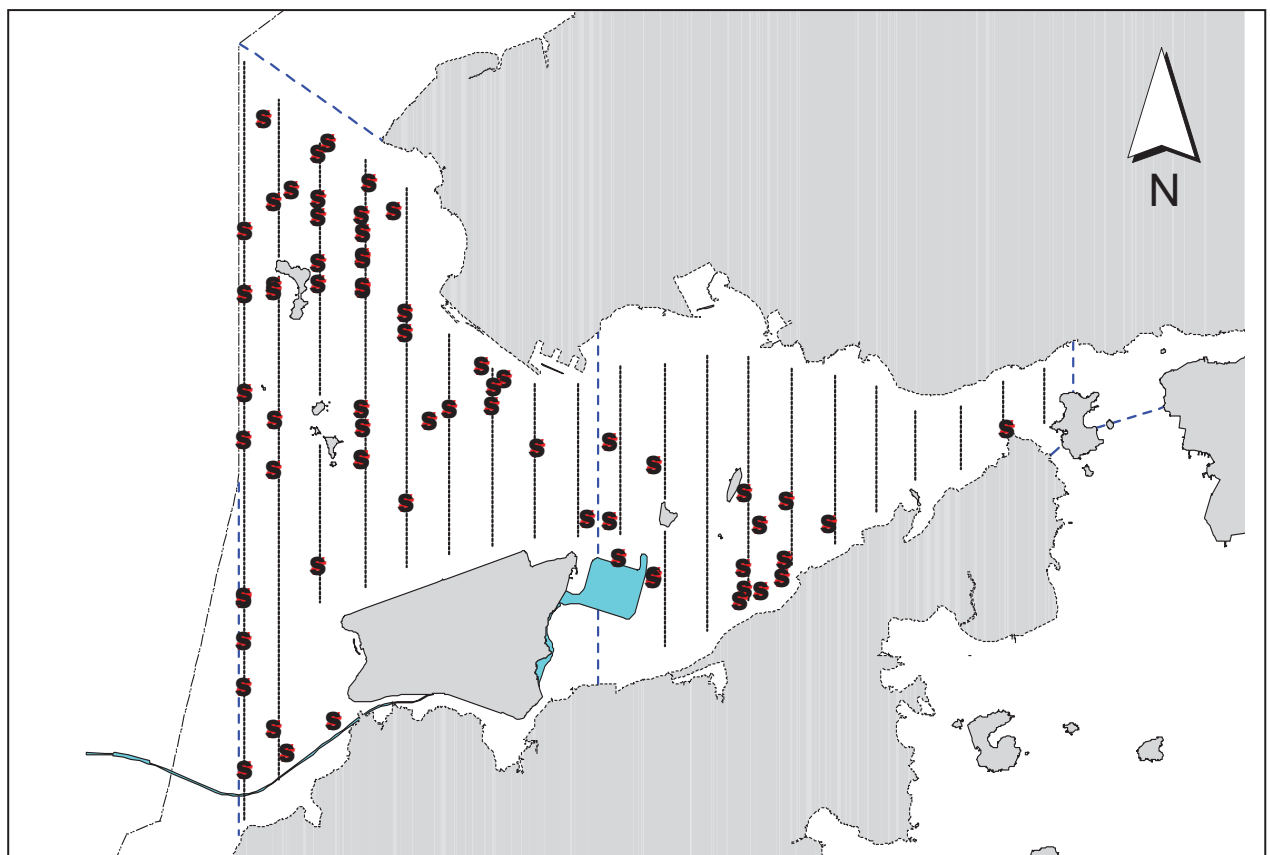
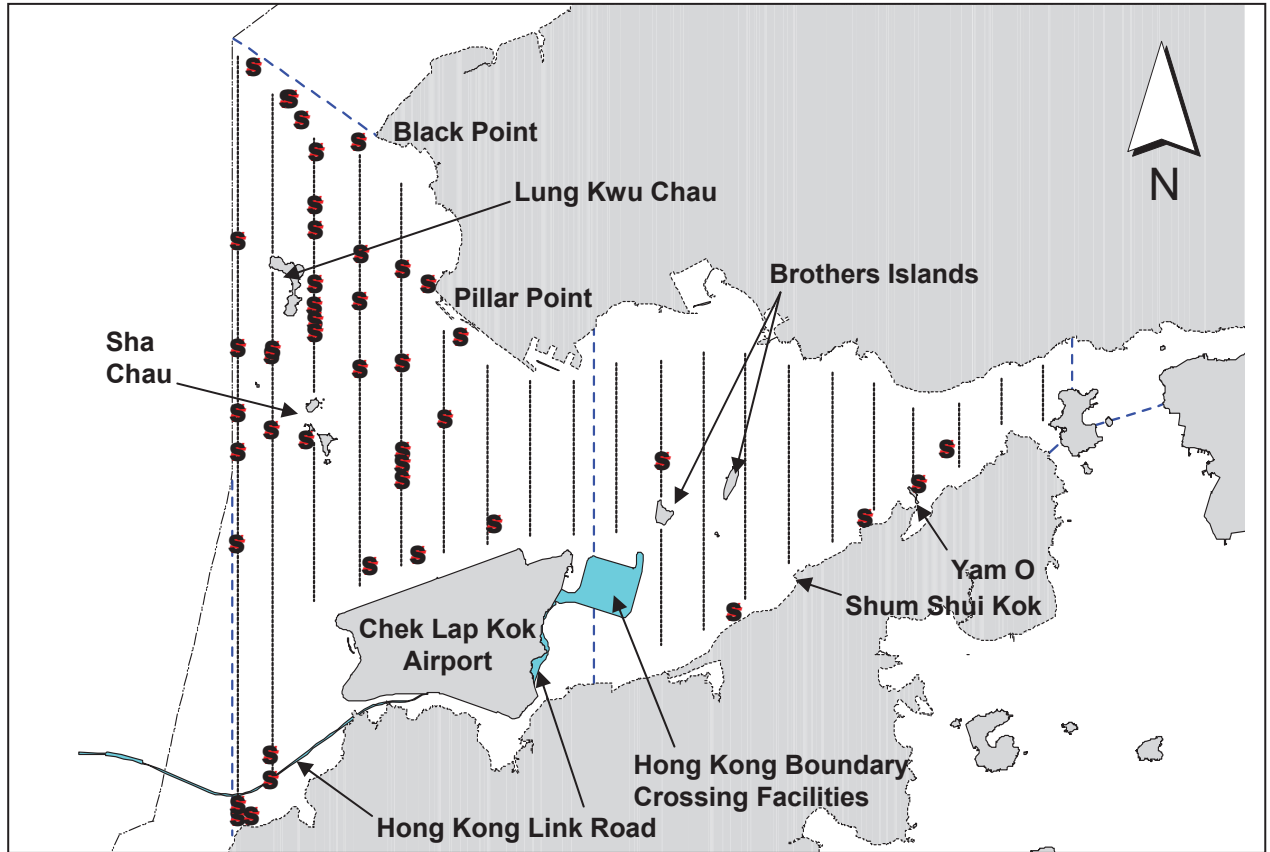


Figure 1. Distribution of Chinese white dolphin sighting in Northwest and Northeast Lantau during HKLR03 impact phase (top: June-August 2013) and baseline monitoring surveys (below: September-November 2011)

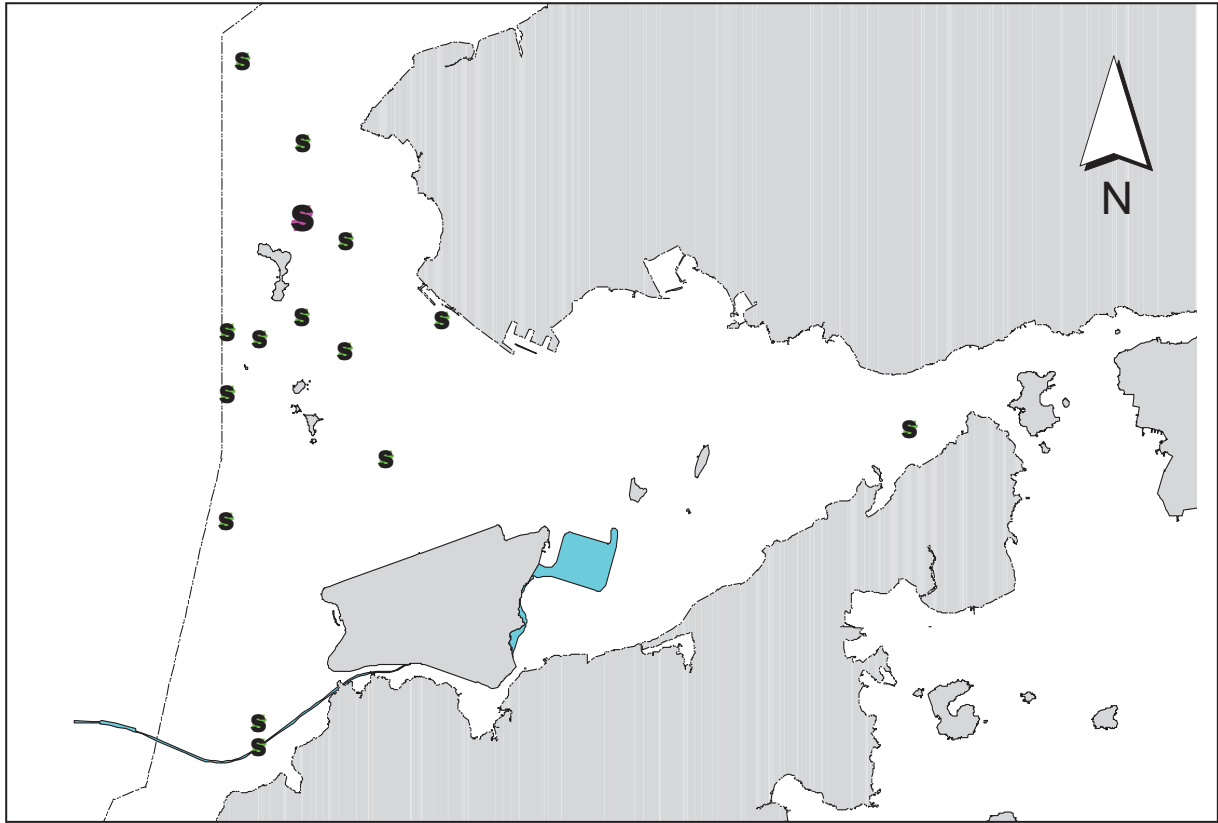


Figure 2. Distribution of Chinese white dolphins with larger group sizes during HKLR03 impact phase (top: June-August 2013) and baseline monitoring surveys (below: September-November 2011) (green dots: group sizes of 5 or more; purple dots: group sizes of 10 or more)



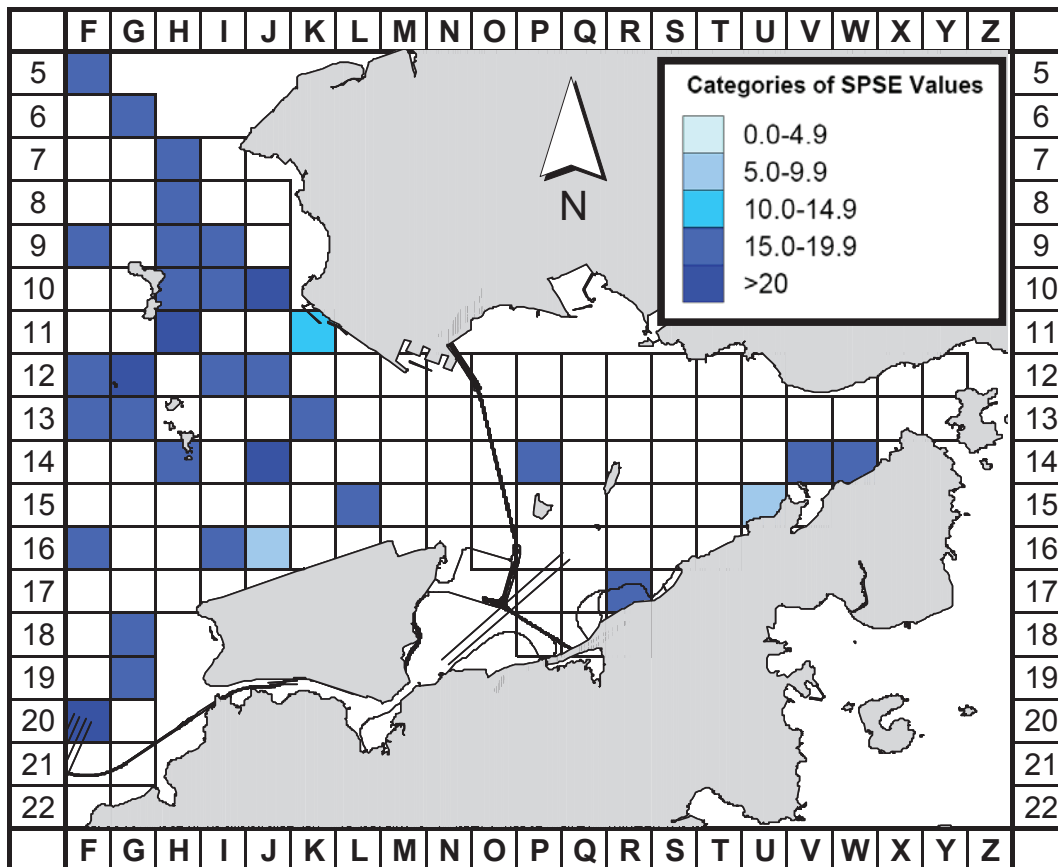


Figure 3a. Sighting density of Chinese white dolphins with corrected survey effort per km<sup>2</sup> in Northeast and Northwest Lantau survey areas, using data collected during HKLR03 impact monitoring period (Jun-Aug 13) (SPSE = no. of on-effort sightings per 100 units of survey effort)

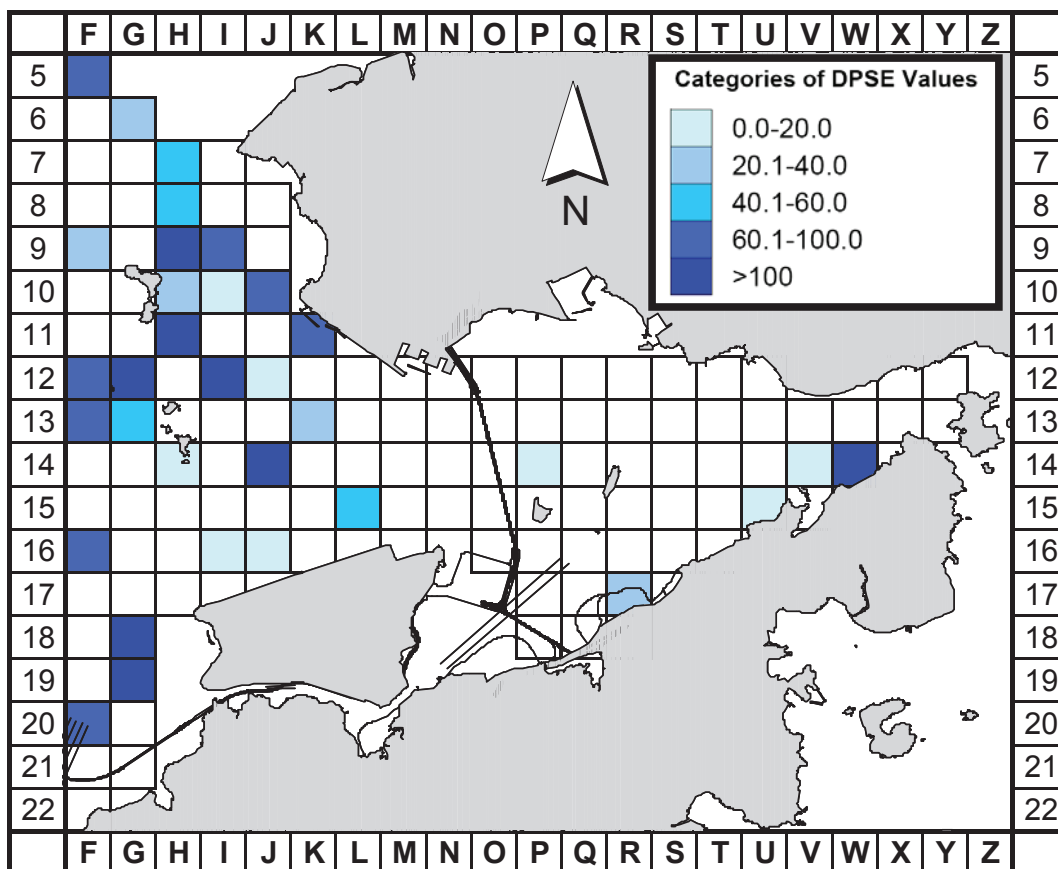


Figure 3b. Density of Chinese white dolphins with corrected survey effort per km<sup>2</sup> in Northeast and Northwest Lantau survey areas, using data collected during HKLR03 impact monitoring period (Jun-Aug 13) (DPSE = no. of dolphins per 100 units of survey effort)

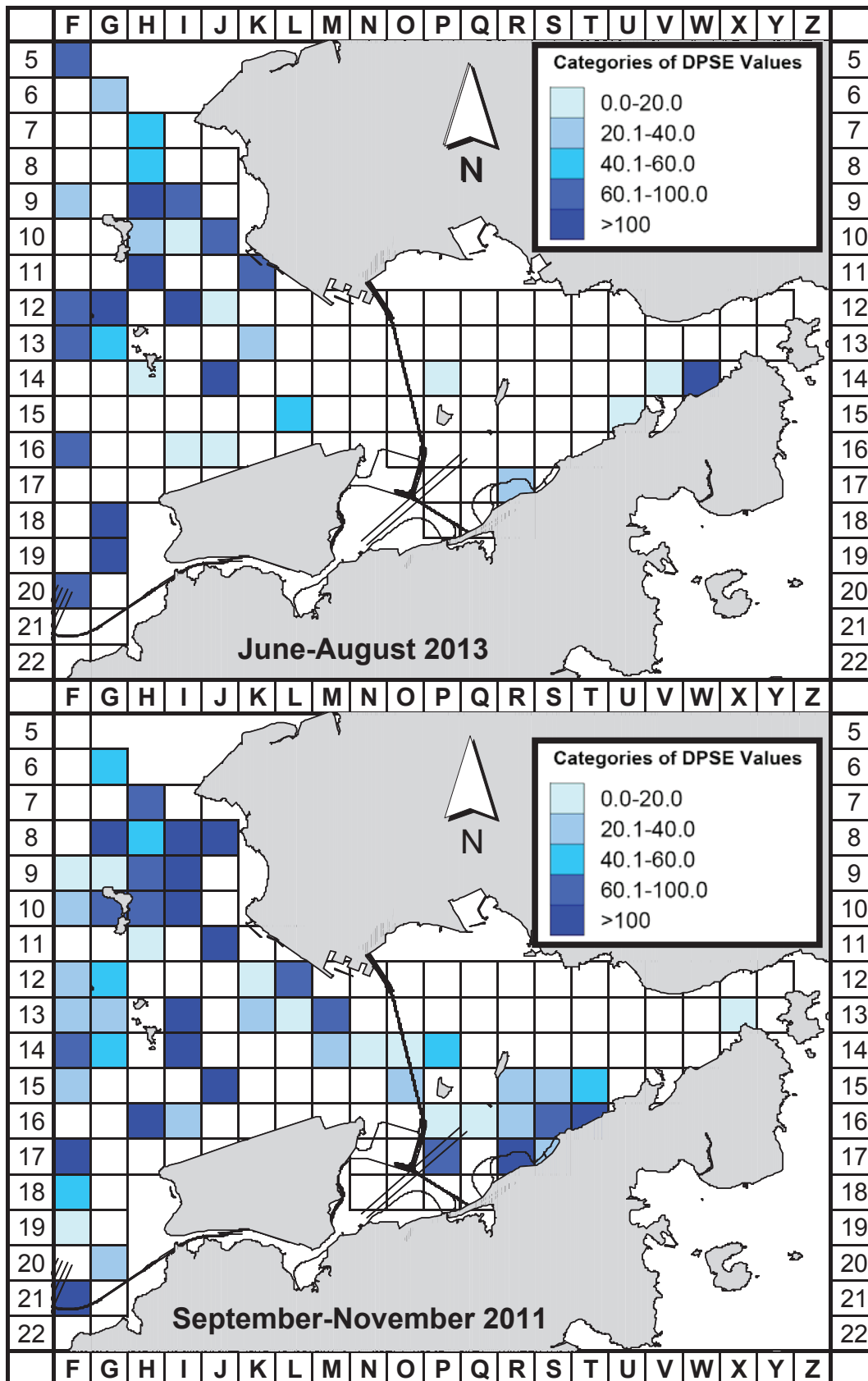


Figure 4. Comparison of density of Chinese white dolphins with corrected survey effort per km<sup>2</sup> in Northwest and Northeast Lantau survey area between the impact monitoring period (June-August 2013) and baseline monitoring period (September-November 2011) (DPSE = no. of dolphins per 100 units of survey effort)



Figure 5. Distribution of young calves of Chinese white dolphins during HKLR03 impact phase (top: June-August 2013) and baseline monitoring surveys (below: September-November 2011)



Figure 6. Distribution of Chinese white dolphins engaged in feeding (purple dots), socializing (pink dots) and traveling (green dots) activities during HKLR03 impact phase (top: June-August 2013) and baseline monitoring surveys (below: September-November 2011)

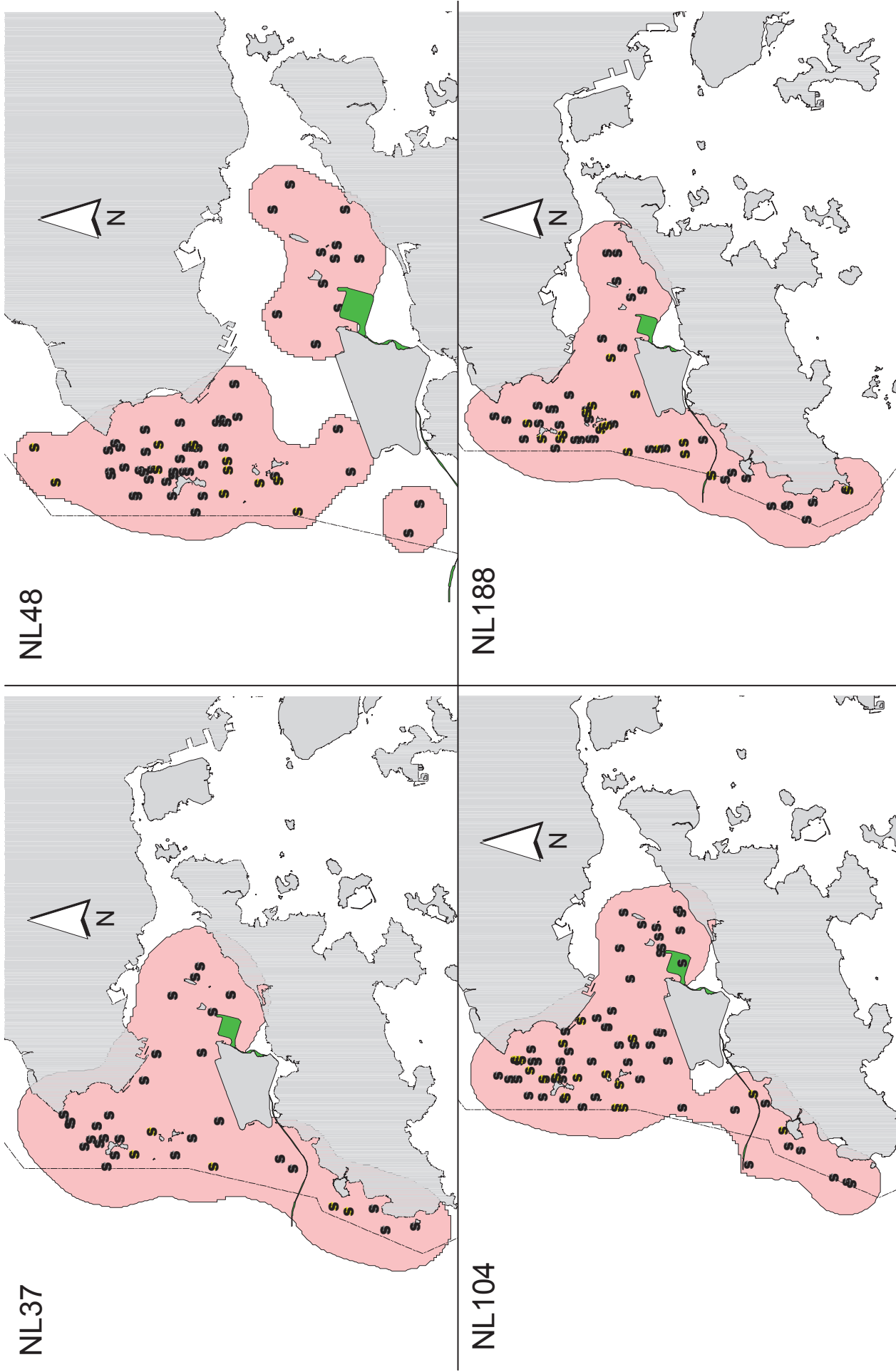


Figure 7. Ranging patterns (95% kernel ranges) of individual dolphins that were absent from NEL during HKLR03 impact phase monitoring period (note: yellow dots indicates sightings made in October 2012 – August 2013; gray dots indicates sightings made before the HKLR03 impact phase monitoring period since 2002)

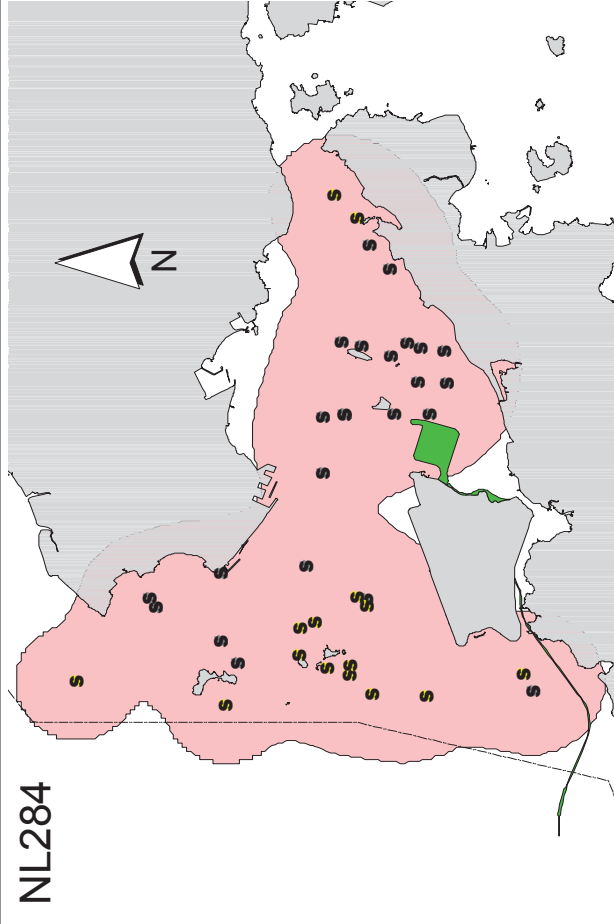
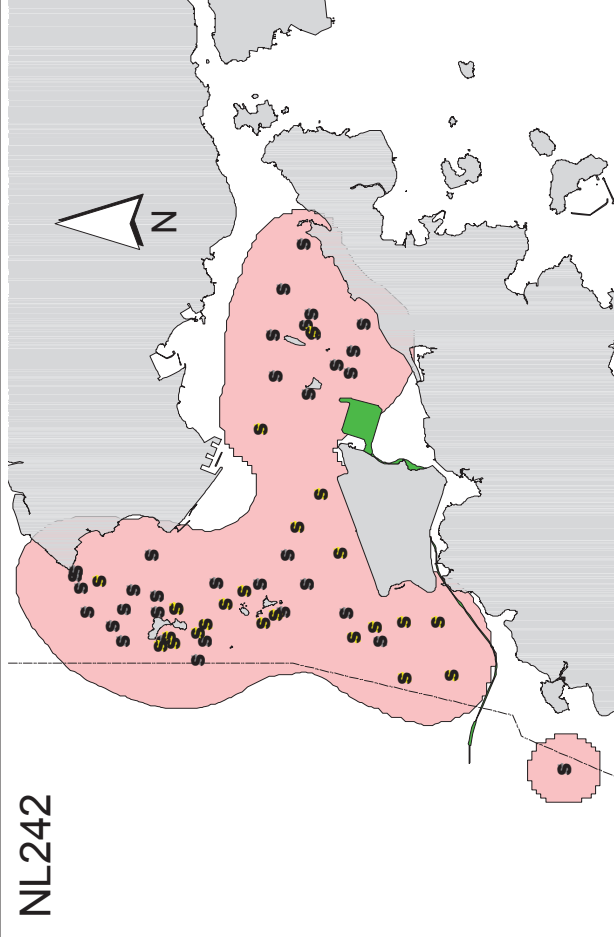
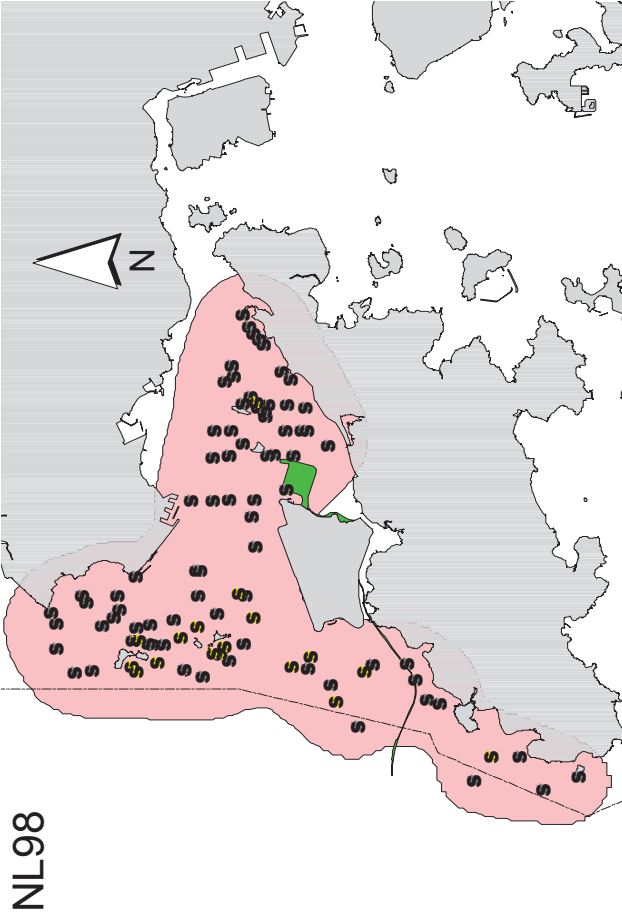
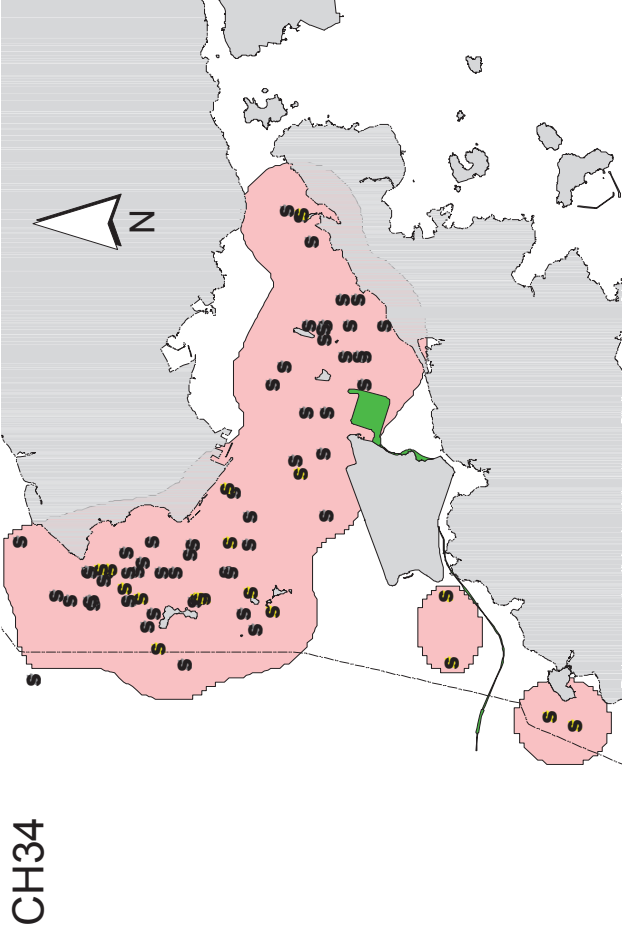
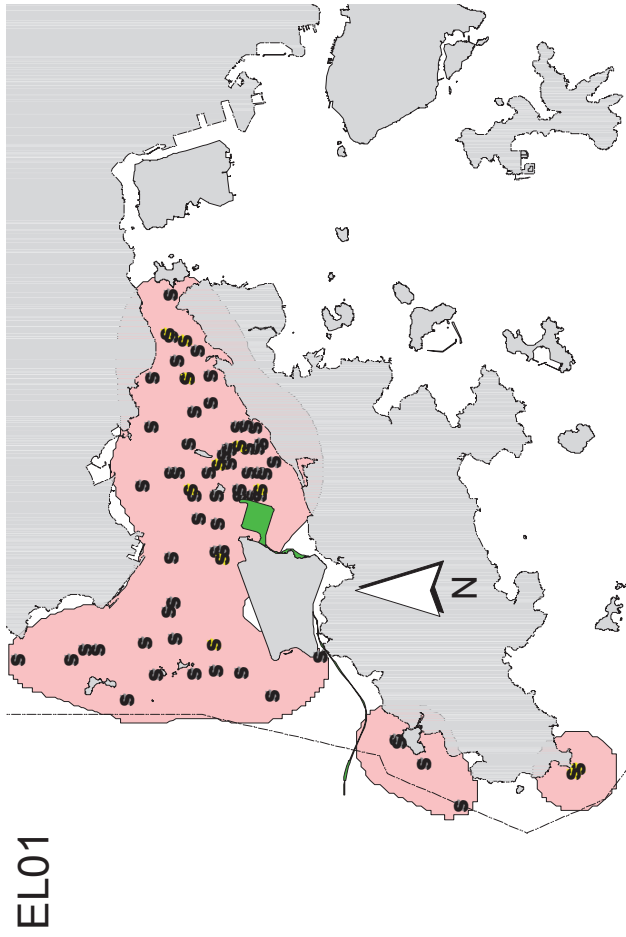
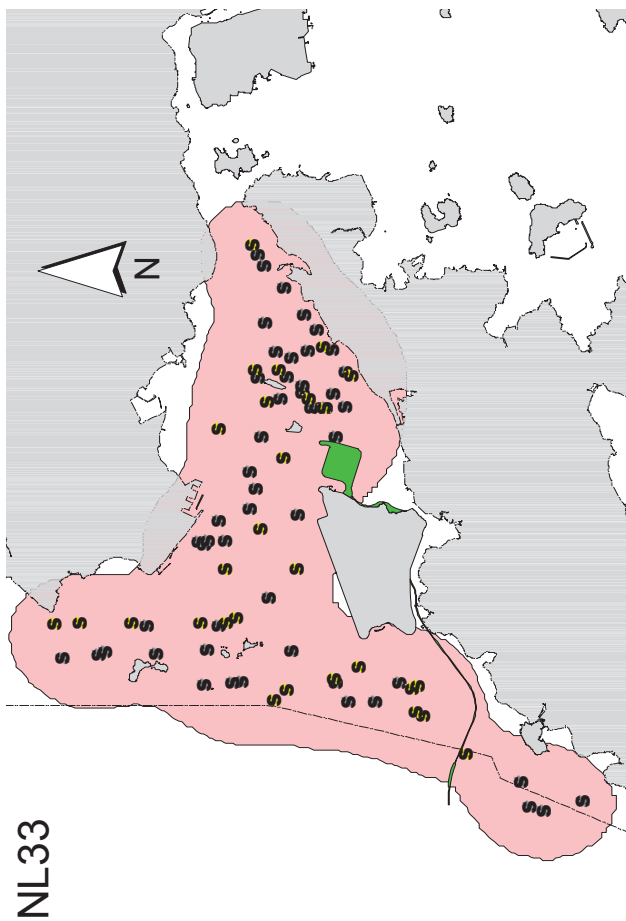


