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**TEST REPORT**

**WO HING – PENTA-OCEAN JOINT VENTURE**

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

**MONTHLY EM&A REPORT  
NO.2**

**(JUNE 2010)**

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15<sup>th</sup> July, 2010

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

By Post

Attention: Ms. Candy Wong

Dear Ms. Wong

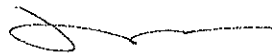
**Re: Contact No. 9/WSD/08**  
**Laying of Western Cross Harbour Main and Associated Land Mains from West Kowloon to Sai Ying Pun**  
**Monthly Environmental Monitoring and Audit Report No. 2**

Reference is made to Environment Team's submission of the Environmental Monitoring and Audit Report No. 2 by Email on 12<sup>th</sup> July 2010 (entitled "9/WSD/08 - Draft Monthly Report (June 10)") and the subsequent revision of the report by Email on 15<sup>th</sup> July 2010.

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

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

Yours sincerely,



David Yeung  
Independent Environmental Checker

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## EXECUTIVE SUMMARY

Under the requirements of "Environmental Monitoring & Audit Manual – Agreement No. CE42/2005(W) Laying of Western Cross Harbour Main and Associated Land Main from West Kowloon to Sai Ying Pun" (the EM&A Manual), impact noise monitoring and water quality monitoring is required to be implemented for the "Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Main from West Kowloon to Sai Ying Pun" (the Project).

This monthly Environmental Monitoring and Audit (EM&A) report No.2 was prepared by ETS-Testconsult Ltd (ET) for the Project. This report documented the findings of EM&A Works conducted during the Project in June 2010.

### Site Activities

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

- Dredging of Type 1 and Type 2 marine sediment (Portion I);
- Drilling of pipe piles and vertical drain at Land Portion (Portion J); and
- Concreting of the concrete coating of the 1200mm dia. water main (Portion H1 & H2).

### Environmental Monitoring Progress

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

- Noise Monitoring (Day-time): 5 Occasions at KS6 and 4 Occasion at CGa, RWM and KY3
- Noise Monitoring (2300-0700 Holiday): 1 Occasions at KS6, CGa, RWM and KY3
- Marine Water Quality Monitoring: 13 Occasions at 9 monitoring stations and 4 control stations
- Weekly-site inspection: 5 Occasions

### Noise Monitoring

No exceedances of Action and Limit levels for noise monitoring were recorded in the reporting month.

### Water Quality Monitoring

No exceedances of Action and Limit levels were recorded for water quality monitoring in the reporting month.

### Site Inspection

Environmental site inspections conducted in this reporting month are presented as follows:

<u>Concerned Parties</u>	<u>Dates of Audit / Inspection</u>
ET Weekly site inspection	01, 08, 14, 22 and 29 June 2010
Monthly Joint site inspection	14 June 2010

In general, performance on environmental mitigation measures implemented was found to be satisfactory in this reporting month. The major findings observed during site inspections are presented in the Section 6.0.

### Environmental Complaints, Notification of summons and successful prosecutions

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

### Change in Environmental Aspect in this Reporting Month

No change on environmental aspect was reported in this reporting month.

### Future Key Issues

Based on the forecast of engineering works in the coming month, key issues to be considered are as follows:

- Noise and dust impact due to construction works;
- Use and maintain silt curtain and silt screen properly;
- Clean up the fill material along the barge frequently;
- Implement all necessary preventive measures to avoid oil leakage. In the event an oil leakage happens, the Contractor should properly remove the leaked oil and handle the contaminated soil and all materials using for this cleaning works as chemical waste; and
- Maintain good site practice to minimize environmental impacts at the site.



## 1.0 INTRODUCTION

Wo Hing – Penta-Ocean Joint Venture (WHPOJV) appointed Environmental Team of ETS-Testconsult Limited (ETL) to undertake the Environmental Impact Monitoring for “Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Main from West Kowloon to Sai Ying Pun” (the Project) under the requirements of “Environmental Monitoring & Audit Manual – Agreement No. CE42/2005(W/S) Laying of Western Cross Harbour Main and Associated Land Main from West Kowloon to Sai Ying Pun” (the EM&A Manual).

This report documented the findings of EM&A Works conducted during the Project in June 2010.

## 2.0 PROJECT INFORMATION

### 2.1 Scope of the Project

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

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

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

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

### 2.2 Work Programme

Details of work programme are shown in Appendix E.

### 2.3 Project Organization and Management Structure

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

### 2.4 Contact Details of Key Personnel

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

Table 2.1 Contact Details of Key Personnel

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

## 3.0 WORK PROGRESS IN THIS REPORTING MONTH

As informed by the Contractor, the activities in the reporting month include:

- Dredging of Type 1 and Type 2 marine sediment (Portion I);
- Drilling of pipe piles and vertical drain at Land Portion (Portion J); and
- Concreting of the concrete coating of the 1200mm dia. water main (Portion H1 & H2)

Appendix J shows the details of works daily dredging of this reporting month.



#### 4.0 IMPACT NOISE MONITORING

##### 4.1 Monitoring Requirements

As the requirement in the EM&A Manual, impact noise monitoring was conducted for a weekly basis at designated monitoring locations.

##### 4.2 Monitoring Equipment

Integrating Sound Level Meters used for impact noise monitoring were Type 1 sound level meters capable of giving a continuous readout of the noise level reading including equivalent continuous sound pressure level ( $L_{eq}$ ) and percentile sound pressure level ( $L_x$ ). They complied with International Electro technical Commission Publications 651:1979 (Type1) and speed in m/s was used to monitor the wind speed. Table 4.1 summarized the noise monitoring equipment model used during the impact monitoring. Copies of calibration certificates and Calibration Summary for noise meters and calibrators used are attached in Appendix B1.

Table 4.1 Noise Monitoring Equipment

Equipment	Model	Equipment No.	Serial No.	Calibration Date.	Expired Date
Sound Level Meter	Rion NL-31 Sound Level Meter	ET/EN/003/12	00773032	25/11/09	24/11/10
		ET/EN/003/10	00531142	09/06/10	08/06/11
	Cesva SC-20C	ET/EN/003/11	T222897	11/11/09	10/11/10
Sound Level Calibrator	Rion NC-73 Sound Level Meter	ET/EN/002/01	10196943	11/11/09	10/11/10
Anemometer	TSI Model 8340-M Air Velocity Meter	ET/EN/001/03	9101259	11/11/09	10/11/10

##### 4.3 Monitoring Parameters, Duration and Frequency

Impact noise monitoring for the A-weighted levels  $L_{eq}$ ,  $L_{10}$  and  $L_{90}$  were recorded once per week. Data obtained from impact noise monitoring was processed and presented as below:

- Daytime: three sets of 30-minute noise level monitored between 0700-1900 hrs on normal weekdays;
- Evening-time\*: three sets of 5-minute noise level monitored between 1900-2300 hrs ;
- Night-time\*: three sets of 5-minute noise level monitored between 2300-0700 hrs of next day; and
- Holiday\*: three sets of 5-minute noise level monitored between 0700-1900 hrs on holiday.

(\*): Noise monitoring to be conducted only when there is construction work.

Duration, frequencies and parameters of noise measurement are presented in Table 4.2.

Table 4.2 Duration, Frequencies and Parameters of Noise Monitoring

Time period	Duration/min	Parameters
Day-time: 0700-1900 hrs on normal weekday	30	$L_{eq}$ , $L_{10}$ , $L_{90}$
Evening-time: 1900-2300 hrs	5	$L_{eq}$ , $L_{10}$ , $L_{90}$
Night-time: 2300-0700 hrs of next day	5	$L_{eq}$ , $L_{10}$ , $L_{90}$
Holiday: 0700-1900 hrs	5	$L_{eq}$ , $L_{10}$ , $L_{90}$

##### 4.4 Monitoring Locations

In accordance with the EM&A Manual, the proposed noise monitoring station at the Harbourside (KS4) was cancelled since the owner of the Harbourside and nearby NSRs rejected to perform baseline and impact noise monitoring at their property. As a result, there was one noise monitoring location KS6 (The Cullinan) selected at West Kowloon to conduct impact environmental monitoring.



At Sai Yung Pun, the location at the noise station CG (Connaught Garden) was unavailable for impact noise measurement because the building repairing and maintenance works was carrying out in the Connaught Garden and will be finished in May 2011. Hence, noise monitoring at noise station CG was moved to another noise station CGa (pavement in front of Connaught Garden) temporarily until the completion of repairing and maintenance works at Connaught Garden since CGa locates close to the major site activities which are likely to have noise impacts and low disturbance to the occupants was observed during the noise monitoring. As a result, there were three noise monitoring locations, CGa (Pavement in front of Connaught Garden), RWM (Roof at Richwealth Mansion) and KY3 (Roof at Kwan Yik Building Phase 3) selected to conduct impact environmental monitoring.

The details of noise monitoring stations are summarized in Table 4.3.

Table 4.3 Noise Monitoring Stations

Noise monitoring station	Description of location	Type of Measurement
KS6	Podium at the Culliman	Free Field
CGa	Pavement in front of Connaught Garden	Free Field
RWM	Roof at Richwealth Mansion	Free Field
KY3	Roof at Kwan Yik Building Phase 3	Free Field

#### 4.5 Monitoring Methodology

##### Instrumentation

Integrating Sound Level Meters were employed for noise monitoring.

##### Operation/Analysis Procedures

- Sound Level Meter was set on a tripod at a height of 1.2m above the ground;
- For free field measurement, the meter was positioned away from any nearby reflective surfaces.
- The battery condition was checked to ensure the correct functioning of the meter;
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - Frequency weighting : A
  - Time weighting : Fast
  - Time measurement : 30 mins
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94 dB at 1000HZ. If the difference in the calibration level before and after measurement was more than 1.0 dB(A), the measurement would be considered invalid and repeat measurement would be required after re-calibration or repair of the equipment;
- During the monitoring period, the  $L_{eq}$ ,  $L_{10}$  and  $L_{90}$  were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet;
- 3dB(A) correction had been added to the results if noise measurements were free-field;
- Noise measurement may be paused during periods of high intrusive noise (e.g. dog barking directly towards the receiver of noise level meter). If noise measurement was paused during high intrusive noise, the noise level meter would be resumed and continued the noise measurement and the observations would also be recorded. Any pause intervals were not included in the measurement time; and
- Noise monitoring would be cancelled in the presence of fog, rain, storm, wind with a steady speed exceeding 5m/s, or wind gusts exceeding 10m/s.

##### Maintenance and Calibration

- The microphone head of the sound level meter and calibrator are cleaned with soft cloth at quarterly intervals; and
- The meters are sent to supplier or HOKLAS laboratory to check and calibrated at yearly intervals.

#### 4.6 Actions and Limit Levels

The Action and Limit Levels (AL Levels) were established in accordance to the Table 4.2 of the EM&A Manual. Table 4.4 presents the AL levels for noise monitoring.





Table 4.4 Action and Limit Levels for Noise Monitoring

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

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

#### 4.7 Event-Action Plans

Should the results of the monitoring parameters at any designated monitoring stations indicate that the noise level criteria are exceeded, the actions in accordance with the Event and Action Plan that summarized in Appendix D should be carried out.

#### 4.8 Results

Totally 5 occasions of Day-time noise monitoring at KS6, 4 occasions of Day-time noise monitoring at CGa, RWM and KY3 and 1 occasion of 0700-1900 Holiday-time noise monitoring were carried out in this reporting month.

No exceedances of Action Level of noise monitoring were recorded in this reporting month since no complaint on noise issue was received. Besides, no exceedances in Limit Level were recorded according to the results from Day-time noise monitoring. Table 4.5 summaries the noise daytime monitoring results in the reporting period.

Table 4.5 Summary of Noise Daytime Monitoring Results

Monitoring Parameter	Date	KS6		Date	CGa		RWM		KY3	
		Result #	Exceed*		Result #	Exceed*	Result #	Exceed*	Result #	Exceed*
Daytime	02/06/10	70.4	X	07/06/10	71.2	X	61.3	X	59.8	X
	09/06/10	64.3	X	14/06/10	74.2	X	70.8	X	68.1	X
	14/06/10	63.4	X	23/06/10	70.6	X	63.1	X	62.6	X
	23/06/10	69.7	X	30/06/10	70.2	X	61.5	X	63.0	X
	30/06/10	61.5	X	---	---	---	---	---	---	---
Holiday-time	27/06/10	62.2	X	27/06/10	68.4	X	64.9	X	60.6	X
	27/06/10	61.6	X	27/06/10	68.1	X	64.5	X	60.5	X
	27/06/10	61.7	X	27/06/10	68.2	X	64.6	X	61.0	X

Remark (\*): L = Limit Level exceedance, A = Action Level exceedance and X = not an Exceedance  
(†): 3dB(A) correction had been added to the results since noise measurements at all monitoring stations were free-field.

## 5.0 WATER QUALITY MONITORING

### 5.1 Monitoring Requirements

In accordance with the EM&A Manual, impact water quality monitoring was conducted three days per week during the course of the marine construction works.

### 5.2 Monitoring Locations

In accordance with the EM&A Manual, the proposed water quality monitoring station R8 – Macau Ferry Terminal was cancelled since it is located inside the restricted area. Another monitoring location R8a was proposed to replace R8 for impact water quality monitoring. As a result, totally four control stations and nine impaction stations were selected to conduct impact water quality monitoring for the Project. Table 5.1 shows the water quality monitoring stations of the Project.



Table 5.1 Water Quality Monitoring Stations

ID	Station	Easting	Northing
R5	Green Island	830 175.979	816 179.217
R6	Prince Philip Dental Hospital	833 437.625	816 747.640
R7	Tsan Yuk Hospital	833 461.092	816 744.773
R8a	Macau Ferry Terminal	833 573	816 885
R15 *	Kowloon South Pumping Station	833 982.630	818 282.101
R16	Kowloon Government Offices Building	834 335.800	817 769.145
R17	Canton Road Government Offices Building	834 364.658	817 802.847
R28	WSD Kennedy Town Salt Water Pumping Station	830 707	815 983
R29	WSD Sheung Wan Salt Water Pumping Station	833 414	816 745
C1	Control Station	830 797.729	819 163.377
C2	Control Station	836 350.628	817 135.218
C3	Control Station	829 495.126	817 228.312
C4	Control Station	836 638.773	816 686.030

Remark (\*): Station R15 = WSD Seawater Intake

Control stations, C2 and C4, should be the upstream control station for all impact monitoring stations at mid-flood and Control Stations, C1 and C3, should be the upstream control station for all monitoring stations at mid-ebb.

### 5.3 Monitoring Parameters

Monitoring parameters listed in Table 5.2 shall be monitored by the ET to ensure that any deteriorating water quality could be readily detected and timely action be taken to rectify the situation. Table 5.3 shows the other relevant water quality data recorded during the impact water quality monitoring.

Table 5.2 Water Quality Monitoring Parameters

In-situ measurement	Laboratory analysis
Dissolved Oxygen (DO) (mg/L)	Suspended solids (SS) (mg/L)
Turbidity (NTU)	

Table 5.3 Other relevant water quality parameters

Water Quality Parameters	
Tidal stages	Water depth (m)
Dissolved Oxygen saturation (%)	Salinity (ppt)
Temperature (°C)	Weather Condition

### 5.4 Monitoring Frequency

The frequency of impact water quality monitoring of water quality is summarized in Table 5.4.

Table 5.4 Monitoring Frequency of Impact Water Quality Monitoring

Frequency	Monitoring Depth
3 days/week, 2 tides/day	For water depth greater than 6m: Three water depths (1m below Surface, mid-depth and 1m above bottom). For water depth less than 6m but greater than 3m: Two water depths: (1m below Surface and 1m above bottom). For water depth less than 3m: One water depth (Mid-depth)

### 5.5 Monitoring Methodology and Equipment Used

Refer to the requirement in Appendix D2 "General Technical Requirements of Environmental Monitoring" (TM) in the Environmental Monitoring and Audit Guidelines for Development Projects in Hong Kong published by EPD, water samples for all monitoring parameter were collected, stored, preserved and analysed according to the Standard Method APHA 19ed.. In-situ measurements at monitoring locations including DO, turbidity, salinity and water depth were collected by equipment with the characteristic and functions listed as below:



### **Location of the monitoring stations**

A hand-held digital Global Positioning System (GPS) was used to identify the designated monitoring stations prior to water sampling.

### **Water Depth measurement**

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

### **In-situ Water Quality Monitoring Equipment**

All in-situ monitoring instruments shall be checked, calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use, and subsequently re-calibrated at 3 monthly intervals or sometimes longer throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter shall be carried out before measurement at each monitoring location.

### ***Dissolved Oxygen, salinity and temperature measuring equipment***

A portable, weatherproof dissolved oxygen & salinity measuring instrument, which complete with cable, sensor and DC power source (e.g. YSI 85 or equivalent) was used for measuring:

- a dissolved oxygen level in the range of 0-20 mg/L and 0-200 % saturation;
- a salinity in range 0-40 ppt; and
- a temperature of 0-45 degree Celsius

A membrane electrode with automatic temperature compensation complete with a cable was installed.

### ***Turbidity Measurement Instrument***

A portable, weatherproof turbidity-measuring instrument with DC power source was used. It has a photoelectric sensor capable of measuring turbidity between 0-1000 NTU and be complete with a cable (e.g. HACH model 2100P or equivalent)

### **Water Sampling and Sample Analysis**

In-situ monitoring was carried out at three depths: 1 meter below water surface, at mid-depth and 1 meter above the seabed. If the water depth is less than 6 m, the mid-depth station shall be omitted and if the water depth is below 3 m, only the mid depth station shall be monitored.

A water sampler comprising a transparent PVC cylinder, with a capacity of not less than 2 litres, was lowered into the water body at the predetermined depth. The opening ends of the sampler were then closed accordingly and water samples were collected.

The sample container, made by high-density polythene, was rinsed with a portion of the water sample. The water sample was then transferred to the container, labelled with a unique sample ID and sealed with a screw cap. The water samples were stored in a cool box maintained at 4°C. The water samples were then delivered to Environmental Laboratory of ETS-Testconsult Ltd (HOKLAS Registration No. 022) on the same day for analysis.

## **5.6 Details of site Equipment used for In-situ Measurement**

All in-situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use, and subsequently re-calibrated at 3 monthly intervals or sometimes longer throughout all stages of the water quality monitoring. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring location.

Table 5.5 shows the equipment used for in-situ monitoring of water quality. The calibration certificates are attached in Appendix C1.



Table 5.5 Details of Monitoring Equipment (In-site measurement)

Parameter	Model	Date of Calibration	Due Date	Equipment No.	Serial No.
Coordinate of Monitoring stations	Magellan GPS Navigator	----	----	ET/EW/005/03	211836B
Dissolved Oxygen (Saturation), Temperature and Salinity	YSI Dissolved Oxygen, Salinity & Temperature Meter, YSI 85	01/04/10	01/07/10	ET/EW/008/003*	08L100716
Turbidity	HACH Model 2100P Turbid Meter	16/04/10	15/07/10	ET/0505/007*	08060C030281
Water Depth	Speedtech Instrument SM-5A	----	----	ET/EW/002/04	56657

Remark: (\*) indicates the instrument should be calibrated on use.

### 5.7 Quality Assurance (QA) / Quality Control (QC) results and Determination Limits

At each measurement/sampling depth, two consecutive measurements of dissolved oxygen (DO), dissolved oxygen saturation (DOS), turbidity and salinity were taken. The probes were retrieved out of the water after the first measurement and then re-deployed for the second measurement. If the difference between the first and second measurement is greater than 25% the reading was discarded and the measurements were repeated.

At the laboratory analysis of water sample, test method of test parameter as required by the EM&A Manual, with the QA/QC results in accordance with the requirement of HOKLAS or international accredited scheme is shown in Table 5.6. For the QA/QC procedures, one QC sample, one duplicate sample and one sample spike of every batch of 20 samples were analysis. The QA/QC results are summarized in Appendix C4

Table 5.6 Summary of test method

Laboratory Analysis	Testing Procedure	Method Detection Limit
Total suspended solids	In house method based on APHA 19 <sup>th</sup> ed 2540D	1.0 mg/L

### 5.8 Action and Limit Level

The water quality criteria, namely Action and Limit (A/L) levels are presented in the table below.



Table 5.7 Water Quality Action and Limit Levels

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

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

## 5.9 Event and Action Plan

Please refer to the Appendix D for details.

## 5.10 Monitoring Duration and Period In this reporting month

Below is the time schedule for the water quality monitoring events that were conducted in this reporting month:

Table 5.8 Schedule for Impact Water Quality Monitoring

June 2010						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
		▼		▼		▼
6	7	8	9	10	11	12
		▼		▼		▼
13	14	15	16	17	18	19
		▼	Holiday	▼		▼
20	21	22	23	24	25	26
		▼		▼		▼
27	28	29	30			
		▼				

Remarks: (▼) = Marine water quality monitoring carried out by ET.

The daily water quality monitoring duration are detailed in Appendix C2.

## 5.11 Results

The impact water quality measurement results are detailed in Appendix C2. Appendix C3 presents the water quality monitoring data and graphical presentations of monitoring results respectively.



The summary of marine water quality exceedances is shown in Table 5.9.

Table 5.9 Summary of Impact Marine Water Quality Exceedances in this reporting month

Exceedance Level	DO		Turbidity		SS		Total	
	Flood	Ebb	Flood	Ebb	Flood	Ebb	Flood	Ebb
Action	0	0	0	0	0	0	0	0
Limit	0	0	0	0	0	0	0	0

According to the summary of marine water monitoring results, no exceedances of Action and Limit levels were recorded for this reporting month.

## 6.0 ENVIRONMENTAL SITE INSPECTION

During this reporting month, weekly site inspections were undertaken on 01, 08, 14, 22 and 29 June 2010 by ET. Monthly joint site inspection at 14 June 2010 was carried out by Engineer's Representative, IEC, WHPOJV and ET. A summary of implementation status of mitigation measures on site inspections is presented in Appendix G.

### 6.1 Summary of the ET weekly site inspection findings

According to the summary of the ET weekly site inspections carried out in this month, it indicated that site practices of the Contractor were generally undertaken in an environmentally acceptable manner and the overall site environmental performance was satisfactory. Summary of the site inspection findings in this reporting month is shown in Table 6.1.

Table 6.1 Summary of Site Inspection Findings

Item	Aspect	Finding	Action(s) taken by the Contractor	ET Verification
1	Water	During the site inspection on 01/06/10, the silt curtain for dredging work at Portion I was noted damaged although no dredging works are in progress.	<ul style="list-style-type: none"> <li>▪ Dredging works was suspended immediately when damage of the frame type silt curtain was observed ;</li> <li>▪ Immediate actions of maintenance and repairing works of the frame type silt curtain was arranged ;</li> <li>▪ A new silt curtain was replaced the damaged one.</li> </ul>	During the subsequent site inspection on 08/06/10, the silt curtain was repaired and maintained properly.
2	Water	Silt screen at the sea water intake at Kowloon South Salt Water Pumping Station was found damaged during the weekly site inspection on 01/06/10.	<ul style="list-style-type: none"> <li>▪ Repairing works of the silt screen was arranged.</li> </ul>	During the subsequent weekly site inspection on 08/06/10, the silt screen was repaired and maintained properly
3	Water	Silt screen at the sea water intake at Kowloon South Salt Water Pumping Station was found damaged during the weekly site inspections on 14/06/10 and 22/06/10.	<ul style="list-style-type: none"> <li>▪ Repairing works of the silt screen was arranged.</li> </ul>	During the last weekly site inspection on 29/06/10, the silt screen was repaired and maintained properly
4	Chemical	Follow action to the outstanding finding in the previous month, the 200L oil drum with waste oil at Portion J was removed during the weekly site inspection on 01/06/10.	<ul style="list-style-type: none"> <li>▪ Nil</li> </ul>	Since the finding was improved, no ET verification was required.



## 6.2 Recommendations on site inspection findings in Site Inspections of this month

Based on the site inspection findings, the recommendations are as below:

- Minimize noise and dust impact due to construction works;
- Use and maintain silt curtain and silt screen properly;
- Adequate environmental control measures shall be provided to prevent / avoid dropping of dredged materials into the sea during the transfer;
- Implement all necessary preventive measures to avoid oil leakage. In the event an oil leakage happens, the Contractor should properly remove the leaked oil and handle the contaminated soil and all materials using for this cleaning works as chemical waste; and
- Checking and maintaining all the site machines to prevent black smoke emission;
- Providing briefing to the concerned site staff on remedial actions, such as handling method of chemicals and chemical waste;
- Remove all stagnant water;
- Apply proper treatment facilities to wastewater before discharge; and
- Maintain good waste management at the site.

## 7.0 STATUS OF ENVIRONMENTAL PERMITS

All permits/licenses obtained in this reporting month are summarized in Table 7.1.

Table 7.1 Summary of Environmental Licensing and Permit Status

Description	Permit No.	Valid Period		Remarks
		From	To	
Environmental Permit	EP-273/2007	31/07/07	End of Project	Whole Project
Water Discharge Licence (West Kowloon)	WT00005347-2009	07/01/10	31/01/15	Effluent and all other wastewater arising from the construction site through Screen & Sedimentation Tank
Water Discharge Licence (Sai Yung Pun)	WT00005800-2010	14/01/10	31/01/15	Effluent arising from the construction site through Sedimentation Tank
Chemical Waste Producer	5213-217-W3086-01	13/10/09	End of Project	Spent oil, surplus flammable liquid, surplus paint, soil, rags & containers contaminated with lubricating oil, diesel, flammable liquid & paint, & used batteries
Construction Noise Permit (West Kowloon)	GW-RE0063-10	01/03/10	31/08/10	Group A One Generator, silenced, <75 dB(A) at 7m One Tunnel boring machine One Water pump (electric) (CNP 281)  Group B One Dredger, grab (CNP 063) Two Guard boat One Tug boat (CNP 221)
Construction Noise Permit	GW-RS0234-10	22/03/10	19/09/10	One dredger, grab (CNP 063) Two Guard boat One Tug boat (CNP 221) Hopper barge
Dumping Licence	EP/MD/10-086	30/04/10	29/05/10	Bulk quantity of material approved for dumping at the East Sha Chau Contaminated Mud Disposal Site within permit validity period: 282100 cu.m. (for Type 1 – Open Sea Disposal (Dedicated Site) and Type 2 – Confined Marine Disposal)
Dumping Licence	EP/MD/10-085	30/04/10	30/09/10	Bulk quantity of material approved for dumping at the East Ninepin Mud Disposal Ground within permit validity period: 293800 cu.m. (for Type 1 – Open Sea Disposal)



Description	Permit No.	Valid Period		Remarks
		From	To	
Dumping Licence	EP/MD/11-012	30/05/10	29/06/10	Bulk quantity of material approved for dumping at the East Sha Chau Contaminated Mud Disposal Site within permit validity period: 251980 cu.m. (for Type 1 – Open Sea Disposal (Dedicated Site) and Type 2 – Confined Marine Disposal)
Dumping Licence	EP/MD/11-024	30/06/10	29/07/10	Bulk quantity of material approved for dumping at the East Sha Chau Contaminated Mud Disposal Site within permit validity period: 239360 cu.m. (for Type 1 – Open Sea Disposal (Dedicated Site) and Type 2 – Confined Marine Disposal)
Notification under APCO	Application had been submitted to EPD on 25/09/09 and approved from 29/09/09.			

## 8.0 WASTE MANAGEMENT

### 8.1 Monthly Waste Summary

The quantities of waste generated from the Project in this month are summarized in Table 8.1.

Table 8.1 Summary of Quantities of Waste for Disposal in this reporting month

Type of Waste		Quantity	Disposal Location	Cumulative Quantity
Inert C&D Materials	Total Quantity Generated ** (in m <sup>3</sup> )	930.35		3972.35
	Broken Concrete (in m <sup>3</sup> )	0	---	0
	Reused in the Contract (in m <sup>3</sup> )	0	---	0
	Reused in other Projects (in m <sup>3</sup> )	0	---	0
	Disposal as Public Fill (in m <sup>3</sup> )	928.67	SENT Landfill	3940.64
C&D Waste	Metals (in kg)	0	---	0
	Paper/Cardboard Packaging (in kg)	13	Collected by recycling company	39
	Plastics (in kg)	0	---	0
	Chemical Waste (in kg)	0	---	0
	Other, e.g. General Refuse (in m <sup>3</sup> )	1.68	SENT Landfill	31.71
Dredged Materials*	Type 1 (in m <sup>3</sup> )	32800	East Ninepin Mud Disposal Ground	32800
	Type 2 (in m <sup>3</sup> )	13920	The East Sha Chau	43740 <sup>#</sup>

Remark (\*): Daily Dredging Summary for this reporting month presents in Appendix J

(\*\*): Total quantity generated = Disposal as Public Fill + Other (e.g. General Refuse)

(#): Cumulative quantity of Type 2 dredged materials in May 2010 should be 29820m<sup>3</sup> instead of 30520m<sup>3</sup>.

### 8.2 Advice on the Solid and Liquid Waste Management Status

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

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





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

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

All the runoff from the parking area should be pumped to the desilting facilities and oil interceptors to remove suspended solids and oil & grease prior to discharge.

## 9.0 ENVIRONMENTAL NON-CONFORMANCE

### 9.1 Summary of Noise and Water Quality

No day-time noise level measured at the monitoring station exceeded the Action and Limit Level in the reporting month.

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

### 9.2 Summary of Environmental Complaints

There was no complaint received in this reporting month.

### 9.3 Summary of Notification of Summons and Prosecution

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

## 10.0 IMPLEMENTATION STATUS

### 10.1 Implementation Status of Environmental Mitigation Measures

An updated summary of the Environmental Mitigation Implementation Schedule (EMIS) is presented in Appendix G. Most of the necessary mitigation measures were implemented properly. Any deficiencies were noted in the remarks of the schedule.

### 10.2 Implementation Status of Event and Action Plan

Since no documented complaints on noise issue were received in this reporting month, no Action Level exceedances were recorded. Besides, no exceedances in Limit Level were recorded according to the result from Day-time noise monitoring.

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

### 10.3 Implementation Status of Environmental Complaint, Notifications of Summons and Successful Prosecutions Handling

No complaints, notifications of summons and successful prosecutions were received in this reporting month. A summary of environmental complaints, notifications of summons and successful prosecutions was given in Table 10.1.

Table 10.1 Summary of Environmental Complaints and Prosecutions

Complaints logged		Summons served		Successful prosecution received	
June 2010	Cumulative	June 2010	Cumulative	June 2010	Cumulative
0	0	0	0	0	0



## 11.0 CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

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

The noise level measured at the monitoring station complied with the Limit Level. No complaint was received regarding noise issue in this reporting month.

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

According to the ET weekly site inspections carried out in this reporting month, the Contractor generally implemented sufficient dust mitigation measures.

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

### Recommendations

According to the environmental site inspections performed in the reporting month, the following recommendations were provided:

#### **Air Quality**

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

#### **Noise**

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

#### **Water Quality**

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

#### **Chemical and Waste Management**

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



## 12.0 FUTURE KEY ISSUES

### 12.1 Work Programme for the Coming Month

As informed by the Contractor, the activities to be conducted by them in the next month included:

- Pipe material on-site coating (Portion H);
- Sai Ying Pun cofferdam for landfill (Portion J); and
- Dredging works (Portion I).

### 12.2 Key Issues for the Coming Month

**Key issues to be considered in the coming month include:**

- Noise and dust impact due to construction works;
- Use and maintain silt curtain and silt screen properly;
- Adequate environmental control measures shall be provided to prevent / avoid dropping of dredged materials into the sea during the transfer;
- Implement all necessary preventive measures to avoid oil leakage. In the event an oil leakage happens, the Contractor should properly remove the leaked oil and handle the contaminated soil and all materials using for this cleaning works as chemical waste; and
- Maintain good site practice to minimize environmental impacts at the site.

**Mitigation measures to be required in the coming month:**

#### Air Quality Impact

- To ensure implementation of the dust mitigation measures for the site activities;
- To provide proper maintenance for vehicles and machines on site; and
- To investigate any other dust sources around the air sensitive receivers

#### Noise

- To switch off equipment if not in use;
- To operate silent equipment;
- To identify the noise sources inside and outside of the site; and
- To re-schedule the work activities in the event of valid noise exceedance.

#### Water Quality Impact

- To maintain the drainage system;
- To repair, inspect and maintain the silt curtains and site screen regularly;
- To provide covers for the drip trays to avoid stagnant water due to rainfall;
- To provide proper treatment for wastewater from the area;
- To deploy a cleaning vessel to remove floating rubbish;
- To avoid dredged materials on the barge from being washed into the sea; and
- To avoid any stagnant water or provide insecticide to avoid mosquito breeding.

#### Chemical and Waste Management

- To remove waste from the site regularly;
- To properly store and handle chemical wastes on site;
- To implement trip ticket system for all the imported public fill and general refuse disposal;
- To provide and manage sufficiently sized drip trays for diesel drums or chemical containers;
- To maintain proper housekeeping;
- To remove the oil stains in the event of leakage and handle all materials using for this cleaning works as chemical waste; and
- To identify C&D material by packaging, labeling, storage, transportation and disposal in accordance with statutory regulations.

### 12.3 Monitoring Schedule for the Coming Month

The proposed EM&A program of the coming month is attached in Appendix I.



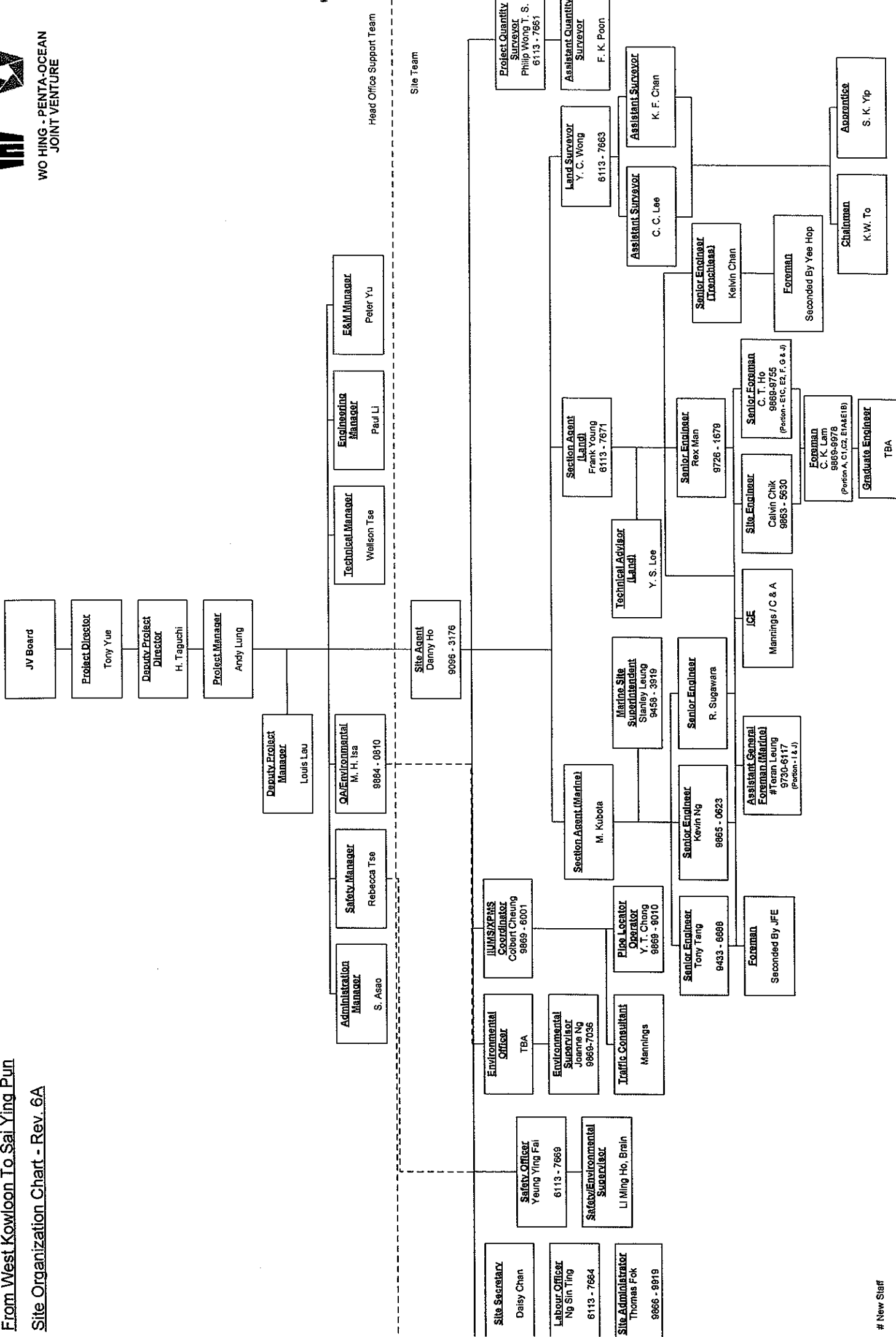
## Appendix A

### Organization Chart and Lines of Communication

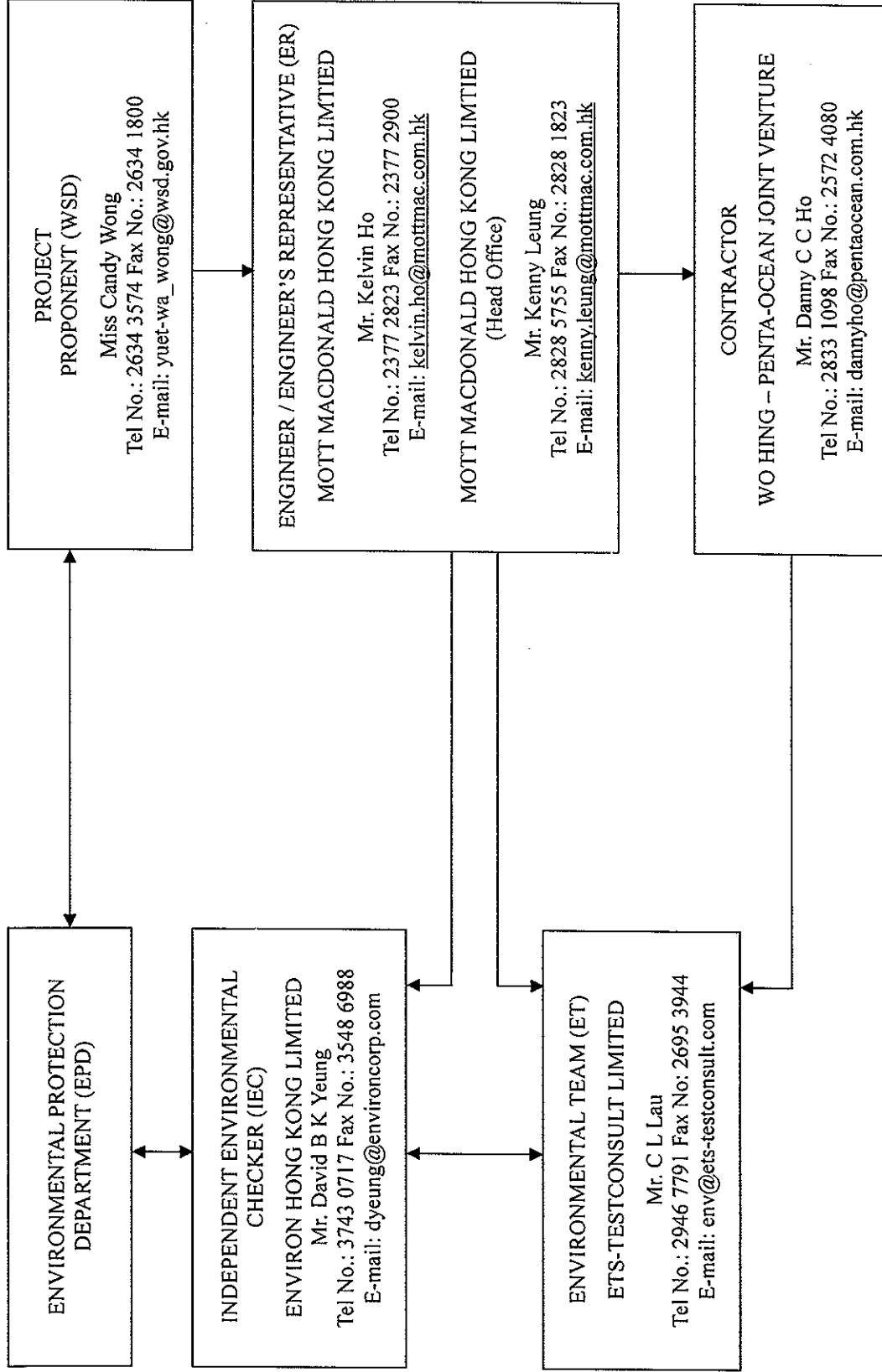
**Laying Of Western Cross Harbour Main And Associated Land Mains  
From West Kowloon To Sai Ying Pun  
Site Organization Chart - Rev. 6A**



WO HING - PENTA-OCEAN  
JOINT VENTURE



# New Staff



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

**Title** Project Organization and Line of Communication

**Date** Dec 2009

Figure 1.3a



## Appendix B1

### Calibration Certificates for Impact Noise Monitoring Equipment



# Calibration Certificate

Certificate No. 95693

Page 1 of 2 Pages

Customer : ETS-Testconsult Limited

Address : 8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan St., Fotan, Hong Kong.

Order No. : Q92297

Date of receipt : 5-Nov-09

## Item Tested

Description : Sound Level Calibrator ( ET/ EN/ 002/ 01 )

Manufacturer : Rion

Model : NC-73

Serial No. : 10196943

## Test Conditions

Date of Test : 11-Nov-09

Supply Voltage : --

Ambient Temperature : (23 ± 3)°C

Relative Humidity : (50 ± 25) %

## Test Specifications

Calibration check.

Ref. Document/Procedure : F21, Z02.

## Test Results

All results were within the manufacturer's specification.

The results are shown in the attached page(s).

Main Test equipment used:

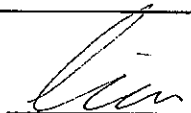
<u>Equipment No.</u>	<u>Description</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S014	Spectrum Analyzer	93091	18-Jun-10	NIM-PRC & SCL-HKSAR
S024	Sound Level Calibrator	93758	16-Jul-10	NIM-PRC & SCL-HKSAR
S041	Universal Counter	94005	6-Aug-10	SCL-HKSAR
S206	Sound Level Meter	93966	5-Aug-10	SCL-HKSAR

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.


The test equipment used for calibration are traceable to International System of Units (SI).

The test results apply to the above Unit-Under-Test only

Calibrated by :

  
P.F. Wong

Approved by :

  
Dorothy Cheuk

This Certificate is issued by:

Hong Kong Calibration Ltd.

Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong.

Tel: 2425 8801 Fax: 2425 8646

Date: 16-Nov-09





# Calibration Certificate

Certificate No. 95693

Page 2 of 2 Pages

Results :

**1. Level Accuracy (at 1 kHz)**

UUT Nominal Value	Measured Value	Mfr's Spec.
94 dB	93.72 dB	$\pm 1$ dB

Uncertainty :  $\pm 0.1$  dB

**2. Frequency Accuracy**

UUT Nominal Value	Measured Value	Mfr's Spec.
1 kHz	0.991 kHz	$\pm 2$ %

Uncertainty :  $\pm 0.0$  %

**3. Level Stability : 0.0 dB**

Uncertainty :  $\pm 0.01$  dB

**4. Total Harmonic Distortion :  $< 0.8$  %**

Mfr's Spec. :  $< 3$  %

Uncertainty :  $\pm 2.3$  % of reading

Remark : 1. UUT : Unit-Under-Test

2. The uncertainty claimed is for a confidence probability of not less than 95%.

3. The above measured values were the mean of 3 measurements.

4. Atmospheric Pressure : 1 002 hPa

----- END -----



# Calibration Certificate

Certificate No. **02909A**

Page 1 of 4 Pages

**Customer :** ETS-Testconsult Limited

**Address :** 8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan St., Fotan, Hong Kong.

**Order No. :** Q01152

**Date of receipt :** 31-May-10

## Item Tested

**Description :** Precision Integrating Sound Level Meter (ET/ EN/ 003/ 10)

**Manufacturer :** Rion

**Model :** NL-31

**Serial No. :** 00531142

## Test Conditions

**Date of Test :** 9-Jun-10

**Supply Voltage :** --

**Ambient Temperature :** (23 ± 3)°C

**Relative Humidity :** (50 ± 25) %

## Test Specifications

Calibration check.

Ref. Document/Procedure : Z01.

## Test Results

All results were within the IEC 651 Type 1 & IEC 804 Type 1 specification.

The results are shown in the attached page(s).


Main Test equipment used:

<u>Equipment No.</u>	<u>Description</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S017	Multi-Function Generator	C101623	25-Mar-11	SCL-HKSAR
S024	Sound Level Calibrator	93758	16-Jul-10	NIM-PRC & SCL-HKSAR

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI).  
The test results apply to the above Unit-Under-Test only

**Calibrated by :**   
Dorothy Cheuk

**Approved by :**   
Alan Chu

**Date:** 15-Jun-10

This Certificate is issued by:

Hong Kong Calibration Ltd.

Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong.

Tel: 2425 8801 Fax: 2425 8646

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# Calibration Certificate

Certificate No. 02909A

Page 2 of 4 Pages

Results :

## 1. SPL Accuracy

UUT Setting			Applied Value (dB)	UUT Reading (dB)
Level Range (dB)	Weight	Response		
20 - 100	L <sub>A</sub>	Fast	94.03	93.7
		Slow		93.7
	L <sub>C</sub> L <sub>p</sub>	Fast		93.7
		Fast		93.7
30 - 120	L <sub>A</sub>	Fast	94.03	93.7
		Slow		93.6
	L <sub>C</sub> L <sub>p</sub>	Fast		93.7
		Fast		93.7
30 - 120	L <sub>A</sub>	Fast	113.97	113.6
		Slow		113.6
	L <sub>C</sub> L <sub>p</sub>	Fast		113.6
		Fast		113.6

IEC Type 1 Spec. :  $\pm 0.7$  dB

Uncertainty :  $\pm 0.1$  dB

## 2. Level Stability : 0.0 dB

IEC 651 Type 1 Spec. :  $\pm 0.3$  dB

Uncertainty :  $\pm 0.1$  dB



# Calibration Certificate

Certificate No. 02909A

Page 3 of 4 Pages

## 3. Linearity

### 3.1 Level Linearity

UUT Range (dB)	Applied Value (dB)	UUT Reading (dB)	Variation (dB)	IEC 651 Type 1 Spec. (Primary Indicator Range)
130	114.0	113.9	+0.2	± 0.7 dB
130	104.0	103.9	+0.2	
120	94.0	93.7 (Ref.)	--	
110	84.0	84.1	+0.4	
100	74.0	73.7	0.0	
90	64.0	63.7	0.0	
80	54.0	53.7	0.0	

Uncertainty : ± 0.1 dB

### 3.2 Differential level linearity

UUT Range (dB)	Applied Value (dB)	UUT Reading (dB)	Variation (dB)	IEC 651 Type 1 Spec.
120	84.0	83.5	-0.2	± 0.4 dB
	94.0	93.7 (Ref.)	--	
	95.0	94.7	0.0	± 0.2 dB
	104.0	103.8	+0.1	± 0.3 dB
	105.0	104.8	0.0	± 1.0 dB

Uncertainty : ± 0.1 dB

## 4. Frequency Weighting

### A weighting

Frequency	Attenuation (dB)	IEC 651 Type 1 Spec.
31.5 Hz	-40.2	- 39.4 dB, ± 1.5 dB
63 Hz	-26.7	- 26.2 dB, ± 1.5 dB
125 Hz	-16.7	- 16.1 dB, ± 1 dB
250 Hz	-9.1	- 8.6 dB, ± 1 dB
500 Hz	-3.6	- 3.2 dB, ± 1 dB
1 kHz	0.0 (Ref.)	0 dB, ± 1 dB
2 kHz	+1.6	+ 1.2 dB, ± 1 dB
4 kHz	+1.6	+ 1.0 dB, ± 1 dB
8 kHz	-0.5	- 1.1 dB, + 1.5 dB ~ - 3 dB
16 kHz	-6.0	- 6.6 dB, + 3 dB ~ ∞

Uncertainty : ± 0.1 dB



# Calibration Certificate

Certificate No. 02909A

Page 4 of 4 Pages

## 4. Time Averaging

Applied Burst duty Factor	Applied Leq Value (dB)	UUT Reading (dB)	IEC 804 Type 1 Spec.
continuous	40.0	40.0	--
1/10	40.0	39.9	± 0.5 dB
1/10 <sup>2</sup>	40.0	40.0	
1/10 <sup>3</sup>	40.0	40.0	± 1.0 dB
1/10 <sup>4</sup>	40.0	39.9	

Uncertainty : ± 0.1 dB

Remark : 1. UUT : Unit-Under-Test

2. The uncertainty claimed is for a confidence probability of not less than 95%.

3. Atmospheric Pressure : 1 002 hPa.

4. This certificate is to supersede our former certificate no. 02909.

----- END -----



# Calibration Certificate

Certificate No. **96150**

Page 1 of 4 Pages

**Customer :** ETS-Testconsult Limited

**Address :** 8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan St., Fotan, Hong Kong.

**Order No. :** Q92457

**Date of receipt :** 24-Nov-09

## Item Tested

**Description :** Precision Integrating Sound Level Meter ( ET/ EN/ 003/ 12 )

**Manufacturer :** Rion

**Model :** NL-31

**Serial No. :** 00773032

## Test Conditions

**Date of Test :** 25-Nov-09

**Supply Voltage :** --

**Ambient Temperature :** (23 ± 3)°C

**Relative Humidity :** (50 ± 25) %

## Test Specifications

Calibration check.

Ref. Document/Procedure : Z01.

## Test Results

All results were within the IEC 651 Type 1 & IEC 804 Type 1 specification.

The results are shown in the attached page(s).


Main Test equipment used:


<u>Equipment No.</u>	<u>Description</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S017	Multi-Function Generator	C081456	18-Mar-10	SCL-HKSAR
S024	Sound Level Calibrator	93758	16-Jul-10	NIM-PRC & SCL-HKSAR

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI).

The test results apply to the above Unit-Under-Test only

**Calibrated by :**   
P.F. Wong

**Approved by :**   
Dorothy Cheuk

**Date:** 27-Nov-09

This Certificate is issued by:  
Hong Kong Calibration Ltd.  
Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong.  
Tel: 2425 8801 Fax: 2425 8646



# Calibration Certificate

Certificate No. 96150

Page 2 of 4 Pages

Results :

## 1. SPL Accuracy

UUT Setting			Applied Value (dB)	UUT Reading (dB)
Level Range (dB)	Weight	Response		
20 – 100	L <sub>A</sub>	Fast	94.03	94.0
		Slow		94.0
	L <sub>C</sub>	Fast		94.0
	L <sub>p</sub>	Fast		94.1
30 – 120	L <sub>A</sub>	Fast	94.03	93.8
		Slow		93.8
	L <sub>C</sub>	Fast		94.0
	L <sub>p</sub>	Fast		94.0
30 – 120	L <sub>A</sub>	Fast	113.97	113.8
		Slow		113.8
	L <sub>C</sub>	Fast		113.9
	L <sub>p</sub>	Fast		113.9

IEC Type 1 Spec. :  $\pm 0.7$  dB

Uncertainty :  $\pm 0.1$  dB

## 2. Level Stability : 0.0 dB

IEC 651 Type 1 Spec. :  $\pm 0.3$  dB

Uncertainty :  $\pm 0.01$  dB



# Calibration Certificate

Certificate No. 96150

Page 3 of 4 Pages

## 3. Linearity

### 3.1 Level Linearity

UUT Range (dB)	Applied Value (dB)	UUT Reading (dB)	Variation (dB)	IEC 651 Type 1 Spec. (Primary Indicator Range)
130	114.0	113.8	0.0	± 0.7 dB
130	104.0	103.8	0.0	
120	94.0	93.8 (Ref.)	--	
110	84.0	83.7	-0.1	
100	74.0	73.7	-0.1	
90	64.0	63.7	-0.1	
80	54.0	53.8	0.0	

Uncertainty : ± 0.1 dB

### 3.2 Differential level linearity

UUT Range (dB)	Applied Value (dB)	UUT Reading (dB)	Variation (dB)	IEC 651 Type 1 Spec.
120	84.0	83.9	+0.1	± 0.4 dB
	94.0	93.8 (Ref.)	--	
	95.0	94.8	0.0	± 0.2 dB
	104.0	103.8	0.0	± 0.3 dB
	105.0	104.8	0.0	± 1.0 dB

Uncertainty : ± 0.1 dB

## 4. Frequency Weighting

### A weighting

Frequency	Attenuation (dB)	IEC 651 Type 1 Spec.
31.5 Hz	-39.7	- 39.4 dB, ± 1.5 dB
63 Hz	-26.4	- 26.2 dB, ± 1.5 dB
125 Hz	-16.3	- 16.1 dB, ± 1 dB
250 Hz	-8.7	- 8.6 dB, ± 1 dB
500 Hz	-3.3	- 3.2 dB, ± 1 dB
1 kHz	0.0 (Ref.)	0 dB, ± 1 dB
2 kHz	+1.2	+ 1.2 dB, ± 1 dB
4 kHz	+1.1	+ 1.0 dB, ± 1 dB
8 kHz	-1.1	- 1.1 dB, + 1.5 dB ~ - 3 dB
16 kHz	-6.8	- 6.6 dB, + 3 dB ~ ∞

Uncertainty : ± 0.1 dB





# Calibration Certificate

Certificate No. 96150

Page 4 of 4 Pages

## 4. Time Averaging

Applied Burst duty Factor	Applied Leq Value (dB)	UUT Reading (dB)	IEC 804 Type 1 Spec.
continuous	40.0	40.0	--
1/10	40.0	39.6	± 0.5 dB
1/10 <sup>2</sup>	40.0	40.0	
1/10 <sup>3</sup>	40.0	40.1	± 1.0 dB
1/10 <sup>4</sup>	40.0	40.1	

Uncertainty : ± 0.1 dB

- Remark : 1. UUT : Unit-Under-Test  
2. The uncertainty claimed is for a confidence probability of not less than 95%.  
3. Atmospheric Pressure : 1 010 hPa.

----- END -----



# Calibration Certificate

Certificate No. **95692**

Page 1 of 3 Pages

**Customer :** ETS-Testconsult Limited

**Address :** 8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan St., Fotan, Hong Kong.

**Order No. :** Q92297

**Date of receipt :** 5-Nov-09

## Item Tested

**Description :** Sound Level Meter ( ET/ EN/ 003/ 11 )

**Manufacturer :** Cesva

**Model :** SC-20C

**Serial No. :** T222897

## Test Conditions

**Date of Test :** 11-Nov-09

**Supply Voltage :** --

**Ambient Temperature :** (23 ± 3)°C

**Relative Humidity :** (50 ± 25) %

## Test Specifications

Calibration check.

Ref. Document/Procedure: Z01.

## Test Results

All results were within the IEC 651 Type 1 & IEC 804 Type 1 specification.

The results are shown in the attached page(s).

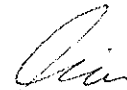
Main Test equipment used:

<u>Equipment No.</u>	<u>Description</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S017	Multi-Function Generator	C081456	18-Mar-10	SCL-HKSAR
S024	Sound Level Calibrator	93758	16-Jul-10	NIM-PRC & SCL-HKSAR


The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI).  
The test results apply to the above Unit-Under-Test only

Calibrated by :

  
P.F. Wong

Approved by :

  
Dorothy Cheuk

This Certificate is issued by:

Hong Kong Calibration Ltd.

Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong.

Tel: 2425 8801 Fax: 2425 8646

Date: 13-Nov-09



# Calibration Certificate

Certificate No. 95692

Page 2 of 3 Pages

Results :

## 1. SPL Accuracy

Level Range (dB)	UUT Setting		Applied Value (dB)	UUT Reading (dB)
	Freq. Weight	Time Weighting		
23 ~ 140	L <sub>A</sub>	L <sub>F</sub>	94.03	93.8
		L <sub>S</sub>		93.8
	L <sub>C</sub>	L <sub>F</sub>		93.8
		L <sub>S</sub>		93.8
	L <sub>A</sub>	L <sub>F</sub>	113.97	113.8
		L <sub>S</sub>		113.8
	L <sub>C</sub>	L <sub>F</sub>		113.8
		L <sub>S</sub>		113.8

IEC 651 Type 1 Spec. :  $\pm 0.7$  dB

Uncertainty :  $\pm 0.1$  dB

## 2. Level Stability : 0.0 dB

IEC 651 Type 1 Spec. :  $\pm 0.3$  dB

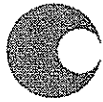
Uncertainty :  $\pm 0.01$  dB

## 3. Linearity

Level Linearity

UUT Range	Applied Value (dB)	UUT Reading (dB)	Variation (dB)	IEC 651 Type 1 Spec. (Primary Indicator Range)
23 ~ 140	114.0	113.8	0.0	$\pm 0.7$ dB
	104.0	103.8	0.0	
	94.0	93.8 (Ref.)	--	
	84.0	83.8	0.0	
	74.0	73.8	0.0	
	64.0	63.8	0.0	
	54.0	53.8	0.0	

Uncertainty :  $\pm 0.1$  dB



# Calibration Certificate

Certificate No. 95692

Page 3 of 3 Pages

## 4. Frequency Weighting

A weighting

Frequency	Attenuation (dB)	IEC 651 Type 1 Spec.
31.5 Hz	-39.4	- 39.4 dB, $\pm 1.5$ dB
63 Hz	-26.2	- 26.2 dB, $\pm 1.5$ dB
125 Hz	-16.2	- 16.1 dB, $\pm 1$ dB
250 Hz	-8.8	- 8.6 dB, $\pm 1$ dB
500 Hz	-3.4	- 3.2 dB, $\pm 1$ dB
1 kHz	0.0 (Ref.)	0 dB, $\pm 1$ dB
2 kHz	+1.0	+ 1.2 dB, $\pm 1$ dB
4 kHz	+1.2	+ 1.0 dB, $\pm 1$ dB
8 kHz	-1.1	- 1.1 dB, + 1.5 dB ~ - 3 dB
16 kHz	-11.9	- 6.6 dB, + 3 dB ~ $\infty$

Uncertainty :  $\pm 0.1$  dB

## 5. Time Averaging

Applied Burst duty Factor	Applied Leg Value (dB)	UUT Reading (dB)	IEC 804 Type 1 Spec.
continuous	50.0	50.0	--
1/10		50.0	$\pm 0.5$ dB
1/10 <sup>2</sup>		50.0	$\pm 1.0$ dB
1/10 <sup>3</sup>		49.9	
1/10 <sup>4</sup>		49.9	

Uncertainty :  $\pm 0.1$  dB

Remark : 1. UUT : Unit-Under-Test

2. The uncertainty claimed is for a confidence probability of not less than 95%.

3. Atmospheric Pressure : 1 002 hPa.

----- END -----



# Calibration Certificate

Certificate No. **95694**

Page 1 of 2 Pages

**Customer :** ETS-Testconsult Limited

**Address :** 8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan St., Fotan, Hong Kong.

**Order No. :** Q92297

**Date of receipt :** 5-Nov-09

## Item Tested

**Description :** Anemometer ( EN/ 001/ 03 )

**Manufacturer :** AZ Instrument

**Model :** AZ 8908

**Serial No. :** 9101259

## Test Conditions

**Date of Test :** 11-Nov-09

**Supply Voltage :** --

**Ambient Temperature :** (23 ± 3)°C

**Relative Humidity :** (50 ± 25) %

## Test Specifications

Calibration check.

Ref. Document/Procedure: T03, Z04.

## Test Results

A correction factor of X 1.1 applied to velocity function is required to bring the meter reading to within manufacturer's specification. The results are shown in the attached page(s).


Main Test equipment used:

<u>Equipment No.</u>	<u>Description</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S050A	Std. Temp/R.H. Meter	93193	14-May-10	NIM-PRC, SCS-SWISS
S155	Std. Anemometer	NSC20094046	19-Jan-10	NIM-PRC


The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI).  
The test results apply to the above Unit-Under-Test only

Calibrated by :

  
S.K. Tang

Approved by :

  
Steve Kwan

This Certificate is issued by:

Hong Kong Calibration Ltd.

Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong.

Tel: 2425 8801 Fax: 2425 8646

Date: 11-Nov-09



# Calibration Certificate

Certificate No. 95694

Page 2 of 2 Pages

Results :

## 1. Velocity

Applied Value (m/s)	UUT Reading (m/s)	Corrected Reading (UUT Reading x 1.1) (m/s)	Mfr's Spec.
2.50	2.2	2.4	± (3 % of reading + 1 dgt)
5.00	4.5	5.0	
10.00	8.8	9.7	
15.00	13.2	14.5	
20.00	17.7	19.5	

## 2. Temperature

Applied Value (°C)	UUT Reading (°C)	Mfr's Spec.
1.2	2.0	± 1 °C
25.9	25.6	
47.2	46.2	

Remark : 1. UUT: Unit-Under-Test

2. Uncertainty : ± (0.9% + 0.16 m/s) for Velocity, ± 0.3 °C for Temperature, for a confidence probability of not less than 95%.

3. Atmospheric Pressure : 1 002 hPa

----- END -----



## Appendix B2

### Impact Noise Monitoring Results



## Day-time Noise Monitoring

### Monitoring Station: KS6 (Podium at the Culliman)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
02/06/10	Cloudy	15:55	16:25	70.4	73.1	62.3	1.6
09/06/10	Cloudy	09:10	09:40	64.3	67.8	60.1	1.6
14/06/10	Cloudy	11:30	12:00	63.4	66.7	59.9	1.7
23/06/10	Cloudy	14:35	15:05	69.7	70.5	62.8	0.8
30/06/10	Sunny	16:05	16:35	61.5	64.3	58.9	0.4

### Monitoring Station: CGa (Pavement in front of Connaught Garden)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
07/06/10	Sunny	13:30	14:00	71.2	74.4	68.6	0.7
14/06/10	Cloudy	11:20	11:50	74.2	74.9	70.6	0.7
23/06/10	Cloudy	08:40	09:10	70.6	73.7	67.8	0.9
30/06/10	Sunny	14:20	14:50	70.2	73.3	67.4	0.9

### Monitoring Station: RWM (Roof at Richwealth Mansion)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
07/06/10	Sunny	10:50	11:20	61.3	64.5	57.2	1.4
14/06/10	Cloudy	10:10	10:40	70.8	72.5	68.6	1.2
23/06/10	Cloudy	09:15	09:45	63.1	66.7	60.2	1.4
30/06/10	Sunny	14:55	15:25	61.5	64.8	58.4	1.3

### Monitoring Station: KY3 (Roof at Kwan Yik Building Phase 3)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
07/06/10	Sunny	11:25	11:55	59.8	63.3	56.6	1.3
14/06/10	Cloudy	10:45	11:15	68.1	69.3	66.6	1.5
23/06/10	Cloudy	09:50	10:20	62.6	66.1	59.8	1.6
30/06/10	Sunny	15:30	16:00	63.0	66.4	60.1	1.1





## Holiday-time Noise Monitoring

### Monitoring Station: KS6 (Podium at the Culliman)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
27/06/10	Drizzle	17:55	18:00	62.2	63.2	60.5	0.2
27/06/10	Drizzle	18:00	18:05	61.6	62.3	60.1	0.2
27/06/10	Drizzle	18:05	18:10	61.7	62.6	59.0	<0.1

### Monitoring Station: CGa (Pavement in front of Connaught Garden)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
27/06/10	Drizzle	15:40	15:45	68.4	71.2	65.4	0.5
27/06/10	Drizzle	15:45	15:50	68.1	71.5	66.2	0.6
27/06/10	Drizzle	15:50	15:55	68.2	71.0	65.9	0.5

### Monitoring Station: RWM (Roof at Richwealth Mansion)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
27/06/10	Drizzle	16:05	16:07	64.9	66.1	62.9	1.0
27/06/10	Drizzle	16:07	16:12	64.5	66.4	61.2	1.1
27/06/10	Drizzle	16:12	16:17	64.6	64.6	62.2	1.1

### Monitoring Station: KY3 (Roof at Kwan Yik Building Phase 3)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
27/06/10	Drizzle	16:31	16:36	60.6	62.0	58.9	1.2
27/06/10	Drizzle	16:36	16:41	60.5	61.7	57.9	1.6
27/06/10	Drizzle	16:41	16:46	61.0	62.6	58.4	1.6



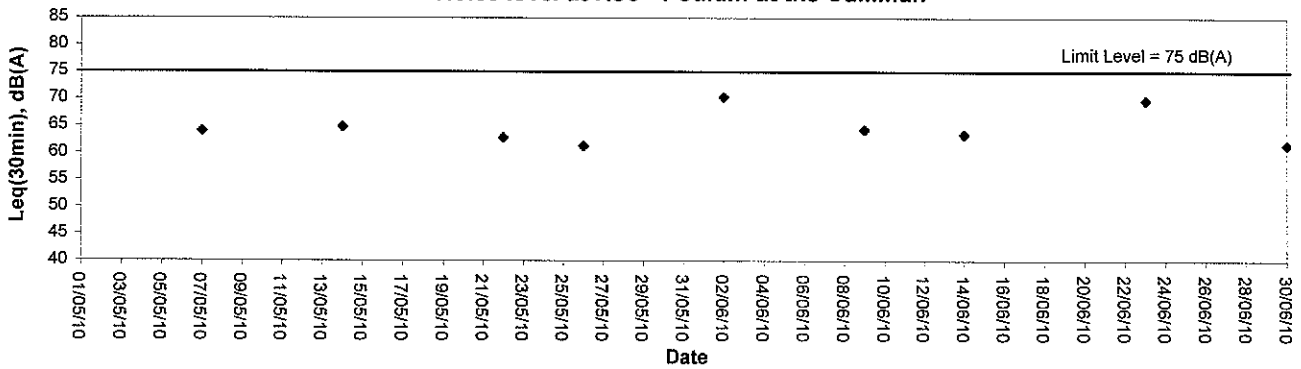
## Appendix B3

### Graphical Plots of Impact Noise Monitoring Data

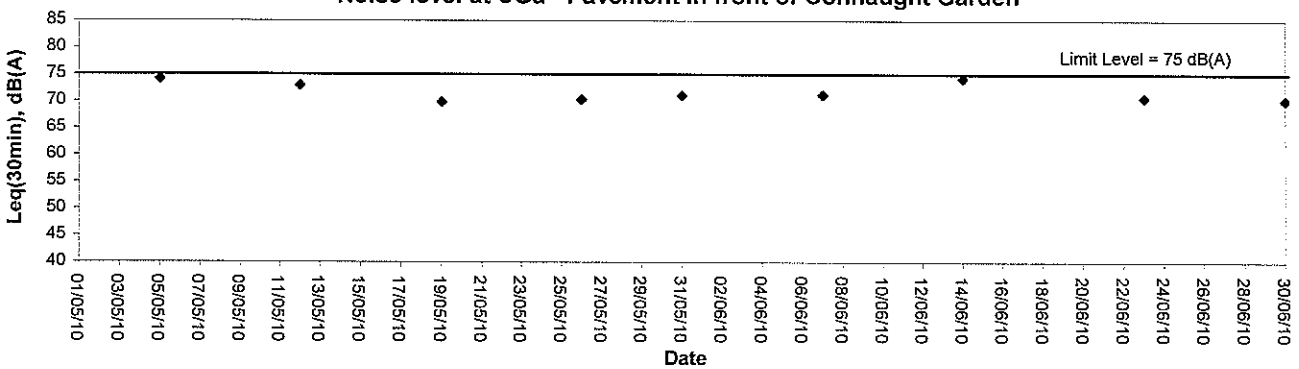


### Noise Monitoring (Day-time)

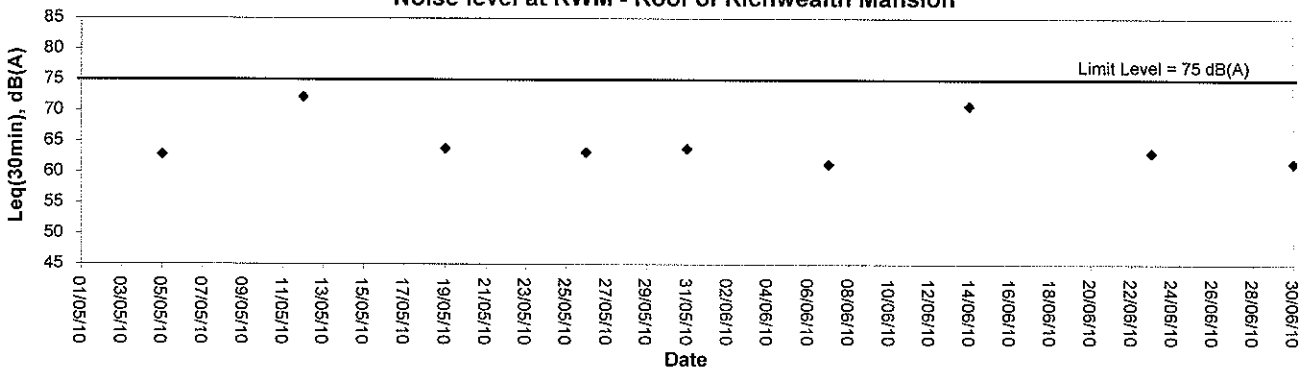
Noise level at KS6 - Podium at the Culliman



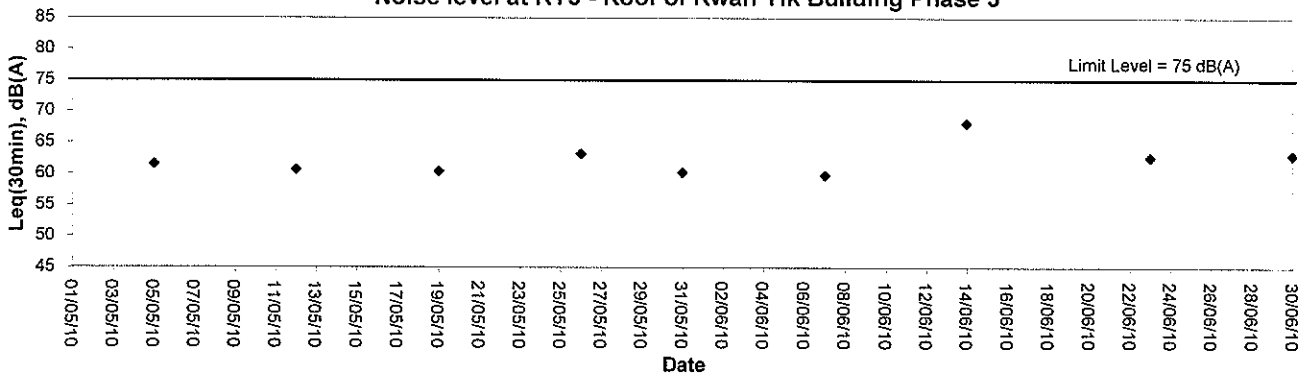
Noise level at CGa - Pavement in front of Connaught Garden



Noise level at RWM - Roof of Richwealth Mansion



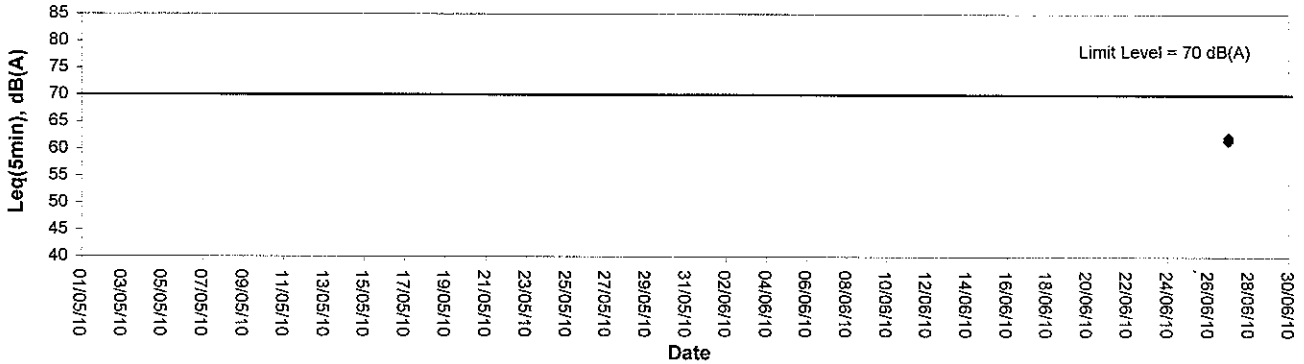
Noise level at KY3 - Roof of Kwan Yik Building Phase 3



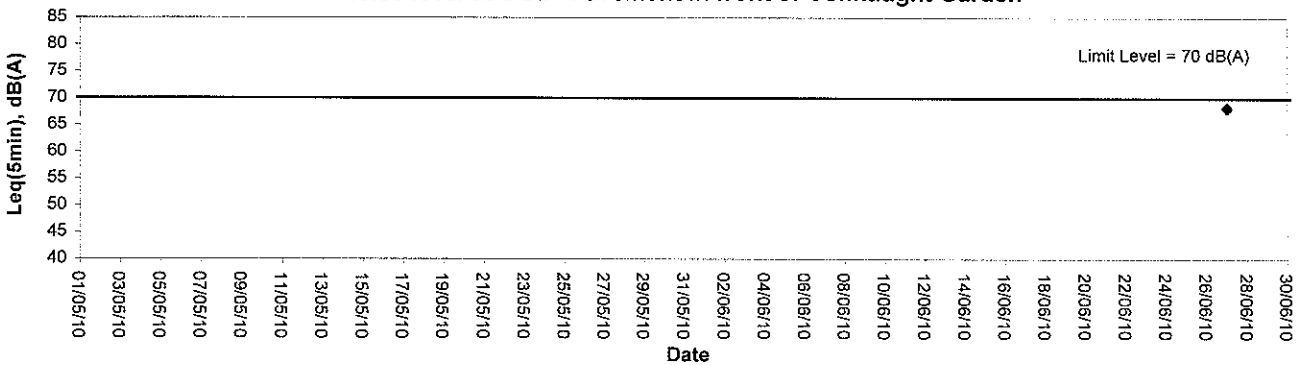


### Noise Monitoring Holiday-time

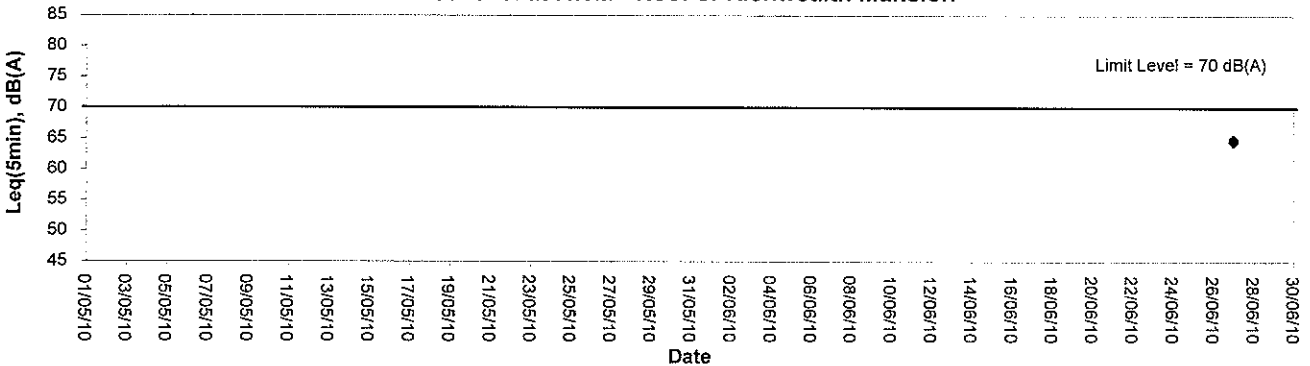
Noise level at KS6 - Podium at the Culliman



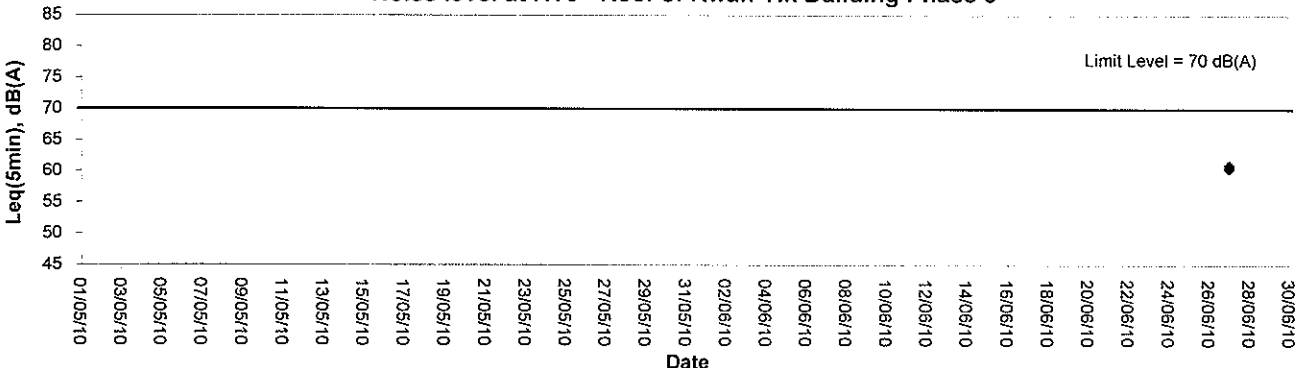
Noise level at CGa - Pavement in front of Connaught Garden



Noise level at RWM - Roof of Richwealth Mansion



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





## **Appendix C1**

### **Calibration Certificates for Impact Water Quality Monitoring Equipments**



## Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/003      Manufacturer : YSI  
Model No. : 85      Serial No. : 08L 100716  
Date of Calibration : 1<sup>st</sup> / 4 / 10      Due Date : 1<sup>st</sup> / 7 / 10

Ref. No. of Salinity Standard used (30ppt)



J 362

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference %
30	30.6	1.98

Acceptance Criteria

Difference : <10 %

The salinity meter complies \* / ~~does not comply~~ \* with the specified requirements and is deemed acceptable \* / ~~unacceptable~~ \* for use. Measurements are traceable to national standards.

Checked by :       Approved by : 



### Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No. : ET/EW/008/003 Manufacturer : YSI  
 Model No. : 85 Serial No. : 08L100716  
 Date of Calibration : 14/11 Calibration Due Date : 17/11

#### Temperature Verification

Ref. No. of Reference Thermometer : ET/0521/001  
 Ref. No. of Water Bath : ET/0533/001

Reference Thermometer reading	Temperature (°C)		
	Measured	Corrected	
DO Meter reading	Measured	20.1	20.0
		20.2	Difference
			0.2

#### Standardization of sodium thiosulphate (Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>) solution

Reagent No. of Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> titrant : J 373 Reagent No. of 0.025N K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> : J 374

	Trial 1	Trial 2
Initial Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	0.0	0.0
Final Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	40.0	40.1
Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> used (ml)	40.0	40.1
Normality of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> solution (N)	0.025	0.02494
Average Normality (N) of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> solution (N)	0.02497	
Acceptance criteria, Deviation	Less than ± 0.001N	

Calculation: Normality of Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, N = 1 / ml Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> used

#### Linearity Checking

##### Determination of dissolved oxygen content by Winkler Titration \*

Purging Time (min)	2		5		10	
Trial	1	2	1	2	1	2
Initial Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	10.70	22.40	9.10	0.00	18.20	24.50
Final Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	22.50	34.30	18.20	9.10	24.60	31.10
Vol. (V) of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> used (ml)	11.80	11.90	9.10	9.10	6.40	6.60
Dissolved Oxygen (DO), mg/L	7.90	7.97	6.09	6.09	4.28	4.42
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation: DO (mg/L) = V x N x 8000/298

Purging time, min	DO meter reading, mg/L			Winkler Titration result *, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	8.10	8.09	8.10	7.90	7.97	7.94	2.00
5	6.19	6.25	6.22	6.09	6.09	6.09	2.11
10	4.39	4.52	4.46	4.28	4.42	4.35	2.50
Linear regression coefficient				1.0			







## Performance Check of Turbidimeter

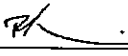

Equipment Ref. No. : ET/0505/007      Manufacturer : HACH  
Model No. : 2100 P      Serial No. : 0806 000 30281  
Date of Calibration : 16 / 4 / 10      Due Date : 15 / 7 / 10

Gelex Vial Std	Theoretical Value (NTU)	Measured Value (NTU)	Difference %
0-10 NTU	5.34	5.29	0.9
10-100 NTU	56.6	55.9	1.2
100-1000 NTU	547	539	1.5

### Acceptance Criteria

Difference : <5 %

The salinity meter complies \* / ~~does not comply~~ \* with the specified requirements and is deemed acceptable \* / ~~unacceptable~~ \* for use. Measurements are traceable to national standards.

Checked by :       Approved by : 



## Appendix C2

### Impact Water Quality Monitoring Results

Mid-Flood Tide

Monitoring Station : C1

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
01/06/10	0803-0815	25/Cloudy	Surface	1.0	23.7	29.9	30.1	6.21	6.19	85.7	85.4	3.79	3.82	3.92	7.4	7.5	7.8
						30.2		6.17		85.1		3.85			7.6		
			Middle	7.3	22.8	31.4	31.5	6.14	6.12	84.7	84.4	3.91	3.96		3.94	7.8	
31.5	6.09	84.0				3.96		8.0									
Bottom	13.6	22.3	32.6	32.6	6.06	6.04	83.6	83.3	3.99	4.04	4.02	8.0	8.0				
			32.6		6.01		82.9		4.04		8.0						
03/06/10	0859-0915	24/Cloudy	Surface	1.0	22.9	28.9	28.9	6.38	6.36	88.1	87.7	3.43	3.46	3.54	6.8	6.9	7.0
						28.9		6.33		87.3		3.48			7.0		
			Middle	7.3	22.5	29.4	29.4	6.28	6.26	86.6	86.4	3.53	3.56		3.55	7.0	
29.4	6.24	86.1				3.56		7.2									
Bottom	13.6	22.0	30.0	30.0	6.21	6.20	85.7	85.6	3.61	3.64	3.63	7.2	7.1				
			30.0		6.19		85.4		3.64		7.0						
05/06/10	0957-1008	25/Cloudy	Surface	1.0	24.6	31.0	31.0	6.37	6.40	88.5	88.9	5.12	5.10	4.92	11.0	10.5	10.0
						30.9		6.43		89.3		5.07			10.0		
			Middle	7.6	23.8	31.4	31.4	6.09	6.11	84.0	84.3	4.95	4.89		4.92	10.0	
31.3	6.13	84.5				4.89		9.8									
Bottom	14.2	23.6	31.5	31.6	6.15	6.13	84.8	84.6	4.70	4.77	4.74	9.4	9.5				
			31.6		6.11		84.3		4.77		9.5						
08/06/10	1428-1440	26/Cloudy	Surface	1.0	24.6	30.4	30.5	6.54	6.56	90.8	91.0	3.15	3.18	3.52	6.2	6.3	7.0
						30.5		6.57		91.2		3.20			6.4		
			Middle	7.4	24.0	30.7	30.8	6.27	6.26	86.3	86.2	3.35	3.38		3.37	6.6	
30.8	6.25	86.1				3.38		6.8									
Bottom	13.7	23.4	31.1	31.1	6.10	6.09	83.8	83.6	4.01	4.03	4.02	8.0	8.0				
			31.1		6.07		83.4		4.03		8.0						
10/06/10	1558-1609	27/Cloudy	Surface	1.0	26.6	29.6	29.6	6.33	6.35	86.6	86.8	4.00	4.03	4.22	8.0	8.1	8.5
						29.6		6.36		87.0		4.06			8.2		
			Middle	6.8	25.8	30.1	30.1	6.45	6.47	88.3	88.6	4.24	4.28		4.26	8.4	
30.1	6.49	88.8				4.28		8.6									
Bottom	12.6	24.9	31.0	31.0	6.16	6.15	84.3	84.2	4.36	4.39	4.38	8.6	8.8				
			31.0		6.14		84.0		4.39		9.0						
12/06/10	1715-1727	27/Cloudy	Surface	1.0	25.9	28.9	28.9	6.37	6.38	87.9	88.0	3.42	3.46	3.55	6.8	6.9	7.0
						28.9		6.38		88.0		3.50			7.0		
			Middle	7.4	25.7	29.8	29.8	6.29	6.29	86.8	86.8	3.54	3.56		3.55	7.0	
29.7	6.28	86.7				3.56		7.0									
Bottom	13.8	25.0	30.1	30.1	6.15	6.15	84.9	83.9	3.62	3.64	3.63	7.2	7.1				
			30.0		6.14		82.9		3.64		7.0						
15/06/10	0800-0815	28/Drizzle	Surface	1.0	26.9	28.8	28.7	6.39	6.37	88.2	87.9	3.42	3.42	3.55	6.8	6.8	7.0
						28.6		6.35		87.6		3.41			6.8		
			Middle	7.4	26.7	29.3	29.4	6.21	6.22	85.7	85.9	3.57	3.58		3.58	7.0	
29.5	6.23	86.0				3.58		7.2									
Bottom	13.8	26.0	30.1	30.1	6.12	6.13	84.5	84.6	3.69	3.65	3.67	7.4	7.2				
			30.0		6.14		84.7		3.65		7.0						
17/06/10	0900-0916	29/Cloudy	Surface	1.0	28.9	28.9	29.0	6.39	6.37	88.2	87.8	3.44	3.46	3.54	6.8	6.9	7.0
						29.0		6.34		87.4		3.47			7.0		
			Middle	7.2	27.5	29.6	29.6	6.29	6.26	86.7	86.4	3.52	3.55		3.54	7.0	
29.5	6.23	86.0				3.55		7.2									
Bottom	13.4	26.9	30.3	30.4	6.22	6.21	85.8	85.7	3.60	3.63	3.62	7.2	7.1				
			30.4		6.20		85.5		3.63		7.0						
19/06/10	1128-1140	30/Fine	Surface	1.0	26.3	30.4	30.5	6.47	6.46	89.2	89.0	3.71	3.73	3.83	7.4	7.4	7.6
						30.5		6.44		88.8		3.75			7.4		
			Middle	7.3	25.2	31.4	31.5	6.39	6.37	88.1	87.9	3.81	3.83		3.82	7.6	
31.5	6.35	87.6				3.83		7.6									
Bottom	13.6	24.5	32.2	32.3	6.28	6.30	86.6	86.8	3.92	3.95	3.94	7.8	7.9				
			32.3		6.31		87.0		3.95		8.0						
22/06/10	1400-1415	30/Cloudy	Surface	1.0	27.3	30.1	30.2	6.70	6.69	92.5	92.3	3.53	3.54	3.63	7.0	7.1	7.3
						30.2		6.67		92.0		3.55			7.2		
			Middle	7.2	26.5	30.6	30.6	6.43	6.42	88.7	88.6	3.62	3.65		3.64	7.2	
30.6	6.41	88.5				3.65		7.2									
Bottom	13.4	25.4	31.1	31.2	6.27	6.29	86.5	86.8	3.71	3.74	3.73	7.4	7.5				
			31.2		6.31		87.1		3.74		7.5						
24/06/10	1600-1616	30/Cloudy	Surface	1.0	29.2	28.8	28.8	6.38	6.39	82.0	85.1	3.51	3.53	3.71	7.0	7.1	7.4
						28.7		6.40		88.2		3.55			7.2		
			Middle	7.4	28.5	29.3	29.4	6.28	6.31	81.6	81.5	3.74	3.70		3.72	7.4	
29.4	6.34	81.4				3.70		7.4									
Bottom	13.8	26.0	30.1	30.1	6.21	6.23	85.7	86.0	3.89	3.85	3.87	7.8	7.7				
			30.1		6.25		86.2		3.85		7.5						
26/06/10	1732-1747	28/Rainy	Surface	1.0	27.5	28.3	28.4	5.88	5.87	81.1	81.0	2.87	2.91	3.09	5.6	5.7	6.1
						28.4		5.86		80.8		2.95			5.8		
			Middle	7.5	26.6	29.2	29.2	5.81	5.80	80.2	80.1	3.08	3.10		3.09	6.0	
29.2	5.79	80.0				3.10		6.2									
Bottom	14.0	25.5	29.9	30.0	5.73	5.71	79.1	78.8	3.28	3.24	3.26	6.5	6.6				
			30.0		5.68		78.4		3.24		6.6						
29/06/10	0730-0740	25/Cloudy	Surface	1.0	23.9	26.8	26.8	6.53	6.56	89.4	89.8	3.57	3.55	3.75	7.2	7.1	7.5
						26.8		6.58		90.1		3.52			7.0		
			Middle	7.4	23.1	27.9	27.9	6.55	6.53	89.7	89.4	3.71	3.75		3.73	7.4	
27.9	6.51	89.1				3.75		7.4									
Bottom	13.8	22.4	29.6	29.6	6.45	6.43	88.3	88.1	3.95	3.99	3.97	8.0	8.0				
			29.5		6.41		87.8		3.99		8.0						

Mid-Flood Tide

Monitoring Station : C2

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)			
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	
01/06/10	1105-1120	25/Cloudy	Surface	1.0	23.7	29.9	30.0	6.24	6.22	86.1	85.9	3.78	3.80	3.87	7.5	7.6	7.7	
						30.1		6.20		85.6		3.81			7.6			
			Middle	8.3	22.8	31.4	31.4	6.18	6.17	85.3	85.1	3.90	3.85		3.88	7.8		7.7
						31.4		6.15		84.9		3.85			7.6			
			Bottom	15.6	22.4	32.5	32.5	6.10	6.08	84.2	83.9	3.92	3.94		3.94	7.8		7.9
						32.4		6.06		83.6		3.96			8.0			
03/06/10	1220-1235	24/Cloudy	Surface	1.0	23.2	28.9	29.0	6.29	6.32	86.8	87.1	3.41	3.40	3.50	7.0	6.9	7.0	
						29.0		6.34		87.4		3.38			6.8			
			Middle	8.4	22.6	29.8	29.8	6.26	6.23	86.3	85.9	3.48	3.52		3.50	6.8		6.9
						29.8		6.19		85.4		3.52			7.0			
			Bottom	15.8	22.0	30.7	30.7	6.11	6.10	84.3	84.2	3.59	3.63		3.61	7.0		7.1
						30.7		6.09		84.0		3.63			7.2			
05/06/10	1300-1313	25/Cloudy	Surface	1.0	24.9	31.1	31.2	6.24	6.22	86.7	86.4	5.03	5.06	5.19	10.0	10.0	10.5	
						31.2		6.20		86.1		5.08			10.0			
			Middle	6.5	24.0	31.5	31.6	6.12	6.11	84.4	84.2	5.43	5.40		5.42	11.0		11.0
						31.6		6.09		84.0		5.40			11.0			
			Bottom	12.0	23.8	31.8	31.8	6.10	6.13	84.1	84.5	5.12	5.07		5.10	11.0		10.5
						31.7		6.15		84.8		5.07			10.0			
08/06/10	1752-1808	26/Cloudy	Surface	1.0	24.5	30.6	30.6	6.56	6.56	91.1	91.1	2.86	2.88	3.19	5.5	5.7	6.3	
						30.6		6.55		91.0		2.90			5.8			
			Middle	8.4	24.1	30.9	30.9	6.21	6.21	85.5	85.5	3.41	3.43		3.42	6.8		6.8
						30.9		6.20		85.4		3.43			6.8			
			Bottom	15.6	23.5	31.5	31.5	6.02	6.01	82.7	82.5	3.26	3.30		3.28	6.4		6.5
						31.5		5.99		82.3		3.30			6.6			
10/06/10	1850-1902	27/Cloudy	Surface	1.0	26.4	29.5	29.5	6.22	6.23	85.1	85.3	3.76	3.75	3.92	7.5	7.5	7.8	
						29.5		6.24		85.4		3.74			7.4			
			Middle	7.7	25.7	29.8	29.8	6.16	6.17	84.3	84.5	3.89	3.94		3.92	7.6		7.7
						29.8		6.18		84.6		3.94			7.8			
			Bottom	14.4	25.2	30.7	30.7	6.10	6.09	83.5	83.3	4.10	4.06		4.08	8.2		8.1
						30.7		6.07		83.1		4.06			8.0			
12/06/10	2032-2042	27/Cloudy	Surface	1.0	25.9	28.9	29.0	6.30	6.31	86.9	87.0	3.51	3.50	3.62	7.0	7.0	7.2	
						29.0		6.31		87.1		3.49			7.0			
			Middle	8.9	25.5	29.5	29.6	6.24	6.23	86.1	85.9	3.65	3.63		3.64	7.2		7.2
						29.7		6.21		85.7		3.63			7.2			
			Bottom	16.8	25.0	30.1	30.1	6.07	6.06	83.8	83.6	3.71	3.70		3.71	7.4		7.4
						30.0		6.04		83.3		3.70			7.4			
15/06/10	1115-1130	28/Drizzle	Surface	1.0	27.1	28.9	29.0	6.40	6.39	88.3	88.2	3.39	3.38	3.47	7.0	6.9	7.0	
						29.0		6.38		88.0		3.37			6.8			
			Middle	8.5	26.7	29.7	29.7	6.28	6.27	86.7	86.6	3.42	3.45		3.44	6.8		6.9
						29.7		6.26		86.4		3.45			7.0			
			Bottom	16.0	26.1	30.1	30.2	6.16	6.17	85.0	85.1	3.59	3.61		3.60	7.2		7.2
						30.2		6.17		85.1		3.61			7.2			
17/06/10	1221-1236	30/Cloudy	Surface	1.0	28.8	28.9	29.0	6.30	6.33	86.9	87.2	3.42	3.41	3.49	7.0	6.9	7.0	
						29.0		6.35		87.5		3.39			6.8			
			Middle	8.3	27.5	29.7	29.8	6.27	6.24	86.4	86.0	3.45	3.50		3.48	7.0		7.0
						29.8		6.20		85.5		3.50			7.0			
			Bottom	15.6	26.6	30.2	30.3	6.12	6.11	84.4	84.3	3.55	3.60		3.58	7.2		7.2
						30.3		6.10		84.1		3.60			7.2			
19/06/10	1430-1440	30/Fine	Surface	1.0	26.3	30.3	30.4	6.45	6.47	89.0	89.3	3.53	3.54	3.67	7.0	7.0	7.3	
						30.5		6.49		89.5		3.55			7.0			
			Middle	8.4	25.3	31.4	31.4	6.41	6.42	88.5	88.6	3.67	3.69		3.68	7.2		7.3
						31.4		6.43		88.7		3.69			7.4			
			Bottom	15.8	24.2	32.1	32.1	6.36	6.35	87.7	87.5	3.81	3.79		3.80	7.6		7.6
						32.1		6.33		87.3		3.79			7.6			
22/06/10	1721-1738	30/Cloudy	Surface	1.0	27.4	30.3	30.3	6.64	6.66	91.6	91.9	3.69	3.68	3.77	7.5	7.5	7.6	
						30.2		6.68		92.2		3.67			7.4			
			Middle	8.5	26.3	30.5	30.6	6.47	6.45	89.3	89.0	3.76	3.78		3.77	7.4		7.5
						30.6		6.43		88.7		3.78			7.6			
			Bottom	16.0	25.3	31.2	31.2	6.38	6.38	88.0	88.0	3.83	3.86		3.85	7.6		7.7
						31.1		6.37		87.9		3.86			7.8			
24/06/10	1921-1936	30/Cloudy	Surface	1.0	29.3	28.9	28.9	6.34	6.37	87.4	87.7	3.39	3.41	3.52	7.0	6.9	7.0	
						28.8		6.39		88.0		3.42			6.8			
			Middle	8.5	28.4	29.5	29.5	6.28	6.30	86.6	86.9	3.52	3.53		3.53	7.0		7.0
						29.5		6.32		87.1		3.53			7.0			
			Bottom	16.0	25.9	30.1	30.1	6.10	6.12	84.2	84.5	3.61	3.65		3.63	7.2		7.2
						30.1		6.14		84.7		3.65			7.2			
26/06/10	2047-2057	28/Rainy	Surface	1.0	27.2	28.3	28.3	5.99	6.00	82.7	82.8	3.51	3.54	3.71	7.0	7.1	7.4	
						28.2		6.01		82.9		3.57			7.2			
			Middle	8.7	26.3	29.2	29.2	5.87	5.86	81.0	80.8	3.69	3.73		3.71	7.4		7.4
						29.1		5.84		80.6		3.73			7.4			
			Bottom	16.4	25.2	29.9	29.9	5.78	5.77	79.8	79.7	3.87	3.88		3.88	7.6		7.7
						29.8		5.76		79.5		3.88			7.8			
29/06/10	1003-1015	26/Fine	Surface	1.0	24.2	26.8	26.8	6.52	6.53	89.3	89.4	3.53	3.54	3.70	7.0	7.0	7.4	
						26.7		6.54		89.5		3.55			7.0			
			Middle	8.4	23.2	27.8	27.9	6.42	6.45	87.9	88.3	3.68	3.70		3.69	7.4		7.4
						27.9		6.48		88.7		3.70			7.4			
			Bottom	15.8	22.7	29.8	29.8	6.35	6.34	86.9	86.7	3.85	3.89		3.87	7.6		7.7
						29.8		6.32		86.5		3.89			7.8			

Mid-Flood Tide

Monitoring Station : C3

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)			
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	
01/06/10	0818-0830	25/Cloudy	Surface	1.0	23.7	29.8	29.8	6.23	6.21	86.1	85.7	3.77	3.79	3.90	7.4	7.5	7.7	
						29.7		6.18		85.3		3.81			7.6			
			Middle	6.7	22.7	31.3	31.3	6.10	6.08	84.2	83.9	3.89	3.91		3.91	7.6		7.7
						31.2		6.06		83.6		3.93			7.8			
			Bottom	12.4	22.3	32.6	32.7	6.02	6.03	83.1	83.3	3.96	3.99		3.99	8.0		8.0
						32.7		6.04		83.4		4.01			8.0			
03/06/10	0927-0940	24/Cloudy	Surface	1.0	23.0	28.8	28.8	6.39	6.37	88.1	87.9	3.47	3.46	3.57	7.0	6.9	7.1	
						28.8		6.35		87.6		3.44			6.8			
			Middle	6.3	22.6	29.6	29.7	6.29	6.27	86.8	86.6	3.55	3.57		3.57	7.0		7.1
						29.7		6.25		86.3		3.59			7.2			
			Bottom	12.6	22.1	30.1	30.2	6.20	6.19	85.5	85.3	3.67	3.69		3.69	7.2		7.3
						30.2		6.17		85.1		3.71			7.4			
05/06/10	1018-1030	25/Cloudy	Surface	1.0	24.7	31.0	31.0	6.50	6.53	90.3	90.7	5.34	5.32	5.19	11.0	11.0	10.7	
						31.0		6.55		91.0		5.30			11.0			
			Middle	7.0	23.9	31.4	31.4	6.27	6.26	87.1	87.0	5.12	5.15		5.15	11.0		10.5
						31.4		6.25		86.8		5.18			10.0			
			Bottom	13.0	23.8	31.6	31.6	6.13	6.15	84.5	84.8	5.10	5.09		5.09	11.0		10.5
						31.6		6.17		85.1		5.07			10.0			
08/06/10	1425-1510	26/Cloudy	Surface	1.0	24.5	30.5	30.5	6.65	6.64	92.3	92.2	4.07	4.08	3.91	8.0	8.1	7.9	
						30.5		6.63		92.1		4.08			8.2			
			Middle	6.8	24.1	31.0	31.0	6.13	6.14	84.4	84.6	4.12	4.11		4.11	8.2		8.2
						31.0		6.15		84.7		4.10			8.2			
			Bottom	12.5	23.6	31.5	31.5	6.02	6.04	82.7	83.0	3.26	3.53		3.53	7.4		7.5
						31.4		6.05		83.2		3.80			7.6			
10/06/10	1620-1631	27/Cloudy	Surface	1.0	26.5	29.4	29.4	6.24	6.23	85.4	85.3	3.84	3.86	4.02	7.6	7.7	8.0	
						29.4		6.22		85.1		3.88			7.8			
			Middle	6.5	25.7	29.9	29.9	6.35	6.34	86.9	86.7	3.95	3.96		3.96	8.0		8.0
						29.9		6.32		86.5		3.97			8.0			
			Bottom	11.9	24.8	30.8	30.8	6.10	6.09	83.5	83.4	4.22	4.24		4.24	8.4		8.4
						30.8		6.08		83.2		4.26			8.4			
12/06/10	1740-1752	27/Cloudy	Surface	1.0	26.1	29.0	29.0	6.40	6.40	86.4	87.3	3.49	3.45	3.58	7.0	6.9	7.1	
						29.0		6.39		88.2		3.40			6.8			
			Middle	6.9	25.7	29.8	29.8	6.24	6.25	86.1	86.2	3.59	3.60		3.60	7.0		7.1
						29.7		6.25		86.3		3.60			7.2			
			Bottom	12.8	25.1	30.2	30.3	6.16	6.17	85.0	85.1	3.71	3.71		3.71	7.4		7.4
						30.3		6.17		85.1		3.70			7.4			
15/06/10	0826-0839	28/Drizzle	Surface	1.0	27.0	28.9	28.8	6.41	6.42	88.5	88.6	3.47	3.46	3.59	7.0	6.9	7.2	
						28.7		6.43		88.7		3.44			6.8			
			Middle	6.9	26.6	29.6	29.5	6.23	6.22	86.0	85.9	3.59	3.60		3.60	7.2		7.2
						29.4		6.21		85.7		3.61			7.2			
			Bottom	12.8	26.0	30.2	30.2	6.16	6.16	85.0	85.0	3.70	3.71		3.71	7.4		7.4
						30.1		6.15		84.9		3.71			7.4			
17/06/10	0928-0941	29/Cloudy	Surface	1.0	28.8	29.1	29.1	6.40	6.37	88.2	87.9	3.46	3.45	3.56	6.8	6.8	7.1	
						29.0		6.34		87.5		3.43			6.8			
			Middle	6.7	27.5	29.7	29.8	6.30	6.28	86.9	86.7	3.54	3.56		3.56	7.0		7.1
						29.8		6.26		86.4		3.58			7.2			
			Bottom	12.4	27.0	30.2	30.2	6.21	6.20	85.6	85.4	3.66	3.68		3.68	7.2		7.3
						30.1		6.18		85.2		3.70			7.4			
19/06/10	1148-1200	30/Fine	Surface	1.0	26.4	30.4	30.4	6.45	6.44	89.1	88.8	3.67	3.66	3.75	7.2	7.2	7.4	
						30.4		6.42		88.5		3.64			7.2			
			Middle	6.9	25.3	31.3	31.4	6.37	6.35	87.9	87.6	3.71	3.73		3.73	7.4		7.4
						31.4		6.32		87.2		3.75			7.4			
			Bottom	12.8	24.6	32.1	32.1	6.29	6.27	86.8	86.5	3.89	3.87		3.87	7.8		7.7
						32.1		6.25		86.2		3.85			7.6			
22/06/10	1427-1441	30/Cloudy	Surface	1.0	27.3	30.1	30.1	6.64	6.67	91.6	92.0	3.57	3.58	3.66	7.2	7.2	7.3	
						30.1		6.69		92.3		3.58			7.2			
			Middle	6.7	26.5	30.5	30.6	6.42	6.44	88.6	88.8	3.64	3.66		3.66	7.2		7.3
						30.6		6.45		89.0		3.68			7.4			
			Bottom	12.4	25.4	31.2	31.3	6.28	6.29	86.7	86.8	3.74	3.75		3.75	7.4		7.5
						31.3		6.29		86.8		3.76			7.6			
24/06/10	1628-1641	30/Cloudy	Surface	1.0	29.2	28.8	28.8	6.42	6.41	88.5	88.4	3.57	3.59	3.74	7.2	7.2	7.5	
						28.8		6.39		88.2		3.60			7.2			
			Middle	6.9	28.5	29.3	29.4	6.31	6.29	86.8	86.6	3.75	3.76		3.76	7.4		7.4
						29.4		6.27		86.4		3.77			7.4			
			Bottom	12.8	25.9	30.0	30.1	6.19	6.18	85.3	85.1	3.87	3.88		3.88	7.8		7.8
						30.1		6.16		84.9		3.88			7.8			
26/06/10	1759-1812	28/Rainy	Surface	1.0	27.4	28.4	28.4	5.98	5.97	82.5	82.3	2.78	2.75	2.91	5.6	5.5	5.8	
						28.4		5.95		82.1		2.71			5.4			
			Middle	7.1	26.7	29.3	29.3	5.87	5.85	81.0	80.8	2.89	2.91		2.91	5.8		5.8
						29.2		5.83		80.5		2.93			5.8			
			Bottom	13.1	25.4	29.9	29.9	5.74	5.77	79.2	79.6	3.02	3.07		3.07	6.0		6.1
						29.9		5.79		80.0		3.11			6.2			
29/06/10	0755-0805	25/Cloudy	Surface	1.0	24.0	26.7	26.7	6.55	6.54	89.7	89.6	3.53	3.56	3.76	7.0	7.1	7.5	
						26.7		6.53		89.4		3.59			7.2			
			Middle	6.8	23.0	27.8	27.9	6.50	6.49	89.0	88.9	3.76	3.78		3.78	7.6		7.6
						27.9		6.48		88.7		3.79			7.6			
			Bottom	12.6	22.3	29.4	29.5	6.41	6.41	87.8	87.7	3.93	3.95		3.95	7.8		7.8
						29.5		6.40		87.6		3.96			7.8			

Mid-Flood Tide

Monitoring Station : C4

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
01/06/10	1040-1055	25/Cloudy	Surface	1.0	23.7	29.8	29.8	6.21	6.23	85.7	86.0	3.81	3.90	7.6	7.8	7.8	
						29.8		6.25		86.3		3.85		8.0			
			Middle	6.7	22.8	31.3	31.3	6.14	6.16	84.7	85.0	3.89		3.90			7.5
						31.3		6.18		85.3		3.91					7.8
			Bottom	12.4	22.4	32.5	32.5	6.16	6.13	84.9	84.6	3.94		3.96			7.8
						32.5		6.10		84.2		3.97					8.0
03/06/10	1152-1212	24/Cloudy	Surface	1.0	23.1	28.8	28.9	6.33	6.36	87.3	87.6	3.45	3.59	7.0	7.0	7.2	
						28.9		6.38		87.9		3.51		7.0			
			Middle	8.2	22.5	29.7	29.8	6.27	6.29	86.5	86.8	3.58		3.60			7.2
						29.8		6.31		87.0		3.61					7.2
			Bottom	15.4	22.0	30.6	30.7	6.09	6.11	84.1	84.4	3.65		3.68			7.2
						30.7		6.13		84.6		3.71					7.5
05/06/10	1237-1250	25/Cloudy	Surface	1.0	24.9	31.3	31.3	6.18	6.17	85.2	85.0	4.87	4.97	9.6	9.7	10.0	
						31.2		6.15		84.8		4.91		9.8			
			Middle	8.4	24.1	31.5	31.5	6.10	6.12	84.1	84.4	4.95		4.92			10.0
						31.4		6.14		84.7		4.89					9.8
			Bottom	15.8	23.8	31.7	31.7	6.04	6.06	83.3	83.6	5.06		5.10			10.0
						31.7		6.08		83.9		5.13					11.0
08/06/10	1729-1743	26/Cloudy	Surface	1.0	24.6	30.5	30.6	6.64	6.62	92.2	92.0	4.02	3.82	8.0	8.1	7.6	
						30.6		6.60		91.7		4.10		8.2			
			Middle	8.3	24.2	30.9	31.0	6.32	6.34	87.0	87.2	3.67		3.68			7.2
						31.0		6.35		87.4		3.68					7.4
			Bottom	15.5	23.6	31.4	31.5	6.12	6.11	84.1	84.0	3.72		3.71			7.4
						31.5		6.10		83.8		3.70					7.5
10/06/10	1829-1841	27/Cloudy	Surface	1.0	26.6	29.5	29.5	6.27	6.26	85.8	85.7	3.82	3.99	7.6	7.6	7.9	
						29.5		6.25		85.5		3.86		7.6			
			Middle	8.1	25.9	29.9	29.9	6.20	6.19	84.8	84.7	4.01		4.03			8.0
						29.9		6.18		84.6		4.04					8.0
			Bottom	15.2	25.3	30.8	30.8	6.17	6.18	84.4	84.6	4.12		4.11			8.2
						30.8		6.19		84.7		4.10					8.0
12/06/10	2010-2022	27/Cloudy	Surface	1.0	25.9	29.2	29.2	6.35	6.35	87.6	87.6	3.52	3.63	7.0	7.0	7.2	
						29.2		6.34		87.5		3.50		7.0			
			Middle	8.4	25.6	29.8	29.9	6.18	6.17	85.3	85.2	3.67		3.66			7.2
						29.9		6.16		85.0		3.65					7.2
			Bottom	15.8	25.0	30.2	30.2	6.08	6.08	83.9	83.9	3.69		3.71			7.2
						30.1		6.07		83.8		3.72					7.5
15/06/10	1053-1109	28/Drizzle	Surface	1.0	26.9	28.9	29.0	6.39	6.38	88.2	88.0	3.40	3.53	6.8	6.8	7.0	
						29.1		6.36		87.8		3.42		6.8			
			Middle	8.3	26.5	29.7	28.2	6.35	6.33	87.6	87.4	3.56		3.56			7.0
						26.6		6.31		87.1		3.55					7.0
			Bottom	15.6	26.0	30.0	30.1	6.24	6.23	86.1	86.0	3.62		3.61			7.2
						30.2		6.22		85.8		3.60					7.0
17/06/10	1153-1213	30/Cloudy	Surface	1.0	28.9	29.0	29.0	6.34	6.37	87.4	87.7	3.46	3.59	7.0	7.0	7.2	
						29.0		6.39		88.0		3.50		7.0			
			Middle	8.1	27.4	29.8	29.8	6.28	6.30	86.6	86.9	3.59		3.61			7.2
						29.7		6.32		87.1		3.62					7.2
			Bottom	15.2	26.7	30.2	30.2	6.10	6.12	84.2	84.5	3.64		3.67			7.2
						30.1		6.14		84.7		3.70					7.5
19/06/10	1415-1425	30/Fine	Surface	1.0	26.3	30.4	30.4	6.47	6.49	89.2	89.5	3.51	3.65	7.0	7.0	7.3	
						30.4		6.51		89.8		3.49		7.0			
			Middle	8.1	25.4	31.3	31.4	6.39	6.40	88.1	88.3	3.66		3.64			7.2
						31.4		6.41		88.4		3.62					7.2
			Bottom	15.2	24.3	32.2	32.2	6.31	6.30	87.1	86.9	3.83		3.82			7.6
						32.1		6.28		86.6		3.80					7.5
22/06/10	1653-1713	30/Cloudy	Surface	1.0	27.3	30.2	30.3	6.68	6.66	92.2	91.9	3.67	3.76	7.2	7.2	7.4	
						30.3		6.63		91.5		3.65		7.2			
			Middle	8.3	26.4	30.6	30.7	6.43	6.42	88.7	88.5	3.74		3.75			7.4
						30.7		6.40		88.3		3.75					7.4
			Bottom	15.6	25.3	31.1	31.2	6.32	6.31	87.2	87.1	3.86		3.87			7.6
						31.2		6.30		86.9		3.87					7.5
24/06/10	1853-1912	30/Cloudy	Surface	1.0	29.2	28.8	28.8	6.32	6.34	87.2	87.5	3.47	3.57	7.0	7.0	7.2	
						28.8		6.36		87.7		3.49		7.0			
			Middle	8.3	28.4	29.5	29.6	6.28	6.26	86.6	86.3	3.57		3.56			7.0
						29.6		6.24		86.0		3.55					7.2
			Bottom	15.6	25.8	30.0	30.1	6.17	6.15	85.1	84.8	3.69		3.68			7.4
						30.1		6.12		84.4		3.67					7.5
26/06/10	2026-2039	28/Rainy	Surface	1.0	27.3	28.2	28.3	5.89	5.91	82.3	82.1	3.49	3.67	7.0	7.0	7.3	
						28.3		5.93		81.8		3.53		7.0			
			Middle	8.5	26.4	29.2	29.3	5.87	5.85	81.0	79.9	3.68		3.67			7.2
						29.3		5.83		78.7		3.65					7.2
			Bottom	15.9	25.2	29.9	29.9	5.71	5.74	78.8	79.2	3.81		3.83			7.6
						29.8		5.77		79.6		3.85					7.5
29/06/10	0946-0956	26/Fine	Surface	1.0	24.2	26.8	26.8	6.55	6.53	89.7	89.5	3.54	3.68	7.0	7.1	7.4	
						26.8		6.51		89.2		3.56		7.2			
			Middle	8.2	23.3	27.9	27.9	6.43	6.45	88.0	88.3	3.66		3.68			7.4
						27.9		6.47		88.6		3.69					7.4
			Bottom	15.4	22.7	29.7	29.8	6.38	6.37	87.4	87.2	3.78		3.81			7.6
						29.8		6.35		86.9		3.83					7.5