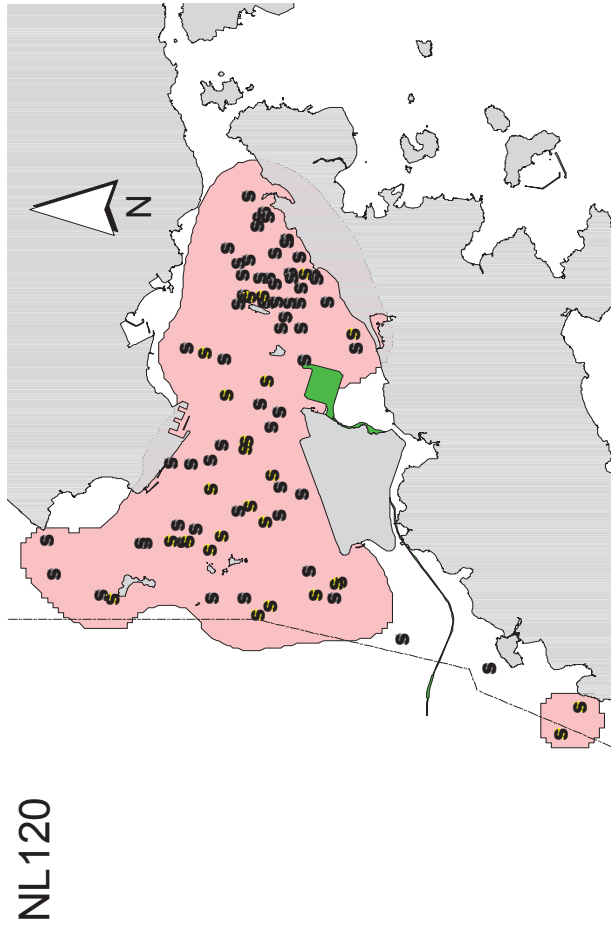
Figure 8. Ranging patterns (95% kernel ranges) of individual dolphins that were sighted only once or twice in NEL during HKLR03 impact phase monitoring period (note: yellow dots indicates sightings made in October 2012 – August 2013; gray indicates sightings made before the HKLR03 impact phase monitoring period since 2002)



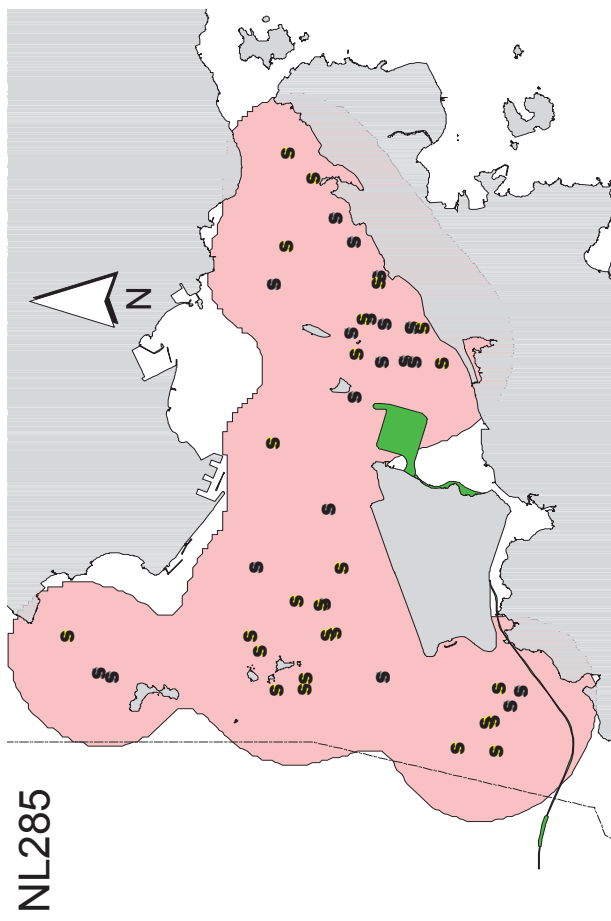
EL01



NL33



NL120



NL285

Figure 9. Ranging patterns (95% kernel ranges) of individual dolphins that were sighted repeatedly in NEL during HKLR03 impact phase monitoring period (note: yellow dots indicates sightings made in October 2012 – August 2013; gray dots indicates sightings made before the HKLR03 impact phase monitoring period since 2002)



## Annex I. HKLR03 Survey Effort Database (June-August 2013)

(Abbreviations: BEAU = Beaufort Sea State; P = Primary Line Effort; S = Secondary Line Effort)

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
7-Jun-13	NW LANTAU	2	4.70	SUMMER	STANDARD31516	HKLR	P
7-Jun-13	NW LANTAU	3	31.20	SUMMER	STANDARD31516	HKLR	P
7-Jun-13	NW LANTAU	4	3.30	SUMMER	STANDARD31516	HKLR	P
7-Jun-13	NW LANTAU	3	12.20	SUMMER	STANDARD31516	HKLR	S
7-Jun-13	NW LANTAU	4	0.50	SUMMER	STANDARD31516	HKLR	S
7-Jun-13	NE LANTAU	2	11.90	SUMMER	STANDARD31516	HKLR	P
7-Jun-13	NE LANTAU	3	2.80	SUMMER	STANDARD31516	HKLR	P
7-Jun-13	NE LANTAU	2	6.40	SUMMER	STANDARD31516	HKLR	S
7-Jun-13	NE LANTAU	3	1.20	SUMMER	STANDARD31516	HKLR	S
13-Jun-13	NW LANTAU	1	0.70	SUMMER	STANDARD31516	HKLR	P
13-Jun-13	NW LANTAU	2	20.68	SUMMER	STANDARD31516	HKLR	P
13-Jun-13	NW LANTAU	3	10.89	SUMMER	STANDARD31516	HKLR	P
13-Jun-13	NW LANTAU	1	2.20	SUMMER	STANDARD31516	HKLR	S
13-Jun-13	NW LANTAU	2	4.64	SUMMER	STANDARD31516	HKLR	S
13-Jun-13	NE LANTAU	1	3.00	SUMMER	STANDARD31516	HKLR	P
13-Jun-13	NE LANTAU	2	20.69	SUMMER	STANDARD31516	HKLR	P
13-Jun-13	NE LANTAU	1	5.30	SUMMER	STANDARD31516	HKLR	S
13-Jun-13	NE LANTAU	2	5.31	SUMMER	STANDARD31516	HKLR	S
18-Jun-13	NW LANTAU	1	11.70	SUMMER	STANDARD31516	HKLR	P
18-Jun-13	NW LANTAU	2	29.00	SUMMER	STANDARD31516	HKLR	P
18-Jun-13	NW LANTAU	1	2.60	SUMMER	STANDARD31516	HKLR	S
18-Jun-13	NW LANTAU	2	8.70	SUMMER	STANDARD31516	HKLR	S
18-Jun-13	NE LANTAU	2	16.20	SUMMER	STANDARD31516	HKLR	P
18-Jun-13	NE LANTAU	3	0.40	SUMMER	STANDARD31516	HKLR	P
18-Jun-13	NE LANTAU	2	7.70	SUMMER	STANDARD31516	HKLR	S
27-Jun-13	NE LANTAU	2	5.90	SUMMER	STANDARD31516	HKLR	P
27-Jun-13	NE LANTAU	3	14.94	SUMMER	STANDARD31516	HKLR	P
27-Jun-13	NE LANTAU	4	0.50	SUMMER	STANDARD31516	HKLR	P
27-Jun-13	NE LANTAU	2	7.51	SUMMER	STANDARD31516	HKLR	S
27-Jun-13	NE LANTAU	3	1.50	SUMMER	STANDARD31516	HKLR	S
27-Jun-13	NE LANTAU	4	2.40	SUMMER	STANDARD31516	HKLR	S
27-Jun-13	NW LANTAU	3	12.19	SUMMER	STANDARD31516	HKLR	P
27-Jun-13	NW LANTAU	4	19.26	SUMMER	STANDARD31516	HKLR	P
27-Jun-13	NW LANTAU	3	4.23	SUMMER	STANDARD31516	HKLR	S
27-Jun-13	NW LANTAU	4	1.44	SUMMER	STANDARD31516	HKLR	S
27-Jun-13	NW LANTAU	5	1.92	SUMMER	STANDARD31516	HKLR	S
4-Jul-13	NE LANTAU	1	7.30	SUMMER	STANDARD31516	HKLR	P
4-Jul-13	NE LANTAU	2	10.20	SUMMER	STANDARD31516	HKLR	P
4-Jul-13	NE LANTAU	1	3.80	SUMMER	STANDARD31516	HKLR	S
4-Jul-13	NE LANTAU	2	6.00	SUMMER	STANDARD31516	HKLR	S
4-Jul-13	NW LANTAU	2	8.90	SUMMER	STANDARD31516	HKLR	P
4-Jul-13	NW LANTAU	3	13.20	SUMMER	STANDARD31516	HKLR	P
4-Jul-13	NW LANTAU	4	17.90	SUMMER	STANDARD31516	HKLR	P
4-Jul-13	NW LANTAU	2	2.60	SUMMER	STANDARD31516	HKLR	S
4-Jul-13	NW LANTAU	3	7.40	SUMMER	STANDARD31516	HKLR	S
4-Jul-13	NW LANTAU	4	3.30	SUMMER	STANDARD31516	HKLR	S
11-Jul-13	NW LANTAU	1	17.30	SUMMER	STANDARD31516	HKLR	P
11-Jul-13	NW LANTAU	2	12.40	SUMMER	STANDARD31516	HKLR	P
11-Jul-13	NW LANTAU	1	0.20	SUMMER	STANDARD31516	HKLR	S
11-Jul-13	NW LANTAU	2	6.20	SUMMER	STANDARD31516	HKLR	S
11-Jul-13	NE LANTAU	2	19.00	SUMMER	STANDARD31516	HKLR	P



## Annex I. (cont'd)

(Abbreviations: BEAU = Beaufort Sea State; P = Primary Line Effort; S = Secondary Line Effort)

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
11-Jul-13	NE LANTAU	3	1.20	SUMMER	STANDARD31516	HKLR	P
11-Jul-13	NE LANTAU	1	0.60	SUMMER	STANDARD31516	HKLR	S
11-Jul-13	NE LANTAU	2	7.80	SUMMER	STANDARD31516	HKLR	S
11-Jul-13	NE LANTAU	3	2.10	SUMMER	STANDARD31516	HKLR	S
15-Jul-13	NE LANTAU	1	4.40	SUMMER	STANDARD31516	HKLR	P
15-Jul-13	NE LANTAU	2	13.60	SUMMER	STANDARD31516	HKLR	P
15-Jul-13	NE LANTAU	1	4.00	SUMMER	STANDARD31516	HKLR	S
15-Jul-13	NE LANTAU	2	4.80	SUMMER	STANDARD31516	HKLR	S
15-Jul-13	NW LANTAU	2	26.30	SUMMER	STANDARD31516	HKLR	P
15-Jul-13	NW LANTAU	3	8.30	SUMMER	STANDARD31516	HKLR	P
15-Jul-13	NW LANTAU	4	3.40	SUMMER	STANDARD31516	HKLR	P
15-Jul-13	NW LANTAU	2	10.20	SUMMER	STANDARD31516	HKLR	S
15-Jul-13	NW LANTAU	3	2.10	SUMMER	STANDARD31516	HKLR	S
16-Jul-13	NW LANTAU	1	16.40	SUMMER	STANDARD31516	HKLR	P
16-Jul-13	NW LANTAU	2	9.00	SUMMER	STANDARD31516	HKLR	P
16-Jul-13	NW LANTAU	3	6.00	SUMMER	STANDARD31516	HKLR	P
16-Jul-13	NW LANTAU	1	2.60	SUMMER	STANDARD31516	HKLR	S
16-Jul-13	NW LANTAU	2	5.40	SUMMER	STANDARD31516	HKLR	S
16-Jul-13	NE LANTAU	1	13.80	SUMMER	STANDARD31516	HKLR	P
16-Jul-13	NE LANTAU	2	6.70	SUMMER	STANDARD31516	HKLR	P
16-Jul-13	NE LANTAU	1	2.70	SUMMER	STANDARD31516	HKLR	S
16-Jul-13	NE LANTAU	2	7.20	SUMMER	STANDARD31516	HKLR	S
1-Aug-13	NW LANTAU	2	7.80	SUMMER	STANDARD31516	HKLR	P
1-Aug-13	NW LANTAU	3	27.60	SUMMER	STANDARD31516	HKLR	P
1-Aug-13	NW LANTAU	4	2.70	SUMMER	STANDARD31516	HKLR	P
1-Aug-13	NW LANTAU	5	2.10	SUMMER	STANDARD31516	HKLR	P
1-Aug-13	NW LANTAU	2	4.60	SUMMER	STANDARD31516	HKLR	S
1-Aug-13	NW LANTAU	3	5.00	SUMMER	STANDARD31516	HKLR	S
1-Aug-13	NW LANTAU	4	2.90	SUMMER	STANDARD31516	HKLR	S
1-Aug-13	NW LANTAU	5	0.70	SUMMER	STANDARD31516	HKLR	S
1-Aug-13	NE LANTAU	2	5.70	SUMMER	STANDARD31516	HKLR	P
1-Aug-13	NE LANTAU	3	8.90	SUMMER	STANDARD31516	HKLR	P
1-Aug-13	NE LANTAU	4	2.50	SUMMER	STANDARD31516	HKLR	P
1-Aug-13	NE LANTAU	2	4.30	SUMMER	STANDARD31516	HKLR	S
1-Aug-13	NE LANTAU	3	5.20	SUMMER	STANDARD31516	HKLR	S
1-Aug-13	NE LANTAU	5	0.30	SUMMER	STANDARD31516	HKLR	S
7-Aug-13	NE LANTAU	2	5.60	SUMMER	STANDARD31516	HKLR	P
7-Aug-13	NE LANTAU	3	16.00	SUMMER	STANDARD31516	HKLR	P
7-Aug-13	NE LANTAU	2	6.10	SUMMER	STANDARD31516	HKLR	S
7-Aug-13	NE LANTAU	3	4.70	SUMMER	STANDARD31516	HKLR	S
7-Aug-13	NW LANTAU	2	2.90	SUMMER	STANDARD31516	HKLR	P
7-Aug-13	NW LANTAU	3	23.60	SUMMER	STANDARD31516	HKLR	P
7-Aug-13	NW LANTAU	4	3.20	SUMMER	STANDARD31516	HKLR	P
7-Aug-13	NW LANTAU	5	0.90	SUMMER	STANDARD31516	HKLR	P
7-Aug-13	NW LANTAU	2	2.20	SUMMER	STANDARD31516	HKLR	S
7-Aug-13	NW LANTAU	3	5.20	SUMMER	STANDARD31516	HKLR	S
7-Aug-13	NW LANTAU	4	1.20	SUMMER	STANDARD31516	HKLR	S
12-Aug-13	NW LANTAU	1	7.00	SUMMER	STANDARD31516	HKLR	P
12-Aug-13	NW LANTAU	2	24.00	SUMMER	STANDARD31516	HKLR	P
12-Aug-13	NW LANTAU	3	6.60	SUMMER	STANDARD31516	HKLR	P
12-Aug-13	NW LANTAU	1	1.50	SUMMER	STANDARD31516	HKLR	S
12-Aug-13	NW LANTAU	2	10.30	SUMMER	STANDARD31516	HKLR	S
12-Aug-13	NE LANTAU	1	2.90	SUMMER	STANDARD31516	HKLR	P
12-Aug-13	NE LANTAU	2	15.10	SUMMER	STANDARD31516	HKLR	P

## Annex I. (cont'd)

(Abbreviations: BEAU = Beaufort Sea State; P = Primary Line Effort; S = Secondary Line Effort)

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
12-Aug-13	NE LANTAU	2	8.80	SUMMER	STANDARD31516	HKLR	S
22-Aug-13	NW LANTAU	2	17.40	SUMMER	STANDARD31516	HKLR	P
22-Aug-13	NW LANTAU	3	14.30	SUMMER	STANDARD31516	HKLR	P
22-Aug-13	NW LANTAU	2	2.20	SUMMER	STANDARD31516	HKLR	S
22-Aug-13	NW LANTAU	3	4.00	SUMMER	STANDARD31516	HKLR	S
22-Aug-13	NE LANTAU	1	2.40	SUMMER	STANDARD31516	HKLR	P
22-Aug-13	NE LANTAU	2	13.00	SUMMER	STANDARD31516	HKLR	P
22-Aug-13	NE LANTAU	3	4.50	SUMMER	STANDARD31516	HKLR	P
22-Aug-13	NE LANTAU	2	9.70	SUMMER	STANDARD31516	HKLR	S
22-Aug-13	NE LANTAU	3	1.30	SUMMER	STANDARD31516	HKLR	S



### Annex II. HKLR03 Chinese White Dolphin Sighting Database (June-August 2013)

(Abbreviations: STG# = Sighting Number; HRD SZ = Dolphin Herd Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance; BOAT ASSOC. = Fishing Boat Association P/S: Sighting Made on Primary/Secondary Line\$)

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
7-Jun-13	1	1149	5	NW LANTAU	4	105	ON	HKLR	829286	806482	SUMMER	NONE	P
7-Jun-13	2	1210	11	NW LANTAU	3	205	ON	HKLR	827592	806458	SUMMER	NONE	P
7-Jun-13	3	1241	2	NW LANTAU	3	11	ON	HKLR	825908	806455	SUMMER	NONE	P
7-Jun-13	4	1334	1	NW LANTAU	3	301	ON	HKLR	822726	808519	SUMMER	NONE	P
7-Jun-13	5	1647	8	NE LANTAU	2	1488	ON	HKLR	822764	821221	SUMMER	NONE	P
13-Jun-13	1	1052	6	NW LANTAU	3	130	ON	HKLR	824814	805453	SUMMER	NONE	P
18-Jun-13	1	1012	2	NW LANTAU	2	1224	ON	HKLR	814672	804660	SUMMER	NONE	P
18-Jun-13	2	1153	6	NW LANTAU	2	489	ON	HKLR	831171	805034	SUMMER	NONE	S
18-Jun-13	3	1246	1	NW LANTAU	1	122	ON	HKLR	822952	806253	SUMMER	NONE	S
18-Jun-13	4	1350	2	NW LANTAU	2	511	ON	HKLR	826735	808516	SUMMER	NONE	P
27-Jun-13	1	1447	5	NW LANTAU	3	84	ON	HKLR	827036	807538	SUMMER	NONE	P
4-Jul-13	1	1155	1	NE LANTAU	1	4	ON	HKLR	822506	814566	SUMMER	NONE	P
4-Jul-13	2	1322	2	NW LANTAU	3	150	ON	HKLR	826380	809113	SUMMER	NONE	S
4-Jul-13	3	1402	1	NW LANTAU	4	195	ON	HKLR	824675	808502	SUMMER	NONE	P
4-Jul-13	4	1413	4	NW LANTAU	4	265	ON	HKLR	822450	808498	SUMMER	NONE	P
4-Jul-13	5	1704	4	NW LANTAU	2	40	ON	HKLR	814927	804671	SUMMER	NONE	P
11-Jul-13	1	1008	7	NW LANTAU	1	144	ON	HKLR	815490	805434	SUMMER	NONE	P
11-Jul-13	2	1027	8	NW LANTAU	1	51	ON	HKLR	816033	805436	SUMMER	NONE	P
11-Jul-13	3	1109	1	NW LANTAU	1	42	ON	HKLR	824947	805474	SUMMER	NONE	P
11-Jul-13	4	1137	2	NW LANTAU	2	221	ON	HKLR	830461	805825	SUMMER	NONE	S
11-Jul-13	5	1216	8	NW LANTAU	2	119	ON	HKLR	824522	807502	SUMMER	NONE	P
11-Jul-13	6	1248	1	NW LANTAU	1	247	ON	HKLR	820181	807742	SUMMER	NONE	S
11-Jul-13	7	1313	2	NW LANTAU	2	53	ON	HKLR	823444	809509	SUMMER	NONE	P
15-Jul-13	1	1218	3	NW LANTAU	2	349	ON	HKLR	821106	810659	SUMMER	NONE	S
15-Jul-13	2	1456	3	NW LANTAU	3	146	ON	HKLR	825576	806475	SUMMER	NONE	P
15-Jul-13	3	1512	2	NW LANTAU	2	47	ON	HKLR	826396	806456	SUMMER	NONE	P
15-Jul-13	4	1527	3	NW LANTAU	2	116	ON	HKLR	828145	806469	SUMMER	NONE	P
15-Jul-13	5	1540	2	NW LANTAU	2	14	ON	HKLR	829984	806164	SUMMER	NONE	S
16-Jul-13	1	1430	2	NE LANTAU	1	230	ON	HKLR	819160	816251	SUMMER	NONE	S
1-Aug-13	1	1041	5	NW LANTAU	2	178	ON	HKLR	820652	804641	SUMMER	NONE	P
7-Aug-13	1	1234	6	NW LANTAU	4	11	ON	HKLR	825249	809873	SUMMER	NONE	S
12-Aug-13	1	1008	1	NW LANTAU	2	ND	OFF	HKLR	814705	804969	SUMMER	NONE	N/A

**Annex II. (cont'd)**

(Abbreviations: STG# = Sighting Number; HRD SZ = Dolphin Herd Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance; BOAT ASSOC. = Fishing Boat Association P/S: Sighting Made on Primary/Secondary Line\$

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
12-Aug-13	2	1046	3	NW LANTAU	3	ND	OFF	HKLR	822690	804656	SUMMER	NONE	N/A
12-Aug-13	3	1105	5	NW LANTAU	2	49	ON	HKLR	823564	804668	SUMMER	NONE	P
12-Aug-13	4	1129	5	NW LANTAU	2	125	ON	HKLR	824971	804671	SUMMER	NONE	P
12-Aug-13	5	1149	2	NW LANTAU	1	79	ON	HKLR	827318	804676	SUMMER	NONE	P
12-Aug-13	6	1242	5	NW LANTAU	1	267	ON	HKLR	825322	806474	SUMMER	NONE	P
12-Aug-13	7	1332	5	NW LANTAU	2	70	ON	HKLR	822084	808507	SUMMER	NONE	P
12-Aug-13	8	1648	1	NE LANTAU	2	355	ON	HKLR	821238	819313	SUMMER	NONE	S
12-Aug-13	9	1654	1	NE LANTAU	2	106	ON	HKLR	822001	820561	SUMMER	NONE	S
22-Aug-13	1	1047	3	NW LANTAU	2	81	ON	HKLR	823175	805460	SUMMER	NONE	P
22-Aug-13	2	1129	1	NW LANTAU	2	106	ON	HKLR	830461	805887	SUMMER	NONE	S
22-Aug-13	3	1141	3	NW LANTAU	3	ND	OFF	HKLR	829539	807481	SUMMER	NONE	N/A
22-Aug-13	4	1204	1	NW LANTAU	2	1068	ON	HKLR	826028	807526	SUMMER	NONE	P
22-Aug-13	5	1237	2	NW LANTAU	2	346	ON	HKLR	820422	808875	SUMMER	NONE	S



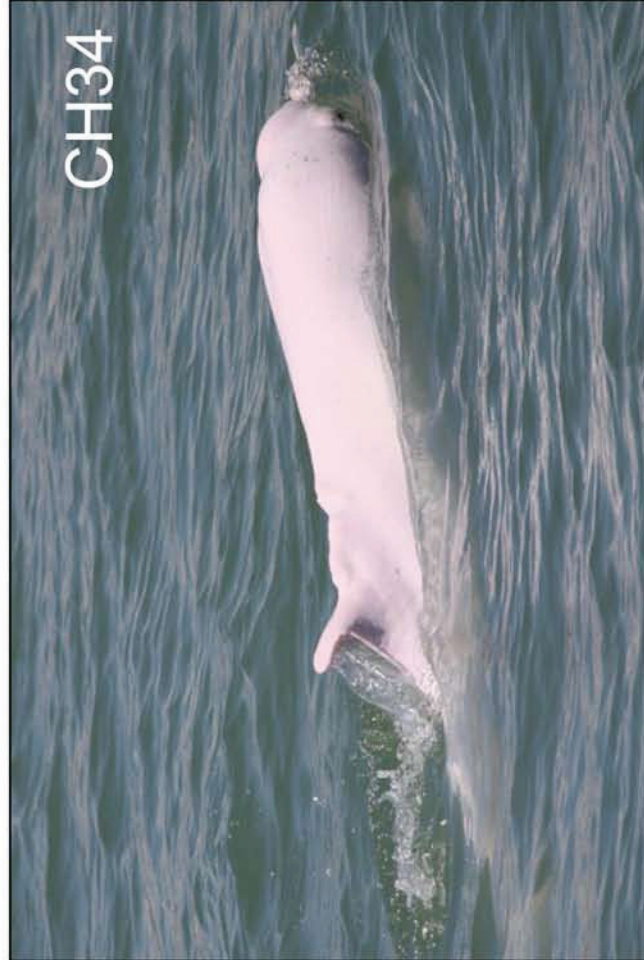
**Annex III. Individual dolphins identified during HKLR03 monitoring surveys in June-August 2013**

ID#	DATE	STG#	AREA
CH34	2013-06-07	2	NW LANTAU
	2013-07-15	2	NW LANTAU
CH98	2013-06-18	4	NW LANTAU
	2013-07-15	2	NW LANTAU
	2013-08-12	4	NW LANTAU
CH105	2013-07-11	2	NW LANTAU
EL01	2013-06-07	5	NE LANTAU
	2013-07-04	1	NE LANTAU
NL11	2013-08-07	1	NW LANTAU
NL12	2013-06-18	2	NW LANTAU
NL24	2013-06-07	5	NE LANTAU
	2013-07-15	1	NW LANTAU
	2013-08-12	7	NW LANTAU
NL33	2013-06-07	5	NE LANTAU
	2013-07-11	5	NW LANTAU
	2013-08-22	3	NW LANTAU
NL37	2013-08-01	1	NW LANTAU
NL46	2013-07-04	5	NW LANTAU
NL48	2013-06-07	2	NW LANTAU
	2013-07-11	3	NW LANTAU
NL80	2013-06-07	1	NW LANTAU
	2013-06-18	2	NW LANTAU
NL98	2013-08-12	7	NW LANTAU
NL104	2013-07-11	1	NW LANTAU
	2013-08-07	1	NW LANTAU
NL120	2013-07-11	5	NW LANTAU
NL123	2013-06-07	5	NE LANTAU
	2013-07-16	1	NE LANTAU
NL145	2013-07-11	1	NW LANTAU
	2013-08-07	1	NW LANTAU
NL188	2013-06-07	2	NW LANTAU
NL191	2013-06-07	2	NW LANTAU
NL202	2013-06-13	1	NW LANTAU
	2013-07-11	5	NW LANTAU
	2013-08-22	1	NW LANTAU
NL210	2013-07-04	2	NW LANTAU
NL213	2013-07-15	3	NW LANTAU
NL224	2013-08-12	2	NW LANTAU
NL233	2013-06-18	2	NW LANTAU
	2013-08-22	1	NW LANTAU
NL242	2013-07-15	1	NW LANTAU
NL244	2013-06-07	1	NW LANTAU
NL255	2013-06-13	1	NW LANTAU
NL259	2013-06-07	2	NW LANTAU

ID#	DATE	STG#	AREA
NL261	2013-07-11	4	NW LANTAU
NL262	2013-06-07	2	NW LANTAU
	2013-06-27	1	NW LANTAU
NL264	2013-06-07	2	NW LANTAU
NL279	2013-07-04	4	NW LANTAU
NL284	2013-06-07	5	NE LANTAU
	2013-06-18	3	NW LANTAU
	2013-07-11	4	NW LANTAU
	2013-08-12	7	NW LANTAU
NL285	2013-06-07	5	NE LANTAU
	2013-07-16	1	NE LANTAU
NL286	2013-06-13	1	NW LANTAU
	2013-07-11	5	NW LANTAU
	2013-08-22	1	NW LANTAU
NL287	2013-07-11	1	NW LANTAU
	2013-08-07	1	NW LANTAU
NL293	2013-07-04	5	NW LANTAU
	2013-08-12	1	NW LANTAU
NL295	2013-06-07	1	NW LANTAU
	2013-07-04	4	NW LANTAU
NL296	2013-06-07	2	NW LANTAU
	2013-07-04	4	NW LANTAU
NL301	2013-06-07	1	NW LANTAU
WL46	2013-06-27	1	NW LANTAU
WL98	2013-07-11	2	NW LANTAU
WL122	2013-08-01	1	NW LANTAU
WL124	2013-07-11	1	NW LANTAU