Mid-Flood Tide

Monitoring Station : R5

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)			
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	
01/06/10	0845-0855	25/Cloudy	Surface	1.0	23.7	29.9	29.9	6.08	6.10	84.5	84.7	4.04	4.06	4.16	8.0	8.1	8.2	
						29.9		6.11		84.9		4.08			8.2			
			Middle	8.7	22.8	31.4	31.4	6.01	6.03	82.9	83.2	4.14	4.17		4.17	8.2		8.3
						31.4		6.05		83.4		4.19			8.4			
			Bottom	16.4	22.4	32.7	32.7	5.87	5.90	81.0	81.3	4.22	4.25		4.25	8.4		8.3
						32.7		5.92		81.6		4.28			8.2			
03/06/10	0957-1010	24/Cloudy	Surface	1.0	23.0	28.8	28.9	6.31	6.30	87.1	86.9	4.26	4.28	4.39	8.5	8.6	8.8	
						28.9		6.28		86.6		4.29			8.6			
			Middle	8.7	22.7	29.4	29.5	6.19	6.17	85.4	85.2	4.38	4.40		4.40	8.8		8.8
						29.5		6.15		84.9		4.41			8.8			
			Bottom	16.4	22.1	29.9	30.3	6.12	6.11	84.4	84.2	4.51	4.50		4.50	9.0		9.0
						30.6		6.09		84.0		4.49			9.0			
05/06/10	1043-1055	25/Cloudy	Surface	1.0	24.6	31.1	31.0	6.38	6.36	88.6	88.4	5.53	5.52	5.62	11.0	11.5	11.3	
						30.9		6.34		88.1		5.50			12.0			
			Middle	8.8	24.0	31.3	31.4	6.15	6.13	84.8	84.6	5.74	5.72		5.72	11.0		11.0
						31.4		6.11		84.3		5.70			11.0			
			Bottom	16.6	23.6	31.6	31.6	6.03	6.07	83.2	83.7	5.60	5.63		5.63	11.0		11.5
						31.6		6.10		84.1		5.66			12.0			
08/06/10	1525-1537	26/Cloudy	Surface	1.0	24.6	30.8	30.8	6.61	6.61	91.8	91.8	3.46	3.48	3.41	7.0	7.0	6.9	
						30.8		6.60		91.7		3.50			7.0			
			Middle	8.7	24.1	31.2	31.3	6.40	6.40	88.1	88.1	3.27	3.26		3.26	6.6		6.6
						31.3		6.40		88.1		3.25			6.6			
			Bottom	16.4	23.4	31.7	31.6	6.07	6.09	83.4	83.6	3.49	3.50		3.50	7.0		7.0
						31.4		6.10		83.8		3.51			7.0			
10/06/10	1644-1655	27/Cloudy	Surface	1.0	26.5	29.5	29.5	6.07	6.09	83.1	83.3	4.28	4.26	4.47	8.5	8.5	8.9	
						29.5		6.10		83.5		4.24			8.4			
			Middle	8.5	25.9	30.0	30.0	6.24	6.26	85.4	85.7	4.52	4.50		4.50	9.0		9.0
						30.0		6.28		85.9		4.48			9.0			
			Bottom	15.9	25.0	30.6	30.6	6.42	6.43	87.9	88.0	4.62	4.64		4.64	9.2		9.2
						30.6		6.44		88.1		4.66			9.2			
12/06/10	1808-1818	27/Cloudy	Surface	1.0	25.9	28.8	28.8	6.38	6.36	88.0	86.8	4.21	4.22	4.37	8.5	8.5	8.8	
						28.7		6.34		85.6		4.22			8.4			
			Middle	8.8	25.6	29.9	29.9	6.18	6.18	84.9	85.2	4.39	4.40		4.40	8.8		8.8
						29.8		6.17		85.4		4.40			8.8			
			Bottom	16.6	25.1	29.9	30.0	6.08	6.08	83.9	82.9	4.50	4.51		4.51	9.0		9.0
						30.1		6.07		81.9		4.52			9.0			
15/06/10	0858-0910	28/Drizzle	Surface	1.0	26.9	28.9	28.8	6.42	6.40	88.6	88.3	3.98	3.99	4.12	8.0	8.0	8.2	
						28.7		6.38		88.0		3.99			8.0			
			Middle	8.8	26.5	29.4	29.5	6.29	6.30	86.8	84.5	4.08	4.10		4.10	8.0		8.1
						29.5		6.31		82.1		4.11			8.2			
			Bottom	16.6	26.1	30.0	30.0	6.22	6.23	84.0	85.0	4.27	4.28		4.28	8.6		8.6
						30.0		6.23		86.0		4.29			8.6			
17/06/10	0958-1011	29/Cloudy	Surface	1.0	28.9	28.9	29.0	6.32	6.31	87.2	87.0	4.27	4.29	4.40	8.5	8.6	8.8	
						29.0		6.29		86.7		4.30			8.6			
			Middle	8.6	27.3	29.6	29.7	6.20	6.18	85.5	85.3	4.39	4.41		4.41	8.8		8.8
						29.7		6.16		85.0		4.42			8.8			
			Bottom	16.2	26.7	30.2	30.3	6.13	6.12	84.5	84.3	4.52	4.51		4.51	9.0		9.0
						30.3		6.10		84.1		4.50			9.0			
19/06/10	1215-1225	30/Fine	Surface	1.0	26.5	30.4	30.4	6.30	6.30	86.9	86.8	4.28	4.30	4.46	8.5	8.6	8.9	
						30.4		6.29		86.7		4.31			8.6			
			Middle	8.8	25.4	31.2	31.3	6.17	6.15	85.1	84.8	4.46	4.48		4.48	8.8		8.9
						31.4		6.13		84.5		4.49			9.0			
			Bottom	16.6	24.5	32.2	32.2	6.08	6.07	83.9	83.7	4.59	4.60		4.60	9.2		9.2
						32.2		6.05		83.4		4.61			9.2			
22/06/10	1458-1511	30/Cloudy	Surface	1.0	27.4	30.2	30.3	6.67	6.66	92.0	91.9	4.47	4.48	4.61	9.0	9.0	9.2	
						30.3		6.65		91.8		4.48			9.0			
			Middle	8.6	26.6	30.7	30.7	6.48	6.47	89.4	89.2	4.60	4.62		4.62	9.2		9.2
						30.6		6.45		89.0		4.63			9.2			
			Bottom	16.2	25.3	31.1	31.2	6.29	6.31	86.8	87.0	4.71	4.73		4.73	9.4		9.4
						31.2		6.32		87.2		4.75			9.4			
24/06/10	1658-1711	30/Cloudy	Surface	1.0	29.3	28.8	28.9	6.40	6.42	88.2	88.5	4.57	4.56	4.65	9.0	9.0	9.3	
						28.9		6.44		88.8		4.55			9.0			
			Middle	8.8	28.4	29.5	29.5	6.30	6.31	86.9	87.0	4.68	4.66		4.66	9.4		9.3
						29.4		6.32		87.1		4.64			9.2			
			Bottom	16.6	25.8	30.2	30.2	6.26	6.24	86.4	86.0	4.71	4.73		4.73	9.4		9.5
						30.1		6.21		85.6		4.75			9.6			
26/06/10	1829-1842	28/Rainy	Surface	1.0	27.4	28.2	28.3	5.87	5.86	81.0	80.8	5.01	5.04	5.17	10.0	10.0	10.8	
						28.3		5.84		80.6		5.07			10.0			
			Middle	8.9	26.6	29.1	29.1	5.72	5.74	78.9	79.2	5.17	5.16		5.16	11.0		11.0
						29.0		5.75		79.4		5.15			11.0			
			Bottom	16.7	25.4	29.8	29.8	5.67	5.67	78.4	78.3	5.29	5.31		5.31	11.0		11.5
						29.8		5.66		78.1		5.32			12.0			
29/06/10	0820-0830	25/Fine	Surface	1.0	24.0	26.8	26.8	6.51	6.53	89.1	89.3	3.75	3.77	3.89	7.5	7.6	7.8	
						26.8		6.54		89.5		3.78			7.6			
			Middle	8.8	23.3	27.9	28.0	6.47	6.46	88.6	88.4	3.89	3.91		3.91	7.8		7.8
						28.0		6.44		88.2		3.92			7.8			
			Bottom	16.6	22.5	29.5	29.6	6.31	6.30	86.4	86.3	3.97	3.99		3.99	8.0		8.0
						29.6		6.29		86.1		4.01			8.0			

Mid-Flood Tide

Monitoring Station : R6

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)			
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	
01/06/10	0942-0955	25/Cloudy	Surface	1.0	23.8	29.9	29.9	6.16	6.14	85.0	84.8	4.10	4.13	4.13	8.2	8.3	8.2	
						29.9		6.12		84.5		4.16			8.4			
			Middle	8.3	22.7	31.5	31.6	6.04	6.03	83.4	83.2	4.06	4.01		4.04	8.2		8.1
						31.6		6.01		82.9		4.01			8.0			
			Bottom	15.6	22.4	32.6	32.6	5.91	5.94	81.6	82.0	4.19	4.25		4.22	8.2		8.3
						32.6		5.97		82.4		4.25			8.4			
03/06/10	1048-1059	24/Cloudy	Surface	1.0	23.2	29.0	29.0	6.25	6.23	86.2	85.9	4.33	4.36	4.47	8.6	8.7	8.9	
						28.9		6.20		85.5		4.38			8.8			
			Middle	8.2	22.6	29.7	29.8	6.13	6.11	84.6	84.3	4.45	4.45		4.48	8.8		8.9
						29.8		6.09		84.0		4.51			9.0			
			Bottom	15.4	22.0	30.2	30.3	6.07	6.06	83.8	83.6	4.54	4.59		4.57	9.0		9.1
						30.3		6.04		83.3		4.59			9.2			
05/06/10	1140-1150	25/Cloudy	Surface	1.0	24.8	31.1	31.2	6.44	6.42	89.5	89.2	5.87	5.89	5.82	10.0	10.5	11.2	
						31.2		6.40		88.9		5.90			11.0			
			Middle	8.1	24.1	31.3	31.4	6.19	6.21	85.4	85.7	5.67	5.61		5.64	11.0		11.0
						31.4		6.23		85.9		5.61			11.0			
			Bottom	15.2	23.7	31.7	31.7	6.20	6.19	85.5	85.4	5.94	5.90		5.92	12.0		12.0
						31.6		6.18		85.2		5.90			12.0			
08/06/10	1618-1629	26/Cloudy	Surface	1.0	24.6	30.7	30.7	6.62	6.63	91.9	92.1	4.12	4.13	4.16	8.2	8.2	8.3	
						30.7		6.64		92.2		4.13			8.2			
			Middle	8.2	24.2	30.9	31.0	6.27	6.28	86.3	86.4	4.52	4.50		4.51	9.0		9.0
						31.0		6.28		86.5		4.50			9.0			
			Bottom	15.3	23.6	31.5	31.5	6.07	6.07	83.4	83.4	3.83	3.85		3.84	7.6		7.7
						31.4		6.07		83.4		3.85			7.8			
10/06/10	1734-1744	27/Cloudy	Surface	1.0	26.4	29.5	29.5	6.22	6.24	85.1	85.4	4.27	4.26	4.45	8.6	8.5	8.9	
						29.5		6.26		85.7		4.25			8.4			
			Middle	8.2	25.8	30.3	30.3	6.12	6.11	83.8	83.7	4.42	4.44		4.43	8.8		8.8
						30.3		6.10		83.5		4.44			8.8			
			Bottom	15.4	25.3	30.9	30.9	6.02	6.03	82.4	82.6	4.65	4.68		4.67	9.2		9.3
						30.9		6.04		82.7		4.68			9.4			
12/06/10	1900-1912	27/Cloudy	Surface	1.0	26.0	28.9	29.0	6.39	6.38	88.2	88.1	4.31	4.31	4.43	8.6	8.6	8.8	
						29.0		6.37		87.9		4.30			8.6			
			Middle	8.3	25.6	29.1	29.2	6.21	6.21	85.7	85.7	4.44	4.43		4.44	8.8		8.8
						29.3		6.20		85.6		4.43			8.8			
			Bottom	15.6	25.2	30.1	30.1	6.12	6.12	84.5	84.4	4.53	4.55		4.54	9.0		9.1
						30.1		6.11		84.3		4.55			9.2			
15/06/10	0949-0958	28/Drizzle	Surface	1.0	27.1	28.7	28.8	6.41	6.40	88.5	88.3	4.17	4.18	4.32	8.4	8.4	8.6	
						28.8		6.38		88.0		4.18			8.4			
			Middle	8.3	26.5	29.5	29.6	6.24	6.23	86.1	86.1	4.29	4.31		4.30	8.6		8.6
						29.6		6.21		86.0		4.31			8.6			
			Bottom	15.6	26.0	30.0	30.0	6.18	6.18	85.3	85.2	4.49	4.50		4.50	8.8		8.9
						30.0		6.17		85.1		4.50			9.0			
17/06/10	1049-1100	29/Cloudy	Surface	1.0	28.8	28.9	29.0	6.26	6.24	86.3	86.0	4.35	4.37	4.47	8.6	8.7	8.9	
						29.0		6.21		85.6		4.39			8.8			
			Middle	8.1	27.4	29.6	29.7	6.14	6.12	84.7	84.4	4.47	4.49		4.48	8.8		8.9
						29.8		6.10		84.1		4.49			9.0			
			Bottom	15.2	26.8	30.1	30.2	6.08	6.07	83.9	83.7	4.52	4.57		4.55	9.0		9.1
						30.2		6.05		83.4		4.57			9.2			
19/06/10	1306-1320	30/Fine	Surface	1.0	26.4	30.3	30.3	6.27	6.25	86.5	86.2	4.25	4.27	4.43	8.4	8.5	8.8	
						30.3		6.23		85.9		4.29			8.6			
			Middle	8.3	25.6	31.3	31.3	6.16	6.14	85.0	84.7	4.41	4.45		4.43	8.8		8.8
						31.3		6.12		84.4		4.45			8.8			
			Bottom	15.6	24.4	32.1	32.2	6.06	6.04	83.6	83.4	4.57	4.59		4.58	9.2		9.2
						32.2		6.02		83.1		4.59			9.2			
22/06/10	1549-1600	30/Cloudy	Surface	1.0	27.3	30.3	30.4	6.65	6.64	91.8	91.7	4.61	4.60	4.68	9.2	9.2	9.4	
						30.4		6.63		91.5		4.59			9.2			
			Middle	8.2	26.6	30.6	30.6	6.40	6.42	88.3	88.5	4.67	4.69		4.68	9.4		9.4
						30.5		6.43		88.7		4.69			9.4			
			Bottom	15.4	25.3	31.1	31.2	6.30	6.30	86.9	86.9	4.74	4.76		4.75	9.4		9.5
						31.2		6.29		86.8		4.76			9.6			
24/06/10	1749-1800	30/Cloudy	Surface	1.0	29.2	28.9	28.9	6.38	6.37	88.0	87.8	4.53	4.54	4.65	9.0	9.0	9.2	
						28.8		6.35		87.5		4.54			9.0			
			Middle	8.3	28.5	29.5	29.5	6.28	6.27	86.6	86.4	4.67	4.65		4.66	9.4		9.3
						29.5		6.25		86.2		4.65			9.2			
			Bottom	15.6	25.9	30.0	30.0	6.21	6.21	85.7	85.7	4.75	4.76		4.76	9.4		9.4
						30.0		6.20		85.6		4.76			9.4			
26/06/10	1920-1932	28/Rainy	Surface	1.0	27.2	28.2	28.3	5.79	5.78	79.9	79.8	4.87	4.88	4.98	9.6	9.6	10.0	
						28.3		5.77		79.6		4.89			9.6			
			Middle	8.4	26.4	29.1	29.2	5.68	5.69	78.4	78.5	4.91	4.99		4.95	9.8		9.9
						29.2		5.69		78.5		4.99			10.0			
			Bottom	15.7	25.3	29.8	29.8	5.67	5.68	78.2	78.3	5.08	5.12		5.10	10.0		10.5
						29.8		5.68		78.4		5.12			11.0			
29/06/10	0902-0912	25/Fine	Surface	1.0	24.0	26.8	26.8	6.49	6.51	88.9	89.1	3.76	3.78	3.86	7.4	7.5	7.7	
						26.8		6.52		89.3		3.79			7.6			
			Middle	8.3	23.3	27.9	28.0	6.44	6.46	88.2	88.2	3.84	3.88		3.86	7.6		7.7
						28.0		6.48		88.1		3.88			7.8			
			Bottom	15.6	22.4	29.6	29.6	6.38	6.36	87.4	87.1	3.93	3.95		3.94	7.8		7.9
						29.6		6.34		86.8		3.95			8.0			



Mid-Flood Tide

Monitoring Station : R7

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
01/06/10	0958-1010	25/Cloudy	Surface	1.0	23.7	30.1	30.1	6.19	6.22	85.4	85.8	3.79	3.81	3.89	7.6	7.6	7.8
				9.2	22.8	31.4		6.16		85.0		3.87			7.6		
			17.4	22.3	31.5	6.19	85.5	3.91	7.8								
03/06/10	1107-1120	24/Cloudy	Surface	1.0	23.3	28.9	29.0	6.39	6.41	88.1	88.4	3.46	3.48	3.62	7.0	7.0	7.1
				9.3	22.7	29.7		6.43		88.7		3.50			7.0		
			17.6	22.1	30.1	6.25	86.3	3.75	7.0								
05/06/10	1153-1206	25/Cloudy	Surface	1.0	24.8	31.1	31.2	6.36	6.35	88.4	88.3	5.74	5.77	5.51	11.0	11.5	10.8
				9.5	24.0	31.5		6.17		85.1		5.53			11.0		
			18.0	23.8	31.7	6.09	84.0	5.23	10.0								
08/06/10	1630-1642	26/Cloudy	Surface	1.0	24.5	30.7	30.8	6.64	6.66	92.2	92.4	3.22	3.21	3.33	6.4	6.4	6.7
				9.4	24.1	31.1		6.26		86.2		3.47			7.0		
			17.7	23.6	31.2	6.30	86.7	3.50	7.0								
10/06/10	1750-1800	27/Cloudy	Surface	1.0	26.6	29.6	29.6	6.30	6.29	86.2	86.0	3.84	3.86	4.01	7.6	7.7	8.0
				9.0	25.9	30.2		6.14		84.0		4.02			8.0		
			17.0	25.2	30.2	6.16	84.3	4.05	8.0								
12/06/10	1920-1932	27/Cloudy	Surface	1.0	25.9	28.8	28.9	6.41	6.40	88.5	88.3	3.47	3.47	3.62	7.0	6.9	7.2
				9.4	25.5	29.5		6.27		86.5		3.62			7.2		
			17.4	25.0	30.2	6.20	85.6	3.79	7.6								
15/06/10	1008-1022	28/Drizzle	Surface	1.0	27.0	28.9	28.8	6.40	6.40	88.3	88.3	3.47	3.49	3.63	6.8	6.9	7.2
				9.4	26.5	29.4		6.23		86.0		3.67			7.2		
			17.8	26.0	29.6	6.20	85.6	3.65	7.2								
17/06/10	1108-1121	29/Cloudy	Surface	1.0	28.7	30.1	30.1	6.19	6.18	85.4	85.3	3.74	3.75	3.61	7.4	7.4	7.2
				9.2	27.4	29.7		6.28		86.7		3.58			7.2		
			17.4	26.6	29.6	6.30	87.0	3.62	7.2								
19/06/10	1330-1345	30/Fine	Surface	1.0	26.3	30.3	30.4	6.43	6.42	88.7	88.6	3.52	3.54	3.67	7.0	7.1	7.3
				9.3	25.5	31.2		6.35		87.6		3.67			7.2		
			17.6	24.3	31.3	6.31	87.1	3.69	7.4								
22/06/10	1608-1621	30/Cloudy	Surface	1.0	27.3	30.2	30.3	6.62	6.64	91.4	91.6	3.64	3.66	3.75	7.2	7.2	7.5
				9.3	26.5	30.3		6.65		91.8		3.67			7.2		
			17.6	25.4	30.7	6.43	88.7	3.72	7.4								
24/06/10	1808-1821	30/Cloudy	Surface	1.0	29.2	28.9	29.0	6.28	6.26	86.6	86.3	3.50	3.52	3.64	7.0	7.0	7.2
				9.4	28.5	29.5		6.15		84.8		3.61			7.2		
			17.8	25.9	29.4	6.12	84.4	3.63	7.2								
26/06/10	1940-1953	28/Rainy	Surface	1.0	27.2	28.3	28.3	5.91	5.90	81.6	81.5	3.55	3.56	3.66	7.0	7.1	7.3
				9.5	26.3	28.2		5.89		81.3		3.57			7.2		
			17.9	25.3	29.2	5.78	79.8	3.69	7.4								
29/06/10	0918-0928	25/Fine	Surface	1.0	24.0	26.9	26.9	6.53	6.54	89.4	89.6	3.56	3.58	3.70	7.0	7.1	7.4
				9.3	23.2	28.1		6.41		87.8		3.68			7.4		
			17.6	22.3	28.0	6.43	88.0	3.70	7.4								

Mid-Flood Tide

Monitoring Station : R8a

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)					
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average			
01/06/10	1017-1027	25/Cloudy	Surface	1.0	23.7	29.8	29.8	6.21	6.23	85.7	86.0	3.81	3.83	3.90	7.6	7.8	7.8			
						29.8		6.25		86.3		3.85			8.0					
			Middle	6.7	22.8	31.3	31.3	6.14	6.16	84.7	85.0	3.89	3.90		3.91	3.96		7.5	7.7	7.8
						31.3		6.18		85.3		3.94			7.8					
			Bottom	12.4	22.4	32.5	32.5	6.16	6.13	84.9	84.6	3.94	3.97		3.97	3.96		8.0	7.9	7.9
						32.5		6.10		84.2		3.97			8.0					
03/06/10	1125-1138	24/Cloudy	Surface	1.0	23.1	29.1	29.1	6.31	6.33	87.1	87.4	3.49	3.46	3.57	7.0	7.0	7.2			
						29.1		6.35		87.6		3.43			7.0					
			Middle	6.1	22.5	29.7	29.7	6.27	6.25	86.5	86.2	3.54	3.56		3.57	3.68		7.0	7.1	7.2
						29.7		6.23		85.9		3.57			7.2					
			Bottom	12.2	22.2	30.2	30.2	6.16	6.14	85.0	84.7	3.67	3.68		3.69	3.68		7.4	7.4	7.4
						30.2		6.11		84.3		3.69			7.4					
05/06/10	1212-1224	25/Cloudy	Surface	1.0	24.8	31.2	31.2	6.21	6.19	85.6	85.4	4.95	5.01	5.03	10.0	10.0	10.0			
						31.2		6.17		85.1		5.06			10.0					
			Middle	6.8	24.0	31.5	31.6	6.03	6.05	83.2	83.5	5.07	5.09		5.10	5.01		10.0	10.0	10.0
						31.6		6.07		83.7		5.10			10.0					
			Bottom	12.6	23.9	31.7	31.7	6.01	6.03	82.9	83.2	4.98	5.01		5.04	5.01		10.0	10.0	10.0
						31.6		6.05		83.4		5.04			10.0					
08/06/10	1650-1705	26/Cloudy	Surface	1.0	24.5	30.8	30.8	6.62	6.63	91.9	92.0	3.42	3.43	3.60	6.8	6.9	7.2			
						30.8		6.63		92.1		3.44			7.0					
			Middle	6.7	24.0	31.1	31.1	6.27	6.26	86.3	86.2	3.72	3.72		3.71	3.67		7.5	7.5	7.5
						31.1		6.25		86.1		3.71			7.4					
			Bottom	12.3	23.6	31.5	31.5	6.05	6.07	83.2	83.5	3.65	3.67		3.68	3.67		7.2	7.3	7.3
						31.5		6.09		83.7		3.68			7.4					
10/06/10	1806-1817	27/Cloudy	Surface	1.0	26.5	29.4	29.4	6.15	6.17	84.2	84.4	4.08	4.07	4.09	8.0	8.0	8.1			
						29.4		6.18		84.6		4.06			8.0					
			Middle	6.4	25.9	29.9	29.9	6.25	6.26	85.5	85.7	3.95	3.97		3.98	3.97		8.0	8.0	8.0
						29.9		6.27		85.8		3.98			8.0					
			Bottom	11.8	25.2	30.9	30.9	6.34	6.35	86.8	86.9	4.22	4.24		4.26	4.24		8.4	8.4	8.4
						30.9		6.35		86.9		4.26			8.4					
12/06/10	1943-1955	27/Cloudy	Surface	1.0	25.9	29.8	29.8	6.38	6.37	88.0	87.8	3.51	3.50	3.61	7.0	7.0	7.2			
						29.8		6.35		87.6		3.49			7.0					
			Middle	6.7	25.4	30.1	30.1	6.27	6.26	86.5	86.4	3.61	3.62		3.62	3.71		7.0	7.1	7.2
						30.0		6.25		86.2		3.62			7.2					
			Bottom	12.4	25.1	30.4	30.5	6.12	6.13	84.5	84.6	3.72	3.71		3.70	3.71		7.4	7.4	7.4
						30.5		6.13		84.6		3.70			7.4					
15/06/10	1026-1039	28/Drizzle	Surface	1.0	27.0	29.1	29.1	6.40	6.41	88.3	88.5	3.48	3.48	3.58	7.0	7.0	7.1			
						29.0		6.42		88.6		3.47			7.0					
			Middle	6.7	26.6	29.6	29.7	6.37	6.36	87.9	87.8	3.57	3.58		3.58	3.58		7.0	7.1	7.1
						29.7		6.35		87.6		3.58			7.2					
			Bottom	12.4	26.2	30.2	30.2	6.18	6.19	85.3	85.4	3.69	3.68		3.67	3.68		7.4	7.3	7.3
						30.1		6.19		85.4		3.67			7.2					
17/06/10	1126-1139	30/Cloudy	Surface	1.0	28.8	29.0	29.1	6.32	6.34	87.2	87.5	3.44	3.46	3.54	6.8	6.9	7.0			
						29.1		6.36		87.7		3.47			7.0					
			Middle	6.5	27.6	29.7	29.7	6.28	6.26	86.6	86.3	3.56	3.53		3.49	3.64		7.0	7.0	7.0
						29.6		6.24		86.0		3.49			7.0					
			Bottom	12.0	26.9	30.2	30.3	6.17	6.15	85.1	84.8	3.62	3.64		3.65	3.64		7.2	7.2	7.2
						30.3		6.12		84.4		3.65			7.2					
19/06/10	1350-1400	30/Fine	Surface	1.0	26.4	30.5	30.5	6.44	6.47	88.8	89.2	3.54	3.56	3.65	7.0	7.0	7.2			
						30.4		6.49		89.5		3.57			7.0					
			Middle	6.6	25.5	31.1	31.2	6.38	6.37	88.0	87.9	3.61	3.60		3.59	3.60		7.0	7.1	7.2
						31.2		6.36		87.7		3.59			7.2					
			Bottom	12.2	24.4	32.0	32.0	6.29	6.28	86.8	86.7	3.78	3.80		3.81	3.80		7.6	7.6	7.6
						32.0		6.27		86.5		3.81			7.6					
22/06/10	1626-1639	30/Cloudy	Surface	1.0	27.4	30.3	30.4	6.62	6.64	91.4	91.6	3.63	3.63	3.73	7.2	7.1	7.4			
						30.4		6.65		91.8		3.62			7.0					
			Middle	8.7	26.6	30.7	30.8	6.42	6.42	88.6	88.6	3.74	3.73		3.71	3.85		7.5	7.5	7.5
						30.8		6.41		88.5		3.71			7.4					
			Bottom	16.4	25.3	31.2	31.3	6.31	6.30	87.1	87.0	3.87	3.82		3.82	3.85		7.6	7.6	7.6
						31.3		6.29		86.8		3.82			7.6					
24/06/10	1826-1839	30/Cloudy	Surface	1.0	29.3	28.9	28.9	6.30	6.33	86.9	87.2	3.56	3.55	3.63	7.2	7.1	7.2			
						28.8		6.35		87.5		3.53			7.0					
			Middle	6.7	28.5	29.6	29.6	6.27	6.24	86.4	86.0	3.61	3.63		3.64	3.73		7.0	7.1	7.2
						29.5		6.20		85.5		3.64			7.2					
			Bottom	12.4	25.8	30.1	30.1	6.12	6.11	84.4	84.3	3.72	3.73		3.73	3.73		7.4	7.4	7.4
						30.0		6.10		84.1		3.73			7.4					
26/06/10	1958-2012	28/Rainy	Surface	1.0	27.2	28.3	28.3	5.97	5.96	82.4	82.2	3.47	3.48	3.60	7.0	7.0	7.2			
						28.3		5.94		82.0		3.49			7.0					
			Middle	6.9	26.5	29.1	29.1	5.88	5.87	81.1	80.9	3.51	3.53		3.55	3.53		7.0	7.1	7.2
						29.1		5.85		80.7		3.55			7.2					
			Bottom	12.8	25.3	29.8	29.8	5.73	5.74	79.1	79.3	3.79	3.78		3.77	3.78		7.6	7.6	7.6
						29.7		5.75		79.4		3.77			7.6					
29/06/10	0932-0942	26/Fine	Surface	1.0	24.2	26.7	26.8	6.51	6.52	89.1	89.3	3.53	3.55	3.71	7.0	7.0	7.3			
						26.8		6.53		89.4		3.56			7.0					
			Middle	6.2	23.3	27.8	27.8	6.47	6.46	88.6	88.5	3.68	3.70		3.71	3.70		7.0	7.2	7.3
						27.8		6.45		88.3		3.71			7.4					
			Bottom	11.4	22.7	29.5	29.5	6.36	6.34	87.1	86.8	3.88	3.90		3.91	3.90		7.6	7.7	7.7
						29.5		6.32		86.5		3.91			7.8					

Mid-Flood Tide

Monitoring Station : R15

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)			
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	
01/06/10	0738-0748	25/Cloudy	Surface	1.0	23.5	29.8	29.9	6.12	6.16	84.5	85.0	4.98	4.97	5.09	9.8	9.8	9.8	
						29.9		6.19		85.4		4.95			9.8			
			Middle	5.6	22.8	31.3	31.3	6.06	6.10	83.6	84.1	5.08	5.11		9.8	9.7		9.6
						31.3		6.13		84.6		5.13			9.8			
			Bottom	10.2	22.5	32.7	32.8	6.05	6.07	83.4	83.7	5.17	5.19		9.8	9.8		9.8
						32.8		6.09		84.0		5.21			9.8			
03/06/10	0840-0850	24/Cloudy	Surface	1.0	23.0	28.8	28.9	6.40	6.38	88.3	88.0	4.45	4.47	4.57	8.8	8.9	9.0	
						28.9		6.36		87.7		4.49			9.0			
			Middle	5.6	22.5	29.5	29.5	6.30	6.28	86.9	86.6	4.57	4.58		9.0	9.0		9.0
						29.5		6.26		86.3		4.59			9.2			
			Bottom	10.2	21.9	30.0	30.0	6.18	6.17	85.2	85.0	4.63	4.66		9.2	9.2		9.2
						29.9		6.15		84.8		4.69			9.2			
05/06/10	0932-0944	25/Cloudy	Surface	1.0	24.5	30.9	30.9	6.50	6.46	90.3	89.8	4.74	4.72	4.55	9.4	9.4	9.0	
						30.8		6.42		89.3		4.70			9.4			
			Middle	6.0	23.9	31.5	31.5	6.20	6.23	86.1	86.6	4.36	4.39		8.6	8.7		8.8
						31.4		6.26		87.0		4.41			9.0			
			Bottom	11.0	23.7	31.6	31.6	6.17	6.20	85.7	86.1	4.59	4.56		9.0	9.0		9.0
						31.6		6.22		86.4		4.52			9.0			
08/06/10	1400-1413	26/Cloudy	Surface	1.0	24.6	30.5	30.6	6.47	6.48	89.8	90.0	2.76	2.78	3.16	5.4	5.5	6.3	
						30.6		6.49		90.1		2.80			5.6			
			Middle	5.6	24.0	30.9	31.0	6.16	6.18	84.8	85.1	3.41	3.42		6.8	6.8		6.8
						31.0		6.20		85.4		3.42			6.8			
			Bottom	10.2	23.5	31.2	31.3	5.95	5.97	81.8	82.0	3.26	3.28		6.6	6.6		6.6
						31.3		5.98		82.2		3.30			6.6			
10/06/10	1541-1551	27/Cloudy	Surface	1.0	26.4	29.5	29.5	6.26	6.28	85.7	86.0	4.18	4.20	4.50	8.4	8.4	9.0	
						29.5		6.30		86.2		4.22			8.4			
			Middle	7.3	25.7	29.8	29.8	6.14	6.16	84.0	84.3	4.46	4.47		8.8	8.9		9.0
						29.8		6.18		84.6		4.47			9.6			
			Bottom	13.5	24.7	30.7	30.7	6.00	5.98	82.1	81.9	4.82	4.84		9.6	9.6		9.6
						30.7		5.96		81.6		4.86			9.6			
12/06/10	1649-1659	27/Cloudy	Surface	1.0	26.0	28.9	29.0	6.39	6.39	88.1	88.1	4.42	4.44	4.61	8.8	8.9	9.2	
						29.0		6.38		88.0		4.45			9.0			
			Middle	5.7	25.7	29.8	29.9	6.30	6.30	86.9	86.9	4.67	4.68		9.2	9.3		9.4
						29.9		6.29		86.8		4.69			9.4			
			Bottom	10.4	25.1	30.1	30.2	6.16	6.16	85.0	85.0	4.73	4.73		9.4	9.4		9.4
						30.3		6.15		84.9		4.72			9.4			
15/06/10	0739-0751	28/Drizzle	Surface	1.0	26.9	28.7	28.8	6.41	6.40	89.5	88.3	4.46	4.45	4.57	8.8	8.8	9.1	
						28.8		6.38		88.0		4.43			8.8			
			Middle	5.7	26.6	29.3	29.4	6.31	6.28	87.1	86.6	4.56	4.58		9.0	9.1		9.2
						29.4		6.24		86.1		4.59			9.4			
			Bottom	10.4	26.1	29.8	29.9	6.19	6.18	85.4	85.3	4.68	4.69		9.4	9.4		9.4
						29.9		6.17		85.1		4.69			9.4			
17/06/10	0841-0851	29/Cloudy	Surface	1.0	28.8	29.0	29.1	6.41	6.39	88.4	88.1	4.43	4.44	4.56	8.8	8.8	9.1	
						29.1		6.37		87.8		4.45			8.8			
			Middle	5.5	27.6	29.7	29.7	6.31	6.29	87.0	86.7	4.58	4.59		9.0	9.1		9.2
						29.7		6.27		86.4		4.59			9.2			
			Bottom	10.0	26.9	30.3	30.3	6.19	6.18	85.3	85.1	4.64	4.66		9.2	9.3		9.4
						30.2		6.16		84.9		4.68			9.4			
19/06/10	1110-1120	30/Fine	Surface	1.0	26.4	30.3	30.3	6.38	6.37	88.1	87.9	4.21	4.23	4.39	8.4	8.4	8.8	
						30.3		6.35		87.6		4.25			8.4			
			Middle	5.7	25.3	31.4	31.4	6.29	6.27	86.8	86.5	4.38	4.39		8.8	8.8		8.8
						31.4		6.25		86.2		4.40			9.0			
			Bottom	10.4	24.6	32.0	32.0	6.19	6.18	85.4	85.2	4.53	4.55		9.0	9.1		9.2
						32.0		6.16		85.0		4.57			9.2			
22/06/10	1341-1350	30/Cloudy	Surface	1.0	27.2	30.1	30.1	6.65	6.63	91.8	91.5	4.54	4.55	4.66	9.0	9.1	9.3	
						30.1		6.61		91.2		4.56			9.2			
			Middle	5.5	26.5	30.6	30.6	6.42	6.45	88.6	89.0	4.68	4.68		9.4	9.4		9.4
						30.5		6.47		89.3		4.67			9.4			
			Bottom	10.0	25.3	31.2	31.3	6.21	6.25	85.7	86.2	4.73	4.76		9.4	9.5		9.6
						31.3		6.28		86.7		4.78			9.6			
24/06/10	1541-1551	30/Cloudy	Surface	1.0	29.3	28.9	28.9	6.41	6.40	88.5	88.4	4.60	4.59	4.78	9.2	9.1	9.5	
						28.8		6.38		88.2		4.57			9.0			
			Middle	5.7	28.5	29.4	29.5	6.29	6.31	86.9	87.0	4.81	4.82		9.6	9.6		9.6
						29.5		6.32		87.1		4.83			9.8			
			Bottom	10.4	25.8	30.2	30.2	6.22	6.21	85.9	85.7	4.91	4.93		9.8	9.8		9.8
						30.1		6.20		85.5		4.94			9.8			
26/06/10	1711-1723	28/Rainy	Surface	1.0	27.4	28.5	28.5	5.95	5.93	82.1	81.8	5.67	5.66	5.80	9.6	9.6	9.7	
						28.4		5.90		81.4		5.64			9.6			
			Middle	5.9	26.6	29.3	29.2	5.85	5.83	80.7	80.5	5.78	5.80		9.8	9.8		9.8
						29.1		5.81		80.2		5.81			9.8			
			Bottom	10.8	25.3	29.8	29.9	5.74	5.75	79.2	79.4	5.93	5.95		9.8	9.8		9.8
						29.9		5.76		79.5		5.97			9.8			
29/06/10	0710-0720	25/Cloudy	Surface	1.0	23.9	26.7	26.8	6.46	6.48	88.5	88.7	3.62	3.64	3.76	7.2	7.2	7.5	
						26.8		6.49		88.9		3.65			7.2			
			Middle	5.7	23.1	27.7	27.8	6.47	6.44	88.6	88.2	3.80	3.79		7.6	7.6		7.6
						27.8		6.41		87.8		3.78			7.6			
			Bottom	10.4	22.5	29.4	29.4	6.28	6.27	86.0	85.8	3.85	3.87		7.8	7.8		7.8
						29.4		6.25		85.6		3.88			7.8			

Mid-Flood Tide

Monitoring Station : R16

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)				
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average		
01/06/10	0719-0730	25/Cloudy	Surface	1.0	23.6	29.9	29.9	6.17	6.16	85.1	84.9	3.84	3.87	3.93	7.6	7.7	7.9		
						29.9		6.14		84.7		3.89			7.8				
			Middle	6.5	22.7	31.4	31.4	6.11	6.10	84.3	84.1	3.93	3.97		3.95	8.0		8.0	8.0
						31.3		6.08		83.9		3.96			8.0				
			Bottom	12.0	22.4	32.6	32.7	6.02	6.03	83.1	83.3	3.99	3.98		3.98	8.0		8.0	8.0
						32.7		6.04		83.4		3.96			8.0				
03/06/10	0817-0827	24/Cloudy	Surface	1.0	23.0	28.7	28.8	6.37	6.38	87.9	88.0	3.42	3.45	3.55	6.8	6.9	7.1		
						28.8		6.39		88.1		3.47			7.0				
			Middle	6.5	22.5	29.3	29.3	6.27	6.30	86.5	86.9	3.55	3.59		3.57	7.0		7.1	7.1
						29.3		6.33		87.3		3.59			7.2				
			Bottom	12.0	22.0	29.9	30.0	6.21	6.23	85.7	85.9	3.66	3.64		3.64	7.2		7.2	7.2
						30.0		6.24		86.1		3.61			7.2				
05/06/10	0914-0925	25/Cloudy	Surface	1.0	24.4	30.8	30.8	6.47	6.46	89.9	89.7	4.39	4.35	4.42	8.8	8.7	8.8		
						30.7		6.44		89.5		4.30			8.6				
			Middle	6.7	24.0	31.4	31.4	6.15	6.13	84.8	84.6	4.54	4.57		4.57	9.0		9.1	9.1
						31.4		6.11		84.3		4.60			9.2				
			Bottom	12.4	23.8	31.5	31.5	6.10	6.12	84.1	84.4	4.32	4.35		4.35	8.6		8.7	8.7
						31.4		6.14		84.7		4.38			8.8				
08/06/10	1345-1357	26/Cloudy	Surface	1.0	24.7	30.6	30.7	6.52	6.53	90.5	90.6	3.22	3.21	3.49	6.4	6.4	7.0		
						30.7		6.53		90.7		3.20			6.4				
			Middle	6.6	24.1	31.0	31.0	6.14	6.15	84.5	84.6	3.72	3.71		3.71	7.4		7.4	7.4
						31.0		6.15		84.7		3.70			7.4				
			Bottom	12.2	23.5	31.3	31.4	6.01	6.02	82.6	82.8	3.54	3.56		3.56	7.0		7.1	7.1
						31.4		6.03		82.9		3.58			7.2				
10/06/10	1519-1531	27/Cloudy	Surface	1.0	26.5	29.4	29.4	6.38	6.40	87.3	87.6	4.11	4.13	4.23	8.2	8.2	8.4		
						29.4		6.42		87.9		4.15			8.2				
			Middle	6.5	25.9	29.9	29.9	6.24	6.22	85.4	85.1	4.24	4.26		4.26	8.4		8.4	8.4
						29.9		6.20		84.8		4.27			8.4				
			Bottom	12.0	24.8	30.8	30.8	6.05	6.07	82.8	83.0	4.30	4.32		4.32	8.6		8.6	8.6
						30.8		6.08		83.2		4.33			8.6				
12/06/10	1630-1641	27/Cloudy	Surface	1.0	26.0	28.8	28.9	6.38	6.39	88.0	88.2	3.43	3.44	3.55	6.8	6.8	7.0		
						28.9		6.40		88.3		3.45			6.8				
			Middle	6.6	25.7	29.4	29.5	6.32	6.32	87.2	87.2	3.55	3.56		3.56	7.0		7.0	7.0
						29.6		6.31		87.1		3.56			7.0				
			Bottom	12.2	25.1	30.0	30.1	6.18	6.14	85.3	85.4	3.67	3.65		3.65	7.2		7.2	7.2
						30.1		6.10		85.4		3.62			7.2				
15/06/10	0718-0728	28/Drizzle	Surface	1.0	26.9	28.6	28.7	6.32	6.33	87.2	87.3	3.41	3.45	3.56	6.8	6.9	7.1		
						28.7		6.33		87.4		3.48			7.0				
			Middle	6.6	26.6	29.2	29.2	6.25	6.25	86.3	86.2	3.57	3.59		3.59	7.0		7.1	7.1
						29.2		6.24		86.1		3.60			7.2				
			Bottom	12.2	26.1	29.8	29.9	6.21	6.23	85.7	86.0	3.67	3.66		3.66	7.2		7.2	7.2
						29.9		6.25		86.3		3.65			7.2				
17/06/10	0818-0828	29/Cloudy	Surface	1.0	28.9	28.9	29.0	6.38	6.39	88.0	88.1	3.41	3.43	3.55	6.8	6.9	7.1		
						29.0		6.39		88.1		3.45			7.0				
			Middle	6.4	29.6	29.5	29.6	6.26	6.30	86.4	86.9	3.57	3.59		3.59	7.2		7.2	7.2
						29.6		6.34		87.4		3.60			7.2				
			Bottom	11.8	30.2	30.1	30.2	6.20	6.23	85.6	85.9	3.65	3.64		3.64	7.2		7.2	7.2
						30.2		6.25		86.2		3.63			7.2				
19/06/10	1046-1056	30/Fine	Surface	1.0	26.3	30.3	30.4	6.49	6.47	89.5	89.3	3.55	3.53	3.67	7.0	7.0	7.3		
						30.4		6.45		89.0		3.51			7.0				
			Middle	6.4	25.1	31.3	31.4	6.39	6.36	88.1	87.7	3.65	3.67		3.67	7.2		7.3	7.3
						31.4		6.33		87.3		3.68			7.4				
			Bottom	11.8	24.5	32.1	32.1	6.27	6.25	86.5	86.2	3.83	3.82		3.82	7.6		7.6	7.6
						32.1		6.23		85.9		3.81			7.6				
22/06/10	1318-1327	30/Cloudy	Surface	1.0	27.4	30.2	30.2	6.67	6.66	92.0	91.9	3.50	3.51	3.65	7.0	7.0	7.3		
						30.1		6.65		91.8		3.51			7.0				
			Middle	6.4	26.6	30.5	30.6	6.43	6.44	88.7	88.9	3.67	3.68		3.68	7.2		7.3	7.3
						30.6		6.45		89.0		3.69			7.4				
			Bottom	11.8	25.4	31.3	31.3	6.27	6.29	86.5	86.7	3.79	3.76		3.76	7.6		7.5	7.5
						31.2		6.30		86.9		3.73			7.4				
24/06/10	1518-1528	30/Cloudy	Surface	1.0	29.3	28.9	28.9	6.38	6.36	88.2	87.8	3.67	3.64	3.74	7.4	7.3	7.5		
						28.9		6.33		87.4		3.60			7.2				
			Middle	6.6	28.4	29.4	29.4	6.28	6.26	86.7	86.5	3.69	3.71		3.71	7.4		7.4	7.4
						29.4		6.24		86.3		3.73			7.4				
			Bottom	12.2	25.9	30.1	30.1	6.21	6.20	85.8	85.7	3.89	3.89		3.89	7.8		7.8	7.8
						30.0		6.19		85.5		3.88			7.8				
26/06/10	1647-1658	28/Rainy	Surface	1.0	27.3	28.4	28.4	5.93	5.92	81.8	81.7	3.17	3.16	3.34	6.4	6.4	6.7		
						28.3		5.91		81.6		3.15			6.4				
			Middle	6.8	26.7	29.2	29.2	5.84	5.84	80.6	80.6	3.34	3.37		3.37	6.6		6.7	6.7
						29.2		5.83		80.5		3.39			6.8				
			Bottom	12.5	25.4	30.0	30.0	5.72	5.71	78.9	78.7	3.52	3.51		3.51	7.0		7.0	7.0
						30.0		5.69		78.5		3.49			7.0				
29/06/10	0648-0658	25/Cloudy	Surface	1.0	23.9	26.8	26.8	6.58	6.57	90.1	90.0	3.59	3.57	3.71	7.2	7.1	7.4		
						26.8		6.56		89.8		3.54			7.0				
			Middle	6.6	23.0	27.9	27.9	6.49	6.48	88.9	88.7	3.66	3.68		3.68	7.2		7.3	7.3
						27.9		6.46		88.5		3.70			7.4				
			Bottom	12.2	22.5	29.5	29.5	6.39	6.37	87.5	87.2	3.88	3.90		3.90	7.8		7.8	7.8
						29.5		6.34		86.8		3.91			7.8				

Mid-Flood Tide

Monitoring Station : R17

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)			
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	
01/06/10	0700-0715	25/Cloudy	Surface	1.0	23.6	29.8	30.0	6.19	6.16	85.4	85.0	3.81	3.87	3.95	7.6	7.7	7.9	
						30.1		6.13		84.6		3.92			7.8			
			Middle	6.1	22.8	31.5	31.5	6.10	6.09	84.2	84.0	3.98	3.95		3.97	7.8		7.9
						31.5		6.07		83.8		3.95			8.0			
			Bottom	11.2	22.5	32.8	32.8	6.03	6.05	83.2	83.4	3.99	4.02		4.01	8.0		8.1
						32.8		6.06		83.6		4.02			8.2			
03/06/10	0800-0813	24/Cloudy	Surface	1.0	23.1	28.8	28.8	6.41	6.40	88.4	88.3	3.48	3.46	3.59	7.0	6.9	7.1	
						28.8		6.38		88.1		3.44			6.8			
			Middle	6.1	22.6	29.4	29.5	6.29	6.30	86.8	86.9	3.59	3.61		3.60	7.0		7.0
						29.5		6.31		87.0		3.61			7.0			
			Bottom	11.2	22.1	29.9	30.0	6.22	6.21	85.8	85.6	3.71	3.68		3.70	7.5		7.5
						30.1		6.19		85.4		3.68			7.4			
05/06/10	0900-0912	25/Cloudy	Surface	1.0	24.4	30.6	30.7	6.56	6.54	91.1	90.9	4.43	4.42	4.43	8.8	8.8	8.8	
						30.7		6.52		90.6		4.40			8.8			
			Middle	6.4	23.8	31.4	31.4	6.23	6.20	86.5	86.1	4.20	4.25		4.23	8.4		8.5
						31.3		6.17		85.7		4.25			8.5			
			Bottom	11.8	23.6	31.5	31.6	6.24	6.22	86.7	86.4	4.60	4.67		4.64	9.0		9.2
						31.6		6.19		86.0		4.67			9.4			
08/06/10	1330-1343	26/Cloudy	Surface	1.0	24.6	30.7	30.7	6.56	6.58	91.1	91.4	4.22	4.26	4.37	8.4	8.5	9.0	
						30.7		6.60		91.7		4.30			8.6			
			Middle	6.2	24.0	30.9	31.0	6.32	6.31	87.0	86.9	5.12	5.10		5.11	11.0		11.0
						31.0		6.30		86.7		5.10			11.0			
			Bottom	11.4	23.2	31.4	31.4	6.07	6.06	83.4	83.3	3.72	3.75		3.74	7.5		7.5
						31.4		6.05		83.2		3.75			7.4			
10/06/10	1500-1515	27/Cloudy	Surface	1.0	26.5	29.5	29.5	6.27	6.26	85.8	85.2	4.25	4.28	4.16	8.4	8.5	8.2	
						29.5		6.25		84.5		4.31			8.6			
			Middle	5.9	25.8	30.0	30.0	6.14	6.12	84.0	83.8	4.02	4.06		4.04	8.0		8.0
						30.0		6.10		83.5		4.06			8.0			
			Bottom	10.8	25.0	31.2	31.2	5.98	5.97	81.8	81.7	4.13	4.16		4.15	8.0		8.2
						31.2		5.96		81.6		4.16			8.4			
12/06/10	1615-1627	27/Cloudy	Surface	1.0	26.1	28.9	28.9	6.45	6.48	89.0	89.4	3.49	3.47	3.59	7.0	7.0	7.2	
						28.9		6.50		89.7		3.45			7.0			
			Middle	6.2	25.7	29.5	29.5	6.30	6.32	86.9	87.1	3.58	3.60		3.59	7.0		7.0
						29.5		6.33		87.3		3.60			7.0			
			Bottom	11.4	25.1	29.8	29.9	6.20	6.19	85.6	85.5	3.74	3.69		3.72	7.5		7.5
						29.9		6.18		85.3		3.69			7.4			
15/06/10	0700-0714	28/Drizzle	Surface	1.0	27.1	28.7	28.7	6.43	6.41	88.7	88.5	3.42	3.43	3.56	6.8	6.8	7.1	
						28.7		6.39		88.2		3.43			6.8			
			Middle	6.2	26.6	29.3	29.4	6.28	6.30	86.7	87.0	3.56	3.57		3.57	7.0		7.0
						29.4		6.32		87.2		3.57			7.0			
			Bottom	11.4	26.1	29.8	30.0	6.23	6.23	86.0	85.9	3.70	3.68		3.69	7.5		7.5
						30.2		6.22		85.8		3.68			7.4			
17/06/10	0800-0814	29/Cloudy	Surface	1.0	28.9	29.0	29.1	6.42	6.40	88.5	88.3	3.49	3.47	3.60	7.0	6.9	7.2	
						29.1		6.38		88.1		3.45			6.8			
			Middle	6.0	27.6	29.6	29.7	6.30	6.31	86.9	87.0	3.60	3.62		3.61	7.2		7.1
						29.7		6.32		87.1		3.62			7.0			
			Bottom	11.0	27.0	30.2	30.3	6.23	6.22	85.9	85.7	3.72	3.69		3.71	7.5		7.5
						30.3		6.20		85.5		3.69			7.4			
19/06/10	1030-1042	30/Fine	Surface	1.0	26.4	30.5	30.5	6.46	6.44	89.1	88.8	3.61	3.60	3.73	7.2	7.2	7.5	
						30.4		6.41		88.4		3.58			7.2			
			Middle	6.3	25.2	31.3	31.3	6.35	6.33	87.6	87.3	3.69	3.71		3.70	7.4		7.5
						31.3		6.31		87.0		3.71			7.5			
			Bottom	11.6	24.6	32.0	32.0	6.29	6.28	85.4	85.3	3.91	3.89		3.90	8.0		7.8
						31.9		6.26		85.1		3.89			7.6			
22/06/10	1330-1343	30/Cloudy	Surface	1.0	27.3	30.1	30.2	6.64	6.65	91.6	91.7	3.47	3.48	3.60	7.0	7.0	7.2	
						30.3		6.65		91.8		3.49			7.0			
			Middle	6.0	26.5	30.6	30.7	6.42	6.45	88.6	89.0	3.58	3.60		3.59	7.2		7.1
						30.7		6.47		89.3		3.60			7.0			
			Bottom	11.0	25.3	31.2	31.2	6.28	6.30	86.6	86.9	3.74	3.70		3.72	7.5		7.5
						31.1		6.31		87.1		3.70			7.4			
24/06/10	1500-1514	30/Cloudy	Surface	1.0	29.2	28.9	28.9	6.39	6.37	88.1	87.9	3.59	3.60	3.76	7.2	7.2	7.5	
						28.8		6.35		87.6		3.60			7.2			
			Middle	6.2	28.5	29.5	29.5	6.29	6.27	86.8	86.6	3.78	3.81		3.80	7.6		7.6
						29.4		6.25		86.4		3.81			7.5			
			Bottom	11.4	25.9	30.1	30.2	6.20	6.19	85.6	85.4	3.87	3.89		3.88	7.5		7.7
						30.2		6.17		85.2		3.89			7.8			
26/06/10	1630-1643	28/Rainy	Surface	1.0	27.4	28.3	28.4	5.89	5.90	81.3	81.5	3.29	3.28	3.44	6.6	6.6	6.9	
						28.5		5.91		81.6		3.27			6.6			
			Middle	6.3	26.7	29.2	29.2	5.73	5.72	79.1	78.9	3.47	3.43		3.45	6.8		6.9
						29.1		5.70		78.7		3.43			7.0			
			Bottom	11.6	25.5	30.0	30.0	5.63	5.65	77.7	77.9	3.61	3.58		3.60	7.0		7.1
						29.9		5.66		78.1		3.58			7.2			
29/06/10	0630-0645	25/Cloudy	Surface	1.0	23.9	26.7	26.8	6.53	6.55	89.4	89.7	3.57	3.59	3.74	7.0	7.1	7.5	
						26.8		6.57		90.0		3.61			7.2			
			Middle	6.3	23.0	27.9	27.9	6.48	6.46	88.7	88.4	3.69	3.72		3.71	7.4		7.5
						27.8		6.43		88.1		3.72			7.5			
			Bottom	11.6	22.6	29.3	29.4	6.31	6.32	86.4	86.6	3.91	3.94		3.93	8.0		7.9
						29.4		6.33		86.7		3.94			7.8			

Mid-Flood Tide

Monitoring Station : R28

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)				
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	
01/06/10	0903-0915	25/Cloudy	Surface	1.0	23.7	29.8	29.9	6.17	6.19	85.1	85.4	3.75	3.77	3.80	7.4	7.5	7.6	
						29.9		6.21		85.7		3.79			7.6			
			Middle	5.9	22.8	31.4	31.5	6.14	6.12	84.7	84.5	3.76	3.78		3.78	7.4		7.5
						31.5		6.10		84.2		3.79			7.6			
			Bottom	16.8	22.3	32.8	32.8	6.06	6.05	83.6	83.4	3.82	3.84		3.84	7.6		7.7
						32.7		6.03		83.2		3.86			7.8			
03/06/10	1013-1028	24/Cloudy	Surface	1.0	23.1	28.9	29.0	6.37	6.36	87.9	87.7	3.42	3.45	3.59	5.8	6.4	7.0	
						29.0		6.34		87.4		3.47			7.0			
			Middle	5.8	22.7	29.5	29.5	6.27	6.26	86.5	86.3	3.58	3.60		3.60	7.0		7.1
						29.5		6.24		86.1		3.61			7.2			
			Bottom	10.6	22.1	30.1	30.1	6.20	6.19	85.6	85.4	3.70	3.72		3.72	7.4		7.4
						30.1		6.17		85.1		3.73			7.4			
05/06/10	1107-1118	25/Cloudy	Surface	1.0	24.8	31.0	31.1	6.29	6.31	87.4	87.6	5.15	5.17	5.02	10.0	10.5	10.1	
						31.1		6.32		87.8		5.19			11.0			
			Middle	6.1	23.9	31.4	31.5	6.20	6.22	86.1	86.4	4.95	4.98		4.98	10.0		10.0
						31.5		6.24		86.7		5.01			10.0			
			Bottom	11.2	23.5	31.6	31.6	6.11	6.13	84.3	84.6	4.87	4.91		4.91	9.8		9.9
						31.5		6.15		84.8		4.94			10.0			
08/06/10	1545-1556	26/Cloudy	Surface	1.0	24.6	30.7	30.7	6.52	6.53	90.5	90.7	4.06	4.08	3.86	8.0	8.1	7.6	
						30.7		6.54		90.8		4.10			8.2			
			Middle	5.9	24.2	30.9	31.0	6.26	6.26	86.2	86.2	3.84	3.86		3.86	7.6		7.6
						31.0		6.25		86.1		3.87			7.6			
			Bottom	10.8	23.7	31.3	31.4	6.08	6.09	83.6	83.7	3.62	3.63		3.63	7.2		7.2
						31.4		6.10		83.8		3.64			7.2			
10/06/10	1700-1710	27/Cloudy	Surface	1.0	26.4	29.4	29.4	6.12	6.13	83.8	83.9	4.01	3.97	4.10	8.0	7.9	8.2	
						29.4		6.14		84.0		3.92			7.8			
			Middle	5.4	25.8	30.1	30.1	6.03	6.05	82.5	82.7	4.10	4.11		4.11	8.2		8.2
						30.1		6.06		82.9		4.12			8.2			
			Bottom	9.8	25.2	30.7	30.7	5.92	5.93	81.0	81.2	4.22	4.23		4.23	8.4		8.4
						30.7		5.94		81.3		4.24			8.4			
12/06/10	1821-1831	27/Cloudy	Surface	1.0	26.2	28.9	29.0	6.34	6.35	87.5	87.6	3.45	3.46	3.56	7.0	7.0	7.1	
						29.0		6.35		87.6		3.46			7.0			
			Middle	5.9	25.8	29.5	29.7	6.25	6.26	86.3	86.4	3.52	3.54		3.54	7.0		7.0
						29.8		6.27		86.5		3.55			7.0			
			Bottom	10.8	25.2	30.2	30.2	6.10	6.11	82.4	83.4	3.67	3.68		3.68	7.2		7.2
						30.2		6.12		84.4		3.68			7.2			
15/06/10	0912-0927	28/Drizzle	Surface	1.0	27.0	28.8	28.9	6.39	6.38	88.2	88.1	3.41	3.40	3.56	6.8	6.8	7.1	
						28.9		6.37		88.0		3.38			6.8			
			Middle	5.9	26.6	29.6	29.5	6.27	6.26	87.0	86.7	3.58	3.57		3.57	7.2		7.1
						29.4		6.25		86.3		3.56			7.0			
			Bottom	10.8	25.9	30.1	30.2	6.18	6.17	85.3	85.2	3.69	3.70		3.70	7.4		7.4
						30.2		6.16		85.0		3.71			7.4			
17/06/10	1014-1029	29/Cloudy	Surface	1.0	28.8	28.9	28.9	6.38	6.37	88.0	87.8	3.43	3.45	3.59	6.8	6.8	7.1	
						28.9		6.35		87.5		3.46			6.8			
			Middle	5.7	27.6	29.6	29.7	6.28	6.27	86.6	86.4	3.57	3.59		3.59	7.2		7.2
						29.8		6.25		86.2		3.60			7.2			
			Bottom	10.4	26.9	30.3	30.3	6.21	6.20	85.7	85.5	3.71	3.73		3.73	7.4		7.4
						30.3		6.18		85.2		3.74			7.4			
19/06/10	1230-1243	30/Fine	Surface	1.0	26.4	30.5	30.4	6.47	6.49	89.2	89.5	3.54	3.56	3.70	7.0	7.1	7.3	
						30.3		6.50		89.7		3.57			7.2			
			Middle	5.9	25.5	31.1	31.2	6.41	6.40	88.4	88.3	3.69	3.70		3.70	7.2		7.3
						31.2		6.38		88.1		3.71			7.4			
			Bottom	10.8	24.6	31.9	32.0	6.28	6.27	86.6	86.5	3.82	3.84		3.84	7.6		7.6
						32.0		6.26		86.3		3.85			7.6			
22/06/10	1513-1529	30/Cloudy	Surface	1.0	27.3	30.4	30.4	6.68	6.66	92.2	91.9	3.67	3.66	3.76	7.2	7.2	7.4	
						30.3		6.64		91.6		3.65			7.2			
			Middle	5.7	26.6	30.8	30.8	6.47	6.48	89.3	89.5	3.73	3.75		3.75	7.4		7.4
						30.7		6.49		89.6		3.76			7.4			
			Bottom	10.4	25.3	31.2	31.3	6.30	6.31	86.9	87.0	3.89	3.87		3.87	7.8		7.7
						31.3		6.31		87.1		3.84			7.6			
24/06/10	1714-1729	30/Cloudy	Surface	1.0	29.3	28.9	28.9	6.26	6.24	86.3	86.0	3.52	3.55	3.66	7.0	7.1	7.3	
						28.8		6.21		85.6		3.57			7.2			
			Middle	5.9	28.5	29.4	29.4	6.14	6.12	84.7	84.4	3.64	3.65		3.65	7.2		7.2
						29.4		6.10		84.1		3.66			7.2			
			Bottom	10.8	25.7	30.0	30.1	6.08	6.07	83.9	83.7	3.79	3.78		3.78	7.6		7.6
						30.1		6.05		83.4		3.76			7.6			
26/06/10	1845-1900	28/Rainy	Surface	1.0	27.3	28.3	28.3	5.91	5.89	81.6	81.3	3.99	3.97	4.08	8.0	8.0	8.2	
						28.2		5.87		81.0		3.95			8.0			
			Middle	5.9	26.6	29.1	29.1	5.73	5.74	79.1	79.3	4.07	4.09		4.09	8.0		8.1
						29.0		5.75		79.4		4.10			8.2			
			Bottom	10.8	25.3	29.8	29.8	5.67	5.69	78.2	78.5	4.18	4.20		4.20	8.4		8.4
						29.8		5.70		78.7		4.21			8.4			
29/06/10	0833-0843	25/Fine	Surface	1.0	24.0	26.9	26.9	6.57	6.58	90.0	90.2	3.62	3.64	3.74	7.2	7.2	7.4	
						26.8		6.59		90.3		3.65			7.2			
			Middle	5.9	23.5	27.9	27.9	6.55	6.53	89.7	89.4	3.69	3.71		3.71	7.4		7.4
						27.8		6.51		89.1		3.73			7.4			
			Bottom	10.8	22.5	29.3	29.3	6.43	6.42	88.1	88.0	3.85	3.87		3.87	7.6		7.7
						29.3		6.41		87.8		3.88			7.8			

**Mid-Flood Tide**

Monitoring Station : R29

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
01/06/10	0928-0938	25/Cloudy	Surface	1.0	23.6	29.9	30.0	6.14	6.12	84.7	84.4	4.19	4.17	4.18	8.4	8.3	8.3
				8.7	22.7	30.0		6.09		84.0		4.15			8.2		
			Bottom	16.4	22.4	31.5	31.5	6.03	6.01	83.2	83.0	4.05	4.09		8.6	8.1	
03/06/10	1033-1045	24/Cloudy	Surface	1.0	23.2	31.5	29.0	5.99	6.25	81.8	86.2	4.28	4.36	4.44	8.6	8.7	8.9
				8.9	22.6	32.7		6.14		84.7		4.31			8.8		
			Bottom	16.8	22.0	31.5	29.7	6.11	6.13	83.3	84.5	4.44	4.42		8.8	8.8	
05/06/10	1128-1138	25/Cloudy	Surface	1.0	24.8	30.1	31.0	6.08	6.32	83.9	87.8	4.52	5.31	5.46	9.0	11.0	11.2
				9.1	24.0	30.3		6.04		83.3		4.58			11.0		
			Bottom	17.2	23.6	31.4	31.4	6.07	6.09	84.1	83.9	5.54	5.52		11.0	11.0	
08/06/10	1605-1616	26/Cloudy	Surface	1.0	24.5	31.6	30.8	6.17	6.49	85.1	90.1	5.60	3.29	3.55	6.6	6.6	7.1
				7.0	24.1	31.7		6.14		84.7		5.53			6.6		
			Bottom	17.0	23.2	31.1	31.1	6.26	6.26	86.2	86.2	4.06	4.07		8.0	8.1	
10/06/10	1716-1730	27/Cloudy	Surface	1.0	26.5	31.1	29.5	6.26	6.19	86.2	84.7	4.08	4.40	4.58	8.2	8.8	9.1
				8.8	25.7	31.4		6.00		82.5		3.26			8.2		
			Bottom	16.6	25.1	31.5	30.2	5.98	5.99	82.2	82.4	3.30	3.28		6.6	6.5	
12/06/10	1845-1856	27/Cloudy	Surface	1.0	26.1	30.2	29.5	6.18	6.09	84.6	84.7	4.38	4.60	4.54	8.8	8.8	9.0
				8.9	25.6	30.2		6.10		83.5		4.62			9.0		
			Bottom	16.8	25.1	31.0	31.0	6.00	5.99	82.1	82.0	4.74	4.74		9.2	9.4	
15/06/10	0932-0944	28/Drizzle	Surface	1.0	26.9	31.0	28.9	6.40	6.41	81.8	88.5	4.74	4.28	4.35	8.6	8.6	8.7
				9.0	26.7	30.1		6.42		88.6		4.27			8.6		
			Bottom	17.0	25.9	29.9	29.9	6.38	6.39	88.3	88.2	4.32	4.38		8.8	8.7	
17/06/10	1034-1046	29/Cloudy	Surface	1.0	28.9	30.1	29.0	6.24	6.26	86.2	86.3	4.52	4.37	4.44	9.0	8.7	8.8
				8.8	27.3	30.8		6.09		84.0		4.53			8.8		
			Bottom	16.6	26.7	30.2	30.2	6.08	6.07	83.5	83.7	4.36	4.42		8.8	8.8	
19/06/10	1250-1300	30/Fine	Surface	1.0	26.5	30.2	30.5	6.25	6.23	86.0	85.9	4.42	4.29	4.45	8.6	8.6	8.9
				8.9	25.3	30.2		6.21		85.6		4.31			8.6		
			Bottom	16.8	24.3	31.3	31.4	6.18	6.16	85.2	85.0	4.45	4.47		9.0	9.0	
22/06/10	1534-1546	30/Cloudy	Surface	1.0	27.5	31.4	30.2	6.14	6.05	84.7	83.5	4.48	4.60	4.68	9.2	9.2	9.3
				8.8	26.6	32.2		6.03		83.2		4.61			9.2		
			Bottom	16.6	25.3	30.2	30.2	6.07	6.05	83.7	83.5	4.55	4.54		9.2	9.2	
24/06/10	1734-1746	30/Cloudy	Surface	1.0	29.3	30.2	30.3	6.68	6.66	91.6	91.9	4.58	4.56	4.71	9.0	9.0	9.4
				8.8	26.6	30.3		6.64		89.3		4.69			9.4		
			Bottom	17.0	26.0	31.2	30.7	6.47	6.48	89.6	89.5	4.71	4.70		9.4	9.4	
26/06/10	1905-1917	28/Rainy	Surface	1.0	29.3	31.2	28.8	6.30	6.31	87.1	87.0	4.78	4.77	5.06	9.6	9.6	10.3
				9.1	28.5	31.2		6.31		87.0		4.76			9.6		
			Bottom	17.1	25.2	30.2	30.2	6.16	6.12	84.5	84.3	4.81	4.80		9.6	9.6	
29/06/10	0848-0858	25/Fine	Surface	1.0	27.4	28.3	28.3	5.83	5.82	80.5	80.3	4.98	4.98	3.84	10.0	10.0	7.7
				8.9	23.2	29.1		5.72		78.9		5.02			10.0		
			Bottom	16.8	22.3	29.9	29.9	5.67	5.68	78.3	78.5	5.11	5.15		10.0	11.0	

Mid-Ebb Tide

Monitoring Station : C1

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)				
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average		
01/06/10	1330-1343	25/Cloudy	Surface	1.0	23.8	29.8	29.9	6.61	6.60	91.2	91.0	3.87	3.87	3.93	7.6	7.7	7.8		
						29.9		6.58		90.8		3.87			7.8				
			Middle	6.8	23.6	30.8	30.9	6.44	6.42	88.9	88.6	3.91	3.91		3.91	3.91		7.8	7.8
						30.9		6.40		88.3		3.90			7.8				
			Bottom	12.6	23.3	31.9	32.0	6.28	6.26	86.7	86.4	4.02	4.03		4.03	4.03		8.0	8.0
						32.0		6.24		86.1		4.03			8.0				
03/06/10	1430-1442	24/Cloudy	Surface	1.0	23.5	28.6	28.8	6.47	6.48	89.3	89.4	3.48	3.49	3.58	7.0	7.0	7.2		
						28.9		6.48		89.4		3.49			7.0				
			Middle	7.0	22.7	29.7	29.8	6.34	6.35	87.5	87.6	3.59	3.58		3.58	3.58		7.2	7.2
						29.8		6.35		87.6		3.57			7.2				
			Bottom	13.0	22.3	30.3	30.4	6.23	6.23	85.9	85.9	3.67	3.68		3.68	3.68		7.2	7.4
						30.4		6.22		85.8		3.68			7.5				
05/06/10	1532-1542	27/Cloudy	Surface	1.0	24.9	31.1	31.1	6.46	6.49	89.7	90.0	4.89	4.92	4.82	9.8	9.9	9.7		
						31.0		6.51		90.2		4.95			10.0				
			Middle	7.0	23.9	31.7	31.8	6.34	6.32	88.1	87.9	4.67	4.71		4.71	4.71		9.2	9.3
						31.8		6.30		87.6		4.74			9.4				
			Bottom	13.0	23.6	31.9	31.9	6.20	6.22	86.2	86.5	4.79	4.82		4.82	4.82		9.6	9.8
						31.9		6.24		86.7		4.85			10.0				
08/06/10	0901-0911	25/Cloudy	Surface	1.0	23.9	30.8	30.8	6.63	6.65	91.4	91.7	4.43	4.46	4.23	8.8	8.8	8.4		
						30.8		6.67		92.0		4.48			8.8				
			Middle	6.9	23.2	31.5	31.5	6.52	6.53	89.9	90.1	4.21	4.19		4.19	4.19		8.4	8.3
						31.5		6.54		90.2		4.17			8.2				
			Bottom	12.8	23.1	31.7	31.8	6.49	6.47	89.5	89.3	4.07	4.04		4.04	4.04		8.0	8.0
						31.8		6.45		89.0		4.01			8.0				
10/06/10	0958-1010	25/Drizzle	Surface	1.0	24.5	29.5	29.5	6.41	6.43	87.8	88.0	3.96	3.98	4.12	8.0	8.0	8.2		
						29.5		6.44		88.2		3.99			8.0				
			Middle	6.5	24.0	29.7	29.8	6.31	6.30	86.4	86.3	4.08	4.11		4.11	4.11		8.0	8.1
						29.8		6.29		86.1		4.14			8.2				
			Bottom	12.0	23.3	31.0	31.1	6.19	6.18	84.8	84.6	4.27	4.29		4.29	4.29		8.4	8.5
						31.1		6.16		84.3		4.30			8.5				
12/06/10	1115-1130	27/Cloudy	Surface	1.0	23.9	31.6	31.6	6.50	6.58	90.4	90.7	2.91	2.90	2.77	5.8	5.7	5.5		
						31.6		6.66		90.9		2.88			5.6				
			Middle	7.5	23.0	32.8	32.8	6.22	6.27	86.8	86.6	3.02	3.04		3.04	3.04		6.0	6.0
						32.8		6.31		86.4		3.06			6.0				
			Bottom	14.0	22.0	32.8	32.8	5.81	5.79	79.9	79.6	2.43	2.37		2.37	2.37		4.8	4.7
						32.8		5.76		79.3		2.30			4.5				
15/06/10	1255-1309	28/Drizzle	Surface	1.0	26.7	28.5	28.5	6.73	6.72	92.8	92.6	4.17	4.19	3.99	8.4	8.4	7.9		
						28.5		6.70		92.4		4.20			8.4				
			Middle	7.3	26.2	29.2	29.3	6.32	6.33	86.7	86.8	3.72	3.72		3.72	3.72		7.4	7.4
						29.3		6.33		86.8		3.71			7.4				
			Bottom	13.5	25.8	29.5	29.6	6.06	6.08	82.9	83.1	4.06	4.08		4.08	4.08		8.0	8.0
						29.6		6.09		83.3		4.10			8.0				
17/06/10	1500-1512	31/Fine	Surface	1.0	28.4	30.6	30.6	6.47	6.46	84.9	84.7	3.66	3.68	3.96	7.2	7.3	7.9		
						30.6		6.44		84.5		3.70			7.4				
			Middle	7.2	27.4	31.2	31.2	6.22	6.23	81.6	81.8	3.94	3.96		3.96	3.96		8.0	8.0
						31.2		6.24		81.9		3.97			8.0				
			Bottom	13.4	26.8	31.6	31.6	6.03	6.05	79.1	79.3	4.23	4.24		4.24	4.24		8.4	8.5
						31.6		6.06		79.5		4.25			8.5				
19/06/10	1645-1656	30/Cloudy	Surface	1.0	26.5	30.3	30.4	6.44	6.46	88.8	89.0	3.69	3.72	3.97	7.4	7.4	7.9		
						30.4		6.47		89.2		3.74			7.4				
			Middle	6.9	25.5	31.5	31.6	6.35	6.37	87.6	87.9	4.05	4.03		4.03	4.03		8.0	8.0
						31.6		6.39		88.1		4.01			8.0				
			Bottom	12.8	24.9	32.0	32.1	6.37	6.39	87.9	88.2	4.12	4.15		4.15	4.15		8.2	8.4
						32.1		6.41		88.4		4.18			8.5				
22/06/10	0829-0840	30/Cloudy	Surface	1.0	26.8	30.8	30.9	6.67	6.65	92.0	91.7	4.27	4.24	4.01	8.6	8.5	8.0		
						30.9		6.62		91.3		4.21			8.4				
			Middle	6.8	25.5	31.8	31.8	6.40	6.42	88.3	88.6	3.96	3.94		3.94	3.94		8.0	7.9
						31.7		6.44		88.8		3.91			7.8				
			Bottom	12.6	24.9	32.0	32.0	6.34	6.32	87.2	86.8	3.89	3.84		3.84	3.84		7.8	7.7
						31.9		6.30		86.3		3.79			7.5				
24/06/10	1052-1108	30/Rainy	Surface	1.0	25.2	26.2	26.3	6.38	6.44	83.9	83.0	2.10	2.13	2.13	4.2	4.2	4.2		
						26.3		6.49		82.1		2.16			4.2				
			Middle	6.8	24.1	26.9	27.1	6.29	6.27	82.1	82.1	2.11	2.11		2.11	2.11		4.2	4.2
						27.3		6.24		82.1		2.11			4.2				
			Bottom	12.6	23.9	28.9	29.1	6.20	6.18	80.5	80.3	2.12	2.15		2.15	2.15		4.2	4.1
						29.2		6.15		80.0		2.18			4.0				
26/06/10	1152-1204	28/Rainy	Surface	1.0	22.5	25.0	25.0	6.97	7.02	96.8	97.3	1.20	1.20	1.33	2.4	2.4	2.7		
						24.9		7.07		97.8		1.20			2.4				
			Middle	9.0	22.0	28.9	29.0	6.49	6.47	90.2	90.2	1.30	1.34		1.34	1.34		2.6	2.7
						29.1		6.45		90.1		1.37			2.8				
			Bottom	17.0	21.5	30.5	30.6	6.20	6.11	86.1	86.5	1.44	1.45		1.45	1.45		2.8	2.9
						30.6		6.02		86.8		1.45			3.0				
29/06/10	1230-1242	28/Cloudy	Surface	1.0	26.5	26.9	26.9	6.79	6.80	93.7	93.8	3.39	3.44	3.55	6.8	6.9	7.1		
						26.8		6.80		93.8		3.48			7.0				
			Middle	7.0	25.4	27.9	27.9	6.71	6.70	92.6	92.5	3.53	3.55		3.55	3.55		7.0	7.1
						27.9		6.69		92.3		3.57			7.2				
			Bottom	13.0	23.7	29.3	29.4	6.63	6.60	91.5	91.1	3.69	3.67		3.67	3.67		7.4	7.2
						29.4		6.57		90.7		3.65			7.0				



Monitoring Station : C2

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)					
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average			
01/06/10	1630-1642	25/Drizzle	Surface	1.0	23.9	30.2	30.1	6.71	6.70	92.6	92.5	3.28	3.30	3.61	6.5	6.6	7.2			
						30.0		6.69		92.3		3.31			6.6					
			Middle	7.2	23.7	31.0	30.9	6.51	6.50	89.8	89.6	3.67	3.66		3.67	3.66		7.2	7.3	7.2
						30.8		6.48		89.4		3.65			7.4					
			Bottom	13.4	23.5	31.7	31.8	6.13	6.16	84.6	85.0	3.84	3.88		3.84	3.88		7.6	7.7	7.6
						31.9		6.18		85.3		3.91			7.8					
03/06/10	1815-1824	24/Cloudy	Surface	1.0	23.5	29.0	28.9	6.47	6.48	89.3	89.4	3.49	3.47	4.07	7.0	7.0	7.1			
						28.7		6.48		89.4		3.45			7.0					
			Middle	7.4	22.7	29.7	29.8	6.30	6.30	86.9	86.8	3.54	3.56		3.54	3.56		7.0	7.0	7.0
						29.9		6.29		86.6		3.57			7.0					
			Bottom	13.8	22.3	30.5	30.4	6.23	6.24	85.9	86.0	3.69	5.18		3.69	5.18		7.2	7.3	7.2
						30.2		6.24		86.0		6.67			7.4					
05/06/10	1824-1839	28/Cloudy	Surface	1.0	25.1	31.4	31.4	6.18	6.16	85.9	85.6	4.81	4.85	4.86	9.5	9.7	9.7			
						31.4		6.14		85.3		4.88			9.8					
			Middle	6.0	24.2	31.7	31.8	6.03	6.01	83.8	83.5	4.93	4.96		4.93	4.96		10.0	10.0	10.0
						31.8		5.99		83.2		4.98			10.0					
			Bottom	11.0	23.7	32.0	32.0	6.01	5.99	83.5	83.2	4.76	4.78		4.76	4.78		9.4	9.5	9.4
						32.0		5.96		82.8		4.79			9.6					
08/06/10	1156-1208	25/Cloudy	Surface	1.0	24.2	30.9	30.9	6.50	6.52	89.7	90.0	5.92	5.90	5.58	11.0	11.0	11.0			
						30.9		6.54		90.2		5.87			11.0					
			Middle	8.1	23.6	31.6	31.6	6.29	6.27	86.8	86.5	5.64	5.62		5.64	5.62		11.0	11.0	11.0
						31.6		6.25		86.2		5.60			11.0					
			Bottom	15.2	23.4	31.8	31.9	6.24	6.22	86.1	85.8	5.25	5.23		5.25	5.23		11.0	11.0	11.0
						31.9		6.20		85.5		5.20			11.0					
10/06/10	1250-1303	25/Drizzle	Surface	1.0	24.7	29.5	29.5	6.36	6.35	87.1	86.9	3.81	3.82	3.97	7.5	7.6	7.9			
						29.5		6.33		86.7		3.83			7.6					
			Middle	7.4	24.0	29.9	29.9	6.24	6.22	85.4	85.2	3.98	4.00		3.98	4.00		8.0	8.0	8.0
						29.8		6.20		84.9		4.01			8.0					
			Bottom	13.8	23.3	31.1	31.2	6.17	6.15	84.5	84.2	4.07	4.09		4.07	4.09		8.2	8.2	8.2
						31.2		6.13		83.9		4.11			8.2					
12/06/10	0945-1000	27/Cloudy	Surface	1.0	24.3	31.7	31.7	6.34	6.33	88.1	88.2	3.44	3.47	3.50	7.0	7.0	7.1			
						31.7		6.32		88.2		3.49			7.0					
			Middle	7.5	23.4	32.6	32.6	6.02	6.02	83.6	83.7	3.45	3.47		3.45	3.47		7.0	7.0	7.0
						32.6		6.01		83.7		3.49			7.2					
			Bottom	14.0	22.7	32.6	32.7	5.89	5.78	77.9	78.0	3.60	3.58		3.60	3.58		7.2	7.2	7.2
						32.8		5.66		78.0		3.55			7.2					
15/06/10	1559-1615	28/Drizzle	Surface	1.0	26.8	28.4	28.5	6.59	6.59	90.9	90.9	3.76	3.78	4.23	7.5	7.6	8.5			
						28.5		6.58		90.8		3.80			7.6					
			Middle	8.4	26.0	29.1	29.2	6.35	6.34	87.1	86.9	4.26	4.27		4.26	4.27		8.6	8.6	8.6
						29.2		6.32		86.7		4.28			8.6					
			Bottom	15.8	25.4	29.6	29.7	6.10	6.11	83.4	83.6	4.65	4.65		4.65	4.65		9.4	9.4	9.4
						29.7		6.12		83.7		4.64			9.4					
17/06/10	1753-1803	31/Fine	Surface	1.0	26.5	30.8	30.8	6.29	6.31	82.5	82.8	4.11	4.09	3.87	8.0	8.1	7.7			
						30.8		6.33		83.1		4.07			8.2					
			Middle	8.2	27.7	31.2	31.2	6.10	6.09	80.1	79.9	3.84	3.83		3.84	3.83		7.6	7.6	7.6
						31.2		6.07		79.7		3.81			7.6					
			Bottom	15.4	27.2	31.8	31.8	5.96	5.94	78.2	78.0	3.70	3.69		3.70	3.69		7.4	7.3	7.4
						31.8		5.92		77.7		3.67			7.2					
19/06/10	1950-2003	30/Cloudy	Surface	1.0	26.2	30.5	30.5	6.58	6.56	90.8	90.5	4.99	4.96	5.05	10.0	10.0	10.3			
						30.4		6.54		90.2		4.92			10.0					
			Middle	7.8	25.2	31.7	31.8	6.21	6.24	85.0	85.4	5.06	5.04		5.06	5.04		10.0	10.0	10.0
						31.8		6.26		85.7		5.01			10.0					
			Bottom	14.6	24.8	32.1	32.1	6.07	6.06	83.1	82.9	5.15	5.17		5.15	5.17		11.0	11.0	11.0
						32.0		6.04		82.7		5.19			11.0					
22/06/10	1120-1133	30/Cloudy	Surface	1.0	26.8	31.0	31.0	6.62	6.64	91.3	91.5	4.60	4.62	4.75	9.0	9.1	9.4			
						31.0		6.65		91.7		4.64			9.2					
			Middle	7.9	25.6	31.9	31.9	6.44	6.42	88.8	88.6	4.88	4.84		4.88	4.84		9.6	9.6	9.6
						31.9		6.40		88.3		4.79			9.6					
			Bottom	14.8	25.1	32.1	32.1	6.19	6.17	84.8	84.5	4.79	4.78		4.79	4.78		9.6	9.5	9.6
						32.0		6.15		84.2		4.77			9.4					
24/06/10	0932-0945	30/Rainy	Surface	1.0	25.2	26.2	26.4	6.57	6.58	91.2	91.4	2.37	2.39	2.81	5.0	4.9	5.6			
						26.5		6.59		91.6		2.40			4.8					
			Middle	8.1	24.3	28.9	28.9	6.30	6.34	86.9	87.0	2.90	2.93		2.90	2.93		5.8	5.8	5.8
						28.9		6.38		87.0		2.95			5.8					
			Bottom	15.2	22.8	30.0	30.2	6.15	6.17	85.5	85.4	3.11	3.11		3.11	3.11		6.2	6.2	6.2
						30.3		6.19		85.2		3.11			6.2					
26/06/10	1020-1035	28/Rainy	Surface	1.0	23.8	24.5	24.6	6.98	6.94	97.2	97.1	1.29	1.30	1.55	2.5	2.6	2.8			
						24.6		6.90		97.0		1.30			2.6					
			Middle	9.5	23.0	29.2	29.4	6.45	6.43	89.5	89.6	1.40	1.42		1.40	1.42		2.8	2.8	2.8
						29.5		6.40		89.6		1.44			2.8					
			Bottom	18.0	22.5	31.3	31.2	6.12	6.07	85.0	85.3	1.95	1.94		1.95	1.94		3.0	3.0	3.0
						31.0		6.02		85.6		1.92			3.0					
29/06/10	1530-1545	29/Cloudy	Surface	1.0	26.4	26.8	26.9	6.63	6.61	91.5	91.2	3.47	3.46	3.56	7.0	6.9	7.1			
						26.9		6.59		90.9		3.44			6.8					
			Middle	7.4	25.3	27.8	27.8	6.49	6.51	89.6	89.8	3.55	3.57		3.55	3.57		7.0	7.1	7.0
						27.8		6.52		90.0		3.59			7.2					
			Bottom	13.8	23.8	29.3	29.4	6.43	6.44	88.7	88.9	3.64	3.66		3.64	3.66		7.2	7.3	7.2
						29.4		6.45		89.0		3.67			7.4					

Monitoring Station : C3

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)			
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	
01/06/10	1356-1406	25/Cloudy	Surface	1.0	24.0	30.2	30.2	6.68	6.69	92.2	92.3	3.49	3.51	3.74	7.0	7.0	7.4	
						30.2		6.69		92.3		3.53			7.0			
			Middle	7.9	23.8	30.7	30.8	6.50	6.49	89.7	89.5	3.68	3.69		3.74	7.2		7.3
						30.8		6.47		89.3		3.70			7.4			
			Bottom	14.8	23.5	32.0	32.0	6.13	6.14	84.6	84.8	4.01	4.02		4.02	8.0		8.0
						32.0		6.15		84.9		4.02			8.0			
03/06/10	1455-1508	24/Cloudy	Surface	1.0	23.3	28.8	28.9	6.48	6.48	89.4	89.4	3.47	3.48	3.57	7.0	7.0	7.2	
						28.9		6.47		89.3		3.48			7.0			
			Middle	8.4	22.7	29.6	29.7	6.31	6.32	87.1	87.3	3.57	3.57		3.57	7.2		7.2
						29.7		6.33		87.4		3.56			7.2			
			Bottom	15.8	22.4	30.5	30.6	6.21	6.22	85.7	85.8	3.68	3.68		3.68	7.4		7.4
						30.7		6.22		85.8		3.68			7.4			
05/06/10	1550-1600	27/Cloudy	Surface	1.0	24.9	31.2	31.2	6.49	6.51	90.1	90.4	4.46	4.43	4.33	8.8	8.8	8.6	
						31.2		6.52		90.6		4.39			8.8			
			Middle	6.4	24.0	31.8	31.8	6.30	6.29	87.5	87.4	4.28	4.31		4.31	8.6		8.6
						31.8		6.28		87.2		4.33			8.6			
			Bottom	11.8	23.5	32.0	32.0	6.18	6.19	85.9	86.1	4.25	4.26		4.26	8.4		8.4
						31.9		6.20		86.2		4.27			8.4			
08/06/10	0921-0933	25/Cloudy	Surface	1.0	23.8	30.9	30.9	6.69	6.67	92.9	92.7	5.57	5.54	5.28	11.0	11.0	10.7	
						30.8		6.65		92.4		5.50			11.0			
			Middle	6.4	23.3	31.5	31.5	6.58	6.59	91.4	91.6	4.95	4.97		4.97	10.0		10.0
						31.4		6.60		91.7		4.99			10.0			
			Bottom	11.8	23.1	31.7	31.7	6.43	6.45	88.7	89.0	5.30	5.33		5.33	11.0		11.0
						31.7		6.47		89.2		5.35			11.0			
10/06/10	1020-1032	25/Drizzle	Surface	1.0	24.6	29.3	29.4	6.37	6.38	87.2	87.4	3.97	3.99	4.14	8.0	8.0	8.3	
						29.4		6.39		87.5		4.01			8.0			
			Middle	6.3	24.1	29.9	16.5	6.24	6.23	85.4	85.2	4.11	4.13		4.13	8.2		8.2
						3.1		6.21		85.0		4.14			8.2			
			Bottom	11.6	23.3	31.1	31.1	6.11	6.10	83.7	83.6	4.32	4.31		4.31	8.6		8.6
						31.1		6.09		83.4		4.29			8.6			
12/06/10	1144-1156	27/Cloudy	Surface	1.0	24.0	32.5	32.5	6.41	6.40	89.9	89.9	1.90	1.95	2.34	4.0	4.0	4.7	
						32.5		6.39		89.8		1.99			4.0			
			Middle	7.0	23.3	32.8	32.8	6.05	6.08	83.9	83.8	2.41	2.46		2.46	4.8		4.9
						32.8		6.10		83.7		2.50			4.8			
			Bottom	13.0	22.1	32.8	32.9	5.80	5.82	80.6	80.4	2.55	2.62		2.62	5.2		5.3
						32.9		5.83		80.2		2.68			5.4			
15/06/10	1320-1331	28/Drizzle	Surface	1.0	26.7	28.5	28.6	6.56	6.57	90.5	90.7	3.84	3.85	4.27	7.6	7.7	8.5	
						28.6		6.58		90.8		3.85			7.8			
			Middle	6.8	26.1	29.3	29.4	6.29	6.29	86.3	86.2	4.35	4.38		4.38	8.8		8.8
						29.4		6.28		86.1		4.40			8.8			
			Bottom	12.6	25.6	29.7	29.8	6.10	6.11	83.4	83.6	4.56	4.59		4.59	9.0		9.1
						29.8		6.12		83.7		4.61			9.2			
17/06/10	1525-1537	31/Fine	Surface	1.0	28.3	30.5	30.5	6.38	6.40	83.7	84.0	3.59	3.61	3.86	7.2	7.2	7.7	
						30.5		6.42		84.3		3.62			7.2			
			Middle	6.6	27.6	31.1	31.1	6.22	6.24	81.6	81.9	3.88	3.89		3.89	7.6		7.7
						31.1		6.26		82.2		3.89			7.8			
			Bottom	12.2	26.9	31.5	31.5	6.07	6.09	79.7	79.9	4.07	4.09		4.09	8.0		8.1
						31.5		6.10		80.1		4.10			8.2			
19/06/10	1706-1718	30/Cloudy	Surface	1.0	26.5	30.4	30.4	6.50	6.49	89.7	89.5	4.04	4.08	3.94	8.0	8.1	7.9	
						30.3		6.47		89.2		4.12			8.2			
			Middle	6.3	25.4	31.6	31.6	6.40	6.42	88.3	88.6	3.89	3.85		3.85	7.8		7.7
						31.5		6.44		88.8		3.81			7.6			
			Bottom	11.6	24.9	32.0	32.0	6.20	6.19	84.9	84.7	3.93	3.89		3.89	7.8		7.8
						32.0		6.17		84.5		3.85			7.8			
22/06/10	0850-0900	30/Cloudy	Surface	1.0	26.7	30.9	30.9	6.74	6.76	93.0	93.3	4.90	4.86	5.01	9.8	9.7	10.2	
						30.8		6.78		93.5		4.82			9.6			
			Middle	6.4	25.4	31.8	31.8	6.52	6.50	89.9	89.6	5.03	5.05		5.05	10.0		10.0
						31.8		6.47		89.2		5.07			10.0			
			Bottom	11.8	24.8	32.0	32.0	6.60	6.57	91.0	90.6	5.15	5.12		5.12	11.0		11.0
						32.0		6.54		90.2		5.09			11.0			
24/06/10	1119-1131	30/Rainy	Surface	1.0	25.0	26.0	26.0	6.84	6.86	94.4	94.2	2.14	2.15	2.34	4.2	4.3	4.6	
						26.0		6.88		94.0		2.16			4.4			
			Middle	6.5	23.9	28.0	28.0	6.86	6.73	93.2	93.1	2.19	2.30		2.30	4.4		4.4
						27.9		6.60		92.9		2.40			4.4			
			Bottom	12.0	23.2	29.3	29.2	6.36	6.33	90.0	90.1	2.49	2.58		2.58	5.0		5.1
						29.1		6.30		90.2		2.66			5.2			
26/06/10	1214-1228	28/Rainy	Surface	1.0	22.9	24.7	24.8	7.02	7.04	97.5	97.6	1.22	1.24	1.77	2.4	2.4	3.5	
						24.9		7.05		97.7		1.26			2.4			
			Middle	6.8	22.2	29.0	29.1	6.54	6.56	90.9	90.8	2.05	2.08		2.08	4.0		4.1
						29.2		6.58		90.6		2.11			4.2			
			Bottom	12.5	21.5	29.9	30.3	6.12	6.06	85.0	85.0	2.02	1.99		1.99	4.0		4.0
						30.6		6.00		85.0		1.95			4.0			
29/06/10	1255-1308	28/Cloudy	Surface	1.0	26.4	26.8	26.8	6.92	6.90	95.4	95.2	3.48	3.51	3.62	7.0	7.0	7.2	
						26.8		6.88		94.9		3.54			7.0			
			Middle	6.4	25.3	27.8	27.9	6.78	6.76	93.6	93.3	3.63	3.64		3.64	7.2		7.2
						27.9		6.73		92.9		3.65			7.2			
			Bottom	11.8	23.6	29.4	29.5	6.66	6.67	91.9	92.1	3.73	3.72		3.72	7.4		7.4
						29.5		6.68		92.2		3.71			7.4			

Monitoring Station : C4

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)						
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average				
01/06/10	1605-1618	25/Drizzle	Surface	1.0	24.0	29.9	30.0	6.67	6.64	92.0	91.5	3.27	3.29	3.60	6.6	6.6	7.2				
						30.1		6.60		91.0		3.30			6.6						
			Middle	7.9	23.8	30.8	30.9	6.49	6.47	89.6	89.3	3.58	3.62		7.0	7.1		7.2	7.1	7.2	
						30.9		6.44		88.9		3.62			7.2						
			Bottom	14.8	23.5	32.0	31.9	6.27	6.25	86.5	86.2	3.89	3.91		7.6	7.8		7.8	7.8	7.8	7.8
						31.8		6.22		85.8		3.92			7.6						
03/06/10	1757-1806	24/Cloudy	Surface	1.0	23.5	28.8	28.9	6.48	6.49	89.4	89.5	3.48	3.46	3.57	7.0	6.9	7.1				
						28.9		6.49		89.5		3.44			6.8						
			Middle	8.0	22.8	30.0	29.9	6.30	6.29	86.9	86.8	3.57	3.53		7.0	7.0		7.0	7.0	7.0	
						29.8		6.28		86.7		3.53			7.0						
			Bottom	15.0	22.4	30.5	30.6	6.22	6.22	85.8	85.8	3.68	3.69		7.2	7.4		7.4	7.4	7.4	7.4
						30.6		6.21		85.7		3.70			7.5						
05/06/10	1755-1808	28/Cloudy	Surface	1.0	25.0	31.3	31.4	6.13	6.11	85.2	84.9	4.73	4.76	4.88	9.6	9.5	9.7				
						31.4		6.08		84.5		4.79			9.4						
			Middle	7.9	24.2	31.7	31.7	6.05	6.03	84.1	83.8	4.91	4.88		9.8	9.7		9.7	9.7	9.7	
						31.7		6.01		83.5		4.88			9.6						
			Bottom	14.8	23.7	32.0	32.0	5.98	5.96	83.1	82.8	4.98	5.00		10.0	10.0		10.0	10.0	10.0	10.0
						31.9		5.94		82.5		5.01			10.0						
08/06/10	1136-1148	25/Cloudy	Surface	1.0	24.2	30.9	30.9	6.56	6.55	91.1	90.9	5.70	5.72	5.50	11.0	11.0	11.0				
						30.8		6.53		90.7		5.74			11.0						
			Middle	7.9	23.6	31.6	31.6	6.17	6.19	85.1	85.3	5.39	5.37		11.0	11.0		11.0	11.0	11.0	
						31.5		6.20		85.5		5.34			11.0						
			Bottom	14.8	23.3	31.9	31.9	6.18	6.17	85.2	85.0	5.44	5.42		11.0	11.0		11.0	11.0	11.0	11.0
						31.8		6.15		84.8		5.39			11.0						
10/06/10	1228-1240	25/Drizzle	Surface	1.0	24.5	29.5	29.6	6.31	6.33	86.4	86.6	3.79	3.82	3.95	7.6	7.6	7.9				
						29.6		6.34		86.8		3.84			7.6						
			Middle	7.9	24.0	30.0	30.0	6.27	6.25	85.8	85.6	3.95	3.97		8.0	8.0		8.0	8.0	8.0	
						30.0		6.23		85.3		3.99			8.0						
			Bottom	14.8	23.3	31.0	31.0	6.20	6.19	84.9	84.7	4.05	4.07		8.0	8.0		8.0	8.0	8.0	8.0
						30.9		6.17		84.5		4.08			8.0						
12/06/10	1420-1435	27/Cloudy	Surface	1.0	24.5	31.3	31.4	6.29	6.30	87.7	87.5	2.91	2.91	2.84	5.8	5.8	6.0				
						31.4		6.30		87.3		2.90			5.8						
			Middle	8.0	23.6	31.9	32.1	5.81	5.90	81.0	81.3	2.99	3.02		6.0	6.0		6.0	6.0	6.0	
						32.2		5.99		81.5		3.05			6.0						
			Bottom	15.0	23.0	32.6	32.6	5.90	5.87	81.5	80.9	2.07	2.59		6.2	6.1		6.1	6.1	6.1	6.1
						32.6		5.83		80.2		3.10			6.0						
15/06/10	1532-1545	28/Drizzle	Surface	1.0	26.7	28.5	28.6	6.67	6.66	92.0	91.9	4.62	4.64	4.38	9.2	9.3	8.8				
						28.6		6.65		91.7		4.65			9.4						
			Middle	8.3	26.1	29.0	29.0	6.42	6.42	88.1	88.0	4.09	4.11		8.2	8.3		8.3	8.3	8.3	
						29.0		6.41		87.9		4.13			8.4						
			Bottom	15.5	25.5	29.5	29.6	6.02	6.04	82.3	82.5	4.37	4.39		8.8	8.9		8.9	8.9	8.9	8.9
						29.6		6.05		82.7		4.41			9.0						
17/06/10	1735-1745	31/Fine	Surface	1.0	28.5	30.7	30.7	6.41	6.41	84.1	84.1	4.22	4.20	3.79	8.4	8.4	7.6				
						30.7		6.40		84.0		4.18			8.4						
			Middle	8.0	27.6	31.3	31.3	6.39	6.38	83.9	83.8	3.76	3.72		7.4	7.4		7.4	7.4	7.4	
						31.3		6.37		83.6		3.68			7.4						
			Bottom	15.0	27.1	31.8	31.8	6.31	6.32	82.8	82.9	3.44	3.46		6.8	6.9		6.9	6.9	6.9	6.9
						31.8		6.32		82.9		3.47			7.0						
19/06/10	1927-1940	30/Cloudy	Surface	1.0	26.3	30.5	30.5	6.49	6.51	89.5	89.7	4.75	4.77	4.47	9.4	9.5	8.9				
						30.5		6.52		89.9		4.79			9.6						
			Middle	7.9	25.5	31.8	31.8	6.15	6.17	84.2	84.4	4.21	4.19		8.4	8.3		8.3	8.3	8.3	
						31.8		6.18		84.6		4.17			8.2						
			Bottom	14.8	24.7	32.1	32.1	6.14	6.16	84.1	84.4	4.47	4.44		9.0	9.0		9.0	9.0	9.0	9.0
						32.1		6.18		84.6		4.40			9.0						
22/06/10	1100-1113	30/Cloudy	Surface	1.0	26.8	31.0	31.0	6.56	6.54	90.5	90.2	4.29	4.33	4.42	8.6	8.7	8.9				
						31.0		6.52		89.9		4.36			8.8						
			Middle	7.8	25.7	31.8	31.9	6.31	6.30	86.4	86.2	4.47	4.44		9.0	8.9		8.9	8.9	8.9	
						31.9		6.28		86.0		4.40			8.8						
			Bottom	14.6	25.1	32.1	32.1	6.27	6.29	85.8	86.1	4.54	4.51		9.0	9.0		9.0	9.0	9.0	9.0
						32.1		6.30		86.3		4.47			9.0						
24/06/10	1345-1358	30/Rainy	Surface	1.0	23.7	28.4	28.4	6.44	6.45	86.9	86.7	2.11	2.11	1.98	4.2	4.2	4.1				
						28.4		6.46		86.4		2.10			4.2						
			Middle	8.0	23.5	29.5	29.0	6.48	6.44	86.0	85.8	1.91	1.93		4.0	4.0		4.0	4.0	4.0	4.0
						28.5		6.39		85.5		1.95			4.0						
			Bottom	15.0	22.2	30.6	30.7	6.16	6.14	82.1	82.3	1.99	1.92		4.0	4.0		4.0	4.0	4.0	4.0
						30.8		6.12		82.4		1.84			4.0						
26/06/10	1455-1508	28/Rainy	Surface	1.0	22.6	25.9	25.9	6.95	6.96	90.5	91.5	2.00	1.78	1.81	4.0	4.0	3.8				
						25.9		6.96		92.5		1.55			4.0						
			Middle	9.4	22.4	28.6	28.6	6.70	6.70	90.1	91.1	1.74	1.75		3.4	3.4		3.4	3.4	3.4	
						28.6		6.70		92.0		1.76			3.4						
			Bottom	17.8	21.8	30.1	30.1	6.64	6.62	90.2	90.1	1.92	1.91		3.8	3.9		3.9	3.9	3.9	3.9
						30.0		6.60		90.0		1.90			4.0						
29/06/10	1505-1519	29/Cloudy	Surface	1.0	26.4	26.8	26.8	6.58	6.60	90.8	91.0	3.50	3.49	3.61	7.0	7.0	7.2				
						26.8		6.61		91.2		3.48			7.0						
			Middle	8.0	25.4	27.9	27.9	6.52	6.52	89.9	89.9	3.58	3.63		7.2	7.2		7.2	7.2	7.2	
						27.9		6.51		89.8		3.67			7.2						
			Bottom	15.0	23.7	29.3	29.3	6.48	6.46	89.4	89.1	3.69	3.72		7.4	7.5		7.5	7.5	7.5	7.5
						29.3		6.43		88.7		3.75			7.5						

Monitoring Station : R5

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
01/06/10	1422-1434	25/Cloudy	Surface	1.0	23.9	30.1	30.1	6.74	6.75	93.0	93.1	4.88	4.84	4.87	9.5	9.5	9.6
						30.1		6.75		93.2		4.80			9.4		
			Middle	8.2	23.7	30.8	30.9	6.51	6.53	89.8	90.1	4.84	4.84		9.6	9.6	
						31.0		6.54		90.3		4.83			9.6		
			Bottom	15.4	23.4	32.0	32.0	6.23	6.24	86.0	86.2	4.90	4.94		9.8	9.8	
						32.0		6.25		86.3		4.98			9.8		
03/06/10	1523-1535	24/Cloudy	Surface	1.0	23.9	29.1	29.2	6.49	6.49	89.6	89.5	3.47	3.44	3.58	7.0	6.9	7.1
						29.2		6.48		89.4		3.41			6.8		
			Middle	8.3	22.8	29.3	29.4	6.28	6.29	86.7	86.8	3.57	3.61		7.2	7.1	
						29.5		6.30		86.9		3.64			7.2		
			Bottom	15.6	22.4	30.1	30.2	6.21	6.21	85.7	85.7	3.72	3.70		7.4	7.3	
						30.2		6.20		85.6		3.67			7.2		
05/06/10	1608-1620	27/Cloudy	Surface	1.0	24.5	31.1	31.1	6.41	6.43	89.1	89.3	4.79	4.82	4.90	9.5	9.6	9.8
						31.0		6.44		89.5		4.85			9.6		
			Middle	7.7	23.7	31.4	31.5	6.19	6.22	86.0	86.4	4.89	4.90		9.8	9.7	
						31.5		6.25		86.8		4.91			9.8		
			Bottom	15.4	23.5	31.7	31.8	6.13	6.11	85.2	85.0	4.97	4.99		10.0	10.0	
						31.8		6.09		84.7		5.01			10.0		
08/06/10	0947-0959	25/Cloudy	Surface	1.0	23.9	30.6	30.7	6.60	6.59	91.7	91.5	5.02	5.05	5.33	10.0	10.0	10.7
						30.7		6.57		91.3		5.08			10.0		
			Middle	8.3	23.5	31.3	31.4	6.41	6.43	89.0	89.3	5.47	5.44		11.0	11.0	
						31.4		6.45		89.6		5.40			11.0		
			Bottom	15.6	23.1	31.4	31.5	6.39	6.37	88.1	87.8	5.53	5.51		11.0	11.0	
						31.5		6.34		87.4		5.48			11.0		
10/06/10	1045-1055	25/Drizzle	Surface	1.0	24.6	29.5	29.5	6.26	6.25	85.7	85.5	4.38	4.39	4.62	9.0	8.9	9.2
						29.4		6.23		85.3		4.40			8.8		
			Middle	8.3	24.1	29.9	29.9	6.14	6.13	84.1	83.9	4.67	4.66		9.2	9.2	
						29.9		6.11		83.7		4.64			9.2		
			Bottom	15.6	23.4	30.9	31.0	6.06	6.04	83.0	82.7	4.79	4.80		9.6	9.6	
						31.0		6.01		82.3		4.81			9.6		
12/06/10	1205-1220	27/Cloudy	Surface	1.0	24.3	32.2	32.2	6.25	6.26	85.4	85.5	2.90	2.95	3.05	6.0	6.0	6.1
						32.2		6.26		85.5		3.00			6.0		
			Middle	8.4	23.8	32.3	32.3	6.00	5.95	82.9	82.6	3.03	3.05		6.2	6.1	
						32.3		5.89		82.2		3.07			6.2		
			Bottom	10.8	22.6	32.6	32.6	5.66	5.66	78.9	78.6	3.11	3.15		6.2	6.3	
						32.6		5.66		78.2		3.18			6.4		
15/06/10	1338-1350	28/Drizzle	Surface	1.0	26.8	28.5	28.6	6.49	6.50	89.5	89.7	4.11	4.11	4.17	8.0	8.1	8.3
						28.6		6.51		89.8		4.10			8.2		
			Middle	8.8	26.1	29.4	29.4	6.22	6.24	85.3	85.5	3.76	3.78		7.4	7.5	
						29.4		6.25		85.7		3.80			7.6		
			Bottom	16.5	25.5	29.7	29.8	6.04	6.05	82.6	82.7	4.62	4.63		9.2	9.2	
						29.8		6.05		82.7		4.64			9.2		
17/06/10	1553-1603	31/Fine	Surface	1.0	28.4	30.5	30.5	6.45	6.47	84.6	84.9	3.95	3.94	4.14	8.0	8.0	8.3
						30.5		6.49		85.2		3.92			8.0		
			Middle	8.6	27.7	31.1	31.1	6.21	6.23	81.5	81.7	4.13	4.15		8.2	8.3	
						31.1		6.24		81.9		4.16			8.4		
			Bottom	16.1	27.0	31.6	31.6	6.03	6.05	79.1	79.4	4.34	4.35		8.6	8.6	
						31.6		6.07		79.7		4.36			8.6		
19/06/10	1732-1744	30/Cloudy	Surface	1.0	26.5	30.3	30.4	6.36	6.35	87.7	87.5	5.47	5.44	5.26	11.0	11.0	10.8
						30.4		6.33		87.3		5.40			11.0		
			Middle	8.3	25.6	31.6	31.6	6.15	6.13	84.2	84.0	5.21	5.24		11.0	11.0	
						31.5		6.11		83.7		5.27			11.0		
			Bottom	15.6	25.0	31.9	32.0	6.19	6.17	84.8	84.5	5.07	5.11		10.0	10.5	
						32.0		6.15		84.2		5.14			11.0		
22/06/10	0915-0927	30/Cloudy	Surface	1.0	26.8	30.9	30.9	6.62	6.61	91.3	91.1	5.24	5.22	5.46	11.0	11.0	11.0
						30.8		6.59		90.9		5.20			11.0		
			Middle	8.3	25.7	31.6	31.7	6.43	6.42	88.7	88.6	5.60	5.62		11.0	11.0	
						31.7		6.41		88.4		5.64			11.0		
			Bottom	15.6	25.0	32.0	32.1	6.37	6.36	87.2	87.1	5.57	5.54		11.0	11.0	
						32.1		6.35		86.9		5.50			11.0		
24/06/10	1135-1149	30/Rainy	Surface	1.0	24.5	25.9	25.6	6.77	6.75	95.0	94.7	2.15	2.19	2.69	4.5	4.5	5.4
						25.3		6.72		94.4		2.22			4.4		
			Middle	7.6	24.1	25.9	26.4	6.54	6.55	92.7	92.6	2.81	2.83		5.6	5.7	
						26.8		6.55		92.5		2.84			5.8		
			Bottom	14.2	23.2	28.4	28.5	6.29	6.25	90.0	89.7	3.07	3.05		6.2	6.1	
						28.5		6.21		89.3		3.02			6.0		
26/06/10	1235-1250	28/Rainy	Surface	1.0	23.0	24.9	24.8	6.69	6.74	92.9	92.5	2.44	2.44	3.10	5.0	4.9	6.2
						24.6		6.78		92.1		2.43			4.8		
			Middle	5.0	22.6	26.4	26.4	6.54	6.50	90.9	90.9	3.62	3.61		7.2	7.2	
						26.4		6.45		90.9		3.60			7.2		
			Bottom	9.0	22.1	29.0	28.9	6.20	6.20	86.1	86.1	3.24	3.25		6.4	6.4	
						28.8		6.20		86.1		3.25			6.4		
29/06/10	1323-1335	28/Cloudy	Surface	1.0	26.4	26.7	26.8	6.74	6.71	93.0	92.6	4.17	4.18	4.27	8.5	8.5	8.6
						26.8		6.68		92.2		4.19			8.4		
			Middle	8.3	25.3	27.9	27.9	6.61	6.59	91.2	91.0	4.28	4.26		8.6	8.5	
						27.8		6.57		90.7		4.23			8.4		
			Bottom	15.6	23.8	29.5	29.5	6.50	6.52	89.7	90.0	4.39	4.37		8.8	8.8	
						29.5		6.54		90.3		4.35			8.8		

Mid-Ebb Tide

Monitoring Station : R6

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
01/06/10	1508-1517	25/Cloudy	Surface	1.0	23.9	30.0	30.0	6.49	6.47	89.6	89.3	4.02	4.03	4.23	8.0	8.0	8.4
						29.9		6.44		88.9		4.04			8.0		
			Middle	7.6	23.7	30.9	30.9	6.21	6.21	85.7	85.7	4.15	4.16		4.17		
30.9	6.20	85.6				4.17		8.4									
03/06/10	1708-1718	24/Cloudy	Surface	1.0	23.7	28.9	28.8	6.46	6.47	89.7	89.5	3.49	3.45	3.63	7.0	6.9	7.3
						28.7		6.47		89.3		3.41			6.8		
			Middle	7.8	22.9	29.5	29.4	6.27	6.28	86.5	86.6	3.48	3.49		3.50		
29.3	6.28	86.7				3.50		7.0									
05/06/10	1655-1708	27/Cloudy	Surface	1.0	24.6	31.2	31.2	6.41	6.44	89.1	89.4	5.72	5.75	5.71	11.0	11.0	11.2
						31.2		6.46		89.7		5.78			11.0		
			Middle	7.7	23.7	31.5	31.5	6.25	6.27	86.8	87.1	5.56	5.52		5.48		
31.4	6.29	87.4				5.48		11.0									
08/06/10	1040-1052	25/Cloudy	Surface	1.0	24.0	30.9	30.9	6.50	6.52	90.3	90.6	6.04	6.01	5.73	12.0	11.5	11.2
						30.9		6.54		90.9		5.98			11.0		
			Middle	7.5	23.4	31.5	31.5	6.36	6.35	87.7	87.5	5.48	5.52		5.56		
31.5	6.33	87.3				5.56		11.0									
10/06/10	1132-1142	25/Drizzle	Surface	1.0	24.6	29.5	29.6	6.21	6.20	85.0	84.9	4.39	4.41	4.64	8.8	8.8	9.2
						29.6		6.19		84.8		4.42			8.8		
			Middle	7.9	24.1	29.9	30.0	6.10	6.08	83.5	83.3	4.63	4.67		4.70		
30.1	6.06	83.0				4.70		9.4									
12/06/10	1312-1325	27/Cloudy	Surface	1.0	24.2	31.4	31.4	5.90	5.93	79.9	79.5	5.49	5.48	5.75	11.0	11.0	11.3
						31.4		5.96		79.0		5.46			11.0		
			Middle	7.0	23.2	31.7	31.7	5.70	5.72	76.7	76.5	5.88	5.74		5.59		
31.7	5.73	76.2				5.59		11.0									
15/06/10	1428-1440	28/Drizzle	Surface	1.0	26.5	28.5	28.6	6.61	6.62	91.2	91.4	2.92	2.94	3.15	6.0	6.0	6.3
						28.6		6.63		91.5		2.95			6.0		
			Middle	8.3	26.0	29.4	29.5	6.44	6.43	88.3	88.2	3.26	3.28		3.30		
29.5	6.42	88.1				3.30		6.6									
17/06/10	1648-1658	31/Fine	Surface	1.0	28.6	30.5	30.5	6.40	6.38	84.0	83.8	4.36	4.37	4.25	8.8	8.8	8.5
						30.5		6.36		83.5		4.38			8.8		
			Middle	8.0	27.8	31.2	31.2	6.21	6.22	81.5	81.7	4.27	4.26		4.25		
31.2	6.23	81.8				4.25		8.6									
19/06/10	1825-1837	30/Cloudy	Surface	1.0	26.4	30.4	30.4	6.46	6.45	89.1	88.9	5.19	5.22	5.00	11.0	11.0	10.2
						30.4		6.43		88.7		5.24			11.0		
			Middle	7.9	25.5	31.6	31.6	6.29	6.28	86.1	85.9	4.96	4.93		4.90		
31.5	6.26	85.7				4.90		9.8									
22/06/10	1000-1010	30/Cloudy	Surface	1.0	26.8	30.9	30.9	6.59	6.57	90.9	90.6	5.21	5.23	5.24	11.0	11.0	10.7
						30.9		6.54		90.2		5.25			11.0		
			Middle	7.7	25.5	31.8	31.8	6.21	6.20	85.0	84.9	5.30	5.29		5.28		
31.7	6.19	84.8				5.28		11.0									
24/06/10	1235-1248	30/Rainy	Surface	1.0	24.7	28.9	28.9	6.49	6.49	88.2	88.4	2.32	2.32	2.60	4.6	4.6	5.1
						28.9		6.49		88.6		2.32			4.6		
			Middle	8.0	24.1	28.0	28.0	6.09	6.12	80.1	80.6	2.62	2.64		2.65		
28.0	6.15	81.0				2.65		5.2									
26/06/10	1346-1400	28/Rainy	Surface	1.0	22.9	24.2	24.1	6.30	6.35	88.9	89.0	4.02	4.01	3.59	8.0	8.0	7.2
						23.9		6.39		89.0		4.00			8.0		
			Middle	8.6	22.5	24.9	25.0	6.21	6.23	86.5	86.6	3.29	3.30		3.30		
25.0	6.25	86.7				3.30		6.6									
29/06/10	1408-1418	28/Cloudy	Surface	1.0	26.4	26.8	26.9	6.77	6.76	93.4	93.2	4.27	4.24	4.36	8.6	8.5	8.7
						26.9		6.74		93.0		4.21			8.4		
			Middle	7.8	26.3	27.8	27.9	6.63	6.64	91.5	91.7	4.35	4.37		4.38		
27.9	6.65	91.8				4.38		8.8									
26/06/10	1346-1400	28/Rainy	Surface	1.0	22.9	24.2	24.1	6.30	6.35	88.9	89.0	4.02	4.01	3.59	8.0	8.0	7.2
						23.9		6.39		89.0		4.00			8.0		
			Middle	8.6	22.5	24.9	25.0	6.21	6.23	86.5	86.6	3.29	3.30		3.30		
25.0	6.25	86.7				3.30		6.6									
29/06/10	1408-1418	28/Cloudy	Surface	1.0	26.4	26.8	26.9	6.77	6.76	93.4	93.2	4.27	4.24	4.36	8.6	8.5	8.7
						26.9		6.74		93.0		4.21			8.4		
			Middle	7.8	26.3	27.8	27.9	6.63	6.64	91.5	91.7	4.35	4.37		4.38		
27.9	6.65	91.8				4.38		8.8									
26/06/10	1346-1400	28/Rainy	Surface	1.0	22.9	24.2	24.1	6.30	6.35	88.9	89.0	4.02	4.01	3.59	8.0	8.0	7.2
						23.9		6.39		89.0		4.00			8.0		
			Middle	8.6	22.5	24.9	25.0	6.21	6.23	86.5	86.6	3.29	3.30		3.30		
25.0	6.25	86.7				3.30		6.6									
29/06/10	1408-1418	28/Cloudy	Surface	1.0	26.4	26.8	26.9	6.77	6.76	93.4	93.2	4.27	4.24	4.36	8.6	8.5	8.7
						26.9		6.74		93.0		4.21			8.4		
			Middle	7.8	26.3	27.8	27.9	6.63	6.64	91.5	91.7	4.35	4.37		4.38		
27.9	6.65	91.8				4.38		8.8									
26/06/10	1346-1400	28/Rainy	Surface	1.0	22.9	24.2	24.1	6.30	6.35	88.9	89.0	4.02	4.01	3.59	8.0	8.0	7.2
						23.9		6.39		89.0		4.00			8.0		
			Middle	8.6	22.5	24.9	25.0	6.21	6.23	86.5	86.6	3.29	3.30		3.30		
25.0	6.25	86.7				3.30		6.6									
29/06/10	1408-1418	28/Cloudy	Surface	1.0	26.4	26.8	26.9	6.77	6.76	93.4	93.2	4.27	4.24	4.36	8.6	8.5	8.7
						26.9		6.74		93.0		4.21			8.4		
			Middle	7.8	26.3	27.8	27.9	6.63	6.64	91.5	91.7	4.35	4.37		4.38		
27.9	6.65	91.8				4.38		8.8									
26/06/10	1346-1400	28/Rainy	Surface	1.0	22.9	24.2	24.1	6.30	6.35	88.9	89.0	4.02	4.01	3.59	8.0	8.0	7.2
						23.9		6.39		89.0		4.00			8.0		
			Middle	8.6	22.5	24.9	25.0	6.21	6.23	86.5	86.6	3.29	3.30		3.30		
25.0	6.25	86.7				3.30		6.6									
29/06/10	1408-1418	28/Cloudy	Surface	1.0	26.4	26.8	26.9	6.77	6.76	93.4	93.2	4.27	4.24	4.36	8.6	8.5	8.7
						26.9		6.74		93.0		4.21			8.4		
			Middle	7.8	26.3	27.8	27.9	6.63	6.64	91.5	91.7	4.35	4.37		4.38		
27.9	6.65	91.8				4.38		8.8									
26/06/10	1346-1400	28/Rainy	Surface	1.0	22.9	24.2	24.1	6.30	6.35	88.9	89.0	4.02	4.01	3.59	8.0	8.0	7.2
						23.9		6.39		89.0		4.00			8.0		
			Middle	8.6	22.5	24.9	25.0	6.21	6.23	86.5	86.6	3.29	3.30		3.30		
25.0	6.25	86.7				3.30		6.6									
29/06/10	1408-1418	28/Cloudy	Surface	1.0	26.4	26.8	26.9	6.77	6.76	93.4	93.2	4.27	4.24	4.36	8.6	8.5	