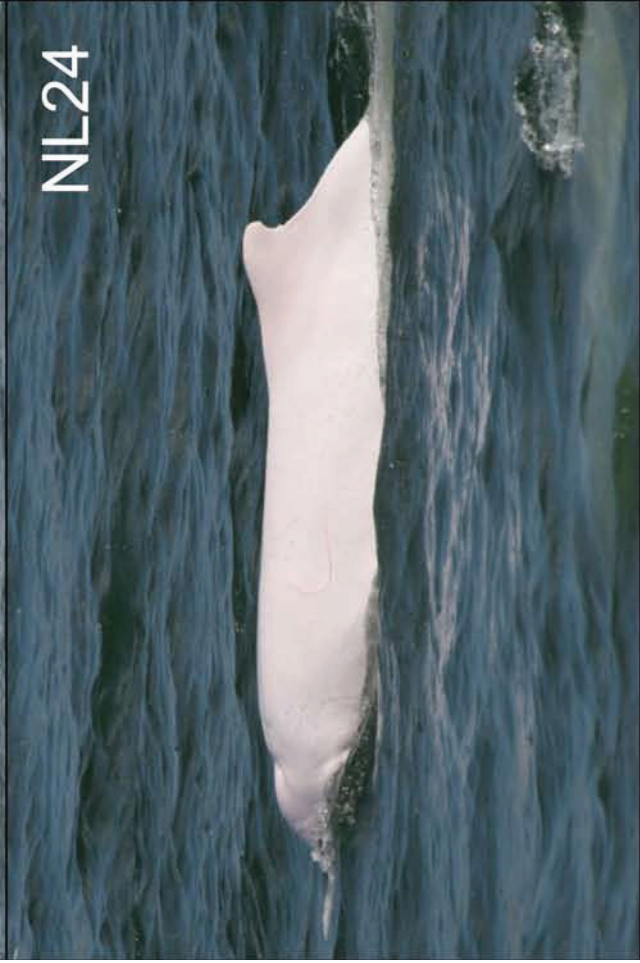
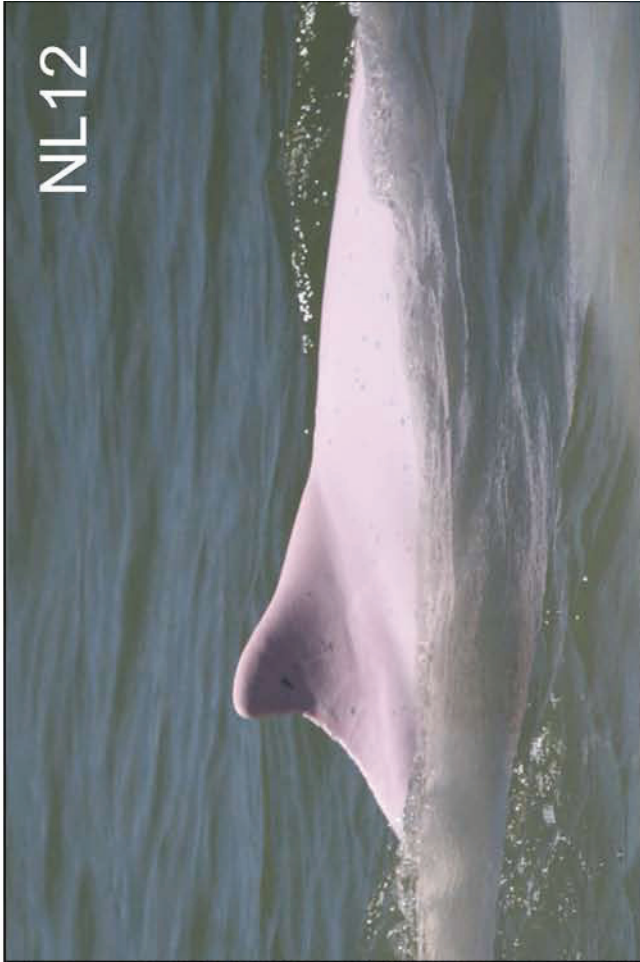
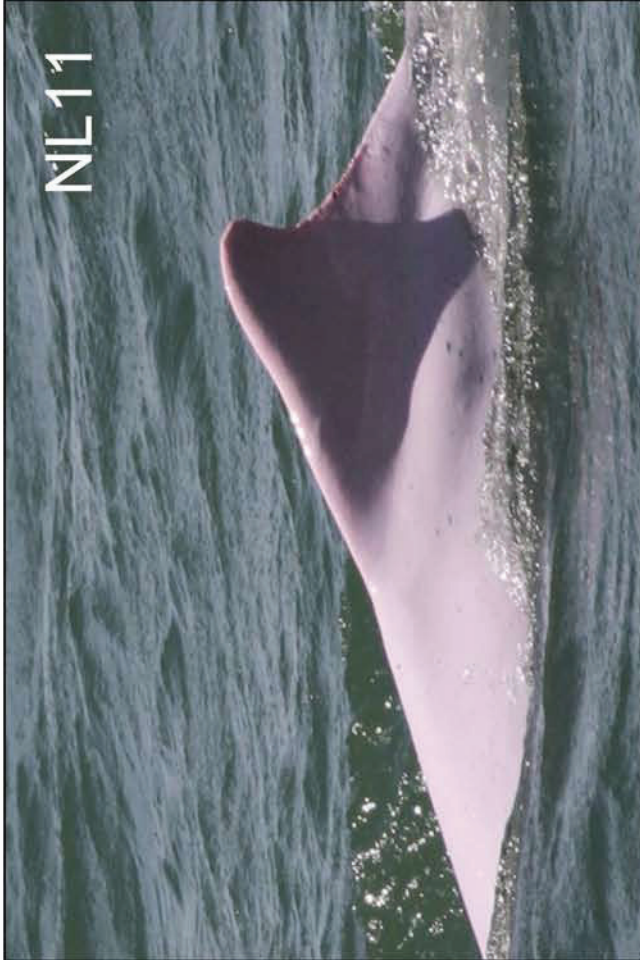


Annex IV Forty-four individual dolphins that were identified during June-August 2013 under HKLR03 impact phase monitoring surveys



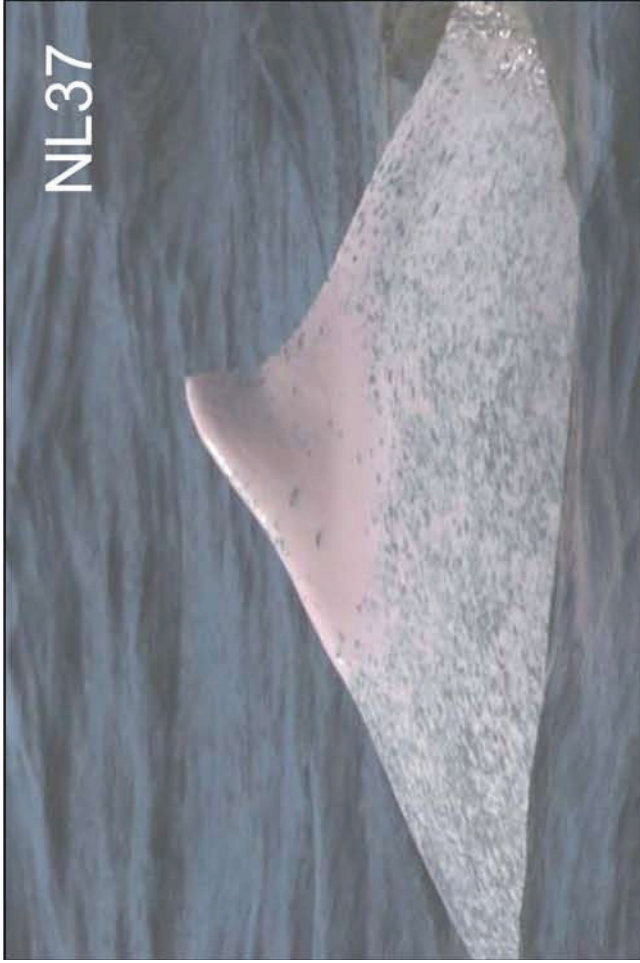


Annex IV. (cont'd)

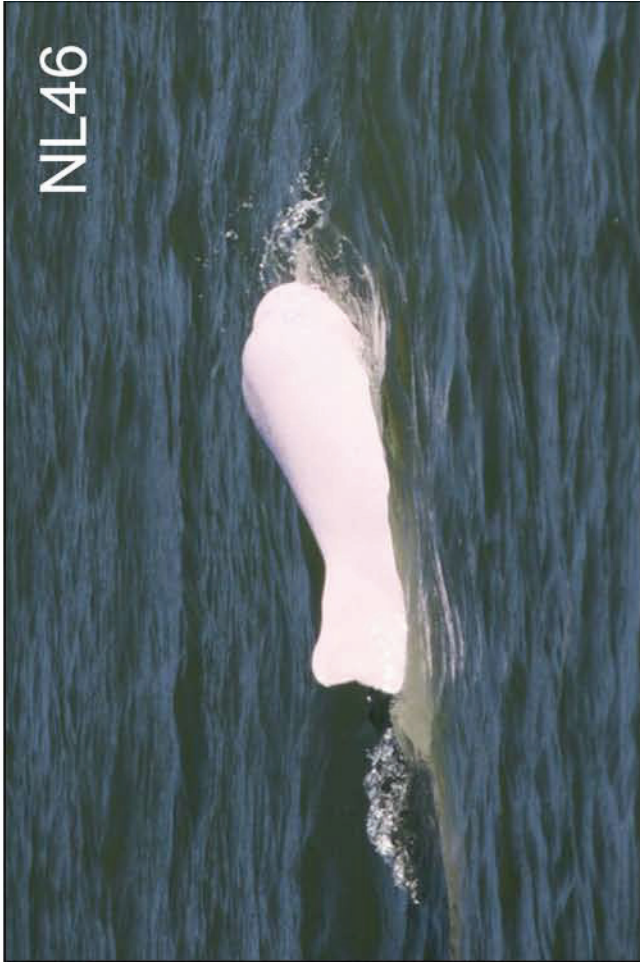




Annex IV. (cont'd)



NL37



NL46



NL48



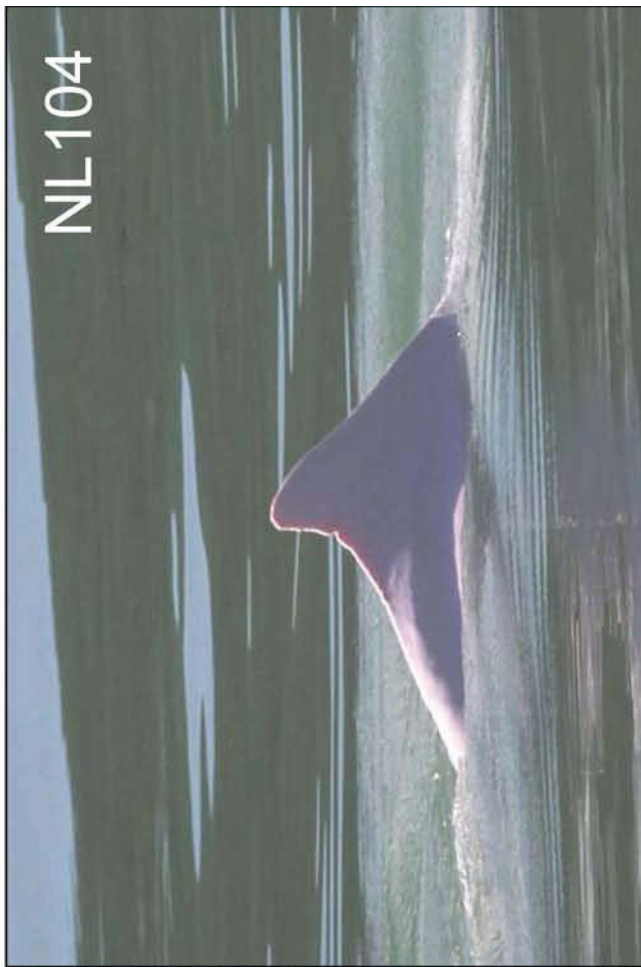
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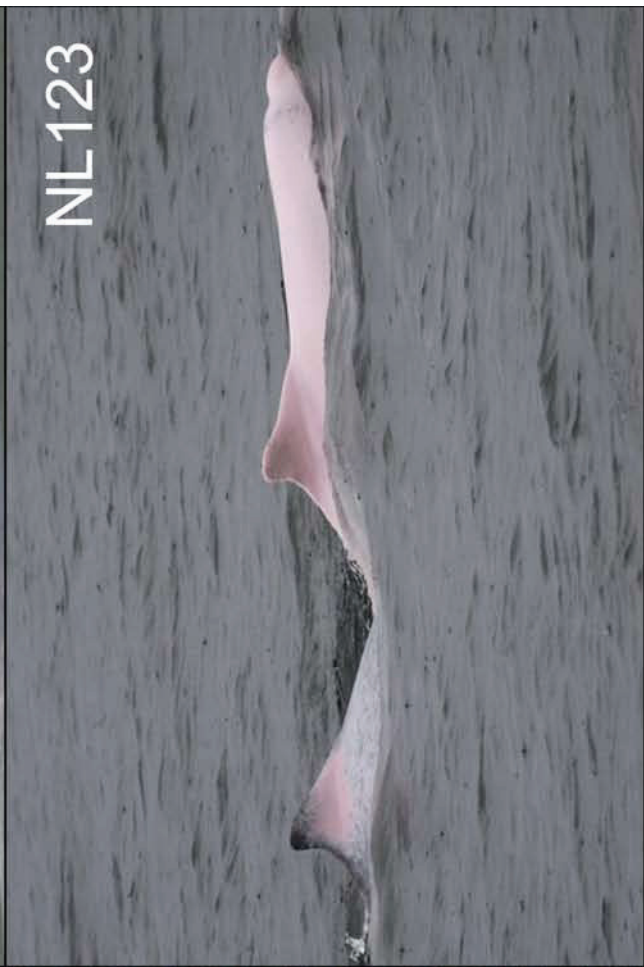
NL98



NL104



NL120



NL123

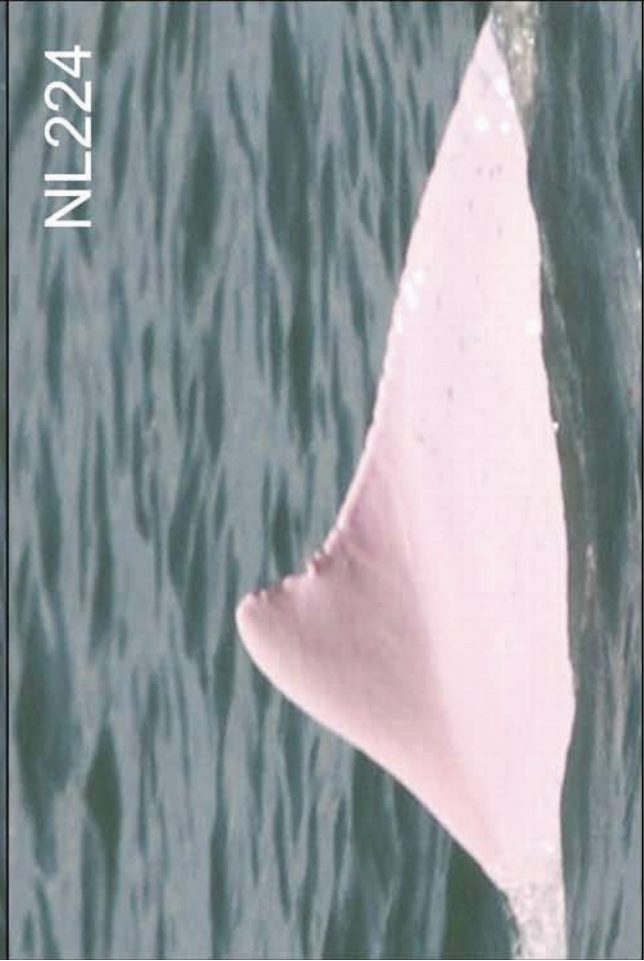


Annex IV. (cont'd)





Annex IV. (cont'd)

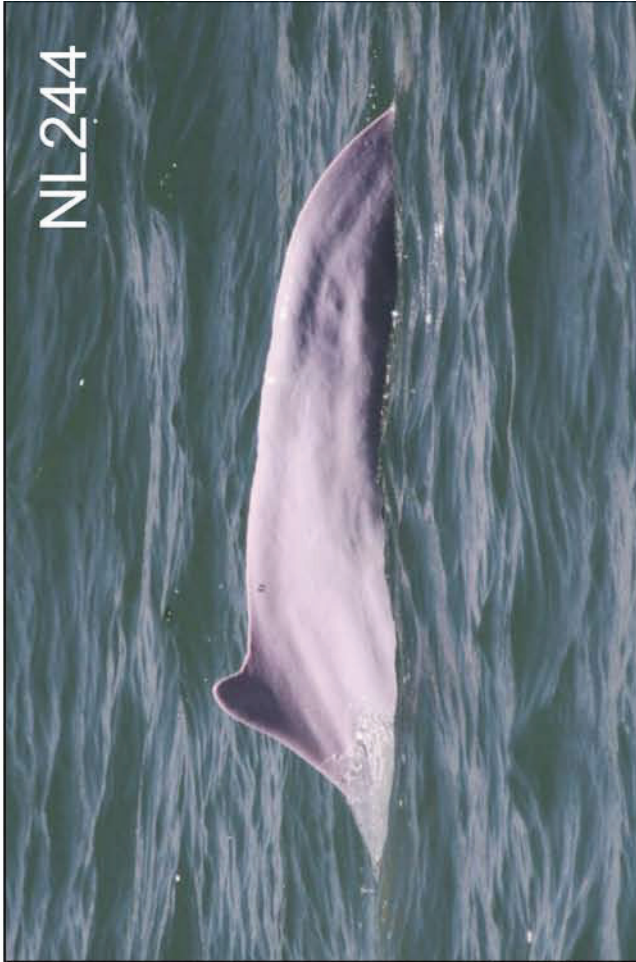




Annex IV. (cont'd)



NL242



NL244



NL255



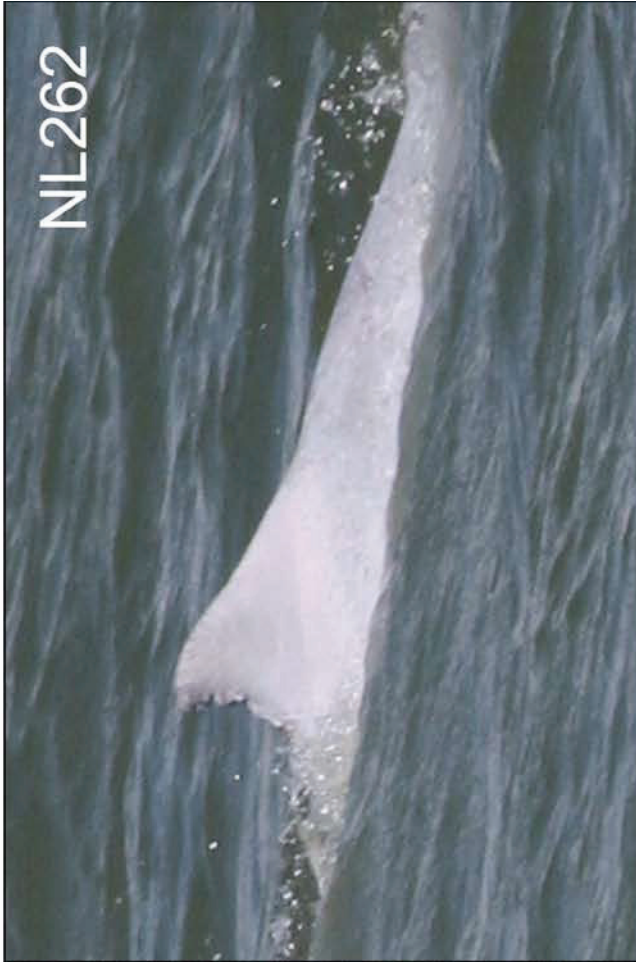
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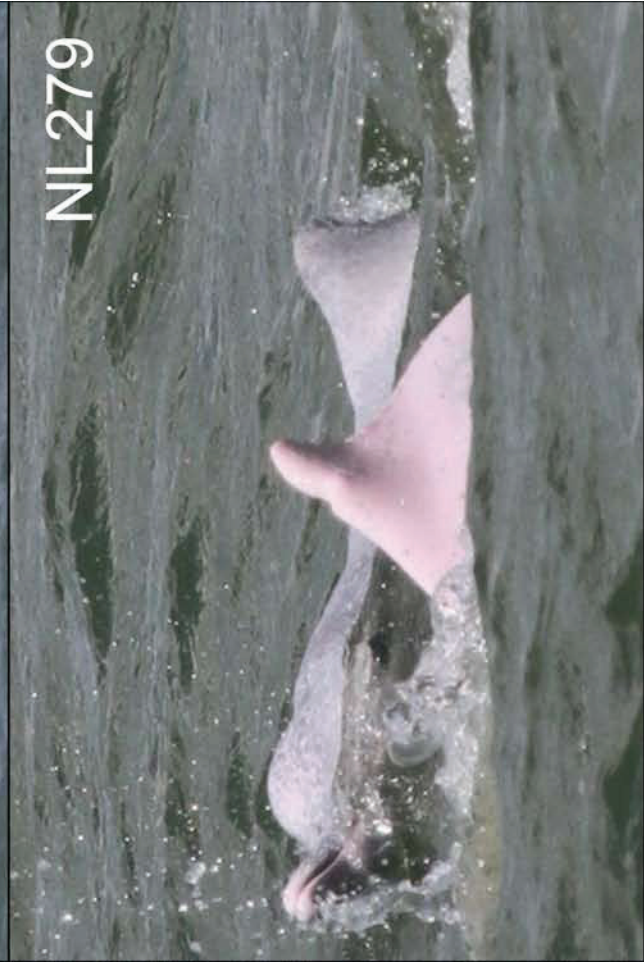
NL261



NL262



NL264



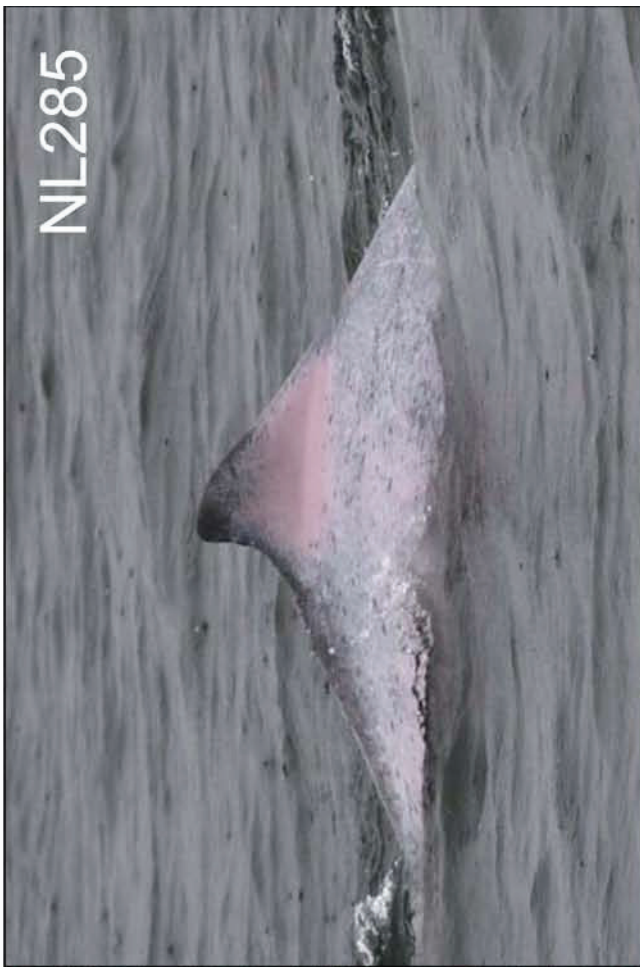
NL279



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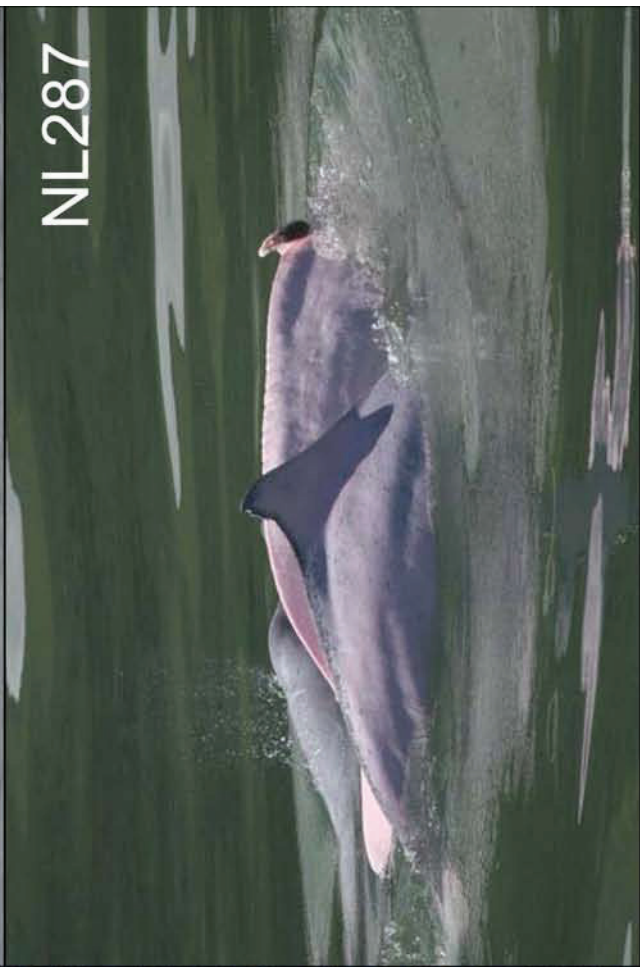
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NL285



NL286



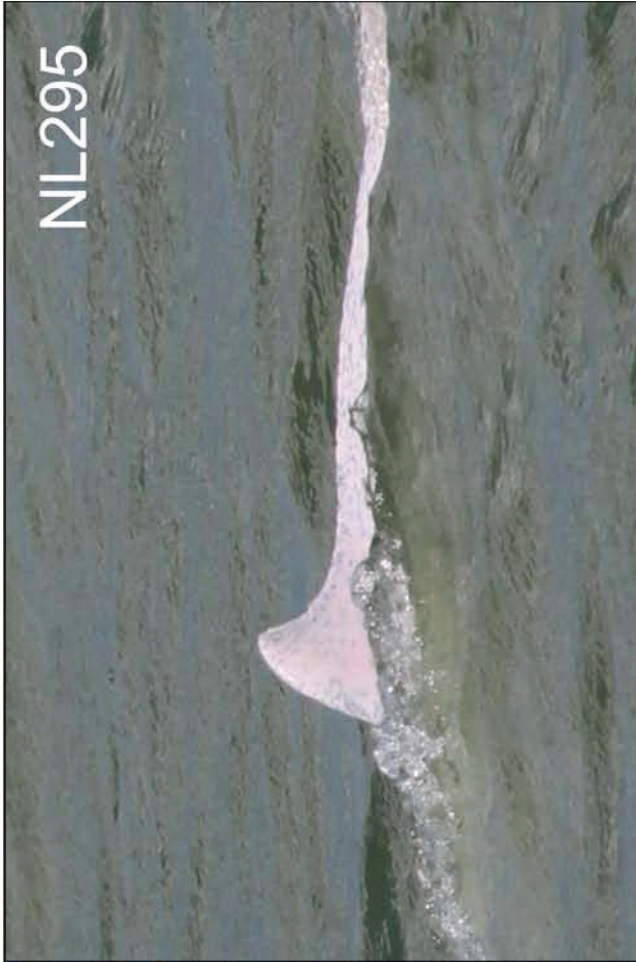
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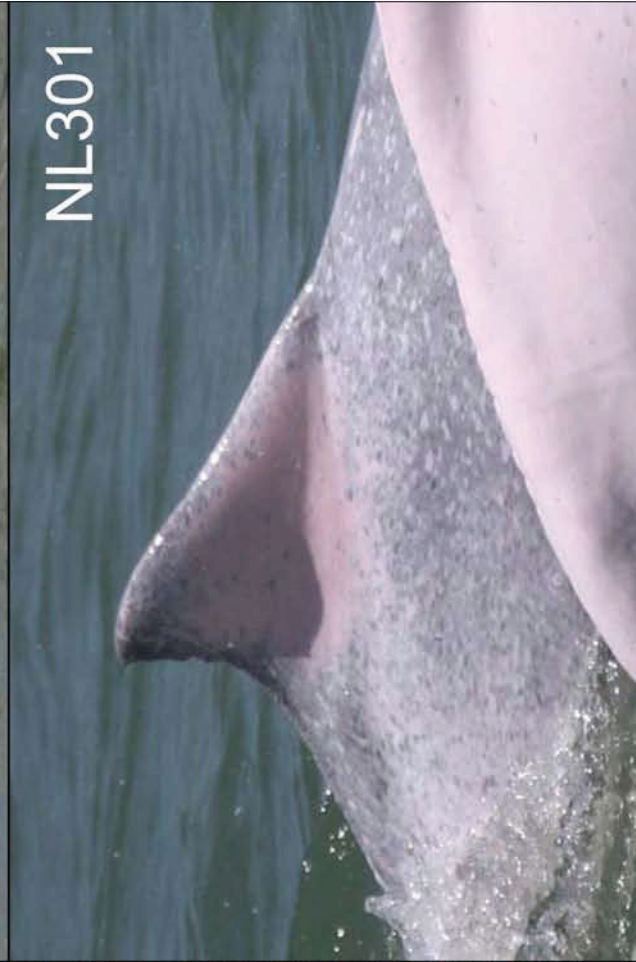
NL293