Mid-Ebb Tide

Monitoring Station : R7

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)					
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average			
01/06/10	1525-1536	25/Cloudy	Surface	1.0	23.9	30.2	30.2	6.54	6.53	90.3	90.1	3.10	3.09	3.31	6.2	6.2	6.6			
						30.2		6.51		89.8		3.08			6.2					
			Middle	8.5	23.7	31.2	31.2	6.31	6.30	87.1	86.9	89.4	89.5		3.41	3.26		6.6	6.5	6.6
						31.1		6.28		86.7		3.23			6.4					
			Bottom	16.0	23.5	31.9	32.0	6.01	6.02	82.9	83.1	83.2	83.1		3.57	3.59		7.0	7.1	7.1
						32.0		6.03		82.9		3.60			7.2					
03/06/10	1721-1732	24/Cloudy	Surface	1.0	23.4	28.9	29.0	6.48	6.49	89.4	89.5	3.41	3.43	3.62	6.8	6.8	7.2			
						29.1		6.49		89.6		3.44			6.8					
			Middle	8.8	23.0	29.2	29.4	6.26	6.28	86.8	86.9	86.8	86.9		3.51	3.53		7.0	7.0	7.0
						29.5		6.30		86.9		3.54			7.8					
			Bottom	16.6	22.5	30.2	30.3	6.24	6.25	84.1	84.2	84.1	84.2		3.89	3.92		7.8	7.8	7.8
						30.3		6.25		84.3		3.94			7.8					
05/06/10	1712-1725	27/Cloudy	Surface	1.0	24.6	31.2	31.3	6.38	6.36	88.6	88.4	5.76	5.78	5.52	11.0	11.5	11.0			
						31.3		6.34		88.1		5.80			12.0					
			Middle	8.9	23.7	31.6	31.6	6.29	6.28	87.4	87.2	87.4	87.2		5.58	5.56		11.0	11.0	11.0
						31.6		6.26		87.0		5.53			11.0					
			Bottom	16.8	23.1	31.9	31.9	6.10	6.12	84.7	85.0	84.7	85.0		5.21	5.23		11.0	10.5	10.5
						31.9		6.13		85.2		5.25			10.0					
08/06/10	1054-1104	25/Cloudy	Surface	1.0	24.0	30.8	30.9	6.42	6.40	89.2	88.9	6.01	6.04	6.02	12.0	11.5	11.3			
						30.9		6.38		88.6		6.07			11.0					
			Middle	8.9	23.4	31.5	31.6	6.29	6.32	86.8	87.2	86.8	87.2		6.08	6.10		11.0	11.5	11.5
						31.6		6.35		87.6		6.11			12.0					
			Bottom	16.8	23.3	31.7	31.7	6.40	6.38	88.3	88.0	88.3	88.0		5.93	5.92		11.0	11.0	11.0
						31.6		6.36		87.7		5.90			11.0					
10/06/10	1149-1200	25/Drizzle	Surface	1.0	24.6	29.5	29.5	6.29	6.30	86.1	86.3	3.78	3.81	3.95	7.6	7.6	7.8			
						29.5		6.31		86.4		3.83			7.6					
			Middle	8.8	24.0	30.1	30.1	6.23	6.21	85.3	85.0	85.3	85.0		3.91	3.94		7.8	7.8	7.8
						30.1		6.18		84.6		3.97			7.8					
			Bottom	16.6	23.4	31.2	31.2	6.09	6.10	83.4	83.6	83.4	83.6		4.09	4.11		8.0	8.1	8.1
						31.2		6.11		83.7		4.12			8.2					
12/06/10	1326-1339	27/Cloudy	Surface	1.0	24.5	31.3	31.3	6.01	5.98	81.3	81.5	5.92	5.91	5.69	11.0	11.5	11.3			
						31.2		5.94		81.6		5.90			12.0					
			Middle	7.5	23.9	31.7	31.8	5.70	5.68	77.9	78.0	77.9	78.0		5.54	5.42		11.0	11.0	11.0
						31.8		5.66		78.0		5.30			11.0					
			Bottom	14.0	23.0	32.2	32.2	5.66	5.66	73.6	72.6	73.6	72.6		5.73	5.75		11.0	11.5	11.5
						32.2		5.66		71.5		5.77			12.0					
15/06/10	1443-1456	28/Drizzle	Surface	1.0	26.8	28.4	28.4	6.49	6.47	89.5	89.3	3.66	3.66	3.65	7.2	7.2	7.2			
						28.4		6.45		89.0		3.65			7.2					
			Middle	9.3	26.0	29.0	29.0	6.27	6.26	86.0	85.9	86.0	85.9		3.46	3.48		6.8	6.9	6.9
						29.0		6.25		85.7		3.50			7.0					
			Bottom	17.6	25.3	29.4	29.5	5.95	5.97	81.4	81.6	81.4	81.6		3.81	3.83		7.6	7.6	7.6
						29.5		5.98		81.8		3.84			7.6					
17/06/10	1702-1712	31/Fine	Surface	1.0	28.6	30.6	30.6	6.54	6.53	85.8	85.7	4.42	4.43	4.21	8.8	8.8	8.4			
						30.6		6.52		85.6		4.44			8.8					
			Middle	9.1	27.9	31.2	31.2	6.37	6.36	83.6	83.4	83.6	83.4		4.25	4.23		8.4	8.4	8.4
						31.2		6.34		83.2		4.21			8.4					
			Bottom	17.2	27.2	31.7	31.7	6.13	6.15	80.4	80.6	80.4	80.6		3.97	3.96		8.0	8.0	8.0
						31.7		6.16		80.8		3.95			8.0					
19/06/10	1840-1852	30/Cloudy	Surface	1.0	26.4	30.4	30.4	6.55	6.57	90.3	90.6	5.03	5.06	4.90	10.0	10.0	9.7			
						30.4		6.58		90.8		5.09			10.0					
			Middle	8.7	25.4	31.6	31.7	6.34	6.32	87.4	87.2	87.4	87.2		4.71	4.75		9.4	9.5	9.5
						31.7		6.30		86.9		4.78			9.6					
			Bottom	16.4	24.8	32.1	32.1	6.30	6.32	86.8	87.1	86.8	87.1		4.94	4.90		9.8	9.7	9.7
						32.1		6.34		87.3		4.86			9.6					
22/06/10	1013-1025	30/Cloudy	Surface	1.0	26.8	30.9	31.0	6.63	6.62	91.4	91.2	4.96	4.94	4.85	10.0	9.9	9.7			
						31.0		6.60		91.0		4.91			9.8					
			Middle	8.7	25.5	31.8	31.8	6.34	6.36	87.4	87.7	87.4	87.7		4.87	4.84		9.6	9.6	9.6
						31.7		6.37		87.9		4.80			9.6					
			Bottom	16.4	24.7	32.2	32.2	6.36	6.35	87.7	87.5	87.7	87.5		4.75	4.77		9.4	9.5	9.5
						32.2		6.33		87.3		4.79			9.6					
24/06/10	1250-1303	30/Rainy	Surface	1.0	23.8	28.2	28.1	6.55	6.56	88.9	87.5	2.92	2.91	3.27	5.8	5.8	6.5			
						28.0		6.56		86.0		2.90			5.8					
			Middle	9.4	24.0	29.1	29.1	6.30	6.30	86.2	85.8	86.2	85.8		3.16	3.18		6.2	6.3	6.3
						29.1		6.30		85.4		3.19			6.4					
			Bottom	17.8	22.6	28.3	28.7	6.11	6.13	79.2	79.4	79.2	79.4		3.72	3.73		7.4	7.4	7.4
						29.0		6.15		79.6		3.73			7.4					
26/06/10	1402-1415	28/Rainy	Surface	1.0	22.9	25.2	25.2	6.92	6.91	95.0	95.0	1.96	2.01	2.50	4.0	4.0	5.0			
						25.2		6.90		94.9		2.05			4.0					
			Middle	9.0	22.2	25.5	25.9	6.66	6.66	92.0	92.1	92.0	92.1		2.84	2.83		5.6	5.6	5.6
						26.2		6.65		92.2		2.82			5.6					
			Bottom	17.0	21.9	28.9	28.9	6.14	6.14	89.0	89.5	89.0	89.5		2.63	2.66		5.4	5.4	5.4
						28.9		6.14		89.9		2.68			5.4					
29/06/10	1421-1432	28/Cloudy	Surface	1.0	26.4	26.8	26.8	6.69	6.69	92.3	92.3	3.38	3.40	3.48	6.8	6.8	7.0			
						26.7		6.68		92.2		3.42			6.8					
			Middle	8.8	26.3	27.8	27.8	6.65	6.63	91.8	91.5	91.8	91.5		3.47	3.48		7.0	7.0	7.0
						27.8		6.60		91.1		3.49			7.0					
			Bottom	16.6	23.7	29.4	29.5	6.52	6.50	90.0	89.7	90.0	89.7		3.56	3.56		7.2	7.2	7.2
						29.5		6.48		89.4		3.55			7.2					

Mid-Ebb Tide

Monitoring Station : R8a

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)				
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average		
01/06/10	1540-1550	25/Drizzle	Surface	1.0	24.0	30.0	30.1	6.71	6.72	92.6	92.8	3.17	3.18	3.44	6.4	6.5	6.9		
						30.2		6.73		92.9		3.18			6.5				
			Middle	8.5	23.8	31.0	31.0	6.54	6.57	90.3	90.6	3.43	3.42		7.0	6.9		7.0	6.9
						30.9		6.59		90.9		3.41			6.8				
			Bottom	16.0	23.5	31.8	31.9	6.24	6.22	86.1	85.9	3.69	3.74		7.2	7.3		7.2	7.3
						32.0		6.20		85.6		3.78			7.4				
03/06/10	1739-1748	24/Cloudy	Surface	1.0	23.5	28.9	29.0	6.50	6.49	89.7	89.5	3.47	3.45	3.57	7.0	7.0	7.1		
						29.0		6.47		89.3		3.43			7.0				
			Middle	8.7	22.8	30.0	30.0	6.27	6.29	86.5	86.8	3.54	3.57		7.0	7.0		7.0	7.0
						29.9		6.31		87.1		3.59			7.0				
			Bottom	16.4	22.3	30.4	25.5	6.23	6.23	85.9	85.9	3.69	3.70		7.2	7.3		7.2	7.3
						20.5		6.22		85.8		3.70			7.4				
05/06/10	1732-1745	28/Cloudy	Surface	1.0	25.0	31.3	31.3	6.14	6.12	85.3	85.1	4.76	4.79	4.82	9.4	9.5	9.5		
						31.3		6.10		84.8		4.81			9.5				
			Middle	6.1	24.2	31.7	31.7	6.01	6.00	83.5	83.6	4.85	4.87		9.5	9.6		9.5	9.6
						31.6		5.98		83.7		4.89			9.6				
			Bottom	11.2	23.8	31.9	31.9	5.95	5.93	82.7	82.4	4.79	4.81		9.6	9.6		9.6	9.6
						31.9		5.91		82.1		4.83			9.6				
08/06/10	1109-1121	25/Cloudy	Surface	1.0	24.1	30.8	30.9	6.47	6.46	89.2	89.0	5.87	5.84	5.28	11.0	11.0	10.3		
						30.9		6.44		88.8		5.81			11.0				
			Middle	6.3	23.6	31.5	31.6	6.26	6.25	86.3	86.1	5.02	5.04		10.0	10.0		10.0	10.0
						31.6		6.23		85.9		5.06			10.0				
			Bottom	11.6	23.2	31.8	31.9	6.15	6.17	84.8	85.1	4.99	4.95		10.0	9.9		10.0	9.9
						31.9		6.19		85.4		4.91			9.8				
10/06/10	1205-1215	25/Drizzle	Surface	1.0	24.6	29.6	29.6	6.24	6.26	85.4	85.7	3.76	3.78	3.94	7.4	7.5	7.8		
						29.6		6.28		86.0		3.80			7.5				
			Middle	6.3	23.9	29.9	30.0	6.21	6.25	85.0	84.9	3.89	3.91		7.5	7.7		7.5	7.7
						30.1		6.29		84.8		3.93			7.8				
			Bottom	11.6	23.3	30.8	30.8	6.12	6.13	83.8	84.0	4.11	4.13		8.2	8.2		8.2	8.2
						30.8		6.14		84.1		4.14			8.2				
12/06/10	1343-1358	27/Cloudy	Surface	1.0	24.5	32.0	32.0	6.11	6.13	84.0	84.5	4.02	4.13	4.26	8.0	8.0	8.4		
						31.9		6.15		84.9		4.23			8.0				
			Middle	6.6	23.8	31.9	32.1	6.00	5.97	82.0	81.5	4.40	4.42		9.0	8.9		8.9	8.9
						32.2		5.93		80.9		4.44			8.8				
			Bottom	12.2	23.1	32.2	32.3	5.90	5.87	80.0	80.0	4.22	4.23		8.4	8.4		8.4	8.4
						32.3		5.83		79.9		4.23			8.4				
15/06/10	1502-1515	28/Drizzle	Surface	1.0	26.6	28.6	28.7	6.52	6.54	89.9	90.2	4.91	4.92	4.36	9.8	9.9	8.7		
						28.7		6.55		90.4		4.92			10.0				
			Middle	6.6	26.1	25.2	27.2	6.30	6.35	87.2	87.5	4.26	4.28		8.5	8.6		8.5	8.6
						29.2		6.40		87.8		4.30			8.6				
			Bottom	12.2	25.5	29.6	29.7	6.21	6.21	84.9	84.9	3.87	3.89		7.6	7.7		7.6	7.7
						29.7		6.20		84.8		3.90			7.8				
17/06/10	1719-1730	31/Fine	Surface	1.0	28.4	30.6	30.6	6.38	6.40	83.7	84.0	3.87	3.90	4.08	7.6	7.8	8.1		
						30.6		6.42		84.3		3.92			8.0				
			Middle	6.5	27.5	31.2	31.2	6.16	6.14	80.8	80.6	4.02	4.04		8.0	8.0		8.0	8.0
						31.2		6.12		80.3		4.05			8.0				
			Bottom	12.0	27.0	31.7	31.7	6.05	6.04	79.4	79.2	4.29	4.31		8.6	8.6		8.6	8.6
						31.7		6.02		79.0		4.33			8.6				
19/06/10	1900-1912	30/Cloudy	Surface	1.0	26.4	30.5	30.5	6.53	6.51	90.1	89.8	4.98	4.95	4.65	10.0	10.0	9.3		
						30.4		6.49		89.5		4.91			10.0				
			Middle	6.8	25.4	31.7	31.8	6.30	6.29	86.9	86.7	4.64	4.66		9.0	9.2		9.0	9.2
						31.8		6.27		86.5		4.68			9.4				
			Bottom	11.6	24.8	32.0	32.1	6.12	6.10	83.8	83.5	4.39	4.35		8.8	8.7		8.8	8.7
						32.1		6.07		83.1		4.31			8.6				
22/06/10	1032-1045	30/Cloudy	Surface	1.0	26.8	31.0	31.0	6.43	6.42	88.7	88.5	4.43	4.50	4.17	8.8	8.9	8.3		
						30.9		6.40		88.3		4.57			9.0				
			Middle	6.3	25.8	31.8	31.8	6.29	6.25	86.1	85.6	3.96	3.95		8.0	8.0		8.0	8.0
						31.7		6.21		85.0		3.94			8.0				
			Bottom	11.6	25.1	32.1	32.1	6.17	6.19	84.5	84.7	4.03	4.06		8.2	8.1		8.2	8.1
						32.0		6.20		84.9		4.08			8.2				
24/06/10	1306-1320	30/Rainy	Surface	1.0	23.9	28.7	28.5	6.66	6.68	89.9	89.8	2.05	2.06	2.57	4.2	4.1	5.2		
						28.3		6.69		89.6		2.06			4.0				
			Middle	6.6	23.8	28.8	28.9	6.29	6.28	85.7	85.7	2.80	2.84		5.5	5.7		5.5	5.7
						28.9		6.26		85.7		2.86			5.8				
			Bottom	12.2	22.4	29.7	29.5	6.10	6.08	83.1	83.1	2.91	2.82		6.0	5.9		6.0	5.9
						29.3		6.05		83.0		2.72			5.8				
26/06/10	1420-1435	28/Rainy	Surface	1.0	23.0	25.3	25.3	6.57	6.57	89.9	90.2	2.07	2.49	2.69	4.0	4.0	5.0		
						25.3		6.57		90.5		2.90			4.0				
			Middle	7.1	22.5	27.9	27.9	6.41	6.41	90.1	89.4	2.66	2.75		5.0	5.2		5.0	5.2
						27.9		6.41		88.7		2.84			5.4				
			Bottom	13.2	22.2	28.9	28.9	6.22	6.21	88.2	88.3	2.99	2.83		6.0	5.9		6.0	5.9
						28.8		6.20		88.4		2.67			5.8				
29/06/10	1439-1455	29/Cloudy	Surface	1.0	26.5	26.8	26.8	6.67	6.65	92.0	91.7	3.21	3.22	3.33	6.4	6.5	6.6		
						26.7		6.63		91.4		3.23			6.5				
			Middle	6.2	25.3	27.8	27.9	6.55	6.56	90.4	90.6	3.32	3.34		6.5	6.6		6.5	6.6
						27.9		6.57		90.7		3.35			6.6				
			Bottom	11.4	23.8	29.3	29.4	6.54	6.56	88.5	88.9	3.47	3.44		7.0	6.9		7.0	6.9
						29.4		6.57		89.3		3.41			6.8				

Monitoring Station : R15

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)					
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average		
01/06/10	1304-1314	25/Cloudy	Surface	1.0	23.8	30.1	30.2	6.21	6.22	85.7	85.8	4.49	4.51	4.72	8.8	8.9	9.3		
						30.3		6.22		85.8		4.53			9.0				
			Middle	5.1	23.6	31.0	31.0	6.11	6.10	82.5	83.2	4.61	4.62		4.61			4.62	9.2
						31.0		6.08		83.9		4.63			9.2				
			Bottom	9.2	23.4	31.8	32.2	6.03	6.02	83.2	83.1	5.01	5.02		5.01			5.02	9.8
						32.6		6.01		82.9		5.02			9.8				
03/06/10	1404-1414	24/Cloudy	Surface	1.0	23.4	28.7	29.0	6.49	6.48	89.5	89.4	4.47	4.47	4.58	8.8	8.8	9.0		
						29.3		6.47		89.3		4.46			8.8				
			Middle	5.3	22.7	29.6	29.8	6.33	6.30	87.4	87.0	4.58	4.58		4.58			4.58	9.0
						30.0		6.27		86.5		4.57			9.0				
			Bottom	9.6	22.4	30.2	30.3	6.21	6.22	85.8	85.8	4.69	4.69		4.69			4.69	9.2
						30.4		6.22		85.8		4.68			9.4				
05/06/10	1507-1520	27/Cloudy	Surface	1.0	25.0	30.9	30.9	6.44	6.46	89.5	89.7	4.78	4.80	4.74	9.4	9.5	9.5		
						30.9		6.48		89.9		4.81			9.6				
			Middle	5.4	23.9	31.6	31.7	6.29	6.31	87.4	87.6	4.69	4.70		4.71			4.70	9.4
						31.7		6.32		87.8		4.71			9.4				
			Bottom	9.8	23.5	31.8	31.9	6.24	6.22	86.7	86.4	4.67	4.73		4.67			4.73	9.4
						31.9		6.19		86.0		4.79			9.6				
08/06/10	0834-0846	25/Cloudy	Surface	1.0	23.9	30.6	30.7	6.59	6.58	91.6	91.4	4.04	4.06	3.94	8.0	8.1	7.9		
						30.7		6.56		91.1		4.08			8.2				
			Middle	5.4	23.1	31.5	31.5	6.39	6.41	88.1	88.4	3.97	3.94		3.97			3.94	8.0
						31.4		6.43		88.7		3.91			7.8				
			Bottom	9.8	23.1	31.7	31.7	6.40	6.42	88.3	88.6	3.84	3.82		3.84			3.82	7.6
						31.7		6.44		88.8		3.80			7.6				
10/06/10	0942-0950	25/Drizzle	Surface	1.0	24.6	29.5	29.5	6.29	6.28	86.1	85.9	4.57	4.59	4.71	9.0	9.1	9.4		
						29.4		6.26		85.7		4.61			9.2				
			Middle	7.1	23.9	29.8	29.8	6.18	6.17	84.6	84.4	4.70	4.72		4.70			4.72	9.4
						29.8		6.15		84.2		4.74			9.4				
			Bottom	13.2	23.4	31.1	31.2	6.09	6.08	83.4	83.2	4.81	4.83		4.81			4.83	9.6
						31.2		6.06		83.0		4.85			9.6				
12/06/10	1046-1100	27/Cloudy	Surface	1.0	24.2	30.7	30.8	6.05	6.04	83.8	83.9	5.40	5.42	5.58	9.0	9.1	9.2		
						30.8		6.02		84.0		5.44			9.2				
			Middle	5.8	23.3	31.2	31.2	5.89	5.90	80.1	80.5	5.20	5.30		5.20			5.30	9.0
						31.2		5.90		80.9		5.40			9.0				
			Bottom	10.6	22.4	31.3	31.4	5.63	5.65	77.1	77.2	6.02	6.03		6.02			6.03	9.4
						31.4		5.66		77.3		6.03			9.6				
15/06/10	1229-1240	28/Drizzle	Surface	1.0	26.8	28.9	29.0	6.68	6.69	92.2	92.3	5.24	5.27	5.38	9.4	9.4	9.5		
						29.0		6.70		92.4		5.30			9.4				
			Middle	5.6	26.0	29.4	29.5	6.29	6.31	86.3	86.5	5.90	5.91		5.90			5.91	9.6
						29.5		6.32		86.7		5.92			9.6				
			Bottom	10.2	25.6	29.7	29.7	5.98	6.00	81.8	82.1	4.94	4.95		4.94			4.95	9.6
						29.7		6.02		82.3		4.95			9.6				
17/06/10	1434-1444	31/Fine	Surface	1.0	28.2	30.7	30.7	6.50	6.48	85.3	85.1	4.02	4.04	3.82	8.0	8.1	7.6		
						30.7		6.46		84.8		4.06			8.2				
			Middle	5.5	27.3	31.2	31.2	6.30	6.28	82.7	82.4	3.75	3.74		3.75			3.74	7.4
						31.2		6.25		82.0		3.72			7.4				
			Bottom	10.0	26.9	31.7	31.7	6.11	6.12	80.2	80.3	3.66	3.68		3.66			3.68	7.2
						31.7		6.13		80.4		3.69			7.4				
19/06/10	1618-1630	30/Cloudy	Surface	1.0	26.5	30.2	30.3	6.39	6.37	88.1	87.9	3.95	3.91	3.76	8.0	7.9	7.5		
						30.3		6.35		87.6		3.87			7.8				
			Middle	5.4	25.6	31.6	31.6	6.24	6.22	85.4	85.2	3.60	3.57		3.60			3.57	7.2
						31.5		6.20		84.9		3.53			7.0				
			Bottom	9.8	24.9	31.9	32.0	6.19	6.17	84.8	84.5	3.78	3.81		3.78			3.81	7.6
						32.0		6.15		84.2		3.84			7.6				
22/06/10	0802-0814	30/Cloudy	Surface	1.0	26.7	30.8	30.8	6.70	6.72	92.4	92.7	3.90	3.93	4.06	7.8	7.9	8.1		
						30.8		6.74		93.0		3.95			8.0				
			Middle	5.4	25.3	31.7	31.8	6.37	6.36	87.2	87.0	3.72	3.75		3.72			3.75	7.4
						31.8		6.34		86.8		3.78			7.6				
			Bottom	9.8	25.0	31.9	32.0	6.27	6.26	85.8	85.7	4.48	4.49		4.48			4.49	9.0
						32.0		6.25		85.6		4.50			9.0				
24/06/10	1030-1042	30/Rainy	Surface	1.0	25.3	26.6	26.6	6.29	6.26	82.9	82.6	3.11	3.13	3.40	6.2	6.3	6.8		
						26.5		6.22		82.2		3.14			6.4				
			Middle	5.1	25.0	27.9	27.9	6.10	6.09	81.0	80.8	3.90	3.90		3.90			3.90	7.8
						27.9		6.08		80.5		3.90			7.8				
			Bottom	9.2	24.5	28.9	29.1	5.94	5.97	79.2	79.1	3.19	3.18		3.19			3.18	6.4
						29.3		5.99		78.9		3.17			6.4				
26/06/10	1128-1140	28/Rainy	Surface	1.0	23.0	24.1	24.1	6.72	6.69	93.9	93.7	1.92	1.91	1.86	3.8	3.8	3.7		
						24.1		6.66		93.4		1.90			3.8				
			Middle	5.1	22.2	26.7	26.8	6.30	6.35	87.5	87.6	1.55	1.56		1.55			1.56	3.0
						26.9		6.39		87.7		1.57			3.2				
			Bottom	9.2	22.0	27.9	27.9	6.15	6.13	85.4	85.6	2.05	2.10		2.05			2.10	4.0
						27.9		6.10		85.8		2.14			4.2				
29/06/10	1204-1214	28/Cloudy	Surface	1.0	26.3	26.9	26.9	6.81	6.84	93.9	94.4	4.31	4.34	4.45	8.6	8.7	9.0		
						26.8		6.87		94.8		4.37			8.8				
			Middle	5.3	25.4	27.7	27.8	6.77	6.76	93.4	93.3	4.45	4.45		4.45			4.45	9.0
						27.8		6.75		93.1		4.44			9.0				
			Bottom	9.6	23.8	29.4	29.4	6.62	6.64	91.4	91.6	4.56	4.58		4.56			4.58	9.2
						29.3		6.65		91.8		4.59			9.2				



Mid-Ebb Tide

Monitoring Station : R16

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)					
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average			
01/06/10	1245-1257	25/Cloudy	Surface	1.0	23.9	30.2	30.2	6.34	6.38	87.5	88.0	3.38	3.39	3.59	6.6	6.7	7.1			
						30.1		6.41		88.5		3.40			6.8					
			Middle	6.2	23.6	30.9	31.0	6.09	6.09	84.0	84.0	3.47	3.48		3.48	3.58		6.8	6.9	7.2
						31.0		6.08		83.9		3.49			7.0					
			Bottom	11.4	23.4	32.0	32.0	6.02	6.03	83.1	83.2	3.89	3.90		3.90	3.98		7.6	7.7	7.9
						32.0		6.03		83.2		3.90			7.8					
03/06/10	1345-1356	24/Cloudy	Surface	1.0	23.5	28.8	29.0	6.50	6.49	89.7	89.6	3.48	3.48	3.58	7.0	7.0	7.2			
						29.2		6.48		89.4		3.47			7.0					
			Middle	6.3	22.8	29.7	29.8	6.32	6.31	87.2	87.0	3.57	3.58		3.58	3.69		7.2	7.2	7.9
						29.9		6.29		86.8		3.59			7.2					
			Bottom	11.6	22.4	30.1	30.2	6.22	6.23	85.8	85.9	3.70	3.67		3.69	3.98		7.4	7.4	8.3
						30.2		6.23		85.9		3.67			7.4					
05/06/10	1447-1457	27/Cloudy	Surface	1.0	24.9	30.8	30.9	6.50	6.49	89.8	89.5	4.31	4.33	4.41	8.6	8.6	8.8			
						30.9		6.47		89.2		4.35			8.6					
			Middle	6.3	24.0	31.6	31.6	6.35	6.33	88.2	88.0	4.37	4.43		4.40	4.51		8.8	8.8	9.0
						31.6		6.31		87.7		4.43			8.8					
			Bottom	11.6	23.6	31.9	32.0	6.26	6.24	87.0	86.7	4.50	4.52		4.51	4.98		9.0	9.0	9.9
						32.0		6.22		86.4		4.52			9.0					
08/06/10	0815-0826	25/Cloudy	Surface	1.0	23.9	30.4	30.5	6.72	6.70	93.4	93.1	3.95	3.93	3.95	8.0	7.9	7.9			
						30.5		6.68		92.8		3.90			7.8					
			Middle	6.2	23.4	31.4	31.4	6.51	6.49	89.8	89.5	4.06	4.04		4.04	4.18		8.0	8.0	8.3
						31.4		6.47		89.2		4.01			8.0					
			Bottom	11.4	23.1	31.6	31.7	6.35	6.37	87.6	87.9	3.87	3.90		3.90	4.00		7.8	7.9	8.3
						31.7		6.39		88.1		3.92			8.0					
10/06/10	0919-0930	25/Drizzle	Surface	1.0	24.5	29.4	29.4	6.33	6.32	86.7	86.6	3.98	4.00	4.17	8.0	8.0	8.3			
						29.4		6.31		86.4		4.01			8.0					
			Middle	6.3	24.0	29.8	29.9	6.23	6.25	85.3	85.5	4.14	4.18		4.18	4.33		8.2	8.3	9.0
						29.9		6.26		85.7		4.21			8.4					
			Bottom	11.6	23.3	30.9	31.0	6.12	6.15	83.8	84.2	4.31	4.34		4.33	4.98		8.6	8.6	9.9
						31.0		6.17		84.5		4.34			8.6					
12/06/10	1031-1042	27/Cloudy	Surface	1.0	24.1	31.6	31.6	6.44	6.42	89.5	89.3	2.90	2.86	2.56	5.8	5.7	5.1			
						31.6		6.40		89.1		2.81			5.6					
			Middle	6.3	23.0	32.2	32.2	6.20	6.16	86.6	86.3	2.39	2.39		2.39	2.42		4.8	4.8	5.4
						32.2		6.11		86.0		2.39			4.8					
			Bottom	11.5	22.2	32.8	32.8	5.70	5.73	78.0	78.0	2.44	2.40		2.42	2.98		4.8	4.8	5.4
						32.8		5.75		77.9		2.40			4.8					
15/06/10	1212-1223	28/Drizzle	Surface	1.0	26.8	28.8	28.8	6.48	6.49	89.4	89.6	3.76	3.78	4.05	7.4	7.5	8.1			
						28.7		6.50		89.7		3.80			7.6					
			Middle	6.5	26.1	29.2	29.2	6.33	6.32	86.8	86.6	4.05	4.07		4.07	4.29		8.0	8.1	8.3
						29.2		6.30		86.4		4.09			8.2					
			Bottom	12.0	25.7	29.6	29.6	6.02	6.04	82.3	82.5	4.27	4.29		4.29	4.98		8.6	8.6	9.0
						29.6		6.05		82.7		4.30			8.6					
17/06/10	1416-1428	31/Fine	Surface	1.0	28.3	30.9	30.9	6.44	6.46	84.5	84.8	3.87	3.90	4.03	7.6	7.7	8.0			
						30.9		6.48		85.0		3.92			7.8					
			Middle	6.3	27.5	31.4	31.4	6.27	6.25	82.3	82.1	4.02	4.04		4.04	4.15		8.0	8.0	8.3
						31.4		6.23		81.8		4.06			8.0					
			Bottom	11.6	26.7	31.9	31.9	6.10	6.08	80.1	79.8	4.13	4.16		4.15	4.98		8.2	8.2	8.3
						31.9		6.06		79.5		4.16			8.2					
19/06/10	1600-1611	30/Cloudy	Surface	1.0	26.5	30.1	30.2	6.52	6.50	89.9	89.6	3.76	3.74	3.92	7.4	7.4	7.8			
						30.2		6.47		89.2		3.71			7.4					
			Middle	6.2	25.5	31.7	31.7	6.33	6.32	87.3	87.1	3.97	3.95		3.95	4.08		8.0	8.0	8.3
						31.6		6.30		86.9		3.92			8.0					
			Bottom	11.4	25.0	31.9	31.9	6.37	6.36	87.9	87.7	4.04	4.11		4.08	4.98		8.0	8.1	8.3
						31.8		6.34		87.4		4.11			8.2					
22/06/10	0744-0755	30/Cloudy	Surface	1.0	26.7	30.7	30.8	6.57	6.56	90.6	90.4	4.03	4.09	4.38	8.0	8.1	8.1			
						30.8		6.54		90.2		4.15			8.2					
			Middle	6.2	25.5	31.6	31.7	6.20	6.23	84.9	85.3	4.29	4.33		4.31	4.73		8.6	8.6	8.3
						31.7		6.25		85.6		4.33			8.6					
			Bottom	11.4	25.0	31.8	31.9	6.30	6.32	86.3	86.5	4.75	4.71		4.73	4.98		7.6	7.5	8.3
						31.9		6.33		86.7		4.71			7.4					
24/06/10	1013-1026	30/Rainy	Surface	1.0	25.3	26.0	26.0	6.59	6.55	90.1	89.9	2.59	2.57	2.70	5.2	5.2	5.4			
						25.9		6.50		89.6		2.55			5.2					
			Middle	6.5	24.3	28.2	28.0	6.26	6.24	86.2	86.2	2.66	2.62		2.64	2.90		5.2	5.2	5.4
						27.8		6.22		86.1		2.62			5.2					
			Bottom	12.0	24.0	29.3	29.4	6.05	6.06	80.9	80.6	2.90	2.90		2.90	2.98		5.8	5.8	5.4
						29.5		6.06		80.3		2.90			5.8					
26/06/10	1109-1124	28/Rainy	Surface	1.0	23.2	24.5	24.5	6.80	6.84	94.4	94.7	1.29	1.34	1.67	2.6	2.6	3.3			
						24.5		6.88		94.9		1.38			2.6					
			Middle	6.4	22.4	25.0	25.3	6.54	6.52	91.0	91.0	1.77	1.74		1.74	1.95		3.4	3.4	3.3
						25.5		6.50		91.0		1.70			3.4					
			Bottom	11.8	22.2	28.0	28.3	6.17	6.18	85.5	85.4	1.95	1.94		1.95	2.98		4.0	4.0	4.9
						28.6		6.19		85.3		1.94			4.0					
29/06/10	1145-1156	28/Cloudy	Surface	1.0	26.2	26.8	26.9	6.97	6.93	96.2	95.6	3.59	3.61	3.75	7.2	7.2	7.5			
						26.9		6.88		94.9		3.63			7.2					
			Middle	6.3	25.4	27.9	27.9	6.82	6.81	94.1	93.9	3.72	3.73		3.73	3.91		7.4	7.4	7.9
						27.8		6.79		93.7		3.74			7.4					
			Bottom	11.6	23.8	29.4	29.4	6.73	6.72	92.9	92.7	3.89	3.93		3.91	4.98		7.8	7.8	8.3
						29.3		6.70		92.5		3.93			7.8					

Mid-Ebb Tide

Monitoring Station : R17

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
01/06/10	1230-1242	25/Cloudy	Surface	1.0	23.9	30.1	30.1	6.18	6.15	85.3	84.8	3.80	3.79	3.97	7.6	7.6	8.0
						30.0		6.11		84.3		3.78			7.6		
			Middle	5.7	23.5	30.8	30.9	6.08	6.10	83.9	84.1	3.89	3.89		7.8	7.9	
03/06/10	1330-1342	24/Cloudy	Surface	1.0	23.4	28.9	29.0	6.52	6.50	89.9	89.7	3.49	3.55	3.61	7.0	7.0	7.2
						29.0		6.48		89.4		3.60			7.0		
			Middle	5.6	22.8	29.8	29.9	6.28	6.30	86.7	87.0	3.58	3.59		7.2	7.1	
05/06/10	1430-1444	27/Cloudy	Surface	1.0	24.9	30.9	30.9	6.49	6.51	89.5	90.2	4.40	4.42	4.40	8.8	8.8	8.8
						30.9		6.53		90.8		4.44			8.8		
			Middle	5.2	24.2	31.6	31.7	6.33	6.31	87.9	87.7	4.18	4.22		8.4	8.5	
08/06/10	0800-0812	25/Cloudy	Surface	1.0	23.8	30.2	30.3	6.64	6.66	92.2	92.5	4.20	4.18	4.01	8.4	8.4	8.1
						30.3		6.67		92.7		4.15			8.4		
			Middle	5.8	23.3	31.4	31.4	6.43	6.46	89.3	89.7	3.81	3.86		7.6	7.8	
10/06/10	0900-0915	25/Drizzle	Surface	1.0	24.6	29.4	29.5	6.39	6.37	87.5	87.2	4.03	4.02	4.16	8.0	8.0	8.3
						29.5		6.35		86.9		4.01			8.0		
			Middle	5.7	24.0	29.9	30.0	6.28	6.27	86.0	85.8	4.16	4.18		8.2	8.4	
12/06/10	1018-1029	27/Cloudy	Surface	1.0	24.0	31.9	31.9	6.30	6.30	87.9	87.8	3.22	3.12	2.98	6.4	6.3	6.1
						31.9		6.30		87.7		3.02			6.2		
			Middle	5.5	23.2	32.0	32.0	5.94	5.93	82.2	82.1	2.96	2.93		6.0	6.0	
15/06/10	1200-1211	28/Drizzle	Surface	1.0	26.9	28.8	28.8	6.57	6.59	90.6	90.9	4.12	4.13	3.90	8.4	8.4	7.8
						28.8		6.60		91.1		4.14			8.4		
			Middle	6.0	26.3	29.1	29.2	6.41	6.42	87.9	88.0	3.72	3.74		7.4	7.5	
17/06/10	1400-1412	31/Fine	Surface	1.0	28.2	30.8	30.8	6.32	6.30	82.9	82.6	4.21	4.24	4.07	8.4	8.4	8.0
						30.8		6.27		82.3		4.26			8.4		
			Middle	6.0	27.4	31.4	31.4	6.10	6.09	80.1	80.0	4.14	4.13		8.2	8.1	
19/06/10	1545-1557	30/Cloudy	Surface	1.0	26.4	30.2	30.2	6.45	6.47	89.0	89.3	4.60	4.56	4.26	9.2	9.1	8.5
						30.1		6.49		89.5		4.52			9.0		
			Middle	5.8	25.7	31.7	31.4	6.30	6.33	86.9	87.3	4.24	4.26		8.4	8.5	
22/06/10	0730-0741	30/Cloudy	Surface	1.0	26.6	30.6	30.7	6.60	6.59	91.0	90.8	3.79	3.82	3.97	7.6	7.6	8.6
						30.7		6.57		90.6		3.84			7.6		
			Middle	5.8	25.6	31.6	31.6	6.29	6.27	86.8	86.5	4.15	4.16		8.2	8.1	
24/06/10	0959-1012	30/Rainy	Surface	1.0	25.3	26.1	26.1	6.67	6.68	93.9	93.4	2.11	2.12	2.83	4.2	4.2	5.7
						26.0		6.68		92.9		2.12			4.2		
			Middle	6.1	24.0	27.9	27.9	6.49	6.45	92.4	92.2	2.94	2.92		6.0	6.0	
26/06/10	1053-1107	28/Rainy	Surface	1.0	23.7	24.4	24.3	6.79	6.78	94.1	94.2	1.55	1.56	1.68	3.0	3.1	3.5
						24.2		6.77		94.3		1.57			3.2		
			Middle	5.5	22.9	27.9	27.8	6.50	6.50	90.3	90.4	1.59	1.70		3.2	3.4	
29/06/10	1130-1142	28/Cloudy	Surface	1.0	26.3	26.7	26.8	6.87	6.86	94.8	94.7	3.67	3.66	3.77	7.2	7.2	7.4
						26.8		6.85		94.5		3.65			7.2		
			Middle	5.6	25.5	27.8	27.9	6.74	6.73	93.0	92.9	3.79	3.77		7.6	7.6	

# Mid-Ebb Tide

Monitoring Station : R28

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)				
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average		
01/06/10	1430-1441	25/Cloudy	Surface	1.0	23.9	30.2	30.1	6.47	6.48	89.3	89.5	3.78	3.79	3.88	7.4	7.5	7.7		
						30.0		6.49		89.6		3.79			7.6				
			Middle	5.0	23.6	30.9	30.9	6.24	6.25	86.1	86.2	3.80	3.82		3.80	3.82		7.6	7.6
						30.8		6.25		86.3		3.84			7.6				
			Bottom	9.0	23.5	31.8	31.9	6.07	6.05	83.8	83.5	4.01	4.02		4.01	4.02		8.0	8.0
						31.9		6.03		83.2		4.03			8.0				
03/06/10	1537-1547	24/Cloudy	Surface	1.0	23.9	29.0	29.0	6.50	6.49	89.7	89.5	3.42	3.44	3.56	6.8	6.9	7.1		
						28.9		6.47		89.3		3.45			7.0				
			Middle	5.2	22.8	29.4	29.3	6.31	6.29	87.1	86.8	3.52	3.56		3.52	3.56		7.0	7.1
						29.2		6.27		86.5		3.59			7.2				
			Bottom	9.4	22.5	30.2	30.2	6.21	6.22	85.7	85.8	3.71	3.70		3.71	3.70		7.4	7.4
						30.2		6.22		85.8		3.68			7.4				
05/06/10	1623-1633	27/Cloudy	Surface	1.0	24.6	31.2	31.2	6.33	6.35	87.9	88.2	4.83	4.85	4.98	9.6	9.6	10.0		
						31.1		6.36		88.4		4.87			9.6				
			Middle	5.3	23.6	31.5	31.5	6.23	6.25	86.6	86.9	4.95	4.98		4.95	4.98		10.0	10.0
						31.5		6.27		87.1		5.01			10.0				
			Bottom	9.6	23.3	31.8	31.8	6.06	6.09	84.2	84.6	5.07	5.10		5.07	5.10		10.0	10.5
						31.8		6.11		84.9		5.12			11.0				
08/06/10	1005-1015	25/Cloudy	Surface	1.0	23.9	30.8	30.8	6.51	6.49	90.4	90.2	5.90	5.92	5.42	11.0	11.0	10.7		
						30.7		6.47		89.9		5.93			11.0				
			Middle	5.6	23.5	31.4	31.5	6.39	6.38	88.1	88.0	5.40	5.39		5.40	5.39		11.0	11.0
						31.5		6.37		87.9		5.37			11.0				
			Bottom	10.2	23.2	31.5	31.6	6.33	6.32	87.3	87.1	4.98	4.97		4.98	4.97		10.0	10.0
						31.6		6.30		86.9		4.95			10.0				
10/06/10	1059-1110	25/Drizzle	Surface	1.0	24.6	29.5	29.5	6.36	6.38	87.7	87.6	3.89	3.87	3.96	7.8	7.7	7.9		
						29.5		6.39		87.5		3.85			7.6				
			Middle	5.2	24.0	29.8	29.8	6.25	6.23	85.6	85.3	3.95	3.97		3.95	3.97		8.0	8.0
						29.8		6.21		85.0		3.99			8.0				
			Bottom	9.4	23.4	30.8	30.9	6.18	6.17	84.6	84.4	4.02	4.04		4.02	4.04		8.0	8.1
						30.9		6.15		84.2		4.05			8.2				
12/06/10	1224-1236	27/Cloudy	Surface	1.0	24.1	32.0	32.0	6.21	6.19	85.5	85.3	3.03	3.04	3.10	6.0	6.0	6.1		
						32.0		6.17		85.1		3.04			6.0				
			Middle	6.0	23.4	31.9	32.0	5.91	5.88	80.1	80.3	3.11	3.15		3.11	3.15		6.2	6.2
						32.0		5.84		80.4		3.19			6.2				
			Bottom	11.0	22.1	32.2	32.2	5.66	5.66	76.3	76.6	3.11	3.11		3.11	3.11		6.2	6.2
						32.2		5.66		76.9		3.11			6.2				
15/06/10	1353-1405	28/Drizzle	Surface	1.0	26.7	28.2	28.3	6.59	6.59	90.9	90.9	3.28	3.28	3.53	6.6	6.6	7.0		
						28.4		6.58		90.8		3.30			6.6				
			Middle	5.8	26.3	29.0	29.0	6.26	6.28	85.9	86.2	3.54	3.53		3.54	3.53		7.0	7.0
						29.0		6.30		86.4		3.51			7.0				
			Bottom	10.5	25.8	29.4	29.4	6.12	6.13	83.7	83.8	3.76	3.78		3.76	3.78		7.4	7.5
						29.4		6.13		83.8		3.80			7.6				
17/06/10	1610-1620	31/Fine	Surface	1.0	28.4	30.6	30.6	6.28	6.31	82.4	82.8	4.11	4.13	3.85	8.2	8.2	7.6		
						30.6		6.33		83.1		4.14			8.2				
			Middle	5.7	27.6	31.3	31.3	6.17	6.16	81.0	80.8	3.75	3.77		3.75	3.77		7.4	7.5
						31.3		6.14		80.6		3.79			7.6				
			Bottom	10.4	27.1	31.7	31.7	6.00	5.99	78.7	78.6	3.66	3.64		3.66	3.64		7.2	7.2
						31.7		5.98		78.5		3.62			7.2				
19/06/10	1750-1800	30/Cloudy	Surface	1.0	26.4	30.4	30.4	6.49	6.47	89.5	89.3	5.54	5.56	5.16	11.0	11.0	10.4		
						30.4		6.45		89.0		5.58			11.0				
			Middle	5.6	25.5	31.5	31.5	6.22	6.21	85.2	85.0	5.09	5.06		5.09	5.06		10.0	10.5
						31.4		6.19		84.8		5.02			10.0				
			Bottom	10.2	24.9	32.0	32.1	6.14	6.12	84.1	83.8	4.88	4.85		4.88	4.85		9.8	9.7
						32.1		6.10		83.5		4.82			9.6				
22/06/10	0933-0943	30/Cloudy	Surface	1.0	26.8	30.9	30.9	6.68	6.66	92.1	91.9	5.17	5.15	5.15	11.0	11.0	10.7		
						30.9		6.64		91.6		5.12			11.0				
			Middle	5.6	25.7	31.7	31.7	6.50	6.49	89.7	89.5	5.07	5.04		5.07	5.04		10.0	10.0
						31.7		6.47		89.2		5.01			10.0				
			Bottom	10.2	24.9	32.1	32.1	6.29	6.28	86.1	86.0	5.29	5.27		5.29	5.27		11.0	11.0
						32.1		6.27		85.8		5.24			11.0				
24/06/10	1155-1208	30/Rainy	Surface	1.0	24.5	27.2	27.1	6.50	6.51	91.5	91.3	2.10	2.07	2.68	4.2	4.1	5.4		
						27.0		6.52		91.1		2.04			4.0				
			Middle	5.0	24.0	28.3	28.2	6.55	6.48	89.3	89.5	2.92	2.94		2.92	2.94		5.8	5.9
						28.0		6.40		89.7		2.96			6.0				
			Bottom	9.0	23.1	28.5	28.5	6.31	6.31	88.0	88.3	3.00	3.04		3.00	3.04		6.0	6.1
						28.5		6.30		88.6		3.08			6.2				
26/06/10	1255-1310	28/Rainy	Surface	1.0	23.1	25.1	25.1	6.49	6.52	90.2	90.2	2.92	3.00	3.34	5.8	5.9	6.6		
						25.1		6.55		90.1		3.08			6.0				
			Middle	5.2	22.8	26.9	27.0	6.39	6.40	88.8	88.5	3.60	3.60		3.60	3.60		7.2	7.2
						27.1		6.40		88.2		3.60			7.2				
			Bottom	9.4	22.4	29.1	29.1	6.20	6.15	86.0	86.0	3.44	3.42		3.44	3.42		6.8	6.8
						29.1		6.09		85.9		3.40			6.8				
29/06/10	1337-1347	28/Cloudy	Surface	1.0	26.5	26.7	26.7	6.73	6.72	92.9	92.7	3.87	3.86	3.96	7.8	7.8	7.9		
						26.7		6.70		92.5		3.85			7.8				
			Middle	5.2	25.3	27.8	27.9	6.65	6.64	91.8	91.7	3.91	3.95		3.91	3.95		7.8	7.9
						27.9		6.63		91.5		3.99			8.0				
			Bottom	9.4	23.8	29.6	29.6	6.58	6.55	90.8	90.3	4.05	4.08		4.05	4.08		8.0	8.1
						29.5		6.51		89.8		4.11			8.2				

Mid-Ebb Tide

Monitoring Station : R29

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)			
					Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	
01/06/10	1455-1505	25/Cloudy	Surface	1.0	24.0	30.1	30.1	6.58	6.59	90.8	90.9	4.07	4.07	4.20	8.0	8.1	8.4
						30.0		6.59		90.9		4.06			8.2		
			Middle	8.3	23.8	31.0	31.0	6.31	6.33	87.1	87.2	4.12	4.13		8.2	8.2	
						31.0		6.34		87.2		4.13			8.2		
			Bottom	15.6	23.5	32.0	32.0	6.21	6.18	85.7	85.2	4.39	4.40		8.8	8.8	
						31.9		6.14		84.7		4.41			8.8		
03/06/10	1550-1602	24/Cloudy	Surface	1.0	23.8	29.0	29.1	6.48	6.48	89.4	89.4	3.48	3.46	3.60	7.0	6.9	7.2
						29.1		6.47		89.3		3.44			6.8		
			Middle	8.5	22.8	29.6	29.7	6.30	6.28	86.9	86.7	3.47	3.49		7.0	7.0	
						29.7		6.26		86.4		3.51			7.0		
			Bottom	16.0	22.4	30.1	30.2	6.23	6.24	85.9	86.0	3.88	3.85		7.6	7.6	
						30.2		6.24		86.1		3.81			7.6		
05/06/10	1640-1650	27/Cloudy	Surface	1.0	24.5	31.2	31.2	6.29	6.28	87.4	87.2	5.16	5.13	5.32	11.0	10.5	11.0
						31.1		6.26		87.0		5.09			10.0		
			Middle	8.5	23.7	31.6	31.6	6.20	6.19	86.4	86.1	5.38	5.35		11.0	11.0	
						31.5		6.17		85.7		5.31			11.0		
			Bottom	16.0	23.2	31.9	31.9	6.08	6.11	84.5	84.9	5.46	5.48		11.0	11.5	
						31.8		6.13		85.2		5.49			12.0		
08/06/10	1015-1037	25/Cloudy	Surface	1.0	23.9	30.9	30.9	6.59	6.61	90.9	91.1	5.67	5.69	5.35	11.0	11.0	10.7
						30.8		6.62		91.3		5.70			11.0		
			Middle	8.4	23.4	31.5	31.5	6.44	6.42	88.8	88.6	5.21	5.24		11.0	11.0	
						31.4		6.40		88.3		5.27			11.0		
			Bottom	15.8	23.2	31.6	31.7	6.20	6.23	85.5	85.9	5.09	5.12		10.0	10.0	
						31.7		6.25		86.2		5.15			10.0		
10/06/10	1115-1128	25/Drizzle	Surface	1.0	24.5	29.4	29.4	6.28	6.26	86.0	85.7	4.42	4.44	4.65	8.8	8.8	9.2
						29.4		6.24		85.4		4.46			8.8		
			Middle	8.6	24.0	29.9	30.0	6.13	6.15	83.9	84.2	4.69	4.70		9.2	9.3	
						30.1		6.17		84.5		4.71			9.4		
			Bottom	16.2	23.5	31.2	31.3	6.10	6.09	83.5	83.3	4.80	4.82		9.6	9.6	
						31.3		6.07		83.1		4.84			9.6		
12/06/10	1258-1311	27/Cloudy	Surface	1.0	24.3	31.3	31.3	5.91	5.92	81.2	81.3	6.11	6.11	6.18	12.0	12.0	12.0
						31.3		5.93		81.4		6.10			12.0		
			Middle	7.1	23.3	32.0	32.0	5.81	5.79	77.3	77.5	6.05	6.12		12.0	12.0	
						32.0		5.77		77.7		6.18			12.0		
			Bottom	13.2	23.0	32.1	32.1	5.66	5.66	76.3	76.2	6.29	6.31		12.0	12.0	
						32.1		5.66		76.1		6.33			12.0		
15/06/10	1415-1426	28/Drizzle	Surface	1.0	26.8	28.3	28.3	6.56	6.56	90.5	90.5	3.35	3.37	3.58	6.6	6.7	7.1
						28.3		6.55		90.4		3.38			6.8		
			Middle	8.9	26.0	29.1	29.2	6.36	6.36	87.2	87.2	3.62	3.63		7.2	7.2	
						29.2		6.35		87.1		3.64			7.2		
			Bottom	16.8	25.4	30.0	30.0	6.12	6.15	83.7	84.1	3.72	3.73		7.4	7.4	
						30.0		6.17		84.4		3.74			7.4		
17/06/10	1634-1645	31/Fine	Surface	1.0	28.5	30.6	30.6	6.35	6.37	83.3	83.6	4.25	4.25	4.36	8.4	8.4	8.7
						30.6		6.39		83.9		4.24			8.4		
			Middle	8.8	27.7	31.2	31.2	6.20	6.23	81.4	81.7	4.33	4.35		8.6	8.7	
						31.2		6.25		82.0		4.36			8.8		
			Bottom	15.6	27.2	31.6	31.6	6.03	6.05	79.1	79.3	4.48	4.49		9.0	9.0	
						31.6		6.06		79.5		4.50			9.0		
19/06/10	1812-1822	30/Cloudy	Surface	1.0	26.3	30.4	30.4	6.41	6.43	88.4	88.6	5.21	5.24	5.28	11.0	11.0	10.7
						30.3		6.44		88.8		5.27			11.0		
			Middle	8.3	25.6	31.5	31.6	6.17	6.16	85.1	85.0	5.44	5.47		11.0	11.0	
						31.6		6.15		84.8		5.50			11.0		
			Bottom	15.6	24.9	32.0	32.0	6.24	6.26	86.1	86.3	5.15	5.13		10.0	10.0	
						31.9		6.27		86.5		5.10			10.0		
22/06/10	0947-0958	30/Cloudy	Surface	1.0	26.8	30.9	30.9	6.70	6.72	92.4	92.7	5.07	5.09	5.05	10.0	10.5	10.3
						30.8		6.74		93.0		5.10			11.0		
			Middle	8.4	25.6	31.8	31.8	6.36	6.38	87.7	88.0	4.95	4.97		10.0	10.0	
						31.7		6.40		88.3		4.99			10.0		
			Bottom	15.8	24.8	32.1	32.2	6.50	6.47	89.7	89.3	5.14	5.11		11.0	10.5	
						32.2		6.44		88.8		5.07			10.0		
24/06/10	1222-1234	30/Rainy	Surface	1.0	24.5	26.4	26.4	6.46	6.47	88.4	88.7	1.95	1.94	2.68	4.0	4.0	5.4
						26.4		6.48		88.9		1.92			4.0		
			Middle	8.6	24.1	27.4	27.5	6.26	6.26	86.2	86.2	2.96	2.94		6.0	5.9	
						27.5		6.26		86.1		2.92			5.8		
			Bottom	16.2	23.8	28.5	28.6	6.11	6.11	85.0	84.6	3.15	3.17		6.2	6.3	
						28.6		6.11		84.2		3.18			6.4		
26/06/10	1331-1345	28/Rainy	Surface	1.0	22.9	25.0	25.0	6.39	6.42	89.8	89.8	3.93	3.92	3.65	7.8	7.8	7.3
						24.9		6.44		89.8		3.90			7.8		
			Middle	8.8	22.5	26.8	26.9	6.20	6.21	86.0	86.1	3.46	3.47		7.0	7.0	
						27.0		6.22		86.2		3.48			7.0		
			Bottom	16.6	22.3	28.9	28.9	6.01	6.01	83.9	83.7	3.55	3.56		7.0	7.1	
						28.8		6.01		83.4		3.57			7.2		
29/06/10	1350-1402	28/Cloudy	Surface	1.0	26.4	26.7	26.8	6.81	6.80	93.9	93.8	4.38	4.36	4.45	8.8	8.7	8.9
						26.8		6.79		93.7		4.33			8.6		
			Middle	8.5	25.2	27.9	27.9	6.64	6.62	91.6	91.4	4.47	4.46		9.0	9.0	
						27.9		6.60		91.1		4.45			9.0		
			Bottom	16.0	23.7	29.6	29.6	6.57	6.56	90.7	90.5	4.56	4.55		9.2	9.1	
						29.6		6.54		90.3		4.53			9.0		

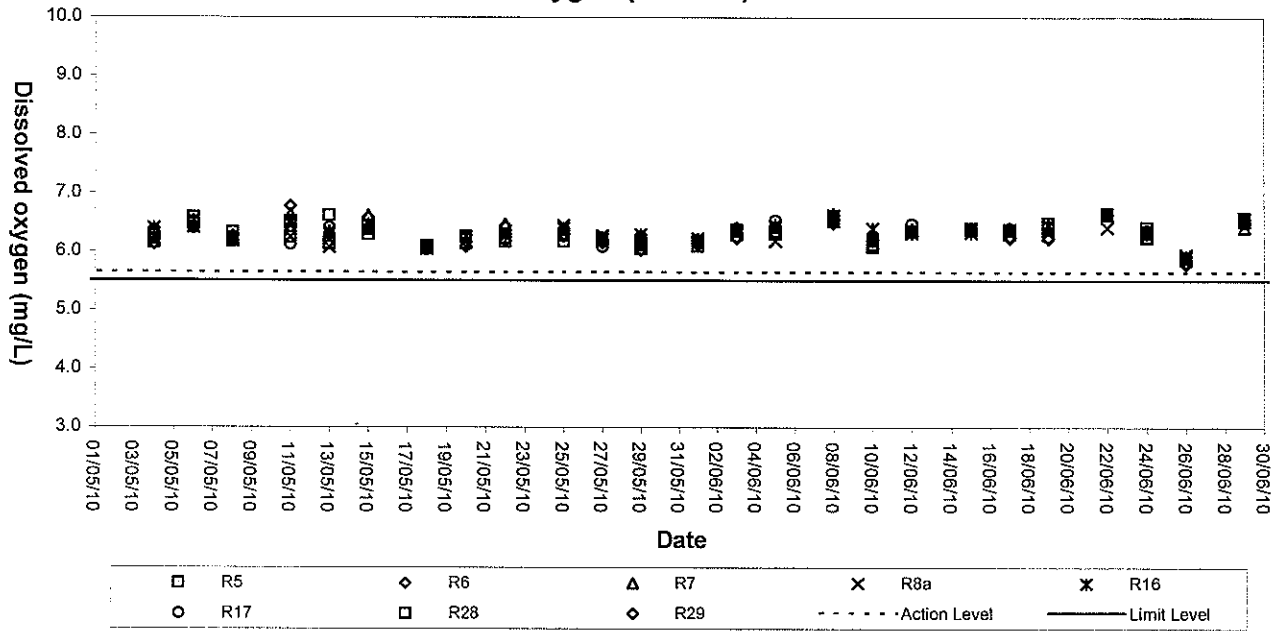


## Appendix C3

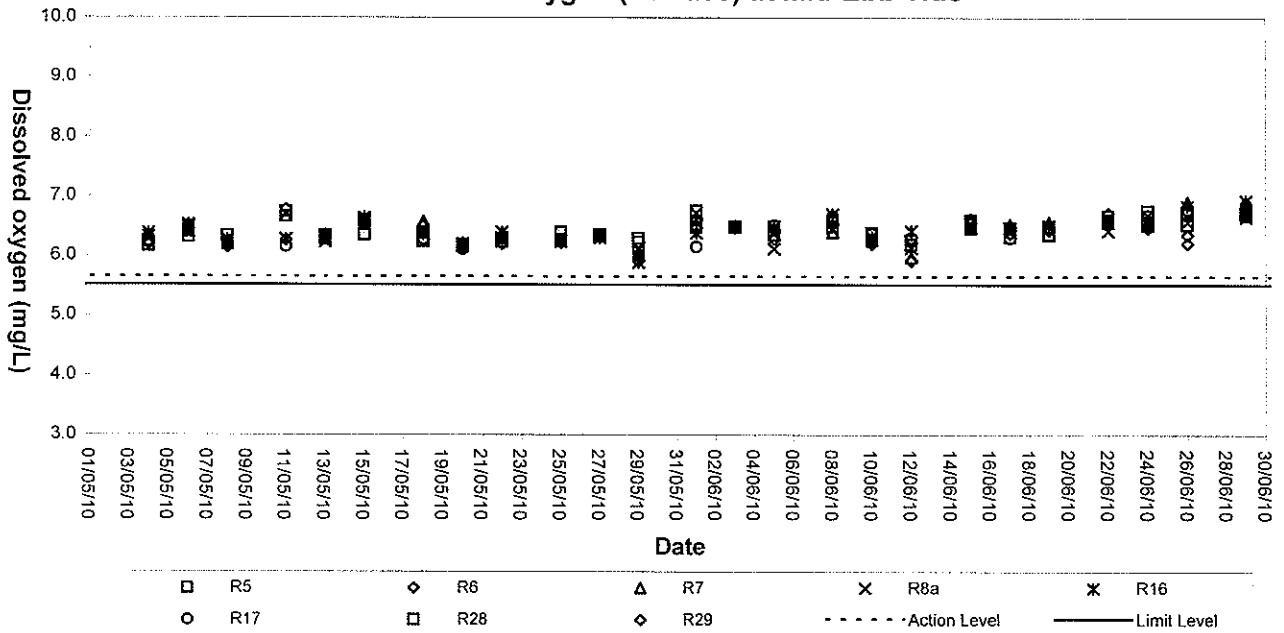
### Graphical Plots of Impact Water Quality Monitoring Data



### Dissolved Oxygen (Surface) at Mid-Flood Tide

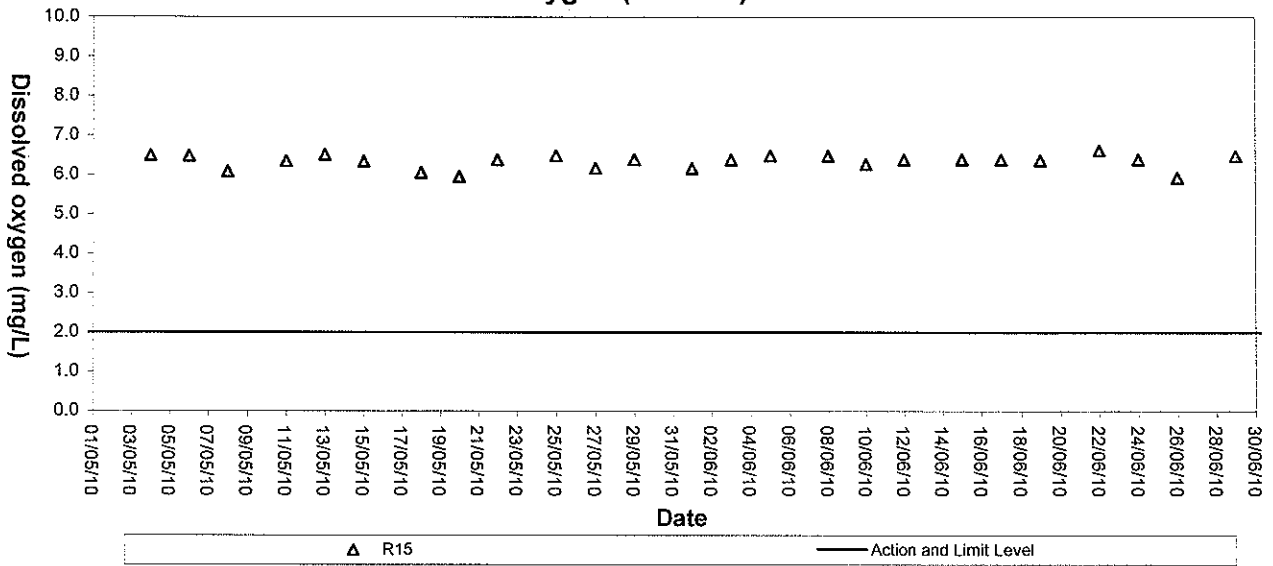


### Dissolved Oxygen (Surface) at Mid-Ebb Tide

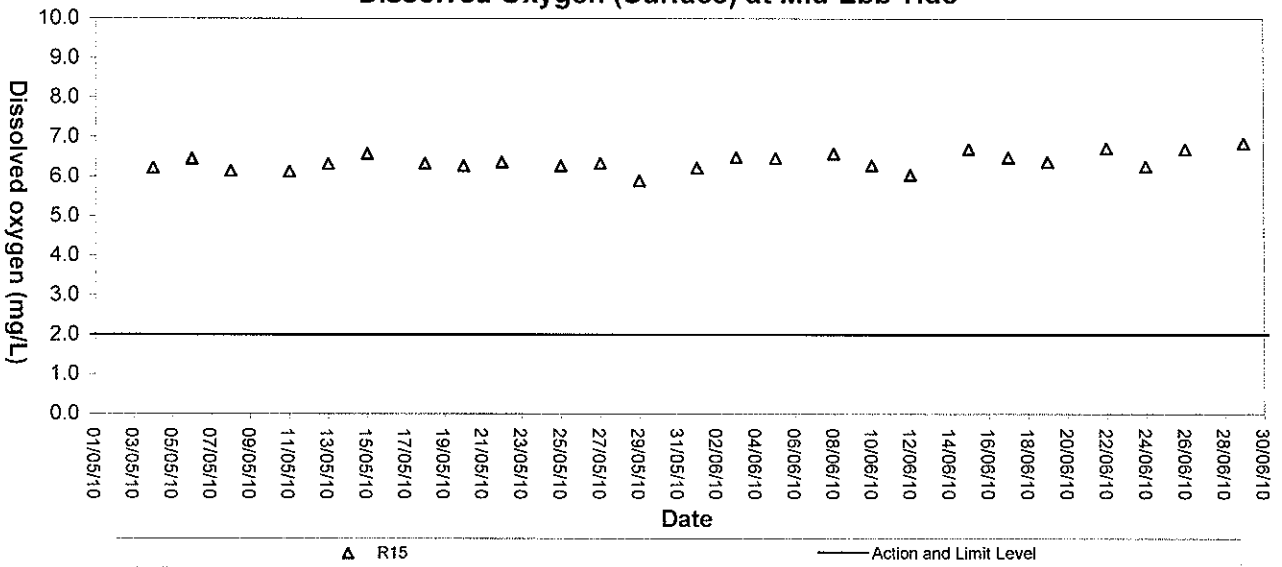




### Dissolved Oxygen (Surface) at Mid-Flood Tide

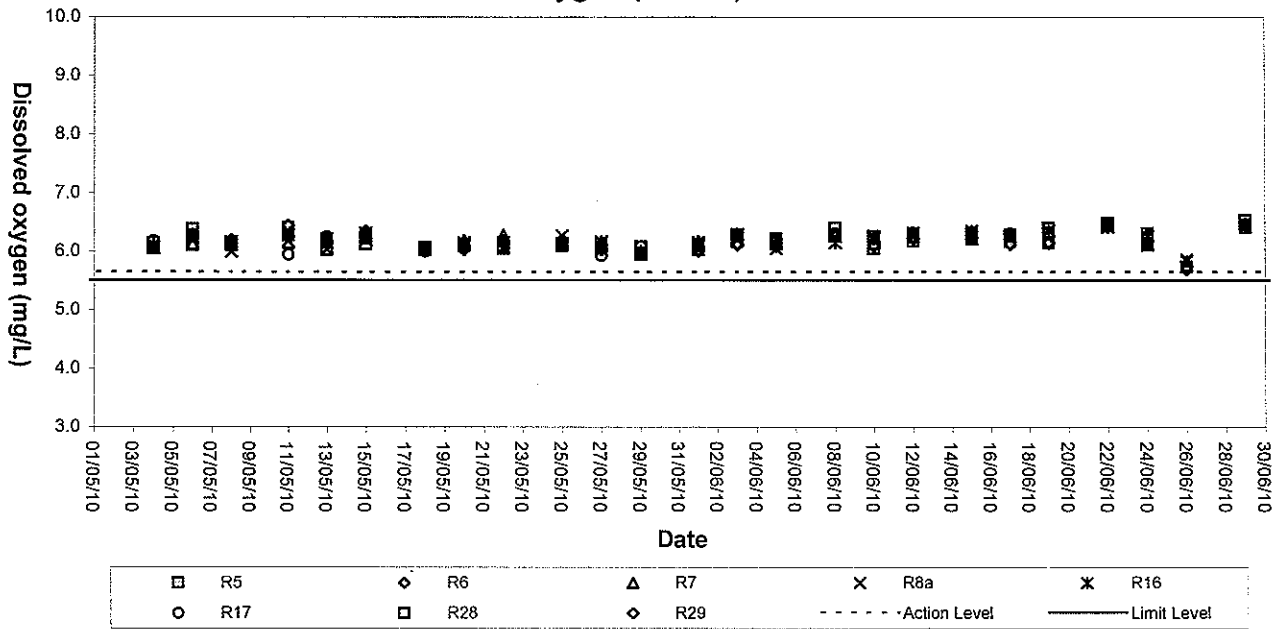


### Dissolved Oxygen (Surface) at Mid-Ebb Tide

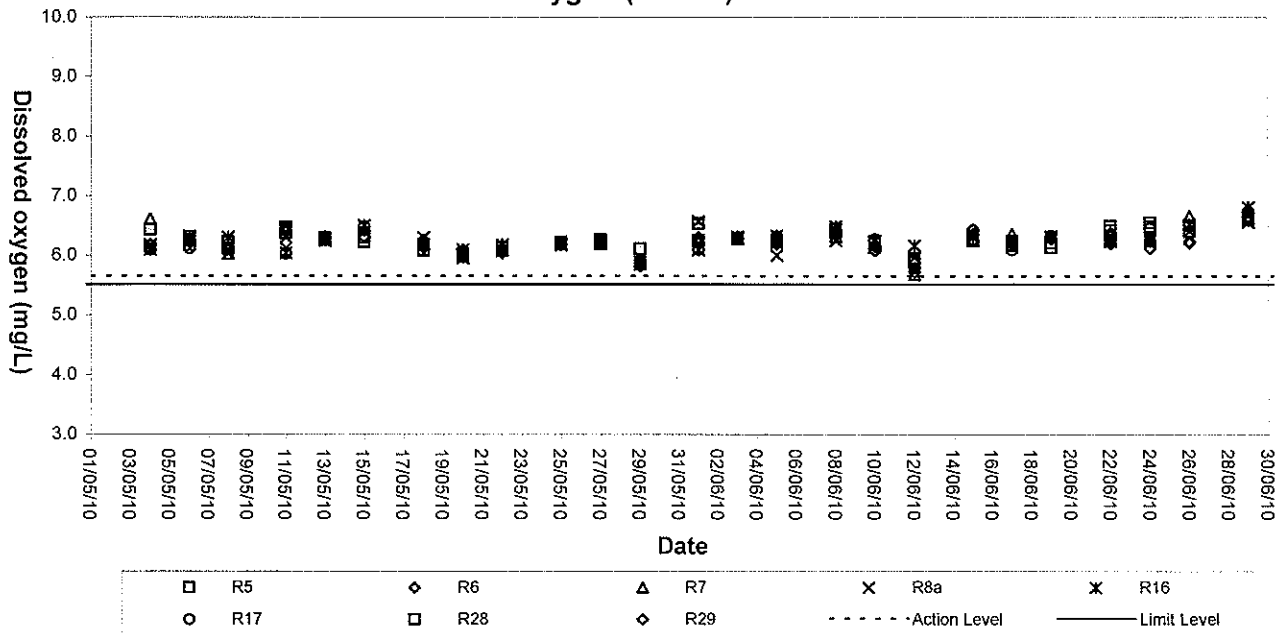




### Dissolved Oxygen (Middle) at Mid-Flood Tide



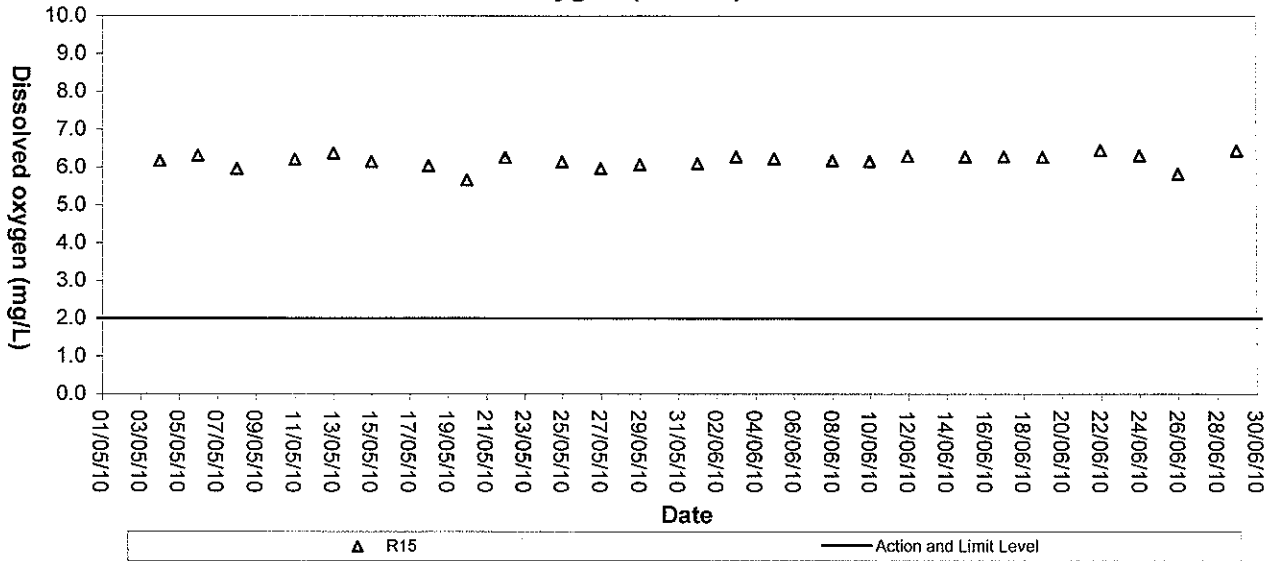
### Dissolved Oxygen (Middle) at Mid-Ebb Tide



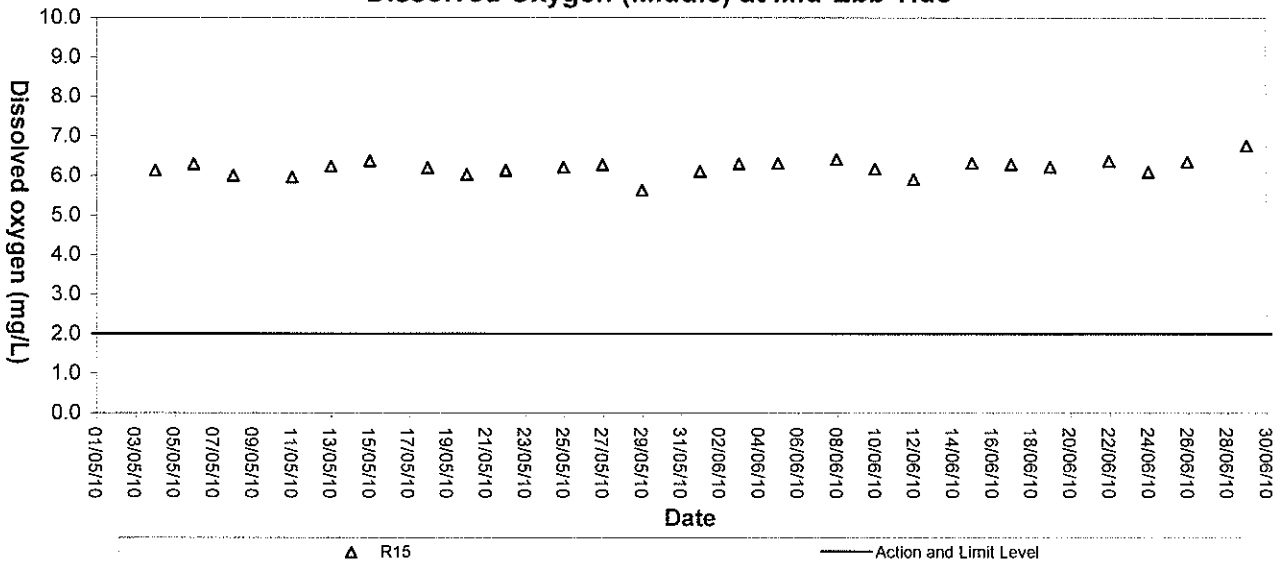




### Dissolved Oxygen (Middle) at Mid-Flood Tide

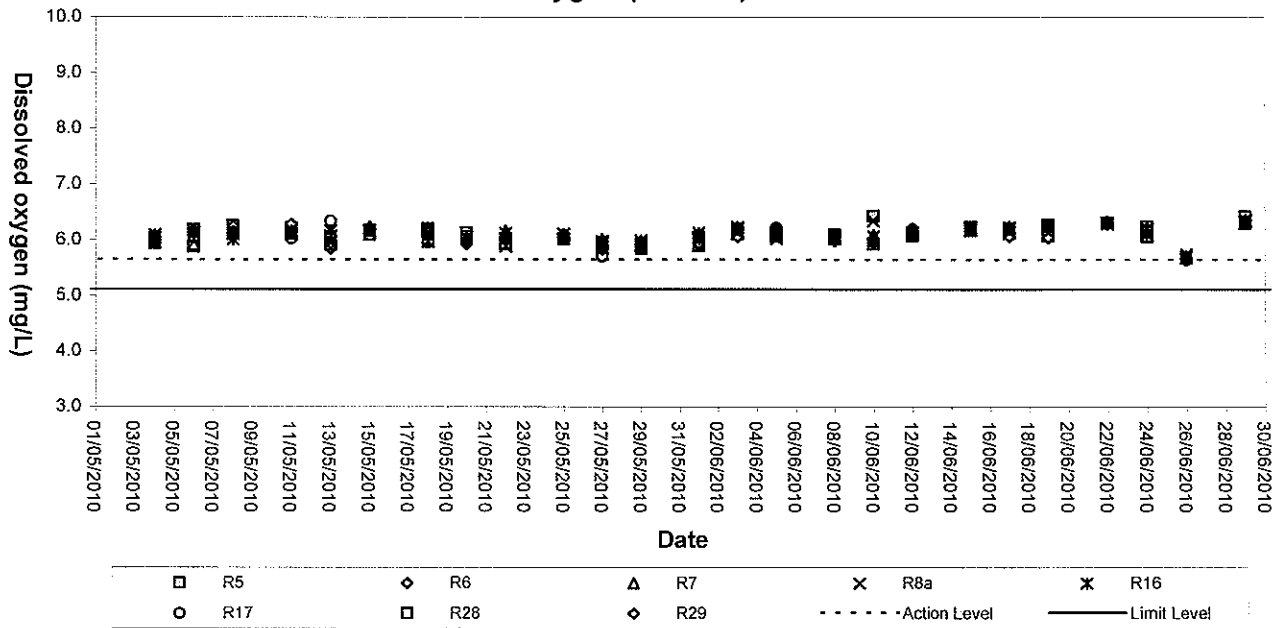


### Dissolved Oxygen (Middle) at Mid-Ebb Tide

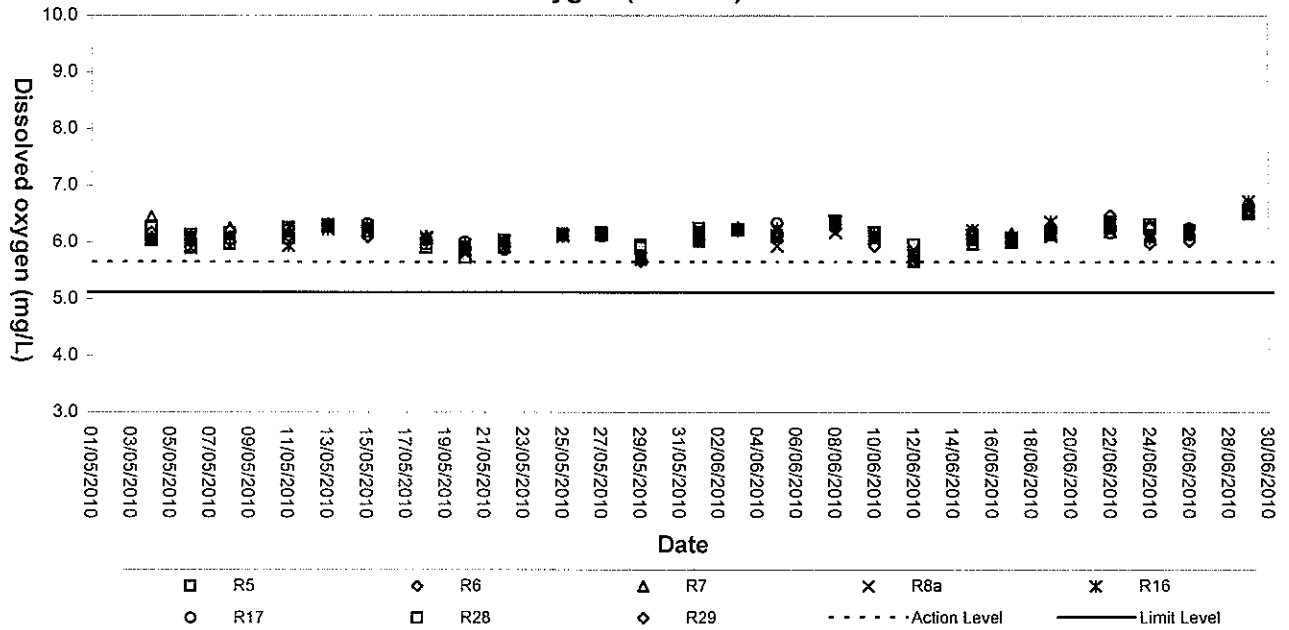




### Dissolved Oxygen (Bottom) at Mid-Flood Tide

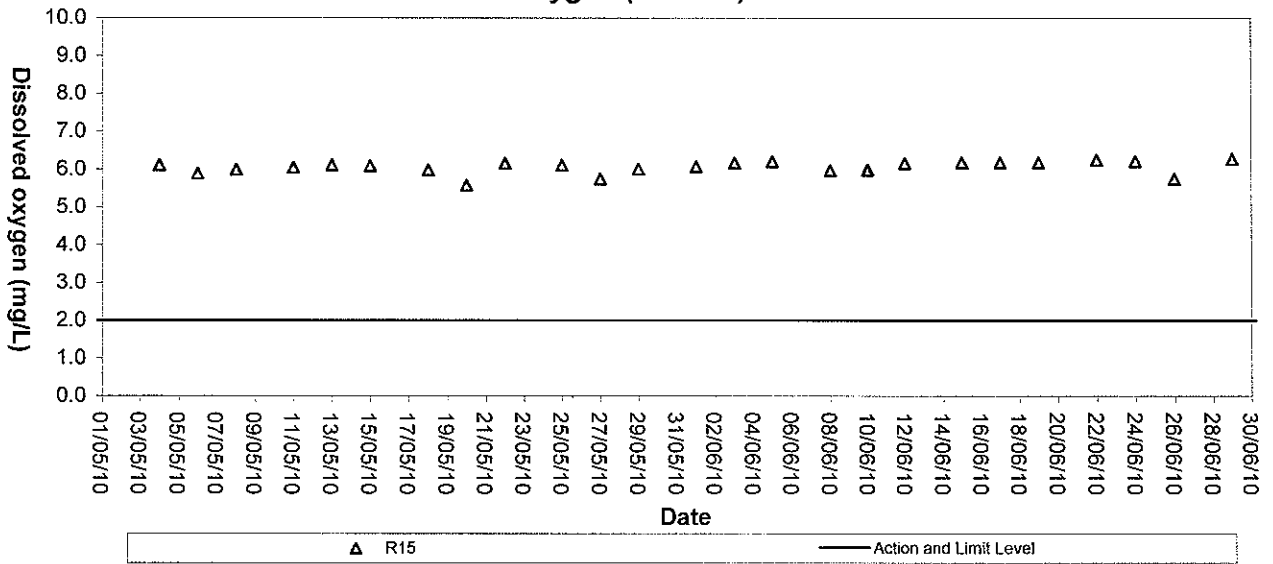


### Dissolved Oxygen (Bottom) at Mid-Ebb Tide

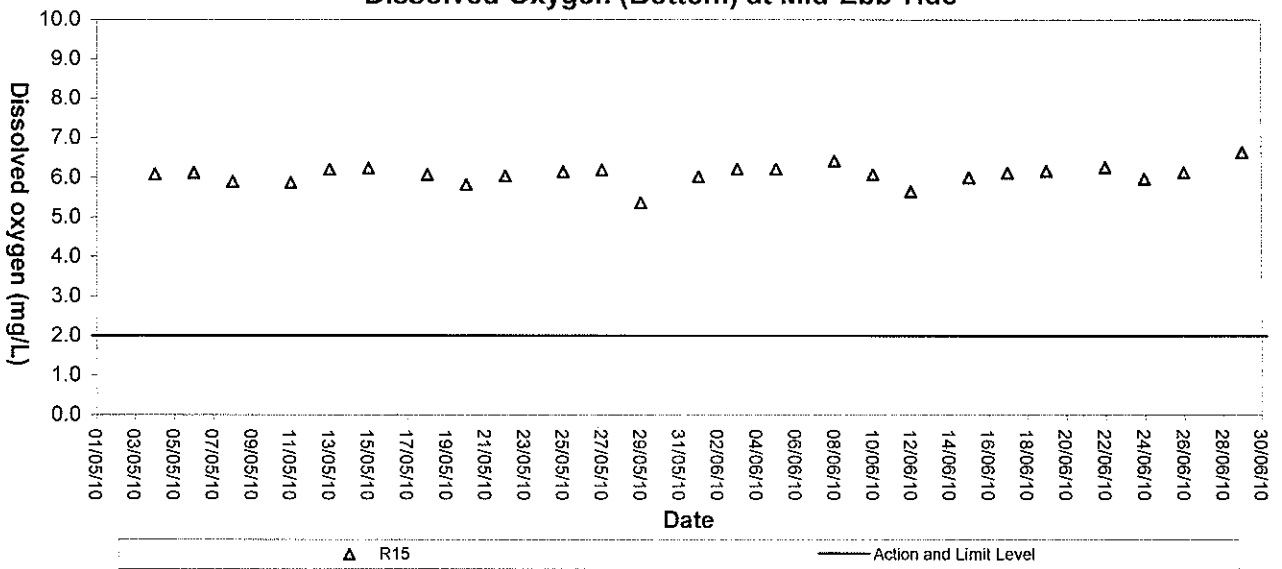




### Dissolved Oxygen (Bottom) at Mid-Flood Tide



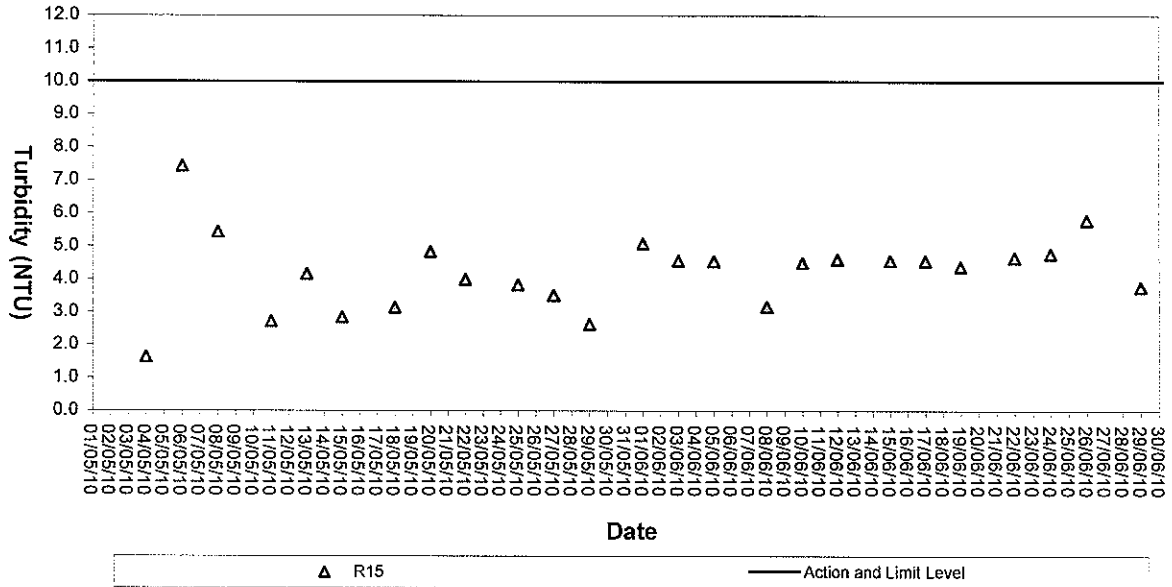
### Dissolved Oxygen (Bottom) at Mid-Ebb Tide



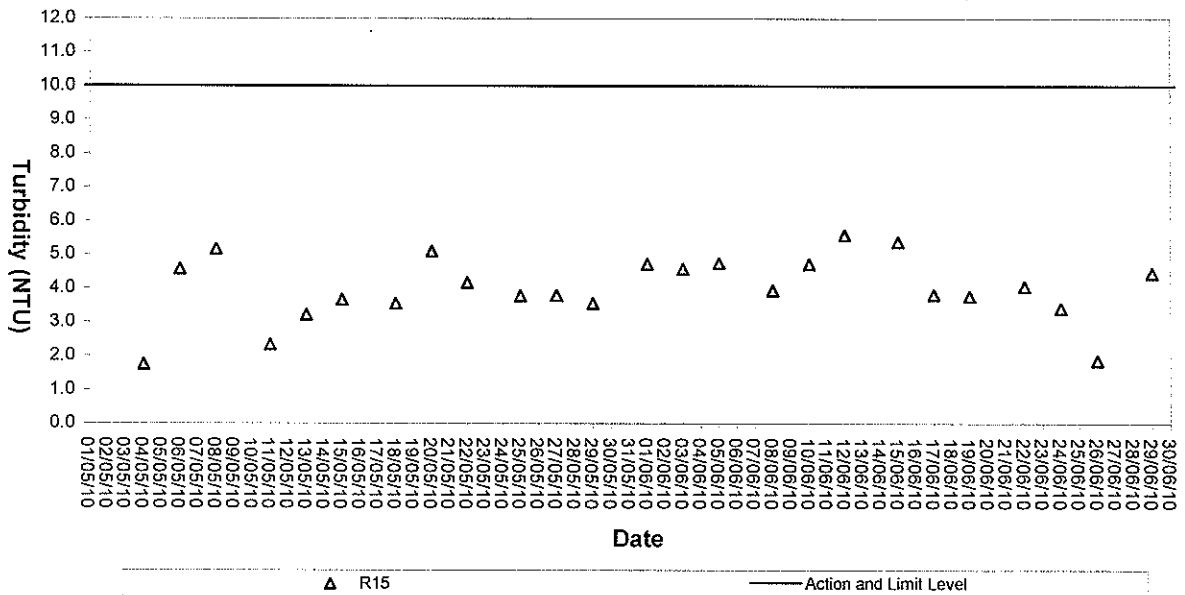




### Turbidity (Depth-average) of R15 at Mid-Flood Tide

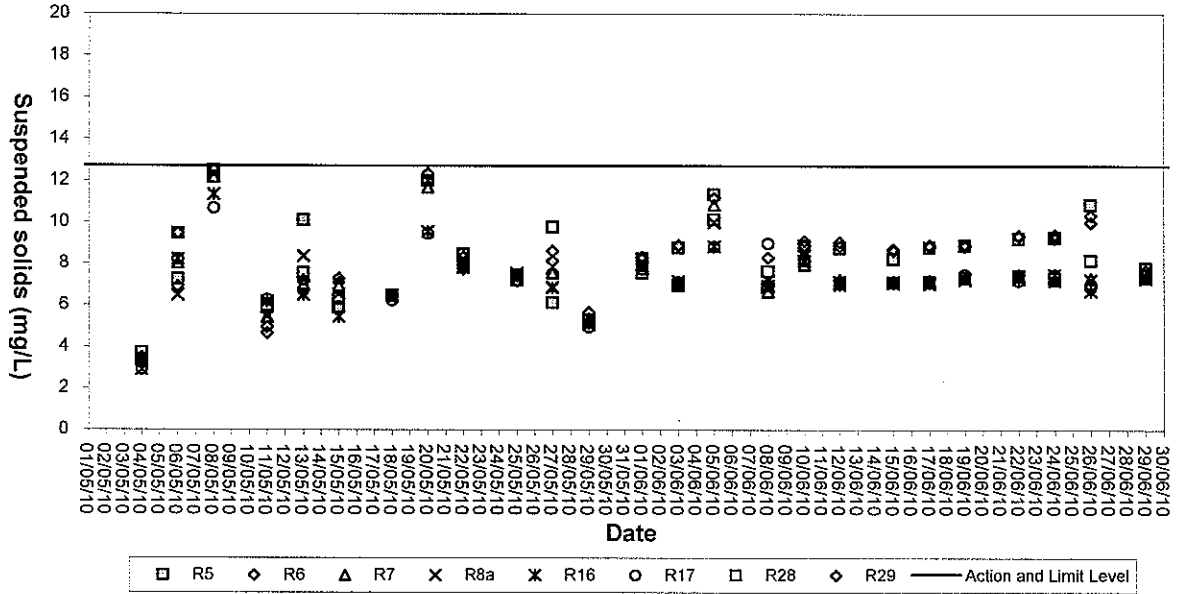


### Turbidity (Depth-average) of R15 at Mid-Ebb Tide

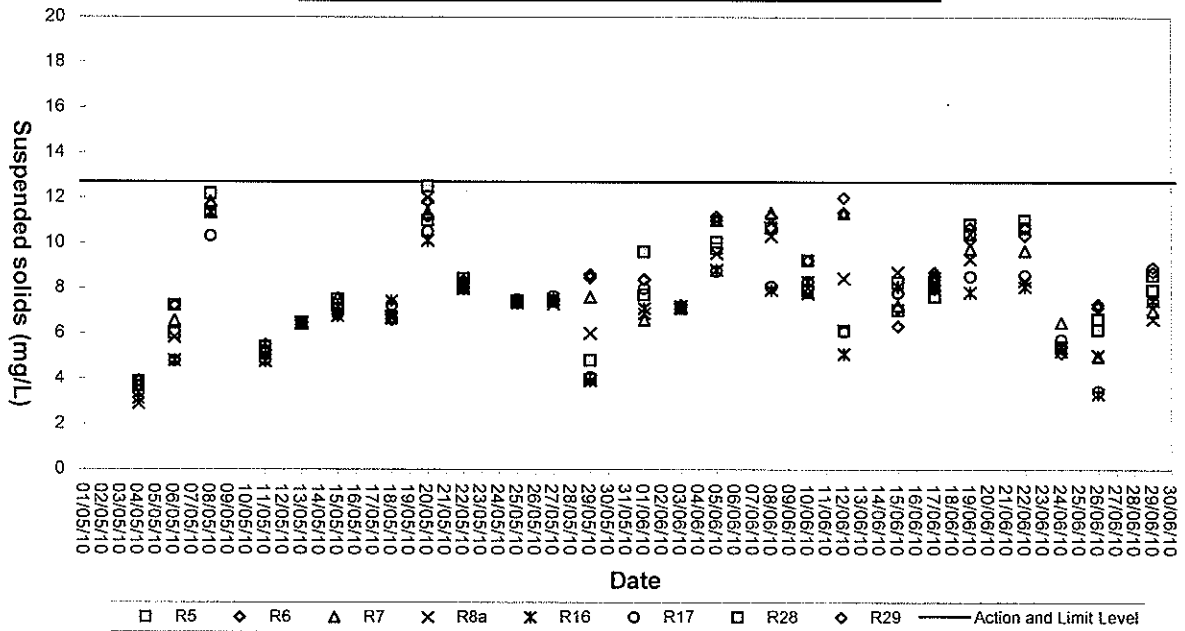




**Suspended solids (Depth-average) at Mid-Flood Tide**

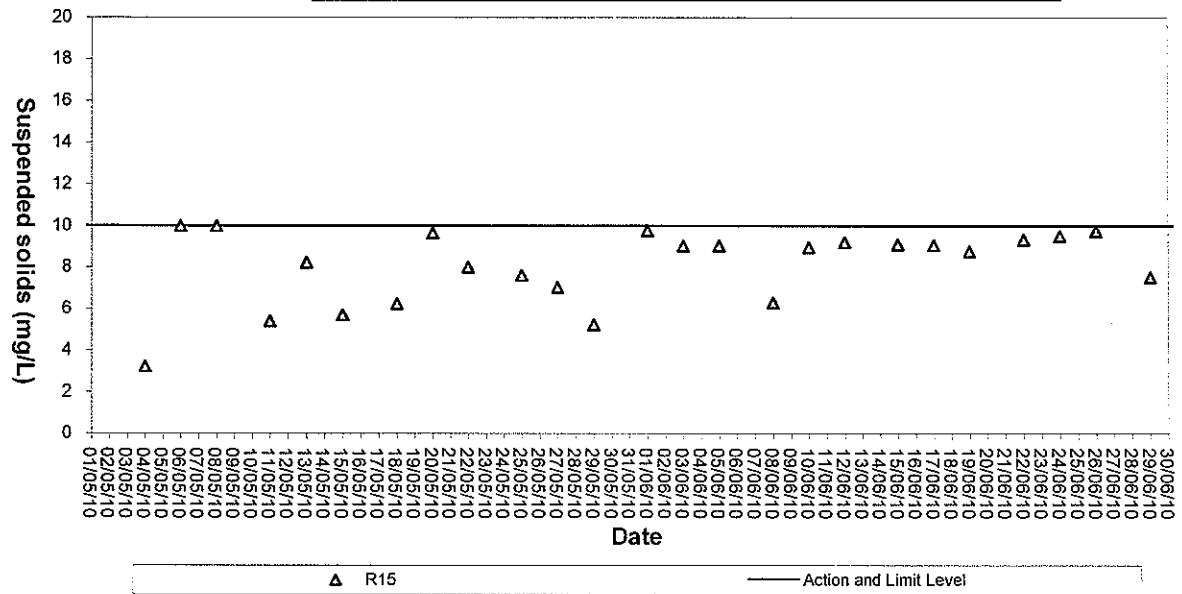


**Suspended Solids (Depth-average) at Mid-Ebb Tide**

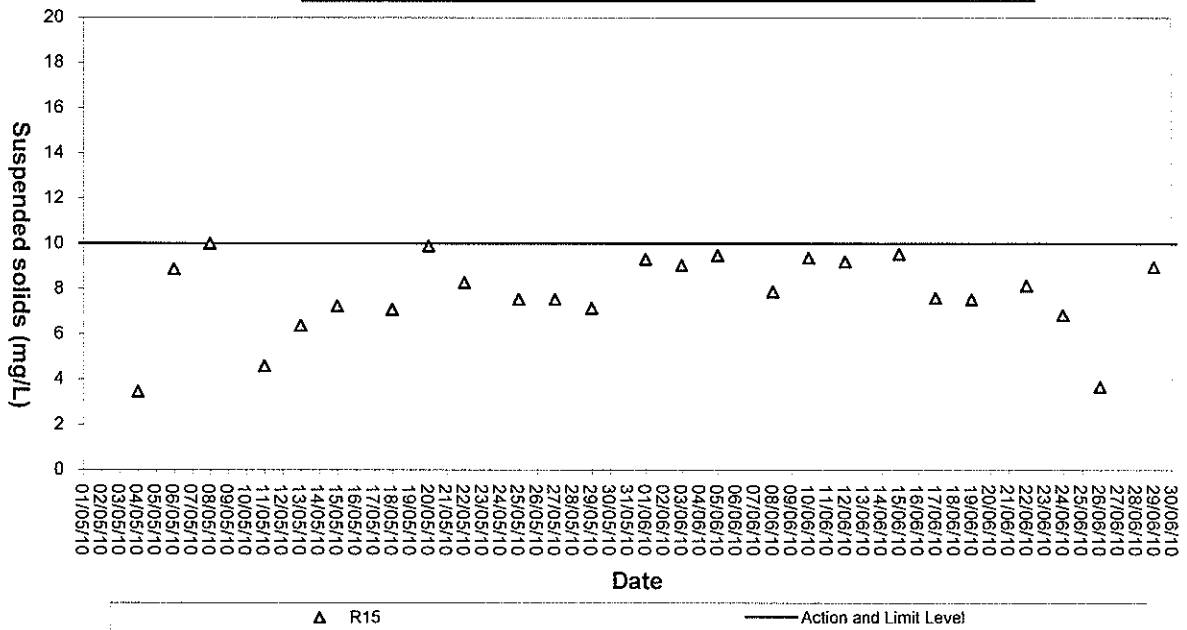




### Suspended solids (Depth-average) of R15 at Mid-Flood Tide



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





## **Appendix C4**

### **QA/QC Results of Laboratory Analysis for Water Samples**





### QA/QC Results of Laboratory Analysis of Total Suspended Solids

Sampling Date	QC Sample	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
01/06/10	101.9	R5FS	0.0	R8FS	100.0
	103.2	R8FM	6.5	R17FM	103.8
	104.8	R17FB	0.0	C1FB	96.0
	98.0	C2FS	0.0	C4FB	95.8
	93.6	R5ES	0.0	R8ES	100.0
	93.6	R8EM	0.0	R17EM	105.9
	96.7	R17EB	0.0	C1EB	100.0
	95.0	C2ES	0.0	C4EB	94.1
03/06/10	101.2	R5FS	0.0	R8FS	98.0
	93.9	R8FM	0.0	R17FM	95.8
	106.3	R17FB	6.5	C1FB	102.0
	100.0	C2FS	0.0	C4FB	94.2
	102.5	R5ES	0.0	R8ES	106.1
	103.2	R8EM	0.0	R17EM	108.3
	95.3	R17EB	0.0	C1EB	106.0
	100.0	C2ES	0.0	C4EB	106.0
05/06/10	101.9	R5FS	8.7	R8FS	102.0
	98.1	R8FM	0.0	R17FM	103.9
	100.4	R17FB	5.4	C1FB	93.8
	104.4	C2FS	0.0	C4FB	96.2
	105.2	R5ES	0.0	R8ES	106.0
	93.0	R8EM	0.0	R17EM	100.0
	104.3	R17EB	0.0	C1EB	106.1
	93.9	C2ES	5.1	C4EB	93.6
08/06/10	102.3	R5FS	0.0	R8FS	93.9
	101.1	R8FM	0.0	R17FM	104.2
	103.4	R17FB	0.0	C1FB	98.0
	105.4	C2FS	8.7	C4FB	106.3
	94.8	R5ES	0.0	R8ES	98.0
	102.2	R8EM	0.0	R17EM	106.1
	101.8	R17EB	0.0	C1EB	107.7
	98.6	C2ES	0.0	C4EB	92.3
10/06/10	94.8	R5FS	0.0	R8FS	105.9
	94.9	R8FM	6.1	R17FM	105.7
	96.7	R17FB	6.1	C1FB	98.0
	98.1	C2FS	0.0	C4FB	100.0
	103.3	R5ES	0.0	R8ES	102.0
	94.0	R8EM	6.5	R17EM	101.9
	98.0	R17EB	0.0	C1EB	95.7
	97.8	C2ES	0.0	C4EB	100.0
12/06/10	96.5	R5FS	0.0	R8FS	105.9
	103.1	R8FM	0.0	R17FM	103.8
	100.6	R17FB	0.0	C1FB	98.0
	102.0	C2FS	0.0	C4FB	100.0
	97.3	R5ES	0.0	R8ES	96.0
	103.3	R8EM	5.4	R17EM	103.8
	104.0	R17EB	0.0	C1EB	100.0
	96.6	C2ES	0.0	C4EB	100.0

Note: (\*) % Recovery of QC sample should be between 80% to 120%.  
 (#) % Error of Sample Duplicate should be between -10% to 10%.  
 (®) % Recovery of Sample Spike should be between 80% to 120%.



### QA/QC Results of Laboratory Analysis of Total Suspended Solids

Sampling Date	QC Sample	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
15/06/10	97.3	R5FS	0.0	R8FS	108.0
	94.8	R8FM	0.0	R17FM	98.0
	104.9	R17FB	6.5	C1FB	100.0
	101.0	C2FS	0.0	C4FB	103.8
	95.8	R5ES	6.1	R8ES	102.0
	107.5	R8EM	0.0	R17EM	94.0
	107.0	R17EB	0.0	C1EB	98.1
	105.3	C2ES	0.0	C4EB	104.0
17/06/10	107.7	R5FS	0.0	R8FS	100.0
	98.4	R8FM	6.9	R17FM	95.8
	99.2	R17FB	0.0	C1FB	98.1
	97.9	C2FS	0.0	C4FB	103.9
	93.6	R5ES	0.0	R8ES	105.7
	98.6	R8EM	0.0	R17EM	93.9
	100.6	R17EB	0.0	C1EB	105.8
	102.1	C2ES	0.0	C4EB	102.1
19/06/10	97.5	R5FS	0.0	R8FS	109.4
	104.3	R8FM	6.9	R17FM	96.1
	94.9	R17FB	6.5	C1FB	102.0
	92.5	C2FS	0.0	C4FB	96.1
	96.2	R5ES	4.4	R8ES	96.2
	102.9	R8EM	5.4	R17EM	102.0
	98.0	R17EB	0.0	C1EB	104.1
	96.4	C2ES	0.0	C4EB	100.0
22/06/10	94.9	R5FS	0.0	R8FS	94.1
	104.5	R8FM	0.0	R17FM	104.0
	92.6	R17FB	0.0	C1FB	94.0
	98.2	C2FS	0.0	C4FB	98.0
	96.3	R5ES	4.4	R8ES	98.0
	105.7	R8EM	0.0	R17EM	108.3
	105.5	R17EB	0.0	C1EB	100.0
	100.0	C2ES	5.4	C4EB	96.0
24/06/10	102.3	R5FS	0.0	R8FS	102.1
	104.3	R8FM	0.0	R17FM	106.3
	99.8	R17FB	6.5	C1FB	102.1
	94.0	C2FS	0.0	C4FB	101.9
	106.4	R5ES	0.0	R8ES	103.8
	105.7	R8EM	8.7	R17EM	97.9
	99.2	R17EB	0.0	C1EB	94.1
	100.4	C2ES	0.0	C4EB	98.0
26/06/10	97.2	R5FS	0.0	R8FS	98.0
	103.0	R8FM	0.0	R17FM	96.0
	93.6	R17FB	6.9	C1FB	105.8
	104.5	C2FS	0.0	C4FB	95.9
	106.7	R5ES	0.0	R8ES	106.1
	100.8	R8EM	9.5	R17EM	109.6
	104.3	R17EB	0.0	C1EB	91.7
	106.6	C2ES	0.0	C4EB	95.8

Note: (\*) % Recovery of QC sample should be between 80% to 120%.  
 (#) % Error of Sample Duplicate should be between -10% to 10%.  
 (@) % Recovery of Sample Spike should be between 80% to 120%.



### QA/QC Results of Laboratory Analysis of Total Suspended Solids

Sampling Date	QC Sample	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
29/06/10	105.5	R5FS	0.0	R8FS	105.9
	104.4	R8FM	6.9	R17FM	103.9
	96.1	R17FB	0.0	C1FB	109.4
	95.4	C2FS	0.0	C4FB	108.2
	107.2	R5ES	0.0	R8ES	104.1
	99.8	R8EM	0.0	R17EM	95.9
	99.8	R17EB	0.0	C1EB	100.0
	104.7	C2ES	6.9	C4EB	94.2

Note: (\*) % Recovery of QC sample should be between 80% to 120%.  
(#) % Error of Sample Duplicate should be between -10% to 10%.  
(@) % Recovery of Sample Spike should be between 80% to 120%.