NL295



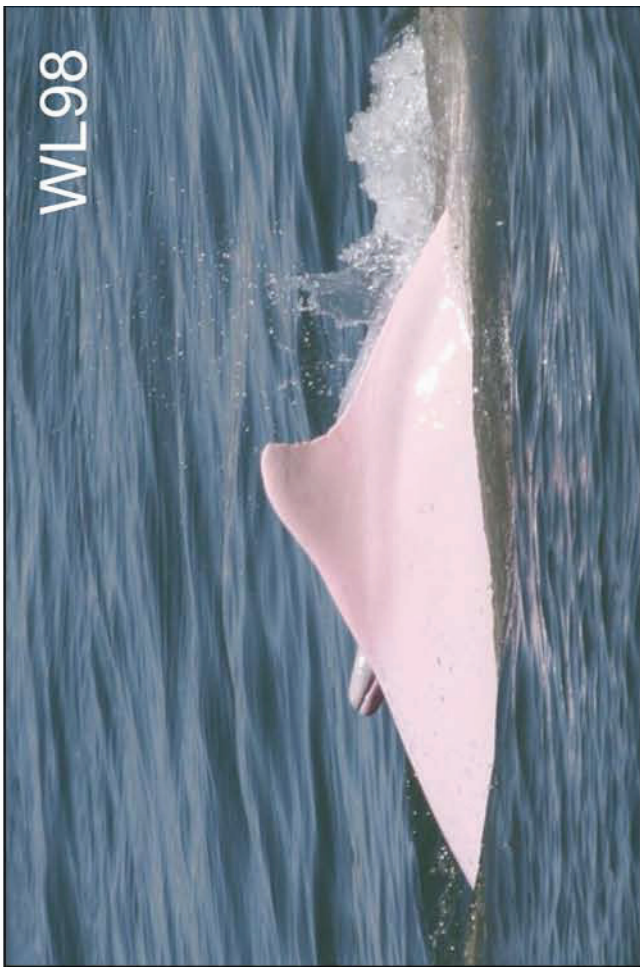
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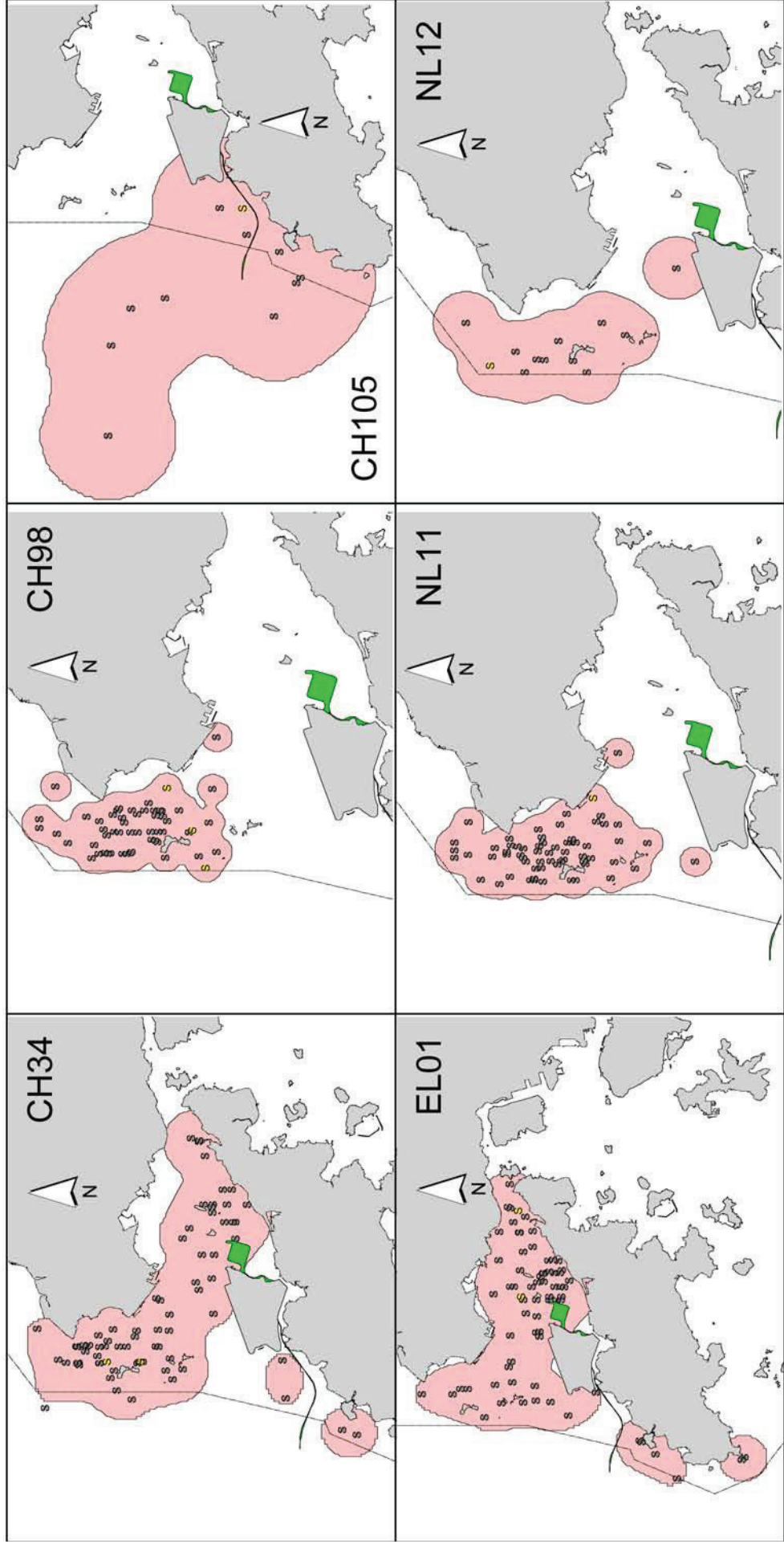
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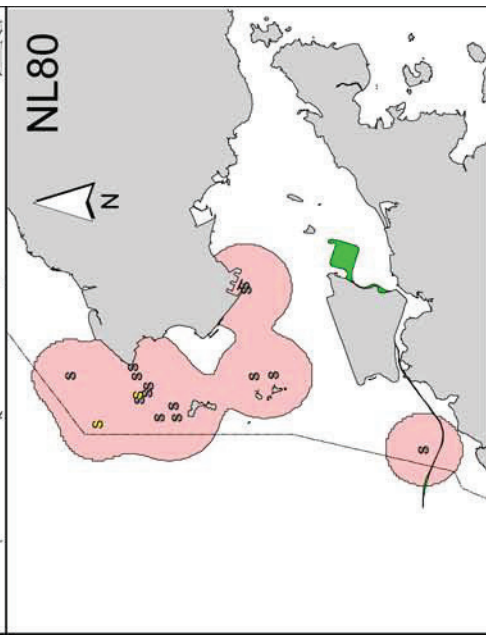
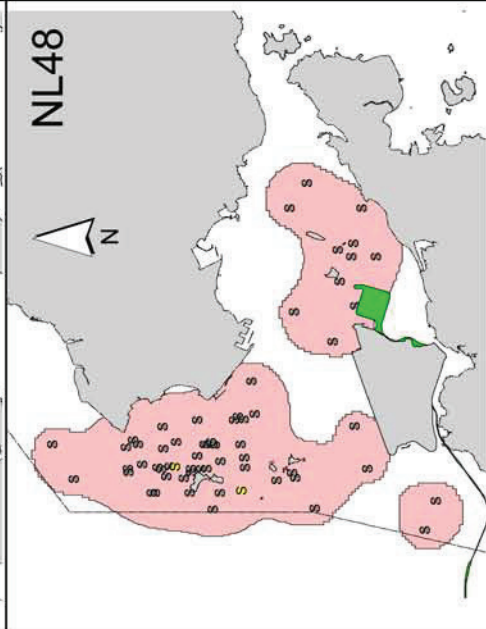
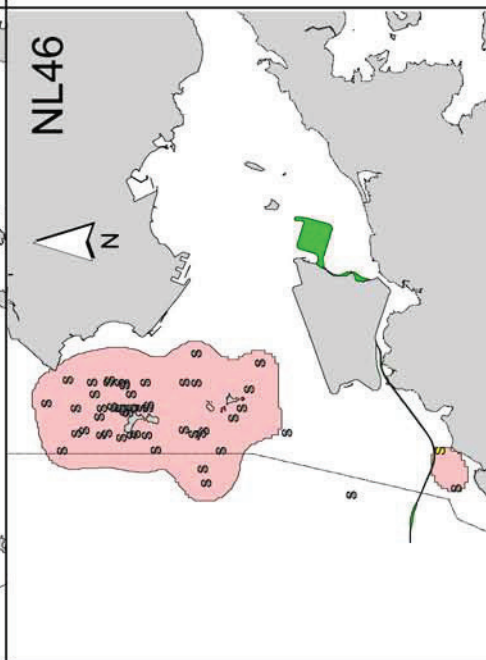
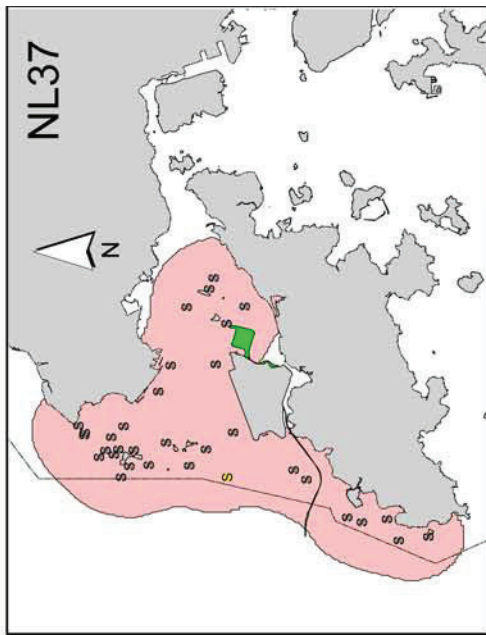
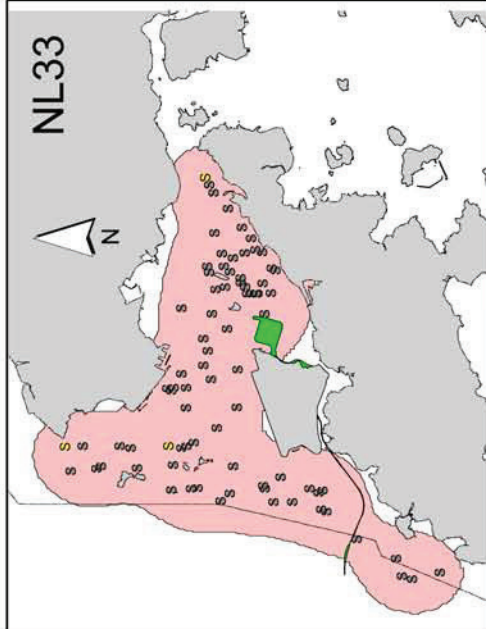
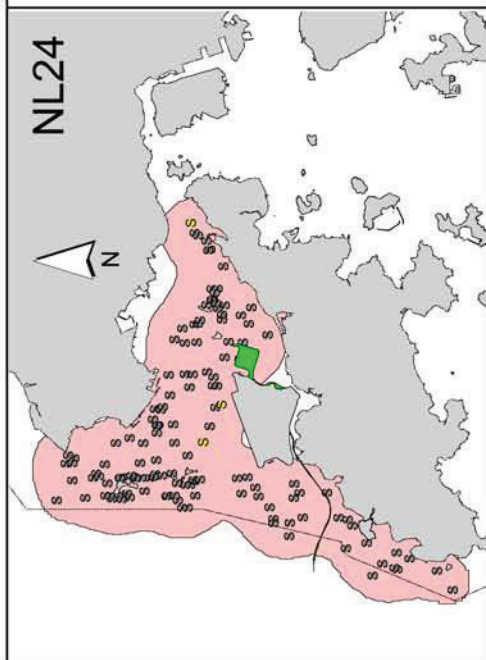


Annex V. Ranging patterns (95% kernel ranges) of 44 individual dolphins that were sighted during HKLR03 impact phase monitoring period (note: yellow dots indicates sightings made in June – August 2013)

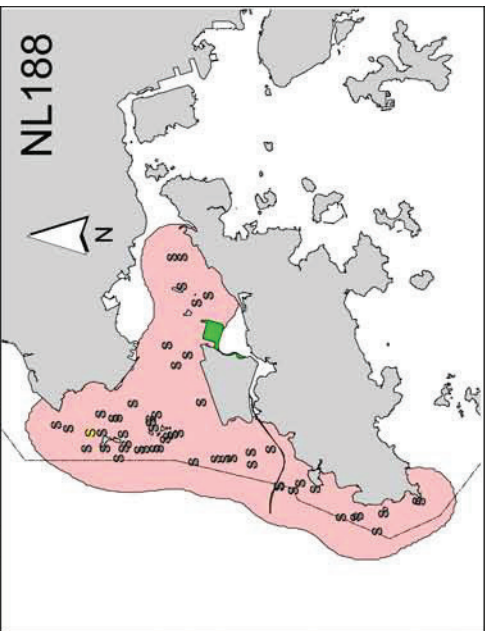
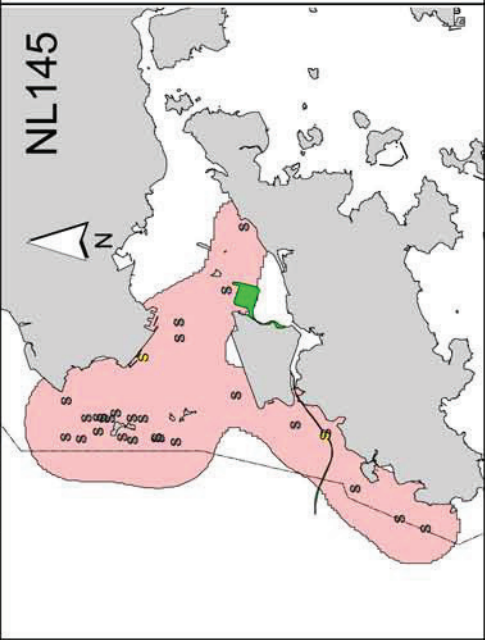
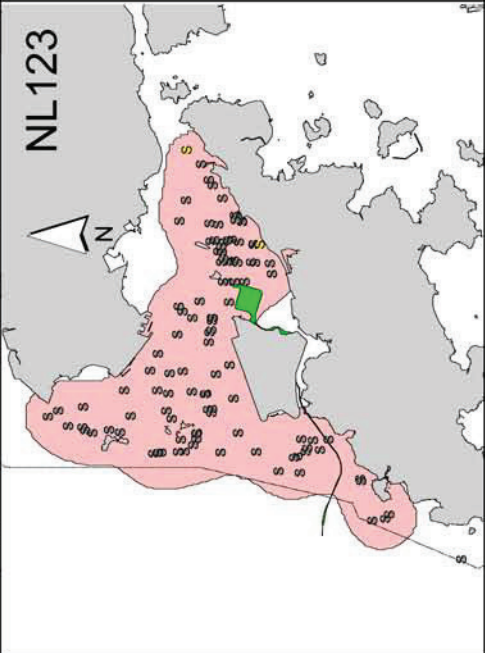
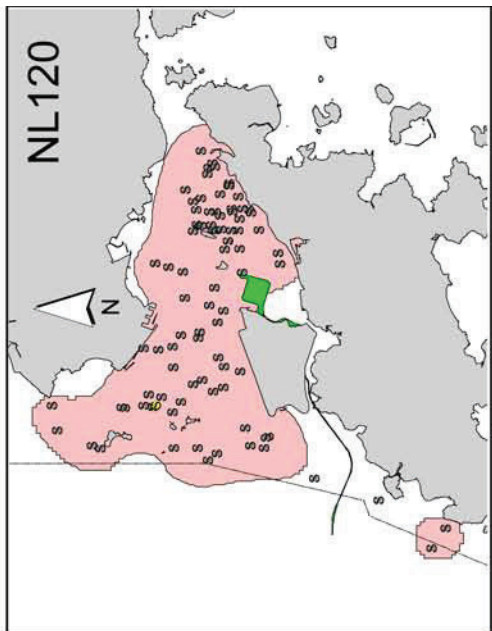
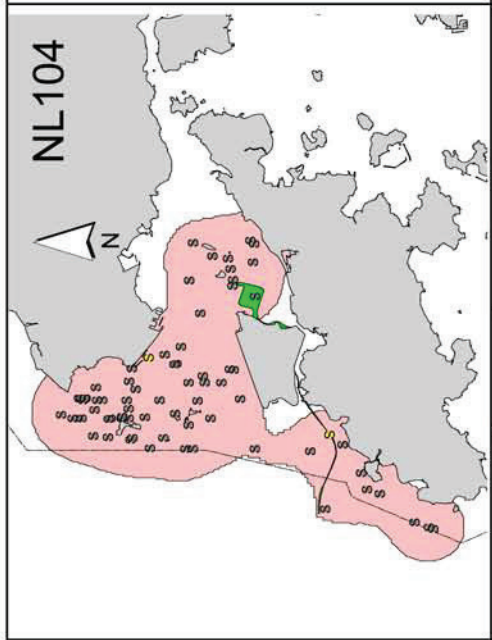
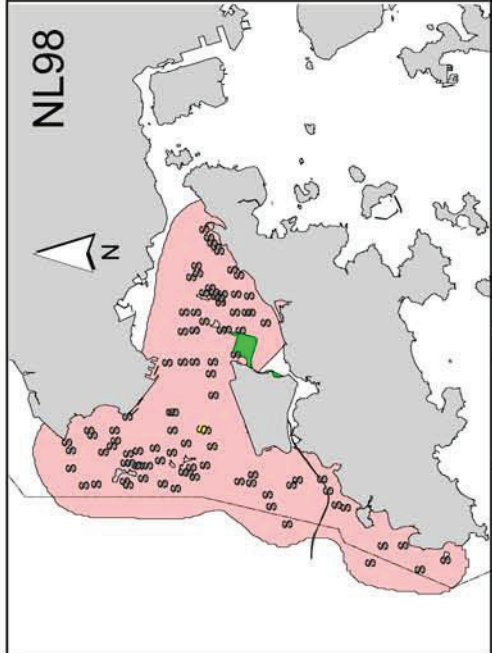




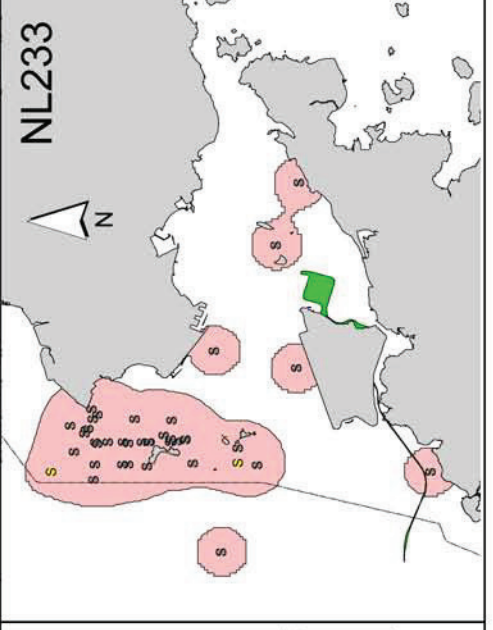
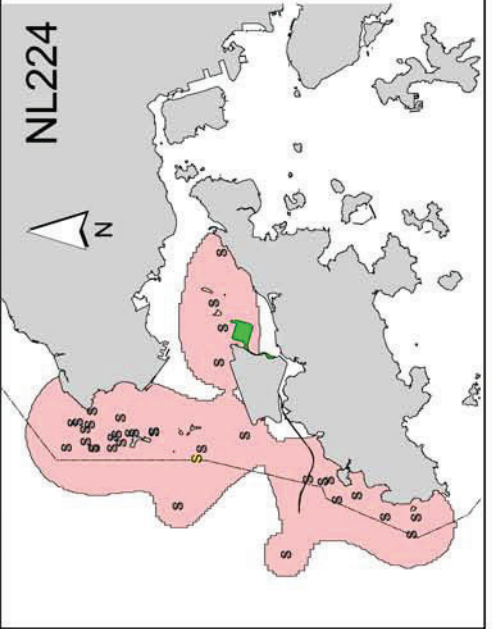
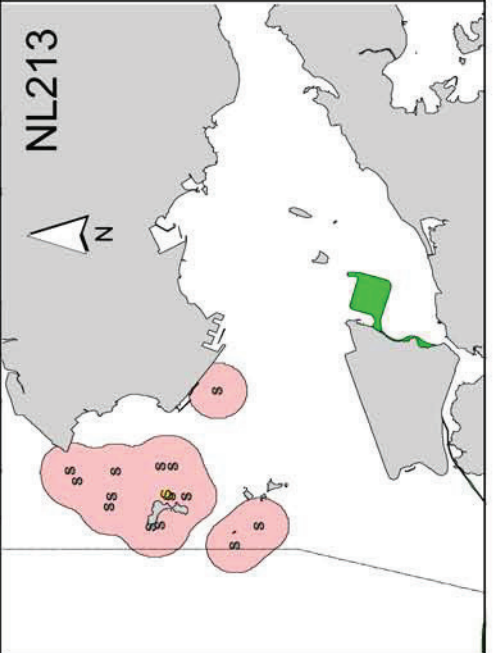
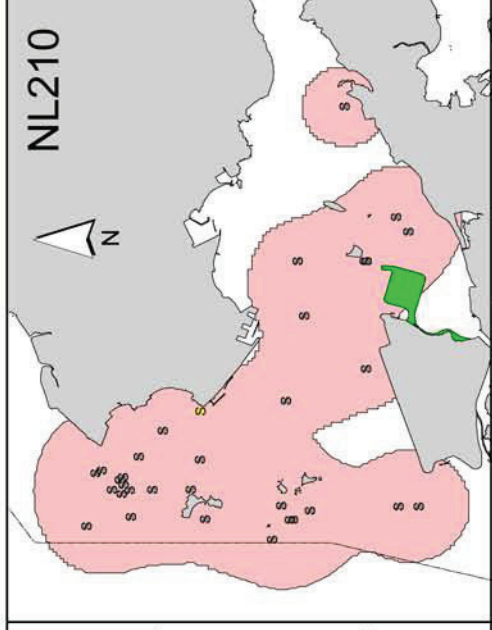
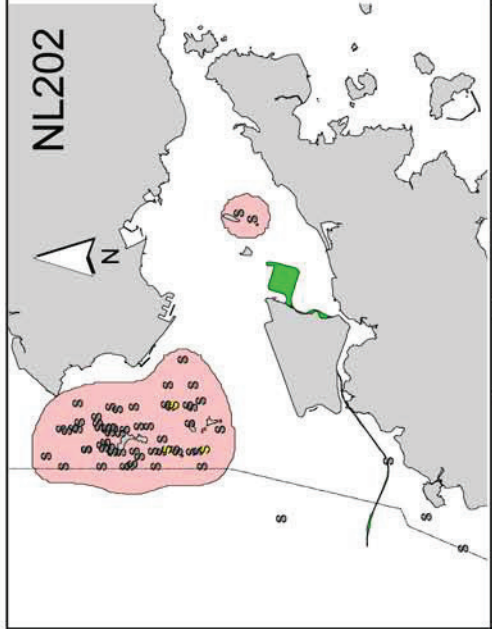
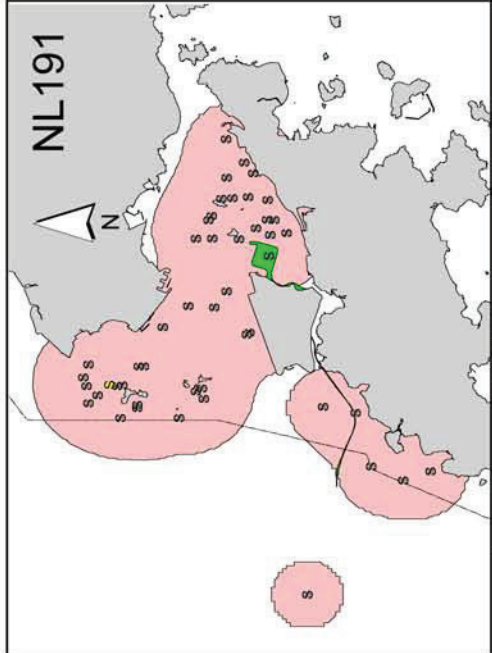
Annex V. (cont'd)



Annex V. (cont'd)

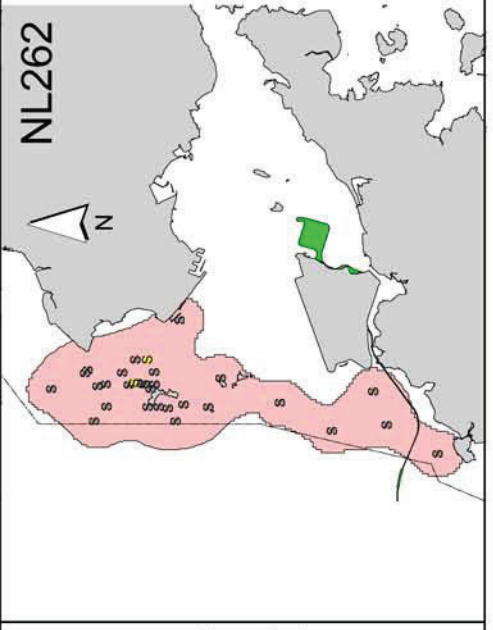
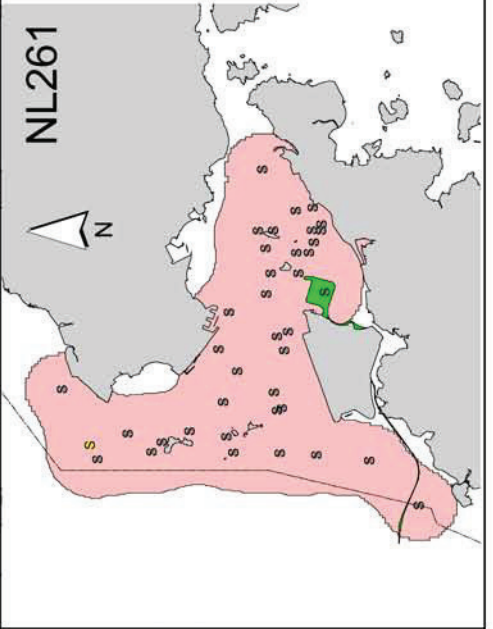
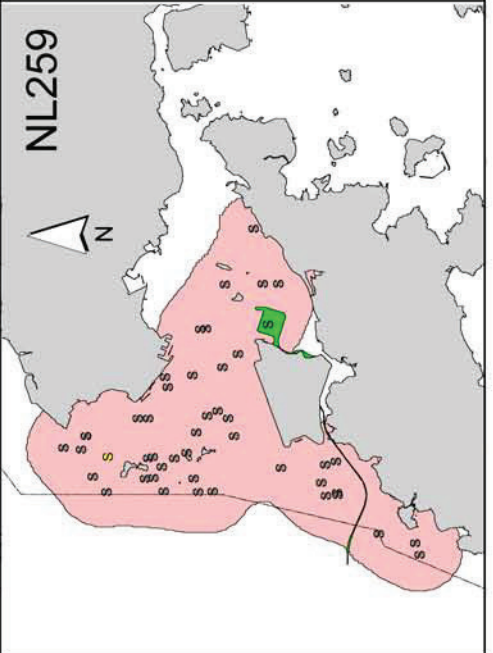
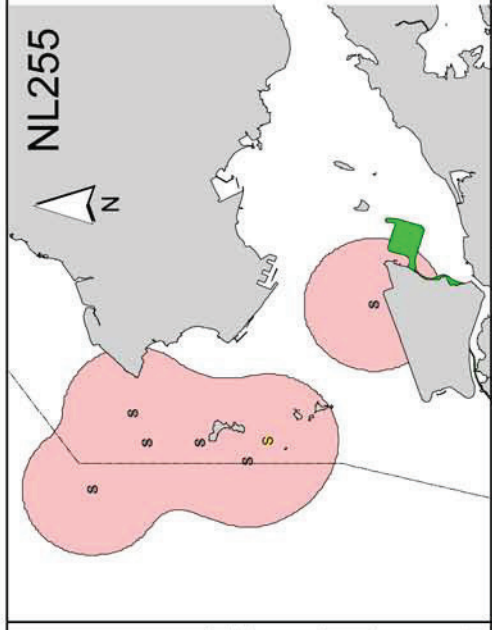
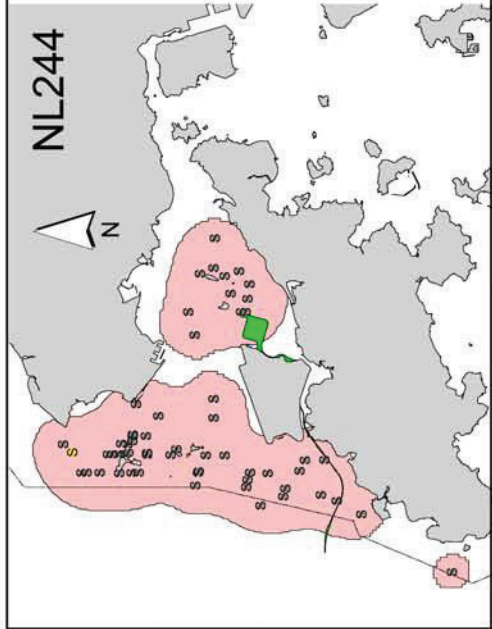
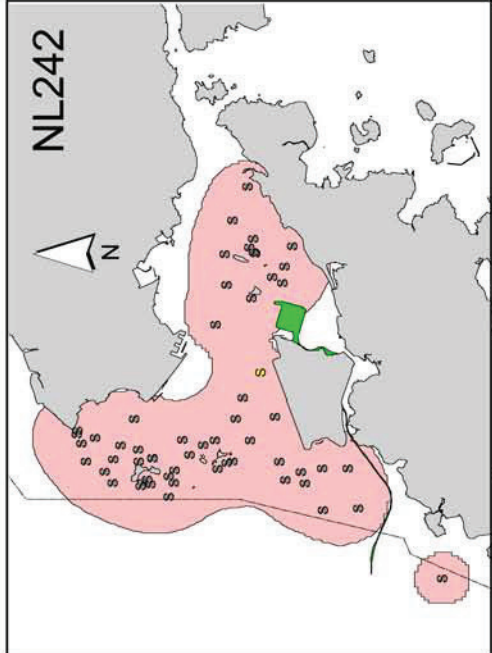


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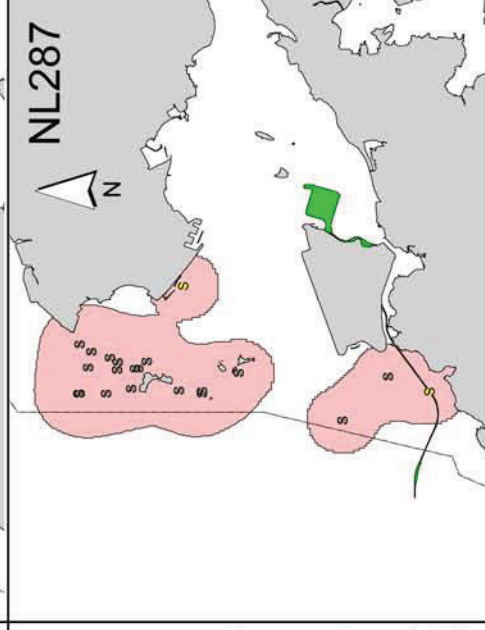
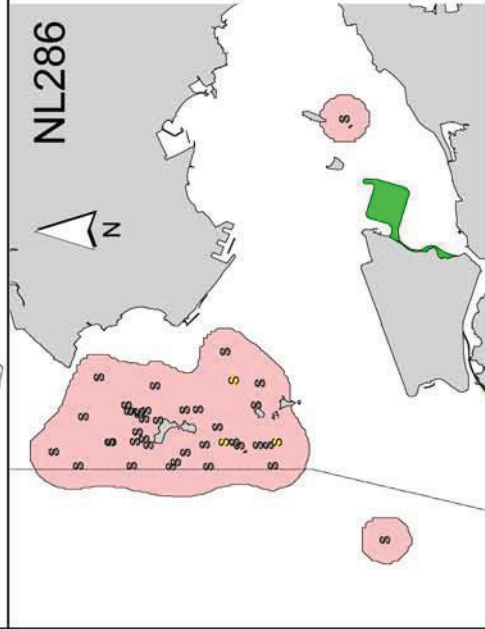
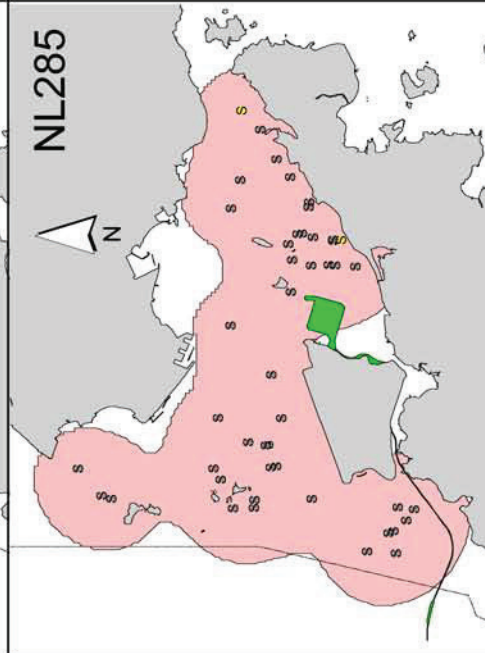
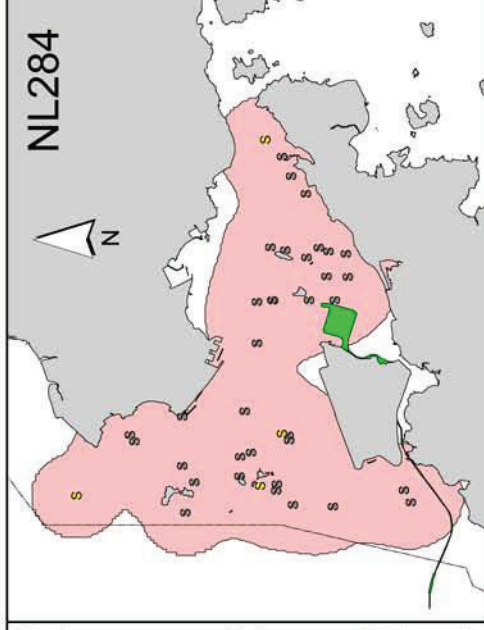
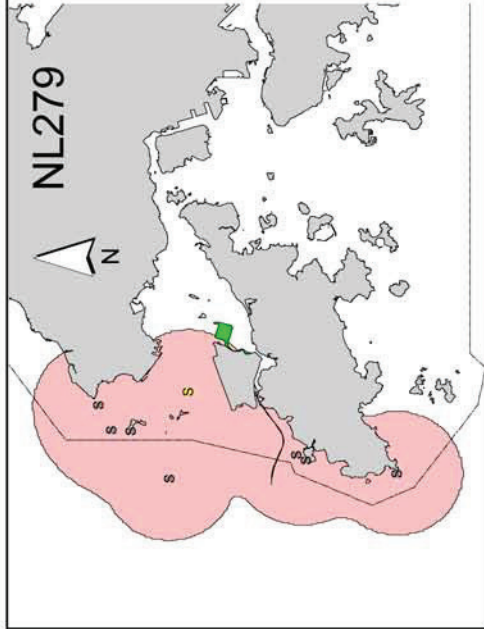
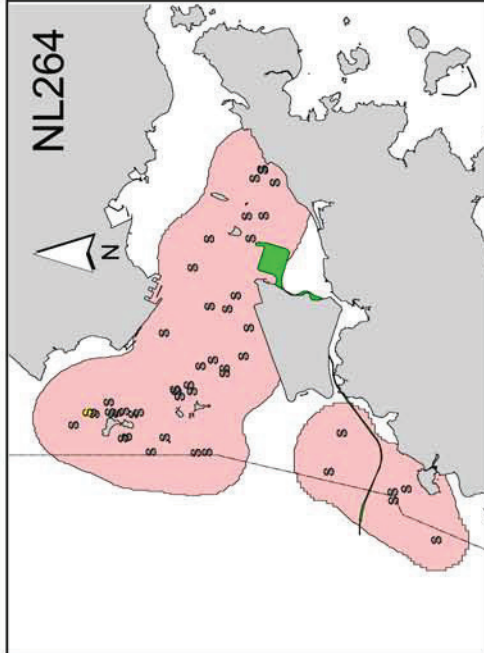