## Appendix D

### Event-Action Plans



## Event and Action Plan for Construction Noise

Event	Action			
	ET Leader	IEC	ER	Contractor
<b>Action Level</b>	<ol style="list-style-type: none"> <li>1. Notify IEC and the Contractor.</li> <li>2. Carry out investigation.</li> <li>3. Report the results of investigation to IEC and the Contractor.</li> <li>4. Discuss with the Contractor and formulate remedial measures.</li> <li>5. Increase monitoring frequency to check mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Review with analysed results submitted by ET.</li> <li>2. Review the proposed remedial measures by the Contractor and advise ER accordingly.</li> <li>3. Supervise the implement of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of exceedance in writing.</li> <li>2. Notify the Contractor.</li> <li>3. Require the 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>
<b>Limit Level</b>	<ol style="list-style-type: none"> <li>1. Identify the source.</li> <li>2. Notify IEC, ER, EPD and the Contractor.</li> <li>3. Repeat measurement 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, ER, and EPD the causes &amp; actions taken for the exceedances.</li> <li>7. Assess effectiveness of the Contractor's remedial actions and keep IEC, EPD and ER 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 ER, ET Leader and the Contractor on the potential remedial actions.</li> <li>2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise ER 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 exceedance in writing.</li> <li>2. Notify the Contractor.</li> <li>3. Require the Contractor to propose remedial measures for the analysed noise problem.</li> <li>4. Ensure remedial measures are properly implemented.</li> <li>5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abated.</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 activity of works as determined by the ER until the exceedance is abated.</li> </ol>



## Event and Action Plan for Water Quality for Construction Phase

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



### Event and Action Plan for Water Quality for Construction Phase

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



## **Appendix E**

### **Work Programme**



Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Free Float
1156		07SEP09	06NOV12	07SEP09	05NOV12	05NOV12	0	0

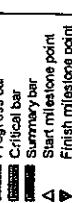
Key Dates	Contract Commencement Date	Contract Completion	Works Period of Section 1 Works (79 Days)	Works Period of Section 2 Works (426 Days)	Works Period of Section 3 Works (649 Days)	Works Period of Section 4 Works (649 Days)	Works Period of Section 5 Works (1156 Days)
KD-1010	07SEP09	06NOV12	07SEP09	06NOV12	07SEP09	06NOV12	06NOV12
KD-1020	07SEP09	06NOV12	07SEP09	06NOV12	07SEP09	06NOV12	06NOV12
KD-1030	07SEP09	06NOV12	07SEP09	06NOV12	07SEP09	06NOV12	06NOV12
KD-1040	07SEP09	06NOV12	07SEP09	06NOV12	07SEP09	06NOV12	06NOV12
KD-1050	07SEP09	06NOV12	07SEP09	06NOV12	07SEP09	06NOV12	06NOV12
KD-1060	07SEP09	06NOV12	07SEP09	06NOV12	07SEP09	06NOV12	06NOV12

Preliminary	Start	Finish	Description
B1-1000	07SEP09	05DEC09	Mobilization
B1-1100	18NOV09	14JAN10	Site Office
B1-1120	15JAN10	09AUG10	Maintenance/Service of Preliminary Items
B1-1130	09AUG10	05NOV12	Clearance & Demobilisation
B1-1140	09AUG10	05NOV12	Environmental Monitoring
B1-1150	15DEC09	29DEC09	Material Approval For Water Mains & Accessories
B1-1160	09NOV09	04JAN10	Material Procurement & Delivery Start
B1-1160B	14JUN10	18JUL11*	Delivery of Valve, Actuators, Flow Meter & EGM
B1-1170	08NOV09	06NOV11	CCTV & Monitoring Of Existing DSD Drainage
B1-1180	08NOV09	06NOV11	Monitoring of HyD Structure

Section 1	Start	Finish	Description
791	07SEP09	06NOV11	Approval & Consent - XP, TTA, MS & Temp Works
180	07SEP09	05MAR10	Final PFI & Utilities Detection (Except E2 & K)
120	07SEP09	04JAN10	Final PFI & Utilities Detection (Except E2 & K)
40	07SEP09	16OCT09	Portion H2 Cycle Track & Footpath Proposal
60	07OCT09	05DEC09	Portion H2 Diversion Route For Cycle Track
90	07SEP09	05DEC09	Portion H2 Submission For Hoarding Mural Design
30	09DEC09	04JAN10	Portion H2 Set Up For Hoarding Approved Design
120	07SEP09	04JAN10	Initial & Utilities Survey (Except E2 & K)
45	23SEP11	06NOV11	Final Pipe Testing & Reinstatement
0	08NOV11	08NOV11	Completion of Section 1 Works

Land Works	Start	Finish	Description
180	07SEP09	05MAR10	MTRCL Consent For Works Commencement
270	08MAR10	13DEC10	MTRCL Structure Stability Monitoring
90	24JUN10	21SEP11	Portion C1 Pipe Works CH180.0-237.5 (O)
60	08MAR10	04MAY10	Portion C1 Trough Construction CH237.5-290.0
80	05MAY10	23JUN10	Portion C1 Pipe Works CH237.5-290 (FT)
70	22SEP10	30JUL11	Portion C1 Pipe Works CH190.0-325.5 (O)
14	01DEC10	14DEC10	Area C1 Portional Pipe Testing
180	07SEP09	05MAR10	MTRCL Consent For Works Commencement
270	08MAR10	13DEC10	MTRCL Structure Stability Monitoring
90	24JUN10	21SEP11	Portion C1 Pipe Works CH180.0-237.5 (O)
60	08MAR10	04MAY10	Portion C1 Trough Construction CH237.5-290.0
80	05MAY10	23JUN10	Portion C1 Pipe Works CH237.5-290 (FT)
70	22SEP10	30JUL11	Portion C1 Pipe Works CH190.0-325.5 (O)
14	01DEC10	14DEC10	Area C1 Portional Pipe Testing
180	14FEB10	12AUG10	Portion E1A Pipe Works CH37.5-576.9 (O)
108	01OCT10	28MAY11	Portion E1A Pipe Works CH576.9-585.9 (TL-B)
14	17JAN11	09SEP11	Area E1A Portional Pipe Testing
50	13AUG10	01OCT10	Portion E1B Diversion of Existing Storm Drain
115	02OCT10	24JAN11	Portion E1B Pipe Works CH565.9-660.5 (O)
50	05JAN10	23FEB10	Portion E1B DN600A SWM Works CH7.1-63.7 (UC)
30	24FEB10	28MAR10	Portion E1B DN600A SWM Works CH60.0-71.0 (O)
30	28MAR10	14OCT10	Portion E2 DN600A SWM Works CH63.7-67.9 (O)

Portion E1B	Start	Finish	Description
124	07SEP09	06NOV12	Final Pipe Testing & Reinstatement
0	08NOV11	08NOV11	Completion of Section 1 Works



Master Programme Rev. B1

Wo Hing - Penta-Ocean Joint Venture

Start date	07SEP09
Finish date	06NOV12
Data date	07SEP09
Run date	02NOV09
Page number	1A
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Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Free Float
S1-4440	E1B Existing DN600 SWM Diversion & Demolition	30	25APR10	24MAY10	13NOV10	12DEC10	202d	0
S1-4445	Portion E1B Trough Construction Under Planter	60	24JUN10	22AUG10	02MAR11	02MAY11	192d	0
S1-4450	Portion E1B Pipe Works CH460.5-577.4 (PT)	60	23AUG10	21OCT10	03MAR11	03MAY11	192d	0
S1-4460	Portion E1B Pipe Works CH477.4-695.9 (O)	40	01DEC10	09JAN11	31JUL11	08SEP11	242d	18d
S1-4470	Portion E1B Pipe Works CH685.9-698.5 (UC)	20	22OCT10	10NOV10	02MAY11	21MAY11	192d	0
S1-4480	Portion E1B DN600B SWM Works CH0.0-7.1 (O)	50	25MAY10	23JUN10	13DEC10	31JAN11	202d	0
S1-4490	Portion E2 DN600B SWM Works CH7.1-63.7 (UC)	80	01FEB11	13JUL11	13DEC10	31JAN11	202d	0
S1-4500	Portion E2 DN600B SWM Works 63.7-67.9 (O)	40	14JUL10	12AUG10	01FEB11	02MAR11	202d	10d
S1-4510	Area E1B+E2 SWM Portional Pipe Testing	14	25JAN11	07FEB11	06SEP11	23SEP11	272d	272d
<b>Portion E1C + E1D</b>								
S1-4710	Portion E1C DN300 FWM Works CH0.0-50.0 (UC)	50	05JAN10	23FEB10	29DEC10	16FEB11	358d	0
S1-4720	E1C DN300 FWM Diversion Main Testing	14	24FEB10	06MAR10	17FEB11	02MAR11	358d	0
S1-4730	E1C Exist. DN300 FWM Diversion & Demolition	30	10MAR10	08APR10	03MAR11	01APR11	358d	0
S1-4740	Portion E1C DN600 SWM Works CH0.0-52.0 (UC)	80	08APR10	27JUN10	02APR11	20JUN11	358d	218d
S1-4750	Portion E1C DN600 SWM Works CH52.0-90.0 (O)	80	01FEB11	21APR11	21JUN11	08SEP11	140d	0
S1-4760	Area E1C Portional Pipe Testing	14	22APR11	05MAY11	05SEP11	23SEP11	160d	160d
<b>Portion E2</b>								
S1-5010	Portion E2 Marine Dept. Advance Notice	90	07OCT09	04JAN10	21NOV09	18FEB10	45d	0
S1-5020	WHITCL Consent For Works Within Tunnel Area	120	07SEP09	04JAN10	22OCT09	18FEB10	45d	0
S1-5030	Chamber Modification - 180 Days of Portion E2	180	07SEP09	05MAR10	07SEP09	05MAR10	0	0
S1-5040	Portion E2 Trial Run	60	07SEP09	05NOV09	07SEP09	05NOV09	0	0
S1-5050	Portion E2 Trial PH & Utilities Detection	15	05JAN10	19JAN10	19FEB10	05MAR10	45d	45d
S1-5060	Portion E2 Initial & Utilities Survey	30	04FEB10	05MAR10	04FEB10	05MAR10	0	0
S1-5070	Portion E2 Pipe Works CH498.5-752.5 (UC)	80	11NOV10	20JAN11	22MAY11	08AUG11	192d	192d
S1-5080	Portion E2 Pipe Works CH752.5-790.5 (O)	30	08AUG11	08SEP11	10AUG11	08SEP11	0	0
S1-5090	T-L-C FWM Sleeve Jacking CH790.5-977.7 (A1-A3)	70	26JUL10	09OCT10	28JUL10	03OCT10	0	0
S1-5100	Portion E2 Pipe Works CH977.7-985.5 (O)	25	16JUL11	09AUG11	16JUL11	15JUL11	0	0
S1-5110	T-L-E SWM Sleeve Jacking CH985.5-1240.5 (A1-A4)	120	04OCT10	31JAN11	04OCT10	31JAN11	0	0
S1-5115	T-L-E DN800 SWM Pipe Installation CH980.0-225.5 (A1-A4)	50	23MAR11	11MAY11	23MAR11	11MAY11	0	0
S1-5120	Portion E2 DN800 SWM Works CH225.5-282.0 (O)	25	12MAY11	05JUN11	12MAY11	05JUN11	0	0
S1-5130	T-L-E SWM Sleeve Jacking CH282.0-432.0 (A1-A3)	142	06MAR10	25JUL10	06MAR10	25JUL10	0	0
S1-5135	T-L-F SWM Sleeve Jacking CH252.0-432.0 (A1-A3)	50	01FEB11	22MAR11	01FEB11	22MAR11	0	0
S1-5140	Area E2 Portional Pipe Testing	14	06SEP11	23SEP11	06SEP11	23SEP11	0	0
<b>Portion F</b>								
S1-6010	Portion F Pipe Works CH985.5-1240.5 (O)	180	23NOV10	21MAY11	13DEC10	10JUN11	20d	0
S1-6020	Portion F DN800 SWM Works CH432.0-494.7 (O)	120	26JUL10	22NOV10	15AUG10	12DEC10	20d	0
S1-6030	Area F Portional Pipe Testing	14	22MAY11	04JUN11	06SEP11	23SEP11	110d	110d
<b>Portion H1</b>								
S1-7010	Portion H1 Temporary Access Road	80	27OCT09	14JAN10	31OCT09	16JAN10	4d	0
S1-7020	Portion H1 Pipe Works CH1468.5-1516.5 (O)	40	22MAY11	30JUN11	11JUN11	20JUL11	20d	20d
S1-7030	Portion H1 Pipe Works CH1516.5-1544.7 (O-S well)	50	21JUL11	08SEP11	21JUL11	08SEP11	0	0
S1-7040	Area H1 Portional Pipe Testing	14	06SEP11	23SEP11	06SEP11	23SEP11	0	0
<b>Portion J</b>								
S1-8010	Portion J Pipe Works CH0.0-46.0 (O-S Well)	40	29JUL11	06SEP11	31JUL11	08SEP11	2d	0
S1-8020	Portion J Pipe Works CH46.0-338.0 (O)	300	01OCT10	27JUL11	04OCT10	30JUL11	3d	0
S1-8030	Portion J Kiosk for RTU & Connect To SCADA	30	28JUL11	10AUG11	28JUL11	08SEP11	13d	11d
S1-8040	Portion J Pipe Works CH338.0-386.4 (TL-D)	209	05MAR10	30SEP10	05MAR10	03OCT10	3d	0
S1-8050	Portion J Pipe Works CH386.4-396.4 (O)	40	01OCT10	09NOV10	12MAY11	20JUN11	23d	0
S1-8060	Portion J Pipe Works DN1000 CH0.0-22.7 (O)	80	16NOV10	26JAN11	21JUN11	08SEP11	23d	21d
S1-8070	Area J Portional Pipe Testing	14	07SEP11	20SEP11	08SEP11	23SEP11	2d	2d
<b>Portion K</b>								
S1-9010	Within 365 Days Commencement of Portion K	365	07SEP09	06SEP10	02NOV09	01NOV10	56d	0
S1-9020	Portion K Initial Survey	15	07SEP10	21SEP10	02NOV10	16NOV10	56d	0

Start date 07SEP09  
 Finish date 05NOV12  
 Date date 07SEP09  
 Run date 02NOV09  
 Page number 2A  
 c Primavera Systems, Inc.

Legend:  
 Early bar  
 Progress bar  
 Critical bar  
 Summary bar  
 Start milestone point  
 Finish milestone point

Master Programme Rev. B.1

Act ID	Description	Orig Dur	Enty Start	Early Finish	Late Start	Late Finish	Total Float	Free Float
S1-9000	Portion K Utilities Detection & Trial Pit	20	23SEP10	11OCT10	17NOV10	06DEC10	96d	0
S1-9040	Portion K Pipe Works (Construction of MBV)	300	12OCT10	29APR11	07DEC10	24JUN11	56d	0
S1-9050	Portion K Kiosk for RTU & Connect To SCADA	20	30APR11	28MAY11	25JUN11	24JUL11	56d	0
S1-9060	Area K Constructed MBV Testing	60	30MAY11	28JUL11	25JUL11	23SEP11	96d	56d
Marine Works (Portion I)								
S1-M1000	Permit Application & Advance Notification	120	07SEP09	04JAN10	07SEP09	04JAN10	0	0
S1-M1010	Submission & Approval - MS & Temp Works Design	120	07SEP09	04JAN10	02OCT09	29JAN10	25d	0
S1-M1020	Bathymetric Survey	120	07SEP09	04JAN10	07SEP09	14JAN10	10d	0
S1-M1030	Material Procurement & Delivery	180	08NOV09	05DEC09	01DEC09	29MAY10	25d	0
S1-M1040	Submission & Approval of EM&A Manual	60	08DEC09	05SEP11	08OCT09	05JAN10	31d	0
S1-M1050	EM&A - Monitoring & Update	60	08DEC09	08SEP11	08JAN10	07OCT11	31d	16d
S1-M1060	Portion H1 Coating Yard Set-up	60	08MAR10	04MAY10	31MAR10	29MAY10	25d	0
S1-M1070	Portion H1 Pipe Material On-site Coating	90	05MAY10	02AUG10	30MAY10	27AUG10	25d	15d
S1-M1080	West Kowloon Cofferdam for Landfill (H1)	180	05JAN10	03JUL10	15JAN10	13JUL10	10d	0
S1-M1090	Sai Ying Pun Cofferdam for Landfill (U)	180	04JUL10	01SEP10	14JUL10	13JUL10	10d	0
S1-M2050	Set-up for Pipe Pulling	150	16APR10	11SEP10	15APR10	11SEP10	10d	10d
S1-M2060	Dredging Works	130	12SEP10	18JAN11	12SEP10	19JAN11	0	0
S1-M2070	Portion I Submarine Pipe Pulling	30	20JAN11	18FEB11	20JAN11	18FEB11	0	0
S1-M2080	Portion H1&I Tie-in With Submarine Pipe Line	30	18FEB11	20MAR11	19FEB11	20MAR11	0	0
S1-M2100	Portion I Submarine Pipe Pressure Testing & CCTV	120	20APR11	17AUG11	20APR11	17AUG11	0	0
S1-M2110	Portion H1&J Seawall Reinforcement	185	21MAR11	21SEP11	21MAR11	21SEP11	0	0
S1-M2120	Portion I Submarine Pipeline Backfilling	60	21MAR11	19MAY11	22SEP11	126d	126d	0
S1-M2130	CP Test Box Installation (On Land)	30	22SEP11	21OCT11	06OCT11	06NOV11	16d	16d
S1-M2140	CIP Test (Close Internal Potential Survey)	0	06NOV11*	06NOV11*	06NOV11*	06NOV11*	0	0
S1-M2150	Completion of Section 1 Works	426	07SEP09	06NOV10	07SEP09	06NOV10	0	0
Section 2								
Land Works								
S2-1010	Submission & Approval - XP, MS & Temp Works	180	07SEP09	06MAR10	07SEP09	06MAR10	0	0
S2-1020	Initial & Utilities Survey	30	06DEC09	04JAN10	07SEP09	05DEC09	0	0
S2-1030	Utilities Detection & Trial Pit	30	06DEC09	04JAN10	06DEC09	04JAN10	0	0
S2-1040	Within 90 Days Commencement of Portion A	60	07SEP09	05DEC09*	07SEP09	05DEC09*	0	0
S2-2010	Portion A Pipe Works CH0.0-88.5 (O)	150	08MAR10	02AUG10	08MAR10	02AUG10	0	0
S2-2020	Portion A Kiosk for RTU & Connect To SCADA	30	03AUG10	01SEP10	09AUG10	07SEP10	6d	0
S2-2030	Portion A Pipe Trough Construction CH88.5-102	30	05JAN10	03FEB10	05JAN10	03FEB10	0	0
S2-2040	Portion A Pipe Works CH88.5-102 (PT)	30	04FEB10	03MAR10	04FEB10	03MAR10	0	0
S2-2050	Portion A Pipe Works CH102.0-105.0 (O)	30	03AUG10	01SEP10	09AUG10	07SEP10	6d	0
S2-2060	Pipe Testing & Reinforcement	60	02SEP10	31OCT10	08SEP10	06NOV10	6d	6d
S2-3010	Completion of Section 2 Works	549	07SEP09	09MAR11	21OCT09	09MAR11	0	0
Section 4								
Land Works								
S4-1010	Submission & Approval - TTA, MS & Temp Work	120	07SEP09	04JAN10	21OCT09	17FEB10	44d	0
S4-1020	Initial Surveying	90	07SEP09	05DEC09	21OCT09	18JAN10	44d	40d
S4-1030	Utilities Detection & Trial Pit	20	18NOV09	05DEC09	30DEC09	18JAN10	44d	40d
S4-2010	Portion C2 Pipe Works CH325.5-387.5 (O)	100	27SEP10	04JAN11	01OCT10	08JAN11	4d	0
S4-2020	Portion G Pipe Works CH1240.5-1438.7 (O)	210	15JAN10	12AUG10	19JAN10	18AUG10	4d	0
S4-2030	Portion G Kiosk for RTU & Connect To SCADA	30	13AUG10	11SEP10	08FEB11	09MAR11	179d	179d
S4-2040	Portion G Pipe Works CH1438.7-1484.7 (O)	45	13AUG10	28SEP10	17AUG10	30SEP10	4d	0
S4-2050	Portion G Pipe Works CH1484.7-1486.5 (O)	35	27SEP10	31OCT10	05DEC10	08JAN11	69d	65d







## Appendix F

### ET Weekly Site Inspection Records

**WEEKLY SITE INSPECTION CHECKLIST**

Inspection Date	1-6-10	Inspected by	RE	IEC	Contractor	ET
Time	09:50	Name	Nelson Chan		JNG Jui Nin	C.K. Li

Weather : Sunny / Fine / ~~cloudy~~ Drizzle / Rain / Storm / Hazy      Temperature : 26 °C  
 Condition : Calm / Light / Breeze / ~~Strong~~      Humidity : High / Moderate / Low

**Environmental Checklist**

**Fugitive Dust Emission**

	Implementation Stages*			Remark
	Yes	No	Not Obs / N/A	
<b>Fugitive Dust Emission</b>				
▪ Dust control / mitigation measures shall be provided to prevent dust nuisance.	✓			
▪ Any excavated dusty materials or stockpile of dusty materials should be covered entirely by impervious sheeting or sprayed with water so as to maintain the entire surface wet, and recovered or backfilled or reinstated within 24 hours of the excavation or unloading.	✓			
▪ The working area of excavation should be sprayed with water immediately before, during and immediately after the operations so as to maintain the entire surface wet.	✓			
▪ The load of dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle	✓			
▪ Where a site boundary adjoins a road, streets or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length except for a site entrance or exit.	✓			
▪ The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcore.			✓	
▪ Every main haul road should be sealed with concrete and kept clear of dusty materials or sprayed with water so as to maintain the entire road surface wet.	✓			
▪ The portion of road leading only to a construction site that is within 30m of a designated vehicle entrance or exit should be kept clear of dusty materials.	✓			
▪ All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet.	✓			
▪ Vehicle speed should be limited to 10 kph except on completed access roads.	✓			
▪ Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.	✓			
▪ The public road around the site entrance should be kept clean and free from dust.	✓			
▪ Vehicle and equipment should be switched off while not in use.	✓			
▪ All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
▪ Open burning should be prohibited.	✓			



### Environmental Checklist

	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Noise Impact</b>				
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
▪ The constructions works should be scheduled to minimize noise nuisance. Concurrent noisy works should be carried out at different time slots or spread around the construction sites in order to help to reduce the cumulative noise effect produced in the construction process.	✓			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	✓			
▪ Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
▪ Mobile or movable noise barriers should be erected near to the construction plants to reduce the noise levels from stationary items of PME whenever practicable.	✓			
▪ Quality Powered mechanical equipment (Quality PME), which are construction plants and equipments that are notably quieter, more environmental friendly and efficiently, recognized by the Noise Control Authority for the purpose of CNP application should be used to reduce the noise generated from the construction plants effectively. The Contractor shall note the required procedures involved in application of the QPME.	✓			
▪ Well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
▪ Air compressors and hand held breakers should have noise labels.	✓			
▪ Compressors and generators should operate with door closed.	✓			
▪ Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	✓			
<b>Water Quality</b>				
<b>Mitigation Measures for Dredging</b>				
▪ Dredging should be undertaken using one grab dredger only with a maximum production rate of 4,000m <sup>3</sup> per day.	✓			
▪ Deployment of frame type silt curtain should be fully enclose the grab while dredging works are in progress.		✓		Item 1
▪ Deployment of silt screen should be at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress		✓		Item 2
▪ Tight-closing grabs should be used to minimize the loss of sediment to suspension during dredging works. For dredging of any contaminated mud, closed watertight grabs must be used.			✓	
▪ All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash	✓			
▪ The decks of all vessels should be kept tidy and free of oil or other substances that might be accidentally or otherwise washed overboard	✓			
▪ Adequate free board shall be maintained on barges to ensure that decks are not washed by wave action.	✓			
▪ All barges used for the transport of dredged materials should be fitted with tight bottom seals to prevent leakage of material during loading and transport	✓			
▪ Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present in the water within the site or dumping grounds	✓			
▪ Loading of barges should be controlled to prevent splashing of material into the surrounding waters. Barges should not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation	✓			
▪ The speed of vessels should be controlled within the works area to prevent propeller wash from stirring up the seabed sediments	✓			



	Implementation Stages*			Remark
	Yes	No	Not Obs	
<b>Environmental Checklist</b>				
<b>Water Quality</b>				
<b>Mitigation Measures for other Construction Activities</b>				
<ul style="list-style-type: none"> <li>▪ Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m<sup>3</sup> capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity should be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped</li> <li>▪ Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the storm runoff being directed into foul sewers</li> <li>▪ All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads.</li> <li>▪ An adequately designed and located wheel washing bay should be provided at every site exit, and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process.</li> <li>▪ The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfill toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains</li> <li>▪ Fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour and Western Harbour WCZs</li> <li>▪ Portable chemical toilets should be used to handle construction workforce sewage prior to discharge to the existing trunk sewer. Sufficient numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers. The Contractor shall also be responsible for waste disposal and maintenance practices.</li> <li>▪ Construction site runoff should be prevented or minimised in accordance with the guidelines stipulated in the EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the Victoria Harbour WCZ under the TM-DSS.</li> <li>▪ Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.</li> </ul>	√			
<b>Waste Management</b>				
<b>C&amp;D Materials</b>				
<ul style="list-style-type: none"> <li>▪ Excavated materials should be reused on-site as backfilling material and for landscaping works as far as practicable.</li> <li>▪ C&amp;D material generated from excavation works should be disposed of at public fill reception facilities for other beneficial uses.</li> <li>▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed</li> <li>▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.</li> </ul>			√	
<b>Chemical Waste</b>				
<ul style="list-style-type: none"> <li>▪ Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately.</li> <li>▪ Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.</li> <li>▪ The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility.</li> </ul>	√			



Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Waste Management</b>				
<b>General Refuse</b>				
▪ General refuse should be stored in enclosed bins or compaction units separate from C&D material.	√			
▪ A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material.	√			
▪ An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	√			
<b>Marine Dredged Sediment (During transportation and disposal)</b>				
▪ Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and dredgers before the vessel is moved	√			
▪ Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the EPD	√			
▪ Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.	√			
<b>Good Site Practices</b>				
▪ Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site	√			
▪ Training of site personnel in proper waste management and chemical handling procedures	√			
▪ Provision of sufficient waste disposal points and regular collection of waste	√			
▪ Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	√			
▪ Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers	√			
<b>Waste Reduction Measures</b>				
▪ Sort C&D material from demolition and decommissioning of the existing facilities to recover recyclable portions such as metals	√			
▪ Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal	√			
▪ Encourage collection of aluminium cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the work force	√			
▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials	√			
▪ Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste	√			

### Environmental Checklist


	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Marine Ecology</b>				
▪ Use of one grab dredger only with a maximum production rate of 4,000m <sup>3</sup> per day for dredging.	√			
▪ Deployment of frame type silt curtain to fully enclose the grab while dredging works are in progress.		√		Item 1
▪ Deployment of silt screen at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress.		√		Item 2
▪ Good site practices to avoid silt runoff from construction works associated with the construction of the submarine watermain.	√			
<b>Good Site Practices</b>				
• The Environmental Permit should be displaced conspicuously on site.	√			
• Construction noise permits should be posted at site entrance or available for site inspection.	√			
▪ Chemical storage area provided with lock and located on sealed areas.	√			
▪ All chemicals should be placed at the banded area with adequate band capacity (>110% of largest tank).	√			
▪ Any unused chemicals or those with remaining functional capacity should be recycled.	√			
▪ All generators, fuel and oil storage are within bundle areas.	√			
▪ Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.	√			
▪ A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be banded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.	√			

**Summary of the Weekly Site Inspection:**

Item	Details of defective works or observations	Status of the item (closed / continue follow-up)	Proposed Follow Up Action (if required)	Photo Ref.	Target Completion Date
1	The silt curtain for dredging work was noted damaged although no dredging works are in progress	Continue follow-up	To repair silt curtain before starting any dredging work.	100601_001	08/06/10
2	The silt screen was found damaged at the sea water intake at Kowloon South Salt Water Pumping Station.	Continue follow-up	To repair the silt screen and maintain it properly.	100601_002& 100601_003	08/06/10
3	Follow up action to item3 on 26/05/10, the 200L oil drum with waste oil at Portion J was removed.	Closed	---	100601_004	---

Remark

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Inspected by	Name	Signature	Date
	C.K.LI		01 June 2010

**Photos**

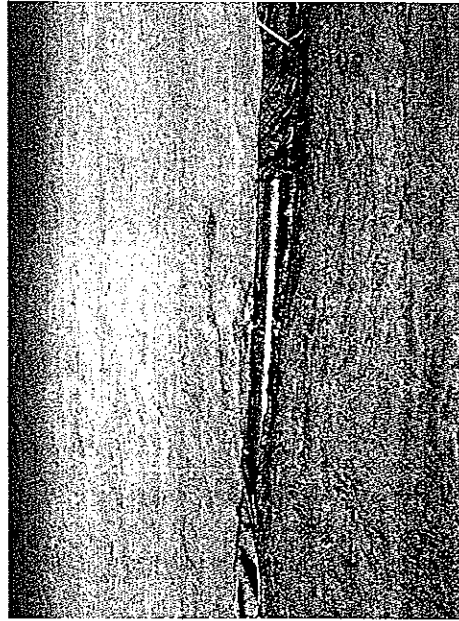


Photo 100601\_001



Photo 100601\_002



Photo 100601\_003



Photo 100601\_004





Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Noise Impact</b>				
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
▪ The construction works should be scheduled to minimize noise nuisance. Concurrent noisy works should be carried out at different time slots or spread around the construction sites in order to help to reduce the cumulative noise effect produced in the construction process.	✓			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	✓			
▪ Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
▪ Mobile or movable noise barriers should be erected near to the construction plants to reduce the noise levels from stationary items of PME whenever practicable.	✓			
▪ Quality Powered mechanical equipment (Quality PME), which are construction plants and equipments that are notably quieter, more environmental friendly and efficiently, recognized by the Noise Control Authority for the purpose of CNP application should be used to reduce the noise generated from the construction plants effectively. The Contractor shall note the required procedures involved in application of the QPME.	✓			
▪ Well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
▪ Air compressors and hand held breakers should have noise labels.	✓			
▪ Compressors and generators should operate with door closed.	✓			
▪ Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	✓			
<b>Water Quality</b>				
<b>Mitigation Measures for Dredging</b>				
▪ Dredging should be undertaken using one grab dredger only with a maximum production rate of 4,000m <sup>3</sup> per day.	✓			
▪ Deployment of frame type silt curtain should be fully enclose the grab while dredging works are in progress.	✓			
▪ Deployment of silt screen should be at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress	✓			
▪ Tight-closing grabs should be used to minimize the loss of sediment to suspension during dredging works. For dredging of any contaminated mud, closed watertight grabs must be used.	✓			
▪ All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash	✓			
▪ The decks of all vessels should be kept tidy and free of oil or other substances that might be accidentally or otherwise washed overboard	✓			
▪ Adequate free board shall be maintained on barges to ensure that decks are not washed by wave action.	✓			
▪ All barges used for the transport of dredged materials should be fitted with tight bottom seals to prevent leakage of material during loading and transport	✓			
▪ Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present in the water within the site or dumping grounds	✓			
▪ Loading of barges should be controlled to prevent splashing of material into the surrounding waters. Barges should not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation	✓			
▪ The speed of vessels should be controlled within the works area to prevent propeller wash from stirring up the seabed sediments	✓			

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Water Quality</b>				
<b>Mitigation Measures for other Construction Activities</b>				
<ul style="list-style-type: none"> <li>Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m<sup>3</sup> capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity should be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped</li> <li>Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the storm runoff being directed into foul sewers</li> <li>All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads.</li> <li>An adequately designed and located wheel washing bay should be provided at every site exit, and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process.</li> <li>The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfill toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains</li> <li>Fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour and Western Harbour WQZs</li> <li>Portable chemical toilets should be used to handle construction workforce sewage prior to discharge to the existing trunk sewer. Sufficient numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers. The Contractor shall also be responsible for waste disposal and maintenance practices.</li> <li>Construction site runoff should be prevented or minimised in accordance with the guidelines stipulated in the EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the Victoria Harbour WQZ under the TM-DSS.</li> <li>Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.</li> </ul>	√			
<b>Waste Management</b>				
<b>C&amp;D Materials</b>				
<ul style="list-style-type: none"> <li>Excavated materials should be reused on-site as backfilling material and for landscaping works as far as practicable.</li> <li>C&amp;D material generated from excavation works should be disposed of at public fill reception facilities for other beneficial uses.</li> <li>A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed</li> <li>A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.</li> </ul>			√	
<b>Chemical Waste</b>				
<ul style="list-style-type: none"> <li>Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately.</li> <li>Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.</li> <li>The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility.</li> </ul>	√			



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

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Waste Management</b>				
<b>General Refuse</b>				
▪ General refuse should be stored in enclosed bins or compaction units separate from C&D material.	✓			
▪ A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material.	✓			
▪ An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	✓			
<b>Marine Dredged Sediment (During transportation and disposal)</b>				
▪ Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and dredgers before the vessel is moved	✓			
▪ Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the EPD	✓			
▪ Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.	✓			
<b>Good Site Practices</b>				
▪ Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site	✓			
▪ Training of site personnel in proper waste management and chemical handling procedures	✓			
▪ Provision of sufficient waste disposal points and regular collection of waste	✓			
▪ Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	✓			
▪ Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers	✓			
<b>Waste Reduction Measures</b>				
▪ Sort C&D material from demolition and decommissioning of the existing facilities to recover recyclable portions such as metals	✓			
▪ Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal	✓			
▪ Encourage collection of aluminium cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the work force	✓			
▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials	✓			
▪ Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste	✓			



Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Marine Ecology</b>				
Use of one grab dredger only with a maximum production rate of 4,000m <sup>3</sup> per day for dredging.	√			
Deployment of frame type silt curtain to fully enclose the grab while dredging works are in progress.	√			
Deployment of silt screen at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress.	√			
Good site practices to avoid silt runoff from construction works associated with the construction of the submarine watermain.	√			
<b>Good Site Practices</b>				
The Environmental Permit should be displaced conspicuously on site.	√			
Construction noise permits should be posted at site entrance or available for site inspection.	√			
Chemical storage area provided with lock and located on sealed areas.	√			
All chemicals should be placed at the banded area with adequate band capacity (> 110% of largest tank).	√			
Any unused chemicals or those with remaining functional capacity should be recycled.	√			
All generators, fuel and oil storage are within bundle areas.	√			
Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.	√			
A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be banded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.	√			

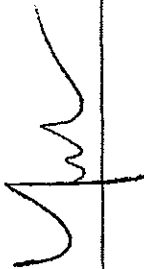


**Summary of the Weekly Site Inspection:**

Item	Details of defective works or observations	Status of the item (closed / continue follow-up)	Proposed Follow Up Action (if required)	Photo Ref.	Target Completion Date
1	Follow up action to item 1 on 01/06/10, the silt curtain for dredging work was repaired.	Closed	---	100608_001	---
2	Follow up action to item 2 on 01/06/10, the silt screen was repaired at the sea water intake at Kowloon South Salt Water Pumping Station.	Closed	---	100608_002	---

Remark

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Inspected by	Name	Signature	Date
	C.K.Li		08 June 2010

Photos



Photo 100608\_001



Photo 100608\_002



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

**WEEKLY SITE INSPECTION CHECKLIST**

Inspection Date	14-Jun-2010	Inspected by	RE	IEC	Contractor	ET
Time	13:10	Name	Nelson Chan Nelson	Judith Ye JF	Jenny Ng	C.K. Li

Weather : Sunny / Fine / Cloudy / Drizzle / Rain / Storm / Hazy  
 Condition : Calm / Light / Breeze / Strong  
 Wind :  
 Temperature : 30 °C  
 Humidity : High / Moderate / Low

	Implementation Stages*			Remark
	Yes	No	Not Obs / N/A	
<b>Environmental Checklist</b>				
<b>Fugitive Dust Emission</b>				
▪ Dust control / mitigation measures shall be provided to prevent dust nuisance.	✓			
▪ Any excavated dusty materials or stockpile of dusty materials should be covered entirely by impervious sheeting or sprayed with water so as to maintain the entire surface wet, and recovered or backfilled or reinstated within 24 hours of the excavation or unloading.	✓			
▪ The working area of excavation should be sprayed with water immediately before, during and immediately after the operations so as to maintain the entire surface wet.	✓			
▪ The load of dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle	✓			
▪ Where a site boundary adjoins a road, streets or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length except for a site entrance or exit.	✓			
▪ The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.			✓	
▪ Every main haul road should be sealed with concrete and kept clear of dusty materials or sprayed with water so as to maintain the entire road surface wet.	✓			
▪ The portion of road leading only to a construction site that is within 30m of a designated vehicle entrance or exit should be kept clear of dusty materials.	✓			
▪ All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet.	✓			
▪ Vehicle speed should be limited to 10 kph except on completed access roads.	✓			
▪ Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.	✓			
▪ The public road around the site entrance should be kept clean and free from dust.	✓			
▪ Vehicle and equipment should be switched off while not in use.	✓			
▪ All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
▪ Open burning should be prohibited.	✓			



## Environmental Checklist

	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Noise Impact</b>				
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
▪ The constructions works should be scheduled to minimize noise nuisance. Concurrent noisy works should be carried out at different time slots or spread around the construction sites in order to help to reduce the cumulative noise effect produced in the construction process.	✓			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	✓			
▪ Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
▪ Mobile or movable noise barriers should be erected near to the construction plants to reduce the noise levels from stationary items of PME whenever practicable.	✓			
▪ Quality Powered mechanical equipment (Quality PME), which are construction plants and equipments that are notably quieter, more environmental friendly and efficiently, recognized by the Noise Control Authority for the purpose of CNP application should be used to reduce the noise generated from the construction plants effectively. The Contractor shall note the required procedures involved in application of the QPME.	✓			
▪ Well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
▪ Air compressors and hand held breakers should have noise labels.	✓			
▪ Compressors and generators should operate with door closed.	✓			
▪ Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	✓			
<b>Water Quality</b>				
<b>Mitigation Measures for Dredging</b>				
▪ Dredging should be undertaken using one grab dredger only with a maximum production rate of 4,000m <sup>3</sup> per day.	✓			
▪ Deployment of frame type silt curtain should be fully enclosed the grab while dredging works are in progress.	✓			
▪ Deployment of silt screen should be at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress	✓			
▪ Tight-closing grabs should be used to minimize the loss of sediment to suspension during dredging works. For dredging of any contaminated mud, closed watertight grabs must be used.	✓			
▪ All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash	✓			
▪ The decks of all vessels should be kept tidy and free of oil or other substances that might be accidentally or otherwise washed overboard	✓			
▪ Adequate free board shall be maintained on barges to ensure that decks are not washed by wave action.	✓			
▪ All barges used for the transport of dredged materials should be fitted with tight bottom seals to prevent leakage of material during loading and transport	✓			
▪ Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present in the water within the site or dumping grounds	✓			
▪ Loading of barges should be controlled to prevent splashing of material into the surrounding waters. Barges should not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation	✓			
▪ The speed of vessels should be controlled within the works area to prevent propeller wash from stirring up the seabed sediments	✓			



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

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs	
<b>Water Quality</b>				
<i>Mitigation Measures for other Construction Activities</i>				
<ul style="list-style-type: none"> <li>Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m<sup>3</sup> capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity should be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped</li> <li>Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the storm runoff being directed into foul sewers</li> <li>All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads.</li> <li>An adequately designed and located wheel washing bay should be provided at every site exit, and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process.</li> <li>The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfill toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains</li> <li>Fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour and Western Harbour WCZs</li> <li>Portable chemical toilets should be used to handle construction workforce sewage prior to discharge to the existing trunk sewer. Sufficient numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers. The Contractor shall also be responsible for waste disposal and maintenance practices.</li> <li>Construction site runoff should be prevented or minimised in accordance with the guidelines stipulated in the EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the Victoria Harbour WCZ under the TM-DSS.</li> <li>Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.</li> </ul>	√			
<b>Waste Management</b>				
<b>C&amp;D Materials</b>				
<ul style="list-style-type: none"> <li>Excavated materials should be reused on-site as backfilling material and for landscaping works as far as practicable.</li> <li>C&amp;D material generated from excavation works should be disposed of at public fill reception facilities for other beneficial uses.</li> <li>A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed</li> <li>A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.</li> </ul>			√	
<b>Chemical Waste</b>				
<ul style="list-style-type: none"> <li>Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately.</li> <li>Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.</li> <li>The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility.</li> </ul>	√			



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

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Waste Management</b>				
<b>General Refuse</b>				
▪ General refuse should be stored in enclosed bins or compaction units separate from C&D material.	√			
▪ A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material.	√			
▪ An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	√			
<b>Marine Dredged Sediment (During transportation and disposal)</b>				
▪ Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and dredgers before the vessel is moved	√			
▪ Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the EPD	√			
▪ Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.	√			
<b>Good Site Practices</b>				
▪ Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site	√			
▪ Training of site personnel in proper waste management and chemical handling procedures	√			
▪ Provision of sufficient waste disposal points and regular collection of waste	√			
▪ Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	√			
▪ Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers	√			
<b>Waste Reduction Measures</b>				
▪ Sort C&D material from demolition and decommissioning of the existing facilities to recover recyclable portions such as metals	√			
▪ Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal	√			
▪ Encourage collection of aluminium cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the work force	√			
▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials	√			
▪ Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste	√			

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Marine Ecology</b>				
Use of one grab dredger only with a maximum production rate of 4,000m <sup>3</sup> per day for dredging.	√			
Deployment of frame type silt curtain to fully enclose the grab while dredging works are in progress.	√			
Deployment of silt screen at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress.		√		
Good site practices to avoid silt runoff from construction works associated with the construction of the submarine watermain.	√			
<b>Good Site Practices</b>				
The Environmental Permit should be displaced conspicuously on site.	√			
Construction noise permits should be posted at site entrance or available for site inspection.	√			
Chemical storage area provided with lock and located on sealed areas.	√			
All chemicals should be placed at the banded area with adequate bund capacity (>110% of largest tank).	√			
Any unused chemicals or those with remaining functional capacity should be recycled.	√			
All generators, fuel and oil storage are within bund areas.	√			
Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.	√			
A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be bunded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.	√			




**Summary of the Weekly Site Inspection:**

Item	Details of defective works or observations	Status of the item (closed / continue follow-up)	Proposed Follow Up Action (if required)	Photo Ref.	Target Completion Date
1	The silt screen at the sea water intake at Kowloon South Salt Water Pumping Station was found damaged.	Continue follow-up	To repair the silt screen and maintain it properly.	100614_001& 100614_002	22/06/10

Remark

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Inspected by	Name	Signature	Date
	C.K.Li		14 June 2010

Photos



Photo 100614\_001



Photo 100614\_002





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

	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Noise Impact</b>				
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
▪ The constructions works should be scheduled to minimize noise nuisance. Concurrent noisy works should be carried out at different time slots or spread around the construction sites in order to help to reduce the cumulative noise effect produced in the construction process.	✓			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	✓			
▪ Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
▪ Mobile or movable noise barriers should be erected near to the construction plants to reduce the noise levels from stationary items of PME whenever practicable.	✓			
▪ Quality Powered mechanical equipment (Quality PME), which are construction plants and equipments that are notably quieter, more environmental friendly and efficiently, recognized by the Noise Control Authority for the purpose of CNP application should be used to reduce the noise generated from the construction plants effectively. The Contractor shall note the required procedures involved in application of the QPME.	✓			
▪ Well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
▪ Air compressors and hand held breakers should have noise labels.	✓			
▪ Compressors and generators should operate with door closed.	✓			
▪ Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	✓			
<b>Water Quality</b>				
<b>Mitigation Measures for Dredging</b>				
▪ Dredging should be undertaken using one grab dredger only with a maximum production rate of 4,000m <sup>3</sup> per day.	✓			
▪ Deployment of frame type silt curtain should be fully enclosed the grab while dredging works are in progress.	✓			
▪ Deployment of silt screen should be at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress		✓		Item 1
▪ Tight-closing grabs should be used to minimize the loss of sediment to suspension during dredging works. For dredging of any contaminated mud, closed watertight grabs must be used.	✓			
▪ All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash	✓			
▪ The decks of all vessels should be kept tidy and free of oil or other substances that might be accidentally or otherwise washed overboard	✓			
▪ Adequate free board shall be maintained on barges to ensure that decks are not washed by wave action.	✓			
▪ All barges used for the transport of dredged materials should be fitted with tight bottom seals to prevent leakage of material during loading and transport	✓			
▪ Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present in the water within the site or dumping grounds	✓			
▪ Loading of barges should be controlled to prevent splashing of material into the surrounding waters. Barges should not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation	✓			
▪ The speed of vessels should be controlled within the works area to prevent propeller wash from stirring up the seabed sediments	✓			

	Implementation Stages*			Remark
	Yes	No	Not Obs	
<b>Environmental Checklist</b>				
<b>Water Quality</b>				
<b>Mitigation Measures for other Construction Activities</b>				
<ul style="list-style-type: none"> <li>▪ Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m<sup>3</sup> capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity should be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped</li> <li>▪ Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the storm runoff being directed into foul sewers</li> <li>▪ All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads.</li> <li>▪ An adequately designed and located wheel washing bay should be provided at every site exit, and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process.</li> <li>▪ The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfill toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains</li> <li>▪ Fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour and Western Harbour WCZs</li> <li>▪ Portable chemical toilets should be used to handle construction workforce sewage prior to discharge to the existing trunk sewer. Sufficient numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers. The Contractor shall also be responsible for waste disposal and maintenance practices.</li> <li>▪ Construction site runoff should be prevented or minimised in accordance with the guidelines stipulated in the EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the Victoria Harbour WCZ under the TM-DSS.</li> <li>▪ Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.</li> </ul>	√			
<b>Waste Management</b>				
<b>C&amp;D Materials</b>				
<ul style="list-style-type: none"> <li>▪ Excavated materials should be reused on-site as backfilling material and for landscaping works as far as practicable.</li> <li>▪ C&amp;D material generated from excavation works should be disposed of at public fill reception facilities for other beneficial uses.</li> <li>▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed</li> <li>▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.</li> </ul>			√	
<b>Chemical Waste</b>				
<ul style="list-style-type: none"> <li>▪ Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately.</li> <li>▪ Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.</li> <li>▪ The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility.</li> </ul>	√			


Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Waste Management</b>				
<b>General Refuse</b>				
▪ General refuse should be stored in enclosed bins or compaction units separate from C&D material.	√			
▪ A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material.	√			
▪ An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	√			
<b>Marine Dredged Sediment (During transportation and disposal)</b>				
▪ Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and dredgers before the vessel is moved	√			
▪ Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the EPD	√			
▪ Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.	√			
<b>Good Site Practices</b>				
▪ Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site	√			
▪ Training of site personnel in proper waste management and chemical handling procedures	√			
▪ Provision of sufficient waste disposal points and regular collection of waste	√			
▪ Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	√			
▪ Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers	√			
<b>Waste Reduction Measures</b>				
▪ Sort C&D material from demolition and decommissioning of the existing facilities to recover recyclable portions such as metals	√			
▪ Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal	√			
▪ Encourage collection of aluminium cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the work force	√			
▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials	√			
▪ Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste	√			

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Marine Ecology</b>				
<ul style="list-style-type: none"> <li>▪ Use of one grab dredger only with a maximum production rate of 4,000m<sup>3</sup> per day for dredging.</li> <li>▪ Deployment of frame type silt curtain to fully enclose the grab while dredging works are in progress.</li> <li>▪ Deployment of silt screen at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress.</li> <li>▪ Good site practices to avoid silt runoff from construction works associated with the construction of the submarine watermain.</li> </ul>	√			
<b>Good Site Practices</b>				
<ul style="list-style-type: none"> <li>• The Environmental Permit should be displaced conspicuously on site.</li> <li>• Construction noise permits should be posted at site entrance or available for site inspection.</li> <li>▪ Chemical storage area provided with lock and located on sealed areas.</li> <li>▪ All chemicals should be placed at the banded area with adequate band capacity (&gt;110% of largest tank).</li> <li>▪ Any unused chemicals or those with remaining functional capacity should be recycled.</li> <li>▪ All generators, fuel and oil storage are within bundle areas.</li> <li>▪ Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.</li> <li>▪ A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be bunded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.</li> </ul>	√			Item 1

**Summary of the Weekly Site Inspection:**

Item	Details of defective works or observations	Status of the item (closed / continue follow-up)	Proposed Follow Up Action (if required)	Photo Ref.	Target Completion Date
1	Follow up action to item 1 on 14/06/10, the silt screen at the sea water intake at Kowloon South Salt Water Pumping Station was found damaged. However, according to the contractor, the silt screen was repaired and damaged again within last week.	Continue follow-up	To repair the silt screen and maintain it properly.	100622_001& 100622_002	29/06/10

Remark

Inspected by	Name	Signature	Date
	C.K.Li		22 June 2010



Photos



Photo 100622\_001



Photo 100622\_002





Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs	
<b>Noise Impact</b>				
• The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
• The constructions works should be scheduled to minimize noise nuisance. Concurrent noisy works should be carried out at different time slots or spread around the construction sites in order to help to reduce the cumulative noise effect produced in the construction process.	✓			
• Noisy equipment and mobile plant shall always be site away from NSRs.	✓			
• Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
• Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
• Mobile or movable noise barriers should be erected near to the construction plants to reduce the noise levels from stationary items of PME whenever practicable.	✓			
• Quality Powered mechanical equipment (Quality PME), which are construction plants and equipments that are notably quieter, more environmental friendly and efficiently, recognized by the Noise Control Authority for the purpose of CNP application should be used to reduce the noise generated from the construction plants effectively. The Contractor shall note the required procedures involved in application of the QPME.	✓			
• Well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
• Air compressors and hand held breakers should have noise labels.	✓			
• Compressors and generators should operate with door closed.	✓			
• Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	✓			
<b>Water Quality</b>				
<b>Mitigation Measures for Dredging</b>				
• Dredging should be undertaken using one grab dredger only with a maximum production rate of 4,000m <sup>3</sup> per day.	✓			
• Deployment of frame type silt curtain should be fully enclosed the grab while dredging works are in progress.	✓			
• Deployment of silt screen should be at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress	✓			
• Tight-closing grabs should be used to minimize the loss of sediment to suspension during dredging works. For dredging of any contaminated mud, closed watertight grabs must be used.	✓			
• All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash.	✓			
• The decks of all vessels should be kept tidy and free of oil or other substances that might be accidentally or otherwise washed overboard	✓			
• Adequate free board shall be maintained on barges to ensure that decks are not washed by wave action.	✓			
• All barges used for the transport of dredged materials should be fitted with tight bottom seals to prevent leakage of material during loading and transport	✓			
• Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present in the water within the site or dumping grounds	✓			
• Loading of barges should be controlled to prevent splashing of material into the surrounding waters. Barges should not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation	✓			
• The speed of vessels should be controlled within the works area to prevent propeller wash from stirring up the seabed sediments	✓			



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

## Environmental Checklist

	Implementation Stages*			Remark
	Yes	No	Not Obs	
<b>Water Quality</b>				
<b>Mitigation Measures for other Construction Activities</b>				
<ul style="list-style-type: none"> <li>Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m<sup>3</sup> capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity should be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped</li> <li>Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the storm runoff being directed into foul sewers</li> <li>All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads.</li> <li>An adequately designed and located wheel washing bay should be provided at every site exit, and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process.</li> <li>The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfill toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains</li> <li>Fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour and Western Harbour W CZs</li> <li>Portable chemical toilets should be used to handle construction workforce sewage prior to discharge to the existing trunk sewer. Sufficient numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers. The Contractor shall also be responsible for waste disposal and maintenance practices.</li> <li>Construction site runoff should be prevented or minimised in accordance with the guidelines stipulated in the EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the Victoria Harbour W CZ under the TM-DSS.</li> <li>Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.</li> </ul>	√			
<b>Waste Management</b>				
<b>C&amp;D Materials</b>				
<ul style="list-style-type: none"> <li>Excavated materials should be reused on-site as backfilling material and for landscaping works as far as practicable.</li> <li>C&amp;D material generated from excavation works should be disposed of at public fill reception facilities for other beneficial uses.</li> <li>A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed</li> <li>A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.</li> </ul>			√	
<b>Chemical Waste</b>				
<ul style="list-style-type: none"> <li>Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately.</li> <li>Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.</li> <li>The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility.</li> </ul>	√			

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Waste Management</b>				
<b>General Refuse</b>				
▪ General refuse should be stored in enclosed bins or compaction units separate from C&D material.	√			
▪ A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material.	√			
▪ An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	√			
<b>Marine Dredged Sediment (During transportation and disposal)</b>				
▪ Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and dredgers before the vessel is moved	√			
▪ Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the EPD	√			
▪ Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.	√			
<b>Good Site Practices</b>				
▪ Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site	√			
▪ Training of site personnel in proper waste management and chemical handling procedures	√			
▪ Provision of sufficient waste disposal points and regular collection of waste	√			
▪ Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	√			
▪ Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers	√			
<b>Waste Reduction Measures</b>				
▪ Sort C&D material from demolition and decommissioning of the existing facilities to recover recyclable portions such as metals	√			
▪ Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal	√			
▪ Encourage collection of aluminium cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the work force	√			
▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials	√			
▪ Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste	√			

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

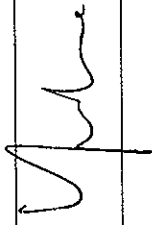
Implementation Stages*	Remark		
	Yes	No	Not Obs N/A
<b>Marine Ecology</b>			
Use of one grab dredger only with a maximum production rate of 4,000m <sup>3</sup> per day for dredging.	√		
Deployment of frame type silt curtain to fully enclose the grab while dredging works are in progress.	√		
Deployment of silt screen at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress.	√		
Good site practices to avoid silt runoff from construction works associated with the construction of the submarine watermain.	√		
<b>Good Site Practices</b>			
The Environmental Permit should be displaced conspicuously on site.	√		
Construction noise permits should be posted at site entrance or available for site inspection.	√		
Chemical storage area provided with lock and located on sealed areas.	√		
All chemicals should be placed at the banded area with adequate band capacity (>110% of largest tank).	√		
Any unused chemicals or those with remaining functional capacity should be recycled.	√		
All generators, fuel and oil storage are within bundle areas.	√		
Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.	√		
A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be bunded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.	√		



**Summary of the Weekly Site Inspection:**

Item	Details of defective works or observations	Status of the item (closed / continue follow-up)	Proposed Follow Up Action (if required)	Photo Ref.	Target Completion Date
1	Follow up action to item 1 on 14/06/10 and item 1 on 22/06/10, the silt screen at the sea water intake at Kowloon South Salt Water Pumping Station was repaired.	closed	---	100629_001& 100629_002	---

Remark

Inspected by	Name	Signature	Date
	C.K.Li		29 June 2010



Photos



Photo 100629\_001



Photo 100629\_002





## Appendix G

### Implementation Schedule of Mitigation Measures





	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
<b>Environmental Protection Measures</b>					
<b>Noise Impact</b>					
Well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	All areas	√			
Air compressors and hand held breakers should have noise labels.	All areas	√			
Compressors and generators should operate with door closed.	All areas	√			
Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	All areas	√			
<b>Water Quality</b>					
<b>Mitigation Measures for Dredging</b>					
Dredging should be undertaken using one grab dredger only with a maximum production rate of 4,000m <sup>3</sup> per day.	Marine	√			
Deployment of frame type silt curtain should be fully enclose the grab while dredging works are in progress.	Marine		√		
Deployment of silt screen should be at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress	Marine		√		
Tight-closing grabs should be used to minimize the loss of sediment to suspension during dredging works. For dredging of any contaminated mud, closed watertight grabs must be used.	Marine	√			
All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash	Marine	√			
The decks of all vessels should be kept tidy and free of oil or other substances that might be accidentally or otherwise washed overboard	Marine		√		
Adequate free board shall be maintained on barges to ensure that decks are not washed by wave action.	Marine	√			
All barges used for the transport of dredged materials should be fitted with tight bottom seals to prevent leakage of material during loading and transport	Marine	√			
Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present in the water within the site or dumping grounds	Marine	√			
Loading of barges should be controlled to prevent splashing of material into the surrounding waters. Barges should not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation	Marine	√			
The speed of vessels should be controlled within the works area to prevent propeller wash from stirring up the seabed sediments	Marine	√			
<b>Mitigation Measures for other Construction Activities</b>					
Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m <sup>3</sup> capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity should be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped	All areas	√			
Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the storm runoff being directed into foul sewers	All areas	√			
All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads.	All areas				√
An adequately designed and located wheel washing bay should be provided at every site exit, and wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process.	All areas				√
The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfill toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains	All areas				√
Fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour and Western Harbour WCs	All areas	√			



		Location	Implementation Status		
			Implemented	Partially Implemented	Not Implemented
<b>Environmental Protection Measures</b>					
<b>Water Quality</b>					
<b>Mitigation Measures for other Construction Activities</b>					
▪	Portable chemical toilets should be used to handle construction workforce sewage prior to discharge to the existing trunk sewer. Sufficient numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers. The Contractor shall also be responsible for waste disposal and maintenance practices.	All areas	√		
▪	Construction site runoff should be prevented or minimised in accordance with the guidelines stipulated in the EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the Victoria Harbour WCZ under the TM-DSS.	All areas	√		
▪	Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.	All areas	√		
<b>Waste Management</b>					
<b>C&amp;D Materials</b>					
▪	Excavated materials should be reused on-site as backfilling material and for landscaping works as far as practicable.	All areas			√
▪	C&D material generated from excavation works should be disposed of at public fill reception facilities for other beneficial uses.	All areas			√
▪	A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed	All areas	√		
▪	A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.	All areas	√		
<b>Chemical Waste</b>					
▪	Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately.	All areas	√		
▪	Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.	All areas	√		
▪	The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility.	All areas	√		
<b>General Refuse</b>					
▪	General refuse should be stored in enclosed bins or compaction units separate from C&D material.	All areas	√		
▪	A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material.	All areas	√		
▪	An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	All areas	√		
<b>Marine Dredged Sediment (During transportation and disposal)</b>					
▪	Bottom opening of barges shall be fitted with light fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and dredgers before the vessel is moved	Marine	√		
▪	Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the EPD	Marine	√		
▪	Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.	Marine	√		
<b>Good Site Practices</b>					
▪	Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site	All areas	√		
▪	Training of site personnel in proper waste management and chemical handling procedures	All areas	√		
▪	Provision of sufficient waste disposal points and regular collection of waste	All areas	√		





## Appendix H

### Site General Layout plan



NOTES

1. THIS DRAWING SHALL BE MADE IN CONJUNCTION WITH DRAWING NOS 241239/6/0301 AND 0302 TO 0305
2. THE LEGEND SHALL REFER TO DRAWING NO 241239/6/0301

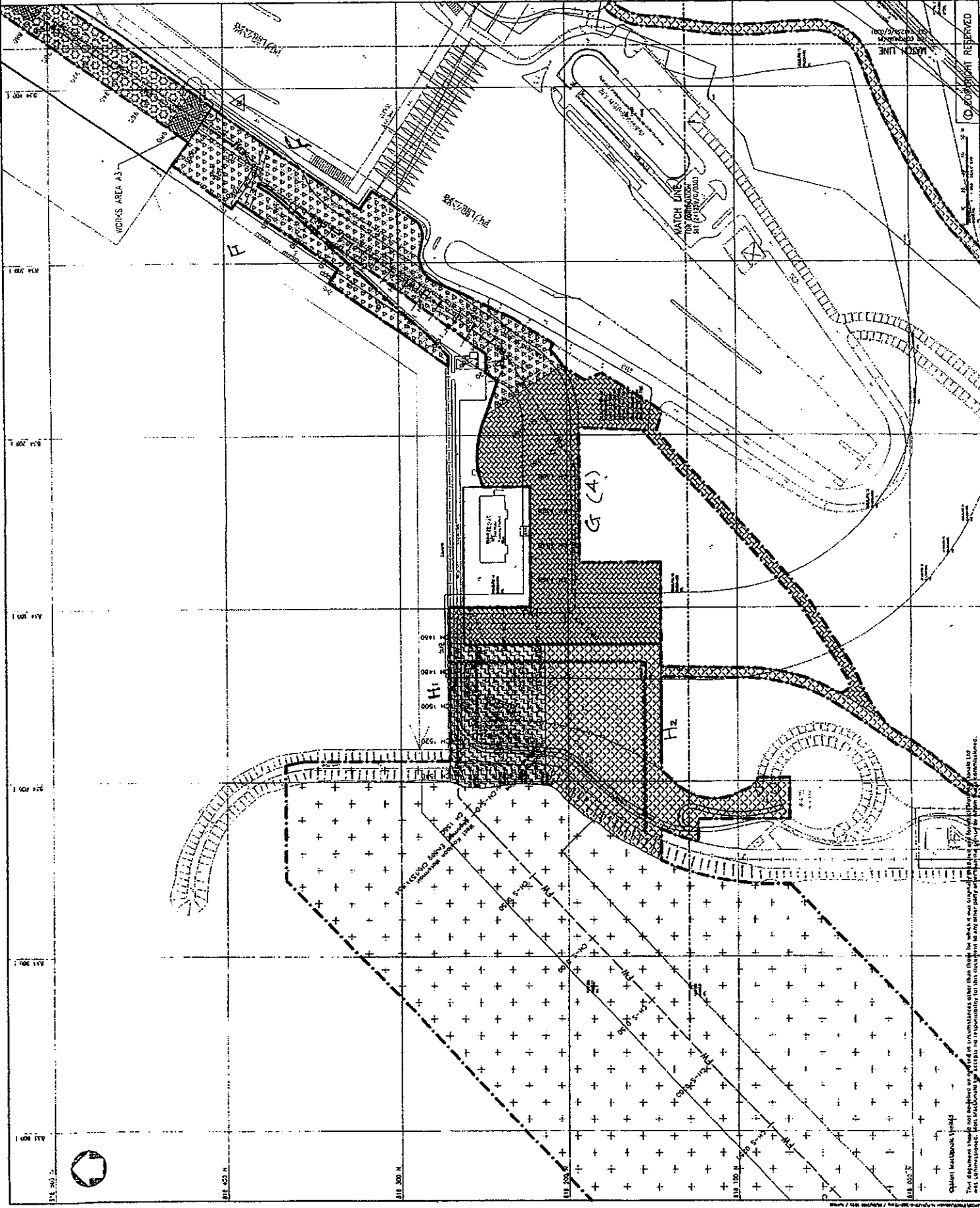
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08	FEB 99	8	TRUCK APPROVAL NO. 8	1/10	1/10
09	FEB 99	9	TRUCK APPROVAL NO. 9	1/10	1/10
10	FEB 99	10	TRUCK APPROVAL NO. 10	1/10	1/10

**Mott MacDonald**  
 THE GOVERNMENT OF THE HONG KONG  
 SPECIAL ADMINISTRATIVE REGION  
 WATER SUPPLIES DEPARTMENT

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

POSSSESSION OF SITE  
 (SHEET 2 OF 5)

Project	Scale	Sheet	Revision	Date
9/MSD/08	1:1000 @ A1	10	10	24/12/08
Author	Checker	Approver	Scale	Sheet
			1:1000 @ A1	10
Drawing No.	241239/6/0302			



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NOTES :

1. THIS DRAWING SHALL BE READ IN CONNECTION WITH DRAWING NOS. 24123/07/001 TO 002 AND 003 TO 005.
2. THE LEGEND SHALL REFER TO DRAWING NO. 24123/07/001.

01	DATE	21/12/07
02	REVISION	1. TENDER ANSWER NO. 3
03	DATE	14/02/08
04	REVISION	1. BASED FOR TENDER
05	DATE	25/03/08
06	REVISION	2. FOR LAYOUT

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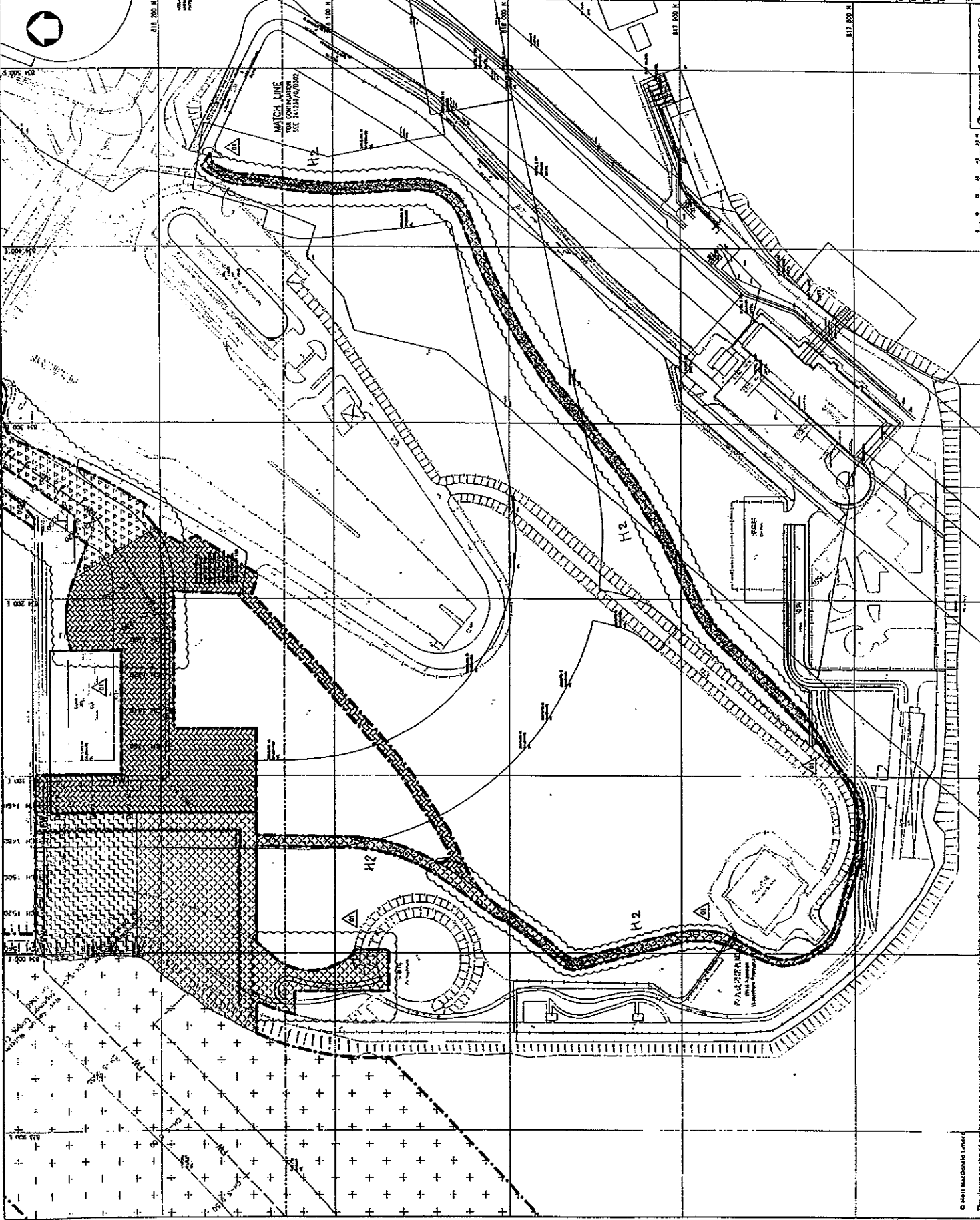
THE GOVERNMENT OF THE HONG KONG  
 SPECIAL ADMINISTRATIVE REGION  
 WATER SUPPLIES DEPARTMENT

Project No. 9/WSD/08

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

POSSESSION OF SITE  
 (SHEET 3 OF 5)

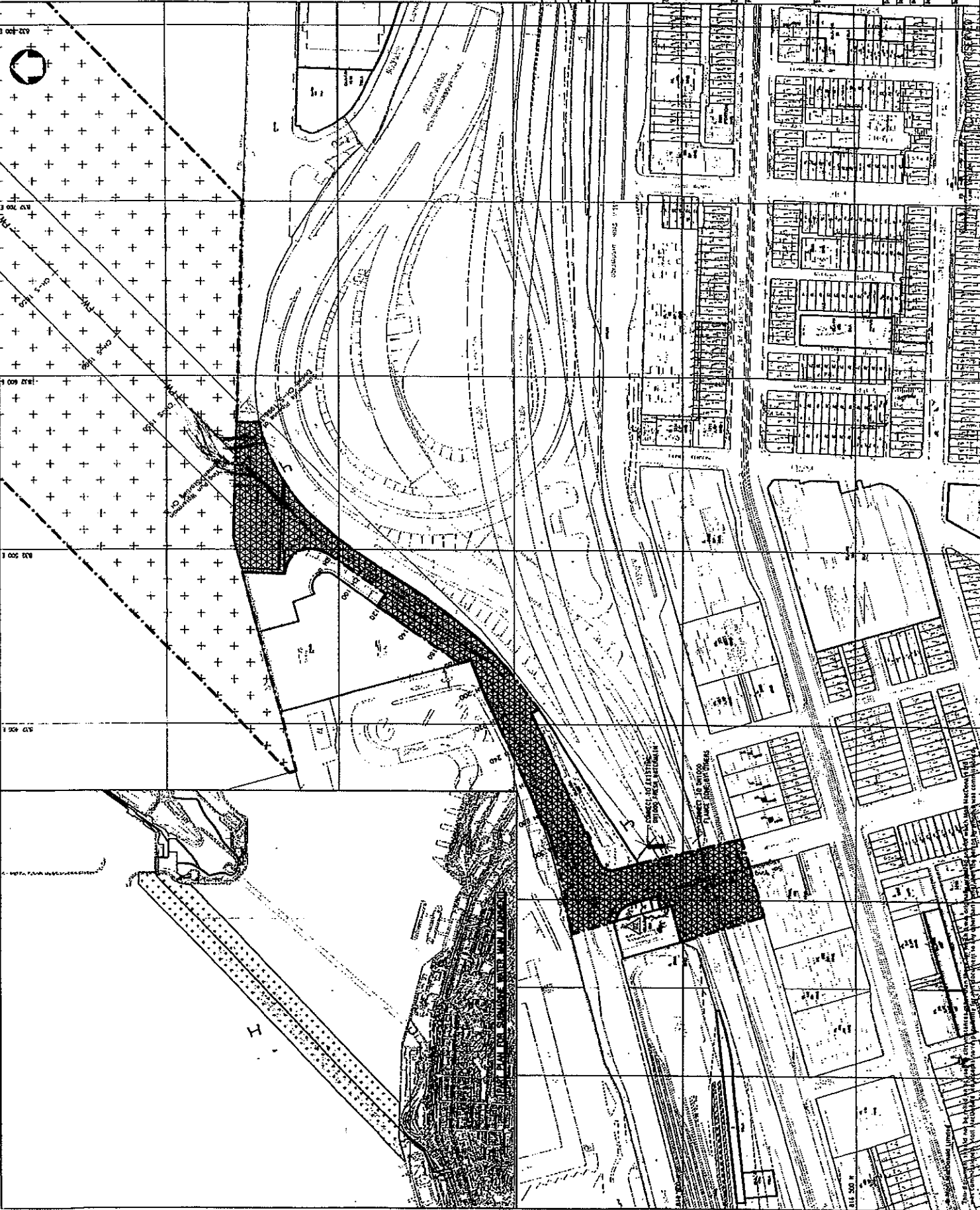
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Designer	SK	SK	SK	SK	SK	SK	SK	SK	SK
Scale	1:1000	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1
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Sheet No.	3	3	3	3	3	3	3	3	3
Total Sheets	5	5	5	5	5	5	5	5	5



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NOTES :

1. THIS DRAWING SHALL BE READ IN CONNECTION WITH DRAWING NOS. S/1129/0/001 TO S/1130/0/001.
2. THE LEGEND SHALL REFER TO DRAWING NO. S/1129/0/001.



DATE	DESCRIPTION	BY	CHECKED
27 APR 07	ISSUED FOR TENDER NO. 4	Y. H. CHAN	
01 MAY 08	REVISED FOR TENDER NO. 3	Y. H. CHAN	
05 DEC 08	REVISED FOR TENDER NO. 2	Y. H. CHAN	
01 DEC 08	REVISED FOR TENDER NO. 1	Y. H. CHAN	

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

Project No. 9/WSD/08

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

POSSESSION OF SITE  
 (SHEET 4 OF 5)

Scale	1:1000	Sheet No.	10
Project No.	9/WSD/08	Drawn By	Y. H. CHAN
Checked By	Y. H. CHAN	Approved By	Y. H. CHAN
Issue No.	1	Issue Date	27 APR 07
Issue Description	ISSUED FOR TENDER NO. 4		





## **Appendix I**

### **Monitoring Schedule for this Month and Coming Month**

**Contract No. 9/WSD/08**

**Laying of Western Cross Harbour Main & Associated Land Mains from West Kowloon to Sai Ying Pun  
Time Schedule for Impact Marine Water Quality Monitoring (WQM), Noise Monitoring (NM) and Weekly Site Inspection (SI)  
June 2010**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30-May	31-May	01-Jun	02-Jun	03-Jun	04-Jun	05-Jun
		WQM Mid-Flood 07:00 - 11:30 Mid-Ebb 12:30 - 17:00 SI	NM Daytime (West Kowloon)	WQM Mid-Flood 08:00 - 12:30 Mid-Ebb 13:30 - 18:00		WQM Mid-Flood 09:00 - 13:30 Mid-Ebb 14:30 - 19:00
06-Jun	07-Jun	08-Jun	09-Jun	10-Jun	11-Jun	12-Jun
	NM Daytime (Sai Ying Pun)	WQM Mid-Ebb 08:00 - 12:30 Mid-Flood 13:30 - 18:00 SI	NM Daytime (West Kowloon)	WQM Mid-Ebb 09:00 - 13:30 Mid-Flood 15:00 - 19:30		WQM Mid-Ebb 10:30 - 15:00 Mid-Flood 16:15 - 20:30
13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun
	NM Daytime (West Kowloon) (Sai Ying Pun)	WQM Mid-Flood 07:00 - 10:30 Mid-Ebb 12:00 - 16:30 SI	Holiday	WQM Mid-Flood 08:00 - 12:30 Mid-Ebb 14:00 - 18:30		WQM Mid-Flood 10:00 - 14:30 Mid-Ebb 15:45 - 20:15
20-Jun	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun
		WQM Mid-Ebb 07:30 - 12:00 Mid-Flood 13:30 - 18:00 SI	NM Daytime (Sai Ying Pun) (West Kowloon)	WQM Mid-Ebb 09:00 - 13:30 Mid-Flood 15:00 - 19:30		WQM Mid-Ebb 10:30 - 15:00 Mid-Flood 16:30 - 20:45
27-Jun	28-Jun	29-Jun	30-Jun			
NM Holiday (West Kowloon) (Sai Ying Pun)		WQM Mid-Flood 06:30 - 10:00 Mid-Ebb 11:30 - 16:00 SI	NM Daytime (Sai Ying Pun) (West Kowloon)			

**Contract No. 9/WSD/08**

**Laying of Western Cross Harbour Main & Associated Land Mains from West Kowloon to Sai Ying Pun  
Time Schedule for Impact Marine Water Quality Monitoring (WQM), Noise Monitoring (NM) and Weekly Site Inspection (SI)  
July 2010**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				Holiday		WQM Mid-Flood 08:00 - 12:30 Mid-Ebb 13:30 - 18:00
04-Jul	05-Jul	06-Jul	07-Jul	08-Jul	09-Jul	10-Jul
	WQM Mid-Ebb 07:00 - 11:00 Mid-Flood 12:00 - 16:30 SI		NM (WK-Daytime) NM (SYP-Daytime)	WQM Mid-Ebb 08:00- 12:30 Mid-Flood 14:30 - 19:00		WQM Mid-Ebb 08:30- 13:00 Mid-Flood 16:00 - 20:30
11-Jul	12-Jul	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul
	WQM Mid-Ebb 10:30 - 15:00 Mid-Flood 17:15 - 21:15 SI		NM (WK-Daytime) NM (SYP-Daytime)	WQM Mid-Flood 07:00 - 11:30 Mid-Ebb 13:00 - 17:30		WQM Mid-Flood 08:30 - 13:00 Mid-Ebb 14:30 - 19:00
18-Jul	19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul
	WQM Mid-Ebb 07:00 - 11:30 Mid-Flood 13:00 - 17:30 SI		NM (WK-Daytime) NM (SYP-Daytime)	WQM Mid-Ebb 09:00- 13:30 Mid-Flood 15:00 - 19:30		WQM Mid-Ebb 09:00- 13:30 Mid-Flood 16:00 - 20:30
25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul
	WQM Mid-Ebb 10:00 - 14:30 Mid-Flood 17:00 - 21:00 SI		NM (WK-Daytime) NM (SYP-Daytime)	WQM Mid-Flood 06:30 - 10:30 Mid-Ebb 12:00 - 16:30		WQM Mid-Flood 07:00 - 11:30 Mid-Ebb 13:00 - 17:30



## Appendix J

### Daily Dredging Summary

## Wo Hing - Penta-Ocean Joint Venture

Contract no. 9/WSD/08

Laying of Western Cross Harbour Main & Associated Land Mains from  
West Kowloon to Sai Ying Pun

### Summary of Dumping Qty. of Type 1 Marine Sediment (Dispose to East Ninepin Mud Disposal Ground)

Date	Dumping qty (m <sup>3</sup> )	Barge Load per day	Accumulated Dumping Qty.  (bulk volume)	Target Dumping qty (m <sup>3</sup> )	Target Barge Load per day	Target Accumulated Dumping Qty.  (bulk volume)	Permit No.
6 June, 2010	0	0	0	0	0	0	EP/MD/10-085
7 June, 2010	0	0	0	0	0	0	EP/MD/10-085
8 June, 2010	0	0	0	0	0	0	EP/MD/10-085
9 June, 2010	0	0	0	0	0	0	EP/MD/10-085
10 June, 2010	0	0	0	0	0	0	EP/MD/10-085
11 June, 2010	0	0	0	0	0	0	EP/MD/10-085
12 June, 2010	0	0	0	0	0	0	EP/MD/10-085
13 June, 2010	0	0	0	0	0	0	EP/MD/10-085
14 June, 2010	1,400	2	1,400	2,100	3	2,100	EP/MD/10-085
15 June, 2010	1,400	2	2,800	2,100	3	4,200	EP/MD/10-085
16 June, 2010	2,100	3	4,900	2,100	3	6,300	EP/MD/10-085
17 June, 2010	2,800	4	7,700	2,100	3	8,400	EP/MD/10-085
18 June, 2010	2,100	3	9,800	2,100	3	10,500	EP/MD/10-085
19 June, 2010	2,700	4	12,500	2,100	3	12,600	EP/MD/10-085
20 June, 2010	2,800	4	15,300	2,100	3	14,700	EP/MD/10-085
21 June, 2010	2,100	3	17,400	2,100	3	16,800	EP/MD/10-085
22 June, 2010	2,800	4	20,200	2,100	3	18,900	EP/MD/10-085
23 June, 2010	2,100	3	22,300	2,100	3	21,000	EP/MD/10-085
24 June, 2010	2,100	3	24,400	2,100	3	23,100	EP/MD/10-085
25 June, 2010	2,100	3	26,500	2,100	3	25,200	EP/MD/10-085
26 June, 2010	2,100	3	28,600	2,100	3	27,300	EP/MD/10-085
27 June, 2010	700	1	29,300	2,100	3	29,400	EP/MD/10-085
28 June, 2010	2,100	3	31,400	2,100	3	31,500	EP/MD/10-085
29 June, 2010	1,400	2	32,800	2,100	3	33,600	EP/MD/10-085
30 June, 2010			32,800	2,100	3	35,700	EP/MD/10-085
1 July, 2010			32,800	2,100	3	37,800	EP/MD/10-085
2 July, 2010			32,800	2,100	3	39,900	EP/MD/10-085
3 July, 2010			32,800	2,100	3	42,000	EP/MD/10-085
4 July, 2010			32,800	2,100	3	44,100	EP/MD/10-085
5 July, 2010			32,800	2,100	3	46,200	EP/MD/10-085
6 July, 2010			32,800	2,100	3	48,300	EP/MD/10-085
7 July, 2010			32,800	2,100	3	50,400	EP/MD/10-085
8 July, 2010			32,800	2,100	3	52,500	EP/MD/10-085
9 July, 2010			32,800	2,100	3	54,600	EP/MD/10-085
10 July, 2010			32,800	2,100	3	56,700	EP/MD/10-085
11 July, 2010			32,800	2,100	3	58,800	EP/MD/10-085
12 July, 2010			32,800	2,100	3	60,900	EP/MD/10-085
13 July, 2010			32,800	2,100	3	63,000	EP/MD/10-085
14 July, 2010			32,800	2,100	3	65,100	EP/MD/10-085
15 July, 2010			32,800	2,100	3	67,200	EP/MD/10-085
16 July, 2010			32,800	2,100	3	69,300	EP/MD/10-085
17 July, 2010			32,800	2,100	3	71,400	EP/MD/10-085



Wo Hing - Penta-Ocean Joint Venture							
Contract no. 9/WSD/08							
Laying of Western Cross Harbour Main & Associated Land Mains from West Kowloon to Sai Ying Pun							
Summary of Dumping Qty. of Type 2 Marine Sediment							
Date	Dumping qty (m <sup>3</sup> )	Barge Load per day	Accumulated Dumping Qty.	Target Dumping qty (m <sup>3</sup> )	Target Barge Load per day	Target Accumulated Dumping Qty.	Permit No.
			(bulk volume)			(bulk volume)	
5 May, 2010	440	1	440	1,260	2	1,260	EP/MD/10-086
6 May, 2010	1,280	3	1,720	1,260	2	2,520	EP/MD/10-086
7 May, 2010	0	0	1,720	1,260	2	3,780	EP/MD/10-086
8 May, 2010	0	0	1,720	1,260	2	5,040	EP/MD/10-086
9 May, 2010	1,400	2	3,120	1,260	2	6,300	EP/MD/10-086
10 May, 2010	1,400	2	4,520	1,260	2	7,560	EP/MD/10-086
11 May, 2010	1,300	2	5,820	1,260	2	8,820	EP/MD/10-086
12 May, 2010	1,800	3	7,620	1,260	2	10,080	EP/MD/10-086
13 May, 2010	1,200	2	8,820	1,260	2	11,340	EP/MD/10-086
14 May, 2010	0	0	8,820	1,260	2	12,600	EP/MD/10-086
15 May, 2010	0	0	8,820	1,260	2	13,860	EP/MD/10-086
16 May, 2010	600	1	9,420	1,260	2	15,120	EP/MD/10-086
17 May, 2010	1,200	2	10,620	1,260	2	16,380	EP/MD/10-086
18 May, 2010	700	1	11,320	1,260	2	17,640	EP/MD/10-086
19 May, 2010	2,000	3	13,320	1,260	2	18,900	EP/MD/10-086
20 May, 2010	1,400	2	14,720	1,260	2	20,160	EP/MD/10-086
21 May, 2010	1,400	2	16,120	1,260	2	21,420	EP/MD/10-086
22 May, 2010	2,100	3	18,220	1,260	2	22,680	EP/MD/10-086
23 May, 2010	1,400	2	19,620	1,260	2	23,940	EP/MD/10-086
24 May, 2010	1,400	2	21,020	1,260	2	25,200	EP/MD/10-086
25 May, 2010	1,300	2	22,320	1,260	2	26,460	EP/MD/10-086
26 May, 2010	1,400	2	23,720	1,260	2	27,720	EP/MD/10-086
27 May, 2010	1,300	2	25,020	1,260	2	28,980	EP/MD/10-086
28 May, 2010	1,400	2	26,420	1,260	2	30,240	EP/MD/10-086
29 May, 2010	600	1	27,020	1,260	2	31,500	EP/MD/10-086
30 May, 2010	2,100	3	29,120	1,260	2	32,760	EP/MD/11-012
31 May, 2010	700	1	29,820	1,260	2	34,020	EP/MD/11-012
1 June, 2010	1,900	3	31,720	1,260	2	35,280	EP/MD/11-012
2 June, 2010	1,220	2	32,940	1,260	2	36,540	EP/MD/11-012
3 June, 2010	1,300	2	34,240	1,260	2	37,800	EP/MD/11-012
4 June, 2010	1,200	2	35,440	1,260	2	39,060	EP/MD/11-012
5 June, 2010	1,400	2	36,840	1,260	2	40,320	EP/MD/11-012
6 June, 2010	600	1	37,440	1,260	2	41,580	EP/MD/11-012
7 June, 2010	0	0	37,440	1,260	2	42,840	EP/MD/11-012
8 June, 2010	500	1	37,940	1,260	2		EP/MD/11-012
9 June, 2010	0	0	37,940	1,260	2		EP/MD/11-012
10 June, 2010	600	1	38,540	1,260	2		EP/MD/11-012
11 June, 2010	1,200	2	39,740	1,260	2		EP/MD/11-012
12 June, 2010	1,400	2	41,140	1,260	2		EP/MD/11-012
13 June, 2010	1,400	2	42,540	1,260	2		EP/MD/11-012
14 June, 2010	0	0	42,540	0	0		EP/MD/11-012
15 June, 2010	0	0	42,540	0	0		EP/MD/11-012
16 June, 2010	0	0	42,540	0	0		EP/MD/11-012
17 June, 2010	0	0	42,540	0	0		EP/MD/11-012
18 June, 2010	0	0	42,540	0	0		EP/MD/11-012
19 June, 2010	0	0	42,540	0	0		EP/MD/11-012

## Wo Hing - Penta-Ocean Joint Venture

Contract no. 9/WSD/08

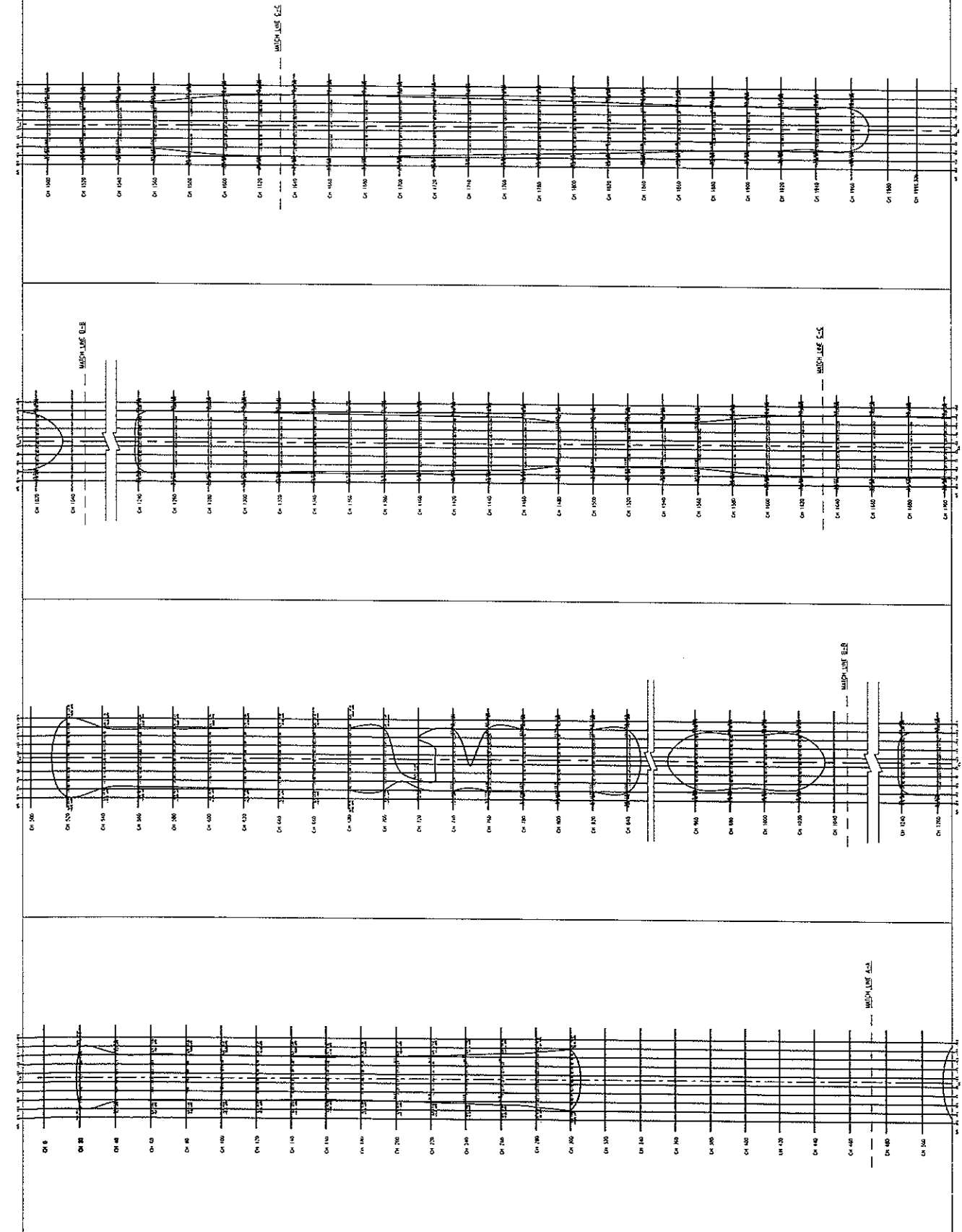
Laying of Western Cross Harbour Main & Associated Land Mains from  
West Kowloon to Sai Ying Pun

### Summary of Dumping Qty. of Type 2 Marine Sediment

Date	Dumping qty (m <sup>3</sup> )	Barge Load per day	Accumulated Dumping Qty.  (bulk volume)	Target Dumping qty (m <sup>3</sup> )	Target Barge Load per day	Target Accumulated Dumping Qty.  (bulk volume)	Permit No.
20 June, 2010	0	0	42,540	0	0		EP/MD/11-012
21 June, 2010	0	0	42,540	0	0		EP/MD/11-012
22 June, 2010	0	0	42,540	0	0		EP/MD/11-012
23 June, 2010	0	0	42,540	0	0		EP/MD/11-012
24 June, 2010	0	0	42,540	0	0		EP/MD/11-012
25 June, 2010	0	0	42,540	0	0		EP/MD/11-012
26 June, 2010	0	0	42,540	0	0		EP/MD/11-012
27 June, 2010	0	0	42,540	0	0		EP/MD/11-012
28 June, 2010	0	0	42,540	0	0		EP/MD/11-012
29 June, 2010	0	0	42,540	0	0		EP/MD/11-012
30 June, 2010	1,200	2	43,740				EP/MD/11-024
1 July, 2010	2,600	4	46,340				EP/MD/11-024
2 July, 2010	2,800	4	49,140				EP/MD/11-024
3 July, 2010	1,400	2	50,540				EP/MD/11-024
4 July, 2010	2,100	3					EP/MD/11-024
5 July, 2010	2,850	4					EP/MD/11-024
6 July, 2010	1,400	2					EP/MD/11-024
7 July, 2010	1,400	2					EP/MD/11-024
8 July, 2010	2,700	4					EP/MD/11-024
9 July, 2010	2,100	3					EP/MD/11-024
10 July, 2010	2,100	3					EP/MD/11-024
11 July, 2010	1,400	2					EP/MD/11-024
12 July, 2010							EP/MD/11-024
13 July, 2010							EP/MD/11-024
14 July, 2010							EP/MD/11-024
15 July, 2010							EP/MD/11-024
16 July, 2010							EP/MD/11-024
17 July, 2010							EP/MD/11-024
18 July, 2010							EP/MD/11-024
19 July, 2010							EP/MD/11-024
20 July, 2010							EP/MD/11-024
21 July, 2010							EP/MD/11-024
22 July, 2010							EP/MD/11-024
23 July, 2010							EP/MD/11-024
24 July, 2010							EP/MD/11-024
25 July, 2010							EP/MD/11-024
26 July, 2010							EP/MD/11-024
27 July, 2010							EP/MD/11-024
28 July, 2010							EP/MD/11-024
29 July, 2010							EP/MD/11-024
30 July, 2010							EP/MD/11-024
31 July, 2010							
	<b>66,590</b>	101		<b>50,400</b>	70		



NOTES :



NO.	DATE	BY	CHKD.	REVISION

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

**CONTRACT TITLE :**  
LAND OF WESTERN CROSS MARSHES AND ASSOCIATED LANDS FROM WEST TOWNSHIP TO THE PER  
( CONTRACT NO. S/WATER/04 )

**THIS**  
GRID PLAN OF THE EXTENT AND LEVEL OF TYPE 2 SEDIMENT TO BE DREDGED

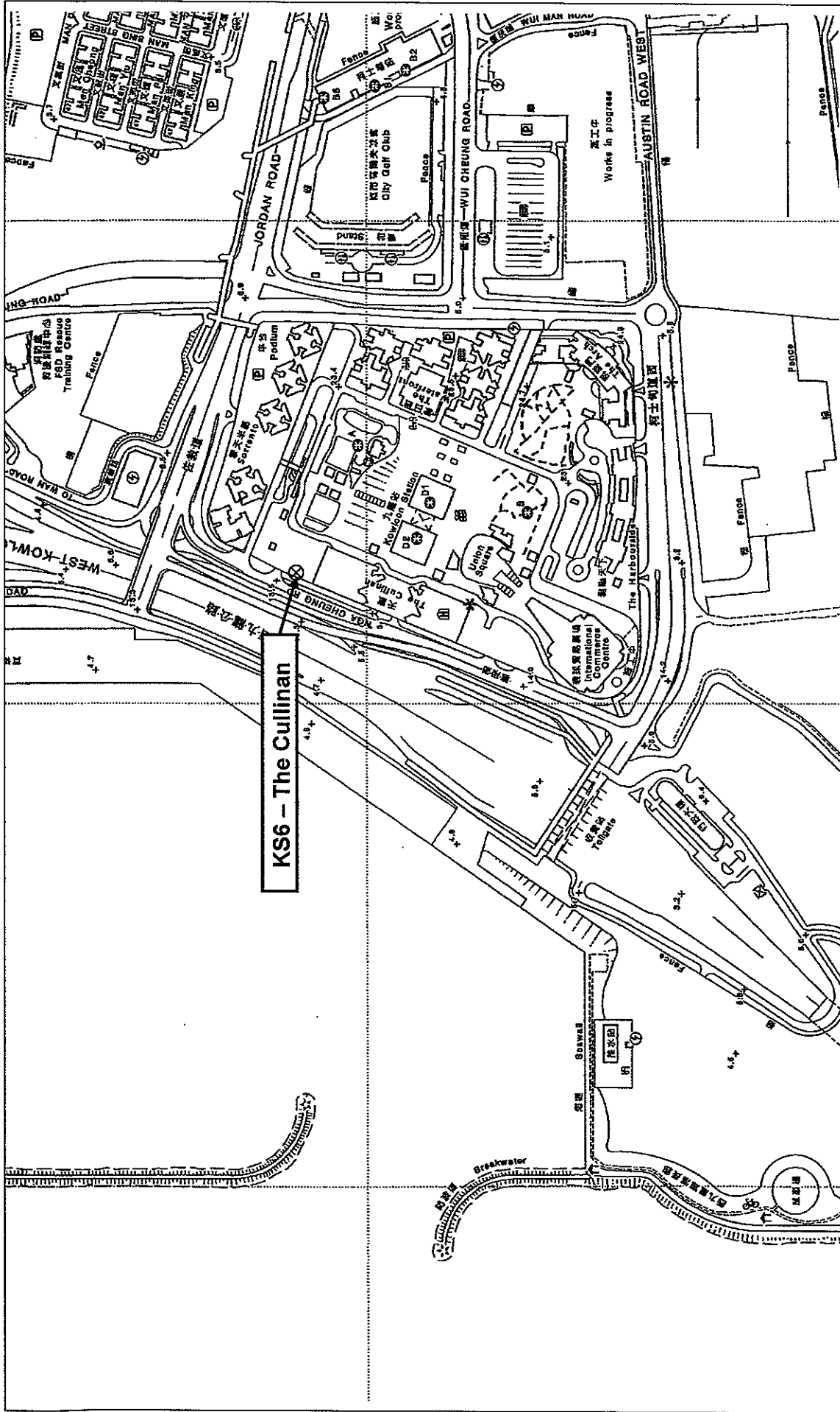
**Client**  
**Mott MacDonald**  
Mott MacDonald Hong Kong Limited

**MO 1902 - PONTA-OCEAN JOHN YOUNG**  
**MO 1902**

**Scale :** 1:500 (A3)  
**Drawn :** 17 APRIL 2010  
**Doc. No. :** SK-D-011



## Figures



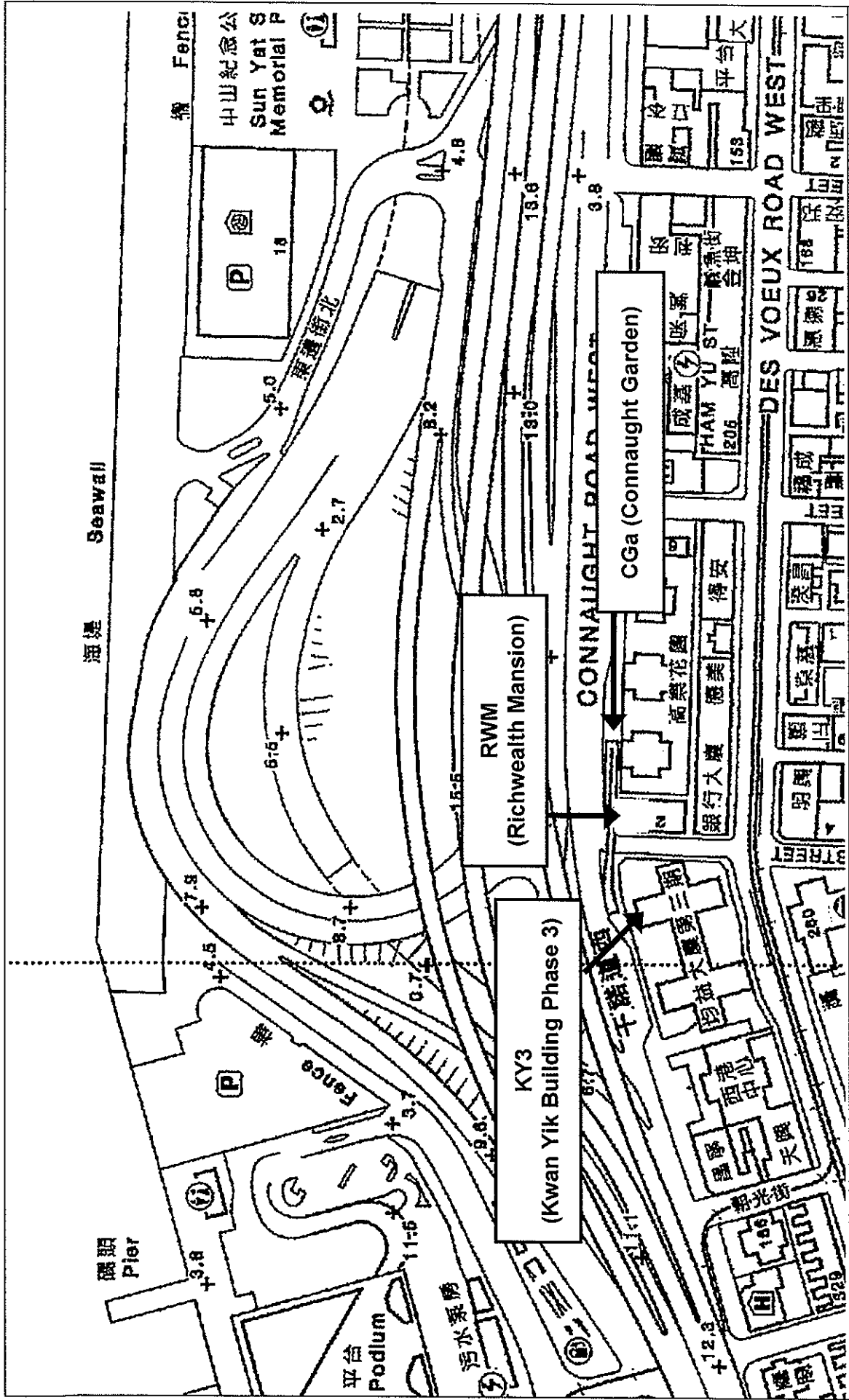
Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Mains for West Kowloon to Sai Ying Pun

Figure 1

Location of Noise Monitoring Station at West Kowloon

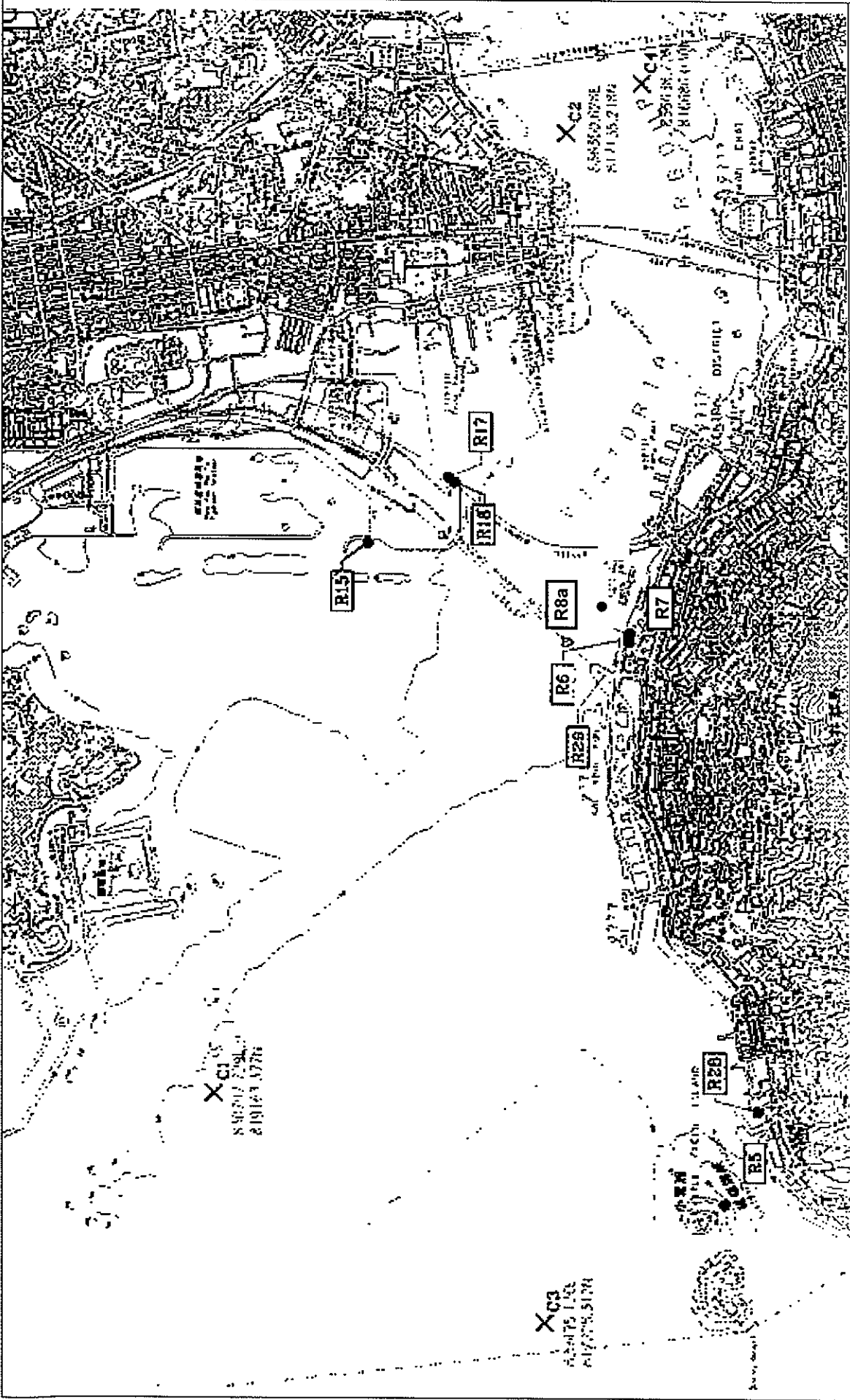


東業德測試顧問有限公司  
ETS-TESTCONSULT LIMITED



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

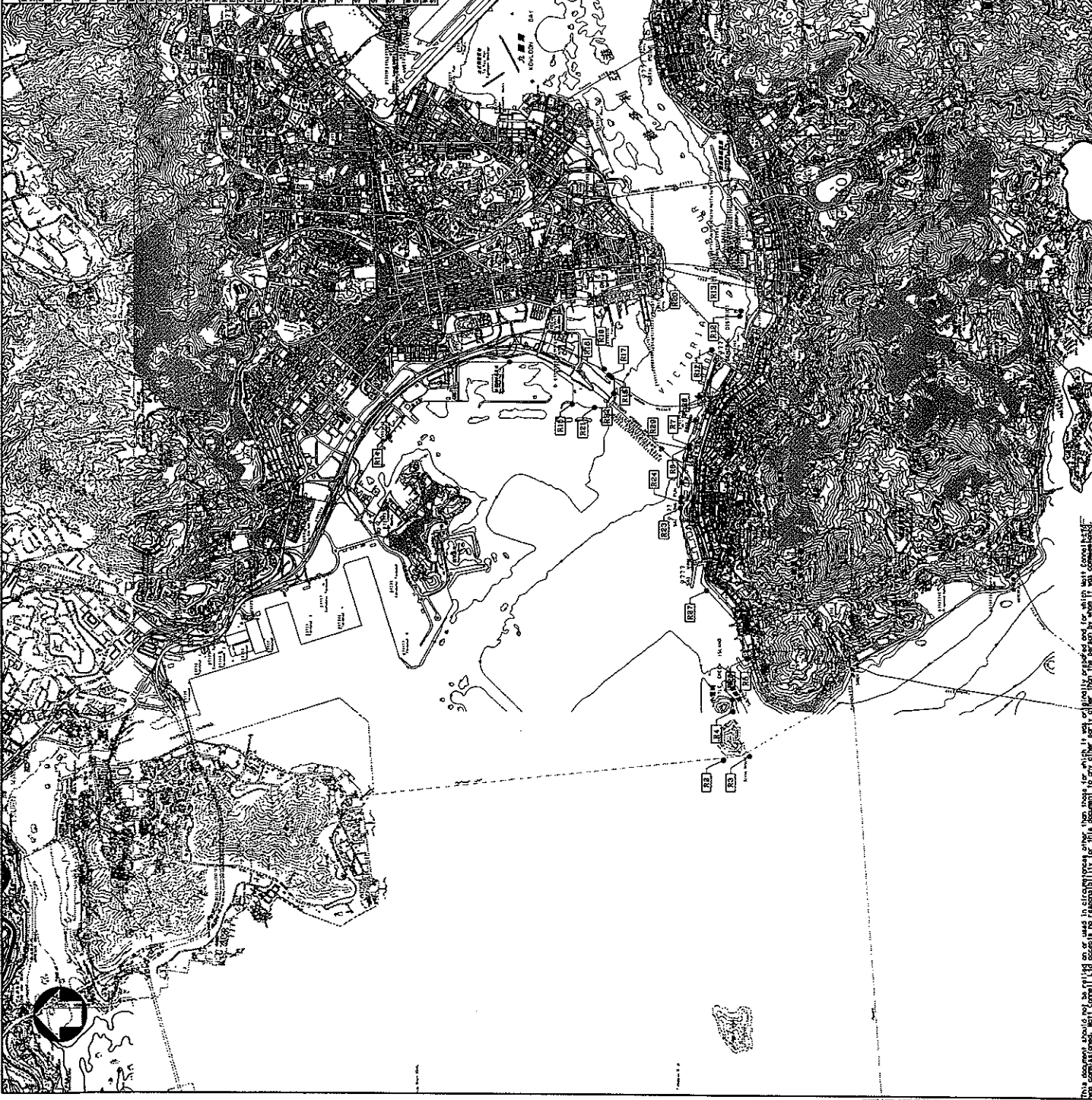
Figure 2  
Locations of Noise Monitoring Stations at Sai Ying Pun



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

Figure 3  
Locations of Water Quality Monitoring Stations





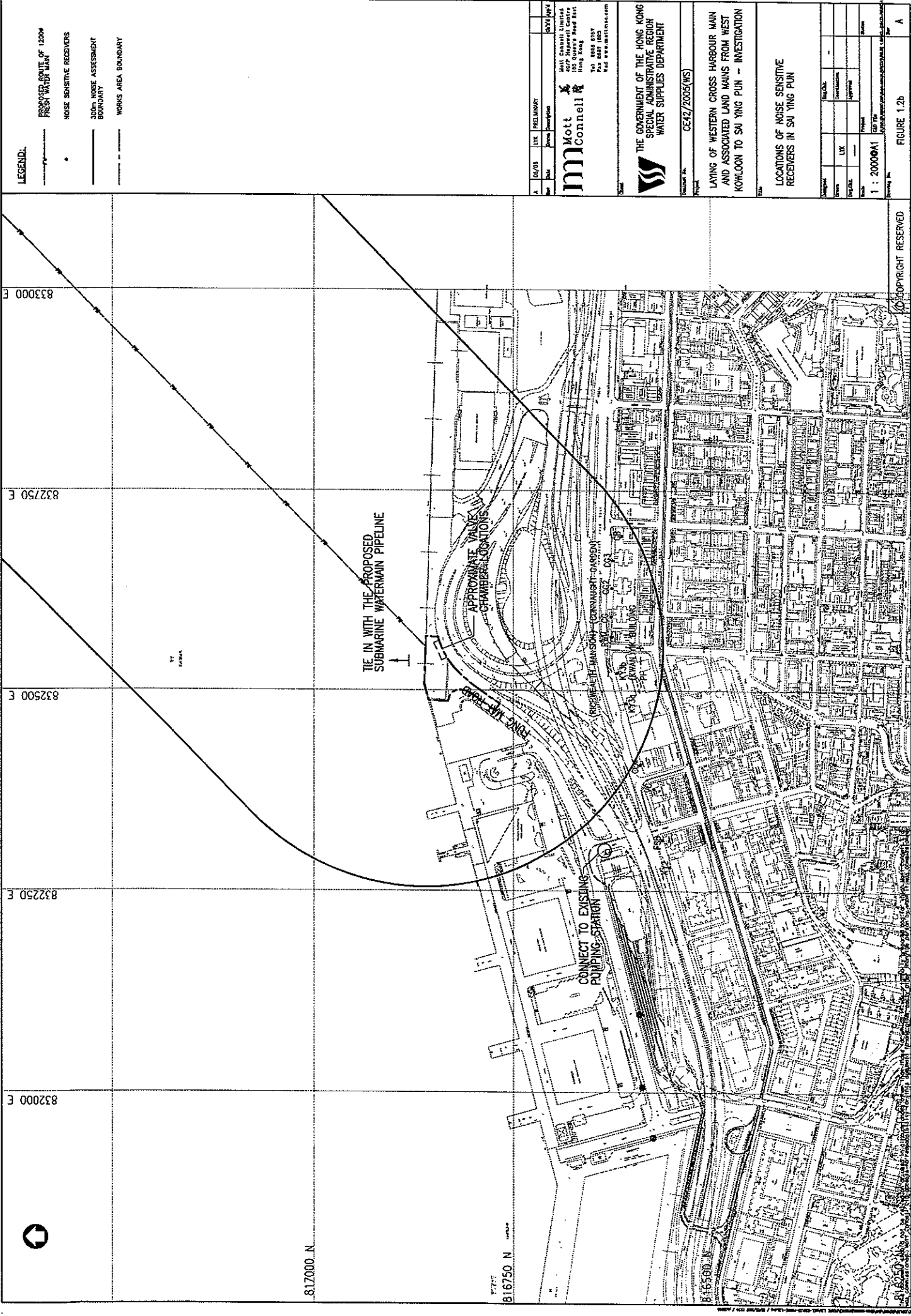
Agreement No.	Location	Type	Remarks
R1	New Yue Tin Wai	Urban Storm	
R2	San Tin	Sanitary Sewer	
R3	San Tin	Sanitary Sewer	
R4	San Tin	Sanitary Sewer	
R5	San Tin	Sanitary Sewer	
R6	San Tin	Sanitary Sewer	
R7	San Tin	Sanitary Sewer	
R8	San Tin	Sanitary Sewer	
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R10	San Tin	Sanitary Sewer	
R11	San Tin	Sanitary Sewer	
R12	San Tin	Sanitary Sewer	
R13	San Tin	Sanitary Sewer	
R14	San Tin	Sanitary Sewer	
R15	San Tin	Sanitary Sewer	
R16	San Tin	Sanitary Sewer	
R17	San Tin	Sanitary Sewer	
R18	San Tin	Sanitary Sewer	
R19	San Tin	Sanitary Sewer	
R20	San Tin	Sanitary Sewer	
R21	San Tin	Sanitary Sewer	
R22	San Tin	Sanitary Sewer	
R23	San Tin	Sanitary Sewer	
R24	San Tin	Sanitary Sewer	
R25	San Tin	Sanitary Sewer	
R26	San Tin	Sanitary Sewer	
R27	San Tin	Sanitary Sewer	
R28	San Tin	Sanitary Sewer	
R29	San Tin	Sanitary Sewer	

DATE	1/20/05	TYPE	PRELIMINARY	SCALE	1:25000
THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION WATER SUPPLIES DEPARTMENT					
CE42/2005 (WS)					
LAYING OF WESTERN CROSS HARBOUR MAIN AND ASSOCIATED LAND MAINS FROM WEST KOHLOON TO SU YING PUN - INVESTIGATION					
LOCATIONS OF WATER SENSITIVE RECEIVERS AND STORMWATER OUTFALLS AT WESTERN HARBOUR					
PROJECT NO.	1:2500000A1	DATE	2005.13	SCALE	1:25000
PROJECT NAME	Laying of Western Cross Harbour Main and Associated Land Mains from West Kohloon to Su Ying Pun - Investigation				
PROJECT NO.	1:2500000A1	DATE	2005.13	SCALE	1:25000
PROJECT NAME	Laying of Western Cross Harbour Main and Associated Land Mains from West Kohloon to Su Ying Pun - Investigation				

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FIGURE 1.20 A



**LEGEND:**

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

A	02/03	UK	REVISION	DATE
			1	02/03

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

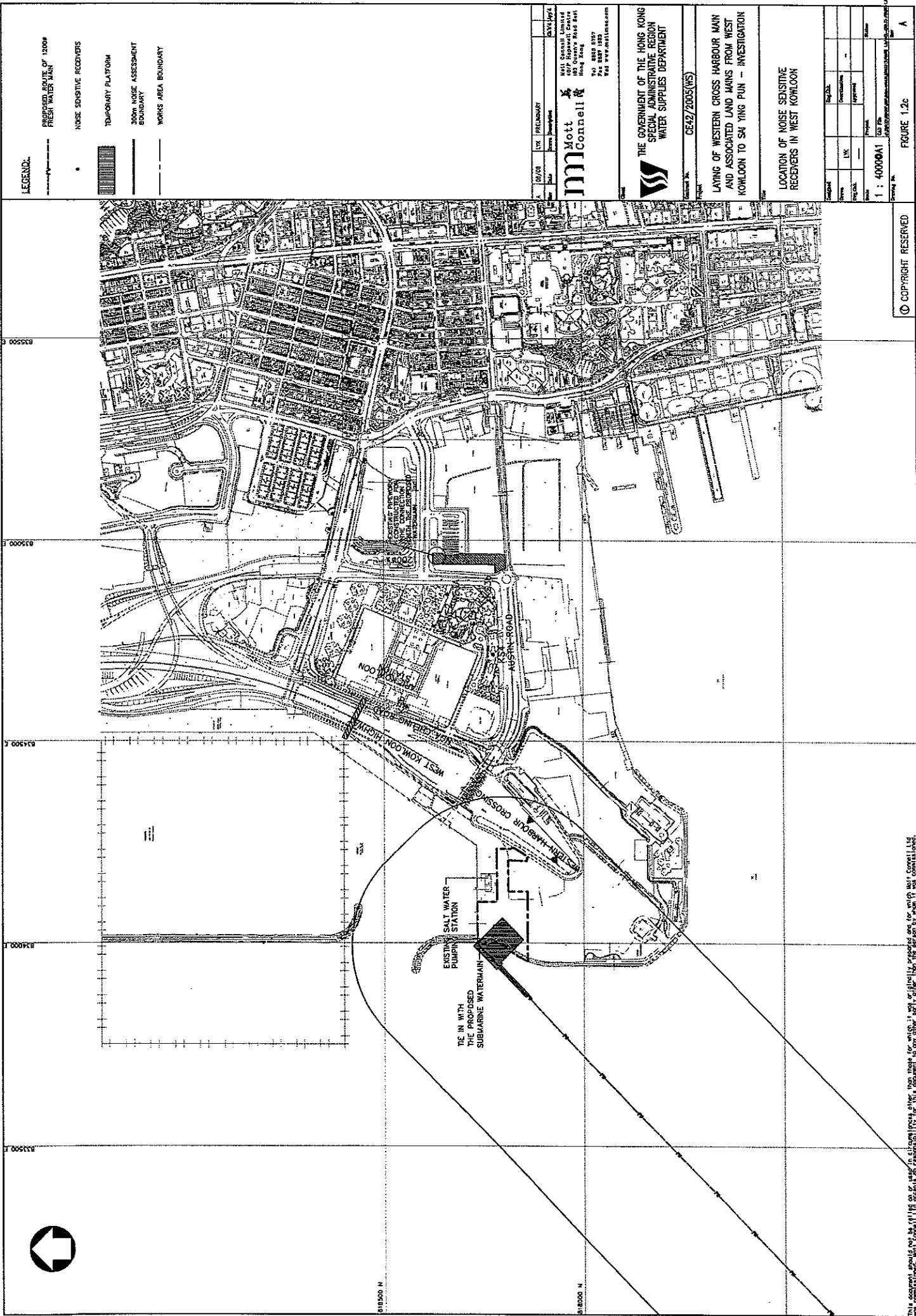
Project: CE42/2005(MS)  
 LAYING OF WESTERN CROSS HARBOUR MAIN AND ASSOCIATED LAND MAINS FROM WEST KOWLOON TO SAI YING PUN - INVESTIGATION

LOCATIONS OF NOISE SENSITIVE RECEIVERS IN SAI YING PUN

Drawn by	UK	Checked by	UK
Scale	1 : 2000(9A)	Project	CE42/2005(MS)
Drawn on	11/03/05	Project No.	11/03/05
Drawn at	11/03/05	Project Name	LAYING OF WESTERN CROSS HARBOUR MAIN AND ASSOCIATED LAND MAINS FROM WEST KOWLOON TO SAI YING PUN - INVESTIGATION

FIGURE 1.2b

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**LEGEND**

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

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

CE-42/2005 (WS)

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

LOCATION OF NOISE SENSITIVE  
 RECEIVERS IN WEST KOWLOON

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