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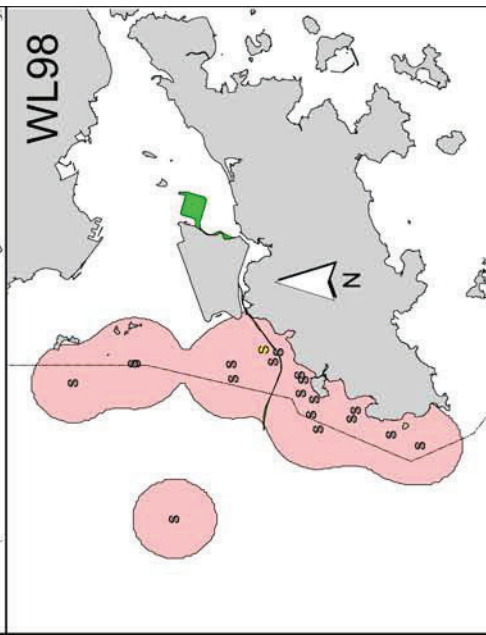
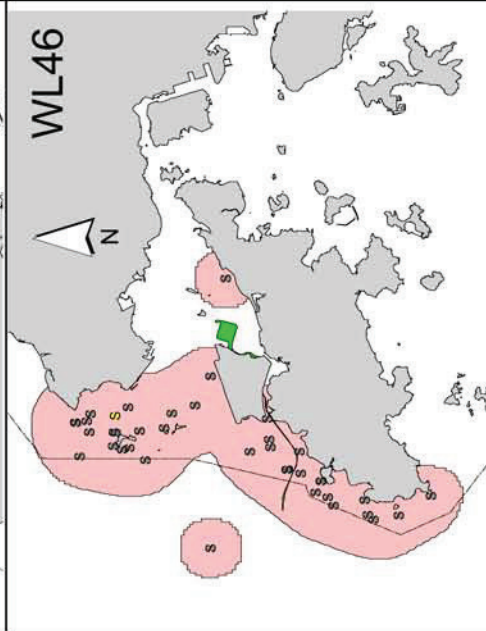
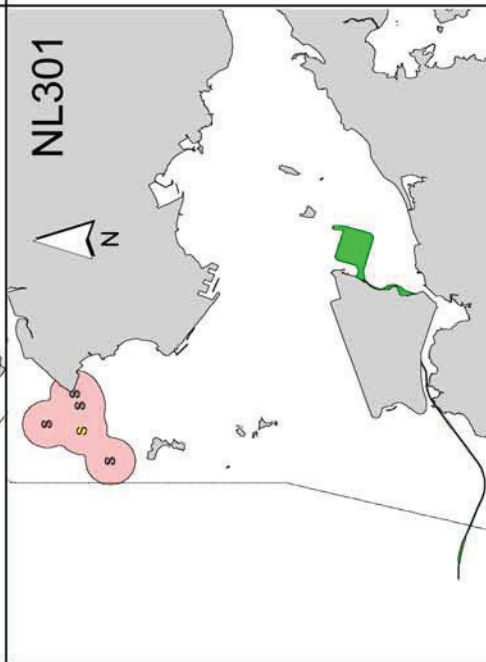
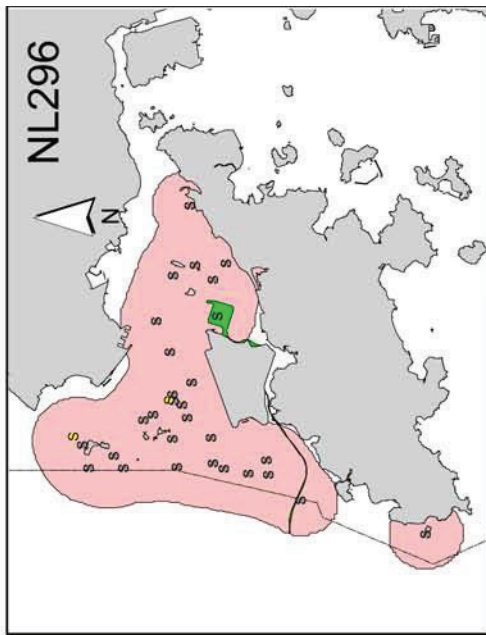
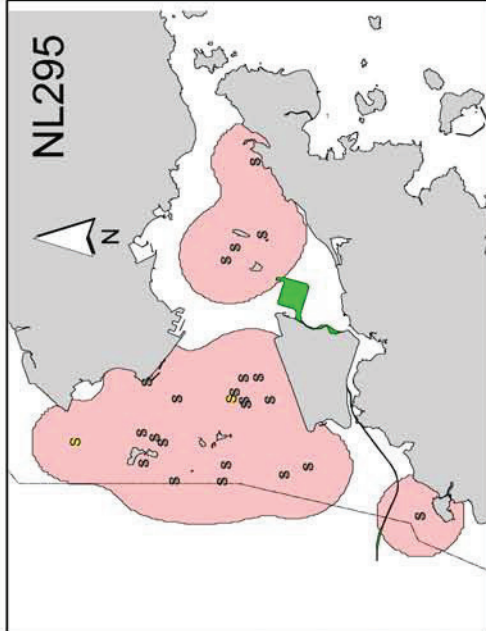
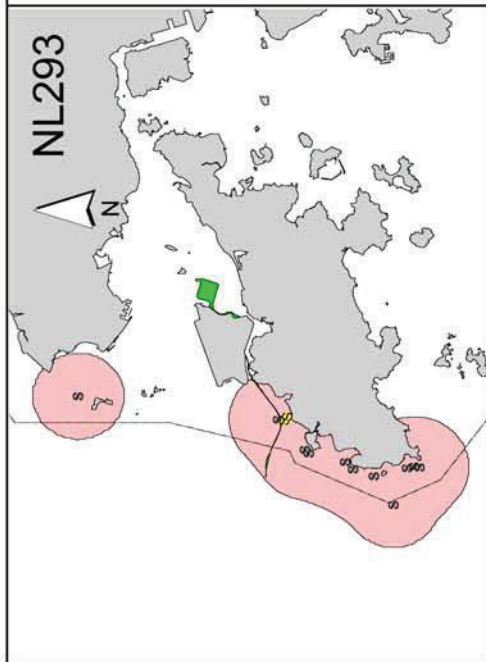


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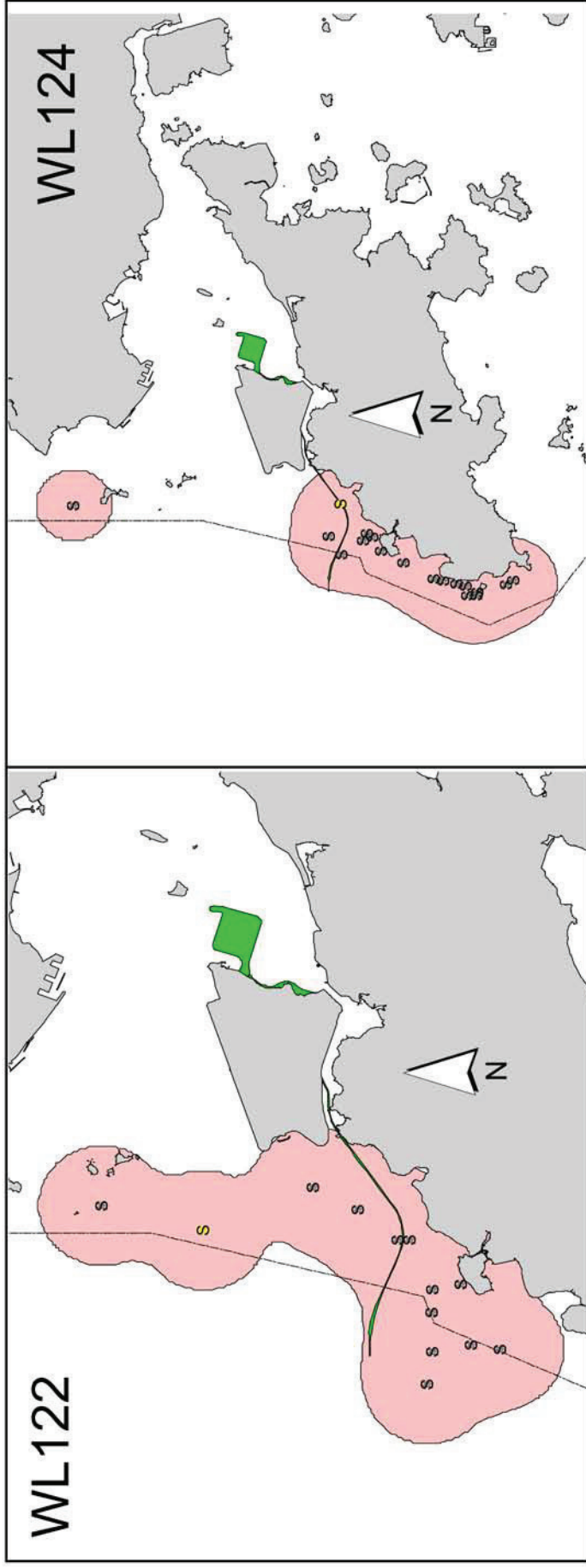




Annex V. (cont'd)



Annex V. (cont'd)





# APPENDIX K

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## Waste Flow Table



**MONTHLY SUMMARY WASTE FLOW TABLE**

Name of Department: Hyd

Contract No.: HY/2011/03

**Monthly Summary Waste Flow Table for 2013**

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated (in '000m <sup>3</sup> )	Hard Rock and Large Broken Concrete (in '000m <sup>3</sup> )	Reused in the Contract (Note 8) (in '000m <sup>3</sup> )	Reused in Other Projects (Note 8) (in '000m <sup>3</sup> )	Disposed as Public Fill (Note 6) (in '000m <sup>3</sup> )	Imported Fill (Note 6) (in '000m <sup>3</sup> )	Metals (in '000kg)	Paper / Cardboard Packaging (in '000kg)	Plastics (Note 3) (in '000kg)	Chemical Waste (in '000kg)	Others, e.g. general refuse (Note 8) (in '000m <sup>3</sup> )	
Jan	8.472	0.000	8.472	0.000	0.000	11.120	0.000	0.000	0.000	0.000	0.293	
Feb	8.644	0.000	8.644	0.000	0.000	8.501	0.000	0.000	0.000	0.000	0.091	
Mar	6.826	0.000	6.826	0.000	0.000	1.548	0.000	0.243	0.000	0.000	0.059	
Apr	6.822	0.000	6.822	0.000	0.000	0.059	0.000	0.000	0.000	0.000	0.117	
May	8.588	0.000	8.584	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.098	
Jun	7.073	0.000	7.073	0.000	0.000	7.977	0.000	0.000	0.000	0.508	0.182	
Sub-total	46.423	0.000	46.420	0.000	0.004	29.204	0.000	0.243	0.000	0.508	0.839	
Jul	11.495	0.000	11.495	0.000	0.000	14.006	0.000	0.000	0.000	0.000	0.143	
Aug	4.690	0.000	4.690	0.000	0.000	9.268	0.000	0.000	0.000	1.600	0.338	
Sep	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Oct	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Nov	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Dec	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Sub- total	16.184	0.000	16.184	0.000	0.000	23.274	0.000	0.000	0.000	1.600	0.481	
Total	62.607	0.000	62.604	0.000	0.004	52.479	0.000	0.243	0.000	2.108	1.320	

Contract No. HY/2011/03

Particular Specification

HKZMB Section Between HKLR and HKBCF

Notes: The performance target are given in ER Appendix 8J Clause 14

- (1)
- (2) The waste flow table shall also include C&D materials that are not specified in the Contract to be imported for use at
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- (4) The Contractor shall also submit the latest forecast of the amount of C&D materials expected to be generated from the Works, together with a break down of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000m<sup>3</sup>.
- (5) All recyclable materials, including metals, paper / cardboard packaging, plastics, etc. will be collected by registered
- (6) Conversion factors for reporting purpose:  
excavated (bulk): rock = 2.0 tonnes/m<sup>3</sup>; soil = 1.8 tonnes/m<sup>3</sup>; sand=1.9tonnes/m<sup>3</sup>
- (7) Numbers are rounded off to the nearest three decimal places
- (8) 30T dump truck carries C&D waste of 8.0m<sup>3</sup>; 24T dump truck carries C&D waste of 6.5m<sup>3</sup>



## APPENDIX L

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### Summary of Environmental Licenses and Permits





## Summary of Environmental Licences and Permits Application and Status

### ***Environmental Permit***

Date Application Submitted	Status	Date EP Issued	EP No.	EP Holder	Expiry Date
24.07.2013	VEP issued	01.08.2013	EP-352/2009/B	Highways Department	N/A
29.07.2013	VEP Issued	06.08.2013	EP-353/2009/G	Highways Department	N/A

### ***Notification of Carrying Out Notifiable Works under Air Pollution Control (Construction Dust) Regulation***

Date Notification Submitted	Notification Ref. No.	Valid Since	Expiry Date
25.05.2012	345690	01.06.2012	N/A

### ***Billing Account for Disposal of Construction Waste***

Date Application Submitted	Account No	Valid Since	Expiry Date
01.06.2012	7015313	27.06.2012	N/A

### ***Chemical Waste Producer Registration***

Date Registration Submitted	Waste Producer No.	Date Registration Issued	Major Waste Type	Expiry Date
20.06.2012	5213-950-C1169-43	12.07.2012	Spent lubricating oil, spent flammable liquid (diesel), surplus paint, spent organic solvent and their containers, spent batteries, soil containing mineral oil	N/A

### ***Wastewater Discharge License***

Item No.	Date Application Submitted	Area Applied	Status	Expiry Date
1	22.06.2012	Site Office for Supervising Officer (WA6)	Application Ref. No. 346651 Letter from the EPD (Ref: EP/RS/0000346267) dated 19.07.2012 confirming that license under WPCO is not required.	N/A
2	04.07.2012	Site Office for China States (WA6)	Application Ref. No. 346982 Water Discharge License WT00014182-2012 was granted on 20 Sep 2012	Valid until 30 Sept 2017

3.	31.07.2012	Portion B, Portion X & Portion Y	Application Ref. No. 348019 Water Discharge License WT00014118-2012 was granted on 20 Sep 2012	Valid until 30 Sep 2017.
4.	15.01.2013	WA 3	Application Ref No. 356237 Water Discharge License Ref. WT00015423-2013 was granted on 4 Mar 2013	Valid until 31/03/2018
5.	15.01.2013	WA 4	Application Ref No. 356240 Applied for Water Discharge License and pending for approval	N/A
6	02.04.2013	Airport Road (Southern)	Water discharge license Ref. WT00015866-2013 was granted on 29 Apr 2013	Valid until 30/04/2018
7	02.04.2013	Airport Road (Northern)	Water discharge license Ref. WT00015865-2013 was granted on 29 Apr 2013	Valid until 30/04/2018

### Construction Noise Permit

Item No.	Date Application Submitted	Works Area Applied	Description	Status	CNP No.	Validity of CNP	
						From	To
1	15.03.2013	WA 3	Unloading of TTA material and wastewater treatment	CNP issued on 28.03.2013 (Valid)	GW-RS0319-13	28.03.2013 19:00	27.09.2013 07:00
2	19.04.2013	Portion X	Marine Works	CNP issued on 30.04.2013 (Valid)	GW-RS0478-13	30.04.2013 19:00	29.10.2013 23:00
3	19.04.2013	Portion X	Marine Works	CNP issued on 30.04.2013 (Valid)	GW-RS0461-13	30.04.2013 23:00	29.10.2013 07:00
4	20.05.2013	WA4	Loading of plants and fill materials	CNP was issued on 05.06.2013 (Valid)	GW-RW0366-13	05.06.2013 1900	03.12.2013 2300
5	31.05.2013	S16	Loading and unloading of GI Machine	CNP issued on 14.06.2013 (valid)	GW-RS0650-13	15.06.2013 0200	30.07.2013 0700
6	14.06.2013	Airport Road	TTA Works (July)	CNP issued on 27.06.2013 (valid)	GW-RS0704-13	28.06.2013 00:00	21.09.2013 0500
7	19.06.2013	Kwo Lo Wan	Lighting / wastewater treatment	CNP issued on 12.07.2013	GW-RS0733-13	14.07.2013 2300	03.12.2013 0700

Item No.	Date Application Submitted	Works Area Applied	Description	Status	CNP No.	Validity of CNP	
						From	To
				(Valid)			
8	19.06.2013	Kwo Lo Wan	Pile Pilling	CNP issued on 03.07.2013 (valid)	GW-RS0731-13	14.07.2013 1900	03.12.2013 2300
9	24.06.2013	West Portal	Soil Nail / Site Formation	CNP issued on 08.07.2013	GW-RS0752-13	10.07.2013 19:00	09.12.2013 23:00
10	27.06.2013	WA6 office	Emergency Lighting	CNP issued on 11.07.2013	GW-RS0769-13	12.07.2013 19:00	11.01.2014 23:00
11	08.07.2013	Airport Road	Pile pilling (N13)	CNP issued on 25.07.2013	GW-RS0834-13	04.08.2013 19:00	03.02.2014 2300
12	08.07.2013	Airport Road	Lighting/ wastewater treatment	CNP issued on 25.07.2013	GW-RS0836-13	13.08.2013 23:00	12.02.2014 0700
13	12.07.2013	Airport Road (Billboard works)	Billboard construction works	CNP issued on 25.07.2013	GW-RS0839-13	10.08.2013 00:00	17.08.2013 0700
14	24.07.2013	Airport Road (Transplant of tree)	Transplant of trees	CNP applied on 09.08.2013	GW-RS0890-13	20.08.2013 00:00	28.09.2013 07:00
15	02.08.2013	Portion X (revised)	Marine Works	CAN applied on 02.08.2013	N/A	1900	2300
16	02.08.2013	Portion X (Revised)	Marine Works	CNP applied on 02.08.2013	N/A	2300	0700
17	30.08.2013	WA3 (renewal)	Stockpiling and wastewater treatment	CNP applied on 30.08.2013 and pending for approval	N/A	N/A	N/A



## APPENDIX M

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### Record of “Notification of Environmental Quality Limit Exceedances



Contract No. HY/2011/03 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances

Notification No.: 143

Date of Notification: 17 June 2013

Works Inspected: Data collected from water sampling works on 10 June 2013 and the test report was issued on 11 June 2013.

Monitoring Location: Water Quality Monitoring Stations

Parameter: Dissolved Oxygen (DO)/ ~~Suspended Solids (SS)~~/ Turbidity (TURB)

Action & Limit Level (AL & LL) / Measured Level:

PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	IS5	Bottom	5	4.2	5.2	<b>4.5</b>
DO	IS10	Bottom			<b>4.6</b>	<b>4.5</b>
DO	SR10B	Surface	5	5	7.2	<b><u>4.4</u></b>
DO	SR10B	Bottom			7.2	<b><u>4.4</u></b>

Notes:

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

Possible reason for Action or Limit Level Non-compliance:

On 10 June 2013, an AL exceedance at station IS10 was recorded at the bottom level during the mid-ebb tide. AL exceedances at stations IS5 and IS10 were recorded at the bottom level during the mid-flood tide. LL exceedances at station SR10B were recorded at the surface level and the bottom level during the mid-flood tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reasons:

1. Installation of stone column which is a land-based construction activity was carried out at Zone 1 and Zone 3A on 10 June 2013. There were no marine construction activities on 10 June 2013.
2. The range of dissolved oxygen at stations IS5, IS10, SR10B during the baseline monitoring are shown as below:

Station	Depth	Range of Dissolved Oxygen (mg/L) Mid-Ebb Tide	Range of Dissolved Oxygen(mg/L) Mid-Flood Tide
IS5	Bottom	3.3 to 8.6	2.9 to 9.4
IS10	Bottom	4.6 to 7.0	4.9 to 7.0
SR10B	Surface	5.2 to 9.0	5.0 to 8.4
SR10B	Bottom	5.6 to 9.3	4.9 to 7.6

The measured value at station IS5 and IS10 at the bottom level during mid flood tide and at station IS10 at the bottom level during mid-ebb tide were within the range of dissolved oxygen during the baseline monitoring. The measured value at stations SR10B at the surface level and bottom level during mid-flood tide were slightly below the range of dissolved oxygen.

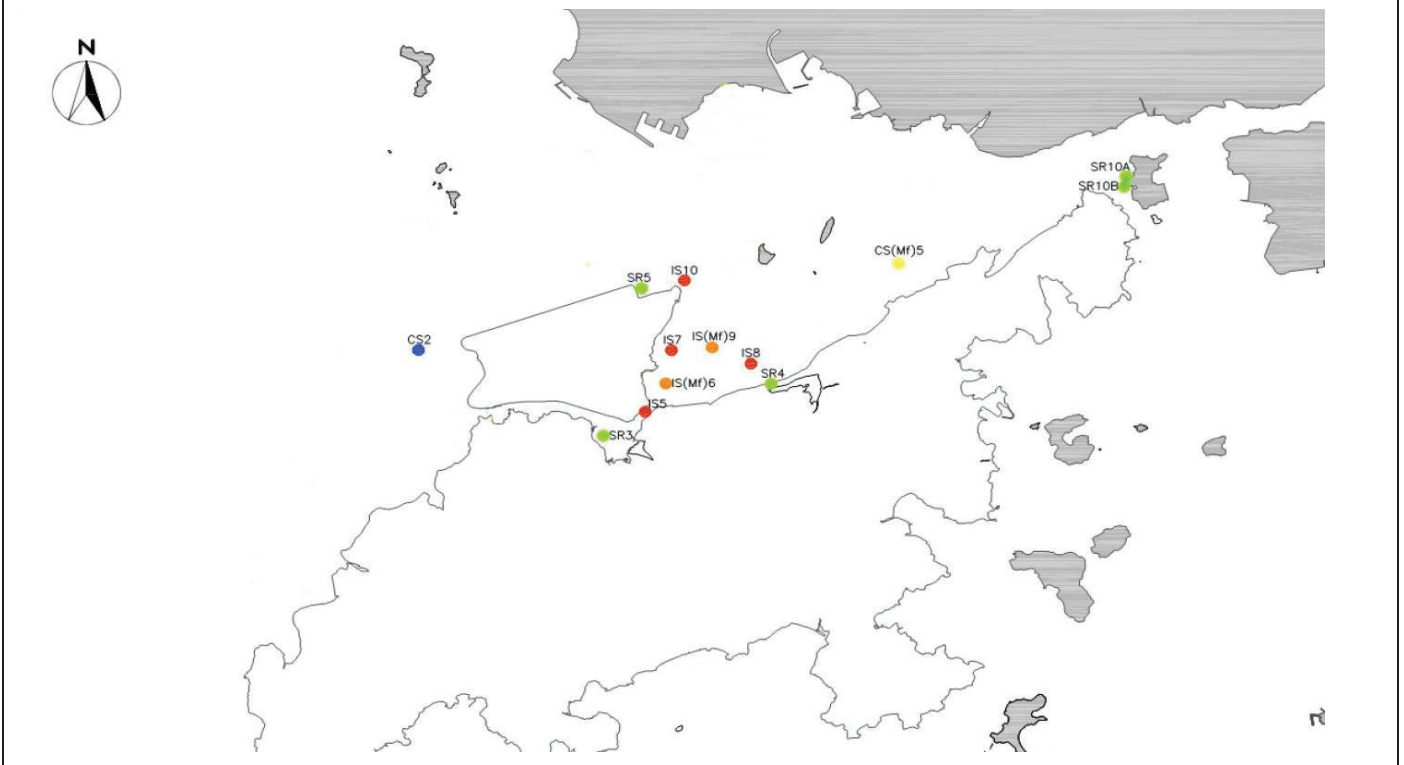
3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.

As such, the exceedances in DO levels are considered to be attributed to other external factors rather than the contract works.

**Actions taken/ to be taken:**

As the DO levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee

Title : ET Leader



Date : 17 June 2013

Copied to : Supervising Officer, IEC, EPD, Contractor, ENPO

**Contract No. HY/2011/03 -  
Hong Kong- Zhuhai- Macao Bridge  
Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities  
Notifications of Environmental Quality Limits Exceedances**

Notification No.: 144

**Date of Notification:** 5 July 2013

**Works Inspected:** Data collected from water sampling works on 24 June 2013 and the test report was issued on 2 July 2013.

**Monitoring Location:** Water Quality Monitoring Stations

**Parameter:** Dissolved Oxygen (DO)/ Suspended Solids (SS)/ Turbidity (TURB)

**Action & Limit Level (AL & LL) / Measured Level:**

PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
SS	SR4	DA	<b>23.5</b> and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.12 x 120% = <b>3.7</b> mg/L for mid ebb) AND CS(Mf)5: 4.02 x 120% = <b>4.8</b> mg/L for mid flood)	<b>34.4</b> and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.12 x 130% = <b>4.1</b> mg/L for mid ebb) AND CS(Mf)5: 4.02 x 130% = <b>5.2</b> mg/L for mid flood)	<b><u>47.3</u></b>	N.A.

**Notes:**

DA means depth average.

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

Due to adverse weather condition, the water quality monitoring was cancelled at SR4 during mid-flood tide.

**Possible reason for Action or Limit Level Non-compliance:**

On 24 June 2013, a LL exceedance at station SR4 was recorded during mid-ebb tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reasons:

1. There were no marine construction activities on 24 June 2013 at the station SR4.
2. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
3. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

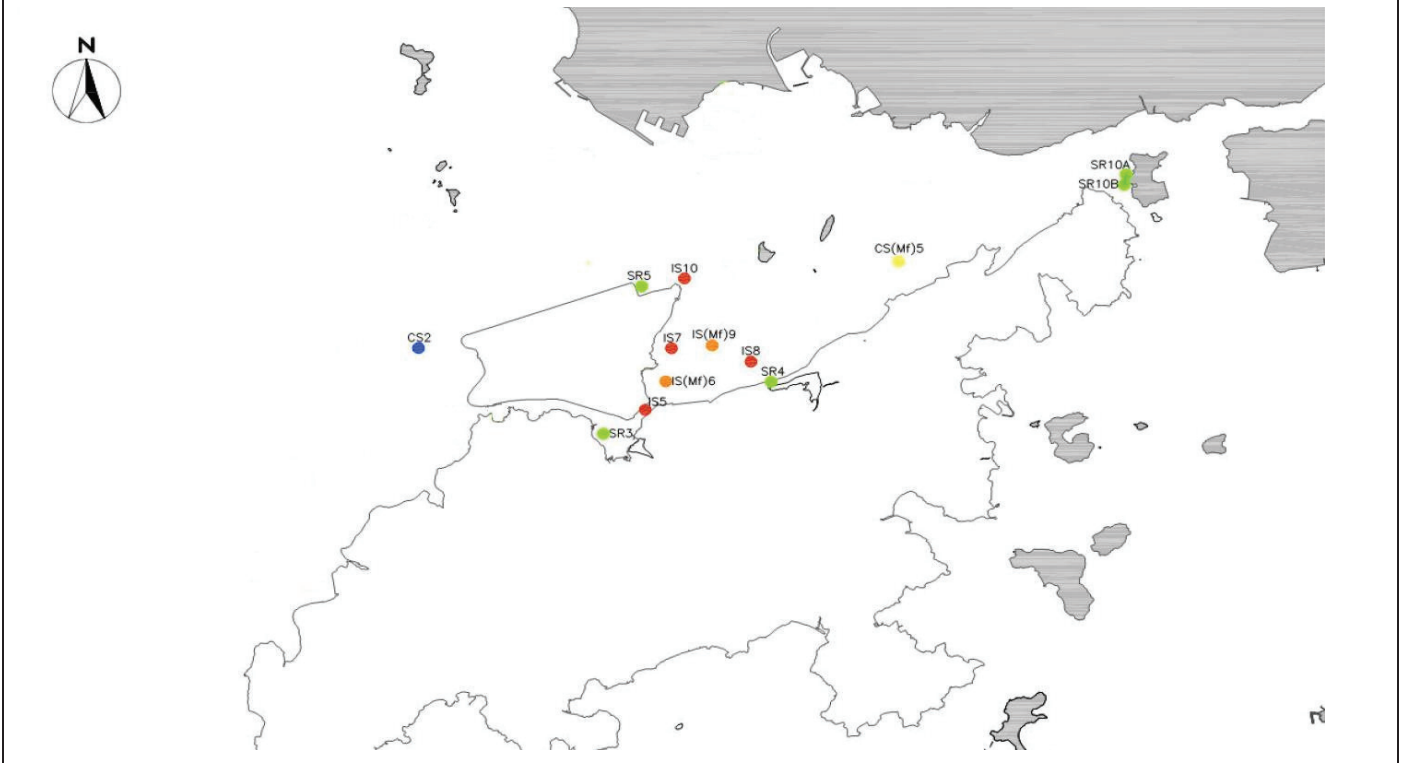
As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.

**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

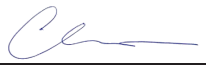


Location Plan:



Reviewed by : Claudine Lee

Title : ET Leader



Date : 5 July 2013

Copied to : Supervising Officer, IEC, EPD, Contractor, ENPO

<b>Contract No. HY/2011/03 -          Hong Kong- Zhuhai- Macao Bridge          Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities          Notifications of Environmental Quality Limits Exceedances</b>			Notification No.: 145
<b>Date of Notification:</b> 8 July 2013			
<b>Works Inspected:</b> Not Applicable			
<b>Monitoring Location:</b> Not Applicable			
<b>Parameter:</b> Noise			
<b>Action &amp; Limit Levels</b>			<b>Description</b>
Time Period	Action Level	Limit Level	One Action Level exceedance was recorded as there was a noise complaint received on 29 June 2013. The complaint was related to noise generated from the works area near the site office (WA6) around 10:00 hrs on 29 June 2013.
07:00–19:00 hrs Normal weekday	1 complaint	75 dB(A)	
<b>Possible reason for Action or Limit Level Non-compliance:</b>			
<p>According to the site dairy provided by the Contractor, electric circular saw was used to cut plastic tubes for maintenance work at the works area near the site office (Work area WA6) from 09:45 to 10:15 hrs of 29 June 2013.</p> <p>A site inspection was undertaken on 2 July 2013, no construction works was undertaken at work area near the site office (Work area WA6). No significant noise was generated from the site.</p> <p>As the electric circular saw was used for maintenance work and there was no significant noise generated from the site, the complaint was considered invalid.</p> <p>The site diary for the complaint time period of 29 June 2013 and location plan of work area WA6 are attached for information.</p>			
<b>Actions taken/ to be taken:</b>			
As the complaint is not due to the project works, no mitigation measure/actions are considered necessary.			
<b>Recommendations/ mitigation measures/ actions if necessary:</b>			
The Contractor was recommended to minimize the potential noise impacts generated from the construction sites as far as practicable in future.			

Reviewed by : Claudine Lee Title : ET Leader

  
 \_\_\_\_\_ Date : 8 July 2013

Copied to : Supervising Officer, ENPO, IEC, EPD, Contractor



Site Diary for WA6 (Works Area of Site Office) on 29 June 2013

Location	Time	Plant Name	Plant Type	Working Status	CNP No.	Group
WA6	9:45 - 10:15	N/A	Electric circular saw	Electric circular saw was used to cut plastic tubes for maintenance work	N/A	N/A

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**Contract No. HY/2011/03 -  
 Hong Kong- Zhuhai- Macao Bridge  
 Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities  
 Notifications of Environmental Quality Limits Exceedances**

Notification No.: 146

**Date of Notification:** 5 August 2013

**Works Inspected:** Data collected from water sampling works on 29 July 2013 and the test report was issued on 30 July 2013.

**Monitoring Location:** Water Quality Monitoring Stations

**Parameter:** Dissolved Oxygen (DO)/ ~~Suspended Solids (SS)~~/ Turbidity (TURB)

**Action & Limit Level (AL & LL) / Measured Level:**

PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	SR10B	Surface	5	5	6.1	<b><u>4.8</u></b>

Notes:

***Bold Italic*** means AL exceedances.

***Bold Italic with underline*** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 29 July 2013, a LL exceedance at station SR10B was recorded at the surface level during the mid-flood tide.

The exceedance has been investigated and is considered unlikely to be related to contract works due to the following reasons:

1. Marine construction activities including rock filling and laying of geotextile at Zone 1, sand filling at Zone 3A were carried out within silt curtain as recommended in the EIA report on 29 July 2013.
2. The range of dissolved oxygen at station SR10B during the baseline monitoring are shown as below:

Station	Depth	Range of Dissolved Oxygen (mg/L) Mid-Ebb Tide		Range of Dissolved Oxygen(mg/L) Mid-Flood Tide	
SR10B	Surface	5.2	to 9.0	5.0	to 8.4

The measured value at station SR10B at the surface level during mid-flood tide was slightly below the range of dissolved oxygen during the baseline monitoring.

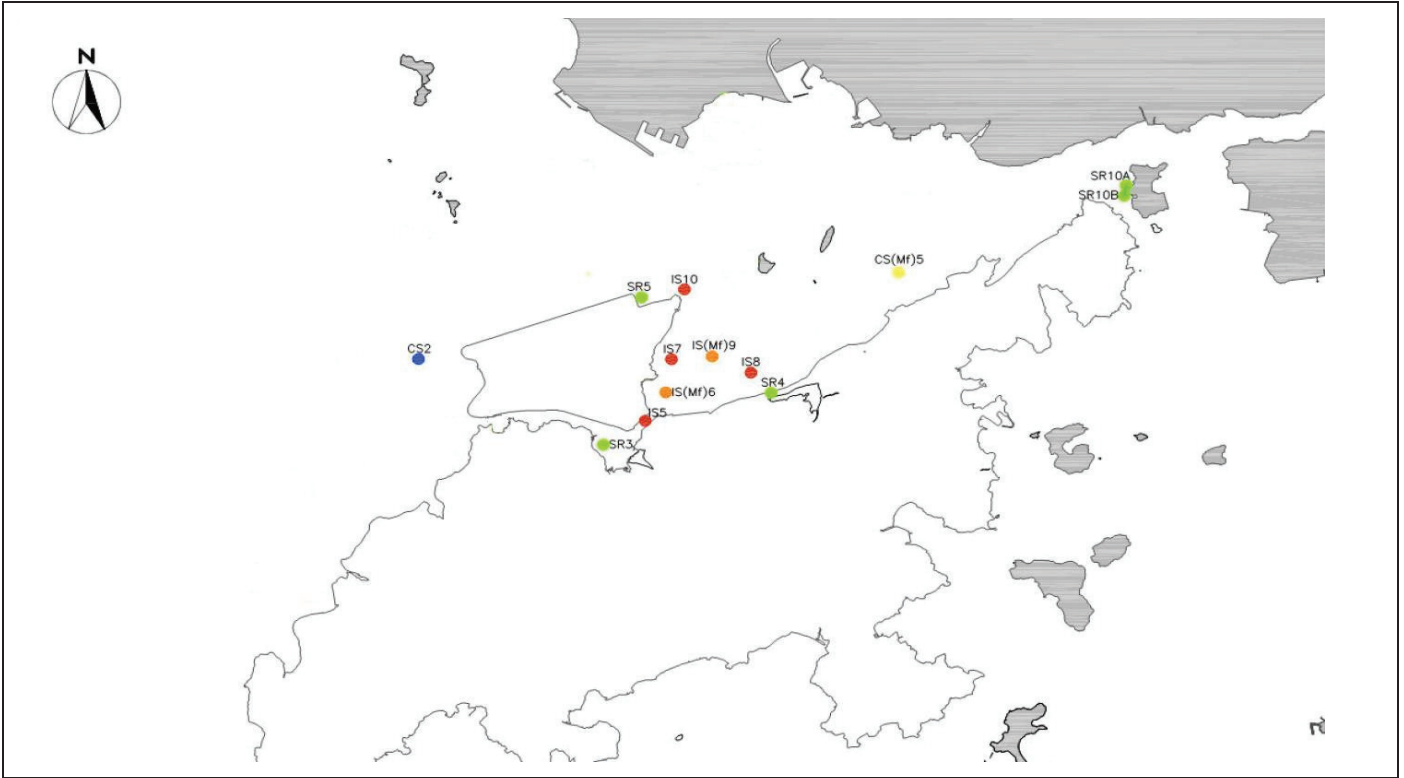
3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.


As such, the exceedance in DO levels is considered to be attributed to other external factors rather than the contract works.

**Actions taken/ to be taken:**

As the DO level recorded beyond the water quality criteria was not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee  


Title : ET Leader

Date : 5 August 2013

Copied to : Supervising Officer, IEC, EPD, Contractor, ENPO

**Contract No. HY/2011/03 -  
 Hong Kong- Zhuhai- Macao Bridge  
 Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities  
 Notifications of Environmental Quality Limits Exceedances** Notification No.: 147

**Date of Notification:** 30 August 2013

**Works Inspected:** Data collected from water sampling works on 7 August 2013 and the test report was issued on 15 August 2013.

**Monitoring Location:** Water Quality Monitoring Stations

**Parameter:** Dissolved Oxygen (DO)/ Suspended Solids (SS)/ Turbidity (TURB)

**Action & Limit Level (AL & LL) / Measured Level:**

PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
SS	IS5	DA	<b>23.5</b> and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 6.72 x 120% = <b>8.1</b> mg/L for mid ebb) AND CS(Mf)5: 10.97 x 120% = <b>13.2</b> mg/L for mid flood)	<b>34.4</b> and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 6.72 x 130% = <b>8.7</b> mg/L for mid ebb) AND CS(Mf)5: 10.97 x 130% = <b>14.3</b> mg/L for mid flood)	<b>25.5</b>	11.7
SS	IS(Mf)6	DA			<b>24.3</b>	17.6
SS	IS7	DA			<b>24.7</b>	15.1
SS	SR3	DA			<b>26.4</b>	10.7

Notes:  
 DA means depth average.  
**Bold Italic** means AL exceedances.  
**Bold Italic with underline** means LL exceedances.

**Possible reason for Action or Limit Level Non-compliance:**

On 7 August 2013, AL exceedances at station IS5, IS(Mf)6, IS7 and SR3 were recorded during mid-ebb tide.

The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reasons:

1. Filling and geotextile laying activity were carried within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at station IS5, IS(Mf)6, IS7 and SR3 during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid- Ebb Tide		Range of Suspended Solid (mg/L) Mid- Flood Tide	
IS5	8.1	to 25.7	7	to 23.7
IS(Mf)6	7.1	to 19	8.5	to 35
IS7	6.1	to 21	7.8	to 34
SR3	6.7	to 31	7.6	to 28

The measured value at stations IS5 and SR3 were within the range of suspended solid during baseline monitoring for mid-ebb tide.

3. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
4. No leakage of turbid water or any abnormality or malpractice was observed during the sampling exercise.

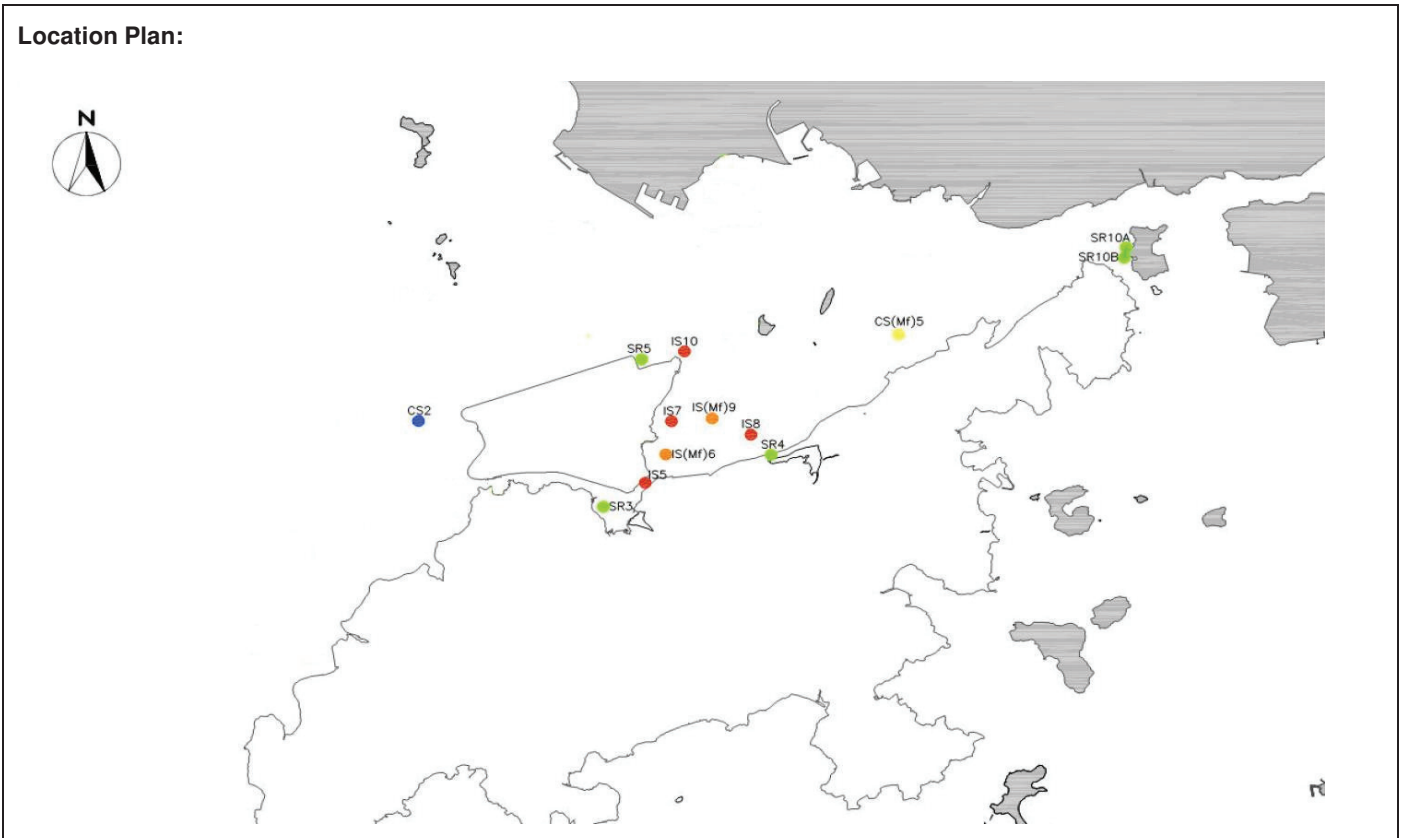
As such, the suspended solid levels are considered to be attributed to other external factors, rather than the contract works.




**Actions taken/ to be taken:**

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

**Location Plan:**



Reviewed by : Claudine Lee  


Title : ET Leader

Date : 30 August 2013

Copied to : Supervising Officer, IEC, EPD, Contractor, ENPO

**Contract No. HY/2011/03 -  
Hong Kong- Zhuhai- Macao Bridge  
Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities  
Notifications of Environmental Quality Limits Exceedances** Notification No.: 148

**Date of Notification:** 23 September 2013

**Works Inspected:** Not Applicable

**Monitoring Location:** NEL & NWL

**Parameter:** Ecology (Chinese White Dolphin Monitoring)

Action & Limit Levels		Monitoring Results
	North Lantau Social Cluster	
	Action Level (AL)	Limit Level (LL)
		The quarter of June 2013-August 2013
Northeast Lantau (NEL)	STG < 4.2 & ANI < 15.4	<b><i>STG = 0.88; ANI = 3.91</i></b>
Northwest Lantau (NWL)	STG < 6.9 & ANI < 31.3	<b><i>STG = 6.56; ANI = 27.00</i></b>

Notes:

1. STG means quarterly encounter rate of number of dolphin sightings.
2. ANI means quarterly encounter rate of total number of dolphins.
3. For North Lantau Social Cluster, AL will be triggered if either NEL or NWL falls below the criteria; LL will be triggered if both NEL and NWL fall below the criteria.
4. ***Bold Italic*** means AL exceedances.
5. ***Bold Italic with underline*** means LL exceedances

**Possible reason for Action Level Non-compliance:**

According to the contractor's information, the marine activities undertaken for HKLR03 during the two quarterly periods (March to May 2013 and June to August 2013) included stone platform construction, reclamation, stone column installation, band drain installation and excavation of stone platform. During the quarterly period of June to August 2013, geotextile laying activities were also carried out.

There is no evidence showing the current AL non-compliance directly related to the construction works of HKLR03. It should also be noted that reclamation work under HKLR03 (adjoining the Airport Island) situates in waters which has rarely been used by dolphins in the past, and the working vessels under HKLR03 have been travelling from source to destination in accordance with the Marine Travel Route to minimize impacts on Chinese White Dolphin. In addition, the contractor will implement proactive mitigation measures such as avoiding anchoring at Marine Department's designated anchorage site – Sham Shui Kok Anchorage (near Brothers Island) as far as practicable.

**Actions taken/ to be taken:**

Inform the IEC, ER/SOR and Contractor

The ETL informed IEC, ENPO SOR and Contractor via email on 11 September 2013.

Repeat statistical data analysis to confirm findings and check monitoring data:

A two-way ANOVA with repeated measures and unequal sample size was conducted to examine whether there were any significant differences in the average encounter rates between the baseline and impact monitoring periods. The two variables that were examined included the two periods (baseline and impact phases) and two locations (NEL and NWL).

For the comparison between the baseline period and the present quarter (third quarter of the impact phase), the p-value for the differences in average dolphin encounter rates of STG and ANI were 0.0611 and 0.1508 respectively. If the alpha value is set at 0.1 (due to the small sample size with lower statistical power in the analysis), significant difference was detected between the baseline and present quarters in the average dolphin encounter rate of STG, but not in the average dolphin encounter rate of ANI.

For the comparison between the baseline period and the cumulative quarters in impact phase (i.e. first four quarters of the impact phase), the p-value for the differences in average dolphin encounter rates of STG and ANI were 0.0559 and 0.0244 respectively. If the alpha value is set at 0.1, significant difference was detected in both the average dolphin encounter rates of STG and ANI (i.e. between the two periods and the locations).

Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences:

The AFCD monitoring data during June-August 2013 has been reviewed by the dolphin specialist, and only one group of six dolphins were sighted from 126.03 km of survey effort on primary lines in NEL during the same quarter. This review has confirmed that the very low occurrence of dolphins reported by the HKLR03 monitoring survey in summer 2013 in NEL is accurate.

Identify source(s) of impact:

There is no evidence showing that the sources of impact directly related to the construction works of HKLR03 that may have affected the dolphin usage in the NEL region.

**Recommendations/ mitigation measures/ actions if necessary:**

Review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary:

All dolphin protective measures are fully and properly implemented in accordance with the EM&A Manual. In order to minimise disturbance to the Brother's Island, the Contractor provide training to skippers to ensure that their working vessels travel from source to destination to minimize impacts on Chinese White Dolphin and avoid anchoring at Marine Department's designated anchorage site - Sham Shui Kok Anchorage (near Brothers Island) as far as practicable.

Reviewed by : Claudine Lee Title : ET Leader



Date : 23 September 2013

Copied to : Supervising Officer, ENPO, IEC, EPD, Contractor

**Summary of Notifications of Summons and Prosecutions**

Total No. of Notifications of Summons / Prosecutions Received	No. of Notifications of Summons / Prosecutions Received during Reporting Period	Status of Notifications of Summons / Prosecutions
0	0	N/A



## APPENDIX N

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### Cumulative Statistic on Complaints



HyD Contract No. HY/2011/03  
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road  
 Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Complaint Register

Complaint No.	Received Date	Received Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2012-008	22-Oct-12	16:41	EPD	Environmental (Water Pollution)	X在丹桂橋東邊橋身出現黑煙及水柱，有污水排到河中 (發現黑煙及水柱，有污水排到河中，要求該處及回覆。(Photos attached). The "phenomenon" was observed over the past week. The photos attached were taken on 19, 10, 2012, 22, 10, 2012 and 23, 10, 2012	Portion X	The pelican barge as shown in the photos provided on 24 October 2012 did not belong to the Contractor.	Closed	-
COM-2012-009	05-Nov-12	-	1823 CASE:1-391341859	Environmental (Noise and light)	The citizen complained about noise and light pollution from the barges working on the Zhuhai Macau Bridge project. Barge machinery working to about 10pm at night and lighting machinery working to about 11pm at night. The noise is more audible because the machinery is sited on over the water.	Portion X	The Contractor has adjusted the emission angle of the lights on working vessels with a view to minimizing the glaring effect to the adjoining residential areas	Closed	-
COM-2012-009(2)	11-Nov-12	-	1823 CASE:1-391341859	Environmental (Noise, water quality & air quality)	The complainant noted that the barges are still working on a Sunday, up until 10pm at night, very noisy, causing pollution of the water and at times expelling black smoke from their engines. A photograph taken at 10:40am on Sunday 11 November 2012 was attached.	Portion X	-	Closed	-
COM-2012-009(3)	14-Nov-12	-	1823 CASE:1-391341859	Environmental (Noise)	The complainant did not accept the reply. He further said that "All staff has to do is come out either at night or a Sunday to check, so easy. If this continues I will have no choice to call the police out."	Portion X	The Contractor has taken the following further mitigation measures for the reclamation works: (a) Mitigation Measures for Noise Nuisance: • Improvement of noise covers onto the generators / motors on barges; and • Increase frequency of applying lubricant to all moving parts and gear wheels of the working barges. (b) Mitigation Measures for Smoke Emission: • Increase frequency of maintenance and checking of engines on barges that may emit smoke; and • Installation/ replacement of smoke suppression device such as air filter, at engines where necessary.	Closed	-
COM-2012-010(1)	06-Nov-12	-	<tzmbenquiry@hyd.gov.hk>	Environmental (Noise)	The complainant stated that lately work has started opposite Le Bleu Daux estate using barges. The work in process is generated high level of noise from powered tools used on these barges. Even if the noise was acceptable on weekdays during daytime, it is definitely creating nuisance to local resident at night (past 7pm) and on Sunday. Basically as 5 November 12 evening, he could not leave his window open as the level of noise prevent his baby to sleep and he could not even hear the TV in his flat, the noise coming from the site is higher than the sounds from my TV. He would like to know what measure you are planning to put in place to address this issue. He did not think that the current level of noise are acceptable past 7pm and on Sunday.	Portion X	-	Closed	-
COM-2012-010(2)	15-Nov-12	-	<tzmbenquiry@hyd.gov.hk>	Environmental (Noise & air quality)	The noise can be very annoying, on days depending of the wind direction, you are making more noise than the plane taking off (I measured it myself), to give you an idea of the disturbance you are creating again, I would also like to bring another topic beside the noise. Since the beginning of the filling operation, very strong smell of exhaust pipe gas can be smelt in the residential area and I think this is a huge health concern for the local population. On certain days when the wind is blowing towards the residential areas, I have the feeling that there is a diesel engine running in my living room. I would like to know how you are planning to address this?	Portion X	-	Closed	-

HyD Contract No. HY/2011/03  
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road  
 Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Complaint Register

Complaint No.	Received Date	Received Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2012-010(3)	15-Nov-12	-	EPD	Environmental (Noise, water quality & air quality)	The complainant has copied his reply from HyD dated 15 Nov 2012 to EPD and Health Department and he further complained on the following issues: • Noise nuisance generated by diesel engine; • Smell of exhaust pipe gas in his residence; and • Suspected marine water pollution (see enclosed photo). The complainant also requested EPD to install noise and air quality monitoring at Le Bleu Deux estate.	WA6  Portion X	Noise from blowing horn from vessels and barges and Metallic Parts thrown on Ground • Reminded the Contractor to request the captains of the vessels and barges not blowing the horn except in case of emergency or prevention of ship collisions/serious safety matters; • The supervision teams would enhance their tight control on the vessels and barges working at that location, and monitor the situation and take corresponding actions; and • To enhance the work force of RSS to supervise each step of construction activities and the use of hand tools until the completion of the site office erection. Noise from Engines and Cranes of the Barges during Marine Operation • Installation of noise covers onto the generators / motors on all working barges; • Increase frequency of applying lubricant to all moving parts and gear wheels of the working barges to avoid generation of abnormal sound; and • Review of working hours for the reclamation works and switching off all unnecessary machinery and plants at night time and Sundays. Noise from power generators • All generators shall be either screened or covered by adequate sound reducing materials; • All generators situated in front of Le Bleu Deux estate will be switched off at 19:00 hrs, except two generators will be kept running up to 22:00hrs and one generator will be kept running overnight for maintaining minimum power requirement; and • Arrangement with CLP Power HK Ltd (CLP) for the permanent power supply to the site offices has been chased in a matter of urgency. The use of power generators will be terminated in phase starting from 6 December 2012. Dust from Earthmoving • The Contractor shall use the machine and generators in the vicinity of Le Bleu Deux estate, and • Closely monitor the frequency on engine cleansing and replacement of dust filter. Change of Sea Water in Yellow • The Contractor was reminded to move their vessels and barges at areas with adequate water depth as practically as possible.	Closed	-
COM-2012-010(4)	19-Nov-12	22:25 hrs.	EPD	Environmental (Air quality and Noise)	The complainant filed again a complaint for the strong exhaust pipe fumes smell coming for the construction site in Tung Chung tonight, as well as the extremely high level of noise as at: at 10:30 pm (19/11/12).	WA6			
COM-2012-010(5)	24-Nov-12	13:42 hrs. 13:49 hrs	EPD (cc to HyD)	Environmental (Air quality and Noise)	The noise is coming for the following sources: - power generator - engines from the barges used for marine operation - noise from the cranes use of the construction barges. - engine from the boat used to transport staff in and out - boats blowing their horn late in the evening and at night Gas emissions: - power generators - marine operation The complainant file again a complaint against the strong exhaust pipe emission flowing towards le Bleu Deux estate this afternoon 24/11/12 at 13:47. I can assure you that it is not "not that bad" whatever that means for you. And again strong noise of metallic parts being thrown on the ground. / <i>thought you have already sorted out that problem according to your multiple replies to my complaints since July ???</i>	WA6  Portion X			
	25-Nov-12	22:02 hrs. 22:08 hrs.	EPD (cc to HyD)		A picture taken this morning (25/11/12) around 9:30am-10am showing the water pollution in different area outside the floating barriers. At 21:56 hrs, boat used by the Highway Department against blew their horn repetitively at close proximity from the residential estate.				
COM-2012-012(1)	13-Nov-12	22:27 hrs.	HyD	Environmental (Noise)	Once again your site continues to work late. The attached photo was taken at 10:15pm on Tuesday 13 Nov. The machinery used on the barges is very noisy. Why do you continue to work till 10pm and why do you work on a Sunday. Surely this is classified as a construction site for which you are in breach of various ordinances. An early reply is appreciated.	Portion X	The following further mitigation measures during the course of the reclamation works will be taken: • Installation of noise covers onto the generators / motors on all working barges; • Increase frequency of applying lubricant to all moving parts and gear wheels of the working barges to avoid generation of abnormal sound; and • Review of working hours for the reclamation works and switching off all unnecessary machinery and plants at nighttime and Sundays.	Closed	-
COM-2013-015	17-Jan-13	-	EPD	Environmental (Air)	The complainant raised that construction dust was arising from construction site of China State Construction Engineering (Hong Kong) Ltd near Su Ho Wan Sewage Treatment Works due to insufficient dust suppression and inadequate wheel washing.	WA3	The Contractor of HY2011/03 would take the following actions with immediate effect • To ensure no loosed earth material exposed at the edges of earth stockpiled earth materials i.e. to prevent erosion by wind and water; • To cover the stockpiled earth material by adequate tarpaulin; • To enhance the frequency of watering (3 times per day) onto existing haul road, and other area as appropriate; and • To install a water sprinker system to enhance the existing dust suppression measures once the water point is ready for water supply by WSD.	Closed	



HyD Contract No.HY/2011/03  
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road  
 Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Complaint Register

Complaint No.	Received Date	Received Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2013-016	18-Jan-13	-	EPD	Environmental (Water)	The complainant advised that turbid water and concrete/cement has been arising from the Hong Kong-Zhuhai-Macao Bridge Hong Kong Projects to marine water. The complainant did not specify the source of the turbid water and concrete/cement.	N/A	-	Closed	-
COM-2013-018	02-Mar-13	-	HyD	Environmental (Noise)	The complainant advised that "it seems that the Contractor's cranes operating on the barges are again in need of bit of lubricant", as this evening i.e. 2 March 2013, the cranes are again polluting the neighborhood with intolerable noise." The complainant requested Mr. Ng from EPD to take note of this complaint and expected a detailed report.	Portion X	The Contractor has been reminded to continue the process of applying lubricant/grease to all barges which are to be worked in the site area near Le Bleu Deux.	Closed	-
COM-2013-018 (2)	04-Mar-13	-	EPD	Environmental (Noise)	The complainant complained that the cranes operating on the barges for the HZMB HK project generating squeak noise in the evening of 1 March 2013 causing an annoyance to him/her.	Portion X	The Contractor implemented the following measures : - Briefing given to the operator for the proper operation of marine vessels; - Keep adequate routine maintenance ; - Minimize the quantities of plant after 7pm ; & - Review the working hours of night time works and switch off all unnecessary machinery and plants at night time.	Closed	-
COM-2013-018 (3)	13-Mar-13	-	HyD	Environmental (Noise)	The complainant asked what noise mitigation the Contractor was taking. The complainant pointed out that the noise in question was so strong that it woke up his baby girl.	Portion X	-	Closed	-
COM-2013-018 (4)	22-Mar-13	14:19 hrs	HyD	Environmental (Noise)	The complainant complained that "the lifting appliance was operated gently and softly to keep the noise emission as low as possible" but the noise still woke up his baby. "Lubricant was regularly applied to smoothen all moving parts and gear wheels of the working barges" that did not seem to be the case at all.  The complainant pointed that the crane operating at 10:27 hrs on 24 March 2012 needed lubricant.	Portion X	The Contractor will keep on closely monitoring the situation and carry out the necessary noise mitigation measures while barges are working in the site area nearby residential area.	Closed	-
COM-2013-018 (5)	31-Mar-13	10:28 hrs	HyD	Environmental (Noise)	The complainant complained that noise emitted from a crane at 10:19 hrs. The complainant further complained that noise was generated from a barge at 07:30 hrs.	Portion Y	-	Closed	-
COM-2013-018 (6), (7) & (9)	15-Apr-13	15:41 hrs	EPD	Environmental (Noise)	The complainant complained that machinery noise generated from the construction site near Tung Chung Development Pier operating for the Hong Kong-Zhuhai-Macao Bridge Hong Kong during the normal working hours on 6 April 2013 and 13 April 2013 and the late evening of 10 April 2013 causing nuisance to public.	Portion X	The Contractor has been reminded to comply with CNP conditions for construction works undertaken during restricted hours. To minimize the potential noise impact during restricted hours and non-restricted hours, the Contractor has implemented the following additional measures: - Briefing given to the operator of the barges for proper operation of marine vessels; - Operating barge by experienced operators only; - Keeping adequate routine maintenance for barges e.g. application of lubricants into moving parts in order to minimize squeak noise; - Install noise covers onto noisy equipment where practicable. - Remind subcontractor only well-maintained plant should be operated on-site. - Minimize the quantities of plant used after 7pm as far as practicable; - Speed up of construction works in order to shorten the duration (days) of potential noise impact/nuisance to the surrounding environment; and - Regular review of working hours for night time works and switch off all unnecessary machinery and plants at night time.	Closed	-

HyD Contract No. HY/2011/03  
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road  
 Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Complaint Register

Complaint No.	Received Date	Received Time	Source	Category	Complaint Details	Location	Improvement Measures Taken	Status	Remarks
COM-2013-018 (11)	28-Apr-13	15:44	EPD	Environmental (Noise)	The complainant complained that machinery noise generated from the reclamation site near Tung Chung Development Pier at around 22:00 of 28 April 2013 causing nuisance to public.	Portion X	The Contractor has been reminded to comply with CNP conditions for construction works undertaken during restricted hours. To minimize the potential noise impact during restricted hours, the Contractor has implemented the following additional measures: - Briefing given to the operator of the barges for proper operation of maine vessels; - Operating barge by experienced operators only; - Keeping adequate routine maintenance for barges e.g. application of lubricants into moving parts in order to avoid squeak noise; - Install noise covers onto noisy equipment where practicable. - Remind subcontractor only well-maintained plant should be operated on-site. - Speed up of construction works in order to shorten the duration (days) of potential noise impact/nuisance to the surrounding environment; and - Regular review of working hours for night time works and switch off all unnecessary machinery and plants at night time.	Closed	-
COM-2013-022	08-Apr-13	--	EPD	Environmental (Water)	The complainant alleged that oil was dumped from various vessels operating for HZMB HK projects near Tung Chung Development Pier over the past few months. Photos were provided by the complainant.	Portion X	The Contractor has checked the photos provided by the complainant and confirmed that the vessels and boats shown in the photos do not belong to Contract No. HY/2011/03. As this complaint is not related to this Contract, no follow up action is required. The Contractor has reminded their subcontractors to implement the measures recommended in the Spill Response Plan (SRP) in case of accidental release of oils from vessel.	Closed	-
COM-2013-022(2)	23-May-13	09:15 hrs	EPD	Environmental (Water)	This complaint was a follow-up of a previous complaint received by EPD on 18 April 2013 regarding oil slicks caused by vessels. It was alleged that oil was still being dumped from various vessels operating for HZMB/HK projects near Tung Chung Development Pier over the past few months. On the other hand, the complainant also wanted to know whether the owners of the vessels could present engine oil disposal records for the vessels which supported the HZMB project.	Portion X	The Contractor has reminded their subcontractors to implement the measures recommended in the Spill Response Plan in case of accidental release of oils from vessel and handle the chemical waste (waste oil) in accordance with the requirements provided in the EM&A Manual.	Closed	-
COM-2013-023	02-May-13	--	HyD	Environmental (Noise)	The complainant alleged that there were metal parts dropped on the ground creating noise at 12:59 on 1 May 2013.	WA6	If there are metal handling works, the Contractor will not carry out the metal handling works in early morning in order to minimize potential noise disturbance as far as practicable in future.	Closed	-
COM-2013-024	23-May-13	09:50 hrs	EPD	Environmental (Noise)	A complaint was received on 23 May 2013 regarding noise generated from dropping metal parts on numerous occasion on the pier opposite Le Blau Deux at around 09:45 to 10:00 hrs of 18 May 2013 and loading/unloading activities creating noise disturbance by the contractor of HY/2011/03.	WA6	If there are metal handling works, the Contractor will not carry out the metal handling works in early morning in order to minimize potential noise disturbance as far as practicable in future.	Closed	-
COM-2013-027	29-Jun-13	10:02 hrs	RSS	Environmental (Noise)	A complaint was received on 29 June 2013 regarding noise generated from the works area near the site office (WA6) around 10:00 hrs on 29 June 2013	WA6	The Contractor was recommended to minimize the potential noise impacts generated from the construction sites as far as practicable in future.	Closed	-



路政署  
**HIGHWAYS DEPARTMENT**

港珠澳大橋香港工程管理處  
Hong Kong - Zhuhai - Macao Bridge  
Hong Kong Project Management Office

Contract No. HY/2011/03 : Hong Kong-Zhuhai-Macao Bridge  
Hong Kong Link Road - Section between Scenic Hill  
and Hong Kong Boundary Crossing Facilities  
4<sup>th</sup> Quarterly EM&A Report (Rev.2)

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## APPENDIX O

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### Mudflat Monitoring Results



中國建築工程(香港)有限公司  
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

**Table 3.1.** Record of horseshoe crab survey at every sampling zone.

Species	Prosomal		GPS coordinate	Grouping	Remark
	width (mm)	Substratum			
<b>TC1 (search hour = 2 hr)</b>					
<i>Tachypleus tridentatus</i>	53.95	S	22° 17.006' N 113° 55.988' E	A	
<i>T. tridentatus</i>	57.62	S	22° 17.006' N 113° 55.988' E	A	
<i>T. tridentatus</i>	54.66	S	22° 17.006' N 113° 55.988' E	A	
<i>T. tridentatus</i>	21.44	S	22° 17.004' N 113° 55.992' E	B	
<i>T. tridentatus</i>	22.45	S	22° 17.004' N 113° 55.992' E	B	
<i>T. tridentatus</i>	55.63	S	22° 17.006' N 113° 55.992' E		
<i>T. tridentatus</i>	34.82	S	22° 17.058' N 113° 55.006' E		
<b>TC2 (search hour = 2 hr)</b>					
No record					
<b>TC3 (search hour = 2 hr)</b>					
<i>T. tridentatus</i>	11.07	S	22° 17.095' N 113° 55.592' E		
<i>T. tridentatus</i>	54.09	S	22° 17.035' N 113° 55.671' E		
<i>T. tridentatus</i>	20.41	S	22° 17.101' N 113° 55.596' E		
<i>T. tridentatus</i>	54.56	S	22° 17.059' N 113° 55.621' E		
<i>T. tridentatus</i>	41.08	S	22° 17.054' N 113° 55.621' E		
<i>T. tridentatus</i>	20.81	S	22° 17.051' N 113° 55.626' E	A	
<i>T. tridentatus</i>	49.45	S	22° 17.051' N 113° 55.626' E	A	
<i>T. tridentatus</i>	44.89	S	22° 17.006' N 113° 55.638' E		
<i>T. tridentatus</i>	24.19	S	22° 17.009' N 113° 55.640' E	B	
<i>T. tridentatus</i>	28.81	S	22° 17.009' N 113° 55.640' E	B	
<i>T. tridentatus</i>	32.63	S	22° 17.009' N 113° 55.640' E	B	
<i>T. tridentatus</i>	48.01	S	22° 17.006' N 113° 55.643' E		
<i>T. tridentatus</i>	42.72	S	22° 16.983' N 113° 55.654' E	C	
<i>T. tridentatus</i>	14.85	S	22° 16.983' N 113° 55.654' E	C	
<i>T. tridentatus</i>	34.52	S	22° 16.983' N 113° 55.654' E		
<i>T. tridentatus</i>	30.52	S	22° 16.971' N 113° 55.655' E		

G = Gravel and Boulders, M = Soft mud, S = Sand.

Individuals in a group were given the same grouping letter at the sampling zone.

**Table 3.1 (Cont'd). Record of horseshoe crab survey at every sampling zone.**

Species	Prosomal		GPS coordinate	Grouping	Remark
	width (mm)	Substratum			
<b>ST (search hour = 3 hr)</b>					
<i>T. tridentatus</i>	55.51	S	22° 17.234' N 113° 55.492' E	A	
<i>T. tridentatus</i>	49.77	S	22° 17.234' N 113° 55.492' E	A	
<i>T. tridentatus</i>	44.75	S	22° 17.230' N 113° 55.495' E	B	
<i>T. tridentatus</i>	37.93	S	22° 17.230' N 113° 55.495' E	B	
<i>T. tridentatus</i>	30.36	S	22° 17.211' N 113° 55.479' E		
<i>T. tridentatus</i>	36.58	S	22° 17.225' N 113° 55.492' E	C	
<i>T. tridentatus</i>	49.56	S	22° 17.225' N 113° 55.492' E	C	
<i>T. tridentatus</i>	42.12	S, G	22° 17.385' N 113° 55.451' E		
<i>T. tridentatus</i>	47.05	S, G	22° 17.385' N 113° 55.453' E		tail lost
<i>T. tridentatus</i>	45.12	S, G	22° 17.382' N 113° 55.457' E	D	
<i>T. tridentatus</i>	49.38	S, G	22° 17.382' N 113° 55.457' E	D	
<i>T. tridentatus</i>	52.73	S	22° 17.382' N 113° 55.460' E	E	
<i>T. tridentatus</i>	52.22	S	22° 17.382' N 113° 55.460' E	E	
<i>T. tridentatus</i>	34.1	S	22° 17.382' N 113° 55.460' E	E	
<i>T. tridentatus</i>	38.85	S	22° 17.382' N 113° 55.460' E	E	
<i>T. tridentatus</i>	48.75	S	22° 17.382' N 113° 55.460' E	E	
<i>T. tridentatus</i>	53.22	S	22° 17.382' N 113° 55.460' E	E	
<i>T. tridentatus</i>	45.83	S	22° 17.382' N 113° 55.460' E	E	
<i>T. tridentatus</i>	40.3	S	22° 17.385' N 113° 55.458' E	F	
<i>T. tridentatus</i>	48.91	S	22° 17.385' N 113° 55.458' E	F	
<i>T. tridentatus</i>	42.11	S	22° 17.385' N 113° 55.458' E	F	
<i>T. tridentatus</i>	30.86	S	22° 17.386' N 113° 55.458' E		
<i>T. tridentatus</i>	33.57	S	22° 17.390' N 113° 55.455' E	G	
<i>T. tridentatus</i>	46.87	S	22° 17.390' N 113° 55.455' E	G	
<i>T. tridentatus</i>	55.24	S	22° 17.204' N 113° 55.508' E		
<i>T. tridentatus</i>	52.99	S	22° 17.193' N 113° 55.515' E		
<i>T. tridentatus</i>	47.25	S	22° 17.182' N 113° 55.518' E		
<i>T. tridentatus</i>	47.45	S	22° 17.184' N 113° 55.532' E		
<i>T. tridentatus</i>	53.02	S	22° 17.172' N 113° 55.478' E		

G = Gravel and Boulders, M = Soft mud, S = Sand.

Individuals in a group were given the same grouping letter at the sampling zone.

**Table 3.1 (Cont'd). Record of horseshoe crab survey at every sampling zone.**

Species	Prosomal		GPS coordinate	Grouping	Remark
	width (mm)	Substratum			
<b>ST (search hour = 3 hr) – (Cont'd)</b>					
<i>T. tridentatus</i>	29.58	S	22° 17.160' N 113° 55.508' E	H	
<i>T. tridentatus</i>	33.65	S	22° 17.160' N 113° 55.508' E	H	
<i>T. tridentatus</i>	31.82	S	22° 17.160' N 113° 55.508' E	H	
<i>T. tridentatus</i>	31.34	S	22° 17.172' N 113° 55.478' E	I	
<i>T. tridentatus</i>	35.02	S	22° 17.172' N 113° 55.478' E	I	
<i>T. tridentatus</i>	37.95	S	22° 17.172' N 113° 55.478' E	I	
<i>T. tridentatus</i>	40.02	S	22° 17.172' N 113° 55.478' E	I	
<i>T. tridentatus</i>	40.48	S	22° 17.188' N 113° 55.476' E		
<i>T. tridentatus</i>	41.74	S	22° 17.188' N 113° 55.476' E		
<i>T. tridentatus</i>	40.32	S	22° 17.185' N 113° 55.481' E	J	
<i>T. tridentatus</i>	41.58	S	22° 17.185' N 113° 55.481' E	J	
<i>T. tridentatus</i>	40.33	S	22° 17.185' N 113° 55.481' E	J	
<i>T. tridentatus</i>	39.11	S	22° 17.157' N 113° 55.491' E	K	
<i>T. tridentatus</i>	42.21	S	22° 17.157' N 113° 55.491' E	K	
<i>T. tridentatus</i>	38.08	S	22° 17.157' N 113° 55.491' E	K	
<i>T. tridentatus</i>	43.71	S	22° 17.157' N 113° 55.491' E	K	
<i>T. tridentatus</i>	38.55	S	22° 17.157' N 113° 55.491' E		
<i>T. tridentatus</i>	29.16	S	22° 17.150' N 113° 55.507' E	L	
<i>T. tridentatus</i>	50.31	S	22° 17.150' N 113° 55.507' E	L	
<i>T. tridentatus</i>	31.49	S	22° 17.154' N 113° 55.508' E	M	
<i>T. tridentatus</i>	39.88	S	22° 17.154' N 113° 55.508' E	M	
<i>T. tridentatus</i>	35.83	S	22° 17.154' N 113° 55.508' E	N	
<i>T. tridentatus</i>	36.91	S	22° 17.154' N 113° 55.508' E	N	
<i>T. tridentatus</i>	31.49	S	22° 17.154' N 113° 55.508' E	N	
<i>T. tridentatus</i>	21.92	M	22° 17.143' N 113° 55.518' E	O	
<i>T. tridentatus</i>	21.5	M	22° 17.143' N 113° 55.518' E	O	
<i>T. tridentatus</i>	12.54	M	22° 17.143' N 113° 55.518' E	O	
<i>T. tridentatus</i>	30.74	S	22° 17.143' N 113° 55.518' E		
<i>T. tridentatus</i>	36.52	S	22° 17.159' N 113° 55.518' E		
<i>T. tridentatus</i>	38.37	S	22° 17.155' N 113° 55.523' E		

G = Gravel and Boulders, M = Soft mud, S = Sand

Individuals in a group were given the same grouping letter at the sampling zone.

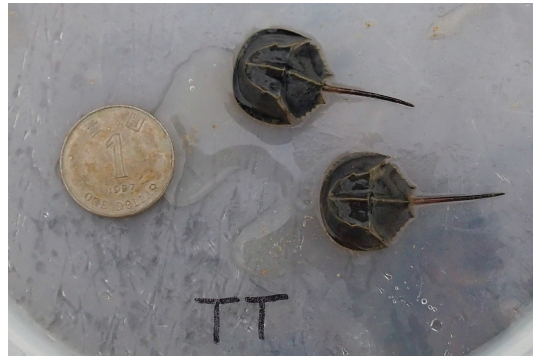
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**Table 3.2.** Summary of horseshoe crab survey at every sampling zone.

	TC1	TC2	TC3	ST
Search duration (hr)	2	2	2	3
<i>Tachypleus tridentatus</i>				
no. of individuals	7	N.A.	16	59
mean prosomal width (mm)	42.94		34.54	40.25
range of prosomal width (mm)	21.44-57.62		11.07-54.56	12.54-55.51
Search record (ind. hr <sup>-1</sup> person <sup>-1</sup> )	1.75		4.00	9.83



TC1



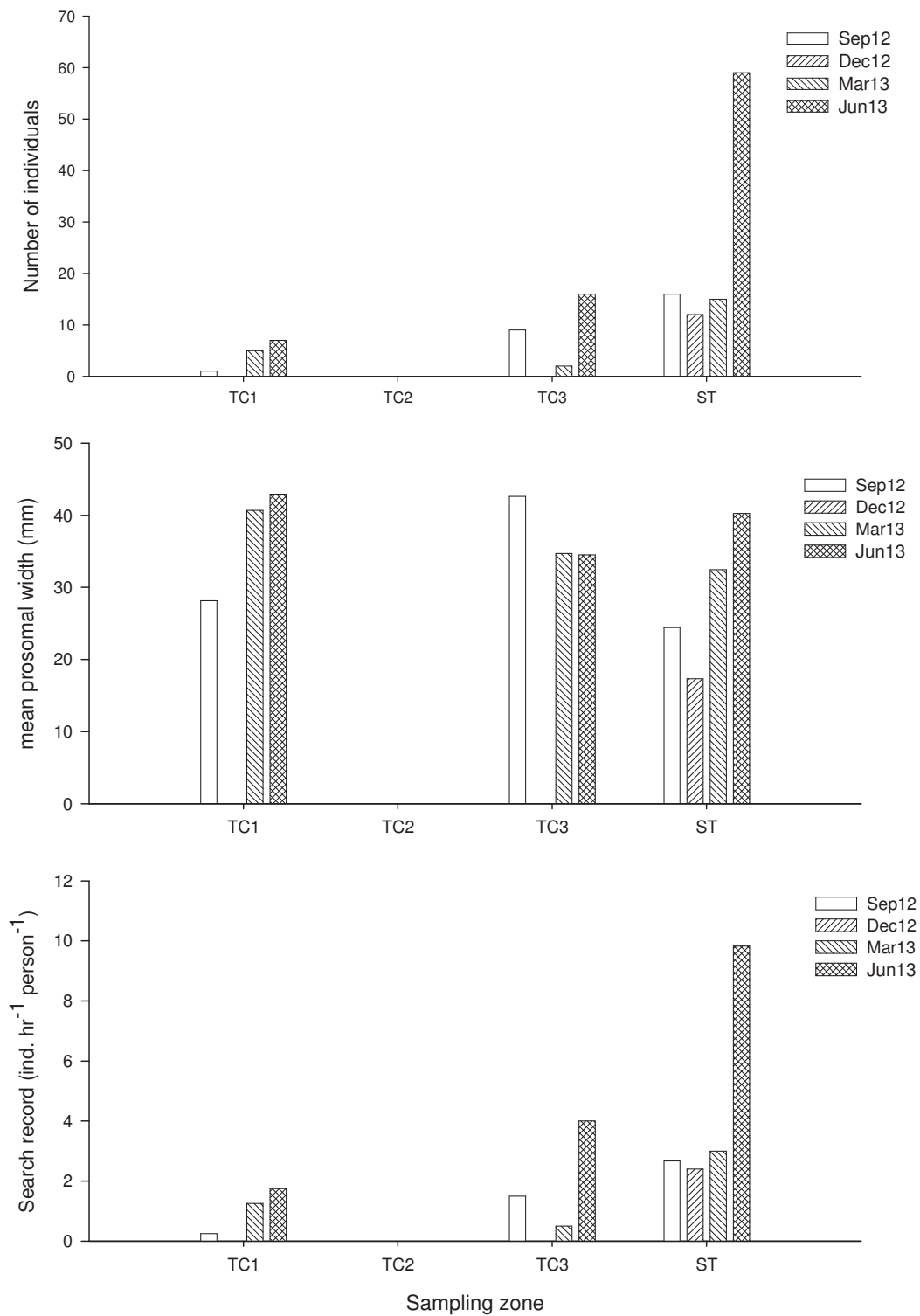
TC3



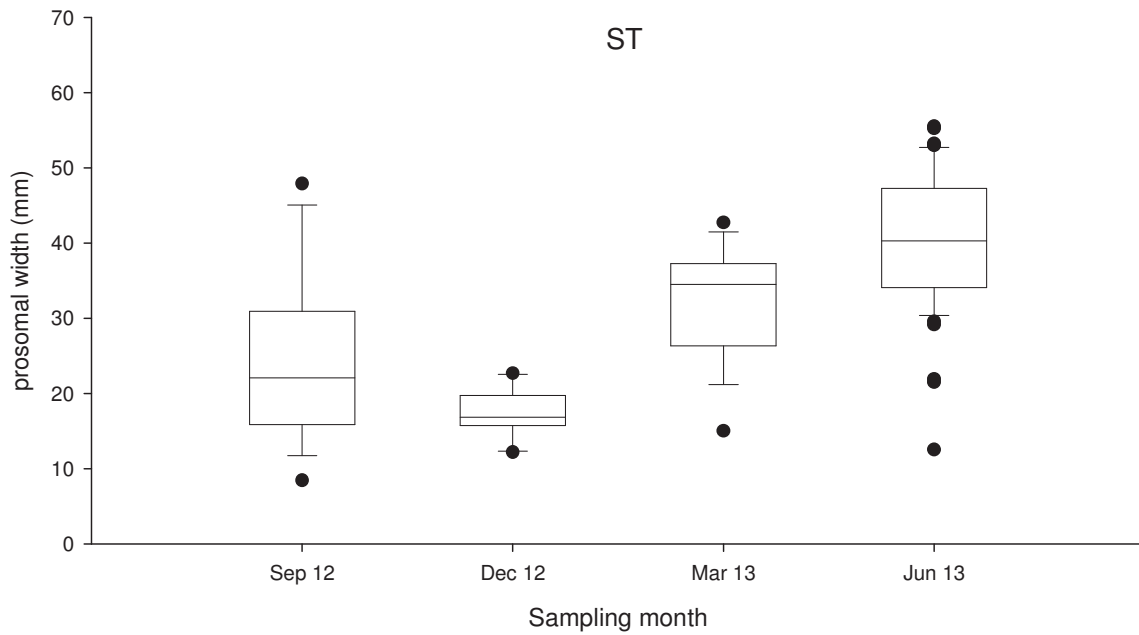
ST



**Figure 3.1.** *Examples of photographic records of horseshoe crab Tachypleus tridentatus in the present survey (taken on 10 & 11/06/2013)*



**Figure 3.2.** Changes of number of individuals, mean prosomal width and search record of horseshoe crab *Tachypleus tridentatus* at the four sampling zones along the sampling months



**Figure 3.3.** Box plot of prosomal width of horseshoe crab *Tachypleus tridentatus* at the sampling zone ST along the sampling months (The box represents 50% of the sample (upper to lower quartile) with a middle line showing the median value. The upper whisker and lower whisker showed the 25% of sample above upper quartile and below the lower quartile respectively. The black circle dots showed the data of outlier.)

**Table 3.3. Summary of seagrass beds survey at every sampling zone**

Species	Estimated area (m <sup>2</sup> )	GPS coordinate	Estimated coverage (%)	Remark
<b>TC1 (search hour = 2 hr) &amp; TC2 (search hour = 2 hr) &amp; TC3 (search hour = 2 hr)</b>				
No record				
<b>ST (search hour = 3 hr)</b>				
<i>Halophila ovalis</i>	299.9	22° 17.217' N 113° 55.472' E -- 22° 17.206' N 113° 55.474' E	90-100	Long strands of seagrass bed nearby the seaward side
<i>H. ovalis</i>	463.7	22° 17.206' N 113° 55.474' E -- 22° 17.190' N 113° 55.474' E	90-100	of mangrove area at tidal level 2.0m above C.D.
<b>no. of patches</b>	<b>2</b>			
<b>Total area (m<sup>2</sup>)</b>	<b>763.6</b>			
<b>Average area (m<sup>2</sup>)</b>	<b>381.8</b>			
<b><i>Zostera japonica</i></b>				
	14.6	22° 17.206' N 113° 55.475' E -- 22° 17.194' N 113° 55.471' E	70-90	A small patch grown in the long strand of another seagrass species <i>Halophila ovalis</i>
<b>no. of patches</b>	<b>1</b>			
<b>Total area (m<sup>2</sup>)</b>	<b>14.6</b>			
<b>Average area (m<sup>2</sup>)</b>	<b>14.6</b>			



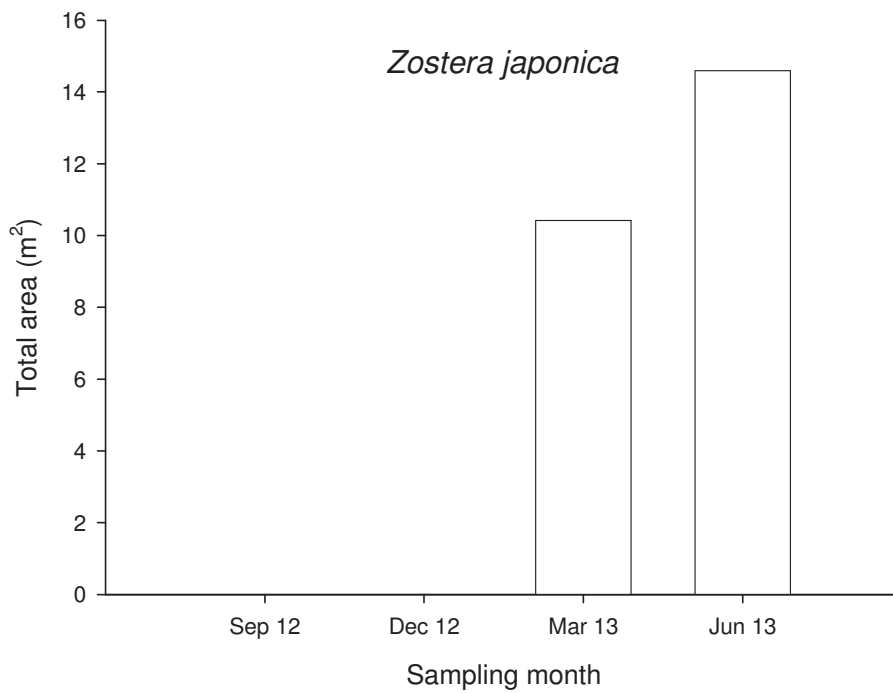
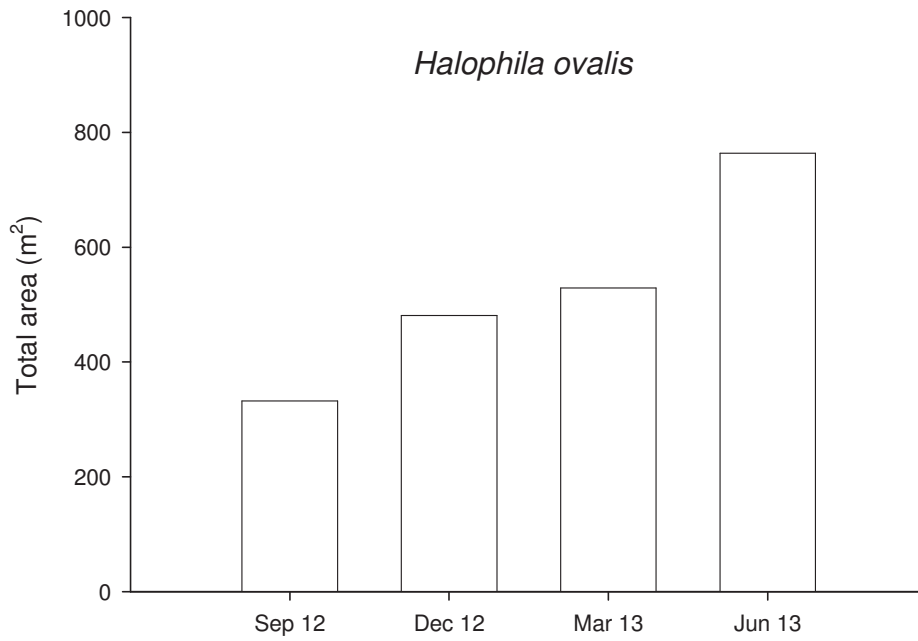
*Halophila ovalis*



*Zostera japonica*



**Figure 3.4.** Examples of photographic records of seagrass beds survey at ST (taken on 10/06/2013)



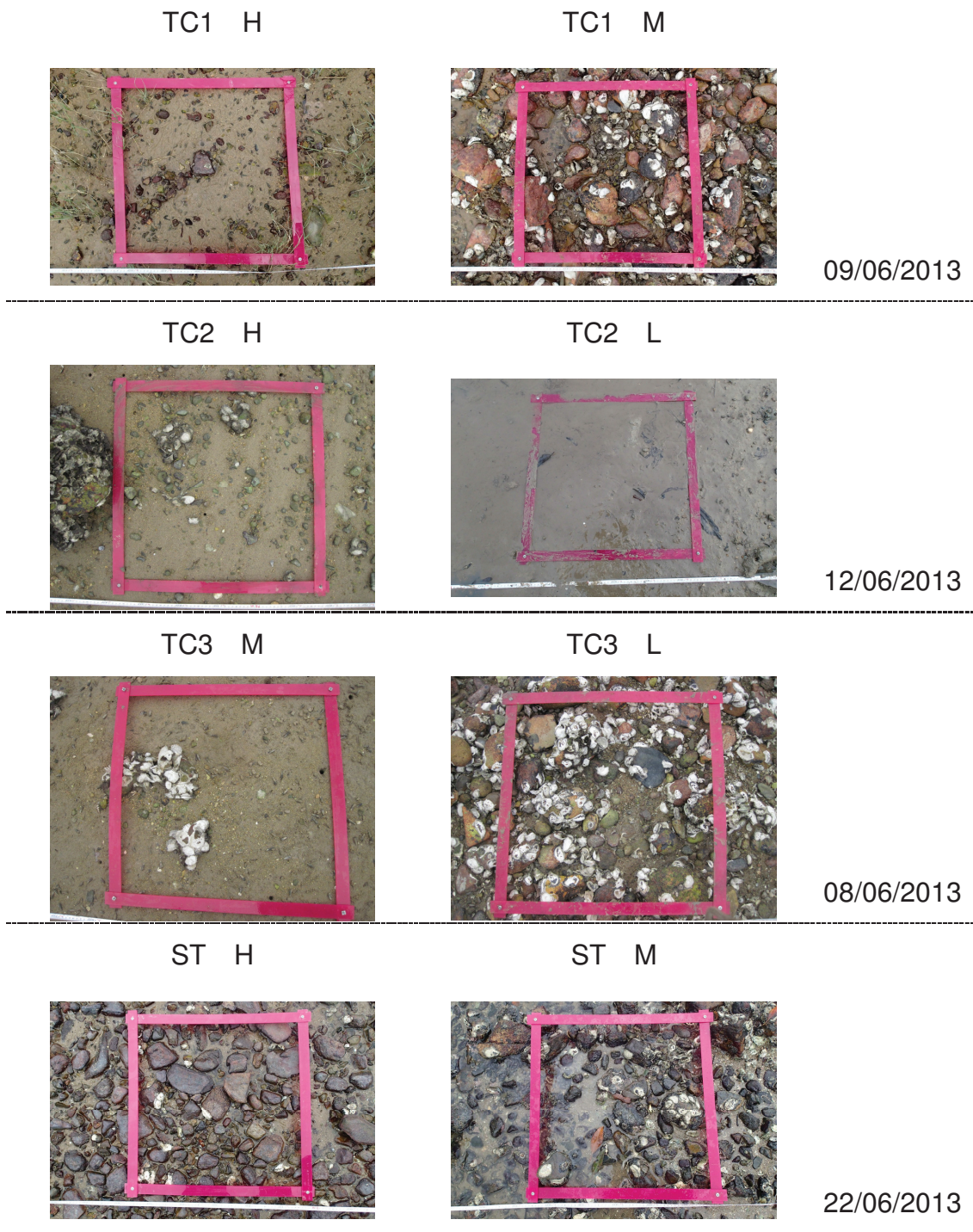
**Figure 3.5.** Changes of estimated total area of seagrass beds at sampling zone ST along the sampling months

**Table 3.4.** *Relative distribution (%) of types of substratum along the horizontal transect at every tidal level and sampling zone.*

Sampling zone	Tidal level	Percentage		
		Gravels and Boulders	Sands	Soft mud
TC1	H	30	70	
	M	80	20	
	L	50	40	10
TC2	H	10	80	10
	M	20	60	20
	L		20	80
TC3	H		90	10
	M	10	60	30
	L	70	10	20
ST	H	100		
	M	70	30	
	L	20	40	40

H: 2.0 m above C.D.; M: 1.5 m above C.D.; L: 1.0 m above C.D.





**Figure 3.6.** *Examples of photographic records of quadrat for intertidal soft shore community survey (H: 2.0 m above C.D.; M: 1.5 m above C.D.; L: 1.0 m above C.D.)*

**Table 3.5.** Total abundance, density and number of taxon of every phylum

Phylum	Total Abundance	%	Density (ind. m <sup>-2</sup> )	Number of taxon
<i>Jun 2013</i>				
Mollusca	16751	96.7	558	43
Arthropoda	416	2.4	14	17
Annelida	79	0.5	3	14
Sipuncula	63	0.4	2	2
Cnidaria	10	0.1	0	1
Echinodermata	5	0.0	0	2
Nemertea	4	0.0	0	1
Chordata	1	0.0	0	1
<b>Total</b>	17329			

0.0 %: Total abundance of the phylum is less than 0.1% of relative abundance.

0 ind. m<sup>-2</sup>: Density of the phylum is less than 1 ind. m<sup>-2</sup>.

**Table 3.6.** The number of individuals, relative abundance (percentage) and density of each phylum at every sampling zone.

Phylum	TC1	%	Density (ind. m <sup>-2</sup> )	TC2	%	Density (ind. m <sup>-2</sup> )	TC3	%	Density (ind. m <sup>-2</sup> )	ST	%	Density (ind. m <sup>-2</sup> )
Mollusca	4990	95.9	665	2608	96.0	348	5464	96.8	729	3689	97.9	492
Arthropoda	164	3.2	22	65	2.4	9	136	2.4	18	51	1.4	7
Sipuncula	34	0.7	5	2	0.1	0	21	0.4	3	6	0.2	1
Annelida	9	0.2	1	39	1.4	5	20	0.4	3	11	0.3	1
Nemertea	2	0.0	0	1	0.0	0				1	0.0	0
Echinodermata	2	0.0	0	2	0.1	0	1	0.0	0			
Chordata										1	0.0	0
Cnidaria							1	0.0	0	9	0.2	1
<b>Sub-total</b>	<b>5201</b>			<b>2717</b>			<b>5643</b>			<b>3768</b>		

0.0 %: Total abundance of the phylum is less than 0.1% of relative abundance of the sampling zone.

0 ind. m<sup>-2</sup>: Density of the phylum is less than 1 ind. m<sup>-2</sup> of the sampling zone.

**Table 3.7.** The abundant species (relative abundance >10%) at every sampling zone.

Sampling zone TC-1	Group	Species	mean density (ind. m <sup>-2</sup> )	relative abundance (%)	cumulative relative abundance (%)
High	G	<i>Batillaria multiformis</i>	450	56	56
	G	<i>Cerithidea djadjariensis</i>	208	26	81
Mid	G	<i>Batillaria multiformis</i>	379	41	41
	G	<i>Monodonta labio</i>	164	18	59
	Bi	<i>Saccostrea cucullata</i>	143	16	74
	G	<i>Cerithidea djadjariensis</i>	105	11	86
Low	Bi	<i>Saccostrea cucullata</i>	66	19	19
	G	<i>Cerithidea djadjariensis</i>	45	13	32
	G	<i>Lunella coronata</i>	44	12	44

Bi = Bivalve, G = Gastropod

**Table 3.7(Cont'd).** The abundant species (relative abundance >10%) at every sampling zone.

Sampling zone	TC2	Group	Species	mean density (ind. m <sup>-2</sup> )	relative abundance (%)	cumulative relative abundance (%)
High		G	<i>Cerithidea djadjariensis</i>	142	36	36
		G	<i>Batillaria multiformis</i>	84	21	57
		Bi	<i>Saccostrea cucullata</i>	56	14	71
Mid		G	<i>Cerithidea djadjariensis</i>	164	31	31
		Bi	<i>Saccostrea cucullata</i>	84	16	47
		G	<i>Monodonta labio</i>	76	14	62
Low		G	<i>Cerithidea djadjariensis</i>	92	55	55
		G	<i>Cerithidea cingulata</i>	20	12	67
		G	<i>Batillaria multiformis</i>	19	11	79
		G	<i>Batillaria zonalis</i>	19	11	90

Bi = Bivalve, G = Gastropod

**Table 3.7(Cont'd).** The abundant species at every sampling zone.

Sampling zone TC3	Group	Species	mean density (ind. m <sup>-2</sup> )	relative abundance (%)	cumulative relative abundance (%)
High	G	<i>Batillaria multiformis</i>	438	52	52
	G	<i>Cerithidea djadjariensis</i>	294	35	87
Mid	G	<i>Batillaria multiformis</i>	391	47	47
	G	<i>Cerithidea djadjariensis</i>	212	25	72
	G	<i>Cerithidea cingulata</i>	96	11	83
Low	Bi	<i>Saccostrea cucullata</i>	164	28	28
	G	<i>Monodonta labio</i>	92	16	44
	G	<i>Lunella coronata</i>	64	11	55

Bi = Bivalve, G = Gastropod

**Table 3.7(Cont'd).** The abundant species at every sampling zone.

Sampling zone	ST	Group	Species	mean density (ind. m <sup>-2</sup> )	relative abundance (%)	cumulative relative abundance (%)
High		G	<i>Batillaria multiformis</i>	392	63	63
		G	<i>Monodonta labio</i>	127	20	83
Mid		G	<i>Batillaria multiformis</i>	136	21	21
		Bi	<i>Saccostrea cucullata</i>	120	19	40
		G	<i>Monodonta labio</i>	66	10	50
		G	<i>Cerithidea djadjariensis</i>	65	10	60
Low		G	<i>Cerithidea djadjariensis</i>	89	38	38
		Bi	<i>Saccostrea cucullata</i>	30	13	50
		G	<i>Batillaria zonalis</i>	26	11	61

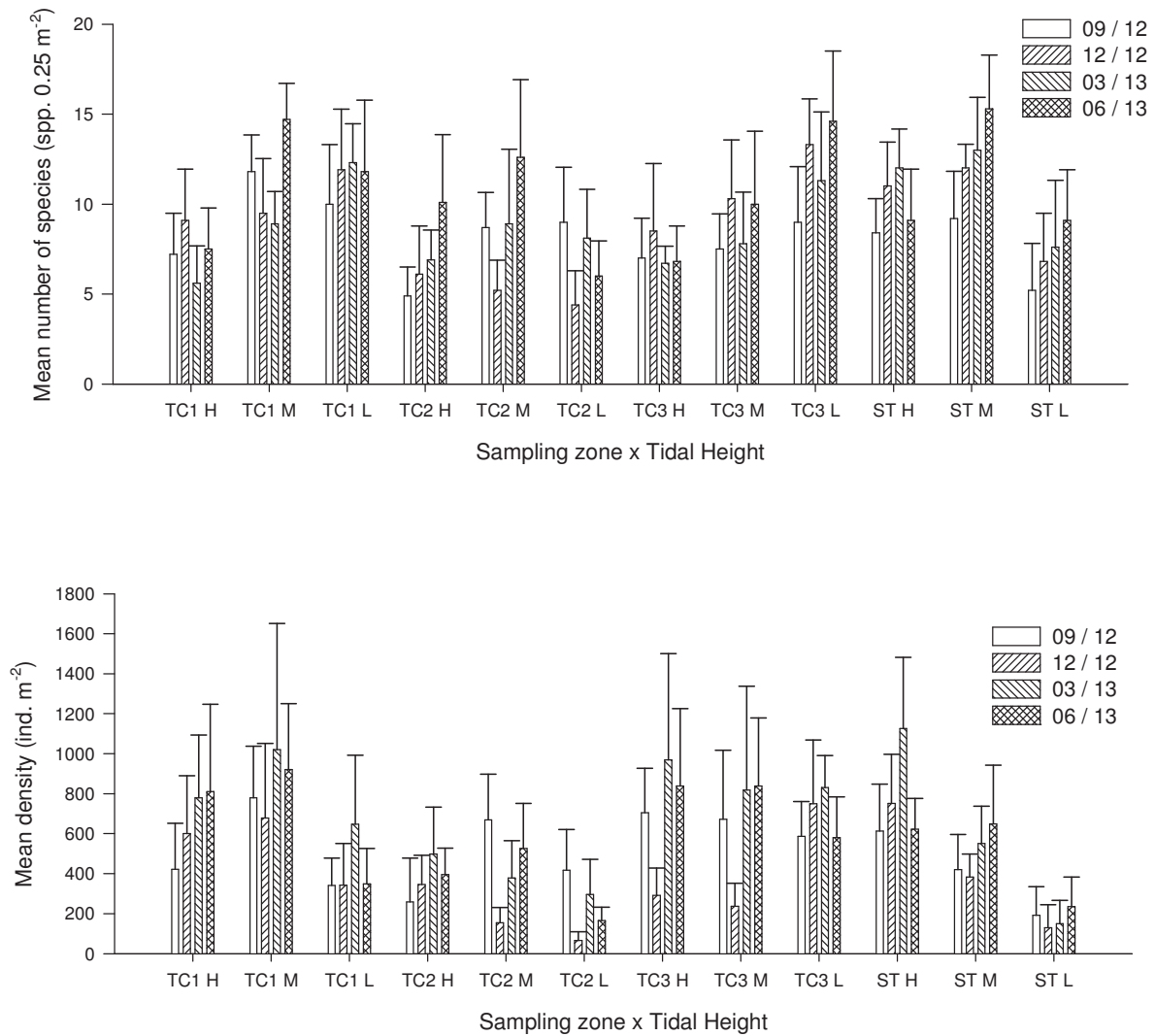
Bi = Bivalve, G = Gastropod



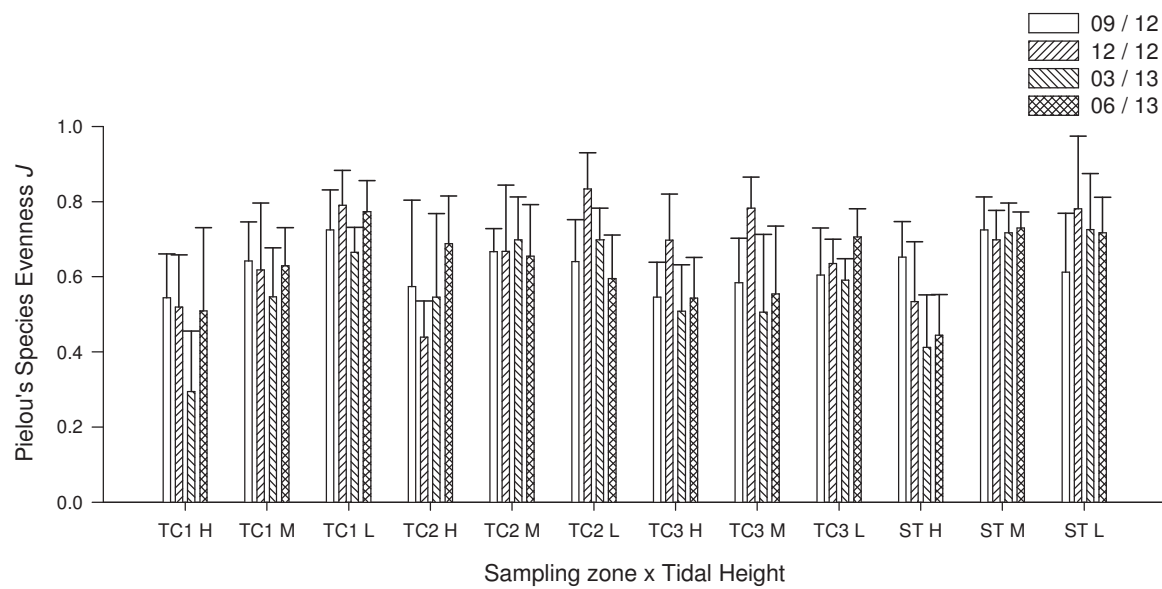
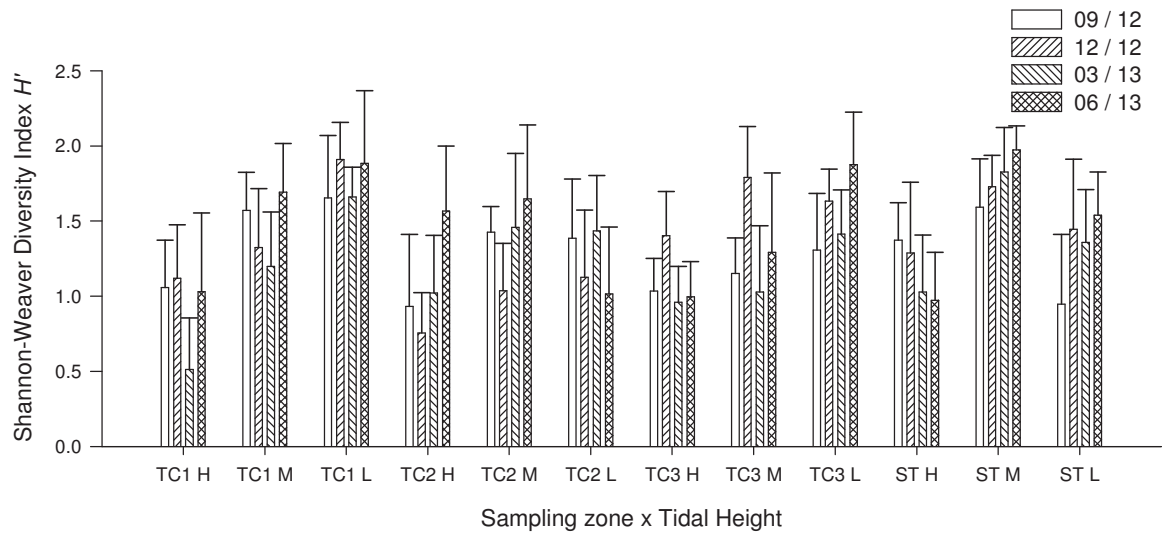
**Table 3.8.** Mean values of number of species, density, Shannon-Weaver Diversity Index ( $H'$ ) and Pielou's Species Evenness ( $J$ ) at every tidal level and sampling zone

Sampling zone	Tidal level	Mean number of species (spp. 0.25 m <sup>-2</sup> )	Mean density (ind. m <sup>-2</sup> )	Mean $H'$	Mean $H'$ across tidal level	Mean $J$	Mean $J$ across tidal level
TC1	H	8	810	1.03	1.54	0.51	0.64
	M	15	921	1.69		0.63	
	L	12	349	1.88		0.77	
TC2	H	10	396	1.57	1.41	0.69	0.65
	M	13	525	1.65		0.65	
	L	6	166	1.01		0.60	
TC3	H	7	838	1.00	1.39	0.54	0.60
	M	10	838	1.29		0.55	
	L	15	580	1.88		0.71	
ST	H	9	623	0.97	1.50	0.44	0.63
	M	15	648	1.97		0.73	
	L	9	236	1.54		0.72	

**Figure 3.7.** Temporal changes of number of species, density, Shannon-Weaver Diversity Index ( $H'$ ) and Pielou's Species Evenness ( $J$ ) (mean  $\pm$  SD) at every tidal level and sampling zone



**Figure 3.7 (Cont'd).** Temporal changes of number of species, density, Shannon-Weaver Diversity Index ( $H'$ ) and Pielou's Species Evenness ( $J$ ) (mean  $\pm$  SD) at every tidal level and sampling zone





**Annex II** *Taxonomic resolution of every recorded species of intertidal soft shore community survey*

<b>Kingdom</b>	<b>Phylum</b>	<b>Class</b>	<b>Order</b>	<b>Family</b>	<b>Species</b>
Animalia	Annelida	Clitellata			Marine oligochaete spp.
Animalia	Annelida	Polychaeta	Eunicida	Eunicidae	Eunicidae spp.
Animalia	Annelida	Polychaeta	Eunicida	Lumbrineridae	Lumbrineridae spp.
Animalia	Annelida	Polychaeta	Eunicida	Onuphidae	Onuphidae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Glyceridae	Glyceridae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Goniadidae	Goniadidae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Nereididae	Nereididae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoidae spp.
Animalia	Annelida	Polychaeta	Sabellida	Oweniidae	Oweniidae spp.
Animalia	Annelida	Polychaeta	Spionida	Spionidae	Spionidae spp.
Animalia	Annelida	Polychaeta	Terebellida	Ampharetidae	Ampharetidae spp.
Animalia	Annelida	Polychaeta	Terebellida	Pectinariidae	Pectinariidae spp.
Animalia	Annelida	Polychaeta	Terebellida	Terebellidae	Terebellidae spp.
Animalia	Annelida	Polychaeta		Maldanidae	Maldanidae spp.
Animalia	Arthropoda	Malacostraca	Decapoda	Diogenidae	<i>Clibanarius</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Diogenidae	<i>Diogenes</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Grapsidae	<i>Metopograpsus latifrons</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Macrophthalmus erato</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca borealis</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca lactea</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca vocans</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Paguridae	<i>Pagurus dubius</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Penaeidae	<i>Penaeus</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Portunidae	<i>Lupocyclus</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Sesarmidae	<i>Nanosesarma minutum</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Chasmagnathus convexus</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Hemigrapsus penicillatus</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Xanthidae	<i>Etisus laevimanus</i>
Animalia	Arthropoda	Maxillopoda	Sessilia	Balanidae	<i>Balanus amphitrite</i>
Animalia	Arthropoda	Merostomata	Xiphosurida	Limulidae	<i>Tachypleus tridentatus</i>
Animalia	Chordata	Actinopterygii	Perciformes	Blenniidae	<i>Omobranchus fasciolatoceps</i>
Animalia	Cnidaria				Sea anemone spp.

**Annex II (Cont'd)** *Taxonomic resolution of every recorded species of intertidal soft shore community survey*

Kingdom	Phylum	Class	Order	Family	Species
Animalia	Echinodermata	Holothuroidea			Sea cucumber spp.
Animalia	Echinodermata	Ophiuroidea	Ophiurida	Amphiuridae	<i>Amphioplus laevis</i>
Animalia	Mollusca	Bivalvia	Arcoida	Arcidae	<i>Barbatia signata</i>
Animalia	Mollusca	Bivalvia	Arcoida	Arcidae	<i>Barbatia virescens</i>
Animalia	Mollusca	Bivalvia	Arcoida	Arcidae	<i>Scapharca cornea</i>
Animalia	Mollusca	Bivalvia	Mytiloidea	Mytilidae	<i>Xenostrobus atrata</i>
Animalia	Mollusca	Bivalvia	Ostreoida	Ostreidae	<i>Saccostrea cucullata</i>
Animalia	Mollusca	Bivalvia	Veneroida	Corbiculidae	<i>Geloina erosa</i>
Animalia	Mollusca	Bivalvia	Veneroida	Lucinidae	<i>Anodontia stearnsiana</i>
Animalia	Mollusca	Bivalvia	Veneroida	Mesodesmatidae	<i>Caecella chinensis</i>
Animalia	Mollusca	Bivalvia	Veneroida	Psammobiidae	<i>Soletellina diphos</i>
Animalia	Mollusca	Bivalvia	Veneroida	Solenidae	<i>Solen</i> sp.
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Anomalocardia squamosa</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Cyclina sinesis</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Dosinia japonica</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Meretrix meretrix</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Ruditapes philippinarum</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria bornii</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria multiformis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria zonalis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea cingulata</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea djadjariensis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea rhizophorarum</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Terebralia sulcata</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Clithon faba</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Clithon oualaniensis</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Nerita polita</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	<i>Littoria melanostoma</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	<i>Littoraria articulata</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	Peasiella spp.
Animalia	Mollusca	Gastropoda	Littorinimorpha	Naticidae	<i>Natica</i> sp.
Animalia	Mollusca	Gastropoda	Neogastropoda	Muricidae	<i>Thais luteostoma</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Nassariidae	<i>Nassarius festivus</i>

**Annex II (Cont'd)** *Taxonomic resolution of every recorded species of intertidal soft shore community survey*

<b>Kingdom</b>	<b>Phylum</b>	<b>Class</b>	<b>Order</b>	<b>Family</b>	<b>Species</b>
Animalia	Mollusca	Gastropoda	Neogastropoda	Nassariidae	<i>Nassarius semiplicatus</i>
Animalia	Mollusca	Gastropoda		Lottiidae	<i>Nipponacmea concinna</i>
Animalia	Mollusca	Gastropoda		Lottiidae	<i>Patelloida pygmaea</i>
Animalia	Mollusca	Gastropoda		Nacellidae	<i>Cellana grata</i>
Animalia	Mollusca	Gastropoda		Nacellidae	<i>Cellana toreuma</i>
Animalia	Mollusca	Gastropoda		Trochidae	<i>Euchelus scaber</i>
Animalia	Mollusca	Gastropoda		Trochidae	<i>Monodonta labio</i>
Animalia	Mollusca	Gastropoda		Turbinidae	<i>Chlorostoma argyrostoma</i>
Animalia	Mollusca	Gastropoda		Turbinidae	<i>Lunella coronata</i>
Animalia	Mollusca	Gastropoda			<i>unidentified limpet</i>
Animalia	Mollusca	Polyplacophora	Chitonida	Ischnochitonidae	<i>Lepidozona</i> sp.
Animalia	Mollusca	Scaphopoda	Dentaliida	Dentaliidae	<i>Dentalium sinuosum</i>
Animalia	Nemertea				Nemertea spp.
Animalia	Sipuncula	Sipunculidea	Golfingiida	Sipunculidae	<i>Siphonosoma cumanense</i>
Animalia	Sipuncula	Sipunculidea	Golfingiida	Sipunculidae	<i>Sipunculus nudus</i>



**Annex III** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Jun 2013		High tidal level (2.0 m above C.D.)														
Sampling zone TC 1		1	2	3	4	5	6	7	8	9	10	C sub-total				
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	C	Q			
Bi	<i>Geloina erosa</i>						1	1	3				5			
Bi	<i>Saccostrea cucullata</i>	28	1					1		2		1	33			
Bi	<i>Xenostrobus atrata</i>	1		1									2			
C	<i>Hemigrapsus penicillatus</i>							1				2	3			
C	<i>Lupocyclus</i> sp.		1										1			
C	<i>Nanosesarma minutum</i>	4											4			
C	<i>Uca lactea</i>							3	1				4			
C	<i>Uca</i> sp.		1					2					3			
G	<i>Batillaria multiformis</i>	13	24	1	225	42	239	8	2	64	25	32	164	45	171	1126
G	<i>Cellana grata</i>								1							1
G	<i>Cellana toreuma</i>	2														2
G	<i>Cerithidea cingulata</i>	18	61	1	1		45	5		19	9	29	1	9	198	
G	<i>Cerithidea djadjarjensis</i>	31	136	2	12	1	25		6	102	50	109	1	44	519	
G	<i>Cerithidea rhizophorarum</i>	2	5	1	1	1	9			10	3	4		3	38	
G	<i>Clithon faba</i>	4					1		2			1			8	
G	<i>Clithon oualaniensis</i>								2					2	6	
G	<i>Littoraria melanostoma</i>			2											2	
G	<i>Littoraria articulata</i>	14		2											16	

**Annex III** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Jun 2013		High tidal level (2.0 m above C.D.)												
Sampling zone TC 1		1	2	3	4	5	6	7	8	9	10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	sub-total
G	<i>Monodonta labio</i>	49		1								1		51
G	<i>Nerita polita</i>		1											1
G	<i>Terebralia sulcata</i>					1								1
P	Onuphidae spp.			1										1
S	<i>Penaeus</i> sp.			1										1
												Total	2026	

**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Jun 2013	Sampling zone TC 1	Mid tidal level (1.5 m above C.D.)										C sub-total				
		1	2	3	4	5	6	7	8	9	10					
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>	2		6		1								11	3	23
Bi	<i>Barbatia signata</i>				1									1		2
Bi	<i>Barbatia virescens</i>	1		1		1		12		1		11		2		43
Bi	<i>Cyclina sinesis</i>						1									1
Bi	<i>Geloina erosa</i>													1		1
Bi	<i>Ruditapes philippinarum</i>													11		11
Bi	<i>Saccostrea cucullata</i>	38		6		28		58		54		45		63		357
Bi	<i>Solen</i> sp.						1									1
Bi	<i>Xenostrobus atrata</i>	1				2		1		3		11		4		24
C	<i>Hemigrapsus penicillatus</i>	2				1				1		1		2		9
C	<i>Macrophthalmus erato</i>															2
C	<i>Nanosesarma minutum</i>	3				4		2				1		3		14
C	<i>Uca lactea</i>										1					1
C	<i>Uca vocans</i>										1					3
Ec	Sea cucumber spp.										1					1
G	<i>Batillaria multiformis</i>	54		43		127		131		196		137		105		947
G	<i>Batillaria zonalis</i>			3	1											4
G	<i>Cellana grata</i>									2		2				4



**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Jun 2013		Mid tidal level (1.5 m above C.D.)												
Sampling zone TC 1		1	2	3	4	5	6	7	8	9	10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	sub-total
Sp	<i>Sipunculus nudus</i>	1	2						1	1		8		13
													Total	2302



**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Jun 2013		Low tidal level (1.0 m above C.D.)												
Sampling zone TC 1		1	2	3	4	5	6	7	8	9	10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	sub-total
G	<i>Clithon oualaniensis</i>	1												1
G	<i>Lepidozона sp.</i>					2	2					2		6
G	<i>Lunella coronata</i>	8	1			11	9	9	23	26		22		109
G	<i>Monodonta labio</i>					8	1	6						21
G	<i>Nassarius festivus</i>			1			1							2
G	<i>Nerita polita</i>	1				3	2	1	3	4				14
G	<i>Nipponacmea concinna</i>						1	1	1					3
G	<i>Patelloida pygmaea</i>							1	1			1		3
G	<i>Peasiella spp.</i>								1					1
P	Glyceridae spp.									1				1
P	Maldanidae spp.				1									1
P	Onuphidae spp.			1		1								3
Sp	<i>Sipunculus nudus</i>	9				2		7	2			1		21
													Total	873



**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Jun 2013	Sampling zone TC 2	High tidal level (2.0 m above C.D.)										C sub-total			
		1	2	3	4	5	6	7	8	9	10				
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C
Ba	<i>Balanus amphitrite</i>					1		1		6		3			11
Bi	<i>Barbatia signata</i>											1			1
Bi	<i>Barbatia virescens</i>											3	1		4
Bi	<i>Cyclina sinensis</i>	1										1		1	3
Bi	<i>Meretrix meretrix</i>						1								1
Bi	<i>Saccostrea cucullata</i>			2	5	22	13	13		31		37	17		140
Bi	<i>Solen</i> sp.												1		1
Bi	<i>Xenostrobus atrata</i>						6	1		5		3	7		22
C	<i>Hemigrapsus penicillatus</i>						1			3		2	1	1	8
C	<i>Nanosararma minutum</i>									1					1
Ec	Sea cucumber spp.								1						1
G	<i>Batillaria bornii</i>						2			1					3
G	<i>Batillaria multiformis</i>	6	2	17	2	15	7	17	2	17	1	43	1	28	210
G	<i>Batillaria zonalis</i>					2	1	3		5	1		2	15	29
G	<i>Cerithidea cingulata</i>			14	1	6	2	1	3	7	8	2	9	17	92
G	<i>Cerithidea djadjariensis</i>	3	62	1	69	2	45	24	3	47	2	20	2	19	356
G	<i>Cerithidea rhizophorarum</i>	15	5	1	2	1	1	3	1	2	1	3			35
G	<i>Clithon faba</i>									1					1

**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Jun 2013		High tidal level (2.0 m above C.D.)												
Sampling zone TC 2		1	2	3	4	5	6	7	8	9	10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	sub-total
G	<i>Clithon oualaniensis</i>			1						1				2
G	<i>Littoraima melanostoma</i>	1												1
G	<i>Lunella coronata</i>				1	1	1	1	4	11	3			22
G	<i>Monodonta labio</i>		1		2	18	1	1	2	4				29
G	<i>Nassarius festivus</i>		1											1
G	<i>Nipponacmea concinna</i>					3								3
G	<i>Patelloida pygmaea</i>								2	1				3
G	<i>Terebralia sulcata</i>							1						1
G	<i>Thais luteostoma</i>	1												1
OI	Marine oligochaete spp.	5		1										6
P	Onuphidae spp.										1			1
												Total	989	

**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Jun 2013		Sampling zone TC 2		Mid tidal level (1.5 m above C.D.)																			
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	C	Q	C	Q	C	Q	C	Q	C	Q	sub-total	
Ba	<i>Balanus amphitrite</i>		5	2		3		1	7													7	25
Bi	<i>Anomalocardia squamosa</i>				2		1																3
Bi	<i>Barbatia signata</i>	1							6				1									1	8
Bi	<i>Barbatia virescens</i>		2					2	7				3									3	14
Bi	<i>Caecella chinensis</i>											1											1
Bi	<i>Cyclina sinensis</i>							1							2								3
Bi	<i>Dosinia japonica</i>										1												1
Bi	<i>Ruditapes philippinarum</i>				1																1		2
Bi	<i>Saccostrea cucullata</i>	7	55	5	4	1		13	77	15			33										210
Bi	<i>Xenostrobus atrata</i>		5					4	21				9										39
C	<i>Hemigrapsus penicillatus</i>	4	1					1	3				1										10
C	<i>Nanosararma minutum</i>							1	2	1													4
Ec	Sea cucumber spp.		1																				1
G	<i>Batillaria bornii</i>							4	5	2													13
G	<i>Batillaria multiformis</i>		21	1	1	10	17	8	15	8			27	5									117
G	<i>Batillaria zonalis</i>				16	5	6	2	9	9			23										73
G	<i>Cellana toreuma</i>							3															3
G	<i>Cerithidea cingulata</i>		6	5	1	14	3		1	3			1										69

**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Jun 2013	Sampling zone TC 2	Mid tidal level (1.5 m above C.D.)										C	sub-total				
		1	2	3	4	5	6	7	8	9	10						
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	sub-total	
G	<i>Cerithidea djadjariensis</i>	2	14	31	1	81	5	48	2	57	2	21	46	48	50	3	411
G	<i>Cerithidea rhizophorarum</i>	2	5		4	4	1	1			3	3	2	1	2		20
G	<i>Euchelus scaber</i>												1				1
G	<i>Lunella coronata</i>		7	5	1	1	1				16	15	7	7	5		57
G	<i>Monodonta labio</i>	107	43	4							14	21					189
G	<i>Nassarius festivus</i>				1	1			2			1	1				4
G	<i>Nerita polita</i>										1	3					4
G	<i>Nipponacmea concinna</i>	3	3		1	1											7
G	<i>Patelloida pygmaea</i>	1	3								1	1	1				6
Hc	<i>Pagurus dubius</i>											1					1
OI	Marine oligochaete spp.	1															1
P	Lumbrineridae spp.						1										1
P	Maldanidae spp.						4	4	3								11
P	Onuphidae spp.							1	1								2
Sp	<i>Siphonosoma cumanense</i>										1			1			2
															Total	1313	

**Appendix III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Jun 2013 Sampling zone TC 2 Low tidal level (1.0 m above C.D.)

Gp	Taxon	1	2	3	4	5	6	7	8	9	10	C	Q	C	Q	C	Q	C	Q	sub-total
Ba	<i>Balanus amphitrite</i>					5														5
Bi	<i>Anodontia stearnsiana</i>	1																		1
Bi	<i>Ruditapes philippinarum</i>		1																	1
Bi	<i>Solen</i> sp.	1		1																2
G	<i>Batillaria multiformis</i>		28	5	9	1	1												3	47
G	<i>Batillaria zonalis</i>	1	7	5	2	8	1	5		4	10									47
G	<i>Cerithidea cingulata</i>	28	4	5	2	2	1			1	3									49
G	<i>Cerithidea djadjariensis</i>	10	6	10	3	20	6	33	20	7	10	3	6	42	33					230
G	<i>Cerithidea rhizophorarum</i>	1	2			1				1										6
G	<i>Dentalium sinuosum</i>														1					1
G	<i>Lunella coronata</i>								1		1									3
G	<i>Nassarius festivus</i>		1	3				1												5
Ne	<i>Nemertea</i> spp.			1																1
P	<i>Maldanidae</i> spp.			3	1		1				1									6
P	<i>Nereididae</i> spp.							3												3
P	<i>Onuphidae</i> spp.								2											2
P	<i>Oweniidae</i> spp.										1									1
P	<i>Pectinariidae</i> spp.						1		2						1					4

**Annex III (Cont'd)** *List of recorded fauna of intertidal soft shore community survey at every sampling zone*

Jun 2013	Sampling zone TC 2	Low tidal level (1.0 m above C.D.)											
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	C	sub-total
P	Spionidae spp.	Q	C	Q	C	Q	C	Q	C	Q	C	Q	1
												Total	415

**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Jun 2013		Sampling zone TC 3 High tidal level (2.0 m above C.D.)																				
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	C	Q	C	Q	C	Q	C	Q	sub-total		
Bi	<i>Anomalocardia squamosa</i>					1															1	
Bi	<i>Caecella chinensis</i>																		1			1
Bi	<i>Cyclina sinesis</i>					1																5
Bi	<i>Dosinia japonica</i>						1															1
Bi	<i>Geloina erosa</i>																					1
Bi	<i>Saccostrea cucullata</i>		44																			44
Bi	<i>Xenostrobus atrata</i>		7																			7
C	<i>Hemigrapsus penicillatus</i>																					1
C	<i>Uca borealis</i>			1																		1
C	<i>Uca lactea</i>																					2
C	<i>Uca vocans</i>																					3
G	<i>Batillaria multiformis</i>	24	10	143	1	67	14	119	10	59	23	62	6	77	6	2	5	116	11	286	54	1094
G	<i>Batillaria zonalis</i>							3														4
G	<i>Cellana toreuma</i>																					1
G	<i>Cerithidea cingulata</i>	10	1	22	2	2	21	4	18	1	15	4	2	2	17	4	4	17	15	6	138	
G	<i>Cerithidea djadjariensis</i>	103	5	69	28	28	73	2	110		78	78	51	51	91	71	1	91	54		736	
G	<i>Cerithidea rhizophorarum</i>	11	1	2	2	2	3	3	2	2	10	2	2	2	2	2						31
G	<i>Clithon faba</i>	1	2																		3	6



**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Jun 2013		High tidal level (2.0 m above C.D.)												
Sampling zone TC 3		1	2	3	4	5	6	7	8	9	10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	sub-total
G	<i>Clithon oualaniensis</i>	2					1					2		5
G	<i>Lunella coronata</i>		3											3
G	<i>Monodonta labio</i>								1					1
HSc	<i>Tachypleus tridentatus</i>					1								1
P	Maldanidae spp.		3				1			3				7
P	Onuphidae spp.				1									1
S	<i>Penaeus</i> sp.											1		1
													Total	2096





**Annex II (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Jun 2013	Sampling zone TC 3	Low tidal level (1.0 m above C.D.)										C sub-total			
		1	2	3	4	5	6	7	8	9	10				
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C
Ba	<i>Balanus amphitrite</i>	3	28	6	1	1	10	9	57						
Bi	<i>Barbatia signata</i>	19	30	5	13	8	4	1	81						
Bi	<i>Barbatia virescens</i>	7	3		2	5	2	2	21						
Bi	<i>Dosinia japonica</i>				1				1						
Bi	<i>Ruditapes philippinarum</i>	5					1	1	7						
Bi	<i>Saccostrea cucullata</i>	69	71	1	31	71	77	16	411			14			
Bi	<i>Xenostrobus atrata</i>	2	4		1	9	2	1	21			2			
C	<i>Chasmagnathus convexus</i>					1			1						
C	<i>Etisus laevimanus</i>						1		1						
C	<i>Hemigrapsus penicillatus</i>	3	2		1			3	15			2			
C	<i>Metopograpsus latifrons</i>	1	5		1		4		7						
C	<i>Nanosesarma minutum</i>	1	3		2	3	1	1	12						
Cn	Sea anemone spp.	1							1						
Ec	<i>Amphioplus laevis</i>				1				1						
G	<i>Batillaria bornii</i>	2			3	1		2	24			12	4		
G	<i>Batillaria multiformis</i>	2		2	25	11	10	36	99			2			
G	<i>Batillaria zonalis</i>	1			6	1		10	19			10	1		
G	<i>Cellana toreuma</i>				3	1	3	5	22						

**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Jun 2013		Low tidal level (1.0 m above C.D.)											
Sampling zone TC 3		1	2	3	4	5	6	7	8	9	10	C sub-total	
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C
G	<i>Cerithidea cingulata</i>			2	1							3	6
G	<i>Cerithidea djadjariensis</i>	3		39	19	2	6	1		10		40	132
G	<i>Cerithidea rhizophorarum</i>	1		6	8	2		3		1		12	36
G	<i>Chlorostoma argyrostoma</i>		9										9
G	<i>Lepidozona</i> sp.	1				3		1		1		1	7
G	<i>Lunella coronata</i>	32	12			20	18	15	22	26		16	161
G	<i>Monodonta labio</i>	27				45	21	76	36	26			231
G	<i>Nassarius festivus</i>	1	1										2
G	<i>Nerita polita</i>	1	3			1	1	2	2	2			12
G	<i>Patelloida pygmaea</i>			1			1			1		2	5
G	unidentified limpet		14										14
Hc	<i>Diogenes</i> sp.				6								6
Hc	<i>Pagurus dubius</i>		1					3					4
P	Maldanidae spp.		1										1
P	Polynoidea spp.									1			1
P	Terebellidae spp.				1								1
S	<i>Penaeus</i> sp.										1	1	1
Sp	<i>Siphonosoma cumanense</i>						4						4

**Annex III (Cont'd)** List of recorded fauna of intertidal soft shore community survey at every sampling zone

Jun 2013	Sampling zone TC 3	Low tidal level (1.0 m above C.D.)																		
Gp	Taxon	1	2	3	4	5	6	7	8	9	10	C	Q	C	Q	C	Q	C	Q	sub-total
Sp	<i>Sipunculus nudus</i>	6	6				4										1			17
																			Total	1451











**Annex III (Cont'd) List of recorded fauna of intertidal soft shore community survey at every sampling zone**

Jun 2013	Sampling zone ST	High tidal level (1.0 m above C.D.)										C sub-total			
		1	2	3	4	5	6	7	8	9	10				
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C
Bi	<i>Anomalocardia squamosa</i>				1										1
Bi	<i>Barbatia virescens</i>	2					1								3
Bi	<i>Cyclina sinensis</i>							1							1
Bi	<i>Dosinia japonica</i>			1		1									3
Bi	<i>Saccostrea cucullata</i>	6	2	2	5		6		47			6			74
Bi	<i>Scapharca cornea</i>											1			1
Bi	<i>Xenostrobus atrata</i>					2	4		5						11
C	<i>Hemigrapsus penicillatus</i>	1							1						2
C	<i>Nanosesarma minutum</i>			1			1		2						4
F	<i>Omobranchus fasciolatoceps</i>														1
G	<i>Batillaria bornii</i>	8	4						3			2			17
G	<i>Batillaria multiformis</i>	26	3	4	8	1	9	1	1			1			56
G	<i>Batillaria zonalis</i>	2	15	27	17	4	1								66
G	<i>Cellana toreuma</i>	2													2
G	<i>Cerithidea cingulata</i>	6	7			6	7					1			27
G	<i>Cerithidea djadjariensis</i>	39	55	13	30	1	23	4	3			33			222
G	<i>Cerithidea rhizophorarum</i>	9	8	1	3	4		1	1			1	1		30
G	<i>Chlorostoma argyrostoma</i>														1

